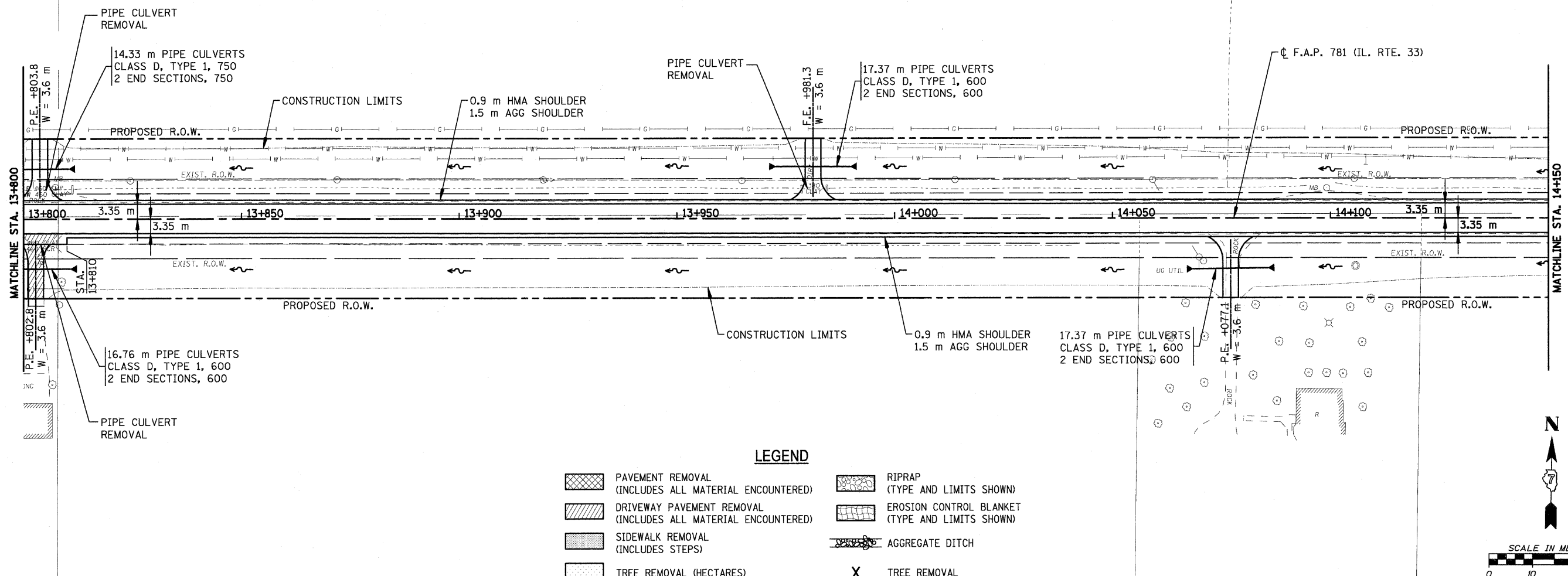
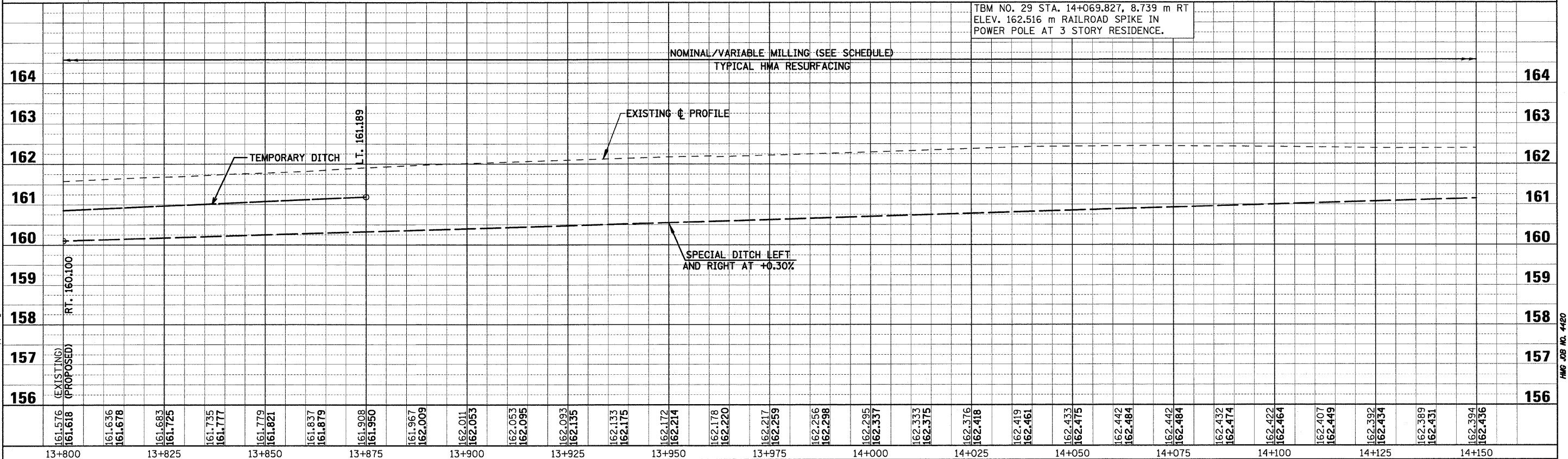
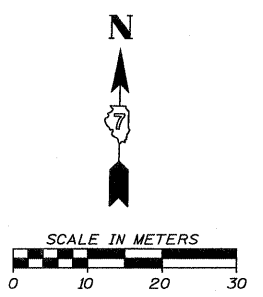


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	101
STA. 13+800		TO STA. 14+150		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



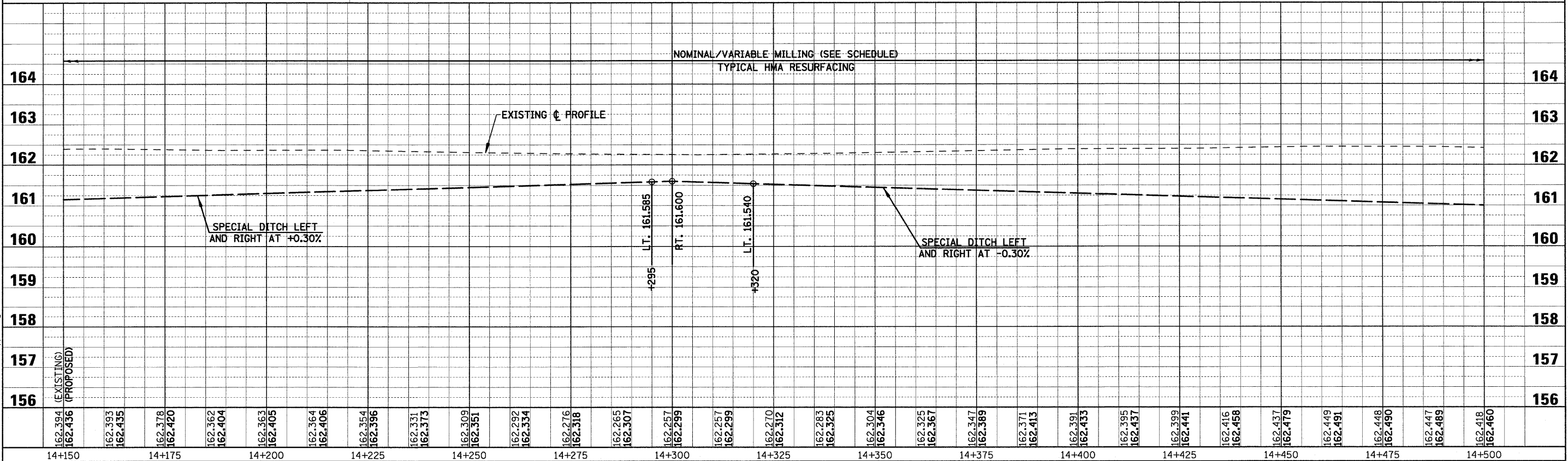
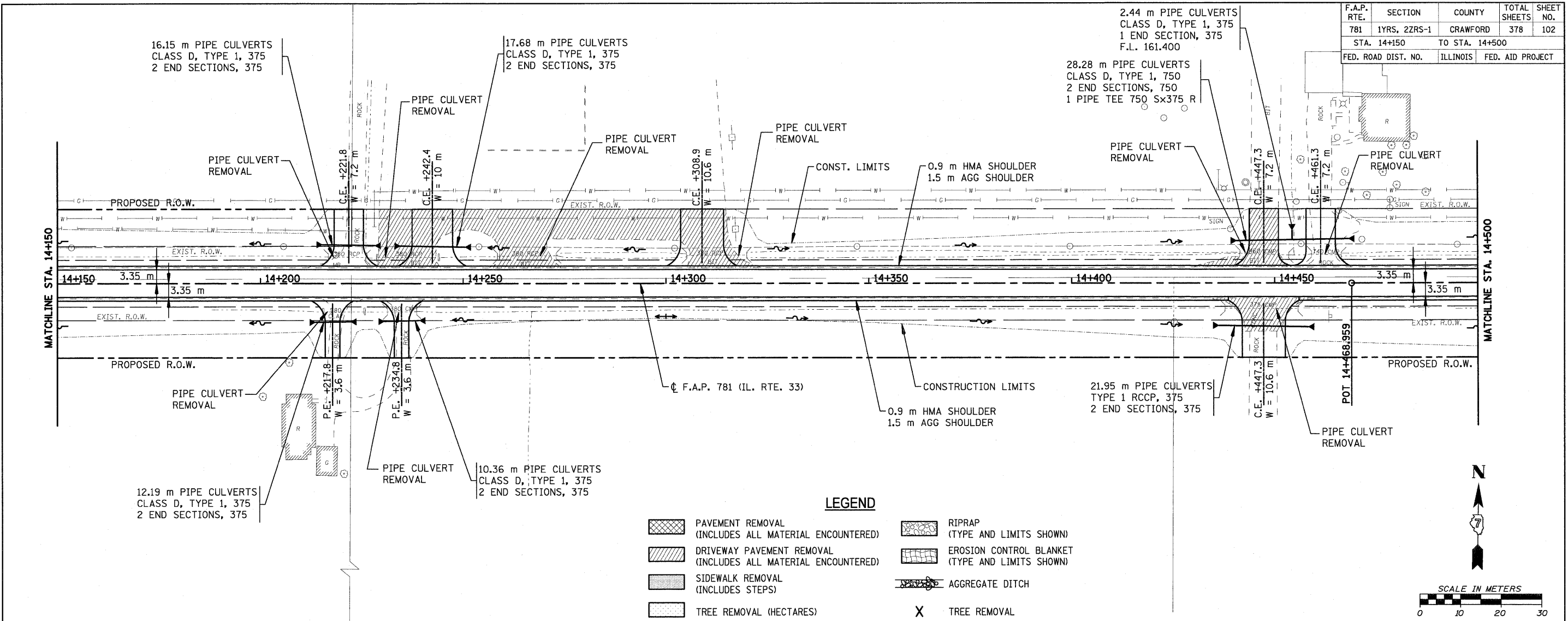
**LEGEND**

	PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)		RIPRAP (TYPE AND LIMITS SHOWN)
	DRIVEWAY PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)		EROSION CONTROL BLANKET (TYPE AND LIMITS SHOWN)
	SIDEWALK REMOVAL (INCLUDES STEPS)		AGGREGATE DITCH
	TREE REMOVAL (HECTARES)		TREE REMOVAL



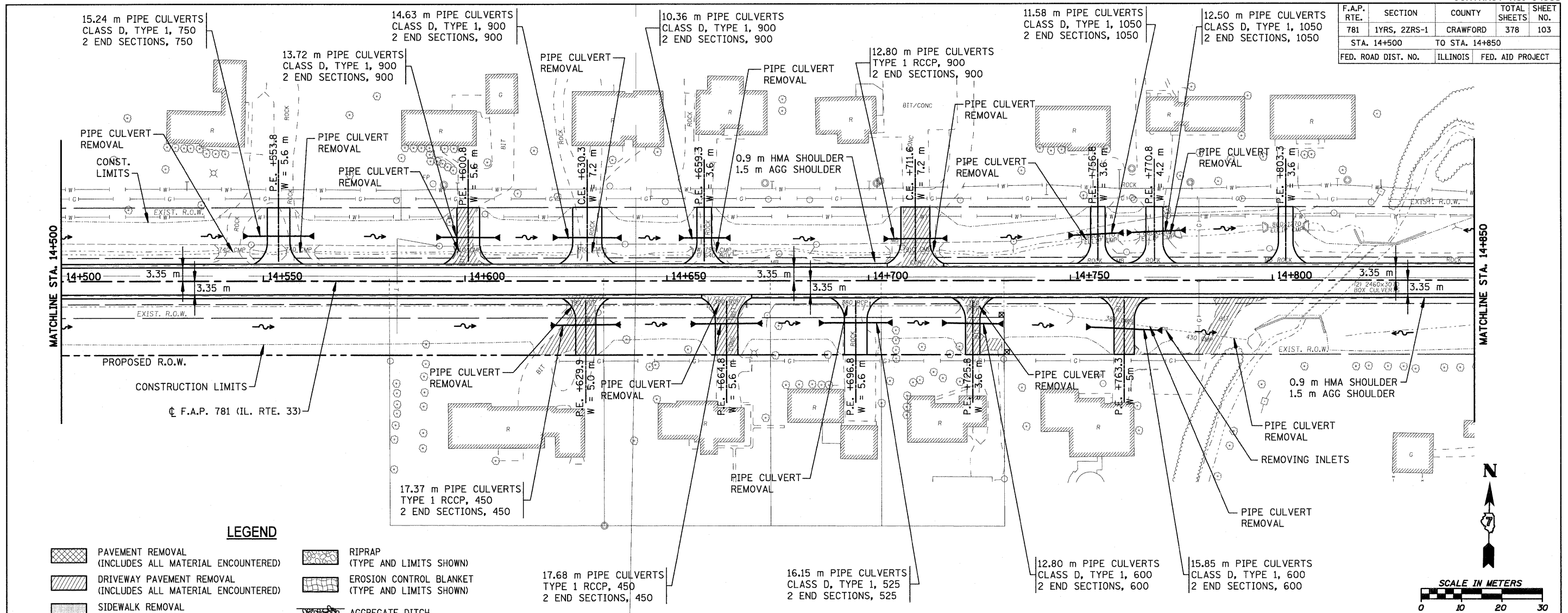
PLOT DATE = 4/19/2008  
FILE NAME = HA\442870101\_50pp\_35.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	102
STA. 14+150		TO STA. 14+500		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

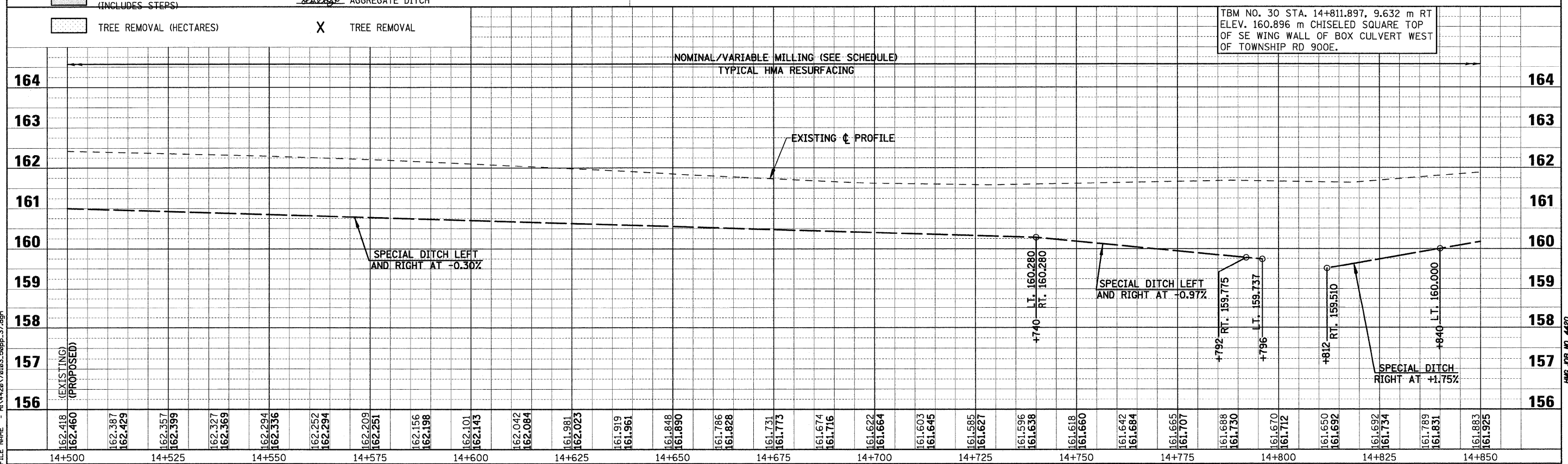
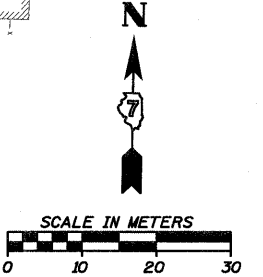


PLOT DATE = 4/16/2008  
 FILE NAME = H:\1420\7002\50pp\_36.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	103
STA. 14+500		TO STA. 14+850		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

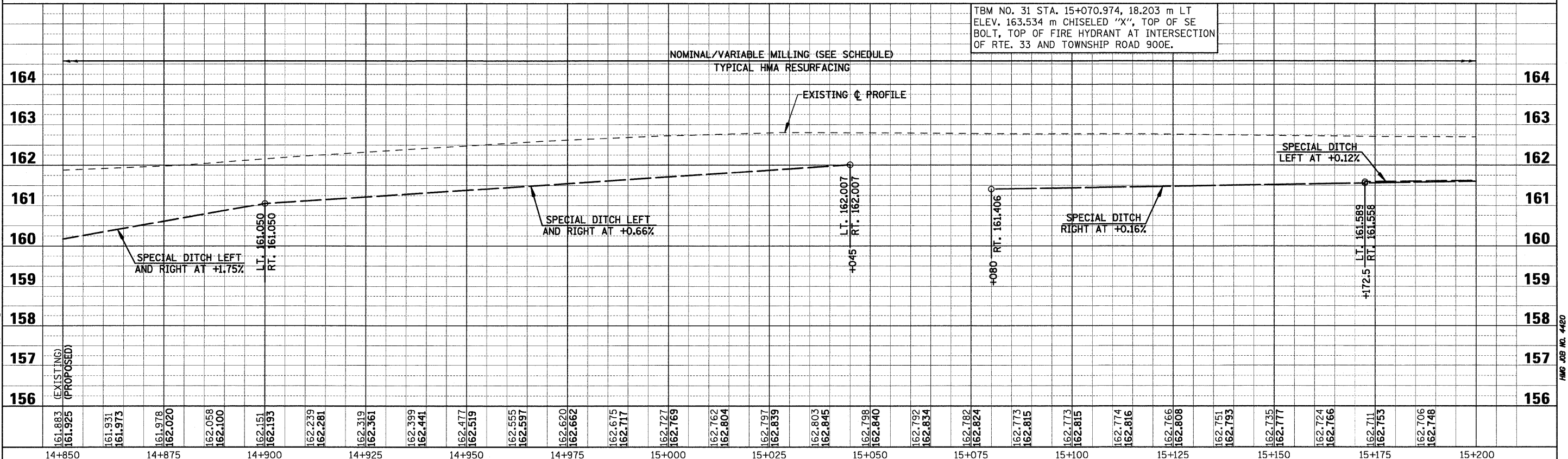
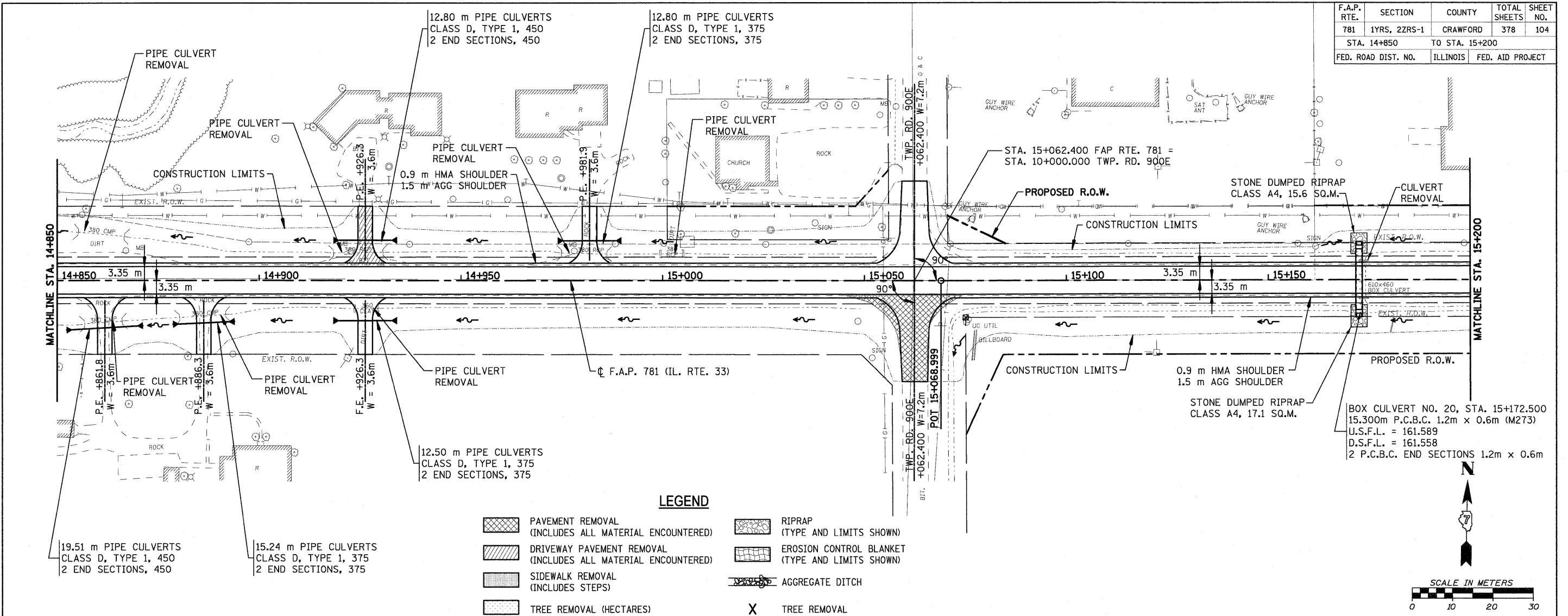


- LEGEND**
- PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)
  - DRIVEWAY PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)
  - SIDEWALK REMOVAL (INCLUDES STEPS)
  - TREE REMOVAL (HECTARES)
  - RIPRAP (TYPE AND LIMITS SHOWN)
  - EROSION CONTROL BLANKET (TYPE AND LIMITS SHOWN)
  - AGGREGATE DITCH
  - TREE REMOVAL

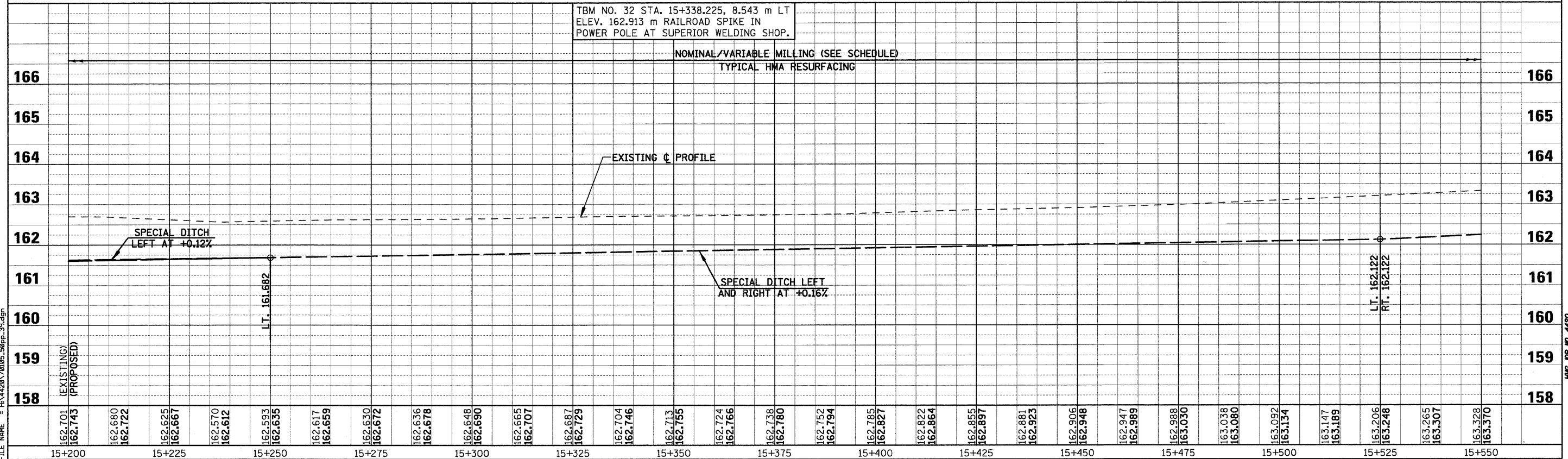
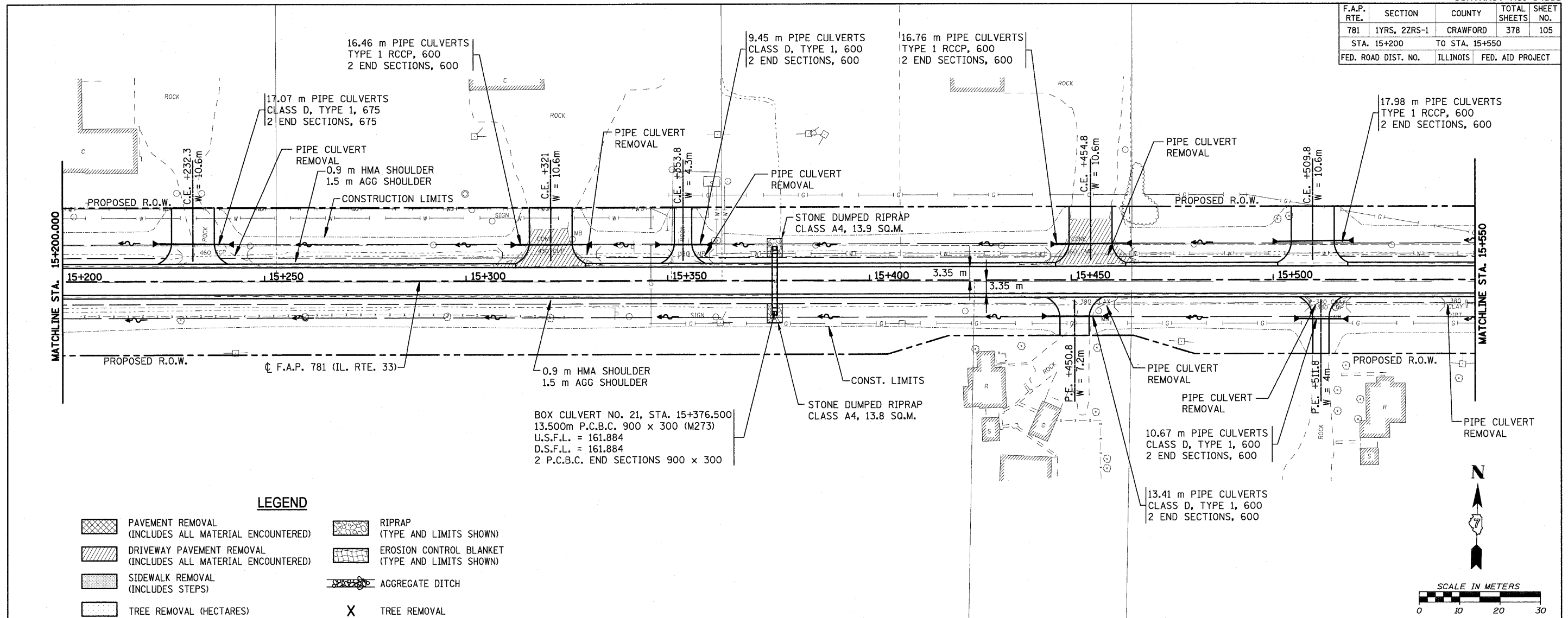


PLOT DATE = 4/18/2008  
 FILE NAME = H:\1420\78103\_50pp-37.dgn

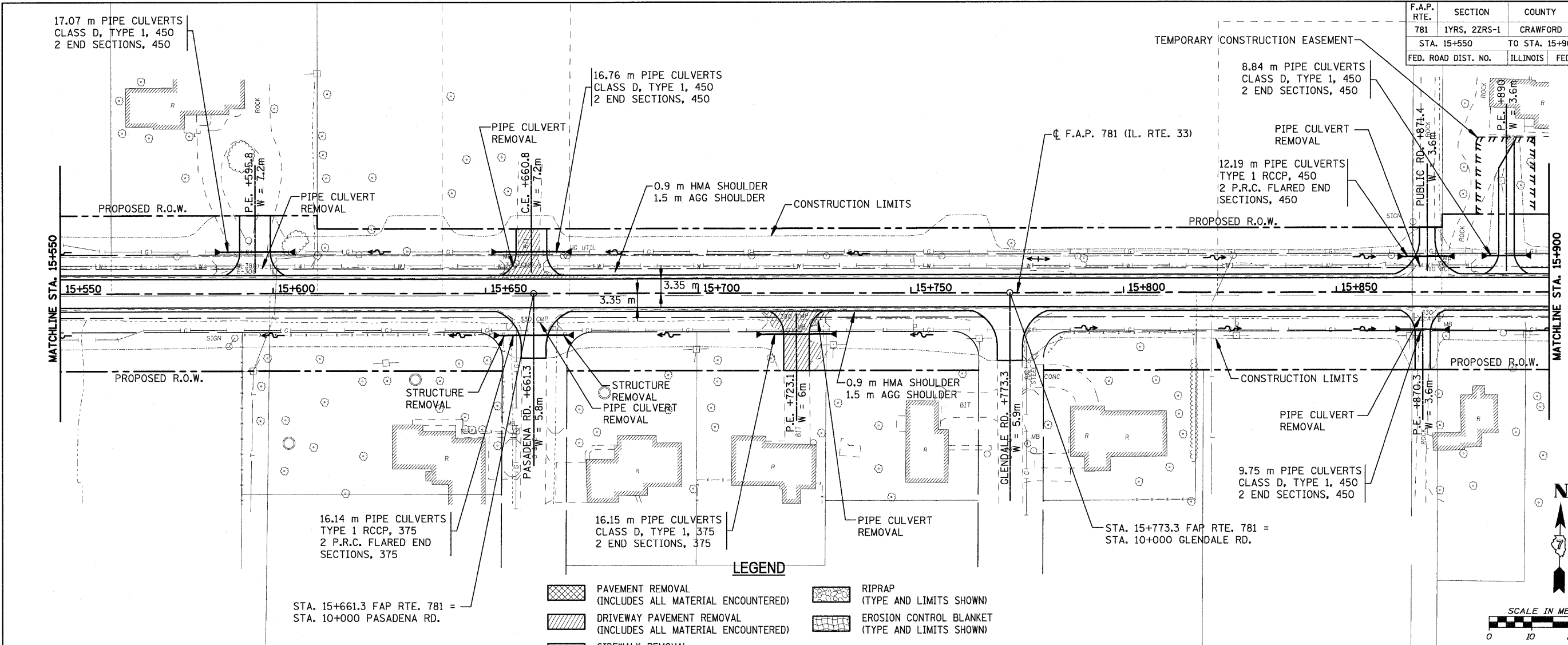
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	104
STA. 14+850		TO STA. 15+200		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



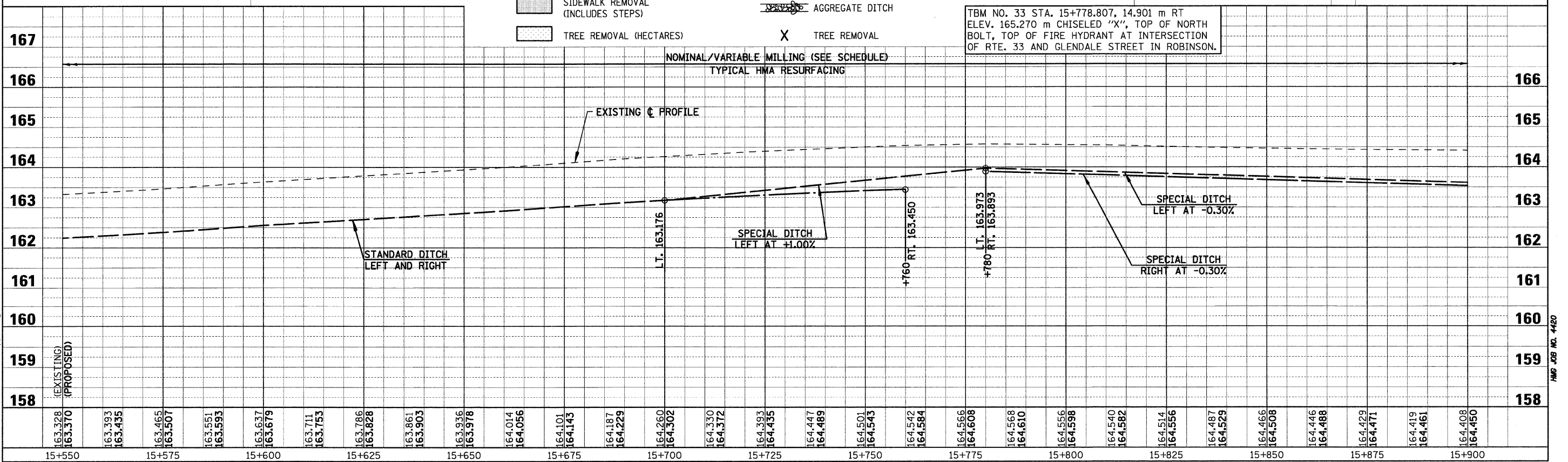
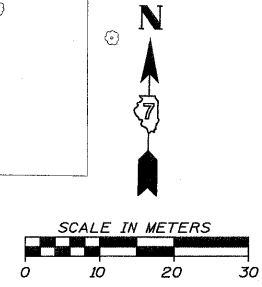
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	105
STA. 15+200		TO STA. 15+550		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	106
STA. 15+550		TO STA. 15+900		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



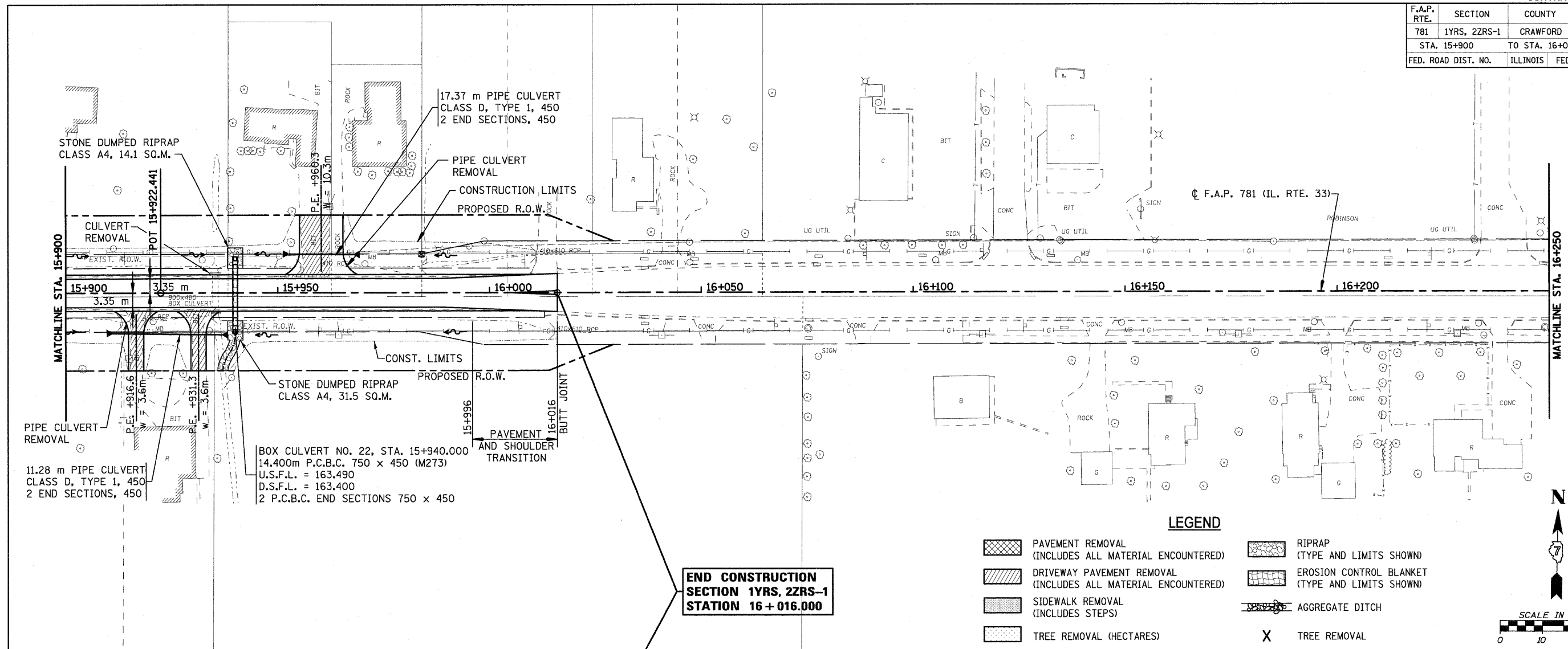
- LEGEND**
- PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)
  - DRIVEWAY PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)
  - SIDEWALK REMOVAL (INCLUDES STEPS)
  - TREE REMOVAL (HECTARES)
  - RIPRAP (TYPE AND LIMITS SHOWN)
  - EROSION CONTROL BLANKET (TYPE AND LIMITS SHOWN)
  - AGGREGATE DITCH
  - TREE REMOVAL



TBM NO. 33 STA. 15+778.807, 14.901 m RT  
 ELEV. 165.270 m CHISELED "X", TOP OF NORTH BOLT, TOP OF FIRE HYDRANT AT INTERSECTION OF RTE. 33 AND GLENDALE STREET IN ROBINSON.

PLOT DATE = 4/19/2009  
 FILE NAME = H:\4428\78106\_50pp\_40.dgn

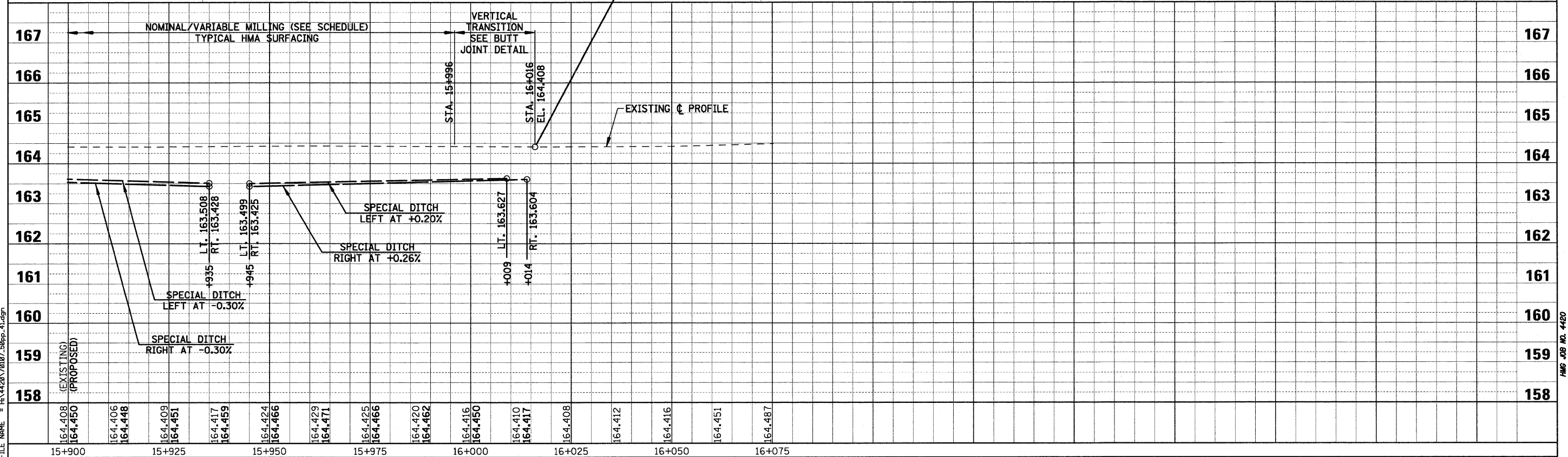
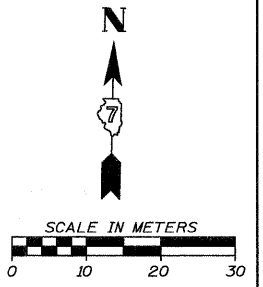
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	107
STA. 15+900		TO STA. 16+016		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**END CONSTRUCTION SECTION 1YRS, 2ZRS-1 STATION 16+016.000**

**LEGEND**

- PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)
- DRIVEWAY PAVEMENT REMOVAL (INCLUDES ALL MATERIAL ENCOUNTERED)
- SIDEWALK REMOVAL (INCLUDES STEPS)
- TREE REMOVAL (HECTARES)
- RIPRAP (TYPE AND LIMITS SHOWN)
- EROSION CONTROL BLANKET (TYPE AND LIMITS SHOWN)
- AGGREGATE DITCH
- TREE REMOVAL

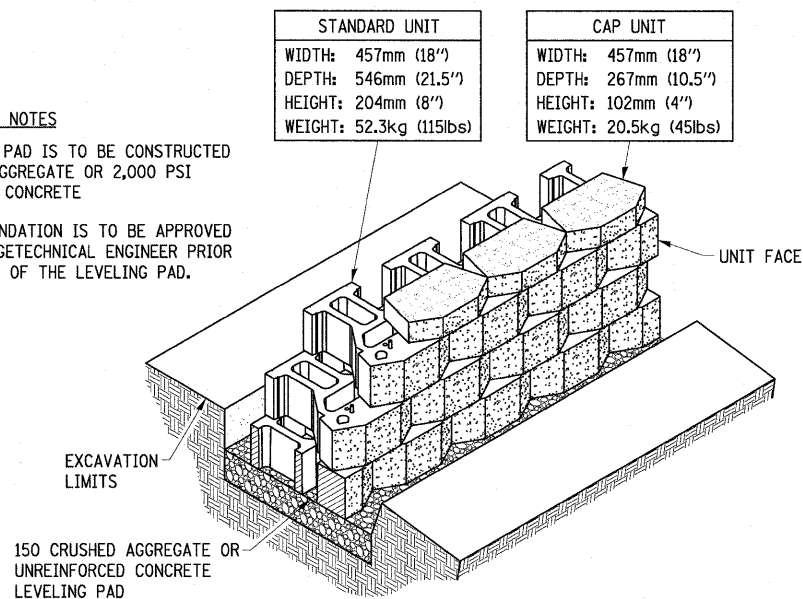


PLOT DATE = 4/19/2008  
FILE NAME = H:\4428\78107\_50pp\_41.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	108
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

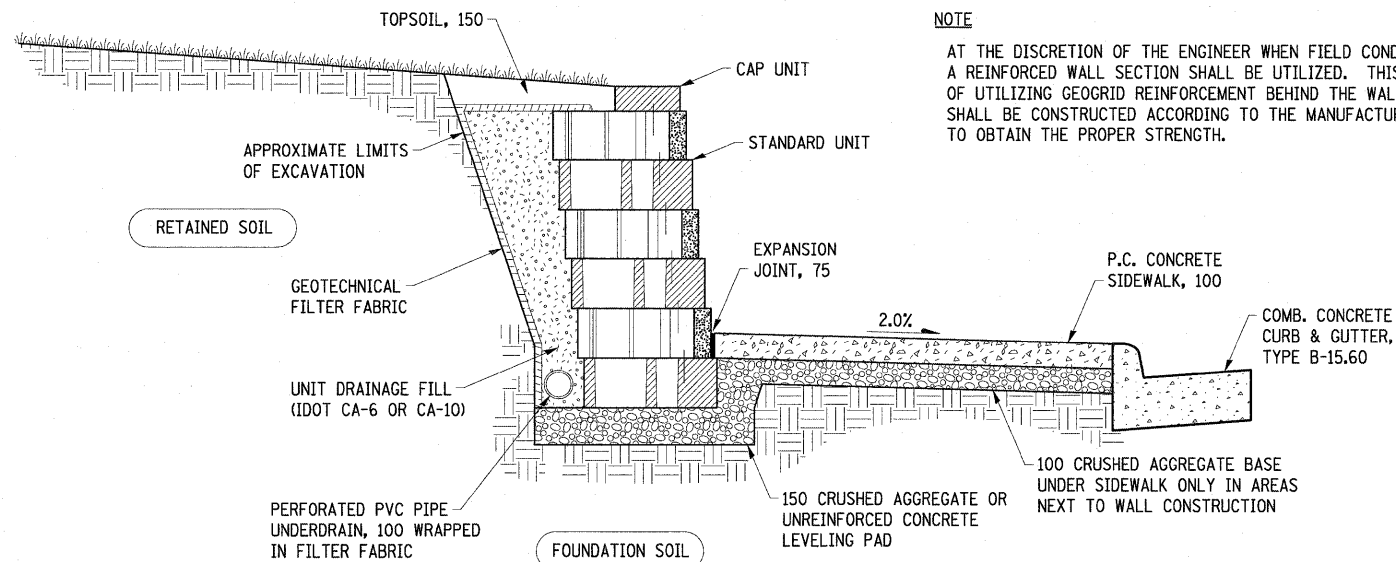
**BASE LEVELING PAD NOTES**

1. THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED AGGREGATE OR 2,000 PSI UNREINFORCED CONCRETE
2. THE BASE FOUNDATION IS TO BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE LEVELING PAD.



**STANDARD UNIT/BASE PAD ISOMETRIC SECTION VIEW**

Unit Dimensions & Weight May Vary by Region

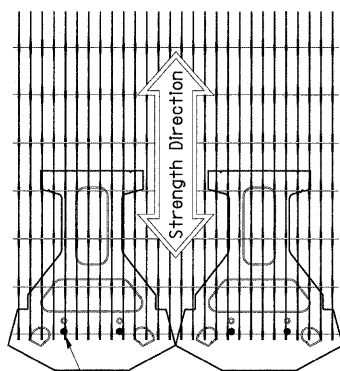


**NOTE**

AT THE DISCRETION OF THE ENGINEER WHEN FIELD CONDITIONS WARRANT, A REINFORCED WALL SECTION SHALL BE UTILIZED. THIS SHALL CONSIST OF UTILIZING GEOGRID REINFORCEMENT BEHIND THE WALL. THE GEOGRID SHALL BE CONSTRUCTED ACCORDING TO THE MANUFACTURERS SPECIFICATIONS TO OBTAIN THE PROPER STRENGTH.

**TYPICAL GRAVITY WALL SECTION**

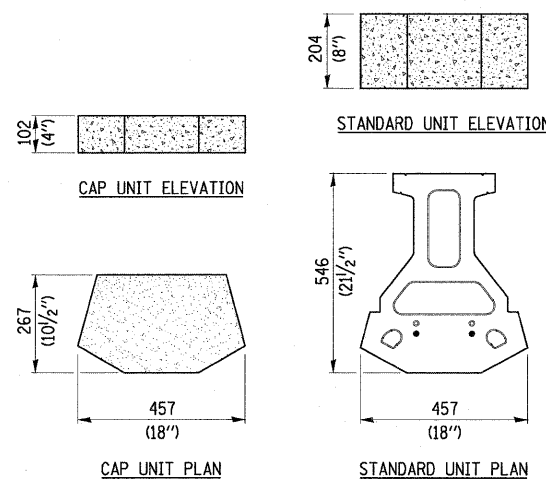
Standard Unit - 25mm (1") Setback



GEOGRID IS TO BE PLACED ON LEVEL BACKFILL AND EXTENDED OVER THE FIBERGLASS PINS. PLACE NEXT UNIT. PULL GRID TAUGHT AND BACKFILL. STAKE AS REQUIRED

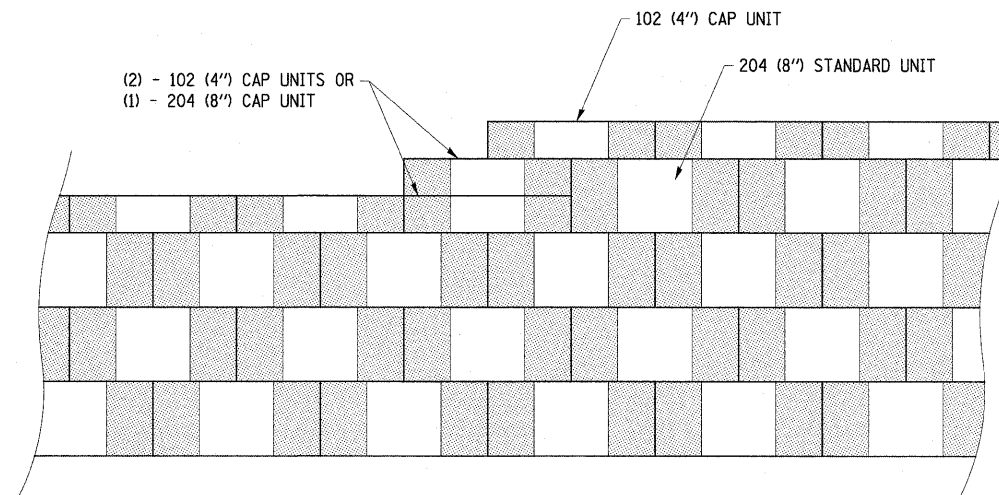
**GRID & PIN CONNECTION**

If Required Due to Soil Conditions



**STANDARD TRI-PLANE UNIT/CAP DETAILS**

Unit Dimensions & Weight May Vary by Region



**TOP OF WALL STEP DETAIL**

Unit Dimensions & Weight May Vary by Region

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE

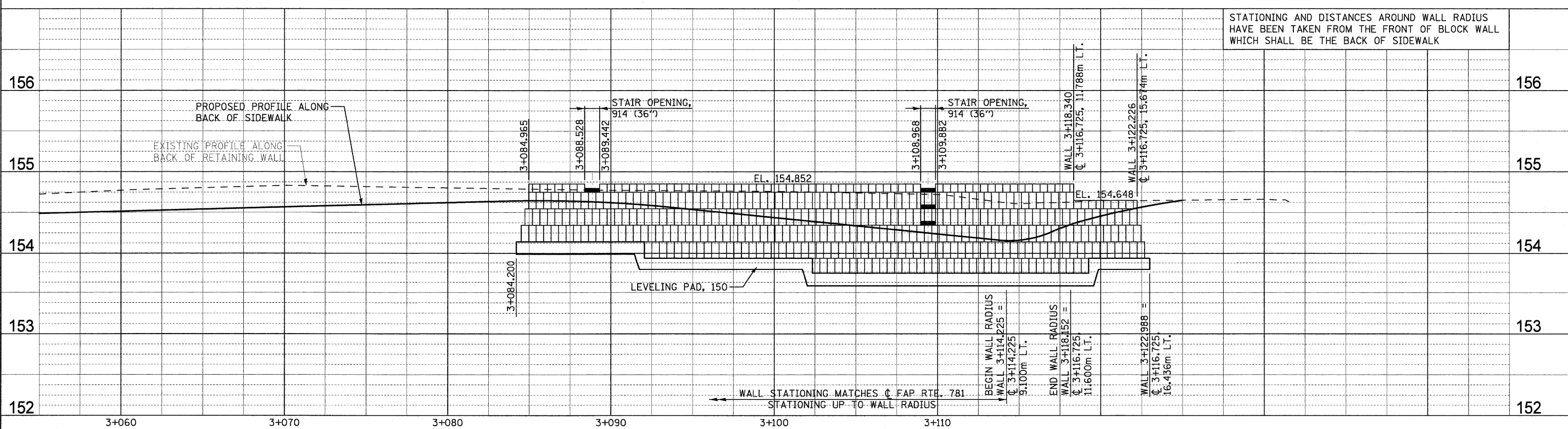
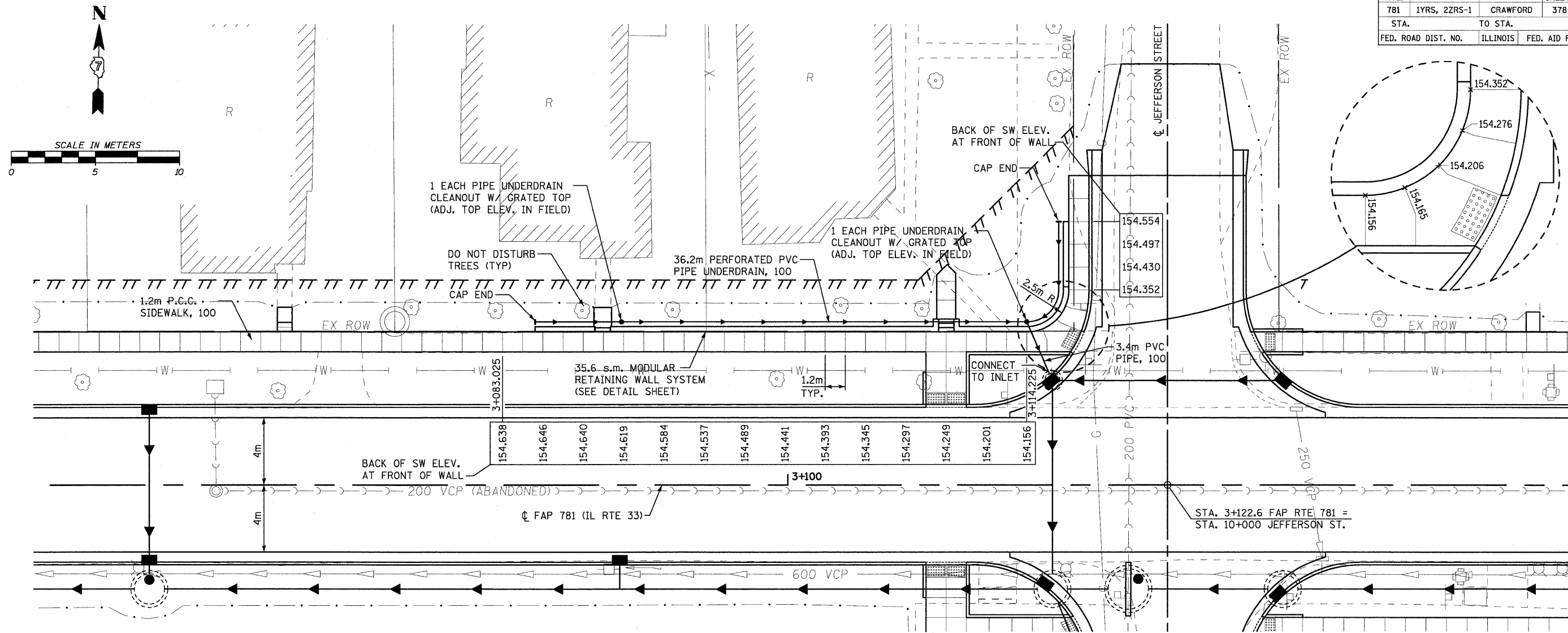
ILLINOIS DEPARTMENT OF TRANSPORTATION

**MODULAR RETAINING WALL DETAILS**

SCALE NO SCALE DRAWN BY EDW  
DATE APRIL 18, 2008 CHECKED BY RGH



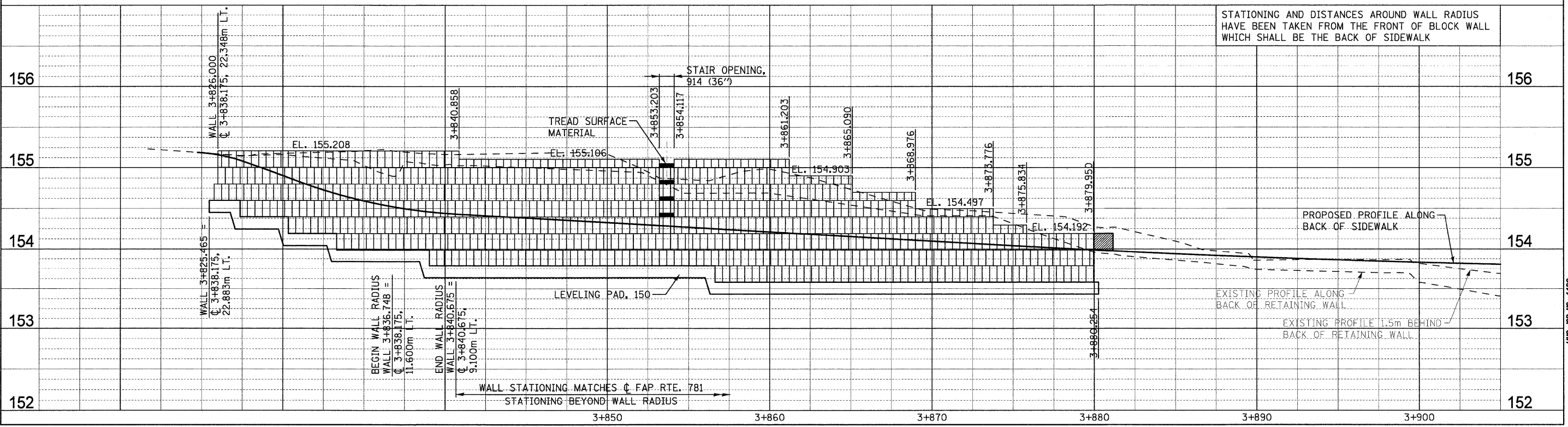
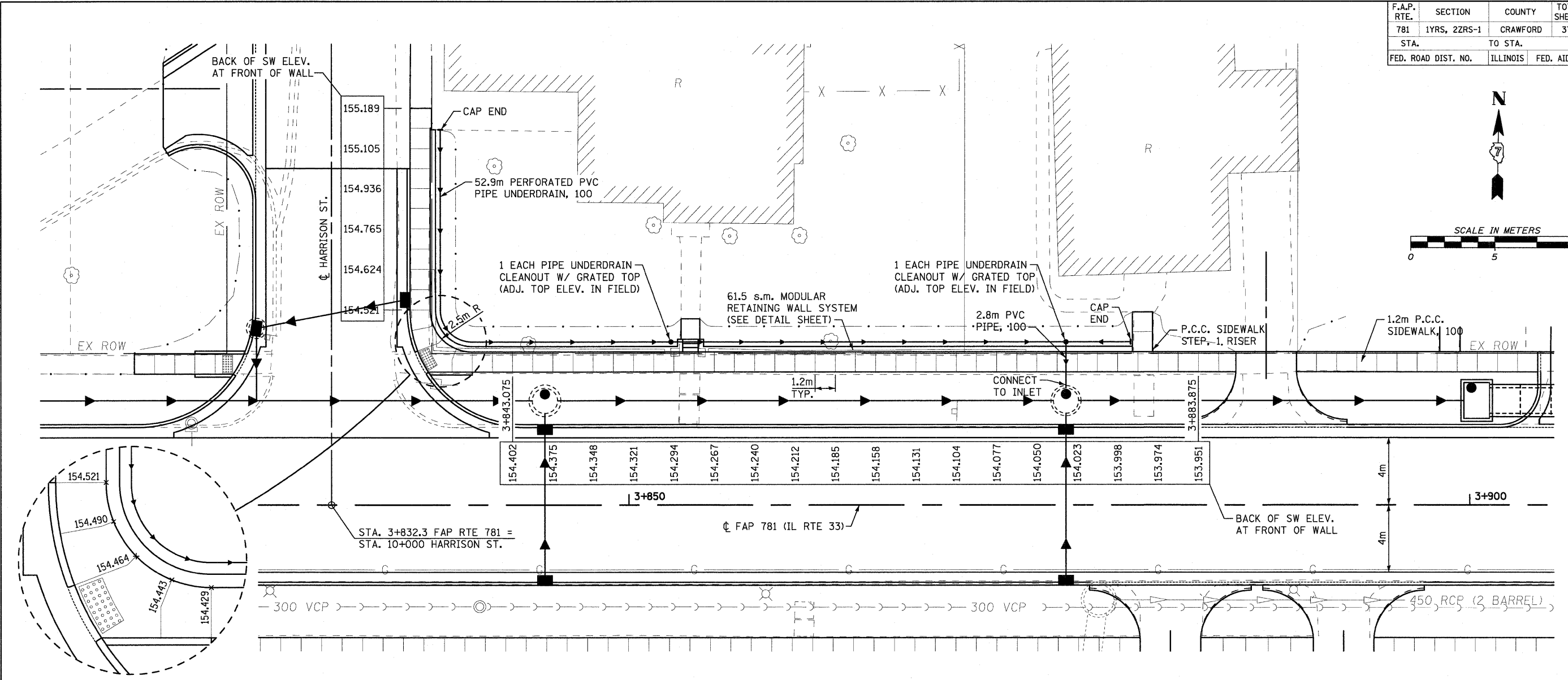
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	109
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLOT DATE = 4/18/2008  
 FILE NAME = H:\4287809\_modwall\_pp.dwg

HMG JOB NO. 4480

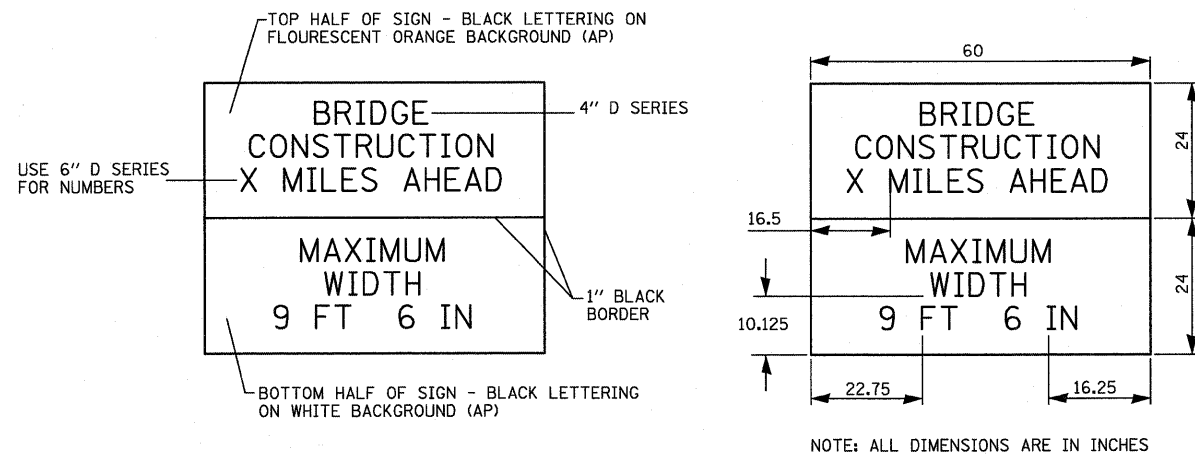
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	110
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



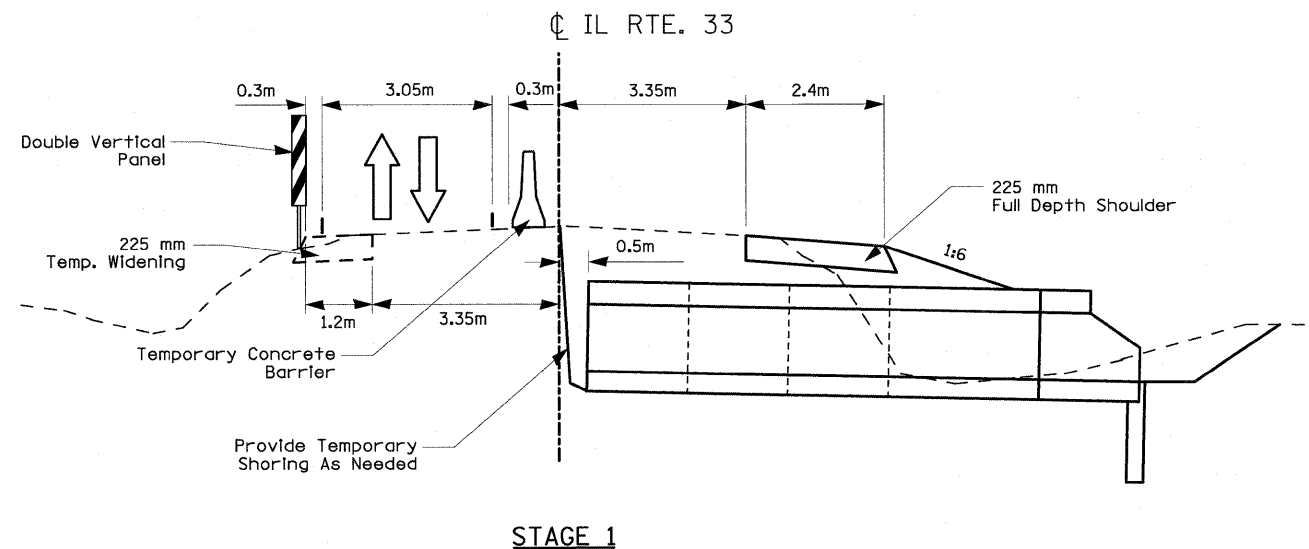
PLOT DATE = 4/18/2008  
 FILE NAME = H:\4428\781\modwall\_pp\_02.dgn

HMG JOB NO. 4420

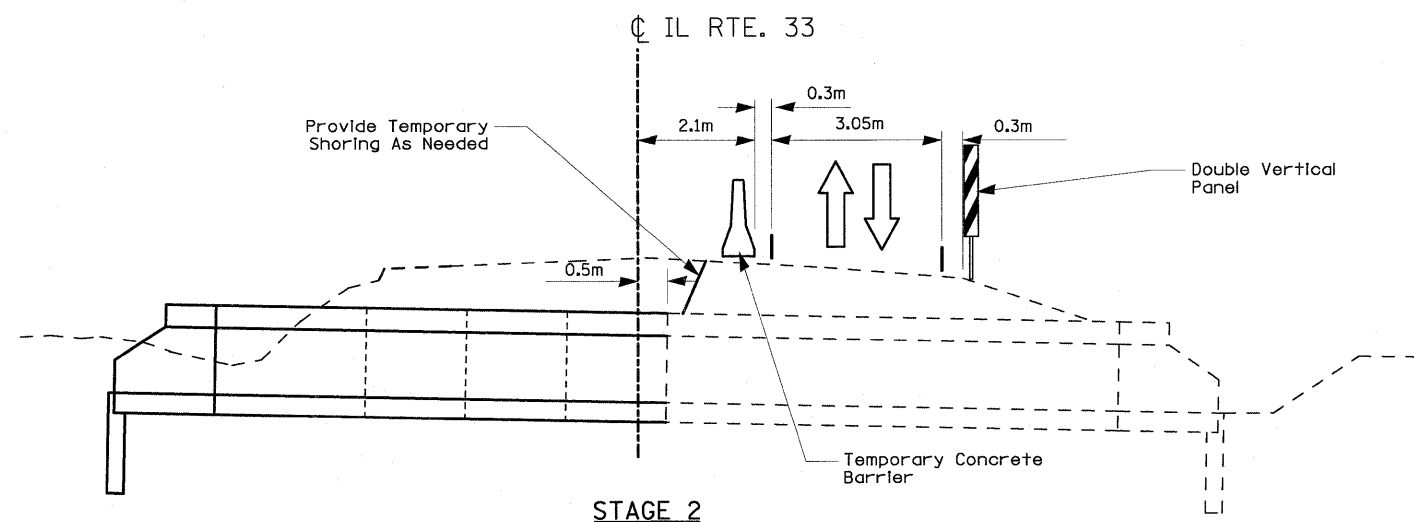
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	111
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



WIDTH RESTRICTION SIGN



STAGE 1



STAGE 2

TRAFFIC CONTROL NOTES:

THE CONTRACTOR SHALL UTILIZE TRAFFIC CONTROL STANDARD 701321 DURING EXECUTION OF THIS WORK. TEMPORARY BRIDGE TRAFFIC SIGNALS, TEMPORARY RUMBLE STRIPS, TEMPORARY CONCRETE BARRIER, AND IMPACT ATTENUATORS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR SAID ITEMS, ALL OTHER STRIPING, STRIPING REMOVAL, SIGNAGE, ETC. REQUIRED BY THE STANDARD SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL) ONCE FOR EACH CULVERT LOCATION. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY CHANGES OR ADJUSTMENTS TO THE TRAFFIC CONTROL DURING THE CONVERSION TO STAGE 2 OF THE WORK.

THE CONTRACTOR SHALL SUPPLY, SET, AND MAINTAIN TWO (2) WIDTH RESTRICTION WARNING SIGNS, AS SHOWN IN THE DETAIL, PRIOR TO COMMENCING WORK UNLESS THEY ARE ALREADY IN PLACE FOR OTHER ITEMS OF WORK. THE SIGNS SHALL BE PLACED AT THE INTERSECTIONS OF IL 33 AND IL 49 AND IL 33 AND IL 1, OR OTHER LOCATION, AS DIRECTED BY THE ENGINEER.

ALL LABOR AND MATERIALS REQUIRED TO SUPPLY, SET, AND MAINTAIN THESE SIGNS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).

DOUBLE VERTICAL PANELS, AS SHOWN IN THE DETAIL, SHALL BE USED IF GUARDRAIL IS NOT PRESENT. ALL LABOR AND MATERIALS REQUIRED TO SUPPLY, SET, AND MAINTAIN THE PANELS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).

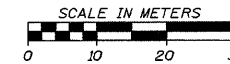
THE CONTRACT QUANTITIES INCLUDE 100 METERS OF TEMPORARY CONCRETE BARRIER AND TWO (2) IMPACT ATTENUATORS FOR EACH CULVERT LOCATION.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION CULVERT REPLACEMENT AND INSTALLATION
NAME	DATE	
		STAGING PLAN
SCALE	NO SCALE	DRAWN BY EDW
DATE	APRIL 18, 2008	CHECKED BY RGH

PLOT DATE = 4/18/2008  
FILE NAME = H:\420\78111\_rural\_culvert\_staging.dgn

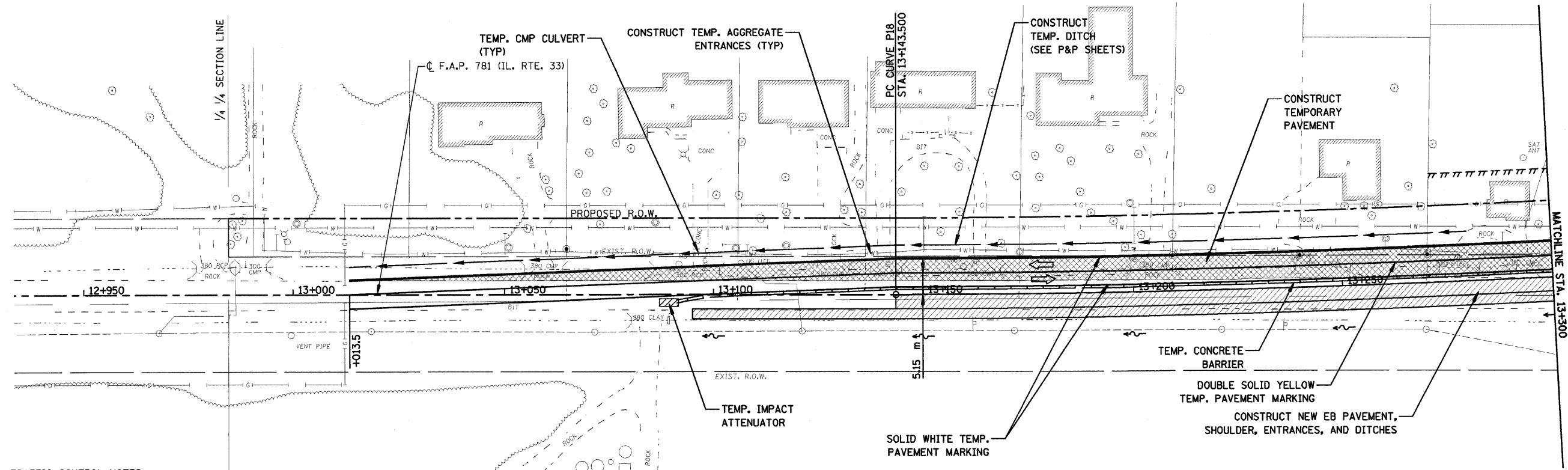
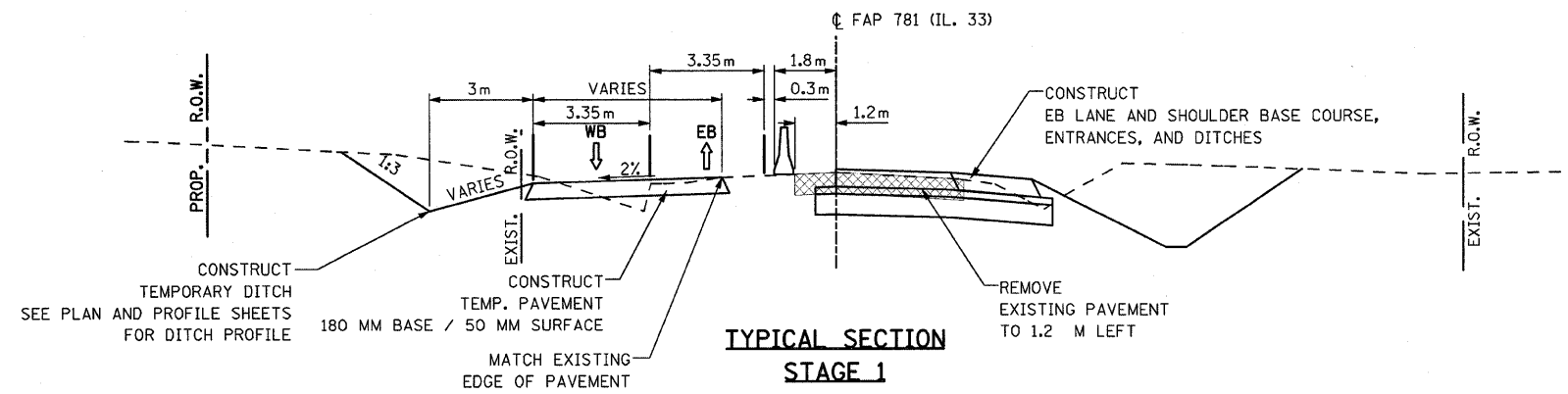
H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	112
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**LEGEND**

	CONSTRUCTION THIS STAGE
	TEMPORARY PAVEMENT

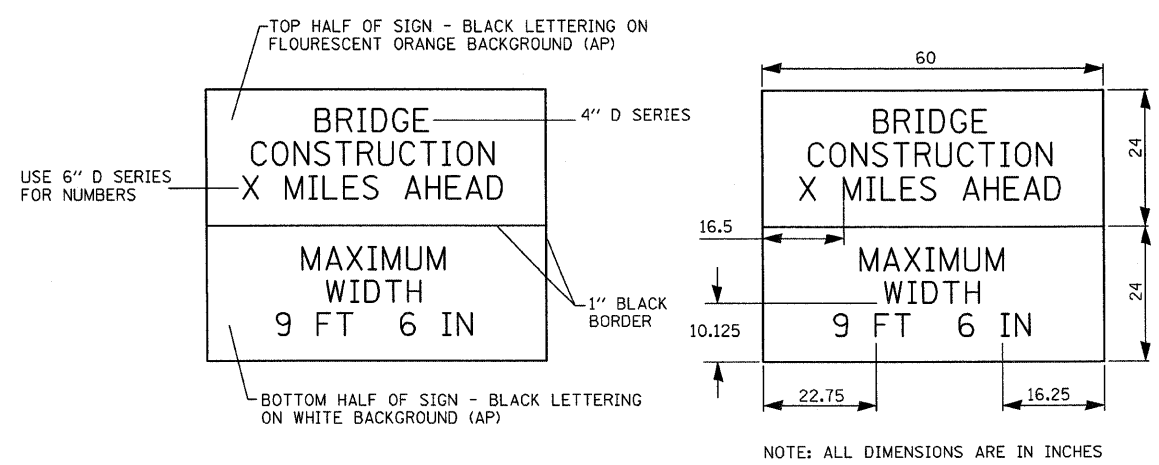


**TRAFFIC CONTROL NOTES:**

THE CONTRACTOR SHALL UTILIZE TRAFFIC CONTROL STANDARD 701331 DURING EXECUTION OF THIS WORK. TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR SAID ITEMS, ALL OTHER STRIPING, SIGNAGE, ETC. REQUIRED BY THE STANDARD SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701331 (SPECIAL). ALL THREE STAGES OF CONSTRUCTION SHALL CONSTITUTE ONE (1) OCCURANCE OF THE STANDARD. NO ADDITIONAL COMPENSATION, OTHER THAN RELOCATION OF CONCRETE BARRIER AND IMPACT ATTENUATORS WILL BE ALLOWED FOR ANY CHANGES OR ADJUSTMENTS TO THE TRAFFIC CONTROL DURING THE CONVERSION FROM ONE STAGE TO THE NEXT. LIGHTS ON BARRELS OR BARRICADES SHALL BE BIDIIRECTIONAL AND STEADY BURN, EXCEPT, LIGHTS IN THE TAPERS SHALL BE MONODIRECTIONAL.

