

7151-03-71 & 7153-01-71 & 60 TREMPEALEAU CO.

INDEX OF SHEETS

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TOTAL SHEETS = 75

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CENTERVILLE - WEST COUNTY LINE ROAD CENTERVILLE - GALESVILLE ROAD CENTERVILLE - GALESVILLE ROAD  
DECK OVERLAY B-61-48.

STH 35/54  
TREMPEALEAU COUNTY

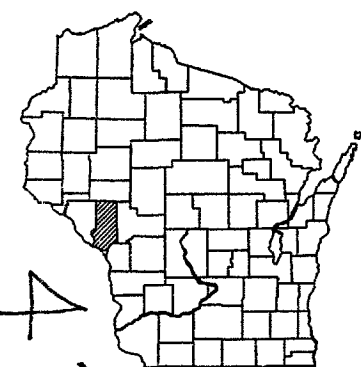
STH 54/93  
TREMPEALEAU COUNTY

STH 54/93  
TREMPEALEAU COUNTY

|                      |
|----------------------|
| STATE PROJECT NUMBER |
| 7151-03-71           |

|                      |
|----------------------|
| STATE PROJECT NUMBER |
| 7153-01-71           |

|                      |
|----------------------|
| STATE PROJECT NUMBER |
| 7153-01-60           |



BEGIN PROJECT 7151-03-71  
STA 8+172  
N 230,890  
E 485,485

END PROJECT 7153-01-71  
STA 22+420

EXCEPTION TO NET & LENGTH  
STA 8+720.428 TO STA 8+846.189  
B-61-29

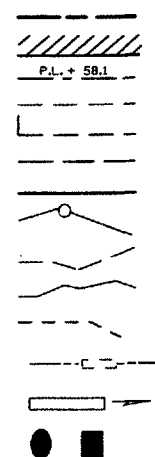
END PROJECT 7151-03-71  
BEGIN PROJECT 7153-01-71  
STA 15+903.639  
N 230,730  
E 492,860

PROJECT 7153-01-60  
STA 23+682.555 TO STA 23+763.316  
B-61-48  
(SPOT IMPROVEMENT)  
N 231,525  
E 499,930

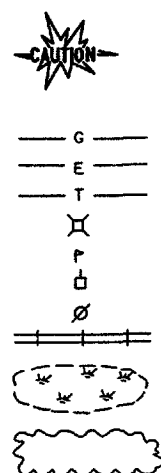
| DESIGN DESIGNATION | PROJECT 7151-03-71 | PROJECT 7153-01-71 |
|--------------------|--------------------|--------------------|
| A.D.T. 1999        | = 5700             | 4700/5200          |
| A.D.T. 2019        | = 7500             | 6900/7400          |
| D.H.V.             | = 6.4%             | 10.0%              |
| D.                 | = 60/40            | 60/40              |
| T.                 | = 8.0%             | 12.5%              |
| DESIGN SPEED       | = 90 km/h          | 90 km/h            |
| ESALS              | = 1,534,900        | 2,109,700          |

CONVENTIONAL SYMBOLS

COUNTY LINE  
CORPORATE LIMITS  
PROPERTY LINE  
LOT LINE  
LIMITED EASEMENT  
EXISTING RIGHT OF WAY  
PROPOSED OR NEW R/W LINE  
SURVEY LINE  
SLOPE INTERCEPT  
ORIGINAL GROUND  
MARSH OR ROCK PROFILE  
EXISTING CULVERT  
PROPOSED CULVERT  
(Box or Pipe)  
CULVERT (Profile View)



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



ALL COORDINATES ON THIS PLAN ARE SCALED FROM  
USGS TOPOGRAPHIC MAPS: WINONA EAST, WIS. - MINN.;  
TREMPEALEAU, WIS. - MINN.; AND GALESVILLE, WIS.  
QUADRANGLE, FOR IDENTIFICATION ONLY.

LAYOUT  
SCALE 0 1.6 km

TOTAL NET LENGTH OF PROJECT 7151-03-71 = 7.593 km  
TOTAL NET LENGTH OF PROJECT 7153-01-71 = 6.509 km  
TOTAL NET LENGTH OF PROJECT 7153-01-60 = 14.102 km

CONTRACTOR: MATHY CONSTRUCTION CO.  
SUBCONTRACTORS:  
BARRICADE FLASHER SERVICES, INC.  
CENTRAL CONCRETE CUTTING, INC.  
CENTURY FENCE CO.  
CHIPPEWA CONCRETE SERVICES  
LUNDA CONSTRUCTION CO.  
THE KRAEMER CO. LLC  
TIMBERLINE CONTRACTORS, INC.  
ELVORD TRUCKING, INC.  
PROJECT MANAGER: DAN KLEINERTZ  
PROJECT SUPERVISOR: DALE DESTREICH  
DATE STARTED: APRIL 24, 2000  
DATE COMPLETED: JUNE 23, 2000

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY  
Surveyor C. PAULSON & M. JOHNSON  
Designer EDWARD M. RILEY  
District Examiner  
District Supervisor JOHN E. KIM  
Proj. Dev. Engineer  
C.O. Examiner E.N. BENISCH

APPROVED FOR DISTRICT OFFICE  
DATE: 8-18-99  
AUTHORIZED FOR BUREAU OF HIGHWAY OPERATIONS  
DATE: 10/14/99  
AUTHORIZED FOR BUREAU OF HIGHWAY DEVELOPMENT  
DATE: 10/14/99

GENERAL NOTES

CURVE DATA IS BASED ON ARC DEFINITION.

LOCATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

UNLESS OTHERWISE SHOWN ON THE PLANS, ALL INTERSECTIONS SHALL BE TYPE "C" AS SHOWN ON THE STANDARD DETAIL DRAWING.

TOPSOIL OR SALVAGED TOPSOIL WHERE REQUIRED, IS TO BE PLACED ON ALL CUT AND FILL SLOPES (EXCEPT CHANNEL CHANGE AND MARSH DISPOSAL SLOPES) TO AN APPROXIMATE DEPTH OF 75 mm AT THE TIME OF PLACING.

TOPSOIL SHALL BE PLACED 25 mm BELOW THE TOP OF ADJACENT CONCRETE CURBS OR SIDEWALKS.

IN THE PERFORMANCE OF THE WORK UNDER THE ITEM "MULCHING", ALL AREAS SEEDED AND FERTILIZED SHALL BE MULCHED AS DIRECT BY THE ENGINEER.

PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

SHAPING, TRIMMING AND DISPOSAL OF EXISTING SHOULDERS WILL BE INCIDENTAL TO THE BID ITEM OF CRUSHED AGGREGATE BASE COURSE.

WHEN THE QUANTITIES OF ASPHALTIC CONCRETE PAVEMENT IS MEASURED FOR PAYMENT BY THE Mg, THE DEPTH OF THICKNESS OF THE MATERIAL THAT IS SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE RATE OF APPLICATION FOR TACK COAT IS COMPUTED AT 0.113 L/m2.

STANDARD ABBREVIATIONS

|          |                               |          |                              |
|----------|-------------------------------|----------|------------------------------|
| AGG.     | AGGREGATE                     | m        | METER                        |
| AH       | AHEAD                         | mm       | MILLIMETER                   |
| <        | ANGLE                         | MIN.     | MINIMUM                      |
| ASPH.    | ASPHALTIC                     | N.C.     | NORMAL CROWN OR NO CHANGE    |
| A.D.T.   | AVERAGE DAILY TRAFFIC         | N        | NORTH                        |
| B.F.     | BACK FACE                     | NO.      | NUMBER                       |
| BK.      | BACK                          | PAV'T    | PAVEMENT                     |
| BEG.     | BEGIN                         | P.L.E.   | PERMANENT LIMITED EASEMENT   |
| B.M.     | BENCH MARK                    | P.C.     | POINT OF CURVATURE           |
| C/L      | CENTER LINE                   | P.I.     | POINT OF INTERSECTION        |
| D        | CENTRAL ANGLE OR DELTA        | P.T.     | POINT OF TANGENCY            |
| C.M.C.P. | CORRUGATED METAL CULVERT PIPE | V.P.C.   | VERTICAL POINT OF CURVATURE  |
| C.M.P.   | CORRUGATED METAL PIPE         | V.P.I.   | VERTICAL POINT OF INTERSECTI |
| CO.      | COUNTY                        | V.P.T.   | VERTICAL POINT OF TANGENCY   |
| CTH      | COUNTY TRUNK HIGHWAY          | PCC      | PORTLAND CEMENT CONCRETE     |
| CR.      | CREEK                         | P.E.     | PRIVATE ENTRANCE             |
| C.A.B.C. | CRUSHED AGGREGATE BASE COURSE | P.L.     | PROPERTY LINE                |
| m3       | CUBIC METER                   | R        | RADIUS OR RANGE              |
| C.P.     | CULVERT PIPE                  | R/L      | REFERENCE LINE               |
| C. & G.  | CURB AND GUTTER               | R.C.C.P. | REINFORCED CONCRETE CULVERT  |
| D        | DEGREE OF CURVE               | RT       | RIGHT                        |
| D.H.V.   | DESIGN HOUR VOLUME            | REQ'D    | REQUIRED                     |
| DIA.     | DIAMETER                      | R.H.F.   | RIGHT HAND FORWARD           |
| DISCH.   | DISCHARGE                     | R/W      | RIGHT OF WAY                 |
| EA       | EACH                          | R.       | RIVER                        |
| E        | EAST                          | RD.      | ROAD                         |
| ELEC.    | ELECTRIC(AL), ELEC. CABLE     | SHLD.    | SHOULDER(S)                  |
| EL., EL  | ELEVATION                     | SHR.     | SHRINKAGE                    |
| EXC.     | EXCAVATION                    | S        | SOUTH                        |
| F.F.     | FACE TO FACE                  | m2       | SQUARE METER(S)              |
| FERT.    | FERTILIZER                    | SDD      | STANDARD DETAIL DRAWING(S)   |
| F.E.     | FIELD ENTRANCE                | STH      | STATE TRUNK HIGHWAY          |
| F/L, F.  | FLOW LINE                     | STA.     | STATION                      |
| ha       | HECTARE                       | S.E.     | SUPERELEVATION               |
| INL      | INLET                         | S/L      | SURVEY LINE                  |
| INTER.   | INTERSECTION                  | T        | TANGENT                      |
| JT.      | JOINT                         | TEL.     | TELEPHONE                    |
| kg       | KILOGRAM                      | TEMP.    | TEMPORARY                    |
| KL       | KILOLITER                     | T.L.E.   | TEMPORARY LIMITED EASEMENT   |
| LT       | LEFT                          | T.O.C.   | TOP OF CURB                  |
| L.H.F.   | LEFT HAND FORWARD             | T.       | (TRUCKS) PERCENT OF          |
| L.       | LENGTH OF CURVE               | TYP.     | TYPICAL                      |
| LC.      | LONG CHORD                    | UNCL.    | UNCLASSIFIED                 |
| LS       | LUMP SUM                      | U.G.     | UNDERGROUND (CABLE)          |
| M.P.     | MARKER POST                   | V.C.     | VERTICAL CURVE               |
| MAX.     | MAXIMUM                       | W        | WEST                         |
| Mg       | MEGAGRAMS                     |          |                              |

UTILITY COMPANIES & PERSONNEL

DIGGERS HOTLINE  
8112 West Bluemound Road  
Wauwatosa, WI 53213  
PHONE: 1-800-242-8511  
FAX: 1-800-338-3860



GTE North Inc.  
835 Red Iron Road  
Black River Falls, WI 54615  
ATTN: Don Crogan  
PHONE: (715) 284-4373

Midwest Natural Gas Company  
18484 Blair Street  
Whitehall, WI 54773  
ATTN: Jim Banker  
PHONE: (715) 538-4377

Northern States Power Company  
3215 Commerce Street  
P.O. Box 727  
LaCrosse, WI 54601  
ATTN: Ken Hilby  
PHONE: (608) 789-3639

Trempealeau Electric Cooperative  
Route 3  
Onalaska, WI 54650  
ATTN: Tim Holten, Line Supt.  
PHONE: (608) 783-2238

METRIC STANDARD DETAIL DRAWINGS

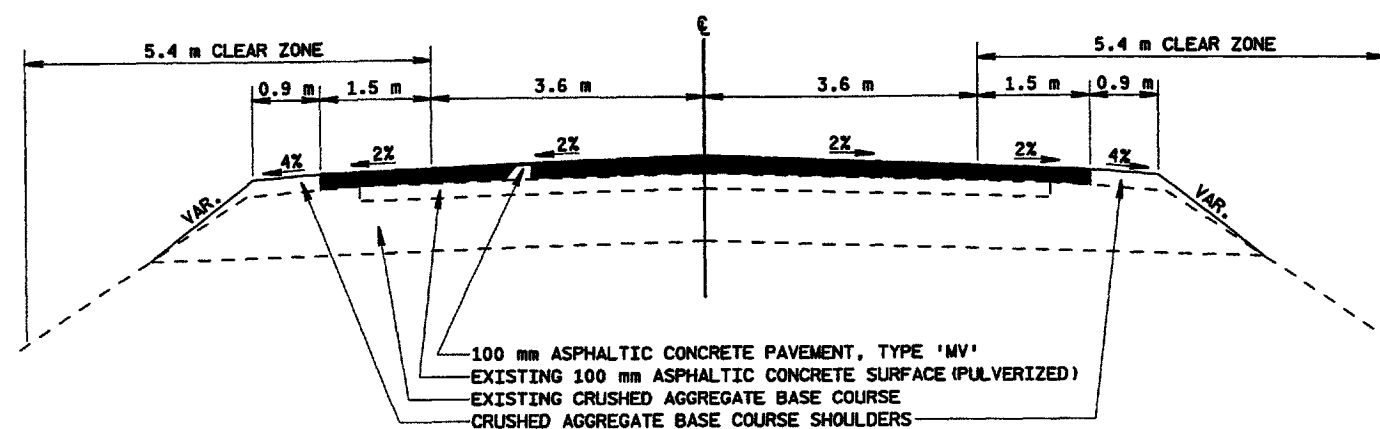
|                  |                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------|
| 8D1-12           | Concrete Curb, Concrete Curb and Gutter and Pavement Ties.                                        |
| 8F1-11           | Apron Endwalls for Culvert Pipe.                                                                  |
| 9A1-11a          | At-Grade Side Road Intersections, Types "B1", "B2", "C" and "D" and Tee Intersection Bypass Lane. |
| 13B2-3           | Concrete Pavement Approach Slab.                                                                  |
| 13C1-10          | Concrete Pavement Longitudinal Joints and Pavement Ties.                                          |
| 14B7-9a          | Temporary Precast Concrete Barrier.                                                               |
| 14B7-9b          | Precast Concrete Barrier End Section and Portable Crash Cushion.                                  |
| 14B15-3a         | Class "A" Steel Plate Beam Guard, Installation & Elements.                                        |
| 14B15-3b         | Class "A" Steel Plate Beam Guard, Post Mounting on Pier Footings and Culverts.                    |
| 14B18-4a         | Class "A" Steel Plate Beam Guard (at Bridges, Obstacles and Sideroads/Driveways).                 |
| 14B20-6a         | Steel Thrie Beam Structure Approach.                                                              |
| 14B20-6c         | Steel Thrie Beam Structure Approach, Connection to Sloped End Parapets.                           |
| 14B24-3a, b, & c | Steel Plate Beam Guard Energy Absorbing Terminal.                                                 |
| 15A3-1           | Marker Post, Flexible, for Culvert End.                                                           |
| 15C8-8a          | Pavement Marking (Mainline).                                                                      |
| 15C8-8b          | Pavement Marking (Intersections).                                                                 |
| 15C12-2          | Traffic Control for Lane Closure (Suitable for Moving Operations).                                |

PLOT SCALE:

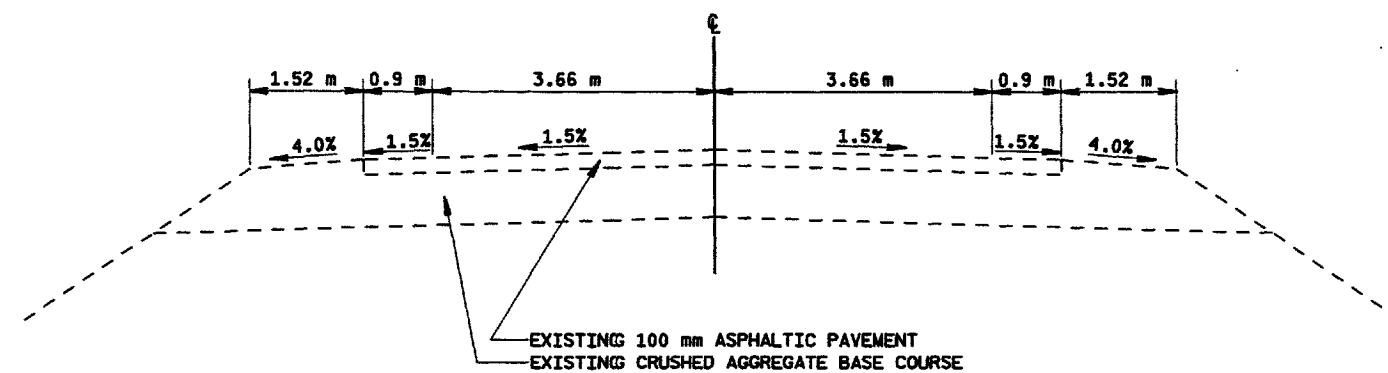
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REV. DATE:

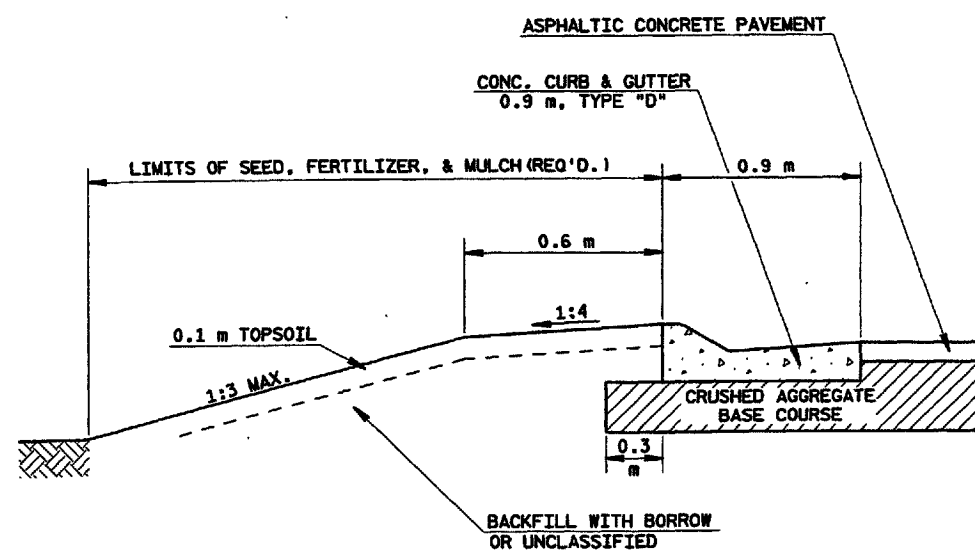
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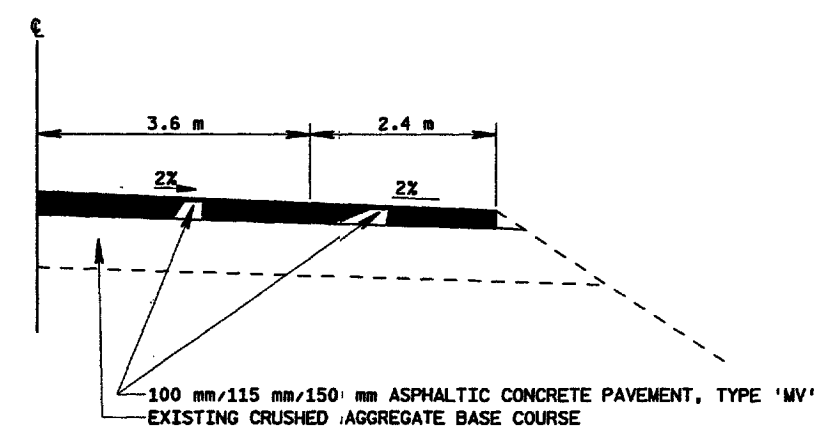
**PROPOSED MAINLINE SECTION**  
(STA 8+172.0 TO STA 15+955.0)



**TYPICAL EXISTING SECTION**  
(STH 35/54 & STH 54/93)



**BERM DETAIL BEHIND 0.9 m MOUNTABLE CURB & GUTTER**



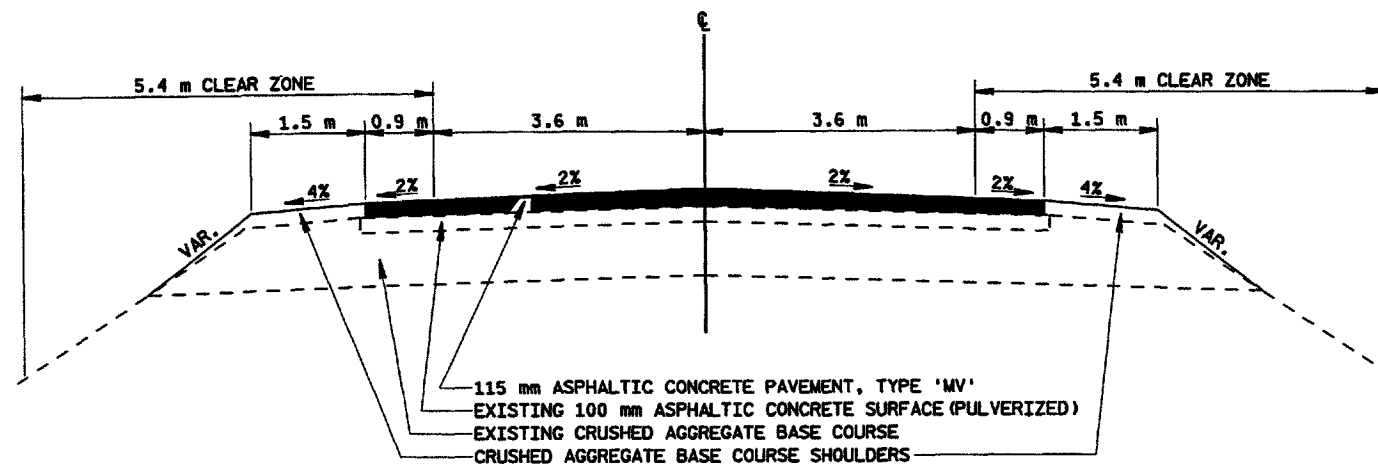
**TYPICAL FULL WIDTH SHOULDER PAVING SECTION**

PLOT SCALE:

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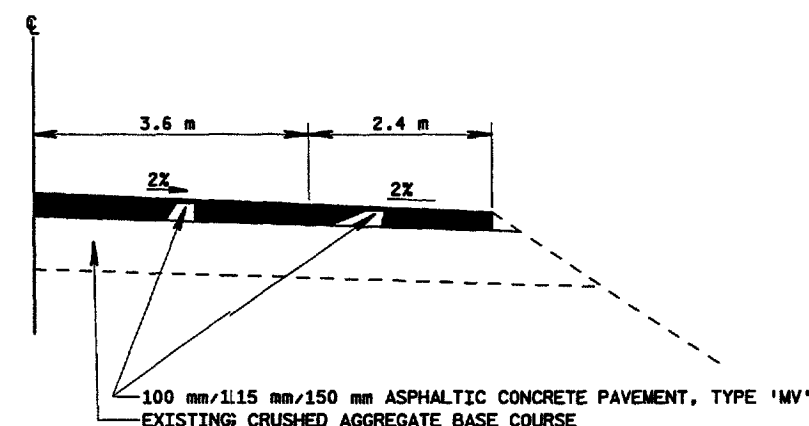
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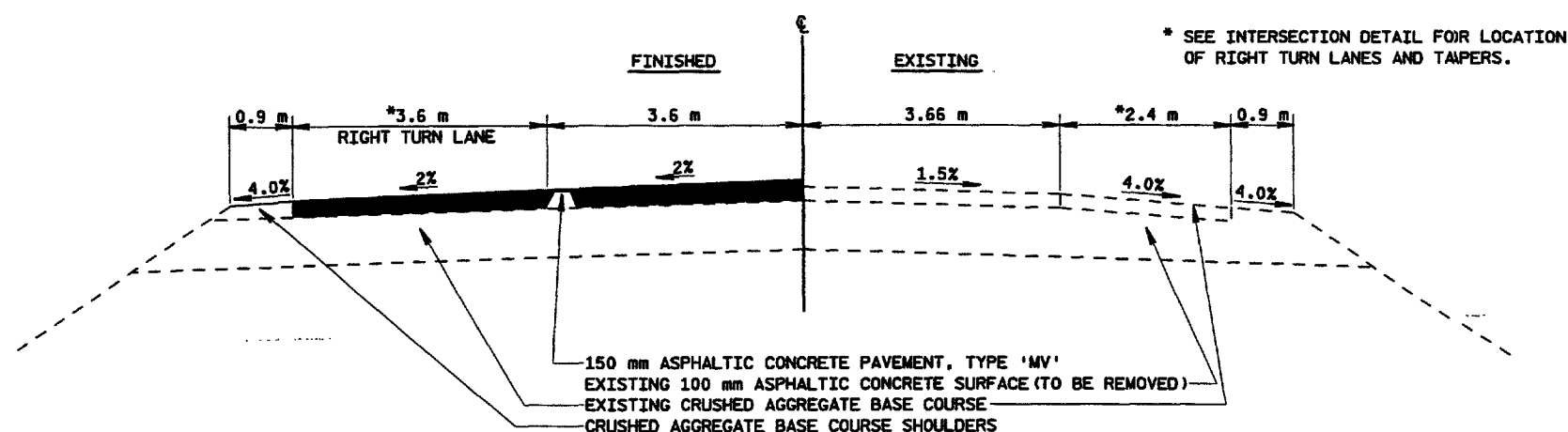


**PROPOSED MAINLINE SECTION**

STA 15+955 TO STA 16+000  
STA 16+110 TO STA 22+420

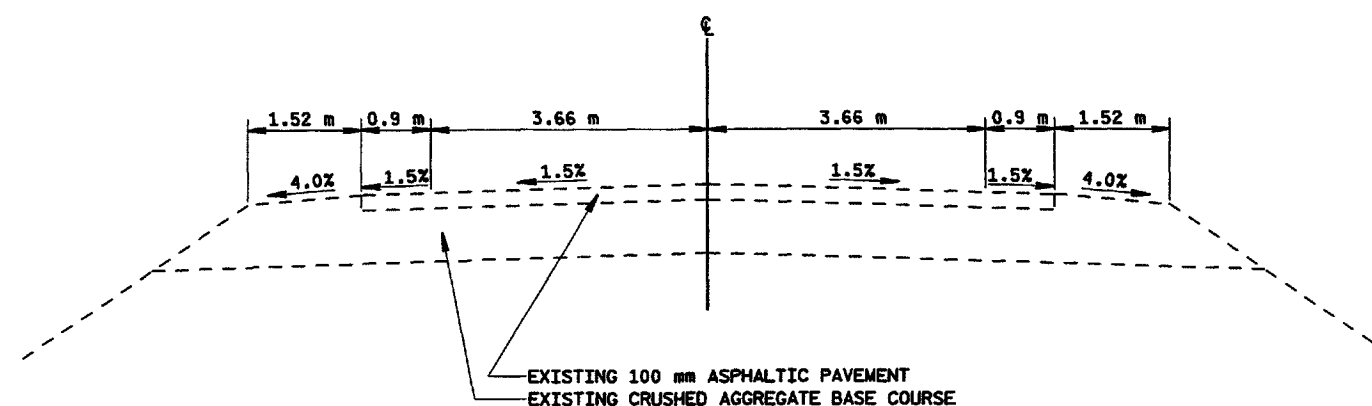


**TYPICAL FULL WIDTH SHOULDER PAVING SECTION**



**PROPOSED MAINLINE SECTION**

STA 16+000 TO STA 16+110



**TYPICAL EXISTING SECTION**

(STH 35/54 & STH 54/93)

TYPICAL SECTIONS

SCALE: 1: N/A HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-03-71

SHEET NO: 2.3

M

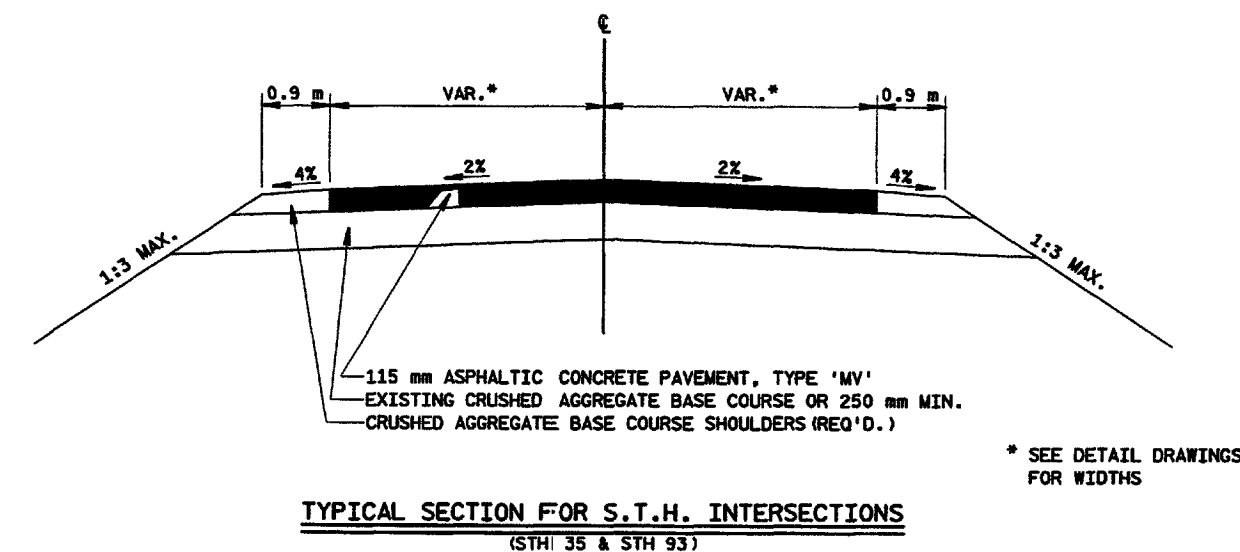
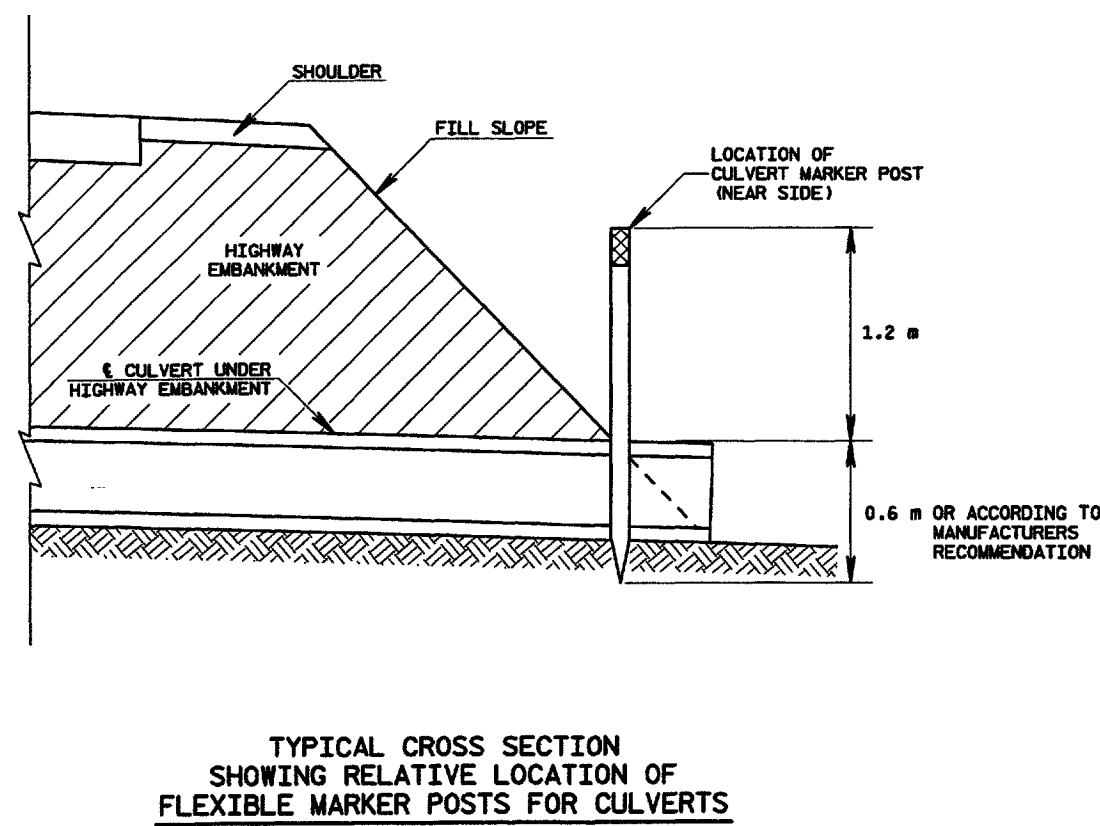
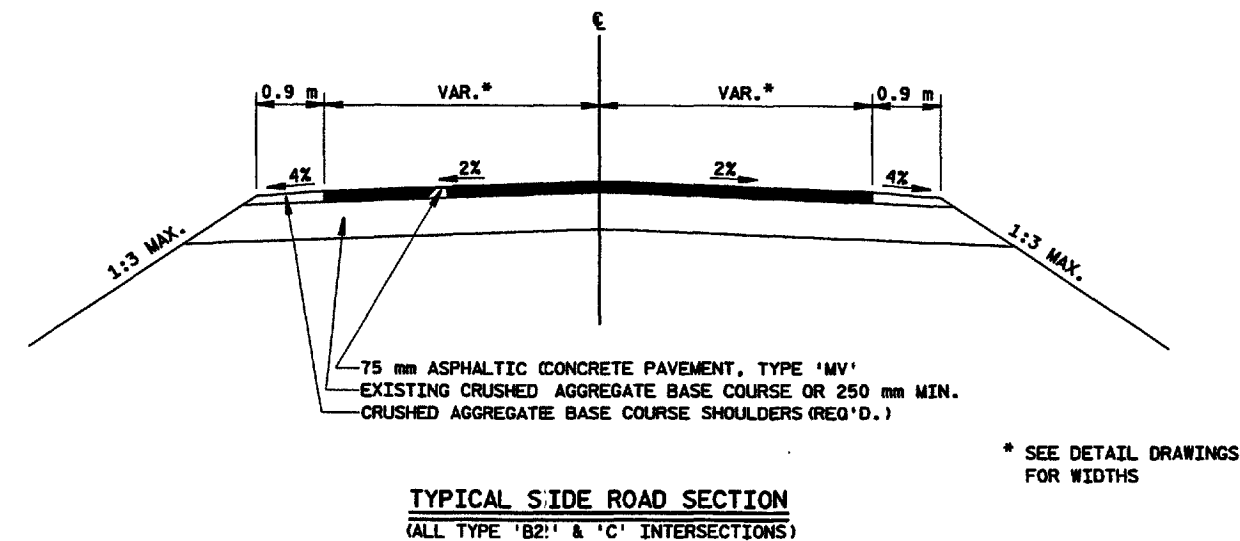
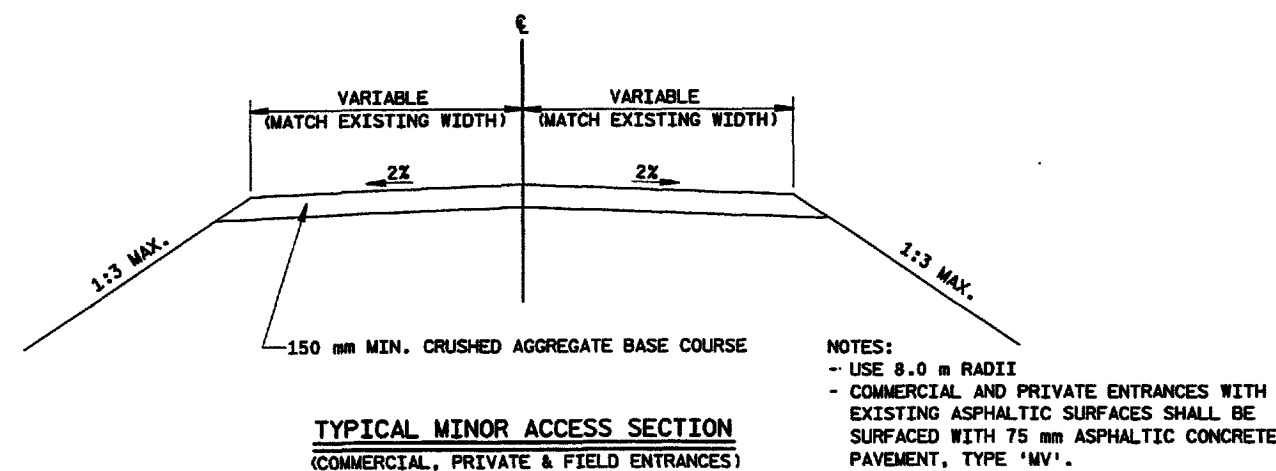
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PLOT NAME:

REV. DATE:

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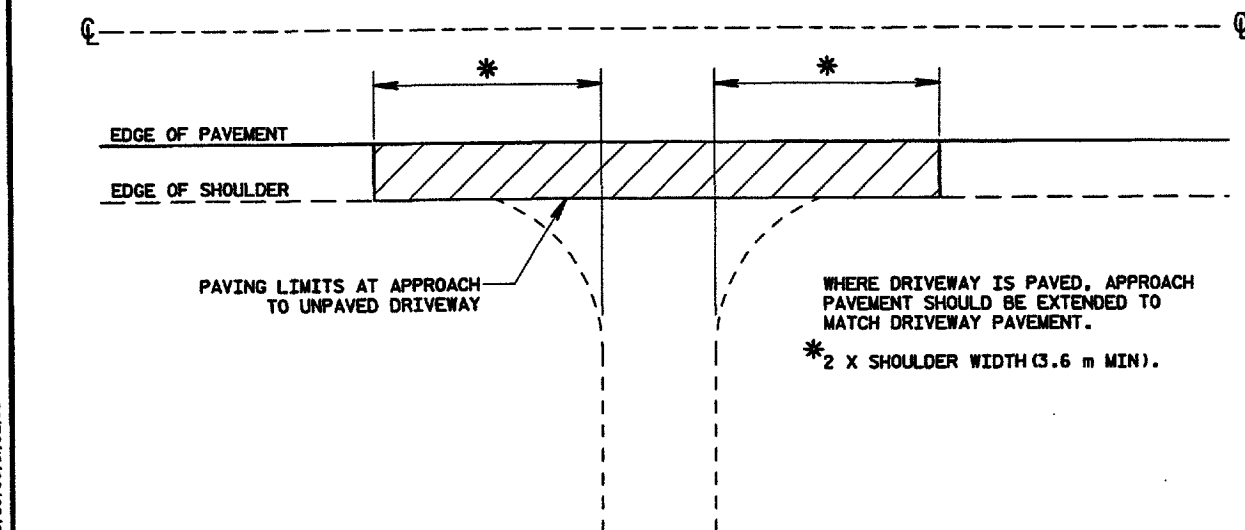


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REV. DATE:

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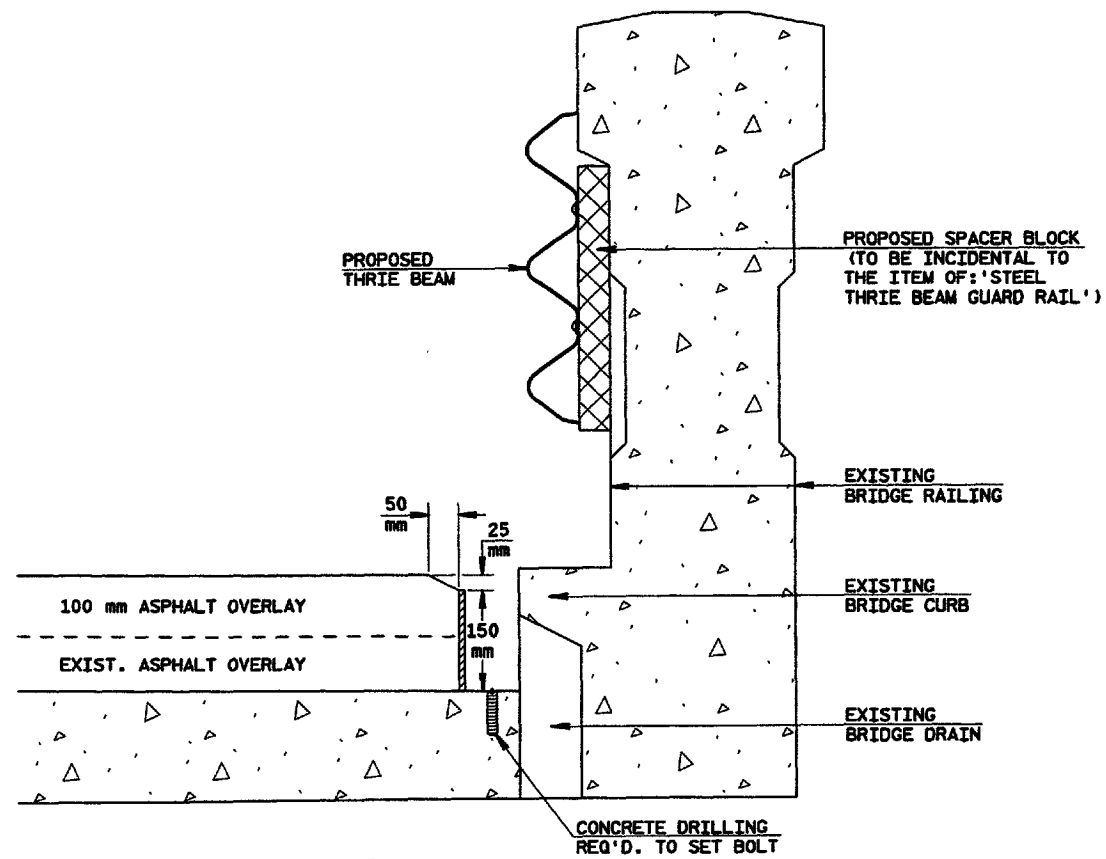


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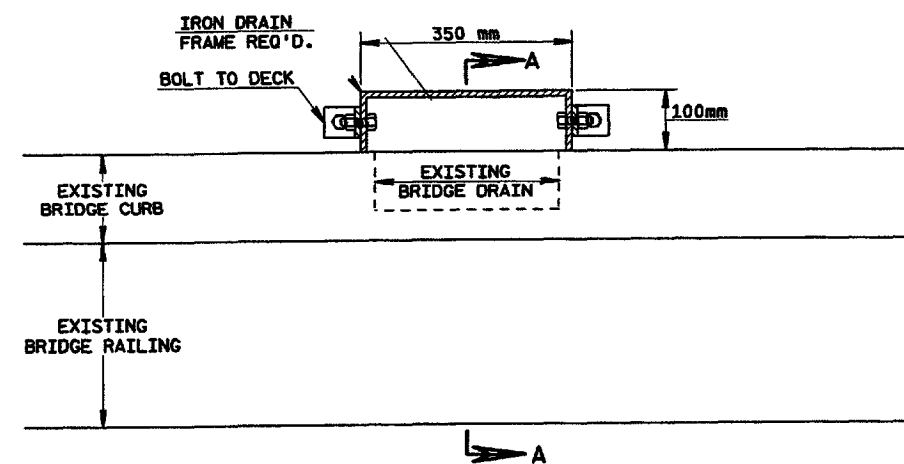
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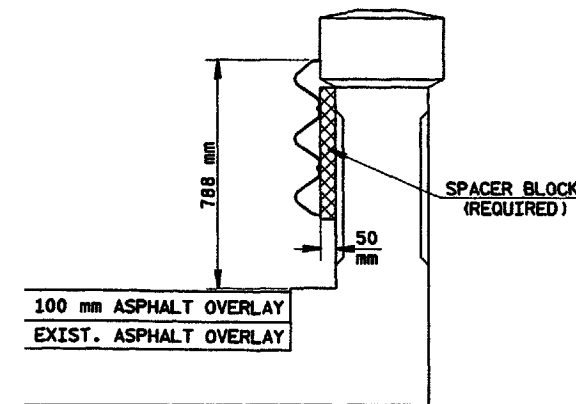
SECTION A-A



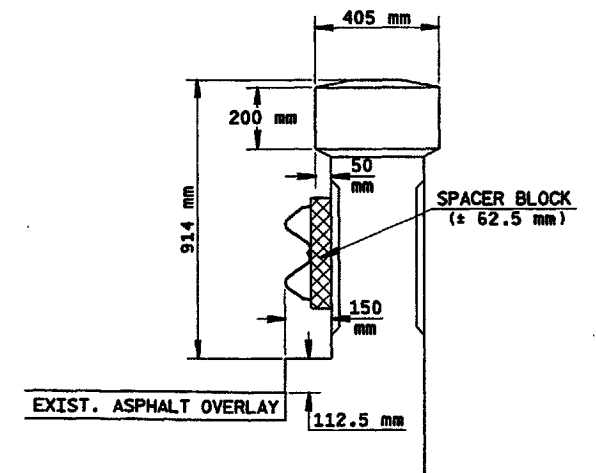
PLAN VIEW

TYPICAL BRIDGE DRAIN FRAME

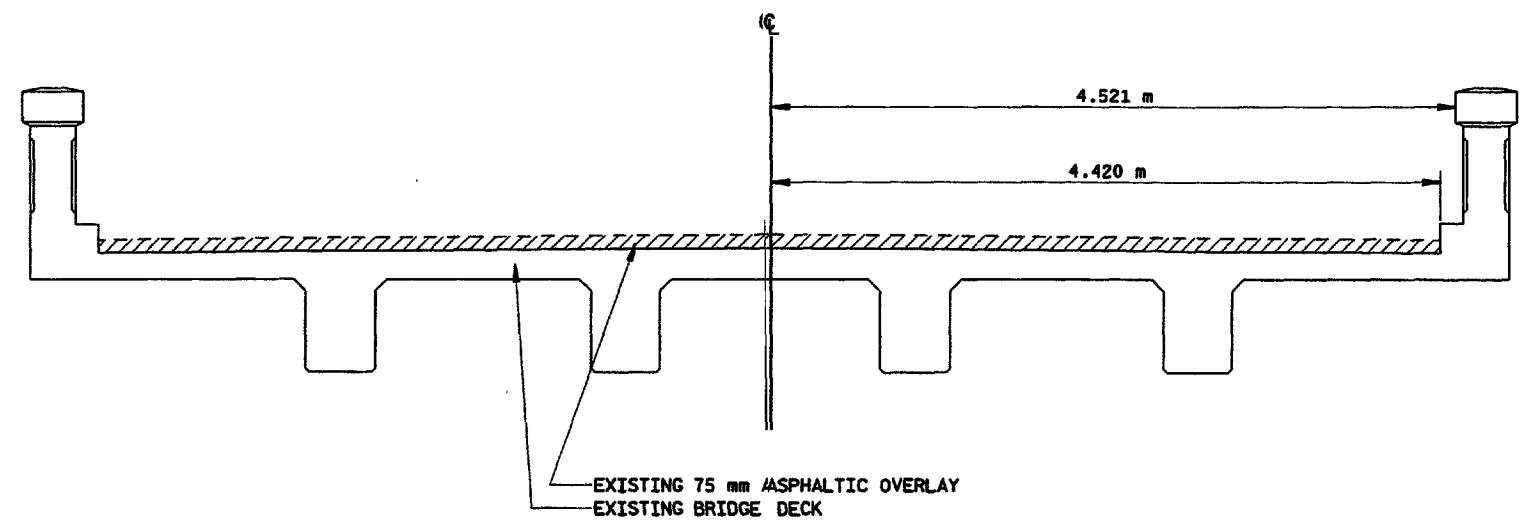
B-61-12



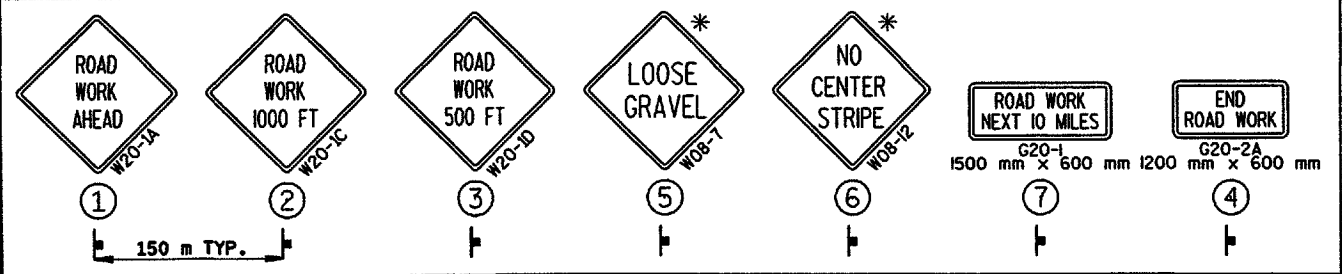
PROPOSED THRIE BEAM INSTALLATION



EXISTING STEEL PLATE BEAM GUARD



B-61-12



\* AS REQUIRED FOR CONSTRUCTION OPERATIONS AND CONDITIONS

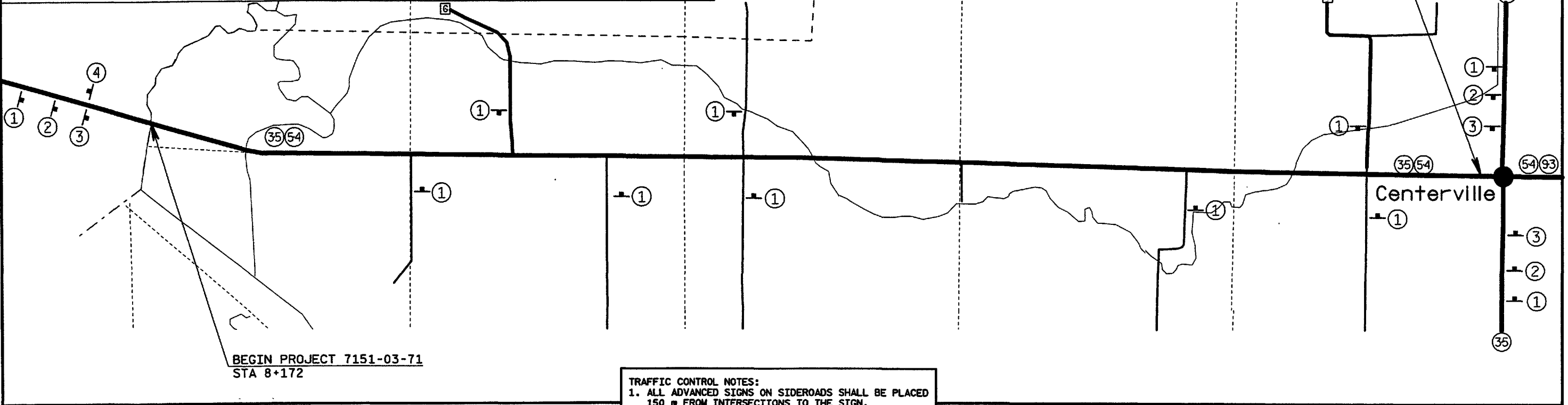
END PROJECT 7151-03-71  
BEGIN PROJECT 7153-01-71  
STA 15+903.639

PLOT SCALE:

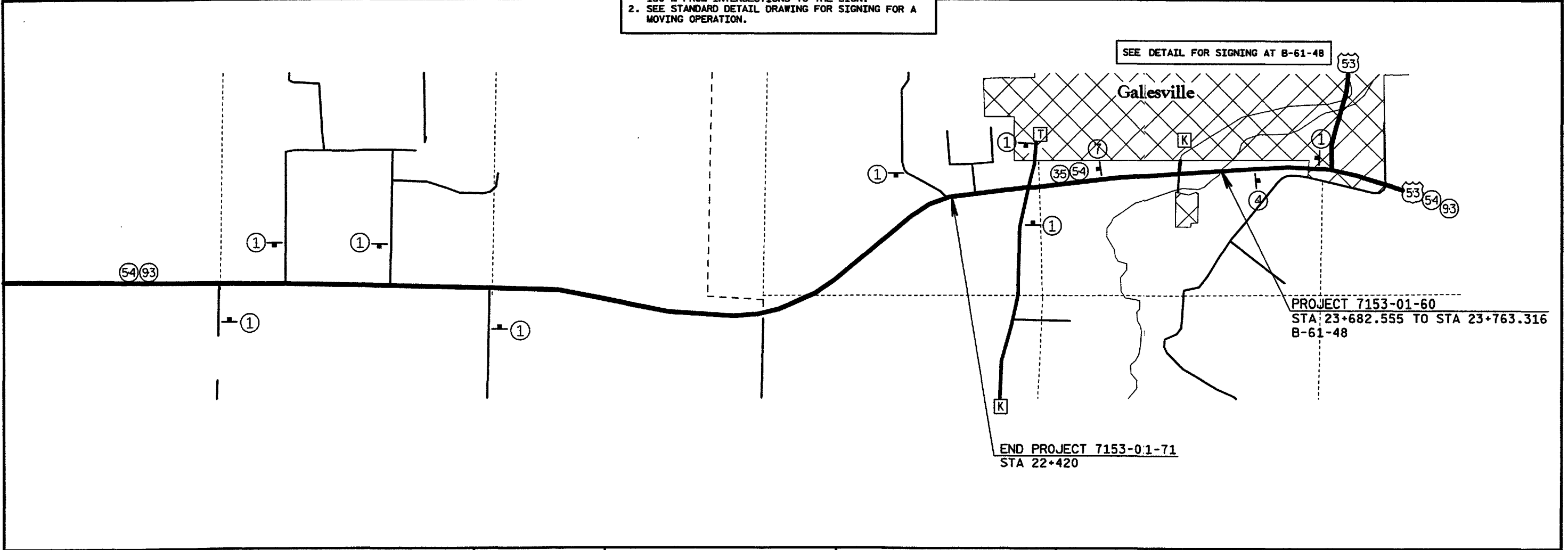
PLOT NAME:

REV. DATE:

ORIGINATOR:



TRAFFIC CONTROL NOTES:  
1. ALL ADVANCED SIGNS ON SIDEROADS SHALL BE PLACED 150 m FROM INTERSECTIONS TO THE SIGN.  
2. SEE STANDARD DETAIL DRAWING FOR SIGNING FOR A MOVING OPERATION.



