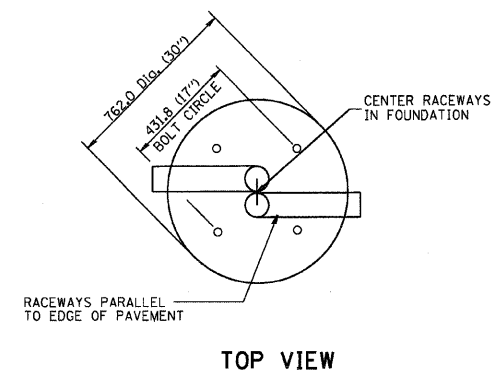
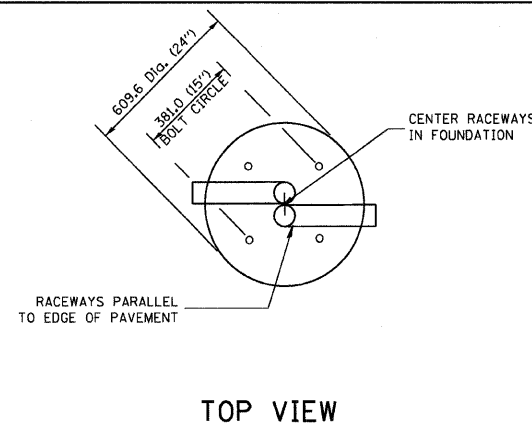


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

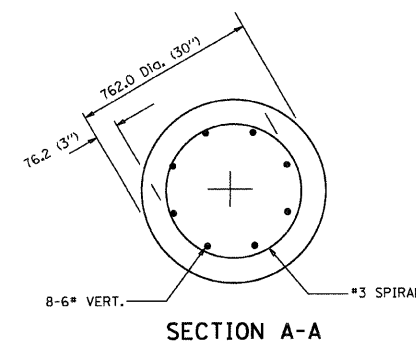
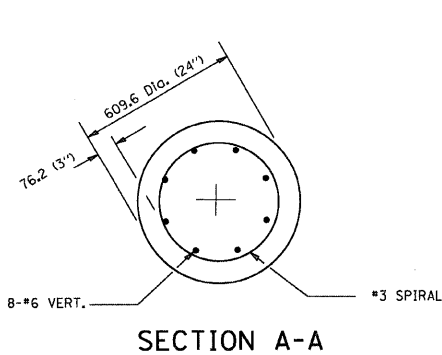
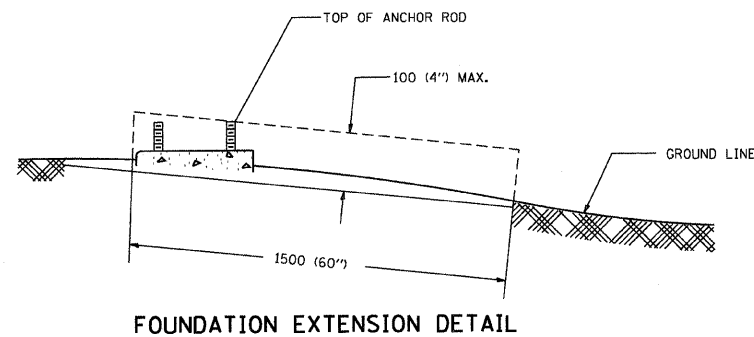
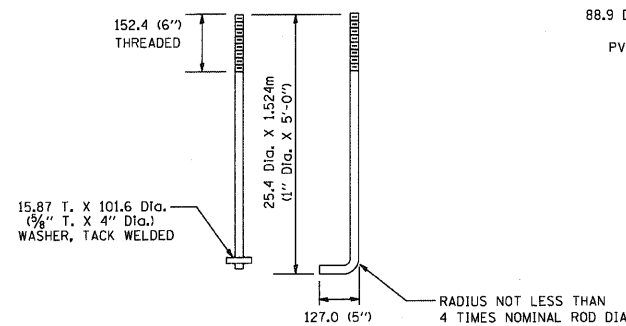
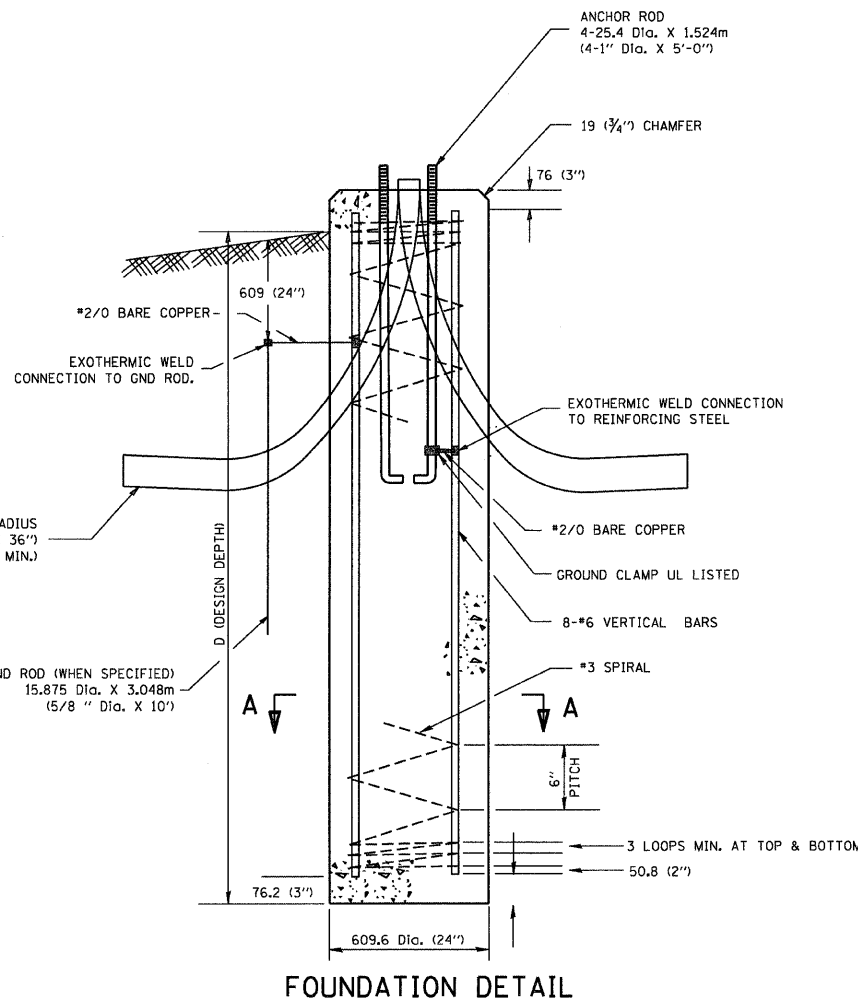
**LIGHT POLE FOUNDATION DEPTH TABLE**  
12.192M (40 FT.) TO 14.478M (47.5 FT.) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	3.96M (13'-0")	4.57M (15'-0")
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	2.09M (9'-6")	3.23M (10'-9")
STIFF CLAY Qu = 1.50 TON/SQ. FT.	2.13M (7'-0")	2.44M (8'-0")
LOOSE SAND φ = 34°	2.74M (9'-0")	3.05M (10'-0")
MEDIUM SAND φ = 37.5°	2.52M (8'-3")	2.74M (9'-0")
DENSE SAND φ = 40°	2.36M (7'-9")	2.74M (9'-0")



**NOTES**

- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 1.5M (60 IN.) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 20MM (3/4-IN.).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 150 MM (6 INCHES) WITH A MINIMUM OF 75 MM (3 INCHES) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 69.9MM (2 3/4") ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 152.4MM (6") PITCH OR MAY SUBSTITUTE #3 TIES AT 304.8MM (12") O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 25.4MM (1") ABOVE THE TOP OF THE FOUNDATION.



DATE: 2/15/2006  
FILE NAME: 113X-N-101.dgn  
PLOT SCALE: 45,9999 / IN.  
USER NAME: geglennob

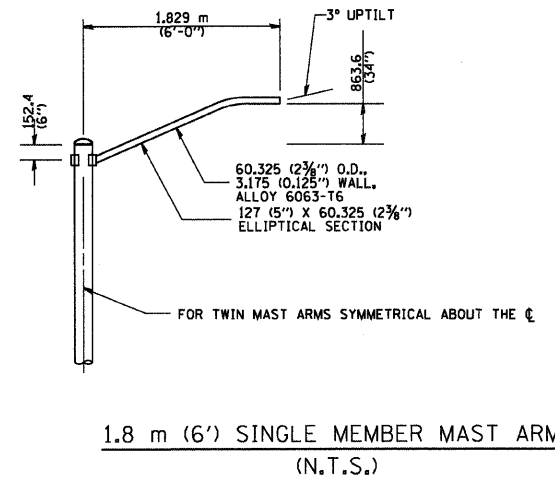
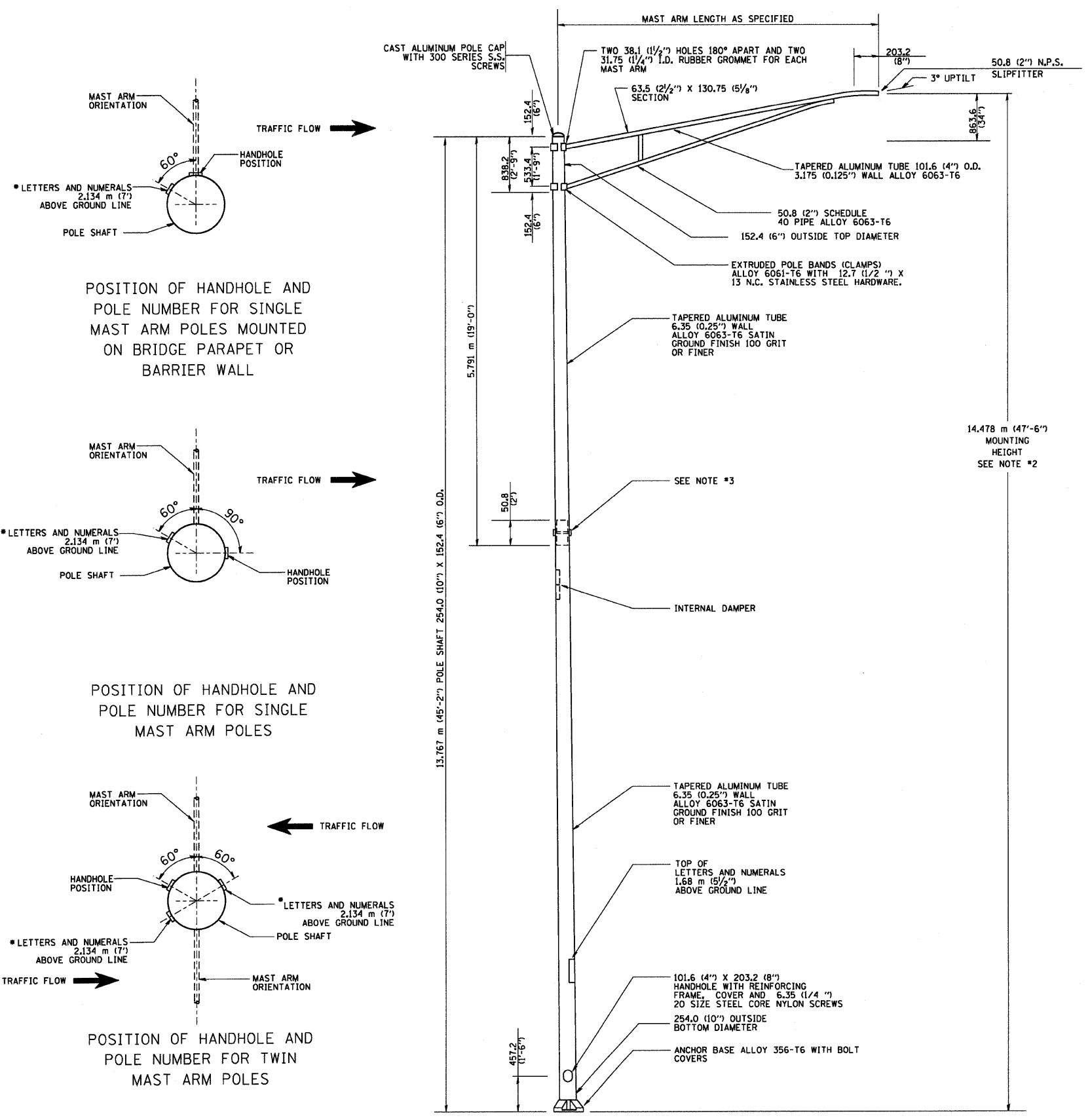
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**LIGHT POLE FOUNDATION**  
12.192M (40') TO 14.478M (47 1/2') M.H.  
381 (15") BOLT CIRCLE

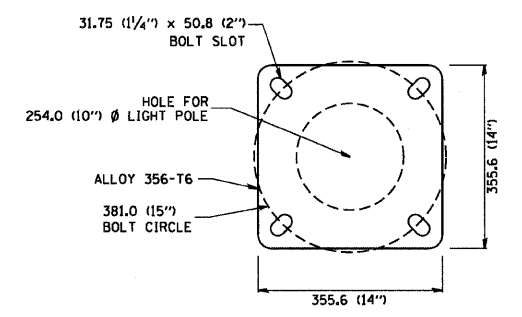
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DATE: 2/15/2006

DRAWN BY  
CHECKED BY  
BE301  
REVISION DATE: 04/22/02

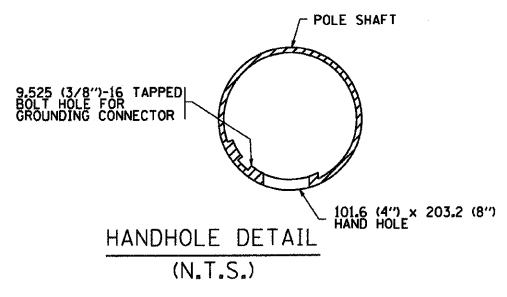
CONTRACT NO.			
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
2320	113X-N	will	133 162
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



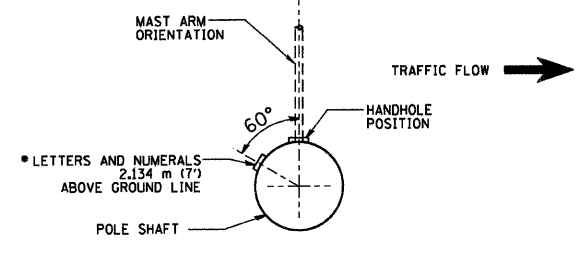
- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENDON TO THE BOTTOM OF THE ANCHOR BASE.
  3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
  4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
  6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



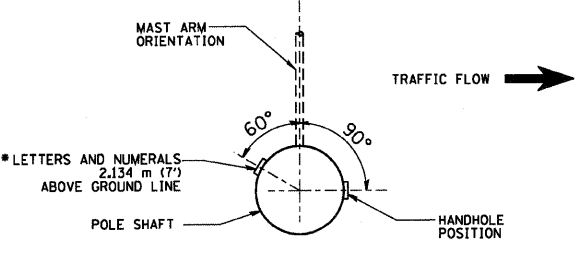
LIGHT POLE BASE PLATE DETAIL  
381.0 (15 INCH) BOLT CIRCLE



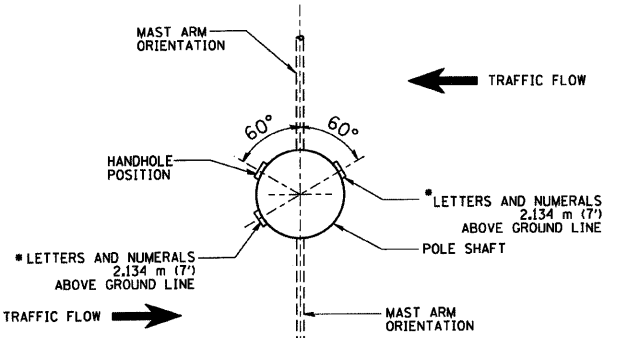
HANDHOLE DETAIL  
(N.T.S.)



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

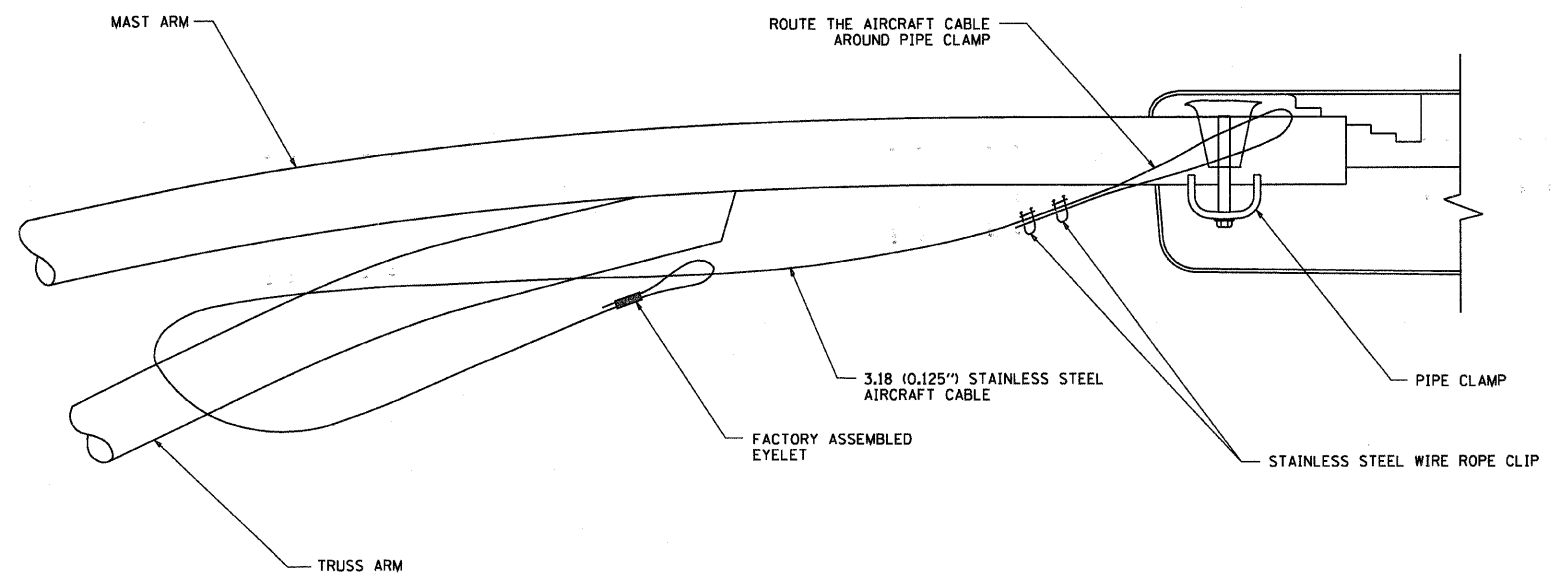
PLOT DATE = 2/15/2006  
 PLOT SCALE = 10.000 / IN.  
 USER NAME = gsj1am02

REVISIONS	
NAME	DATE
R. TOMSONS	9-6-00
R. TOMSONS	8-12-03

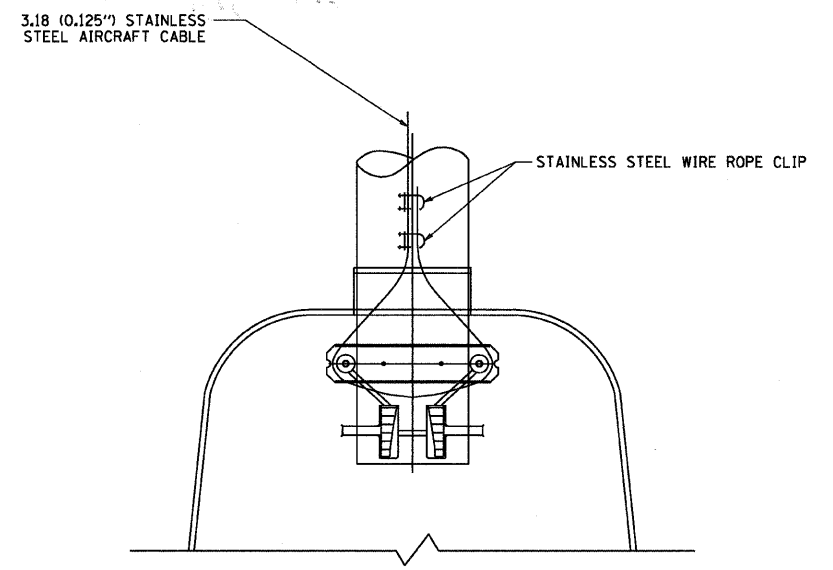
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ALUMINUM LIGHT POLE**  
 14.478 m (47'-6")  
 MOUNTING HEIGHT

SCALE: NONE  
 DATE: 2/15/2006  
 DRAWN BY  
 CHECKED BY  
 BE-400  
 REVISION DATE: 09/02/03

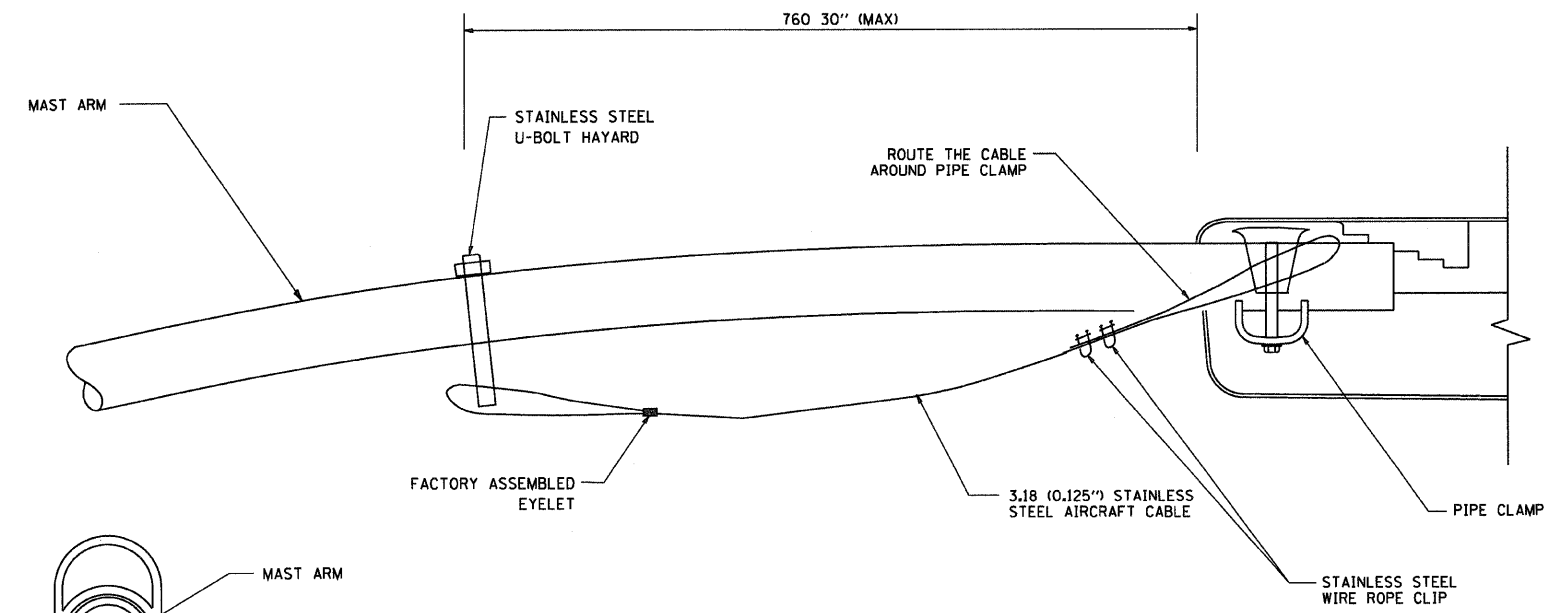
CONTRACT NO.				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



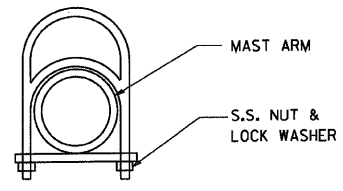
SIDE VIEW (TRUSS ARM)  
N.T.S.