THE CONTRACTOR SHALL SUPPLY, SET, AND MAINTAIN TWO (2) WIDTH RESTRICTION WARNING SIGNS, AS SHOWN IN THE DETAIL, PRIOR TO COMMENCING WORK UNLESS THEY ARE ALREADY IN PLACE DUE TO CULVERT CONSTRUCTION. THE SIGNS SHALL BE PLACED AT THE INTERSECTIONS OF IL 33 AND IL 49 AND IL 33 AND IL 1, OR OTHER LOCATION, AS DIRECTED BY THE ENGINEER. ALL LABOR AND MATERIALS REQUIRED TO SUPPLY, SET, AND MAINTAIN THESE SIGNS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701331 (SPECIAL).

CONSTRUCTION AND SUBSEQUENT REMOVAL OF THE TEMPORARY EMBANKMENT, TEMPORARY PAVEMENT, AND TEMPORARY ENTRANCES, INCLUDING CULVERTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR SAID ITEMS. EXCAVATION AND GRADING FOR THE TEMPORARY DITCH AND TEMPORARY PAVEMENT WILL NOT BE PAID FOR SEPARATELY, AS THE VOLUMES ARE ACCOUNTED FOR IN THE "EARTH EXCAVATION" AND "EARTH EXCAVATION (WIDENING)" PAY ITEMS.



**STAGING NOTES:**



1. CONSTRUCT TEMPORARY AGGREGATE ENTRANCES WITH CMP CULVERTS AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

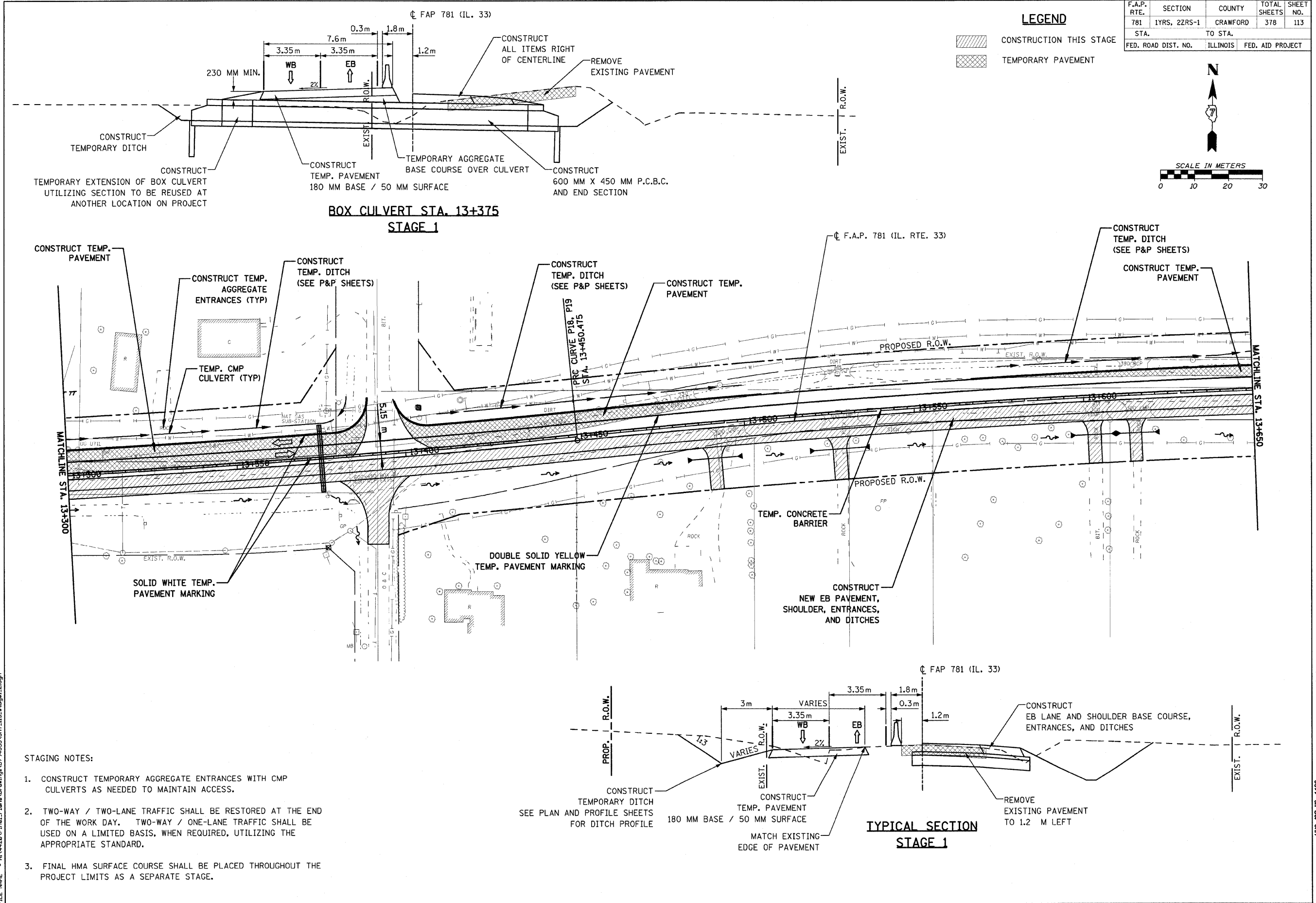
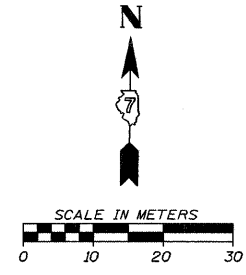
PLOT DATE = 7/28/2009  
FILE NAME = H:\4428\Final\Plan\Drawings\0794533\_SHT\_112.stg.dgn

HMG JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	113
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

-  CONSTRUCTION THIS STAGE
-  TEMPORARY PAVEMENT



**BOX CULVERT STA. 13+375  
STAGE 1**

**TYPICAL SECTION  
STAGE 1**

**STAGING NOTES:**



1. CONSTRUCT TEMPORARY AGGREGATE ENTRANCES WITH CMP CULVERTS AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

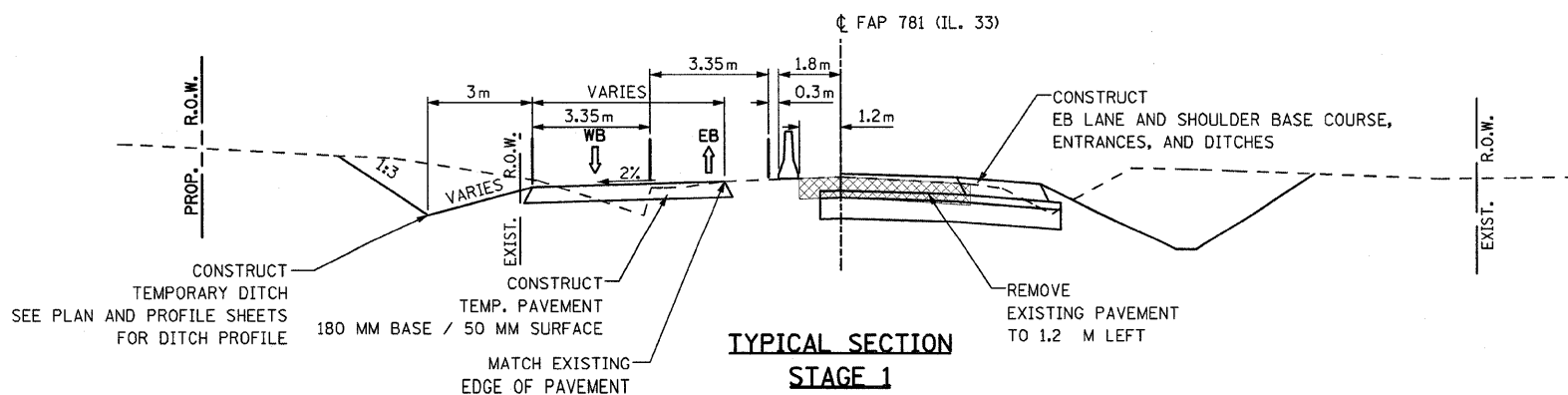
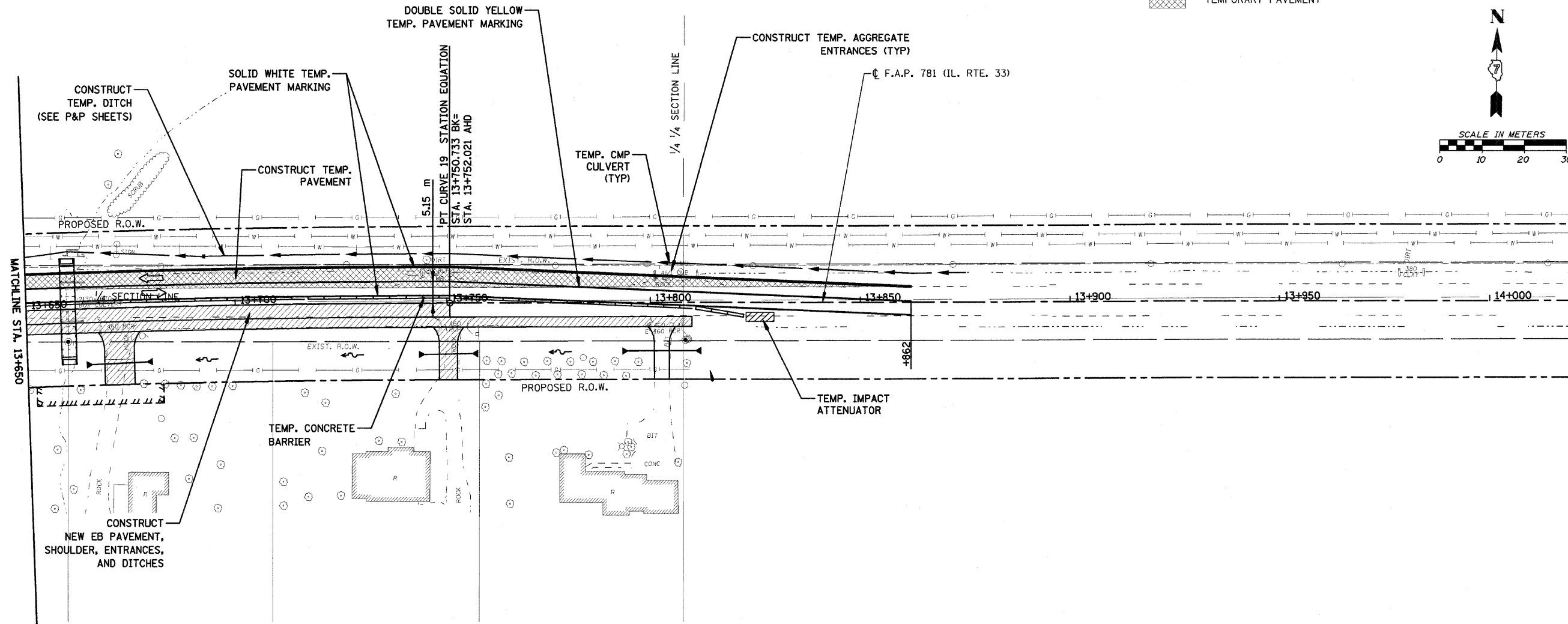
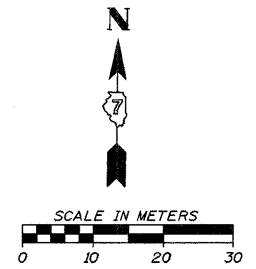
PLOT DATE = 7/28/2008  
FILE NAME = H:\4420\Final\Plans\Drawings\794533\SH1\_113\_stage1\_2.dgn

HMG JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	114
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**LEGEND**

-  CONSTRUCTION THIS STAGE
-  TEMPORARY PAVEMENT



**STAGING NOTES:**

1. CONSTRUCT TEMPORARY AGGREGATE ENTRANCES WITH CMP CULVERTS AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

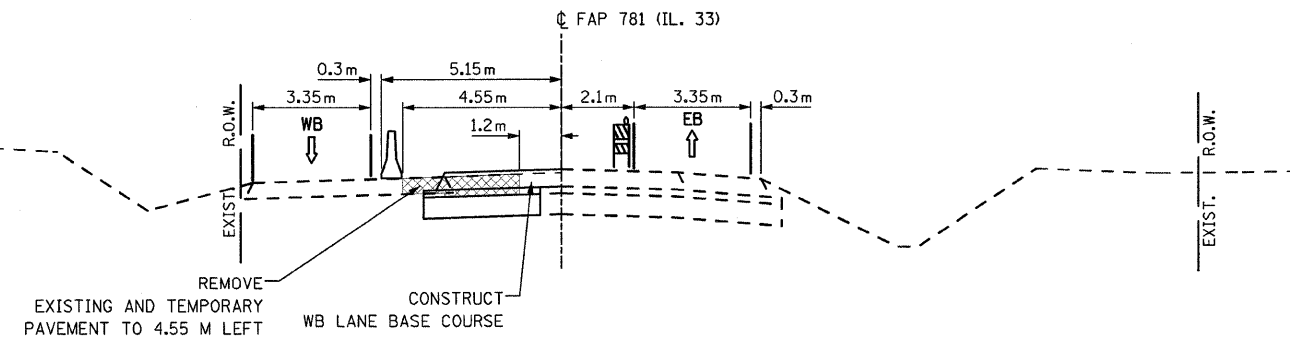
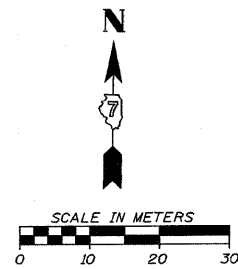
PLOT DATE = 7/28/2008  
FILE NAME = H:\4420\Final\Plana-Drawings\794533\_SHT\_114\_stage1\_3.dgn

HMG JOB NO. 4420

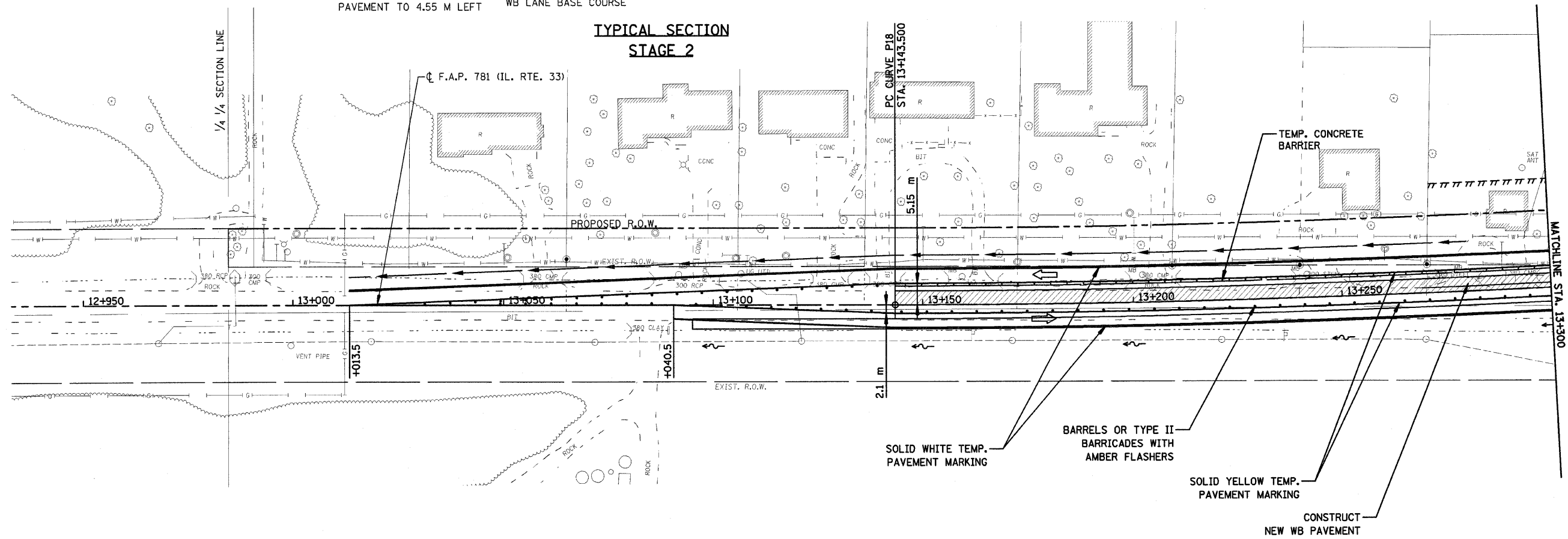
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	115
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

 CONSTRUCTION THIS STAGE



**TYPICAL SECTION STAGE 2**



**STAGING NOTES:**

1. MAINTAIN TEMPORARY AGGREGATE ENTRANCES AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

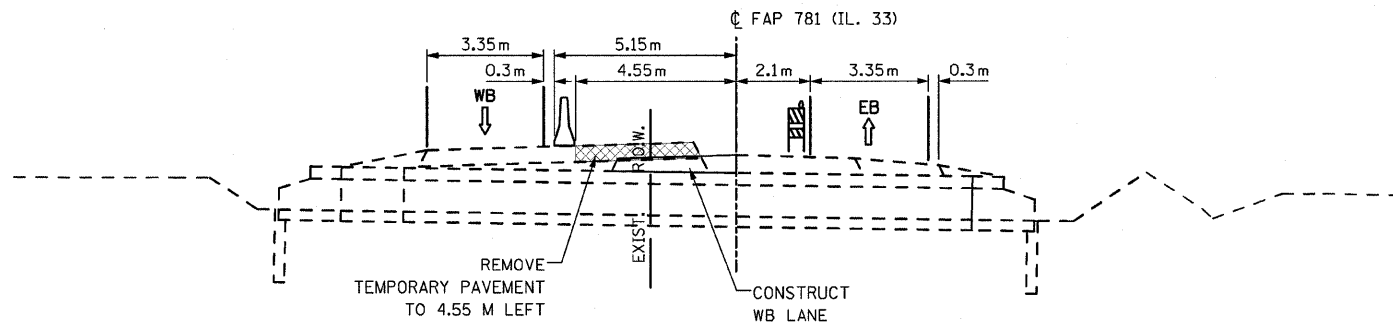
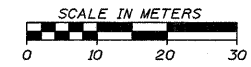
PLOT DATE = 7/28/2008  
FILE NAME = H:\4420\Final\Plans\Drawings\0794533\SH1\_115\_stage2.dgn

HMG JOB NO. 4420

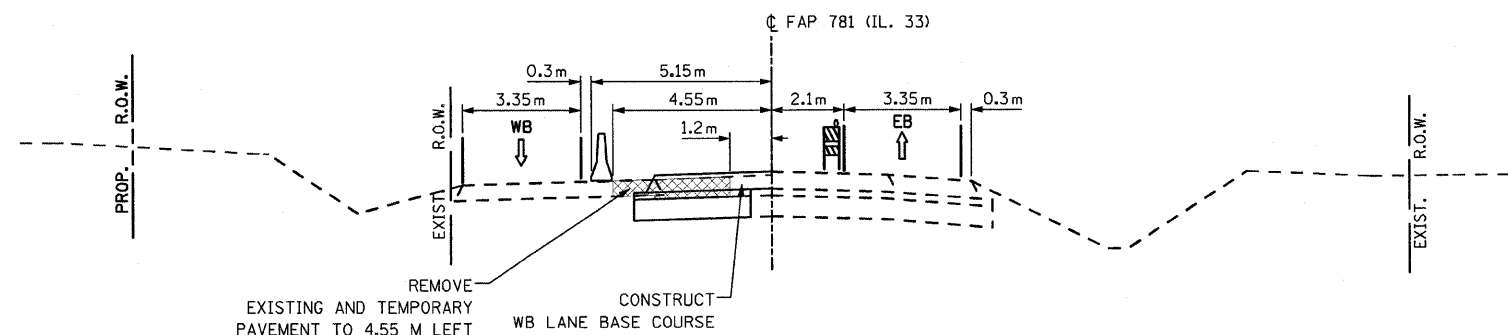
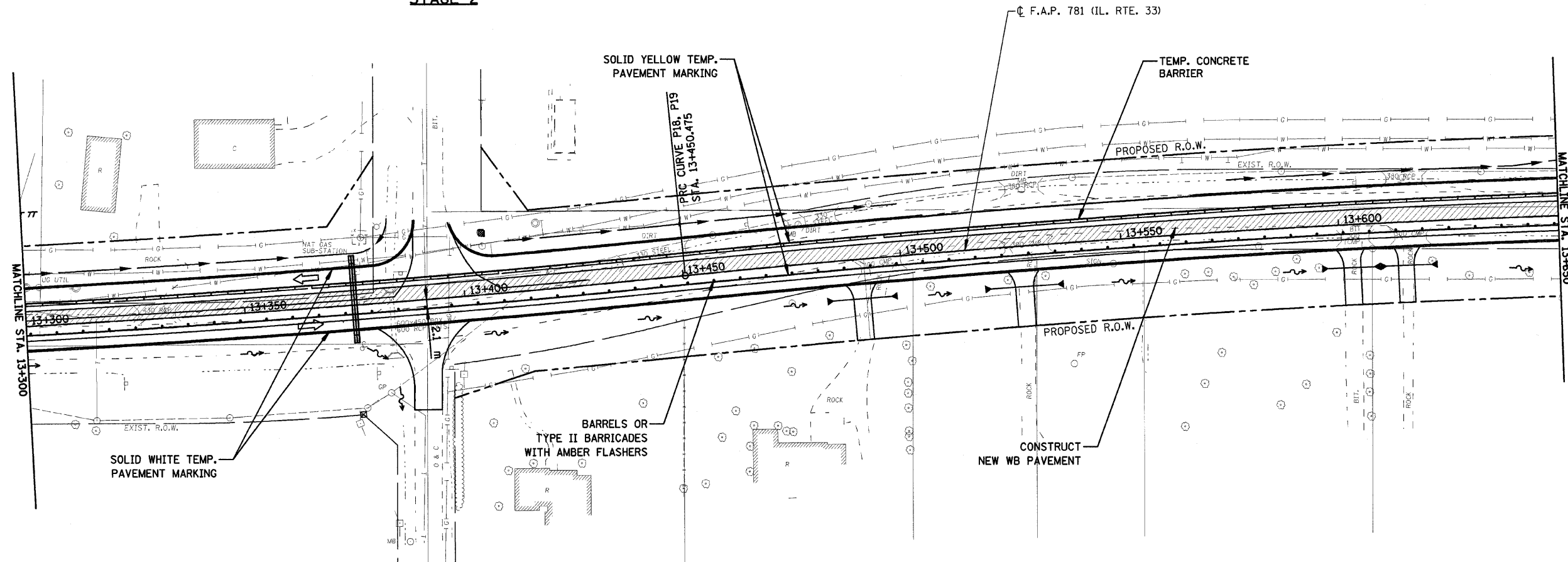
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	116
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**LEGEND**

 CONSTRUCTION THIS STAGE



**BOX CULVERT STA. 13+375  
STAGE 2**



**TYPICAL SECTION  
STAGE 2**

**STAGING NOTES:**

1. MAINTAIN TEMPORARY AGGREGATE ENTRANCES AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

PLOT DATE = 7/28/2008  
FILE NAME = H:\4420\Final\Drawings\AD794533\SH1.116\_stage2.dgn

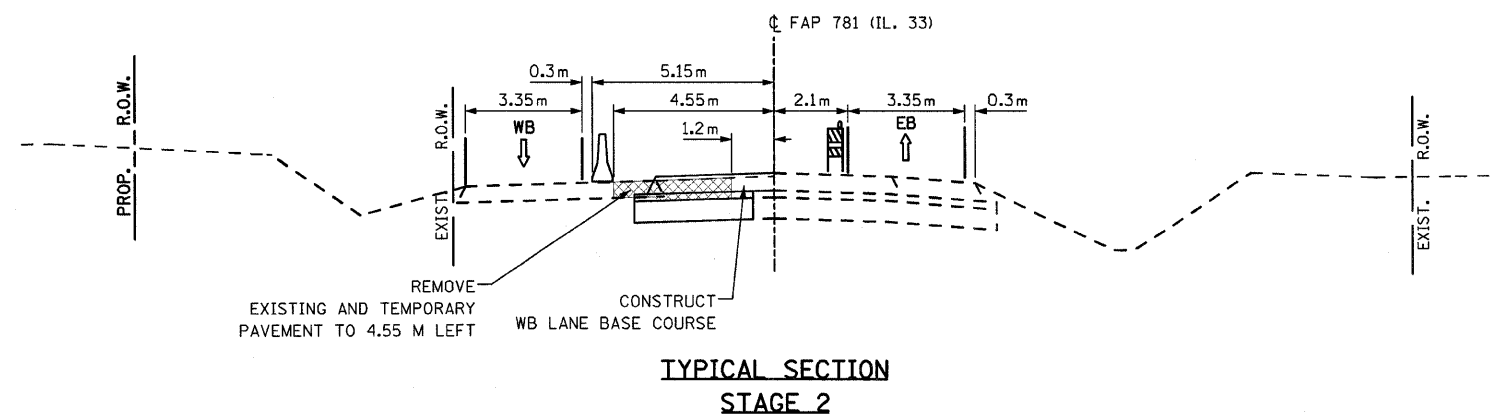
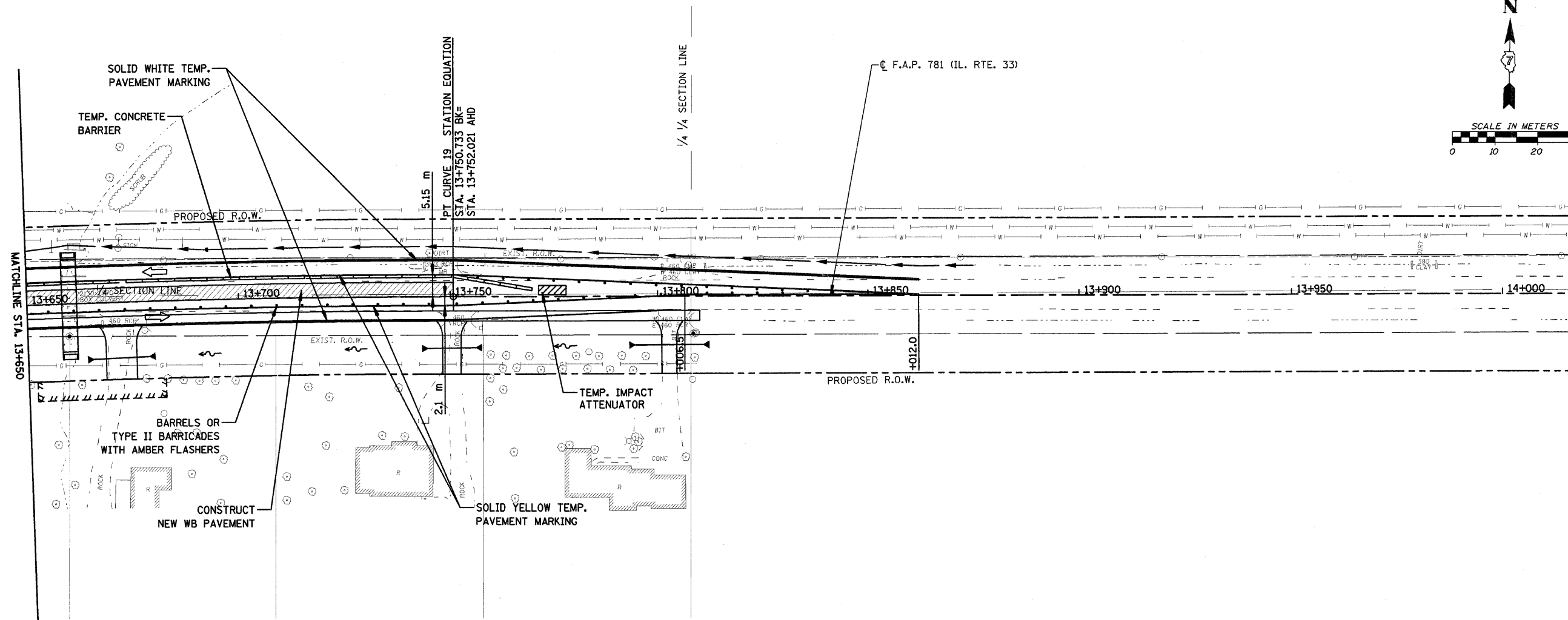
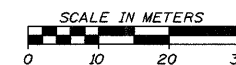
HMG JOB NO. 4480



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	117
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**LEGEND**

 CONSTRUCTION THIS STAGE



**NOTES:**

1. MAINTAIN TEMPORARY AGGREGATE ENTRANCES AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

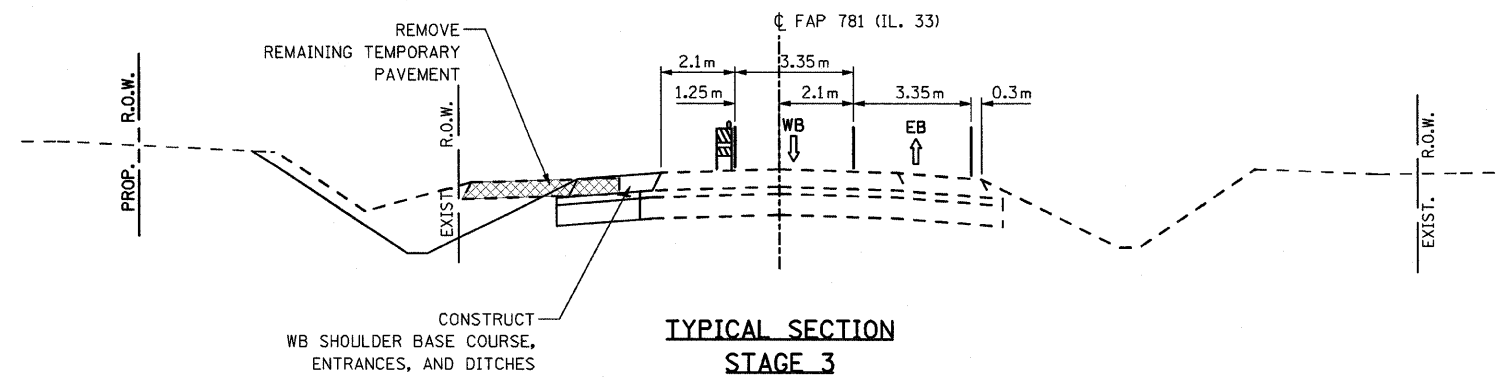
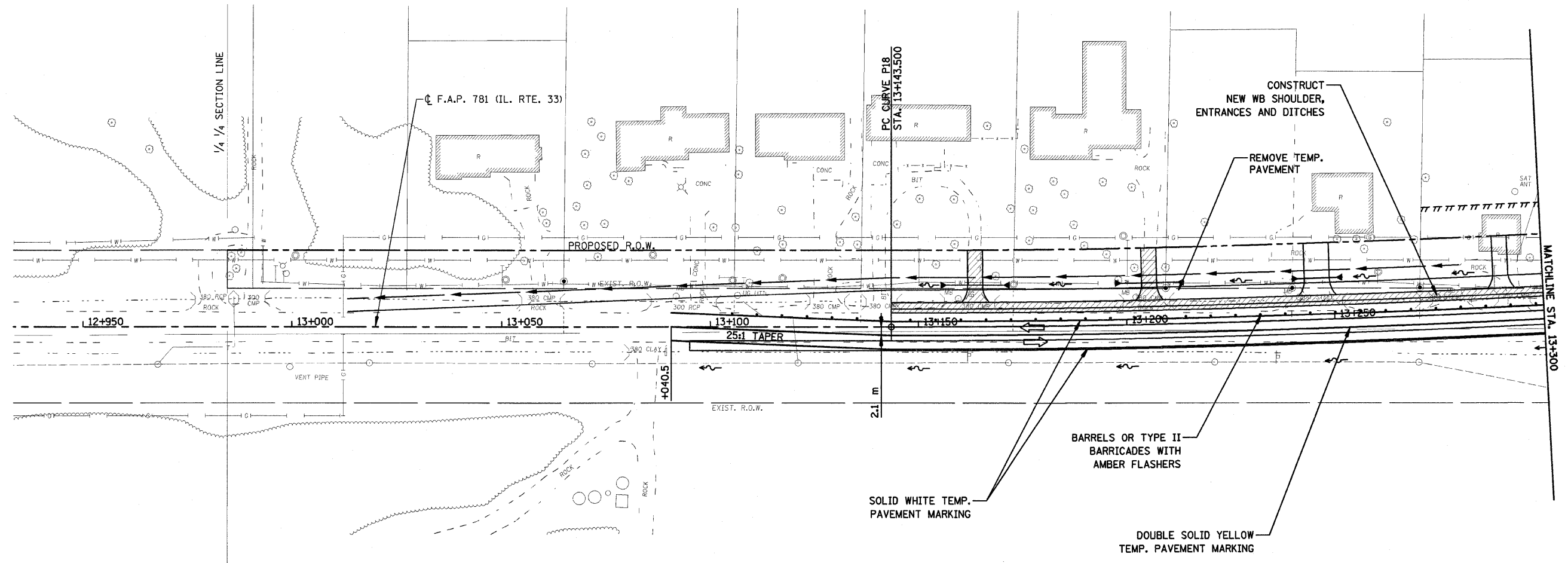
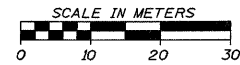
PLOT DATE = 7/28/2008  
FILE NAME = H:\4428\Final\Plans\Drawings\0794533\_SHT\_117\_stage2\_3.dgn

HMG JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	118
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

 CONSTRUCTION THIS STAGE



**NOTES:**

1. MAINTAIN TEMPORARY AGGREGATE ENTRANCES AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

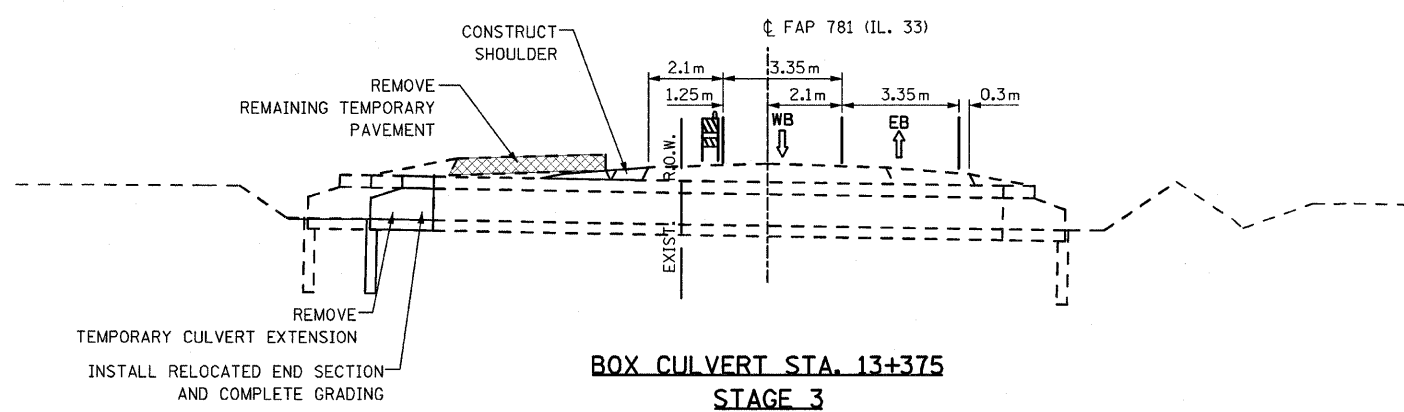
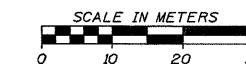
PLOT DATE = 7/28/2008  
 FILE NAME = H:\4420\Final\Drawings\0794533\SH1\_118\_stage3\_1.dgn

HMG JOB NO. 4420

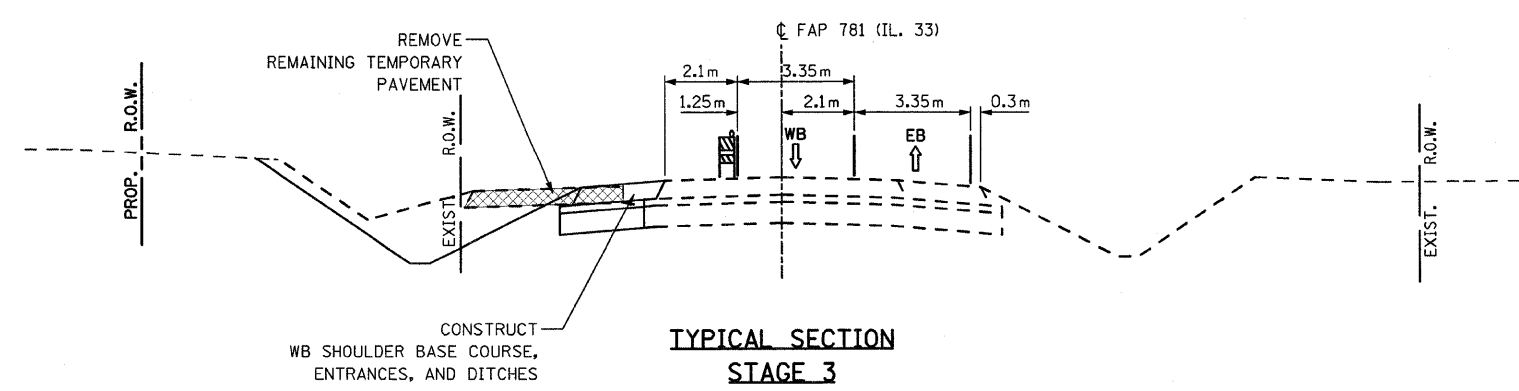
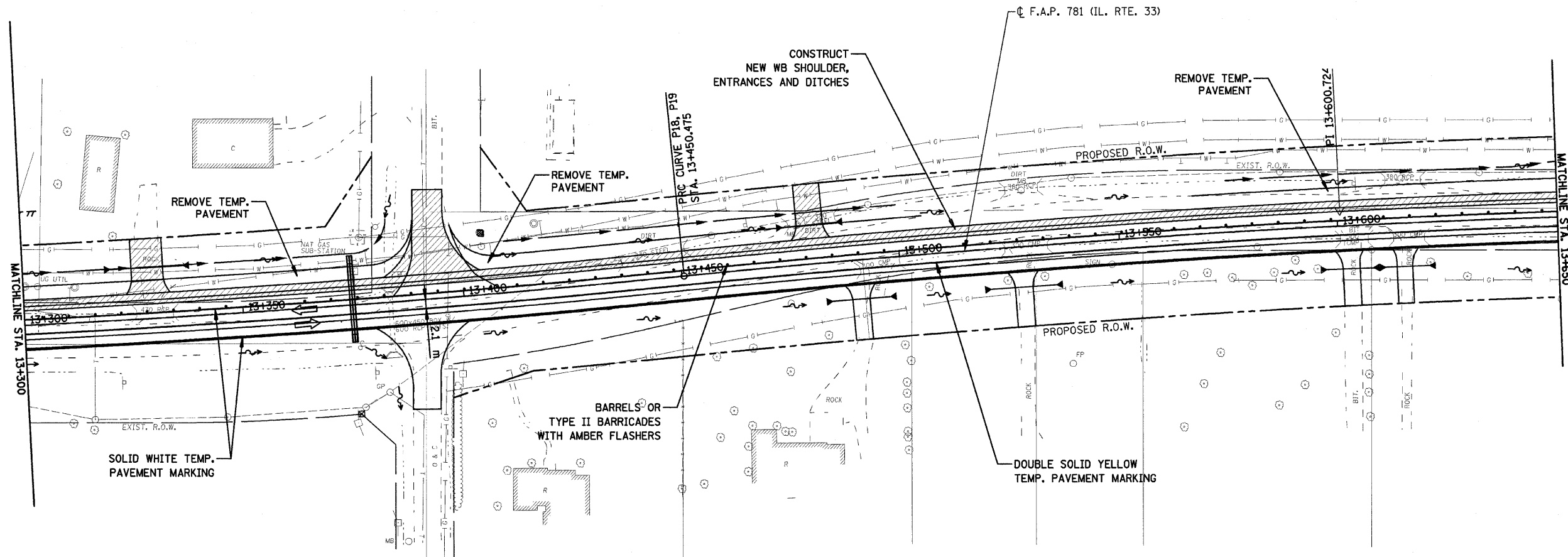
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	119
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**LEGEND**

 CONSTRUCTION THIS STAGE



**BOX CULVERT STA. 13+375  
STAGE 3**



**NOTES:**

1. MAINTAIN TEMPORARY AGGREGATE ENTRANCES AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

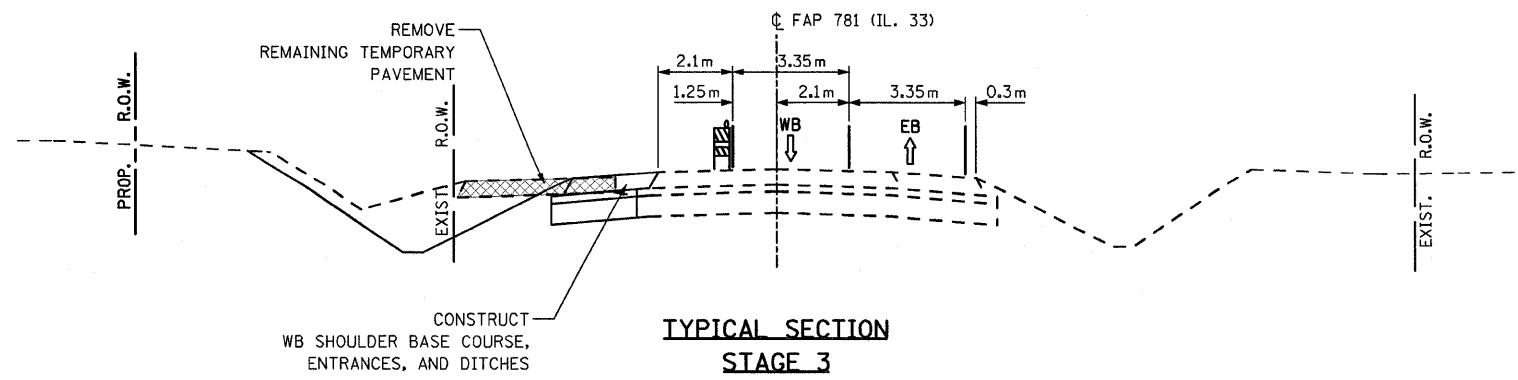
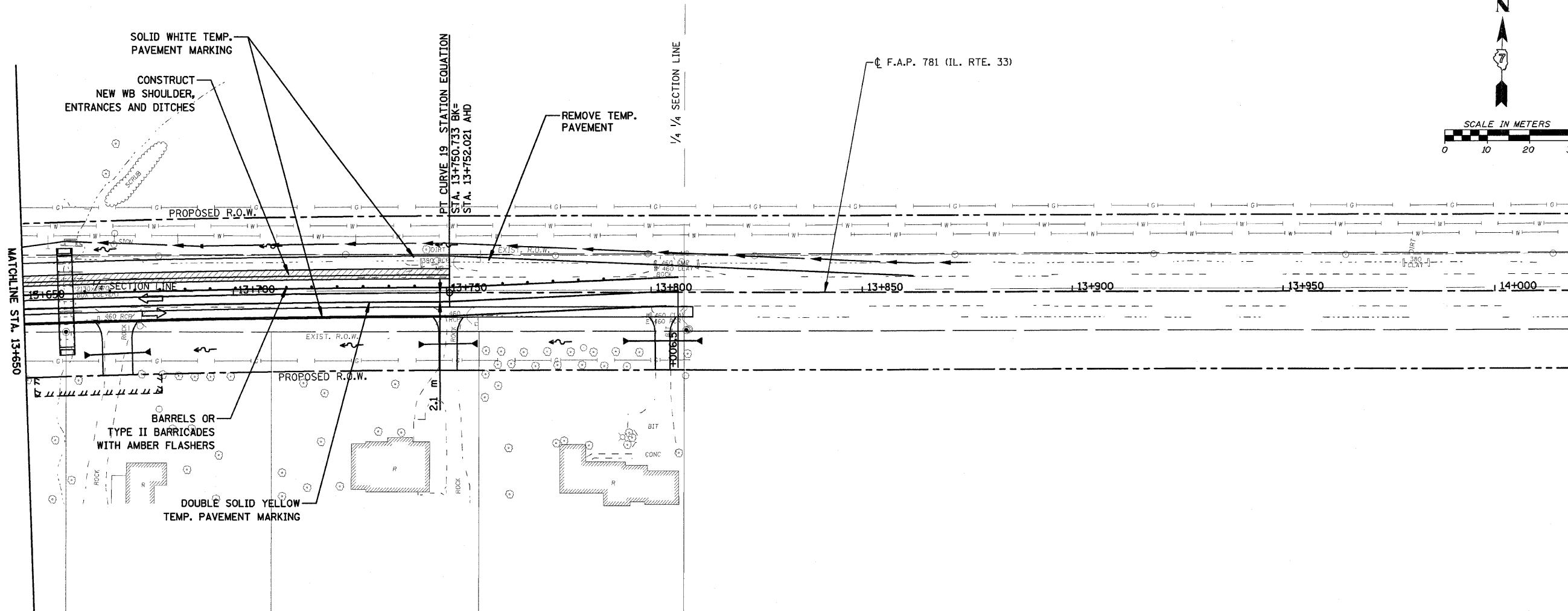
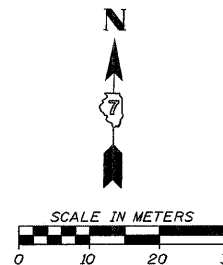
PLOT DATE = 7/28/2008  
FILE NAME = H:\4420\Final\Drawings\0794533\SH1\_119\_stage3\_2.dgn

HMG JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	120
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

 CONSTRUCTION THIS STAGE



**NOTES:**

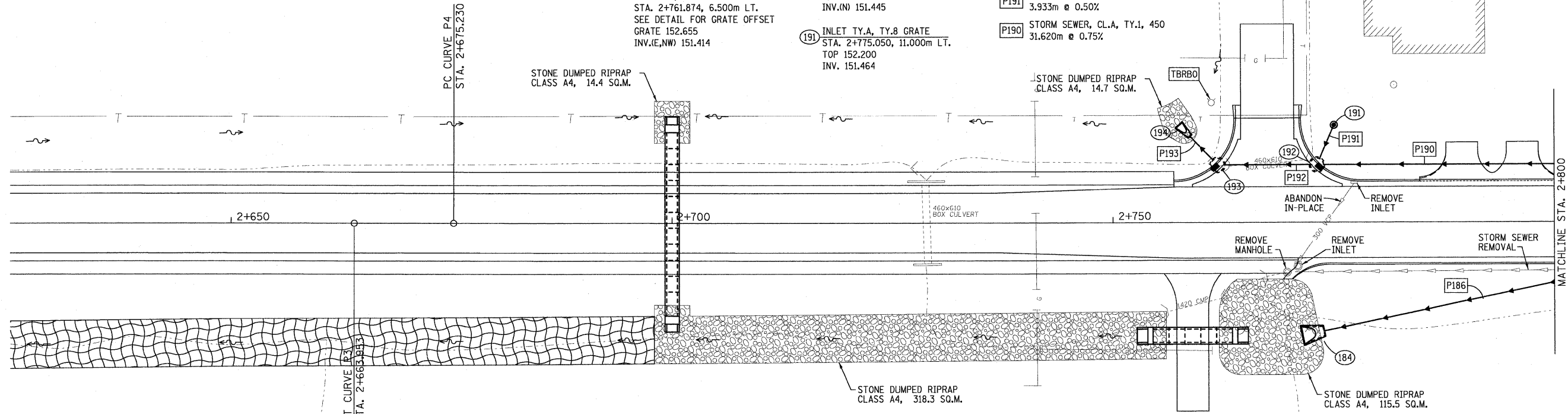
1. MAINTAIN TEMPORARY AGGREGATE ENTRANCES AS NEEDED TO MAINTAIN ACCESS.
2. TWO-WAY / TWO-LANE TRAFFIC SHALL BE RESTORED AT THE END OF THE WORK DAY. TWO-WAY / ONE-LANE TRAFFIC SHALL BE USED ON A LIMITED BASIS, WHEN REQUIRED, UTILIZING THE APPROPRIATE STANDARD.
3. FINAL HMA SURFACE COURSE SHALL BE PLACED THROUGHOUT THE PROJECT LIMITS AS A SEPARATE STAGE.

PLOT DATE = 7/28/2008  
 FILE NAME = H:\4420\Final\Drawings\94533\SH1\_120\_stage3.dgn

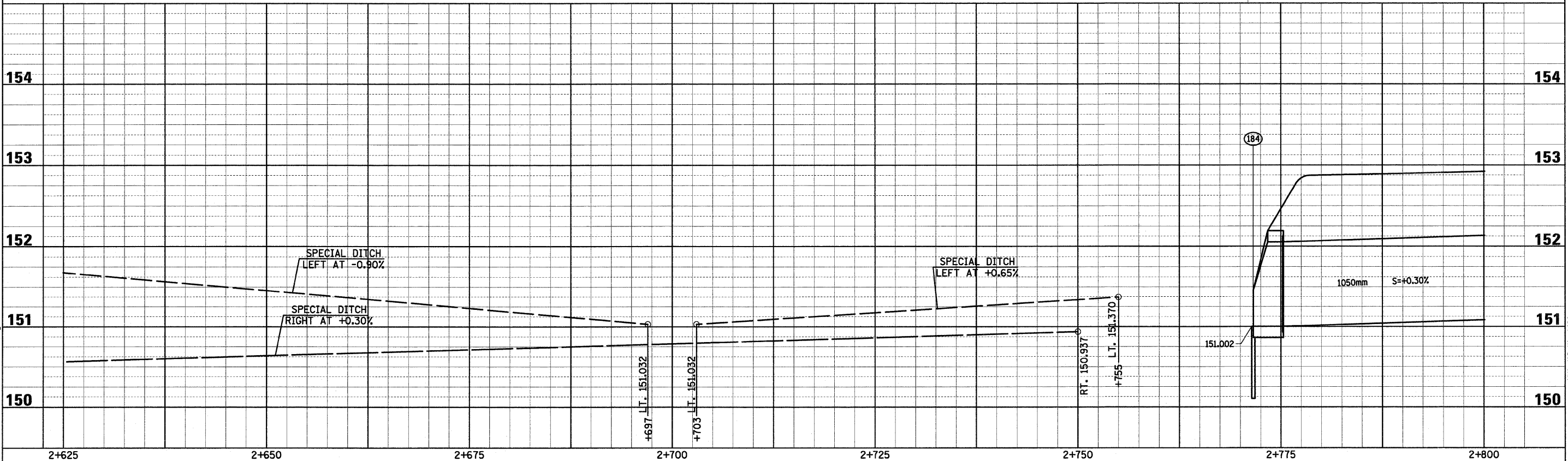
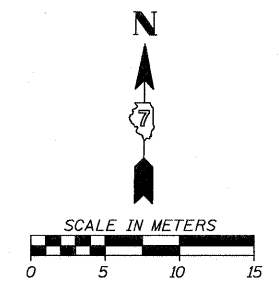
HMS JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	121
STA. 2+750		TO STA. 2+800		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

- (194) P.R.C. FLARED END SECTION, 600  
STA. 2+757.500, 11.000m LT.  
INV. 151.402
- (193) MH. TY.A, RESTRICTED DEPTH  
1.5m DIA., TY.3 F&G  
STA. 2+761.874, 6.500m LT.  
SEE DETAIL FOR GRATE OFFSET  
GRATE 152.655  
INV.(E,NW) 151.414
- (192) MH. TY.A, RESTRICTED DEPTH  
1.5m DIA., TY.3 F&G  
STA. 2+773.124, 6.500m LT.  
SEE DETAIL FOR GRATE OFFSET  
GRATE 152.674  
INV.(E,W) 151.445  
INV.(N) 151.445
- (191) INLET TY.A, TY.8 GRATE  
STA. 2+775.050, 11.000m LT.  
TOP 152.200  
INV. 151.464
- P193 STORM SEWER, CL.A, TY.1, 450  
3.842m @ 0.32%
- P192 STORM SEWER, CL.A, TY.1, 450  
9.842m @ 0.32%
- P191 STORM SEWER, CL.A, TY.1, 300  
3.933m @ 0.50%
- P190 STORM SEWER, CL.A, TY.1, 450  
31.620m @ 0.75%



- (184) P.R.C. FLARED END SECTION, 1050  
STA. 2+771.500, 12.775m RT.  
INV. 151.002
- P186 STORM SEWER, CL.A, TY.1, 1050  
29.155m @ 0.30%



PLOT DATE = 3/20/2009  
FILE NAME = P:\14420\78121\_ss\_01.dgn

Sheet: 1  
Angle: 0.5629  
Chain: P\_IL33

HMG JOB NO. 4460

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	122
STA. 2+800		TO STA. 2+975		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

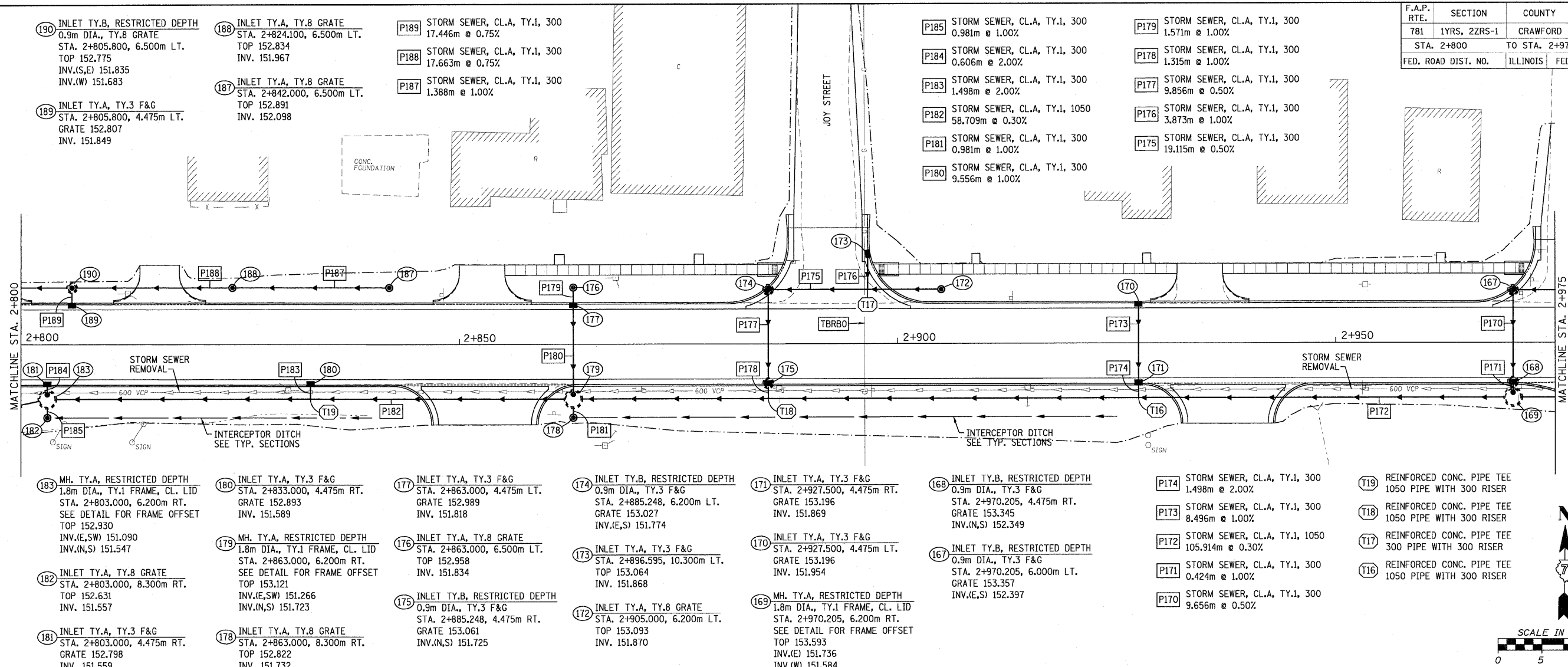
- 190 INLET TY.8, RESTRICTED DEPTH 0.9m DIA., TY.8 GRATE STA. 2+805.800, 6.500m LT. TOP 152.775 INV.(S,E) 151.835 INV.(W) 151.683
- 189 INLET TY.A, TY.3 F&G STA. 2+805.800, 4.475m LT. GRATE 152.807 INV. 151.849

- 188 INLET TY.A, TY.8 GRATE STA. 2+824.100, 6.500m LT. TOP 152.834 INV. 151.967
- 187 INLET TY.A, TY.8 GRATE STA. 2+842.000, 6.500m LT. TOP 152.891 INV. 152.098

- P189 STORM SEWER, CL.A, TY.1, 300 17.446m @ 0.75%
- P188 STORM SEWER, CL.A, TY.1, 300 17.663m @ 0.75%
- P187 STORM SEWER, CL.A, TY.1, 300 1.388m @ 1.00%

- P185 STORM SEWER, CL.A, TY.1, 300 0.981m @ 1.00%
- P184 STORM SEWER, CL.A, TY.1, 300 0.606m @ 2.00%
- P183 STORM SEWER, CL.A, TY.1, 300 1.498m @ 2.00%
- P182 STORM SEWER, CL.A, TY.1, 1050 58.709m @ 0.30%
- P181 STORM SEWER, CL.A, TY.1, 300 0.981m @ 1.00%
- P180 STORM SEWER, CL.A, TY.1, 300 9.556m @ 1.00%

- P179 STORM SEWER, CL.A, TY.1, 300 1.571m @ 1.00%
- P178 STORM SEWER, CL.A, TY.1, 300 1.315m @ 1.00%
- P177 STORM SEWER, CL.A, TY.1, 300 9.856m @ 0.50%
- P176 STORM SEWER, CL.A, TY.1, 300 3.873m @ 1.00%
- P175 STORM SEWER, CL.A, TY.1, 300 19.115m @ 0.50%



- 183 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.1 FRAME, CL. LID STA. 2+803.000, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 152.930 INV.(E,SW) 151.090 INV.(N,S) 151.547
- 182 INLET TY.A, TY.8 GRATE STA. 2+803.000, 8.300m RT. TOP 152.631 INV. 151.557
- 181 INLET TY.A, TY.3 F&G STA. 2+803.000, 4.475m RT. GRATE 152.798 INV. 151.559

- 180 INLET TY.A, TY.3 F&G STA. 2+833.000, 4.475m RT. GRATE 152.893 INV. 151.589
- 179 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.1 FRAME, CL. LID STA. 2+863.000, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 153.121 INV.(E,SW) 151.266 INV.(N,S) 151.723
- 178 INLET TY.A, TY.8 GRATE STA. 2+863.000, 8.300m RT. TOP 152.822 INV. 151.732

- 177 INLET TY.A, TY.3 F&G STA. 2+863.000, 4.475m LT. GRATE 152.989 INV. 151.818
- 176 INLET TY.A, TY.8 GRATE STA. 2+863.000, 6.500m LT. TOP 152.958 INV. 151.834
- 175 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 2+885.248, 4.475m RT. GRATE 153.061 INV.(N,S) 151.725

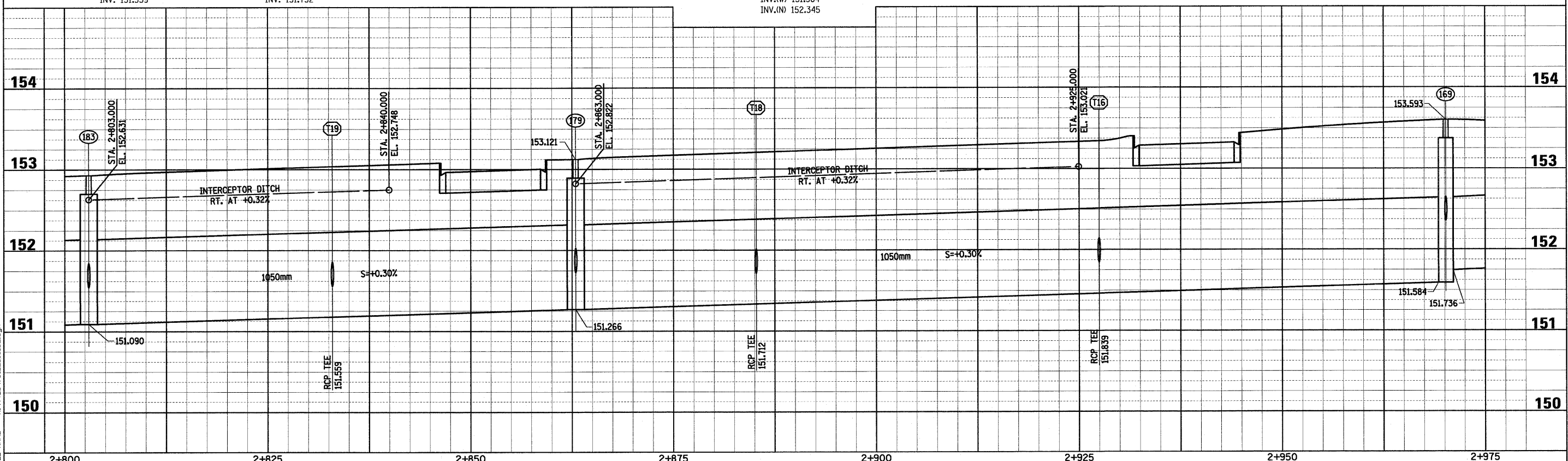
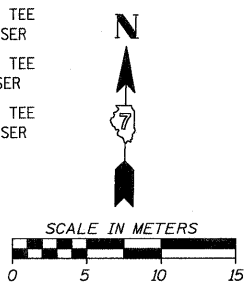
- 174 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 2+885.248, 6.200m LT. GRATE 153.027 INV.(E,S) 151.774
- 173 INLET TY.A, TY.3 F&G STA. 2+896.595, 10.300m LT. TOP 153.064 INV. 151.868
- 172 INLET TY.A, TY.8 GRATE STA. 2+905.000, 6.200m LT. TOP 153.093 INV. 151.870

- 171 INLET TY.A, TY.3 F&G STA. 2+927.500, 4.475m RT. GRATE 153.196 INV. 151.869
- 170 INLET TY.A, TY.3 F&G STA. 2+927.500, 4.475m LT. GRATE 153.196 INV. 151.954
- 169 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.1 FRAME, CL. LID STA. 2+970.205, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 153.593 INV.(E) 151.736 INV.(W) 151.584 INV.(N) 152.345

- 168 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 2+970.205, 4.475m RT. GRATE 153.345 INV.(N,S) 152.349
- 167 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 2+970.205, 6.000m LT. GRATE 153.357 INV.(E,S) 152.397

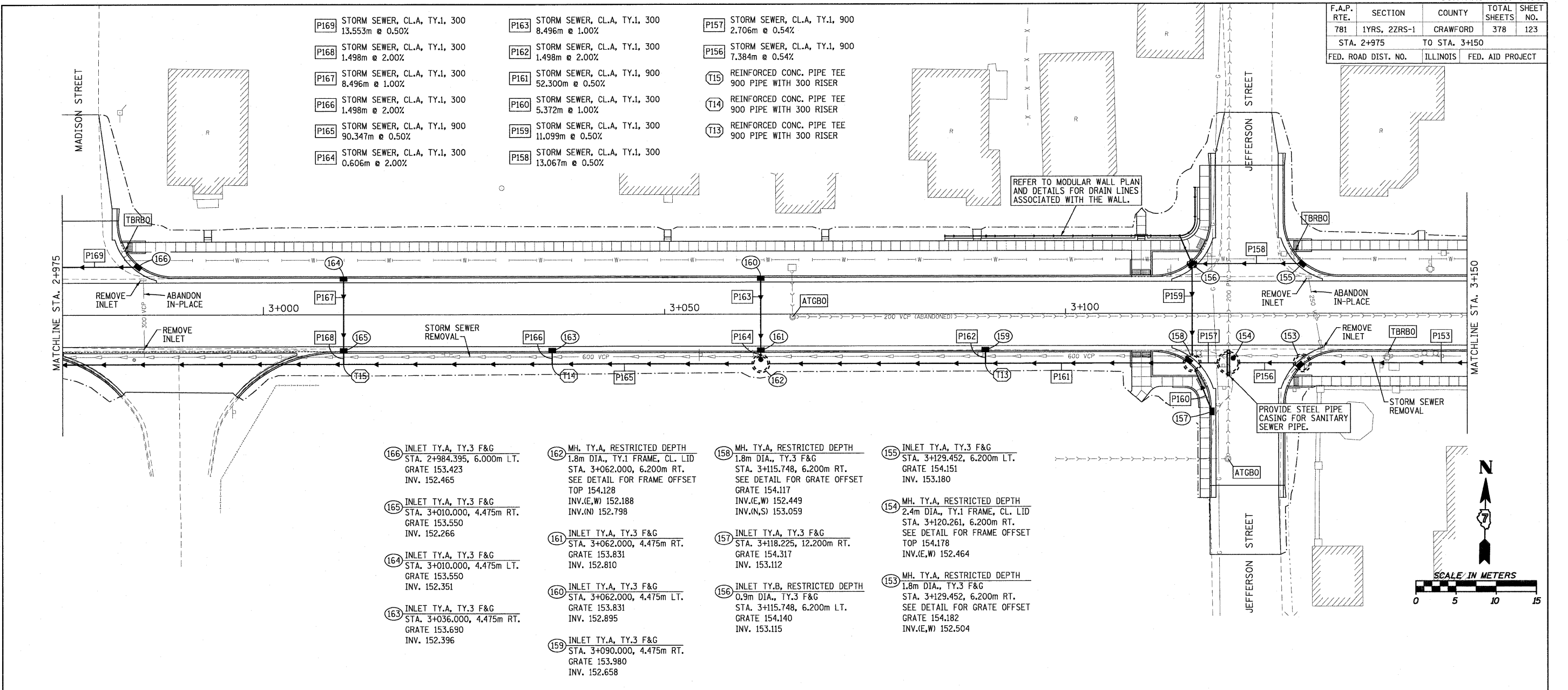
- P174 STORM SEWER, CL.A, TY.1, 300 1.498m @ 2.00%
- P173 STORM SEWER, CL.A, TY.1, 300 8.496m @ 1.00%
- P172 STORM SEWER, CL.A, TY.1, 1050 105.914m @ 0.30%
- P171 STORM SEWER, CL.A, TY.1, 300 0.424m @ 1.00%
- P170 STORM SEWER, CL.A, TY.1, 300 9.656m @ 0.50%

- T19 REINFORCED CONC. PIPE TEE 1050 PIPE WITH 300 RISER
- T18 REINFORCED CONC. PIPE TEE 1050 PIPE WITH 300 RISER
- T17 REINFORCED CONC. PIPE TEE 300 PIPE WITH 300 RISER
- T16 REINFORCED CONC. PIPE TEE 1050 PIPE WITH 300 RISER

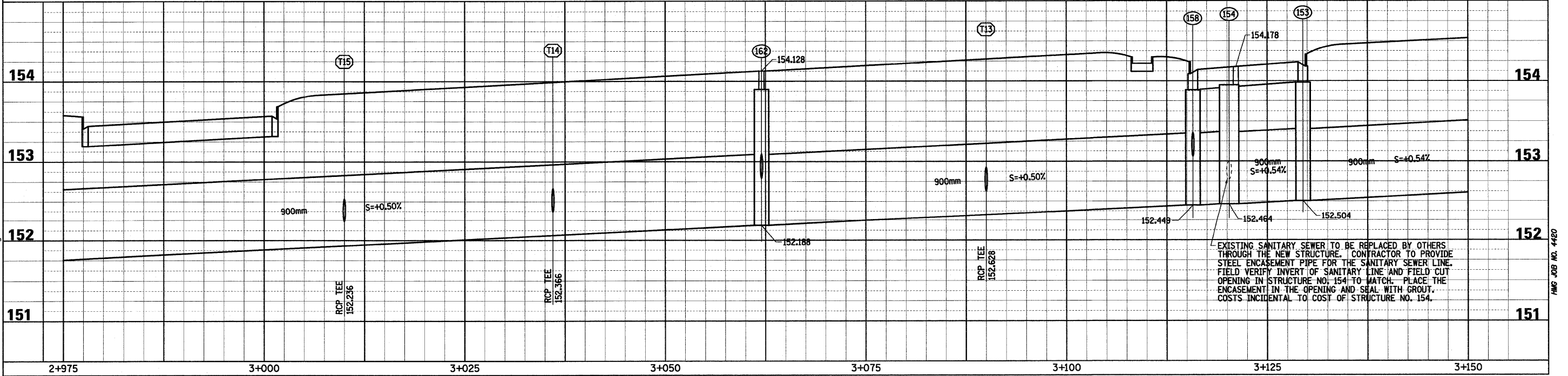
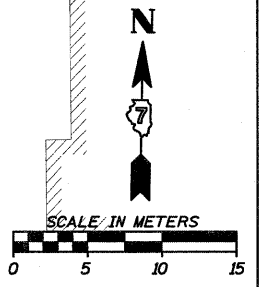


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	123
STA. 2+975		TO STA. 3+150		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

- P169 STORM SEWER, CL.A, TY.1, 300 13.553m @ 0.50%
- P168 STORM SEWER, CL.A, TY.1, 300 1.498m @ 2.00%
- P167 STORM SEWER, CL.A, TY.1, 300 8.496m @ 1.00%
- P166 STORM SEWER, CL.A, TY.1, 300 1.498m @ 2.00%
- P165 STORM SEWER, CL.A, TY.1, 900 90.347m @ 0.50%
- P164 STORM SEWER, CL.A, TY.1, 300 0.606m @ 2.00%
- P163 STORM SEWER, CL.A, TY.1, 300 8.496m @ 1.00%
- P162 STORM SEWER, CL.A, TY.1, 300 1.498m @ 2.00%
- P161 STORM SEWER, CL.A, TY.1, 900 52.300m @ 0.50%
- P160 STORM SEWER, CL.A, TY.1, 300 5.372m @ 1.00%
- P159 STORM SEWER, CL.A, TY.1, 300 11.099m @ 0.50%
- P158 STORM SEWER, CL.A, TY.1, 300 13.067m @ 0.50%
- P157 STORM SEWER, CL.A, TY.1, 900 2.706m @ 0.54%
- P156 STORM SEWER, CL.A, TY.1, 900 7.384m @ 0.54%
- T15 REINFORCED CONC. PIPE TEE 900 PIPE WITH 300 RISER
- T14 REINFORCED CONC. PIPE TEE 900 PIPE WITH 300 RISER
- T13 REINFORCED CONC. PIPE TEE 900 PIPE WITH 300 RISER



- 166 INLET TY.A, TY.3 F&G STA. 2+984.395, 6.000m LT. GRATE 153.423 INV. 152.465
- 165 INLET TY.A, TY.3 F&G STA. 3+010.000, 4.475m RT. GRATE 153.550 INV. 152.266
- 164 INLET TY.A, TY.3 F&G STA. 3+010.000, 4.475m LT. GRATE 153.550 INV. 152.351
- 163 INLET TY.A, TY.3 F&G STA. 3+036.000, 4.475m RT. GRATE 153.690 INV. 152.396
- 162 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.1 FRAME, CL. LID STA. 3+062.000, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 154.128 INV.(E,W) 152.188 INV.(N) 152.798
- 161 INLET TY.A, TY.3 F&G STA. 3+062.000, 4.475m RT. GRATE 153.831 INV. 152.810
- 160 INLET TY.A, TY.3 F&G STA. 3+062.000, 4.475m LT. GRATE 153.831 INV. 152.895
- 159 INLET TY.A, TY.3 F&G STA. 3+090.000, 4.475m RT. GRATE 153.980 INV. 152.658
- 158 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.3 F&G STA. 3+115.748, 6.200m RT. SEE DETAIL FOR GRATE OFFSET GRATE 154.117 INV.(E,W) 152.449 INV.(N,S) 153.059
- 157 INLET TY.A, TY.3 F&G STA. 3+118.225, 12.200m RT. GRATE 154.317 INV. 153.112
- 156 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+115.748, 6.200m LT. GRATE 154.140 INV. 153.115
- 155 INLET TY.A, TY.3 F&G STA. 3+129.452, 6.200m LT. GRATE 154.151 INV. 153.180
- 154 MH. TY.A, RESTRICTED DEPTH 2.4m DIA., TY.1 FRAME, CL. LID STA. 3+120.261, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 154.178 INV.(E,W) 152.464
- 153 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.3 F&G STA. 3+129.452, 6.200m RT. SEE DETAIL FOR GRATE OFFSET GRATE 154.182 INV.(E,W) 152.504



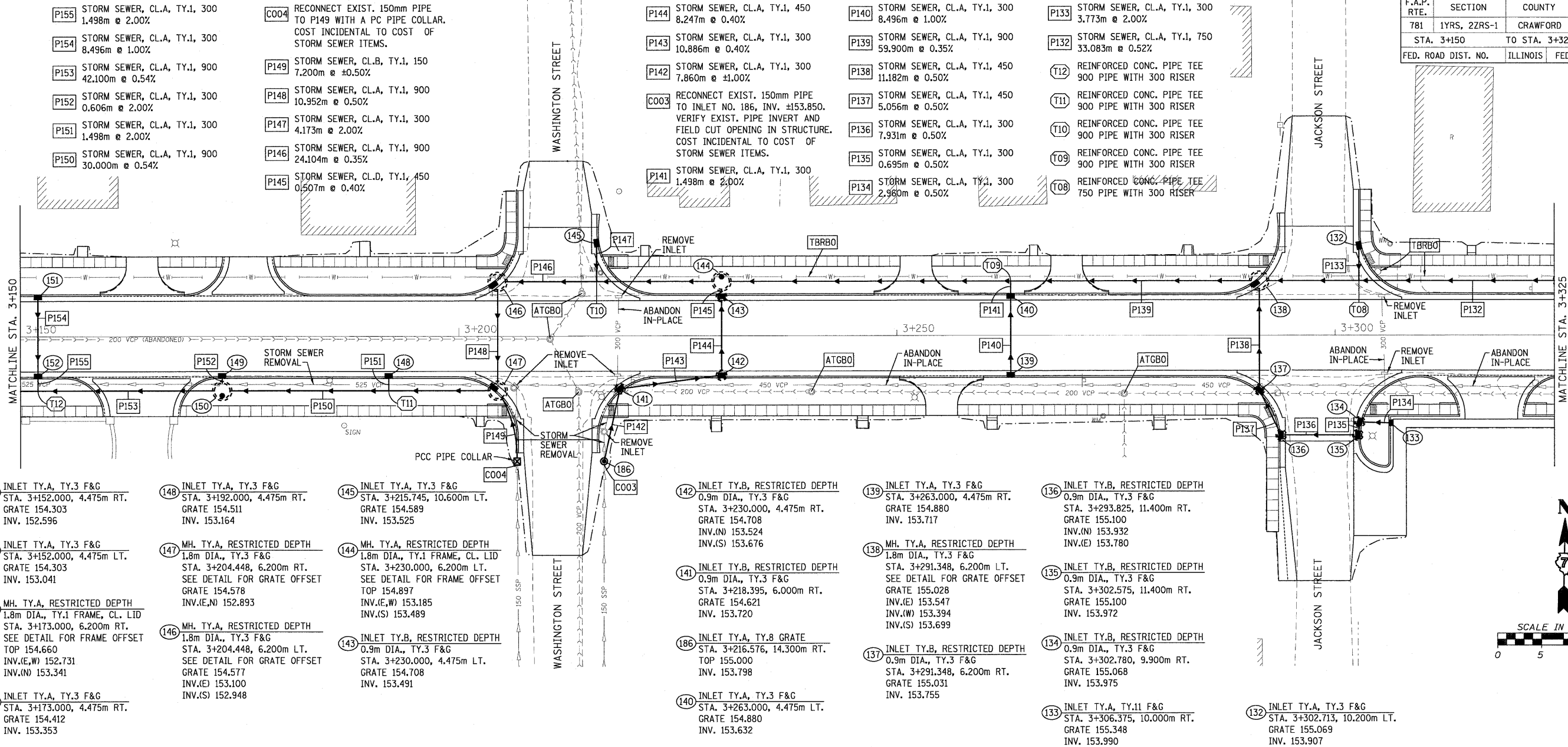
EXISTING SANITARY SEWER TO BE REPLACED BY OTHERS THROUGH THE NEW STRUCTURE. CONTRACTOR TO PROVIDE STEEL ENCASUREMENT PIPE FOR THE SANITARY SEWER LINE. FIELD VERIFY INVERT OF SANITARY LINE AND FIELD CUT OPENING IN STRUCTURE NO. 154 TO MATCH. PLACE THE ENCASUREMENT IN THE OPENING AND SEAL WITH GROUT. COSTS INCIDENTAL TO COST OF STRUCTURE NO. 154.