PROJECT 7153-01-60  
STA: 23+682.555 TO STA 23+763.316  
B-61-48



PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: DOT JSC 4/98

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

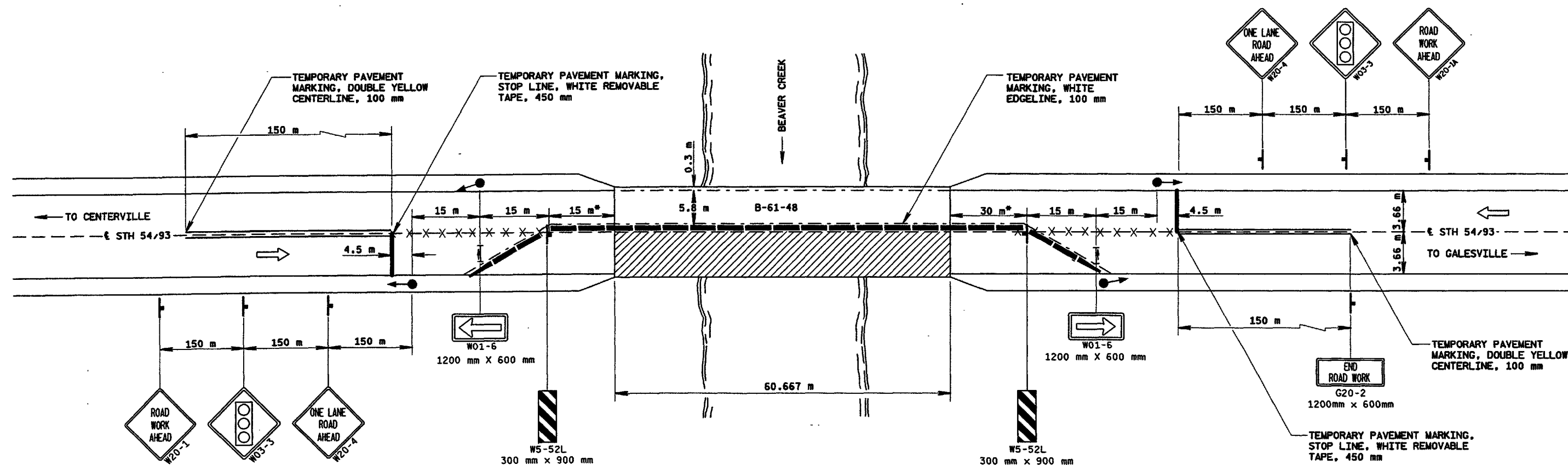
## LEGEND

-  WORK AREA  
 POST WITH SIGN OR TYPE III BARRICADE  
 TYPE III BARRICADE WITH W01-6 1200mm x 600mm WITH LIGHTS  
 TRAFFIC CONTROL SIGNAL (BY OTHERS)  
 REMOVE EXISTING PAVEMENT MARKING  
 TEMPORARY 100mm WHITE EDGE LINE  
 TEMPORARY PRECAST CONCRETE BARRIER  
 TEMPORARY CONCRETE BARRIER END SECTION

\* END DIMENSIONS MAY BE REVERSED BASED ON WHERE MATERIALS ARE STORED

## NOTES:

- SIGN FACE LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS.  
 -ALL SIGNS ARE 1200 mm X 1200 mm UNLESS OTHERWISE NOTED.  
 -DIAGRAM SHOWS E.B. LANE CLOSURE, OPPOSITE HAND FOR W.B. CLOSURE.  
 -ALL SIGNS ARE REFLECTIVE ORANGE UNLESS OTHERWISE NOTED.  
 -THERE ARE UTILITY FACILITIES IN THE PROJECT AREA WHICH ARE NOT SHOWN ON THE PLAN.  
 -DRAWING IS NOT TO SCALE.  
 -ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS, OR AS DIRECTED BY THE ENGINEER.



BRIDGE WORK PROVIDING ONE LANE  
OF TRAFFIC ON A TWO-LANE HIGHWAY

TRAFFIC CONTROL - TEMPORARY SIGNAL

SCALE: 1: N/A

HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-60

SHEET NO: 2.8

M

FILE NAME: D5 S35T:7151703.DGN

WISDOT: MSHT20

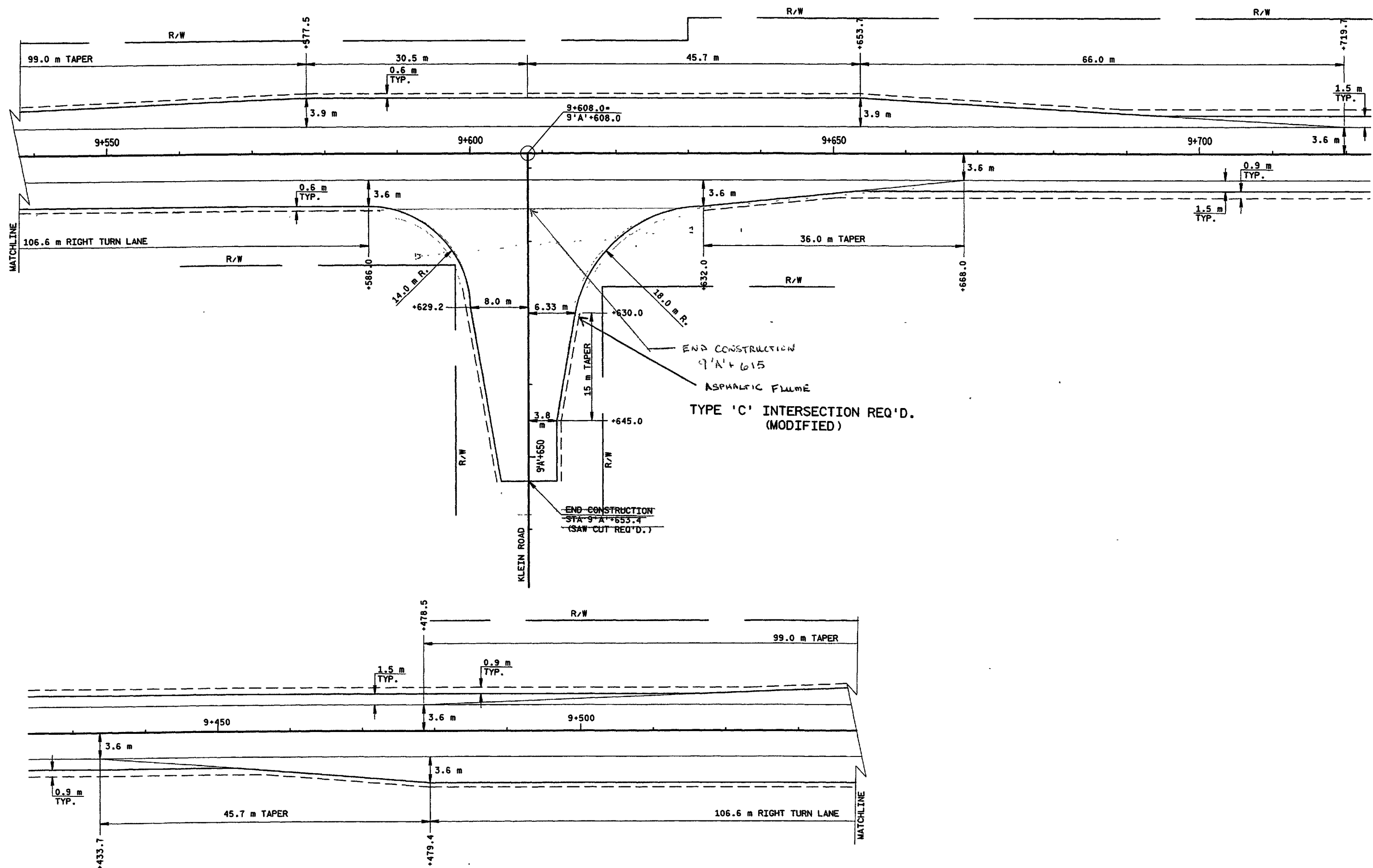
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: DOT JSC 2/98

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



INTERSECTION DETAIL (KLEIN ROAD)

SCALE: 1:500

HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 2.9

M

FILE NAME: D5 S35T:7151240.DGN

WISDOT: MSHT20

ORIGINATOR: DOTJSC 2/98  
LEVELS ON - 123

ORIGINATOR: DOT.  
LEVELS ON 123

ORIGINAL  
EVEN

FILE NAME: D5 S35T:7151242.DGN

INTERSECTION DETAIL (CTH 'G')

SCALE: 1:500

HWY: STH 35/54

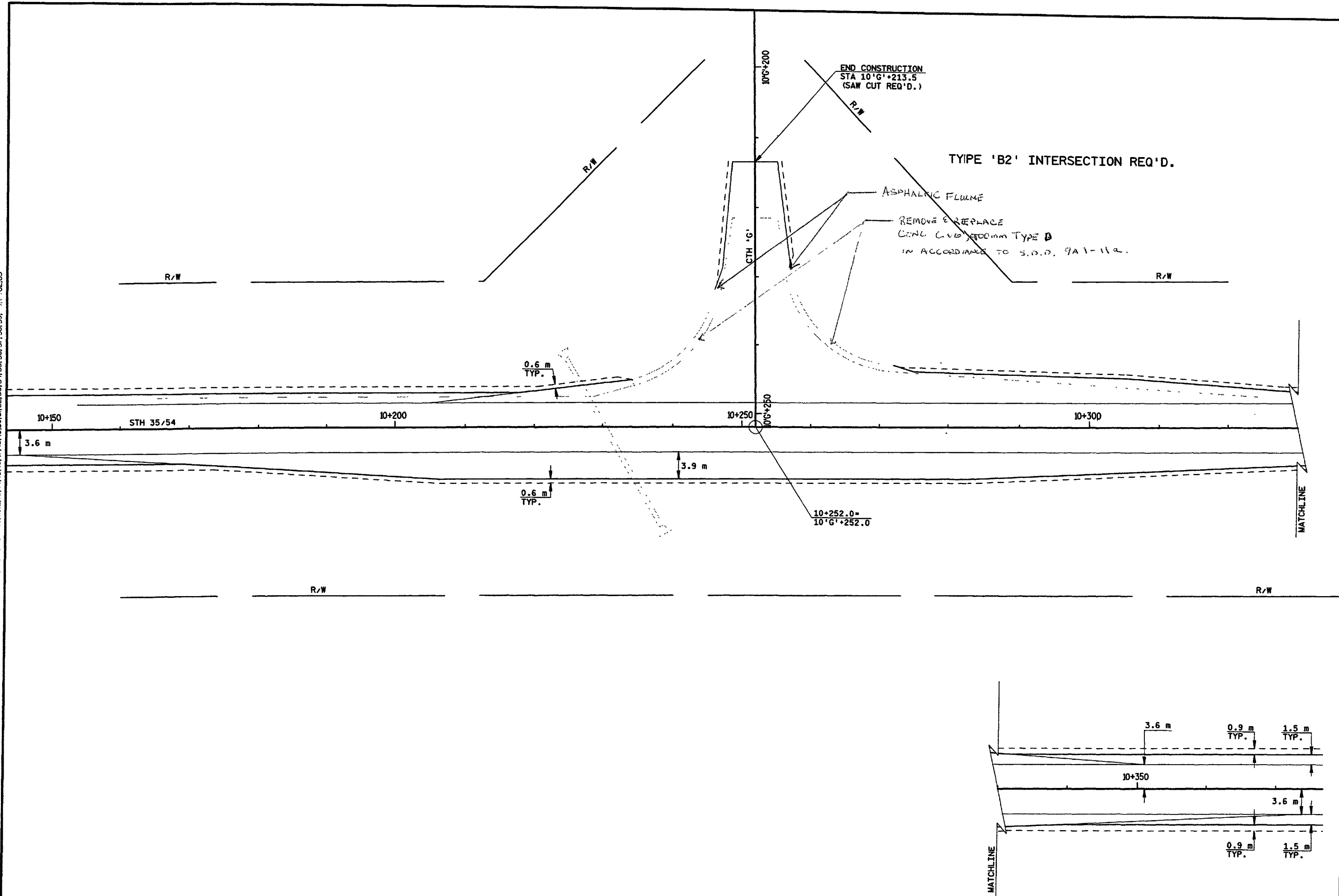
COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 2.10

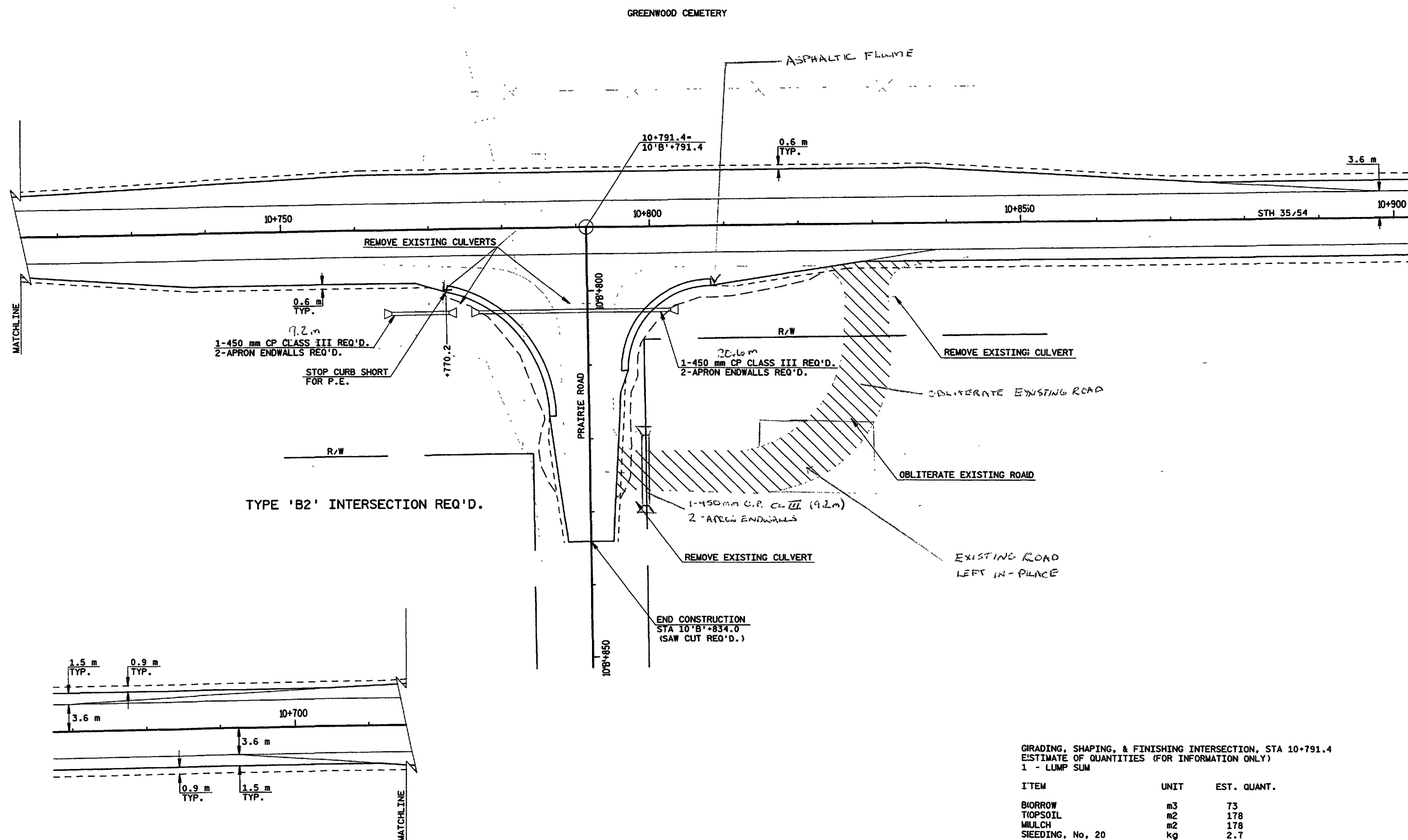
TM

WISDOT: MSHT20



ORIGINATOR: DOT:ISC 2/98

20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



GRADING, SHAPING, & FINISHING INTERSECTION, STA 10+791.4  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

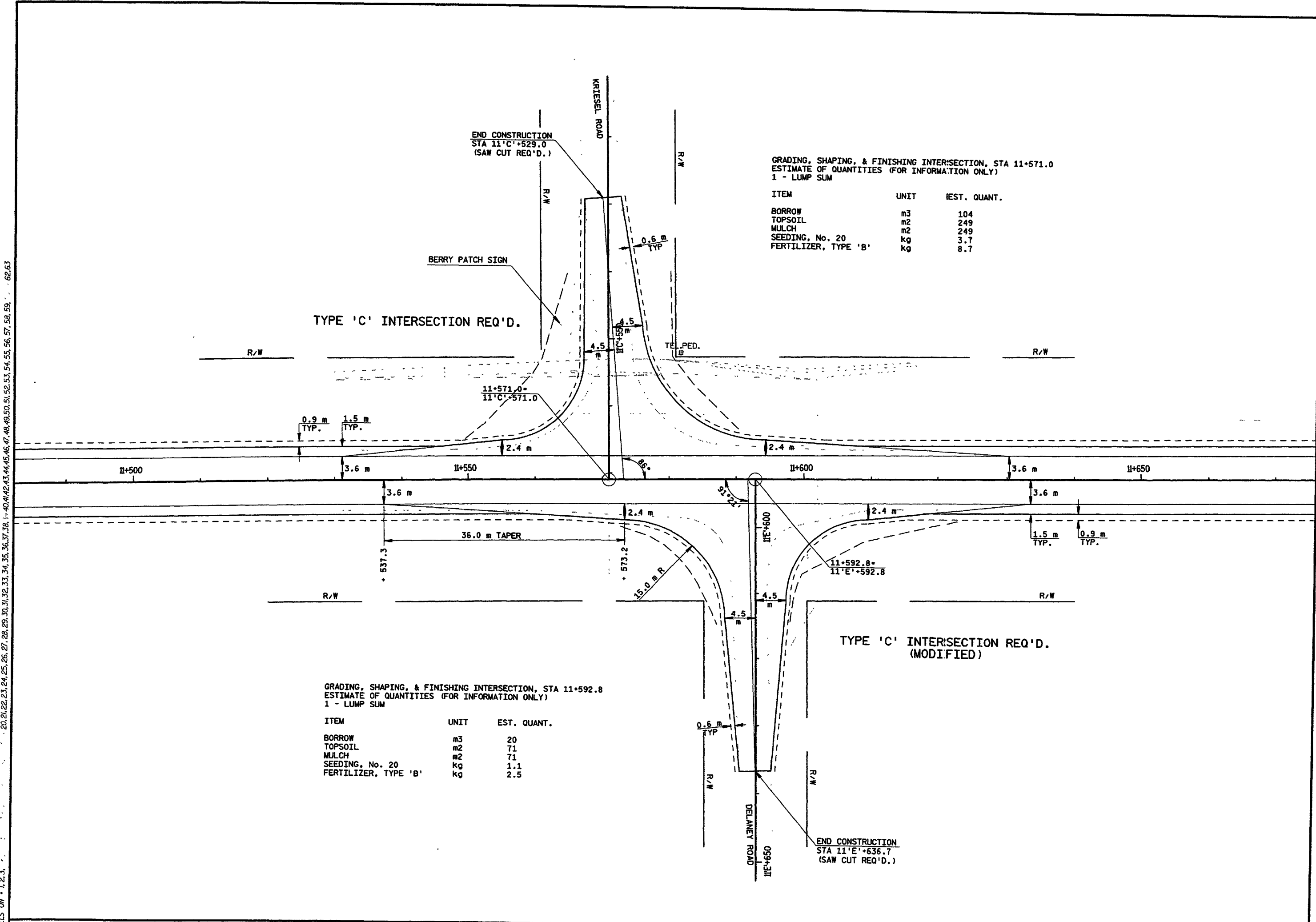
| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 73          |
| TOPSOIL              | m2   | 178         |
| MULCH                | m2   | 178         |
| SEEDING, No. 20      | kg   | 2.7         |
| FERTILIZER, TYPE 'B' | kg   | 6.2         |

PLOT SCALE:

PLOT NAME: 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

REV. DATE:

ORIGINATOR: DOTJSC 2/98  
LEVELS ON: 1, 2, 3



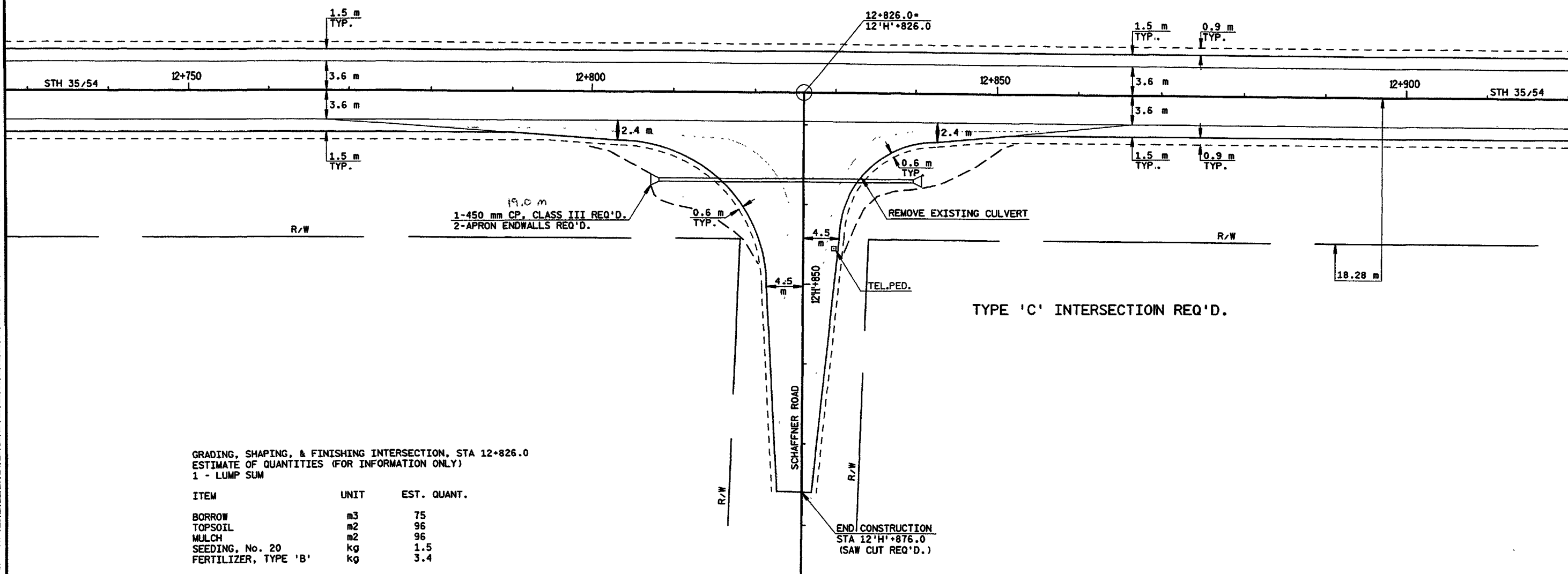
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: DOT/USC 2/98

LEVELS ON = 1, 2, 3,



GRADING, SHAPING, & FINISHING INTERSECTION. STA 12+826.0  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 75          |
| TOPSOIL              | m2   | 96          |
| MULCH                | m2   | 96          |
| SEEDING, No. 20      | kg   | 1.5         |
| FERTILIZER, TYPE 'B' | kg   | 3.4         |



PLOT SCALE:

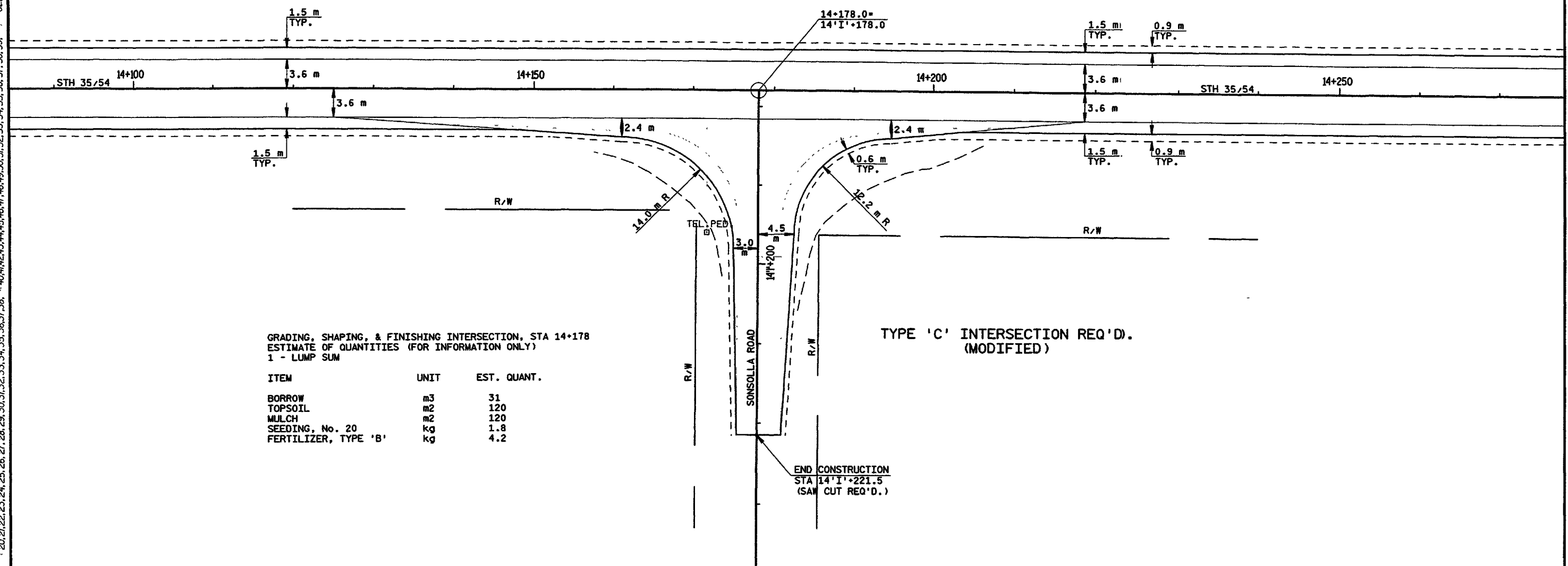
PLOT NAME:

REV. DATE:

ORIGINATOR: DOTJSC 2/98

LEVELS ON: 1, 2, 3

20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



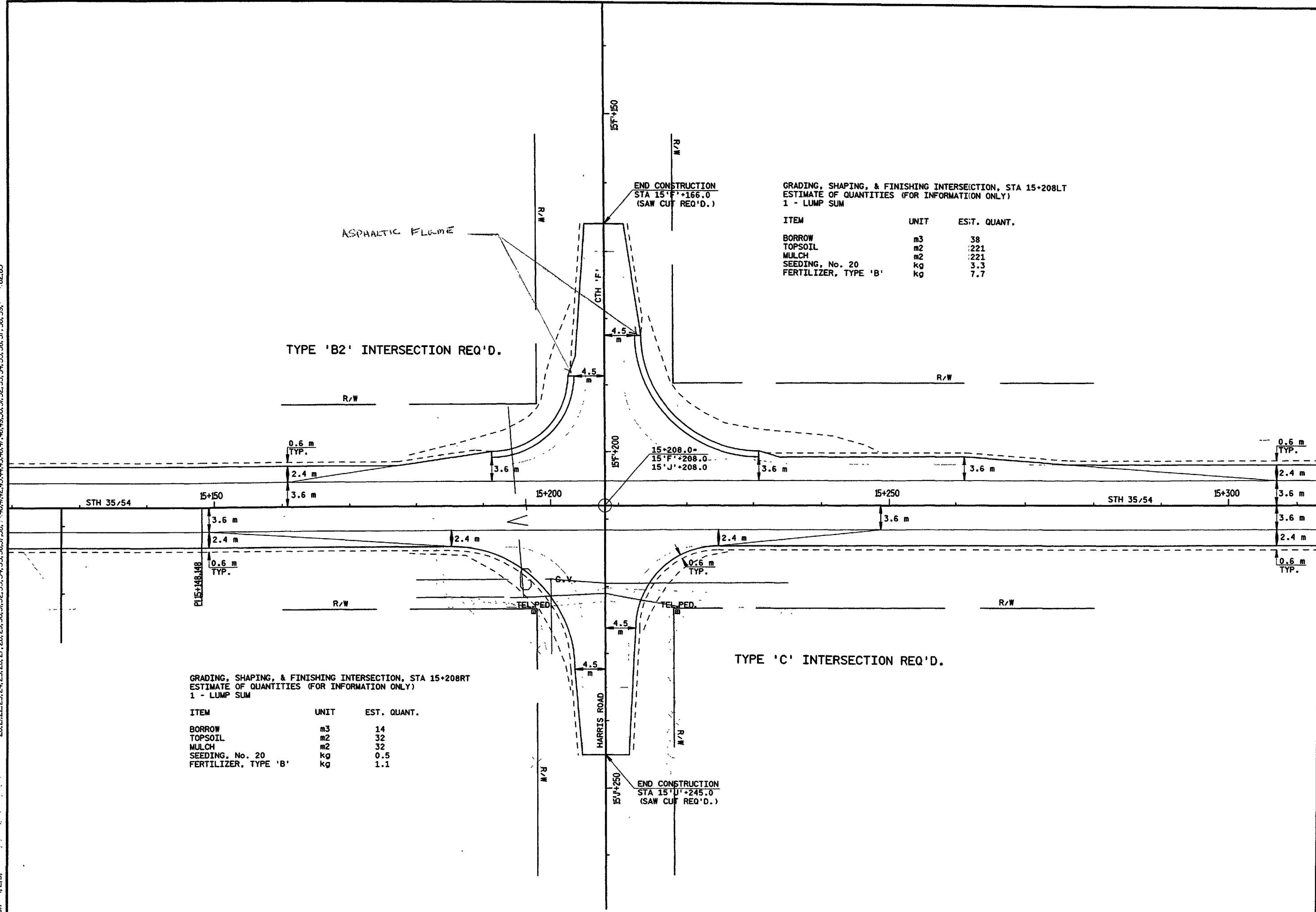
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: DOT/JSC 2/98  
LEVELS ON - 1,2,3

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



GRADING, SHAPING, & FINISHING INTERSECTION, STA 15+208LT  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 38          |
| TOPSOIL              | m2   | 221         |
| MULCH                | m2   | 221         |
| SEEDING, No. 20      | kg   | 3.3         |
| FERTILIZER, TYPE 'B' | kg   | 7.7         |

GRADING, SHAPING, & FINISHING INTERSECTION, STA 15+208RT  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 14          |
| TOPSOIL              | m2   | 32          |
| MULCH                | m2   | 32          |
| SEEDING, No. 20      | kg   | 0.5         |
| FERTILIZER, TYPE 'B' | kg   | 1.1         |



PLOT SCALE:

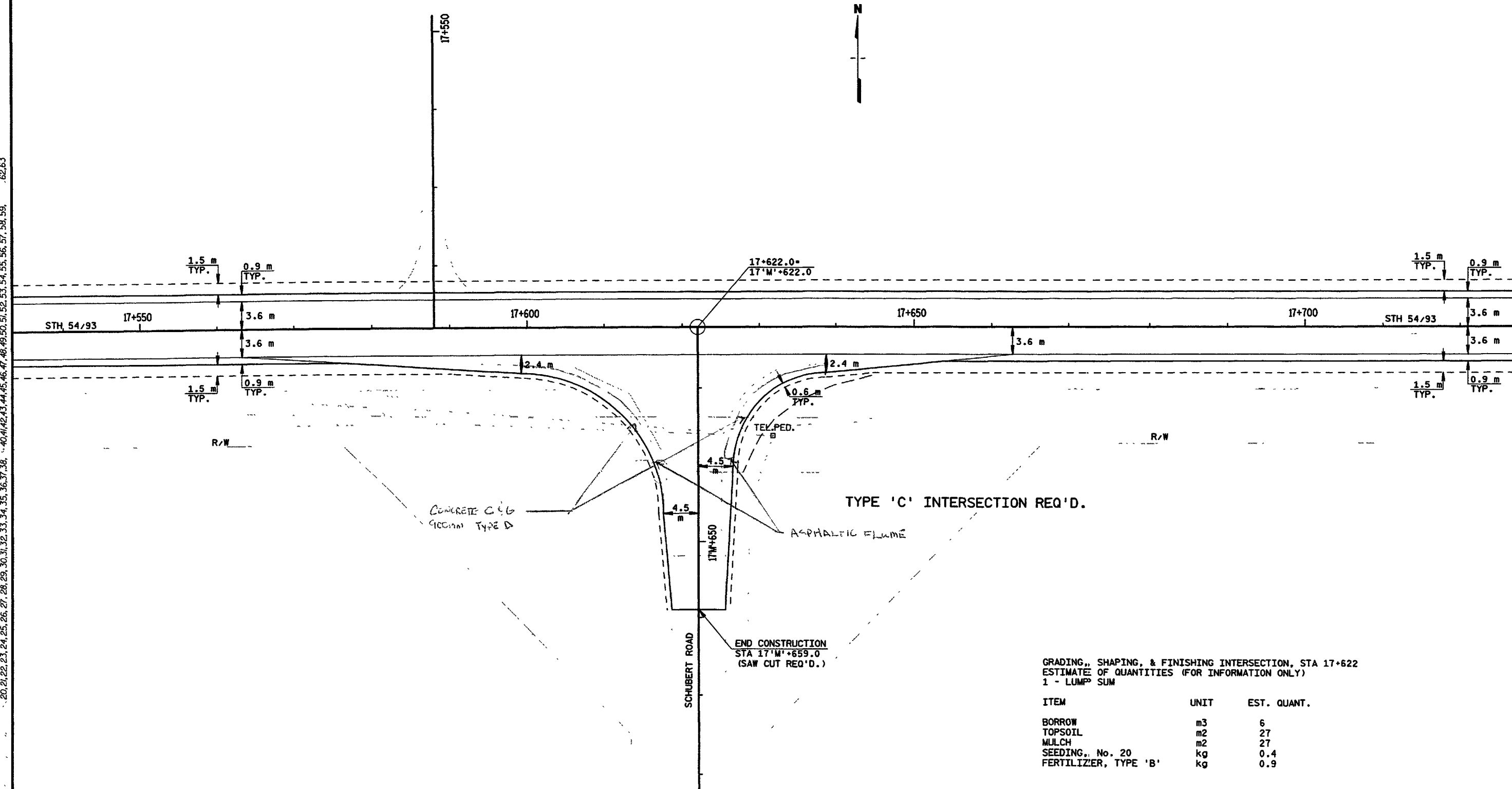
PLOT NAME:

REV. DATE:

ORIGINATOR: DOTJSC 3/98

LEVELS ON: 1, 2, 3

20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 62, 63



GRADING, SHAPING, & FINISHING INTERSECTION, STA 17+622  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

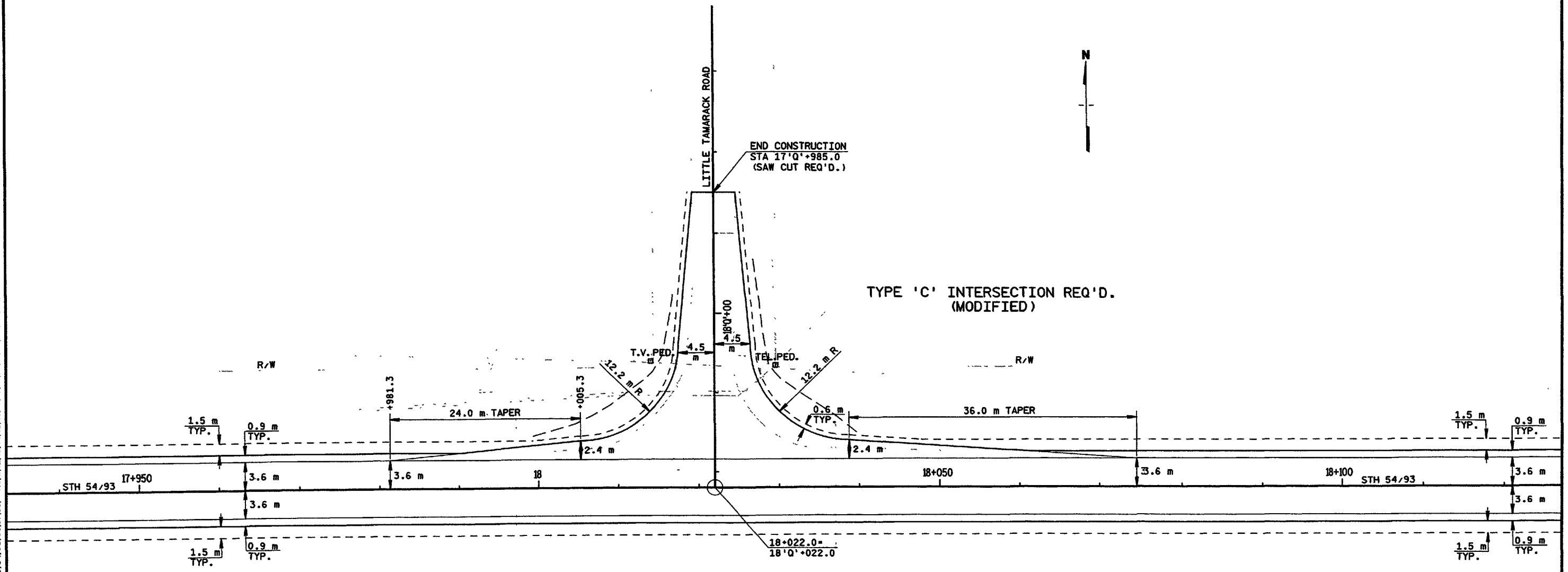
| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 6           |
| TOPSOIL              | m2   | 27          |
| MULCH                | m2   | 27          |
| SEEDING, No. 20      | kg   | 0.4         |
| FERTILIZER, TYPE 'B' | kg   | 0.9         |

PLOT SCALE:

PLOT NAME: 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

REV. DATE:

ORIGINATOR: DOTJSC 3/98  
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, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



GRADING, SHAPING, & FINISHING INTERSECTION, STA 18+022  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 19          |
| TOPSOIL              | m2   | 64          |
| MULCH                | m2   | 64          |
| SEEDING, No. 20      | kg   | 1.0         |
| FERTILIZER, TYPE 'B' | kg   | 2.2         |

INTER. DETAIL 'Q-LINE' (LITTLE TAMARACK RD.)

SCALE: 1:500

HWY: STH54/93

COUNTY: TREMPLEAU

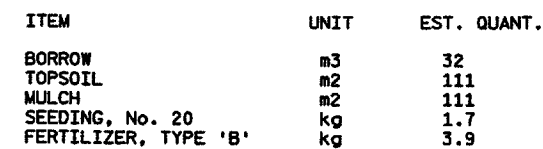
STATE PROJECT NO: 7153-01-71

SHEET NO: 2.17 M

FILE NAME: D5 S35T:7153250.DGN

WISDOT: MSHT20

ORIGINATOR: DOTJSC 3/98



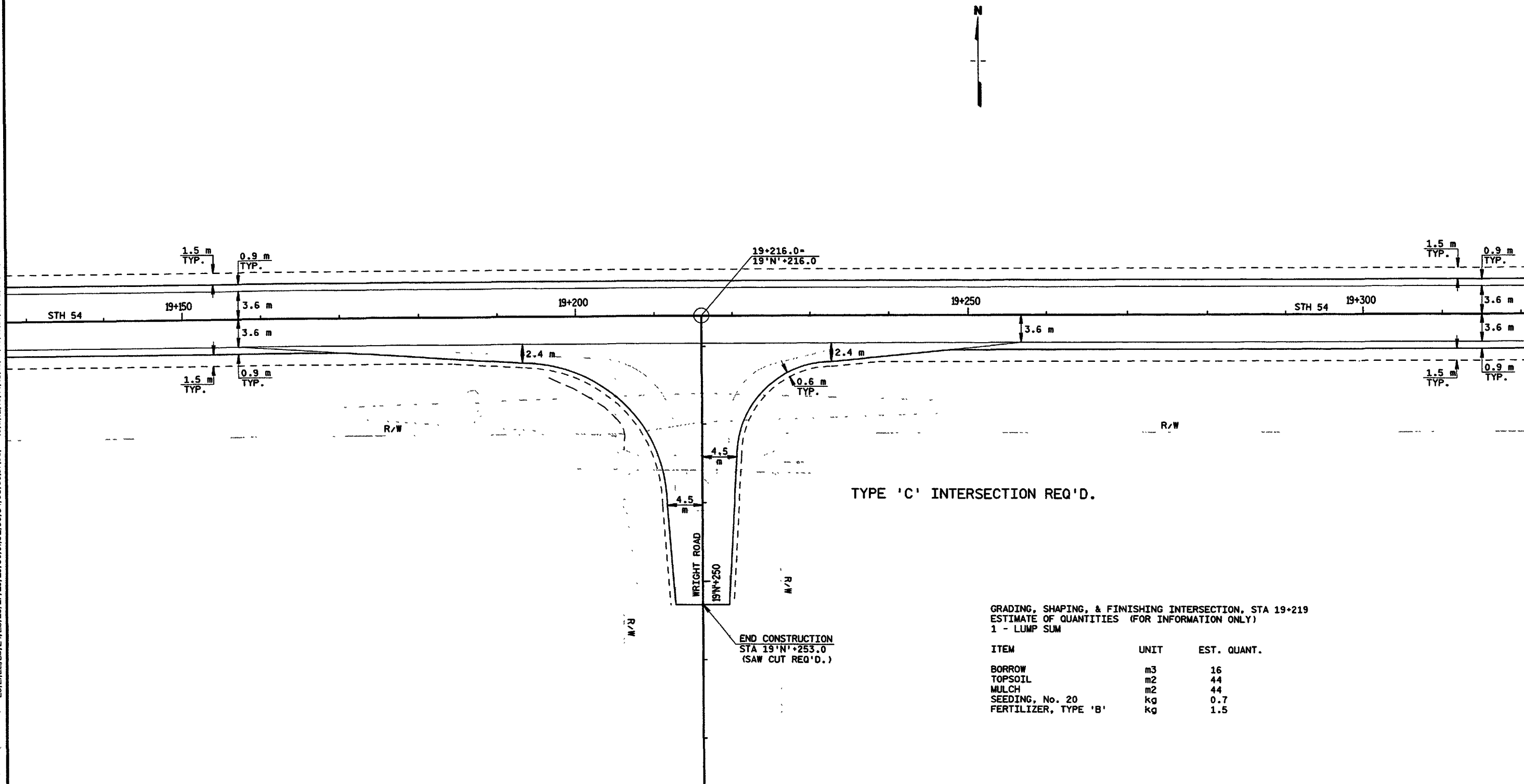
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: DOTJSC 3/98

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



GRADING, SHAPING, & FINISHING INTERSECTION, STA 19+219  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 16          |
| TOPSOIL              | m2   | 44          |
| MULCH                | m2   | 44          |
| SEEDING, No. 20      | kg   | 0.7         |
| FERTILIZER, TYPE 'B' | kg   | 1.5         |

INTER. DETAIL 'N-LINE' (WRIGHT ROAD)

SCALE: 1: 500

HWY: STH 54

COUNTY: TREMPLEALEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 2.19

M

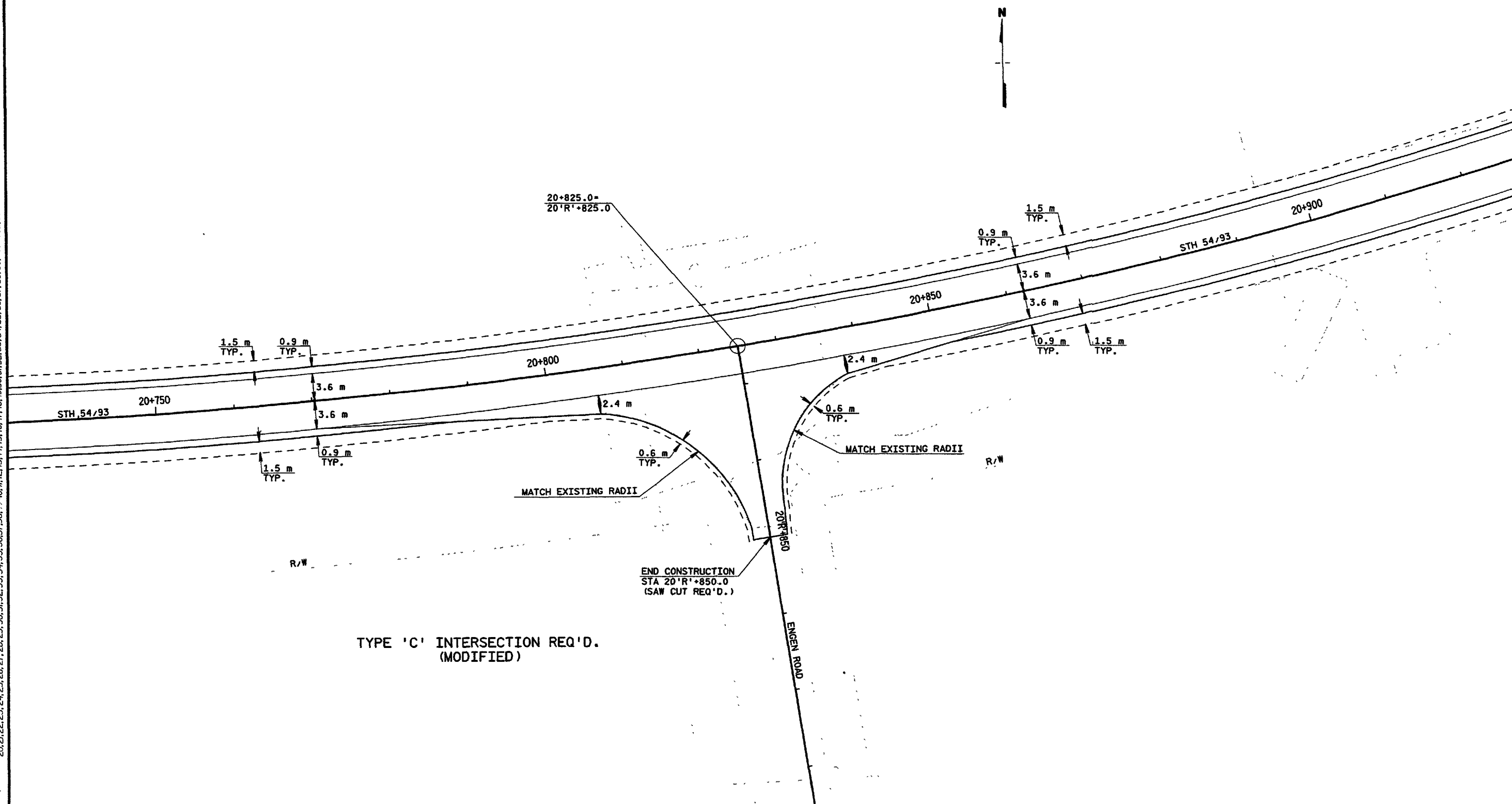
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: DOT/JSC 3/98  
LEVELS ON - 1.2.3.

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INTERSECTION DETAIL 'R-LINE'(ENGEN RD.)