BOTTOM VIEW  
N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)  
N.T.S.



STAINLESS STEEL U-BOLT HAYARD

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 3.18 (0.125") STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

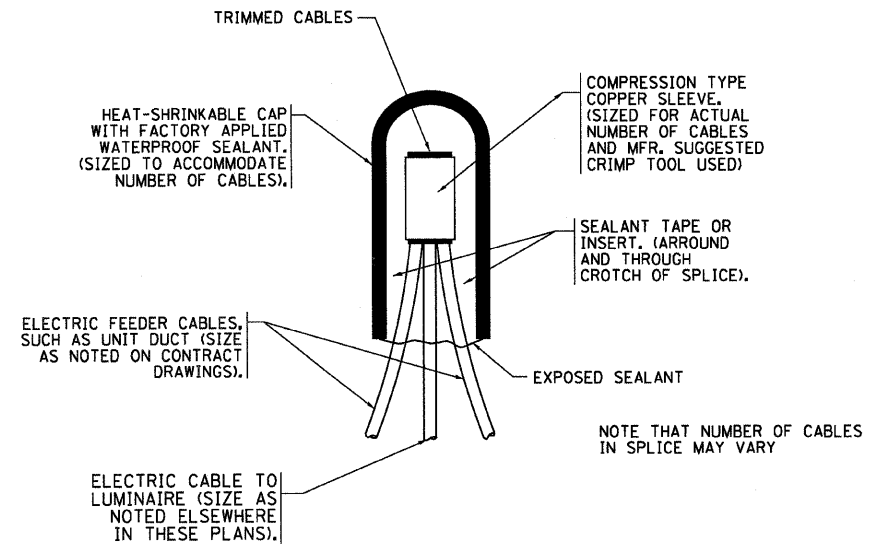
LUMINAIRE SAFETY CABLE ASSEMBLY

SCALE: VERT. HORIZ. DATE: 2/15/2006

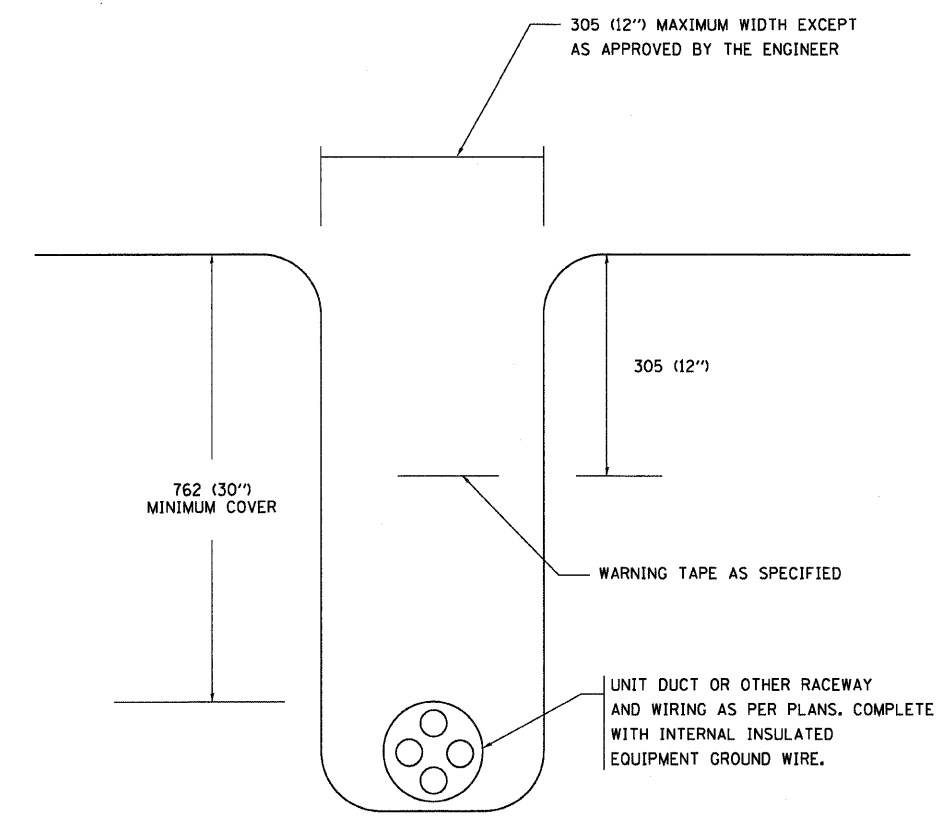
DRAWN BY  
CHECKED BY  
BE-701  
REVISION DATE:

PLOT DATE = 2/15/2006  
PLOT SCALE = 1/8"=1'-0"  
USER NAME = greglambert

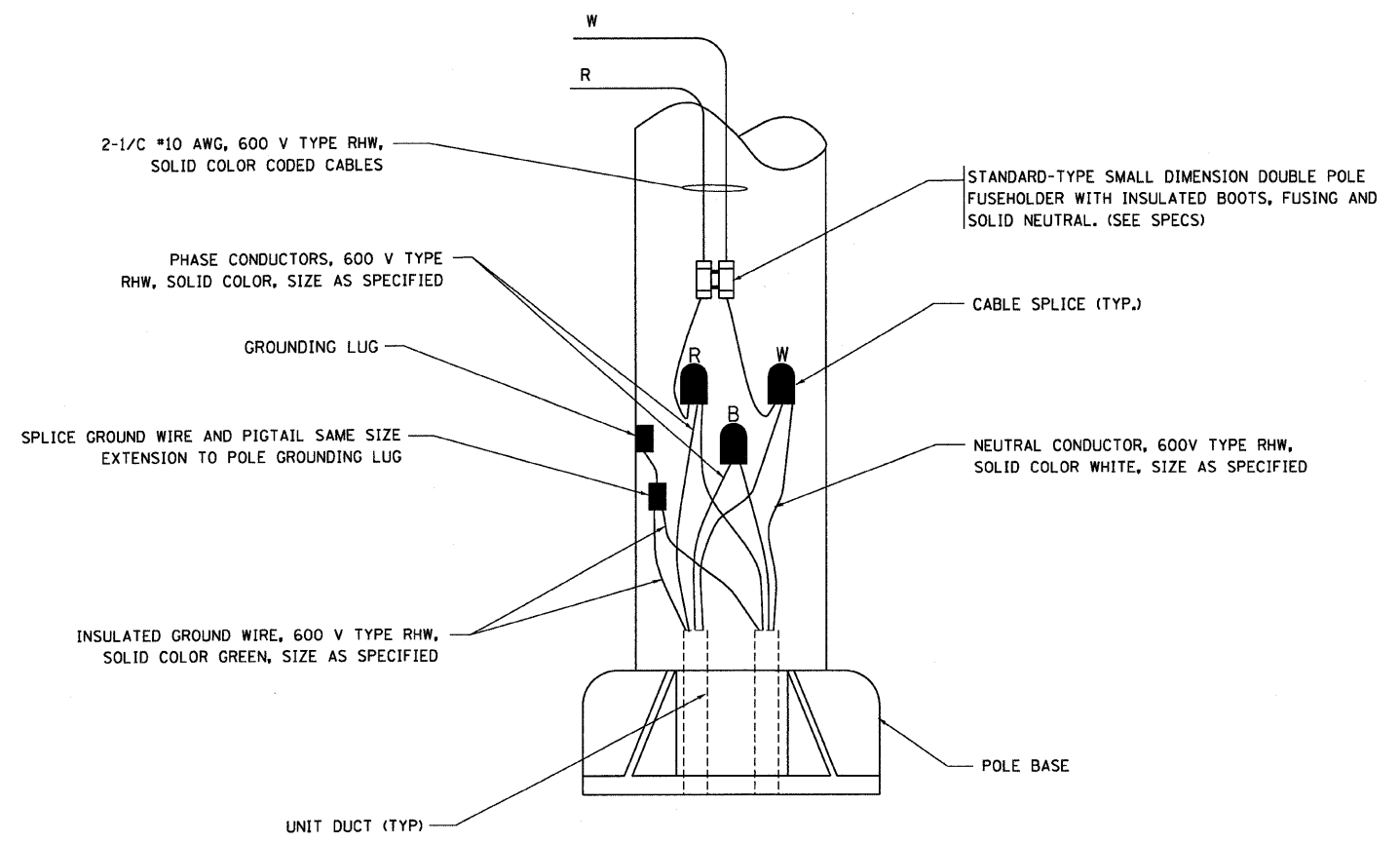
CONTRACT NO.				
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2320	113X-W	will	133	104
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL SPLICE DETAIL  
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL  
N.T.S.



POLE WIRING DETAIL  
N.T.S.

PLOT DATE = 4/25/2006  
 PLOT SCALE = 60.000  
 USER NAME = gegl@dot

REVISIONS	
NAME	DATE

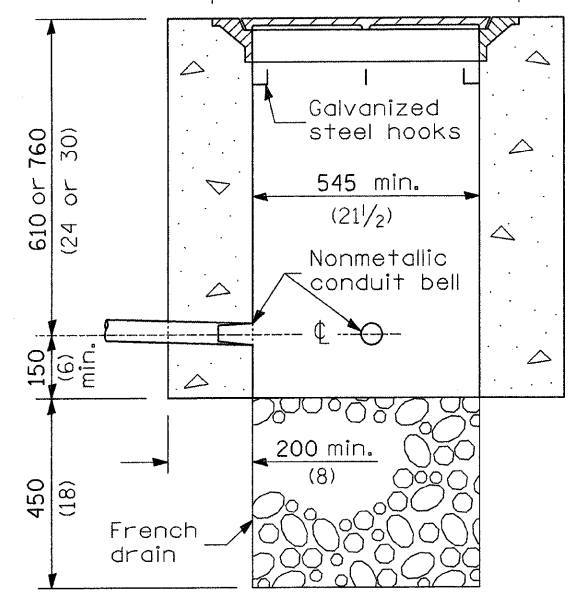
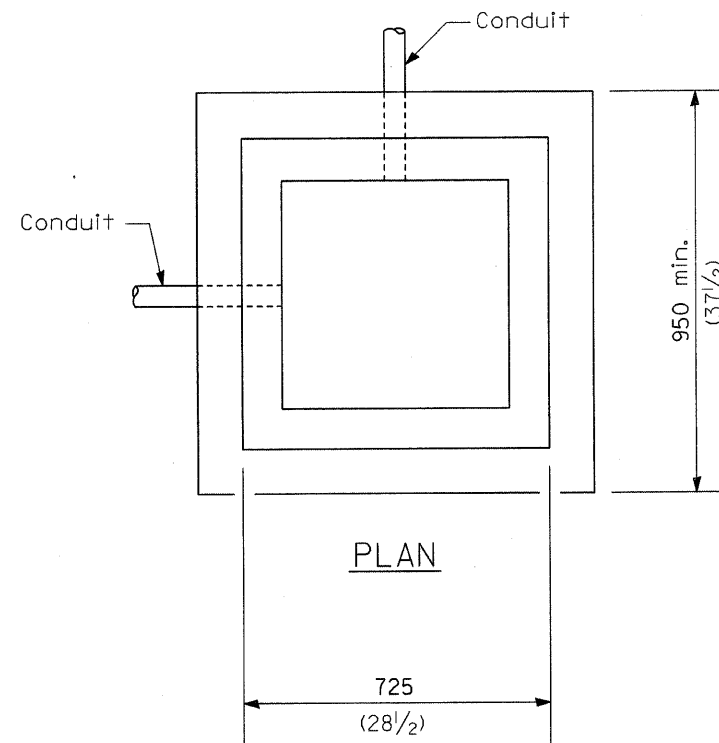
ILLINOIS DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS  
SHEET A

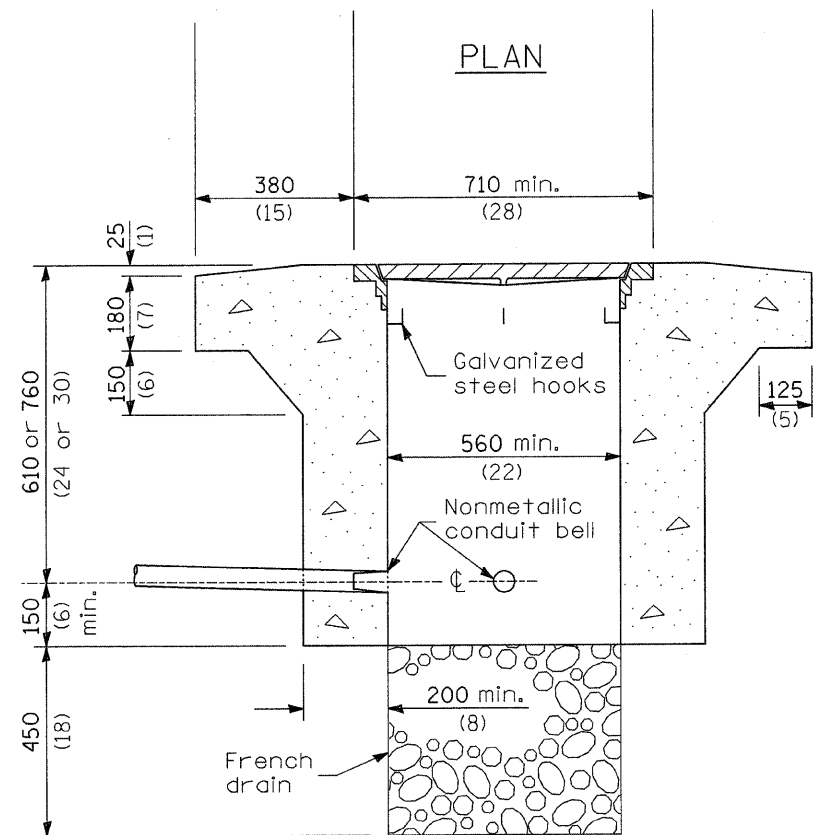
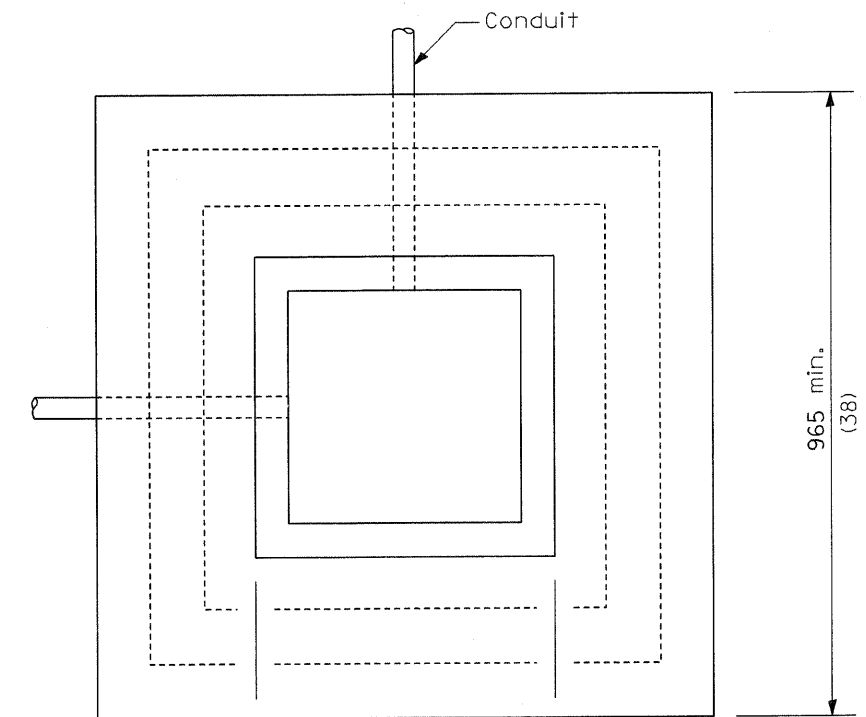
SCALE: VERT.     DRAWN BY  
 HORIZ.            CHECKED BY  
 DATE: 4/25/2006     BE-702

REVISION DATE:

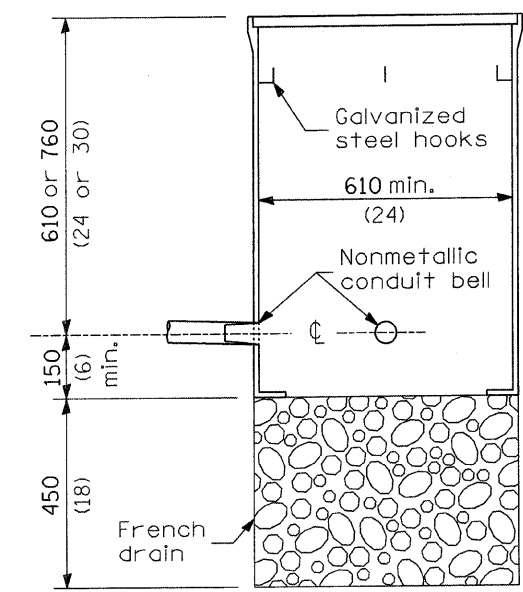
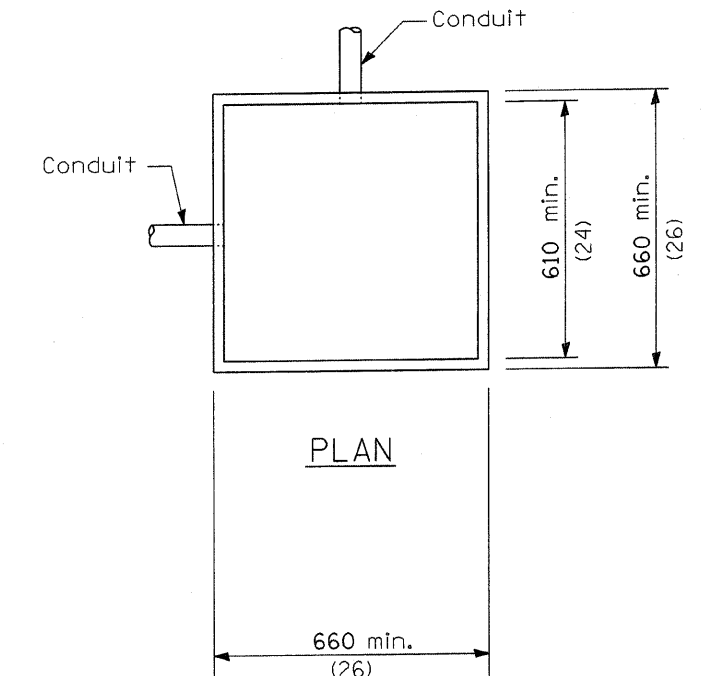
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2320	113X-N	WILL	133	105
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



PORTLAND CEMENT CONCRETE



PORTLAND CEMENT CONCRETE  
HEAVY DUTY

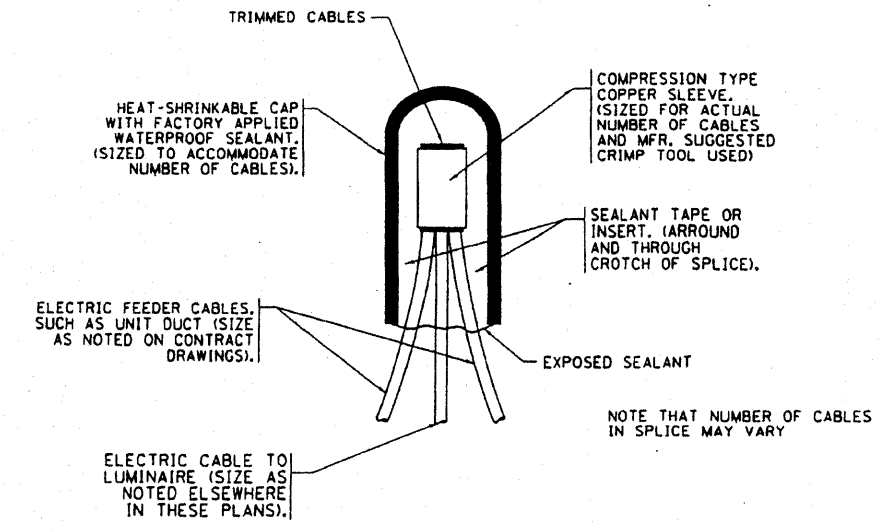


COMPOSITE CONCRETE

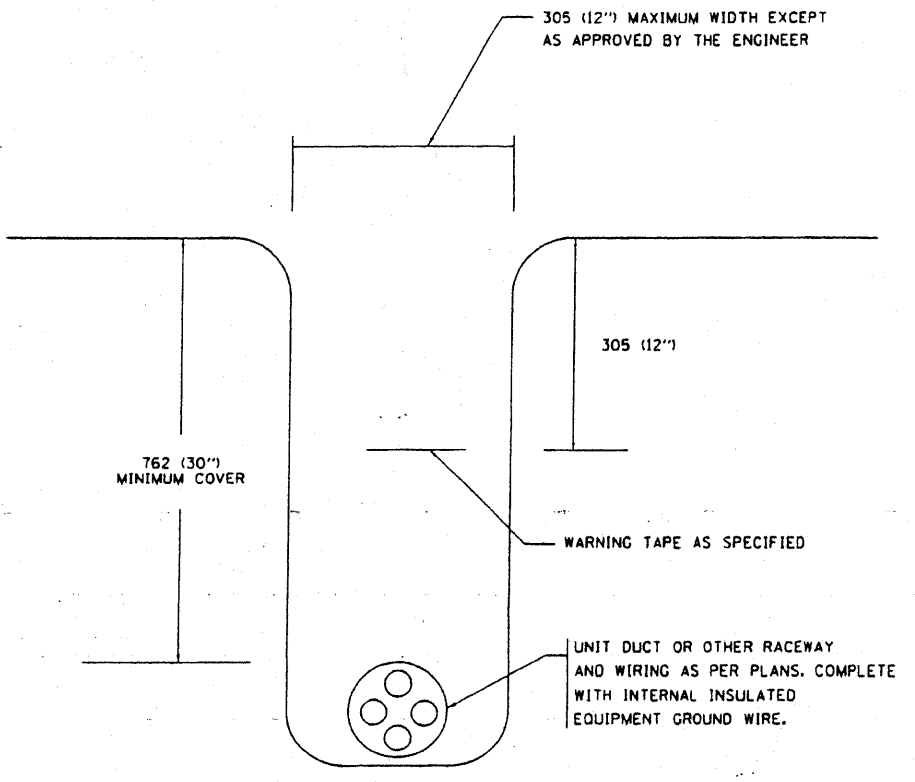
All dimensions are in millimeters (inches) unless otherwise shown.

