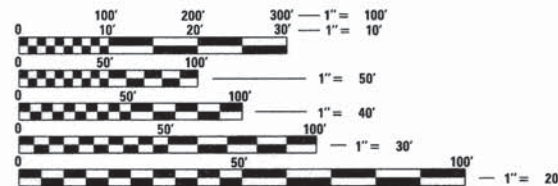


01-15-2016 LETTING ITEM 133

**INDEX OF SHEETS**

- 1 COVER SHEET
- 2 HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS
- 3-8 SUMMARY OF QUANTITIES
- 9-12 TYPICAL CROSS SECTIONS
- 13-14 SCHEDULE OF QUANTITIES
- 15 ALIGNMENT, SURVEY TIES, AND BENCHMARKS
- 16-20 PLAN AND PROFILE
- 21 DETOUR PLAN
- 22 STAGE CONSTRUCTION PLANS
- 23-25 EROSION CONTROL PLAN
- 26 INTERSECTION DETAIL
- 27 DRAINAGE SCHEDULE
- 28-32 DRAINAGE PLAN AND PROFILE
- 33 SAW JOINT PLAN
- 34 PAVEMENT MARKING AND SIGNING PLAN
- 35-39 STRUCTURE PLANS
- 40-46 MISCELLANEOUS DETAILS & DISTRICT DETAILS
- 47-56 CROSS SECTIONS

FOR LIST OF STANDARDS, SEE SHEET NO. 2



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: LUKE THOELE, P.E.  
PROJECT MANAGER: ERIC BACHMAN, P.E.

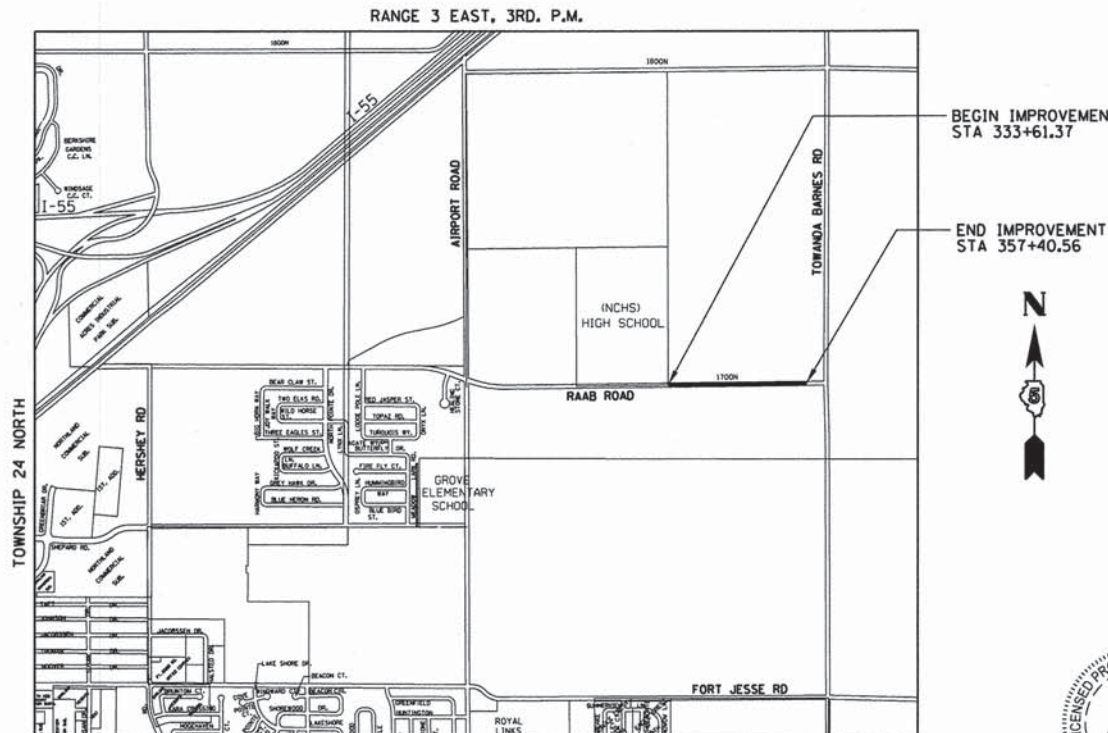
CONTRACT NO. 91522

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.U. ROUTE 6435 (RAAB ROAD)  
SECTION 14-00252-00-RP  
PROJECT M-5227(057)  
PAVEMENT RECONSTRUCTION  
McLEAN COUNTY  
JOB NO. C-95-308-15  
FUNDING - STU /MFT



LOCATION MAP  
N.T.S.