SCALE: 1:500 HWY: STH 54/93

COUNTY: TREMPLEALEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 2.20 M

FILE NAME: D5 S35T:7153252.DGN

WISDOT: MSHT20

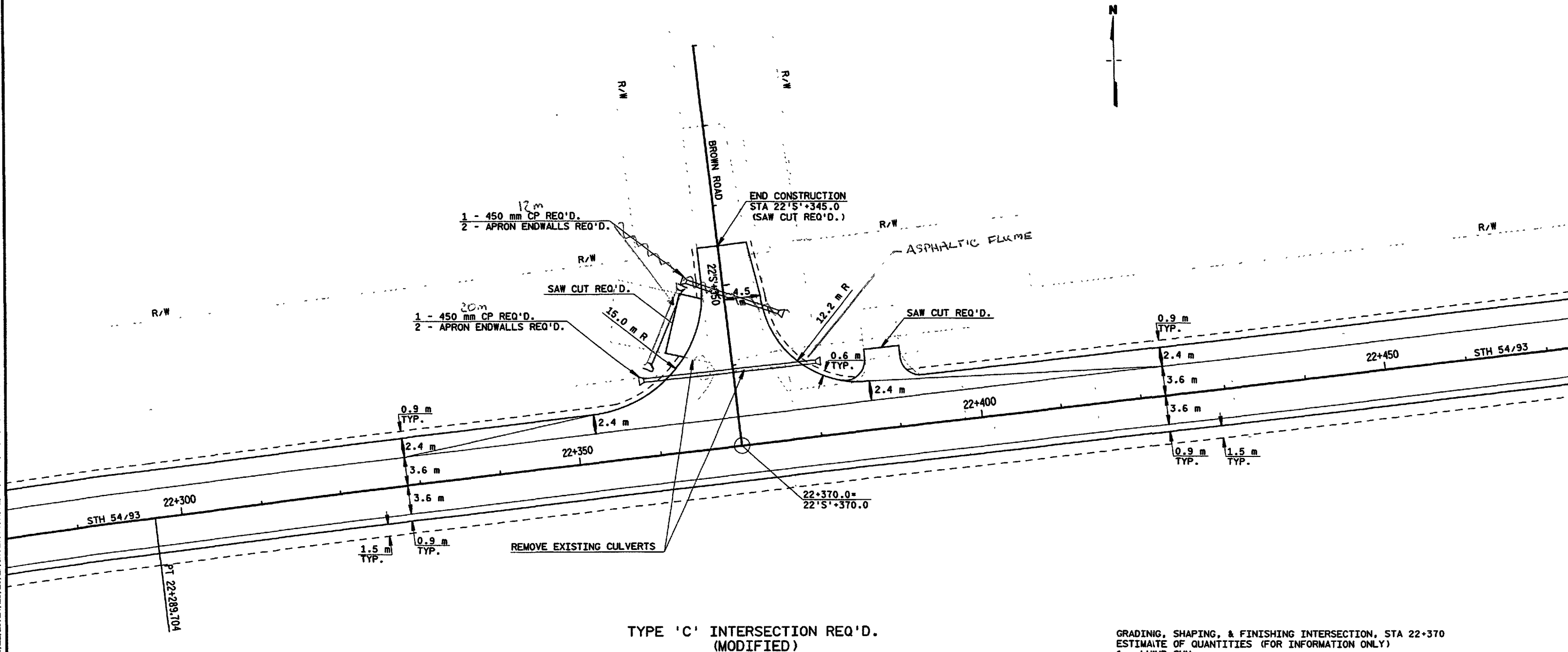
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: DOT JSC 3/98

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



TYPE 'C' INTERSECTION REQ'D.  
(MODIFIED)

GRADING, SHAPING, & FINISHING INTERSECTION, STA 22+370  
ESTIMATE OF QUANTITIES (FOR INFORMATION ONLY)  
1 - LUMP SUM

| ITEM                 | UNIT | EST. QUANT. |
|----------------------|------|-------------|
| BORROW               | m3   | 10          |
| TOPSOIL              | m2   | 35          |
| MULCH                | m2   | 35          |
| SEEDING, No. 20      | kg   | 0.5         |
| FERTILIZER, TYPE 'B' | kg   | 1.0         |

INTERSECTION DETAIL 'S-LINE' (BROWN ROAD)

SCALE: 1: 500

HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 2.2

M

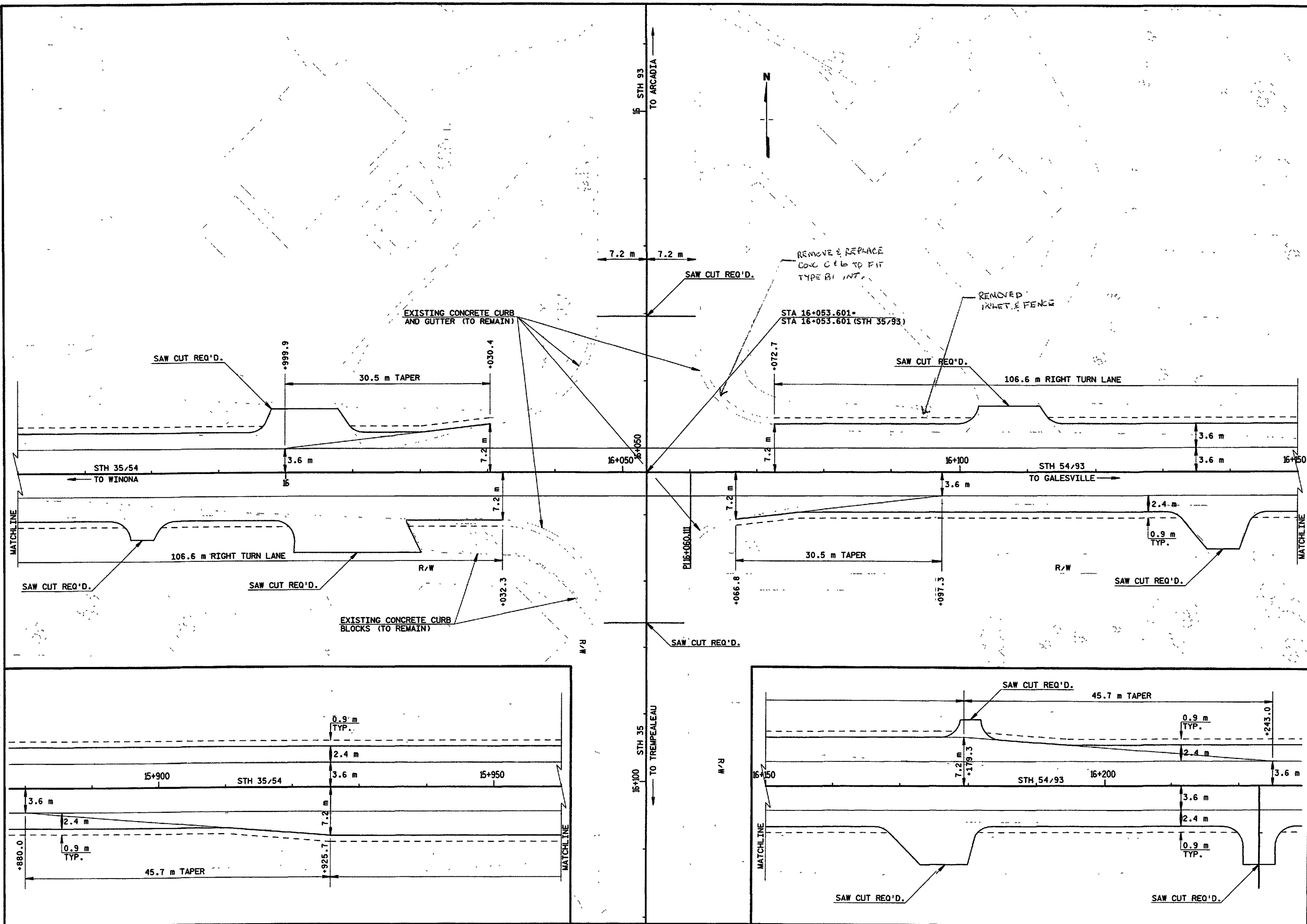
FILE NAME: D5 S35T:7153253.DGN

WISDOT: MSHT20



ORIGINATOR: DOTJSC 3/98

| REV. DATE:                                                                  | PLOT NAME:                                                                      |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, | 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, |
|                                                                             | 60, 61, 62, 63                                                                  |



INTERSECTION DETAIL STH 35/54/93

SCALE: 1:500

HWY: STH 54/93

COUNTY: TREMPEALEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 2.22

T

FILE NAME: D5 S35T:7153254.DGN

WISDOT: MSHT30

DATE 25OCT99

## ESTIMATE OF QUANTITIES

SHEET: 3.1

| LINE<br>NUMBER  | ITEM             | ITEM DESCRIPTION                                               | UNIT            | TOTAL           | 7151-03-71<br>QUANTITY | 7153-01-60<br>QUANTITY | 7153-01-71<br>QUANTITY |
|-----------------|------------------|----------------------------------------------------------------|-----------------|-----------------|------------------------|------------------------|------------------------|
| 0010            | 20330            | REMOVING OLD CULVERTS                                          | EACH            | 7.00            | 5.00                   |                        | 2.00                   |
| 0020            | 20401            | REMOVING PAVEMENT                                              | M2              | 139.68          |                        | 139.68                 |                        |
| 0030            | 20402            | REMOVING ASPHALTIC SURFACE                                     | M2              | 6,299.18        | 2,223.70               | 116.48                 | 3,959.00               |
| 0040            | 20405            | REMOVING CURB AND GUTTER                                       | M               | 42.00           | 42.00                  |                        |                        |
| 0050            | 20408            | REMOVING MASONRY                                               | M3              | 0.50            | 0.50                   |                        |                        |
| 0060            | 20411            | REMOVING GUARDRAIL                                             | M               | 786.00          | 338.00                 |                        | 448.00                 |
| 0070            | 21302            | FINISHING ROADWAY, PROJECT PROJECT<br>7151-03-71               | LS              | 1.00            | 1.00                   |                        |                        |
| 0080            | 21302            | FINISHING ROADWAY, PROJECT 7153-01-71                          | LS              | 1.00            |                        |                        | 1.00                   |
| 0090            | 21401            | OBLITERATING OLD ROAD                                          | M               | 54.00           | 54.00                  |                        |                        |
| 0100            | 30404            | CRUSHED AGGREGATE BASE COURSE                                  | MG              | 12,000.00       | 5,800.00               |                        | 6,200.00               |
| 0110            | 40204            | ASPHALTIC MATERIAL FOR TACK COAT                               | L               | 14,981.30       | 8,499.80               |                        | 6,481.50               |
| 0120            | 40301            | QMP, ASPHALTIC MIXTURE                                         | MG              | 35,450.92       | 20,621.80              | 32.42                  | 14,796.70              |
| 0130            | 40501            | ASPHALTIC MATERIAL FOR PLANT MIXES                             | MG              | 2,128.40        | 1,237.30               | 1.90                   | 889.20                 |
| 0140            | 40713            | ASPHALTIC CONCRETE PAVEMENT, TYPE MV                           | MG              | 35,450.92       | 20,621.80              | 32.42                  | 14,796.70              |
| 0150            | 41621            | CONCRETE PAVEMENT APPROACH SLAB                                | M2              | 139.68          |                        | 139.68                 |                        |
| 0160            | 50232            | EXPANSION DEVICE, STRUCTURE B-61-48                            | LS              | 1.00            |                        | 1.00                   |                        |
| 0170            | 50265            | PROTECTIVE SURFACE TREATMENT                                   | M2              | 831.00          |                        | 831.00                 |                        |
| 0180            | 50504            | HIGH STRENGTH BAR STEEL REINFORCEMENT,<br>BRIDGES              | KG              | 1,750.00        |                        | 1,750.00               |                        |
| 0190            | 50903            | PREPARATION, DECKS, TYPE 1                                     | M2              | 89.00           |                        | 89.00                  |                        |
| 0200            | 50904            | PREPARATION, DECKS, TYPE 2                                     | M2              | 18.00           |                        | 18.00                  |                        |
| 0210            | 50905            | CLEANING, DECKS                                                | M2              | 813.00          |                        | 813.00                 |                        |
| 0220            | 50910            | JOINT REPAIR                                                   | M2              | 47.00           |                        | 47.00                  |                        |
| 0230            | 50912            | CURB REPAIR                                                    | M               | 6.00            |                        | 6.00                   |                        |
| 0240            | 50915            | CONCRETE SURFACE REPAIR                                        | M2              | 2.00            |                        | 2.00                   |                        |
| <del>0250</del> | <del>50920</del> | <del>FULL DEPTH DECK REPAIR</del>                              | <del>M2</del>   | <del>2.00</del> |                        | <del>2.00</del>        |                        |
| 0260            | 50925            | CONCRETE MASONRY, OVERLAY, DECKS                               | M3              | 64.00           |                        | 64.00                  |                        |
| 0270            | 52003            | CULVERT PIPE, CLASS III, 450 MM                                | M               | 97.53           | 64.61                  |                        | 32.92                  |
| 0280            | 52061            | APRON ENDWALLS FOR CULVERT PIPE, 450 MM                        | EACH            | 10.00           | 6.00                   |                        | 4.00                   |
| <del>0290</del> | <del>52103</del> | <del>CORRUGATED STEEL CULVERT PIPE, 300 MM</del>               | <del>M</del>    | <del>2.44</del> | <del>2.44</del>        |                        |                        |
| <del>0300</del> | <del>52147</del> | <del>STEEL APRON ENDWALLS FOR CULVERT PIPE,<br/>300 MM</del>   | <del>EACH</del> | <del>2.00</del> | <del>2.00</del>        |                        |                        |
| 0310            | 52205            | REINFORCED CONCRETE CULVERT PIPE, CLASS<br>III, 600 MM         | M               | 4.80            |                        |                        | 4.80                   |
| 0320            | 52264            | REINFORCED CONCRETE APRON ENDWALLS FOR<br>CULVERT PIPE, 600 MM | EACH            | 2.00            |                        |                        | 2.00                   |



DATE 25OCT99

## ESTIMATE OF QUANTITIES

SHEET: 3.2

| LINE<br>NUMBER | ITEM  | ITEM DESCRIPTION                                                               | UNIT | TOTAL      | 7151-03-71<br>QUANTITY | 7153-01-60<br>QUANTITY | 7153-01-71<br>QUANTITY |
|----------------|-------|--------------------------------------------------------------------------------|------|------------|------------------------|------------------------|------------------------|
| 0330           | 60170 | CONCRETE CURB AND GUTTER, 900 MM, TYPE D                                       | M    | 87.00      | 87.00                  |                        |                        |
| 0340           | 60305 | TEMPORARY PRECAST CONCRETE BARRIER, CONTRACTOR FURNISHED AND DELIVERED         | M    | 136.00     |                        | 136.00                 |                        |
| 0350           | 60308 | TEMPORARY PRECAST CONCRETE BARRIER, CONTRACTOR FURNISHED, CONTRACTOR INSTALLED | M    | 272.00     |                        | 272.00                 |                        |
| 0360           | 61408 | STEEL PLATE BEAM GUARD, CLASS A                                                | M    | 1,248.95   | 331.47                 |                        | 917.48                 |
| 0370           | 61435 | STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL                              | EACH | 27.00      | 12.00                  |                        | 15.00                  |
| 0380           | 61802 | MAINTENANCE AND REPAIR OF HAUL ROADS, PROJECT PROJECT 7151-03-71               | LS   | 1.00       | 1.00                   |                        |                        |
| 0390           | 61803 | MAINTENANCE AND REPAIR OF HAUL ROADS, PROJECT PROJECT 7153-01-71               | LS   | 1.00       |                        |                        | 1.00                   |
| 0400           | 61910 | MOBILIZATION                                                                   | LS   | 1.00       | 0.50                   | 0.15                   | 0.35                   |
| 0410           | 62501 | TOPSOIL                                                                        | M2   | 540.00     | 540.00                 |                        |                        |
| 0420           | 62702 | MULCHING                                                                       | M2   | 540.00     | 540.00                 |                        |                        |
| 0430           | 62905 | FERTILIZER, TYPE B                                                             | KG   | 18.90      | 18.90                  |                        |                        |
| 0440           | 63009 | SEEDING, MIXTURE NO. 20                                                        | KG   | 8.10       | 8.10                   |                        |                        |
| 0450           | 64202 | FIELD OFFICE, TYPE B                                                           | LS   | 1.00       | 0.50                   |                        | 0.50                   |
| 0460           | 64302 | TRAFFIC CONTROL, PROJECT 7151-03-71                                            | LS   | 1.00       | 1.00                   |                        |                        |
| 0470           | 64303 | TRAFFIC CONTROL, PROJECT 7153-01-71                                            | LS   | 1.00       |                        |                        | 1.00                   |
| 0480           | 64318 | TRAFFIC CONTROL, BARRICADES, TYPE III                                          | DAYS | 240.00     |                        | 240.00                 |                        |
| 0490           | 64326 | TRAFFIC CONTROL, SIGNS                                                         | DAYS | 3,002.00   | 1,226.00               | 480.00                 | 1,296.00               |
| 0500           | 64602 | PAVEMENT MARKING, 100 MM, EPOXY                                                | M    | 28,016.83  | 15,086.33              | 205.50                 | 12,725.00              |
| 0510           | 64618 | PAVEMENT MARKING, CHANNELIZING, 200 MM, EPOXY                                  | M    | 305.10     | 91.90                  |                        | 213.20                 |
| 0520           | 64626 | PAVEMENT MARKING, SAME DAY, 100 MM, EPOXY                                      | M    | 7,119.75   | 3,125.75               |                        | 3,994.00               |
| 0530           | 64642 | REMOVING PAVEMENT MARKINGS                                                     | M    | 114.00     |                        | 114.00                 |                        |
| 0540           | 64901 | TEMPORARY PAVEMENT MARKING, 100 MM                                             | M    | 1,140.59   | 618.89                 |                        | 521.70                 |
| 0550           | 64904 | TEMPORARY PAVEMENT MARKING, 100 MM, REMOVABLE TAPE                             | M    | 824.00     |                        | 824.00                 |                        |
| 0560           | 64912 | TEMPORARY PAVEMENT MARKING, STOP LINE, 450 MM, REMOVABLE TAPE                  | M    | 14.40      |                        | 14.40                  |                        |
| 0570           | 66501 | SAWING EXISTING PAVEMENT                                                       | M    | 361.55     | 140.55                 | 12.20                  | 208.80                 |
| 0580           | 66502 | SAWING CONCRETE PAVEMENT, FULL DEPTH                                           | M    | 12.00      |                        |                        | 12.00                  |
| 0590           | 90001 | MISC 90001A STEEL THRIE BEAM GUARD RAIL                                        | M    | 60.96      | 60.96                  |                        |                        |
| 0600           | 90002 | MISC 90002A PULVERIZE & RELAY EXISTING BASE & SURFACE, SPECIAL                 | M2   | 138,309.90 | 74,815.40              |                        | 63,494.50              |
| 0610           | 90004 | MISC 90004A GRADING, SHAPING & FINISHING INTERSECTION, STA. 15+208             | LS   | 1.00       | 1.00                   |                        |                        |

DATE 25OCT99

## ESTIMATE OF QUANTITIES

SHEET: 3.3

| LINE<br>NUMBER | ITEM  | ITEM DESCRIPTION                                                          | UNIT | TOTAL   | 7151-03-71<br>QUANTITY | 7153-01-60<br>QUANTITY | 7153-01-71<br>QUANTITY |
|----------------|-------|---------------------------------------------------------------------------|------|---------|------------------------|------------------------|------------------------|
| 0620           | 90004 | MISC 90004B GRADING, SHAPING &<br>FINISHING INTERSECTION, STA. 17+622     | LS   | 1.00    |                        |                        | 1.00                   |
| 0630           | 90004 | MISC 90004C GRADING, SHAPING &<br>FINISHING INTERSECTION, STA. 18+002     | LS   | 1.00    |                        |                        | 1.00                   |
| 0640           | 90004 | MISC 90004D GRADING, SHAPING &<br>FINISHING INTERSECTION, STA. 18+636     | LS   | 1.00    |                        |                        | 1.00                   |
| 0650           | 90004 | MISC 90004E GRADING, SHAPING &<br>FINISHING INTERSECTION, STA. 19+216     | LS   | 1.00    |                        |                        | 1.00                   |
| 0660           | 90004 | MISC 90004F GRADING, SHAPING &<br>FINISHING INTERSECTION, STA. 22+370     | LS   | 1.00    |                        |                        | 1.00                   |
| 0670           | 90005 | MISC 90005A BRIDGE DRAIN FRAMES                                           | EACH | 6.00    | 6.00                   |                        |                        |
| 0680           | 90005 | MISC 90005B CONCRETE MASONRY ANCHORS,<br>TYPE S, M19                      | EACH | 32.00   |                        | 32.00                  |                        |
| 0690           | 90005 | MISC 90005C CLEANING AND PAINTING<br>BEARINGS                             | EACH | 30.00   |                        | 30.00                  |                        |
| 0700           | 90310 | REMOVING MARKER POSTS                                                     | EACH | 102.00  | 44.00                  |                        | 58.00                  |
| 0710           | 90329 | GRADING, SHAPING AND FINISHING FOR BEAM<br>GUARD TERMINALS AND ANCHORAGES | EACH | 27.00   | 12.00                  |                        | 15.00                  |
| 0720           | 90338 | GRADING, SHAPING & FINISHING<br>INTERSECTION, STA. 10+791                 | LS   | 1.00    | 1.00                   |                        |                        |
| 0730           | 90339 | GRADING, SHAPING & FINISHING<br>INTERSECTION, STA. 11+571                 | LS   | 1.00    | 1.00                   |                        |                        |
| 0740           | 90340 | GRADING, SHAPING & FINISHING<br>INTERSECTION, STA. 11+592                 | LS   | 1.00    | 1.00                   |                        |                        |
| 0750           | 90341 | GRADING, SHAPING & FINISHING<br>INTERSECTION, STA. 12+826                 | LS   | 1.00    | 1.00                   |                        |                        |
| 0760           | 90342 | GRADING, SHAPING & FINISHING<br>INTERSECTION, STA. 14+178                 | LS   | 1.00    | 1.00                   |                        |                        |
| 0770           | 90343 | GRADING, SHAPING & FINISHING<br>INTERSECTION, STA. 15+208 LT.             | LS   | 1.00    | 1.00                   |                        |                        |
| 0780           | 90394 | PROFILOGRAPH                                                              | LS   | 1.00    | 0.50                   |                        | 0.50                   |
| 0790           | 90616 | MARKER POSTS, FLEXIBLE, FOR CULVERT END                                   | EACH | 14.00   |                        |                        | 14.00                  |
| 62203          |       | ASPHALTIC FLUMES                                                          | M2   | 50.17   | 22.81                  |                        | 27.30                  |
| 62815          |       | SILT FENCE, DELIVERED                                                     | M    | 150.0   | 75.00                  |                        | 75.00                  |
| 62816          |       | SILT FENCE, INSTALLED                                                     | M    | 150.0   | 75.00                  |                        | 75.00                  |
| 62817          |       | SILT FENCE, MAINTENANCE                                                   | M    | 300.0   | 150.00                 |                        | 150.00                 |
| 64313          |       | TRAFFIC CONTROL, DRUMS                                                    | DAYS | 2,800.0 | 1,008.00               |                        | 1,792.00               |
| 64710          |       | PVMT MARKING, STOP LINE, 450mm, EPOXY                                     | M    | 28.10   |                        |                        | 28.10                  |
| 90004          |       | MISC, 90004 G GRADING, SHAPING &<br>FINISHING INTERSECTION, STA 10+292 LT | LS   | 1.00    | 1.00                   |                        |                        |
| 90004          |       | MISC, 90004 H GRADING, SHAPING &<br>FINISHING INTERSECTION, STA 15+750 LT | LS   | 1.00    | 1.00                   |                        |                        |
| 90004          |       | MISC, 90004 J GRADING, SHAPING &<br>FINISHING INTERSECTION, STA 22+100 LT | LS   | 1.00    |                        |                        | 1.00                   |
| 90004          |       | MISC, 90004 K GRADING, SHAPING &<br>FINISHING INTERSECTION, STA 16+060 LT | LS   | 1.00    |                        |                        | 1.00                   |
| 90004          |       | MISC, 90004 M EXTRA WORK B-61-48                                          | LS   | 1.00    | 1.00                   |                        |                        |
| 90004          |       | MISC 90004 N TRAFFIC CONTROL, BARRICADES                                  | LS   | 1.00    | 1.00                   |                        |                        |

## REMOVING OLD CULVERTS

## OBLITERATING OLD ROAD

## PULVERIZE &amp; RELAY EXISTING BASE &amp; SURFACE, SPECIAL

| 20330   |                        |      |             |
|---------|------------------------|------|-------------|
| STATION | LOCATION               | EACH | REMARKS     |
| 10+770  | PE RIGHT               | 1    | 450 mm CMCP |
| 10+790  | PRAIRE RD. RIGHT       | 1    | 450 mm CMCP |
| 10+798  | WAYSIDE ENTRANCE RIGHT | 1    | 375 mm CMCP |
| 10+828  | WAYSIDE ENTRANCE RIGHT | 1    | 450 mm CMCP |
| 12+826  | SCHAFFNER RD. RIGHT    | 1    | 450 mm CMCP |

TOTAL 5

## REMOVING ASPHALTIC SURFACE

| 20402       |    |             |               |
|-------------|----|-------------|---------------|
| STATION     | TO | STATION     | LOCATION      |
| 9'A'+630    | -  | 9'A'+653.4  | KLEIN RD.     |
| 10'G'+213.5 | -  | 10'G'+230   | CTH 'G'       |
| 10'B'+804.5 | -  | 10'B'+834   | PRAIRIE RD.   |
| 11'C'+529   | -  | 11'C'+552.5 | KRIESEL RD.   |
| 11'E'+609   | -  | 11'E'+639   | DELANEY RD.   |
| 12'H'+876   | -  | 12'H'+876   | SCHAFFNER RD. |
| 14'I'+194.5 | -  | 14'I'+221.5 | SONSOLLA RD.  |
| 15'F'+166   | -  | 15'F'+188   | CTH 'F'       |
| 15'J'+225   | -  | 15'J'+245   | HARRIS RD.    |
| 11+238      | -  |             | PE LT.        |
| 13+611      | -  |             | PE LT.        |
| 14+693.2    | -  |             | PE LT.        |
| 14+845.7    | -  |             | PE LT.        |
| 14+846.3    | -  |             | PE LT.        |
| 14+925.6    | -  |             | PE LT.        |
| 15+013.3    | -  |             | COMM LT.      |
| 15+127.3    | -  |             | PE RT.        |
| 15+601.5    | -  |             | PE RT.        |
| 15+645.3    | -  |             | PE RT.        |
| 15+748.7    | -  |             | COMM LT.      |
| 15+780      | -  |             | PE RT.        |
| 15+834      | -  |             | COMM LT.      |

TOTAL 2,223.7

## REMOVING CURB AND GUTTER

| 20405    |    |          |              |
|----------|----|----------|--------------|
| STATION  | TO | STATION  | LOCATION     |
| 15+193   | -  | 15+205.1 | CTH 'F' LEFT |
| 15+210.9 | -  | 15+229   | CTH 'F' LEFT |
| TOTAL    |    |          | 42.0         |

## REMOVING MASONRY

| 20408   |          |      |          |
|---------|----------|------|----------|
| STATION | LOCATION | m3   | REMARKS  |
| 9+115   | PE RT.   | 0.25 | HEADWALL |
| 9+138   | PE LT.   | 0.25 | HEADWALL |

TOTAL 0.50

| 21401    |    |         |               |
|----------|----|---------|---------------|
| STATION  | TO | STATION | LOCATION      |
| 10+794.0 | -  | 10+830  | WAYSIDE RIGHT |
| TOTAL    |    |         | 54.0          |

## REMOVING GUARDRAIL

| 20411    |    |          |          |
|----------|----|----------|----------|
| STATION  | TO | STATION  | LOCATION |
| 11+990   | -  | 12+104   | LEFT     |
| 12+023   | -  | 12+104   | RIGHT    |
| 14+743.5 | -  | 14+814.8 | LEFT     |
| 14+743.5 | -  | 14+81.8  | RIGHT    |
| TOTAL    |    |          | 338      |

## REMOVING MARKER POST

| 90310   |    |         |          |
|---------|----|---------|----------|
| STATION | TO | STATION | LOCATION |
| 19+445  | -  | 19+685  | LEFT     |
| 19+445  | -  | 19+685  | RIGHT    |
| 20+020  | -  | 20+140  | RIGHT    |
| 20+265  | -  | 20+773  | RIGHT    |
| TOTAL   |    |         | 44       |

## CRUSHED AGGREGATE BASE COURSE

| 30404            |    |         |                   |
|------------------|----|---------|-------------------|
| STATION          | TO | STATION | LOCATION          |
| 8+172            | -  | 8+720   | LT.&RT. SHOULDERS |
| 8+846            | -  | 10+023  | LT.&RT. SHOULDERS |
| 10+023           | -  | 10+843  | LT.&RT. SHOULDERS |
| 10+843           | -  | 11+999  | LT.&RT. SHOULDERS |
| 11+999           | -  | 13+512  | LT.&RT. SHOULDERS |
| 13+512           | -  | 14+771  | LT.&RT. SHOULDERS |
| 14+771           | -  | 15+904  | LT.&RT. SHOULDERS |
| 9+608            | -  |         | KLIEN RD. RT.     |
| 10+252           | -  |         | CTH 'G' LT.       |
| 10+791           | -  |         | PRAIRIE RD. RT.   |
| 10+571           | -  |         | KRIESEL RD. RT.   |
| 11+593           | -  |         | DELANEY RD. RT.   |
| 12+826           | -  |         | SCHAFFNER RD. RT. |
| 14+178           | -  |         | SONSOLLA RD. RT.  |
| 15+208           | -  |         | CTH 'F' LT.       |
| 15+208           | -  |         | HARRIS RD. RT.    |
| MINOR SIDE ROADS |    |         | 51.0              |

TOTAL 5,800.0

| 90002A       |    |              |               |
|--------------|----|--------------|---------------|
| STATION      | TO | STATION      | LOCATION      |
| 8+172        | -  | 8+720.428    | M/L           |
| 8+846.189    | -  | 10+000       | M/L           |
| 10+000       | -  | 12+000       | M/L           |
| 12+000       | -  | 14+771.4     | M/L           |
| 14+784.506   | -  | 15+903.639   | M/L           |
| 9'A'+612.5   | -  | 9'A'+630     | KLEIN ROAD    |
| 10'G'+230    | -  | 10'G'+247.44 | CTH 'G'       |
| 10'B'+795.96 | -  | 10'B'+804.5  | PRAIRIE RD.   |
| 11'C'+552.5  | -  | 11'C'+566.44 | KRIESEL RD.   |
| 11'E'+597.36 | -  | 11'E'+609    | DELANEY RD.   |
| 12'H'+830.56 | -  | 12'H'+841    | SCHAFFNER RD. |
| 14'I'+182.56 | -  | 14'I'+194.5  | SONSOLLA RD.  |
| 15'F'+188.0  | -  | 15'F'+201.9  | CTH 'F'       |
| 15'J'+214    | -  | 15'J'+225    | HARRIS RD.    |
| TOTAL        |    |              | 74,815.4      |

## ASPHALTIC MATERIAL FOR TACK COAT

| 40204     |    |            |                      |
|-----------|----|------------|----------------------|
| STATION   | TO | STATION    | LOCATION             |
| 8+172     | -  | 8+720.428  | ML                   |
| 8+846.189 | -  | 10+000     | ML                   |
| 10+000    | -  | 12+000     | ML                   |
| 12+000    | -  | 14+000     | ML                   |
| 14+000    | -  | 15+903.639 | ML                   |
| 8+172     | -  | 8+720.428  | SHLDR. LT. & RT.     |
| 8+846.189 | -  | 8+886      | SHLDR. RT.           |
| 8+846.189 | -  | 8+886      | SHLDR. LT.           |
| 8+886     | -  | 9+189.43   | SHLDR. RT.           |
| 9+189.43  | -  | 10+133.87  | SHLDR. LT. & RT.     |
| 10+133.87 | -  | 10+533.92  | SHLDR. RT.           |
| 10+133.87 | -  | 10+533.92  | SHLDR. LT.           |
| 10+533.92 | -  | 11+985     | SHLDR. LT. & RT.     |
| 11+985    | -  | 12+095.49  | SHLDR. LT.           |
| 11+985    | -  | 12+094.82  | SHLDR. RT.           |
| 12+094.82 | -  | 14+725.3   | SHLDR. LT. & RT.     |
| 14+725.3  | -  | 14+831.98  | SHLDR. LT. & RT.     |
| 14+831.98 | -  | 15+903.639 | SHLDR. LT. & RT.     |
| 9+521.25  | -  | 9+691.24   | BYPASS LANE          |
| 9+533.7   | -  | 9+585.2    | KLEIN RD. & TAPERS   |
| 10+182.84 | -  | 10+317.65  | BYPASS LANE          |
| 10+215.27 | -  | 10+244.8   | CTH 'G' & TAPERS     |
| 10+704.65 | -  | 10+874.64  | BYPASS LANE          |
| 10+707.63 | -  | 10+828.43  | PRAIRIE RD. & TAPERS |
| 15+177    | -  | 15+276.53  | CTH 'F' & TAPERS     |
| TOTAL     |    |            | 8,499.8              |

ASPHALTIC CONCRETE PAVEMENT SUMMARY

| STATION     | TO | STATION     | LOCATION           | 40713                              | 40501                              | REMARKS        |
|-------------|----|-------------|--------------------|------------------------------------|------------------------------------|----------------|
|             |    |             |                    | ASPH. CONC.<br>PAV., TYPE MV<br>Mg | ASPH. MAT'L<br>FOR PLANT MIX<br>Mg |                |
| 8+172       | -  | 8+720.428   | ML                 | 955.6                              | 57.3                               | -              |
| 8+844.189   | -  | 10+000      | ML                 | 2010.4                             | 120.6                              | -              |
| 10+000      | -  | 12+000      | ML                 | 3484.3                             | 209.1                              | -              |
| 12+000      | -  | 14+000      | ML                 | 3484.3                             | 209.1                              | -              |
| 14+000      | -  | 15+903.639  | ML                 | 3316.9                             | 199                                | -              |
| 8+172       | -  | 8+720.428   | SHLD LT. & RT.     | 431.7                              | 25.9                               | -              |
| 8+846.189   | -  | 8+886       | SHLD LT. & RT.     | 45.4                               | 2.8                                | BEAMGUARD AREA |
| 8+886       | -  | 9+189.43    | SHLD LT. & RT.     | 220.2                              | 13.2                               | WIDTH - 1.5 m  |
| 9+189.43    | -  | 10+424      | SHLD LT. & RT.     | 896.3                              | 53.8                               | WIDTH - 1.5 m  |
| 10+424      | -  | 10+545.92   | SHLD LT. & RT.     | 148.3                              | 8.9                                | BEAMGUARD AREA |
| 10+545.92   | -  | 11+990      | SHLD LT. & RT.     | 1048.4                             | 62.9                               | WIDTH - 1.5 m  |
| 11+990      | -  | 12+104.30   | SHLD LT. & RT.     | 131.9                              | 7.9                                | BEAMGUARD AREA |
| 12+104.3    | -  | 14+743.66   | SHLD LT. & RT.     | 1916.2                             | 115.0                              | WIDTH - 1.5 m  |
| 14+743.66   | -  | 14+812.24   | SHLD LT. & RT.     | 86.3                               | 5.2                                | BEAMGUARD AREA |
| 14+812.24   | -  | 15+903.639  | SHLD LT. & RT.     | 1267.8                             | 76.1                               | WIDTH - 1.5 m  |
| 9+516.577   | -  | 9+577.9     | BYPASS LANE LT     | 73.8                               | 4.5                                | OUTSIDE SHLD.  |
| 9+479.4     | -  | 9+653       | KLIEN RD. TAPERS   | 89.7                               | 5.4                                | OUTSIDE SHLD.  |
| 10+165.68   | -  | 10+343.42   | BYPASS LANE RT.    | 73.8                               | 4.5                                | OUTSIDE SHLD.  |
| 10+215.27   | -  | 10+331.96   | CTH 'G' TAPERS     | 49.7                               | 2.9                                | OUTSIDE SHLD.  |
| 10+711.44   | -  | 10+828.47   | PRAIRIE RD. TAPERS | 49.7                               | 2.9                                | OUTSIDE SHLD.  |
| 15+170.93   | -  | 15+287.96   | CTH 'F' TAPERS     | 49.7                               | 2.9                                | OUTSIDE SHLD.  |
| 9'A'+615.2  | -  | 9'A'+653.4  | KLEIN RD.          | 97.1                               | 5.8                                | 75mm DEPTH     |
| 10'G'+213.5 | -  | 10'G'+244.8 | CTH 'G'            | 44.4                               | 2.7                                | 75mm DEPTH     |
| 10'B'+798.6 | -  | 10'B'+834   | PRAIRIE RD.        | 69.4                               | 4.2                                | 75mm DEPTH     |
| 11'C'+529   | -  | 11'C'+569.5 | KRIESEL RD.        | 77.0                               | 4.4                                | 75mm DEPTH     |
| 11'E'+594.3 | -  | 11'E'+635   | DELANEY RD.        | 80.8                               | 4.8                                | 75mm DEPTH     |
| 12'H'+727.5 | -  | 12'H'+876   | SCHAFFNER RD.      | 93.0                               | 5.6                                | 75mm DEPTH     |
| 14'I'+183.1 | -  | 14'I'+221.5 | SONSOLLO RD.       | 65.7                               | 3.9                                | 75mm DEPTH     |
| 15'F'+166   | -  | 15'F'+202   | CTH 'F'            | 68.5                               | 4.1                                | 75mm DEPTH     |
| 15'J'+214   | -  | 15'J'+247.5 | HARRIS RD.         | 63.5                               | 3.8                                | 75mm DEPTH     |
| 11+238      | -  |             | PE. LT.            | 8.0                                | 0.5                                | -              |
| 13+610      | -  |             | PE. RT.            | 8.0                                | 0.5                                | -              |
| 14+692      | -  |             | PE. LT.            | 8.0                                | 0.5                                | -              |
| 14+845      | -  |             | COMM. RT.          | 12.0                               | 0.7                                | -              |
| 14+877      | -  |             | COMM. LT.          | 12.0                               | 0.7                                | -              |
| 14+927      | -  |             | COMM. RT.          | 12.0                               | 0.7                                | -              |
| 15+012      | -  |             | PE. LT.            | 8.0                                | 0.5                                | -              |
| 15+127      | -  |             | PE. RT.            | 8.0                                | 0.5                                | -              |
| 15+602      | -  |             | PE. RT.            | 8.0                                | 0.5                                | -              |
| 15+645      | -  |             | PE. RT.            | 8.0                                | 0.5                                | -              |
| 15+750      | -  |             | COMM. LT.          | 12.0                               | 0.7                                | -              |
| 15+780      | -  |             | PE. RT.            | 8.0                                | 0.5                                | -              |
| 15+834      | -  |             | COMM. LT.          | 12.0                               | 0.7                                | -              |
| 15+903      | -  |             | PE. LT.            | 8.0                                | 0.5                                | -              |
| TOTALS      |    |             |                    | 20621.8                            | 1237.3                             |                |

STEEL PLATE BEAM GUARD

| STATION   | TO | STATION   | LOCATION     | 61408                                                    | 61435                                | 90001A                              |
|-----------|----|-----------|--------------|----------------------------------------------------------|--------------------------------------|-------------------------------------|
|           |    |           |              | STEEL PLATE<br>BEAM GUARD,<br>CLASS 'A' STEEL PLATE<br>m | ENERGY ABSORBING<br>TERMINAL<br>EACH | STEEL THRIE BEAM<br>GUARD RAIL<br>m |
| 11+990    | -  | 12+005.24 | LEFT         | -                                                        | 1                                    | -                                   |
| 12+005.24 | -  | 12+089.06 | LEFT         | 83.82                                                    | -                                    | -                                   |
| 12+089.06 | -  | 12+104.30 | LEFT         | -                                                        | 1                                    | -                                   |
| 10+424    | -  | 10+439.24 | RIGHT        | -                                                        | 1                                    | -                                   |
| 10+439.24 | -  | 10+530.68 | RIGHT        | 91.44                                                    | -                                    | -                                   |
| 10+530.68 | -  | 10+545.92 | RIGHT        | -                                                        | 1                                    | -                                   |
| 10+424    | -  | 10+439.24 | LEFT         | -                                                        | 1                                    | -                                   |
| 10+439.24 | -  | 10+530.68 | LEFT         | 91.44                                                    | -                                    | -                                   |
| 10+530.68 | -  | 10+545.92 | LEFT         | -                                                        | 1                                    | -                                   |
| 12+024.29 | -  | 12+039.53 | RIGHT        | -                                                        | 1                                    | -                                   |
| 12+039.53 | -  | 12+089.06 | RIGHT        | 49.53                                                    | -                                    | -                                   |
| 12+089.06 | -  | 12+104.30 | RIGHT        | -                                                        | 1                                    | -                                   |
| 14+743.66 | -  | 14+758.9  | LEFT & RIGHT | -                                                        | 2                                    | -                                   |
| 14+758.9  | -  | 14+762.71 | LEFT & RIGHT | 7.62                                                     | -                                    | -                                   |
| 14+762.71 | -  | 14+793.19 | LEFT & RIGHT | -                                                        | -                                    | 60.96                               |
| 14+793.19 | -  | 14+797.0  | LEFT & RIGHT | 7.62                                                     | -                                    | -                                   |
| 14+797.0  | -  | 14+812.24 | LEFT & RIGHT | -                                                        | 2                                    | -                                   |
| TOTALS    |    |           |              | 331.47                                                   | 12                                   | 60.96                               |

CULVERT PIPE SUMMARY

| STATION | LOCATION          | THICKNESS<br>STEEL | THICKNESS<br>ALUMINUM | 52103                       | 52147                                   | 52003                   | 52061                                   |
|---------|-------------------|--------------------|-----------------------|-----------------------------|-----------------------------------------|-------------------------|-----------------------------------------|
|         |                   |                    |                       | C.S.C.P.<br>-<br>300mm<br>m | A.E.W.<br>CULVERT PIPE<br>300mm<br>EACH | C.P.<br>-<br>450mm<br>m | A.E.W.<br>CULVERT PIPE<br>450mm<br>EACH |
| 9+115   | PE. RT.           | 1.63               | -                     | 1.22                        | 1                                       | -                       | -                                       |
| 9+138   | PE. LT.           | 1.63               | -                     | 1.22                        | 1                                       | -                       | -                                       |
| 10+770  | PE. RT.           | 1.63               | 1.52                  | -                           | -                                       | 7.92                    | 2                                       |
| 10+791  | PRAIRIE RD. RT.   | 1.63               | 1.52                  | -                           | -                                       | 24.99                   | 2                                       |
| 12+826  | SCHAFFNER RD. LT. | 1.63               | 1.52                  | -                           | -                                       | 31.7                    | 2                                       |
| TOTALS  |                   | TOTALS             |                       | 2.44                        | 2                                       | 64.61                   | 6                                       |

TOPSOIL, MULCH, FERTILIZER, TYPE B & SEED MIXTURE NO. 20

| STATION | LOCATION                    | 62501         | 62702          | 62905                      | 63009                            |
|---------|-----------------------------|---------------|----------------|----------------------------|----------------------------------|
|         |                             | TOPSOIL<br>m2 | MULCHING<br>m2 | FERTILIZER<br>TYPE B<br>kg | SEEDING, MIXTURE<br>NO. 20<br>kg |
| 10+820  | OBLITERATED<br>WAYSIDE ROAD | 540           | 540            | 18.9                       | 8.1                              |
| TOTAL   |                             | 540           | 540            | 18.9                       | 8.1                              |

TRAFFIC CONTROL, SIGNS

| LOCATION/OPERATION    | 64326<br>DAYS |
|-----------------------|---------------|
| WEST PROJECT TERMINAL | 210           |
| SIDE ROAD SIGNING     | 630           |
| PULVERIZING OPERATION | 308           |
| PAVING OPERATION      | 78            |
| TOTAL                 | 1,226         |

CONCRETE CURB AND GUTTER, 900 mm, TYPE D

| STATION | LOCATION        | 60170<br>m |
|---------|-----------------|------------|
| 10+780  | PRAIRIE RD. RT. | 24.0       |
| 10+800  | PRAIRIE RD. RT. | 17.5       |
| 15+200  | CTH 'G' LT.     | 17.5       |
| 15+220  | CTH 'G' LT.     | 28.0       |
| TOTAL   |                 | 87.0       |

MISCELLANEOUS QUANTITIES

HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 3B

M

FILE NAME: W:\DESIGN\QUANTITY\RILEY\MSHEET1B.PPT

ORIGINATOR: JOSHUA BLUM

ORIG. DATE: 6-16-98

REV. DATE:

20-25-99

## PAVEMENT MARKING, CHANNELIZING, 200 mm, EPOXY

| STATION  | TO | STATION  | LOCATION          | 64618<br>WHITE<br>m |
|----------|----|----------|-------------------|---------------------|
| 10+274.8 | -  | 10+305.3 | RT. TURN LANE LT. | 30.5                |
| 10+739.7 | -  | 10+770.2 | RT. TURN LANE RT. | 30.5                |
| 15+230.8 | -  | 15+261.3 | RT. TURN LANE LT. | 30.9                |
| TOTAL    |    |          |                   | 91.9                |

## PAVEMENT MARKING, SAME DAY, 100 mm, EPOXY

| STATION   | TO | STATION | 64626<br>YELLOW<br>CENTERLINE<br>m | 64626<br>YELLOW<br>NO PASSING<br>m | REMARKS               |
|-----------|----|---------|------------------------------------|------------------------------------|-----------------------|
| 8+172     | -  | 9+138   | 241.50                             | -                                  |                       |
| 9+138     | -  | 9+347   | 52.25                              | 209                                | NO PASSING EAST BOUND |
| 9+374     | -  | 9+460   | 28.25                              | -                                  |                       |
| 9+460     | -  | 9+717   | 64.25                              | 257                                | NO PASSING WEST BOUND |
| 9+717     | -  | 10+493  | 194.00                             | -                                  |                       |
| 10+493    | -  | 10+831  | 84.50                              | 338                                | NO PASSING EAST BOUND |
| 10+831    | -  | 10+863  | 8.00                               | -                                  |                       |
| 10+863    | -  | 11+201  | 84.50                              | 338                                | NO PASSING WEST BOUND |
| 11+201    | -  | 15+852  | 1,162.75                           | -                                  |                       |
| 15+852    | -  | 15+903  | 12.75                              | 51                                 | NO PASSING EAST BOUND |
| SUB TOTAL |    |         | 1,932.75                           | 1,193                              |                       |
|           |    |         | TOTAL = 3125.75                    |                                    |                       |

## BRIDGE DRAIN FRAMES

| STATION   | LOCATION      | 90005A<br>EACH |
|-----------|---------------|----------------|
| 14+774.40 | B-61-12 LT&RT | 2              |
| 14+777.95 | B-61-12 LT&RT | 2              |
| 14+781.50 | B-61-12 LT&RT | 2              |
| TOTAL     |               | 6              |

## TEMPORARY PAVEMENT MARKING, 100 mm

| STATION | TO | STATION | LOCATION | 64901<br>m | REMARKS                |
|---------|----|---------|----------|------------|------------------------|
| 8+172   | -  | 8+720   | ML       | 43.87      | BINDER COURSE (YELLOW) |
| 8+720   | -  | 15+903  | ML       | 575.02     | BINDER COURSE (YELLOW) |
| TOTAL   |    |         |          | 618.89     |                        |

## GRADING, SHAPING, AND FINISHING FOR BEAM GUARD ANCHORAGES

| STATION   | LOCATION     | 90329<br>EACH |
|-----------|--------------|---------------|
| 1+0+424   | RIGHT        | 1             |
| 10+545.92 | RIGHT        | 1             |
| 1+0+424   | LEFT         | 1             |
| 10+545.92 | LEFT         | 1             |
| 1+1+990   | LEFT         | 1             |
| 12+024.29 | RIGHT        | 1             |
| 12+104.3  | LEFT         | 1             |
| 12+104.3  | RIGHT        | 1             |
| 14+743.66 | LEFT & RIGHT | 2             |
| 14+812.24 | LEFT & RIGHT | 2             |
| TOTAL     |              | 12            |

## SAWING EXISTING PAVEMENT

| STATION     | LOCATION      | 66501<br>m |
|-------------|---------------|------------|
| 9'A'+653.4  | KLEIN RD.     | 7.55       |
| 10'G'+213.5 | CTH 'G'       | 6.60       |
| 10'B'+834   | PRAIRIE RD.   | 6.10       |
| 11+238      | PE. RT.       | 3.35       |
| 11'C'+529   | KRIESEL RD.   | 5.40       |
| 11'E'+639   | DELANEY RD.   | 4.60       |
| 12'H'+876   | SCHAFFNER RD. | 4.30       |
| 13+611      | PE. RT.       | 3.10       |
| 14'I'+221.5 | SONSOLLA RD.  | 5.20       |
| 14+693.2    | PE. LT.       | 4.50       |
| 14+845.7    | COMM. RT.     | 5.60       |
| 14+876      | COMM. LT.     | 5.65       |
| 14+965.5    | PE. RT.       | 3.60       |
| 15+013.3    | COMM. LT.     | 40.00      |
| 15+127.3    | PE. RT.       | 4.20       |
| 15+601.5    | PE. RT.       | 4.30       |
| 15+645.3    | PE. RT.       | 3.20       |
| 15+748.7    | COMM. LT.     | 10.00      |
| 15+780      | PE. RT.       | 3.30       |
| 15+834      | COMM. LT.     | 10.00      |
| TOTAL       |               | 140.55     |

## PAVEMENT MARKING, 100 mm, EPOXY

| STATION  | TO | STATION   | LOCATION  | 64602<br>WHITE, EDGELINE<br>m | REMARKS     |
|----------|----|-----------|-----------|-------------------------------|-------------|
| 8+172    | -  | 9+585     | LT. & RT. | 2,826.00                      | -           |
| 9+585    | -  | 9+625     | LT.       | 40.00                         | -           |
| 9+577.5  | -  | 9+653.7   | LT.       | 19.05                         | BYPASS LANE |
| 9+625    | -  | 10+235    | LT. & RT. | 1,220.00                      | -           |
| 10+235   | -  | 10+275    | RT.       | 40.00                         | -           |
| 10+206.3 | -  | 10+282.5  | RT.       | 19.05                         | BYPASS LANE |
| 10+275   | -  | 10+770    | LT. & RT. | 990.00                        | -           |
| 10+770   | -  | 10+808.1  | LT.       | 38.10                         | -           |
| 10+760.9 | -  | 10+837.1  | LT.       | 19.05                         | BYPASS LANE |
| 10+808.1 | -  | 11+554.3  | LT. & RT. | 1,492.40                      | -           |
| 11+554.3 | -  | 11+570    | RT.       | 15.70                         | -           |
| 11+593.8 | -  | 11+609.5  | LT.       | 15.70                         | -           |
| 11+609.5 | -  | 12+803.2  | LT. & RT. | 2,387.40                      | -           |
| 12+842.7 | -  | 14+155.2  | LT. & RT. | 2,625.00                      | -           |
| 14+194.7 | -  | 15+185.2  | LT. & RT. | 1,981.00                      | -           |
| 15+185.2 | -  | 15+191.3  | LT.       | 6.10                          | -           |
| 15+224.7 | -  | 15+230.8  | RT.       | 6.10                          | -           |
| 15+230.8 | -  | 15+903.64 | LT. & RT. | 1,345.68                      | -           |
| TOTAL    |    |           |           | 15,086.33                     |             |

GRADING, SHAPING, AND FINISHING FOR BEAM GUARD ANCHORAGES  
FOR INFORMATION ONLY

| STATION       | BORROW<br>m3 | TOPSOIL<br>m2 | MULCH<br>m2 | SEEDING NO. 20<br>kg | FERTILIZER, TYPE B<br>kg |
|---------------|--------------|---------------|-------------|----------------------|--------------------------|
| 10+424 RT.    | 0            | 0             | 0           | 0                    | 0                        |
| 10+424 LT.    | 2            | 19.5          | 19.5        | 0.3                  | 0.69                     |
| 10+545.92 LT. | 3            | 14            | 14          | 0.2                  | 0.48                     |
| 10+544.28 RT. | 0.5          | 23            | 23          | 0.34                 | 0.8                      |
| 11+990 LT.    | 6            | 20            | 20          | 0.3                  | 0.69                     |
| 12+024.29 RT. | 3            | 21            | 21          | 0.32                 | 0.74                     |
| 12+104.3 RT.  | 4            | 18            | 18          | 0.27                 | 0.63                     |
| 12+104.3 LT.  | 4            | 15            | 15          | 0.23                 | 0.53                     |
| 14+743.66 LT. | 3            | 17            | 17          | 0.25                 | 0.58                     |
| 14+743.66 RT. | 2            | 12            | 12          | 0.18                 | 0.42                     |
| 14+812.24 LT. | 6            | 20            | 20          | 0.3                  | 0.69                     |
| 14+812.24 RT. | 6            | 17            | 17          | 0.25                 | 0.58                     |
| TOTALS        | 39.5         | 196.5         | 196.5       | 2.94                 | 6.83                     |