HANDHOLES

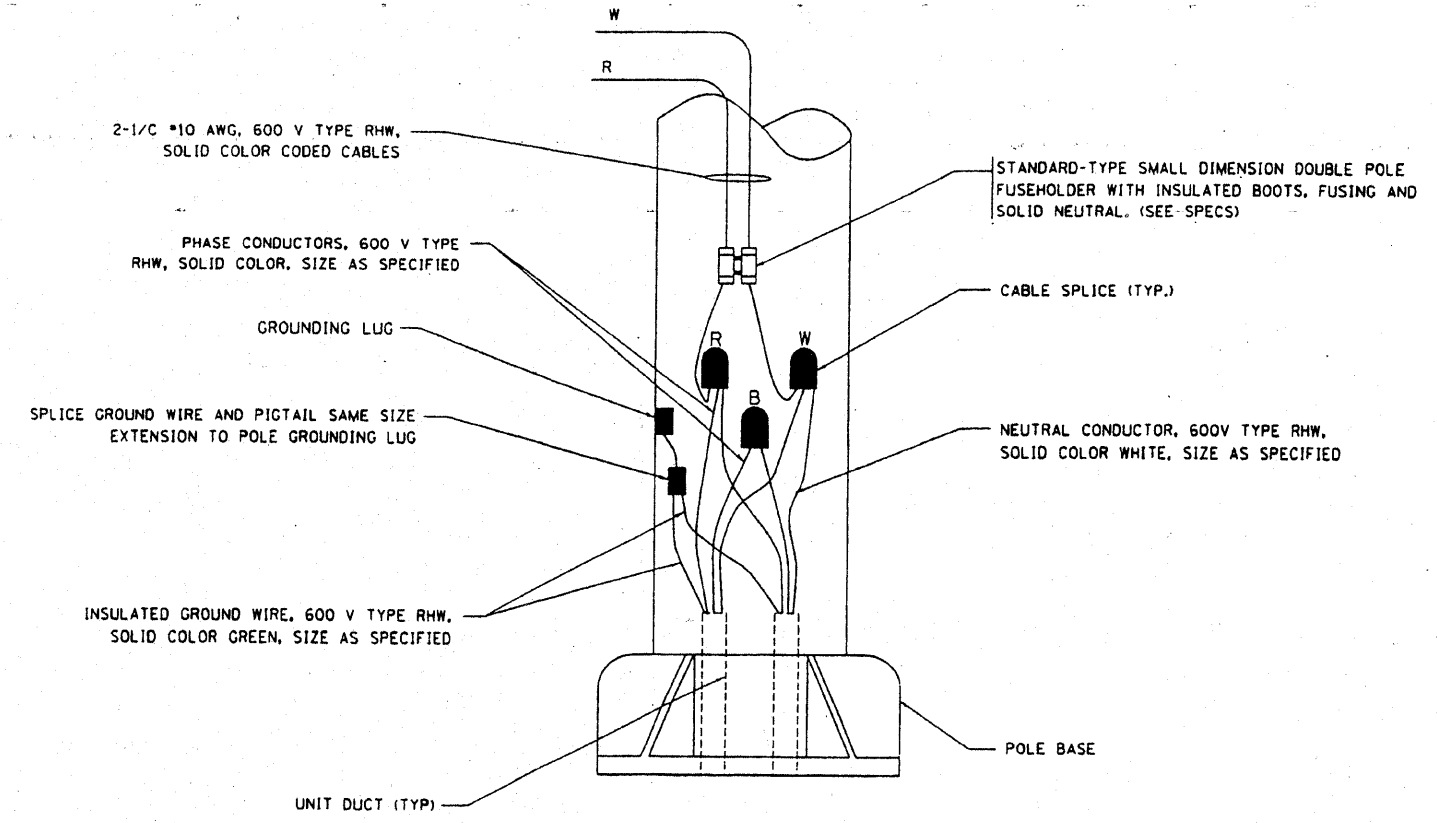
STANDARD 814001-01



TYPICAL SPLICE DETAIL  
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL  
N.T.S.



POLE WIRING DETAIL  
N.T.S.

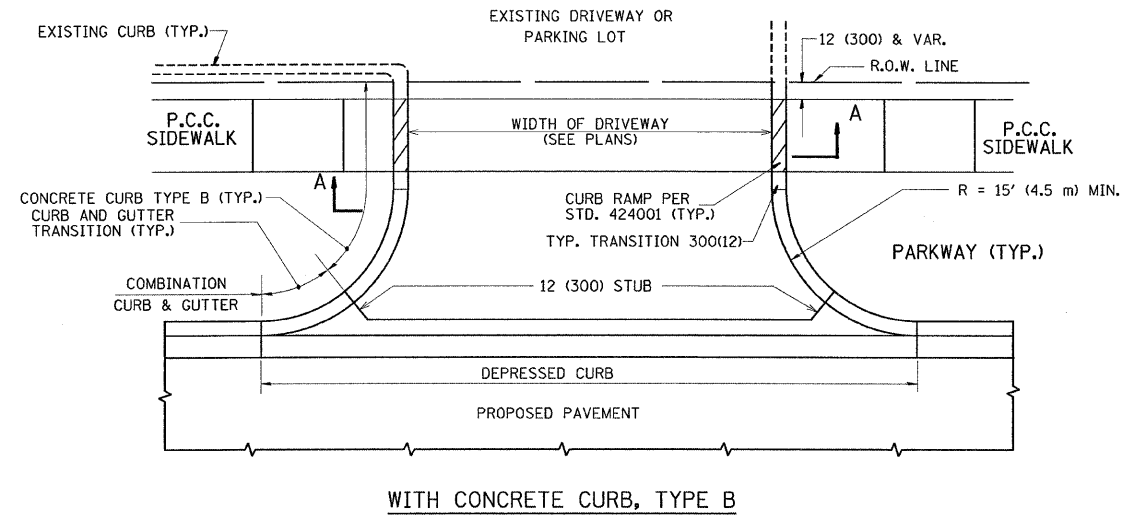
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
MISC. ELECTRICAL DETAILS  
SHEET A  
VERT. SCALE: 1/8" = 1'-0"  
HORIZ. SCALE: 1/4" = 1'-0"  
DATE: 4/25/2006  
DRAWN BY: BE-702  
CHECKED BY: BE-702  
REVISION DATE:

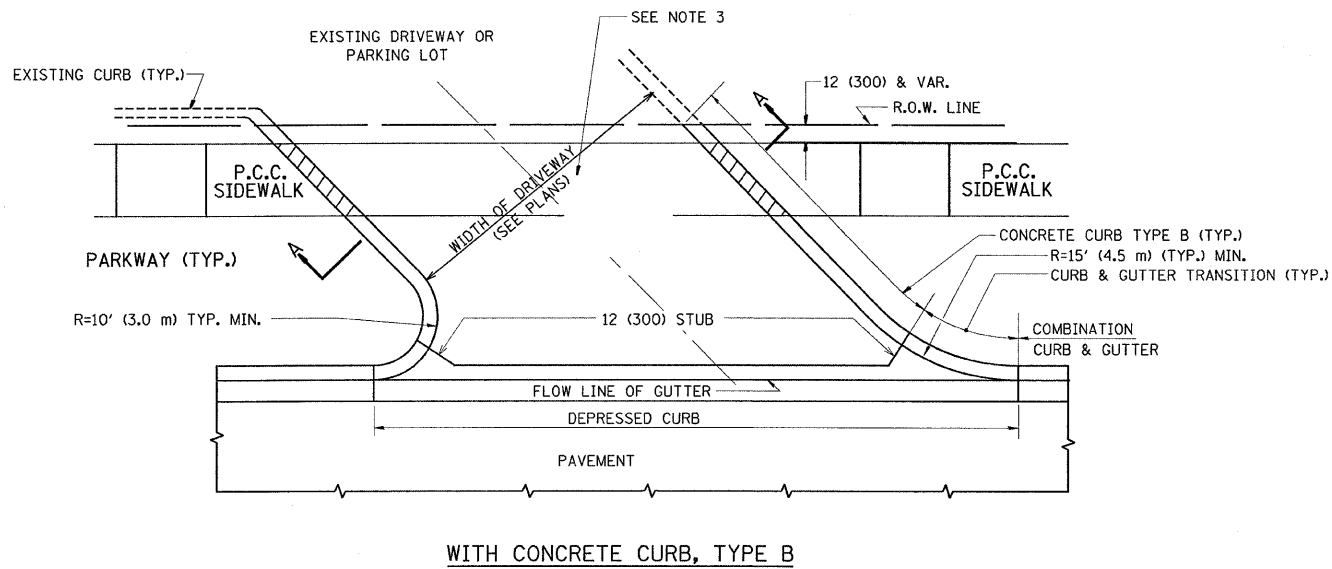
1 REVISED 11/05/07 AH

PLOT DATE: 4/20/2006  
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 USER: jh  
 USER: jh

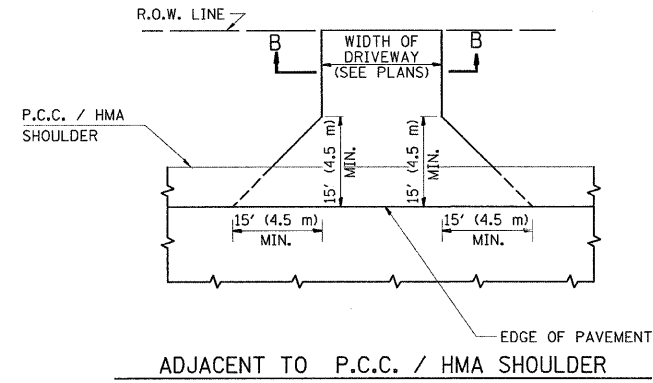
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STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



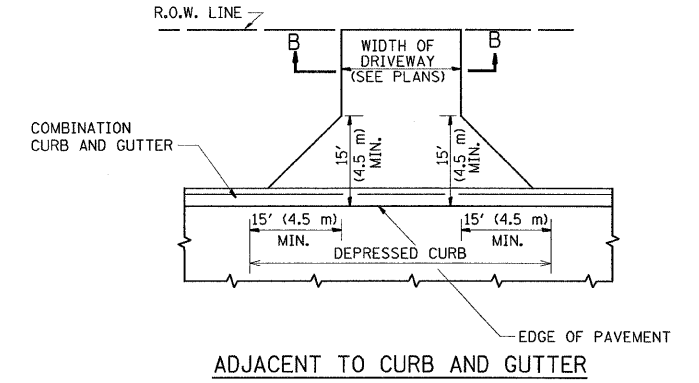
WITH CONCRETE CURB, TYPE B



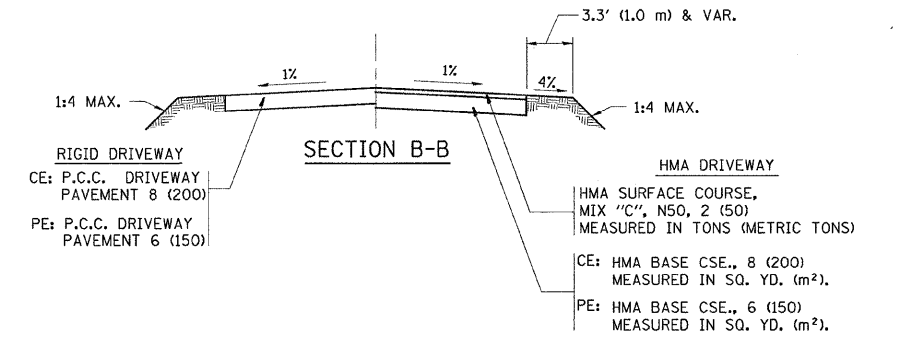
WITH CONCRETE CURB, TYPE B



ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



SECTION B-B

**GENERAL NOTES:**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

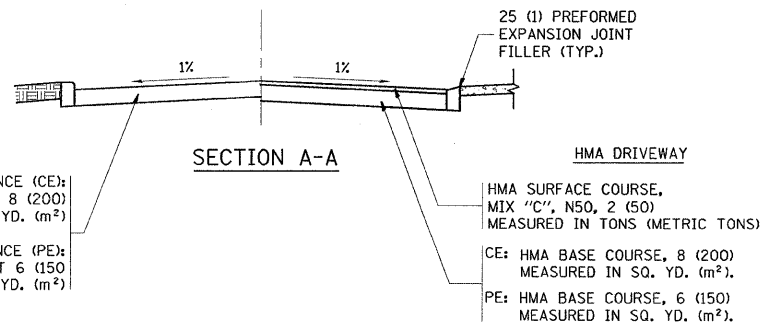
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS, SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



SECTION A-A

**RIGID DRIVEWAY**  
 COMMERCIAL ENTRANCE (CE):  
 P.C.C. DRIVEWAY PAVEMENT 8 (200)  
 MEASURED IN SQ. YD. (m<sup>2</sup>)  
 NON-COMMERCIAL ENTRANCE (PE):  
 P.C.C. DRIVEWAY PAVEMENT 6 (150)  
 MEASURED IN SQ. YD. (m<sup>2</sup>)

**HMA DRIVEWAY**  
 HMA SURFACE COURSE,  
 MIX "C", N50, 2 (50)  
 MEASURED IN TONS (METRIC TONS)  
 CE: HMA BASE COURSE, 8 (200)  
 MEASURED IN SQ. YD. (m<sup>2</sup>),  
 PE: HMA BASE COURSE, 6 (150)  
 MEASURED IN SQ. YD. (m<sup>2</sup>).

REVISIONS	
NAME	DATE
R. SHAH	11-04-95
J. POLLASTRINI	08-12-96
J. POLLASTRINI	12-14-96
A. ABBAS	03-21-97
T. HOLTZ	04-08-97
M. GOMEZ	04-06-01
P. LAFLEUR	04-15-03
R. BORO	01-01-07

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED

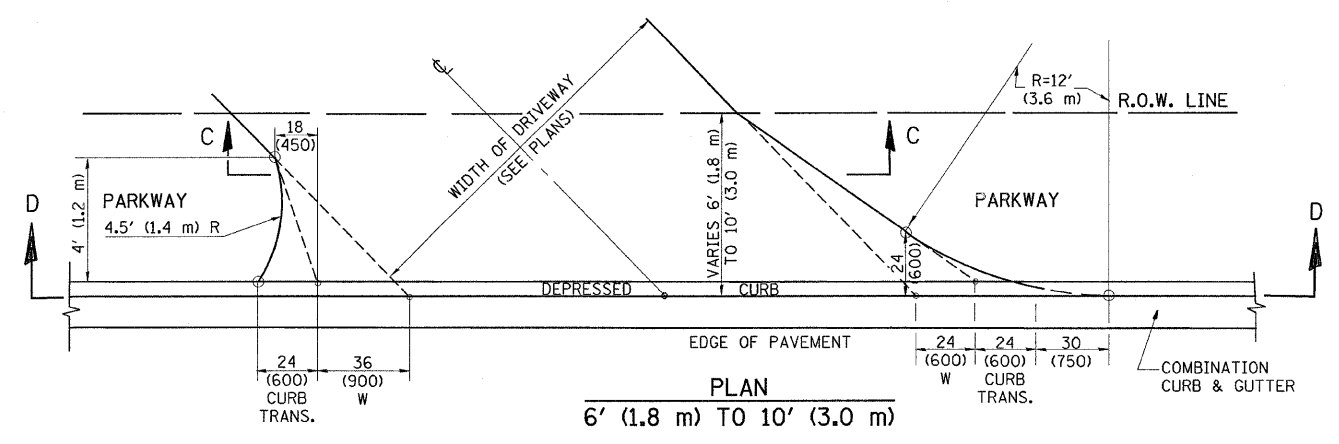
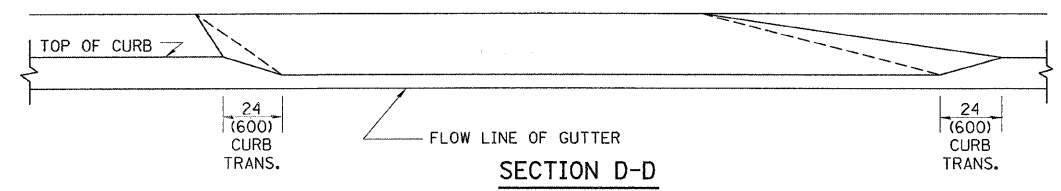
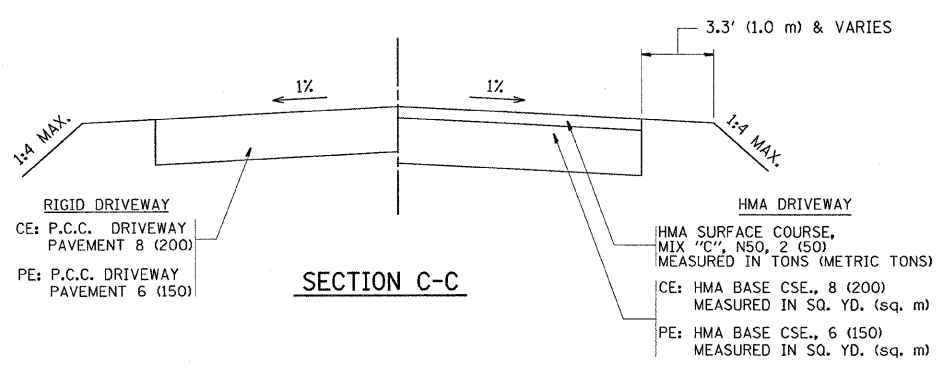
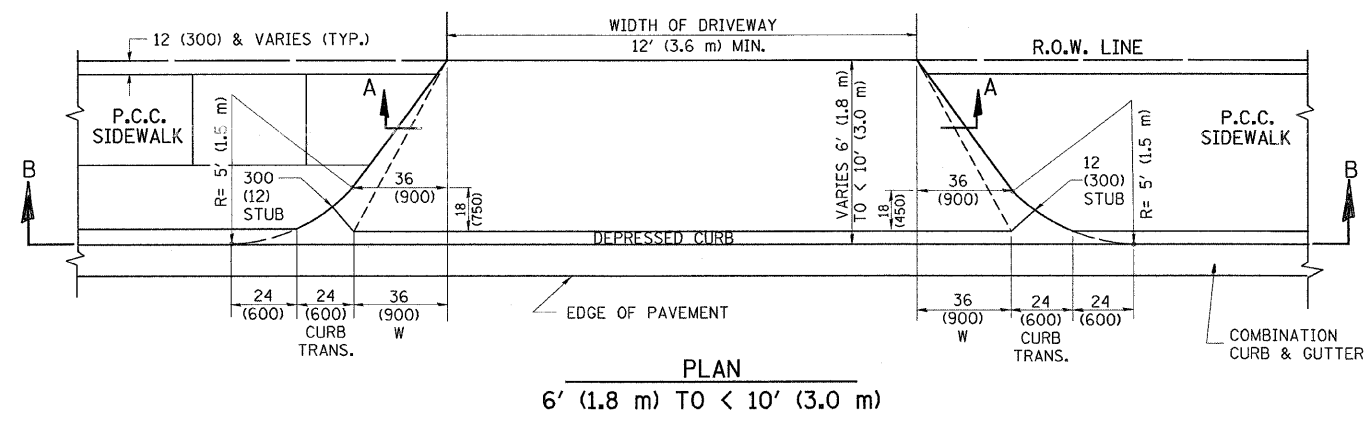
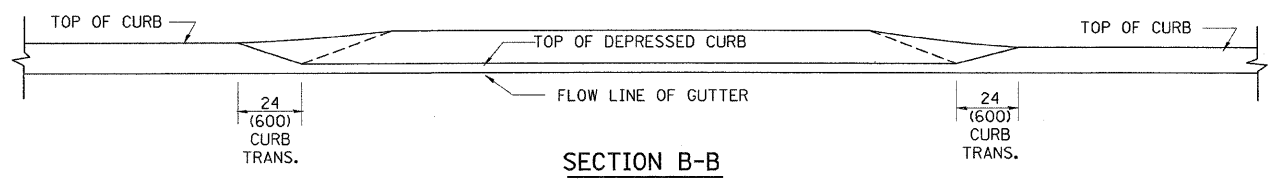
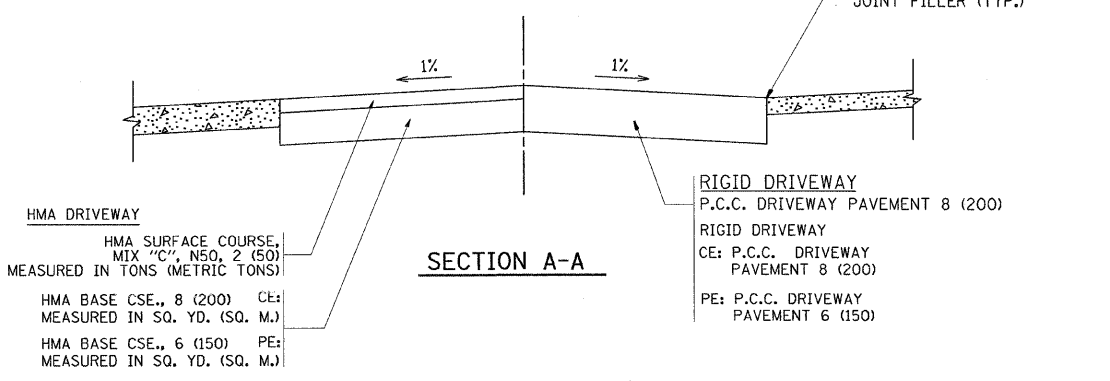
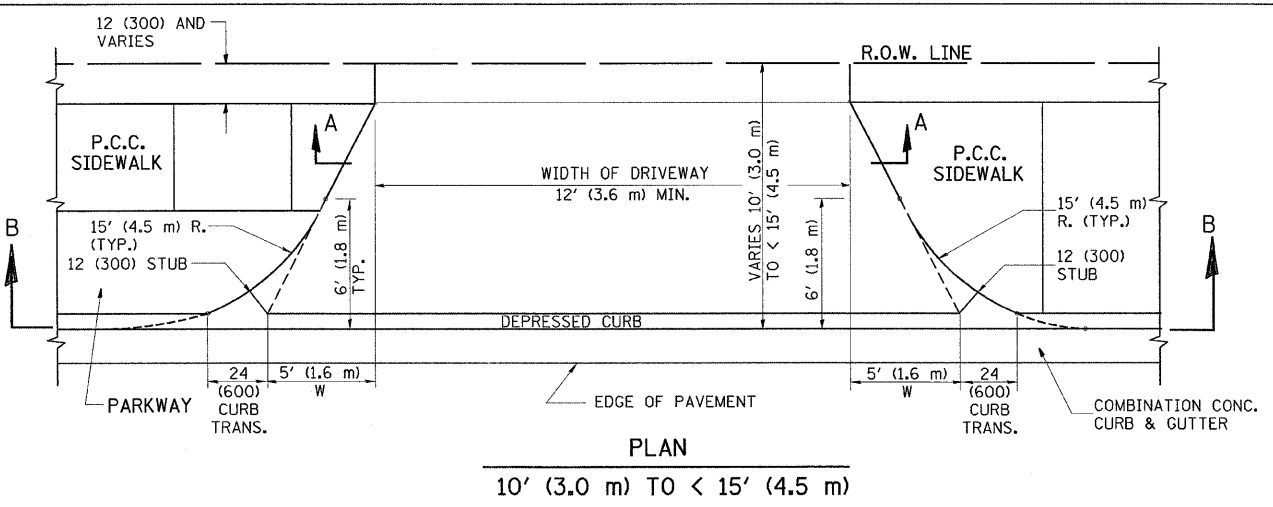
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DRIVEWAY DETAILS**  
 DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER ≥ 15' (4.5 m)