NORMAL, ILLINOIS

GROSS & NET LENGTH OF PROJECT = 2379.19 FT = 0.451 MILE



SIGNATURE: *Luke Thoele*  
EXPIRES: 11/30/2015  
DATE: 8/31/15

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	1
		ILLINOIS	CONTRACT NO. 91522	



FUNCTIONAL CLASSIFICATION  
RAAB ROAD  
URBAN MAJOR COLLECTOR  
2015 ADT=1700 2036 ADT=8240

AGENCY RESPONSIBLE FOR LETTING	
Approved	<i>[Signature]</i> Town of Normal, Town Engineer
Passed	<i>[Signature]</i> District #5 Engineer of Local Roads & Streets
Releasing for Bid Based on Limited Review	<i>[Signature]</i> Deputy Director of Highways, Region #3 Engineer

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

**HIGHWAY STANDARDS**

000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS  
 001001-02 AREAS OF REINFORCEMENT BARS  
 001006 DECIMAL OF AN INCH AND OF A FOOT  
 280001-07 TEMPORARY EROSION CONTROL SYSTEMS  
 420001-08 PAVEMENT JOINTS  
 420111-03 PCC PAVEMENT ROUNDOUTS  
 424001-08 PERPENDICULAR CURB RAMPS FOR SIDEWALKS  
 542301-03 PRECAST REINFORCED CONCRETE FLARED END SECTION  
 602306-03 INLET, TYPE B  
 602401-03 MANHOLE TYPE A  
 602601-03 PRECAST REINFORCED CONCRETE FLAT SLAB TOP  
 602701-02 MANHOLE STEPS  
 604001-04 FRAME AND LIDS TYPE 1  
 606001-06 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER  
 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE  
 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH  
 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED  
 701801-05 SIDEWALK, CORNER OR CROSSWALK CLOSURE  
 701901-04 TRAFFIC CONTROL DEVICES  
 780001-05 TYPICAL PAVEMENT MARKINGS  
 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS  
 BLR 10-6 PCC PAVEMENT SPECIAL (NONREINFORCED)  
 BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS  
 BLR 22-7 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (2L, 2W RURAL TRAFFIC, ROAD CLOSED TO THRU TRAFFIC)

**DISTRICT 5 STANDARDS**

60600095A INLET - COMBINATION CONCRETE CURB & GUTTER (BARRIER CURB)  
 7800AAAA PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

**COMMITMENTS**

NO COMMITMENTS

**GENERAL NOTES**

- ALL DISTURBED AREAS ARE TO RECEIVE TOPSOIL (4" TYPICAL).
- REMOVAL OF EXISTING ASPHALT ON AN AGGREGATE BASE, OIL AND CHIP PAVEMENT, AND AGGREGATE SURFACE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT.
- STORM SEWERS ARE DESIGNED FOR A TEN YEAR STORM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS THE JULIE NUMBER IS 1-800-892-0123. THE FOLLOWING UTILITIES LOCATED WITHIN THE LIMITS OF THIS IMPROVEMENT ARE MEMBERS OF J.U.L.I.E.  

NICOR	COMCAST
FRONTIER COMMUNICATIONS	CIRBN
CORN BELT ELECTRIC COOP	TOWN OF NORMAL
AMEREN	

- ALL URBAN TURF AREAS DISTURBED DURING CONSTRUCTION WILL BE REPLACED WITH SEEDING CLASS 2A AND MULCH ANCHORED PER METHOD 2, IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 251 OF THE STANDARD SPECIFICATIONS.

- THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TON/CU YD
BITUMINOUS MATERIAL PRIME COAT		VARIES
AGGREGATE PRIME COAT	4	LB/SY
HOT-MIX ASPHALT	112	LB/SY/IN
LEVEL BINDER (MACHINE METHOD)	112	LB/SY/IN
NITROGEN FERTILIZER NUTRIENTS	90	LB/ACRE
PHOSPHOROUS FERTILIZER NUTRIENTS	90	LB/ACRE
POTASSIUM FERTILIZER NUTRIENTS	90	LB/ACRE
MULCH	2	TON/ACRE

- THE ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSE UNLESS OTHERWISE INDICATED.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL BE REQUIRED AS REQUESTED BY THE ENGINEER TO RELOCATE OR TO REMOVE AND REINSTALL ALL ROAD SIGNS WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND TO TEMPORARILY RESET ALL SUCH SIGNS DURING CONSTRUCTION.

ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY THE FOLLOWING REQUIREMENTS:

- SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK DEMANDS.
- EVERY SIGN REMOVED MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO HIGHWAY TRAFFIC. ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND NEAT FOR THE DURATION OF THE TEMPORARY SETTING.
- ALL SHORT TERM OR TEMPORARY PAVEMENT MARKINGS PROPOSED WITHIN A GIVEN WORK AREA SHALL BE COMPLETED PRIOR TO CONSTRUCTION PHASE CHANGE.

- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE CONNECTION OF EXISTING DRAIN TILES, SUMP PUMP DRAINS, PIPE CULVERTS, OR STORM SEWERS TO THE PROPOSED DRAINAGE SYSTEM STRUCTURE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE PAY ITEMS FOR THE PROPOSED DRAINAGE SYSTEM.
- A FULL DEPTH SAW CUT SHALL BE PROVIDED AT ALL REMOVAL LIMITS UNLESS OTHERWISE SHOWN ON THE PLANS. THIS WORK SHALL BE INCLUDED IN THE COST OF REMOVAL ITEMS.
- THE DEPTH OF CONCRETE FOR DRIVEWAY PAVEMENTS SHALL BE 6 INCHES FOR FIELD ENTRANCES AND 8 INCHES FOR PRIVATE AND COMMERCIAL ENTRANCES. QUANTITIES ARE FIGURED FULL DEPTH FOR THE DRIVEWAYS EXTENDING TO THE PROPOSED R.O.W. LINE.
- UTILITY LOCATIONS SHOWN ON THE PLANS AND CROSS SECTIONS ARE APPROXIMATE ONLY. THE LOCATIONS ARE SHOWN BASED ON CURRENT RECORDS PROVIDED BY THE UTILITY COMPANIES. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AND THE RESPECTIVE UTILITY COMPANY TO OBTAIN ACTUAL LOCATIONS AND DEPTHS OF UTILITIES. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL BE REQUIRED TO OBTAIN ACTUAL LOCATIONS AND DEPTHS OF ANY UTILITIES NOT PROVIDED BY THE UTILITY COMPANIES AND SHALL TAKE PROPER PRECAUTIONS TO PREVENT DAMAGE OR INTERRUPTION OF THE UTILITIES.
- CONTRACTOR SHALL VERIFY THE ELEVATION OF THE EXISTING WATERMAIN AND EXISTING HIGH PRESSURE GAS MAIN AT ALL LOCATIONS WHERE PROPOSED STORM SEWER CROSSES THESE EXISTING UTILITIES PRIOR TO ORDERING THE ADJACENT INLETS AND STORM SEWER.
- GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE IN THE ORIGINAL STATE AS MUCH AREA OF PROJECT RIGHT OF WAY AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE AS DETERMINED BY THE ENGINEER.  
  
THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88) AND STATE PLANE COORDINATES, ILLINOIS EAST ZONE.



DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**HIGHWAY STANDARDS, GENERAL NOTES,  
AND COMMITMENTS**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	2
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-522(057)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				ROADWAY	BOX CULVERT
				0004 URBAN	0011 URBAN
* 20200100	EARTH EXCAVATION	CU YD	8,456	8,456	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	126		126
* 20800150	TRENCH BACKFILL	CU YD	276	276	
* 21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SO YD	1,812	1,812	
* 21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	1,473	1,473	
* 25000210	SEEDING, CLASS 2A	ACRE	3.5	3.5	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	315	315	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	315	315	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	315	315	
* 25100115	MULCH, METHOD 2	ACRE	3.5	3.5	
* 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	700	700	
* 28000305	TEMPORARY DITCH CHECKS	FOOT	105	105	
* 28000315	AGGREGATE DITCH CHECKS	TON	5	5	
* 28000400	PERIMETER EROSION BARRIER	FOOT	1,930	1,930	

\* PAY ITEMS WITH SPECIAL PROVISION  
 △ SPECIALTY PAY ITEMS

**Farnsworth**  
 GROUP, INC.  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1511 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	RGD	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
 RAAB ROAD**

**SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 1 OF 6 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	3
CONTRACT NO. 91522			(ILLINOIS FED. AID PROJECT #M-5227057)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				ROADWAY	BOX CULVERT
				0004 URBAN	0011 URBAN
* 28000500	INLET AND PIPE PROTECTION	EACH	51	51	
28100107	STONE RIPRAP, CLASS A4	SQ YD	92	19	73
28200200	FILTER FABRIC	SQ YD	92	19	73
* 30200650	PROCESSING MODIFIED SOIL 12"	SQ YD	7,314	7,314	
30201500	LIME	TON	150	150	
* 30300011	AGGREGATE SUBGRADE IMPROVEMENT	TON	2,536	2,536	
35100100	AGGREGATE BASE COURSE, TYPE A	TON	2,316	2,316	
* 40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	1,408	1,408	
42001300	PROTECTIVE COAT	SQ YD	10,560	10,560	
* 42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	132	132	
* 42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	726	726	
* 42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	9,694	9,694	
* 42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	90	90	
* 42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	180	180	

\* PAY ITEMS WITH SPECIAL PROVISION  
 △ SPECIALTY PAY ITEMS

**Farnsworth**  
 GROUP, INC.  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/963-9435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	RGD	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
 RAAB ROAD**

**SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 2 OF 6 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	4
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				ROADWAY	BOX CULVERT
				0004 URBAN	0011 URBAN
42400800	DETECTABLE WARNINGS	SQ FT	40	40	
* 44000100	PAVEMENT REMOVAL	SQ YD	413	413	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	156	156	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	56	56	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
* 50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	90		90
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,180		1,180
54003000	CONCRETE BOX CULVERTS	CU YD	16.0		16
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1	1	
54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	EACH	1	1	
* 54248510	CONCRETE COLLAR	CU YD	0.5		0.5
* 550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	1,231	1,231	
* 550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	121	121	
* 550A0090	STORM SEWERS, CLASS A, TYPE 1 18"	FOOT	121	121	

\* PAY ITEMS WITH SPECIAL PROVISION

△ SPECIALTY PAY ITEMS

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-9435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	RGD	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 3 OF 6 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	5
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	CONSTR. CODE
				ROADWAY	BOX CULVERT
				0004	0011
				URBAN	URBAN
* 550A0120	STORM SEWERS, CLASS A, TYPE 1 24"	FOOT	528	528	
* 550A0140	STORM SEWERS, CLASS A, TYPE 1 30"	FOOT	394	394	
△*	56400300 FIRE HYDRANTS TO BE ADJUSTED	EACH	5	5	
* 60218300	MANHOLES, TYPE A, 4' -DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	5	5	
* 60221000	MANHOLES, TYPE A, 5' -DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	7	7	
	60250200 CATCH BASINS TO BE ADJUSTED	EACH	1	1	
	60266600 VALVE BOXES TO BE ADJUSTED	EACH	6	6	
	60500050 REMOVING CATCH BASINS	EACH	1	1	
* 60600095	CLASS SI CONCRETE (OUTLET)	CU YD	0.5	0.5	
* 60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	4,867	4,867	
* 61100500	EXPLORATION TRENCH 52" DEPTH	FOOT	600	600	
* 61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	2	2	
* 61133200	FIELD TILE JUNCTION VAULTS, 3' DIA.	EACH	2	2	
* 61139900	STORM SEWERS (SPECIAL), 6"	FOOT	100	100	

\* PAY ITEMS WITH SPECIAL PROVISION

△ SPECIALTY PAY ITEMS

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/863-8436, 309/963-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	RGD	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 4 OF 6 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	6
CONTRACT NO. 91522			[ILLINOIS] FED. AID PROJECT *M-522(057)	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				ROADWAY	BOX CULVERT
				0004 URBAN	0011 URBAN
* 61140000	STORM SEWERS (SPECIAL), 8"	FOOT	100	100	
* 61140100	STORM SEWERS (SPECIAL), 10"	FOOT	100	100	
* 61140200	STORM SEWERS (SPECIAL), 12"	FOOT	100	100	
67100100	MOBILIZATION	LSUM	1	1	
△ 78005100	EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	31	31	
△ 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	6,500	6,500	
△ 78005150	EPOXY PAVEMENT MARKING - LINE 12"	FOOT	134	134	
△ 78005180	EPOXY PAVEMENT MARKING - LINE 24"	FOOT	26	26	
△ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	86	86	
△ * 78300100	PAVEMENT MARKING REMOVAL	SQ FT	215	215	
△ 78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10	
* Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	70	70	
* Z0013798	CONSTRUCTION LAYOUT	LSUM	1	1	
* Z0054400	ROCK FILL	CU YD	90		90