Sheet: 3  
Angle: 0.9788  
Chain: P\_IL33

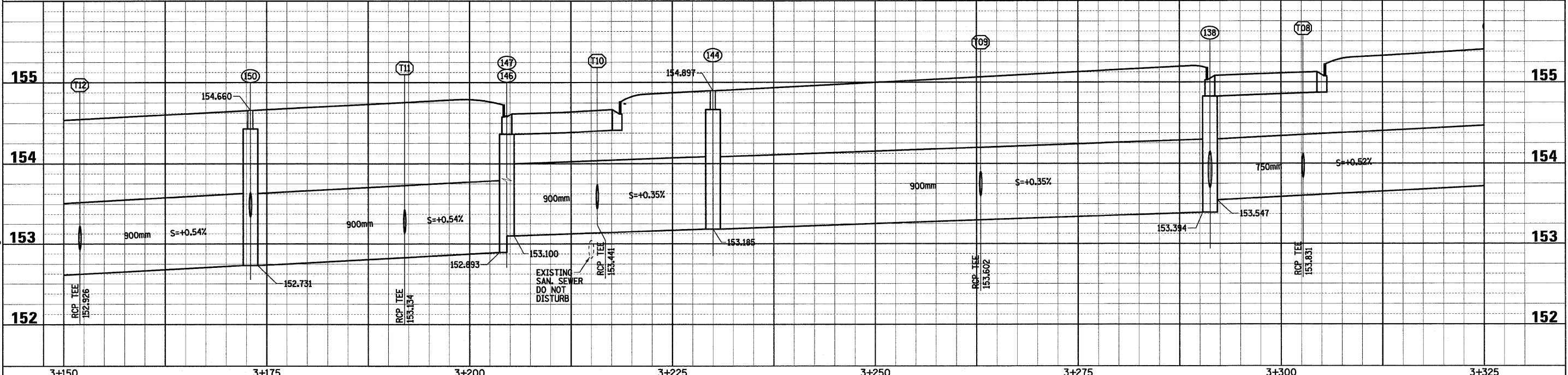
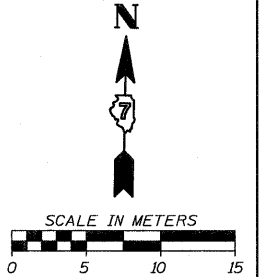
PLOT DATE = 3/20/2009  
FILE NAME = H:\4428\70123.ss\_03.dgn

HMG JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	124
STA. 3+150		TO STA. 3+325		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



- 152 INLET TY.A, TY.3 F&G  
STA. 3+152.000, 4.475m RT.  
GRATE 154.303  
INV. 152.596
- 151 INLET TY.A, TY.3 F&G  
STA. 3+152.000, 4.475m LT.  
GRATE 154.303  
INV. 153.041
- 150 MH. TY.A, RESTRICTED DEPTH  
1.8m DIA., TY.1 FRAME, CL. LID  
STA. 3+173.000, 6.200m RT.  
SEE DETAIL FOR FRAME OFFSET  
TOP 154.660  
INV.(E,W) 152.731  
INV.(N) 153.341
- 149 INLET TY.A, TY.3 F&G  
STA. 3+173.000, 4.475m RT.  
GRATE 154.412  
INV. 153.353
- 148 INLET TY.A, TY.3 F&G  
STA. 3+192.000, 4.475m RT.  
GRATE 154.511  
INV. 153.164
- 147 MH. TY.A, RESTRICTED DEPTH  
1.8m DIA., TY.3 F&G  
STA. 3+204.448, 6.200m RT.  
SEE DETAIL FOR GRATE OFFSET  
GRATE 154.578  
INV.(E,N) 152.893
- 146 MH. TY.A, RESTRICTED DEPTH  
1.8m DIA., TY.3 F&G  
STA. 3+204.448, 6.200m LT.  
SEE DETAIL FOR GRATE OFFSET  
GRATE 154.577  
INV.(E) 153.100  
INV.(S) 152.948
- 145 INLET TY.A, TY.3 F&G  
STA. 3+215.745, 10.600m LT.  
GRATE 154.589  
INV. 153.525
- 144 MH. TY.A, RESTRICTED DEPTH  
1.8m DIA., TY.1 FRAME, CL. LID  
STA. 3+230.000, 6.200m LT.  
SEE DETAIL FOR FRAME OFFSET  
TOP 154.897  
INV.(E,W) 153.185  
INV.(S) 153.489
- 143 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 3+230.000, 4.475m LT.  
GRATE 154.708  
INV. 153.491
- 142 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 3+230.000, 4.475m RT.  
GRATE 154.708  
INV.(N) 153.524  
INV.(S) 153.676
- 141 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 3+218.395, 6.000m RT.  
GRATE 154.621  
INV. 153.720
- 140 INLET TY.A, TY.3 F&G  
STA. 3+263.000, 4.475m LT.  
GRATE 154.880  
INV. 153.632
- 139 INLET TY.A, TY.3 F&G  
STA. 3+263.000, 4.475m RT.  
GRATE 154.880  
INV. 153.717
- 138 MH. TY.A, RESTRICTED DEPTH  
1.8m DIA., TY.3 F&G  
STA. 3+291.348, 6.200m LT.  
SEE DETAIL FOR GRATE OFFSET  
GRATE 155.028  
INV.(E) 153.594  
INV.(W) 153.394  
INV.(S) 153.699
- 137 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 3+291.348, 6.200m RT.  
GRATE 155.031  
INV. 153.755
- 136 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 3+293.825, 11.400m RT.  
GRATE 155.100  
INV.(N) 153.932  
INV.(E) 153.780
- 135 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 3+302.575, 11.400m RT.  
GRATE 155.100  
INV. 153.972
- 134 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 3+302.780, 9.900m RT.  
GRATE 155.068  
INV. 153.975
- 133 INLET TY.A, TY.11 F&G  
STA. 3+306.375, 10.000m RT.  
GRATE 155.348  
INV. 153.990
- 132 INLET TY.A, TY.3 F&G  
STA. 3+302.713, 10.200m LT.  
GRATE 155.069  
INV. 153.907



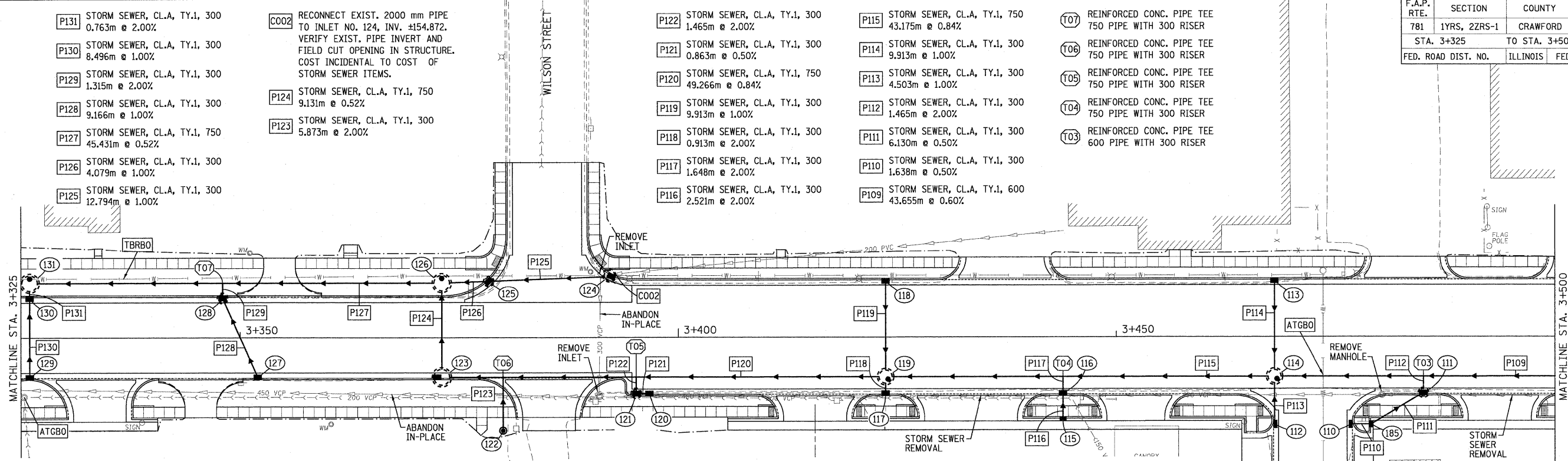
Sheet: 4  
Angle: 0.9785  
Chain: P\_IL33

PLOT DATE = 3/20/2009  
FILE NAME = H:\4426\78124\_ss\_04.dgn

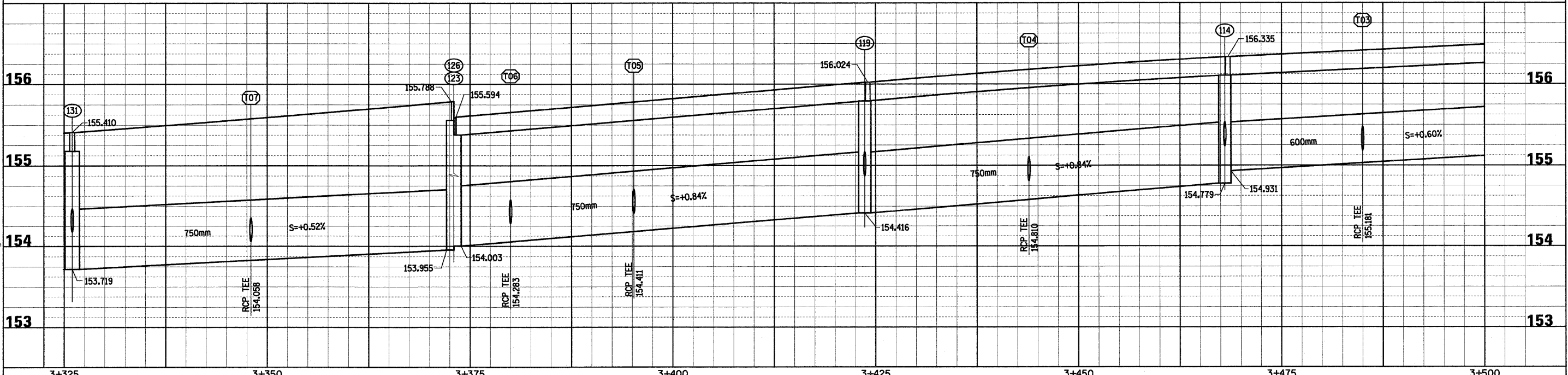
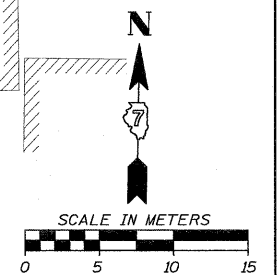
HMG JOB NO. 4460



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	125
STA. 3+325		TO STA. 3+500		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



- 131 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.1 FRAME, CL. LID STA. 3+326.000, 6.200m LT. SEE DETAIL FOR FRAME OFFSET TOP 155.410 INV.(E,W) 153.719 INV.(S) 154.176
- 127 INLET TY.A, TY.3 F&G STA. 3+352.000, 4.475m RT. GRATE 155.423 INV. 154.176
- 124 MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.3 F&G STA. 3+392.139, 7.046m LT. SEE DETAIL FOR GRATE OFFSET GRATE 155.649 INV.(E) ±154.872 INV.(W) 154.580
- 121 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+395.200, 6.375m RT. GRATE 155.705 INV. 154.440
- 117 INLET TY.A, TY.3 F&G STA. 3+423.650, 6.375m RT. GRATE 155.940 INV. 154.891
- 113 INLET TY.A, TY.3 F&G STA. 3+468.025, 6.375m LT. GRATE 155.241 INV. 155.335
- 130 INLET TY.A, TY.3 F&G STA. 3+326.000, 6.200m LT. GRATE 155.222 INV. 154.192
- 126 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.1 FRAME, CL. LID STA. 3+373.000, 6.200m LT. SEE DETAIL FOR FRAME OFFSET TOP 155.788 INV.(S,W) 153.955 INV.(E) 154.412
- 123 MH. TY.A, RESTRICTED DEPTH 1.8m DIA., TY.3 F&G STA. 3+373.000, 4.500m RT. SEE DETAIL FOR GRATE OFFSET GRATE 155.594 INV.(E,N) 154.003
- 120 INLET TY.A, TY.3 F&G STA. 3+396.700, 6.375m RT. GRATE 155.721 INV. 154.444
- 116 INLET TY.A, TY.3 F&G STA. 3+443.900, 6.375m RT. GRATE 156.099 INV. 154.843
- 112 INLET TY.A, TY.3 F&G STA. 3+468.025, 9.965m RT. GRATE 156.193 INV. 155.281
- 129 INLET TY.A, TY.3 F&G STA. 3+326.000, 4.475m RT. GRATE 155.222 INV. 154.277
- 125 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+378.376, 6.403m LT. GRATE 155.646 INV. 154.453
- 119 MH. TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 3+423.650, 4.500m RT. SEE DETAIL FOR FRAME OFFSET TOP 156.024 INV.(E,W) 154.416 INV.(N,S) 154.873
- 115 INLET TY.A, TY.11 F&G STA. 3+443.900, 9.350m RT. GRATE 156.205 INV. 154.893
- 111 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+485.000, 6.375m RT. GRATE 156.346 INV.(N,S) 155.210
- 128 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+348.000, 4.475m LT. GRATE 155.389 INV. 154.084
- 122 INLET TY.A, TY.8 GRATE STA. 3+380.000, 10.600m RT. TOP 155.600 INV. 154.400
- 118 INLET TY.A, TY.3 F&G STA. 3+423.650, 6.375m LT. GRATE 155.940 INV. 154.973
- 114 MH. TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 3+468.025, 4.500m RT. SEE DETAIL FOR FRAME OFFSET TOP 156.335 INV.(E) 154.931 INV.(W) 154.779 INV.(N,S) 155.236
- 185 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+479.050, 9.965m RT. GRATE 156.388 INV.(W,N) 155.241
- 110 INLET TY.A, TY.3 F&G STA. 3+476.775, 9.965m RT. GRATE 156.308 INV. 155.249



Sheet: 5  
Angle: 0.9788  
Chain: P\_IL33

PLOT DATE = 3/29/2008  
FILE NAME = H:\4420\70125\_m\_05.dgn

HMG JOB NO. 4420

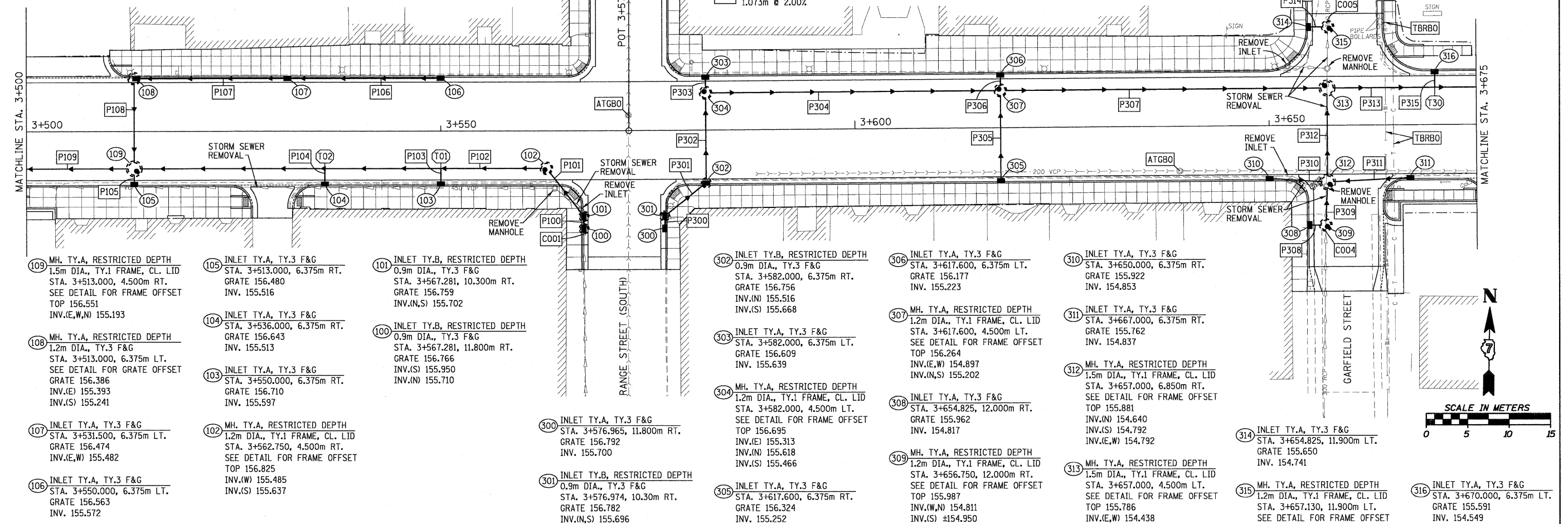
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 22RS-1	CRAWFORD	378	126
STA. 3+500		TO STA. 3+675		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

- C001 RECONNECT EXIST. 450mm PIPE TO INLET NO. 100, INV. ±155.950. VERIFY EXIST. PIPE INVERT AND FIELD CUT OPENING IN STRUCTURE. COST INCIDENTAL TO COST OF STORM SEWER ITEMS.
- P100 STORM SEWER, CL.A, TY.1, 450 0.797m @ 1.00%
- P101 STORM SEWER, CL.A, TY.1, 450 6.473m @ 1.00%
- P102 STORM SEWER, CL.A, TY.1, 600 48.614m @ 0.60%
- P103 STORM SEWER, CL.A, TY.1, 300 1.648m @ 2.00%
- P104 STORM SEWER, CL.A, TY.1, 300 1.648m @ 2.00%
- P105 STORM SEWER, CL.A, TY.1, 300 0.913m @ 2.00%
- P106 STORM SEWER, CL.A, TY.1, 300 18.046m @ 0.50%
- P107 STORM SEWER, CL.A, TY.1, 300 17.698m @ 0.50%
- P108 STORM SEWER, CL.A, TY.1, 450 9.636m @ 0.50%
- P109 STORM SEWER, CL.A, TY.1, 600 43.655m @ 0.60%

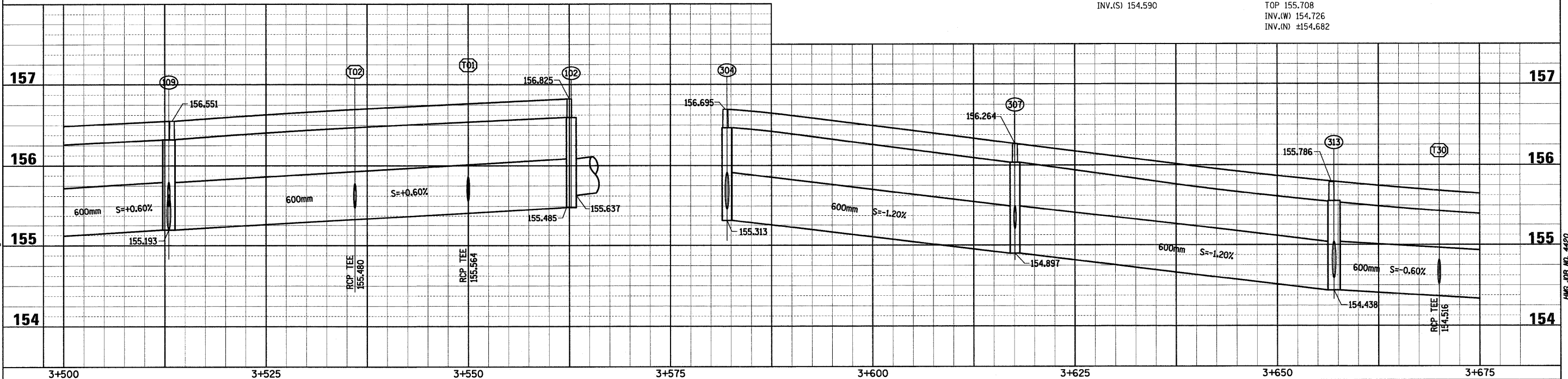
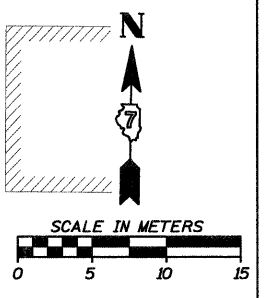
- T01 REINFORCED CONC. PIPE TEE 600 PIPE WITH 300 RISER
- T02 REINFORCED CONC. PIPE TEE 600 PIPE WITH 300 RISER

- P300 STORM SEWER, CL.A, TY.1, 300 0.863m @ 0.50%
- P301 STORM SEWER, CL.A, TY.1, 300 5.558m @ 0.50%
- P302 STORM SEWER, CL.A, TY.1, 450 9.988m @ 0.50%
- P303 STORM SEWER, CL.A, TY.1, 300 1.073m @ 2.00%
- P304 STORM SEWER, CL.A, TY.1, 600 34.648m @ 1.20%
- P305 STORM SEWER, CL.A, TY.1, 300 10.073m @ 0.50%
- P306 STORM SEWER, CL.A, TY.1, 300 1.073m @ 2.00%
- P307 STORM SEWER, CL.A, TY.1, 600 38.246m @ 1.20%
- P308 STORM SEWER, CL.A, TY.1, 300 1.123m @ 0.50%
- C004 RECONNECT EXIST. 300mm PIPE TO INLET NO. 309, INV. ±154.950. VERIFY EXIST. PIPE INVERT AND FIELD CUT OPENING IN STRUCTURE. COST INCIDENTAL TO COST OF STORM SEWER ITEMS.
- P309 STORM SEWER, CL.A, TY.1, 300 3.847m @ 0.50%
- P310 STORM SEWER, CL.A, TY.1, 300 6.055m @ 1.00%

- P311 STORM SEWER, CL.A, TY.1, 300 9.050m @ 0.50%
- P312 STORM SEWER, CL.A, TY.1, 450 3.847m @ 0.50%
- P313 STORM SEWER, CL.A, TY.1, 600 32.030m @ 0.60%
- P314 STORM SEWER, CL.A, TY.1, 300 1.503m @ 1.00%
- C005 RECONNECT EXIST. 300mm PIPE TO INLET NO. 315, INV. ±154.682. VERIFY EXIST. PIPE INVERT AND FIELD CUT OPENING IN STRUCTURE. COST INCIDENTAL TO COST OF STORM SEWER ITEMS.
- P315 STORM SEWER, CL.A, TY.1, 300 1.648m @ 2.00%
- T30 REINFORCED CONC. PIPE TEE 600 PIPE WITH 300 RISER



- 109 MH. TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 3+513.000, 4.500m RT. SEE DETAIL FOR FRAME OFFSET TOP 156.551 INV.(E,W,N) 155.193
- 108 MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.3 F&G STA. 3+513.000, 6.375m LT. SEE DETAIL FOR GRATE OFFSET GRATE 156.386 INV.(E) 155.393 INV.(S) 155.241
- 107 INLET TY.A, TY.3 F&G STA. 3+531.500, 6.375m LT. GRATE 156.474 INV.(E,W) 155.482
- 106 INLET TY.A, TY.3 F&G STA. 3+550.000, 6.375m LT. GRATE 156.563 INV. 155.572
- 105 INLET TY.A, TY.3 F&G STA. 3+513.000, 6.375m RT. GRATE 156.480 INV. 155.516
- 104 INLET TY.A, TY.3 F&G STA. 3+536.000, 6.375m RT. GRATE 156.643 INV. 155.513
- 103 INLET TY.A, TY.3 F&G STA. 3+550.000, 6.375m RT. GRATE 156.710 INV. 155.597
- 102 MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.1 FRAME, CL. LID STA. 3+562.750, 4.500m RT. SEE DETAIL FOR FRAME OFFSET TOP 156.825 INV.(W) 155.485 INV.(S) 155.637
- 101 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+567.281, 10.300m RT. GRATE 156.759 INV.(N,S) 155.702
- 100 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+567.281, 11.800m RT. GRATE 156.766 INV.(S) 155.950 INV.(N) 155.710
- 302 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+582.000, 6.375m RT. GRATE 156.756 INV.(N) 155.516 INV.(S) 155.668
- 303 INLET TY.A, TY.3 F&G STA. 3+582.000, 6.375m LT. GRATE 156.609 INV. 155.639
- 304 MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.1 FRAME, CL. LID STA. 3+582.000, 4.500m RT. SEE DETAIL FOR FRAME OFFSET TOP 156.695 INV.(E) 155.313 INV.(N) 155.618 INV.(S) 155.466
- 300 INLET TY.A, TY.3 F&G STA. 3+576.965, 11.800m RT. GRATE 156.792 INV. 155.700
- 301 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+576.974, 10.30m RT. GRATE 156.782 INV.(N,S) 155.696
- 306 INLET TY.A, TY.3 F&G STA. 3+617.600, 6.375m LT. GRATE 156.177 INV. 155.223
- 307 MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.1 FRAME, CL. LID STA. 3+617.600, 4.500m LT. SEE DETAIL FOR FRAME OFFSET TOP 156.264 INV.(E,W) 154.897 INV.(S) 155.202
- 308 INLET TY.A, TY.3 F&G STA. 3+654.825, 12.000m RT. GRATE 155.962 INV. 154.817
- 309 MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.1 FRAME, CL. LID STA. 3+656.750, 12.000m RT. SEE DETAIL FOR FRAME OFFSET TOP 155.987 INV.(W,N) 154.811 INV.(S) ±154.950
- 310 INLET TY.A, TY.3 F&G STA. 3+650.000, 6.375m RT. GRATE 155.922 INV. 154.853
- 311 INLET TY.A, TY.3 F&G STA. 3+667.000, 6.375m RT. GRATE 155.762 INV. 154.837
- 312 MH. TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 3+657.000, 6.850m RT. SEE DETAIL FOR FRAME OFFSET TOP 155.881 INV.(N) 154.640 INV.(S) 154.792 INV.(E,W) 154.792
- 314 INLET TY.A, TY.3 F&G STA. 3+654.825, 11.900m LT. GRATE 155.650 INV. 154.741
- 313 MH. TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 3+657.000, 4.500m LT. SEE DETAIL FOR FRAME OFFSET TOP 155.786 INV.(E,W) 154.438 INV.(S) 154.590
- 315 MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.1 FRAME, CL. LID STA. 3+657.130, 11.900m LT. SEE DETAIL FOR FRAME OFFSET TOP 155.708 INV.(W) 154.726 INV.(N) ±154.682
- 316 INLET TY.A, TY.3 F&G STA. 3+670.000, 6.375m LT. GRATE 155.591 INV. 154.549

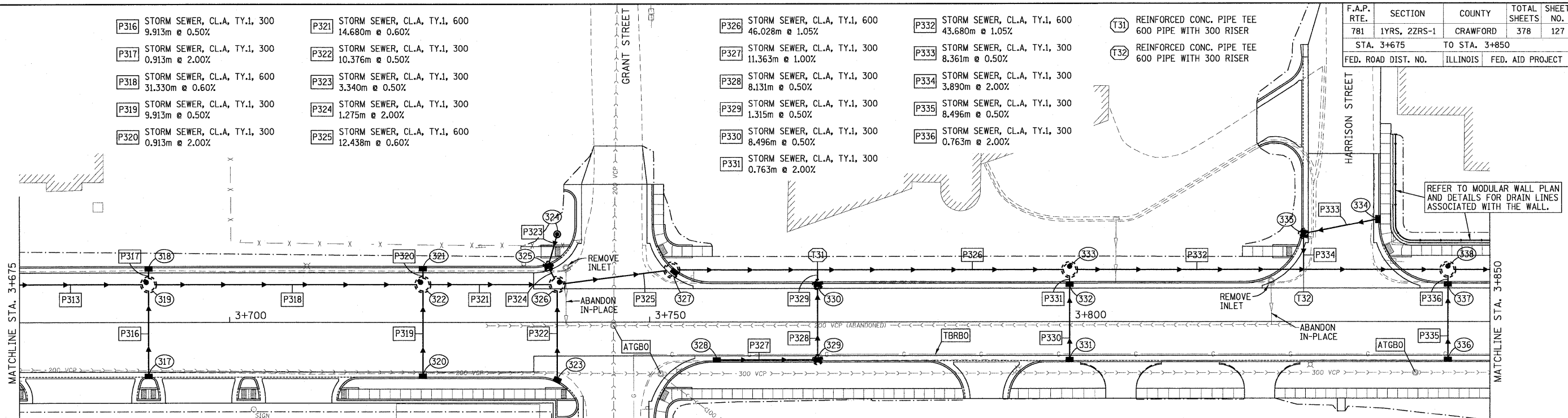


Sheet: 6  
Angle: 1.0772  
Chain: P\_1133

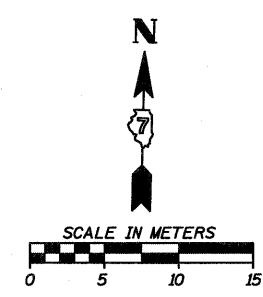
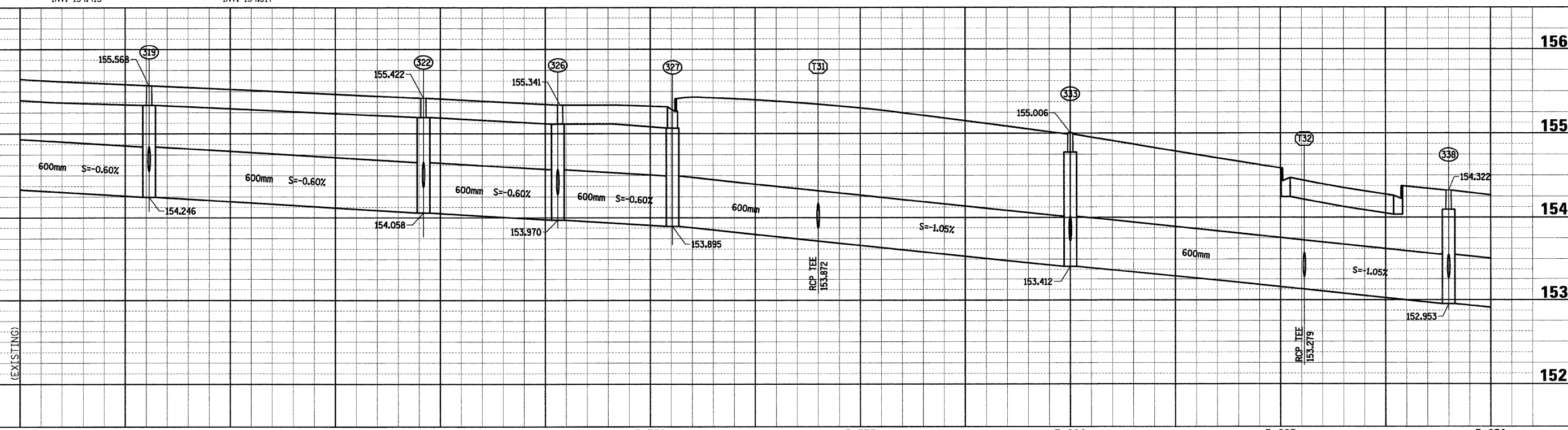
PLOT DATE = 3/28/2008  
FILE NAME = H:\1420\70126-nm\_06.dgn

HMG JOB NO. 4460

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	127
STA. 3+675		TO STA. 3+850		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



- P316** STORM SEWER, CL.A, TY.1, 300 9.913m @ 0.50%
- P317** STORM SEWER, CL.A, TY.1, 300 0.913m @ 2.00%
- P318** STORM SEWER, CL.A, TY.1, 600 31.330m @ 0.60%
- P319** STORM SEWER, CL.A, TY.1, 300 9.913m @ 0.50%
- P320** STORM SEWER, CL.A, TY.1, 300 0.913m @ 2.00%
- P321** STORM SEWER, CL.A, TY.1, 600 14.680m @ 0.60%
- P322** STORM SEWER, CL.A, TY.1, 300 10.376m @ 0.50%
- P323** STORM SEWER, CL.A, TY.1, 300 3.340m @ 0.50%
- P324** STORM SEWER, CL.A, TY.1, 300 1.275m @ 2.00%
- P325** STORM SEWER, CL.A, TY.1, 600 12.438m @ 0.60%
- P326** STORM SEWER, CL.A, TY.1, 600 46.028m @ 1.05%
- P327** STORM SEWER, CL.A, TY.1, 300 11.363m @ 1.00%
- P328** STORM SEWER, CL.A, TY.1, 300 8.131m @ 0.50%
- P329** STORM SEWER, CL.A, TY.1, 300 1.315m @ 0.50%
- P330** STORM SEWER, CL.A, TY.1, 300 8.496m @ 0.50%
- P331** STORM SEWER, CL.A, TY.1, 300 0.763m @ 2.00%
- P332** STORM SEWER, CL.A, TY.1, 600 43.680m @ 1.05%
- P333** STORM SEWER, CL.A, TY.1, 300 8.361m @ 0.50%
- P334** STORM SEWER, CL.A, TY.1, 300 3.890m @ 2.00%
- P335** STORM SEWER, CL.A, TY.1, 300 8.496m @ 0.50%
- P336** STORM SEWER, CL.A, TY.1, 300 0.763m @ 2.00%
- (T31)** REINFORCED CONC. PIPE TEE 600 PIPE WITH 300 RISER
- (T32)** REINFORCED CONC. PIPE TEE 600 PIPE WITH 300 RISER



Sheet: 7  
 Angle: 1.3348  
 Chain: P\_IL33

PLT DATE = 3/20/2009  
 FILE NAME = H:\4428\78127\_ss\_07.dgn

HMG JOB NO. 4420

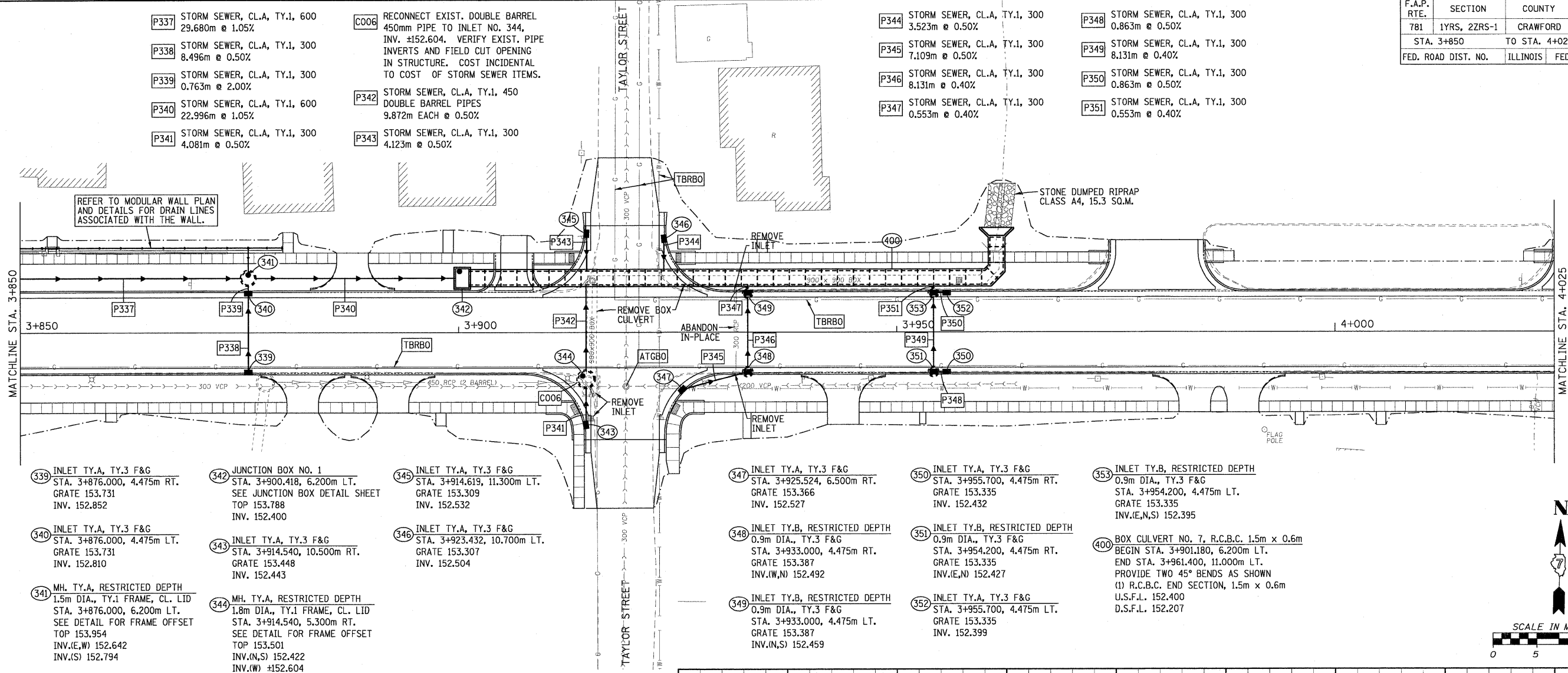
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	128
STA. 3+850		TO STA. 4+025		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

- P337 STORM SEWER, CL.A, TY.1, 600 29.680m @ 1.05%
- P338 STORM SEWER, CL.A, TY.1, 300 8.496m @ 0.50%
- P339 STORM SEWER, CL.A, TY.1, 300 0.763m @ 2.00%
- P340 STORM SEWER, CL.A, TY.1, 600 22.996m @ 1.05%
- P341 STORM SEWER, CL.A, TY.1, 300 4.081m @ 0.50%

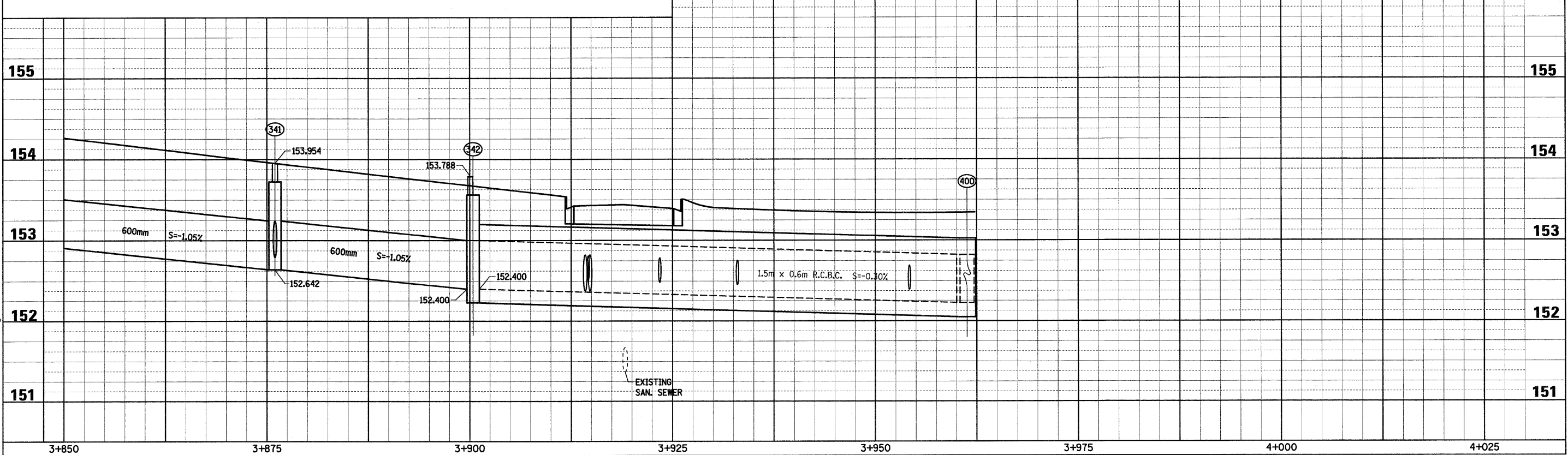
- C006 RECONNECT EXIST. DOUBLE BARREL 450mm PIPE TO INLET NO. 344, INV. ±152.604. VERIFY EXIST. PIPE INVERTS AND FIELD CUT OPENING IN STRUCTURE. COST INCIDENTAL TO COST OF STORM SEWER ITEMS.
- P342 STORM SEWER, CL.A, TY.1, 450 DOUBLE BARREL PIPES 9.872m EACH @ 0.50%
- P343 STORM SEWER, CL.A, TY.1, 300 4.123m @ 0.50%

- P344 STORM SEWER, CL.A, TY.1, 300 3.523m @ 0.50%
- P345 STORM SEWER, CL.A, TY.1, 300 7.109m @ 0.50%
- P346 STORM SEWER, CL.A, TY.1, 300 8.131m @ 0.40%
- P347 STORM SEWER, CL.A, TY.1, 300 0.553m @ 0.40%

- P348 STORM SEWER, CL.A, TY.1, 300 0.863m @ 0.50%
- P349 STORM SEWER, CL.A, TY.1, 300 8.131m @ 0.40%
- P350 STORM SEWER, CL.A, TY.1, 300 0.863m @ 0.50%
- P351 STORM SEWER, CL.A, TY.1, 300 0.553m @ 0.40%



- 339 INLET TY.A, TY.3 F&G STA. 3+876.000, 4.475m RT. GRATE 153.731 INV. 152.852
- 340 INLET TY.A, TY.3 F&G STA. 3+876.000, 4.475m LT. GRATE 153.731 INV. 152.810
- 341 MH, TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 3+876.000, 6.200m LT. SEE DETAIL FOR FRAME OFFSET TOP 153.954 INV.(E,W) 152.642 INV.(S) 152.794
- 342 JUNCTION BOX NO. 1 STA. 3+900.418, 6.200m LT. SEE JUNCTION BOX DETAIL SHEET TOP 153.788 INV. 152.400
- 343 INLET TY.A, TY.3 F&G STA. 3+914.540, 10.500m RT. GRATE 153.448 INV. 152.443
- 344 MH, TY.A, RESTRICTED DEPTH 1.8m DIA., TY.1 FRAME, CL. LID STA. 3+914.540, 5.300m RT. SEE DETAIL FOR FRAME OFFSET TOP 153.501 INV.(N,S) 152.422 INV.(W) ±152.604
- 345 INLET TY.A, TY.3 F&G STA. 3+914.619, 11.300m LT. GRATE 153.309 INV. 152.532
- 346 INLET TY.A, TY.3 F&G STA. 3+923.432, 10.700m LT. GRATE 153.307 INV. 152.504
- 347 INLET TY.A, TY.3 F&G STA. 3+925.524, 6.500m RT. GRATE 153.366 INV. 152.527
- 348 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+933.000, 4.475m RT. GRATE 153.387 INV.(W,N) 152.492
- 349 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+933.000, 4.475m LT. GRATE 153.387 INV.(N,S) 152.459
- 350 INLET TY.A, TY.3 F&G STA. 3+955.700, 4.475m RT. GRATE 153.335 INV. 152.432
- 351 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+954.200, 4.475m RT. GRATE 153.335 INV.(E,N) 152.427
- 352 INLET TY.A, TY.3 F&G STA. 3+955.700, 4.475m LT. GRATE 153.335 INV. 152.399
- 353 INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 3+954.200, 4.475m LT. GRATE 153.335 INV.(E,N,S) 152.395
- 400 BOX CULVERT NO. 7, R.C.B.C. 1.5m x 0.6m BEGIN STA. 3+901.180, 6.200m LT. END STA. 3+961.400, 11.000m LT. PROVIDE TWO 45° BENDS AS SHOWN (1) R.C.B.C. END SECTION, 1.5m x 0.6m U.S.F.L. 152.400 D.S.F.L. 152.207



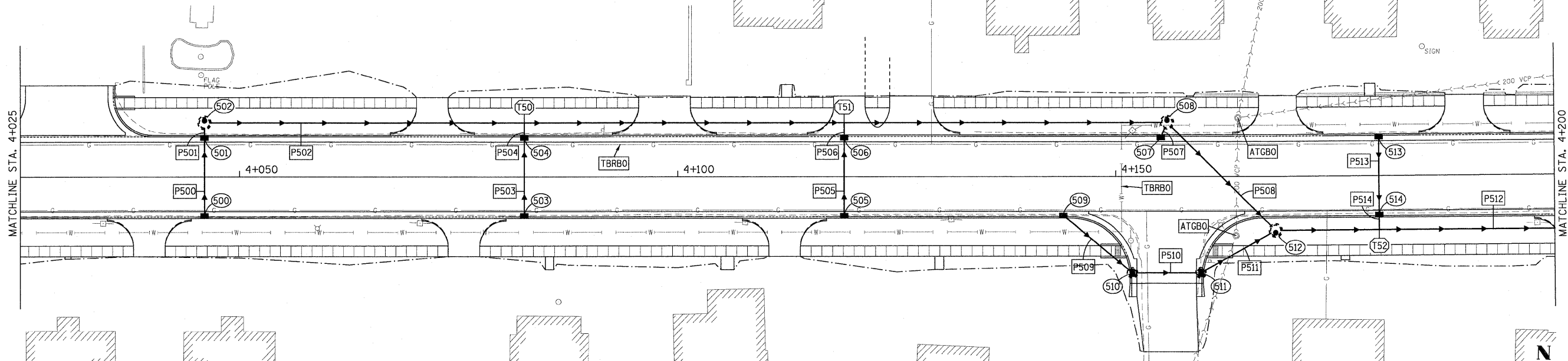
PLOT DATE = 3/20/2009  
FILE NAME = H:\4420\70128.dwg

Sheet: 8  
Angle: 1.3344  
Chain: P\_IL33

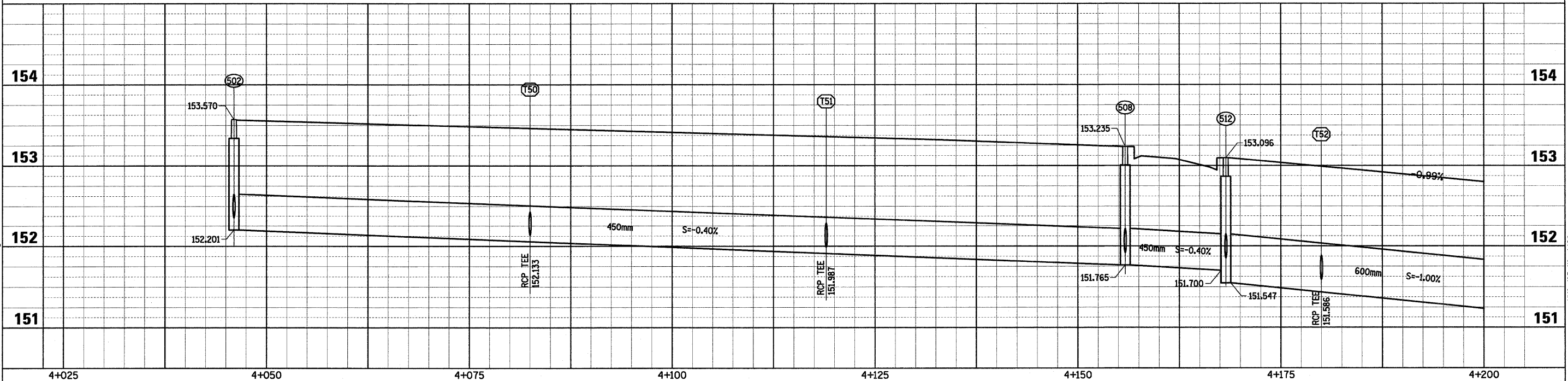
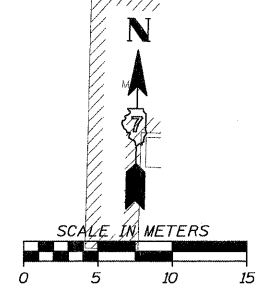
HMG JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	129
STA. 4+025		TO STA. 4+200		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

- |  |   |   |   |
|--|---|---|---|
| <b>P500</b> STORM SEWER, CL.A, TY.1, 300<br>8.496m @ 0.50%   | <b>P505</b> STORM SEWER, CL.A, TY.1, 300<br>8.496m @ 0.50%  | <b>P510</b> STORM SEWER, CL.A, TY.1, 300<br>6.981m @ 0.50%  | <b>T50</b> REINFORCED CONC. PIPE TEE<br>450 PIPE WITH 300 RISER |
| <b>P501</b> STORM SEWER, CL.A, TY.1, 300<br>0.923m @ 0.50%   | <b>P506</b> STORM SEWER, CL.A, TY.1, 300<br>1.498m @ 2.00%  | <b>P511</b> STORM SEWER, CL.A, TY.1, 300<br>8.806m @ 0.50%  | <b>T51</b> REINFORCED CONC. PIPE TEE<br>450 PIPE WITH 300 RISER |
| <b>P502</b> STORM SEWER, CL.A, TY.1, 450<br>108.763m @ 0.40% | <b>P507</b> STORM SEWER, CL.A, TY.1, 300<br>1.065m @ 1.00%  | <b>P512</b> STORM SEWER, CL.A, TY.1, 600<br>60.815m @ 1.00% | <b>T52</b> REINFORCED CONC. PIPE TEE<br>600 PIPE WITH 300 RISER |
| <b>P503</b> STORM SEWER, CL.A, TY.1, 300<br>8.496m @ 0.50%   | <b>P508</b> STORM SEWER, CL.A, TY.1, 450<br>16.466m @ 0.40% | <b>P513</b> STORM SEWER, CL.A, TY.1, 300<br>8.496m @ 0.50%  |   |
| <b>P504</b> STORM SEWER, CL.A, TY.1, 300<br>1.498m @ 2.00%   | <b>P509</b> STORM SEWER, CL.A, TY.1, 300<br>9.610m @ 0.50%  | <b>P514</b> STORM SEWER, CL.A, TY.1, 300<br>1.498m @ 2.00%  |   |



- |   |  |   |  |  |
|---|--|---|--|--|
| <b>500</b> INLET TY.A, TY.3 F&G<br>STA. 4+046.000, 4.475m RT.<br>GRATE 153.386<br>INV. 152.400  | <b>503</b> INLET TY.A, TY.3 F&G<br>STA. 4+082.500, 4.475m RT.<br>GRATE 153.284<br>INV. 152.206 | <b>506</b> INLET TY.A, TY.3 F&G<br>STA. 4+119.000, 4.475m LT.<br>GRATE 153.182<br>INV. 152.017  | <b>509</b> INLET TY.A, TY.3 F&G<br>STA. 4+144.000, 4.475m RT.<br>GRATE 153.094<br>INV. 151.979                                       | <b>512</b> MH. TY.A, RESTRICTED DEPTH<br>1.2m DIA., TY.1 FRAME, CL. LID<br>STA. 4+168.233, 6.200m RT.<br>SEE DETAIL FOR FRAME OFFSET<br>TOP 153.096<br>INV.(NW) 151.700<br>INV.(E) 151.547<br>INV.(SW) 151.852 |
| <b>501</b> INLET TY.A, TY.3 F&G<br>STA. 4+046.000, 4.475m LT.<br>GRATE 153.386<br>INV. 152.358  | <b>504</b> INLET TY.A, TY.3 F&G<br>STA. 4+082.500, 4.475m LT.<br>GRATE 153.284<br>INV. 152.163 | <b>507</b> INLET TY.A, TY.3 F&G<br>STA. 4+155.118, 4.475m LT.<br>GRATE 153.024<br>INV. 151.928  | <b>510</b> INLET TY.B, RESTRICTED DEPTH<br>0.9m DIA., TY.3 F&G<br>STA. 4+151.900, 11.000m RT.<br>GRATE 152.887<br>INV.(NW,E) 151.931 | <b>513</b> INLET TY.A, TY.3 F&G<br>STA. 4+180.000, 4.475m LT.<br>GRATE 152.795<br>INV. 151.658   |
| <b>502</b> MH. TY.A, RESTRICTED DEPTH<br>1.2m DIA., TY.1 FRAME, CL. LID<br>STA. 4+046.000, 6.200m LT.<br>SEE DETAIL FOR FRAME OFFSET<br>TOP 153.570<br>INV.(E) 152.201<br>INV.(S) 152.353 | <b>505</b> INLET TY.A, TY.3 F&G<br>STA. 4+119.000, 4.475m RT.<br>GRATE 153.182<br>INV. 152.060 | <b>508</b> MH. TY.A, RESTRICTED DEPTH<br>1.2m DIA., TY.1 FRAME, CL. LID<br>STA. 4+155.833, 6.200m LT.<br>SEE DETAIL FOR FRAME OFFSET<br>TOP 153.235<br>INV.(W,SE) 151.765<br>INV.(SW) 151.917 | <b>511</b> INLET TY.B, RESTRICTED DEPTH<br>0.9m DIA., TY.3 F&G<br>STA. 4+159.700, 11.000m RT.<br>GRATE 152.885<br>INV.(W,NE) 151.896 | <b>514</b> INLET TY.A, TY.3 F&G<br>STA. 4+180.000, 4.475m RT.<br>GRATE 152.795<br>INV. 151.616   |



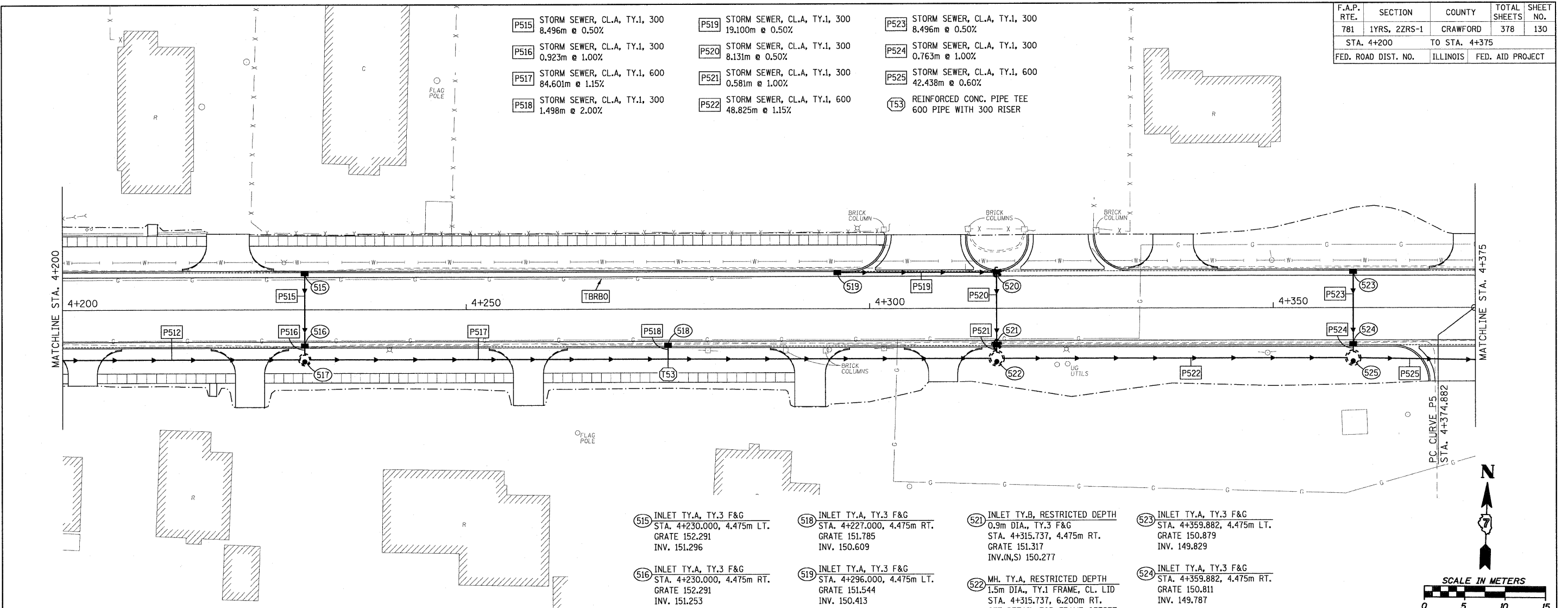
Sheet: 9  
Angle: 1.3348  
Chain: P\_IL33

PLOT DATE = 3/29/2008  
FILE NAME = H:\1420\70121.dwg

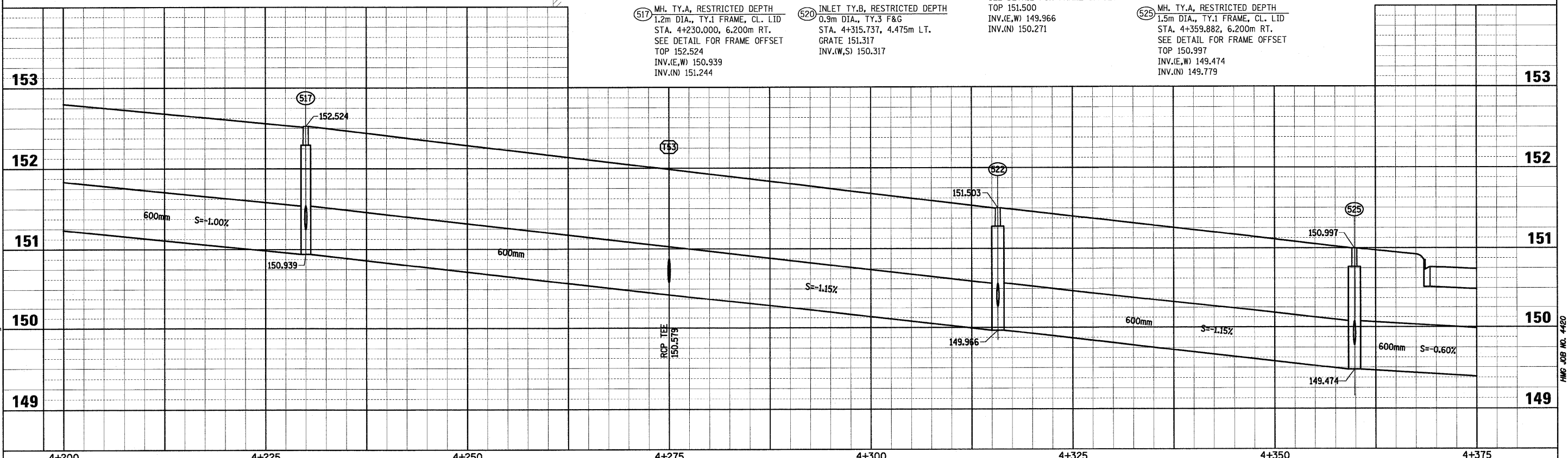
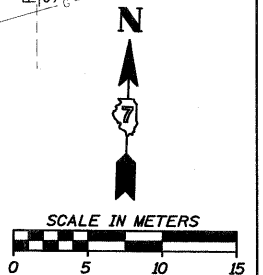
HMG JOB NO. 4480

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	130
STA. 4+200		TO STA. 4+375		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

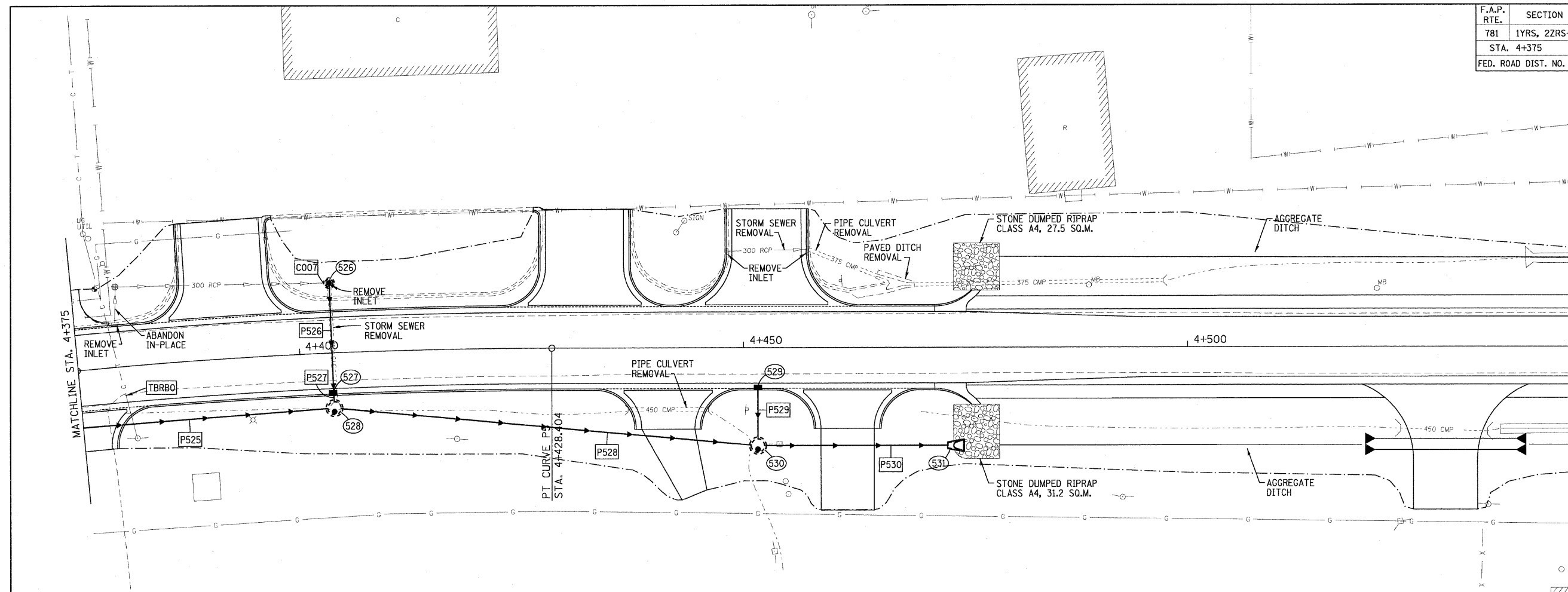
- P515 STORM SEWER, CL.A, TY.1, 300 8.496m @ 0.50%
- P516 STORM SEWER, CL.A, TY.1, 300 0.923m @ 1.00%
- P517 STORM SEWER, CL.A, TY.1, 600 84.601m @ 1.15%
- P518 STORM SEWER, CL.A, TY.1, 300 1.498m @ 2.00%
- P519 STORM SEWER, CL.A, TY.1, 300 19.100m @ 0.50%
- P520 STORM SEWER, CL.A, TY.1, 300 8.131m @ 0.50%
- P521 STORM SEWER, CL.A, TY.1, 300 0.581m @ 1.00%
- P522 STORM SEWER, CL.A, TY.1, 600 48.825m @ 1.15%
- P523 STORM SEWER, CL.A, TY.1, 300 8.496m @ 0.50%
- P524 STORM SEWER, CL.A, TY.1, 300 0.763m @ 1.00%
- P525 STORM SEWER, CL.A, TY.1, 600 42.438m @ 0.60%
- (T53) REINFORCED CONC. PIPE TEE 600 PIPE WITH 300 RISER



- (515) INLET TY.A, TY.3 F&G STA. 4+230.000, 4.475m LT. GRATE 152.291 INV. 151.296
- (516) INLET TY.A, TY.3 F&G STA. 4+230.000, 4.475m RT. GRATE 152.291 INV. 151.253
- (517) MH. TY.A, RESTRICTED DEPTH 1.2m DIA., TY.1 FRAME, CL. LID STA. 4+230.000, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 152.524 INV.(E,W) 150.939 INV.(N) 151.244
- (518) INLET TY.A, TY.3 F&G STA. 4+227.000, 4.475m RT. GRATE 151.785 INV. 150.609
- (519) INLET TY.A, TY.3 F&G STA. 4+296.000, 4.475m LT. GRATE 151.544 INV. 150.413
- (520) INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 4+315.737, 4.475m LT. GRATE 151.317 INV.(W,S) 150.317
- (521) INLET TY.B, RESTRICTED DEPTH 0.9m DIA., TY.3 F&G STA. 4+315.737, 4.475m RT. GRATE 151.317 INV.(N,S) 150.277
- (522) MH. TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 4+315.737, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 151.500 INV.(E,W) 149.966 INV.(N) 150.271
- (523) INLET TY.A, TY.3 F&G STA. 4+359.882, 4.475m LT. GRATE 150.879 INV. 149.829
- (524) INLET TY.A, TY.3 F&G STA. 4+359.882, 4.475m RT. GRATE 150.811 INV. 149.787
- (525) MH. TY.A, RESTRICTED DEPTH 1.5m DIA., TY.1 FRAME, CL. LID STA. 4+359.882, 6.200m RT. SEE DETAIL FOR FRAME OFFSET TOP 150.997 INV.(E,W) 149.474 INV.(N) 149.779

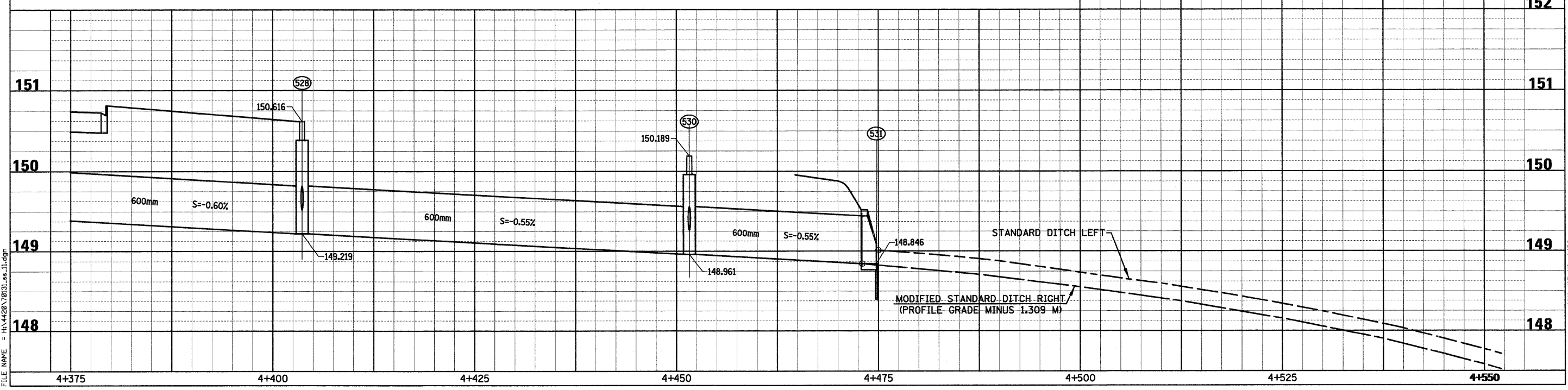
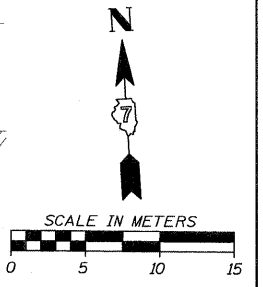


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	131
STA. 4+375		TO STA. 4+550		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



- 526 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.8 GRATE  
STA. 4+403.640, 7.860m LT.  
GRATE 150.650  
INV.(W) 149.619  
INV.(S) 149.588
- 527 INLET TY.B, RESTRICTED DEPTH  
0.9m DIA., TY.3 F&G  
STA. 4+403.640, 4.475m RT.  
GRATE 150.430  
INV.(N,S) 149.530
- 528 MH. TY.A, RESTRICTED DEPTH  
1.5m DIA., TY.1 FRAME, CL. LID  
STA. 4+403.640, 6.200m RT.  
SEE DETAIL FOR FRAME OFFSET  
TOP 150.616  
INV.(E,W) 149.219  
INV.(N) 149.524
- 529 INLET TY.A, TY.3 F&G  
STA. 4+451.600, 4.475m RT.  
GRATE 150.172  
INV. 149.294
- 530 MH. TY.A, RESTRICTED DEPTH  
1.5m DIA., TY.1 FRAME, CL. LID  
STA. 4+451.600, 11.000m RT.  
SEE DETAIL FOR FRAME OFFSET  
TOP 150.189  
INV.(E,W) 148.961  
INV.(N) 149.266
- 531 P.R.C. FLARED END SECTION, 600  
STA. 4+474.750, 11.000m RT.  
INV. 148.846

- C007 RECONNECT EXIST. 300mm PIPE  
TO INLET NO. 526, INV. ±149.619.  
VERIFY EXIST. PIPE INVERT AND  
FIELD CUT OPENING IN STRUCTURE.  
COST INCIDENTAL TO COST OF  
STORM SEWER ITEMS.
- P526 STORM SEWER, CL.A, TY.1, 300  
11.516m @ 0.50%
- P527 STORM SEWER, CL.A, TY.1, 300  
0.581m @ 1.00%
- P528 STORM SEWER, CL.A, TY.1, 600  
46.880m @ 0.55%
- P529 STORM SEWER, CL.A, TY.1, 300  
5.563m @ 0.50%
- P530 STORM SEWER, CL.A, TY.1, 600  
20.761m @ 0.55%



Sheet: 11  
Angle: 359.6778  
Chain: P\_IL33

PLOT DATE = 3/20/2008  
FILE NAME = P:\1420\70131.esi.dgn

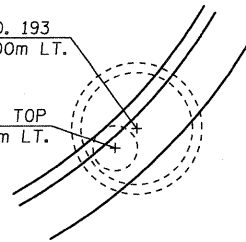
HMG JOB NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	132
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



CNTR. STRUCTURE NO. 193  
STA. 2+761.874, 6.500m LT.

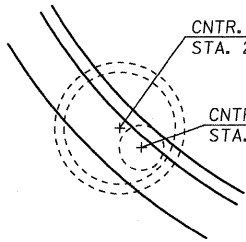
CNTR. OPENING IN F.S. TOP  
STA. 2+761.584, 6.236m LT.



STRUCTURE NO. 193

CNTR. STRUCTURE NO. 192  
STA. 2+773.124, 6.500m LT.

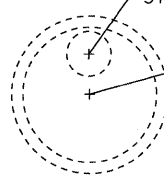
CNTR. OPENING IN F.S. TOP  
STA. 2+773.417, 6.236m LT.



STRUCTURE NO. 192

CNTR. OPENING IN F.S. TOP  
STA. 2+803.000, 5.655m RT.

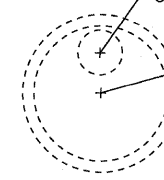
CNTR. STRUCTURE NO. 183  
STA. 2+803.000, 6.200m RT.



STRUCTURE NO. 183

CNTR. OPENING IN F.S. TOP  
STA. 2+863.000, 5.655m RT.

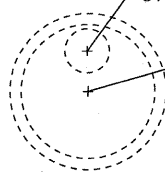
CNTR. STRUCTURE NO. 179  
STA. 2+863.000, 6.200m RT.



STRUCTURE NO. 179

CNTR. OPENING IN F.S. TOP  
STA. 2+970.205, 5.655m RT.

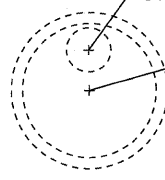
CNTR. STRUCTURE NO. 169  
STA. 2+970.205, 6.200m RT.



STRUCTURE NO. 169

CNTR. OPENING IN F.S. TOP  
STA. 3+062.000, 5.655m RT.

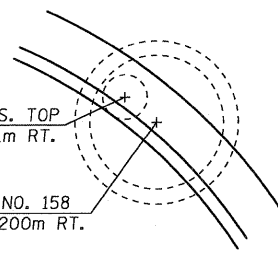
CNTR. STRUCTURE NO. 162  
STA. 3+062.000, 6.200m RT.



STRUCTURE NO. 162

CNTR. OPENING IN F.S. TOP  
STA. 3+115.323, 5.861m RT.