SCALE: VERT. NONE  
 HORIZ.

DRAWN BY  
 CHECKED BY

BD0156-07 (BD-01)

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	107
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**GENERAL NOTES**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

REVISIONS	
NAME	DATE
R. SHAH	11/06/95
J. POLLASTRINI	08/12/96
J. POLLASTRINI	12/14/96
A. ABBAS	03/21/97
T. HOLTZ	04/08/97
M. GOMEZ	04/06/01
P. LAFLEUR	04/15/03
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

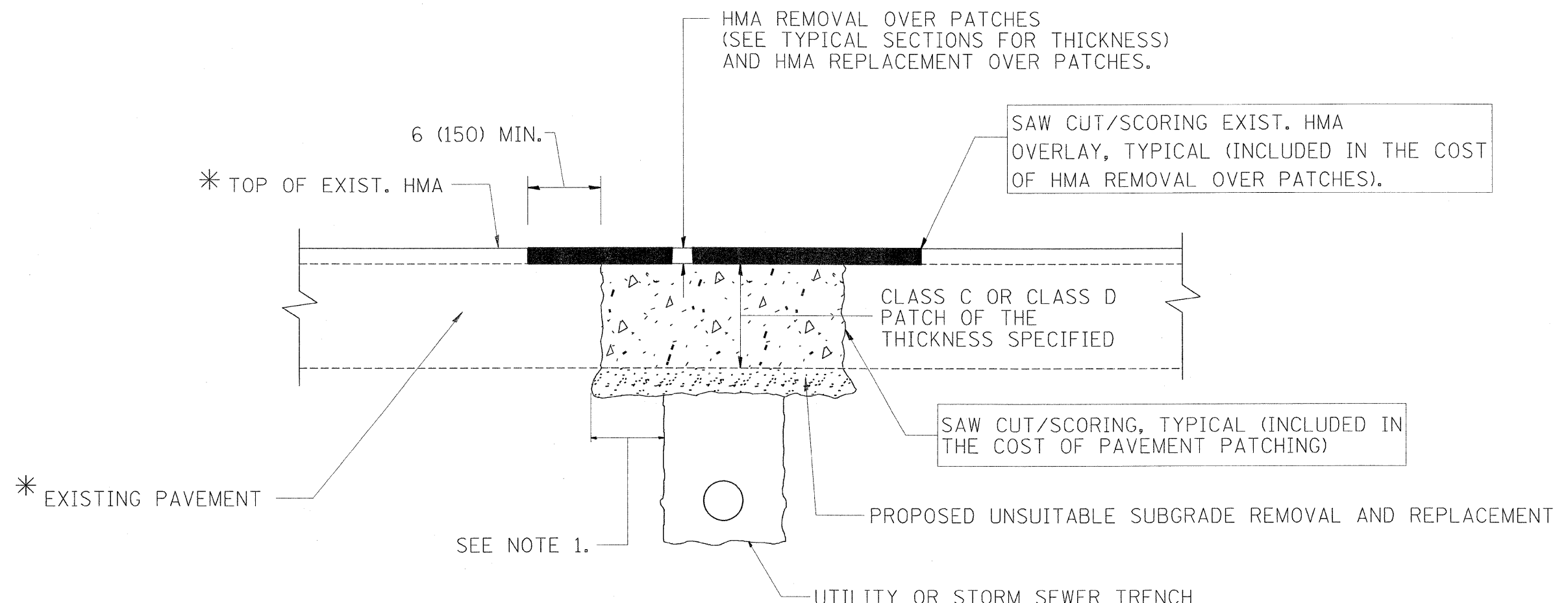
**DRIVEWAY DETAILS**  
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

SCALE: VERT. NONE  
HORIZ.

DRAWN BY  
CHECKED BY



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	108
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

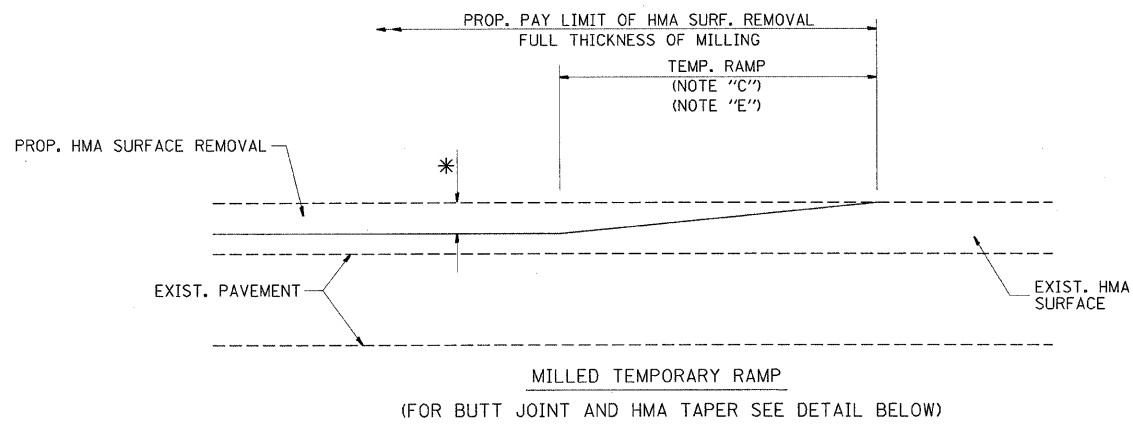
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98
R. BORO	01/01/07
R. BORO	09/04/07

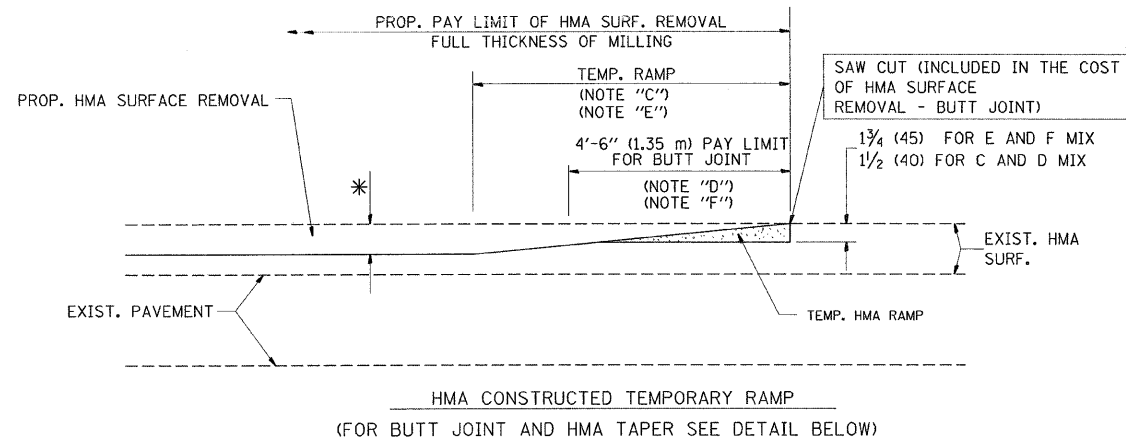
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT**  
 SCALE: VERT. NONE  
 HORIZ. NONE  
 DRAWN BY  
 CHECKED BY  
 BD400-04 (BD-22)

PLOT DATE = 9/11/2007  
 FILE NAME = c:\projects\p01591\design\bb.m32  
 PLOT SCALE = 3/8" = 1' / IN.  
 USER NAME = hmdmeh

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	109
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

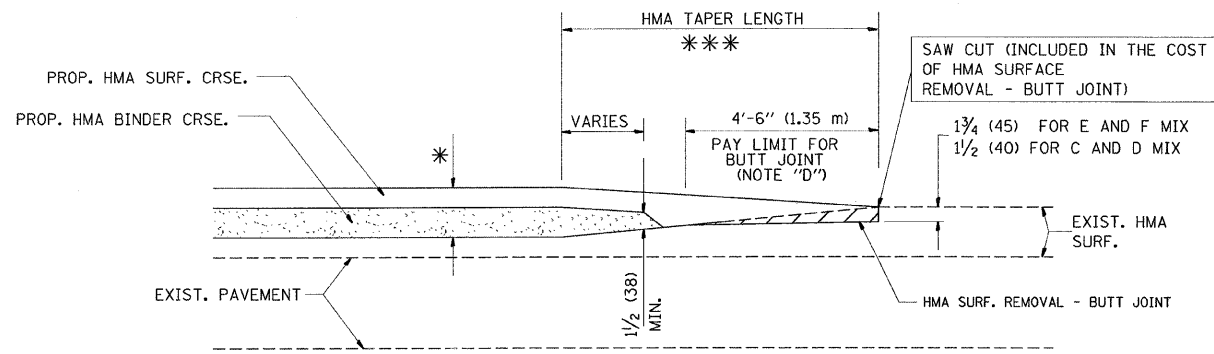


OPTION 1

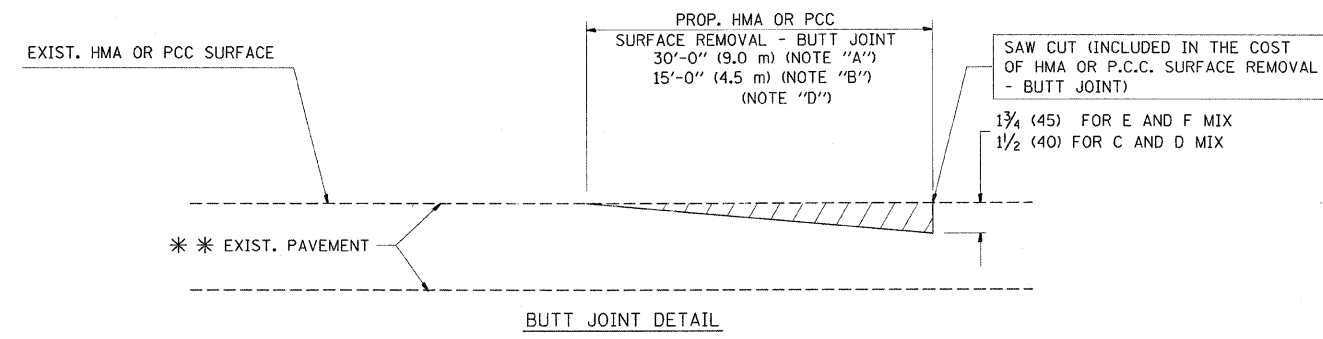


OPTION 2

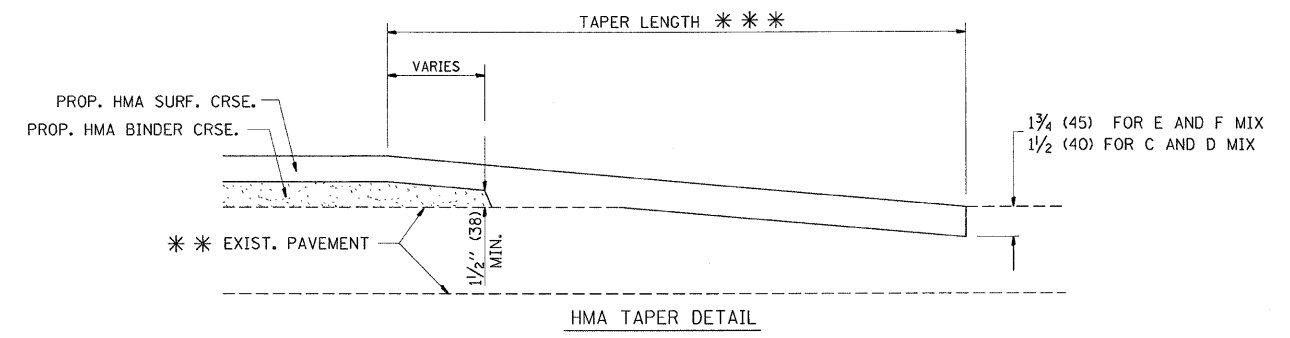
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

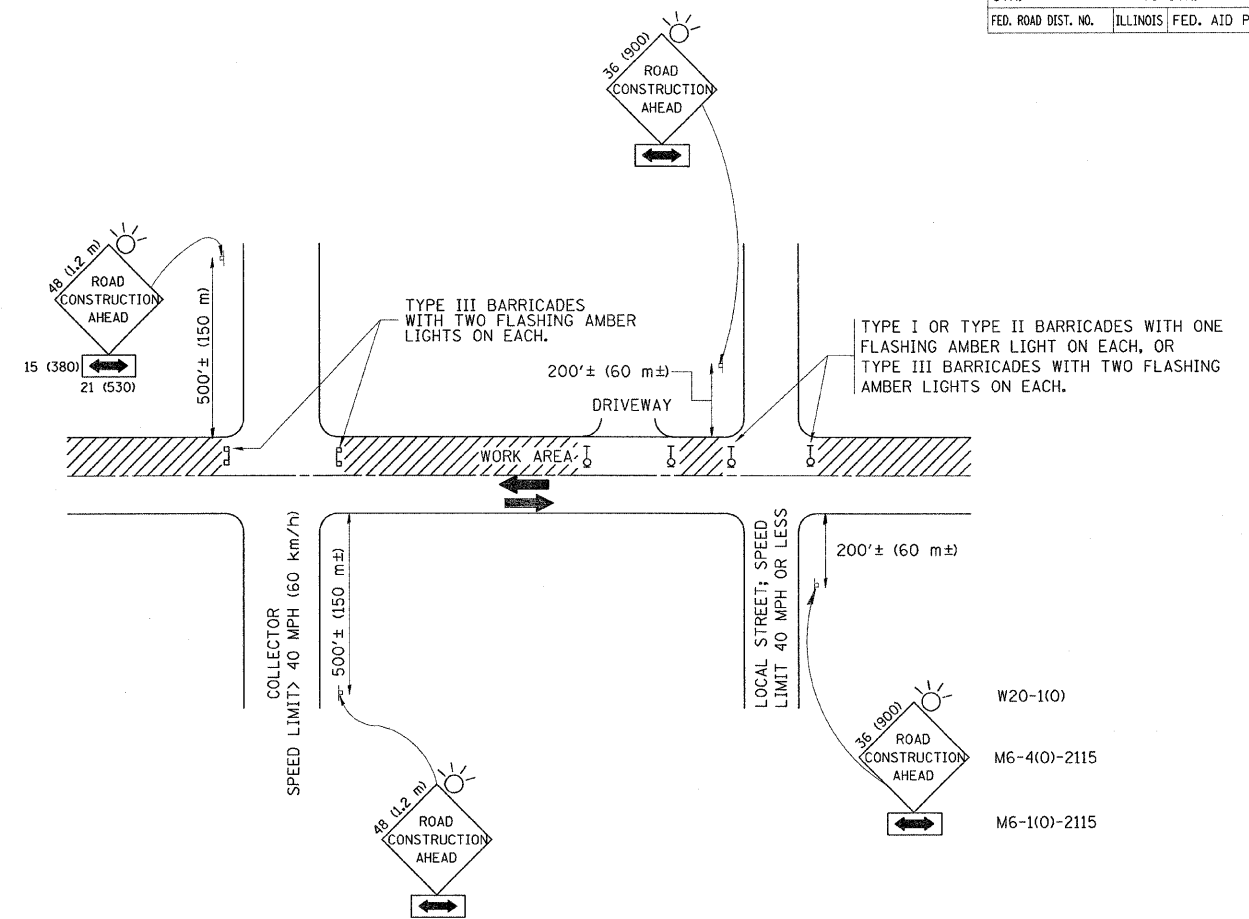
BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE  
HORIZ. NONE

DRAWN BY  
CHECKED BY  
BD400-05 (VI-BD32)

PLOT DATE = 9/11/2007  
 FILE NAME = c:\p\meta\p010191\ds\gr-bb.m32  
 PLOT SCALE = 50.0000 / IN.  
 USER NAME = hmdanah

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	110
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

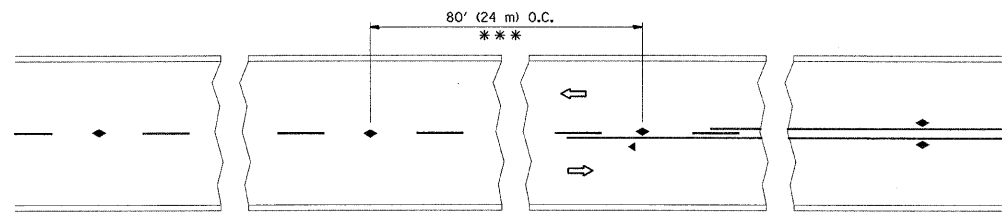
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL AND PROTECTION  
 FOR  
 SIDE ROADS, INTERSECTIONS, AND  
 DRIVEWAYS