## REMOVING ASPHALTIC SURFACE

## REMOVING MARKER POST

## PULVERIZE &amp; RELAY EXISTING BASE &amp; SURFACE, SPECIAL

| STATION      | TO | STATION   | LOCATION           | 20402<br>m2 |
|--------------|----|-----------|--------------------|-------------|
| 17'M'+638    | -  | 17'M'+659 | SCHUBERT RD.       | 137         |
| 17'Q'+985    | -  | 18'Q'+007 | ITTLE TAMARACK RD. | 121         |
| 18'P'+599    | -  | 18'P'+599 | ITTLE TAMARACK RD. | 150         |
| 19'N'+231    | -  | 19'N'+253 | WRIGHT RD.         | 154         |
| 22'S'+326.68 | -  | 22'S'+360 | BROWN RD.          | 200         |
| 16+000       | -  | 16+110    | ML                 | 1,584       |
| 16+053.601   |    |           | STH 35 RT.         | 230         |
| 16+053.601   |    |           | STH 93 LT.         | 280         |
| 15+908       |    |           | COMM. LT           | 31          |
| 15+979       |    |           | P.E. RT.           | 25          |
| 16+003       |    |           | COMM. LT           | 43          |
| 16+010       |    |           | COMM. RT           | 108         |
| 16+107       |    |           | COMM. RT           | 48          |
| 16+138       |    |           | P.E. RT.           | 43          |
| 16+176       |    |           | COMM. RT.          | 61          |
| 16+180       |    |           | P.E. LT.           | 16          |
| 16+223       |    |           | P.E. RT.           | 37          |
| 16+286       |    |           | P.E. RT.           | 32          |
| 16+299       |    |           | COMM. LT.          | 45          |
| 16+304       |    |           | P.E. RT.           | 23          |
| 16+823       |    |           | P.E. RT.           | 17          |
| 17+588       |    |           | P.E. LT.           | 36          |
| 20+908       |    |           | COMM. RT.          | 39          |
| 20+944       |    |           | COMM. RT.          | 39          |
| 21+628       |    |           | P.E. LT.           | 66          |
| 21+840       |    |           | COMM. LT.          | 133         |
| 22+096       |    |           | DALE VALLEY LT.    | 124         |
| 22+156       |    |           | COMM. LT.          | 79          |
| 22+216       |    |           | COMM. LT.          | 58          |
| TOTAL        |    |           |                    | 3,959       |

| STATION | TO | STATION | LOCATION  | 90310<br>EACH |
|---------|----|---------|-----------|---------------|
| 16+614  | -  |         | RT.       | 1             |
| 16+732  | -  |         | LT. & RT. | 2             |
| 17+245  | -  |         | LT. & RT. | 2             |
| 17+977  | -  |         | LT. & RT. | 2             |
| 18+734  | -  |         | LT.       | 1             |
| 18+994  | -  |         | RT.       | 1             |
| 19+445  | -  | 19+685  | RT.       | 18            |
| 19+885  | -  |         | LT. & RT. | 2             |
| 20+020  | -  | 20+140  | RT.       | 5             |
| 20+265  | -  | 20+860  | RT.       | 21            |
| 20+465  | -  |         | LT.       | 1             |
| 20+745  | -  |         | LT.       | 1             |
| 21+143  | -  |         | LT.       | 1             |
| TOTAL   |    |         |           | 58            |

| STATION     | TO | STATION     | LOCATION            | 90002A<br>m2 |
|-------------|----|-------------|---------------------|--------------|
| 15+903.639  | -  | 16+000      | ML                  | 1,174.8      |
| 16+110      | -  | 16+490      | ML                  | 4,633.0      |
| 16+490      | -  | 18+367      | ML                  | 17,163.3     |
| 18+367      | -  | 18+381      | ML                  | 149.4        |
| 18+381      | -  | 18+448      | ML                  | 816.9        |
| 18+448      | -  | 20+000      | ML                  | 14,191.5     |
| 20+000      | -  | 21+445      | ML                  | 13,213.1     |
| 21+445      | -  | 21+492      | ML                  | 573.0        |
| 21+492      | -  | 21+820      | ML                  | 3,499.1      |
| 21+820      | -  | 22+419.608  | ML                  | 7,310.4      |
| 17'M'+626.5 | -  | 17'M'+638   | SCHUBERT RD.        | 168.0        |
| 18'Q'+007   | -  | 18'Q'+017.5 | LITTLE TAMARACK RD. | 173.0        |
| 18'P'+621   | -  | 18'P'+631.5 | LITTLE TAMARACK RD. | 175.0        |
| 19'N'+220.5 | -  | 19'N'+231   | WRIGHT RD.          | 138.0        |
| 20'R'+831   | -  | 20'R'+849   | ENGEN RD.           | 83.0         |
| 22'S'+360   | -  | 22'S'+364   | BROWN RD.           | 33.0         |
| TOTAL       |    |             |                     | 63,494.5     |

## TRAFFIC CONTROL, SIGNS

| LOCATION/OPERATION    | 64326<br>DAYS |
|-----------------------|---------------|
| EAST TERMINAL         | 210           |
| SIDE ROAD SIGNING     | 700           |
| PULVERIZING OPERATION | 308           |
| PAVING OPERATION      | 78            |

## CRUSHED AGGREGATE BASE COURSE

| STATION         | TO | STATION | LOCATION                | 30404<br>Mg |
|-----------------|----|---------|-------------------------|-------------|
| 15+904          | -  | 17+577  | LT. & RT. SHLDRS        | 993         |
| 17+577          | -  | 18+404  | LT. & RT. SHLDRS        | 680         |
| 18+404          | -  | 19+670  | LT. & RT. SHLDRS        | 1,154       |
| 19+670          | -  | 21+125  | LT. & RT. SHLDRS        | 1,877       |
| 21+125          | -  | 22+420  | LT. & RT. SHLDRS        | 1,359       |
| 17+622          |    |         | SCHUBERT RD. RT.        | 5           |
| 18+022          |    |         | LITTLE TAMARACK RD. LT. | 15          |
| 18+636          |    |         | LITTLE TAMARACK RD. LT. | 15          |
| 19+216          |    |         | WRIGHT RD. RT.          | 15          |
| 20+825          |    |         | ENGEN RD. RT.           | 15          |
| 22+370          |    |         | BROWN'S RD. LT.         | 15          |
| MINOR SIDEROADS |    |         |                         | 57          |
| TOTAL           |    |         |                         | 6,200       |

## REMOVING OLD CULVERTS

| STATION | LOCATION         | 20330<br>EACH |
|---------|------------------|---------------|
| 22+370  | BROWN'S RD. LEFT | 1             |
| 22+365  | COMM. DRIVE LEFT | 1             |
| TOTAL   |                  | 2             |

1,296

## REMOVING GUARDRAIL

| STATION | TO | STATION | LOCATION     | 20411<br>m |
|---------|----|---------|--------------|------------|
| 18+367  | -  | 18+448  | LEFT         | 81         |
| 18+375  | -  | 18+448  | RIGHT        | 73         |
| 21+445  | -  | 21+492  | LEFT & RIGHT | 94         |
| 21+910  | -  | 21+990  | RIGHT        | 80         |
| 21+910  | -  | 22+030  | LEFT         | 120        |
| TOTAL   |    |         |              | 448        |

| STATION     | LOCATION    | THICKNESS<br>STEEL | THICKNESS<br>ALUMINUM | 52205<br>600 mm RCCP | 52003<br>450 mm CP | 52264<br>600 mm RCCP<br>ENDWALLS | 52061<br>450 mm CP<br>ENDWALLS | REMARKS             |
|-------------|-------------|--------------------|-----------------------|----------------------|--------------------|----------------------------------|--------------------------------|---------------------|
|             |             |                    |                       | m                    | m                  | EACH                             | EACH                           |                     |
| 18+627      | LEFT        | -                  | -                     | 2.4                  | -                  | 1                                | -                              | 30 DEG. ELBOW REQ'D |
| 18+644      | LEFT        | -                  | -                     | 2.4                  | -                  | 1                                | -                              | 30 DEG. ELBOW REQ'D |
| 22'S'+360.5 | BROWN'S RD. | 1.63               | 1.52                  | -                    | 20.73              | -                                | 2                              |                     |
| 22'S'+351   | P.E. RT.    | 1.63               | 1.52                  | -                    | 12.19              | -                                | 2                              |                     |
| TOTAL       |             |                    |                       | 4.8                  | 32.92              | 2                                | 4                              |                     |

MISCELLANEOUS QUANTITIES

HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 3D

M

FILE NAME: W:\DESIGN\QUANTITY\RILEY\SHEET2A.PPT

ORIGINATOR: JOSHUA BLUM

ORIG. DATE: 6-16-98

REV. DATE:

R 10-25-99



ASPHALTIC CONCRETE PAVEMENT SUMMARY

| STATION      | TO | STATION     | LOCATION            | 40713                        | 40501                        |
|--------------|----|-------------|---------------------|------------------------------|------------------------------|
|              |    |             |                     | ASPH. CONC.<br>PAV., TYPE MV | ASPH. MAT'L<br>FOR PLANT MIX |
|              |    |             |                     | Mg                           | Mg                           |
| 15+903.639   | -  | 16+000      | ML                  | 193.1                        | 11.6                         |
| 16+000       | -  | 16+110      | ML                  | 287.5                        | 17.2                         |
| 18+000       | -  | 20+000      | ML                  | 4007.5                       | 240.5                        |
| 20+000       | -  | 22+420      | ML                  | 4849.1                       | 290.9                        |
| 15+903.369   | -  | 16+485      | SHLDR. LT. & RT.    | 776.6                        | 46.6                         |
| 16+485       | -  | 18+366      | SHLDR. LT. & RT.    | 942.3                        | 56.5                         |
| 18+366       | -  | 18+446.01   | SHLDR. LT. & RT.    | 102.8                        | 6.3                          |
| 18+446.01    | -  | 20+046      | SHLDR. LT. & RT.    | 801.5                        | 48.1                         |
| 20+046       | -  | 20+133.63   | SHLDR. LT. & RT.    | 84.4                         | 5.1                          |
| 20+133.63    | -  | 20+300      | SHLDR. LT. & RT.    | 83.3                         | 5                            |
| 20+300       | -  | 20+795.3    | SHLDR. LT. & RT.    | 458.9                        | 27.5                         |
| 20+795.3     | -  | 21+446      | SHLDR. LT. & RT.    | 326.0                        | 19.6                         |
| 21+446       | -  | 21+491.72   | SHLDR. LT. & RT.    | 68.9                         | 4.2                          |
| 21+491.72    | -  | 21+864.5    | SHLDR. LT. & RT.    | 186.7                        | 11.2                         |
| 21+864.5     | -  | 22+055      | SHLDR. LT. & RT.    | 262.4                        | 17                           |
| 22+055       | -  | 22+420      | SHLDR. LT. & RT.    | 487.6                        | 29.3                         |
| 15+910.47    | -  | 16+076.97   | RT. TURN LANE RT.   | 67.0                         | 4                            |
| 16+076.97    | -  | 16+194.53   | RT. TURN LANE LT.   | 70.4                         | 4.2                          |
| 17'M'+645    | -  | 17'M'+659   | SCHUBERT RD.        | 91.1                         | 5.5                          |
| 18'Q'+016    | -  | 17'Q'+985   | LITTLE TAMARACK RD. | 76.1                         | 4.5                          |
| 18'P'+599    | -  | 18+'P'633.6 | LITTLE TAMARACK RD. | 59.9                         | 3.6                          |
| 19'N'+222    | -  | 19'N'+253   | WRIGHT RD.          | 86.4                         | 5.2                          |
| 20'R'+831    | -  | 20'R'+850   | ENGEN RD.           | 39.4                         | 2.4                          |
| 22'S'+326.68 | -  | 22'S'+364   | BROWN'S RD.         | 40.3                         | 2.4                          |
| 15+990       |    |             | P.E. RT.            | 8.0                          | 0.5                          |
| 16+002       |    |             | COMM. LT.           | 12.0                         | 0.7                          |
| 16+010       |    |             | COMM. RT.           | 14.0                         | 0.8                          |
| 16+108       |    |             | COMM. LT.           | 12.0                         | 0.7                          |
| 16+140       |    |             | P.E. RT.            | 8.0                          | 0.5                          |
| 16+175       |    |             | COMM. RT.           | 12.0                         | 0.7                          |
| 16+180       |    |             | P.E. LT.            | 8.0                          | 0.5                          |
| 16+223       |    |             | P.E. RT.            | 8.0                          | 0.5                          |
| 16+286       |    |             | P.E. RT.            | 8.0                          | 0.5                          |
| 16+304       |    |             | P.E. RT.            | 8.0                          | 0.5                          |
| 16+823       |    |             | P.E. RT.            | 8.0                          | 0.5                          |
| 17+588       |    |             | P.E. LT.            | 8.0                          | 0.5                          |
| 20+908       |    |             | COMM. RT.           | 12.0                         | 0.7                          |
| 20+945       |    |             | COMM. RT.           | 12.0                         | 0.7                          |
| 21+628       |    |             | P.E. RT.            | 8.0                          | 0.5                          |
| 21+840       |    |             | COMM. LT.           | 12.0                         | 0.7                          |
| 22+096       |    |             | DALE VALLEY RD.     | 23.0                         | 1.4                          |
| 22+156       |    |             | COMM. LT.           | 12.0                         | 0.7                          |
| 22+216       |    |             | COMM. LT.           | 12.0                         | 0.7                          |
| 16+053.601   |    |             | STH 35 RT.          | 64.0                         | 3.8                          |
| 16+053.601   |    |             | STH 93 LT.          | 78.5                         | 4.7                          |
| TOTALS       |    |             |                     | 14796.7                      | 889.2                        |

SAWING CONCRETE PAVEMENT FULL DEPTH

| STATION | LOCATION | 66502<br>m |
|---------|----------|------------|
| 22+420  | ML       | 12         |
| TOTAL   |          | 12         |

ASPHALTIC MATERIAL FOR TACK COAT

| STATION     | TO | STATION     | LOCATION            | 40204<br>L |
|-------------|----|-------------|---------------------|------------|
| 15+903.639  | -  | 18+000      | ML                  | 1,705.6    |
| 18+000      | -  | 20+000      | ML                  | 1,627.2    |
| 20+000      | -  | 22+420      | ML                  | 1,968.9    |
| 15+903.639  | -  | 16+485      | SHLDR. LT. & RT.    | 157.7      |
| 16+485      | -  | 18+368      | SHLDR. LT. & RT.    | 163.9      |
| 18+368      | -  | 18+448.01   | SHLDR. LT. & RT.    | 44.4       |
| 18+448.01   | -  | 20+040      | SHLDR. LT. & RT.    | 161.9      |
| 20+040      | -  | 20+150.49   | SHLDR. LT. & RT.    | 42.8       |
| 20+150.49   | -  | 20+300      | SHLDR. LT. & RT.    | 15.2       |
| 20+300      | -  | 20+795.3    | SHLDR. LT. & RT.    | 186.3      |
| 20+795.3    | -  | 21+430      | SHLDR. LT. & RT.    | 64.5       |
| 21+430      | -  | 22+016.68   | SHLDR. LT. & RT.    | 135.2      |
| 22+016.68   | -  | 22+420      | SHLDR. LT. & RT.    | 109.4      |
| 17'M'+643.5 | -  | 17'M'+645   | SCHUBERT RD.        | 19.7       |
| 18'Q'+016   | -  | 18'O'+017.5 | LITTLE TAMARACK RD. | 19.7       |
| 18'P'+633.6 | -  | 18'P'+635.1 | LITTLE TAMARACK RD. | 19.7       |
| 19'N'+220.5 | -  | 19'N'+222   | WRIGHT RD.          | 19.7       |
| 20'R'+829.5 | -  | 20'R'+831   | ENGEN RD.           | 19.7       |
| TOTAL       |    |             |                     | 6,481.5    |

STEEL PLATE BEAM GUARD

|           |    |           |              | 61408       | 61435            |                    |
|-----------|----|-----------|--------------|-------------|------------------|--------------------|
|           |    |           |              | STEEL PLATE |                  |                    |
|           |    |           |              | BEAM GUARD, | ENERGY ABSORBING |                    |
| STATION   | TO | STATION   | LOCATION     | CLASS A     | TERMINAL         | Remarks            |
|           |    |           |              | m           | EACH             |                    |
| 18+366    | -  | 18+381.24 | LEFT         | -           | 1                | -                  |
| 18+381.24 | -  | 18+430.77 | LEFT         | 49.53       | -                | -                  |
| 18+430.77 | -  | 18+446.01 | LEFT         | -           | 1                | -                  |
| 18+389.59 | -  | 18+430.77 | RIGHT        | 41.18       | -                | TERMINAL END REQ'D |
| 18+430.77 | -  | 18+446.01 | RIGHT        | -           | 1                |                    |
| 20+046    | -  | 20+061.24 | RIGHT        | -           | 1                | -                  |
| 20+061.24 | -  | 20+118.39 | RIGHT        | 57.15       | -                | -                  |
| 20+118.39 | -  | 20+133.63 | RIGHT        | -           | 1                | -                  |
| 20+300    | -  | 20+315.24 | RIGHT        | -           | 1                | -                  |
| 20+315.24 | -  | 20+780.06 | RIGHT        | 464.82      | -                | -                  |
| 20+780.06 | -  | 20+795.30 | RIGHT        | -           | 1                | -                  |
| 21+446    | -  | 21+461.24 | LEFT & RIGHT | -           | 2                | -                  |
| 21+461.24 | -  | 21+476.48 | LEFT & RIGHT | 30.48       | -                | -                  |
| 21+476.48 | -  | 21+491.72 | LEFT & RIGHT | -           | 2                | -                  |
| 21+864.5  | -  | 21+879.74 | LEFT & RIGHT | -           | 2                | -                  |
| 21+879.74 | -  | 21+994.04 | RIGHT        | 114.3       | -                | -                  |
| 21+994.04 | -  | 22+009.28 | RIGHT        | -           | 1                | -                  |
| 21+879.74 | -  | 22+039.76 | LEFT         | 160.02      | -                | -                  |
| 22+039.76 | -  | 22+055    | LEFT         | -           | 1                | -                  |
| TOTALS    |    |           |              | 917.48      | 15               |                    |

REMOVING PAVEMENT

| STATION    | TO | STATION    | LOCATION      | 20401<br>m2 |
|------------|----|------------|---------------|-------------|
| 23+682.555 | -  | 23+692.102 | APPROACH SLAB | 69.84       |
| 23+753.796 | -  | 23+763.316 | APPROACH SLAB | 69.84       |
| TOTAL      |    |            |               | 139.68      |

REMOVING ASPHALTIC SURFACE

| STATION    | TO | STATION    | LOCATION | 20402<br>m2 |
|------------|----|------------|----------|-------------|
| 23+682.555 | -  | 23+698.194 | LEFT     | 43.44       |
| 23+682.555 | -  | 23+688.80  | RIGHT    | 14.80       |
| 23+747.677 | -  | 23+763.316 | RIGHT    | 43.44       |
| 23+757.068 | -  | 23+763.316 | LEFT     | 14.80       |
| TOTAL      |    |            |          | 116.48      |

CONCRETE PAVEMENT APPROACH SLAB

| STATION    | TO | STATION    | LOCATION | 41621<br>m2 |
|------------|----|------------|----------|-------------|
| 23+682.55  | -  | 23+692.102 | ML       | 69.84       |
| 23+753.769 | -  | 23+763.316 | ML       | 69.84       |
| TOTAL      |    |            |          | 139.68      |

TRAFFIC CONTROL

|                            |  | 64318<br>BARRICADES<br>TYPE III<br>DAYS | 64326<br>SIGNS<br>DAYS |
|----------------------------|--|-----------------------------------------|------------------------|
| LOCATION                   |  |                                         |                        |
| STAGE 1-EAST BOUND CLOSURE |  | 120                                     | 270                    |
| STAGE 2 WEST BOUND CLOSURE |  | 120                                     | 210                    |
| TOTALS                     |  | 240                                     | 480                    |

PAVEMENT MARKING, 100mm, EPOXY

|               |   | 64602<br>C/L<br>YELLOW<br>m | 64602<br>EDGE LINE<br>WHITE<br>m |
|---------------|---|-----------------------------|----------------------------------|
| STATION       |   |                             |                                  |
| 23+642.5      | - | 23+818.5                    | 44.0                             |
| 23+682.55     | - | 23+763.32                   | -                                |
| SUB TOTALS    |   | 44.0                        | 161.5                            |
| TOTAL = 205.5 |   |                             |                                  |

ASPHALTIC CONCRETE PAVEMENT SUMMARY

|            |   | 40713<br>ASPH. CONC.<br>PAV., TYPE MV<br>Mg | 40501<br>ASPH. MAT'L<br>FOR PLANT MIX<br>Mg |
|------------|---|---------------------------------------------|---------------------------------------------|
| STATION    |   |                                             |                                             |
| 23+682.555 | - | 23+698.194                                  | LEFT SHLD.                                  |
| 23.682.555 | - | 23+688.80                                   | RIGHT SHLD.                                 |
| 23+747.677 | - | 23+763.316                                  | RIGHT SHLD.                                 |
| 23+757.068 | - | 23+763.316                                  | LEFT SHLD.                                  |
| TOTALS     |   | 32.42                                       | 1.9                                         |

REMOVING PAVEMENT MARKINGS

| STATION  | TO | STATION  | LOCATION | 64642<br>m |
|----------|----|----------|----------|------------|
| 23+642.5 | -  | 23+692   | CL       | 49.5       |
| 23+754   | -  | 23+818.5 | CL       | 64.5       |
| TOTAL    |    |          |          | 114.0      |

SAWING EXISTING PAVEMENT

| STATION    | LOCATION          | 66501<br>m |
|------------|-------------------|------------|
| 23+682.555 | SHLDER. LT. & RT. | 6.1        |
| 23+763.316 | SHLDER. LT. & RT. | 6.1        |
| TOTAL      |                   | 12.2       |

TEMPORARY PAVEMENT MARKING, 100 mm, REMOVABLE TAPE

|             |   | 64904<br>WHITE<br>m | 64904<br>YELLOW<br>m         |
|-------------|---|---------------------|------------------------------|
| STATION     |   |                     |                              |
| 23+492.5    | - | 23+647.5            | CL (DOUBLE YELLOW)           |
| 23+667      | - | 23+779              | EDGE LINE(EAST BOUND CLOSURE |
| 23+818.9    | - | 23+968.5            | CL (DOUBLE YELLOW)           |
| 23+677      | - | 23+779              | EDGE LINE(EAST BOUND CLOSURE |
| SUB TOTALS  |   | 224                 | 600                          |
| TOTAL = 824 |   |                     |                              |

TEMPORARY PRECAST CONCRETE BARRIER, CONTRACTOR FURNISHED, CONTRACTOR INSTALLED

|         |   | 60308<br>m |
|---------|---|------------|
| STATION |   |            |
| 23+662  | - | 23+798     |
| 23+662  | - | 23+798     |
| TOTAL   |   | 272        |

TEMPORARY PRECAST CONCRETE BARRIER, CONTRACTOR FURNISHED AND DELIVERED

|         |   | 60305<br>m |
|---------|---|------------|
| STATION |   |            |
| 23+662  | - | 23+798     |
| TOTAL   |   | 136        |

TEMPORARY PAVEMENT MARKING, STOP LINE, 450 mm, REMOVABLE TAPE

|          |                 | 64912<br>m |
|----------|-----------------|------------|
| STATION  |                 |            |
| 23+642.5 | EAST BOUND LANE | 3.6        |
| 23+818.9 | WEST BOUND LANE | 3.6        |
| 23+642.5 | WEST BOUND LANE | 3.6        |
| 23+818.9 | EAST BOUND LANE | 3.6        |
| TOTAL    |                 | 14.4       |



## SAWING EXISTING PAVEMENT

## PAVEMENT MARKING, SAME DAY, 100 mm, EPOXY

| STATION      | LOCATION            | 66501<br>m |
|--------------|---------------------|------------|
| 15+908       | P.E. LT.            | 7.0        |
| 15+979       | P.E. RT.            | 3.5        |
| 16+003       | COMM. LT.           | 10.0       |
| 16+010       | COMM. RT.           | 19.0       |
| 16+053.601   | STH 35 RT.          | 12.0       |
| 16+053.601   | STH 93 LT.          | 12.5       |
| 16+107       | COMM. LT.           | 8.5        |
| 16+138       | P.E. RT.            | 5.0        |
| 16+176       | COMM. RT.           | 7.0        |
| 16+180       | P.E. LT.            | 3.5        |
| 16+223       | P.E. RT.            | 5.0        |
| 16+286       | P.E. RT.            | 3.4        |
| 16+299       | COMM. LT.           | 10.0       |
| 16+304       | P.E. RT.            | 3.1        |
| 16+823       | P.E. RT.            | 5.7        |
| 17'M'+659    | SCHUBERT RD.        | 6.0        |
| 17'Q'+985    | LITTLE TAMARACK RD. | 5.4        |
| 18'P'+599    | LITTLE TAMARACK RD. | 7.0        |
| 19'N'+253    | WRIGHT RD.          | 6.9        |
| 20'R'+871.43 | ENGEN RD.           | 5.1        |
| 20+908       | COMM. RT.           | 10.5       |
| 20+944       | COMM. RT.           | 10.5       |
| 21+628       | P.E. LT.            | 6.4        |
| 21+840       | COMM. LT.           | 6.1        |
| 22+096       | DALE VALLEY RD.     | 7.4        |
| 22+156       | COMM. LT.           | 6.8        |
| 22+216       | COMM. LT.           | 8.7        |
| 22'S'+359    | BROWN RD.           | 6.8        |
| TOTAL        |                     | 208.8      |

## MARKER POSTS, FLEXIBLE

| STATION | LOCATION  | 90616<br>EACH |
|---------|-----------|---------------|
| 16+614  | RT.       | 1             |
| 16+732  | LT. & RT. | 2             |
| 17+245  | LT. & RT. | 2             |
| 17+977  | LT. & RT. | 2             |
| 18+734  | LT.       | 1             |
| 18+994  | RT.       | 1             |
| 19+885  | LT. & RT. | 2             |
| 20+465  | LT.       | 1             |
| 20+745  | LT.       | 1             |
| 21+143  | LT.       | 1             |
| TOTAL   |           | 14            |

## TEMPORARY PAVEMENT MARKING, 100 mm

| STATION    | TO | STATION | LOCATION | 64901<br>m | REMARKS                |
|------------|----|---------|----------|------------|------------------------|
| 15+903.639 | -  | 22+420  | ML       | 521.7      | BINDER COURSE (YELLOW) |
| TOTAL      |    |         |          | 521.7      |                        |

| STATION    | TO | STATION | 64626<br>YELLOW<br>CENTERLINE<br>m | 64626<br>YELLOW<br>NO PASSING<br>m | REMARKS                       |
|------------|----|---------|------------------------------------|------------------------------------|-------------------------------|
| 15+903     | -  | 16+054  | 37.75                              | 151.00                             | NO PASSING, EAST BOUND        |
| 16+054     | -  | 16+247  | 48.25                              | 193.00                             | NO PASSING, WEST BOUND        |
| 16+247     | -  | 20+463  | 1,054.00                           | -                                  | -                             |
| 20+463     | -  | 20+817  | 88.50                              | 354.00                             | NO PASSING, EAST BOUND        |
| 20+817     | -  | 21+187  | -                                  | 740.00                             | NO PASSING, EAST & WEST BOUND |
| 21+187     | -  | 21+525  | 84.50                              | 338.00                             | NO PASSING, WEST BOUND        |
| 21+525     | -  | 21+879  | 88.50                              | -                                  | -                             |
| 21+879     | -  | 22+233  | 88.50                              | 354.00                             | NO PASSING, EAST BOUND        |
| 22+233     | -  | 22+420  | -                                  | 374.00                             | NO PASSING, EAST & WEST BOUND |
| SUBTOTAL = |    |         | 1,490.00                           | 2,504.00                           |                               |
| TOTAL =    |    |         | 3,994.0                            |                                    |                               |

## PAVEMENT MARKING, 100 mm, EPOXY

| STATION  | TO | STATION  | LOCATION  | 64602<br>WHITE, EDGLINE<br>m |
|----------|----|----------|-----------|------------------------------|
| 15+903   | -  | 16+034   | LT. & RT. | 262.0                        |
| 16+067   | -  | 16+073   | RT.       | 6.0                          |
| 16+073   | -  | 17+599.2 | LT & RT.  | 3,052.4                      |
| 17+599.2 | -  | 17+638.7 | LT.       | 39.5                         |
| 17+638.7 | -  | 18+005.3 | LT. & RT. | 733.2                        |
| 18+005.3 | -  | 18+044.8 | RT.       | 39.5                         |
| 18+044.8 | -  | 18+619.3 | LT. & RT. | 1,149.0                      |
| 18+619.3 | -  | 18+658.8 | RT.       | 39.5                         |
| 18+658.8 | -  | 19+193.2 | LT. & RT. | 1,068.8                      |
| 19+193.2 | -  | 19+232.7 | LT.       | 39.5                         |
| 19+232.7 | -  | 20+802.2 | LT. & RT. | 3,139.0                      |
| 20+802.2 | -  | 20+841.7 | LT.       | 39.5                         |
| 20+841.7 | -  | 22+353.3 | LT. & RT. | 3,023.2                      |
| 22+353.3 | -  | 22+392.8 | RT.       | 39.5                         |
| 22+392.8 | -  | 22+420   | LT. & RT. | 54.4                         |
| TOTAL    |    |          |           | 12,725.0                     |

## PAVEMENT MARKING, CHANNELIZING, 200 mm, EPOXY

| STATION   | TO | STATION   | LOCATION      | 64618<br>WHITE<br>m |
|-----------|----|-----------|---------------|---------------------|
| 15+925.50 | -  | 16+032.1  | RT. TURN LANE | 106.6               |
| 16+073.0  | -  | 16+179.60 | RT. TURN LANE | 106.6               |
| TOTAL     |    |           |               | 213.2               |

## GRADING, SHAPING AND FINISHING FOR BEAM GUARD ANCHORAGES

| STATION   | LOCATION     | 90329<br>EACH |
|-----------|--------------|---------------|
| 18+366    | LEFT         | 1             |
| 18+446.01 | LEFT & RIGHT | 2             |
| 20+046    | RIGHT        | 1             |
| 20+133.63 | RIGHT        | 1             |
| 20+300    | RIGHT        | 1             |
| 20+795.30 | RIGHT        | 1             |
| 21+446    | LEFT & RIGHT | 2             |
| 21+491.72 | LEFT & RIGHT | 2             |
| 21+864.5  | LEFT & RIGHT | 2             |
| 22+009.28 | RIGHT        | 1             |
| 22+055    | LEFT         | 1             |
| 21+491.72 |              |               |
| TOTAL     |              | 15            |

GRADING, SHAPING, AND FINISHING FOR BEAM GUARD ANCHORAGES  
FOR INFORMATION ONLY

| STATION       | BORROW<br>m3 | TOPSOIL<br>m2 | MULCH<br>m2 | SEEDING NO. 20<br>kg | FERTILIZER, TYPE B<br>kg |
|---------------|--------------|---------------|-------------|----------------------|--------------------------|
| 18+366 LT.    | .4           | 10.5          | 10.5        | 0.16                 | 0.37                     |
| 18+466.01 LT. | .4           | 13.5          | 13.5        | 0.2                  | 0.48                     |
| 18+466.01 RT. | 0.5          | 6             | 6           | 0.9                  | 0.21                     |
| 20+046 RT.    | 2            | 10.5          | 10.5        | 0.16                 | 0.37                     |
| 20+133.63 RT. | 3.5          | 12            | 12          | 0.9                  | 0.21                     |
| 20+300 RT.    | 0.5          | 9             | 9           | 0.14                 | 0.32                     |
| 20+795.30 RT. | .8           | 25.5          | 25.5        | 0.39                 | 0.9                      |
| 21+466 RT.    | 2.5          | 21            | 21          | 0.32                 | 0.74                     |
| 21+466 LT.    | 2.5          | 9             | 9           | 0.14                 | 0.32                     |
| 21+491.72 LT. | 1            | 10.5          | 10.5        | 0.16                 | 0.37                     |
| 21+491.72 RT. | .5           | 13.5          | 13.5        | 0.21                 | 0.48                     |
| 21+864.5 LT.  | .4           | 19.5          | 19.5        | 0.3                  | 0.69                     |
| 21+864.5 RT.  | 11.5         | 13.5          | 13.5        | 0.21                 | 0.48                     |
| 22+009.28 RT. | .0           | 13.5          | 13.5        | 0.21                 | 0.48                     |
| 22+005 LT.    | 6.5          | 19.5          | 19.5        | 0.3                  | 0.69                     |
| TOTALS        | 45.5         | 207           | 207         | 4.7                  | 7.11                     |

ADDENDUM 11/23/99: NEW SHEET

MISCELLANEOUS QUANTITIES

HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 3 F

M

FILE NAME: W:\DESIGN\QUANTITY\WILEY\SHEET2C.PPT

ORIGINATOR: JOSHUA BLUM

ORIG. DATE: 6-16-98

REV. DATE:

25-DIST-5  
200-T (64626)ADDENDUM #41 DEC 14 1999 Letting  
7153-01-71 W(7153-03-71/7153-01-66)

(DESIGN 7153-01-00)

PLOT DATE: 26-MAY-1998 13:03  
PLOT SCALE: 1000.000000011.0000000

REV. DATE: 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOT JSC 5/98

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BEGIN PROJECT I.D. 7151-03-71  
STATION 8+172

8+100

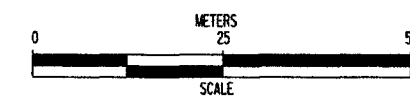
B-06-0028

8+200

8+300

8+400

PI 8+172.000



8+500

8+600

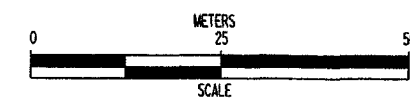
PC 8+688.826

8+700

B-61-29  
STA 8+720.428 - 8+846.189

8+800

PI 8+824.298



SPLIT PLAN

SCALE: 1:1000

HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 5.1

M

WISDOT: MSHT20

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PLOT SCALE: 1000.000000:1.000000

REV. DATE: 26-MAY-1998 13:56

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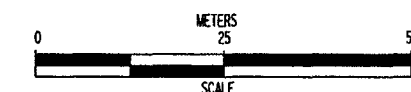
P. I. 8+824.298  
 $\Delta = 15^\circ - 10' - 00''$   
D = 1 - 45'  
R = 998 m  
T = 135.472 m  
L = 269.298 m  
Ex1st. SE = 3.0%  
New SE = 3.0%  
RO = 55 m

PI 8+958.124

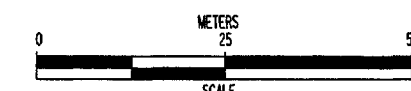


PE  
REMOVE MASONRY ENDWALL  
EXTEND PIPE AND ADD ENDWALL

PE  
REMOVE MASONRY ENDWALL  
EXTEND PIPE AND ADD ENDWALL



PI 9+247.654

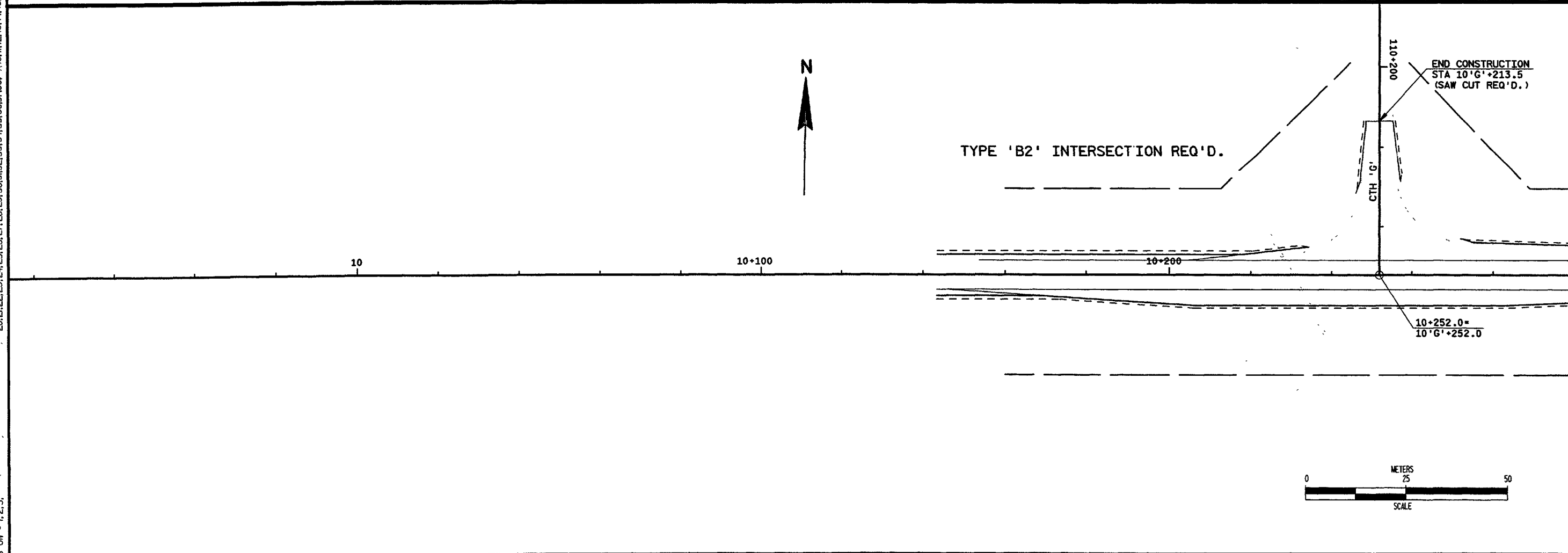
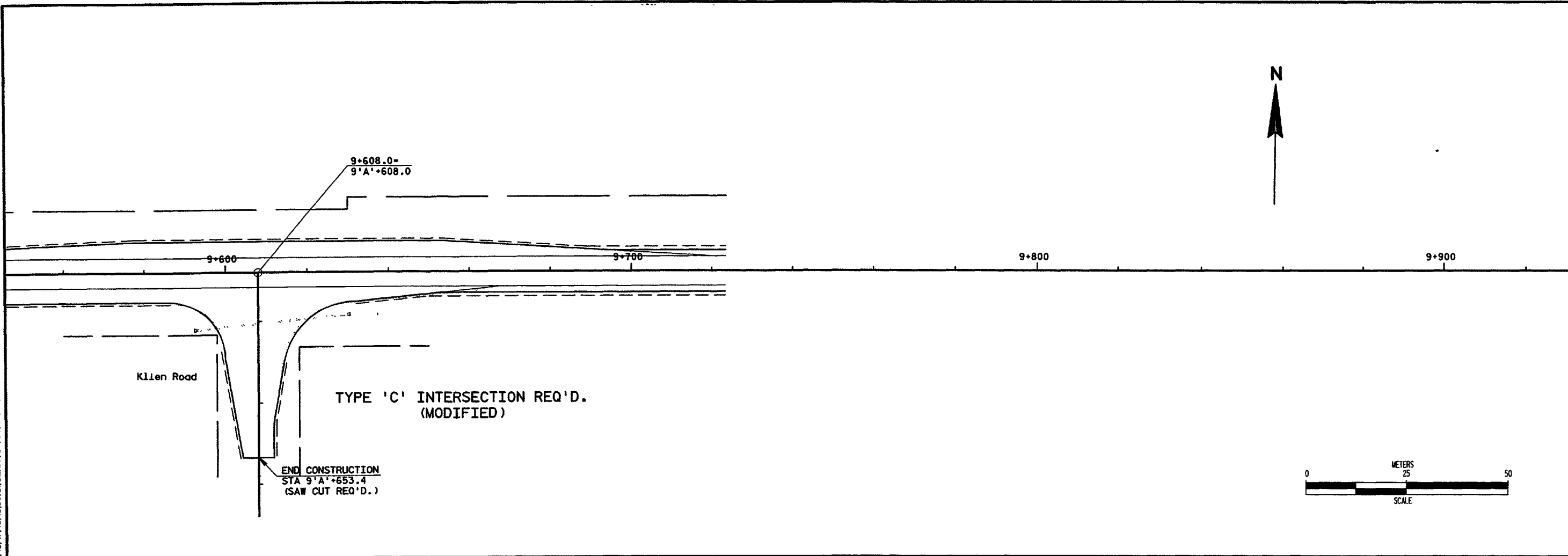


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ORIGINATOR: DOTJSC 5/98

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SPLIT PLAN

SCALE: 1:1000 HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 5.3

M

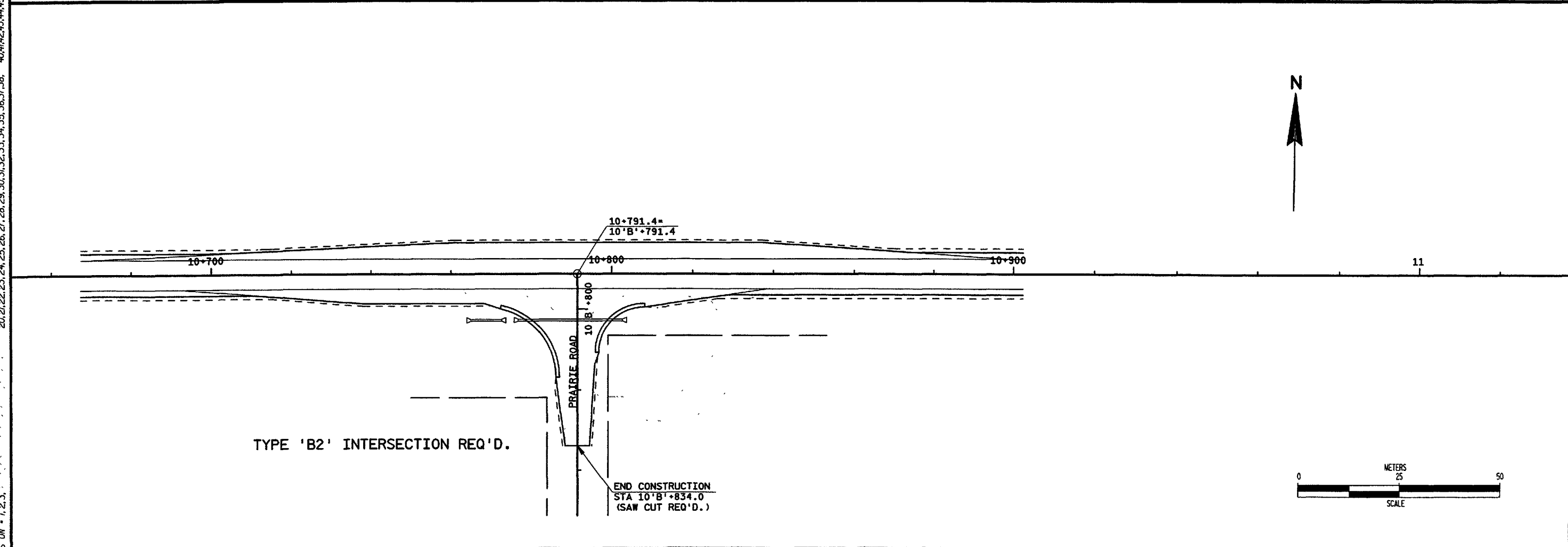
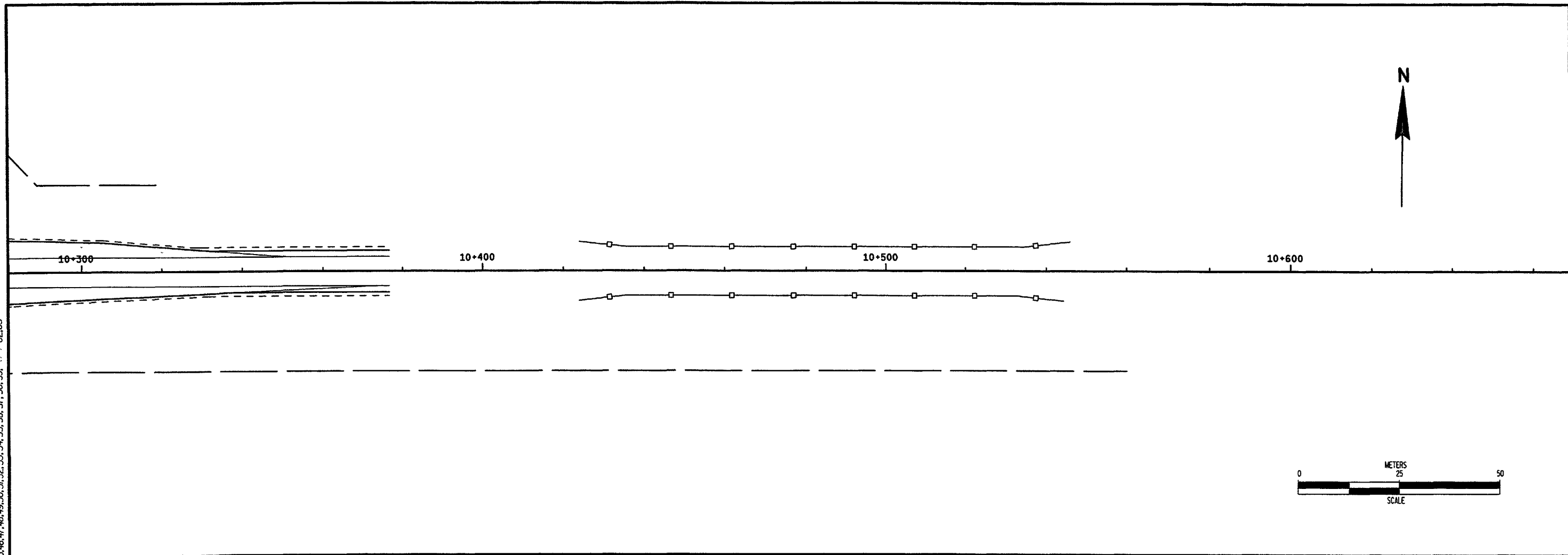
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ORIGINATOR: DOT JSC 5/98

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SPLIT PLAN

SCALE: 1:1000

HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 5.4

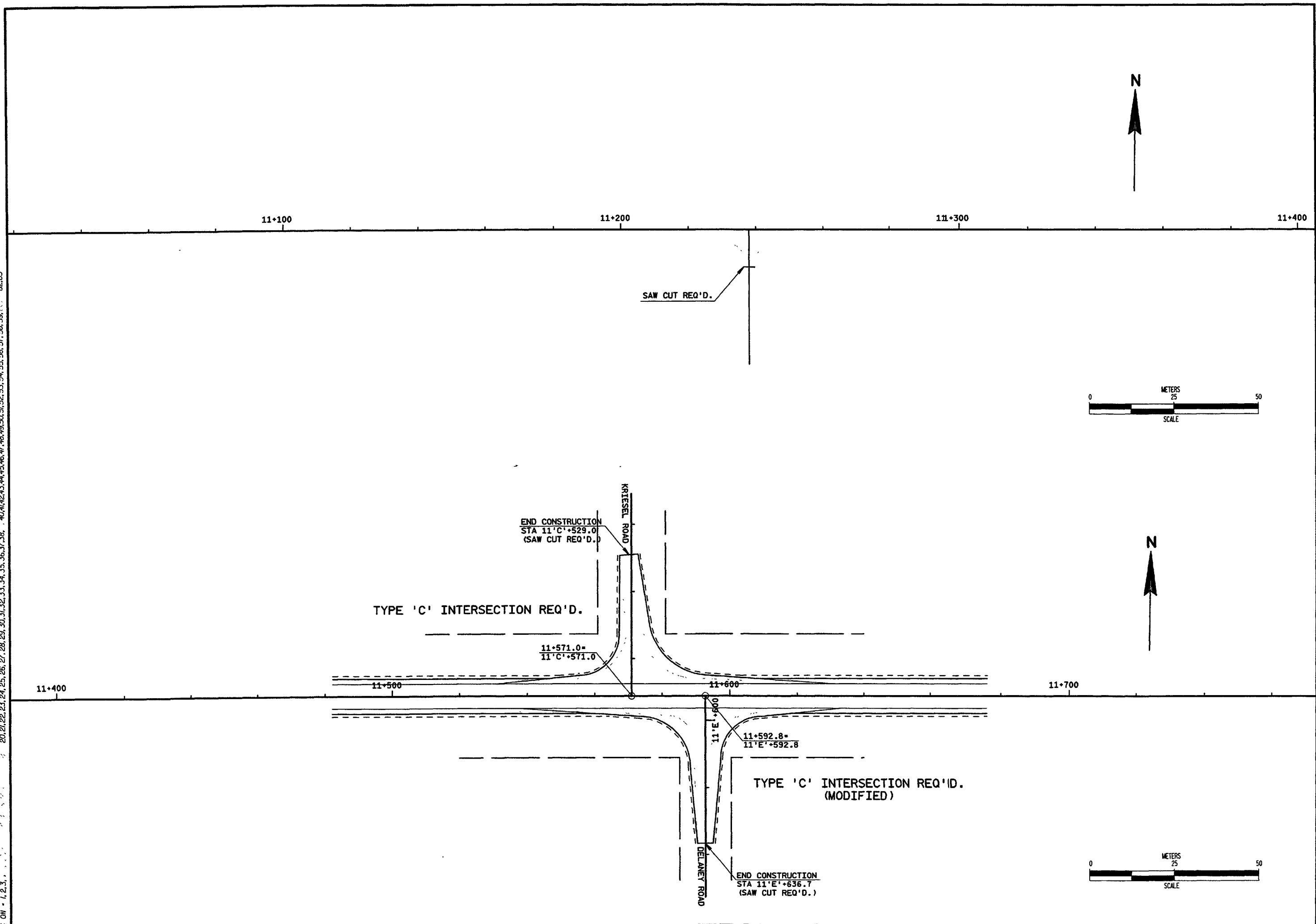
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PLOT SCALE: 1000.000000:1.000000

REV. DATE:  
54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOTJSC 5/98

FILE NAME: g:\users\user\projects\ds\_0351\p1275.dgn  
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