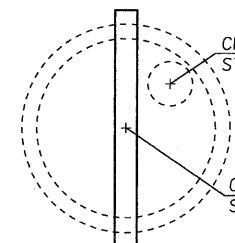
CNTR. STRUCTURE NO. 158  
STA. 3+115.748, 6.200m RT.



STRUCTURE NO. 158

CNTR. OPENING IN F.S. TOP  
STA. 3+120.857, 5.603m RT.

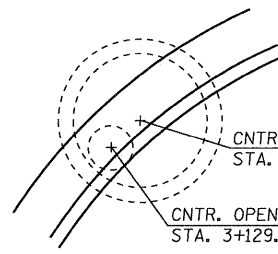
CNTR. STRUCTURE NO. 154  
STA. 3+120.261, 6.200m RT.



STRUCTURE NO. 154

CNTR. STRUCTURE NO. 153  
STA. 3+129.452, 6.200m RT.

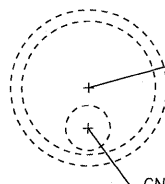
CNTR. OPENING IN F.S. TOP  
STA. 3+129.054, 6.570m RT.



STRUCTURE NO. 153

CNTR. STRUCTURE NO. 150  
STA. 3+173.000, 6.200m RT.

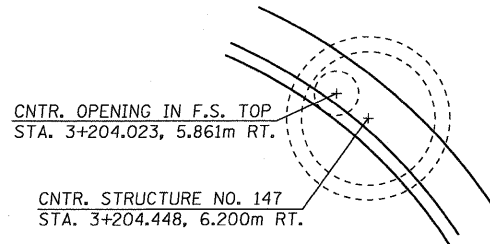
CNTR. OPENING IN F.S. TOP  
STA. 3+173.000, 6.744m RT.



STRUCTURE NO. 150

CNTR. OPENING IN F.S. TOP  
STA. 3+204.023, 5.861m RT.

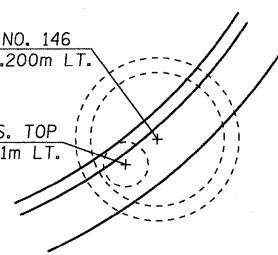
CNTR. STRUCTURE NO. 147  
STA. 3+204.448, 6.200m RT.



STRUCTURE NO. 147

CNTR. STRUCTURE NO. 146  
STA. 3+204.448, 6.200m RT.

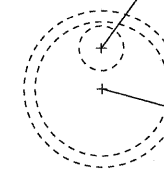
CNTR. OPENING IN F.S. TOP  
STA. 3+204.023, 5.861m RT.



STRUCTURE NO. 146

CNTR. OPENING IN F.S. TOP  
STA. 3+230.000, 6.744m LT.

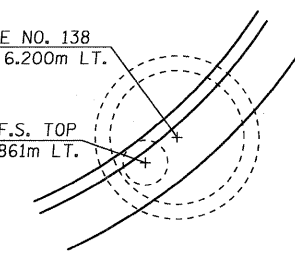
CNTR. STRUCTURE NO. 144  
STA. 3+230.000, 6.200m LT.



STRUCTURE NO. 144

CNTR. STRUCTURE NO. 138  
STA. 3+291.348, 6.200m LT.

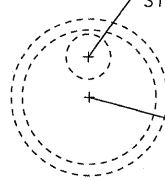
CNTR. OPENING IN F.S. TOP  
STA. 3+290.323, 5.861m LT.



STRUCTURE NO. 138

CNTR. OPENING IN F.S. TOP  
STA. 3+326.000, 6.744m RT.

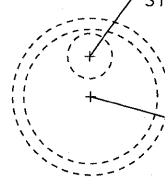
CNTR. STRUCTURE NO. 131  
STA. 3+326.000, 6.200m RT.



STRUCTURE NO. 131

CNTR. OPENING IN F.S. TOP  
STA. 3+373.000, 6.744m RT.

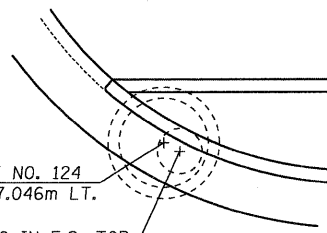
CNTR. STRUCTURE NO. 126  
STA. 3+373.000, 6.200m RT.



STRUCTURE NO. 126

CNTR. STRUCTURE NO. 124  
STA. 3+392.139, 7.046m LT.

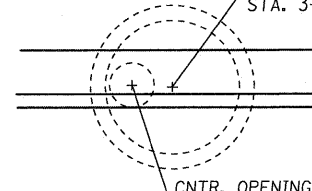
CNTR. OPENING IN F.S. TOP  
STA. 3+392.354, 6.931m LT.



STRUCTURE NO. 124

CNTR. STRUCTURE NO. 123  
STA. 3+373.000, 4.500m RT.

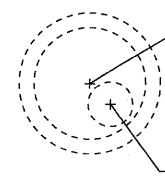
CNTR. OPENING IN F.S. TOP  
STA. 3+372.457, 4.475m RT.



STRUCTURE NO. 123

CNTR. STRUCTURE NO. 119  
STA. 3+423.650, 4.500m RT.

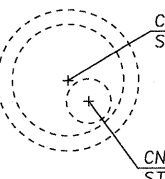
CNTR. OPENING IN F.S. TOP  
STA. 3+423.929, 4.779m RT.



STRUCTURE NO. 119

CNTR. STRUCTURE NO. 114  
STA. 3+468.025, 4.500m RT.

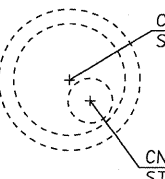
CNTR. OPENING IN F.S. TOP  
STA. 3+468.304, 4.779m RT.



STRUCTURE NO. 114

CNTR. STRUCTURE NO. 109  
STA. 3+513.000, 4.500m RT.

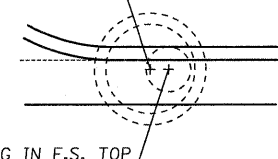
CNTR. OPENING IN F.S. TOP  
STA. 3+513.279, 4.779m RT.



STRUCTURE NO. 109

CNTR. STRUCTURE NO. 108  
STA. 3+513.000, 6.375m LT.

CNTR. OPENING IN F.S. TOP  
STA. 3+513.244, 6.375m LT.



STRUCTURE NO. 108

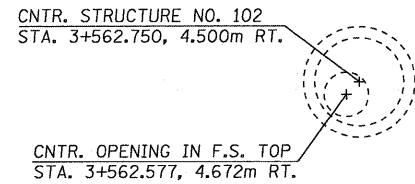
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		STORM SEWER DETAILS
SCALE	NO SCALE	DRAWN BY EDW
DATE	MARCH 20, 2008	CHECKED BY RGH

PLOT DATE = 3/26/2008  
FILE NAME = H:\1420\70132-draindet.dwg

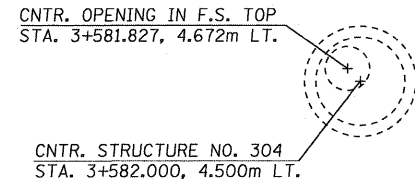
H. M. & G. NO. 4420



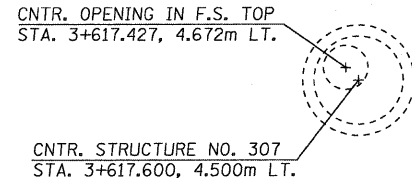
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	133
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



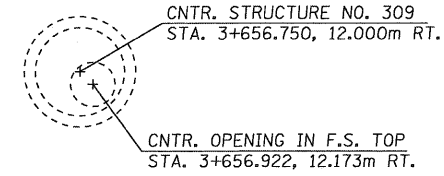
STRUCTURE NO. 102



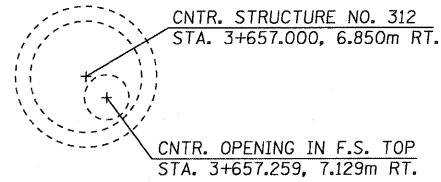
STRUCTURE NO. 304



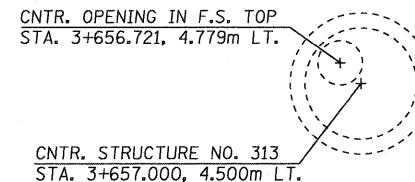
STRUCTURE NO. 307



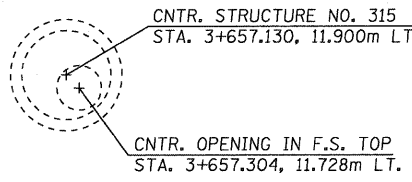
STRUCTURE NO. 309



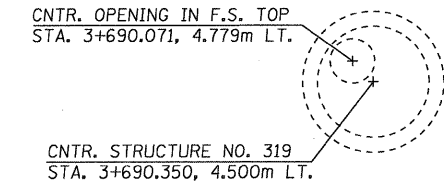
STRUCTURE NO. 312



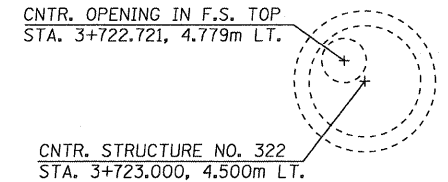
STRUCTURE NO. 313



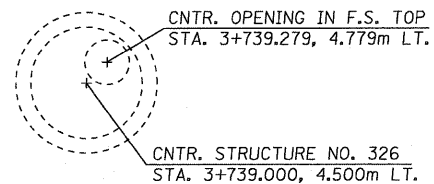
STRUCTURE NO. 315



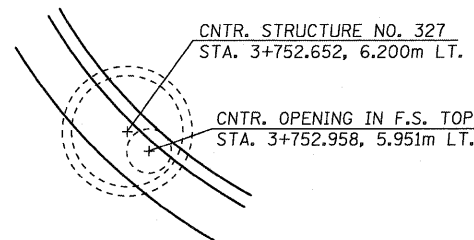
STRUCTURE NO. 319



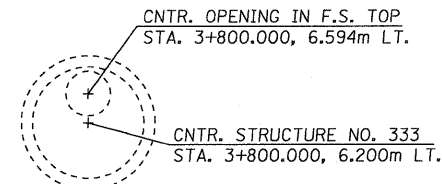
STRUCTURE NO. 322



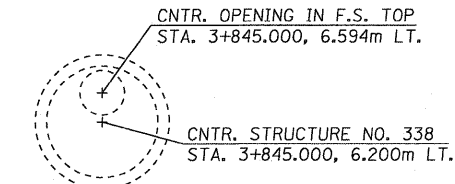
STRUCTURE NO. 326



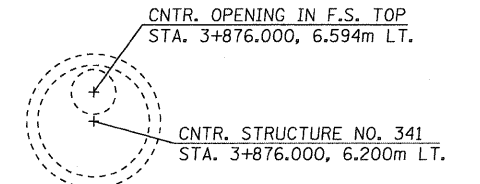
STRUCTURE NO. 327



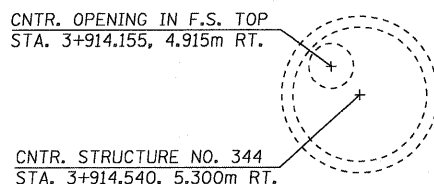
STRUCTURE NO. 333



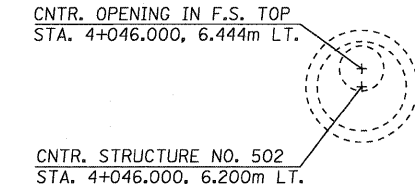
STRUCTURE NO. 338



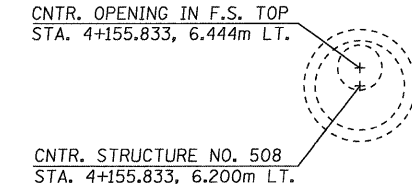
STRUCTURE NO. 341



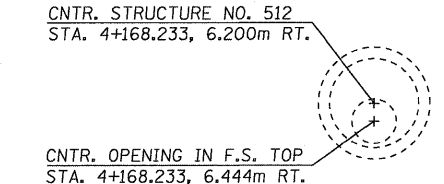
STRUCTURE NO. 344



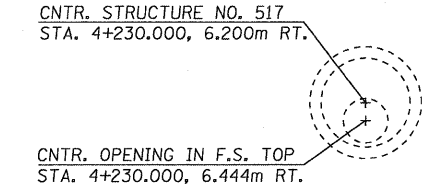
STRUCTURE NO. 502



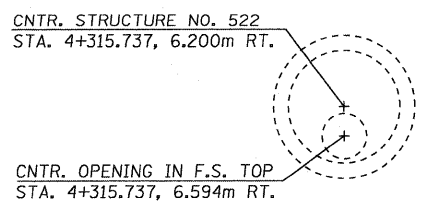
STRUCTURE NO. 508



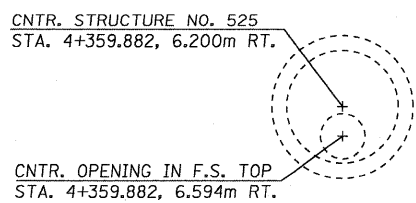
STRUCTURE NO. 512



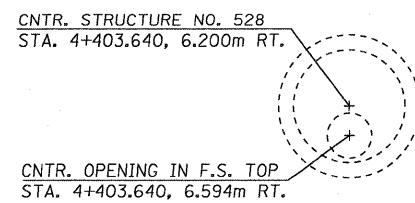
STRUCTURE NO. 517



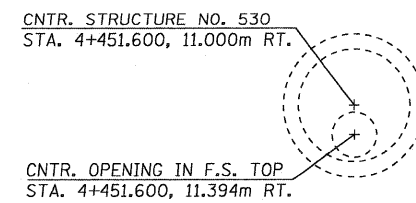
STRUCTURE NO. 522



STRUCTURE NO. 525



STRUCTURE NO. 528



STRUCTURE NO. 530

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**STORM SEWER DETAILS**

SCALE NO SCALE      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

PLOT DATE = 3/20/2008  
FILE NAME = H:\14420\70133\drainage\02.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	134
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

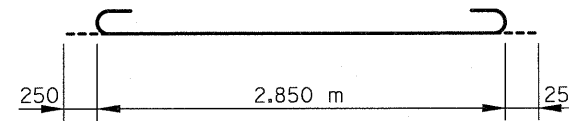
Notes:

- Junction Box walls shall be constructed of precast or cast-in-place concrete in accordance with Section 602 of the Standard Specifications and Special Provisions.
- Steps shall be required for all Junction Boxes. Steps shall be in accordance with Standard 602401 and Article 602.08 of the Standard Specifications.
- Reinforcement Bars shall conform to the requirements of AASHTO M-31 or M-322, Grade 400.
- All Reinforcement Bars for Junction Boxes shall be epoxy coated, AASHTO M-284.
- Bill of Materials are shown for informational purposes only. Quantities of "Concrete Structures" and "Reinforcement Bars, Epoxy Coated" shall be included in the cost of Providing Junction Boxes. See Special Provisions.
- All dimensions are in millimeters unless otherwise shown.

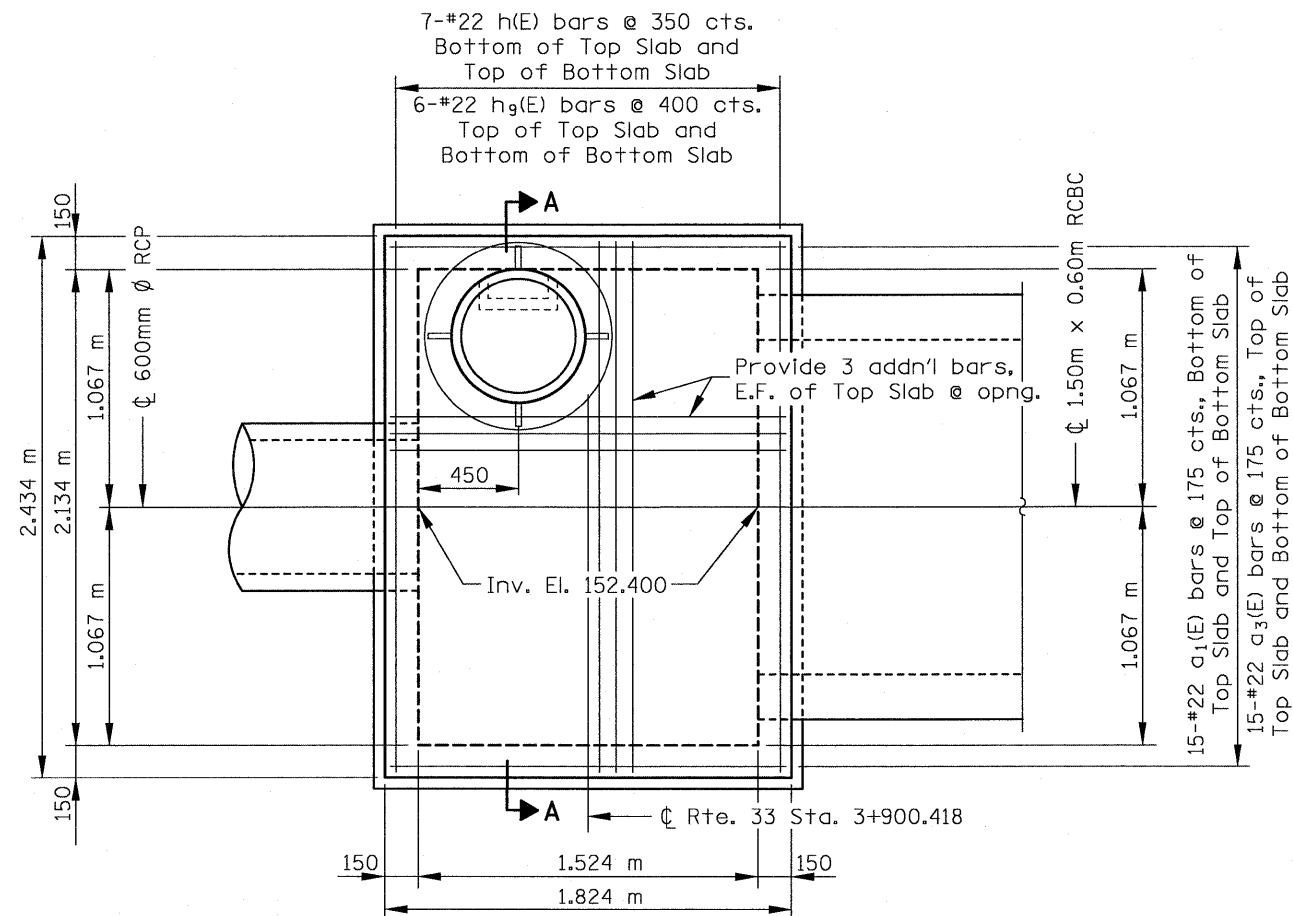
**BILL OF MATERIALS  
JUNCTION BOX NO. 1**

BAR	NO.	SIZE	LENGTH (m)	SHAPE
a <sub>1</sub> (E)	33	#22	3.350	U
a <sub>3</sub> (E)	33	#16	2.850	—
h(E)	17	#22	1.730	—
h <sub>9</sub> (E)	15	#22	1.730	—
Concrete Structures			CU M	2.1
Reinforcement Bars, Epoxy Coated			KG	910

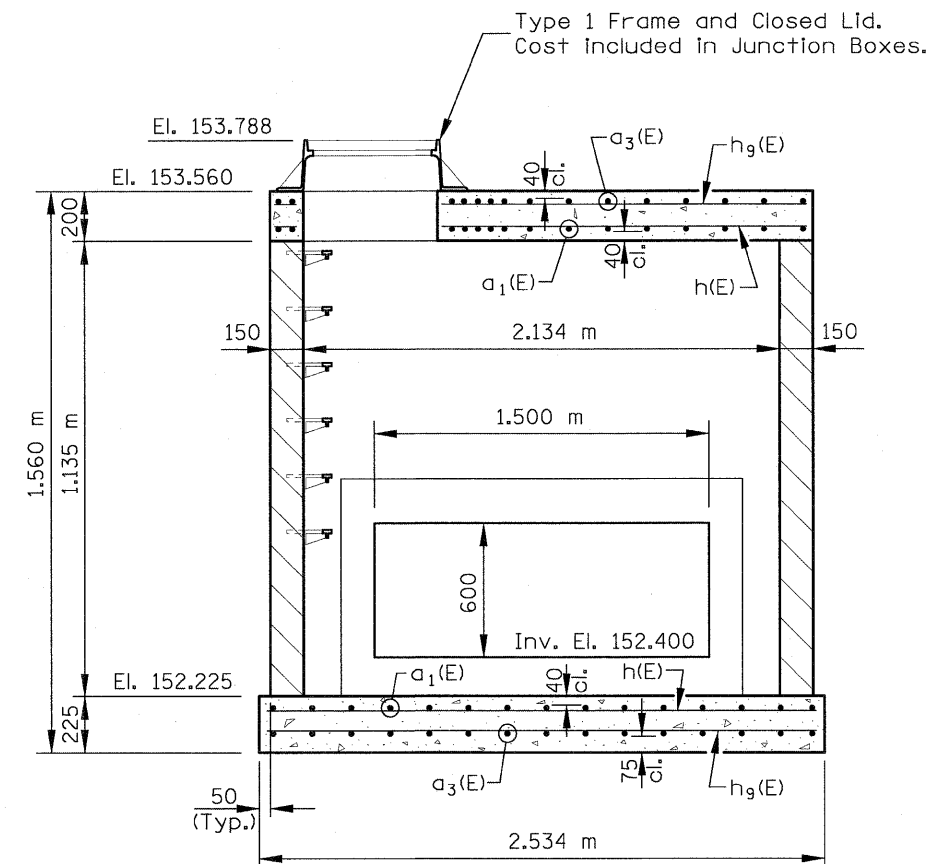
Cut a<sub>1</sub>(E), a<sub>3</sub>(E), h(E) and h<sub>9</sub>(E) bars in the field to miss the MH opening in the top slab.



**a<sub>1</sub>(E) BARS**



**PLAN - JUNCTION BOX NO. 1**



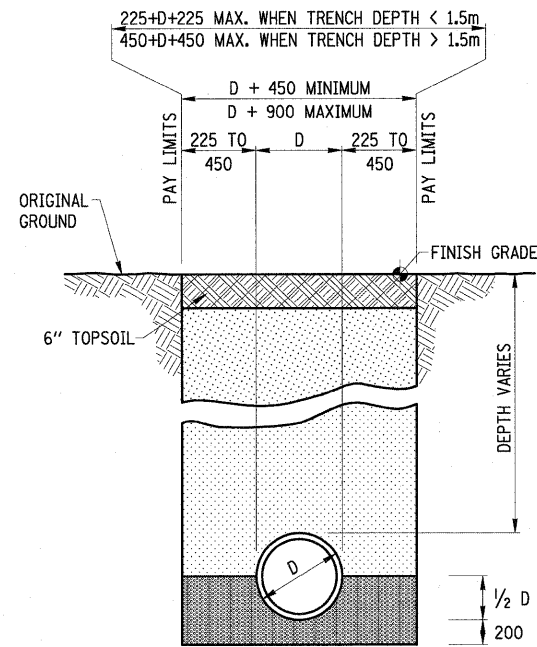
**SECTION A-A**

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p><b>STORM SEWER DETAILS JUNCTION BOX NO. 1</b></p> <p>SCALE NO SCALE      DRAWN BY KHL DATE MARCH 20, 2008      CHECKED BY GME</p>

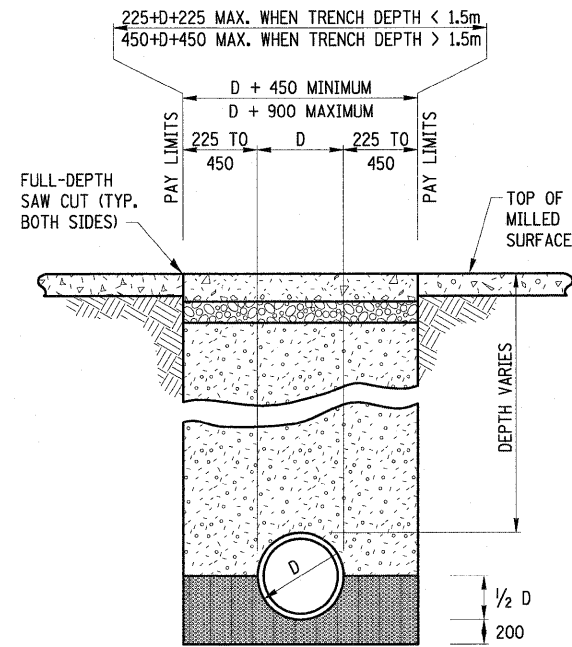
PLOT DATE = 3/20/2008  
FILE NAME = H:\1420\78134.dwg

H. M. & G. NO. 4420.3

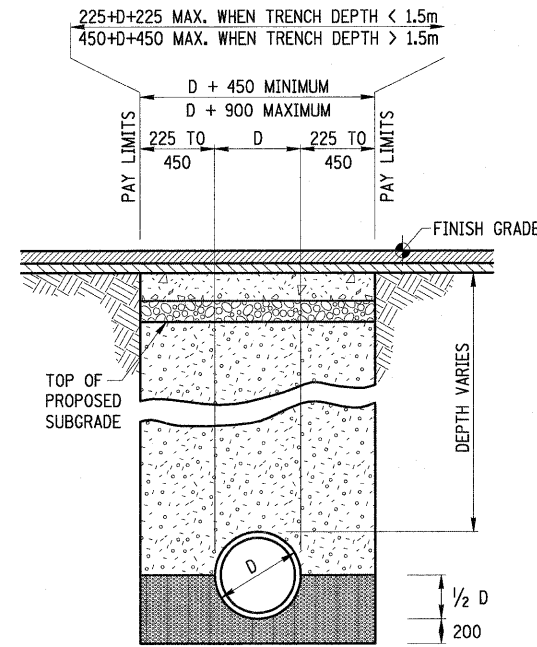
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	135
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**TRENCHING DETAIL UNDER UNPAVED AREAS**



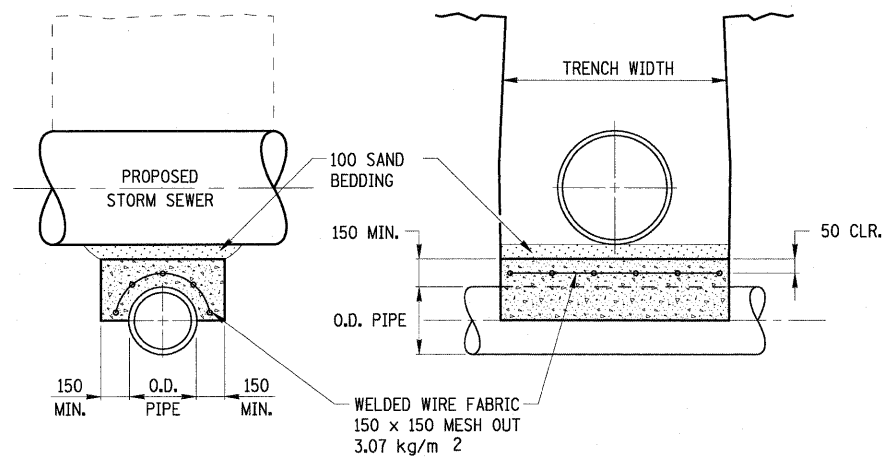
**TRENCHING DETAIL UNDER EXIST. PAVEMENT SURFACES**



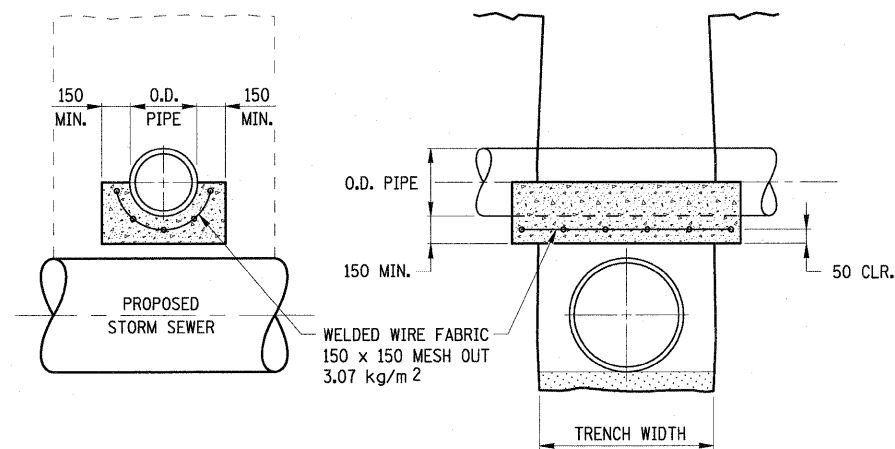
**TRENCHING DETAIL UNDER NEW FULL-DEPTH PAVEMENT AREAS**

**LEGEND**

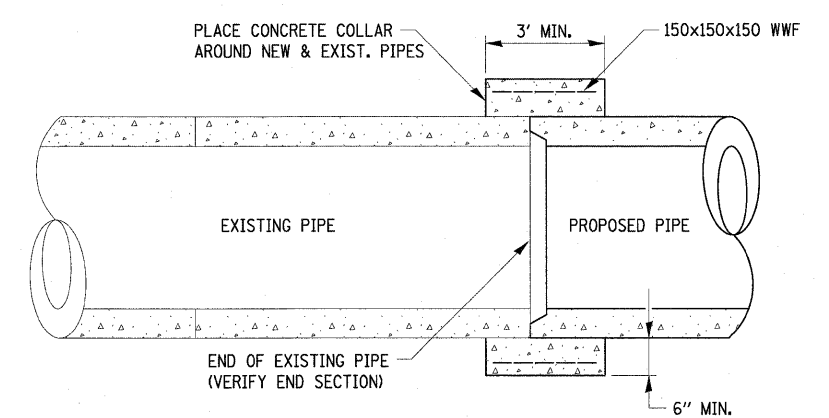
- FINAL BACKFILL**  
EXCAVATED MATERIAL IN OTHER LOCATIONS (INCLUDED IN COST OF PIPE)
- FINAL BACKFILL**  
TRENCH BACKFILL PER 550.07 AND 208.01 OF THE STANDARD SPECIFICATIONS (PAY ITEM)
- BEDDING/CRADLE**  
SELECT GRANULAR BACKFILL PER 550.04 AND 550.07 OF THE STANDARD SPECIFICATIONS (INCLUDED IN COST OF PIPE)



**DETAIL - CONCRETE COVER FOR EXISTING UTILITIES**



**DETAIL - CONCRETE CRADLE FOR EXISTING UTILITIES**



**CONCRETE COLLAR DETAIL**

**NOTES**

- CONCRETE CRADLES, COVERS AND COLLARS ARE TO BE PROVIDED AT LOCATIONS DESIGNATED BY THE ENGINEER WHERE THE PROPOSED STORM SEWER CROSSES EXISTING SANITARY SEWER, COMMUNICATION LINES, GAS LINES, AND/OR WATER LINES IN SUFFICIENT PROXIMITY THAT DEFLECTION OF THE EXISTING MAY OCCUR.
- THE COST OF THE CONCRETE CRADLES, COVERS AND COLLARS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER FOR CLASS SI CONCRETE (SPECIAL).
- THE WELDED WIRE FABRIC AND SAND BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY. THE COST FOR THESE ITEMS SHALL BE INCLUDED IN THE COST OF CLASS SI CONCRETE (SPECIAL).
- WOOD OR METAL FORMS WILL NOT BE REQUIRED.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	

**STORM SEWER DETAILS**

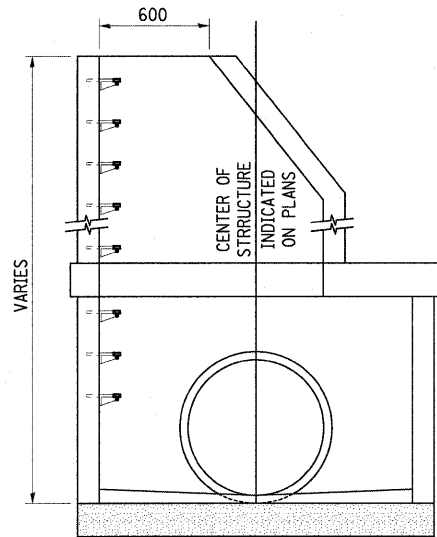
SCALE NO SCALE      DRAWN BY EDW  
DATE APRIL 18, 2008      CHECKED BY RGH

PLOT DATE = 4/18/2008  
FILE NAME = HY-42870135-drawings.dgn

H. M. & G. NO. 4420

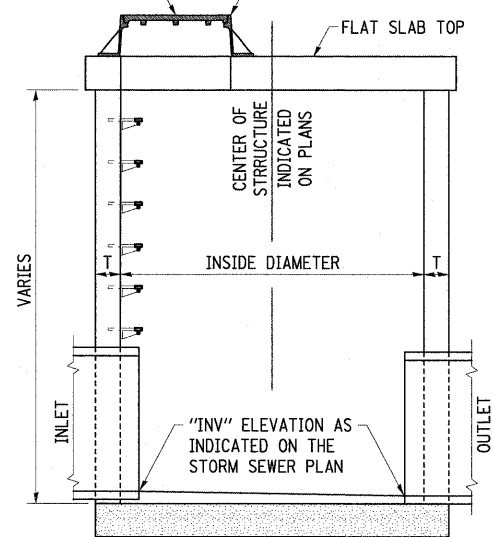
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	136
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

IF DEPTH PERMITS, CONTRACTOR HAS THE OPTION TO USE A CORBELED MANHOLE, TYPE A AS A "RESTRICTED DEPTH MANHOLE" AS SHOWN HERE



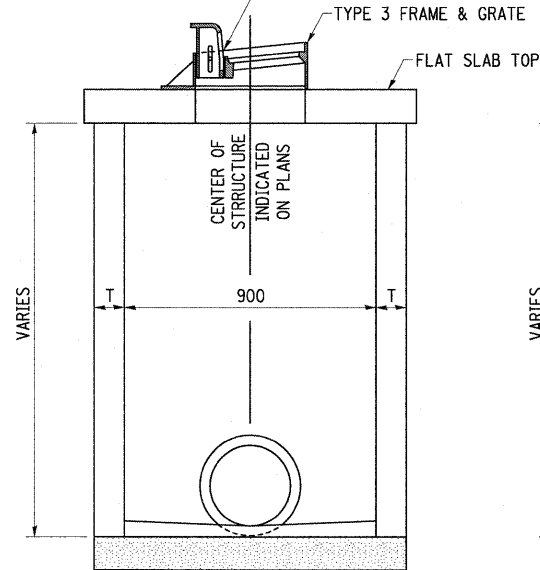
RESTRICTED DEPTH MANHOLE

"TOP" ELEVATION AS INDICATED ON THE STORM SEWER PLAN



TYPE B INLET

"GRATE" ELEVATION AS INDICATED ON THE STORM SEWER PLAN



TYPE A INLET

"TOP" ELEVATION AS INDICATED ON THE STORM SEWER PLAN

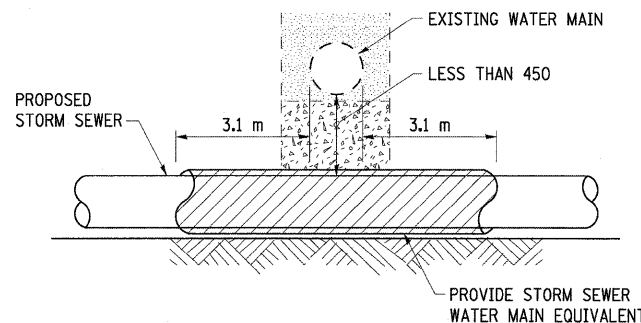
STORM SEWER CONSTRUCTION NOTES

- BEFORE ORDERING PIPE CULVERTS, PIPE DRAINS, MANHOLES, INLETS, STORM SEWERS OR OTHER DRAINAGE STRUCTURES, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER FOR EXACT LENGTHS, DIMENSIONS, INVERTS AND ALIGNMENTS AND SUBMIT REQUIRED SHOP DRAWINGS.
- CARE SHOULD BE EXERCISED IN CONSTRUCTION OF MANHOLE STRUCTURES TO BE LOCATED UNDER PERMANENT SURFACES DUE TO MINOR ELEVATION ADJUSTMENTS IN THE FIELD. THE CONTRACTOR IS ADVISED TO CAST STRUCTURES TO ACCOMMODATE SUCH MINOR ADJUSTMENTS. USE OF ADJUSTING RINGS IS RECOMMENDED.
- NOTE THAT ALL OF THE TYPE B INLETS REQUIRE FLAT SLAB TOPS WITH THE CENTER OF THE 2' OPENING ALIGNED WITH THE CENTER OF THE STRUCTURE.
- "RESTRICTED DEPTH MANHOLES", OF THE DIAMETER SPECIFIED, REFER TO 4', 5', 6' OR 8' DIAMETER MANHOLES REQUIRING FLAT SLAB TOPS AND A 2' I.D. RISER OF VARYING DEPTH IF THE OVERALL DEPTH WILL ALLOW FOR A RISER.
- THE STATION AND OFFSET SHOWN ON THE STORM SEWER PLAN IS FOR THE LOCATION OF THE CENTER OF THE STRUCTURE. THIS IS NOT NECESSARILY THE CENTER OF THE 600mm OPENING. REFER TO THE STRUCTURE OFFSET DETAIL SHEETS FOR THE EXACT LAYOUT.

STRUCTURE POINT-OF-GRADE DETAILS

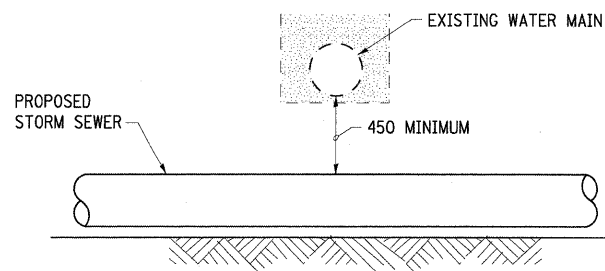
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



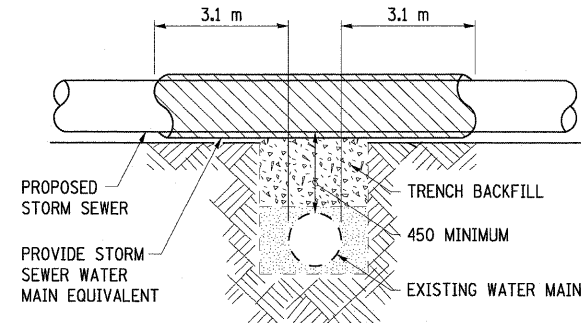
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

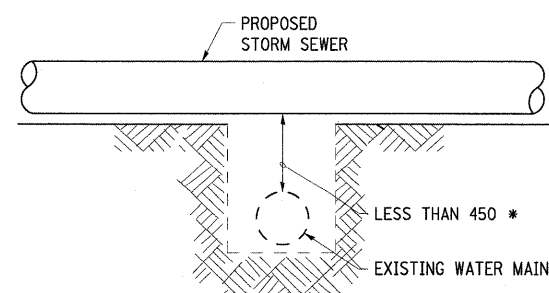


PROPOSED SEWER LINE BELOW EXISTING WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



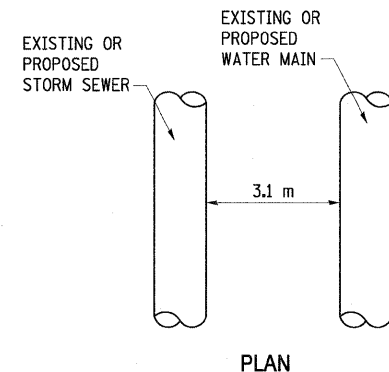
PLACEMENT OF OR EXISTING WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION NOT ALLOWED.



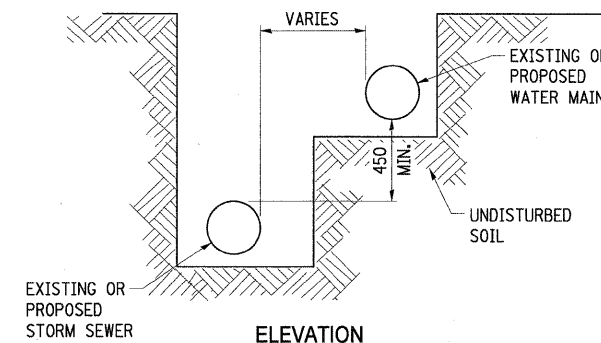
\* NOT ALLOWED. MUST MAINTAIN 18" VERTICAL SEPARATION

PROPOSED SEWER LINE ABOVE EXISTING WATER MAIN

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 3.1 m OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION IS REQUIRED



WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 3.1 m FROM EXISTING WATER (OR SEWER), THE DETAILS TO THE LEFT SHALL APPLY



WATER AND SEWER HORIZONTAL SEPARATION REQUIREMENTS

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

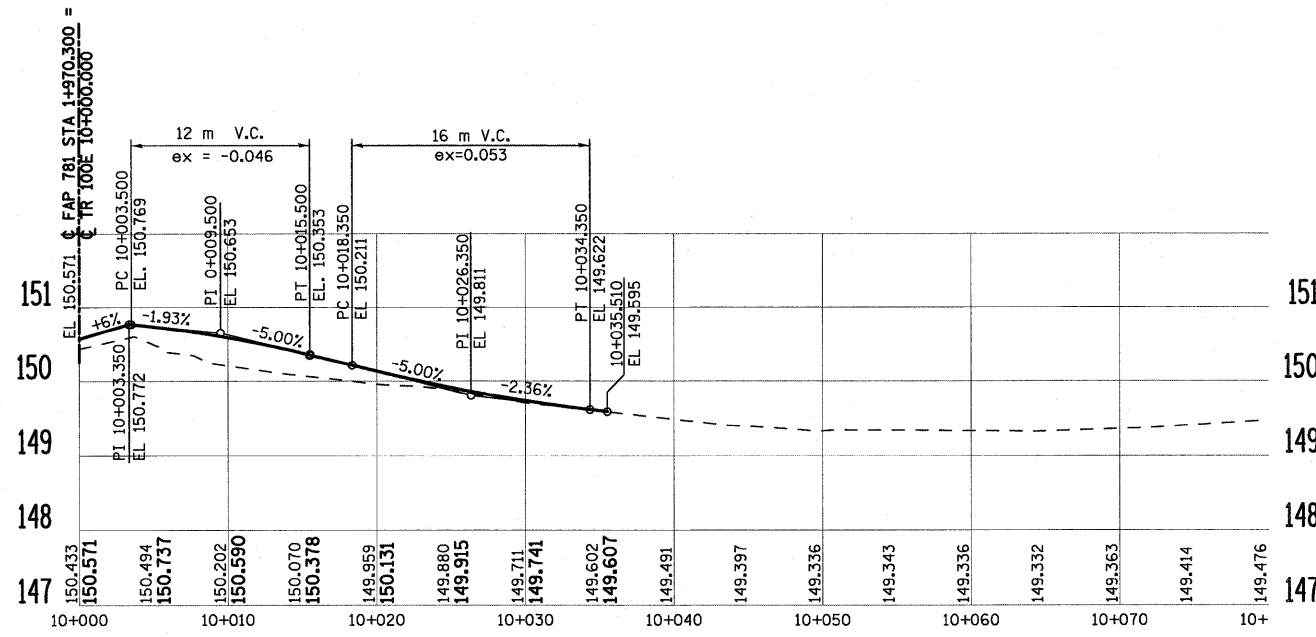
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

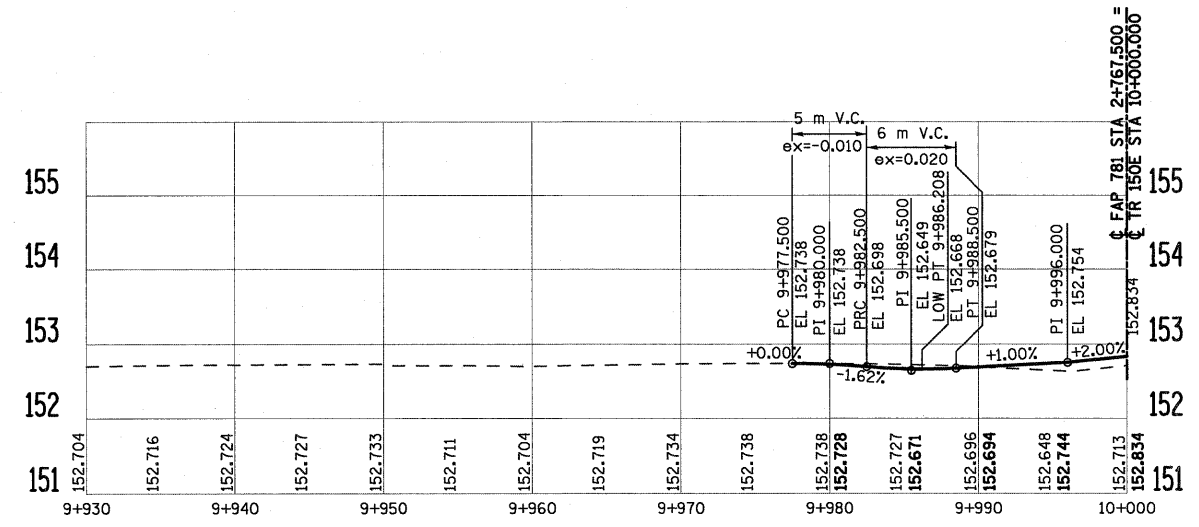
STORM SEWER DETAILS

SCALE NO SCALE DRAWN BY EDW  
DATE APRIL 18, 2008 CHECKED BY RGH

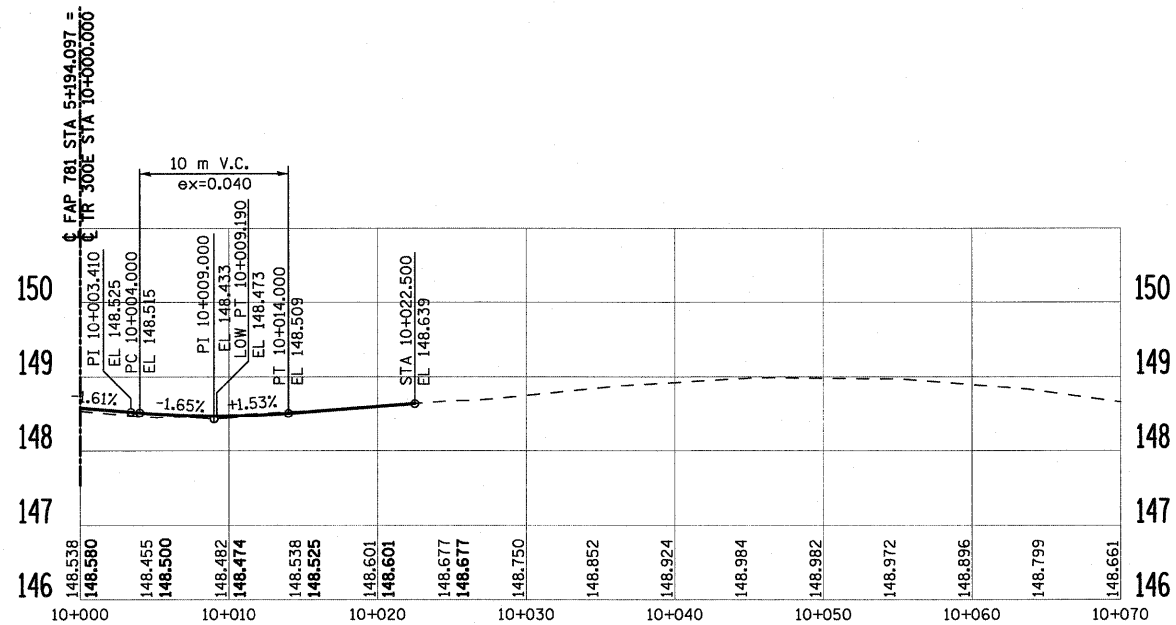
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	137
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



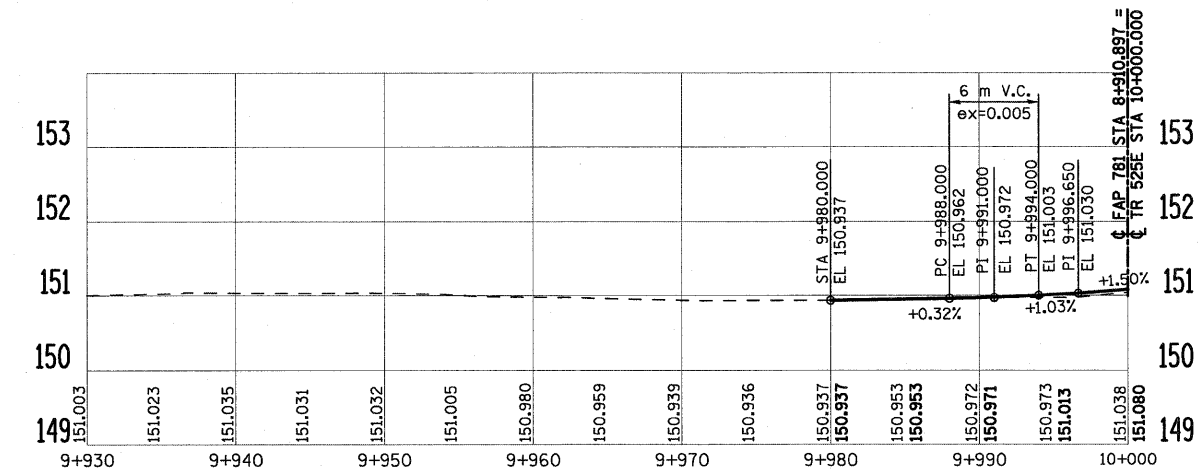
TR 100E (RT)



TR 150E (LT)



TR 300E (RT)

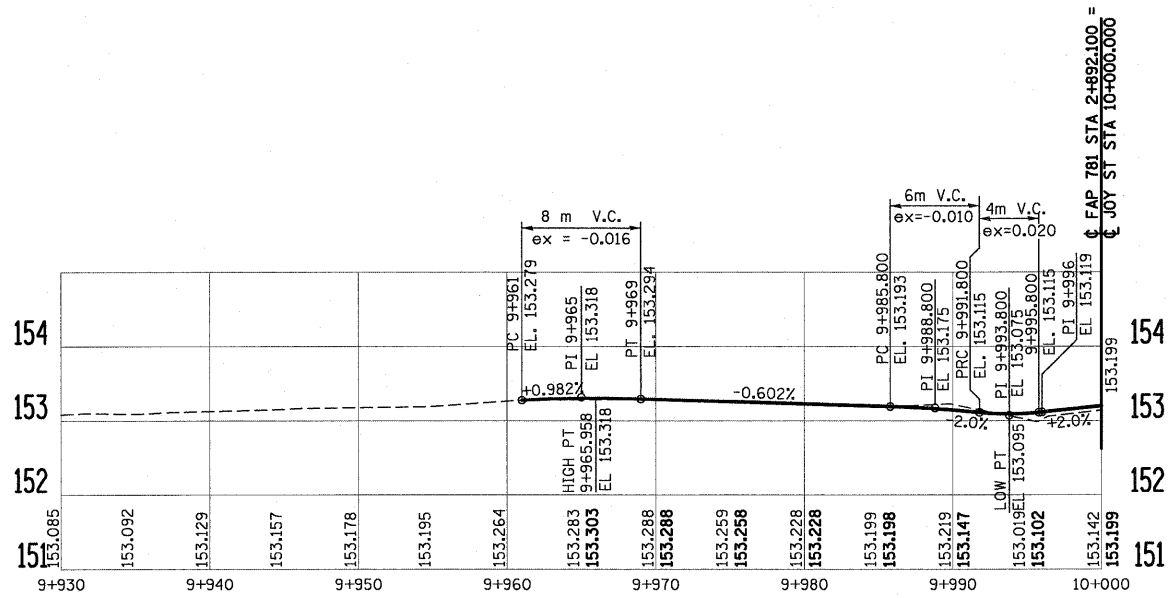


TR 525E (LT)

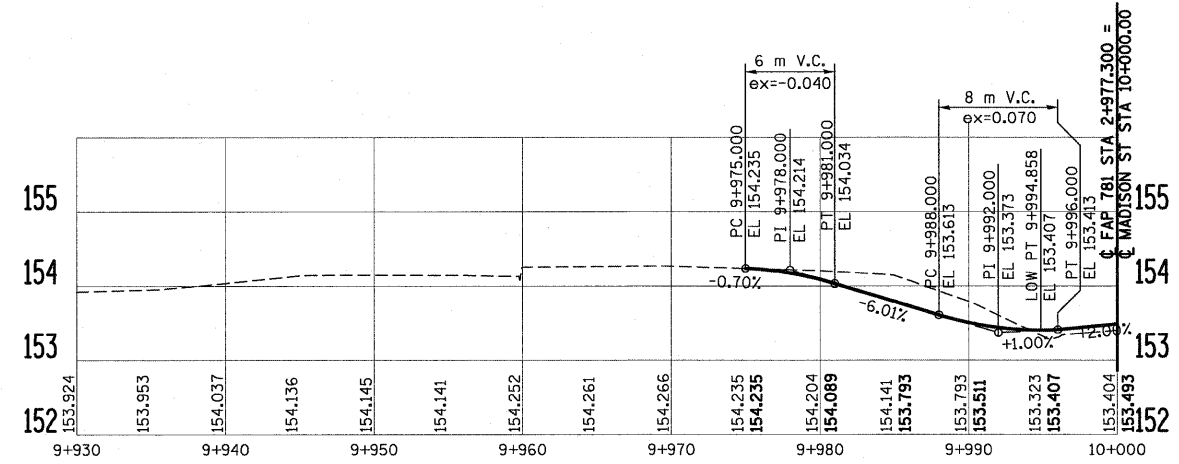
PLOT DATE = 4/18/2008  
FILE NAME = HA\428\70137.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p><b>PROPOSED SIDE ROAD PROFILES</b></p> <p>SCALE AS SHOWN      DRAWN BY EDW</p> <p>DATE APRIL 18, 2008      CHECKED BY RGH</p>

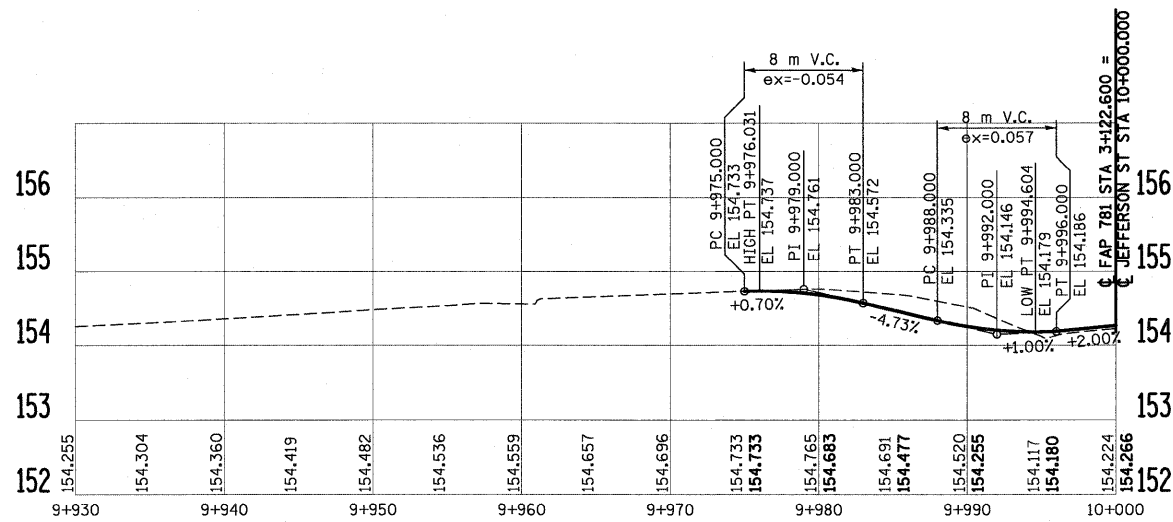
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	138
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



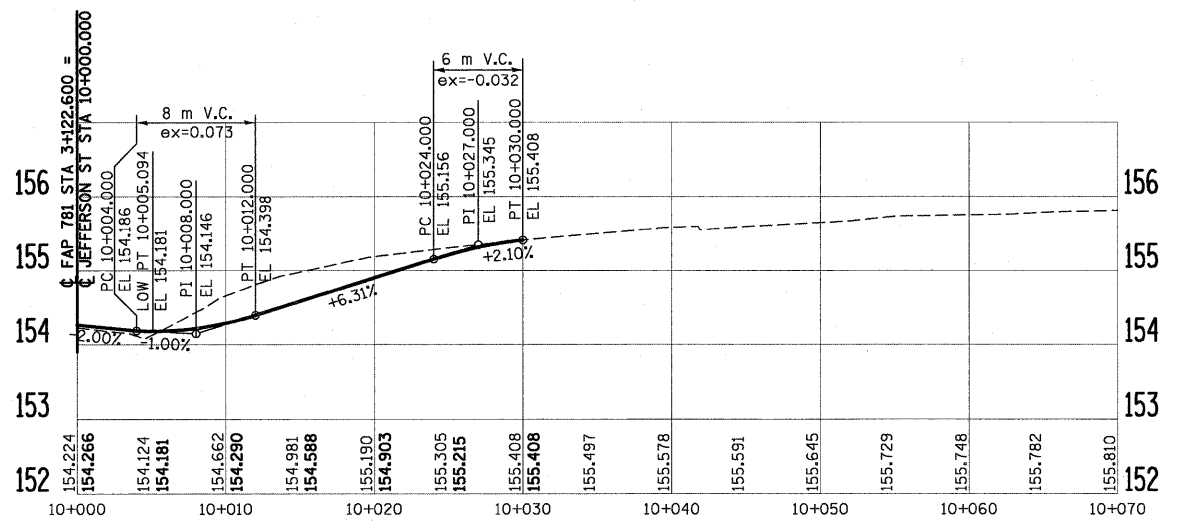
JOY STREET (LT)



MADISON STREET (LT)



JEFFERSON STREET (LT)



JEFFERSON STREET (RT)

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\70108\_arp\p02.dgn

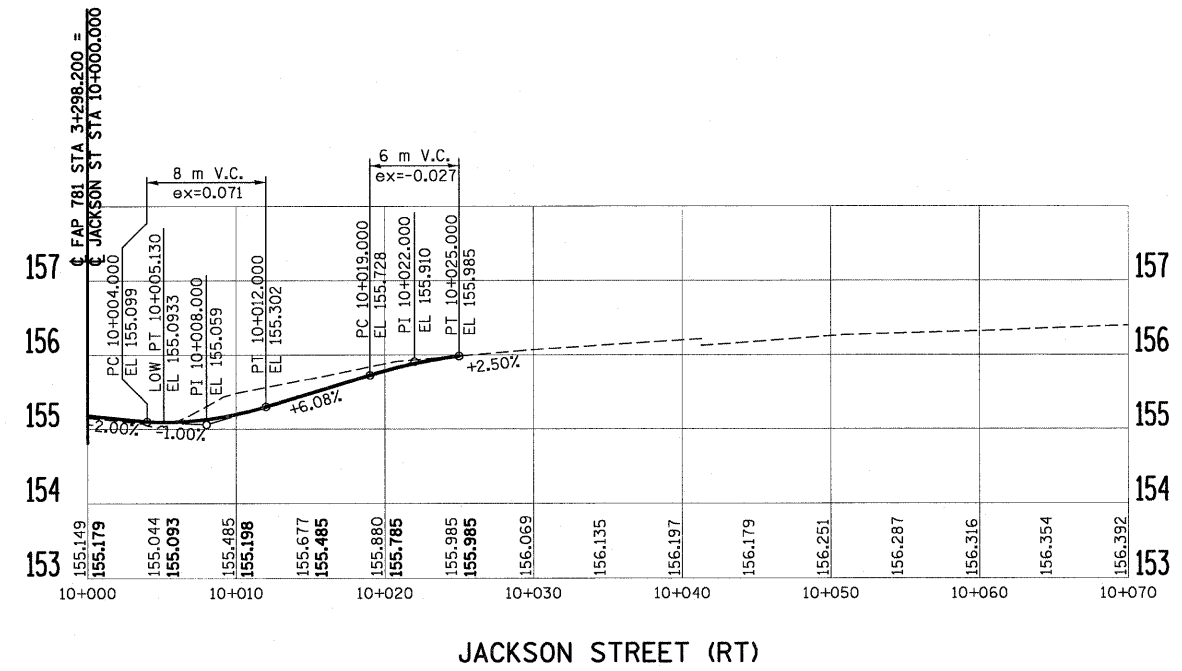
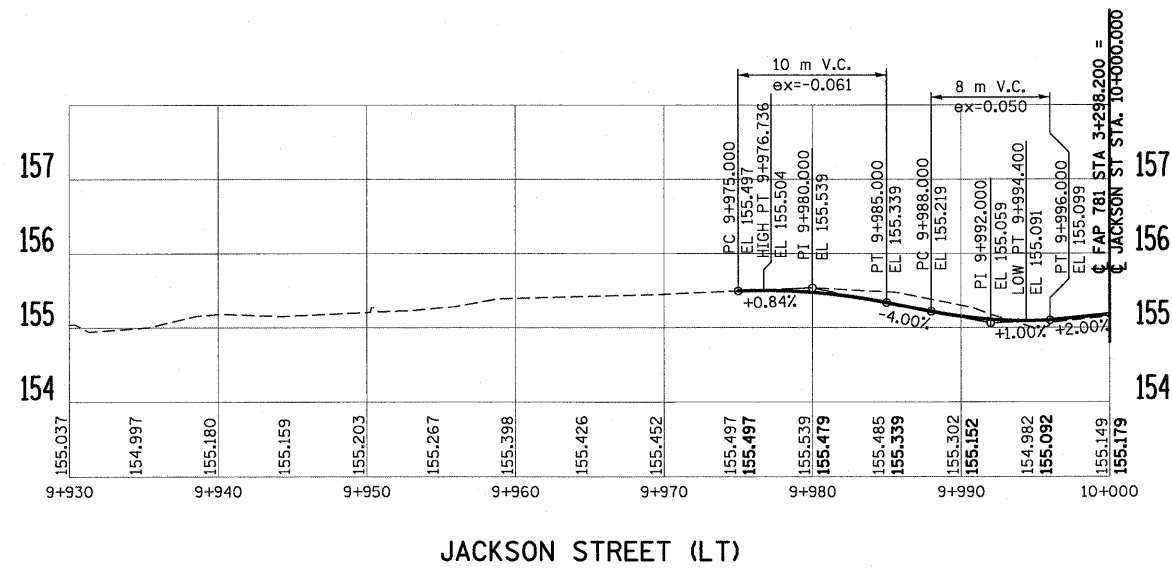
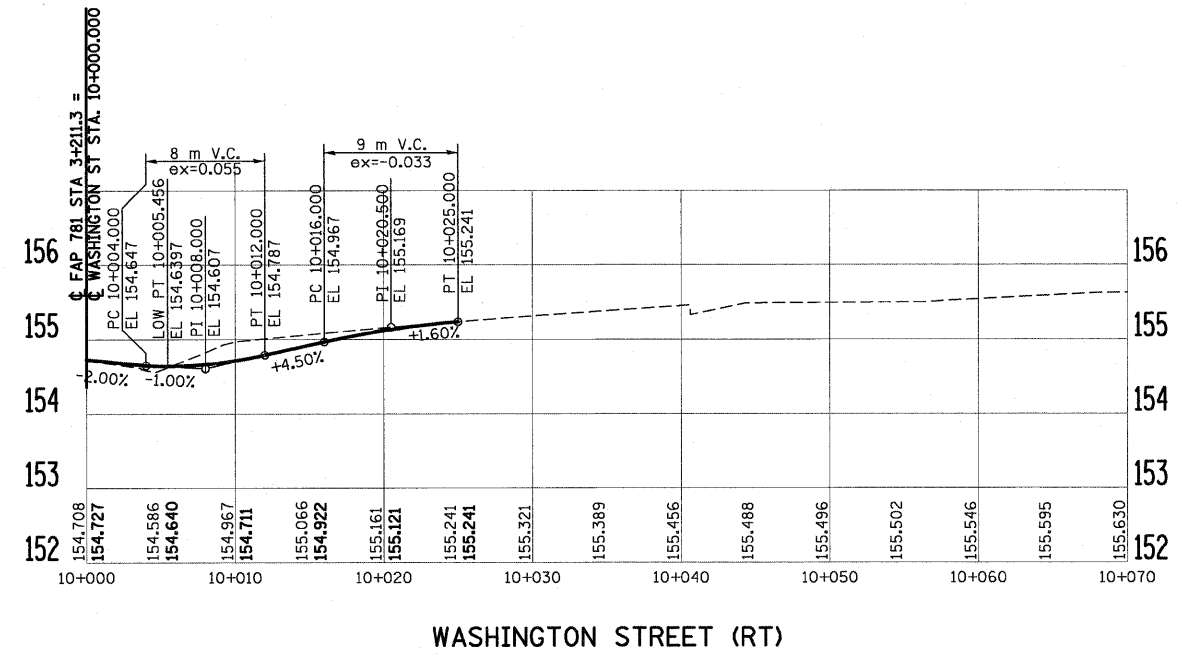
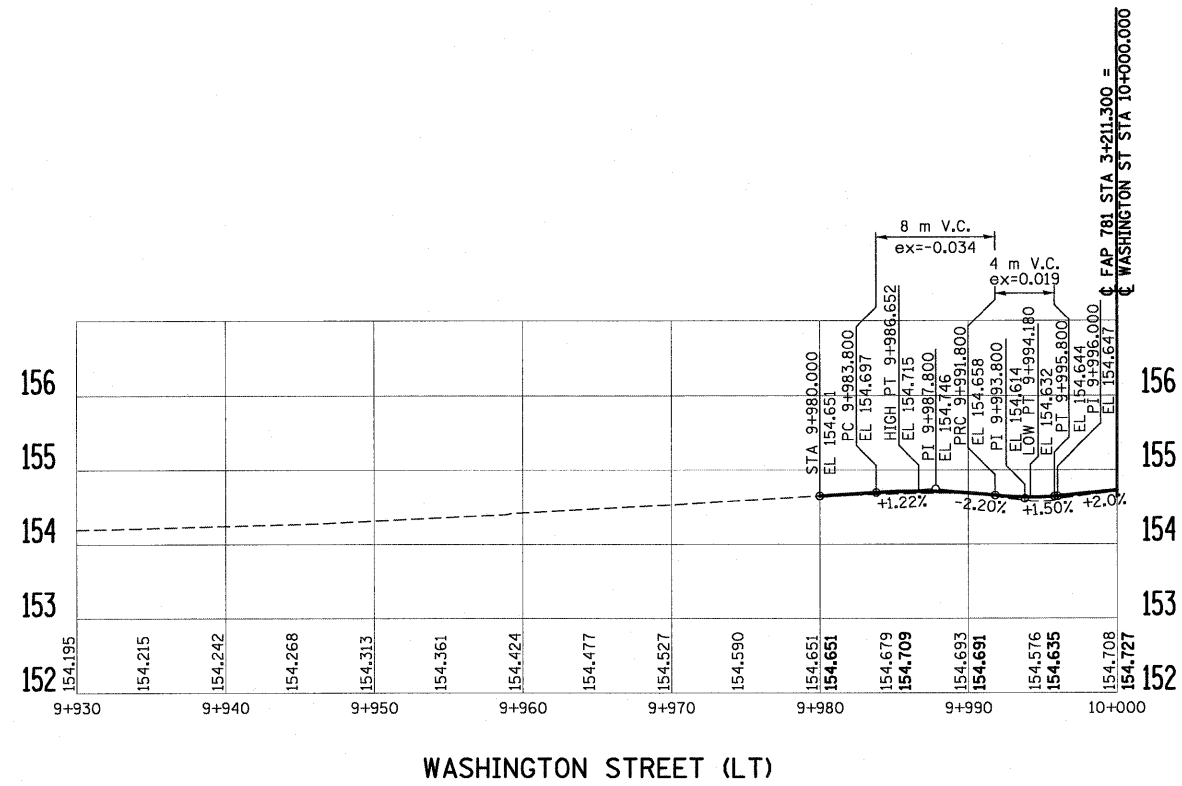
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED SIDE ROAD PROFILES

SCALE AS SHOWN DRAWN BY EDW  
DATE MARCH 20, 2008 CHECKED BY RGH

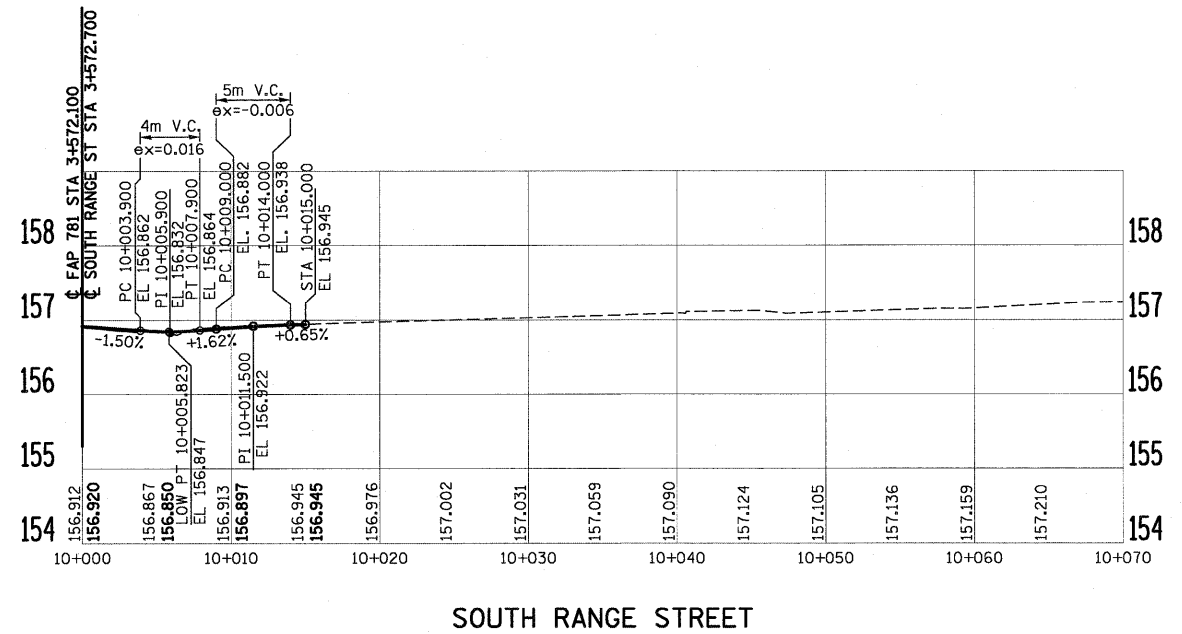
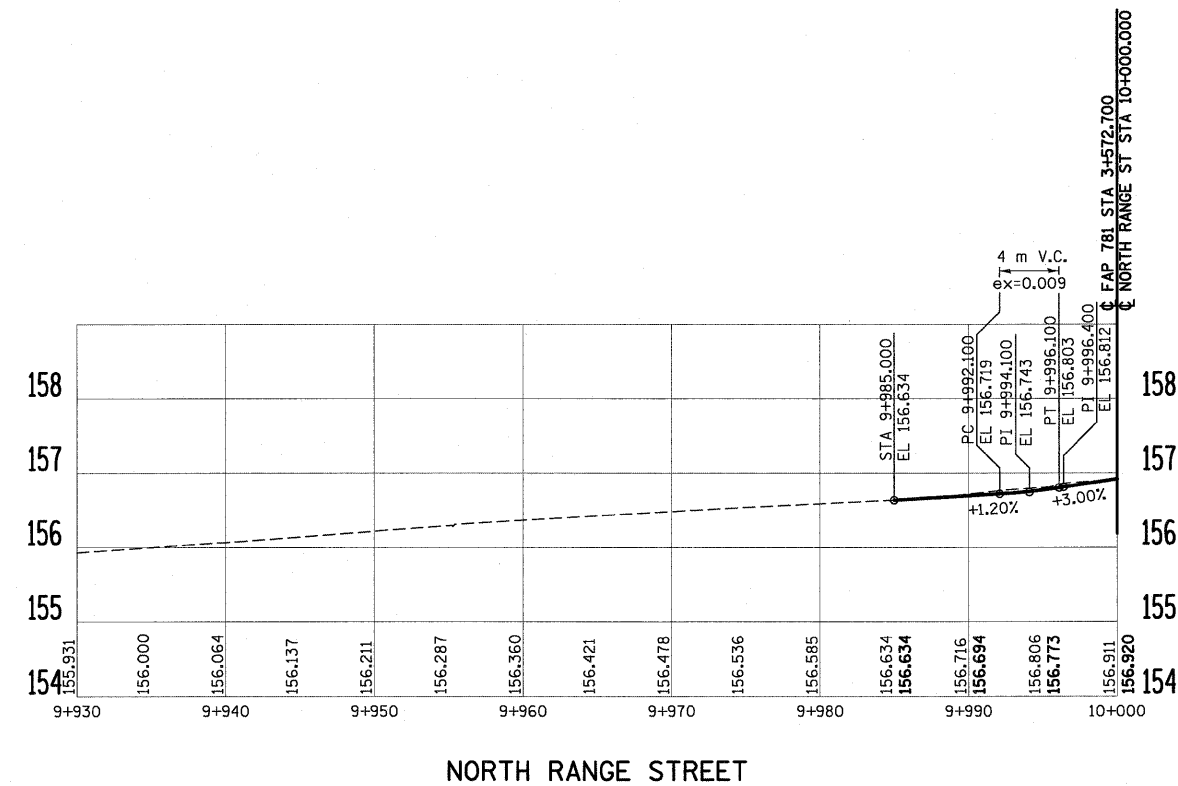
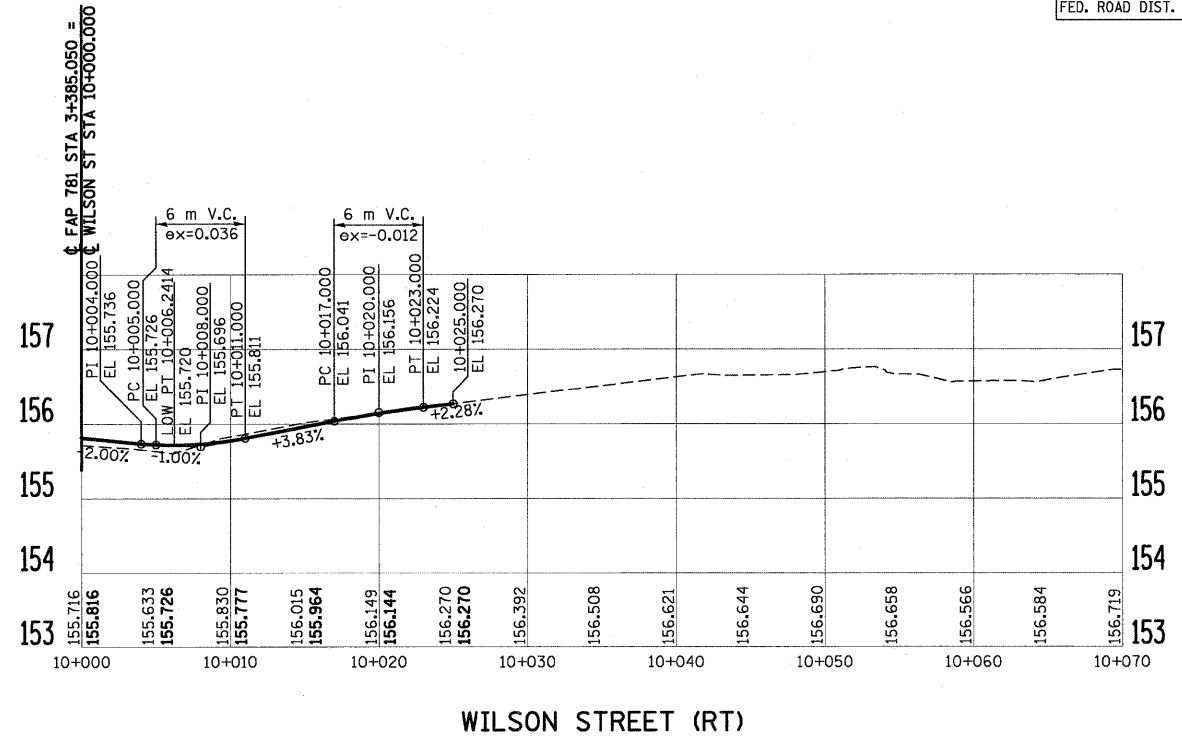
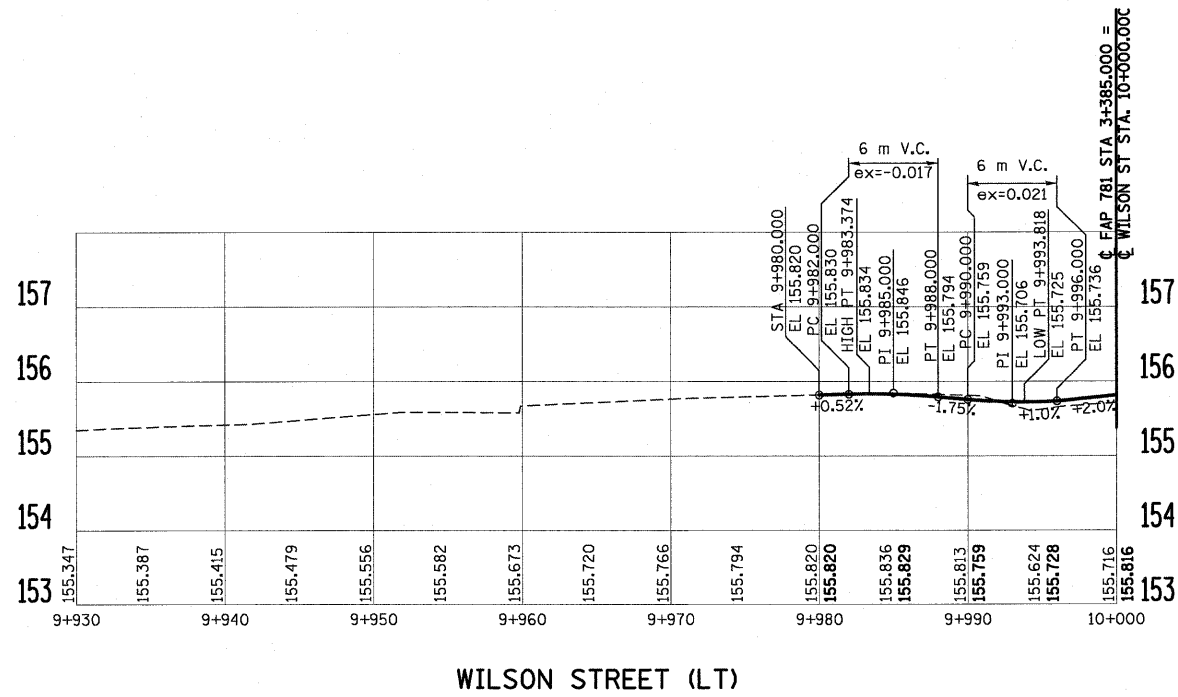
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	139
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\70139\pr\05.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD                      PROFILES</b>
		SCALE AS SHOWN DATE MARCH 20, 2008
		DRAWN BY EDW CHECKED BY RGH