\* PAY ITEMS WITH SPECIAL PROVISION  
△ SPECIALTY PAY ITEMS

**Farnsworth**  
GROUP, INC.  
2709 McDrew Drive  
Bloomington, Illinois 61704  
309/663-9435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	RGD	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 5 OF 6 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	7
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-52270571	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				ROADWAY	BOX CULVERT
				0004 URBAN	0011 URBAN
△ *	Z0067900 STEEL CASINGS 24"	FOOT	40	40	
*	X4200408 PORTLAND CEMENT CONCRETE PAVEMENT 8", SPECIAL	SO YD	7,245	7,245	
*	X5121800 PERMANENT STEEL SHEET PILING	SO FT	725		725
*	X5400804 PRECAST CONCRETE BOX CULVERTS, 8' X4' (SPECIAL)	FOOT	57		57
*	X5510100 STORM SEWER REMOVAL	FOOT	110	110	
*	X6020076 INLETS, SPECIAL, WITH SPECIAL FRAME AND GRATE	EACH	35	35	
*	X6024502 INLETS, TYPE B, WITH SPECIAL FRAME AND GRATE	EACH	2	2	
*	X7010216 TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	1	
*	XX004210 DUCTILE IRON PIPE STORM SEWER, 12 INCH	FOOT	122	122	

\* PAY ITEMS WITH SPECIAL PROVISION

△ SPECIALTY PAY ITEMS

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/963-8435, 309/963-1971 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	RGD	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 6 OF 6 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	8

CONTRACT NO. 91522

ILLINOIS FED. AID PROJECT #M-52270571



**LEGEND**

**EXISTING**

- IRON ROD
- ◆ BENCHMARK
- ⊥ SIGN
- ⊥ MAILBOX
- ⊥ STREET LIGHT
- ⊥ POWER POLE
- ⊥ DOWN GUY
- ⊥ ELECTRIC HANDHOLE
- ⊥ FIRE HYDRANT
- ⊥ DOMESTIC WATER SERVICE BOX
- ⊥ WATER VALVE
- ⊥ GAS VALVE
- ⊥ TELEPHONE PEDESTAL
- ⊥ WOODEN POST
- ⊥ CATCH BASIN
- ⊥ INLET
- ⊥ MANHOLE
- ⊥ EVERGREEN TREE
- ⊥ TREE
- ⊥ BUSH

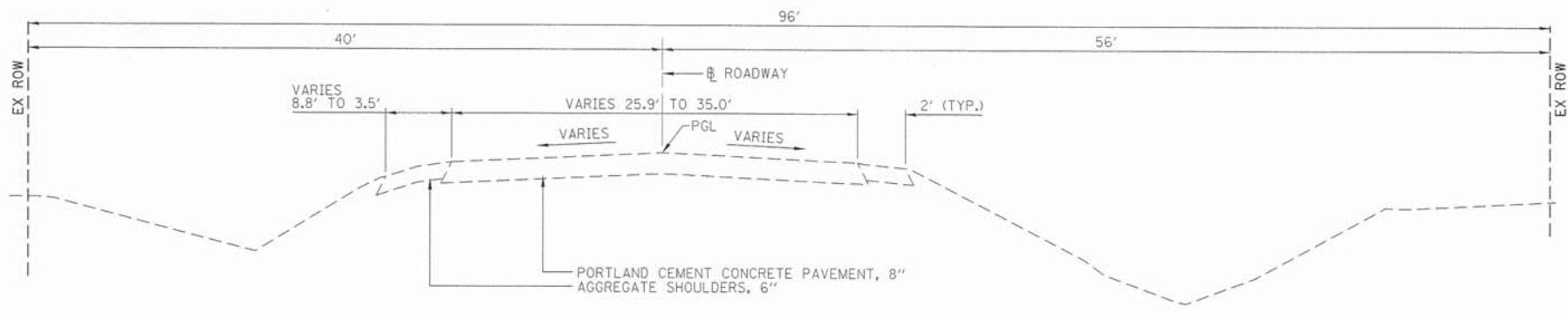
- RIGHT OF WAY LINE
- CENTERLINE & PROFILE GRADE LINE
- - - - - CONTOUR
- - - - - FENCE
- - - - - SANITARY SEWER
- - - - - STORM SEWER
- - - - - WATERMAIN
- - - - - OVERHEAD ELECTRIC
- - - - - GASMAIN
- - - - - FIBER OPTIC
- - - - - UNDERGROUND ELECTRIC
- - - - - UNDERGROUND TELEPHONE
- ////// PERMANENT EASEMENT