SPLIT PLAN

SCALE: 1:1000

HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

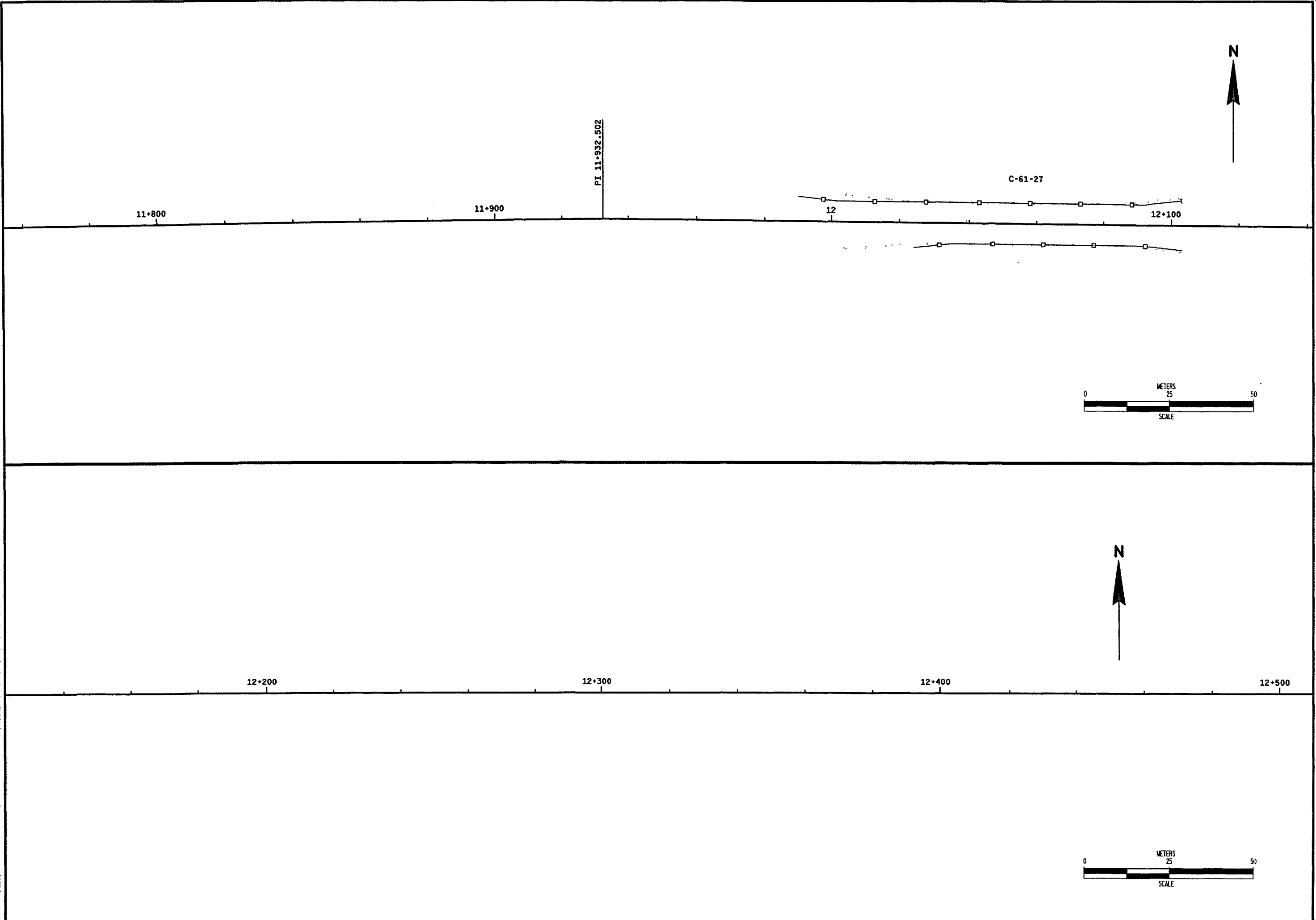
SHEET NO: 5.5

M

WISDOT: MSHT20



FILE NAME: g:\users\user\projects\ds\_s35t\pi277.dgn  
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63  
ORIGINATOR: DOT JSC 5/98  
REV. DATE: 5/98  
PLOT DATE: 27-MAY-1998 10:51  
PLOT SCALE: 1000.000000:1.000000

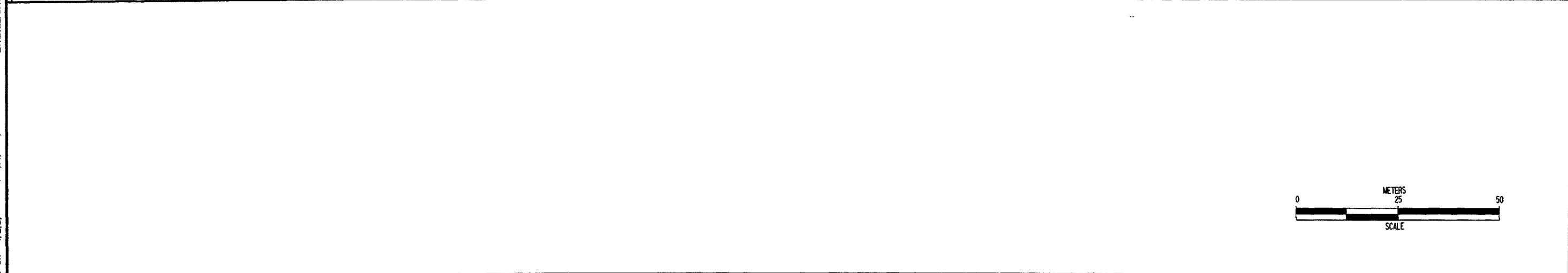
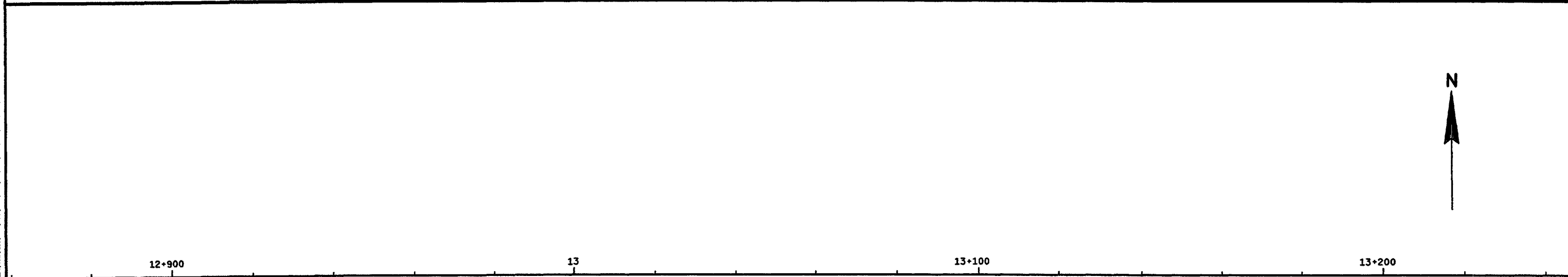
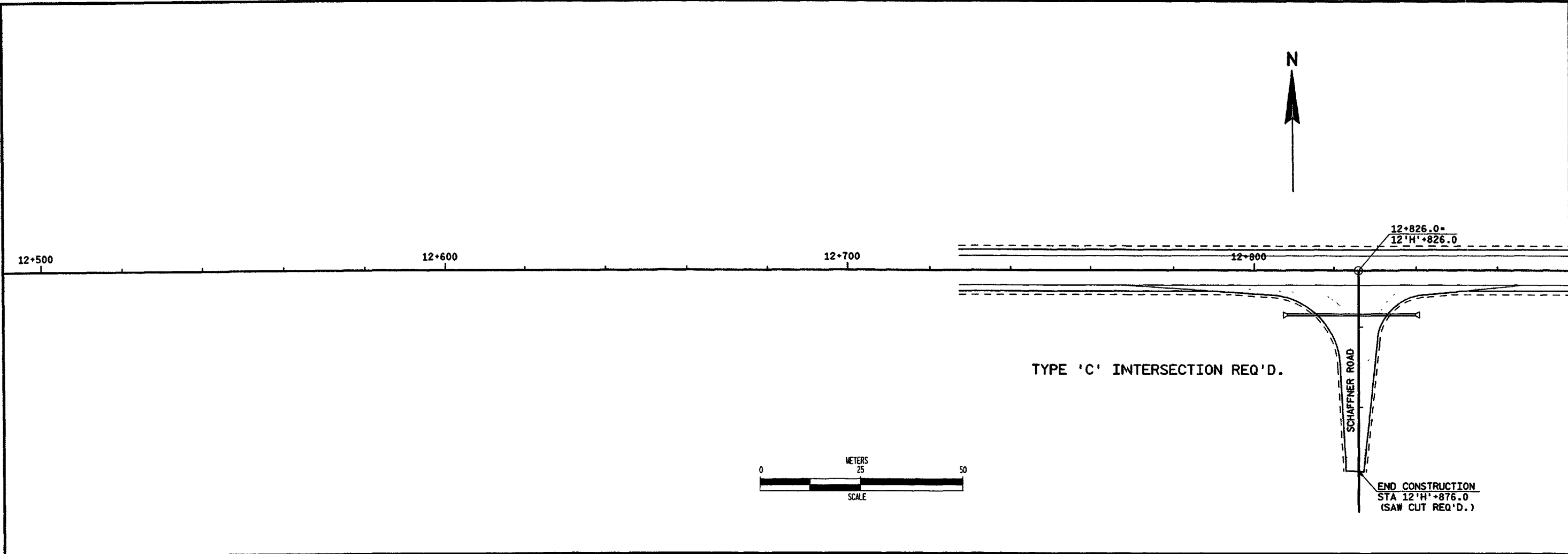


PLOT DATE: 27-MAY-1998 12:31  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOTJSC 5/98

FILE NAME: g:\user\user\projects\ds-s35+pl279.dgn  
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



SPLIT PLAN

SCALE: 1:1000

HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 5.7

M

WISDOT: MSHT20



FILE NAME: g:\users\user\projects\ds-s35t\p1281.dgn  
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, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63  
ORIGINATOR: DOTJSC 5/98  
REV. DATE:  
PLOT DATE: 27-MAY-1998 13:06  
PLOT SCALE: 1000.000000:1.000000

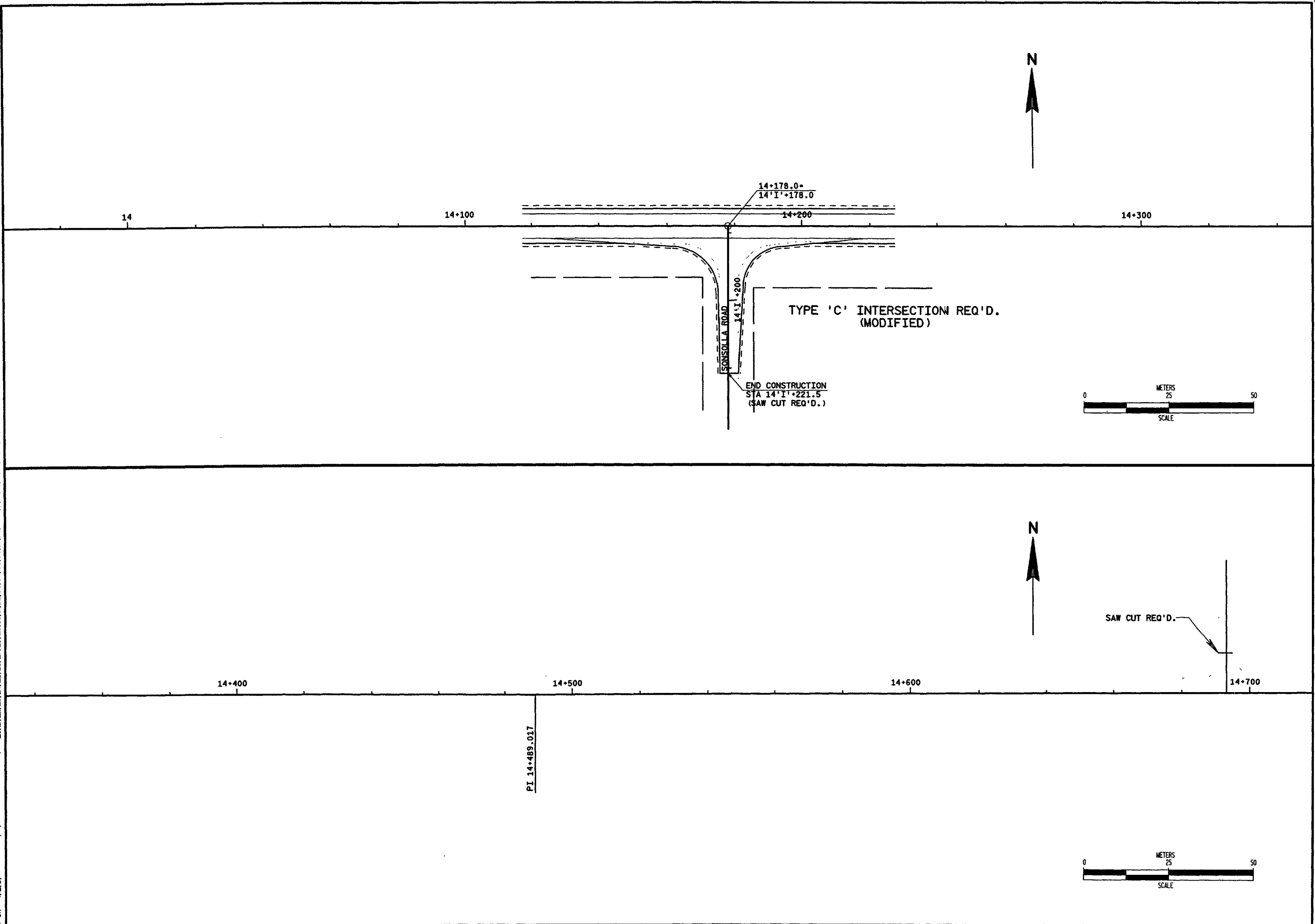


PLOT DATE: 27-MAY-1998 14:00  
PLOT SCALE: 1000.00000001:0.000000

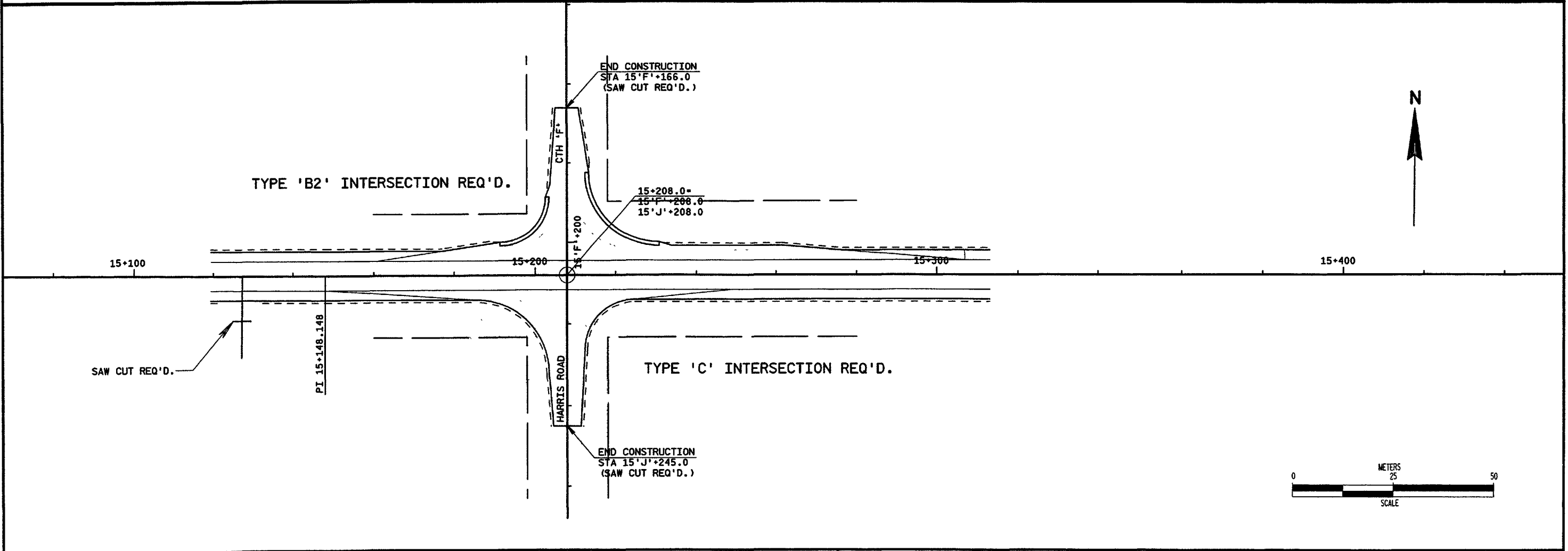
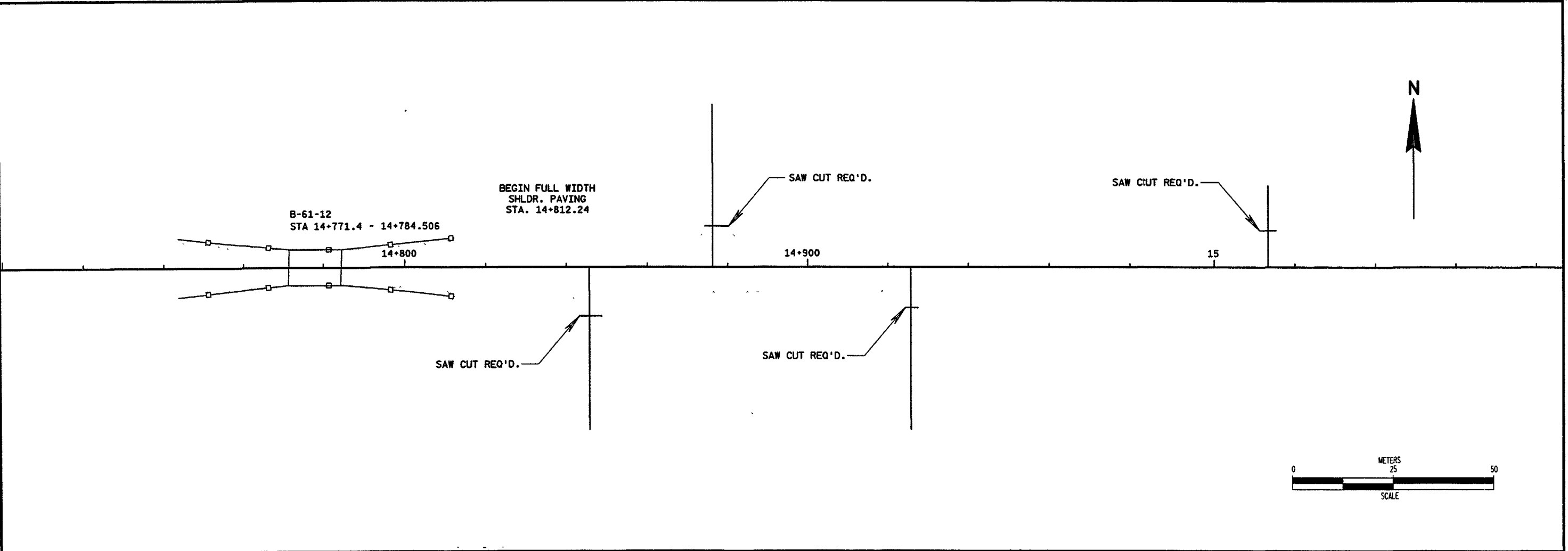
REV. DATE: 54, 55, 56, 57, 58, 59, 62, 63

ORIGINATOR: DOT JSC 5/98

FILE NAME: q:\users\usr\project\ds\_535\p1283.dgn  
LEVELS ON: 1, 2, 3, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 62, 63



FILE NAME: q:\users\user\projects\ds\_s35t\p1285.dgn  
LEVELS ON  
22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 62, 63  
ORIGINATOR: DOTJSC 5/98  
REV. DATE:  
PLOT SCALE: 999.9085231:1.000000  
PLOT DATE: 04-JUN-1998 15:11

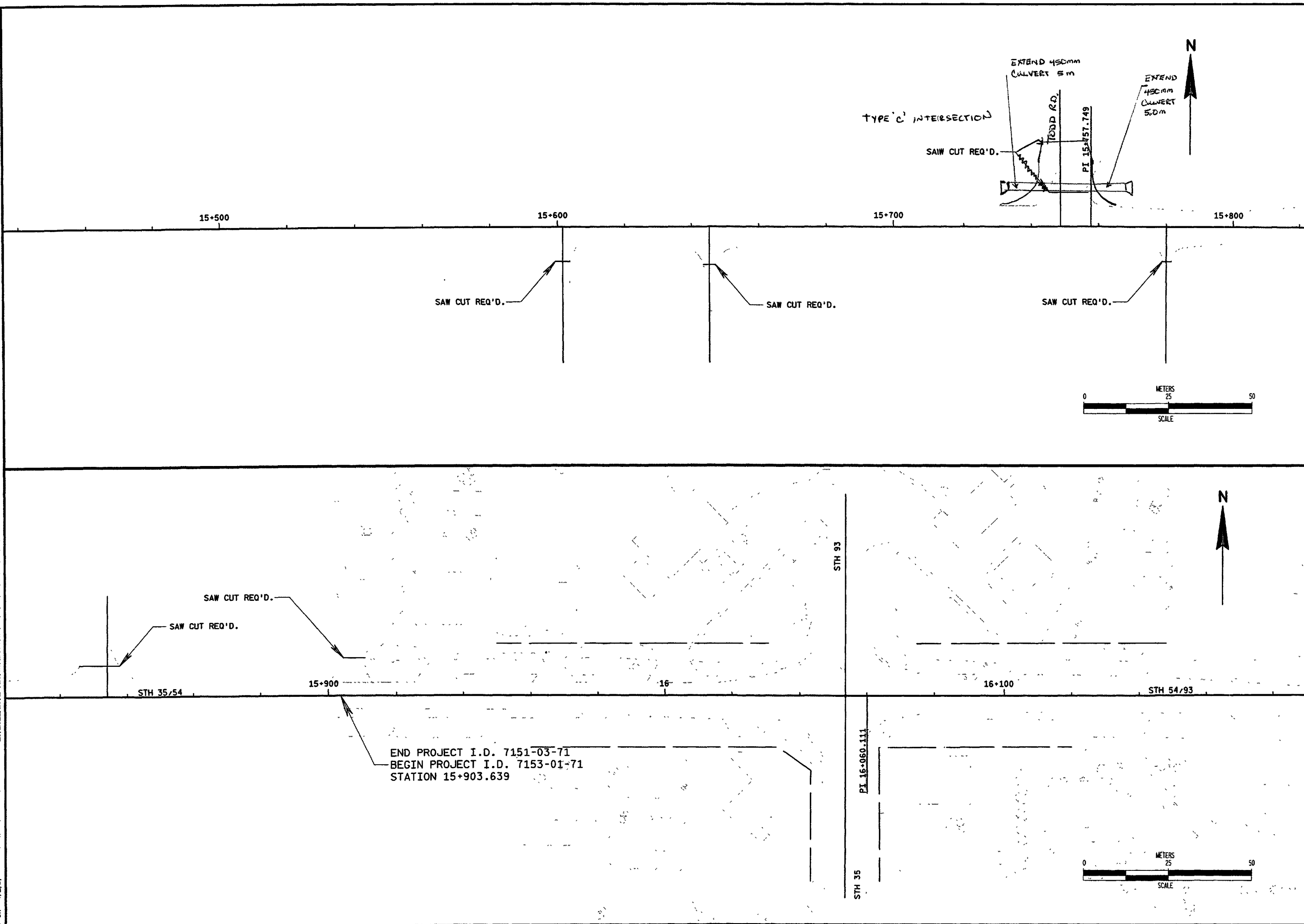


PLOT DATE: 28-MAY-1998 07:51  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOT JSC 5/98

FILE NAME: g:\user\user\project\ds\_s35t\p1287.dgn  
LEVEL ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



SPLIT PLAN

SCALE: 1:1000 HWY: STH 35/54

COUNTY: TREMPLEAU

STATE PROJECT NO: 7151-03-71

SHEET NO: 5.1

M

PLOT DATE: 01-JUN-1998 10:17  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOT/JSC 5/98

FILE NAME: g:\users\user\projects\ds\_s35t\p1289.dgn  
LEVELS ON: 1, 2, 3

CENTERVILLE

SAW CUT REQ'D.

SAW CUT REQ'D.

SAW CUT REQ'D.

STA 16+053.601=  
STA 16+053.601 (STH 35/93)

SAW CUT REQ'D.

SAW CUT REQ'D.

15+900

16

16+100

16+200

SAW CUT REQ'D.

SAW CUT REQ'D.

SAW CUT REQ'D.

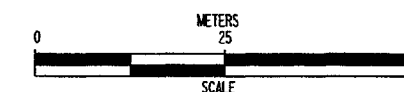
SAW CUT REQ'D.

SAW CUT REQ'D.

SAW CUT REQ'D.

END PROJECT I.D. 7151-03-71  
BEGIN PROJECT I.D. 7153-01-71  
STATION 15+903.639

PI 16+060.111



PI 16+367.350

16+300

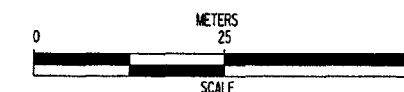
16+400

16+500

16+600

SAW CUT REQ'D.

END FULL WIDTH  
SHOULDER PAVING  
STA 16+485



SPLIT PLAN

SCALE: 1:1000

HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 5.12

M

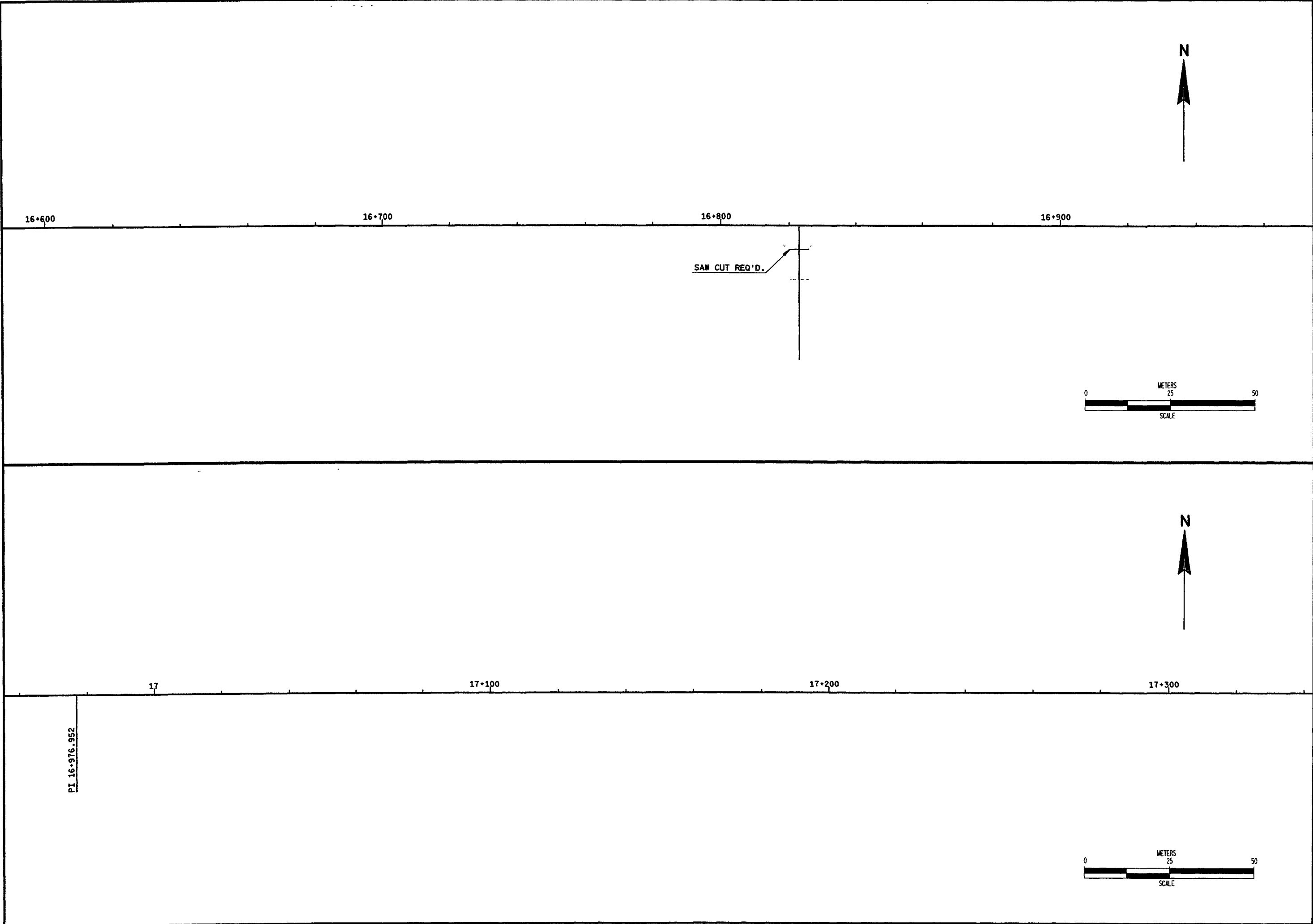
WISDOT: MSHT20

PLOT DATE: 01-JUN-1998 11:25  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 62.63  
54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOTJSC 6/98  
40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

FILE NAME: q:\users\user\projects\ds\_s35\p1291.dgn  
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



SPLIT PLAN

SCALE: 1:1000

HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 5.13

M

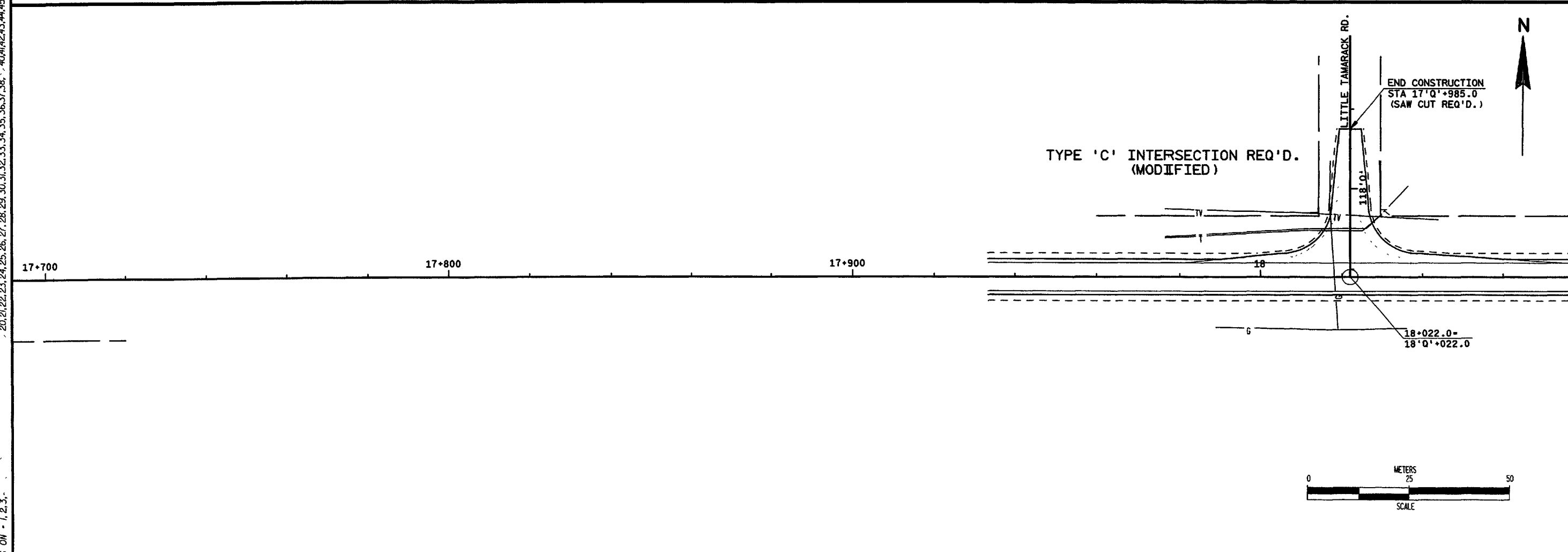
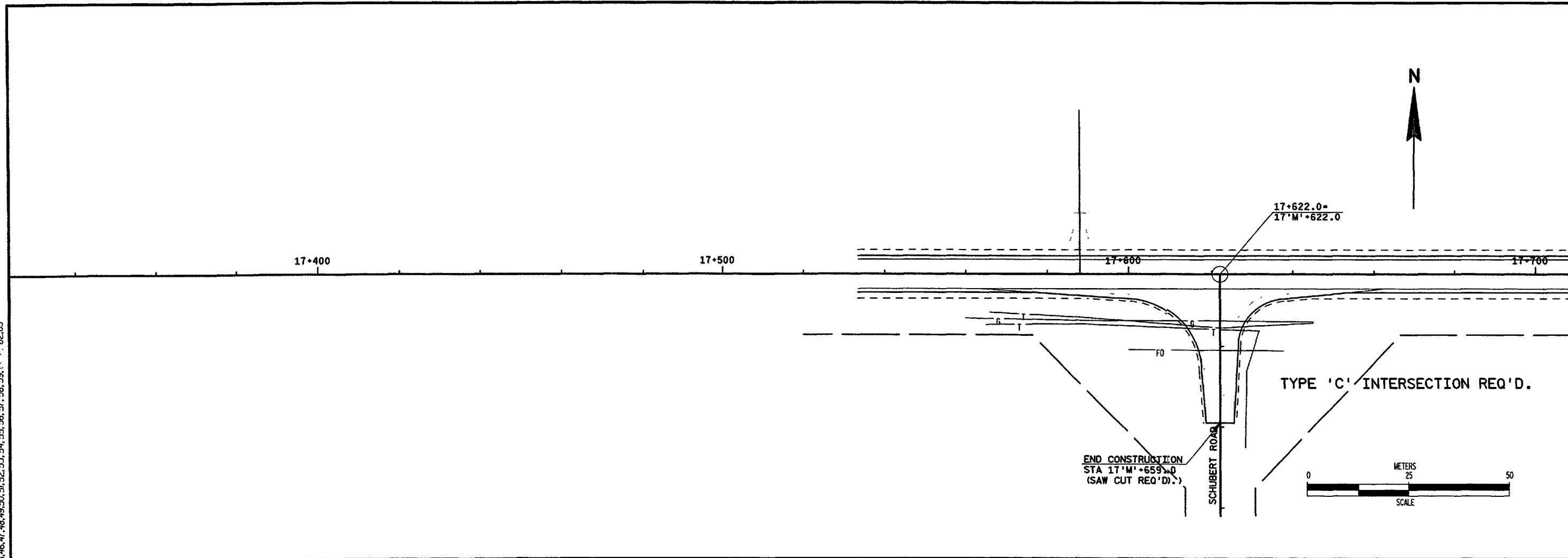


PLOT DATE: 01-JUN-1998 11:23  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 54.55, 56.57, 58.59, 60.61, 62.63

ORIGINATOR: DOT/JSC 6/98

FILE NAME: g:\users\user\projects\d5\_s35\p1293.dgn  
LEVELS ON: 1, 2, 3.

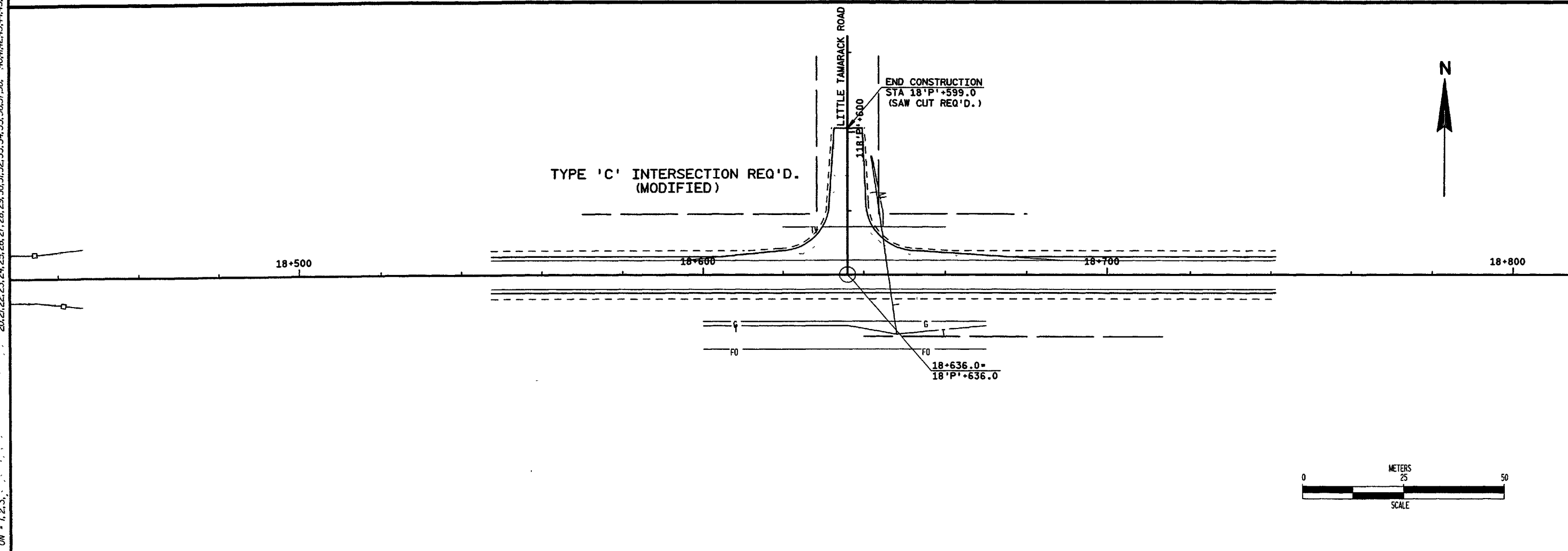
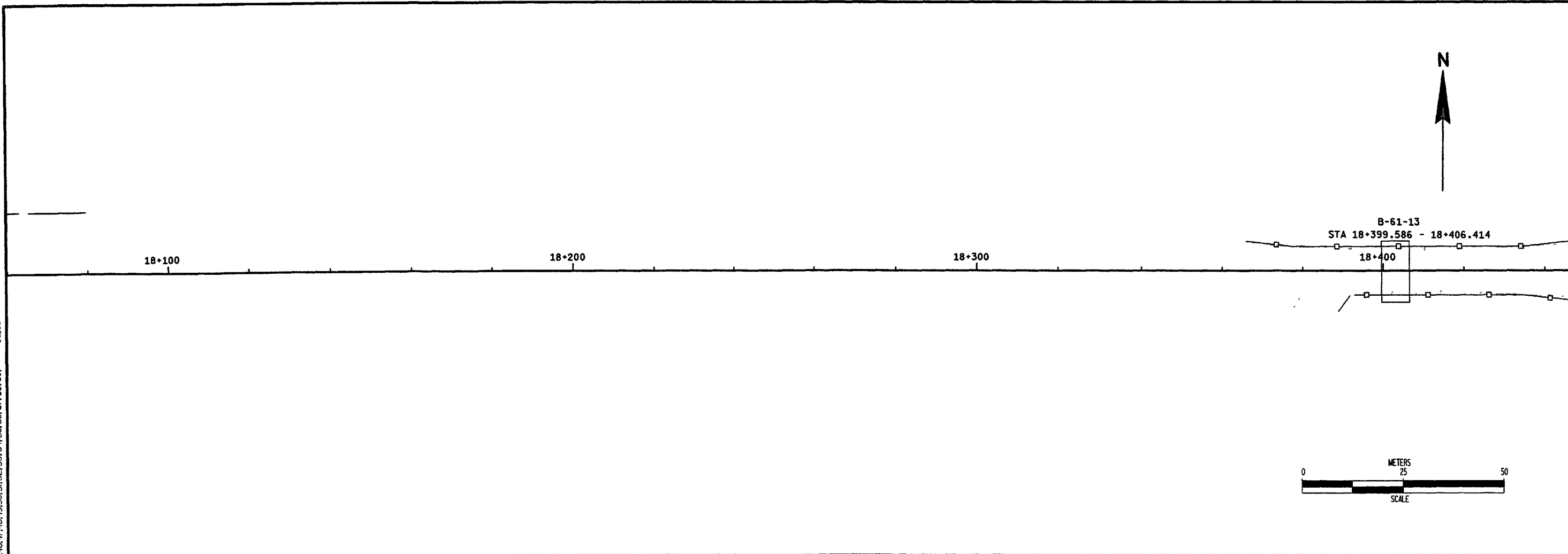


PLOT DATE: 02-JUN-1998 07:01  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 62.63

ORIGINATOR: DOT JSC 5/98

FILE NAME: g:\user\user\projects\ds-s3st\p1295.dgn  
LEVELS ON: 1,2,3,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



SPLIT PLAN

SCALE: 1:1000 HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 5.15

M

WISDOT: MSHT20

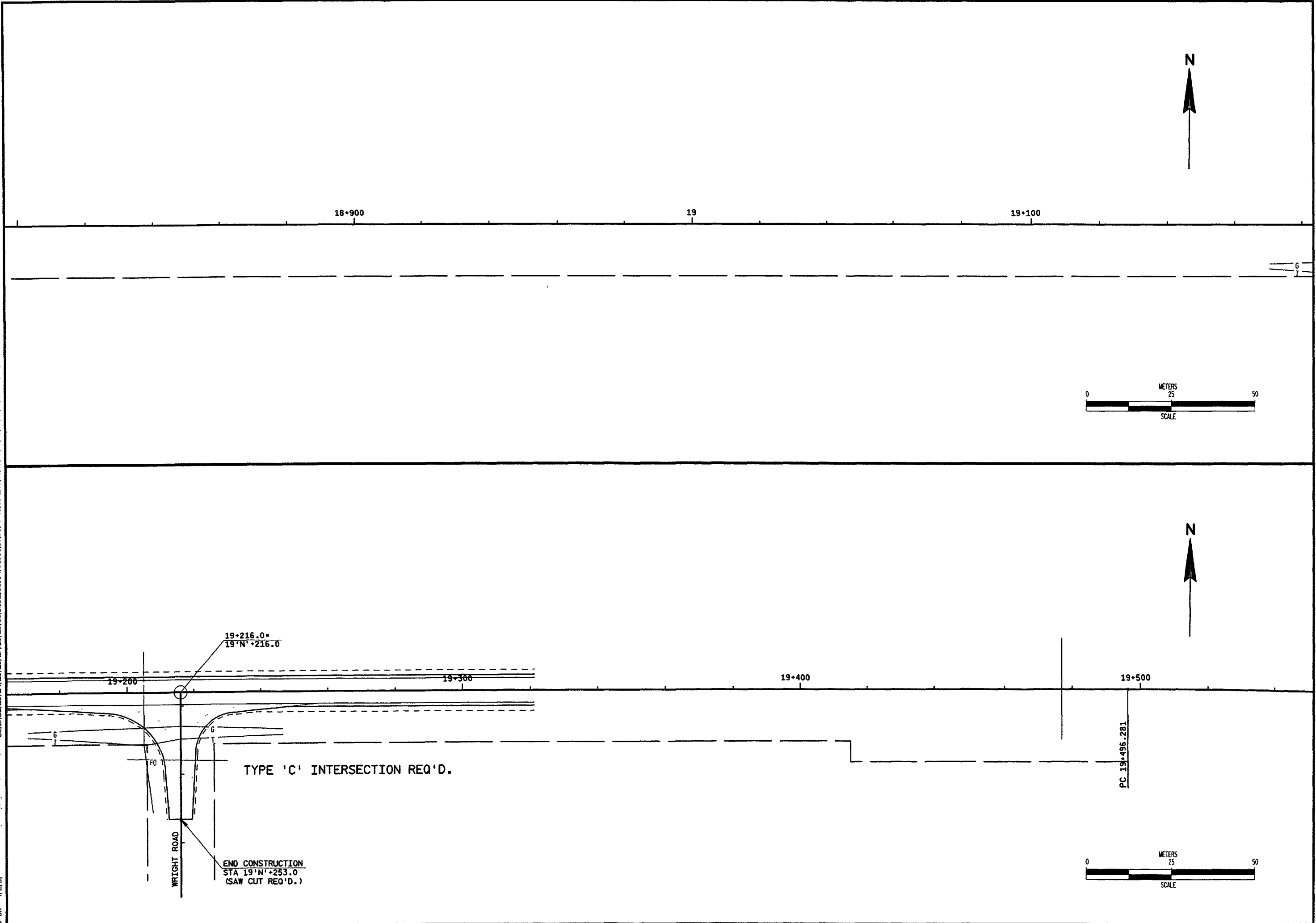


PLOT DATE: 02-JUN-1998 07:04  
PLOT SCALE: 1.000000:1.000000

REV. DATE: 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOTJSC 6/98

FILE NAME: g:\users\user\projects\d5\_s3st\p1297.dgn  
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

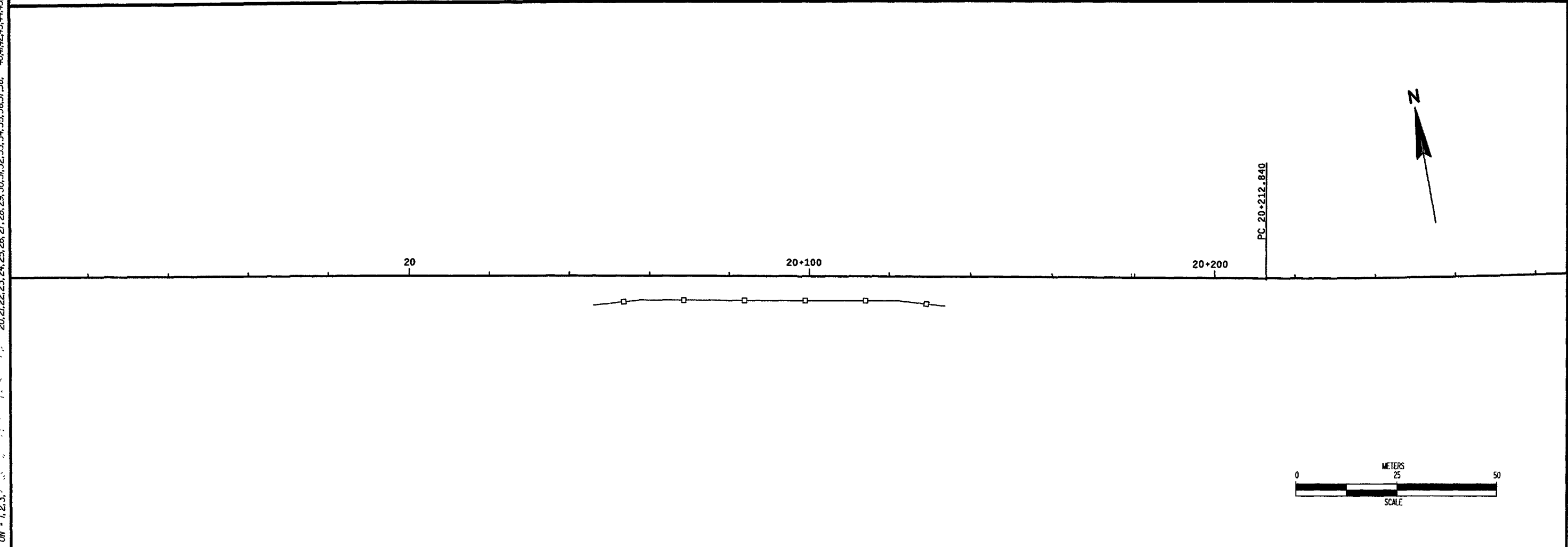
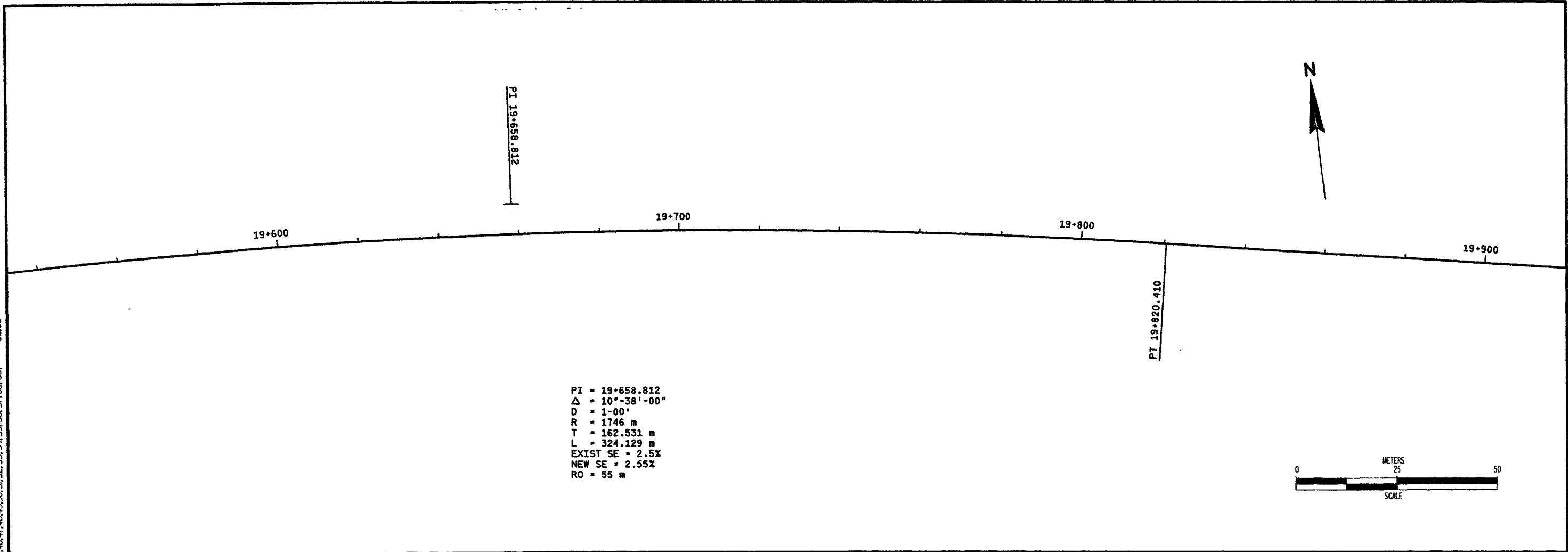


PLOT DATE: 02-JUN-1998 07:07  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 62.63  
REV. DATE: 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOTJSC 6/98  
ORIGINATOR: 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

FILE NAME: g:\users\user\projects\5-s35t\p1299.dgn  
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



PLOT DATE: 02-JUN-1998 07:05  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 54.55, 56.57, 58.59, 62.63

ORIGINATOR: DOT/JSC 6/98

FILE NAME: g:\users\user\projects\d5\_s35t\p1301.dgn  
LEVELS ON: 1, 2, 3, 20.21, 22.23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 62.63

PI = 20+321.701  
 $\Delta$  = 7°-08'-00"  
D = 1°-00'  
R = 1746 m  
T = 108.861 m  
L = 217.441 m  
EXIST SE = 2.5%  
NEW SE = 2.55%  
RO = 55 m

PT 20+430.281

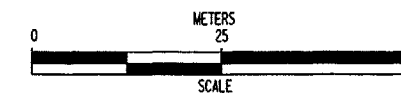
20+300

20+400

20+500

20+600

PI 20+321.701



N

STA 20+700 BEGIN  
FULL WIDTH SHOULDER  
PAVING (LT)

PI = 20+833.940  
 $\Delta$  = 26°-27'-00"  
D = 2°-30'  
R = 698 m  
T = 164.077 m  
L = 322.502 m  
EXIST SE = 5.5%  
NEW SE = 5.0%  
RO = 55 m

PC 20+669.763

20+700

20+825.0+  
20+R1+825.0

20+800

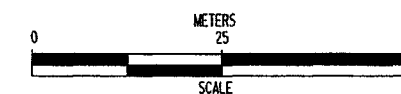
20+900

SAW CUT REQ'D.

END CONSTRUCTION  
STA 20+R1+850.0  
(SAW CUT REQ'D.)

TYPE 'C' INTERSECTION REQ'D.  
(MODIFIED)

ENGEN ROAD



N

STA 21+000 END  
FULL WIDTH SHOULDER  
PAVING (LT)

PC 20+991.691  
PI 20+992.265

SPLIT PLAN

SCALE: 1:1000 HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 5.18

M

WISDOT: MSHT20

PLOT DATE: 02-JUN-1998 06:58  
PLOT SCALE: 1000.000000:1.000000

REV. DATE: 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

ORIGINATOR: DOTJSC 6/98

FILE NAME: q:\users\user\projects\d5-s35t\p1303.dgn  
LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

PI = 21+228.082  
 $\Delta$  = 17°-30'-00"  
D = 1°-10'  
R = 149.7 m  
T = 230.391 m  
L = 457.195 m  
EXIST SE = 3.1%  
NEW SE = 2.9%  
RO = 55 m

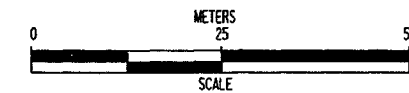


21+100

21+200

21+300

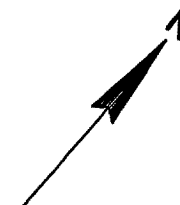
PI 21+228.082



TYPE 'B2' INTERSECTION  
W/ BYPASS LANE

WOLFE  
SUBDIVISION

SAW CUT REQ'D.