SCALE: NONE

DRAWN BY

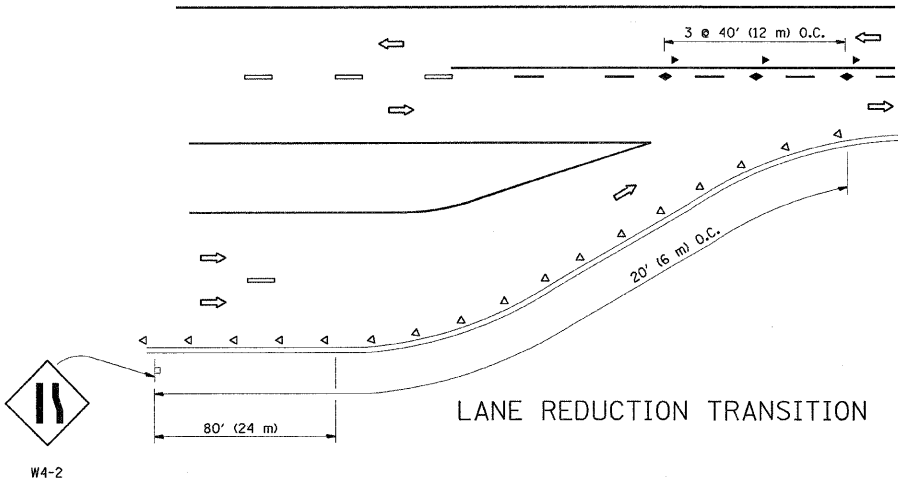
CHECKED BY

TC-10

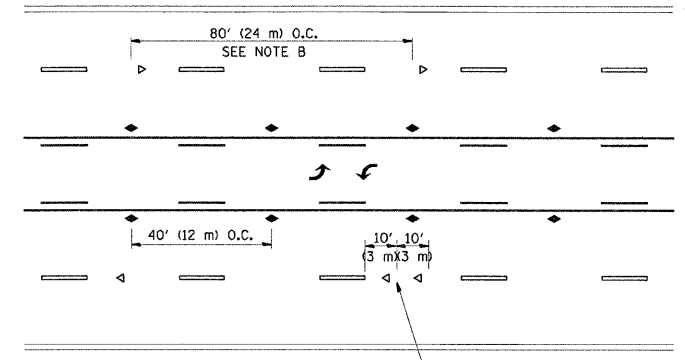


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

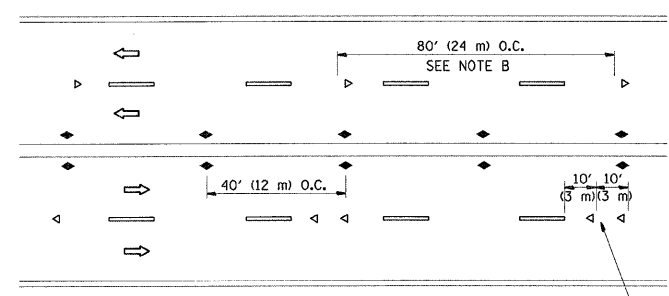
TWO-LANE/TWO-WAY



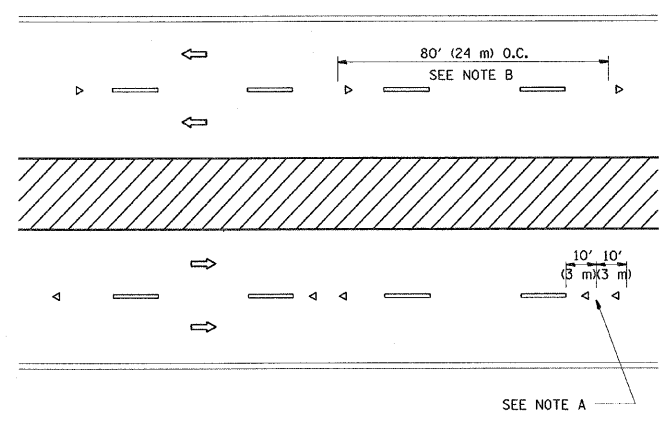
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

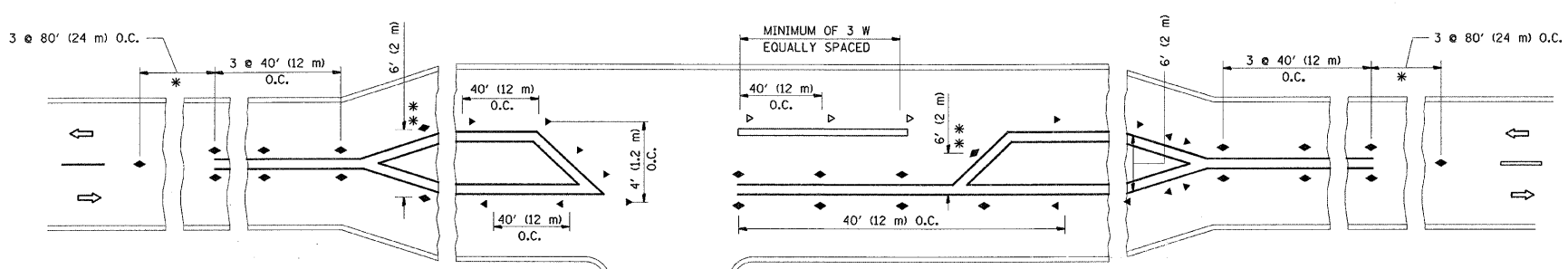
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◄ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

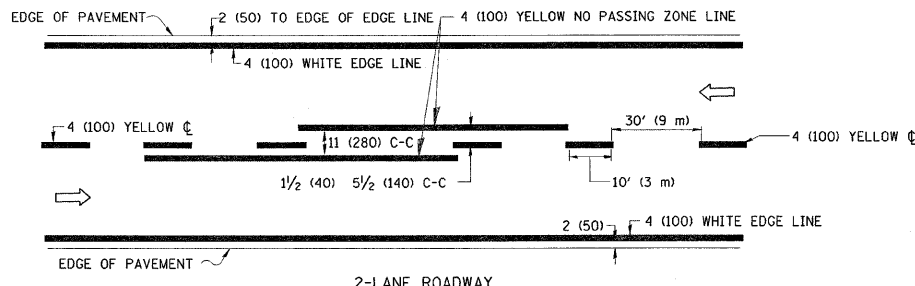
All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

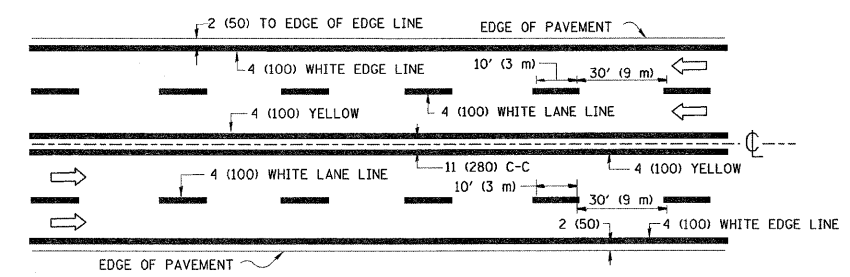
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TYPICAL APPLICATIONS  
 RAISED REFLECTIVE PAVEMENT  
 MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE  
 DRAWN BY CADD  
 CHECKED BY  
 TC-11

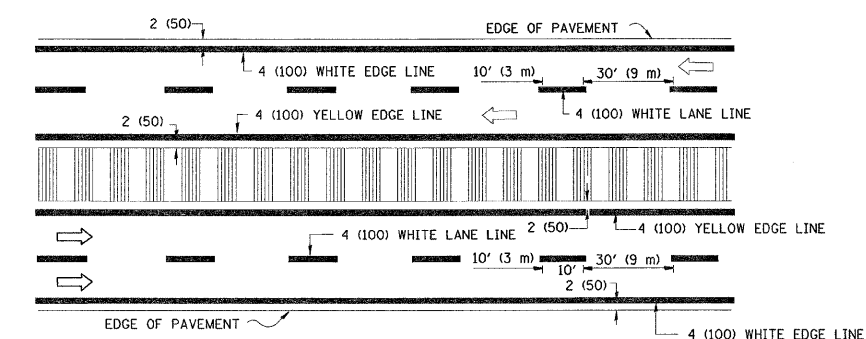
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL.	133	112
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



2-LANE ROADWAY



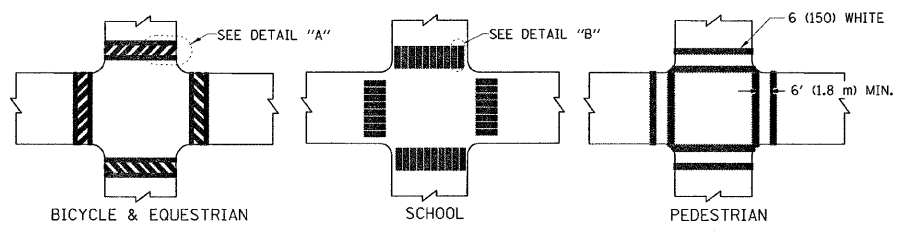
MULTI-LANE UNDIVIDED



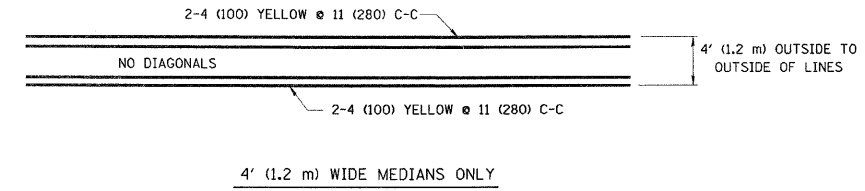
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

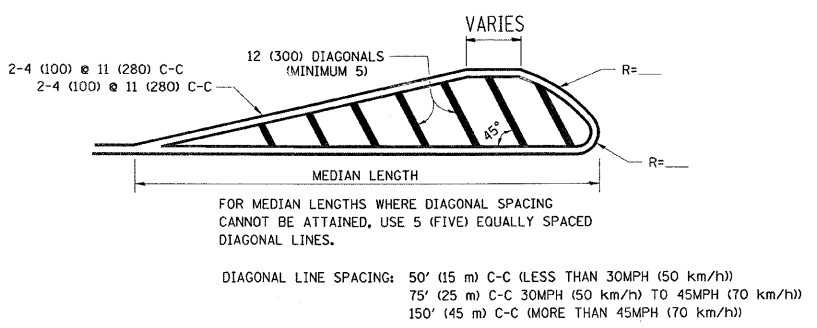
TYPICAL LANE AND EDGE LINE MARKING



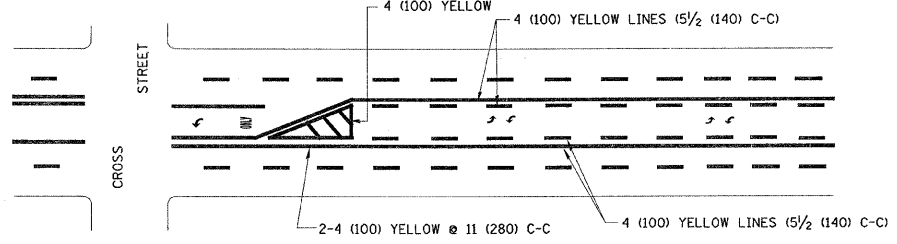
TYPICAL CROSSWALK MARKING



4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE

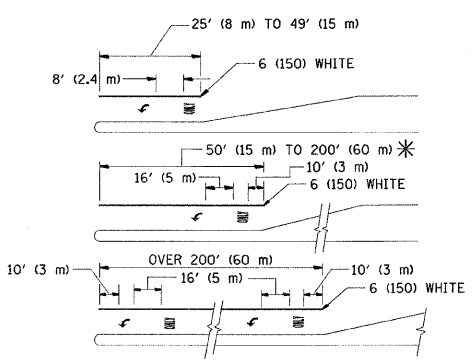


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

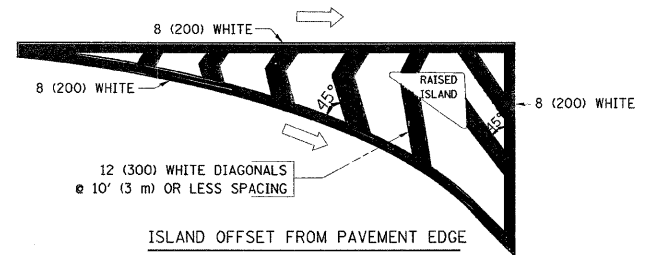


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

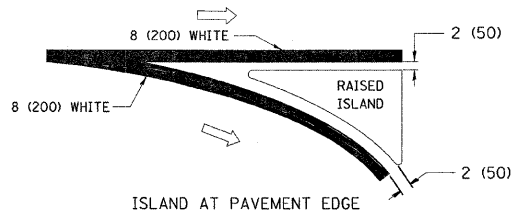
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

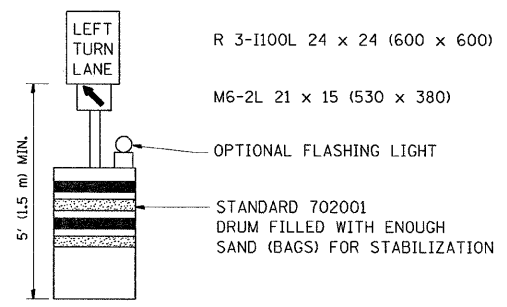
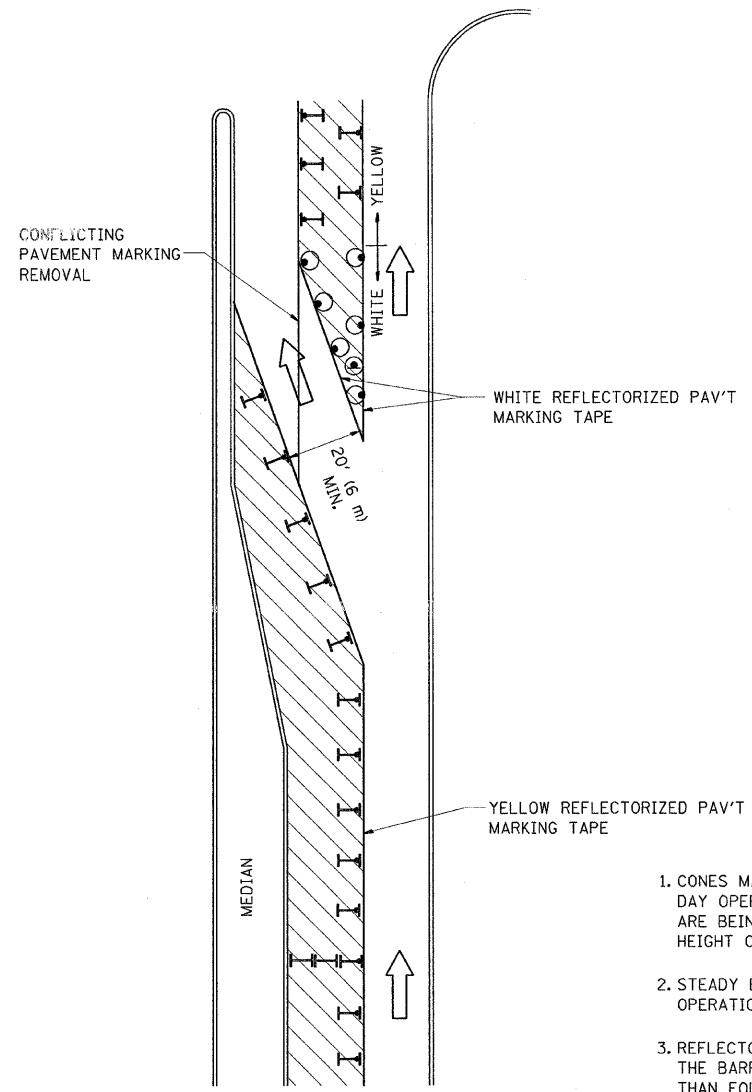
REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS

SCALE: NONE  
DRAWN BY CADD  
CHECKED BY  
TC-13

PLOT DATE = 8/11/2007  
FILE NAME = C:\V\11859\design\bbun32  
PLOT SCALE = 5/8"=1'-0"  
USER NAME = hamdanah

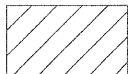





F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	113
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**GENERAL NOTES**

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

**LEGEND**

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

All dimensions are in inches (millimeters) unless otherwise shown.

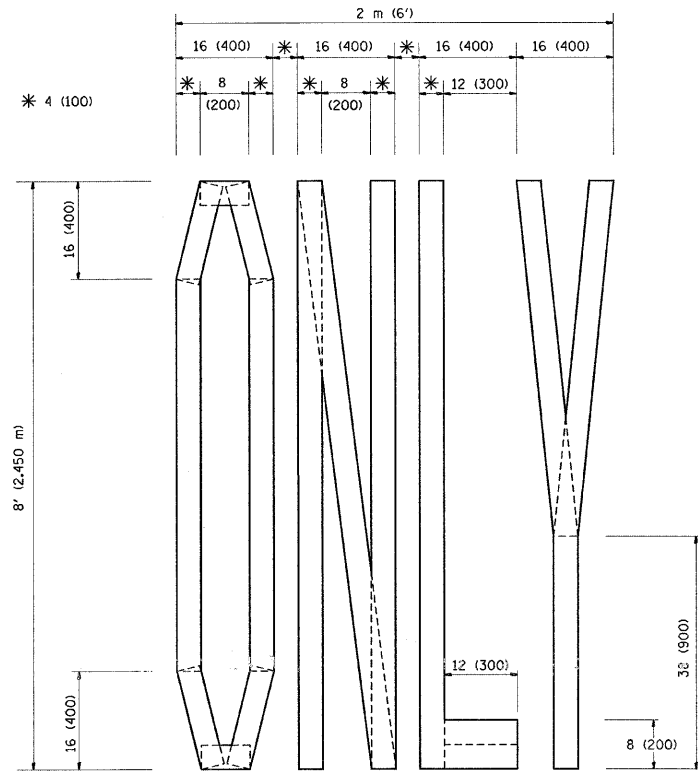
REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL AND PROTECTION  
 AT TURN BAYS  
 (TO REMAIN OPEN TO TRAFFIC)**

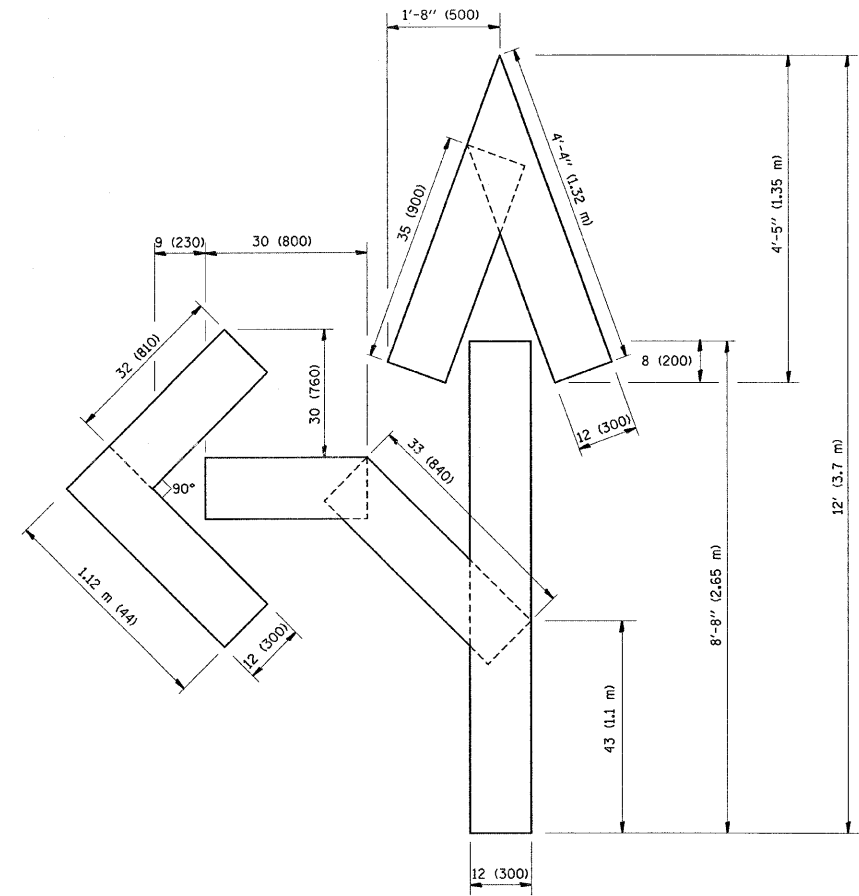
SCALE: NONE

DRAWN BY  
 CHECKED BY LHA  
 TC-14

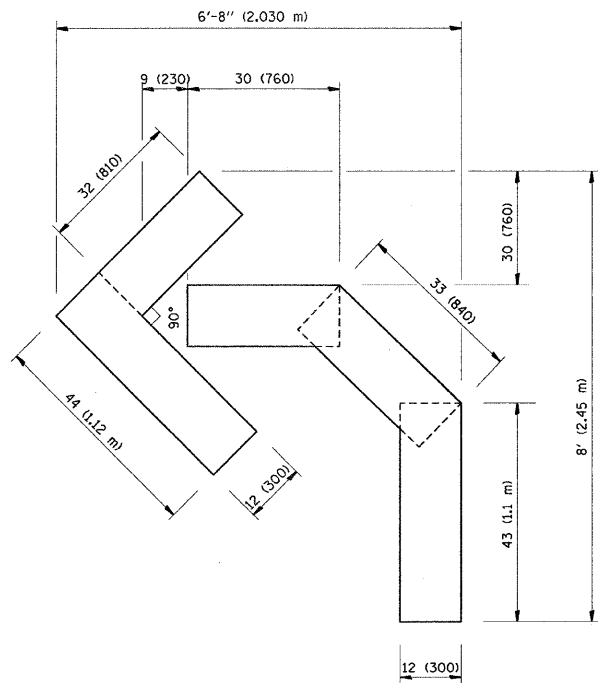
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	114
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)



QUANTITY  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.39 sq. m)

All dimensions are in Inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING  
 LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