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	140
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

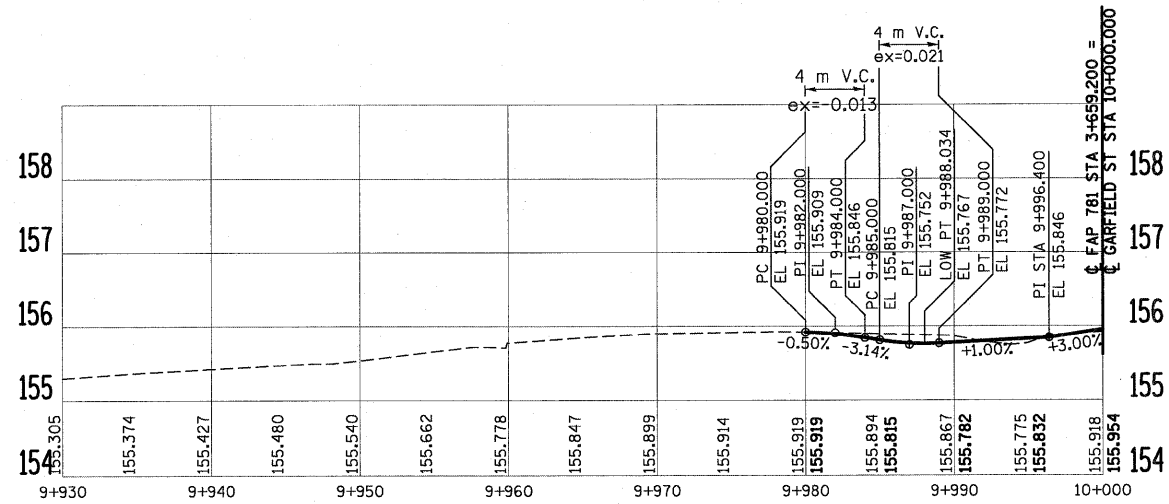


PLOT DATE = 3/20/2008  
FILE NAME = H:\4428\70140\_mpr104.dgn

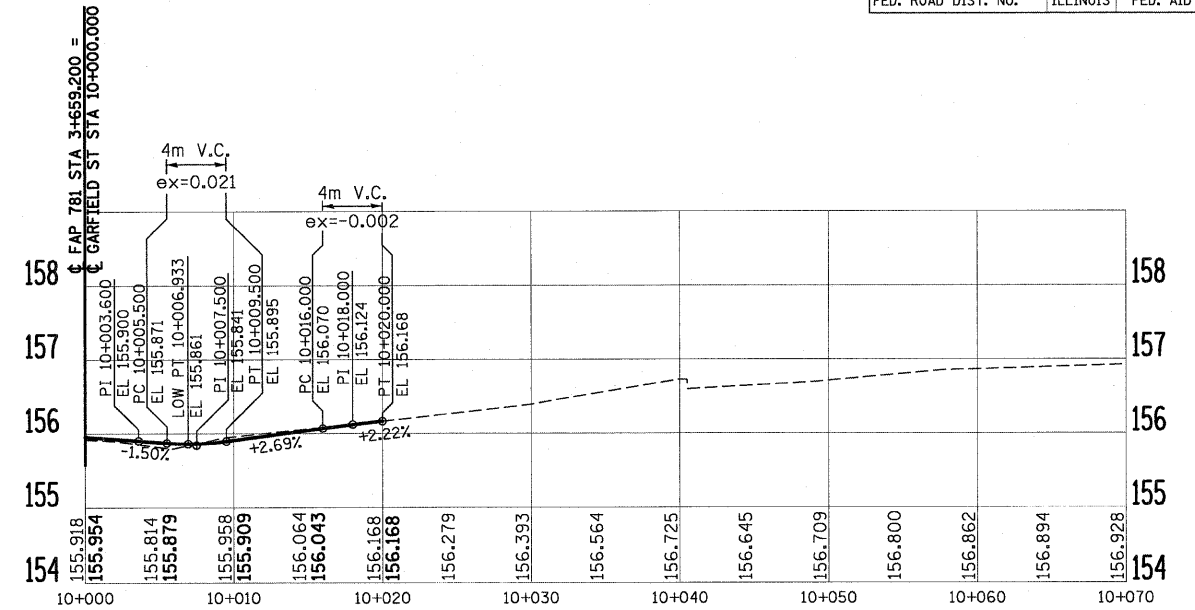
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD PROFILES</b>  SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH



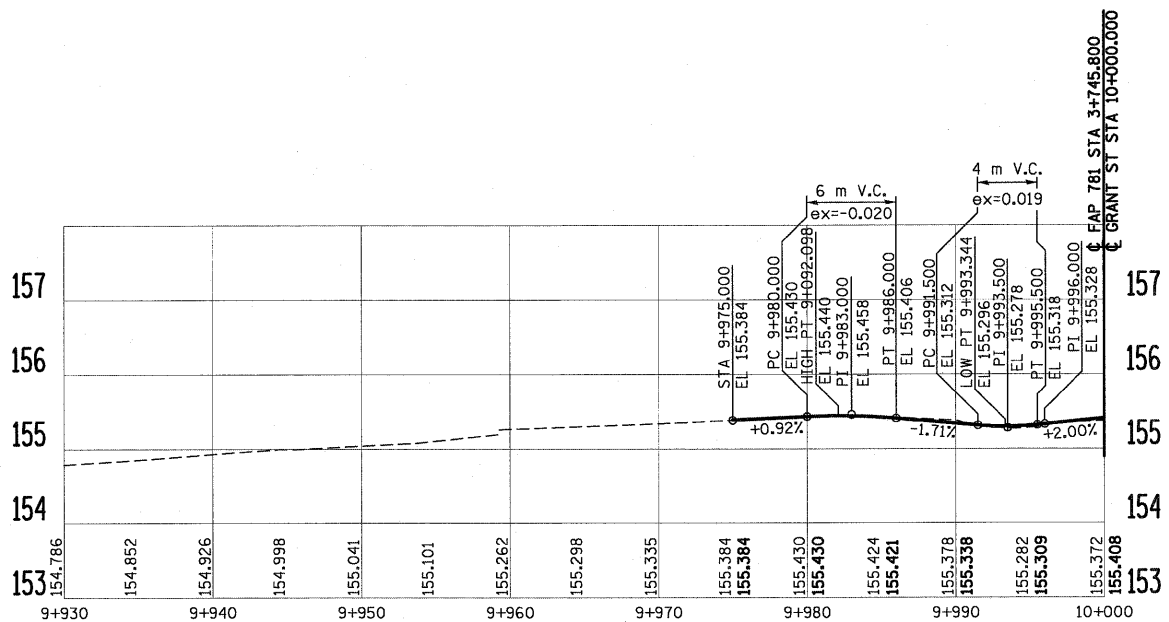
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	141
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



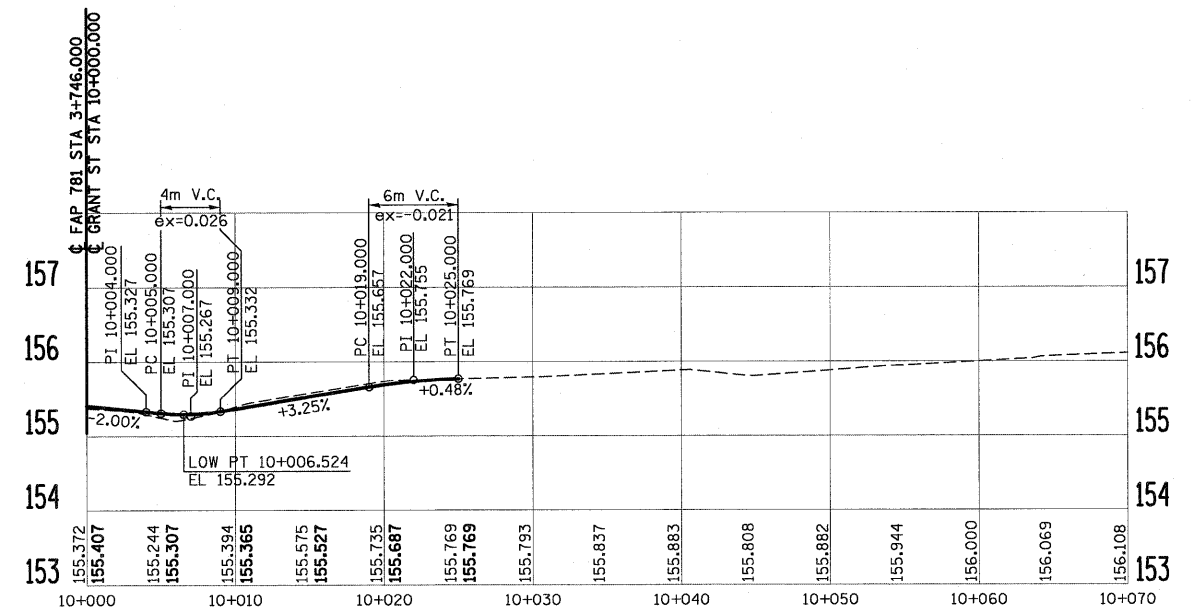
GARFIELD STREET (LT)



GARFIELD STREET (RT)



GRANT STREET (LT)

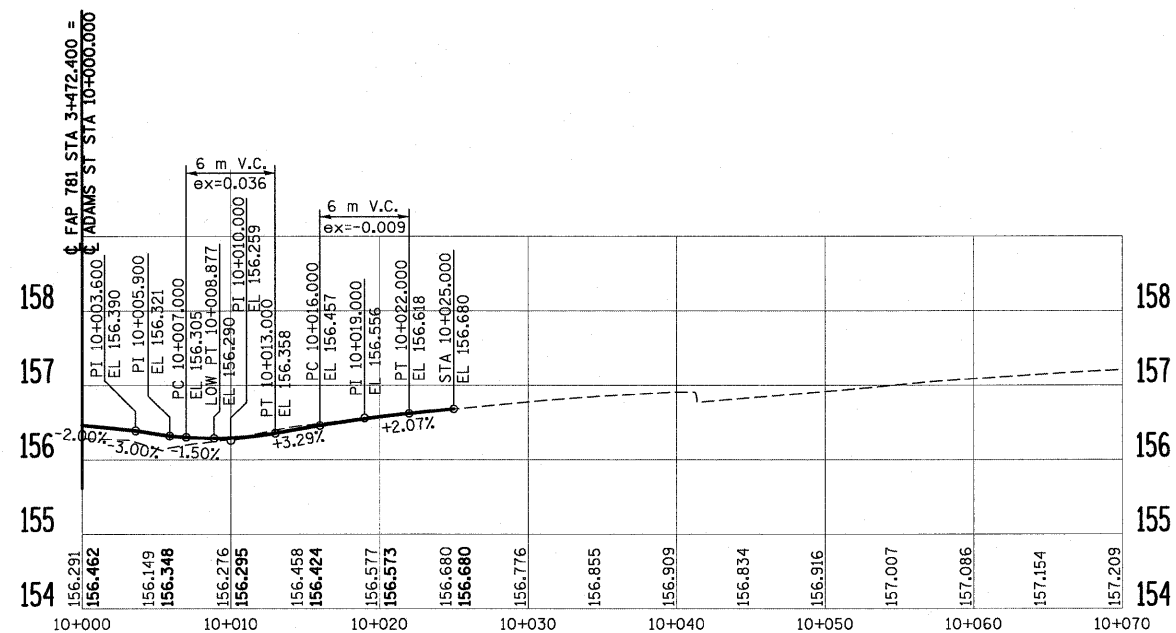


GRANT STREET (RT)

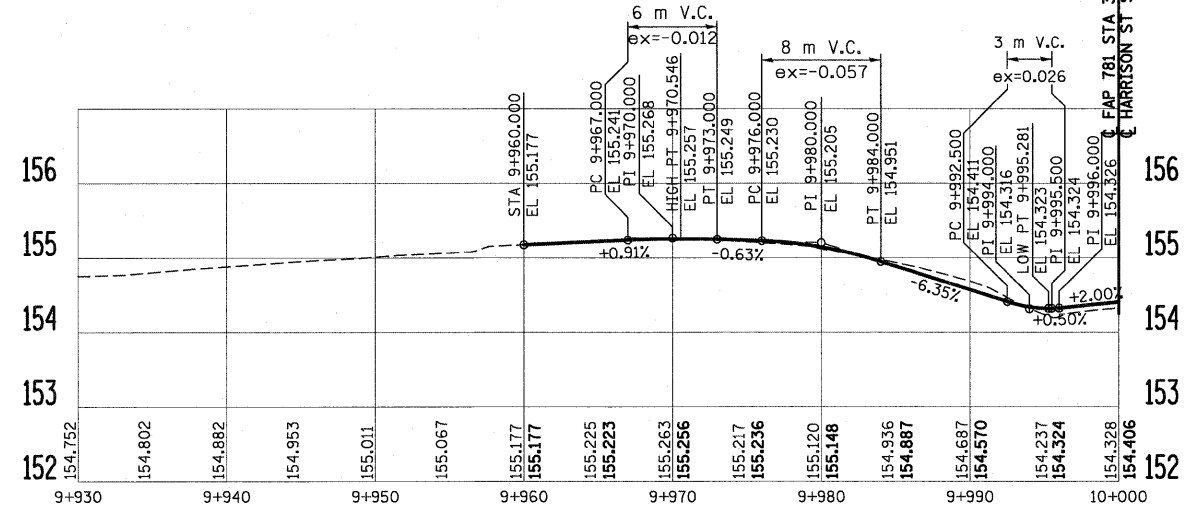
PLOT DATE = 3/26/2008  
FILE NAME = H:\4420\70141.emp\95.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD PROFILES</b>
SCALE AS SHOWN		DRAWN BY EDW
DATE MARCH 20, 2008		CHECKED BY RGH

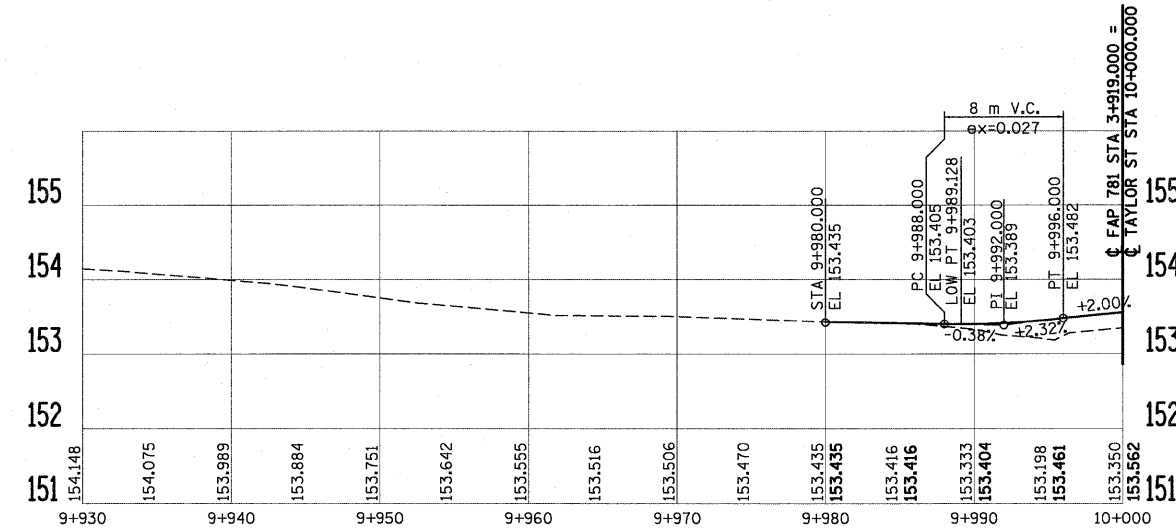
CONTRACT NO. 94533				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	142
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT



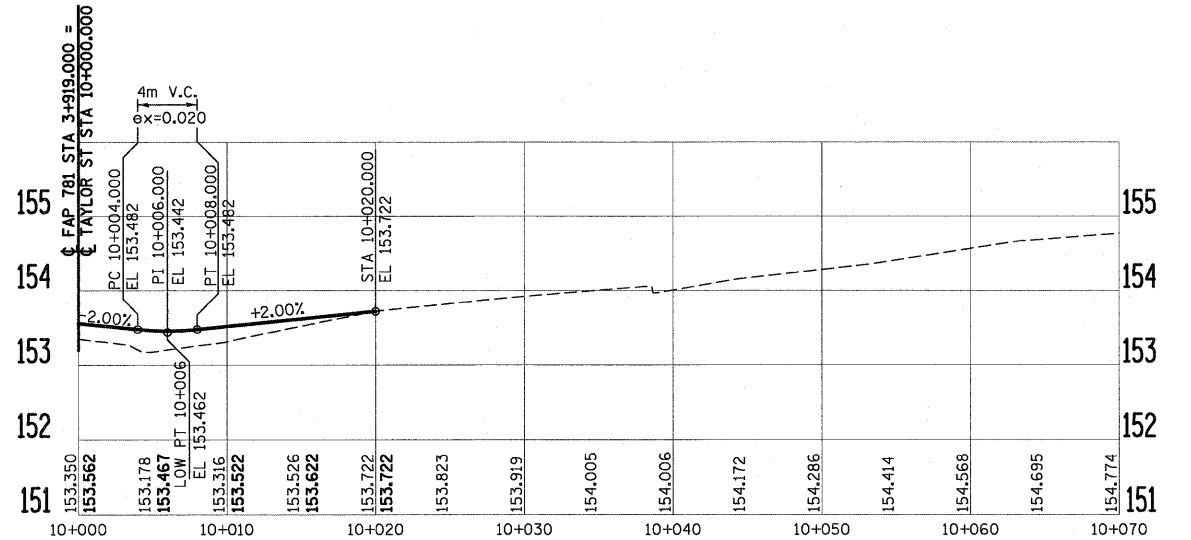
ADAMS STREET (RT)



HARRISON STREET (LT)



TAYLOR STREET (LT)



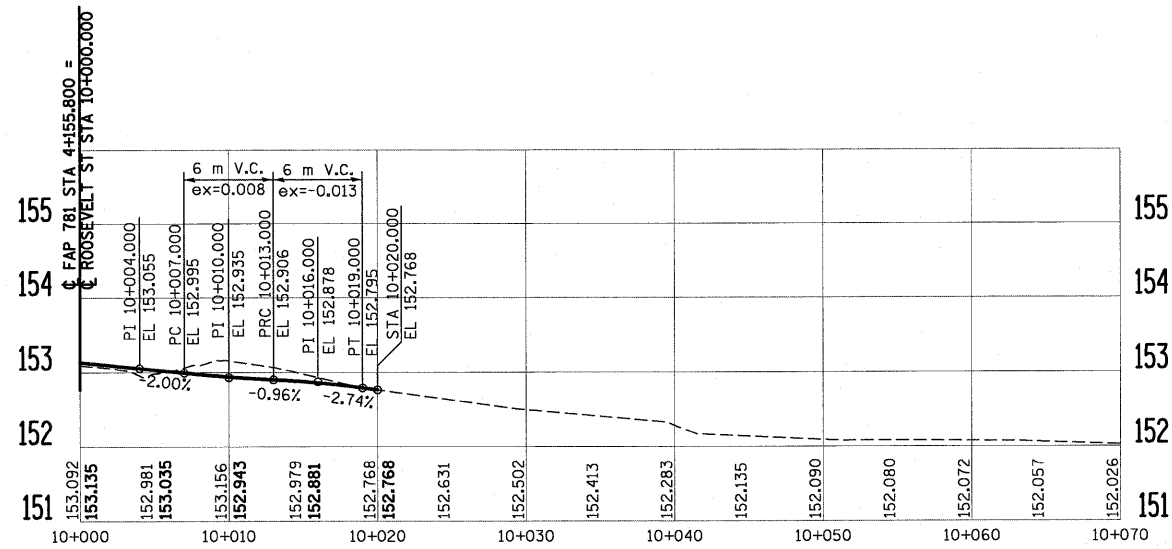
TAYLOR STREET (RT)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD PROFILES</b>
SCALE AS SHOWN		DRAWN BY EDW
DATE MARCH 20, 2008		CHECKED BY RGH

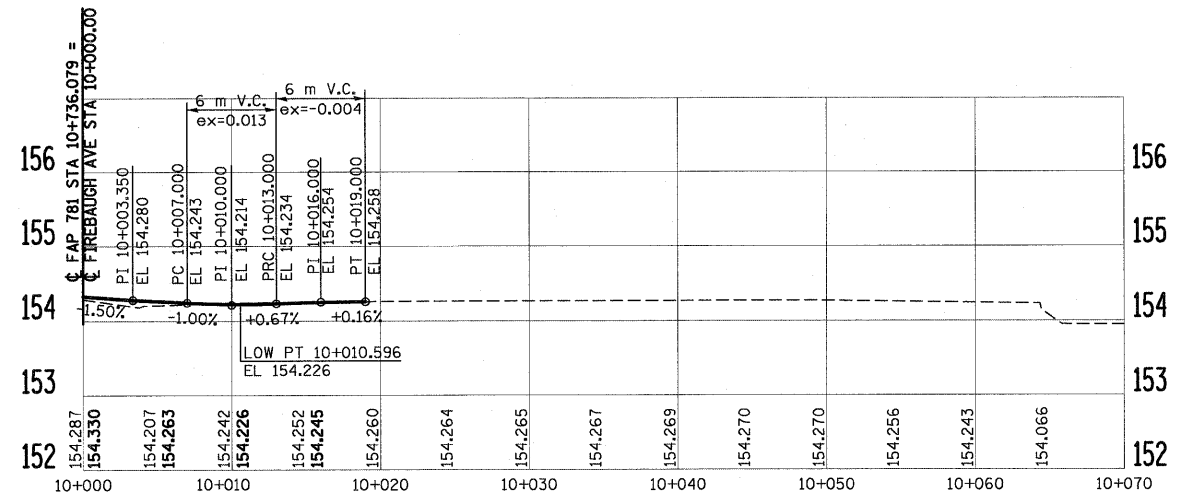
PLOT DATE = 3/20/2008  
FILE NAME = HA\42070142.dwg

H. M. & G. NO. 4420

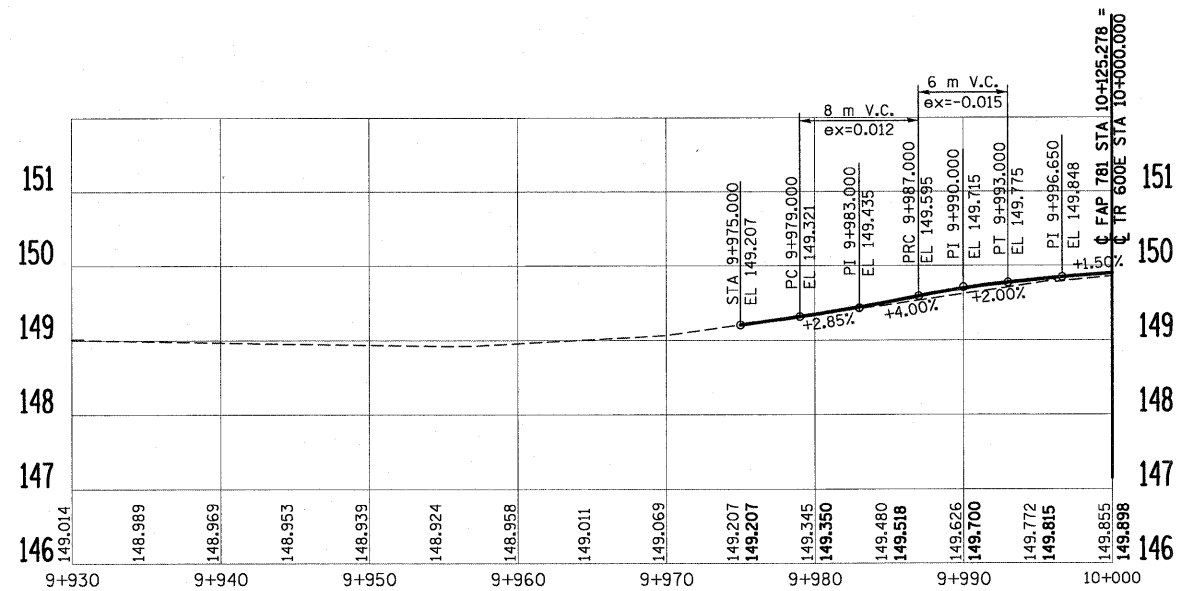
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	143
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



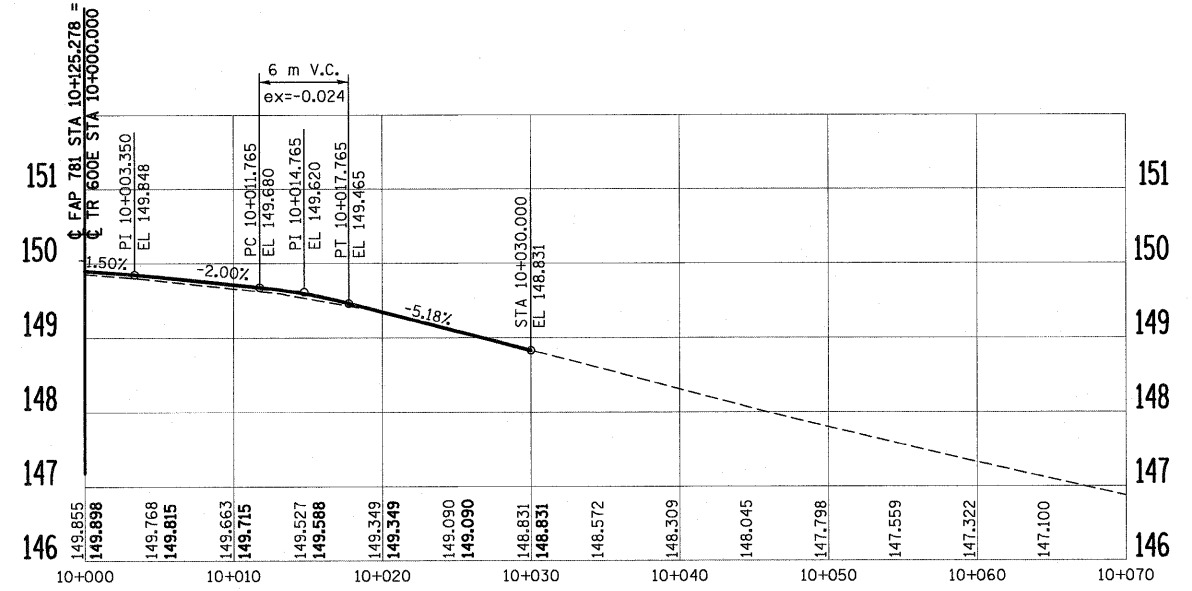
Roosevelt Street (RT)



Firebaugh Ave. (RT.)



Stoy Rd. TR 600 E (LT.)

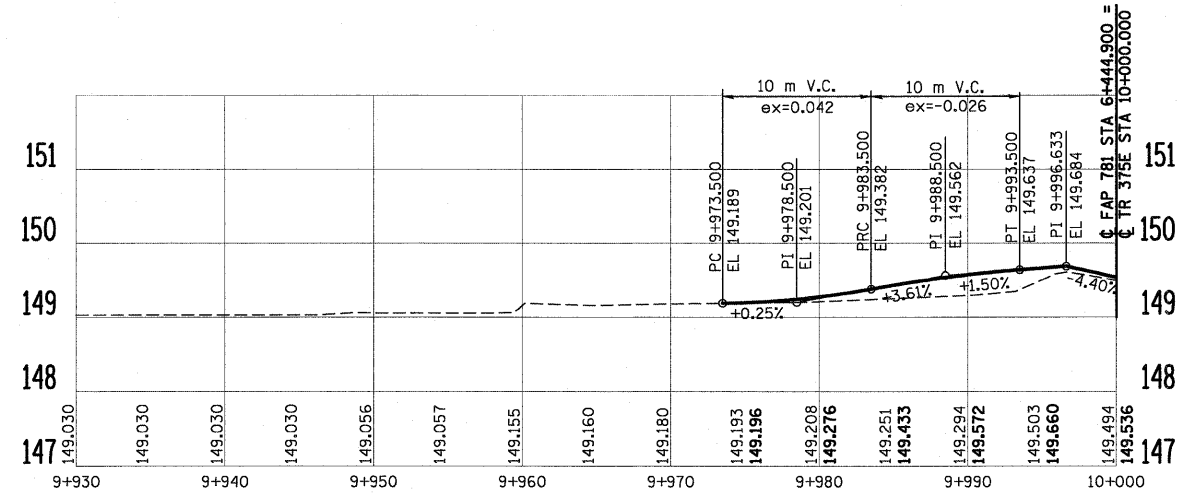


Stoy Rd. TR 600 E (RT.)

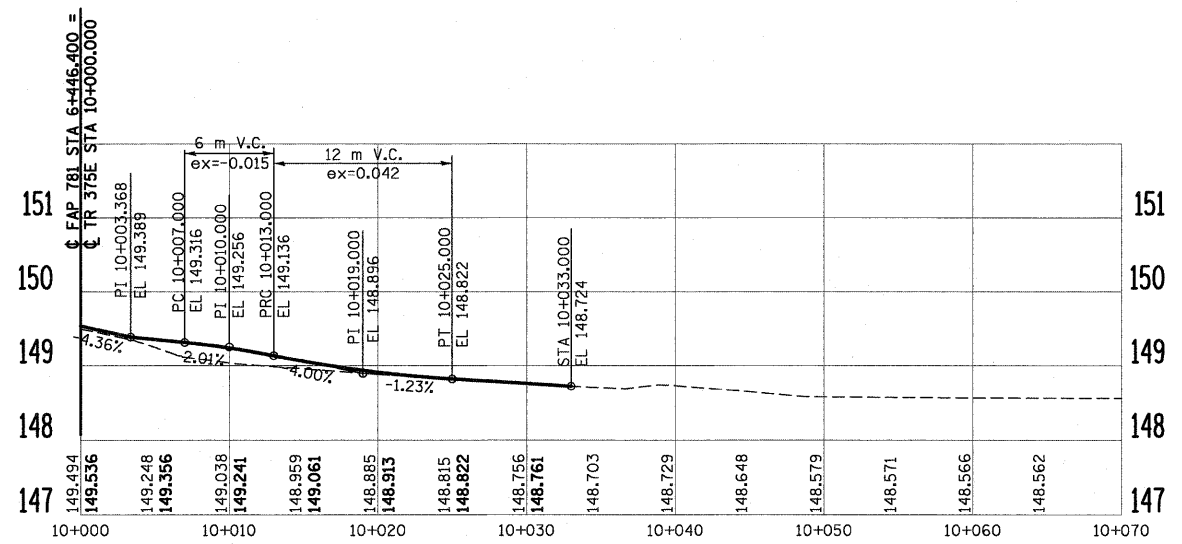
PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\70143\_spp\p07.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD PROFILES</b>
		SCALE AS SHOWN DATE MARCH 20, 2008
		DRAWN BY EDW CHECKED BY RGH

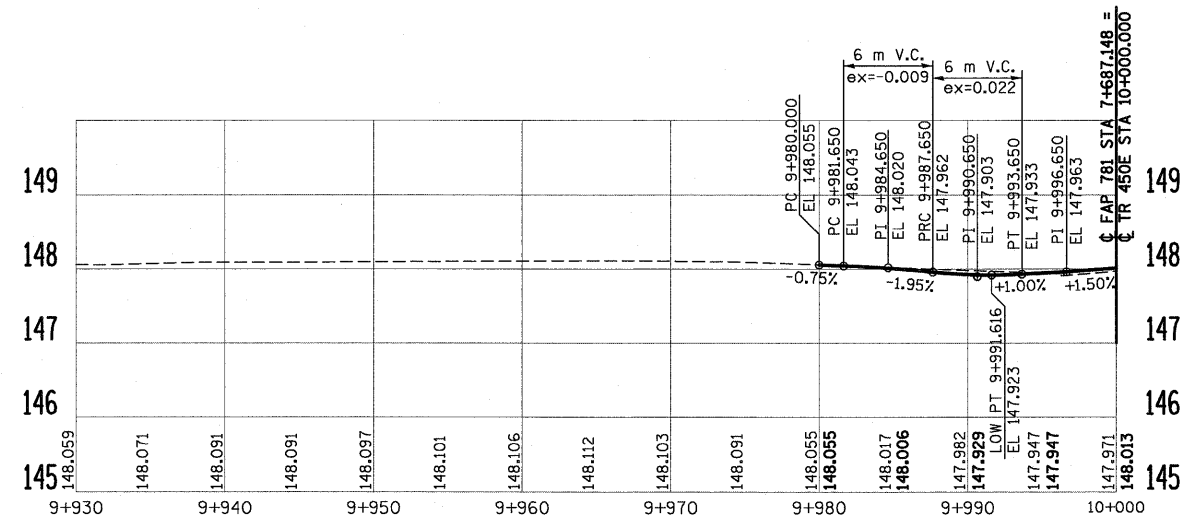
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	144
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



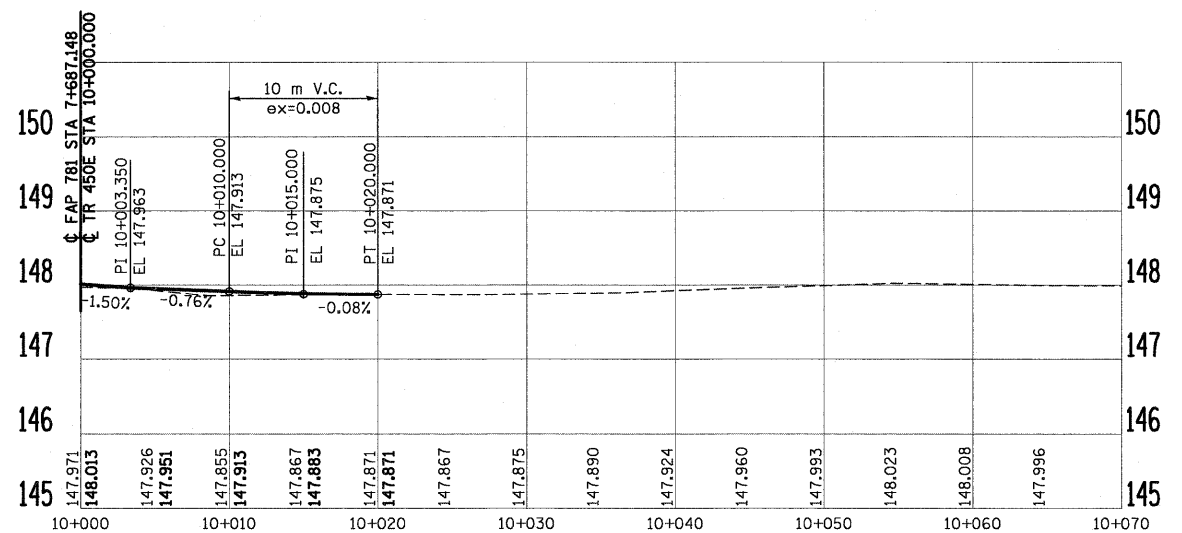
TR 375 (LT)



TR 375E (RT)



TR 450E (LT)

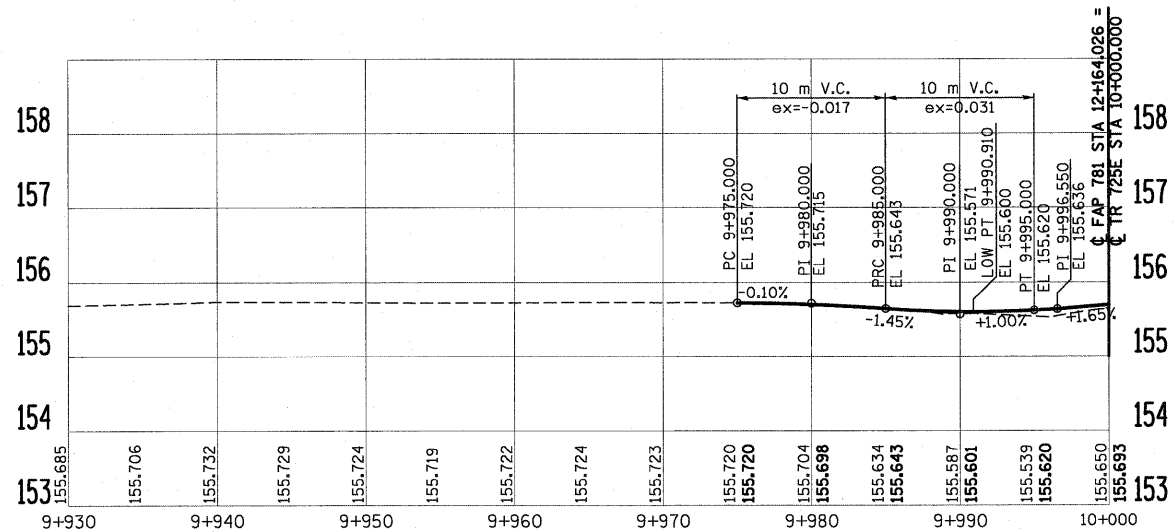


TR 450E (RT)

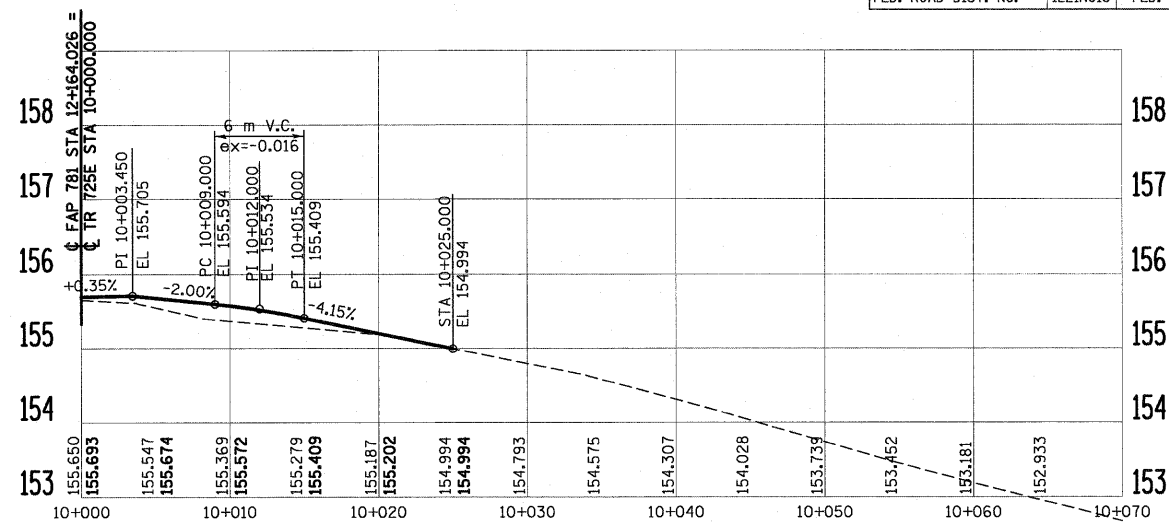
PLOT DATE = 3/20/2008  
FILE NAME = H:\14420\70144.spr\70b.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD PROFILES</b>  SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH

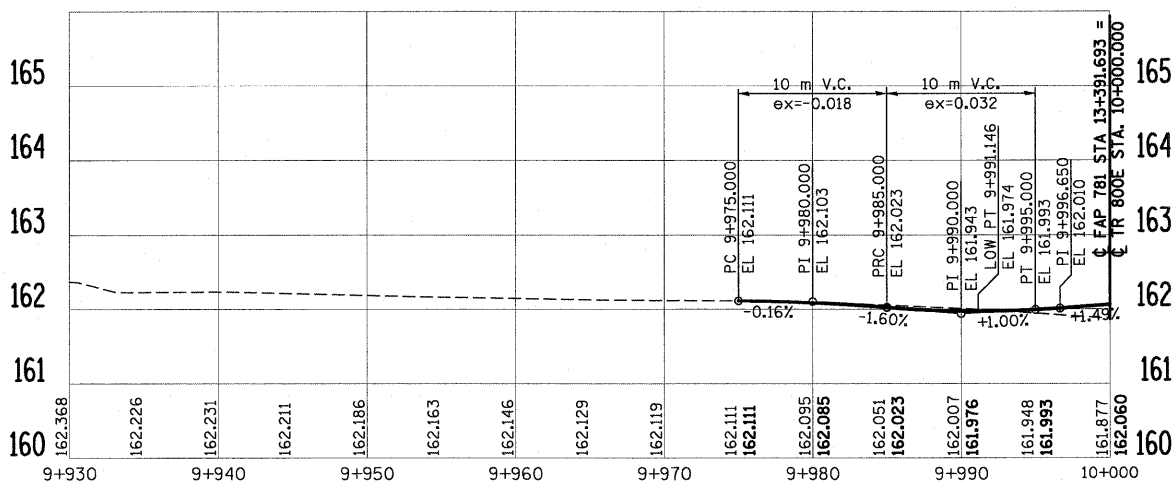
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	145
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



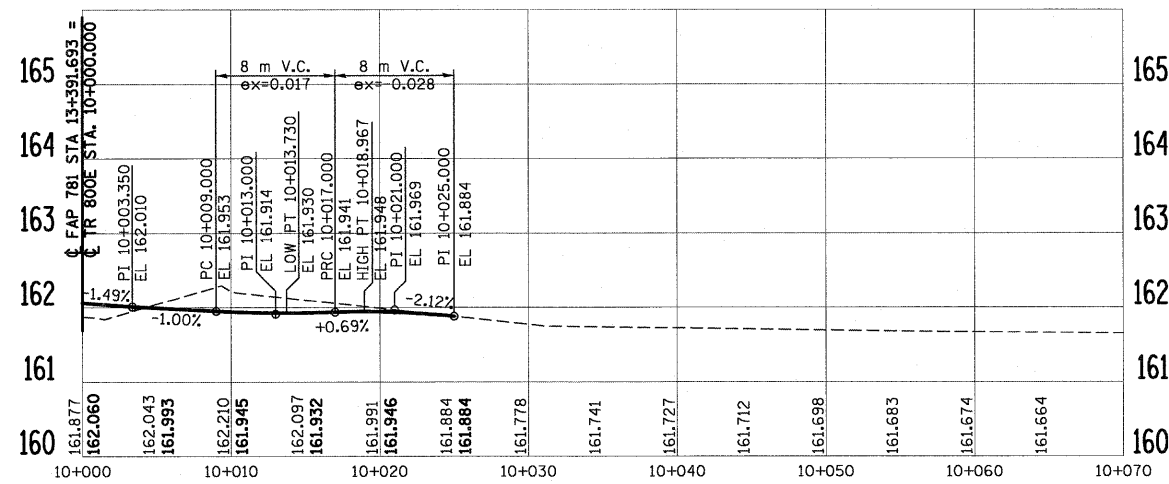
TR 725 E (LT.)



TR 725 E (RT.)



TR 800 E (LT.)

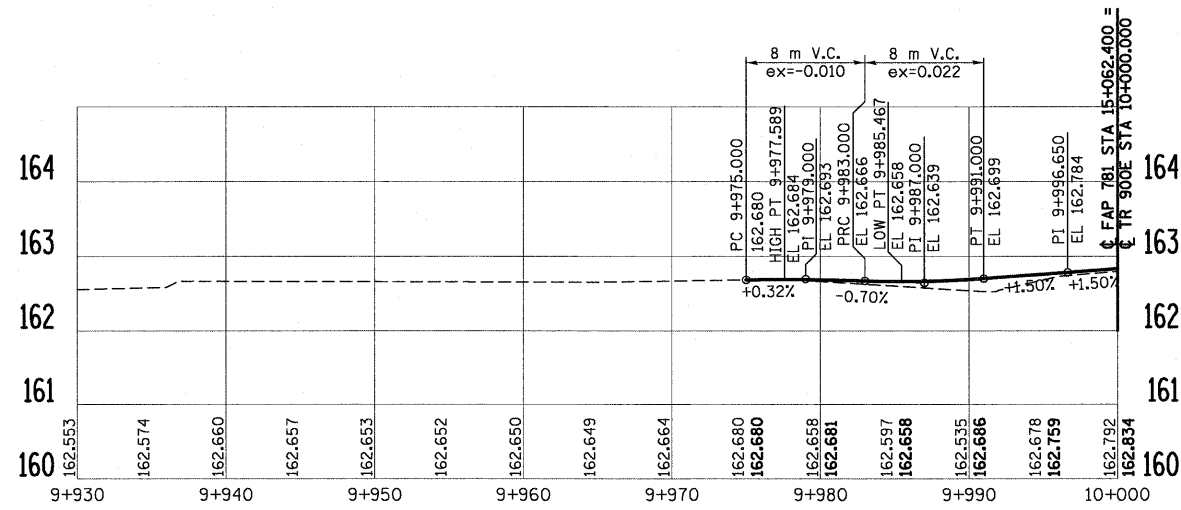


TR 800 E (RT.)

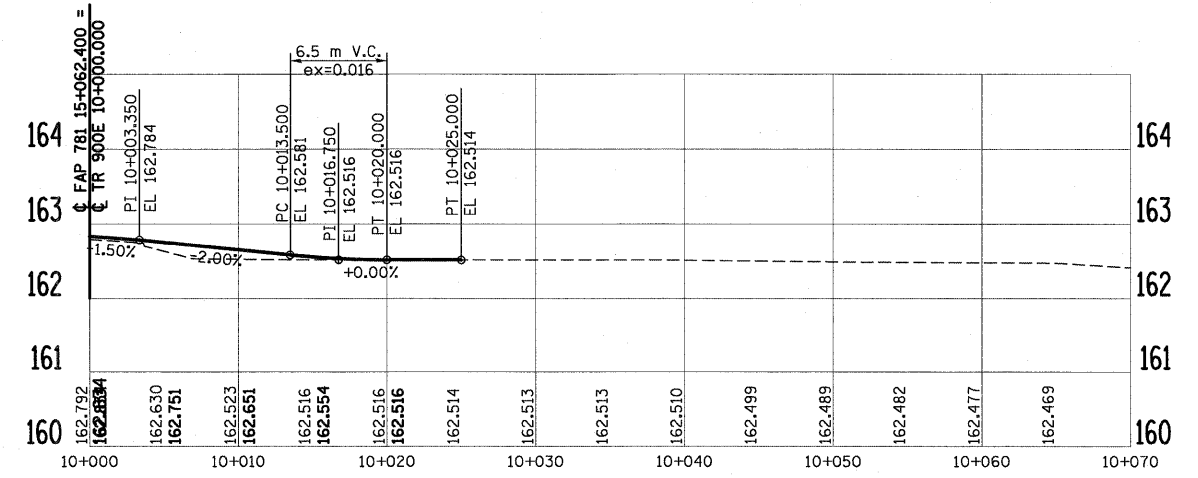
PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\781\45\_arfp03.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD PROFILES</b>  SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH

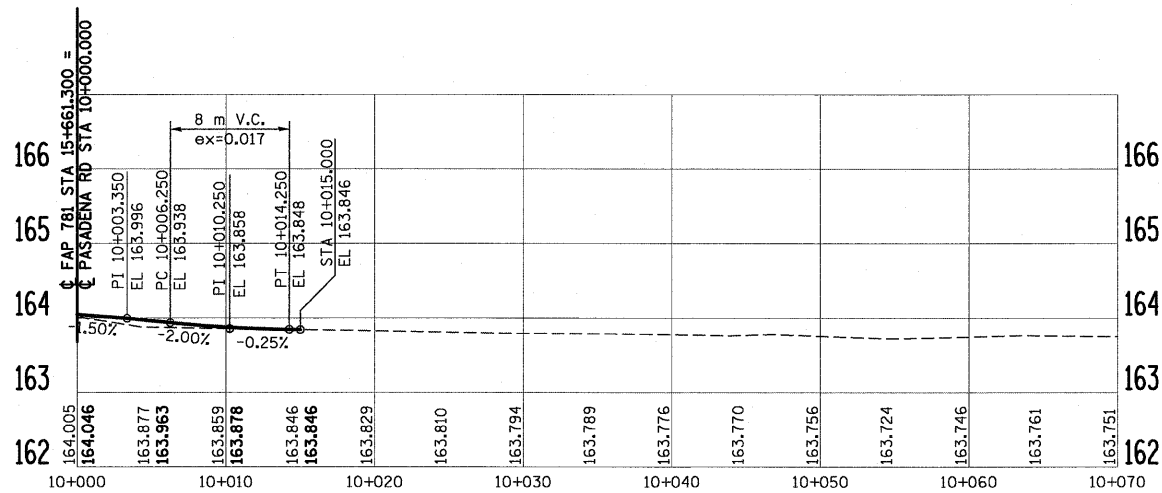
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	146
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



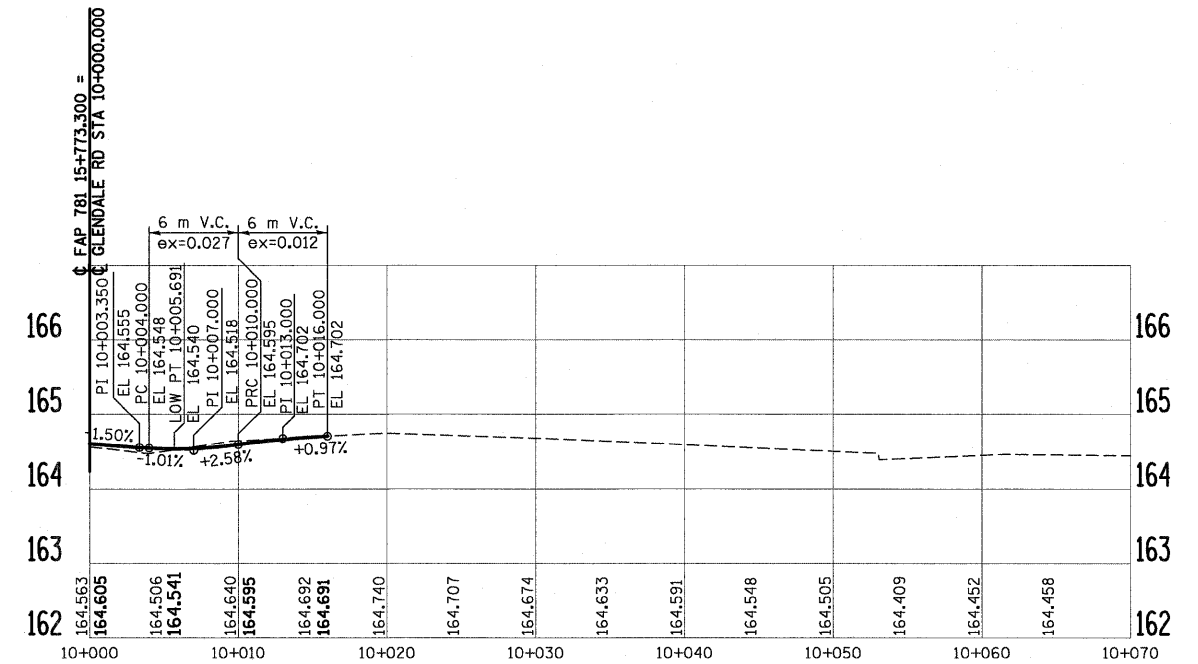
TR 900E (LT.)



TR 900E (RT.)



PASADENA RD. (RT.)



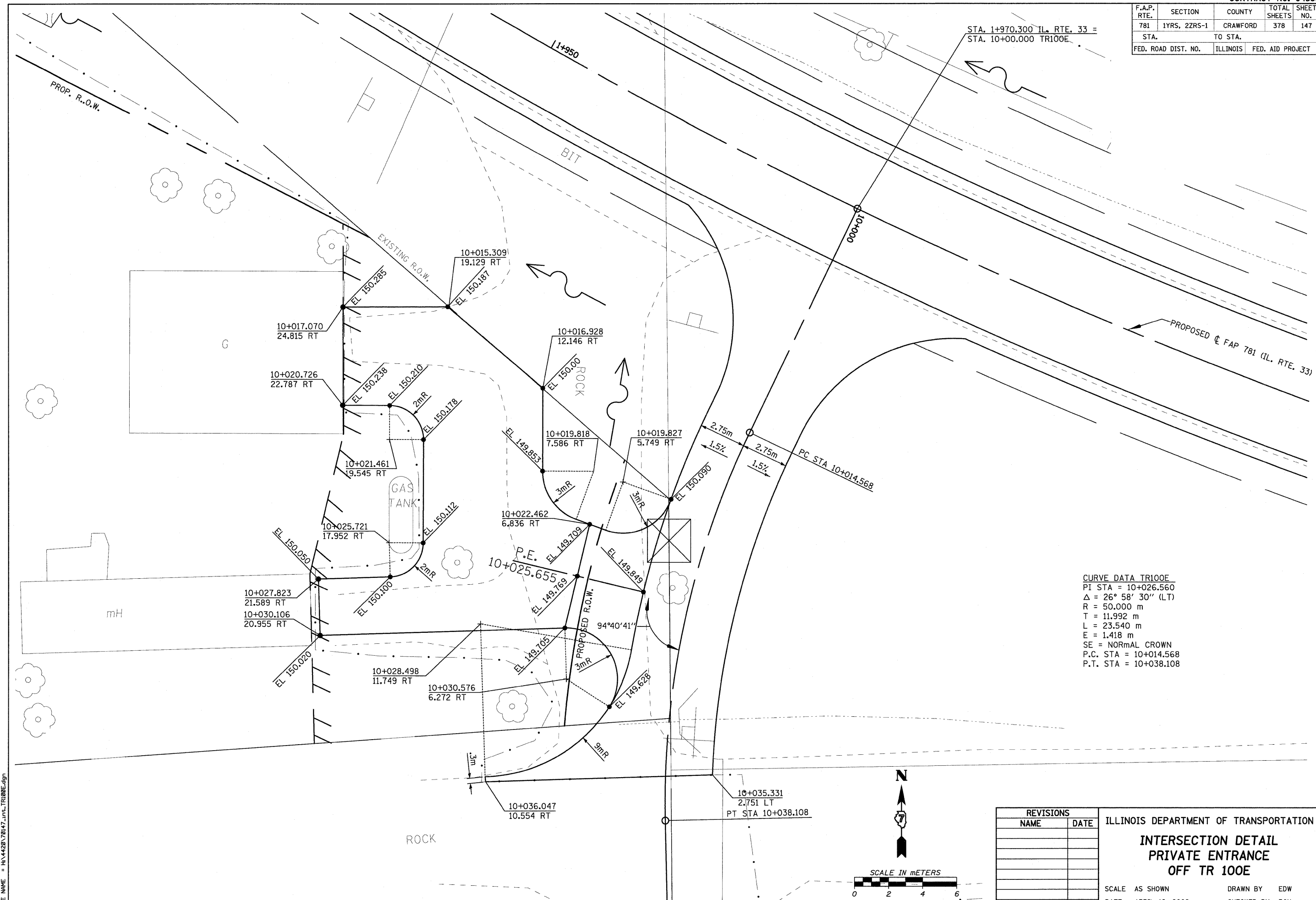
GLENDALE RD. (RT.)

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\781\46.prf110.dgn

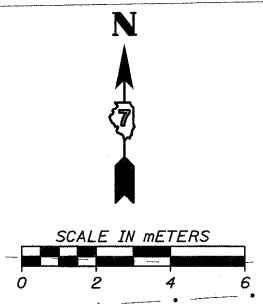
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>PROPOSED SIDE ROAD PROFILES</b>  SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	147
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

STA. 1+970.300 IL. RTE. 33 =  
STA. 10+00.000 TR100E



CURVE DATA TR100E  
 PI STA = 10+026.560  
 $\Delta = 26^\circ 58' 30''$  (LT)  
 R = 50.000 m  
 T = 11.992 m  
 L = 23.540 m  
 E = 1.418 m  
 SE = NORMAL CROWN  
 P.C. STA = 10+014.568  
 P.T. STA = 10+038.108



REVISIONS	
NAME	DATE


ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERSECTION DETAIL**  
**PRIVATE ENTRANCE**  
**OFF TR 100E**  
 SCALE AS SHOWN  
 DATE APRIL 18, 2008  
 DRAWN BY EDW  
 CHECKED BY RGH

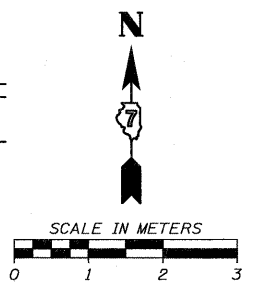
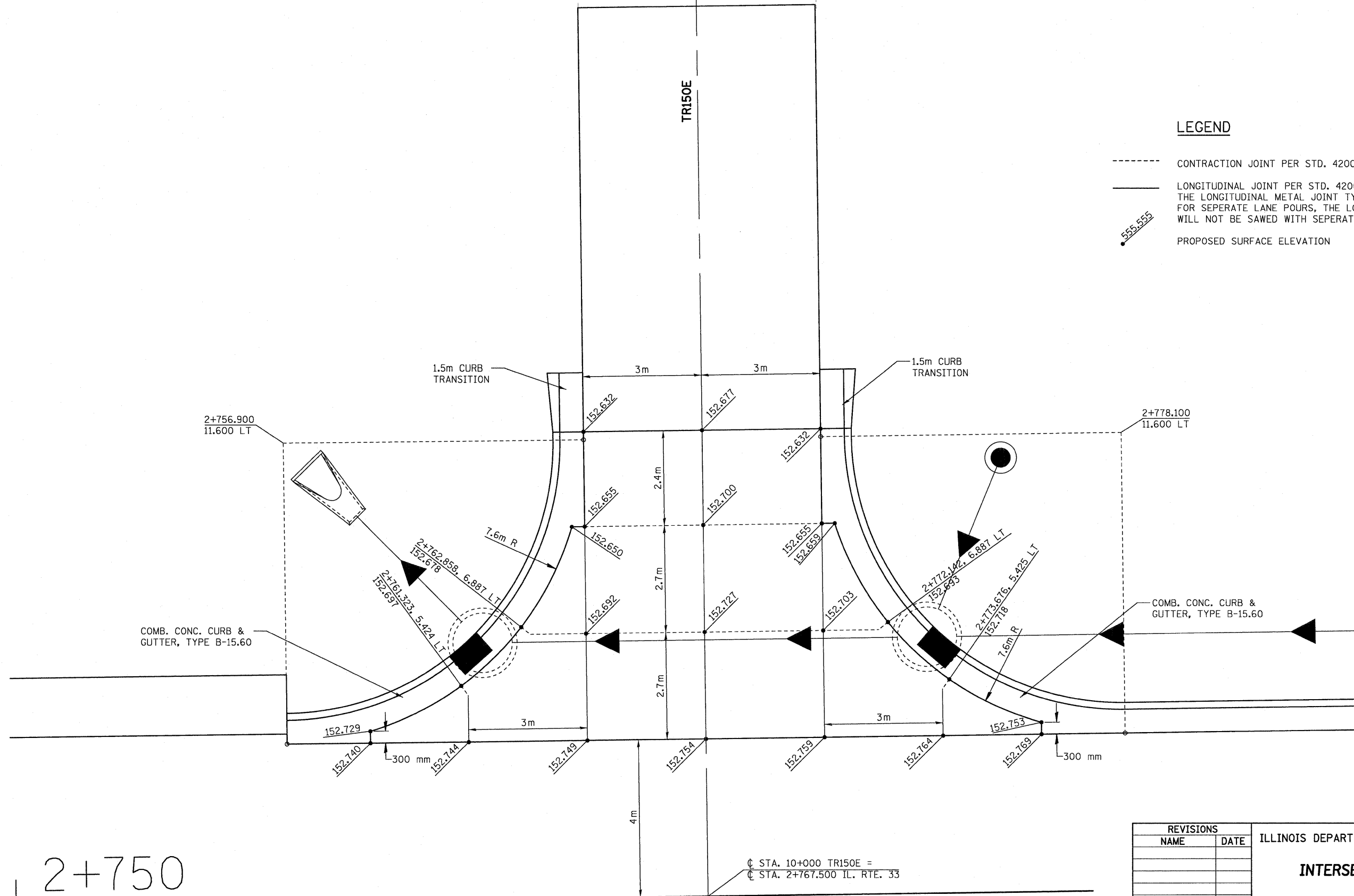
PLOT DATE = 4/18/2008  
 FILE NAME = H:\4420\78147\_int\_TR100E.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	148
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
-  555.555 PROPOSED SURFACE ELEVATION



PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\70148.m\TR150E.dgn

2+750

⊕ STA. 10+000 TR150E =  
⊕ STA. 2+767.500 IL. RTE. 33

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERSECTION DETAIL**  
**TR150E**  
SCALE AS SHOWN      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

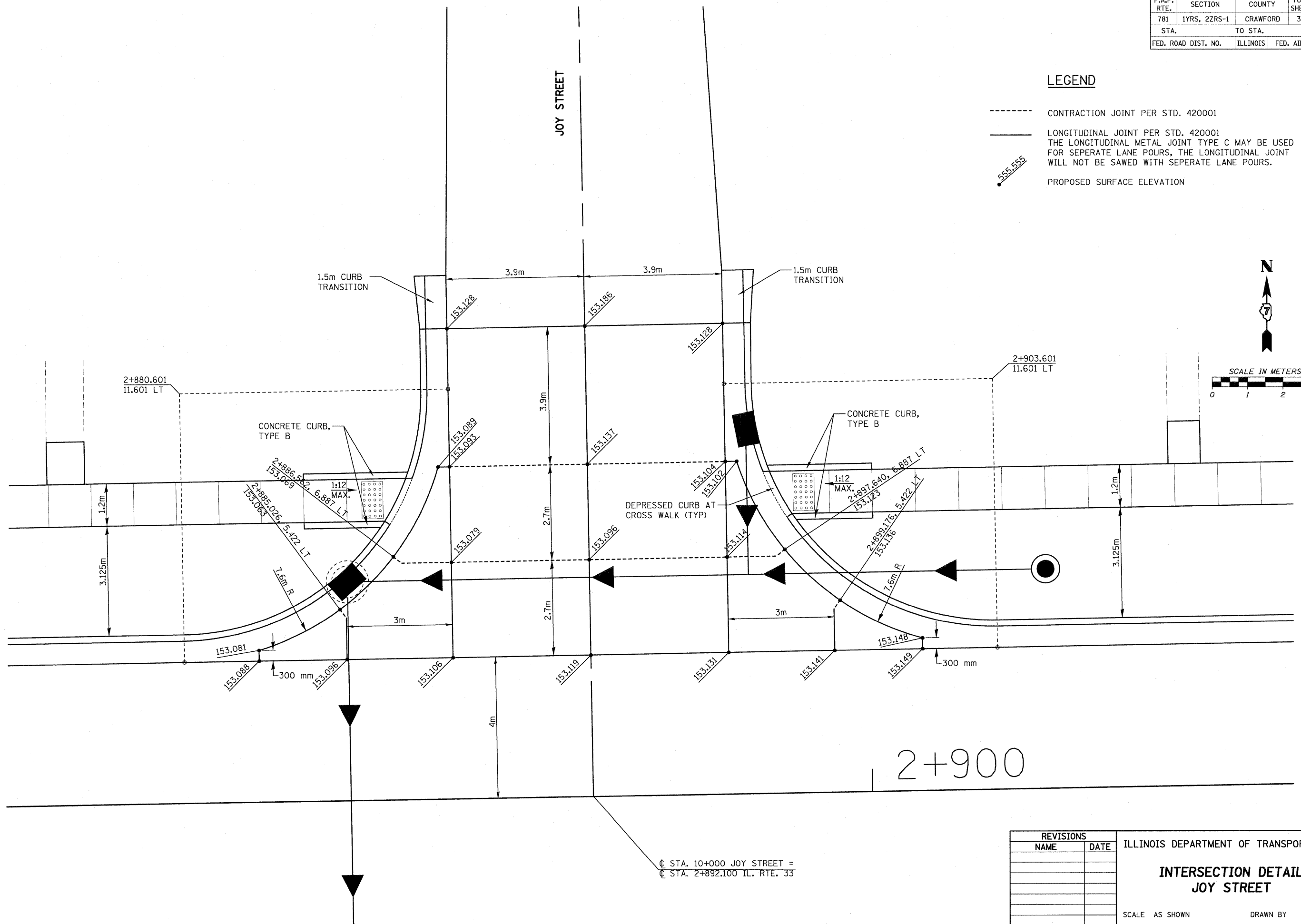
H. M. & G. NO. 4420



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	149
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION



2+900

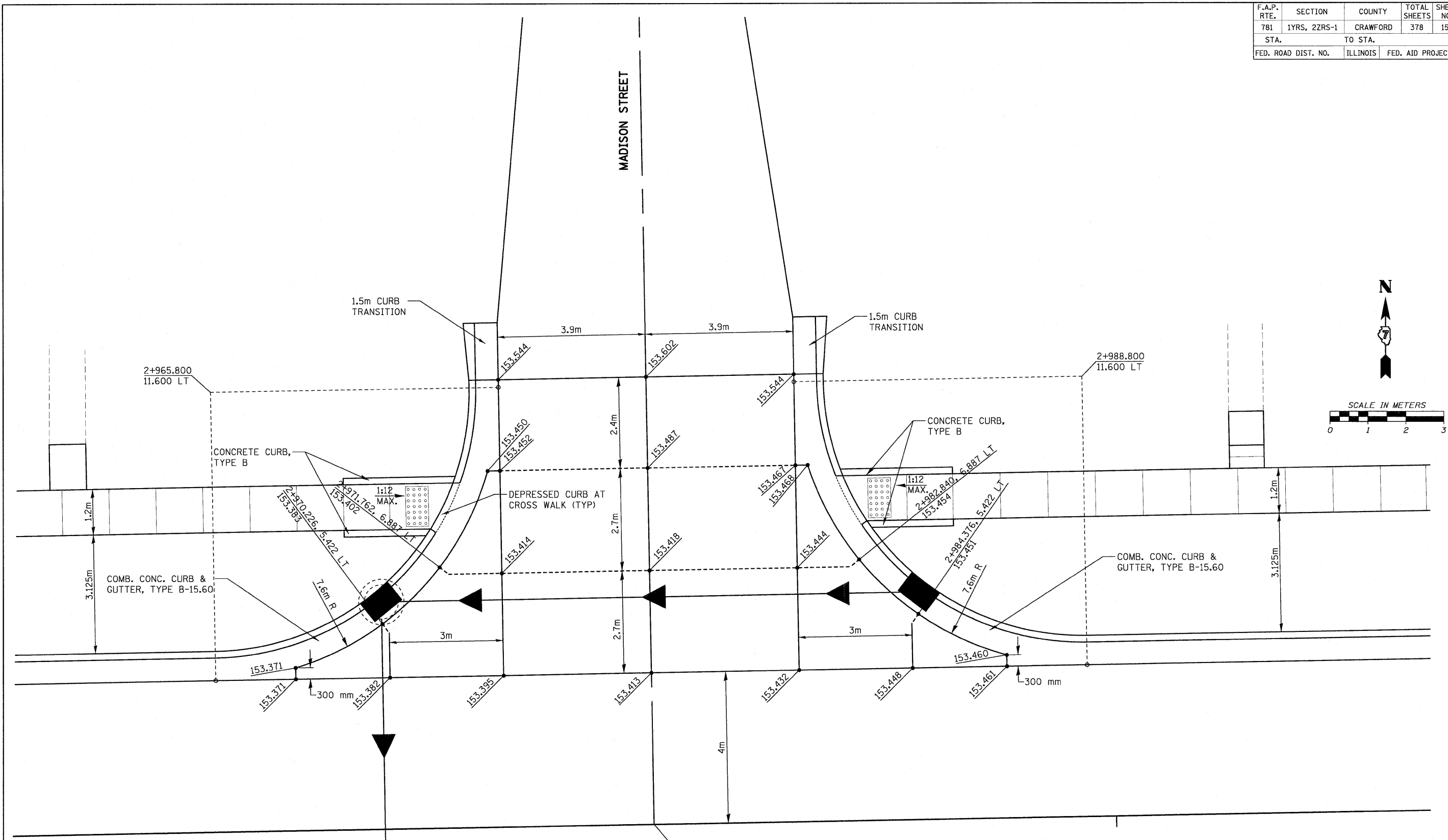
☐ STA. 10+000 JOY STREET =  
☐ STA. 2+892.100 IL. RTE. 33

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>INTERSECTION DETAIL</b> <b>JOY STREET</b>
		SCALE AS SHOWN DATE MARCH 20, 2008
		DRAWN BY EDW CHECKED BY RGH

PLOT DATE = 3/20/2008  
 FILE NAME = H:\442078\1019\_int\_Joy.dgn

H. M. & G. NO. 4420

CONTRACT NO. 94533				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	150
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPARATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWS WITH SEPARATE LANE POURS.
- ▲ PROPOSED SURFACE ELEVATION

Ⓞ STA. 10+000 MADISON STREET =  
 Ⓞ STA. 2+977.300 IL. RTE. 33

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

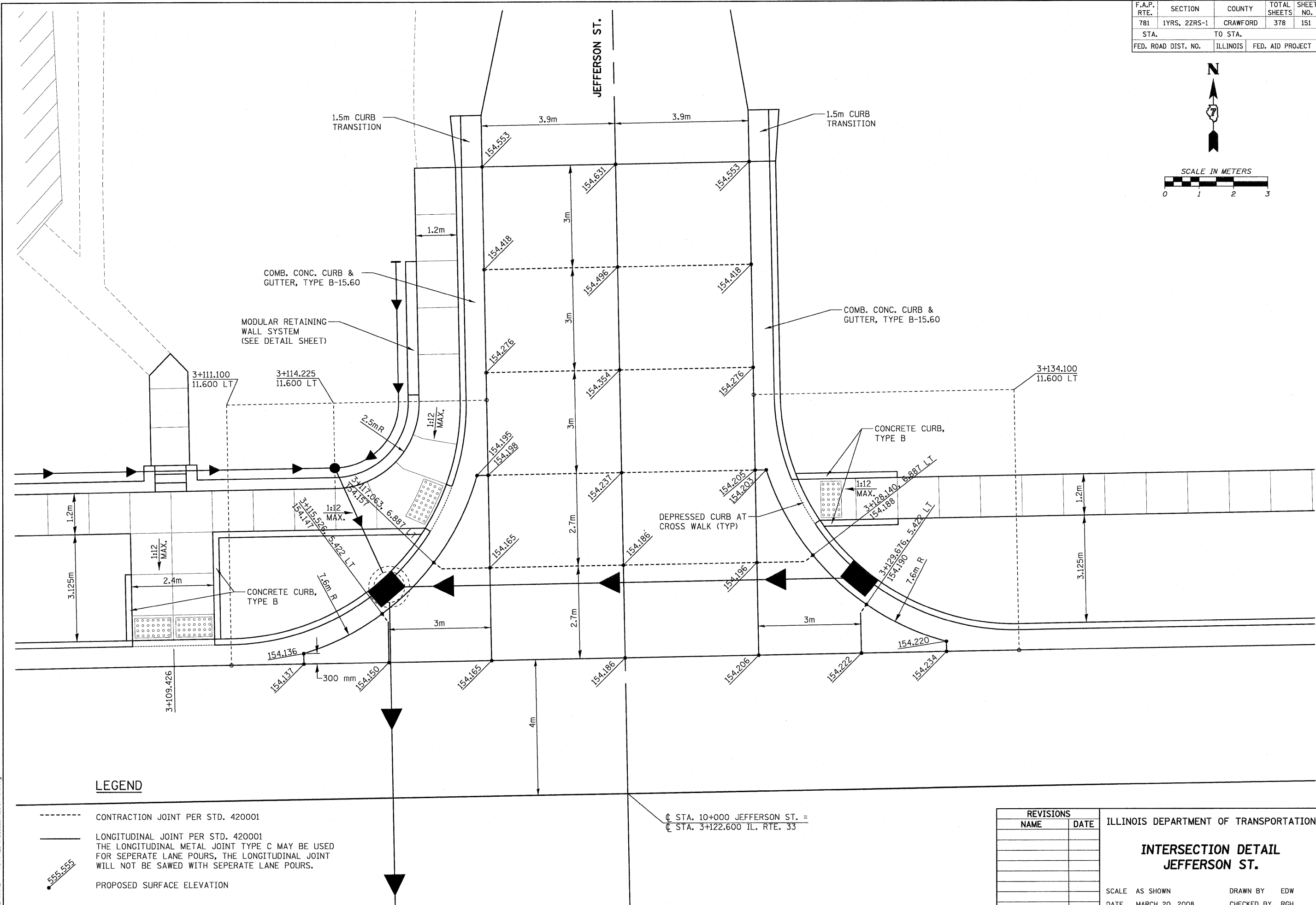
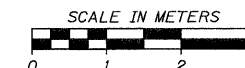
**INTERSECTION DETAIL  
MADISON STREET**