21+400

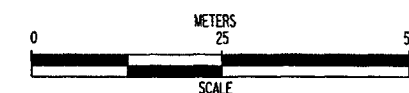
PT 21+454.886

C-61-30

21+500

21+600

21+700



SPLIT PLAN

SCALE: 1:1000 HWY: STH 54/93

COUNTY: TREMPLEAU

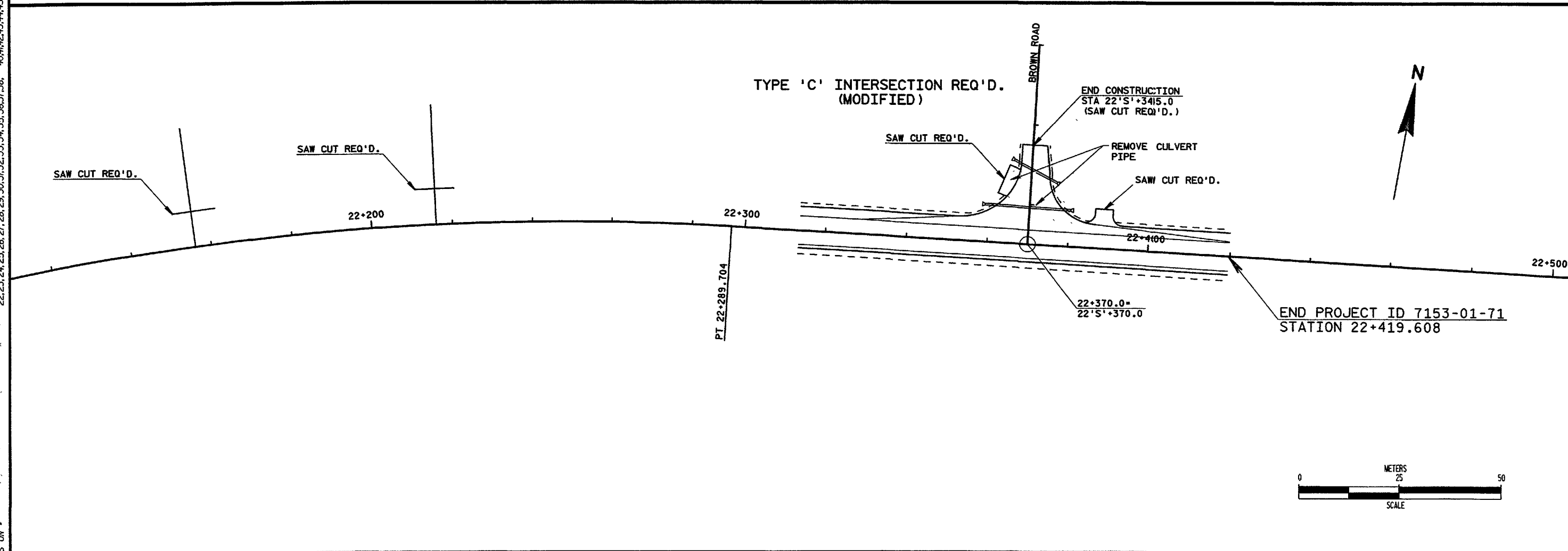
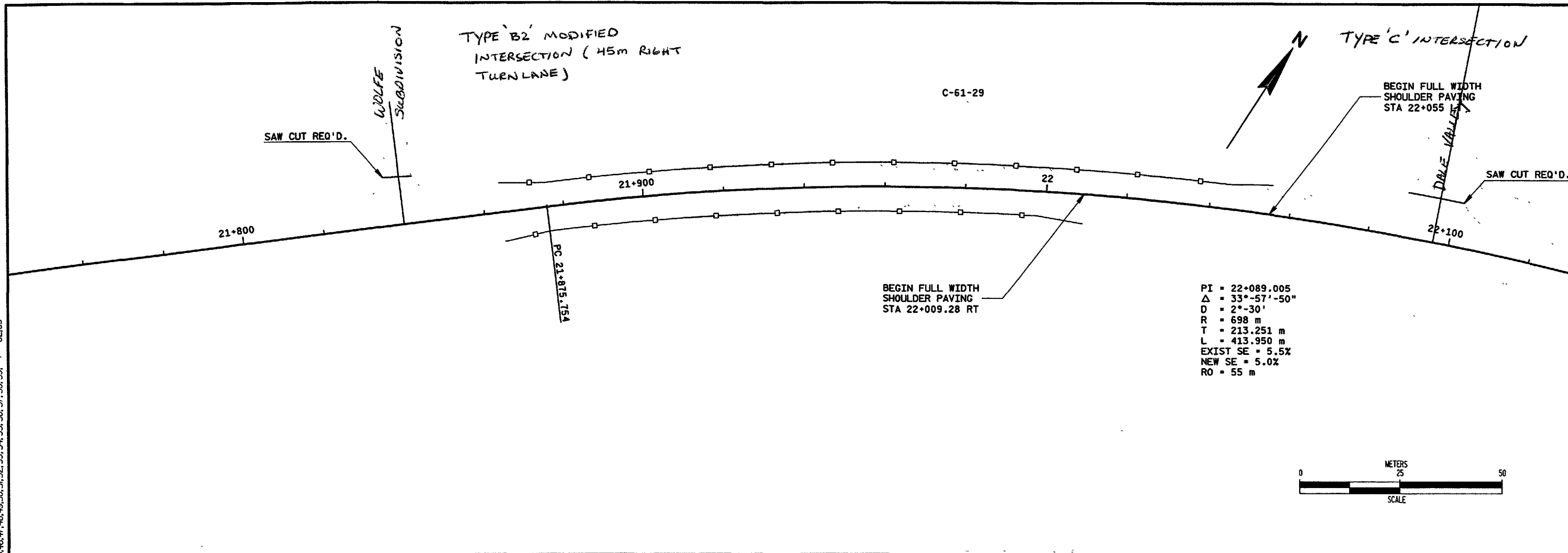
STATE PROJECT NO: 7153-01-71

SHEET NO: 5.19

M

WISDOT: MSHT20

FILE NAME: q:\users\user\projects\ds-335\p1305.dgn  
LEVELS ON  
22.23, 24.25, 26.27, 28.29, 30.31, 32.33, 34.35, 36.37, 38.40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63  
ORIGINATOR: DOTJSC 6/98  
REV. DATE:  
PLOT DATE: 04-JUN-1998 15:17  
PLOT SCALE: 999.908523:1.000000



SPLIT PLAN

SCALE: 1:1000 HWY: STH 54/93

COUNTY: TREMPLEAU

STATE PROJECT NO: 7153-01-71

SHEET NO: 5.20

M

FILE NAME: q:\users\user\projects\ds\_s35t\p121.dgn  
LEVELS ON - 1, 2, 3, 4  
ORIGINATOR: DOTJSC 6/98  
REV. DATE: 03-JUN-1998 11:16  
PLOT DATE: 1000.000000:1.000000  
PLOT SCALE: 1000.000000:1.000000  
20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

APPROACH SLAB AND PAVED SHOULDERS  
(TO BE REMOVED)

PI 23+692.102

B-61-48  
STA 23+692.102 - STA 23+753.769

23+700

MATCH EXISTING PAVEMENT AT  
FIRST JOINT, STA 23+682.555

APPROACH SLAB AND PAVED SHOULDERS  
(TO BE REMOVED)

23+800

MATCH EXISTING PAVEMENT AT  
FIRST JOINT, STA 23+763.316

PI 23+753.769

BRIDGE B-61-48

SCALE: 1: 500

HWY: STH 54/93

COUNTY: TREMPLEALEU

STATE PROJECT NO: 7153-01-60

SHEET NO: 5.21

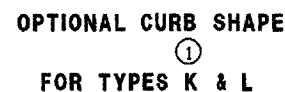
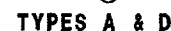
M

WISDOT: MSHT20



ORIGINATOR:

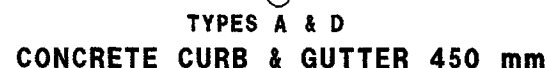
LEVELS ON = 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



**CONCRETE CURB & GUTTER 750 mm**



**CONCRETE CURB & GUTTER 900 mm**



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

NO. 19M X 300 mm DEF. BARS  
SPACED 900 mm C-C,  
INSTALLED ON 6:1 SKEW  
HORIZONTALLY. DIRECTION  
OF SKEW ALTERNATING AFTER  
EVERY ONE OR TWO BARS.

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



## 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.

CONCRETE CURB, CONCRETE  
CURB & GUTTER AND  
PAVEMENT TIES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/22/96  
DATE

*Tony L. Thummes*  
CHIEF ROADWAY DEVELOPMENT ENGINEER

S.D.D. 8 D 1-12

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR:

S.D.D. 8 F 1-11

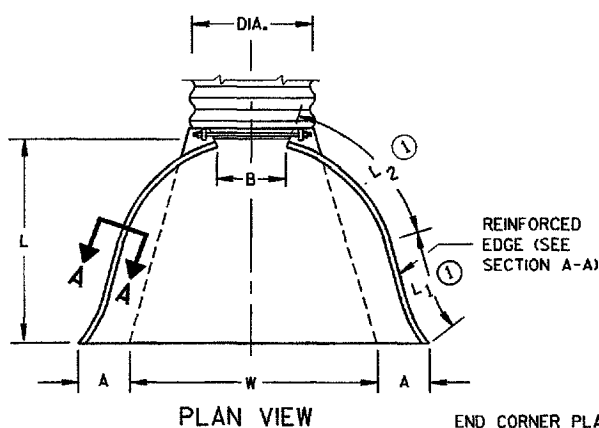
LEVELS ON = 2.3, 4, 5.6, 7.8, 9.10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

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

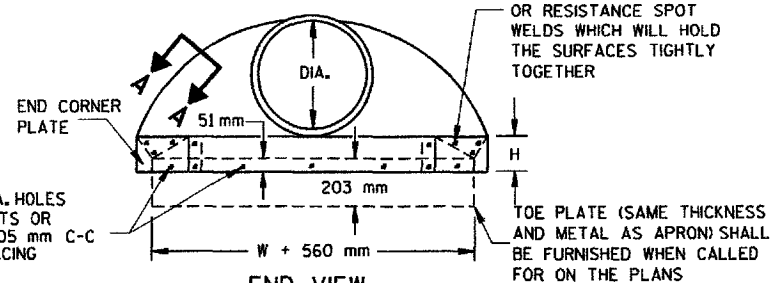
\* EXCEPT CENTER PANEL  
SEE GENERAL NOTES

| REINFORCED CONCRETE APRON ENDWALLS |                          |                 |                   |                |                   |      |     |                  |  |  |
|------------------------------------|--------------------------|-----------------|-------------------|----------------|-------------------|------|-----|------------------|--|--|
| PIPE DIA.<br>(mm)                  | DIMENSIONS (MILLIMETERS) |                 |                   |                |                   |      |     | APPROX.<br>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<br>**889 | * 2496<br>** 2540 | 2286 | 140 | 1:2.4            |  |  |
| 1500                               | 152                      | * 762<br>** 924 | 1524              | 991            | 2515              | 2448 | 127 | 1:2              |  |  |
| 1650                               | 165                      | * 610<br>** 762 | * 1829<br>** 1981 | * 533<br>**686 | 2515              | 2591 | 140 | 1:2              |  |  |
| 1800                               | 178                      | * 610<br>** 815 | 1981              | 533            | 2515              | 2743 | 152 | 1:2              |  |  |
| 1950                               | 190                      | * 610<br>** 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            |  |  |

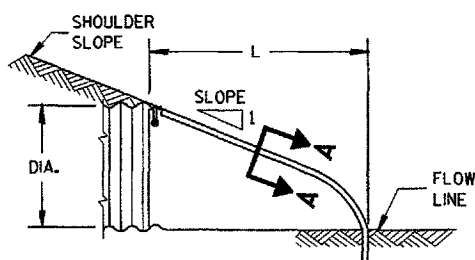
\* MINIMUM  
\*\* MAXIMUM



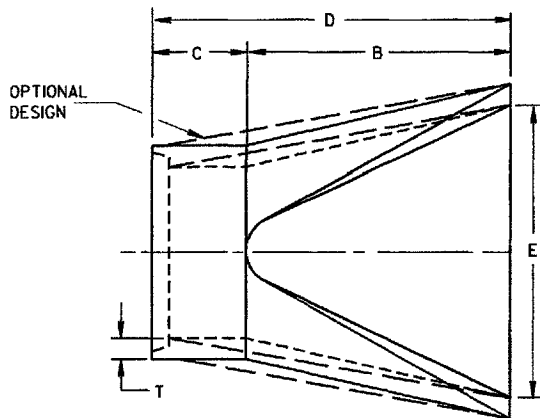
PLAN VIEW



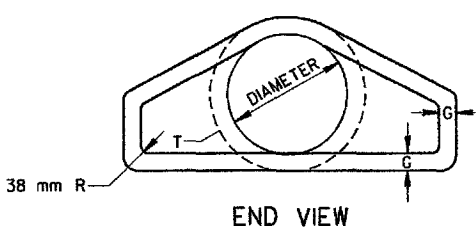
END VIEW



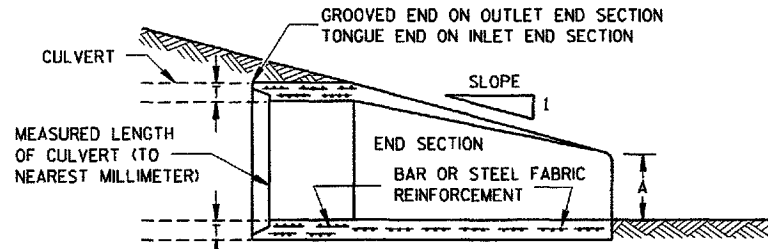
SIDE ELEVATION  
METAL ENDWALLS



PLAN

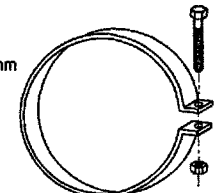


END VIEW

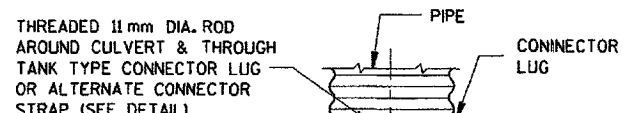


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

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



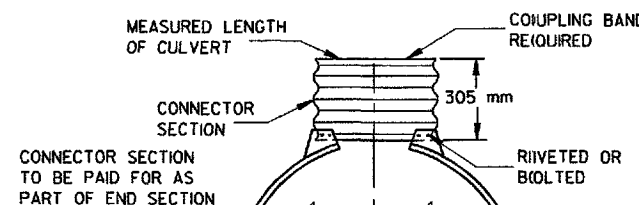
ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



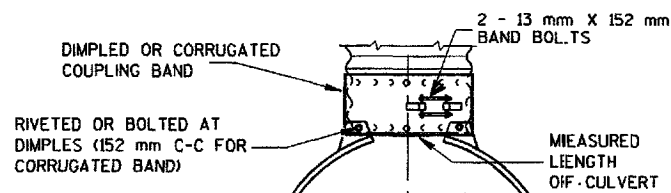
TYPE 1  
FOR 300 mm THRU 600 mm CORR. PIPE



TYPE 2  
FOR 750 mm THRU 2400 mm CORR. PIPE



TYPE 3  
FOR 1050 mm THRU 2400 mm CORR. PIPE



TYPE 5

ALTERNATE FOR:  
ALL SIZES CORRUGATED CIRCULAR PIPE

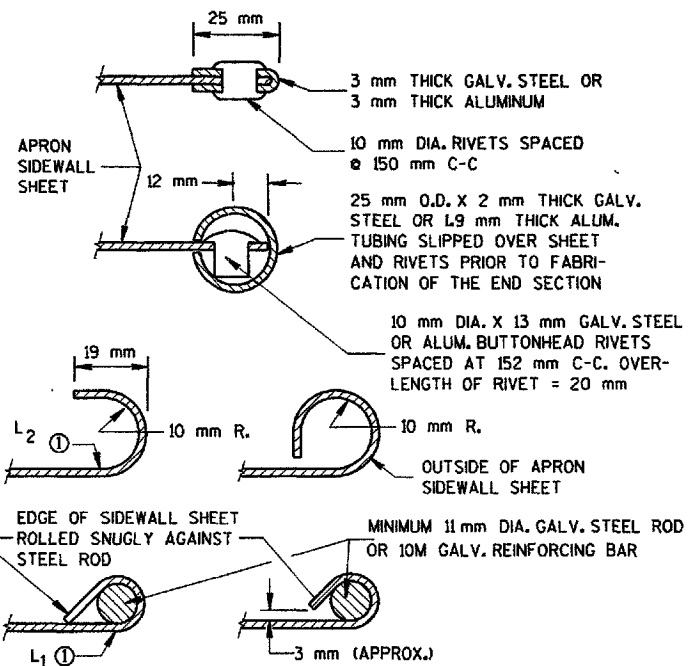
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

## GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 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.

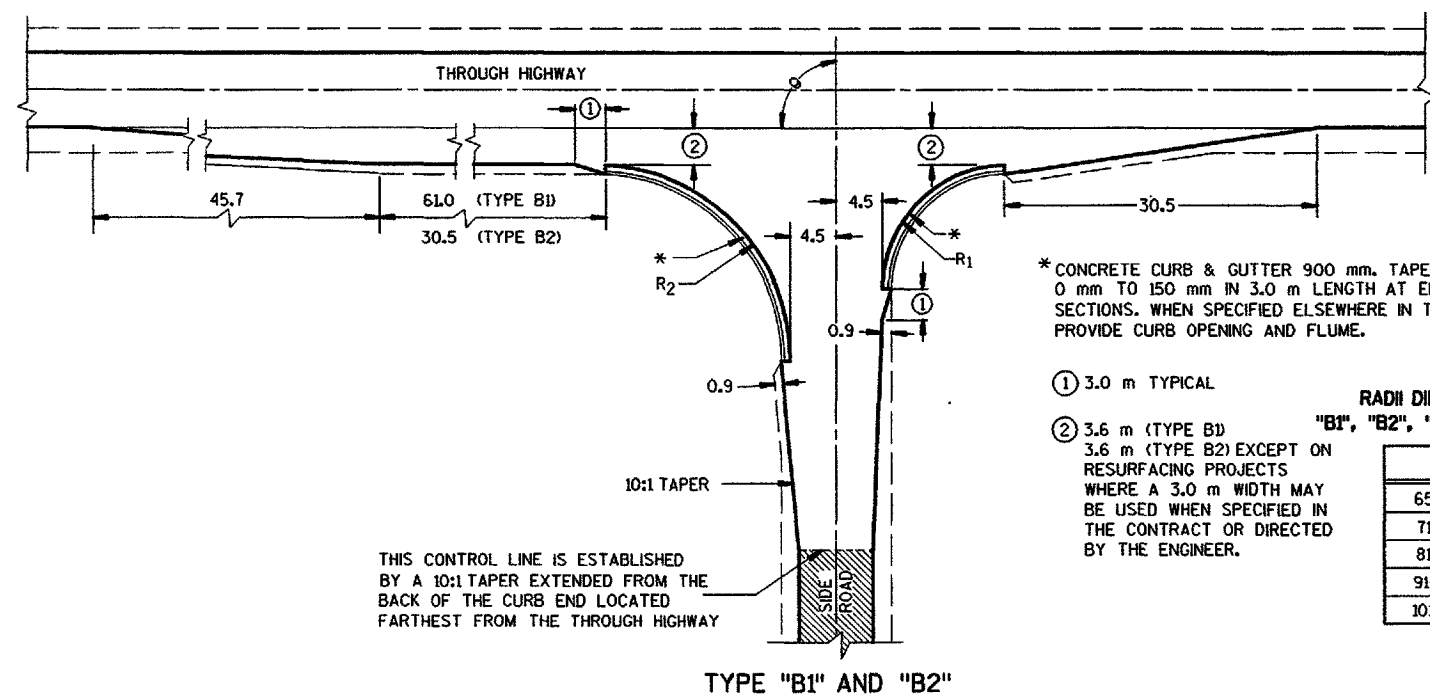
APRON ENDWALLS FOR  
CULVERT PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FWHA



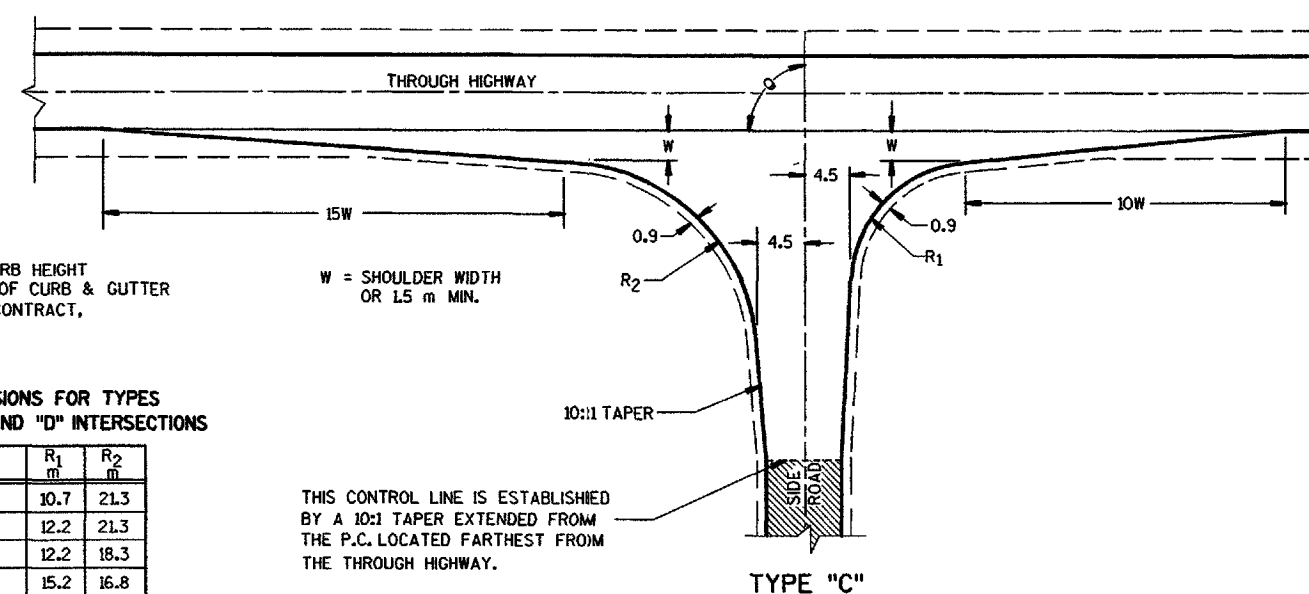


\* CONCRETE CURB & GUTTER 900 mm. TAPER CURB HEIGHT 0 mm TO 150 mm IN 3.0 m LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

- ① 3.0 m TYPICAL
- ② 3.6 m (TYPE B1)  
3.6 m (TYPE B2) EXCEPT ON RESURFACING PROJECTS WHERE A 3.0 m WIDTH MAY BE USED WHEN SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

RADI DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

| θ       | R <sub>1</sub><br>m | R <sub>2</sub><br>m |
|---------|---------------------|---------------------|
| 65-70   | 10.7                | 21.3                |
| 71-80   | 12.2                | 21.3                |
| 81-90   | 12.2                | 18.3                |
| 91-100  | 15.2                | 16.8                |
| 101-110 | 18.3                | 13.7                |



THIS CONTROL LINE IS ESTABLISHED BY A 10:1 TAPER EXTENDED FROM THE P.C. LOCATED FARTEST FROM THE THROUGH HIGHWAY.

TYPE "C"

## GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

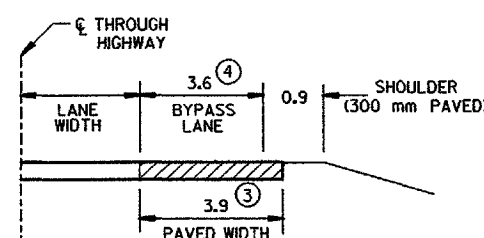
### SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

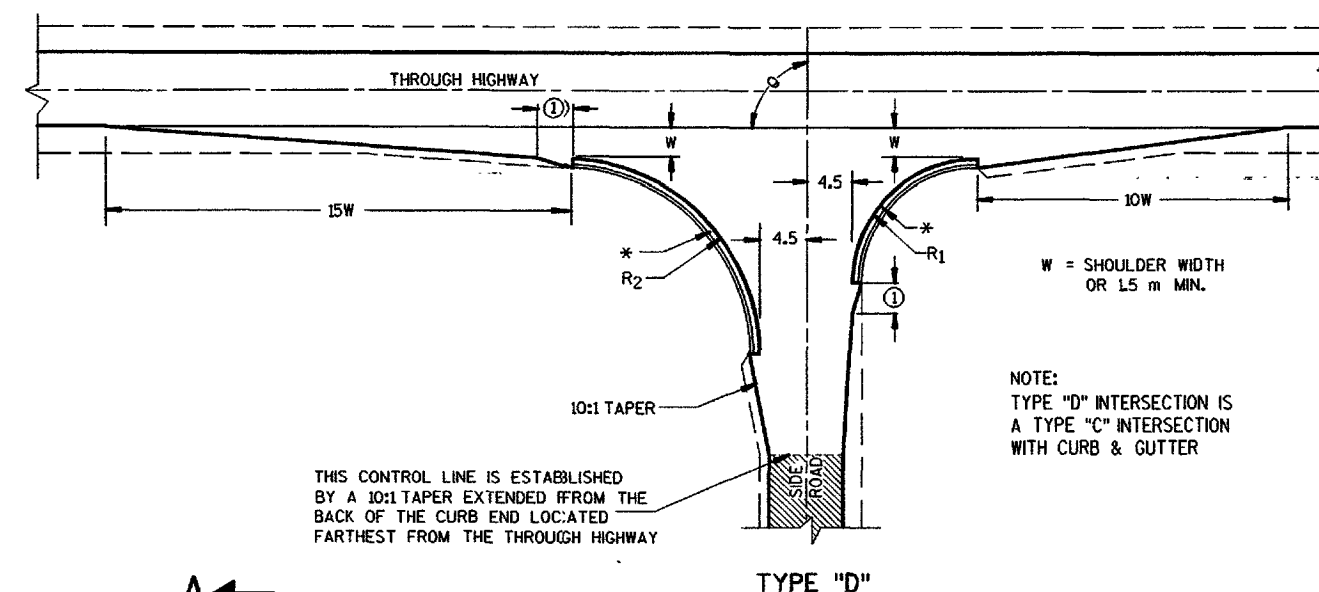
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING SURFACE



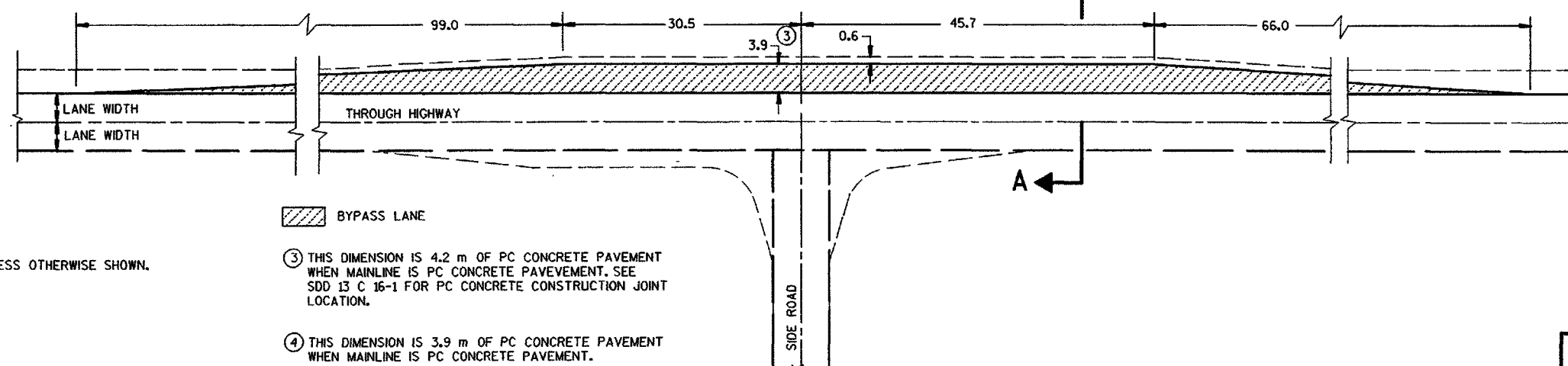
SECTION A-A  
(SHOWING BYPASS LANE AND SHOULDER)



THIS CONTROL LINE IS ESTABLISHED BY A 10:1 TAPER EXTENDED FROM THE BACK OF THE CURB END LOCATED FARTEST FROM THE THROUGH HIGHWAY

TYPE "D"

NOTE:  
TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB & GUTTER



## NOTE:

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

BYPASS LANE

③ THIS DIMENSION IS 4.2 m OF PC CONCRETE PAVEMENT WHEN MAINLINE IS PC CONCRETE PAVEMENT. SEE SDD 13 C 16-1 FOR PC CONCRETE CONSTRUCTION JOINT LOCATION.

④ THIS DIMENSION IS 3.9 m OF PC CONCRETE PAVEMENT WHEN MAINLINE IS PC CONCRETE PAVEMENT.

TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD  
INTERSECTION, TYPES "B1", "B2", "C"  
AND "D" AND TEE INTERSECTION  
BYPASS LANE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLOT SCALE:

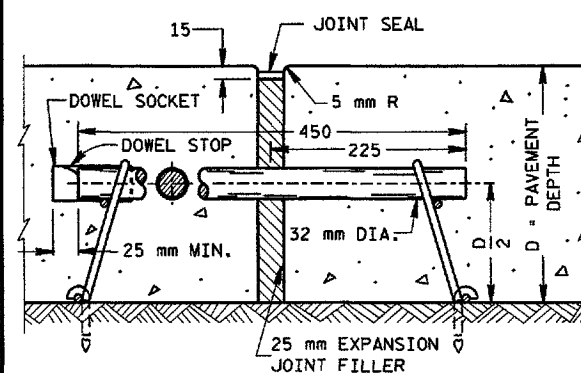
PLOT NAME:

REV. DATE:

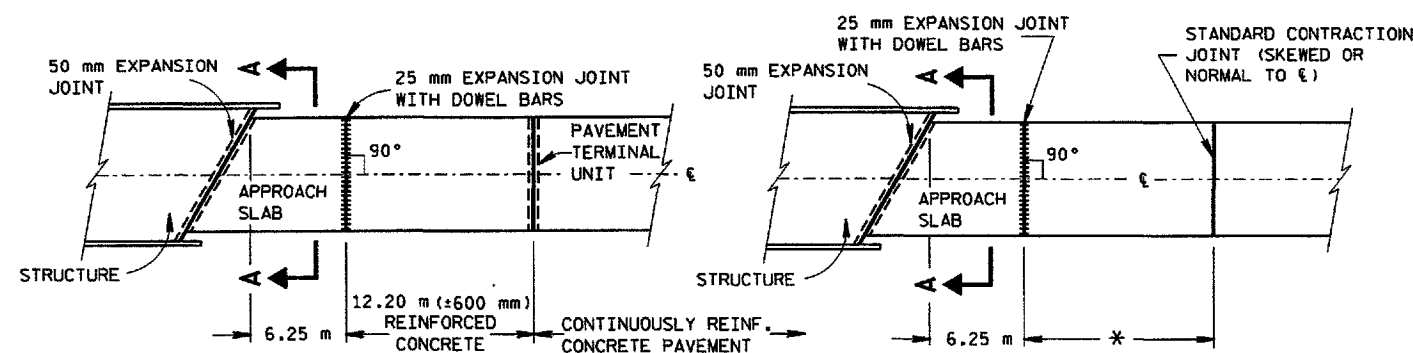
ORIGINATOR:

S.D.D. 13 B 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



EXPANSION JOINT



APPROACH SLAB AND ADJACENT PAVEMENT

APPROACH SLAB AND ADJACENT PAVEMENT

\* 3.70 m MIN., 6.1 m MAX. FOR NON-REINFORCED CONCRETE PAVEMENT. 12.2 m ±0.6 m FOR REINFORCED CONCRETE PAVEMENT.

## BIDDING INFORMATION

| SKEW ANGLE | APPROACH SLAB QUANTITIES (ONE SLAB, 7.2 m WIDE) |                |                                                   |     |                                   |                |
|------------|-------------------------------------------------|----------------|---------------------------------------------------|-----|-----------------------------------|----------------|
|            | CONCRETE PAVEMENT                               |                | WELDED WIRE FABRIC<br>①<br>2.68 kg/m <sup>2</sup> |     | STEEL REINFORCEMENT<br>(GRADE 60) |                |
|            | m <sup>2</sup>                                  | m <sup>3</sup> | m <sup>2</sup>                                    | kg  | 25M BARS<br>kg                    | 15M BARS<br>kg |
| 0°         | 45.7                                            | 15.2           | 45.7                                              | 123 | 1201                              | 67             |
| 15°        | 52.8                                            | 17.6           | 52.8                                              | 142 | 1385                              | 76             |
| 30°        | 66.9                                            | 22.3           | 66.9                                              | 164 | 1600                              | 88             |
| 45°        | 72.5                                            | 24.2           | 72.5                                              | 195 | 1840                              | 103            |
| 60°        | 92.1                                            | 30.7           | 92.1                                              | 247 | 2395                              | 130            |

## GENERAL NOTES

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

## DOWEL BARS

DOWEL BARS ACROSS EXPANSION JOINTS SHALL BE CORROSION RESISTANT COATED CONFORMING TO THE REQUIREMENTS OF AASHTO DESIGNATION M 254.

THE COATING TYPE SHALL BE, TYPE B - THERMOSETTING EPOXY.

## JOINT SEALING

EXPANSION JOINTS SHALL BE SEALED AS FOLLOWS:

- ON PAVEMENTS HAVING TRANSVERSE CONTRACTION JOINTS SEALED WITH A POURED TYPE SEALER, EXPANSION JOINTS SHALL BE SEALED WITH THE SAME TYPE SEALANT, 5 mm BELOW PAVEMENT SURFACE.
- ON PAVEMENTS WITH NO CONTRACTION JOINTS, UNSEALED CONTRACTION OR CONTRACTION JOINTS SEALED WITH COMPRESSION TYPE SEALS, EXPANSION JOINTS SHALL BE SEALED WITH A POURED TYPE SEALER AS SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS.

## JOINT FILLER

EXPANSION JOINT FILLER BETWEEN STRUCTURE AND APPROACH SLAB MAY CONSIST OF TWO, 25 mm THICKNESSES OF MATERIAL.

## ① WELDED WIRE FABRIC

6 X 12 - W5.5 X W4.0 OR METRIC EQUIVALENT

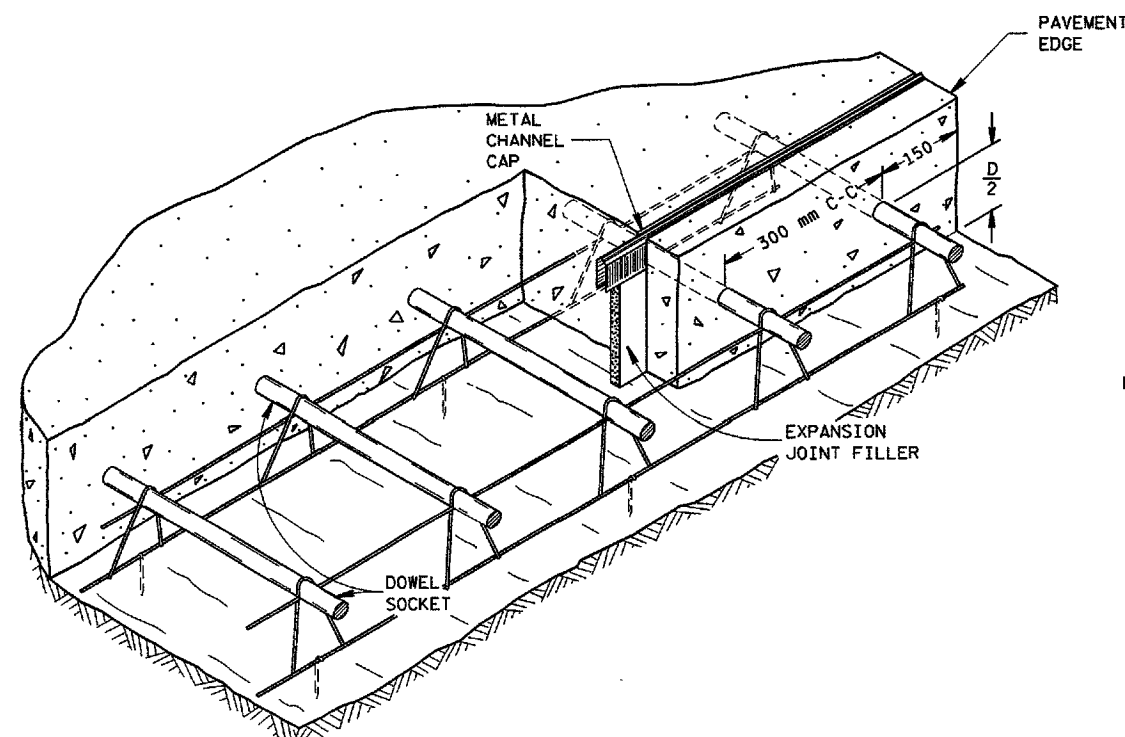
SHEET WIDTHS OF 2.5 m ARE PERMITTED.

## STEEL REINFORCEMENT

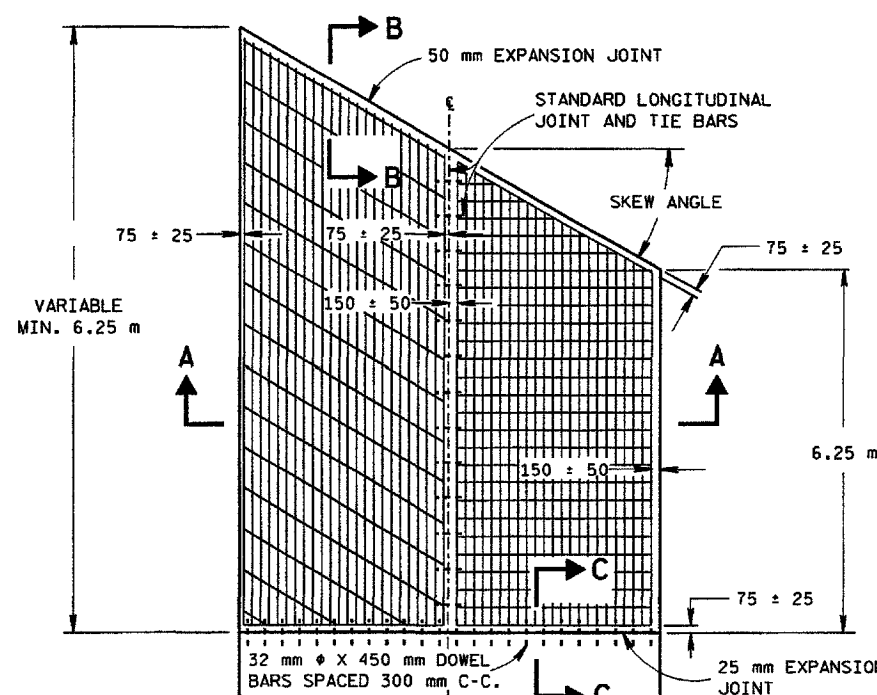
SPLICING OF 25M BARS IN THE APPROACH SLAB IS PERMITTED FOR SKEWED STRUCTURES ONLY. SPLICES SHALL BE STAGGERED, WITH A MAXIMUM OF ONE SPLICE PER BAR. LAPS SHALL CONFORM TO THE STANDARD SPECIFICATIONS.

## NOTE

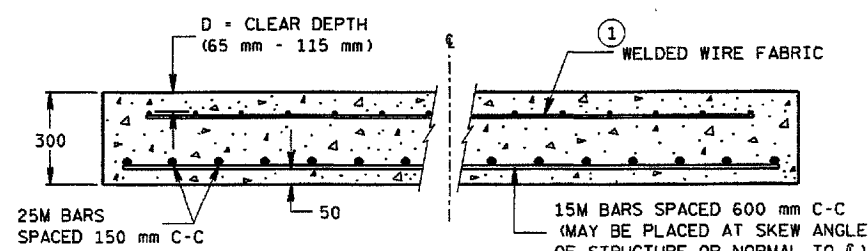
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



INSTALLING DEVICE FOR DOWEL BARS AND EXPANSION JOINT ASSEMBLY

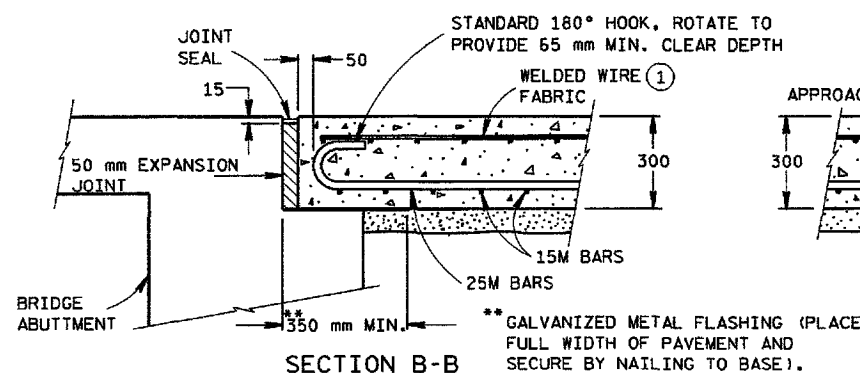
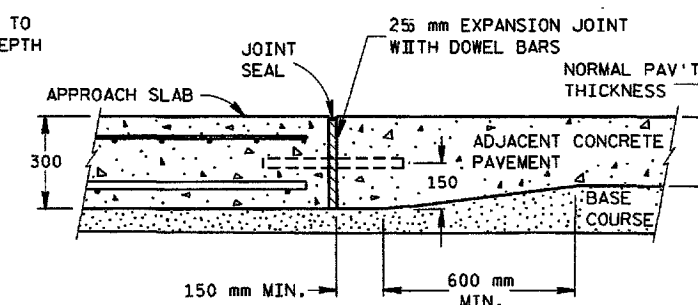
HALF SECTION  
BOTTOM REINFORCEMENTHALF SECTION  
TOP REINFORCEMENT

APPROACH SLAB



SECTION A-A

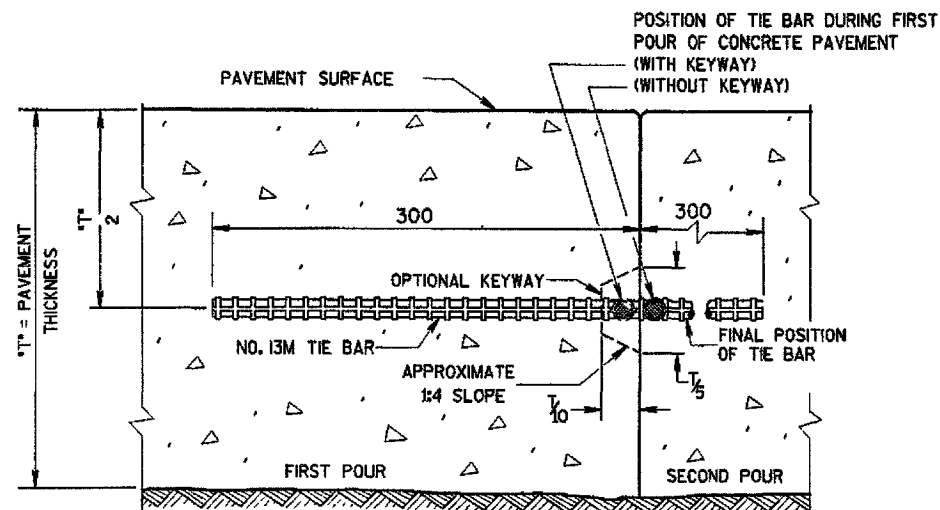
REINFORCEMENT POSITIONING DETAIL

SECTION B-B  
BEND DETAIL  
BOTTOM REINFORCEMENTSECTION C-C  
TRANSITION DETAIL  
APPROACH SLAB TO ADJACENT PAVEMENTCONCRETE PAVEMENT  
APPROACH SLAB

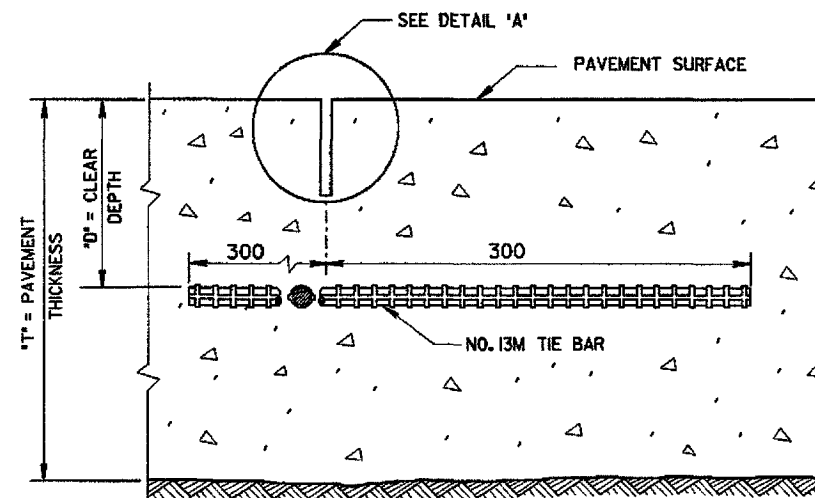
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
02/10/15  
DATE  
CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA

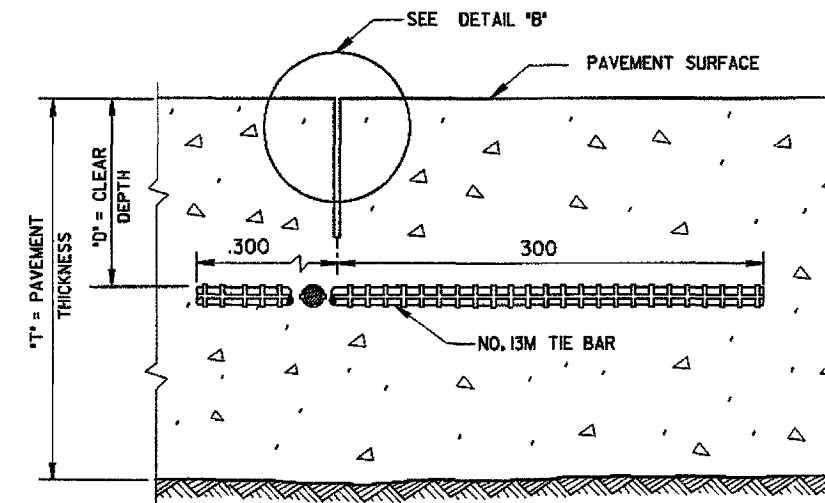
S.D.D. 13 B 2-3



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.

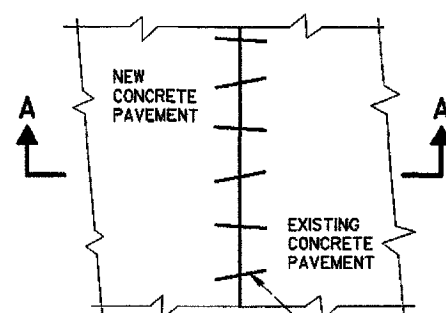
DETAILS "A" AND "B" ARE EQUAL ALTERNATES UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.

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.