SCALE: NONE

DRAWN BY CADD

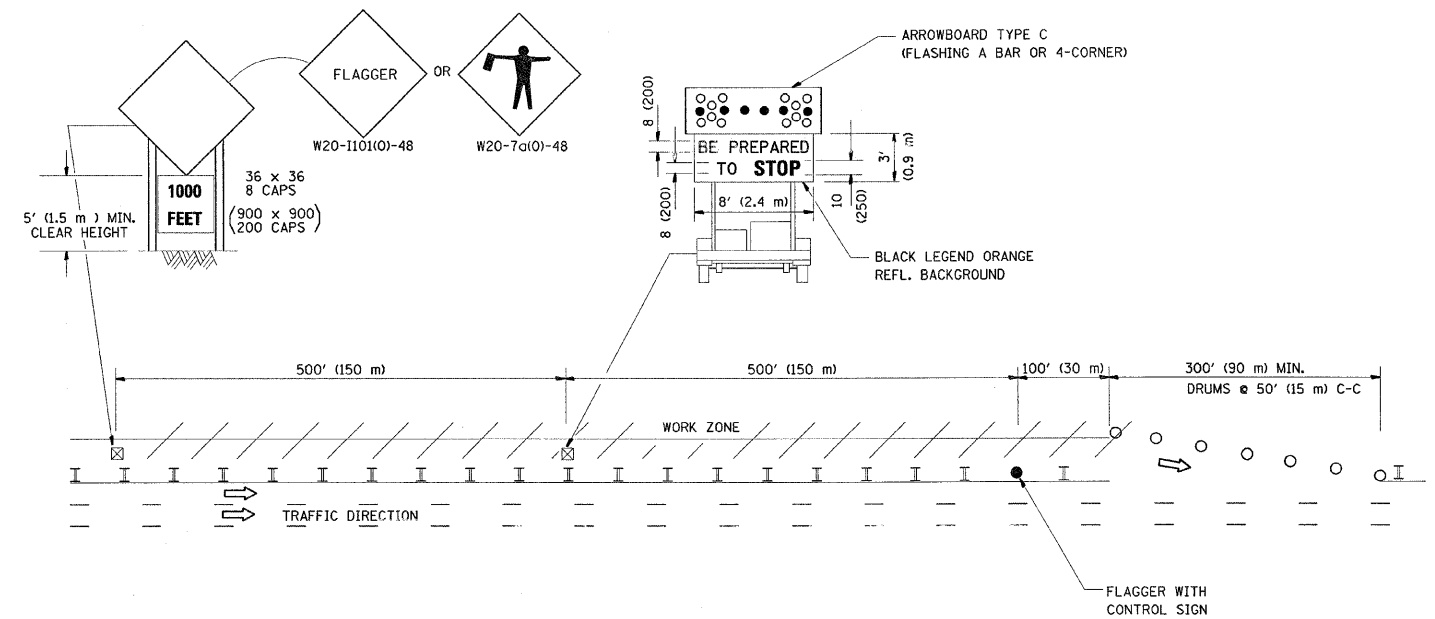
CHECKED BY

TC-16

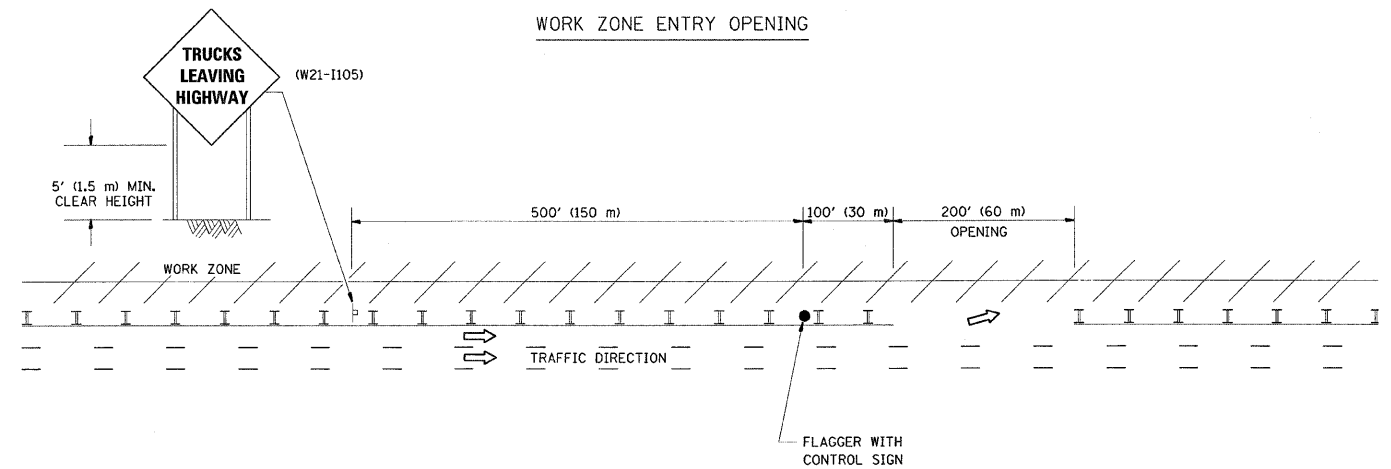
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	115
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE

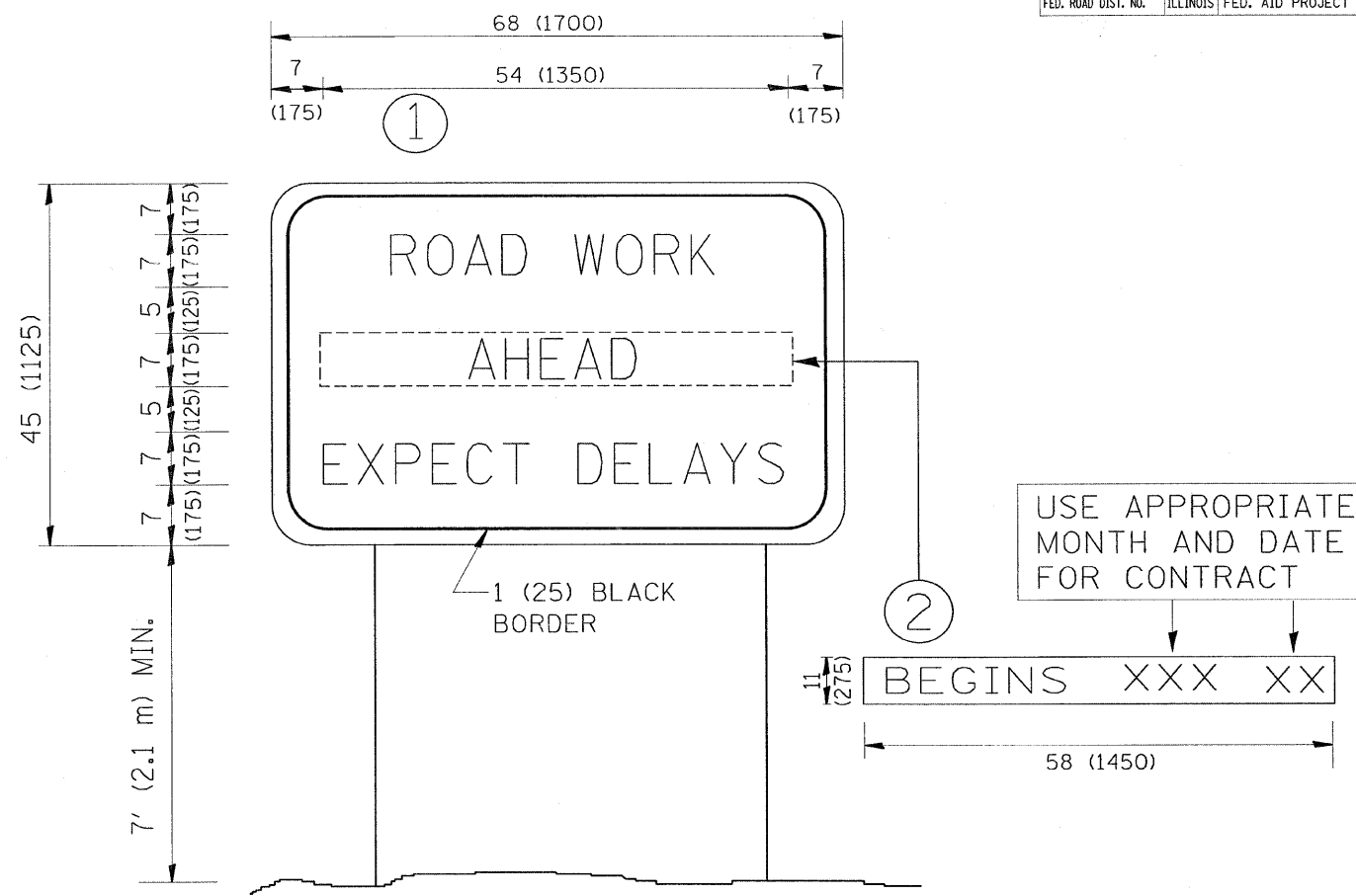
DRAWN BY CADD

CHECKED BY

TC-18



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	116
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

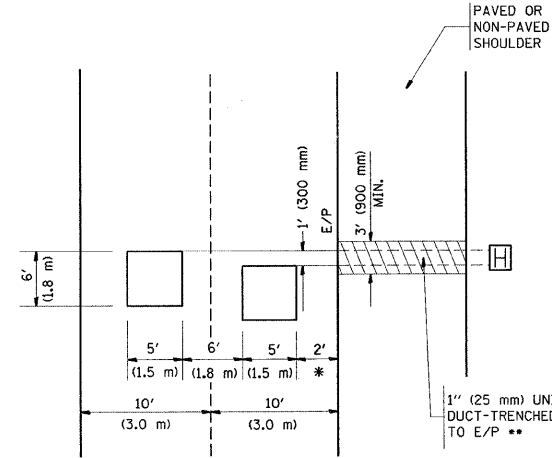
REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ARTERIAL ROAD INFORMATION SIGN**  
 SCALE: NONE  
 DRAWN BY DESIGN  
 CHECKED BY  
 TC22

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	117
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



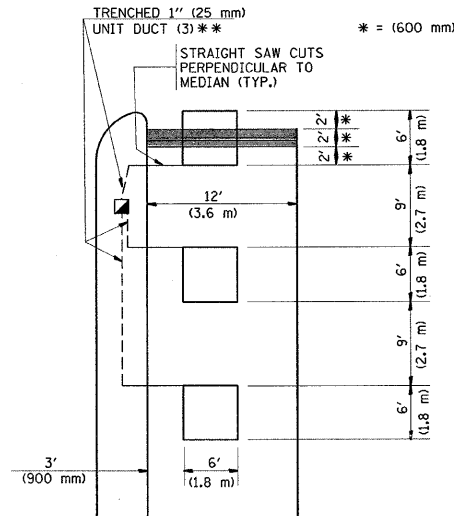
\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

LEFT TURN LANES WITH MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

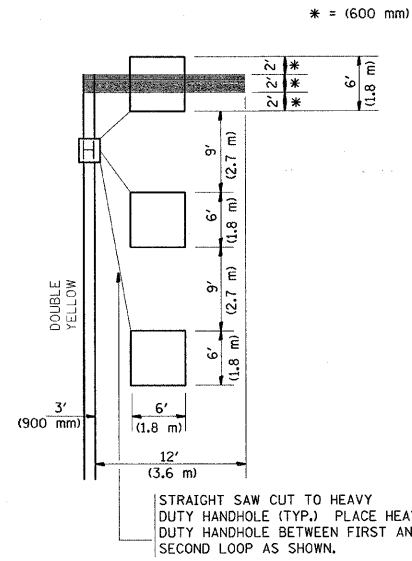


\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTES:

VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

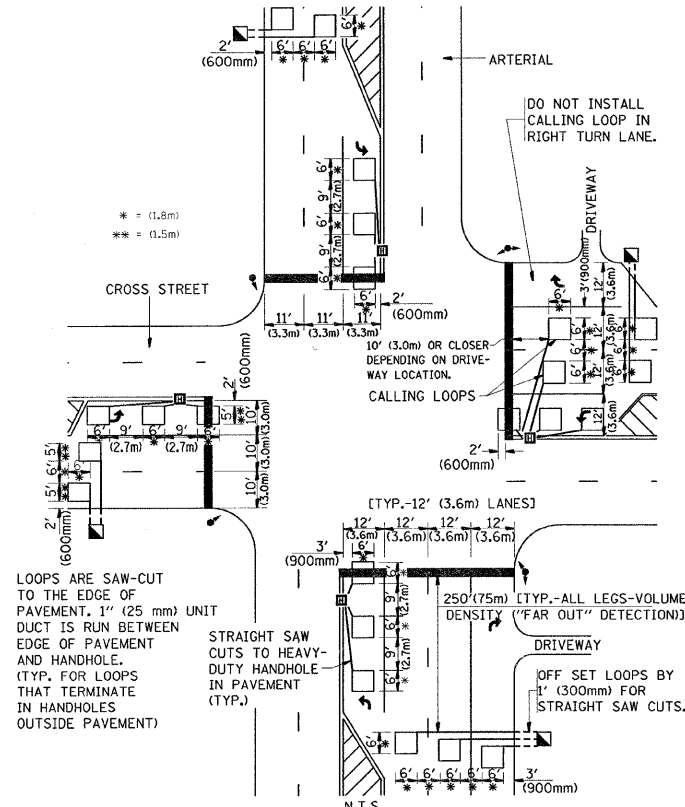
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

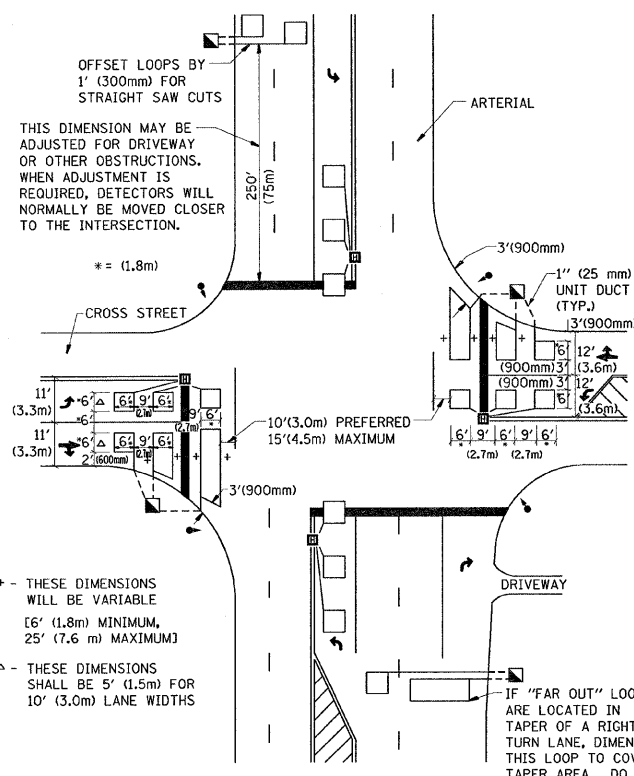
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)



DETAIL 1  
N.T.S.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 2  
N.T.S.

PLOT DATE = 9/11/2007  
FILE NAME = c:\hwy\projects\p1010154\design\bbm32  
USER NAME = hnsbshh

REVISIONS	
NAME	DATE

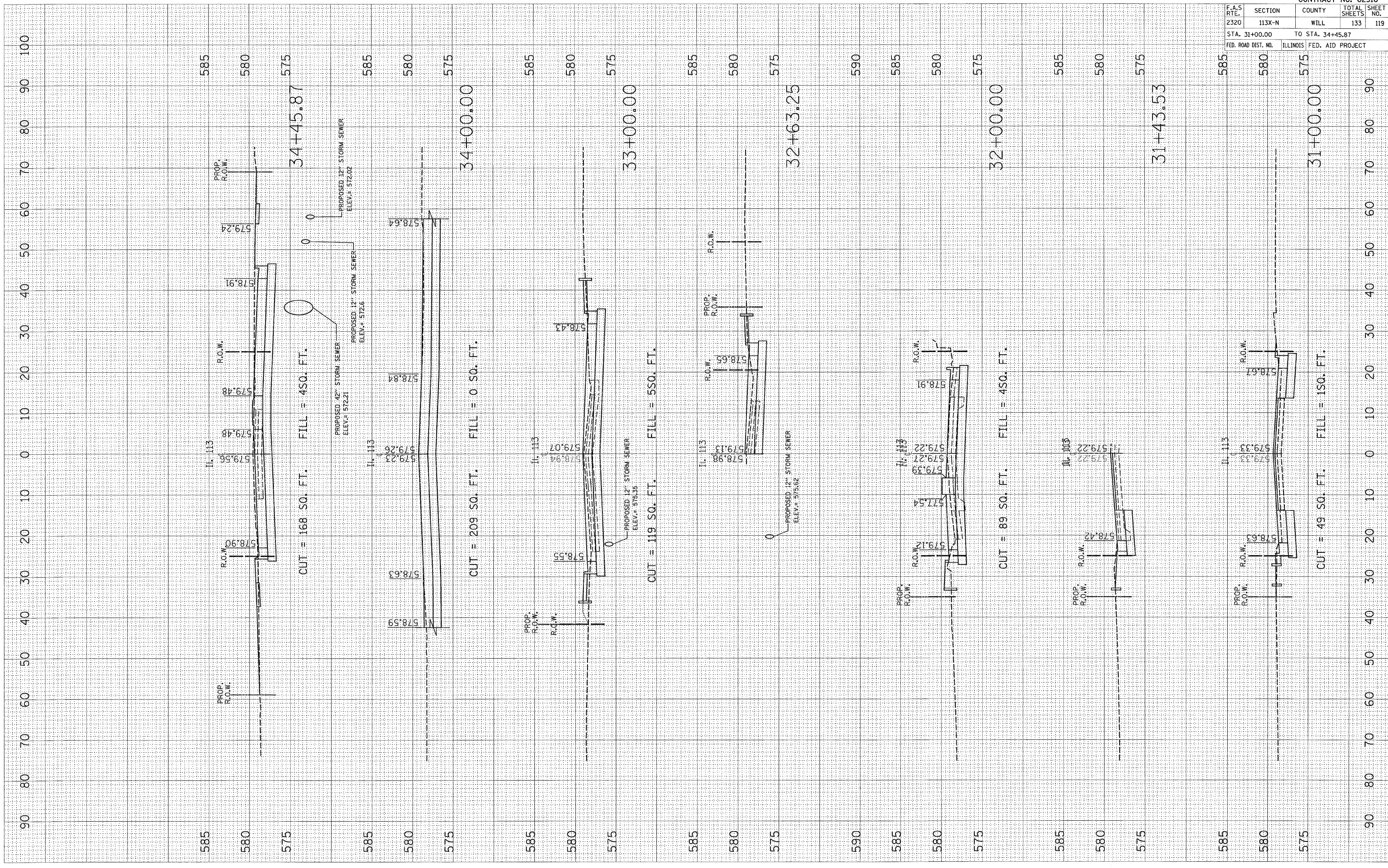
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT 1  
DETECTOR LOOP  
INSTALLATION DETAILS  
FOR ROADWAY RESURFACING  
DESIGNED BY  
DRAWN BY CADD  
CHECKED BY R.K.F.  
TS07



PLOT DATE = 5/17/2007  
 PLOT SCALE = 1/8" = 10'-0"  
 USER NAME = handdrah

ORIGINAL SURVEY PLOTTED TEMPLATE NO. AREAS CHECKED BY DATE

FINAL SURVEY PLOTTED TEMPLATE NO. AREAS CHECKED BY DATE



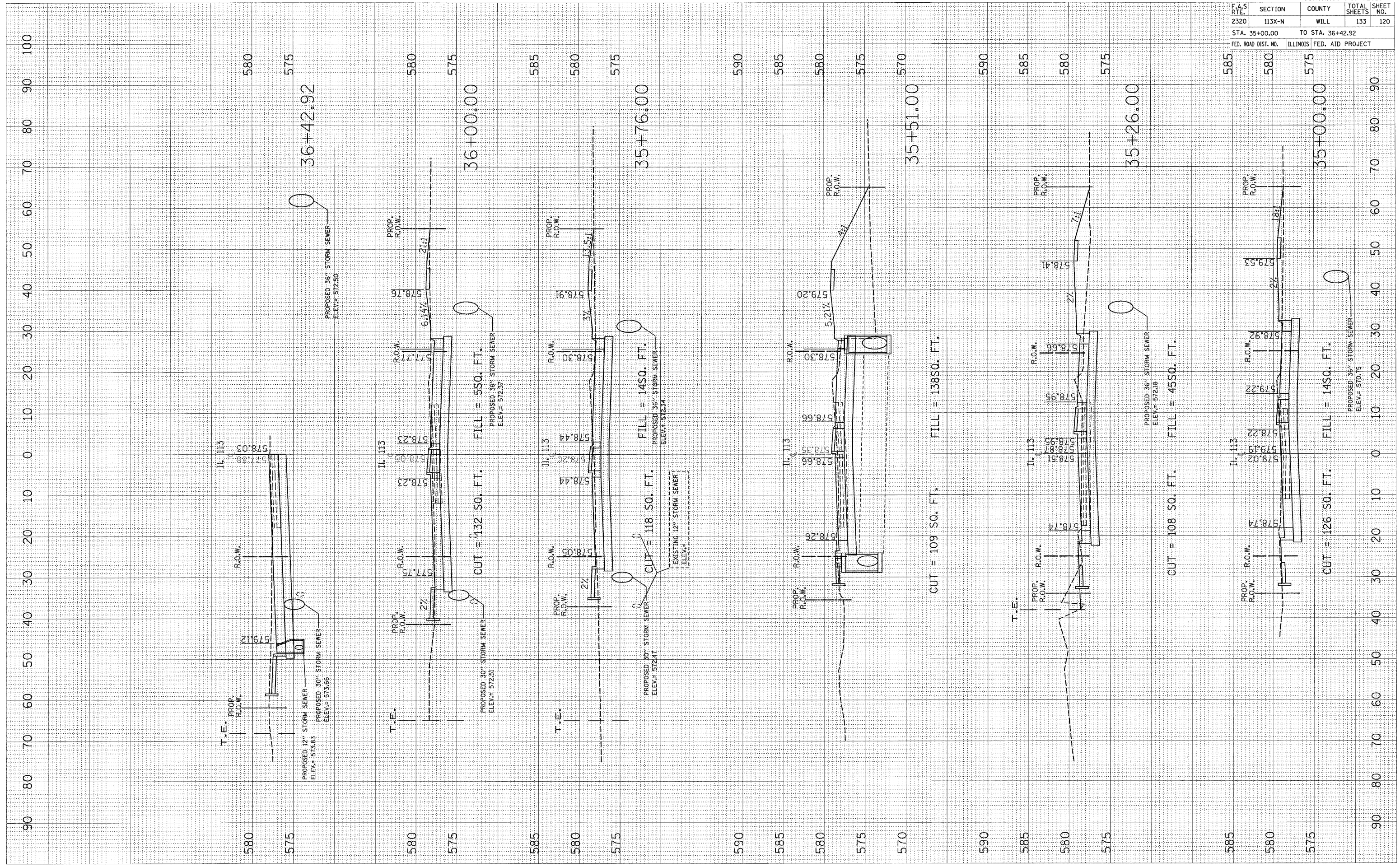
F.A.S. RTL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	119
STA. 31+00.00		TO STA. 34+45.87		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLOT DATE = 9/11/2007  
 FILE NAME = c:\pcc\jst\p01818\va.1113.plt  
 PLOT SCALE = 10.000' / IN.  
 USER NAME = handmah

ORIGINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 FINISHED SURVEY PLOTTED  
 FINISHED SURVEY PLOTTED

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_

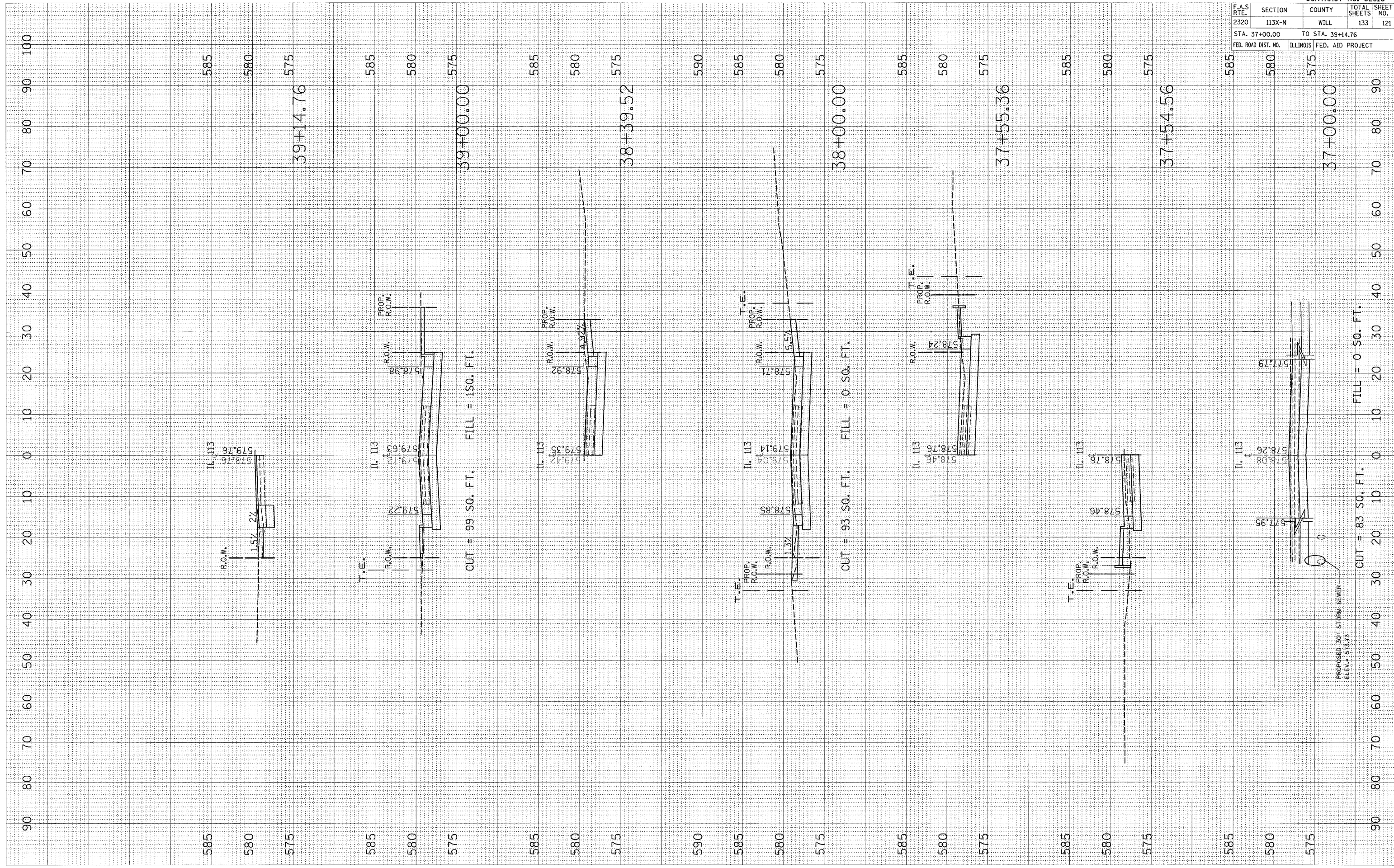
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	120
STA. 35+00.00		TO STA. 36+42.92		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLOT DATE = 9/11/2007  
 FILE NAME = c:\pco\pco\p1016194\va.1113.plt  
 PLOT SCALE = 10.0000 / IN.  
 USER NAME = handman

ORIGINAL SURVEY SUBMITTED SURVEY PLOTTED  
 NO. DATE BOOK NO. DATE

FINAL SURVEY SUBMITTED SURVEY PLOTTED  
 NO. DATE BOOK NO. DATE



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	121
STA. 37+00.00		TO STA. 39+14.76		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PROPOSED 30" STORM SEWER  
 ELEV. = 573.73

CUT = 83 SQ. FT.      FILL = 0 SQ. FT.

PLOT DATE = 9/11/2007  
 FILE NAME = c:\p\o\meta\p101619a\va-1113.plt  
 PLOT SCALE = 10.000' / IN.  
 USER NAME = handmanh

ORIGINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 NOTE BOOK AREAS CHECKED

FINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 NOTE BOOK AREAS CHECKED

BY DATE

BY DATE

585

580

575

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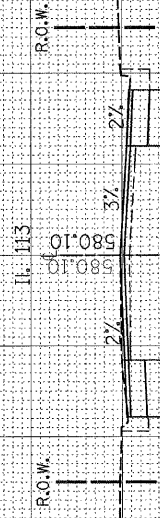
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585

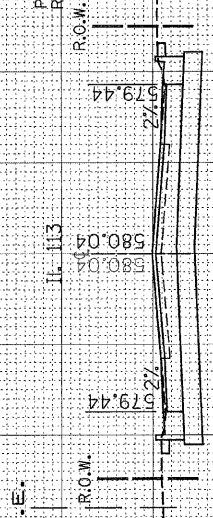
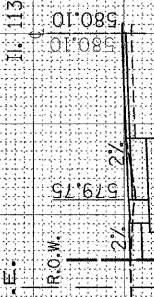
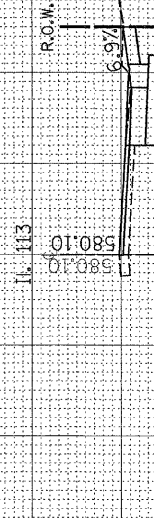
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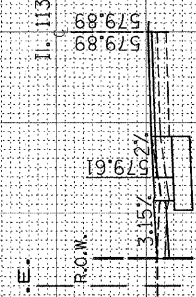
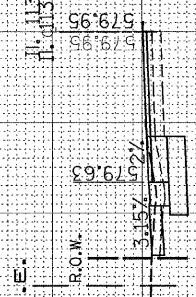
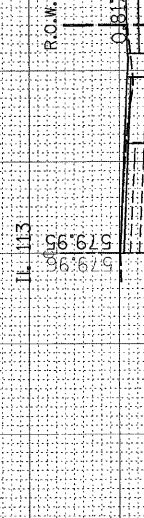
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100



CUT = 27 SO. FT. FILL = 0 SO. FT.



CUT = 93 SO. FT. FILL = 0 SO. FT.

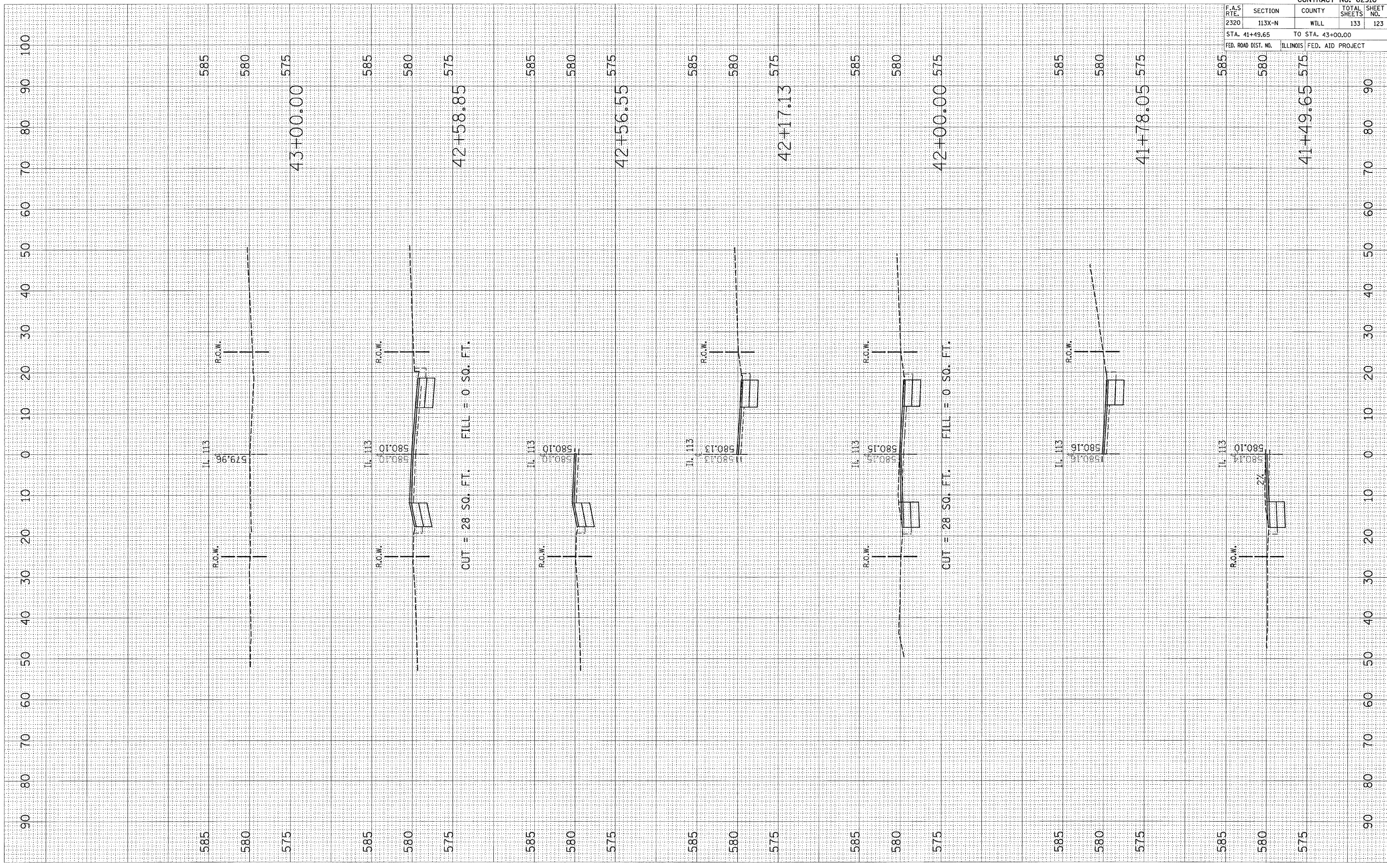


CONTRACT NO. 62910				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	122
STA. 39+52.74		TO STA. 41+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLOT DATE = 9/11/2007  
 FILE NAME = c:\p01\j0151\p0151a\p0151a.dwg  
 PLOT SCALE = 1/8" = 1' IN.  
 USER NAME = hmdmsh

ORIGINAL SURVEY NO. \_\_\_\_\_  
 SURVEYED BY \_\_\_\_\_  
 DATE \_\_\_\_\_  
 TYPED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_

FINAL SURVEY NO. \_\_\_\_\_  
 SURVEYED BY \_\_\_\_\_  
 DATE \_\_\_\_\_  
 TYPED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_



CONTRACT NO. 62910

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	123
STA. 41+49.65		TO STA. 43+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

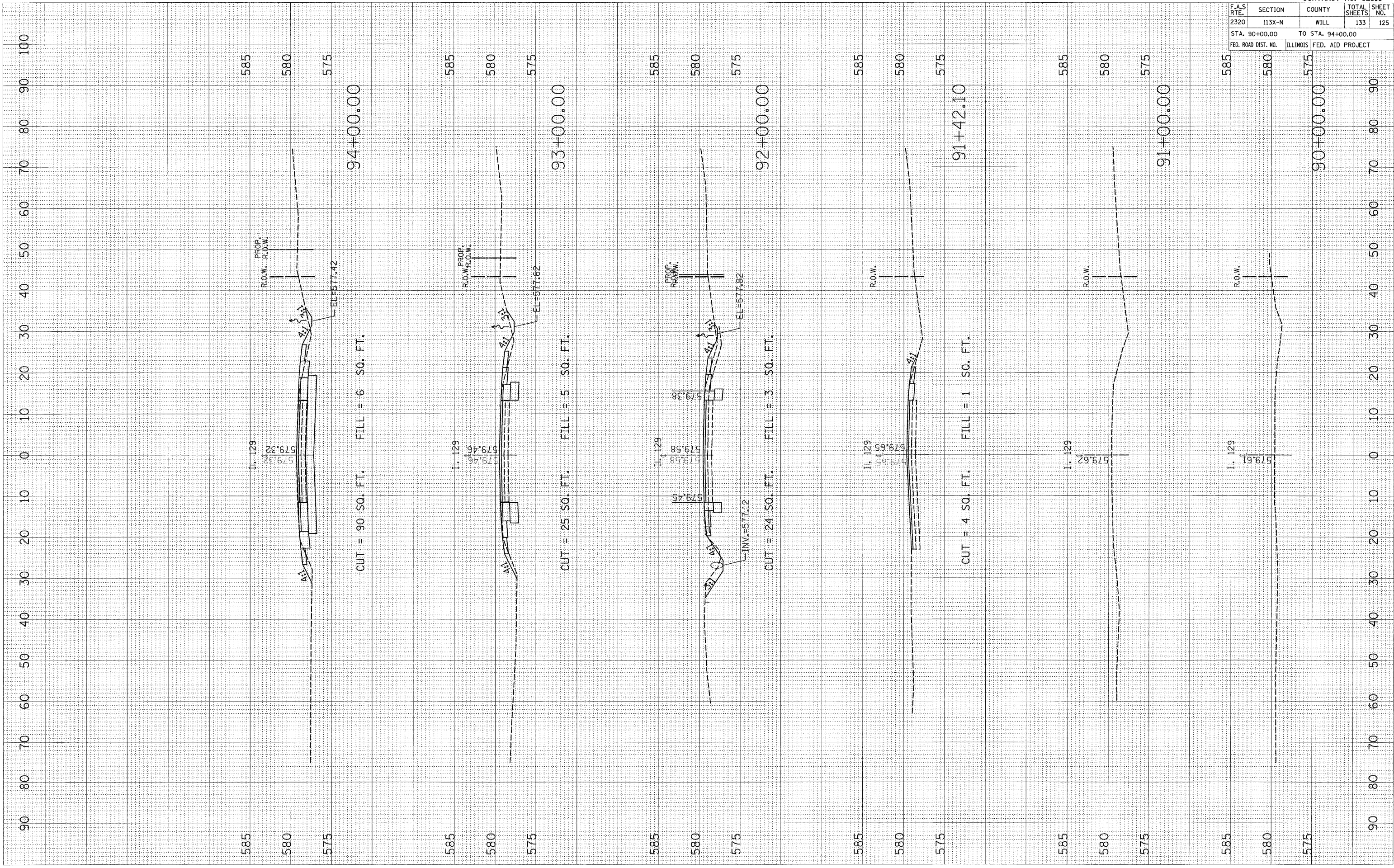




PLOT DATE = 9/11/2007  
 FILE NAME = \\s10165a\w\1129\_1114133  
 PLOT SCALE = 1/8"=20' / 1"=240'  
 USER NAME = hamdanah

ORIGINAL SURVEY NO. \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 DATE \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_  
 BY \_\_\_\_\_

FINAL SURVEY NO. \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 DATE \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_  
 BY \_\_\_\_\_

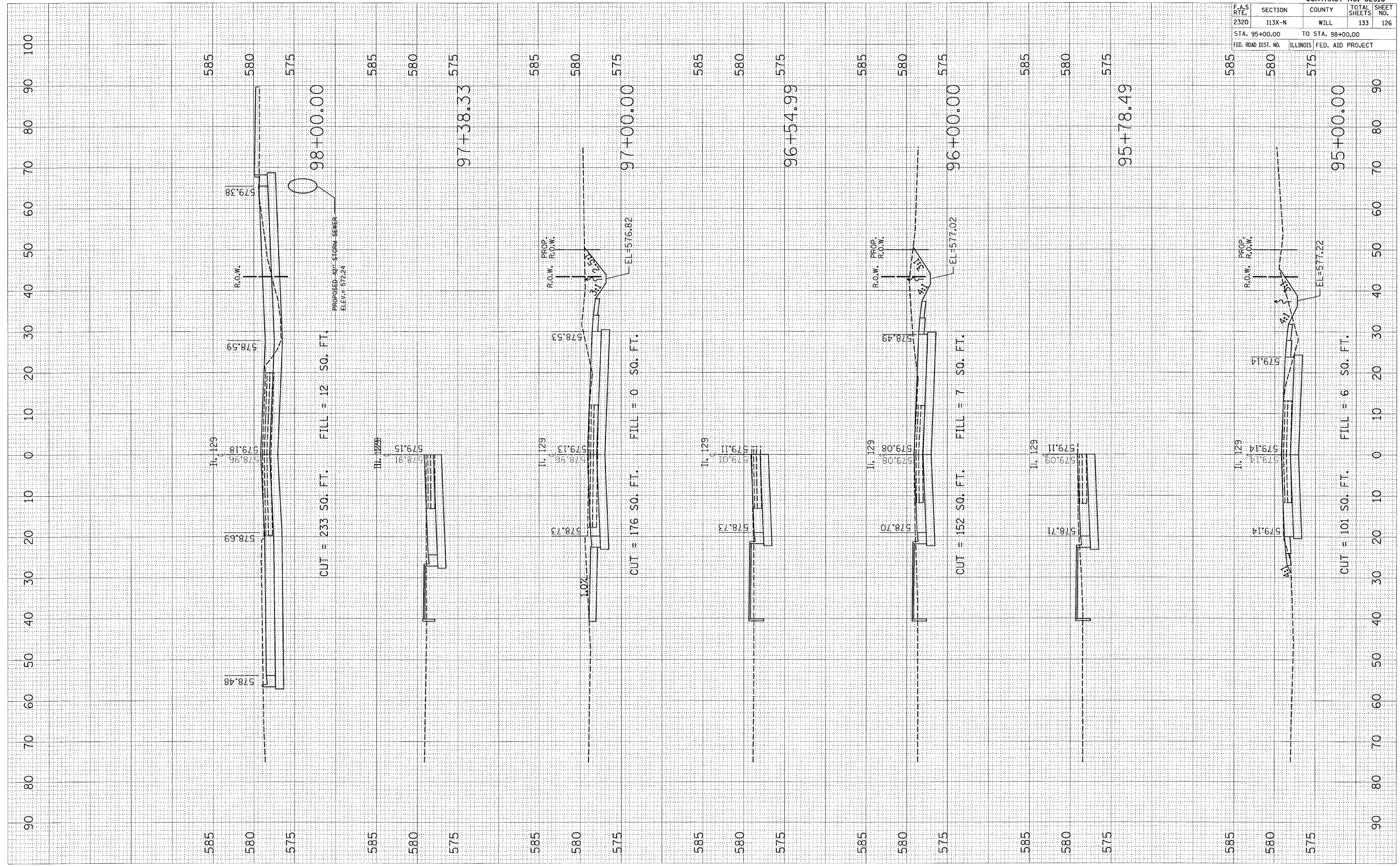


CONTRACT NO. 62910			
F.A.S. RTE. 2320	SECTION 113X-N	COUNTY WILL	TOTAL SHEETS 133
STA. 90+00.00		TO STA. 94+00.00	
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT	

PLOT DATE = 9/11/2007  
 FILE NAME = c:\p\projects\101819\101819.dwg  
 PLOT SCALE = 1/8" = 1' IN.  
 USER NAME = handmah

ORIGINAL SURVEY BY DATE  
 SURVEYED BY DATE  
 TEMPLATE NO.  
 AREAS CHECKED

FINAL SURVEY BY DATE  
 SURVEYED BY DATE  
 TEMPLATE NO.  
 AREAS CHECKED



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	126
STA. 95+00.00 TO STA. 98+00.00				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