**PROPOSED**

- ==== COMBINATION CONCRETE CURB & GUTTER, TYPE B6.18
- ⊙ MANHOLE TY A
- ⊥ INLET, SPECIAL
- W — WATER MAIN
- S — SANITARY SEWER
- S — STORM SEWER
- - - - - PROPOSED RIGHT OF WAY
- ==== CURB INLET OR MANHOLE
- ////// TEMPORARY EASEMENT
- ////// PERMANENT EASEMENT
- ⊗ 15" TREE TO BE REMOVED
- ⊥ SIDEWALK TO BE REMOVED
- ⊙ A ITEM TO BE ADJUSTED
- DETECTABLE WARNING
- STONE RIPRAP
- LIMITS OF CONSTRUCTION
- DRIVEWAY PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- CURB REMOVAL

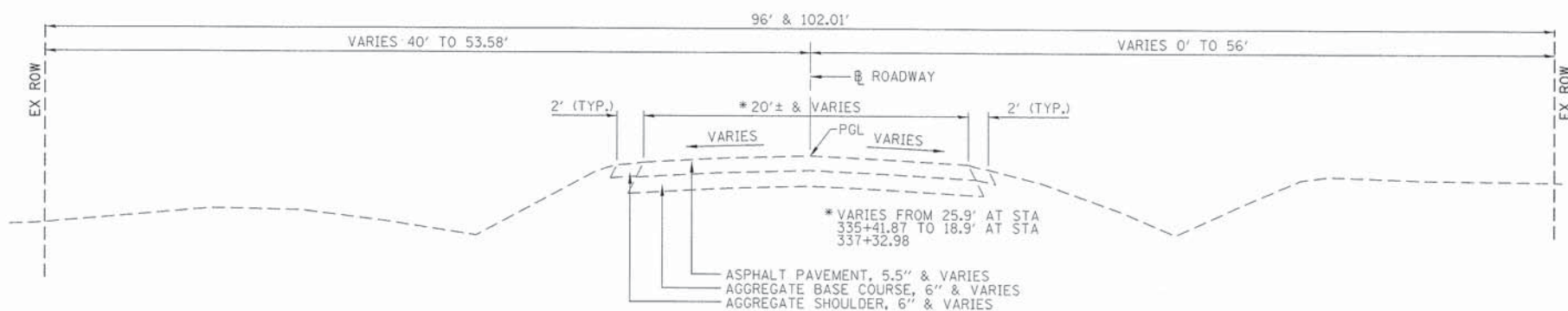
**ABBREVIATIONS**

- |   |                     |
|---|---------------------|
| CL CLASS  | SS STORM SEWER      |
| CLID CLOSED LID                                       | TBF TRENCH BACKFILL |
| DI DUCTILE IRON                                       | TBR TO BE REMOVED   |
| FL FLOW LINE  | TC TOP OF CURB      |
| FR FRAME  | TG TOP OF GRATE     |
| GR GRATE  | TL TRANSIT LINE     |
| I- INLET  | TLID TOP OF LID     |
| MH- MANHOLE   | T. RIM TOP OF RIM   |
| OLID OPEN LID   | TY TYPE             |
| PGL PROFILE GRADE LINE                                | TYP TYPICAL         |
| PRCFES PRECAST REINFORCED CONCRETE FLARED END SECTION |                     |



**EXISTING TYPICAL CROSS SECTION**

RAAB ROAD  
STA 333+61.37 TO STA 335+41.87



**EXISTING TYPICAL CROSS SECTION**

RAAB ROAD  
STA 335+41.87 TO STA 354+58.28

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

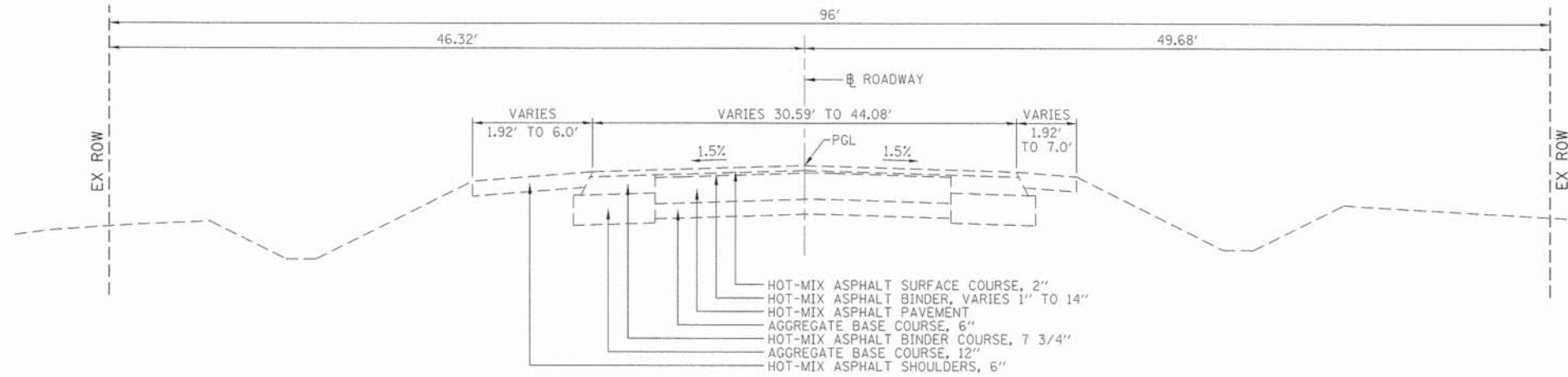
DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**TYPICAL CROSS SECTIONS**