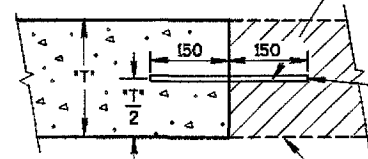
### NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



PLAN VIEW

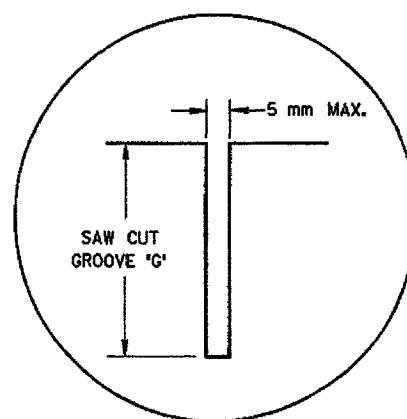
NO. 19M TIE BARS SPACED 900 mm C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



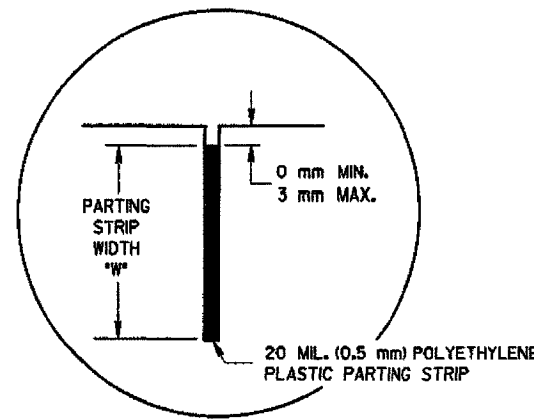
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 175 mm AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

EXIST. CONC. PAVEMENT

SECTION A-A  
PAVEMENT TIES

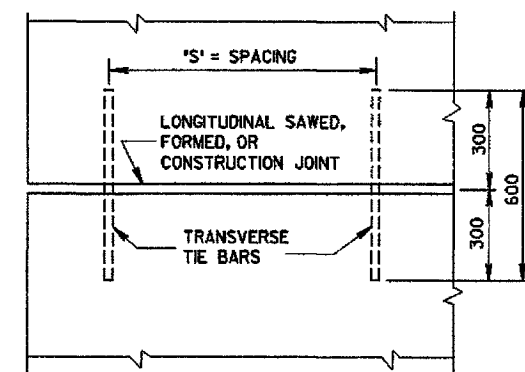


DETAIL "A"



DETAIL "B"

| PAVEMENT THICKNESS<br>"T"<br>(mm) | CLEAR DEPTH<br>"D"<br>(mm) | SAW CUT GROOVE<br>"G"<br>(mm) | MAXIMUM TIE BAR SPACING "S" (mm) |     | PARTING STRIP WIDTH<br>"W"<br>(mm) |
|-----------------------------------|----------------------------|-------------------------------|----------------------------------|-----|------------------------------------|
|                                   |                            |                               | PAVEMENT WIDTH (m)               |     |                                    |
|                                   |                            |                               | 7.2 OR 7.8                       | 9.0 |                                    |
| 150,165                           | 75 ± 13                    | 50                            | 1 000                            | 900 | 50                                 |
| 175,190                           | 85 ± 25                    | 55                            | 850                              | 800 | 55                                 |
| 200,215                           | 95 ± 25                    | 65                            | 750                              | 700 | 65                                 |
| 225,240                           | 110 ± 25                   | 75                            | 650                              | 600 | 75                                 |
| 250,265                           | 120 ± 25                   | 85                            | 600                              | 550 | 85                                 |
| 275,290                           | 135 ± 25                   | 95                            | 550                              | 500 | 95                                 |
| 300                               | 145 ± 25                   | 100                           | 500                              | 450 | 100                                |



PLAN VIEW  
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT  
LONGITUDINAL JOINTS  
AND PAVEMENT TIES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
9-24-98  
DATE  
FHWA

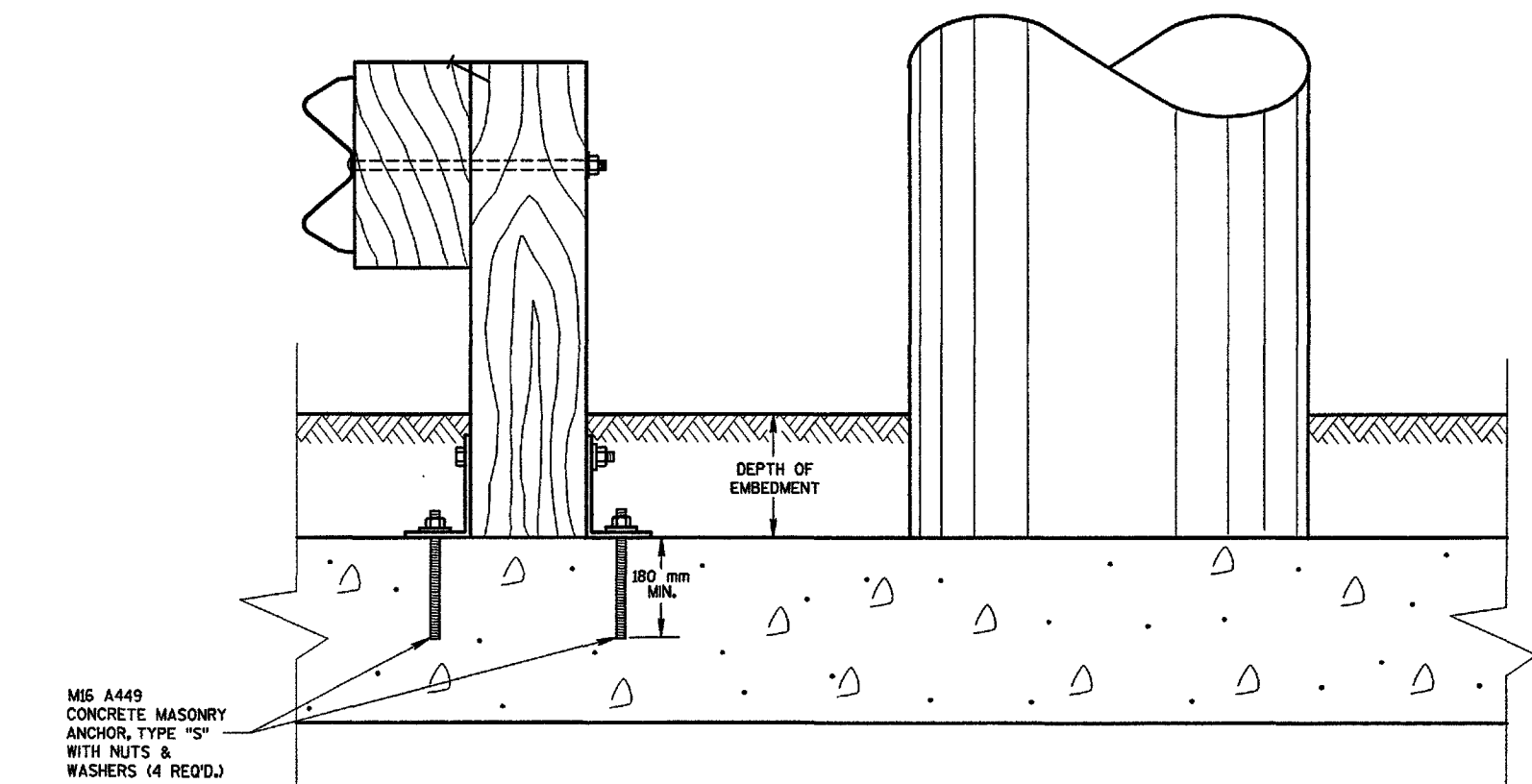
CHIEF PAVEMENTS & RESEARCH ENGINEER  
M

REV. DATE: 5-27-98  
PLOT NAME:  
PLOT SCALE:

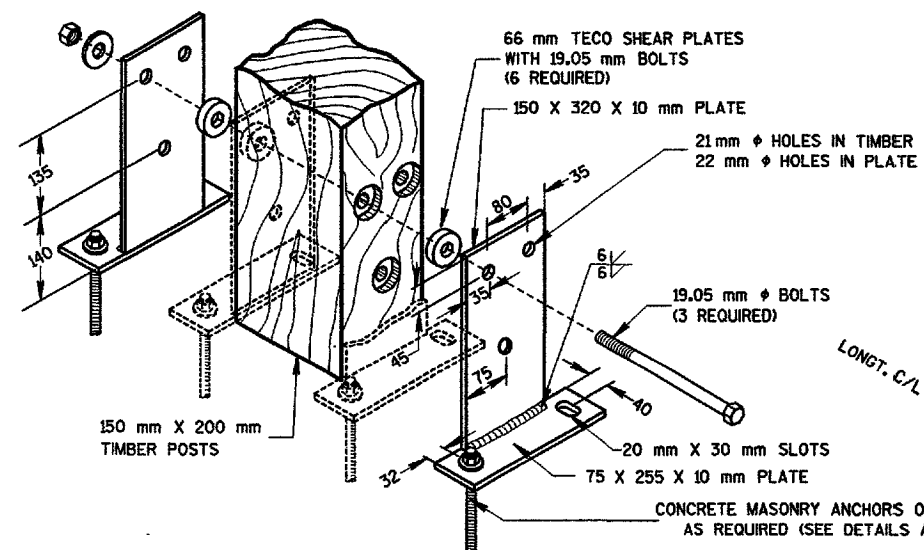
S.D.D. 14 B 15-3b

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

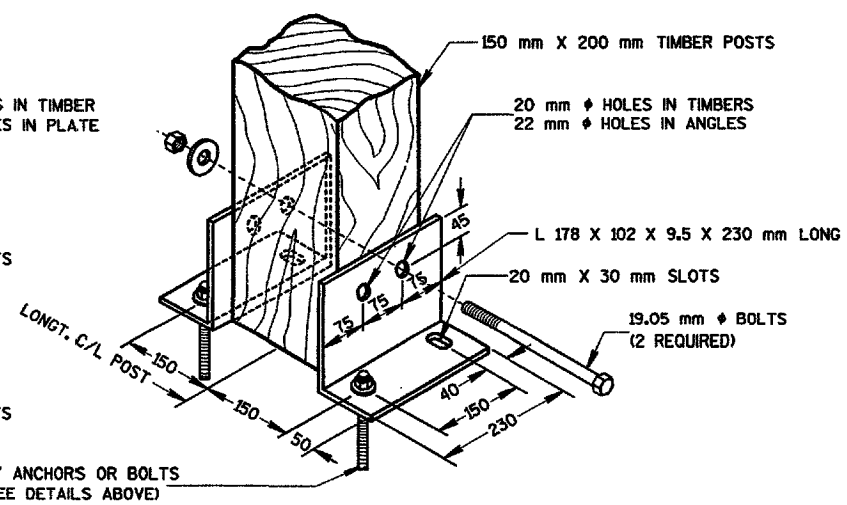
FILE NAME:



BEAM GUARD MOUNTED ON PIER FOOTINGS



ISOMETRIC VIEW  
TIMBER GUARD RAIL POST ANCHORS, TYPE 1  
(POSTS EMBEDDED 600 mm OR LESS)



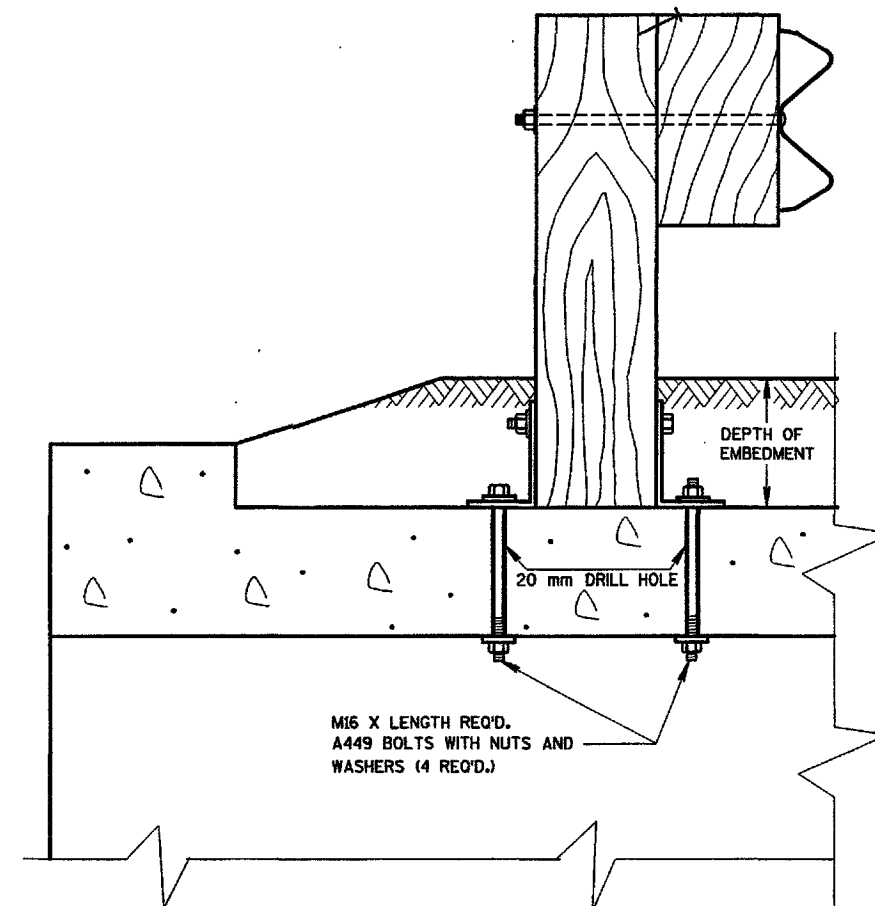
ISOMETRIC VIEW  
TIMBER GUARD RAIL POST ANCHORS, TYPE 2  
(POSTS EMBEDDED OVER 600 mm BUT LESS THAN 1300 mm)

POST MOUNTING DETAILS

NOTES

CONCRETE MASONRY ANCHORS SHALL BE CERTIFIED TO PROVIDE A MINIMUM PULLOUT STRENGTH OF 72000 N.

PAYMENT FOR MISCELLANEOUS HARDWARE SHALL BE INCLUDED WITH THE ITEM STEEL PLATE BEAM GUARD, CLASS "A".



BEAM GUARD MOUNTED ON  
EXISTING BOX CULVERTS

CLASS "A"  
STEEL PLATE BEAM GUARD,  
POST MOUNTING ON PIER  
FOOTINGS AND CULVERTS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

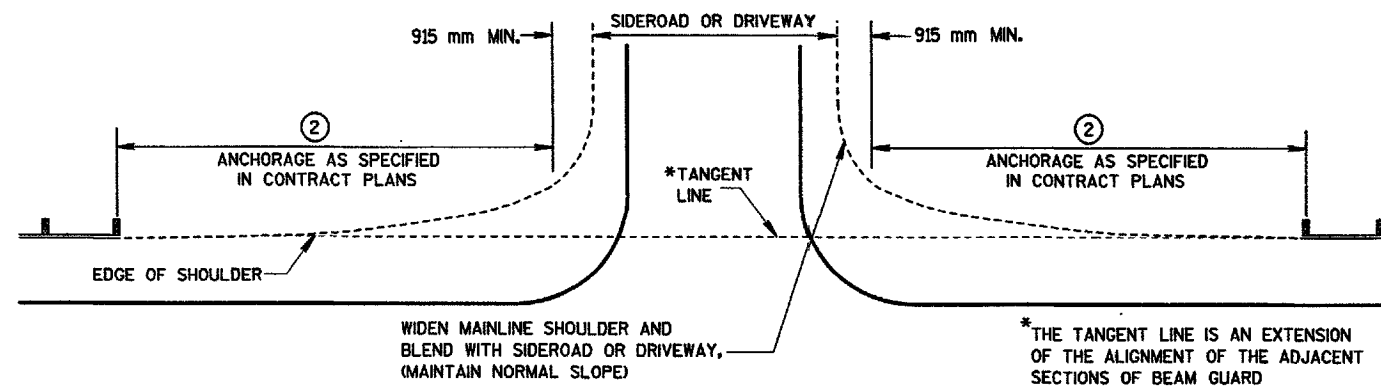
APPROVED  
2/19/99  
DATE

Ray L. Thompson  
CHIEF ROADWAY DEVELOPMENT ENGINEER

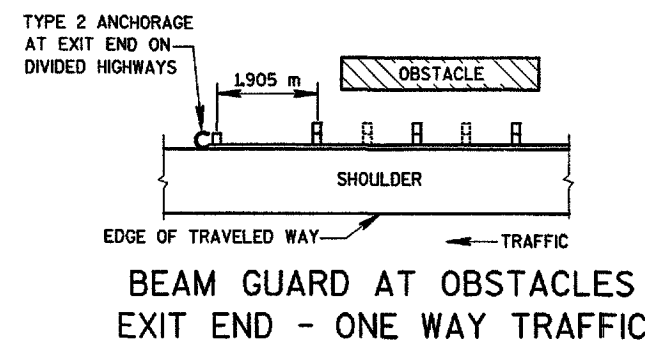
FWA

M

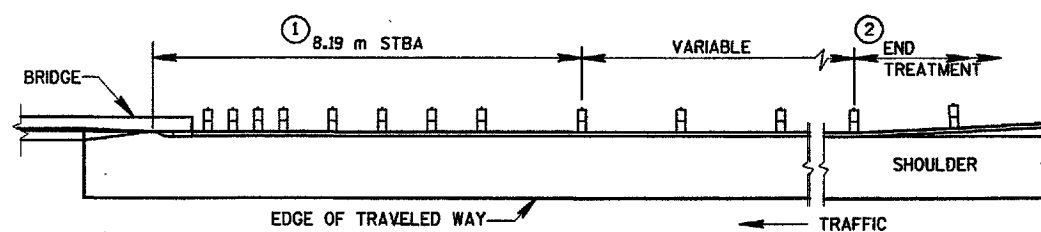
S.D.D. 14 B 15-3b



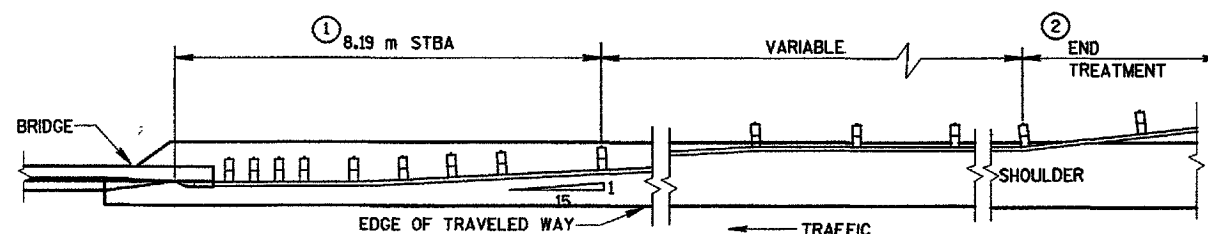
BEAM GUARD AT MINOR SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES  
EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES



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

## GENERAL NOTES

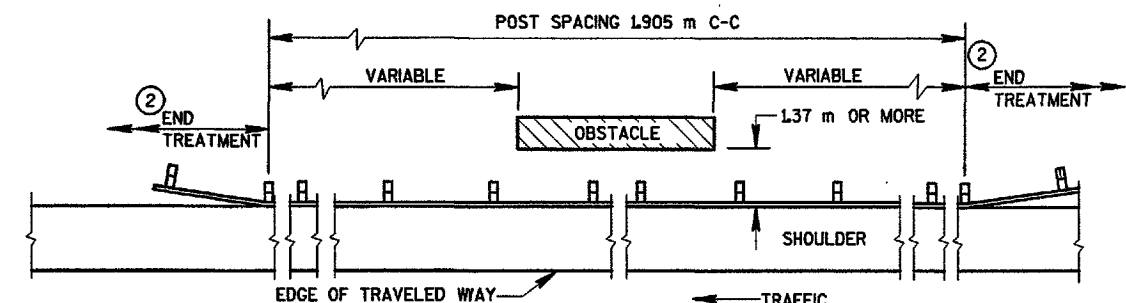
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BEAM GUARD LOCATIONS AND LENGTHS ARE SHOWN ELSEWHERE IN THE PLAN.

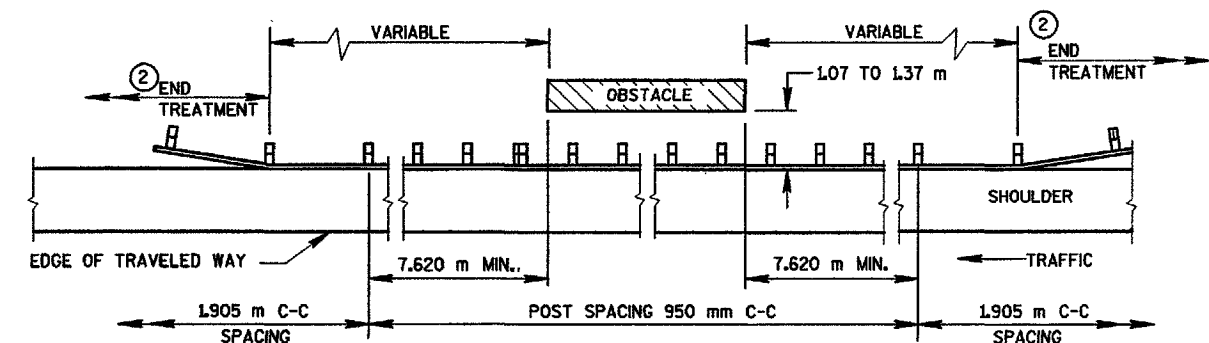
- ① STEEL THREE BEAM STRUCTURE APPROACH.
- ② FOR TRAFFIC APPROACH SIDE OF BRIDGES/OBSTACLES, TYPE 2 ANCHORAGE SHALL BE USED ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

## NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC  
(RAIL TO OBSTACLE CLEARANCE 1.37 m OR MORE)



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC  
(RAIL TO OBSTACLE CLEARANCE 1.07 TO 1.37 m)

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED: *[Signature]*  
DATE: 2/19/99  
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

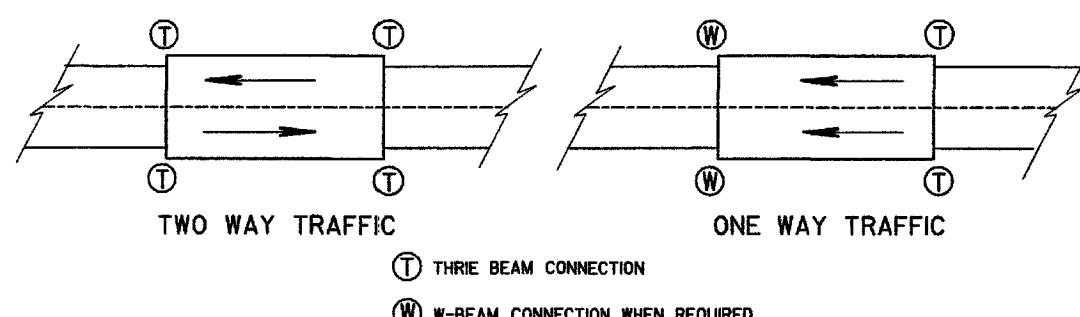
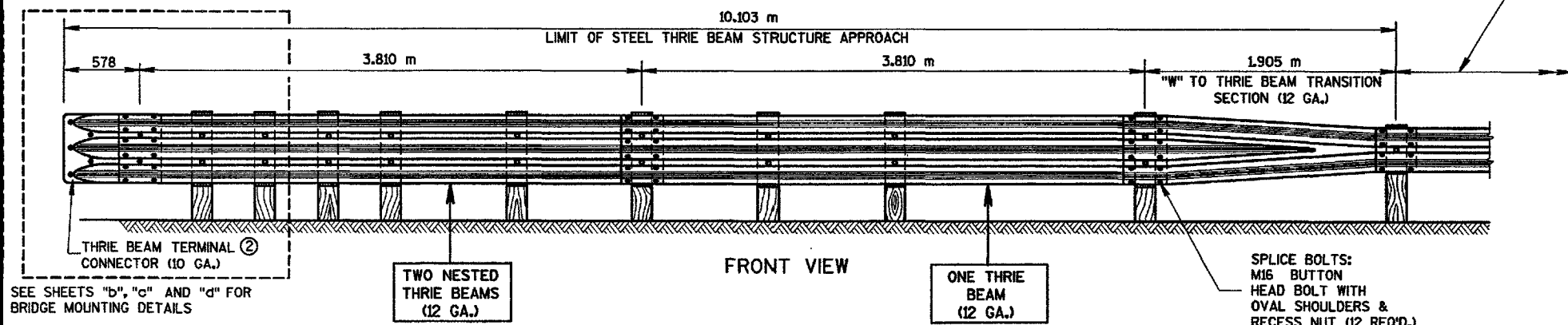
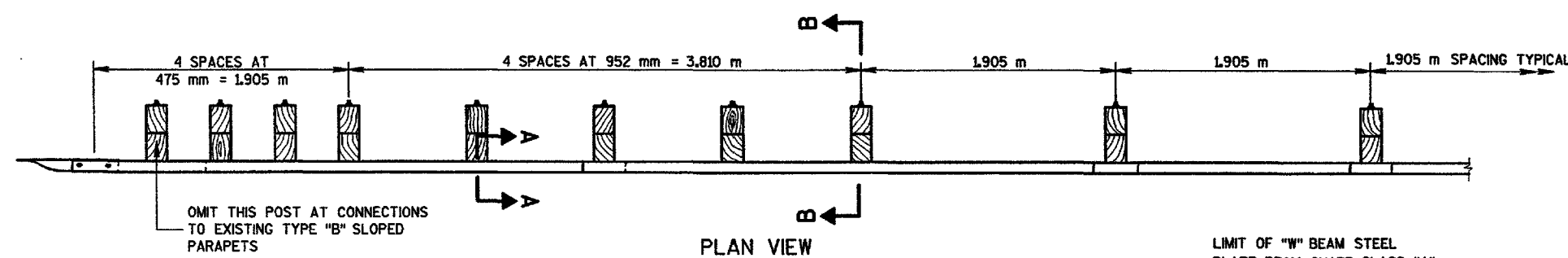
M

S.D.D. 14 B 18-4a

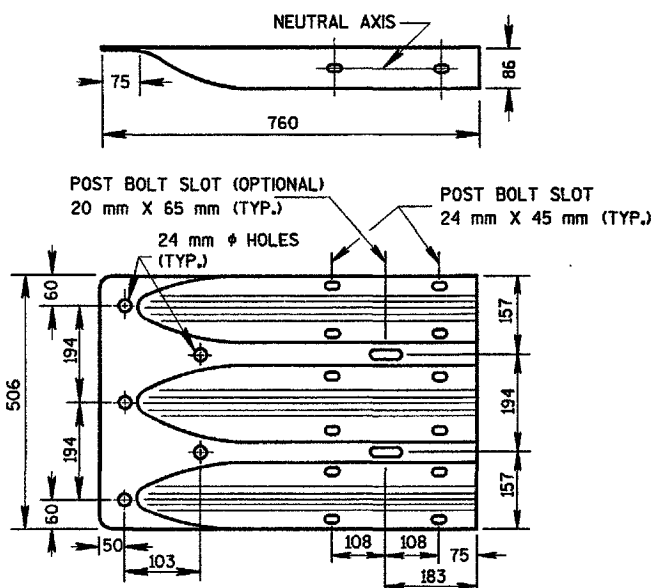
FILE NAME:

S.D.D. 14 B 18-4a

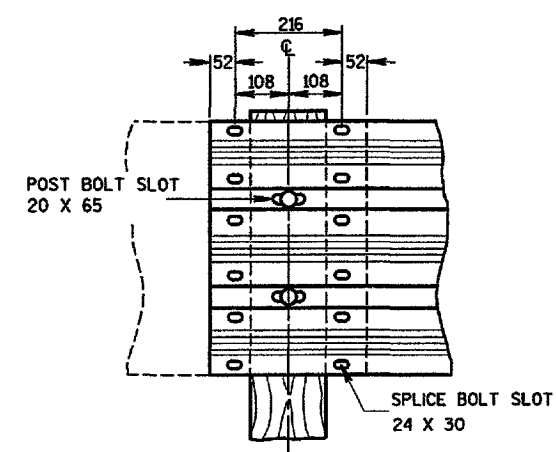
FILE NAME: S.D.D. 14 B 20-60



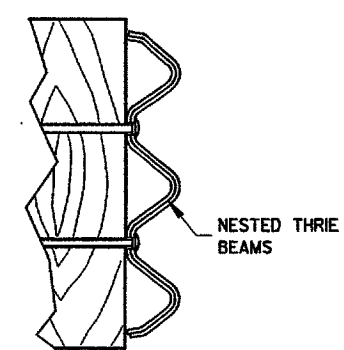
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



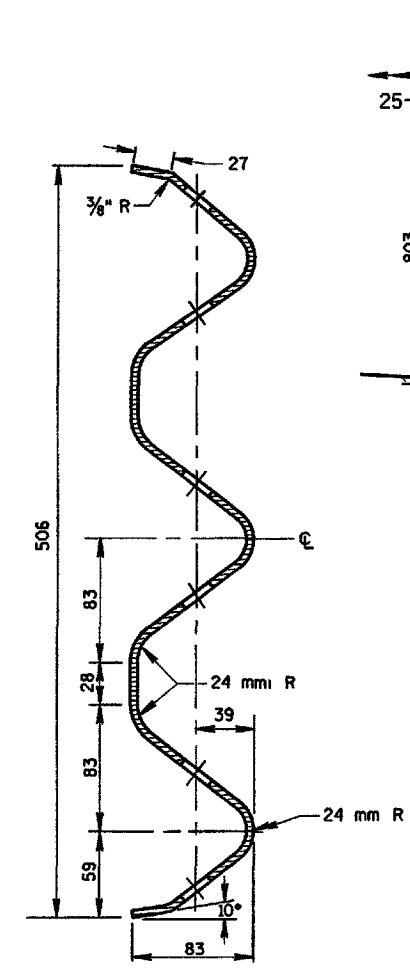
THRIE BEAM TERMINAL CONNECTOR



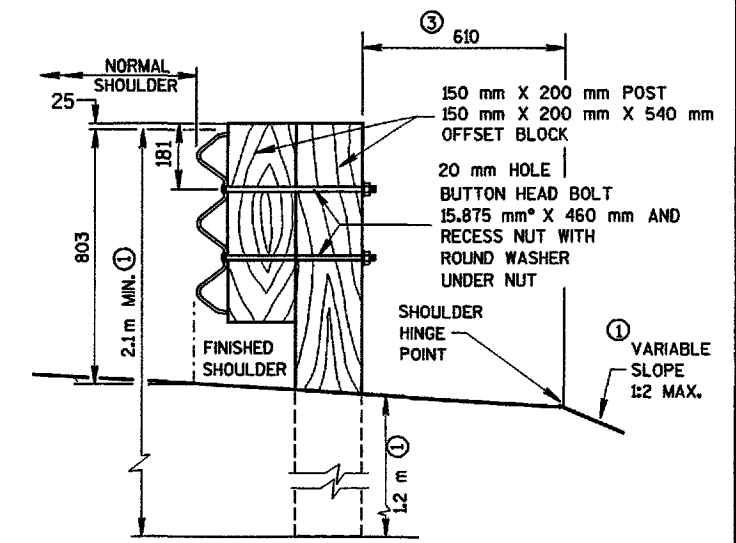
THRIE BEAM SPLICE



PARTIAL SECTION A-A



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION B-B

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.

THRIE BEAM STRUCTURE APPROACH SHALL BE FURNISHED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 614 OF THE STANDARD SPECIFICATIONS. THRIE BEAM SECTIONS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS "A", TYPE 2, BEAM AS SPECIFIED IN AASHTO DESIGNATION M180.

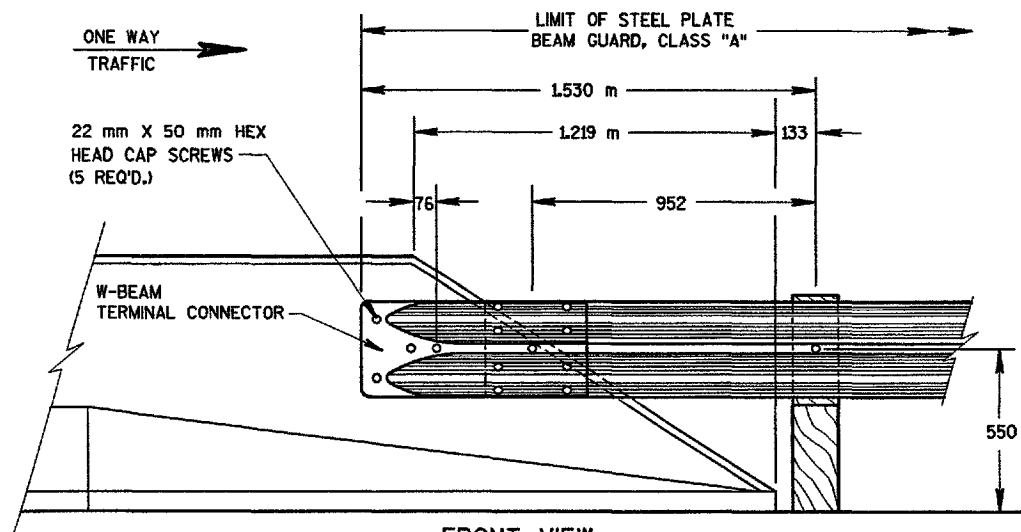
THRIE BEAM SHALL BE BOLTED TO ALL POSTS AND OFFSET BLOCKS. FIELD DRILLING/PUNCHING OF BOLT HOLES IN THE BEAM IS PERMITTED WHERE POST SPACING IS LESS THAN 1905 m.

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 305 mm DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 65 mm DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

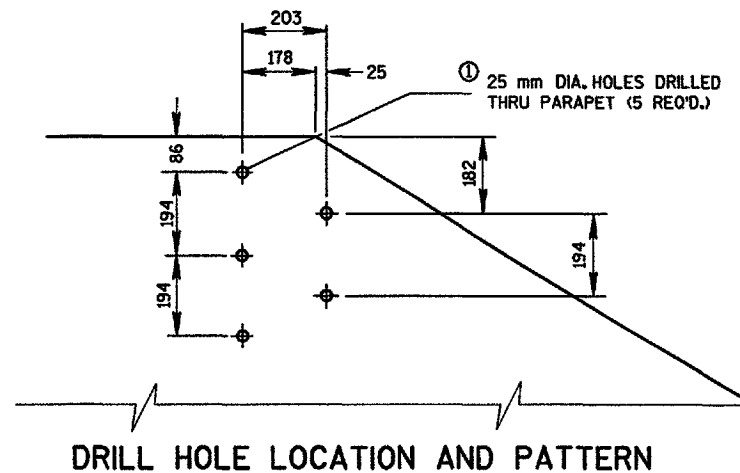
- ① POST LENGTH SHALL BE INCREASED TO PROVIDE A MINIMUM EMBEDMENT OF 1.2 m WHERE THE SHOULDER HINGE POINT IS LOCATED IN FRONT OF THE POST.
- ② A TERMINAL CONNECTOR IS NOT REQUIRED AT CONNECTIONS TO BRIDGE RAILING TYPE "W".
- ③ WHEN SPECIFIED ELSEWHERE IN THE CONTRACT THE 610 mm MINIMUM TO HINGE POINT, MAY BE REDUCED OR ELIMINATED WHERE EXISTING CONDITIONS WILL NOT PERMIT THE DESIRABLE EARTHWORK.

|                                                    |
|----------------------------------------------------|
| STEEL THRIE BEAM<br>STRUCTURE APPROACH             |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |

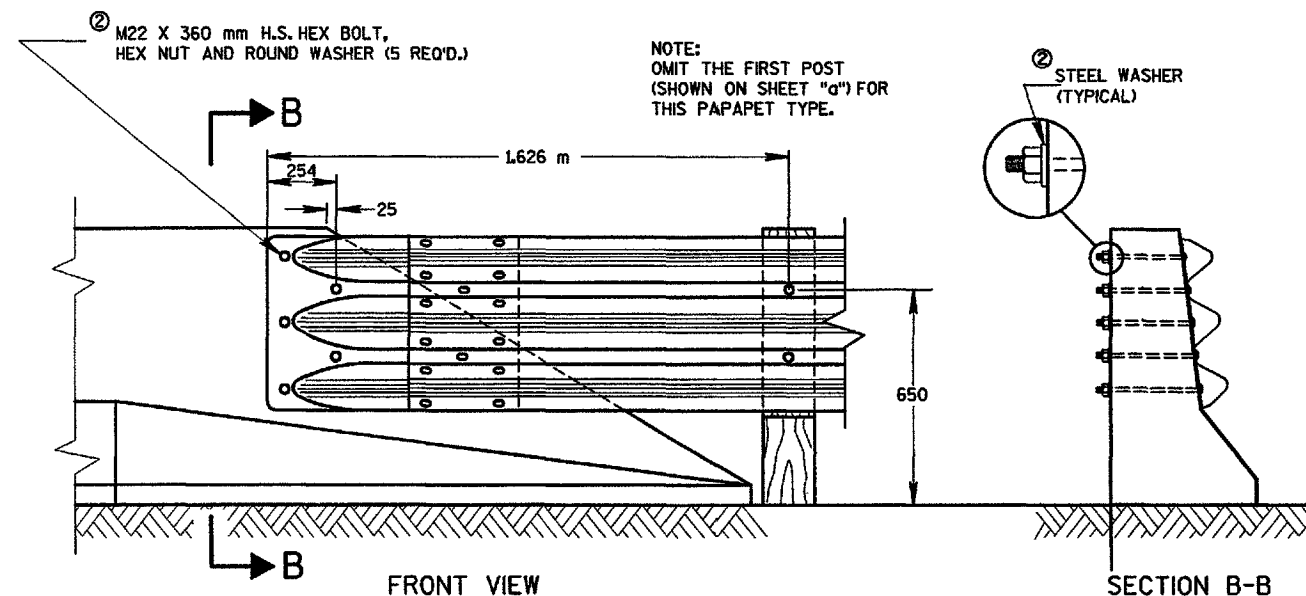




FRONT VIEW  
W BEAM CONNECTION TO  
PARAPETS WITH SLOPED ENDS  
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)



DRILL HOLE LOCATION AND PATTERN



FRONT VIEW  
SECTION B-B  
THRIE BEAM CONNECTION TO BRIDGE  
PARAPETS WITH SLOPED ENDS

### GENERAL NOTES

THE CONNECTION DETAILS SHOWN ARE TYPICAL. THE POSITION OF THE CONNECTIONS TO EXISTING BRIDGES SHALL BE ADJUSTED WHERE NECESSARY TO FIT ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 M, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

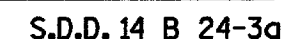
- ① PAYMENT FOR DRILLING BOLT HOLES THRU THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS REQUIRED SHALL BE INCLUDED IN THE ITEM STEEL THRIE BEAM STRUCTURE APPROACH.
- ② HARDENED STEEL WASHER, MIN. SIZE 56 mm O.D. X 3.4 mm REQUIRED WITH EACH BOLT AT THE BACKFACE OF PARAPET.

### NOTE

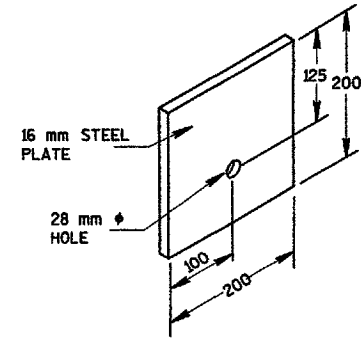
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

|                                                                              |                                                              |
|------------------------------------------------------------------------------|--------------------------------------------------------------|
| STEEL THRIE BEAM STRUCTURE<br>APPROACH, CONNECTION TO<br>SLOPED END PARAPETS |                                                              |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION                           |                                                              |
| APPROVED<br>3-23-99<br>DATE                                                  | <i>Roy L. Harrison</i><br>CHIEF ROADWAY DEVELOPMENT ENGINEER |
| FHWA <span style="float: right;">M</span>                                    |                                                              |

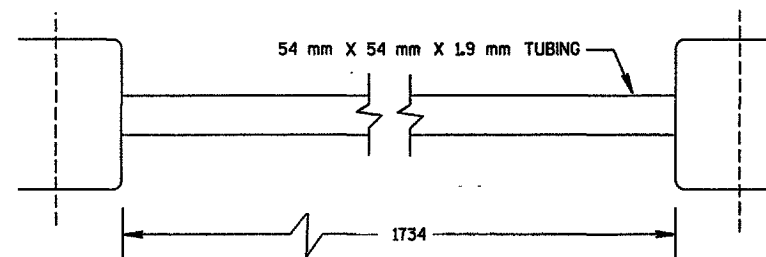




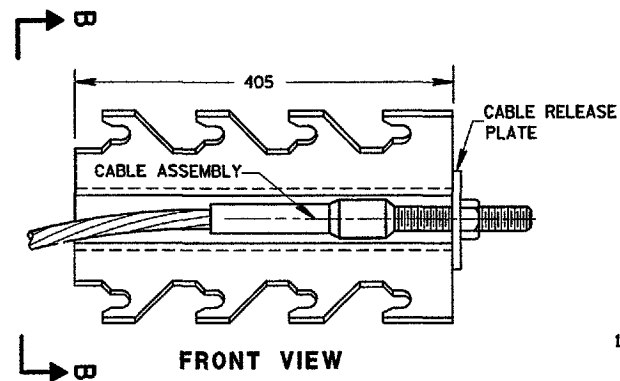




**STEEL BEARING PLATE (SKT-350)**

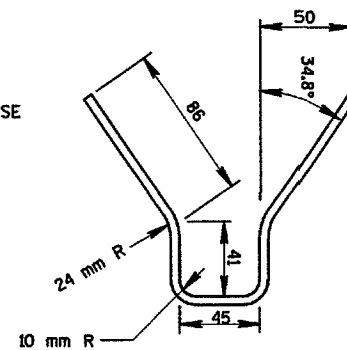


**STRUT DETAIL (SKT-350)**

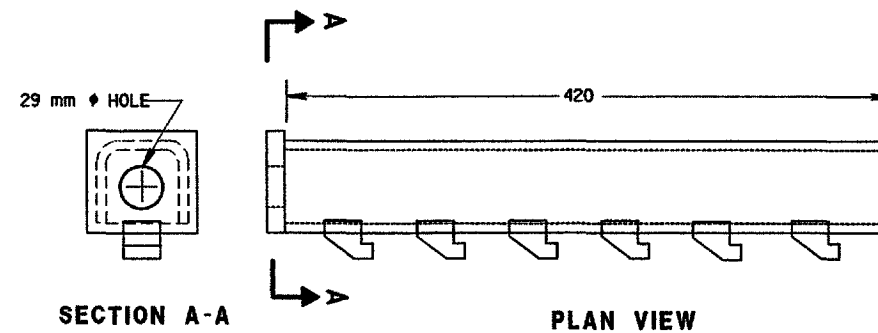


**CABLE ANCHOR BOX (SKT-350)**

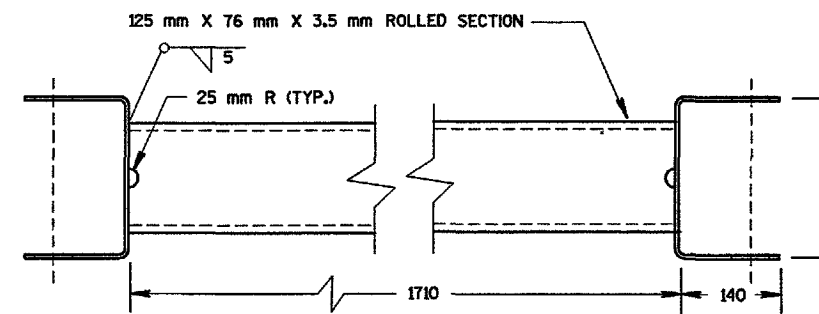
**(SKT-350)**



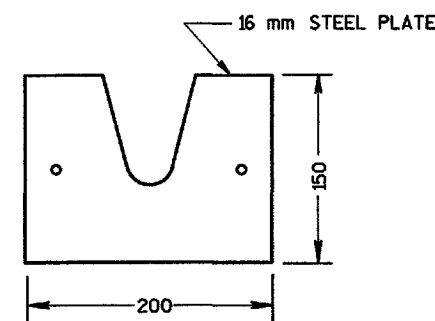
**SECTION B-B**



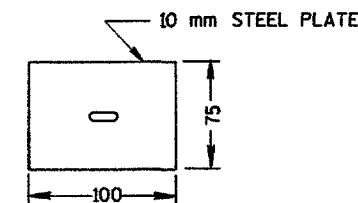
**CABLE ANCHOR BOX (ET-2000)**



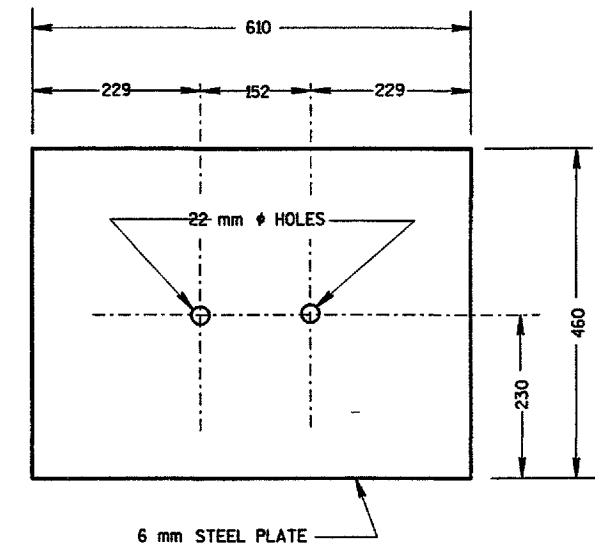
**STRUT DETAIL (ET-2000)**



**STEEL BEARING PLATE (ET-2000)**



**BEARING PLATE WASHER (ET-2000)**



**SOIL PLATE (SKT-350 & ET-2000)**

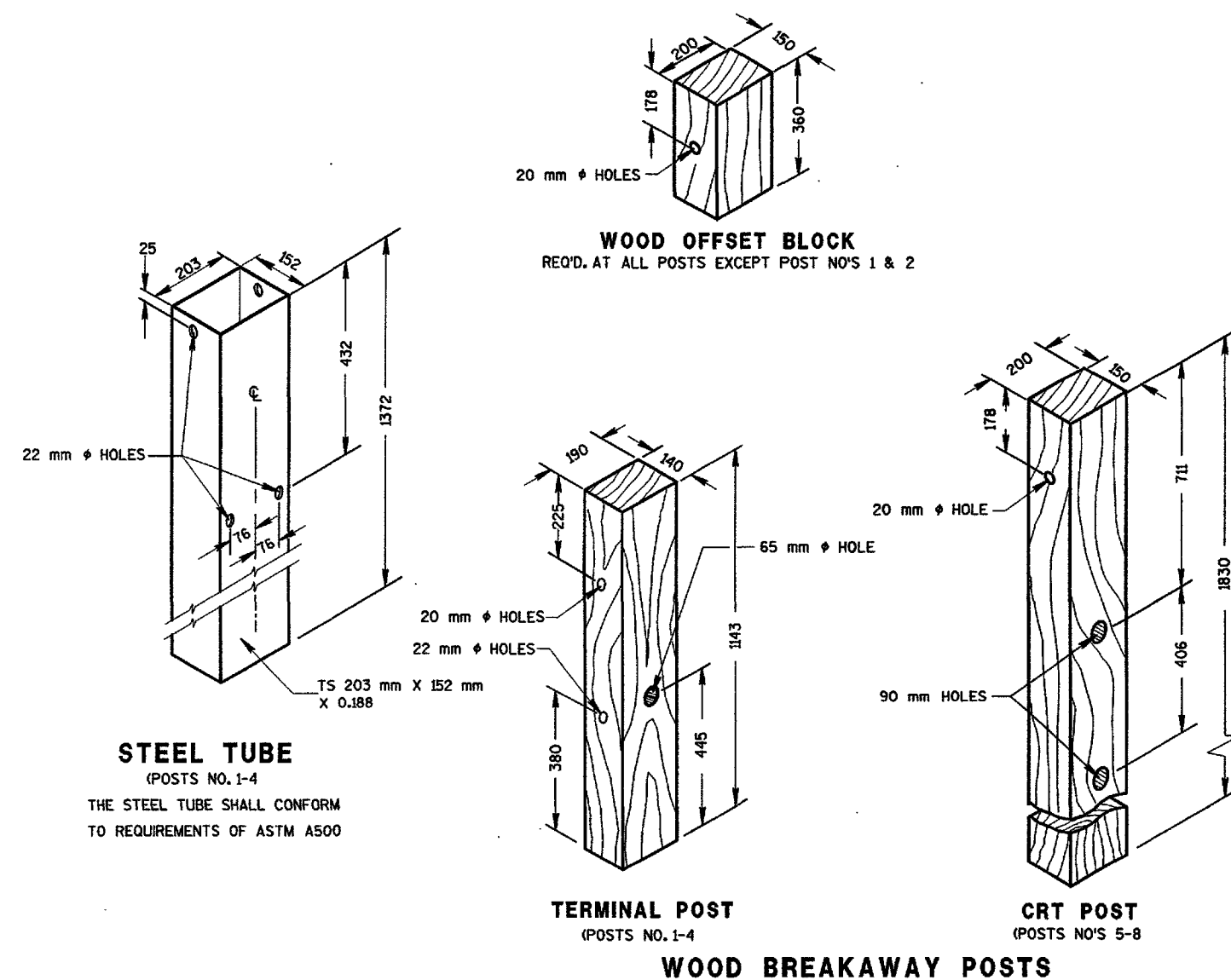
**NOTE**

ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE SHOWN.

STEEL PLATE BEAM GUARD  
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLOT SCALE:  
REV. DATE:  
PLOT NAME:



## GENERAL NOTES

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

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

THE "ET-2000" IS AVAILABLE FROM SYRO, INC., 2524 N. STEMMONS FREEWAY, DALLAS TEXAS 75207. TELEPHONE 1-800-835-6086 OR 1-800-644-7976

THE "SKT-350" IS AVAILABLE FROM ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORD, ILLINOIS 60423. TELEPHONE (815) 464-5917

THE ET-2000, AND SKT-350 END TERMINALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

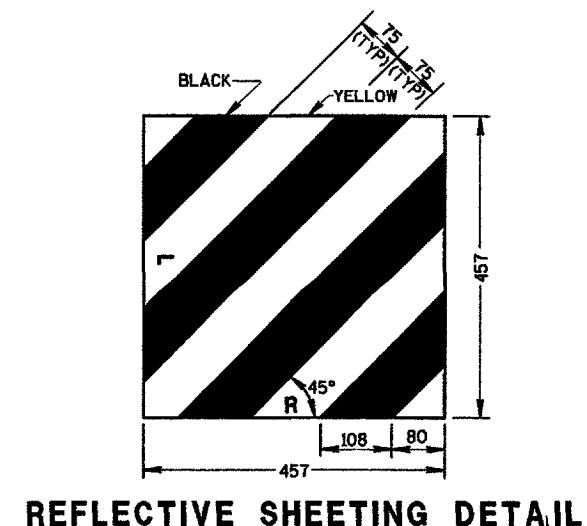
STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

REFLECTIVE SHEETING - SHALL CONFORM TO ASTM SPECIFICATION D4956-93b, REFLECTIVE SHEETING TYPE III, BACKING CLASS 4, PERFORMANCE REQUIREMENT TYPE III. THE MESSAGE AND LINES SHALL BE APPLIED TO THE SIGNS BY THE SILK SCREEN STENCIL PROCESS USING A BLACK OR DARK STENCIL PASTE AS A TYPE APPROVED BY THE MANUFACTURER OF THE FACE MATERIAL TO WHICH IT IS TO BE APPLIED. MESSAGE UNITS CUT FROM NONREFLECTIVE SHEETING AND APPLIED TO THE SIGN FACE ARE NOT ACCEPTABLE. AFTER THE APPROACH END OF THE STEEL PLATE BEAM GUARD INSTALLATION IS COMPLETE, CLEAN THE AREA WHERE THE REFLECTIVE SHEETING WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION. ONCE CLEAN, APPLY REFLECTIVE SHEETING DIRECTLY TO THE STEEL PLATE BEAM GUARD AS SHOWN. THE CONTRACTOR SHALL TURN OVER THE MANUFACTURERS WARRANTY FOR THE REFLECTIVE SHEETING TO THE DEPARTMENT FOR POTENTIAL DEALING WITH THE MANUFACTURER. PAYMENT OF REFLECTIVE SHEETING IS INCIDENTAL TO STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL.

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 305 mm DIA. POST HOLE EXTENDING 510 mm DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 65 mm DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

## NOTE

ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE SHOWN.