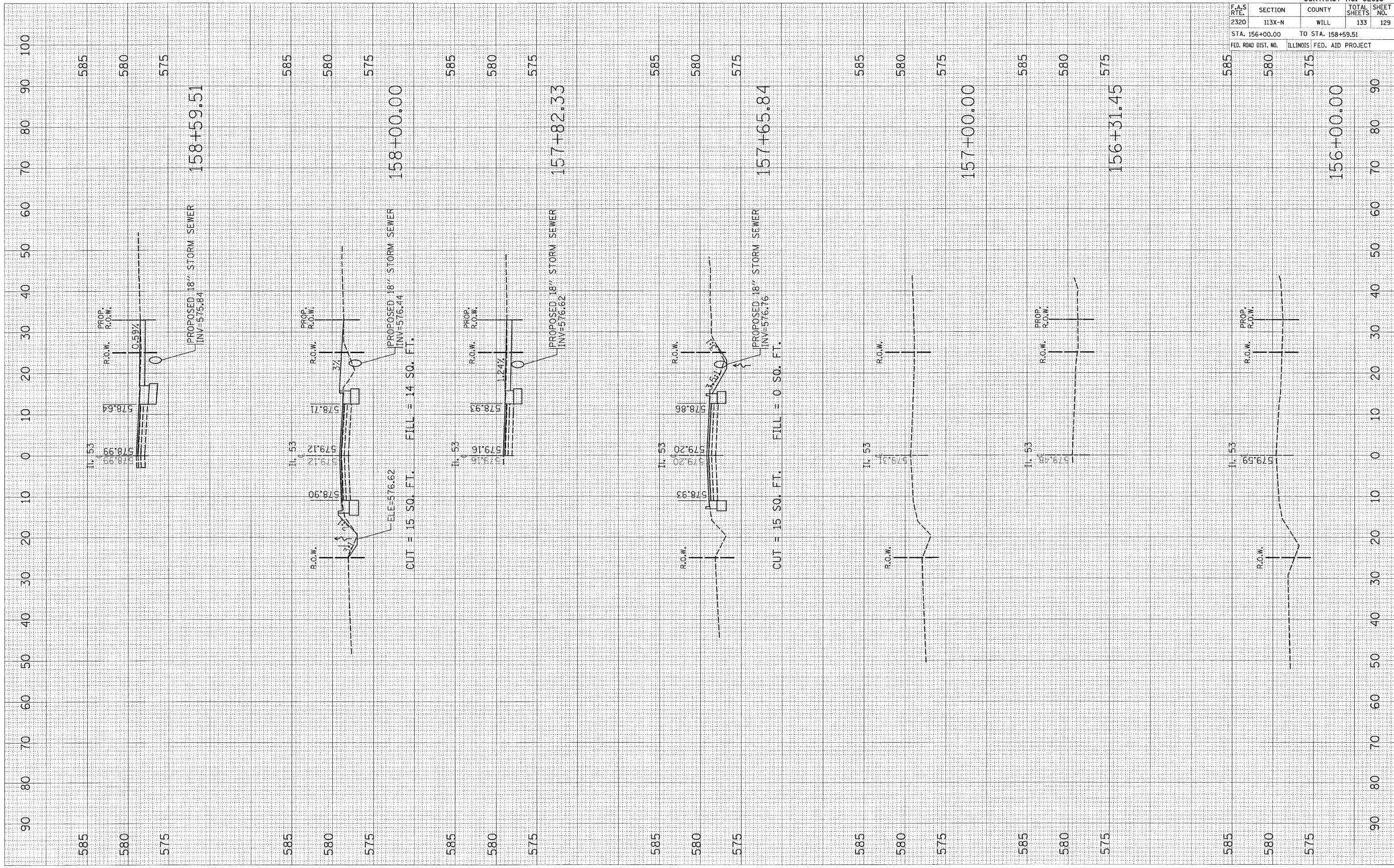




PLOT DATE = 9/11/2007  
 FILE NAME = c:\pwworkspace\1018194\1018194.dwg  
 USER NAME = harsdona

ORIGINAL SURVEYED BY DATE  
 SHEET PLOTTED  
 NO. TEMPLATE  
 NO. NOTE BOOK  
 AREAS CHECKED

FINAL SURVEYED BY DATE  
 SHEET PLOTTED  
 NO. TEMPLATE  
 NO. NOTE BOOK  
 AREAS CHECKED



F.A.S. RATE		SECTION		COUNTY		TOTAL SHEETS		SHEET NO.	
2320		113X-N		WILL		133		129	
STA. 156+00.00				TO STA. 158+59.51					
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT					





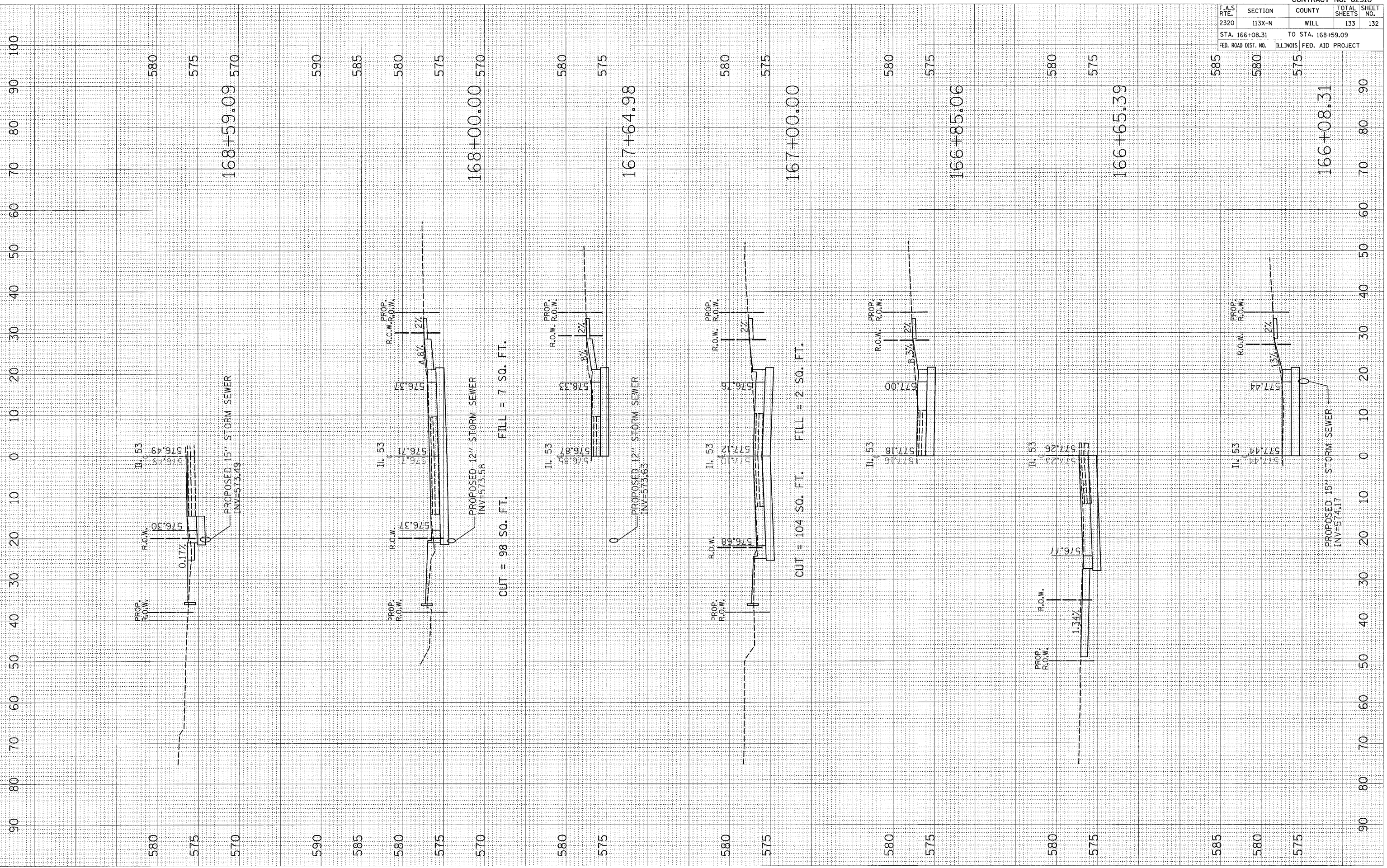


PLOT DATE = 9/11/2007  
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 PLOT SCALE = 1/8" = 1' IN.  
 USER NAME = hamdani

ORIGINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 TEMPLATE AREAS CHECKED

FINAL SURVEY PLOTTED  
 NOTE BOOK AREAS CHECKED

BY: \_\_\_\_\_ DATE: \_\_\_\_\_



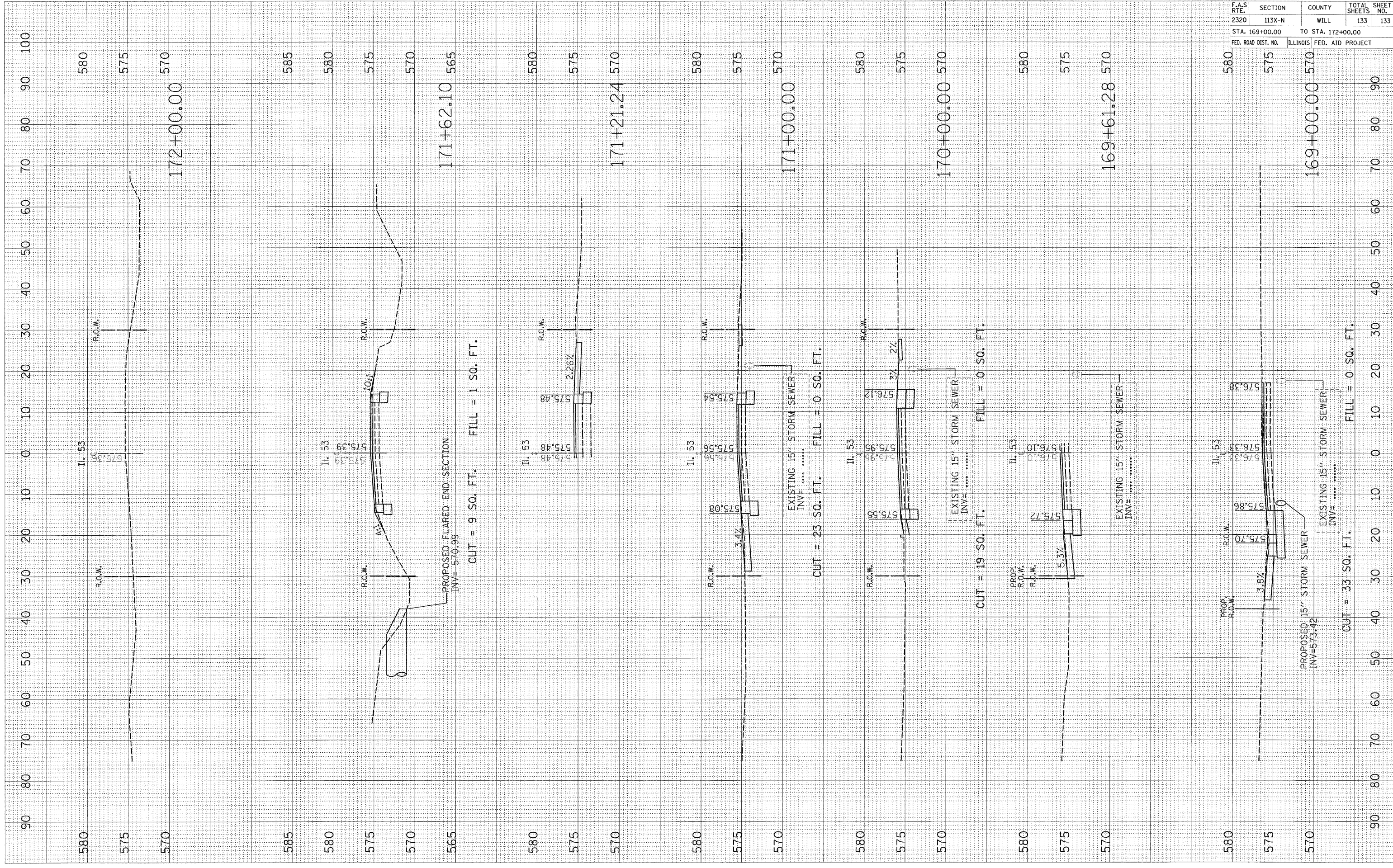
F.A.S. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	132
STA. 166+08.31		TO STA. 168+59.09		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLOT DATE = 9/11/2007  
 FILE NAME = c:\projects\p1016191\as.1183.dwg  
 PLOT SCALE = 1/8" = 1' IN.  
 USER NAME = hamishah

ORIGINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 TEMPLATE AREAS CHECKED  
 NO.

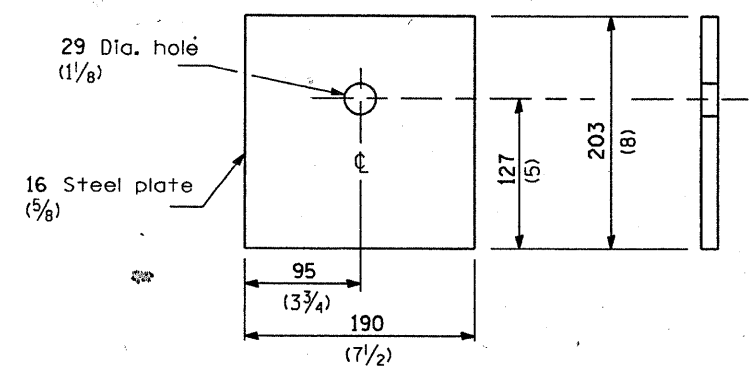
FINAL SURVEY PLOTTED  
 SURVEY PLOTTED  
 TEMPLATE AREAS CHECKED  
 NO.

BY DATE

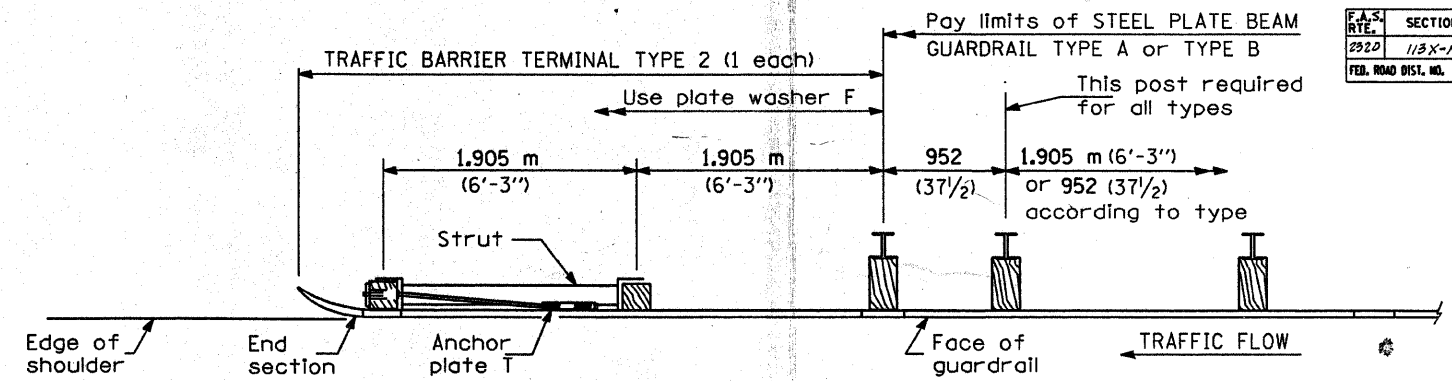


CONTRACT NO.				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	133
STA. 169+00.00		TO STA. 172+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

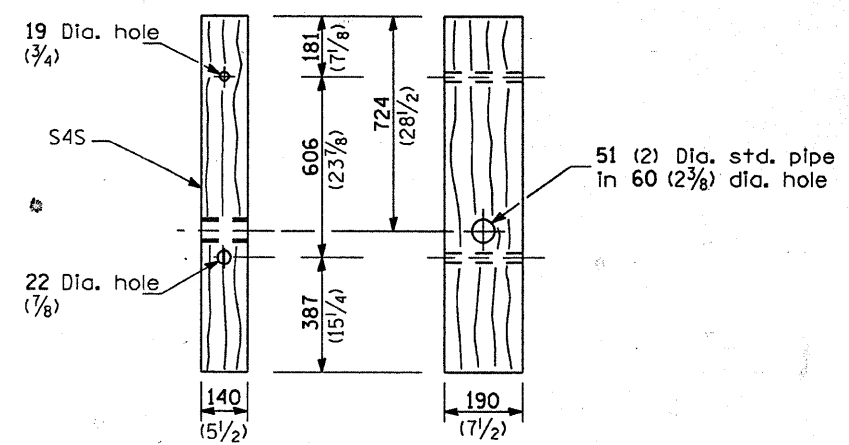
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2320	113X-N	WILL	133	139A
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



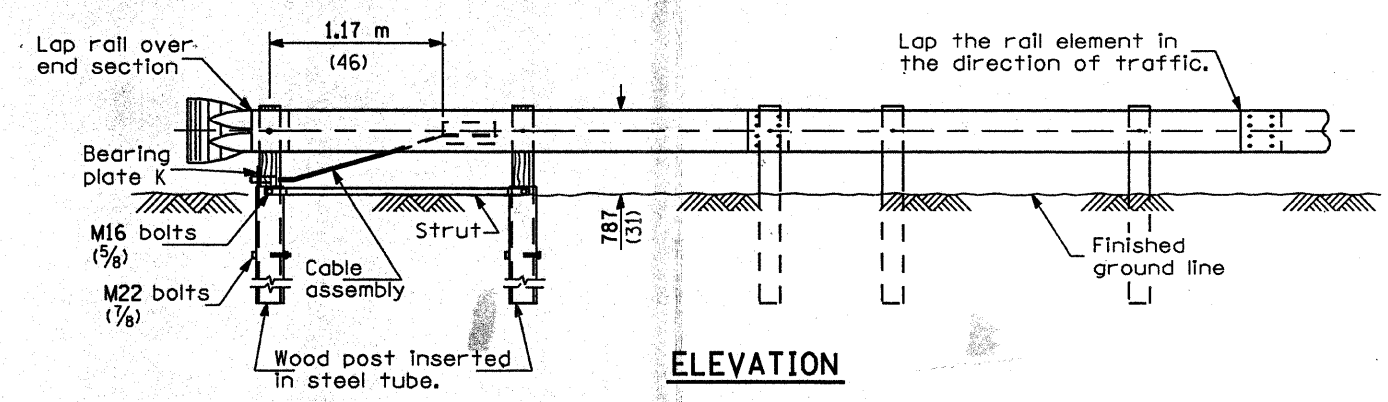
**BEARING PLATE K**



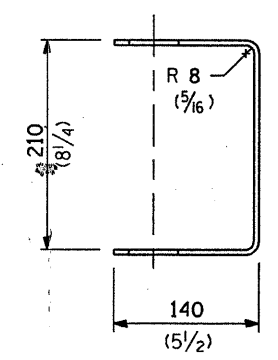
**PLAN**



**WOOD POST**

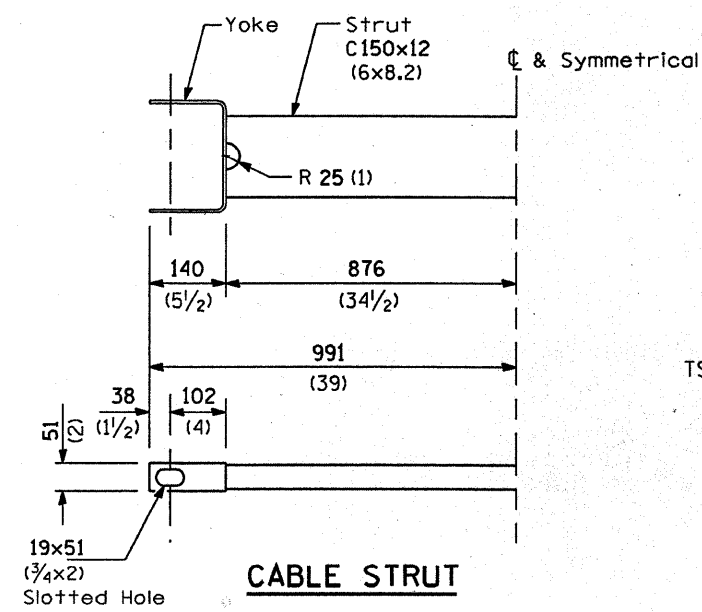


**ELEVATION**

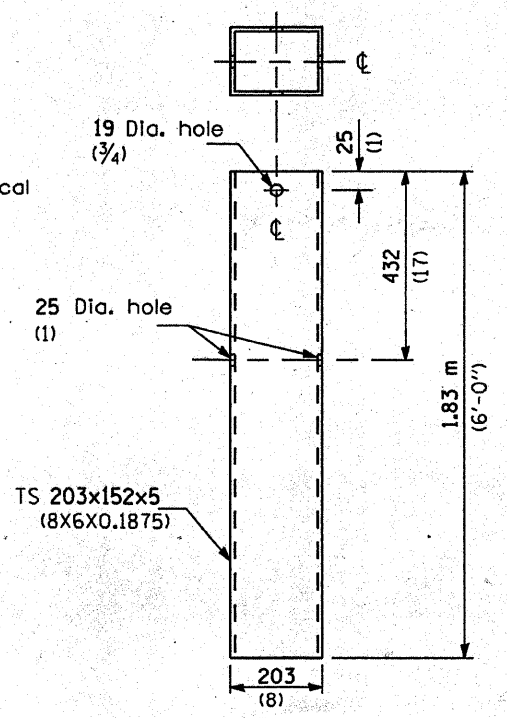


**YOKE**

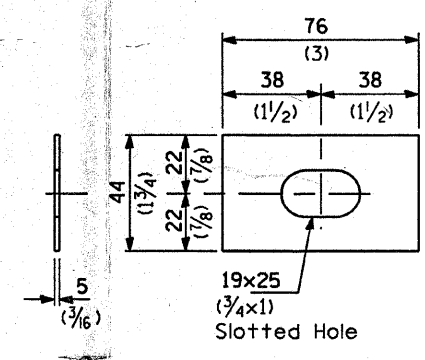
5 (3/16) thick steel



**CABLE STRUT**



**STEEL TUBE**



**PLATE WASHER F**

**GENERAL NOTES**

See Standard 630001 for details of guardrail not shown.

The bearing plate K shall be held in position by (2) two eight penny nails driven into the post and bent over the top of the plate.

All dimensions are in millimeters (inches) unless otherwise shown.

**TRAFFIC BARRIER TERMINAL, TYPE 2**

**DETAIL**