SCALE AS SHOWN      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

PLOT DATE = 3/20/2008  
 FILE NAME = H:\1428\70150\_int\_MadisonN.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	151
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- PROPOSED SURFACE ELEVATION

⊕ STA. 10+000 JEFFERSON ST. =  
⊕ STA. 3+122.600 IL. RTE. 33

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAIL  
JEFFERSON ST.**

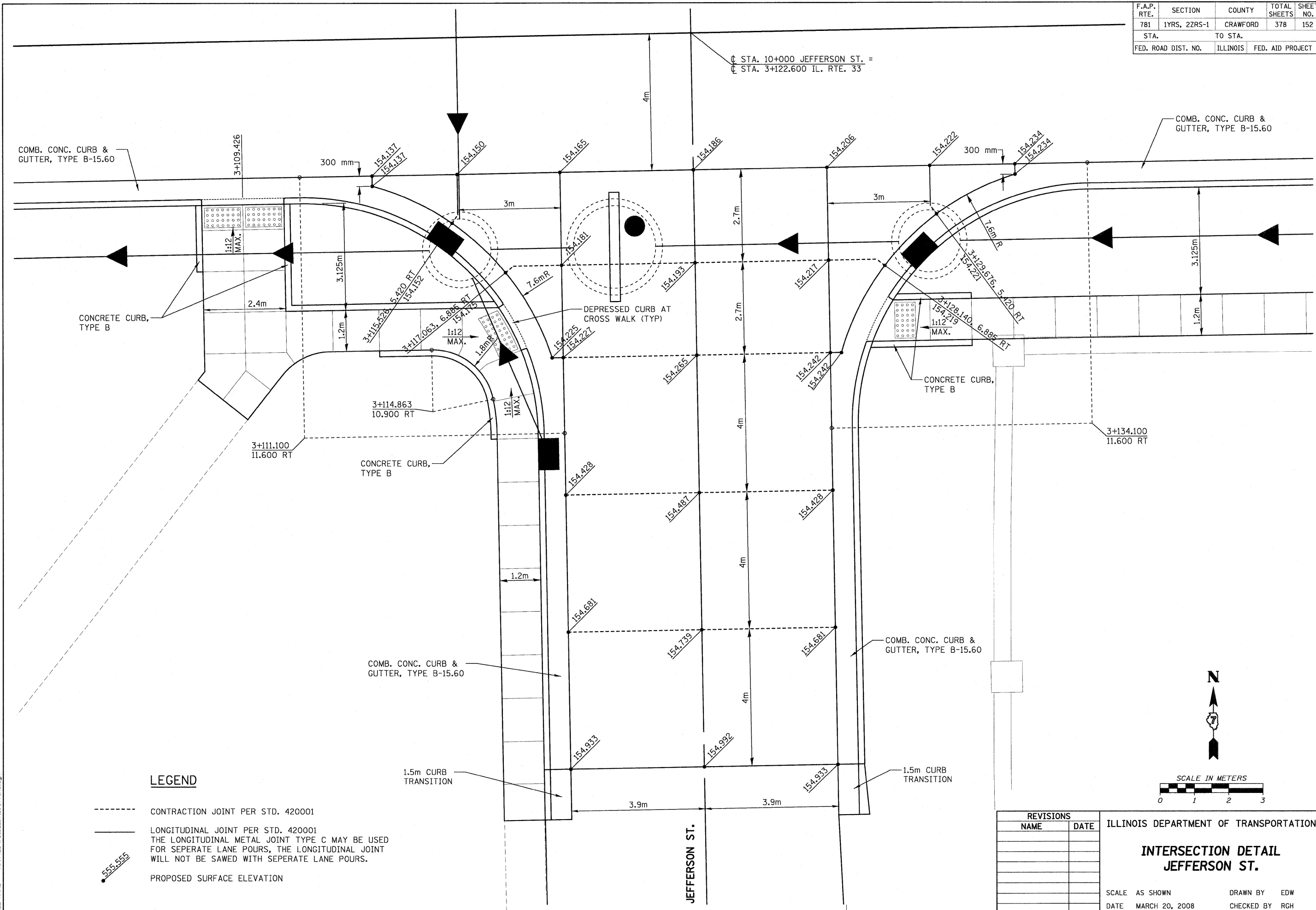
SCALE AS SHOWN      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

PLOT DATE = 3/20/2008  
FILE NAME = H:\4428\78151\_int\_JeffRtn.dgn

H. M. & G. NO. 4420

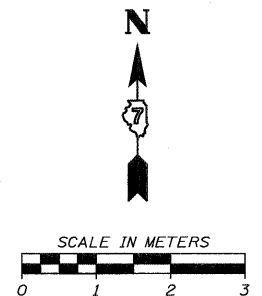
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	152
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

⚬ STA. 10+000 JEFFERSON ST. =  
 ⚬ STA. 3+122.600 IL. RTE. 33



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- PROPOSED SURFACE ELEVATION



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

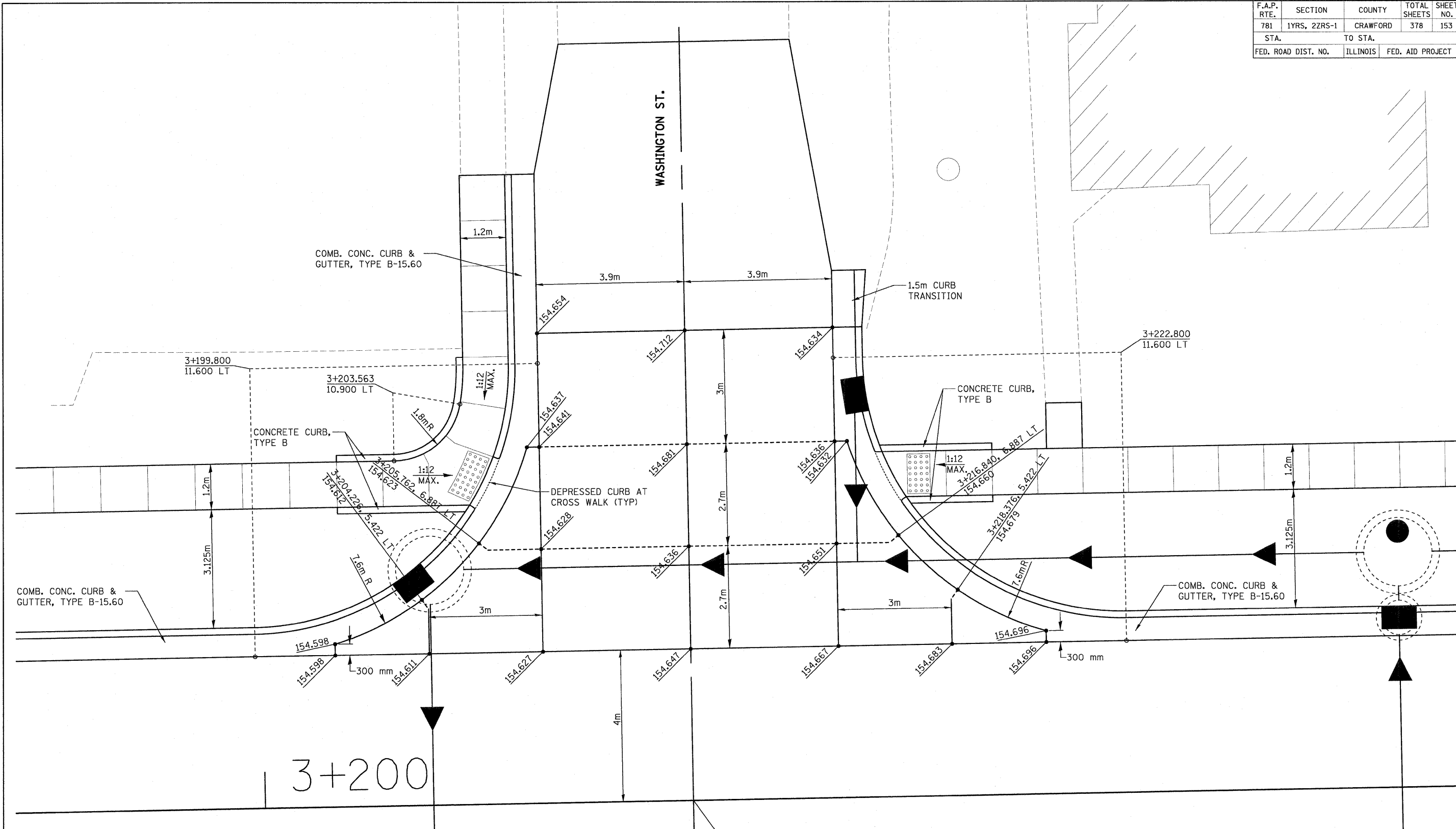
**INTERSECTION DETAIL  
JEFFERSON ST.**

SCALE AS SHOWN      DRAWN BY EDW  
 DATE MARCH 20, 2008      CHECKED BY RGH

PLOT DATE = 3/20/2008  
 FILE NAME = H:\442670052\_int\_Jeff.rvt

H. M. & G. NO. 4420

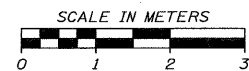
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	153
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPARATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWS WITH SEPARATE LANE POURS.
- PROPOSED SURFACE ELEVATION

⊙ STA. 10+000 WASHINGTON ST. =  
⊙ STA. 3+211.300 IL. RTE. 33



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAIL  
WASHINGTON STREET**

SCALE AS SHOWN      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

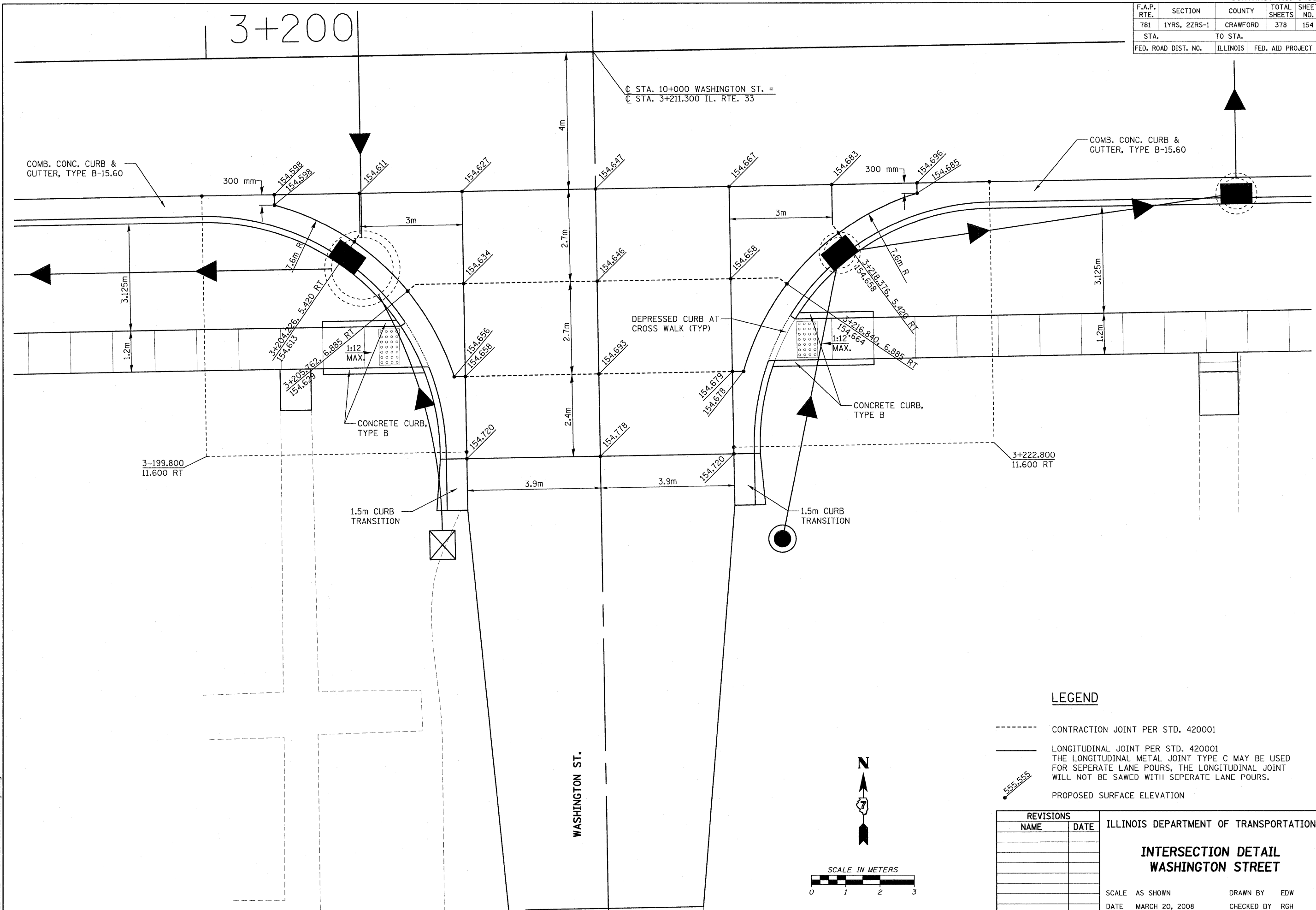
PLOT DATE = 3/20/2008  
FILE NAME = H:\4428\70153.int\Whgpn.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	154
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

3+200

⊕ STA. 10+000 WASHINGTON ST. =  
⊕ STA. 3+211.300 IL. RTE. 33



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001
- THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p><b>INTERSECTION DETAIL WASHINGTON STREET</b></p> <p>SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH</p>

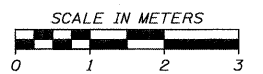
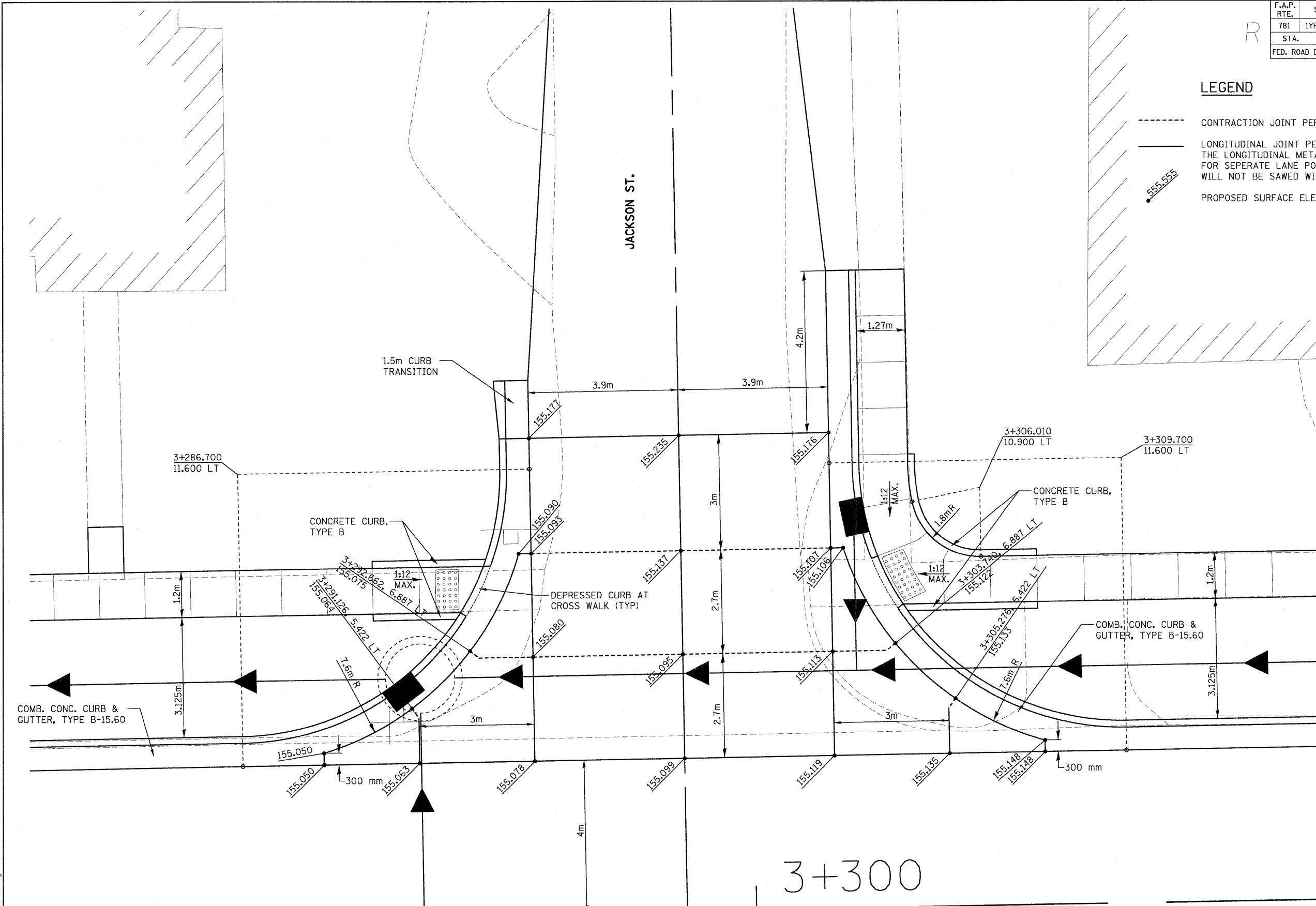
PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\70154\_intl.Washington.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	155
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- PROPOSED SURFACE ELEVATION



3+300

± STA. 10+000 JACKSON ST. =  
± STA. 3+298.200 IL. RTE. 33

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAIL  
JACKSON ST.**

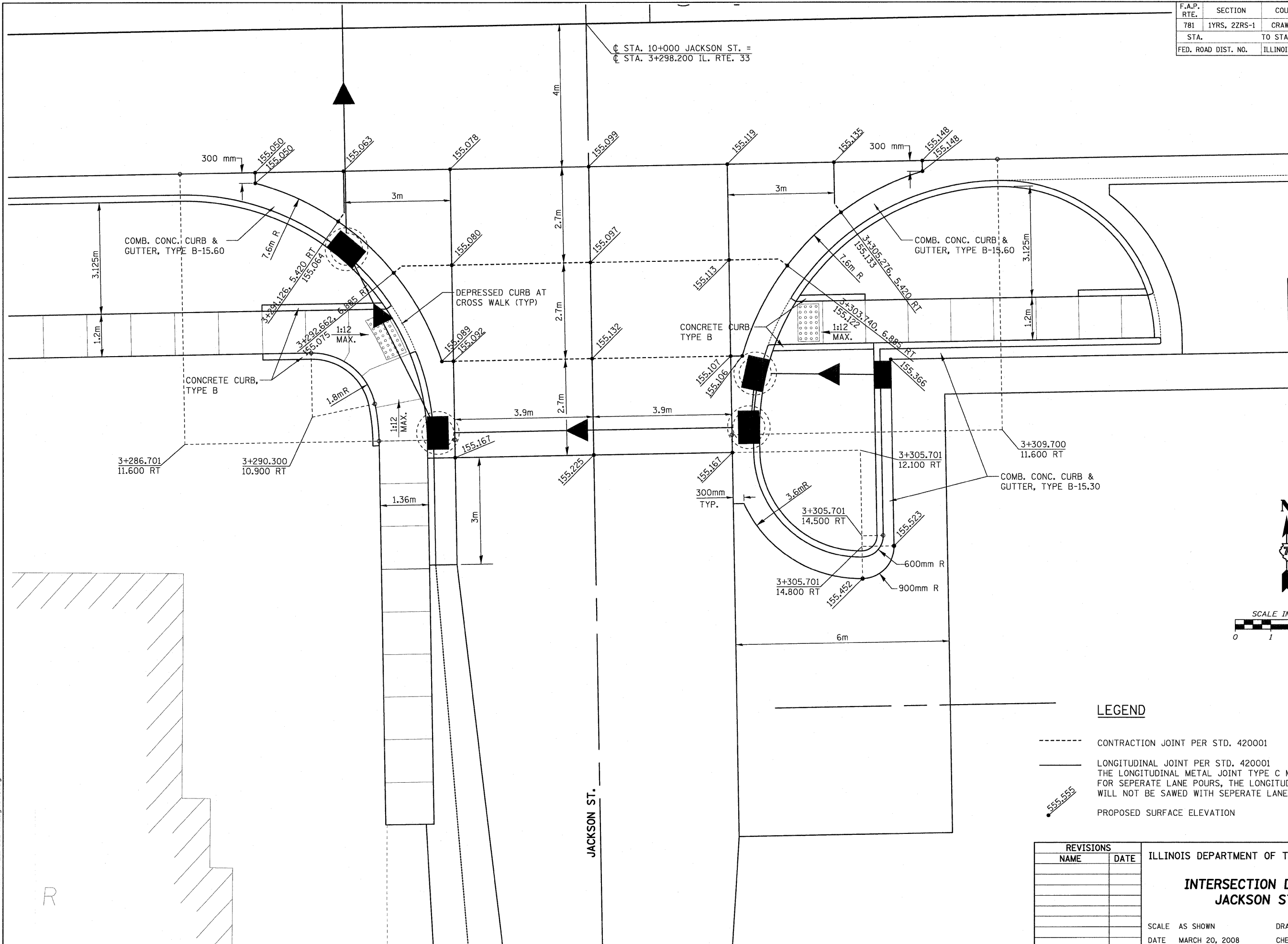
SCALE AS SHOWN      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

PLOT DATE = 3/20/2008  
FILE NAME = H:\44207\0155.int...Joken\dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	156
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CL STA. 10+000 JACKSON ST. =  
CL STA. 3+298.200 IL. RTE. 33



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPARATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPARATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>INTERSECTION DETAIL JACKSON ST.</b>
		SCALE AS SHOWN DATE MARCH 20, 2008
		DRAWN BY EDW CHECKED BY RGH

PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\781\60\123-HRMS-10K-S.DGN

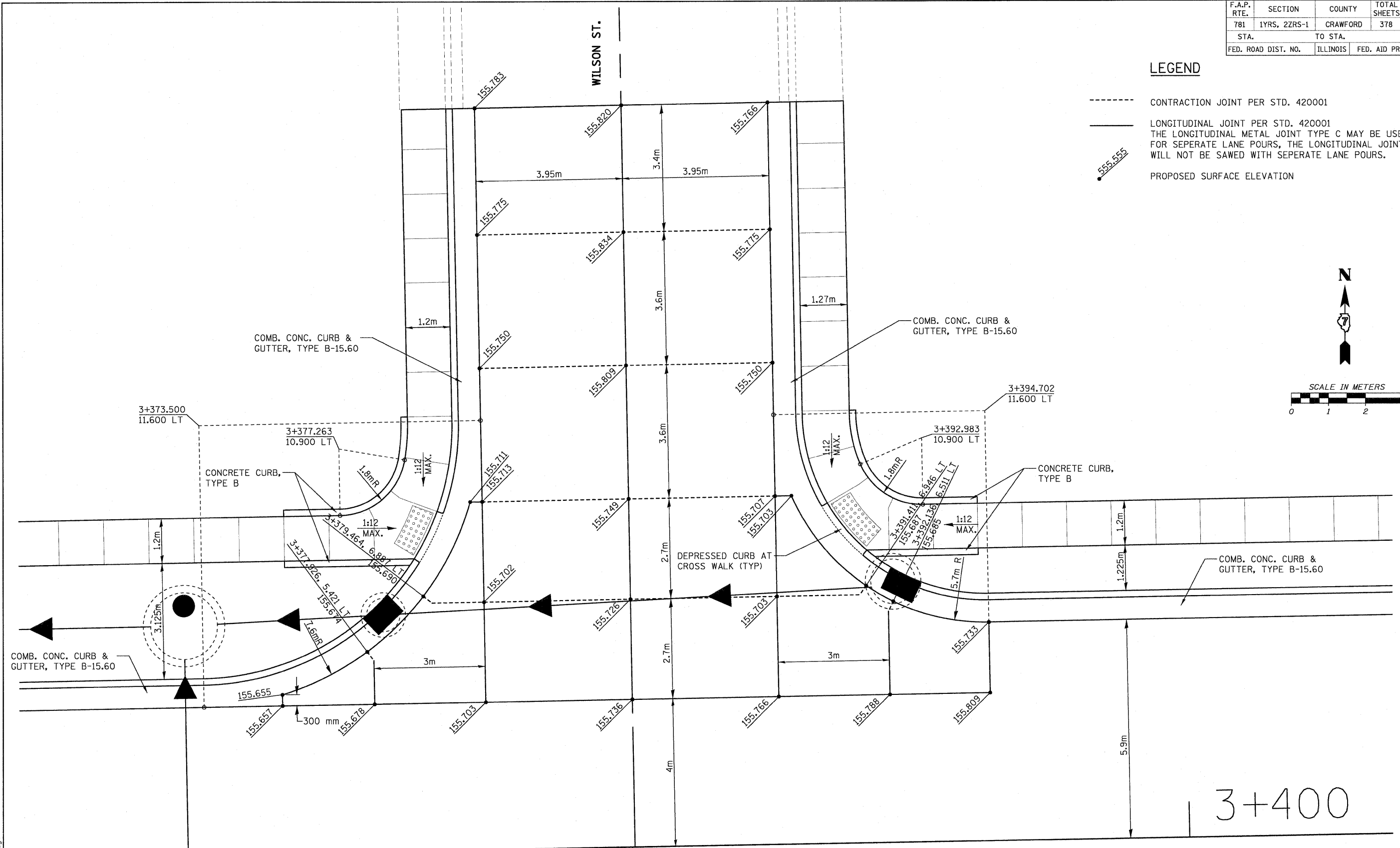
H. M. & G. NO. 4420



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	157
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION



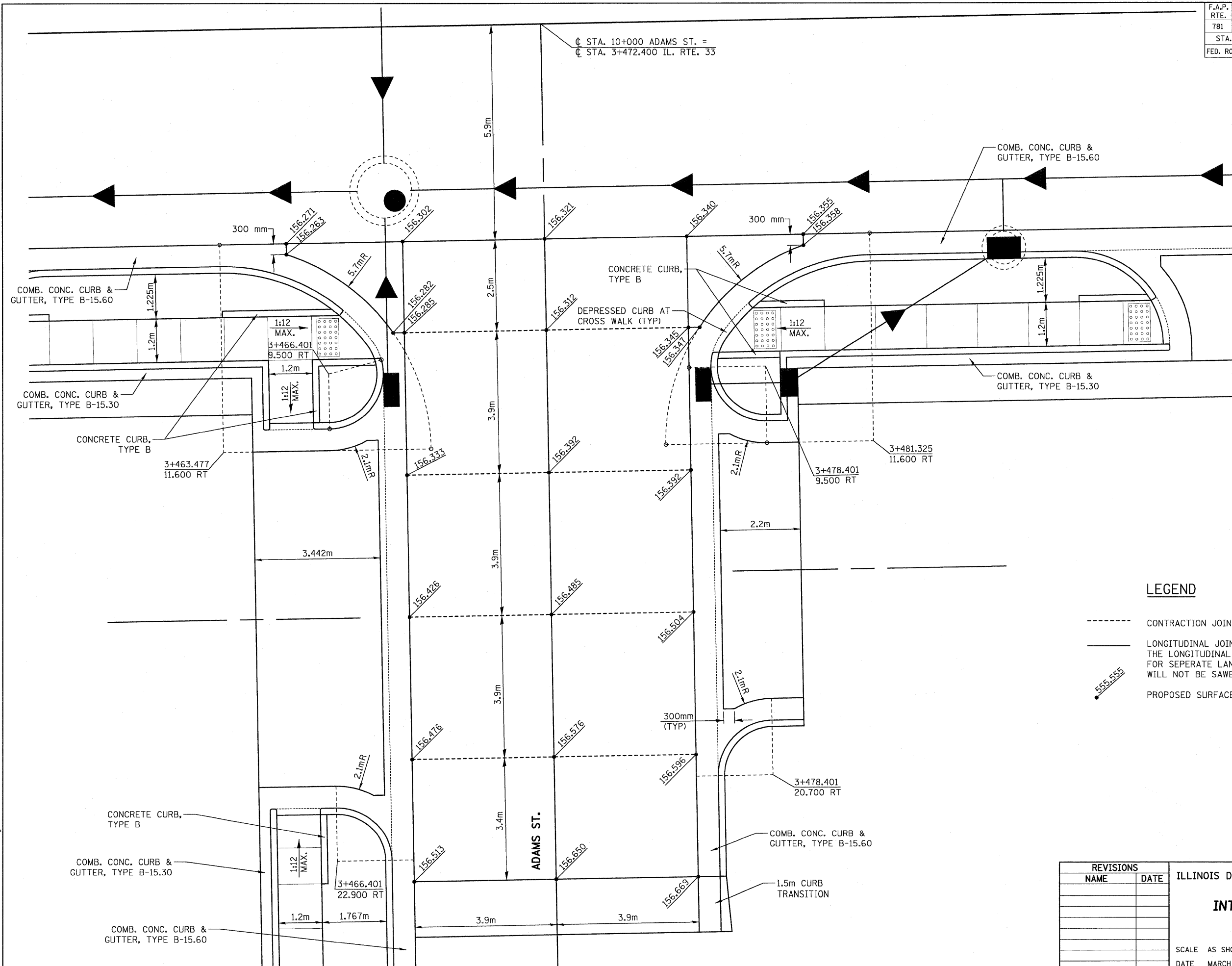
© STA. 10+000 WILSON ST. =  
© STA. 3+385.050 IL. RTE. 33

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>INTERSECTION DETAIL WILSON ST.</b>
		SCALE AS SHOWN      DRAWN BY EDW
		DATE MARCH 20, 2008      CHECKED BY RGH

PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\78157\_int.WilsonN.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	158
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAIL  
ADAMS STREET**

SCALE AS SHOWN      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

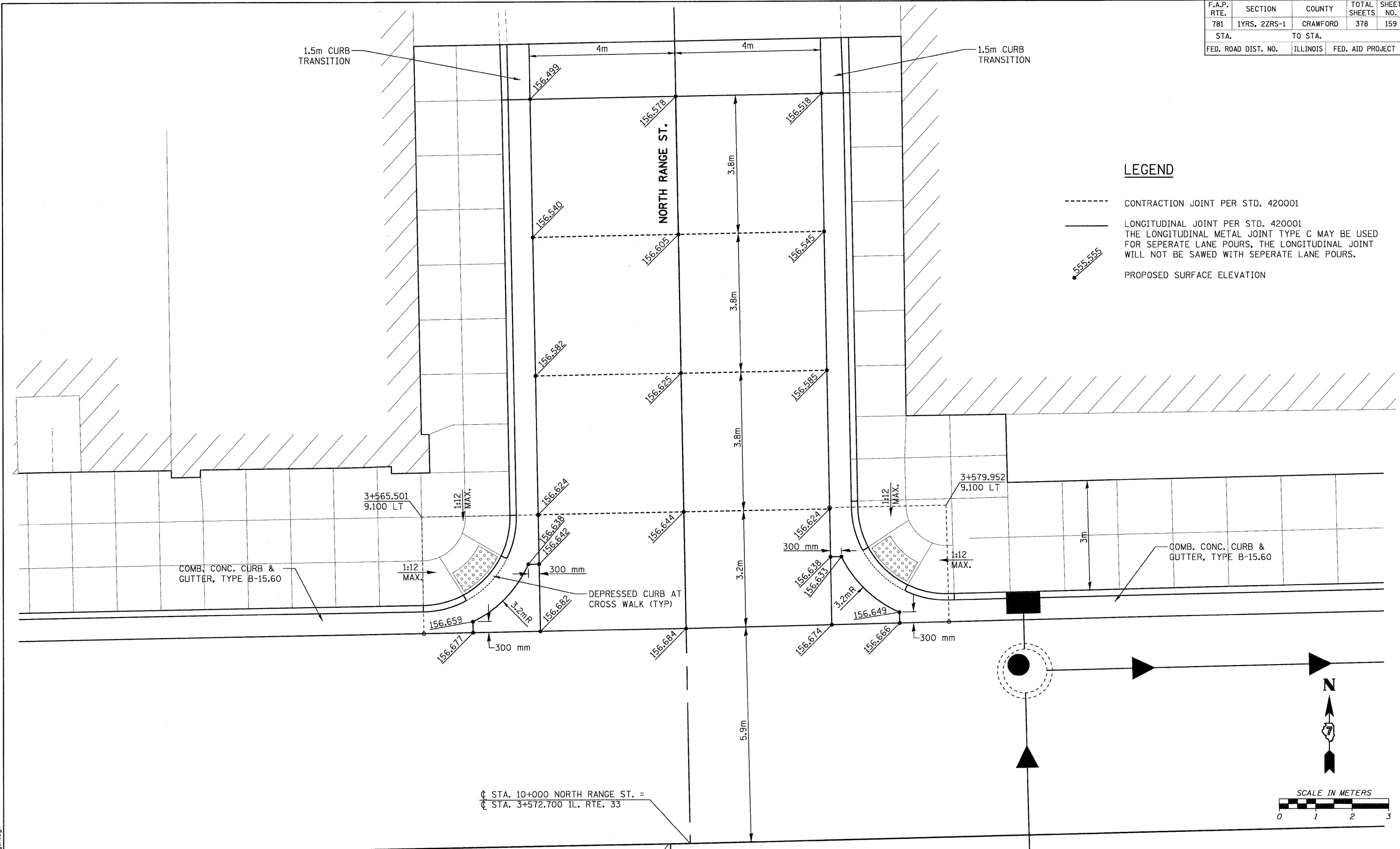
PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\70158.mtl.AdamsSt.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	159
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION



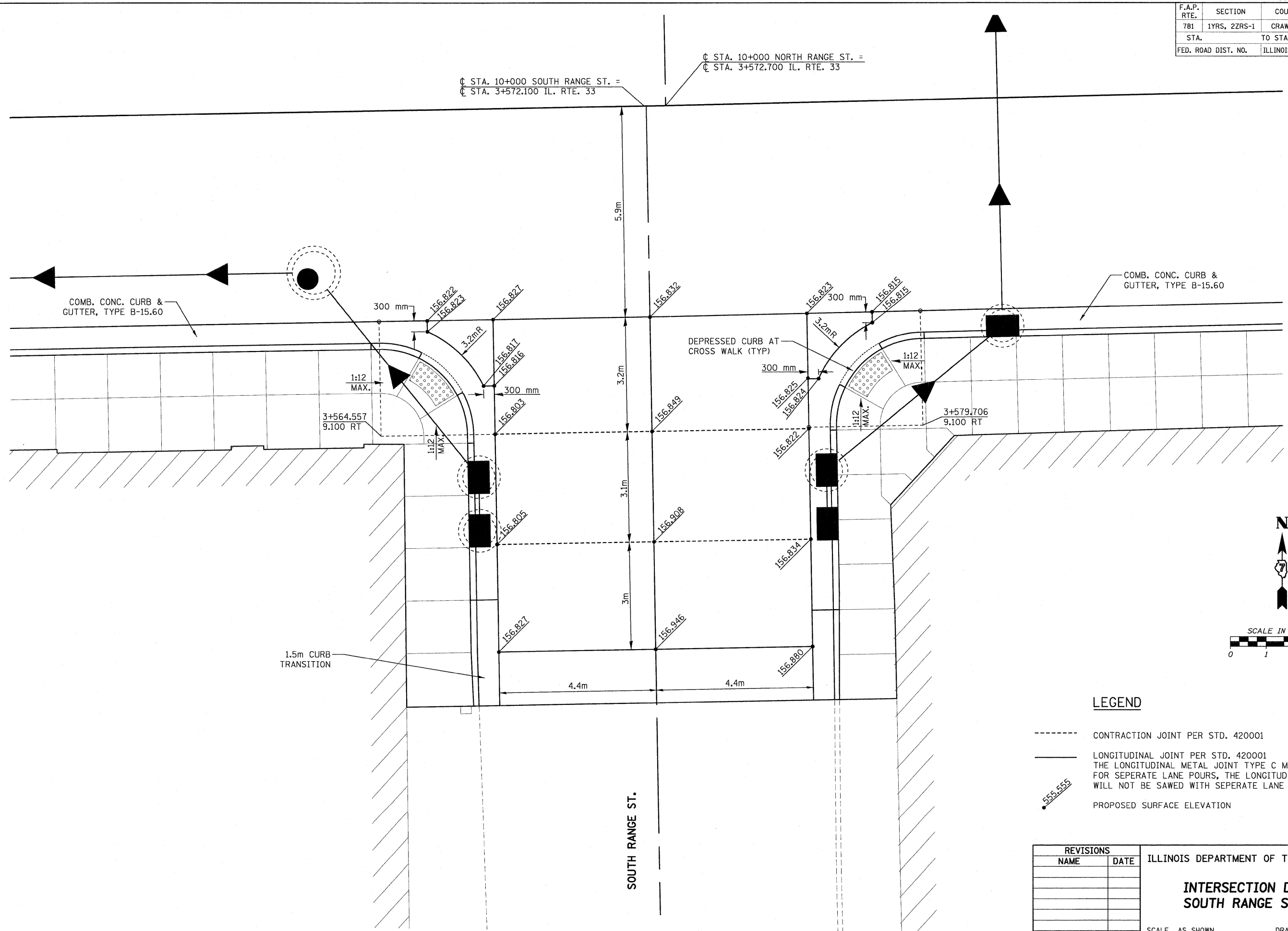
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p><b>INTERSECTION DETAIL NORTH RANGE STREET</b></p> <p>SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH</p>

PLOT DATE = 3/20/2008  
 FILE NAME = H:\4428\78159\_int\_Range.dgn

H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	160
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Ⓞ STA. 10+000 SOUTH RANGE ST. =  
 Ⓞ STA. 3+572.100 IL. RTE. 33  
 Ⓞ STA. 10+000 NORTH RANGE ST. =  
 Ⓞ STA. 3+572.700 IL. RTE. 33



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>INTERSECTION DETAIL</b> <b>SOUTH RANGE STREET</b>  SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH

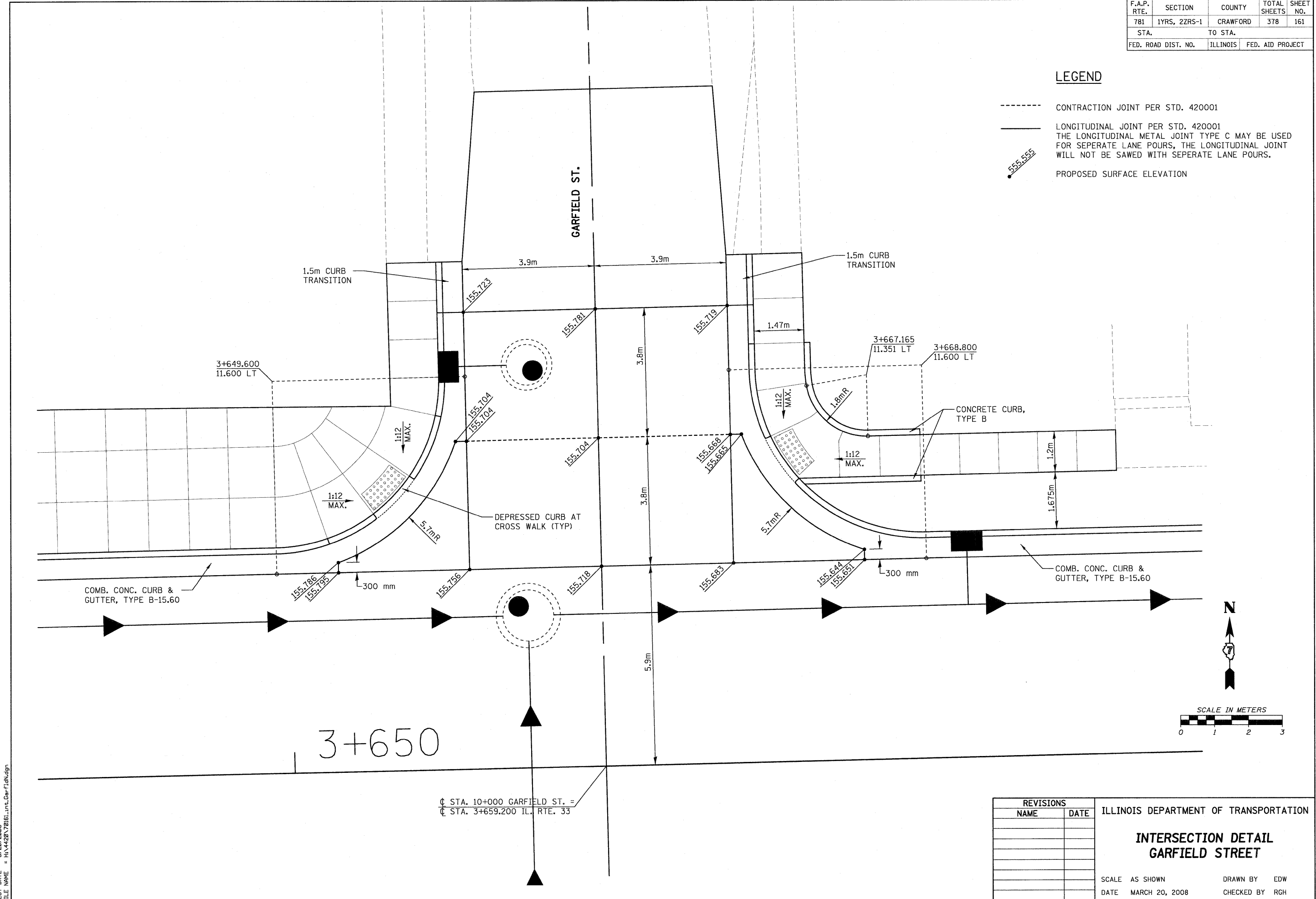
PLOT DATE = 3/29/2008  
 FILE NAME = H:\14420\70160.mt\_RangeS.dgn

H. M. & C. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	161
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION



PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\70161\int.Gar-7.dgn

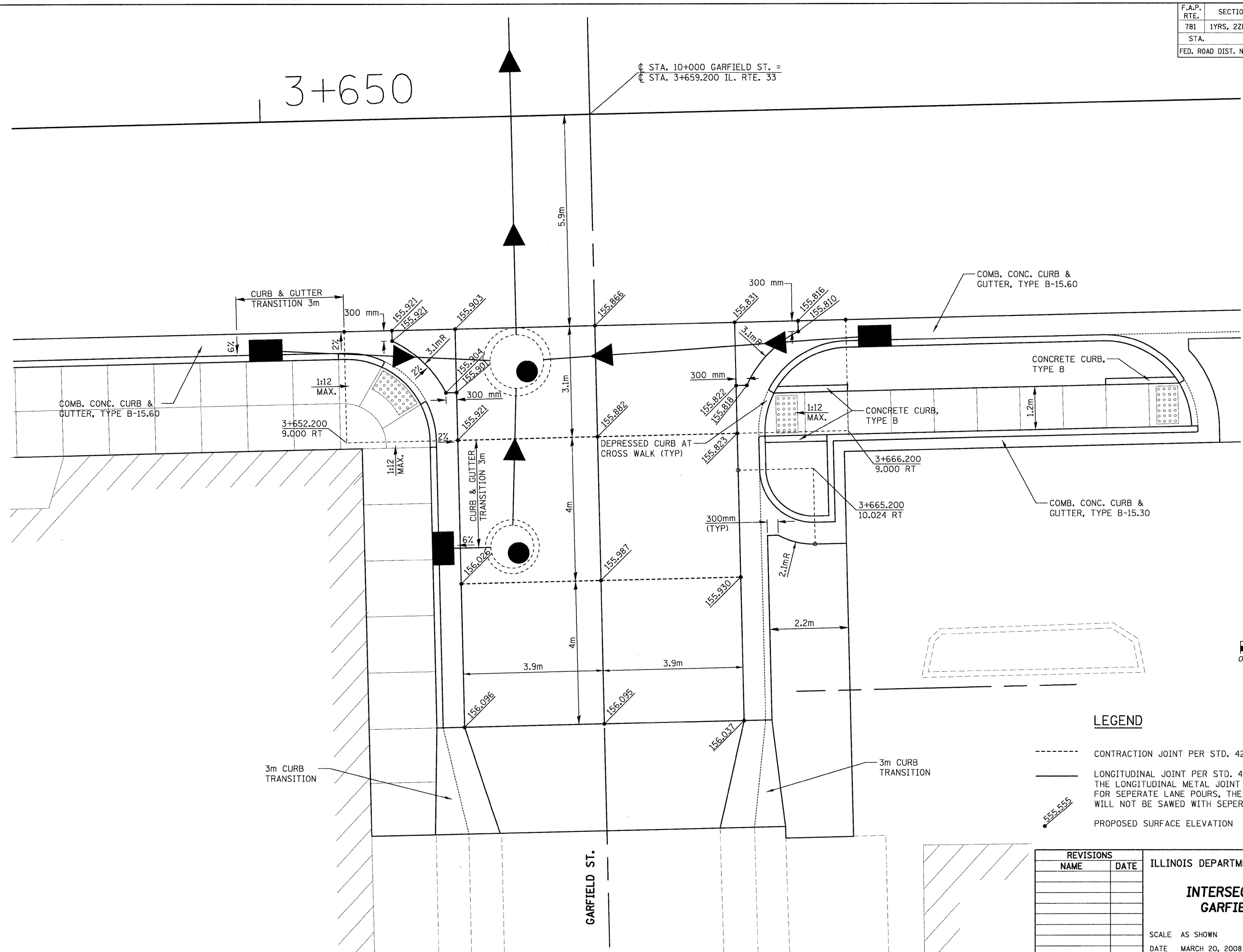
H. M. & G. NO. 4420

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p align="center"><b>INTERSECTION DETAIL GARFIELD STREET</b></p> <p>SCALE AS SHOWN      DRAWN BY EDW DATE MARCH 20, 2008      CHECKED BY RGH</p>

CONTRACT NO. 94533				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	162
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

3+650

⊕ STA. 10+000 GARFIELD ST. =  
⊕ STA. 3+659.200 IL. RTE. 33



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPARATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPARATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

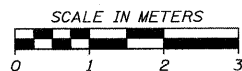
**INTERSECTION DETAIL  
GARFIELD STREET**

SCALE AS SHOWN      DRAWN BY EDW  
DATE MARCH 20, 2008      CHECKED BY RGH

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\70162\int\GarFld6.dgn

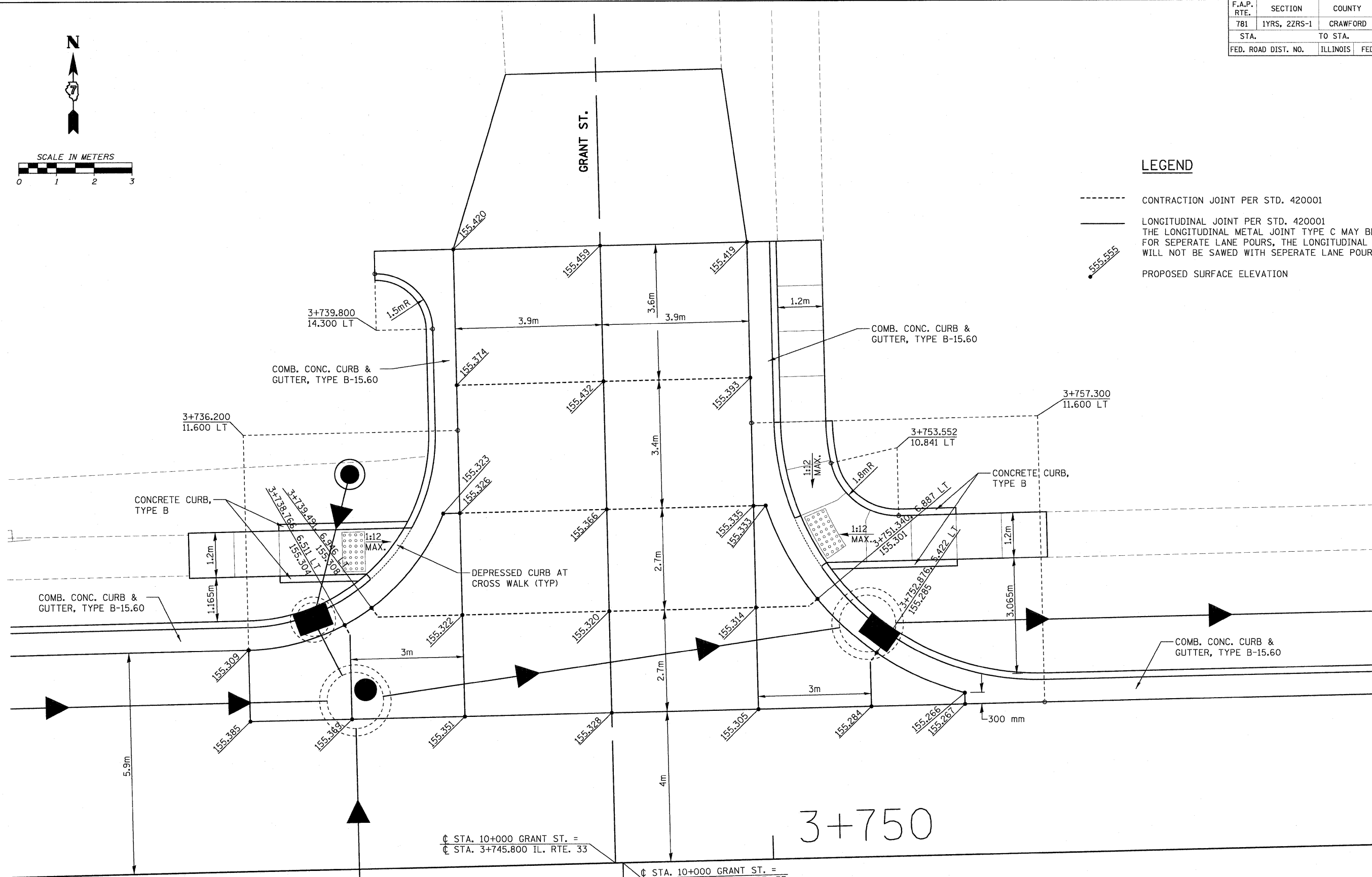
H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	163
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- 555.555 PROPOSED SURFACE ELEVATION



Ⓢ STA. 10+000 GRANT ST. =  
 Ⓢ STA. 3+745.800 IL. RTE. 33  
  
 Ⓢ STA. 10+000 GRANT ST. =  
 Ⓢ STA. 3+746.000 IL. RTE. 33

PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\78163\_int\_GrantM.dgn

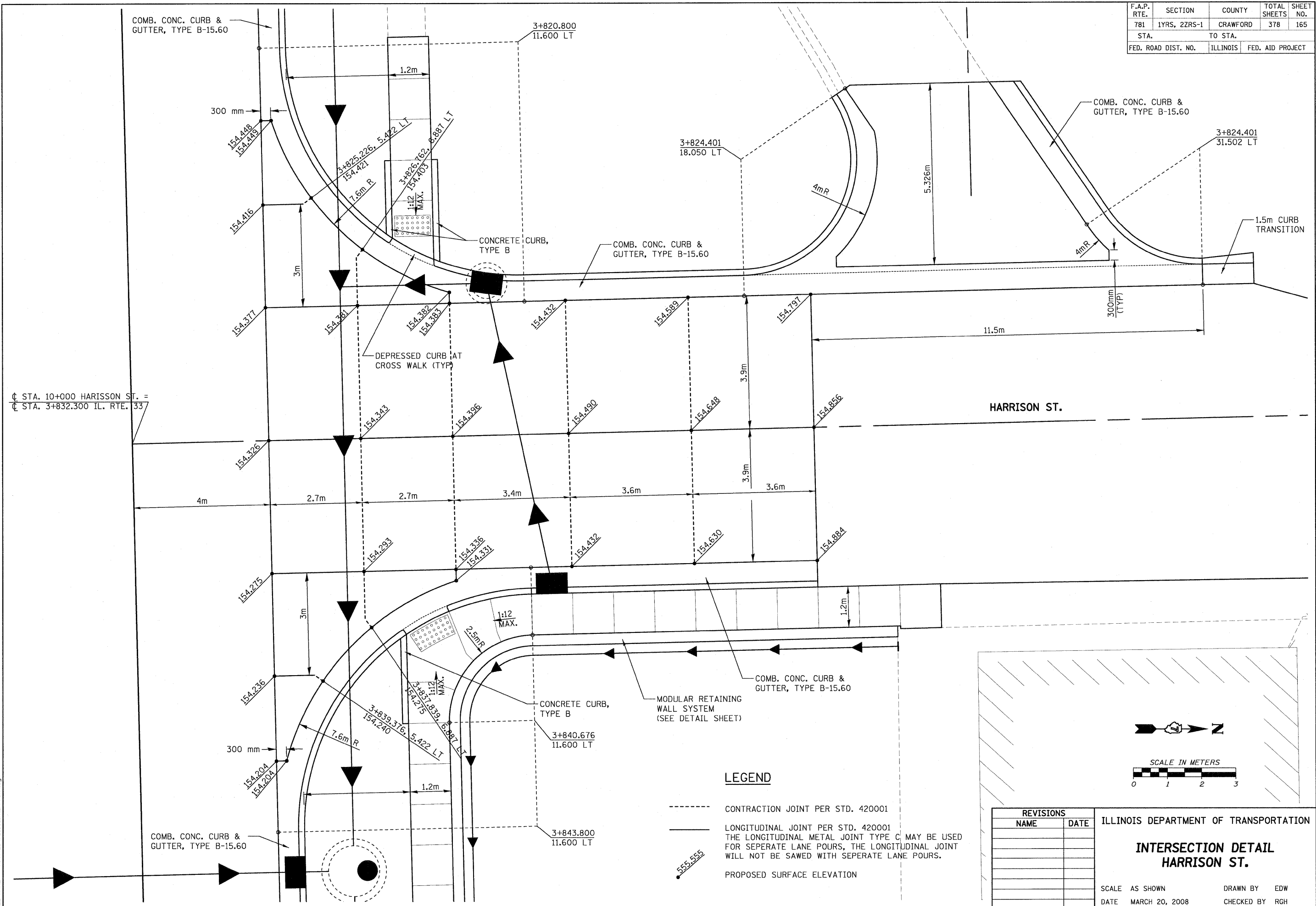
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>INTERSECTION DETAIL GRANT STREET</b>
		SCALE AS SHOWN DATE MARCH 20, 2008
		DRAWN BY EDW CHECKED BY RGH

H. M. & G. NO. 4420





F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	165
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLOT DATE = 3/20/2008  
 FILE NAME = H:\1420\70165\_rmt\_HarrisonN.dgn

H. M. & G. NO. 4420



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	167
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

3+900

☐ STA. 10+000 TAYLOR ST. =  
☐ STA. 3+919.000 IL. RTE. 33

COMB. CONC. CURB & GUTTER, TYPE B-15.60

COMB. CONC. CURB & GUTTER, TYPE B-15.60

DEPRESSED CURB AT CROSS WALK (TYP)

CONCRETE CURB, TYPE B

CONCRETE CURB, TYPE B

TAYLOR ST.

**LEGEND**

- CONTRACTION JOINT PER STD. 420001
- LONGITUDINAL JOINT PER STD. 420001  
THE LONGITUDINAL METAL JOINT TYPE C MAY BE USED FOR SEPERATE LANE POURS, THE LONGITUDINAL JOINT WILL NOT BE SAWED WITH SEPERATE LANE POURS.
- ▲ PROPOSED SURFACE ELEVATION

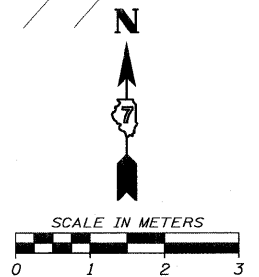
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**INTERSECTION DETAIL  
TAYLOR ST.**

SCALE AS SHOWN  
DATE MARCH 20, 2008

DRAWN BY EDW  
CHECKED BY RGH

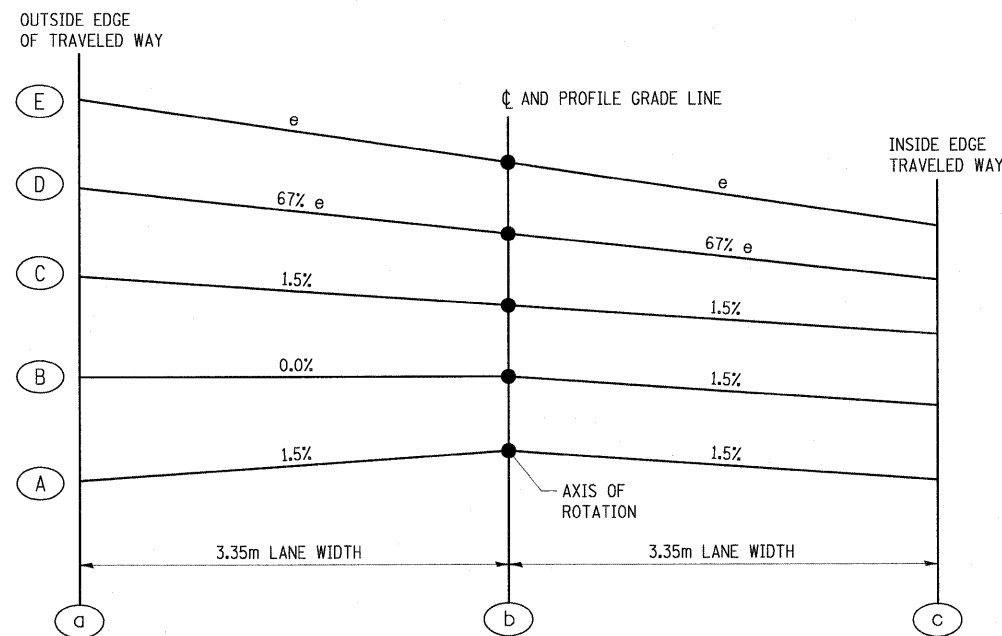
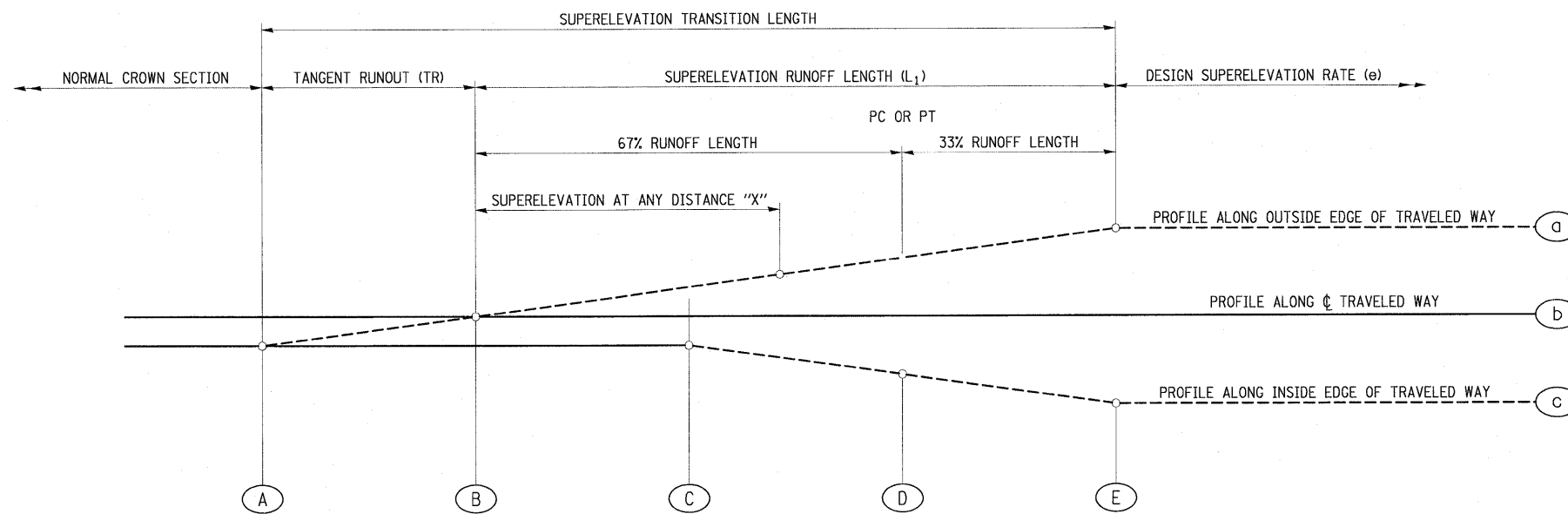


PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\781017.dwg, Taylor Sign

H. M. & G. NO. 4420



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	169
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES

- REFER TO THE TYPICAL SECTIONS, PLAN & PROFILE SHEETS AND THE SUPERELEVATION DATA TABLES ON THE FOLLOWING SHEET FOR DETAILED INFORMATION AT EACH CURVE.
- TO COMPUTE THE SUPERELEVATION AT ANY DISTANCE "X" FROM POINT B, USE THE FOLLOWING:

$$\text{SUPERELEVATION AT ANY DISTANCE "X"} = \frac{(3.35e/L_1) \times \text{DISTANCE "X"}}{36}$$

TYPICAL SUPERELEVATION TRANSITION DETAILS

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
		<b>TYPICAL SUPERELEVATION TRANSITION DETAIL</b>	
		SCALE NO SCALE	DRAWN BY KOJ
		DATE MARCH 20, 2008	CHECKED BY RGH

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\70169\_detailed.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	170
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**CURVE P2 TRANSITION DETAILS**

R = 307.912    NC = -1.5%    LANE WIDTH = 3.35m  
 CURVE = LEFT    SE = 6.0%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 43	14	29	PC	1+887.948
TR 11	---	---	PT	2+113.592

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 1+847.948	-1.50%	-1.50%
B 1+858.948	-1.50%	0.0%
C 1+869.948	-1.50%	1.50%
D 1+887.948	-4.03%	4.03%
E 1+901.948	-6.0%	6.0%
E 2+099.592	-6.0%	6.0%
D 2+113.592	-4.03%	4.03%
C 2+131.592	-1.50%	1.50%
B 2+142.592	-1.50%	0.0%
A 2+153.592	-1.50%	-1.50%

**CURVE P5 TRANSITION DETAILS**

R = 577.756    NC = -2.0%    LANE WIDTH = 3.35m  
 CURVE = RIGHT    SE = 2.8%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 20	7	13	PC	4+374.882
TR 14	---	---	PT	4+428.404

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 4+347.882	-2.00%	-2.00%
B 4+361.882	-2.00%	0.0%
C 4+375.882	-2.00%	2.00%
D 4+374.882	-1.87%	1.87%
E 4+381.882	-2.8%	2.8%
E 4+421.404	-2.8%	2.8%
D 4+428.404	-1.87%	1.87%
C 4+427.404	-2.00%	2.00%
B 4+441.404	-2.00%	0.0%
A 4+455.404	-2.00%	-2.00%

**CURVE P8 TRANSITION DETAILS**

R = 581.672    NC = -1.5%    LANE WIDTH = 3.35m  
 CURVE = RIGHT    SE = 5.2%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 37	12	25	PC	5+944.938
TR 11	---	---	PT	6+120.199

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 5+908.938	-1.50%	-1.50%
B 5+919.938	-1.50%	0.0%
C 5+930.938	-1.50%	1.50%
D 5+944.938	-3.49%	3.49%
E 5+956.938	-5.2%	5.2%
E 6+108.199	-5.2%	5.2%
D 6+120.199	-3.49%	3.49%
C 6+134.199	-1.50%	1.50%
B 6+145.199	-1.50%	0.0%
A 6+156.199	-1.50%	-1.50%

**CURVE P9 TRANSITION DETAILS**

R = 651.393    NC = -1.5%    LANE WIDTH = 3.35m  
 CURVE = RIGHT    SE = 4.4%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 31	10	21	PC	6+380.742
TR 11	---	---	PT	6+565.330

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 6+348.742	-1.50%	-1.50%
B 6+359.742	-1.50%	0.0%
C 6+370.742	-1.50%	1.50%
D 6+380.742	-2.95%	2.95%
E 6+390.742	-4.4%	4.4%
E 6+555.330	-4.4%	4.4%
D 6+565.330	-2.95%	2.95%
C 6+575.330	-1.50%	1.50%
B 6+586.330	-1.50%	0.0%
A 6+597.330	-1.50%	-1.50%

**CURVE P10 TRANSITION DETAILS**

R = 802.264    NC = -1.5%    LANE WIDTH = 3.35m  
 CURVE = LEFT    SE = 4.8%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 34	11	23	PC	6+986.819
TR 11	---	---	PT	7+118.219

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 6+952.819	-1.50%	-1.50%
B 6+963.819	-1.50%	0.0%
C 6+974.819	-1.50%	1.50%
D 6+986.819	-3.22%	3.22%
E 6+997.819	-4.8%	4.8%
E 7+107.219	-4.8%	4.8%
D 7+118.219	-3.22%	3.22%
C 7+130.219	-1.50%	1.50%
B 7+141.219	-1.50%	0.0%
A 7+152.219	-1.50%	-1.50%

**CURVE P11 TRANSITION DETAILS**

R = 581.332    NC = -1.5%    LANE WIDTH = 3.35m  
 CURVE = LEFT    SE = 5.0%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 36	12	24	PC	7+373.093
TR 11	---	---	PT	7+466.210

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 7+338.093	-1.50%	-1.50%
B 7+349.093	-1.50%	0.0%
C 7+360.093	-1.50%	1.50%
D 7+373.093	-3.32%	3.32%
E 7+385.093	-5.0%	5.0%
E 7+454.210	-5.0%	5.0%
D 7+466.210	-3.32%	3.32%
C 7+479.210	-1.50%	1.50%
B 7+490.210	-1.50%	0.0%
A 7+501.210	-1.50%	-1.50%

**CURVE P16 TRANSITION DETAILS**

R = 871.357    NC = -1.5%    LANE WIDTH = 3.35m  
 CURVE = LEFT    SE = 4.5%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 32	11	21	PC	11+902.118
TR 11	---	---	PT	12+110.906

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 11+870.118	-1.50%	-1.50%
B 11+881.118	-1.50%	0.0%
C 11+892.118	-1.50%	1.50%
D 11+902.118	-2.93%	2.93%
E 11+913.118	-4.5%	4.5%
E 12+099.906	-4.5%	4.5%
D 12+110.906	-2.93%	2.93%
C 12+120.906	-1.50%	1.50%
B 12+131.906	-1.50%	0.0%
A 12+142.906	-1.50%	-1.50%

**CURVE P17 TRANSITION DETAILS**

R = 867.140    NC = -1.5%    LANE WIDTH = 3.35m  
 CURVE = RIGHT    SE = 4.6%

ROUNDED	1/3	2/3	CURVE STATIONS	
L1 33	11	22	PC	12+324.152
TR 11	---	---	PT	12+554.276

STATION	SUPERELEVATION	
	LEFT	RIGHT
A 12+291.152	-1.50%	-1.50%
B 12+302.152	-1.50%	0.0%
C 12+313.152	-1.50%	1.50%
D 12+324.152	-3.05%	3.05%
E 12+335.152	-4.6%	4.6%
E 12+543.276	-4.6%	4.6%
D 12+554.276	-3.05%	3.05%
C 12+565.276	-1.50%	1.50%
B 12+576.276	-1.50%	0.0%
A 12+587.276	-1.50%	-1.50%

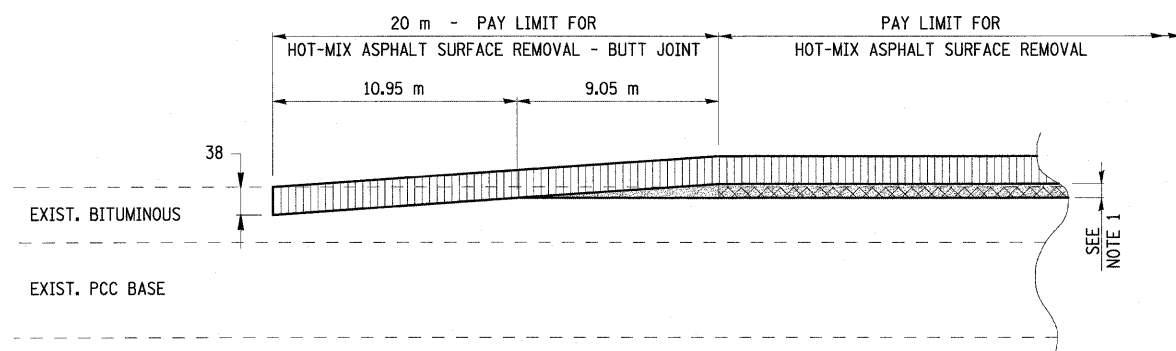
PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\70103\_deta1a.dgn

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUPERELEVATION TRANSITION DATA TABLES**  
 SCALE NO SCALE      DRAWN BY KOJ  
 DATE MARCH 20, 2008      CHECKED BY RGH

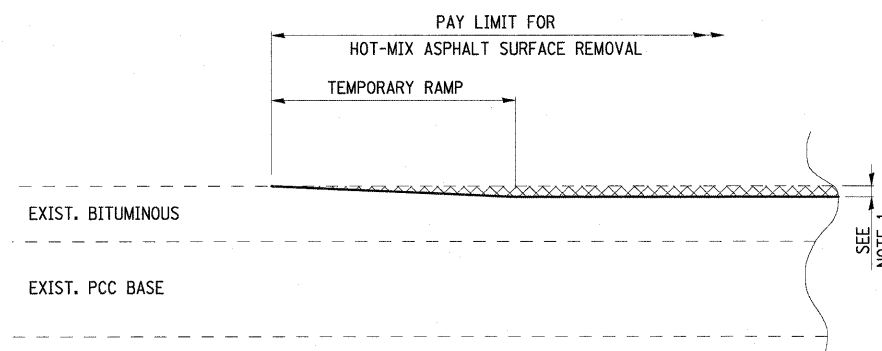
H. M. & G. NO. 4420

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	171
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



- HOT-MIX ASPHALT SURFACE REMOVAL
- HOT-MIX ASPHALT SURFACE COURSE
- HOT-MIX ASPHALT BINDER COURSE OR LEVEL BINDER

**BUTT JOINT DETAIL**



- HOT-MIX ASPHALT SURFACE REMOVAL

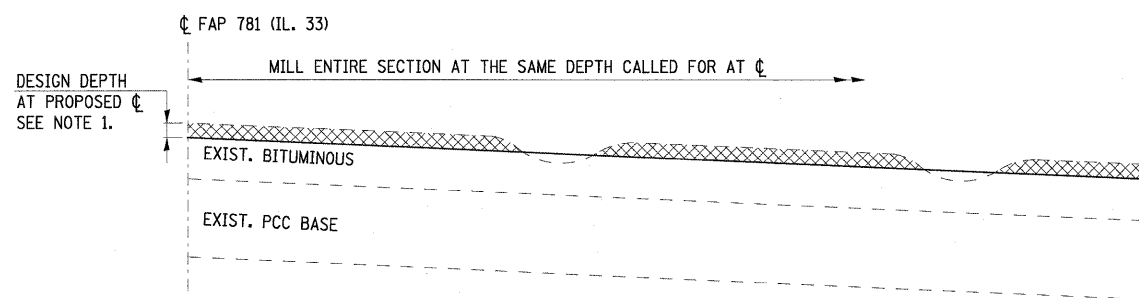
**MILLED TEMPORARY RAMP**

**NOTES**

- REFER TO THE HOT-MIX ASPHALT SURFACE REMOVAL DETAILS BELOW AND THE HOT-MIX ASPHALT SURFACE REMOVAL SCHEDULE FOR MILLING THICKNESSES.
- BUTT JOINTS AND TEMPORARY RAMPS SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- BUTT JOINTS SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO THE PLACING OF THE PROPOSED HOT-MIX ASPHALT COURSES.
- TAPER THE TEMPORARY RAMP AT A RATE OF 900mm (3') PER 25mm (1") OF MILLING THICKNESS.
- TEMPORARY RAMPS SHALL BE CONSTRUCTED AT ALL BUTT JOINT LOCATIONS. AT ALL OTHER PAVEMENT TRANSITIONS THE MILLED TEMPORARY RAMP SHALL BE USED. THE INSTALLATION AND SUBSEQUENT REMOVAL OF THE TEMPORARY RAMP WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE METER FOR TEMPORARY RAMP. MILLED TEMPORARY RAMPS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF HOT-MIX ASPHALT SURFACE REMOVAL.