STEEL PLATE BEAM GUARD  
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
3-23-99  
DATE  
FHW  
CHIEF ROADWAY DEVELOPMENT ENGINEER  
M

REV. DATE: PLOT NAME: SCALE:

REV. DATE: PLOT NAME: SCALE:

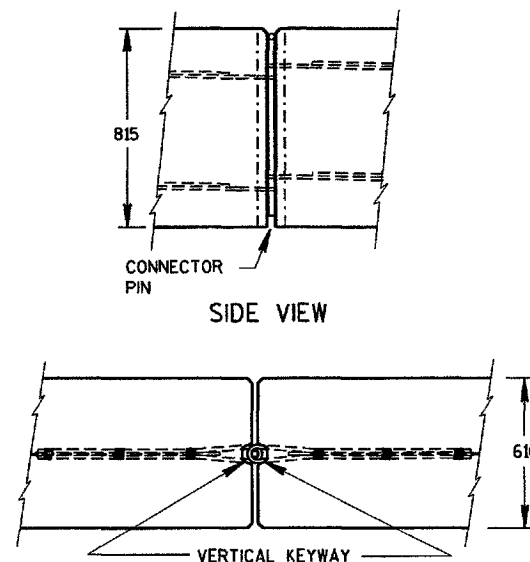
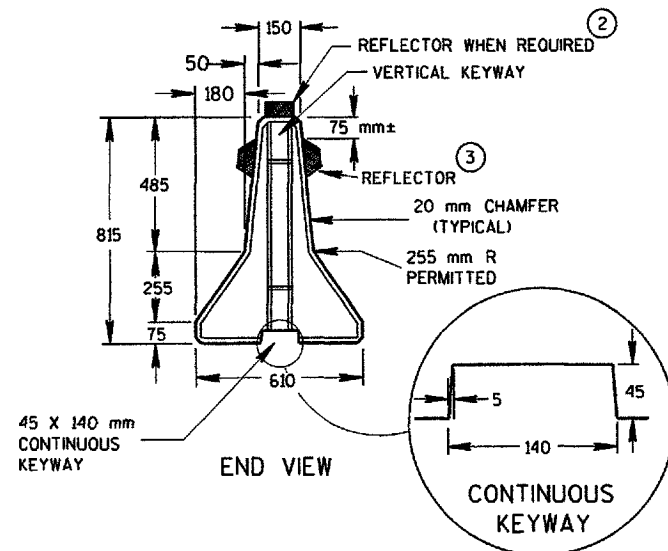
REV. DATE: PLOT NAME: SCALE:

S.D.D. 14 B 7-9a

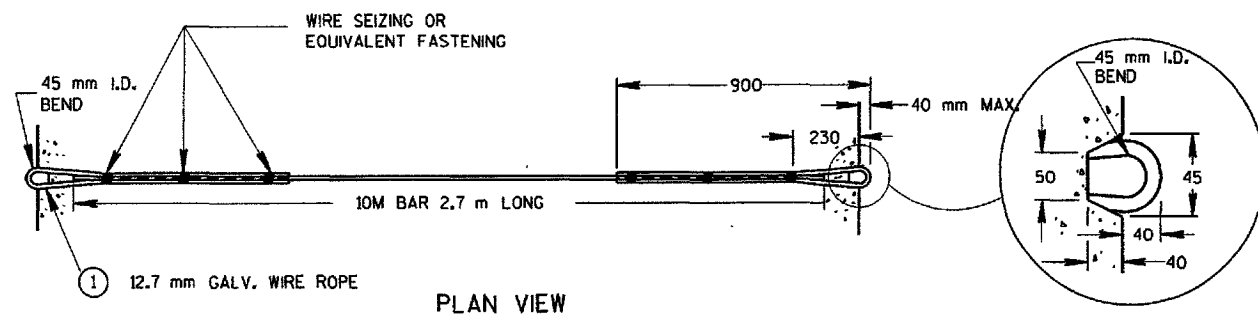
LEVELS ON: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

| DESCRIPTION               | SIZE          | NO. REQ'D | LENGTH (mm) |
|---------------------------|---------------|-----------|-------------|
| TOP CONNECTOR WIRE ROPE ① | 12.7 mm       | 2         | 1800        |
| BOTTOM CONN. WIRE ROPE ①  | 12.7 mm       | 2         | 1800        |
| TOP CONNECTOR STEEL BAR   | 15M           | 1         | 2740        |
| BOTTOM CONN. STEEL BAR    | 15M           | 1         | 2740        |
| STEEL CONNECTING PIN      | 31.75 mm DIA. | 1         | 760         |
| BOTTOM TIE BARS           | 15M           | 5         | 560         |
| VERTICAL STEEL BAR        | 15M           | 10        | 635         |
| HORIZONTAL STEEL BAR      | 15M           | 4         | 2845        |

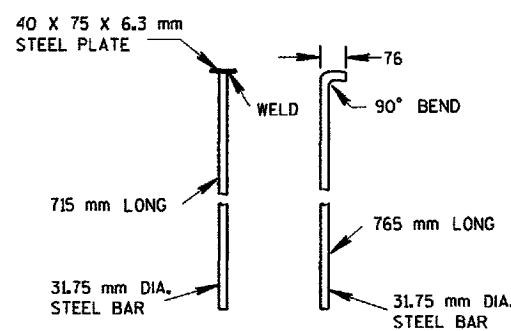
### BILL OF MATERIALS



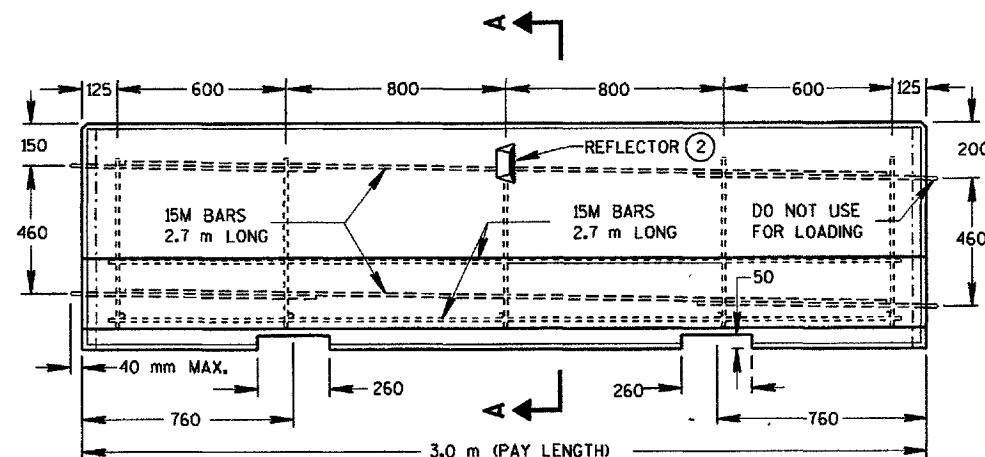
### PLAN VIEW CONNECTION DETAILS



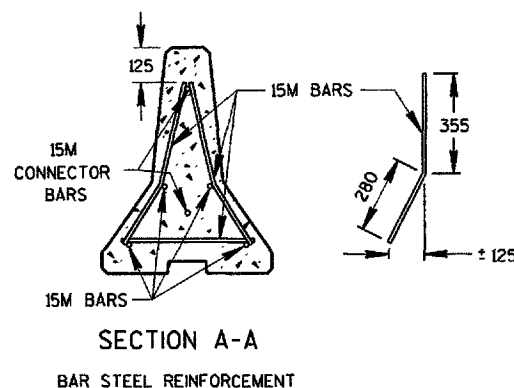
### TOP & BOTTOM CONNECTOR ASSEMBLY ①



### ALTERNATE CONNECTING PINS



### SIDE VIEW LOCATION OF REINFORCEMENT STEEL



### 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.

BARRIERS SHALL BE REINFORCED WITH EITHER BAR STEEL REINFORCEMENT AS DETAILED ON THIS DRAWING OR WELDED STEEL WIRE FABRIC ADEQUATE TO ASSURE SAFE HANDLING STRENGTH.

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

GALVANIZED WIRE ROPE SHALL BE 6 X 19 CLASS 2 IWRC WITH A MINIMUM BREAKING STRENGTH OF 81900 N AND SHALL CONFORM TO FEDERAL SPECIFICATION RR-W-410. THE ZINC COATING SHALL CONFORM TO TABLE II OF THE FEDERAL SPECIFICATIONS.

REFLECTORS SHALL CONFORM TO SECTION 633 OF THE STANDARD SPECIFICATIONS EXCEPT THE SHAPE SHALL BE AS SHOWN ON THIS DRAWING. ALTERNATIVE SHAPES MAY BE USED WHEN APPROVED BY THE ENGINEER. CONCRETE SURFACE PREPARATION, ADHESIVE AND METHOD OF APPLICATION SHALL BE AS RECOMMENDED BY THE REFLECTOR MANUFACTURER. THE COLOR OF REFLECTORS SHALL BE YELLOW. MAXIMUM SPACING SHALL BE 6.0 m.

- CONNECTOR ASSEMBLIES MAY, AT THE CONTRACTOR'S OPTION, BE FORMED FROM A CONTINUOUS SECTION OF 12.7 mm GALV. WIRE ROPE (5 m MIN. LENGTH). THE 15M CONNECTOR STEEL BARS MAY THEN BE OMITTED.
- TOP MOUNTED REFLECTORS SHALL BE PROVIDED IN ADDITION TO THE SIDE MOUNTED REFLECTORS ON ALL BARRIER INSTALLATIONS LOCATED ON CURVED ALIGNMENT LONGER THAN 60 m.
- BARRIERS USED TO SEPARATE OPPOSING TRAFFIC SHALL HAVE REFLECTORS ON BOTH SIDES. TOP MOUNTED REFLECTORS SHALL BE DOUBLE FACED FOR THIS CONDITION.

### ALTERNATE DESIGN

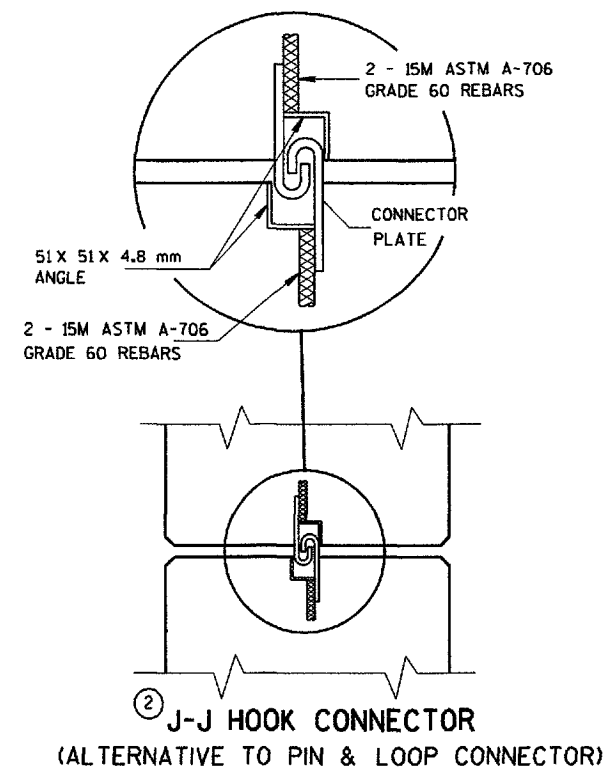
J-J HOOKS PORTABLE CONCRETE BARRIER BY EASI-SET INDUSTRIES MAY BE FURNISHED INSTEAD OF THE BARRIER DETAILED ON THIS DRAWING. CONTACT INFORMATION: EASI-SET INDUSTRIES, P.O. BOX 300, MIDLAND, VIRGINIA 22728, TELEPHONE (703) 439-8911.

### NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

### ALTERNATE DESIGN

J-J HOOKS PORTABLE CONCRETE BARRIER BY EASI-SET INDUSTRIES MAY BE FURNISHED INSTEAD OF THE BARRIER DETAILED ON THIS DRAWING. CONTACT INFORMATION: EASI-SET INDUSTRIES, P.O. BOX 300, MIDLAND, VIRGINIA 22728, TELEPHONE (703) 439-8911.



TEMPORARY PRECAST  
CONCRETE BARRIER

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

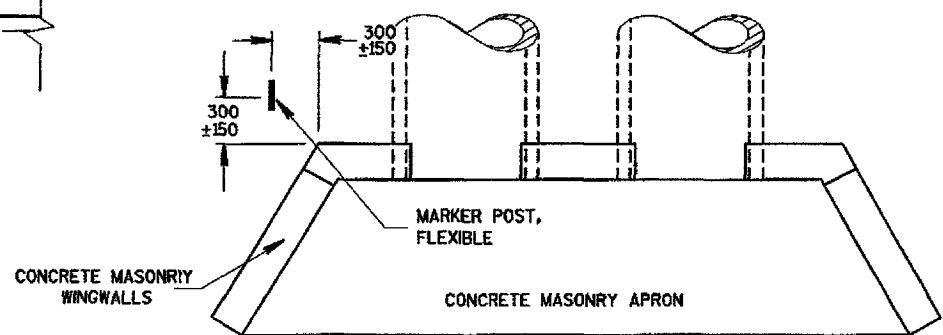
S.D.D. 14 B 7-9a

GENERAL NOTES

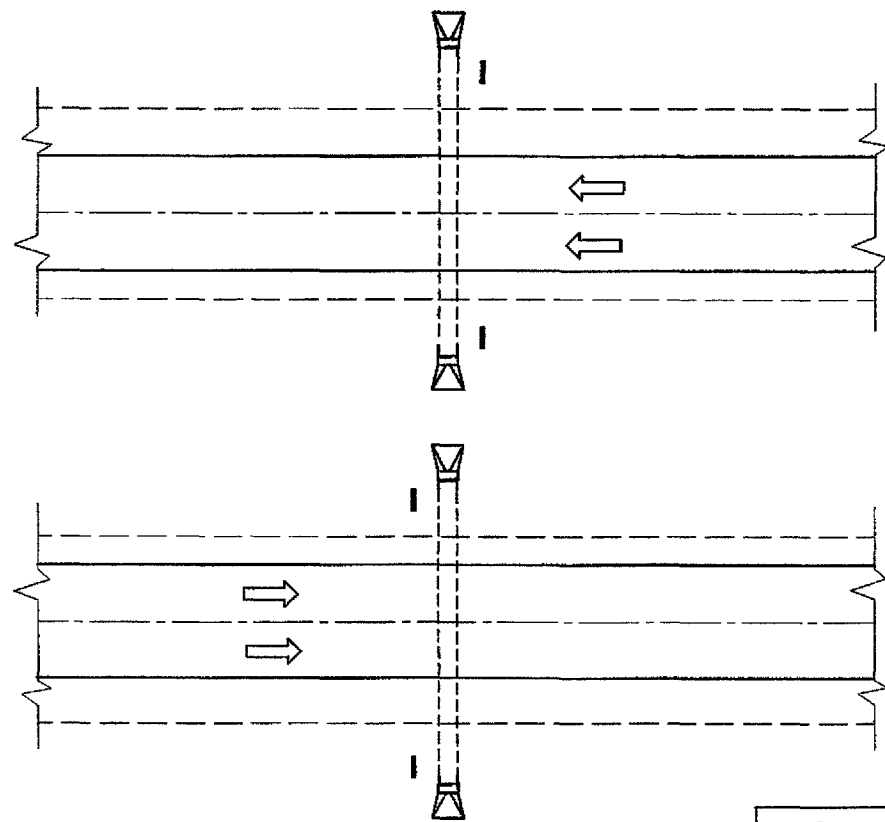
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

NOTE

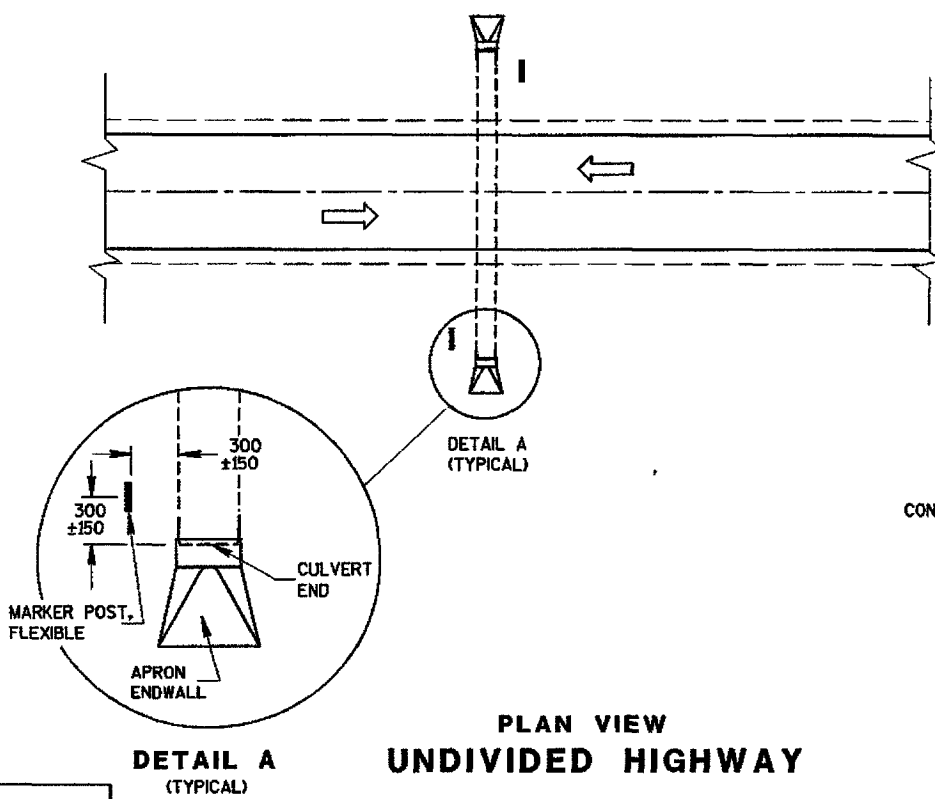
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



PLAN VIEW  
CONCRETE MASONRY ENDWALLS FOR  
CULVERT PIPE AND PIPE ARCH

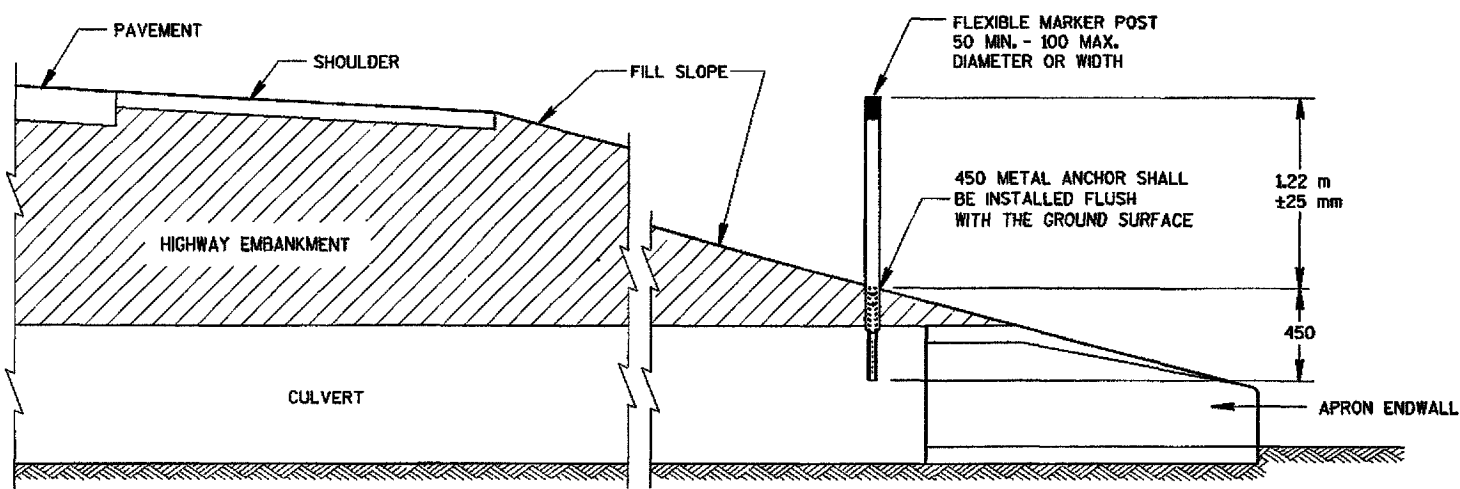


PLAN VIEW  
DIVIDED HIGHWAY

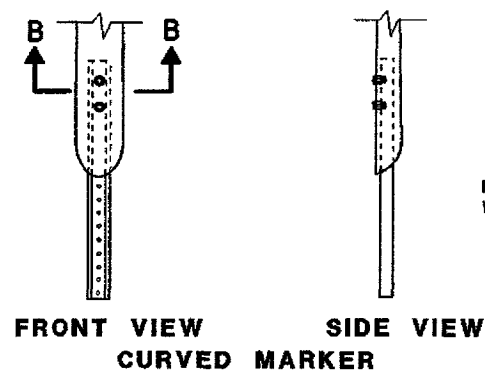


PLAN VIEW  
UNDIVIDED HIGHWAY

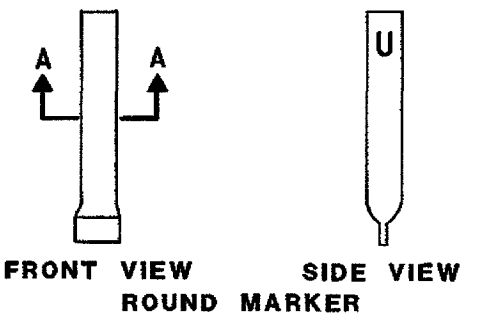
FLEXIBLE MARKER POST LOCATION



CROSS SECTION  
FLEXIBLE MARKER POST

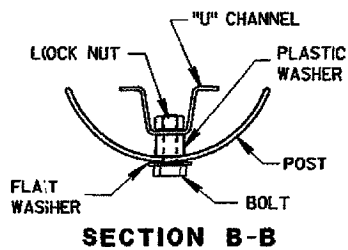


FRONT VIEW  
CURVED MARKER

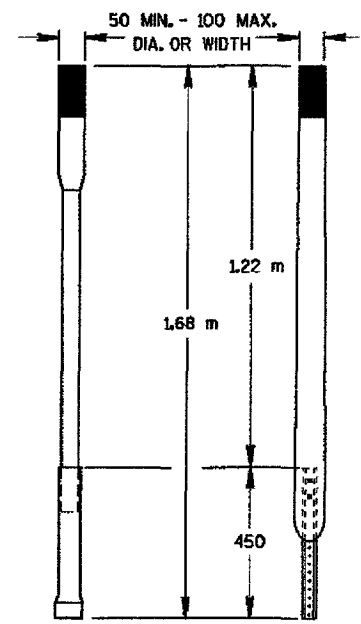


FRONT VIEW  
ROUND MARKER

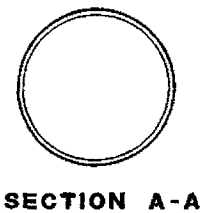
FLEXIBLE MARKER POST ANCHORS



SECTION B-B



ALTERNATE 1 ALTERNATE 2  
FLEXIBLE MARKER POST



SECTION A-A

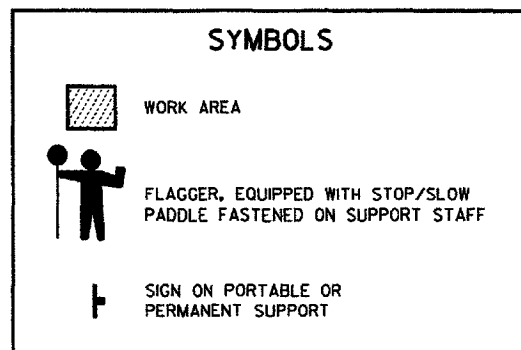
MARKER POST, FLEXIBLE,  
FOR CULVERT END

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

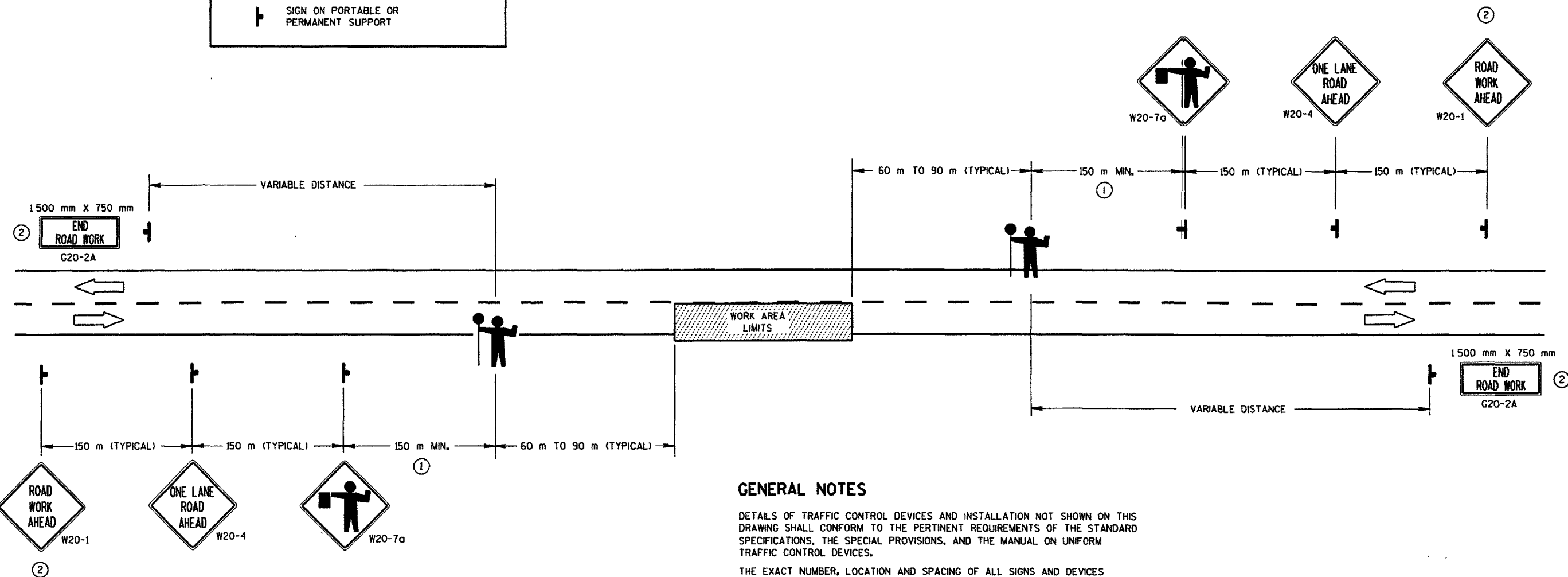
APPROVED  
10/01/98  
DATE  
CHIEF ROADWAY DEVELOPMENT ENGINEER

PHWA

# TWO-LANE ROADWAY



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 150 m TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



## GENERAL NOTES

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

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

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

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

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

ALL SIGNS ARE 1200 mm X 1200 mm UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 1.0 km INTERVALS IN THE MOVING WORK OPERATION OR AS DIRECTED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

8-7-95  
DATE

*Charles J. Spang*  
DIRECTOR, OFFICE OF TRAFFIC

FHWA

M

S.D.D. 15 C 12-2

S.D.D. 15 C 12-2

FILE NAME:

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

PLOT SCALE:

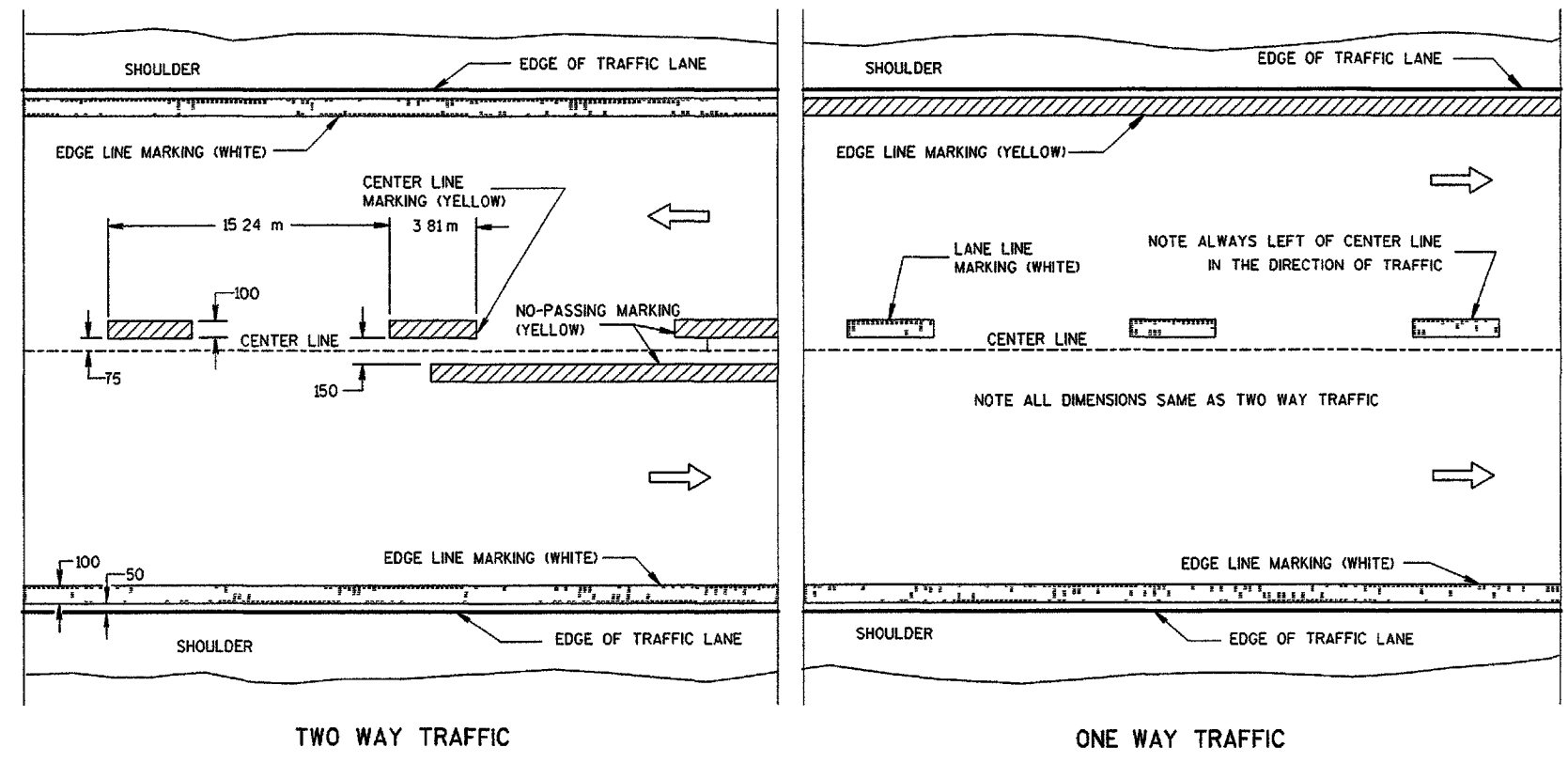
PLOT NAME:

REV. DATE:

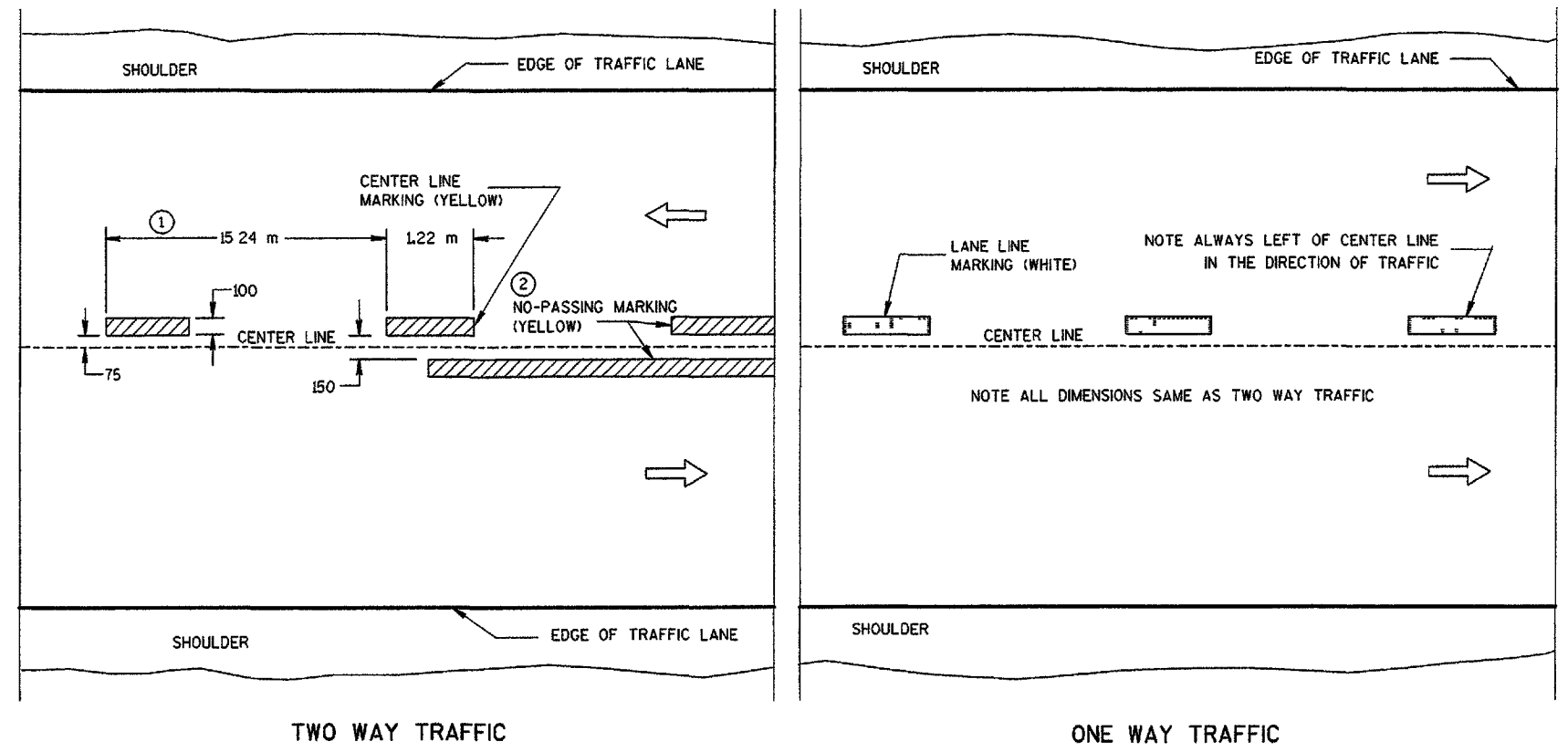
ORIGINATOR:

ORIGINATOR  
REV DATE  
PLOT NAME  
PLOT SCALE 6-28-95

S.D.D. 15 C 8-8a  
LEVELS ON - 23 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<br>(MAINLINE)                     |                                                              |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                                              |
| APPROVED<br>4-10-98<br>DATE                        | CHIEF SIGNS AND MARKING ENGINEER<br><i>Christen J. Spang</i> |
| FHWA                                               |                                                              |



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

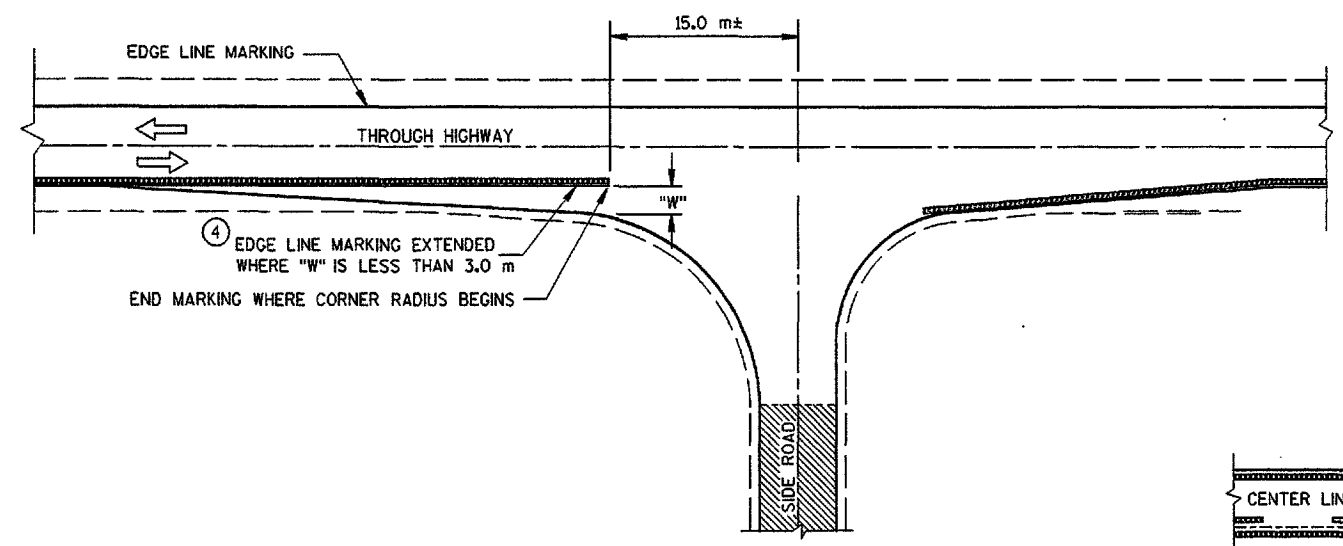
LEVELS ON - 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

FILE NAME:

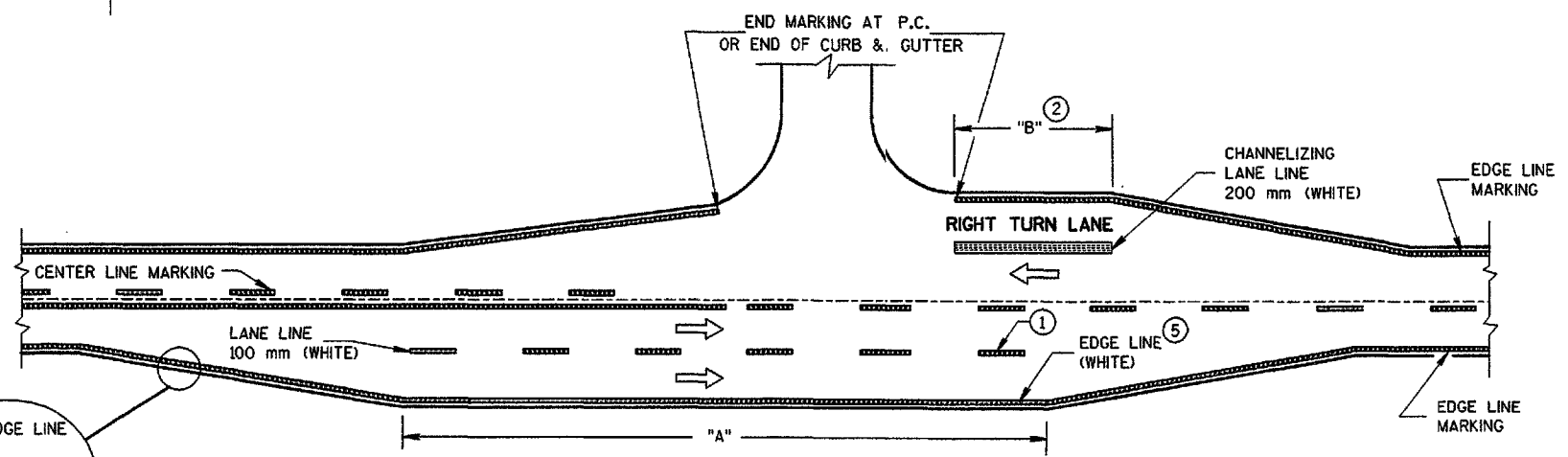
# NOTES

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

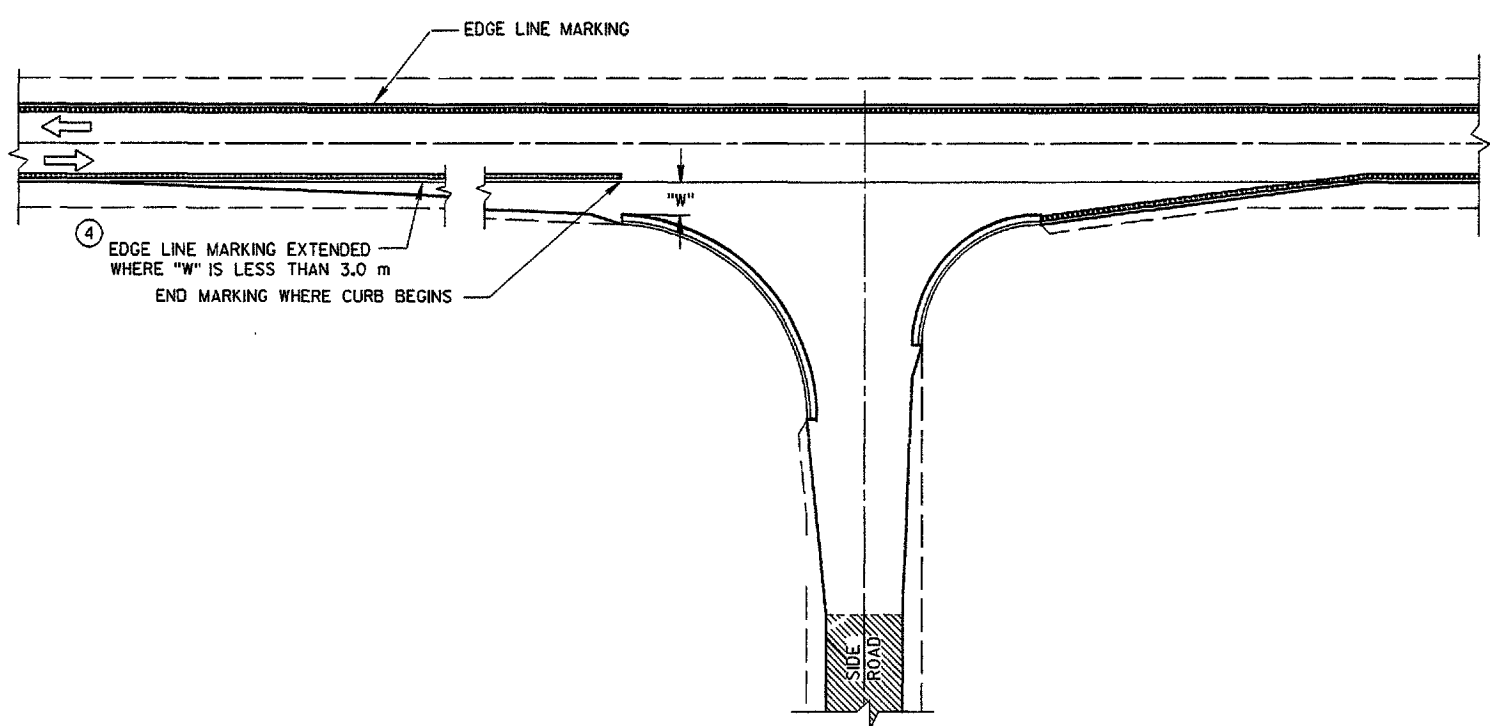
- ① WHEN DISTANCE "A" IS LESS THAN 76 m, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 30 m, OMIT CHANNELIZING LANE LINE.
- ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL 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.



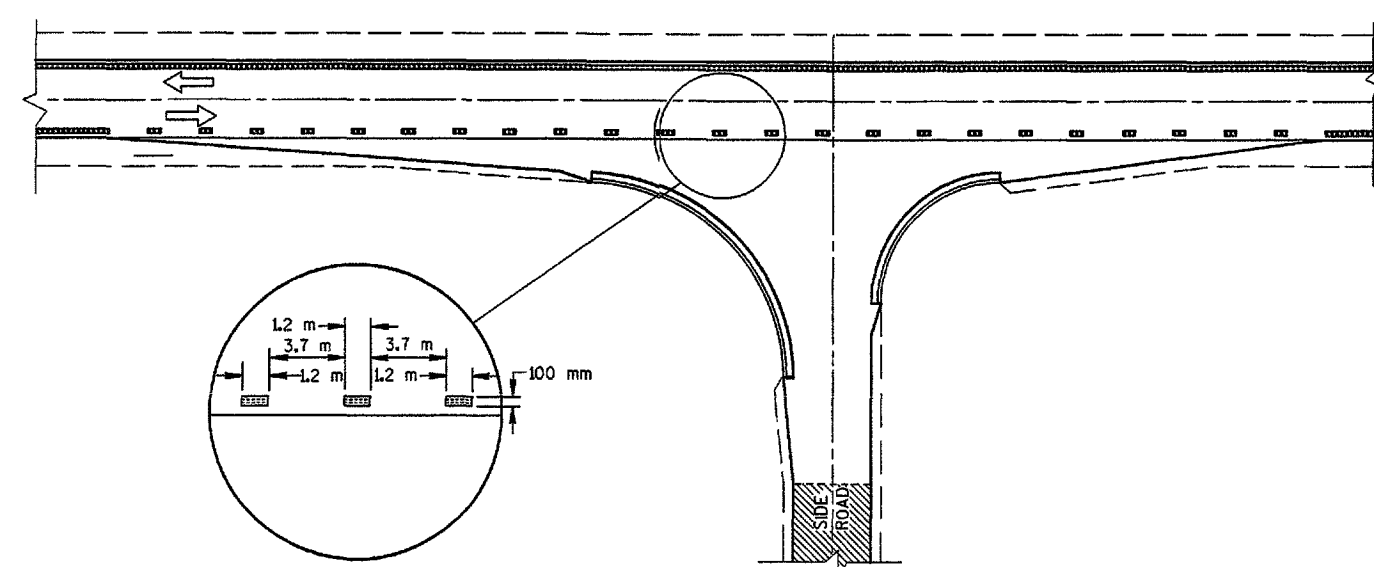
MINOR INTERSECTION WITHOUT CURBS



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<br>(INTERSECTIONS)                |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |

7153-01- 60

8.1

## DESIGN DATA

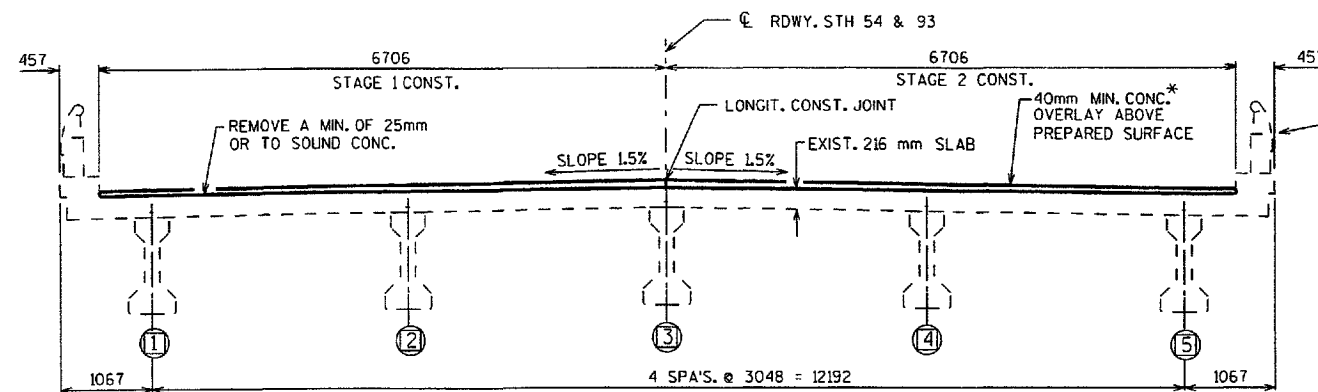
## LIVE LOAD:

INVENTORY RATING: MS-18

OPERATIONAL RATING: MS-34

MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.

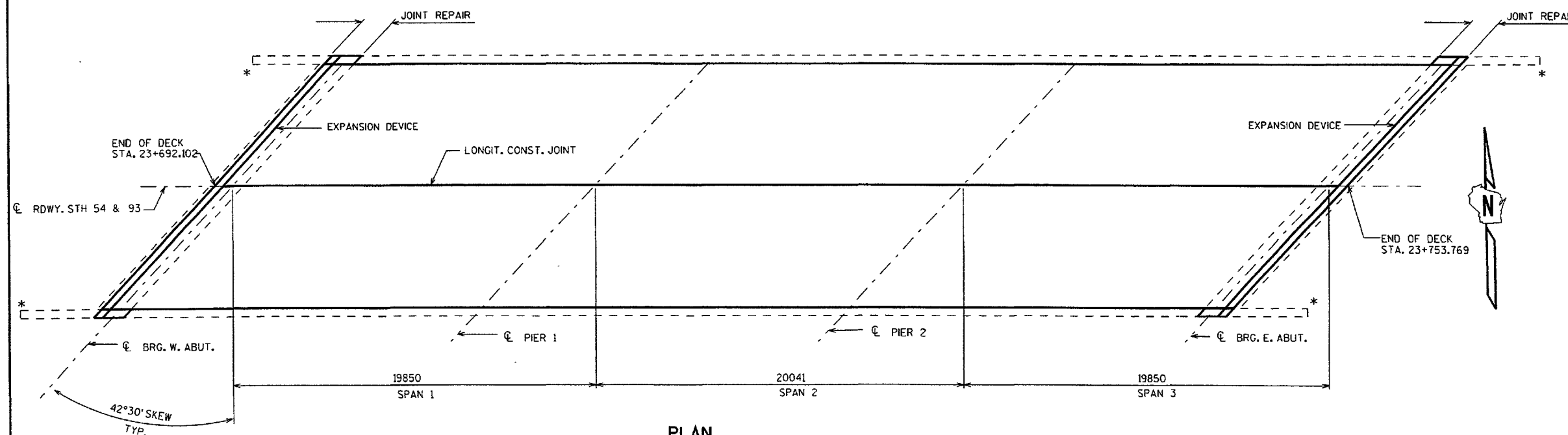
## ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB  $f'_c = 28$  MPaBAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 -  $f_y = 420$  MPa

## CROSS SECTION THRU RDWY.

(LOOKING EAST)

\* EXPECTED AVERAGE OVERLAY THICKNESS IS 60mm.  
IF AVERAGE OVERLAY THICKNESS EXCEEDS 90mm  
CONTACT THE BRIDGE DESIGN SECTION.



## PLAN

\* NOTE: BEAM GUARD WILL BE ATTACHED TO ALL CORNERS  
BY DRILLING THRU PARAPETS & PLACING BACKUP  
PLATE UNDER THIR BEAM TERMINAL CONNECTOR  
(SEE ROADWAY DETAILS)

## BRIDGE OFFICE CONTACT :

KEITH NELSON (608) 266-5083  
FINN HUBBARD (608) 266-8489

## TOTAL ESTIMATED QUANTITIES

|                                                |      |                |
|------------------------------------------------|------|----------------|
| PROTECTIVE SURFACE TREATMENT                   | 831  | m <sup>2</sup> |
| PREPARATION, DECK, TYPE 1                      | 89   | m <sup>2</sup> |
| PREPARATION, DECK, TYPE 2                      | 18   | m <sup>2</sup> |
| CONCRETE SURFACE REPAIR                        | 2    | m <sup>2</sup> |
| HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES | 1750 | kg             |
| CONCRETE MASONRY, OVERLAY, DECK                | 64   | m <sup>3</sup> |
| JOINT REPAIR                                   | 47   | m <sup>2</sup> |
| EXPANSION DEVICE, B-61-48                      | 1    | L.S.           |
| CLEANING, DECK                                 | 813  | m <sup>2</sup> |
| CURB REPAIR                                    | 6    | m              |
| FULL DEPTH DECK REPAIR                         | 2    | m <sup>2</sup> |
| CONCRETE MASONRY ANCHORS, TYPE S, M19          | 32   | EACH           |
| CLEANING AND PAINTING BEARINGS                 | 30   | EACH           |

## GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

ALL STATIONS &amp; ELEVATIONS ARE IN METERS.

DRAWINGS SHALL NOT BE SCALED.

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

DIM'S. SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR PAVING BLOCK AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY, OVERLAY, DECKS".

REMOVE &amp; REPLACE PORTIONS OF EXIST. CURB &amp; PPT. AS REQ'D. TO INSTALL EXPANSION DEVICE.

RESET RAIL POSTS ADJACENT TO EXPANSION DEVICE WITH CONCRETE MASONRY ANCHORS, TYPE S, M19.

CLEAN &amp; PAINT ALL STEEL BEARINGS.

## LIST OF DRAWINGS

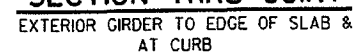
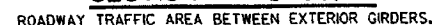
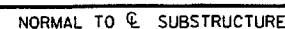
1. GENERAL PLAN
2. EXPANSION DEVICE

|                                                                            |             |                   |                    |
|----------------------------------------------------------------------------|-------------|-------------------|--------------------|
| NO.                                                                        | DATE        | REVISION          | BY                 |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION<br>DIVISION OF HIGHWAYS |             |                   |                    |
| STRUCTURE B-61-48                                                          |             |                   |                    |
| STH 54/93 OVER BEAVER CREEK                                                |             |                   |                    |
| COUNTY                                                                     | TREMPEALEAU | TOWN/CITY/VILLAGE | GALE               |
| DESIGN SPEC.                                                               | AASHTO 1996 | LOAD              | CONSTR. SPEC. 1996 |
| DESIGNED BY                                                                | KTN         | DESIGN CK'D.      | DRAWN BY JHG       |
| APPROVED: <i>John Anderson</i>                                             |             | DATE: 10-01-99    |                    |
| CHIEF BRIDGE DESIGN ENGINEER                                               |             | DATE              |                    |
| GENERAL PLAN                                                               |             | SHEET 1 OF 2      |                    |
|                                                                            |             | DATE: JAN '98     |                    |

I.D.

DISTRICT CONTACT: EDWARD RILEY  
FILE # 40  
SCALE =





NOTE: THE FIRST TWO DIGITS OF THE  
BAR MARK SIGNIFIES THE BAR SIZE.

**S1601**

**S1303**

**S1607**

**S1608**



EXTRAWORK REQ'D TO RETROFIT  
EXPANSION JOINT INTO CURB  
AT PARAPET DUE TO HIGH SKEW  
ANGLE.

⊙ BLOCK OUT CONC. 50mm  
ON EACH SIDE OF JOINT

FIELD SPLICE REQ'D. IN STEEL EXTRUSIONS AT CONST. JOINT. DETAILS SHALL BE SUBMITTED. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE  
WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE"  
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

FILE NAME48JT