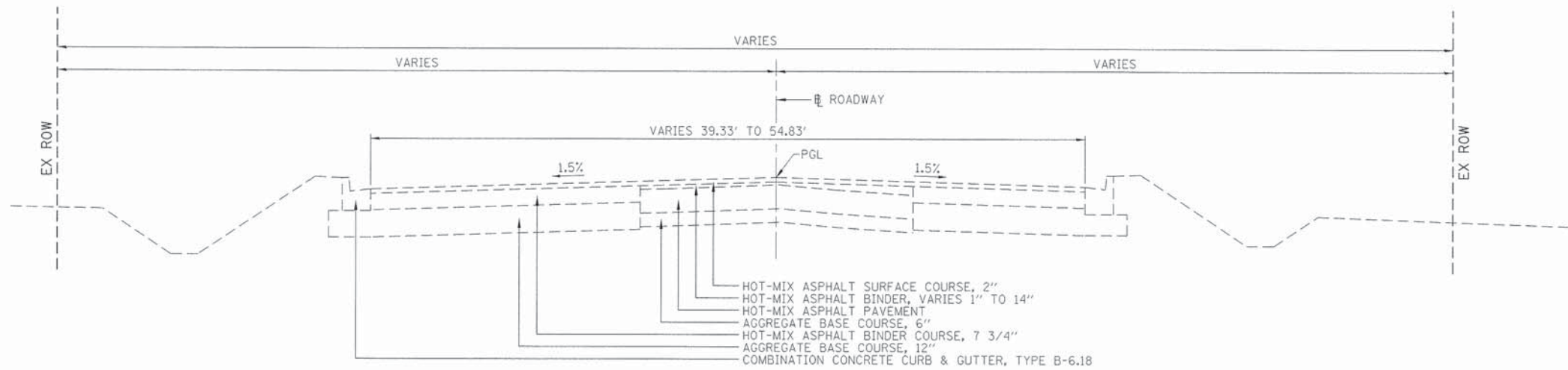
SCALE: N.T.S. SHEET 1 OF 4 SHEETS STA. 333+61.37 TO STA. 337+32.98

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	9
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT #M-5227(057)				



**EXISTING TYPICAL CROSS SECTION**

RAAB ROAD  
 STA. 354+58.82 TO STA. 357+34.71 (LT)  
 STA. 354+58.82 TO STA. 358+12.07 (RT)