**NOTES**

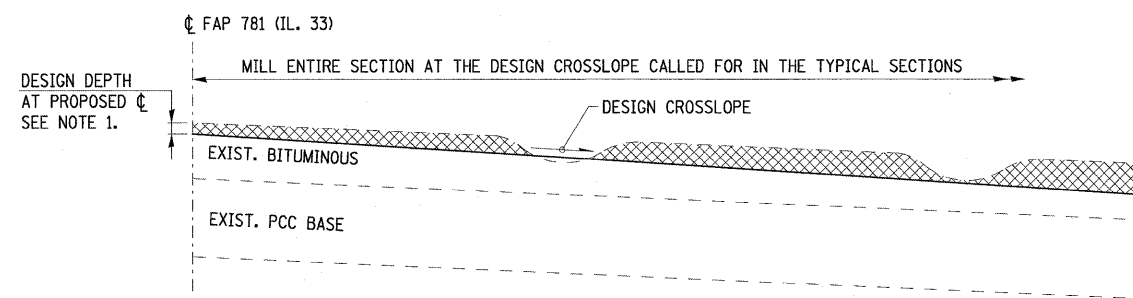
- REFER TO THE HOT-MIX ASPHALT SURFACE REMOVAL SCHEDULE FOR MILLING THICKNESSES AT  $\phi$  AND LOCATIONS WHERE EACH OCCURS.
- MILLING SHALL BE DONE AT THE NOMINAL THICKNESS CALLED FOR AT  $\phi$  ACROSS THE SECTION.
- MILLING TO THE BOTTOM OF WHEEL RUTS SHALL NOT BE NECESSARY UNLESS REQUIRED TO OBTAIN SLOPE OR THE DESIGN DEPTH AT CENTERLINE.
- NOMINAL MILLING AREAS SHALL BE PAID FOR UNDER THE FOLLOWING:
  - M4400715 - HOT-MIX ASPHALT SURFACE REMOVAL, 15mm
  - M4400725 - HOT-MIX ASPHALT SURFACE REMOVAL, 25mm
  - M4400740 - HOT-MIX ASPHALT SURFACE REMOVAL, 40mm



**HOT-MIX ASPHALT SURFACE REMOVAL DETAIL (NOMINAL DEPTH)**

**NOTES**

- REFER TO THE HOT-MIX ASPHALT SURFACE REMOVAL SCHEDULE FOR MILLING THICKNESSES AT  $\phi$  AND LOCATIONS WHERE EACH OCCURS.
- MILLING SHALL BE DONE TO ATTAIN THE DESIRED DESIGN CROSSLOPE ACROSS THE SECTION.
- MILLING TO THE BOTTOM OF WHEEL RUTS SHALL NOT BE NECESSARY UNLESS REQUIRED TO OBTAIN SLOPE OR THE DESIGN DEPTH AT CENTERLINE.
- VARIABLE MILLING AREAS SHALL BE PAID FOR UNDER THE FOLLOWING:
  - M4400950 - HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH



**HOT-MIX ASPHALT SURFACE REMOVAL DETAIL (VARIABLE DEPTH)**

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p align="center"><b>BUTT JOINT, TAPER AND ASPHALT MILLING DETAILS</b></p> <p>SCALE NO SCALE      DRAWN BY KOJ</p> <p>DATE APRIL 18, 2008      CHECKED BY RGH</p>

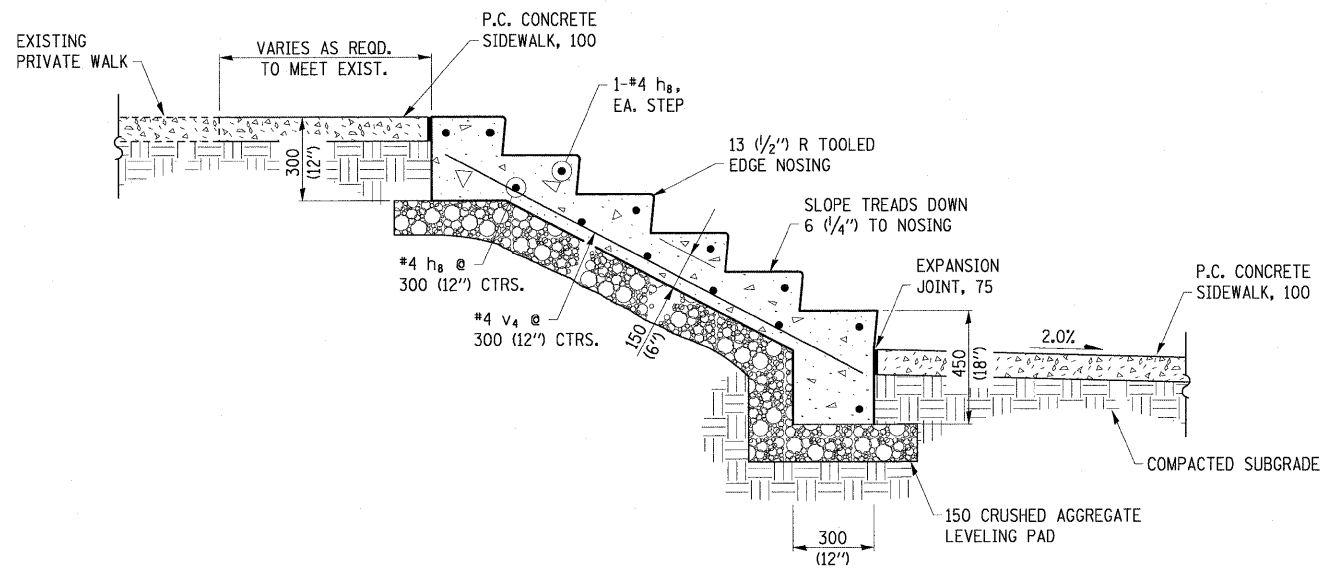
PLOT DATE = 4/18/2008  
 FILE NAME = HV442070169.dwg

H. M. & G. NO. 4420

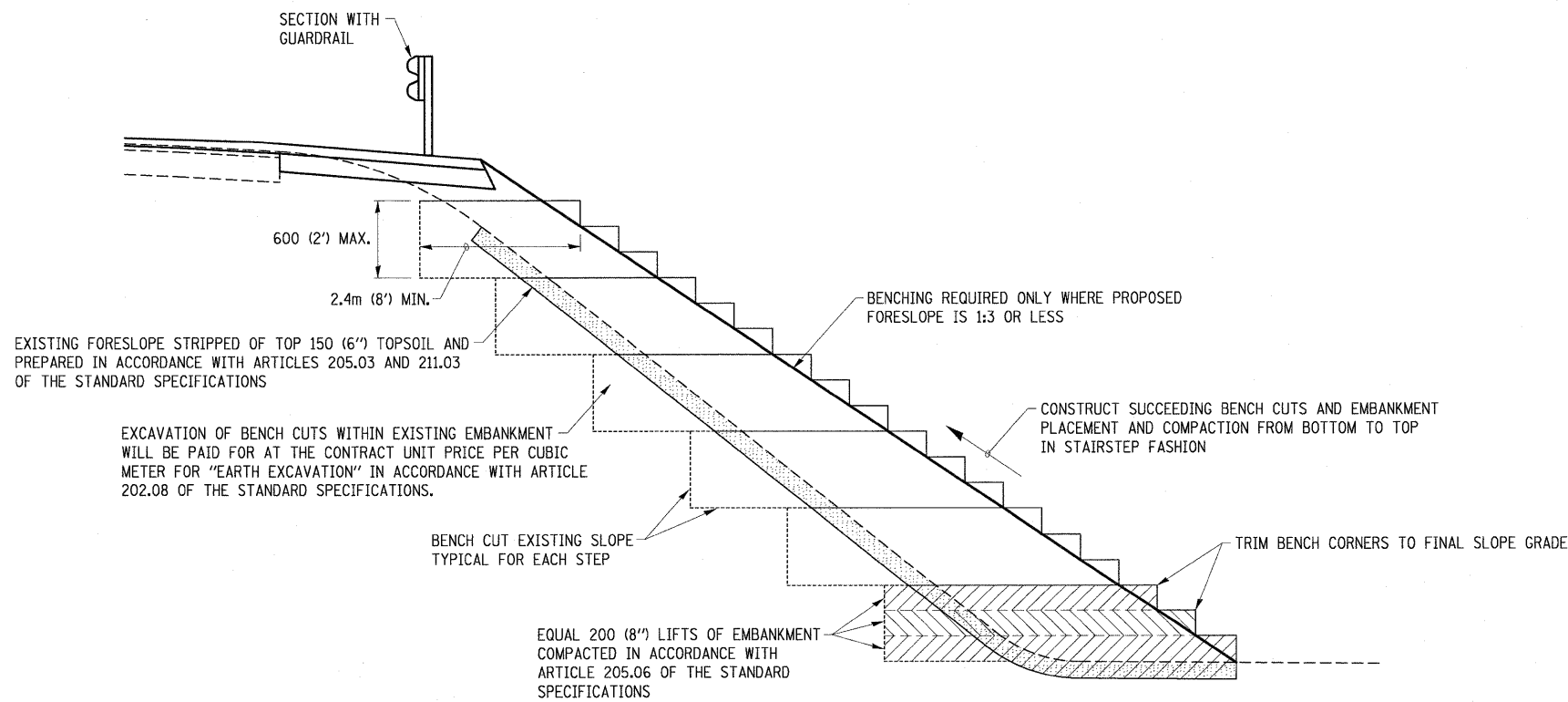
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	172
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**NOTES**

1. CONCRETE STEPS ARE TO BE PROVIDED AT LOCATIONS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER WHERE THE ELEVATION DIFFERENCE BETWEEN THE BACK OF PROPOSED SIDEWALK AND PRIVATE WALK IS GREATER THAN 125 (5') IN 1.5m (5').
2. CONCRETE STEPS SHALL BE 1.2m (4') WIDE.
3. THE NUMBER OF CONCRETE STEPS SHALL SUIT THE INDIVIDUAL CONDITIONS, WITH TREAD AND RISER DIMENSIONS TO SUIT THE GRADE DIFFERENCE.
4. STEP RISER HEIGHTS SHALL BE A MINIMUM OF 125 (5") AND A MAXIMUM OF 178 (7") AND UNIFORM PER EACH SET OF STEPS. STEP TREAD WIDTHS SHALL BE A MINIMUM OF 279 (11") AND A MAXIMUM OF 300 (12") AND UNIFORM PER EACH SET OF STEPS.
5. THE COST OF THE CONCRETE STEPS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER FOR CLASS MS CONCRETE. AN ESTIMATED QUANTITY IS PROVIDED IN THE SUMMARY OF QUANTITY SHEETS, BUT ACTUAL FIELD CONDITIONS MAY VARY, THUS INCREASING OR REDUCING THE QUANTITY PROVIDED.
6. THE REINFORCEMENT BARS AND CRUSHED AGGREGATE LEVELING PAD MATERIAL WILL NOT BE PAID FOR SEPARATELY. THE COST FOR THESE ITEMS SHALL BE INCLUDED IN THE COST OF CLASS MS CONCRETE.
7. THE REMOVAL OF ANY EXISTING STEPS AND/OR PRIVATE WALK BEHIND THE RIGHT-OF-WAY LINE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE METER FOR SIDEWALK REMOVAL.



**CONCRETE STEPS DETAIL**



**TYPICAL BENCHING DETAIL FOR EMBANKMENTS**

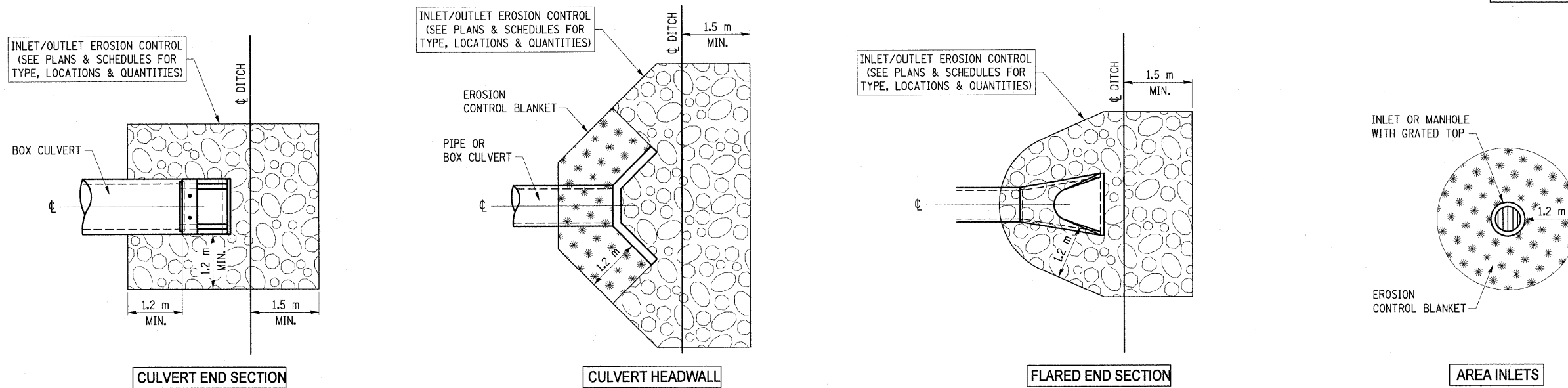
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p align="center"><b>CONCRETE STEPS AND EMBANKMENT BENCHING DETAILS</b></p> <p>SCALE NO SCALE      DRAWN BY KOJ</p> <p>DATE MARCH 20, 2008      CHECKED BY RGH</p>

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\78169\_detailed.dgn

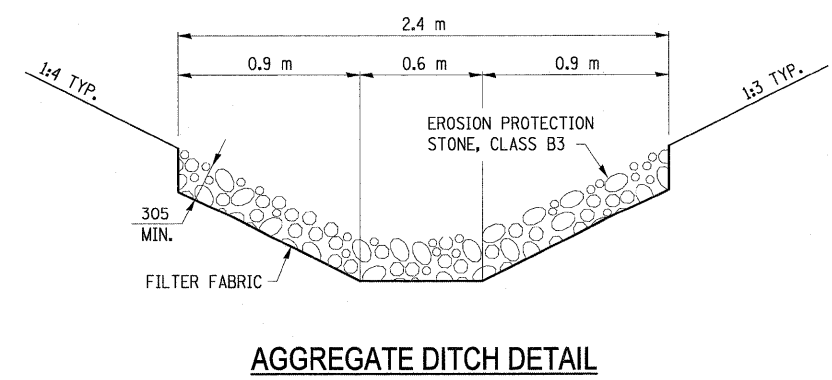
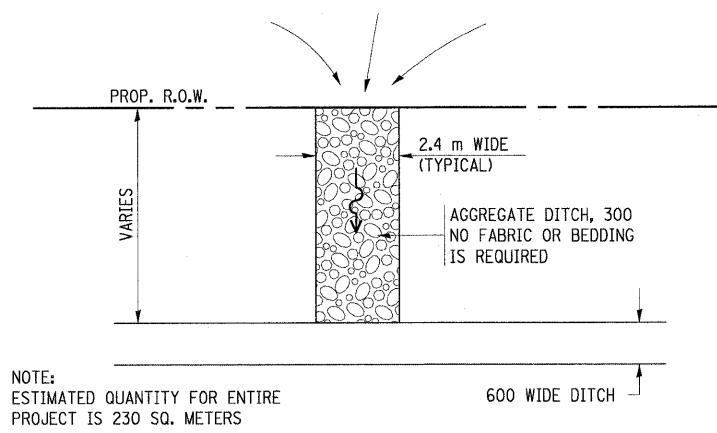
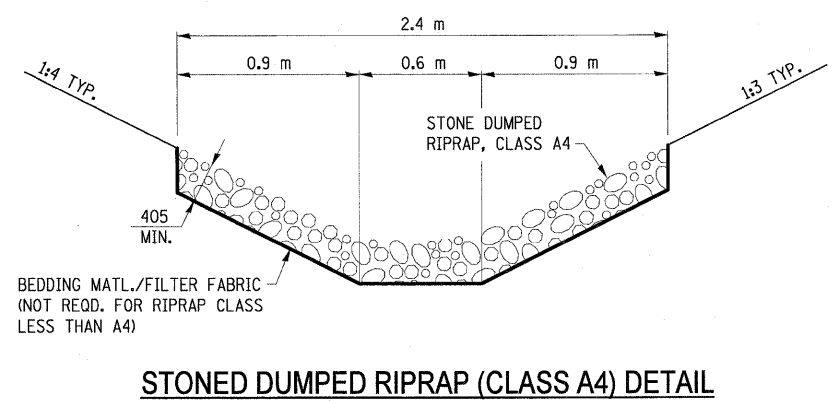
H. M. & G. NO. 4420



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	173
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**PERMANENT EROSION CONTROL AT INLET/OUTLET STRUCTURES**



ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p align="center"><b>PERMANENT EROSION CONTROL DETAILS</b></p> <p>SCALE NO SCALE      DRAWN BY KOJ</p> <p>DATE MARCH 20, 2008      CHECKED BY RGH</p>

PLOT DATE = 3/20/2008  
FILE NAME = HY4428Y01B9\_details.dgn

H. M. & G. NO. 4420

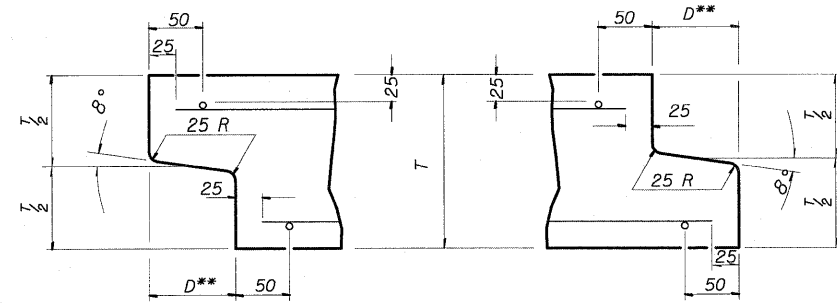


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	175
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

# DETAIL OF PRECAST CONCRETE

## BOX CULVERT M273M

(WITH LESS THAN 600 MM OF COVER)  
 AASHTO DESIGNATION M273M  
 (ASTM DESIGNATION C-850M)  
 DESIGN LOADING = MS18

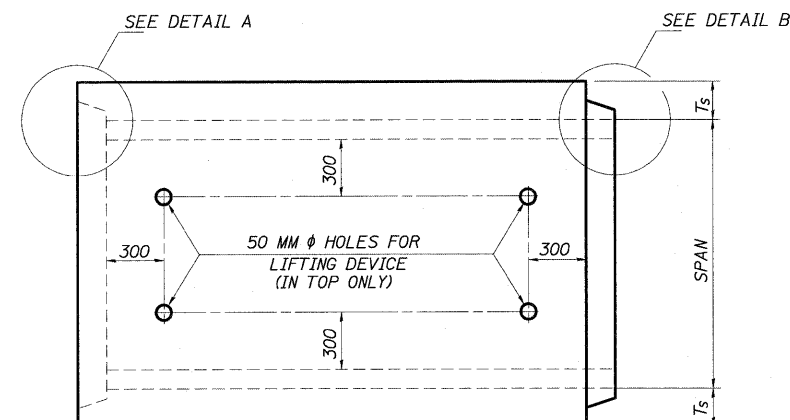


**DETAIL A**  
(TYP. INLET END)

**DETAIL B**  
(TYP. OUTLET END)

NOTE: INLET AND OUTLET ENDS SHALL BE COMPATIBLE.

\*\* THE D DIMENSION SHALL CONFORM TO THE MANUFACTURER'S STANDARDS.

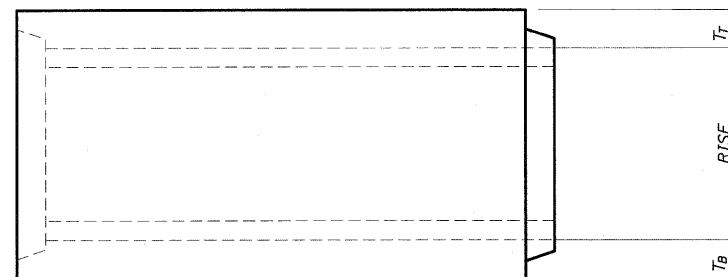


**PLAN**

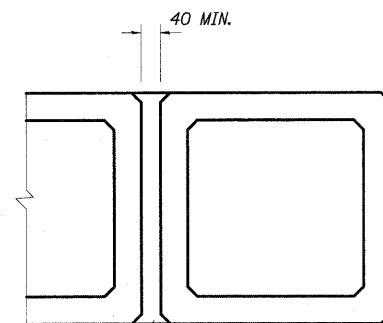
LOCATION OF LIFTING HOLES MAY BE VARIED AS NEEDED TO CLEAR REINFORCEMENT.

**SECTION LENGTH**

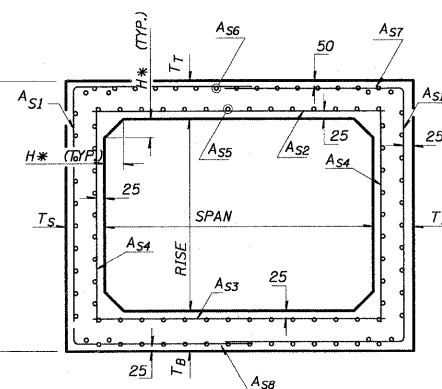
WHEN EXTENDING AN EXISTING BOX, PLACE THIS END AGAINST THE EXISTING HEADWALL.



**ELEVATION**



**MULTIPLE UNIT PLACEMENT**



**CROSS SECTION**

\* THE HAUNCH DIMENSION, H, IS EQUAL TO THE WALL THICKNESS, T<sub>5</sub>.

### GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04(a) OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 35 MPa AFTER 28 DAYS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED IN ACCORDANCE WITH ARTICLE 542.04(d) OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS A<sub>st</sub>, A<sub>sb</sub> ETC. DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASSHTO M273M.

REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO ASSHTO M55M. LONGITUDINAL DISTRIBUTION REINFORCEMENT MAY CONSIST OF WELDED WIRE FABRIC OR DEFORMED BARS CONFORMING TO ASSHTO M31M, M42M, OR M53M, GRADE 400.

LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE BOX SECTIONS ARE IN PLACE.

DRAINAGE OPENINGS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 503.12 OF THE STANDARD SPECIFICATIONS. LOCATION AND SPACING OF THE OPENINGS SHALL BE SHOWN ON THE SHOP DRAWINGS.

THE P.C.C. PAVEMENT PATCH REINFORCED WITH PAVEMENT FABRIC (STANDARD 420701) WILL BE CONSTRUCTED OVER THE CULVERT. THE PATCH SHALL BE FULL PAVEMENT WIDTH, AND THE LENGTH SHALL EXTEND 600 MM BEYOND EACH SIDE OF THE CULVERT.

ALL DIMENSIONS ARE DETAILED IN MILLIMETERS UNLESS OTHERWISE NOTED.

CULVERT SIZE (METERS)				DIMENSIONS (MILLIMETERS)		
NOMINAL		ACTUAL		T <sub>T</sub>	T <sub>B</sub>	T <sub>S</sub>
SPAN	RISE	SPAN	RISE			
0.9	0.6	0.914	0.610	175	150	100
0.9	0.9	0.914	0.914	175	150	100
1.2	0.6	1.219	0.610	190	150	125
1.2	0.9	1.219	0.914	190	150	125
1.2	1.2	1.219	1.219	190	150	125
1.5	0.9	1.524	0.914	200	175	150
1.5	1.2	1.524	1.219	200	175	150
1.5	1.5	1.524	1.524	200	175	150
1.8	0.9	1.829	0.914	200	175	175
1.8	1.2	1.829	1.219	200	175	175
1.8	1.5	1.829	1.524	200	175	175
1.8	1.8	1.829	1.829	200	175	175
2.1	1.2	2.134	1.219	200	200	200
2.1	1.5	2.134	1.524	200	200	200
2.1	1.8	2.134	1.829	200	200	200
2.1	2.1	2.134	2.134	200	200	200
2.4	1.2	2.438	1.219	200	200	200
2.4	1.5	2.438	1.524	200	200	200
2.4	1.8	2.438	1.829	200	200	200
2.4	2.1	2.438	2.134	200	200	200
2.4	2.4	2.438	2.438	200	200	200
2.7	1.5	2.743	1.524	225	225	225
2.7	1.8	2.743	1.829	225	225	225
2.7	2.1	2.743	2.134	225	225	225
2.7	2.4	2.743	2.438	225	225	225
2.7	2.7	2.743	2.743	225	225	225
3.0	1.5	3.048	1.524	250	250	250
3.0	1.8	3.048	1.829	250	250	250
3.0	2.1	3.048	2.134	250	250	250
3.0	2.4	3.048	2.438	250	250	250
3.0	2.7	3.048	2.743	250	250	250
3.0	3.0	3.048	3.048	250	250	250
3.3	1.2	3.353	1.219	275	275	275
3.3	1.8	3.353	1.829	275	275	275
3.3	2.4	3.353	2.438	275	275	275
3.3	3.0	3.353	3.048	275	275	275
3.3	3.3	3.353	3.353	275	275	275
3.6	1.2	3.658	1.219	300	300	300
3.6	1.8	3.658	1.829	300	300	300
3.6	2.4	3.658	2.438	300	300	300
3.6	3.0	3.658	3.048	300	300	300
3.6	3.6	3.658	3.658	300	300	300

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>DETAIL OF PRECAST CONCRETE BOX CULVERT SECTION</b>  SCALE NO SCALE      DRAWN BY KOJ DATE MARCH 20, 2008      CHECKED BY RGH

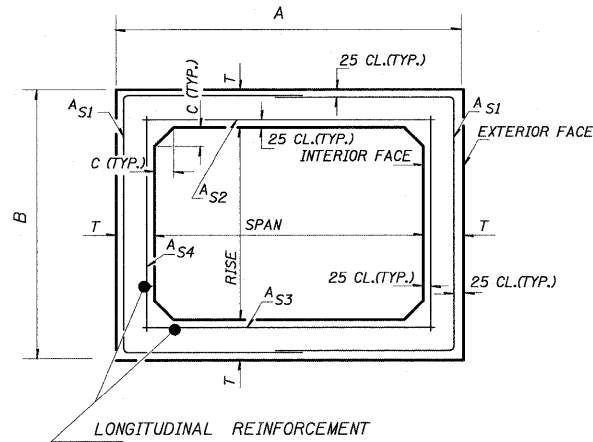
PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\78169.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	176
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

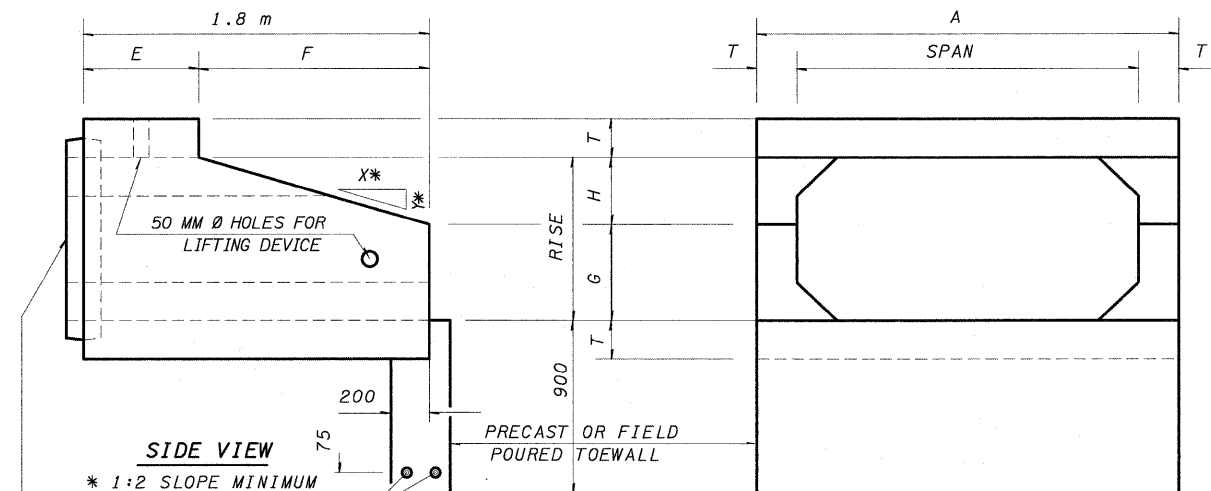
# DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION

AASHTO DESIGNATION M259M  
(ASTM DESIGNATION C-789M)  
DESIGN LOADING = MS18

\*\* NOTE: THE DIMENSIONS INDICATED ARE FOR END SECTIONS THAT ARE TO BE USED WITH PRECAST BOX CULVERT SECTIONS DESIGNED FOR 600 MM OR MORE OF FILL. THE DIMENSIONS MUST BE MODIFIED FOR THE END SECTION TO BE COMPATIBLE WITH PRECAST CULVERT SECTIONS DESIGNED FOR LESS THAN 600 MM OF FILL.



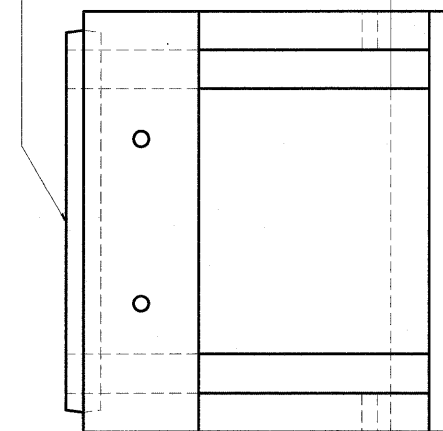
CROSS SECTION



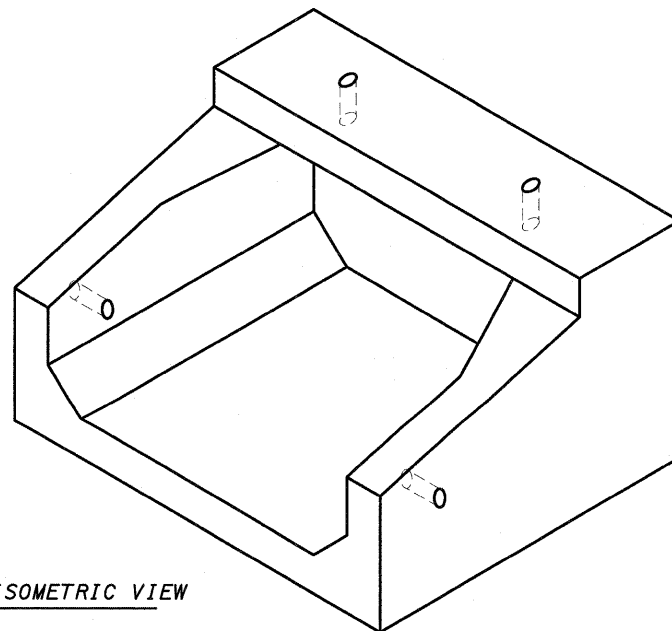
SIDE VIEW

END VIEW

END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX OR HEADWALL).



PLAN



ISOMETRIC VIEW

CULVERT SIZE		DIMENSIONS **								
NOMINAL	ACTUAL	T	A	B	C	E	F	G	H	SLOPE
SPANxRISE (METER)	SPANxRISE (METER)	(MM)	(METER)	(METER)	(MM)	(METER)	(METER)	(METER)	(METER)	(Y:X)
0.6x0.6	0.610x0.610	100	0.810	0.810	100	0.900	0.900	0.310	0.300	1:3
0.9x0.6	0.914x0.610	100	1.114	0.810	100	0.900	0.900	0.310	0.300	1:3
0.9x0.9	0.914x0.914	100	1.114	1.114	100	0.600	1.200	0.514	0.400	1:3
1.2x0.6	1.219x0.610	125	1.469	0.860	125	0.900	0.900	0.310	0.300	1:3
1.2x0.9	1.219x0.914	125	1.469	1.164	125	0.600	1.200	0.514	0.400	1:3
1.2x1.2	1.219x1.219	125	1.469	1.469	125	0.600	1.200	0.619	0.600	1:2
1.5x0.6	1.524x0.610	150	1.824	0.860	150	0.900	0.900	0.310	0.300	1:3
1.5x0.9	1.524x0.914	150	1.824	1.214	150	0.600	1.200	0.514	0.400	1:3
1.5x1.2	1.524x1.219	150	1.824	1.519	150	0.600	1.200	0.619	0.600	1:2
1.5x1.5	1.524x1.524	150	1.824	1.824	150	0.600	1.200	0.924	0.600	1:2
1.8x0.6	1.829x0.610	175	2.179	0.960	175	0.900	0.900	0.310	0.300	1:3
1.8x0.9	1.829x0.914	175	2.179	1.264	175	0.600	1.200	0.514	0.400	1:3
1.8x1.2	1.829x1.219	175	2.179	1.569	175	0.600	1.200	0.619	0.600	1:2
1.8x1.5	1.829x1.524	175	2.179	1.874	175	0.600	1.200	0.619	0.600	1:2
1.8x1.8	1.829x1.829	175	2.179	2.179	175	0.600	1.200	0.619	0.600	1:2
2.1x1.2	2.134x1.219	200	2.534	1.619	200	0.600	1.200	0.619	0.600	1:2
2.1x1.5	2.134x1.524	200	2.534	1.924	200	0.600	1.200	0.619	0.600	1:2
2.1x1.8	2.134x1.829	200	2.534	2.229	200	0.600	1.200	0.619	0.600	1:2
2.1x2.1	2.134x2.134	200	2.534	2.534	200	0.600	1.200	0.619	0.600	1:2
2.4x1.2	2.438x1.219	200	2.838	1.619	200	0.600	1.200	0.619	0.600	1:2
2.4x1.5	2.438x1.524	200	2.838	1.924	200	0.600	1.200	0.619	0.600	1:2
2.4x1.8	2.438x1.829	200	2.838	2.229	200	0.600	1.200	0.619	0.600	1:2
2.4x2.1	2.438x2.134	200	2.838	2.534	200	0.600	1.200	0.619	0.600	1:2
2.4x2.4	2.438x2.438	200	2.838	2.838	200	0.600	1.200	0.619	0.600	1:2
2.7x1.5	2.743x1.524	225	3.193	1.974	225					
2.7x1.8	2.743x1.829	225	3.193	2.279	225					
2.7x2.1	2.743x2.134	225	3.193	2.584	225					
2.7x2.4	2.743x2.438	225	3.193	2.888	225					
2.7x2.7	2.743x2.743	225	3.193	3.193	225					
3.0x1.5	3.048x1.524	250	3.548	2.024	250					
3.0x1.8	3.048x1.829	250	3.548	2.329	250					
3.0x2.1	3.048x2.134	250	3.548	2.634	250					
3.0x2.4	3.048x2.438	250	3.548	2.938	250					
3.0x2.7	3.048x2.743	250	3.548	3.243	250					
3.0x3.0	3.048x3.048	250	3.548	3.548	250					
3.3x1.2	3.353x1.219	275	3.903	1.769	275					
3.3x1.8	3.353x1.829	275	3.903	2.379	275					
3.3x2.4	3.353x2.438	275	3.903	2.988	275					
3.3x3.0	3.353x3.048	275	3.903	3.598	275					
3.3x3.3	3.353x3.353	275	3.903	3.903	275					
3.6x1.2	3.658x1.219	300	4.258	1.819	300					
3.6x1.8	3.658x1.829	300	4.258	2.429	300					
3.6x2.4	3.658x2.438	300	4.258	3.038	300					
3.6x3.0	3.658x3.048	300	4.258	3.648	300					
3.6x3.6	3.658x3.658	300	4.258	4.258	300					

GENERAL NOTES

SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04(a) OF THE STANDARD SPECIFICATIONS.

THE TERMS AS1, AS2, AS3, AND AS4 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN AASHTO M259M. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO SPECIFICATIONS M55M.

MINIMUM CONCRETE STRENGTH SHALL BE 35 MPa AFTER 28 DAYS.

ALL DIMENSIONS ARE DETAILED IN MILLIMETERS UNLESS OTHERWISE NOTED.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH ACCORDANCE WITH ARTICLE 542.04(d) OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE END SECTIONS ARE IN PLACE.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<b>DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION</b>  SCALE NO SCALE      DRAWN BY KOJ DATE MARCH 20, 2008      CHECKED BY RGH

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	177
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID	PROJECT	
28	30	32	34	36

BY	DATE

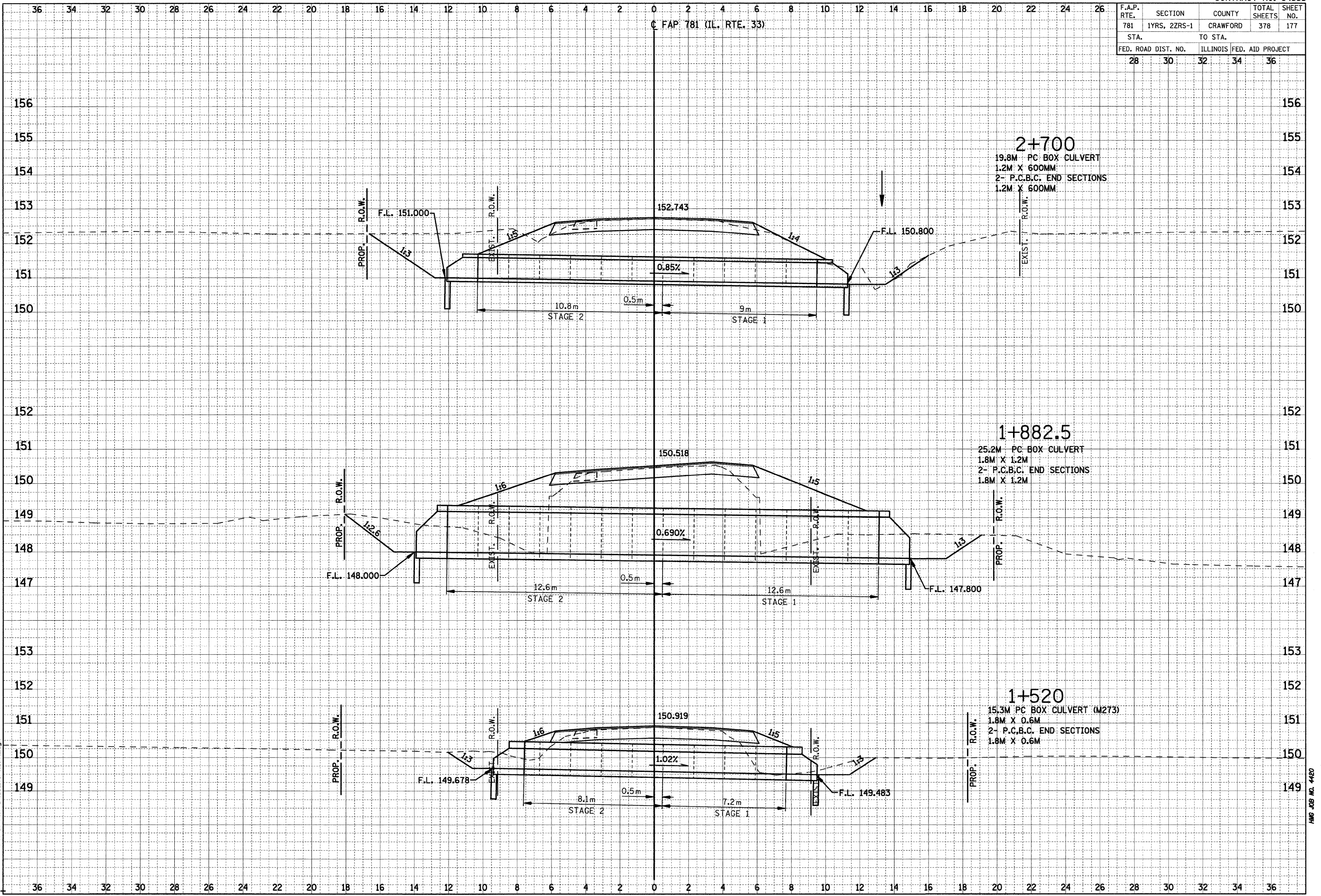
NO.	AREAS CHECKED

BY	DATE

NO.	AREAS CHECKED

PLOT DATE = 4/18/2008  
 FILE NAME = H:\4420\70177.sx.Culvert.sht.dgn



HMG JOB NO. 4420











F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	182
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**GENERAL NOTES**

- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 18.15 kN, and 20 mm  $\phi$  hooked bolts shall extend a minimum of 250 mm into new concrete.
- Reinforcement bars shall conform to the requirements of AASHTO M-31M or M-322M, Grade 400.
- Reinforcement bars designated (E) shall be epoxy coated.
- All dimensions are in millimeters (mm) except as noted.
- Precast reinforced concrete box sections shall conform to AASHTO M-259M and M-273M.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

**TOTAL BILL OF MATERIAL**

(Culverts E.C. 101, 105) (Box Culvert Nos. 1, 4, 8, 10, 11, 15, 16 & 17)

Item	Unit	Total
M5030350 Concrete Structures	cu. m.	4.9
M5080205 Reinforcement Bars, Epoxy Coated	kg	880
* M5401010 Precast Concrete Box Culvert (3000x1650)	m	10.9
* M5401010 Precast Concrete Box Culvert (900x600)	m	5.7
* M5401005 Precast Concrete Box Culvert (900x450)	m	15.2
* M5401005 Precast Concrete Box Culvert (600x600)	m	15.6
* M5401002 Precast Concrete Box Culvert (600x450)	m	15.1
* 5401001 Box Culvert End Section, Culvert No. 1	Each	2
* 5401004 Box Culvert End Section, Culvert No. 4	Each	2
* 5401008 Box Culvert End Section, Culvert No. 8	Each	2
* 5401010 Box Culvert End Section, Culvert No. 10	Each	2
* 5401011 Box Culvert End Section, Culvert No. 11	Each	2
* 5401015 Box Culvert End Section, Culvert No. 15	Each	2
* 5401016 Box Culvert End Section, Culvert No. 16	Each	2
* 5401017 Box Culvert End Section, Culvert No. 17	Each	2
M5403220 Expansion Bolts (M20x250)	Each	206
M2810707 Stone Riprap, Class A4	sq. m.	See Plans
M5050405 Furnishing & Erecting Structural Steel	kg	260
MX033694 Structural Repair of Concrete (Depth Equal to or Less than 125mm)	sq. m.	3.2
M5900200 Epoxy Crack Injection	m	5
MX032196 Polymer Modified Portland Cement Mortar	sq. m.	25.9
M5930100 Controlled Low-Strength Material	cu. m.	7.0

\* Non-standard size.

**INDEX OF SHEETS**

S1	Gen. Notes & Bill of Material
S2	General Plan & Elevation, Box Culvert No. 1
S3	General Plan & Elevation, Box Culvert No. 4
S4	Concrete Repair Details, Box Culvert No. 4
S5	General Plan & Elevation, Box Culvert No. 8
S6	Concrete Repair Details, Box Culvert No. 8
S7	General Plan & Elevation, Box Culvert No. 10
S8	Concrete Repair Details, Box Culvert No. 10
S9	General Plan & Elevation, Box Culvert No. 11
S10	Concrete Repair Details, Box Culvert No. 11
S11	General Plan & Elevation, Box Culvert No. 15
S12	General Plan & Elevation, Box Culvert No. 16
S13	General Plan & Elevation, Box Culvert No. 17
S14	Concrete Repair Details, Box Culvert No. 17
S15	Precast Section Details
S16	Precast End Section Details
S17	Cast-In-Place Collar Details
S18	Miscellaneous Details
S19	Plug & Fill Details, E.C. #101 And E.C. #105

**DESIGN SPECIFICATIONS**

2002 AASHTO Specifications

**DESIGN STRESSES (New Construction)**

Field Units	Precast Units
$f'_c = 24$ MPa	$f'_c = 35$ MPa
$f_y = 400$ MPa (Reinf.)	$f_y = 450$ MPa (Welded wire fabric)
$f_y = 250$ MPa (Str. Steel)	

**LOADING MS18**

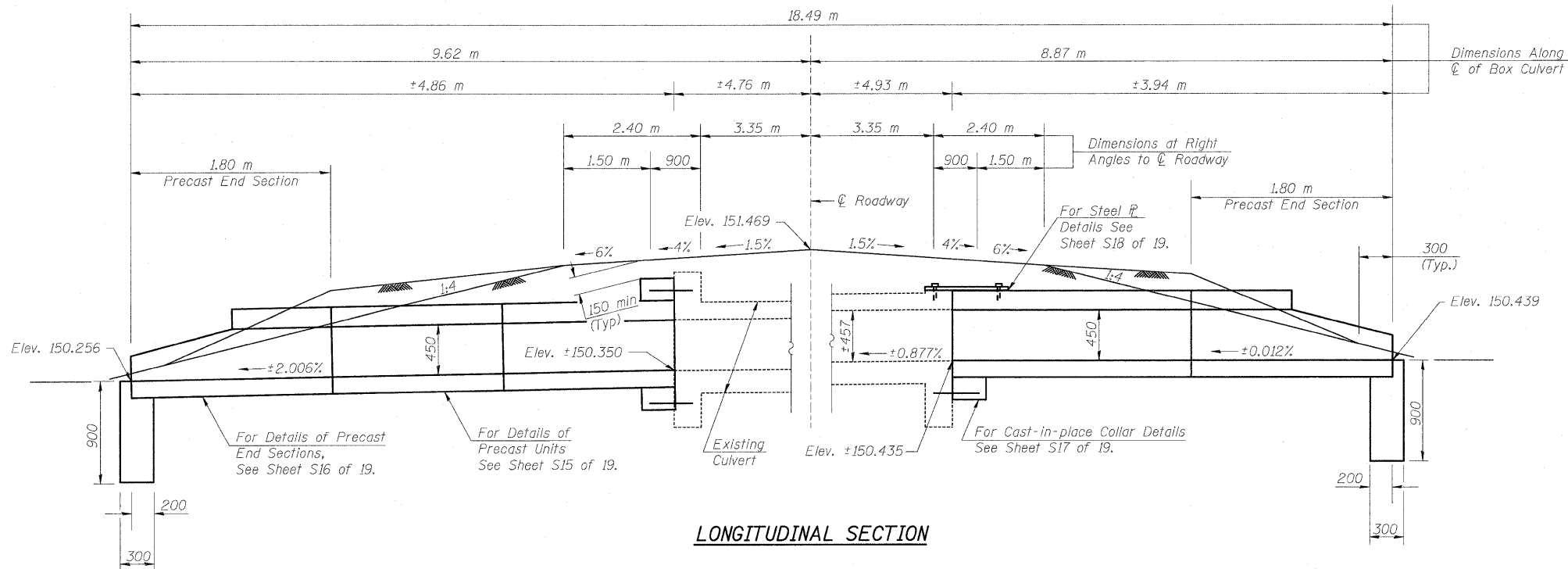
Allow 1.2 kN/m<sup>2</sup> for future wearing surface

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GEN. NOTES & BILL OF MATERIAL
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006 DRAWN BY MLB CHECKED BY MTH

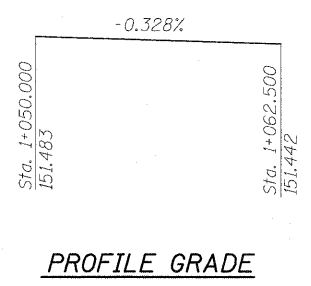
PLOT DATE = 3/20/2008  
FILE NAME = H:\1420\4420.5\Lin Eng\design Files\12-18-2006\15-01.dgn

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	183
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Existing Structure: The structure is a single barrel 914 mm x 457 mm box culvert at a skew of 0°52'01" right forward. The culvert has an overall length of 9.69 m. The contractor shall extend the culvert on each end for the dimensions shown.



**LONGITUDINAL SECTION**

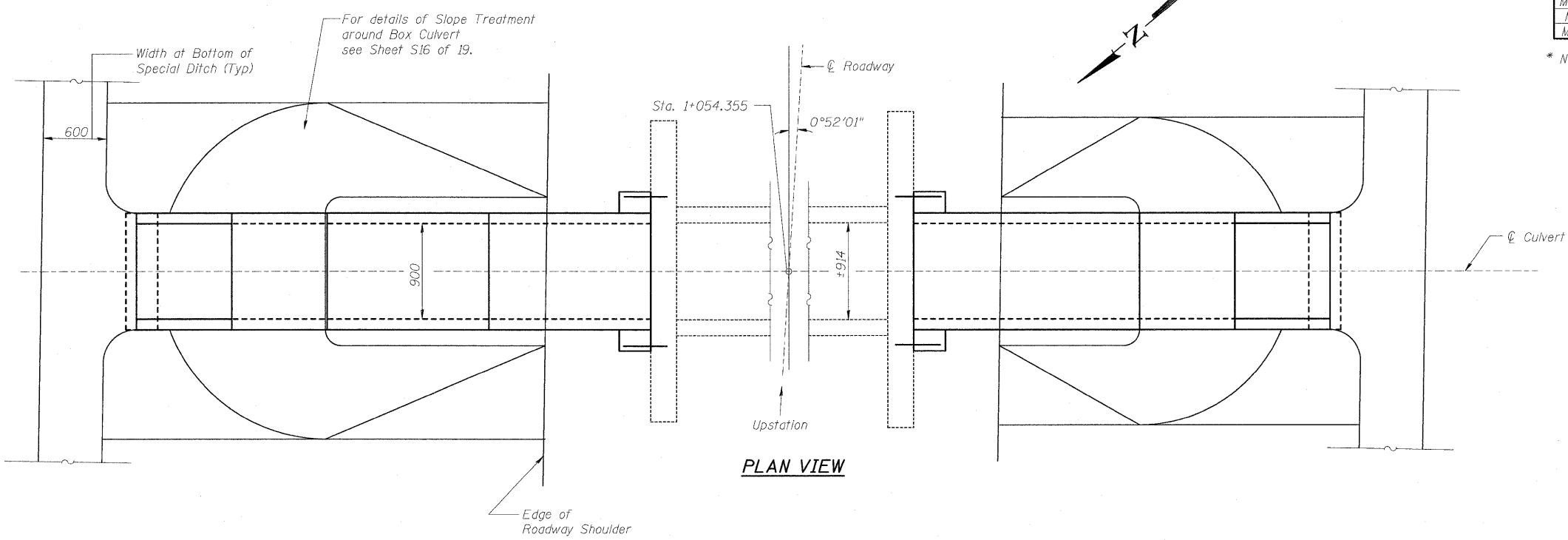


**PROFILE GRADE**

**BILL OF MATERIAL - BOX CULVERT NO. 1**

Item	Unit	Total
M5030350 Concrete Structures	cu. m.	0.5
M5080205 Reinforcement Bars, Epoxy Coated	kg	90
Precast Concrete Box Culvert (900x450)	m	5.2
* 5401001 Box Culvert End Section, Culvert No. 1	Each	2
M5403220 Expansion Bolts (M20x250)	Each	21
M2810707 Stone Riprap, Class A4	sq. m.	See Plans
M5050405 Furnishing & Erecting Structural Steel	kg	130

\* Non-standard size.



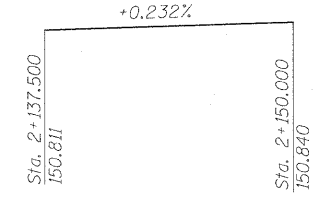
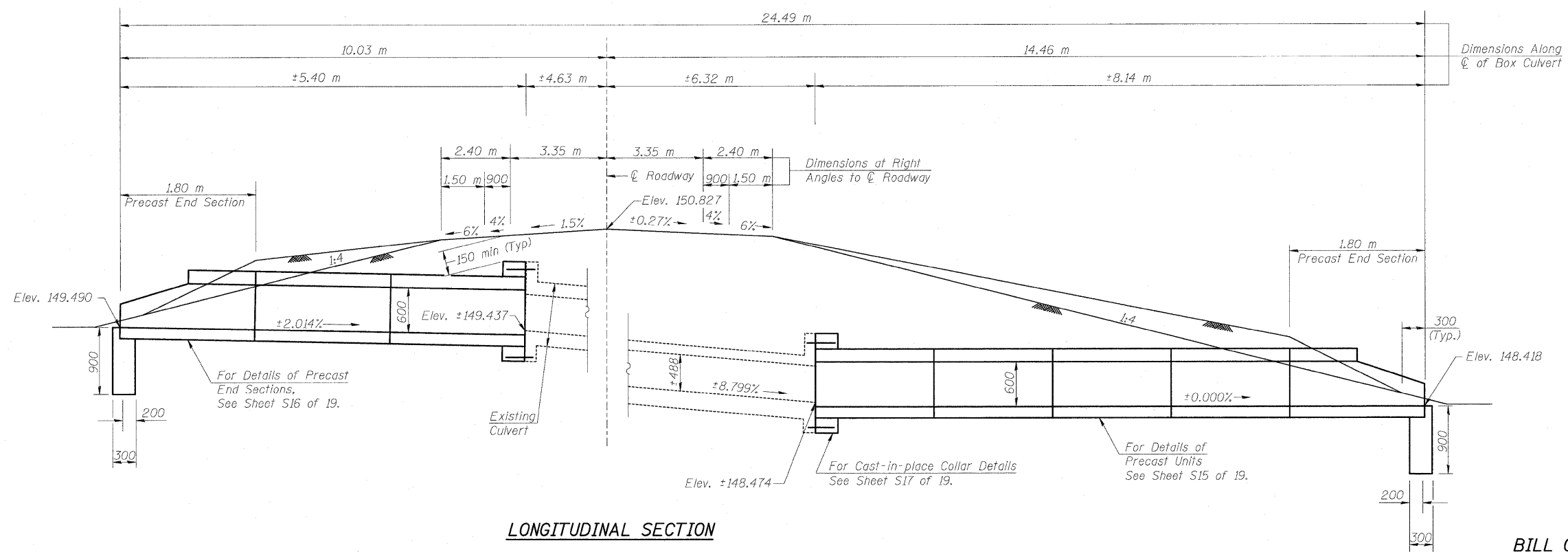
**PLAN VIEW**

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\44205 (Lin Eng)\design files 12-18-2006\5-02.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GENERAL PLAN & ELEVATION BOX CULV. NO. 1, STA. 1+054.355
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006
		DRAWN BY MLB CHECKED BY MTH

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	184
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Existing Structure: The structure is a single barrel 610 mm x 488 mm box culvert at a skew of 0°49'55" right forward. The culvert has an overall length of 10.95 m. The contractor shall extend the culvert on each end for the dimensions shown.



**PROFILE GRADE**

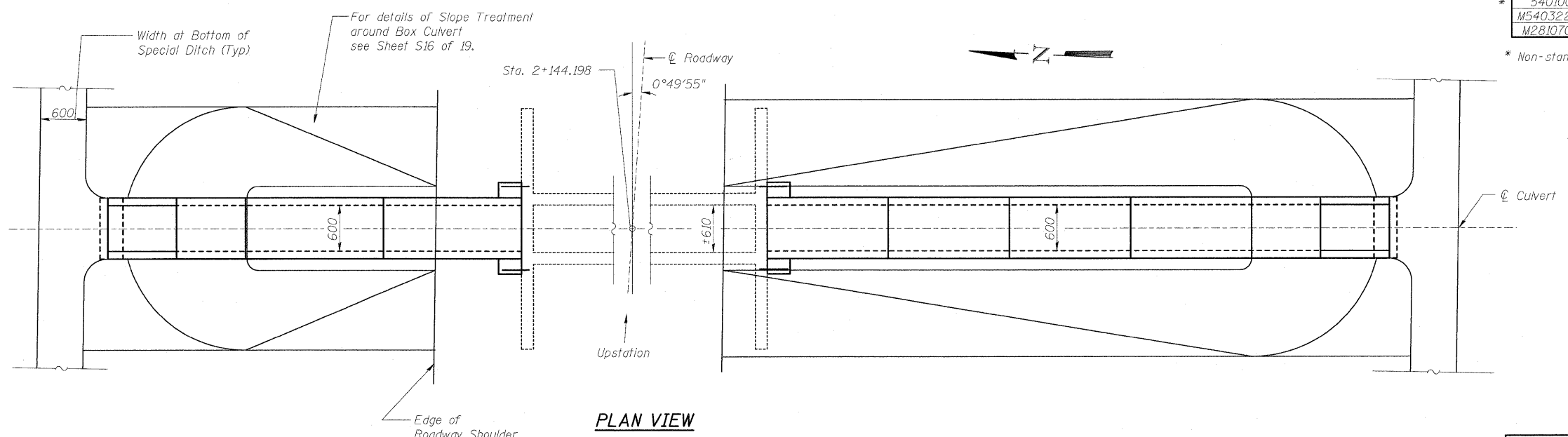
**CURVE P2 DATA**

PI Sta. 2+006.106  
 $\Delta = 41^\circ 59' 15''$  (LT)  
 T = 118.158 m  
 R = 307.912 m  
 L = 225.644 m  
 E = 21.893 m  
 S.E. = 6.0%  
 PC Sta. 1+887.948  
 PT Sta. 2+113.592  
 Attain S.E. Sta. 1+847.948 to 1+901.948  
 And Sta. 2+099.592 to 2+153.592

**BILL OF MATERIAL - BOX CULVERT NO. 4**

Item	Unit	Total
M5030350 Concrete Structures	cu. m.	0.5
M5080205 Reinforcement Bars, Epoxy Coated	kg	100
M5401005 Precast Concrete Box Culvert (600x600)	m	9.9
* 5401004 Box Culvert End Section, Culvert No. 4	Each	2
M5403220 Expansion Bolts (M20x250)	Each	24
M2810707 Stone Riprap, Class A4	sq. m.	See Plans

\* Non-standard size.



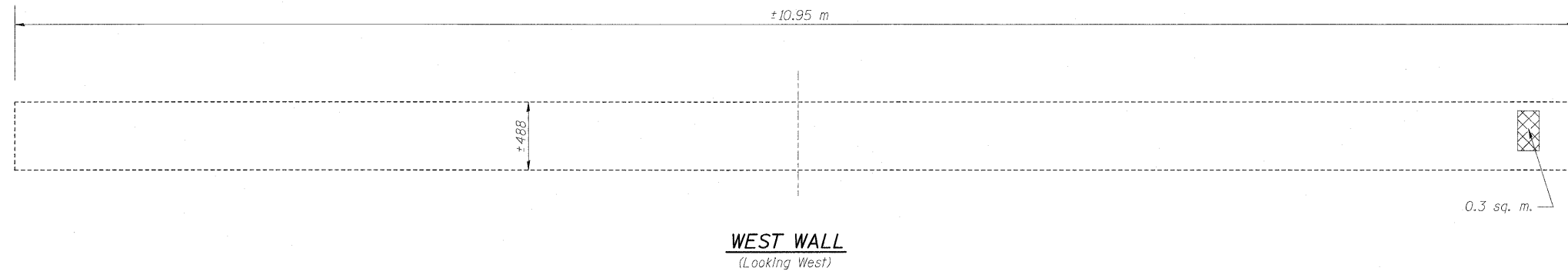
**PLAN VIEW**

PLOT DATE = 3/20/2008  
 FILE NAME = H:\4428\4428.5 Lin Eng\design\files 12-18-2006\S-03.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GENERAL PLAN & ELEVATION BOX CULV. NO. 4, STA. 2+144.198
NAME	DATE	
		SCALE NONE DRAWN BY MLB DATE DECEMBER 10, 2006 CHECKED BY MTH

LIN NO. 9803

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	185
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		






**WEST WALL**  
(Looking West)

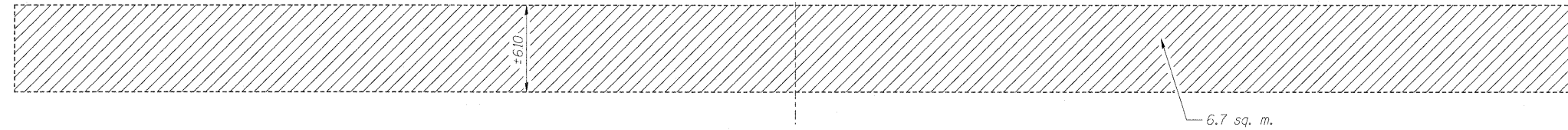
*Note:*  
The quantities shown are for estimating purposes only. The actual area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the "As Built" plans.



**TOP SLAB**

**LEGEND**

	- Polymer Modified Portland Cement Mortar
	- Structural Repair of Concrete (Depth Equal to or Less than 125mm)
	- Epoxy Crack Injection
m	- Meter
sq. m.	- Square Meter

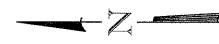


**BOTTOM SLAB**

**BILL OF MATERIAL - BOX CULVERT NO. 4**

Item	Unit	Total
MX033694 Structural Repair of Concrete (Depth Equal to or Less than 125mm)	sq. m.	0.4
M5900200 Epoxy Crack Injection	m	1.2
MX032196 Polymer Modified Portland Cement Mortar	sq. m.	8.0

Quantity increased by 20% to account for deterioration since field inspection.

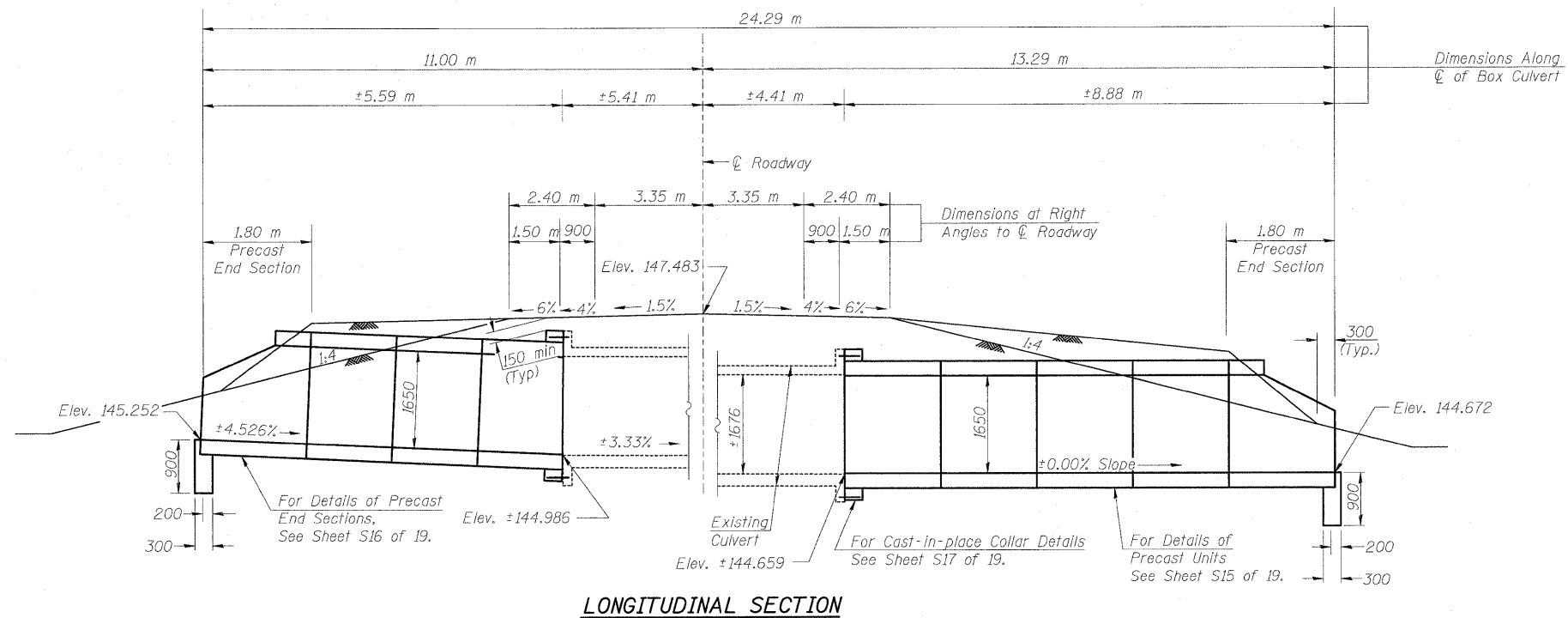


PLOT DATE = 3/20/2008  
FILE NAME = H:\1420\4422.5 (Lin Eng)\design Files\12-18-2006\S-94.dgn

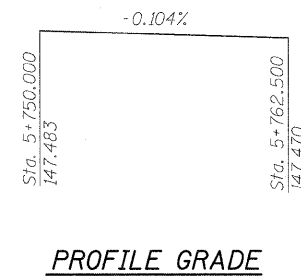
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS CONCRETE REPAIR DETAILS BOX CULV. NO. 4, STA. 2+144.198
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006 DRAWN BY MLB CHECKED BY MTH

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YBS, 2ZBS-1	CBAREORD	378	186
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS	FED. AID PROJECT	

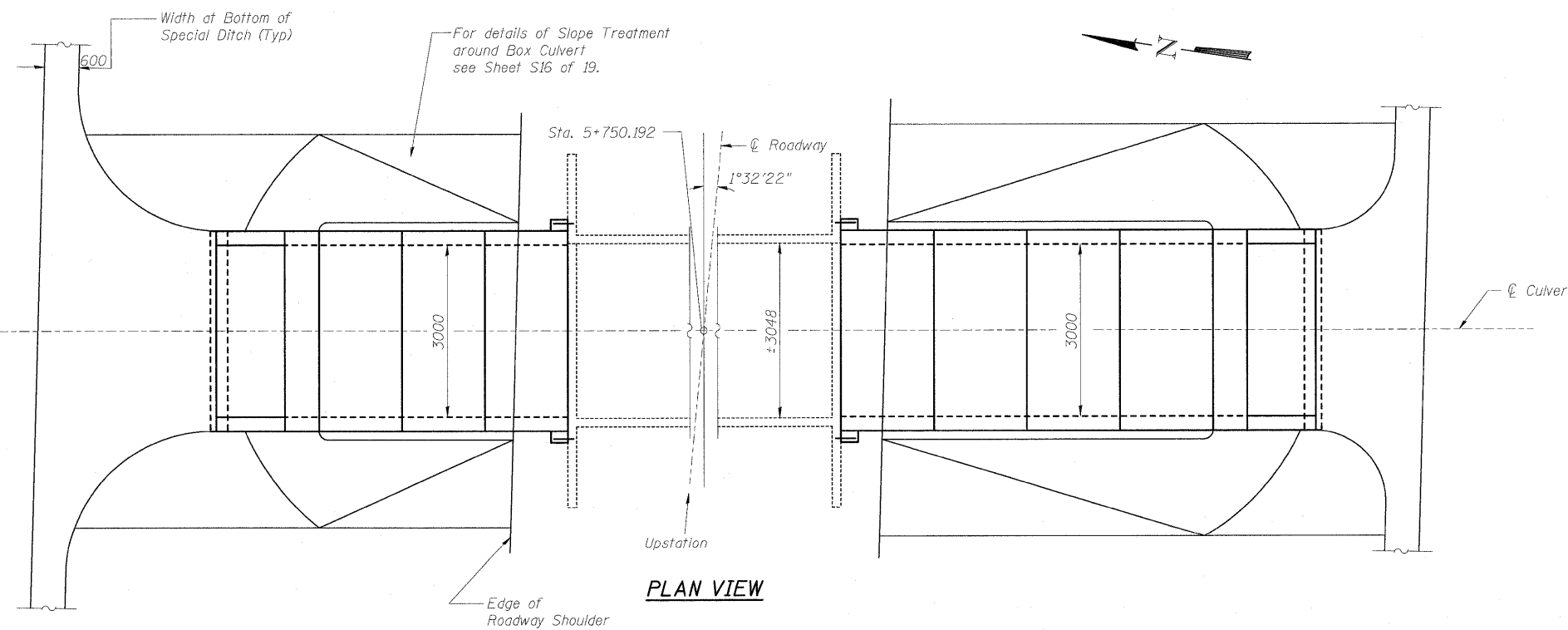
Existing Structure: The structure is a single barrel 3048 mm x 1676 mm box culvert at a skew of 1°32'22" right forward. The culvert has an overall length of 9.82 m. The contractor shall extend the culvert on each end for the dimensions shown.



**LONGITUDINAL SECTION**



**PROFILE GRADE**



**PLAN VIEW**

**BILL OF MATERIAL - BOX CULVERT NO. 8**

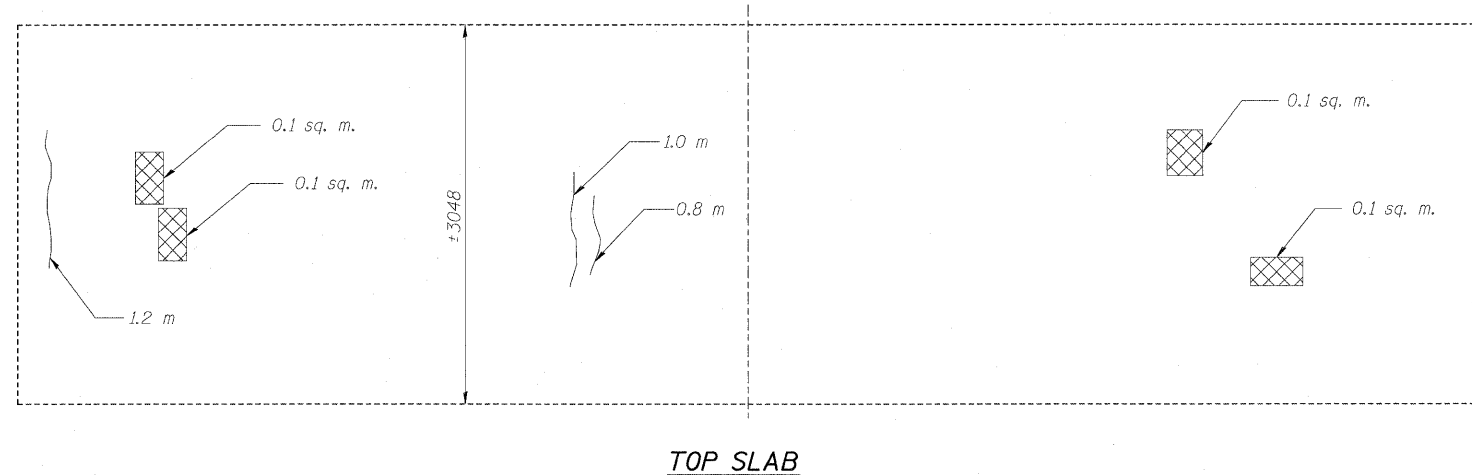
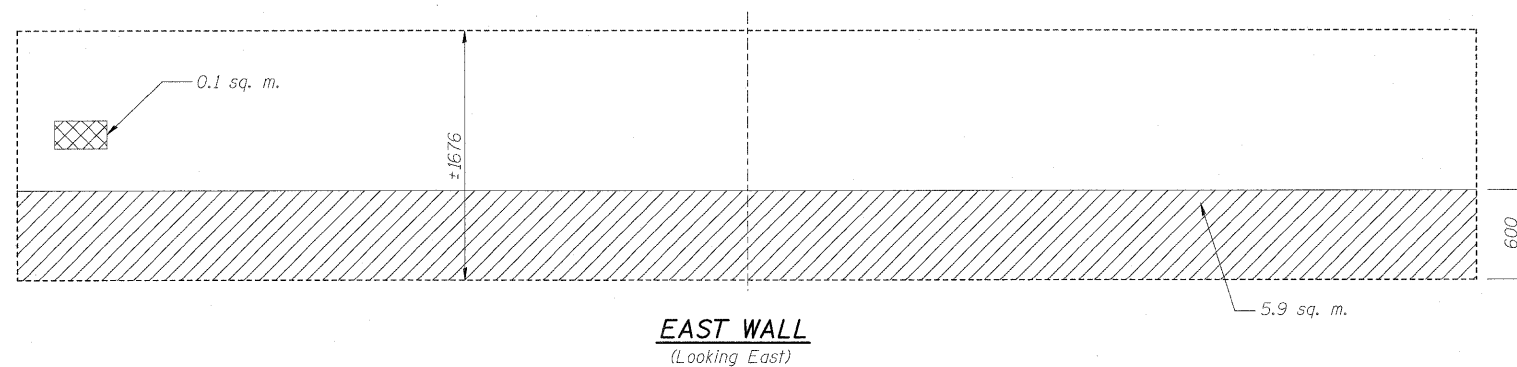
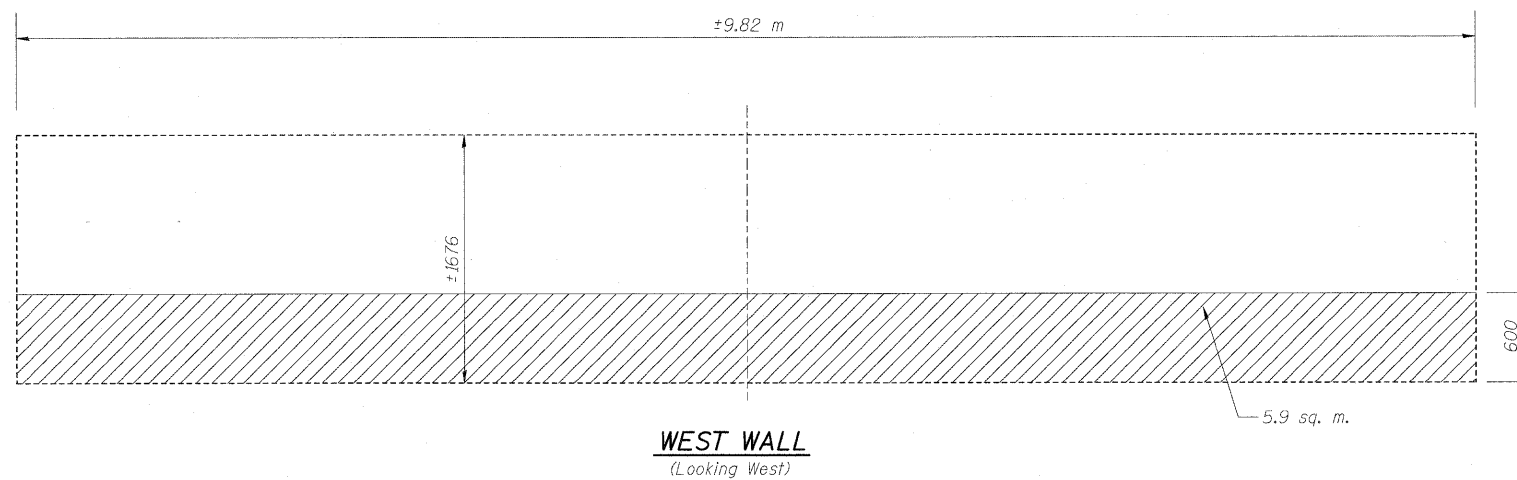
Item	Unit	Total
M5030350 Concrete Structures	cu. m.	1.5
M5080205 Reinforcement Bars, Epoxy Coated	kg	220
* Precast Concrete Box Culvert (3000x1650)	m	10.9
* 5401008 Box Culvert End Section, Culvert No. 8	Each	2
M5403220 Expansion Bolts (M20x250)	Each	52
M2810707 Stone Riprap, Class A4	sq. m.	See Plans

\* Non-standard size.

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\44205 (Lin Eng)\design files 12-19-2006\S-985.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GENERAL PLAN & ELEVATION BOX CULV. NO. 8, STA. 5+750.192
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006
DRAWN BY MLB		CHECKED BY MTH

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	187
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**Note:**

The quantities shown are for estimating purposes only. The actual area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the "As Built" plans.

**LEGEND**

- Polymer Modified Portland Cement Mortar
- Structural Repair of Concrete (Depth Equal to or Less than 125mm)
- Epoxy Crack Injection
- m - Meter
- sq. m. - Square Meter

**BILL OF MATERIAL - BOX CULVERT NO. 8**

Item	Unit	Total
MX033694 Structural Repair of Concrete (Depth Equal to or Less than 125mm)	sq. m.	0.6
M5900200 Epoxy Crack Injection	m	3.6
MX032196 Polymer Modified Portland Cement Mortar	sq. m.	14.2

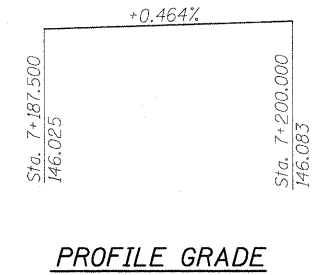
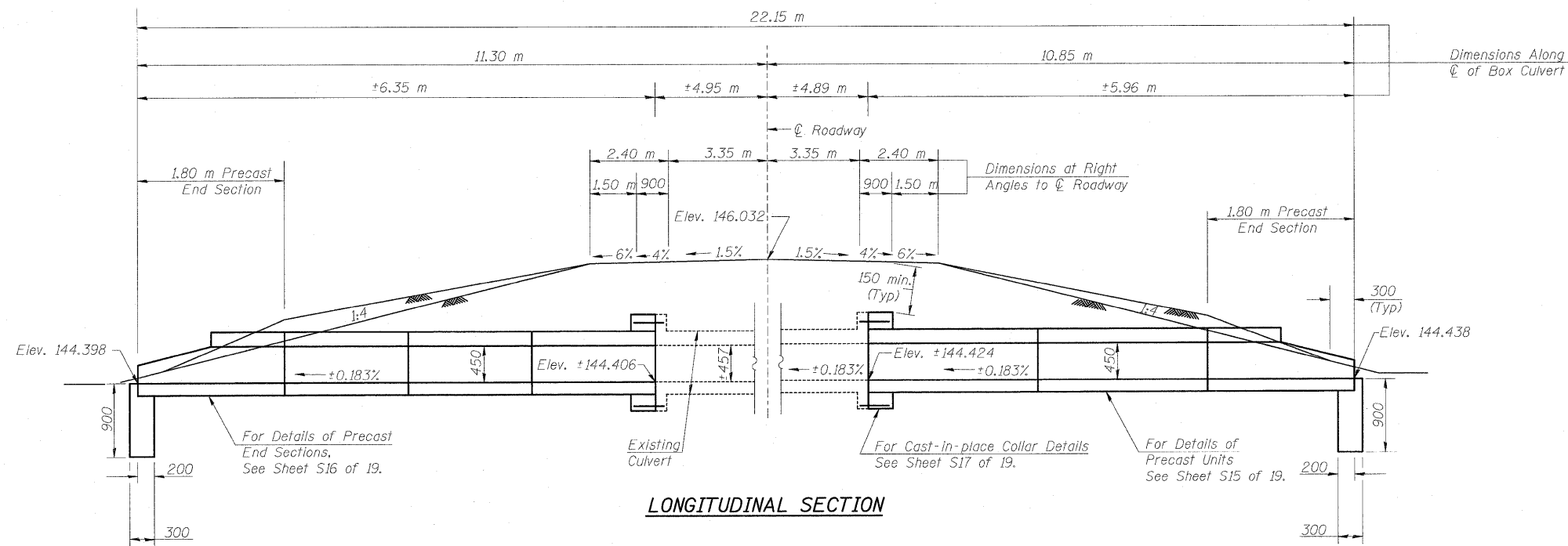
Quantity increased by 20% to account for deterioration since field inspection.

PLOT DATE = 3/20/2006  
FILE NAME = H:\4420\44205 (Lin Eng)\design Files 12-18-2006\5-96.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS CONCRETE REPAIR DETAILS BOX CULV. NO. 8, STA. 5+750.192
NAME	DATE	
SCALE	NONE	DRAWN BY MLB
DATE	DECEMBER 10, 2006	CHECKED BY MTH

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	188
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

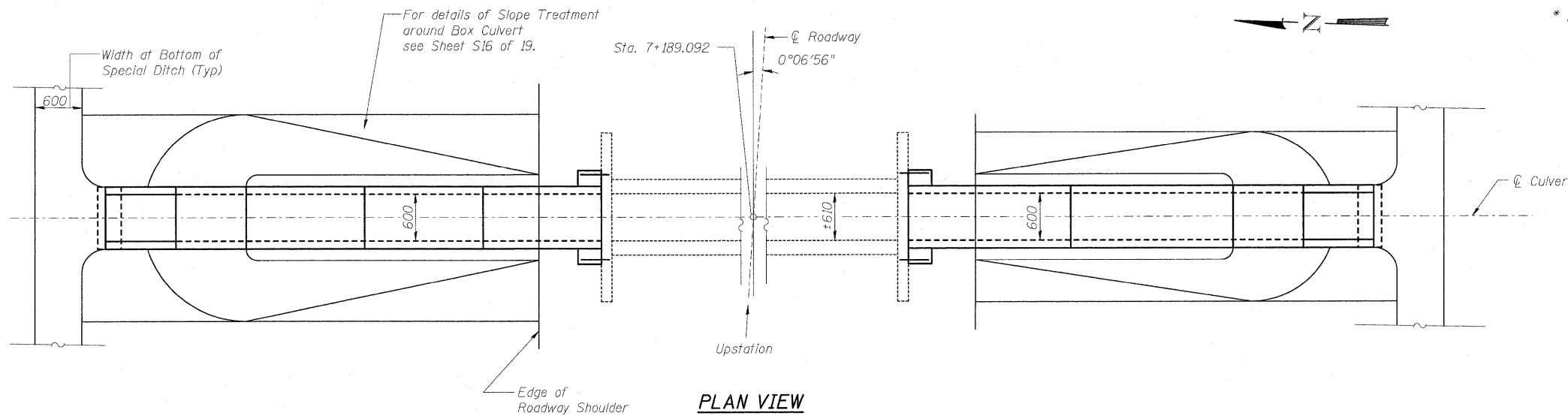
Existing Structure: The structure is a single barrel 610 mm x 457 mm box culvert at a skew of 0°6'56" right forward. The culvert has an overall length of 9.84 m. The contractor shall extend the culvert on each end for the dimensions shown.



**BILL OF MATERIAL - BOX CULVERT NO. 10**

Item	Unit	Total
M5030350 Concrete Structures	cu. m.	0.4
M5080205 Reinforcement Bars, Epoxy Coated	kg	90
* M5401002 Precast Concrete Box Culvert (600x450)	m	8.7
* 5401010 Box Culvert End Section, Culvert No. 10	Each	2
M5403220 Expansion Bolts (M20x250)	Each	20
M2810707 Stone Riprap, Class A4	sq. m.	See Plans

\* Non-standard size.

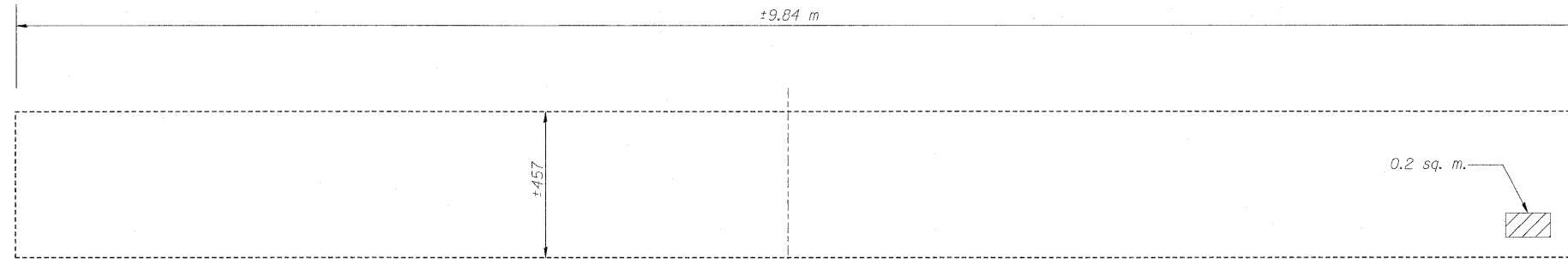


PLOT DATE = 3/20/2009  
FILE NAME = H:\4420\4420.5 (Lin Eng)\design\_files\12-18-2006\12-18-2006\12-18-2006.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GENERAL PLAN & ELEVATION BOX CULV. NO. 10, STA. 7+189.092
NAME	DATE	
		SCALE NONE
		DATE DECEMBER 10, 2006
		DRAWN BY MLB
		CHECKED BY MTH



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	189
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

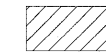


**EAST WALL**  
(Looking East)

Note:

The quantities shown are for estimating purposes only. The actual area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the "As Built" plans.

**LEGEND**



- Polymer Modified Portland Cement Mortar

sq. m. - Square Meter

**BILL OF MATERIAL - BOX CULVERT NO. 10**

Item	Unit	Total
MX032196 Polymer Modified Portland Cement Mortar	sq. m.	0.3

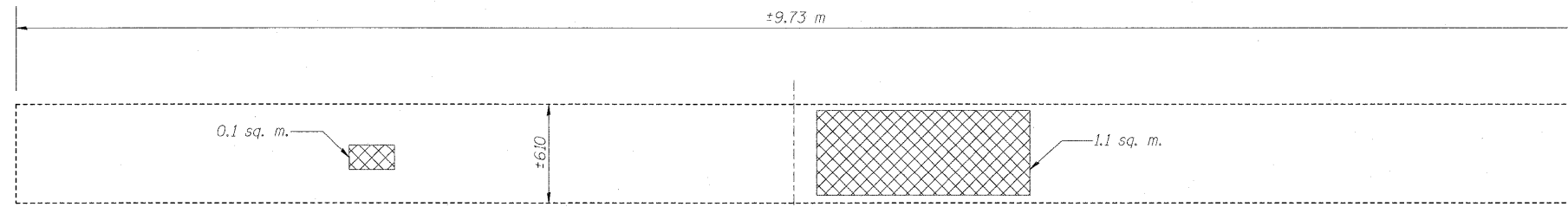
Quantity Increased by 20% to account for deterioration since field inspection.

PLOT DATE = 3/20/2008  
 FILE NAME = H:\14420\4420.5\Lin\_Eng\design\_files\12-18-2006\1S-08.dgn

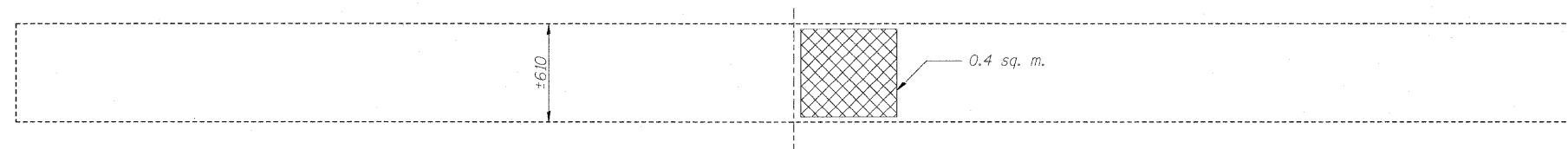
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS CONCRETE REPAIR DETAILS BOX CULV. NO. 10, STA. 7+189.092
NAME	DATE	
		SCALE NONE                      DRAWN BY   MLB DATE   DECEMBER 10, 2006      CHECKED BY   MTH



CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	191
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



**WEST WALL**  
(Looking West)



**EAST WALL**  
(Looking East)

*Note:*  
The quantities shown are for estimating purposes only. The actual area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the "As Built" plans.

**LEGEND**

- Structural Repair of Concrete (Depth Equal to or Less than 125mm)
- sq. m. - Square Meter

**BILL OF MATERIAL - BOX CULVERT NO. 11**

Item	Unit	Total
MX033694 Structural Repair of Concrete (Depth Equal to or Less than 125mm)	sq. m.	1.9

Quantity increased by 20% to account for deterioration since field inspection.

PLOT DATE = 3/29/2009  
FILE NAME = HV142044205 (Lin Eng)\design files\12-18-2006\15-10.dgn

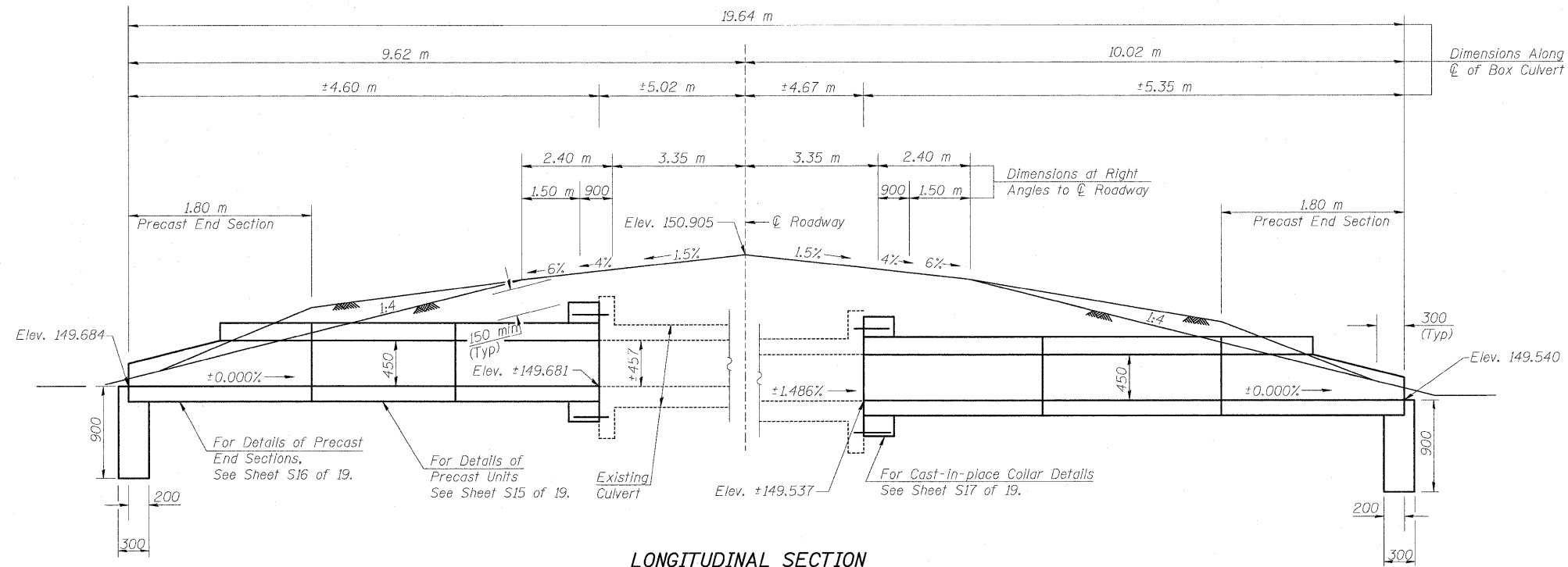
SHEET S10 OF 19

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS CONCRETE REPAIR DETAILS BOX CULV. NO. 11, STA. 7+421.533
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006
DRAWN BY MLB		CHECKED BY MTH

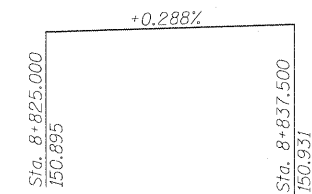
LIN NO. 9803

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	192
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

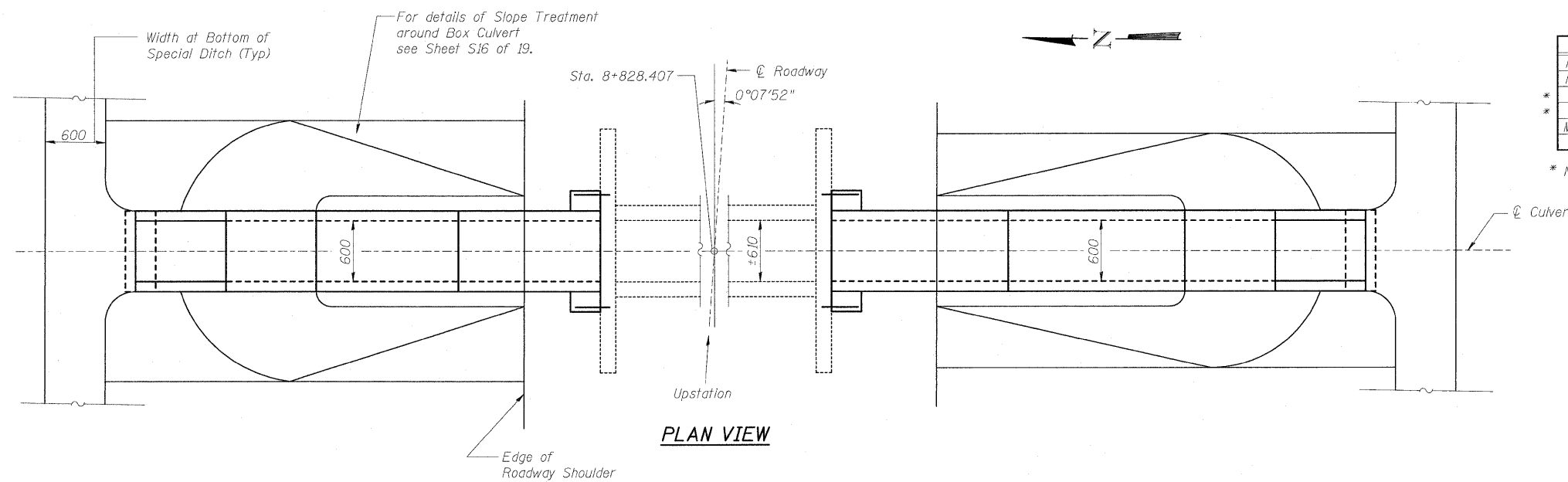
Existing Structure: The structure is a single barrel 610 mm x 457 mm box culvert at a skew of 0°07'52" right forward. The culvert has an overall length of 9.69 m. The contractor shall extend the culvert on each end for the dimensions shown.



**LONGITUDINAL SECTION**



**PROFILE GRADE**



**PLAN VIEW**

**BILL OF MATERIAL - BOX CULVERT NO. 15**

Item	Unit	Total
M5030350 Concrete Structures	cu. m.	0.5
M5080205 Reinforcement Bars, Epoxy Coated	kg	90
* M5401002 Precast Concrete Box Culvert (600x450)	m	6.4
* 5401015 Box Culvert End Section, Culvert No. 15	Each	2
M5403220 Expansion Bolts (M20x250)	Each	24
M2810707 Stone Riprap, Class A4	sq. m.	See Plans

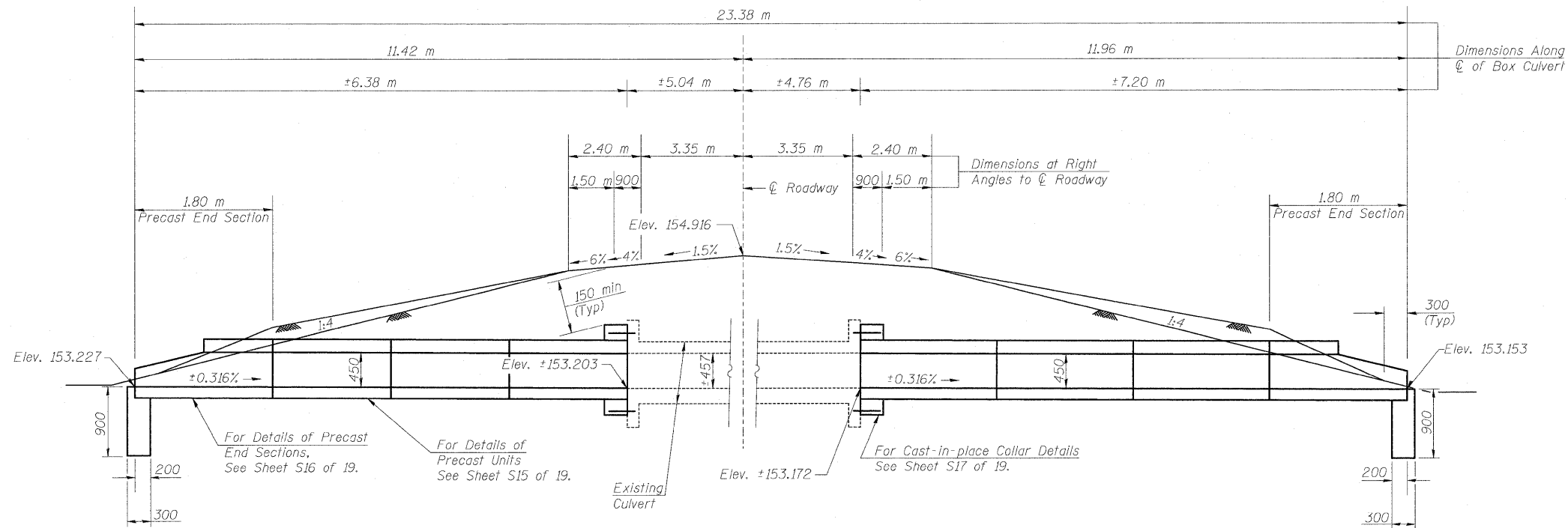
\* Non-standard size.

PLOT DATE = 3/20/2008  
FILE NAME = H:\1442044205\Lin\_Eng\design\_files\12-18-2006\15-11.dgn

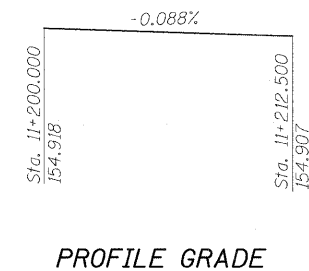
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GENERAL PLAN & ELEVATION BOX CULV. NO. 15, STA. 8+828.407
NAME	DATE	
		SCALE NONE
		DATE DECEMBER 10, 2006
		DRAWN BY MLB
		CHECKED BY MTH

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	193
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Existing Structure: The structure is a single barrel 914 mm x 457 mm box culvert at a skew of 1°10'09" right forward. The culvert has an overall length of 9.80 m. The contractor shall extend the culvert on each end for the dimensions shown.



**LONGITUDINAL SECTION**

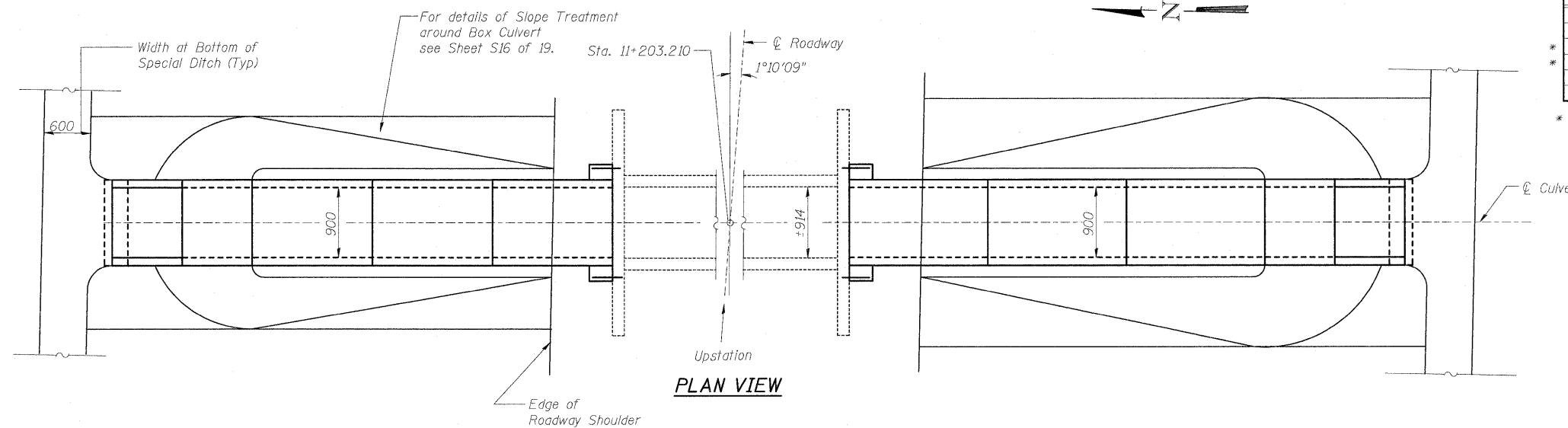


**PROFILE GRADE**

**BILL OF MATERIAL - BOX CULVERT NO. 16**

Item	Unit	Total
M5030350 Concrete Structures	cu. m.	0.5
M5080205 Reinforcement Bars, Epoxy Coated	kg	100
* Precast Concrete Box Culvert (900x450)	m	10.0
* 5401016 Box Culvert End Section, Culvert No. 16	Each	2
M5403220 Expansion Bolts (M20x250)	Each	20
M2810707 Stone Riprap, Class A4	sq. m.	See Plans

\* Non-standard size.



**PLAN VIEW**

SHEET S12 OF 19

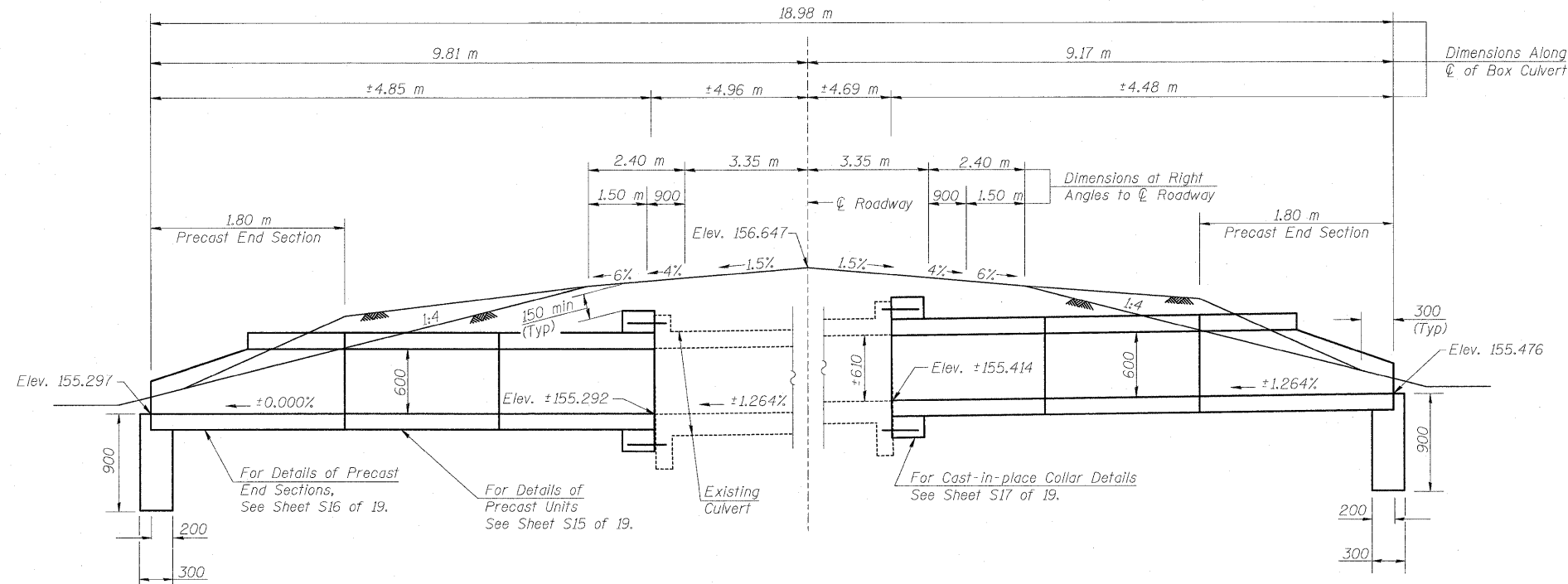
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GENERAL PLAN & ELEVATION BOX CULV. NO. 16, STA. 11+203.210
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006 DRAWN BY MLB CHECKED BY MTH

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\4420.5 (Lin. Eng)\design files 12-10-2006\S12.dgn

LIN NO. 9803

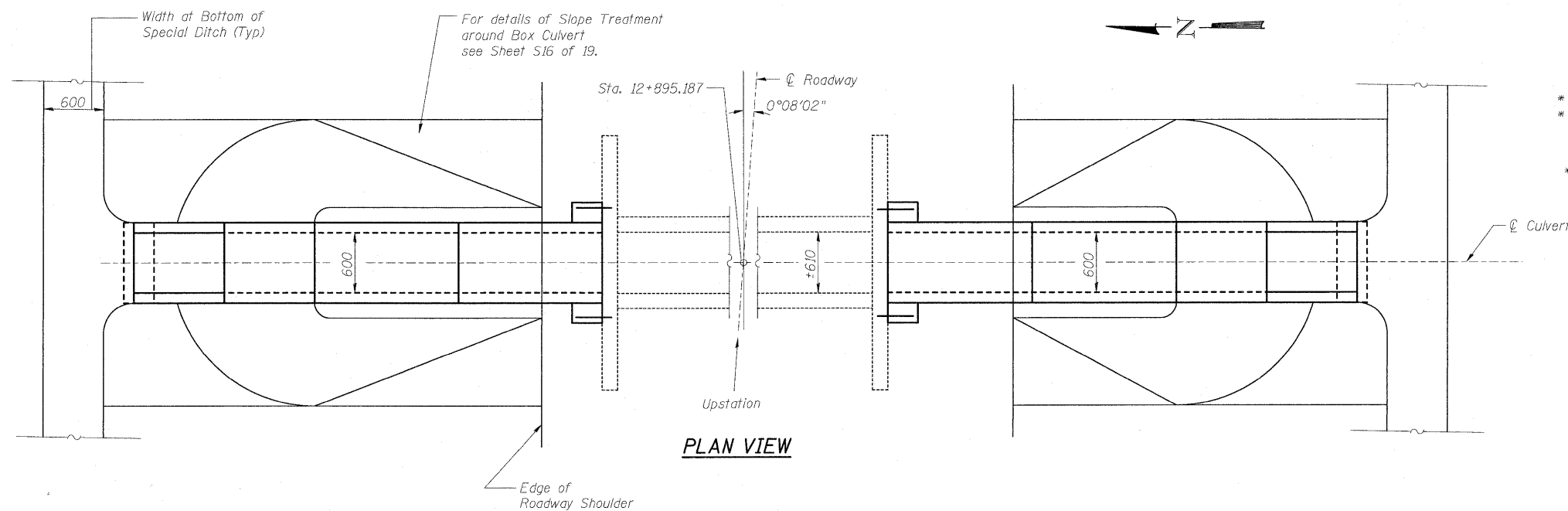
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	194
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Existing Structure: The structure is a single barrel 610 mm x 610 mm box culvert at a skew of 0°8'02" right forward. The culvert has an overall length of 9.65 m. The contractor shall extend the culvert on each end for the dimensions shown.



LONGITUDINAL SECTION

PROFILE GRADE



PLAN VIEW

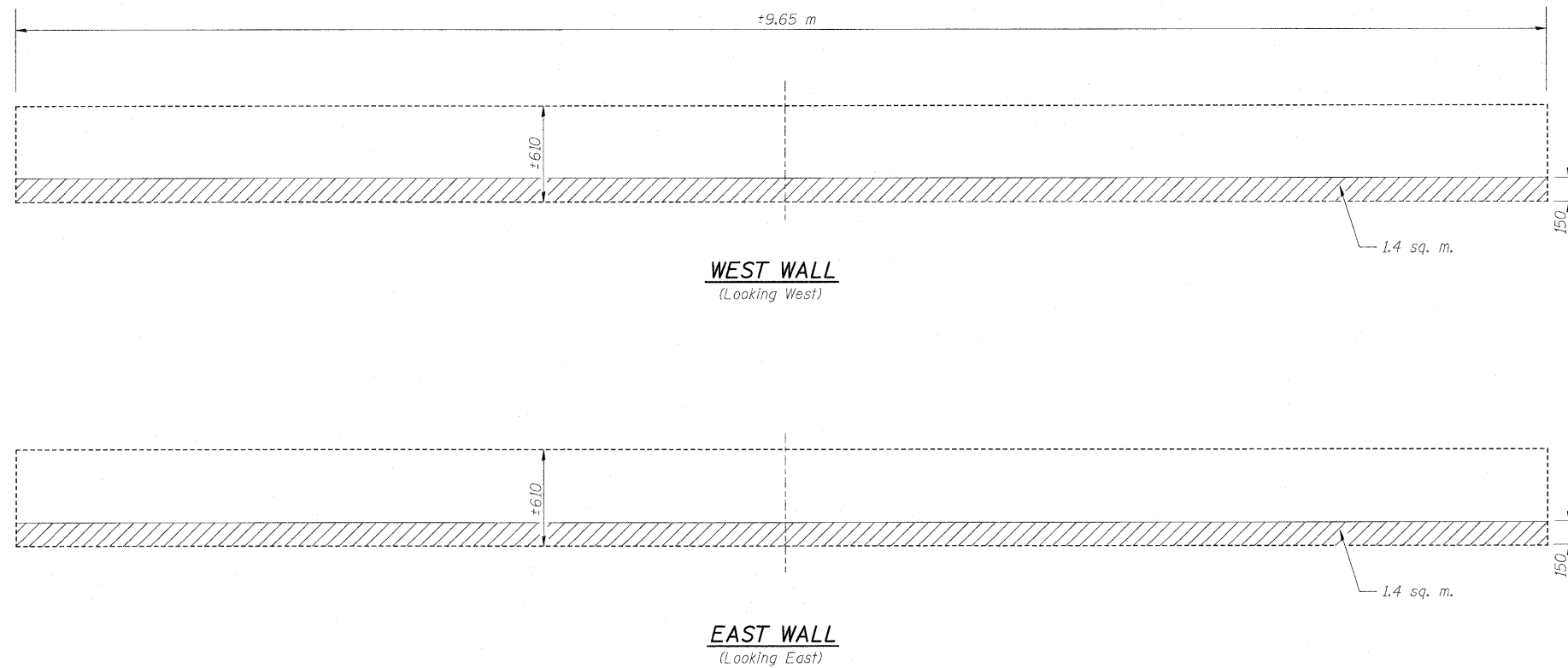
BILL OF MATERIAL - BOX CULVERT NO. 17

Item	Unit	Total
M5030350 Concrete Structures	cu. m.	0.5
M5080205 Reinforcement Bars, Epoxy Coated	kg	100
M5401005 Precast Concrete Box Culvert (600x600)	m	5.7
* 5401017 Box Culvert End Section, Culvert No. 17	Each	2
M5403220 Expansion Bolts (M20x250)	Each	24
M2810707 Stone Riprap, Class A4	sq. m.	See Plans

\* Non-standard size.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS GENERAL PLAN & ELEVATION BOX CULV. NO. 17, STA. 12+895.187
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006 DRAWN BY MLB CHECKED BY MTH

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	195
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



*Note:*  
The quantities shown are for estimating purposes only. The actual area to be repaired will be determined by the Engineer at the time of construction. Actual repair locations shall be shown on the "As Built" plans.

**LEGEND**

- Polymer Modified Portland Cement Mortar
- sq. m. - Square Meter

**BILL OF MATERIAL - BOX CULVERT NO. 17**

Item	Unit	Total
MX032196 Polymer Modified Portland Cement Mortar	sq. m.	3.4

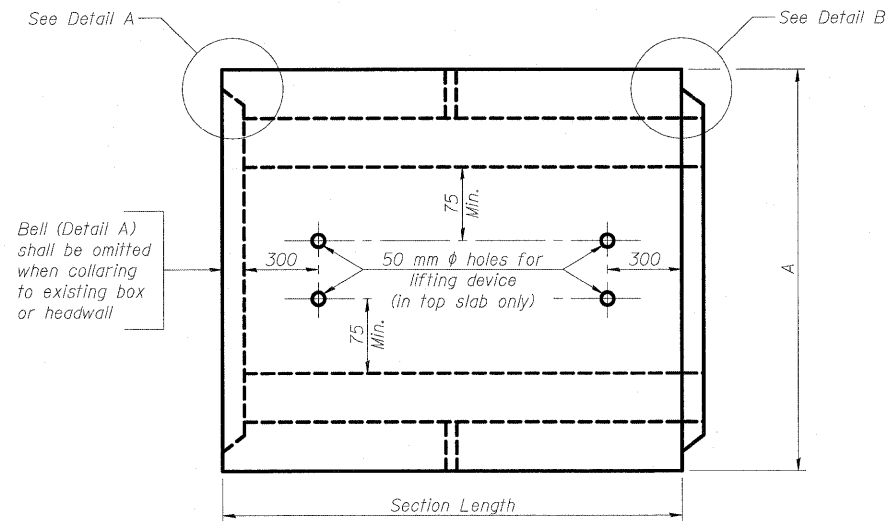
Quantity increased by 20% to account for deterioration since field inspection.

PLOT DATE = 3/20/2008  
FILE NAME = H:\4420\442015 (Lin Eng)\design files 12-18-2006\IS-14.dgn

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS CONCRETE REPAIR DETAILS BOX CULV. NO. 17, STA. 12+895.187
NAME	DATE	

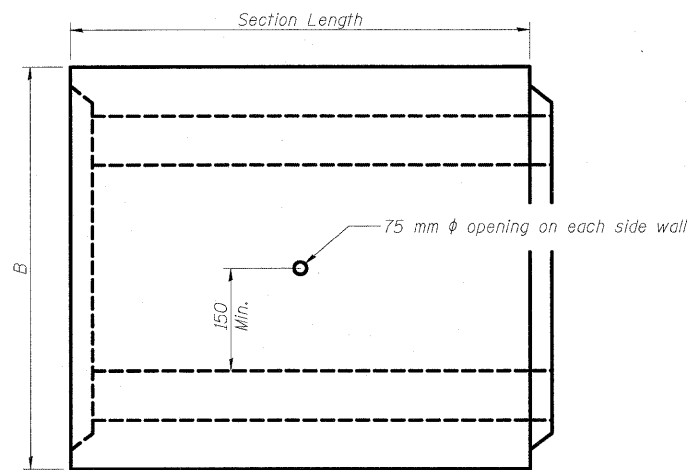
SCALE NONE      DRAWN BY MLB  
DATE DECEMBER 10, 2006      CHECKED BY MTH

CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	196
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

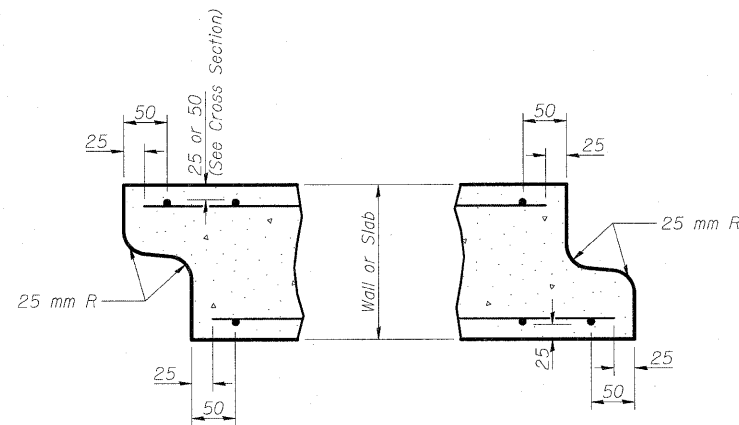


**PLAN**

Location of lifting holes may be varied as needed to clear reinforcement.



**ELEVATION**

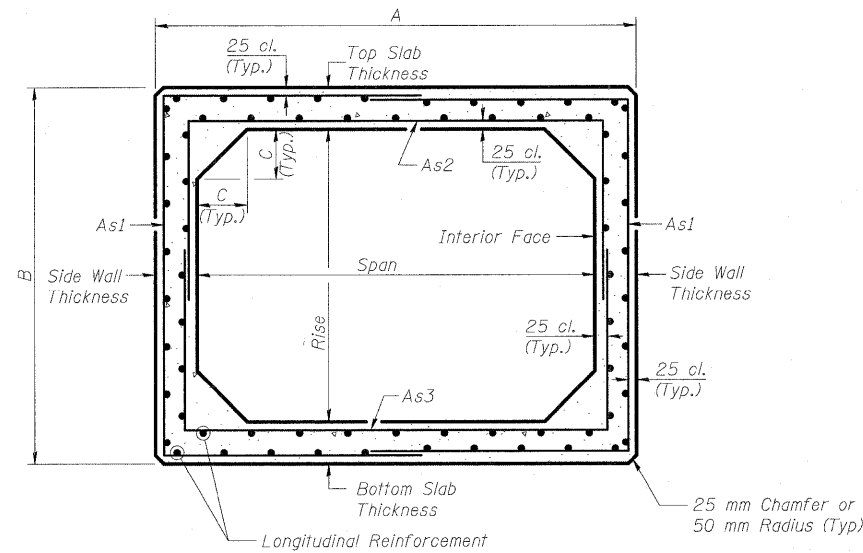


**DETAIL A**  
(Typ. Inlet End)

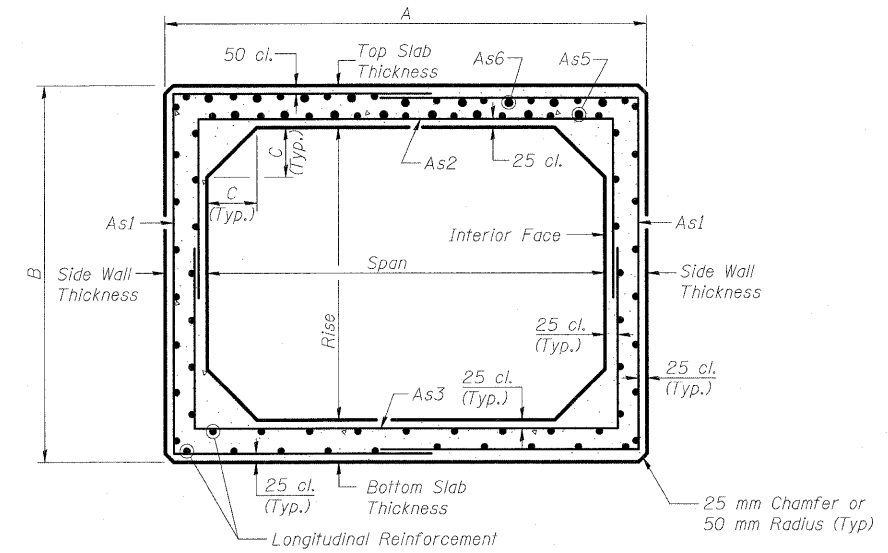
**DETAIL B**  
(Typ. Outlet End)

NOTES: Inlet and outlet ends shall be compatible. End detail is subject to variation by fabricator.

Box Culvert No.	Span	Rise	Fill Depth at Shoulder	Design Specifications
1	900	450	< 0.6m	M-273M
4	600	600	< 0.6m	M-273M
8	3000	1650	< 0.6m	M-273M
10	600	450	> 0.6m	M-259M
11	900	600	< 0.6m	M-273M
15	600	450	< 0.6m	M-273M
16	900	450	> 0.6m	M-259M
17	600	600	< 0.6m	M-273M



**CROSS SECTION**  
(AASHTO M-259M)



**CROSS SECTION**  
(AASHTO M-273M)

**GENERAL NOTES**

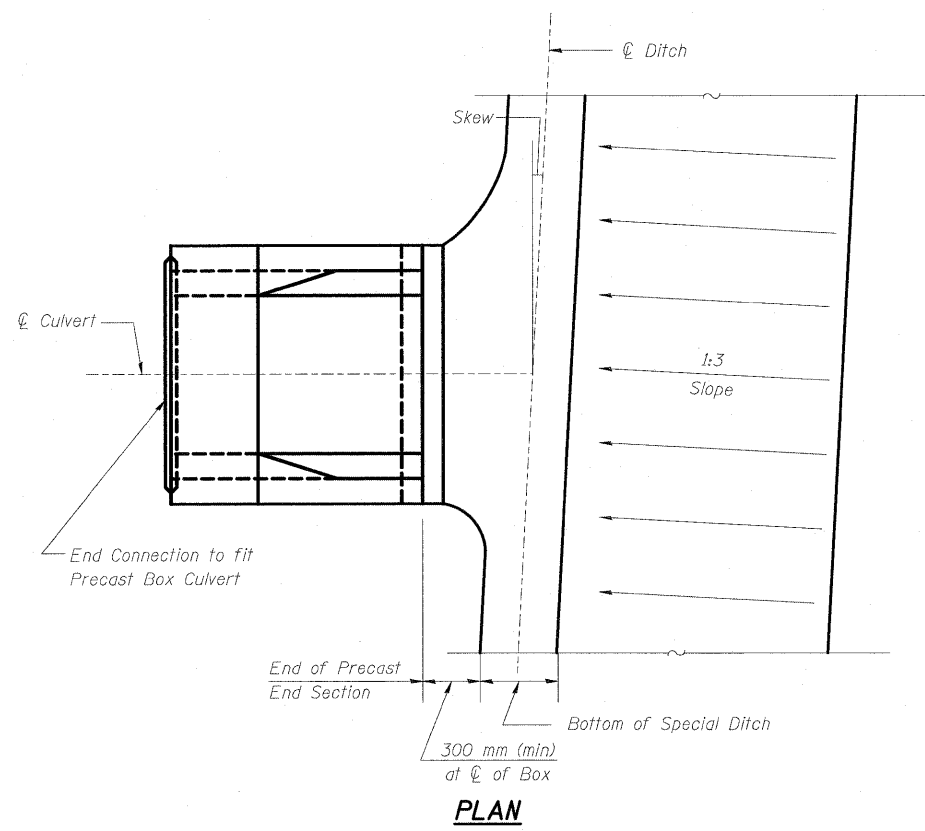
- The Contractor shall determine box culvert dimensions A, B & C and reinforcement requirements which satisfy AASHTO M-259M or M-273M.
- The terms As1 thru As6 denote the required steel areas for reinforcement as specified in AASHTO M-259M and M-273M.
- Reinforcement shall be welded wire fabric conforming to ASTM specifications A-185.
- Splicing and laps shall conform to AASHTO M-259 and ASTM C-789.
- Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.
- Edge beam reinforcement shall be provided per requirements of AASHTO M-273M.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS PRECAST SECTION DETAILS
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006 DRAWN BY MLB CHECKED BY MTH

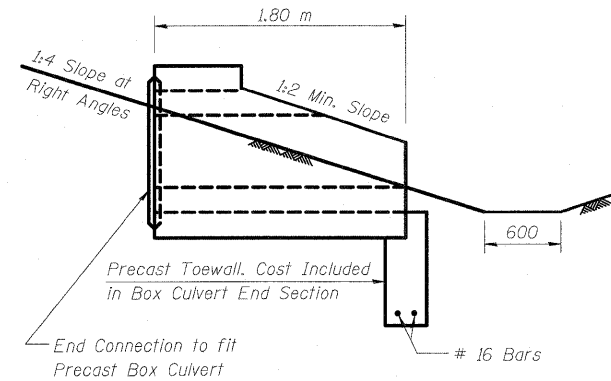
PLOT DATE = 3/20/2009  
FILE NAME = H:\4420\44205 (Lin Eng)\design files\12-18-2006\9-15.dgn



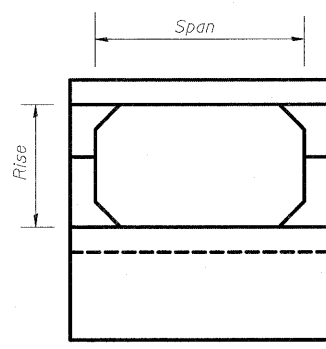
CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	197
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



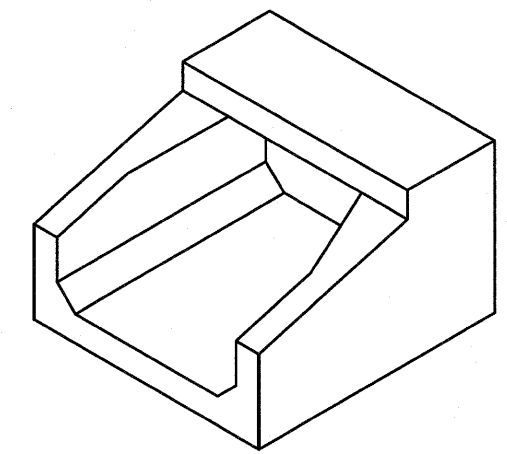
**PLAN**



**SIDE VIEW**



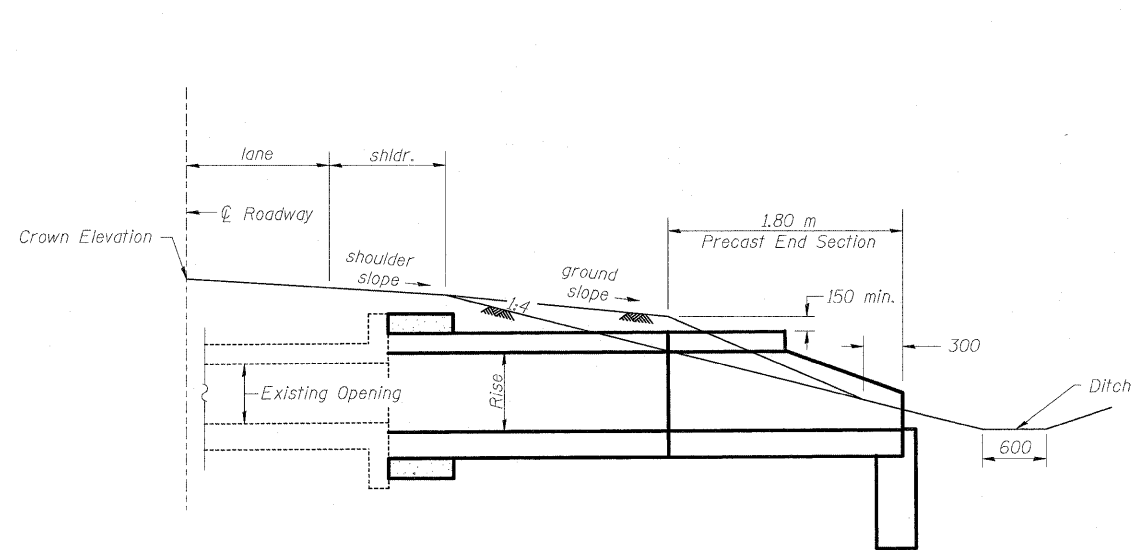
**END VIEW**



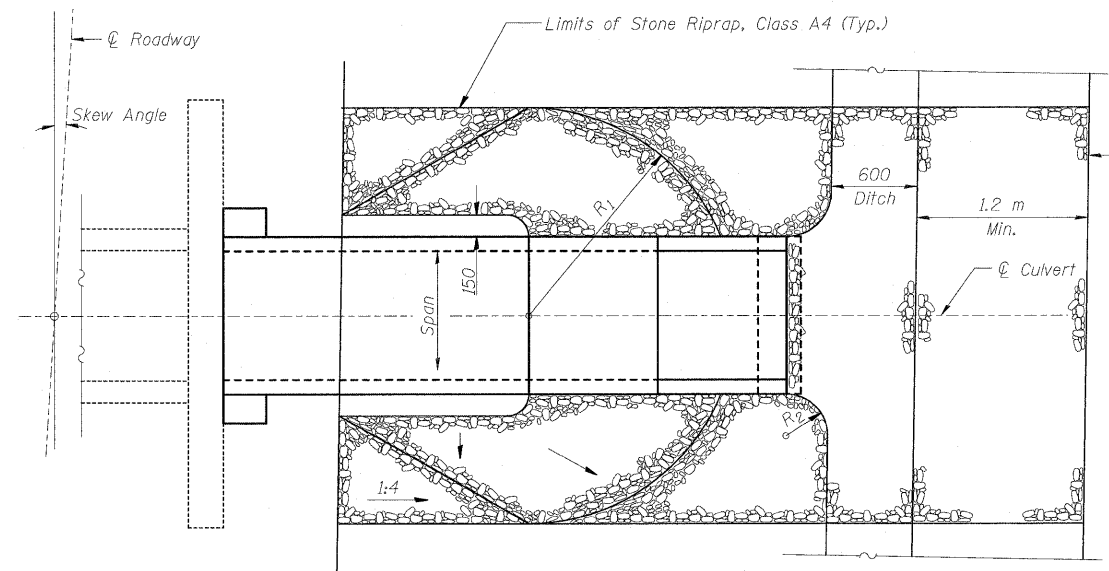
**ISOMETRIC VIEW**

**PRECAST CONCRETE BOX CULVERT END SECTION DETAILS**

Box Culvert No.	Span	Rise
1	900	450
4	600	600
8	3000	1650
10	600	450
11	900	600
15	600	450
16	900	450
17	600	600



**LONGITUDINAL SECTION**



**PLAN VIEW**

\*Limits of Stone Riprap, Class A4  
 \*If formed ditch is not present, riprap shall be extended 1.2m past projected toe of ditch.  
 Note:  
 The Stone Riprap shall extend to an elevation of the top of the Top Slab within the outline shown. The Radii R<sub>1</sub> & R<sub>2</sub> shall be determined in the field.

**SLOPE TREATMENT DETAILS**

**GENERAL NOTES**

1. Reinforcement for precast box end sections shall conform to specifications for the same size box unit for the specifications specified for that culvert.
2. Reinforcement shall be welded wire fabric conforming to ASTM A-185. Laps, welds and spacing shall conform to ASTM C-789 and AASHTO M-259.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**BOX CULVERT EXTENSIONS**  
**PRECAST END SECTION DETAILS**  
 SCALE NONE DRAWN BY MLB  
 DATE DECEMBER 10, 2006 CHECKED BY MTH

PLOT DATE = 3/20/2008  
 FILE NAME = H:\4420\442015 (Lin Eng)\design\_files\12-18-2006\15-16.dgn

### DIMENSIONS & BAR LIST

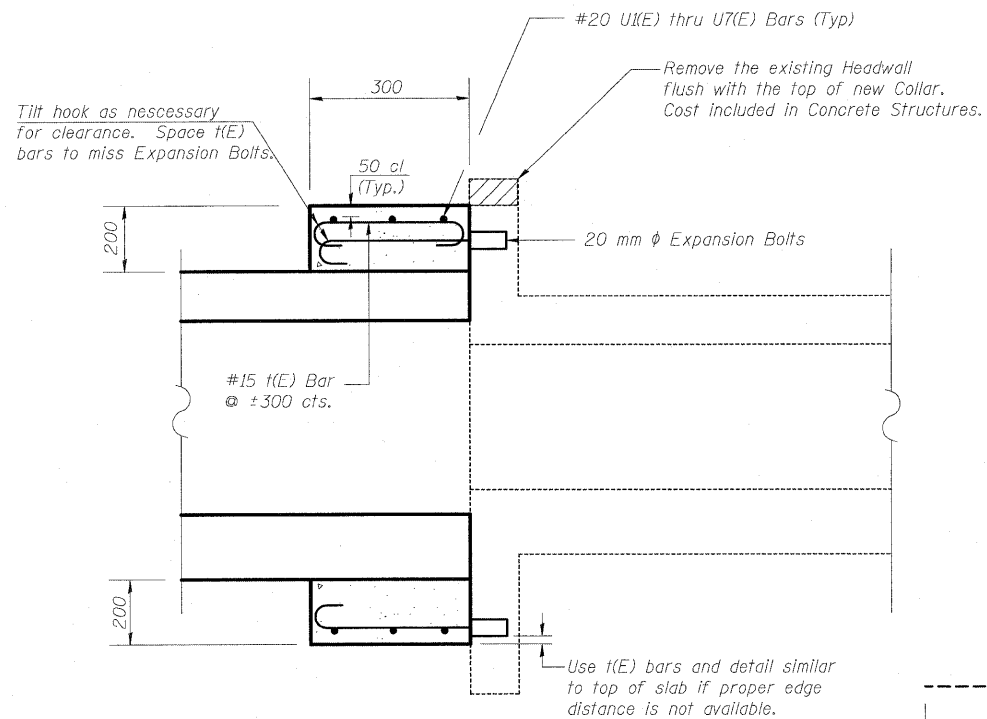
Box Culvert No.	S* (mm)	R* (mm)	Expansion Bolts				U(E) thru U7(E) Bars			t(E) Bars		
			Top Slab	Bottom Slab	Each Wall	Total	Designation	A*(m)	B*(m)	No. Req'd	Top Slab	v bars
1	1500	1175**	3	3	3	21	U1(E)	1.40	0.94	9	6	6
4	1200	1325	3	3	3	24	U2(E)	1.10	1.01	12	5	
8	3900	2550	8	8	5	52	U3(E)	3.80	1.62	12	14	
10	1200	1050	3	3	2	20	U4(E)	1.10	0.87	12	5	
11	1500	1325**	3	3	3	21	U5(E)	1.40	1.01	9	6	6
15	1200	1175	3	3	3	24	U6(E)	1.10	0.94	12	5	
16	1500	1050	3	3	2	20	U7(E)	1.40	0.87	12	6	
17	1200	1325	3	3	3	24	U2(E)	1.10	1.01	12	5	

\* Contractor to verify dimension based on actual culvert size provided by fabricator.

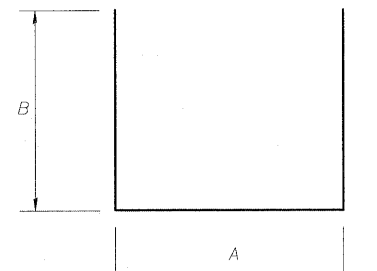
\*\* Modify this dimension to accommodate the steel plate. (See Sheet S18 of 19)

### BAR DETAILS

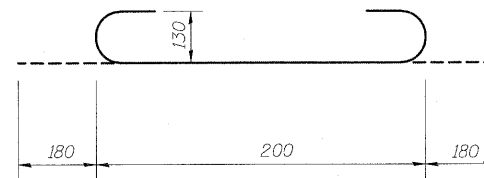
Bar	No.	Size	Length (m)	Shape
t(E)	52	#15	0.56	U
U1(E)	9	#20	3.28	U
U2(E)	24	#20	3.12	U
U3(E)	12	#20	7.04	U
U4(E)	12	#20	2.84	U
U5(E)	9	#20	3.42	U
U6(E)	12	#20	2.98	U
U7(E)	12	#20	3.14	U
v(E)	12	#20	0.90	—



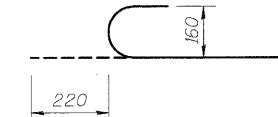
**LONGITUDINAL SECTION**



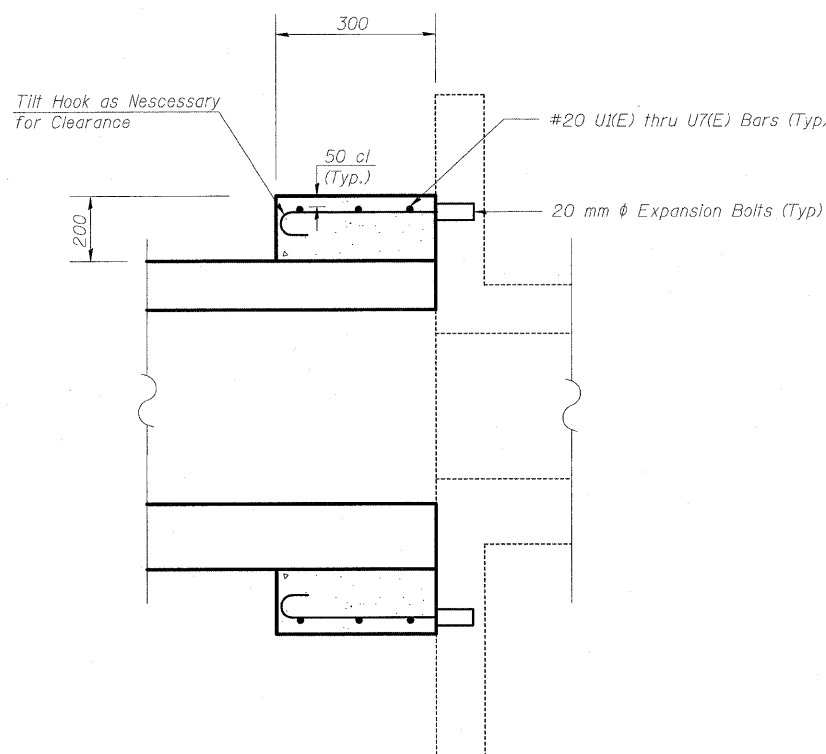
**U(E) THRU U7(E) BARS**



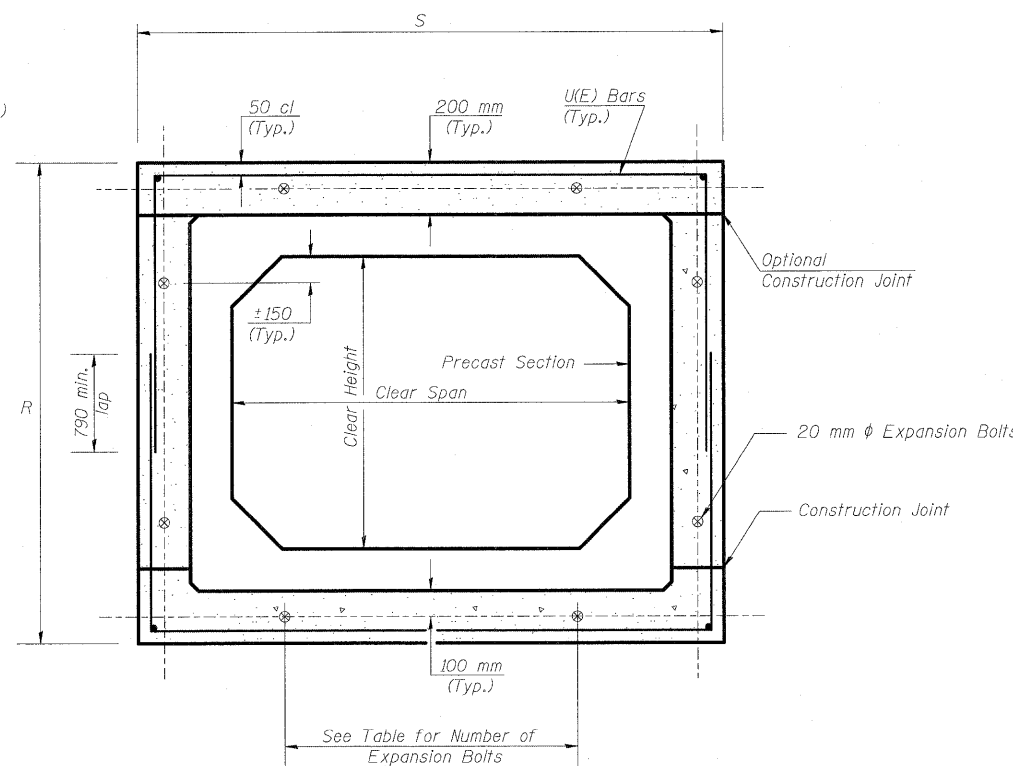
**t(E) BAR**



**EXPANSION BOLT HOOK**

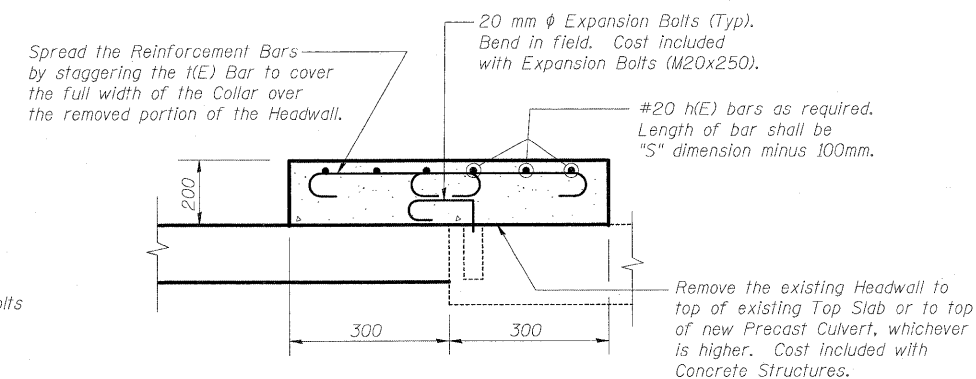


**PLAN**



**CROSS SECTION THRU BARREL**

See Sheet S18 of 19 when Steel Plate is required.



**ALTERNATE FOR TOP COLLAR**

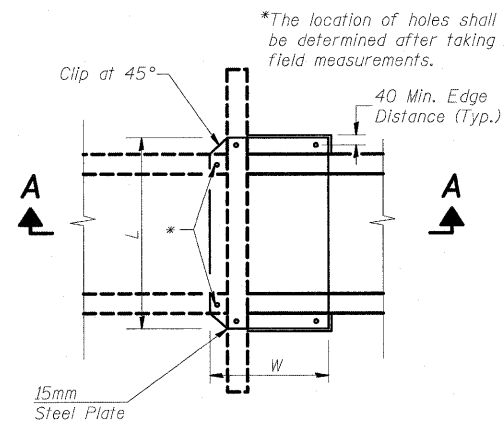
If the Headwall is spalled or has unsound concrete, remove the Headwall flush with Top Slab and extend the top portion of new Collar to cover the area of Headwall. Anchor the top portion of Collar to Top Slab of Existing Culvert.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS CAST-IN-PLACE COLLAR DETAILS
NAME	DATE	

SCALE NONE      DRAWN BY MLB  
DATE DECEMBER 10, 2006      CHECKED BY MTH

PLOT DATE = 3/20/2009  
FILE NAME = H:\V428\4428.5 (Ln Eng)\design files\12-18-2006\AS-17.dgn

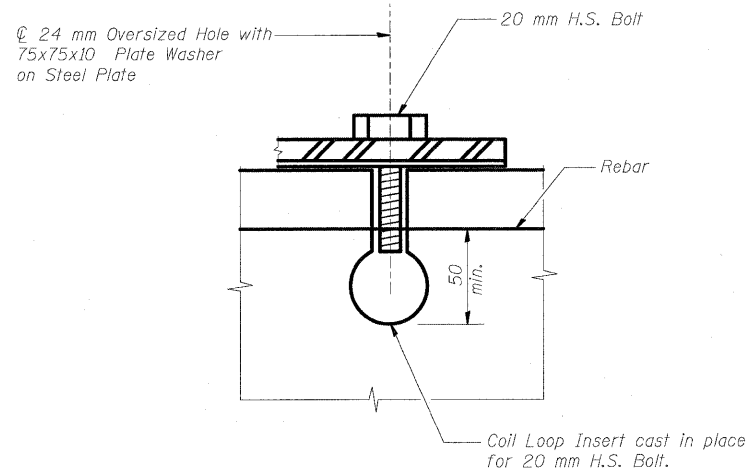
CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	199
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



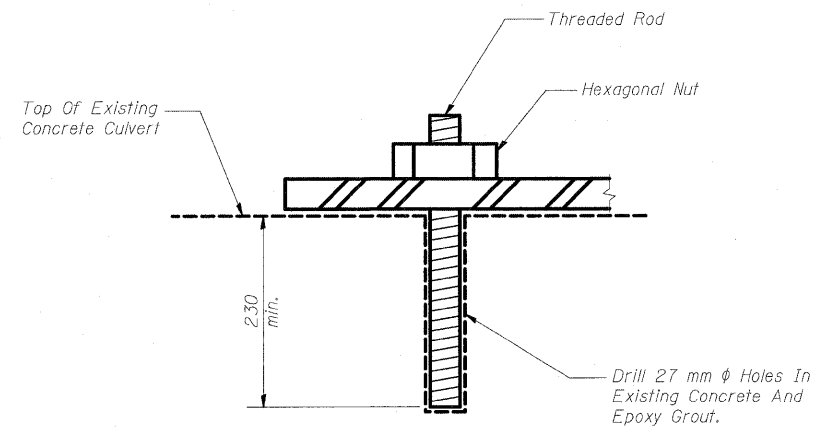
**PLAN  
DETAIL OF STEEL PLATE  
ATTACHMENT**

Box No.	Location	Size L x W
1	Upstream Collar	1500 x 700 **
4	Downstream Collar	1500 x 700 **

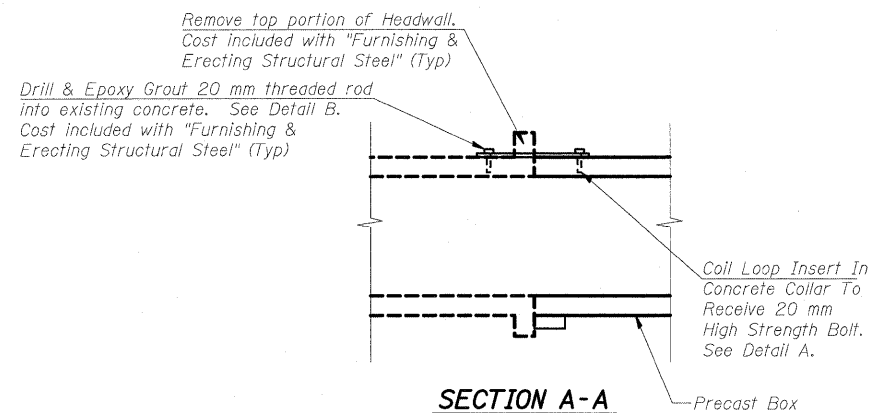
\*\*Contractor to verify dimensions based on actual culvert size provided by the fabricator.



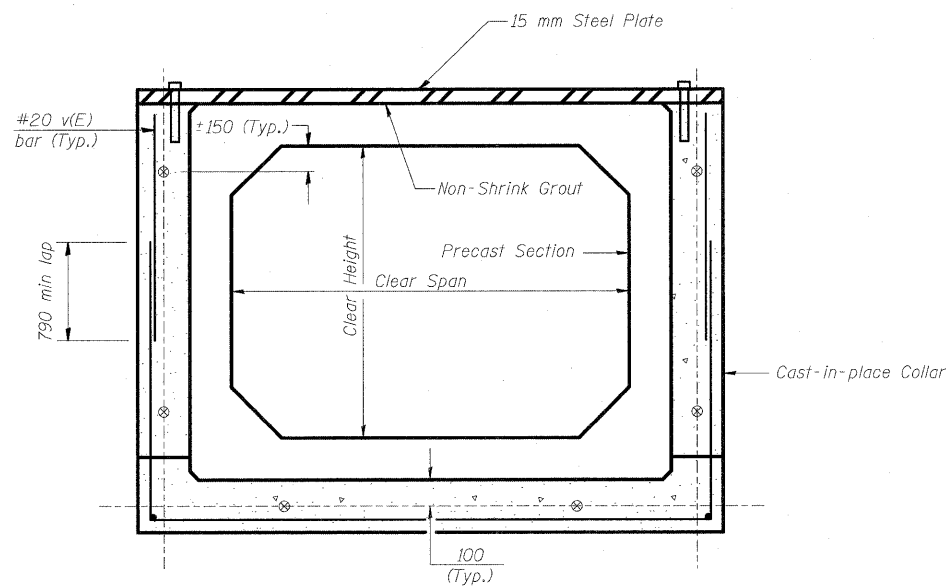
**DETAIL A**



**DETAIL B**



**SECTION A-A**



**MODIFIED COLLAR DETAIL WITH  
STEEL PLATE AT TOP**

See Sheet S17 of 19 for Collar Details and Reinforcement Bar List.

**NOTES**

The Steel Plate & Hardware shall be Galvanized in accordance with AASHTO M232, AASHTO M111 and ASTM A385.

SHEET S18 OF 19

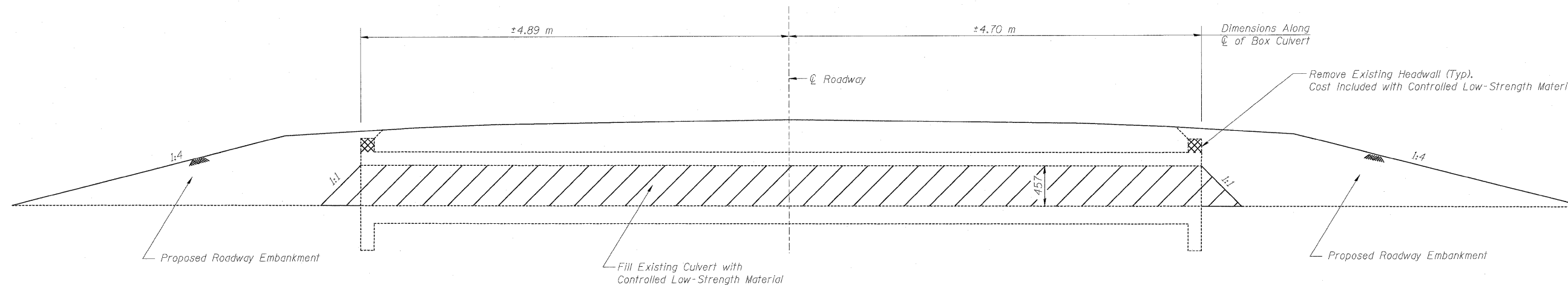
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION BOX CULVERT EXTENSIONS MISCELLANEOUS DETAILS
NAME	DATE	
		SCALE NONE DATE DECEMBER 10, 2006 DRAWN BY MLB CHECKED BY MTH

PLOT DATE = 3/20/2009  
FILE NAME = H:\4420\44205 (Lin Eng)\design\_files\12-18-2006\18.dgn

LIN NO. 9803

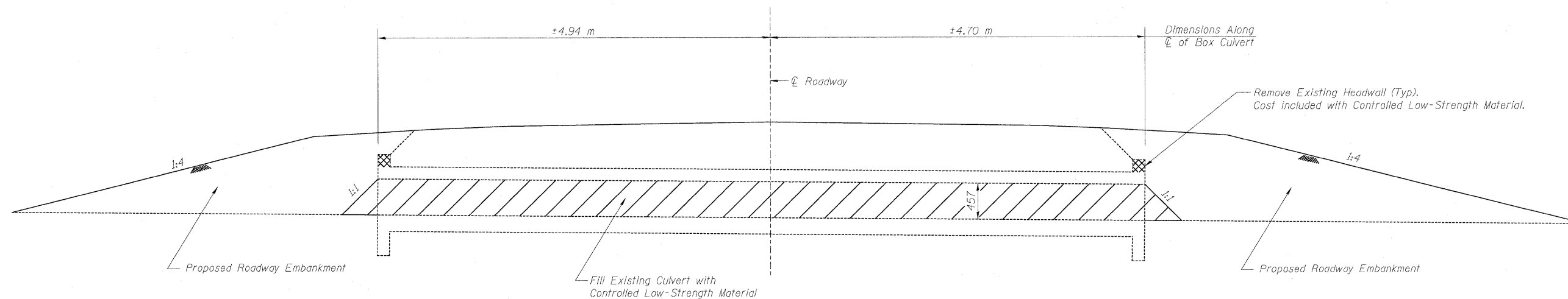
CONTRACT NO.				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
781	1YRS, 2ZRS-1	CRAWFORD	378	200
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Existing Structure: The structure is a single barrel 914 mm x 457 mm box culvert at a skew of 0°34'23" right forward. The culvert has an overall length of 9.59 m. The culvert is to be filled with Controlled Low-Strength Material and abandoned.



**LONGITUDINAL SECTION**  
(E.C. #101)

Existing Structure: The structure is a single barrel 610 mm x 457 mm box culvert at a skew of 0°12'20" right forward. The culvert has an overall length of 9.64 m. The culvert is to be filled with Controlled Low-Strength Material and abandoned.



**LONGITUDINAL SECTION**  
(E.C. #105)

\*Drilling holes in the top slab may be required for placement of C.L.S.M. Cost included in pay item Controlled Low-Strength Material.

**BILL OF MATERIAL - E.C. #101 & E.C. #105**

Item	Unit	Total
Controlled Low-Strength Material	cu. m.	7.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**BOX CULVERT EXTENSIONS  
 PLUG & FILL DETAILS  
 E.C. 101 & E.C. 105**  
 SCALE NONE DRAWN BY MLB  
 DATE DECEMBER 10, 2006 CHECKED BY MTH

PLOT DATE = 3/20/2008 FILE NAME = H:\1420\44205 (Lin Eng)\design files\12-10-2006\19-10.dgn

SHEET NO. 19 OF 19