**EXISTING TYPICAL CROSS SECTION**

RAAB ROAD  
 STA. 357+34.71 (LT) TO STA. 358+47.44  
 STA. 358+12.07 (RT) TO STA. 358+47.44

**Farnsworth**  
 GROUP, INC.  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8455, 309/663-1571 fax

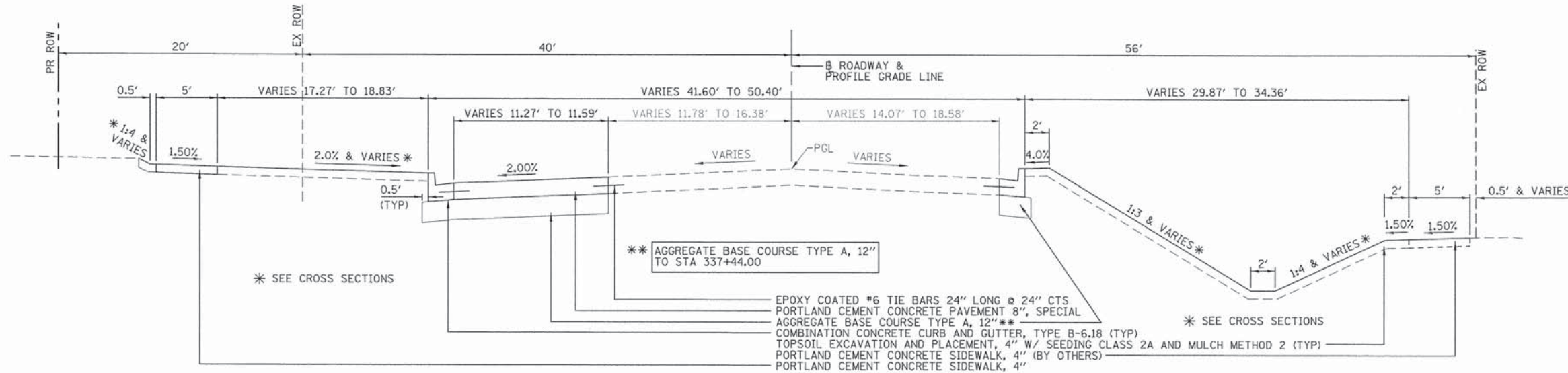
DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL**  
**RAAB ROAD**

**TYPICAL CROSS SECTIONS**

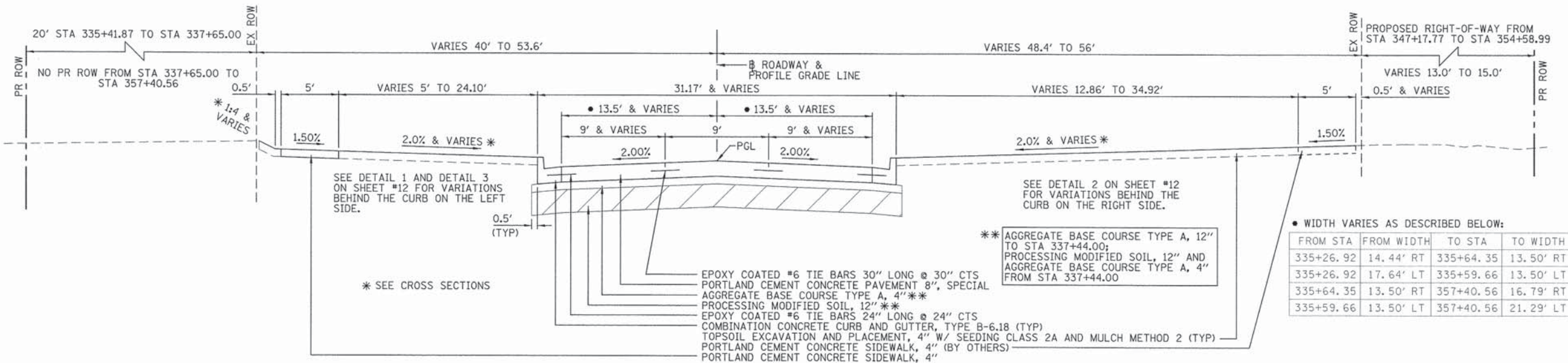
SCALE: N.T.S. SHEET 2 OF 4 SHEETS STA. 354+58.82 TO STA. 358+47.44

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	MCLEAN	56	10
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-52210571	



**PROPOSED TYPICAL CROSS SECTION ①**

RAAB ROAD  
 STA 333+61.37 TO STA 335+41.87



**PROPOSED TYPICAL CROSS SECTION ②**

RAAB ROAD  
 STA 335+41.87 TO STA 357+40.56

**STRUCTURAL DESIGN DATA:**

ADT (2015) 1,700 (2036) 8,240  
 STRUCTURAL DESIGN TRAFFIC YEAR: 2026  
 PV: 88% SU: 7% MU: 5%  
 CLASS OF STREET: CLASS II  
 TRAFFIC FACTOR: 1.47 AT 20 YEAR DESIGN PERIOD WITH 80,000 LB TRUCKS  
 SUBGRADE SUPPORT RATING: POOR  
 PAVEMENT STRUCTURAL MATERIALS: 8" PCC ON 4" AGGREGATE BASE COURSE TYPE A AND 12" LIME MODIFIED SUBGRADE

NOTES:  
 1. SEE PAVEMENT MARKING PLANS FOR DETAILS.  
 2. SEE SAW JOINT PLAN FOR TIE BAR DETAILS.  
 3. THE TRANSITION OF THE PAVEMENT CROSS SLOPES FROM EXISTING TO 2.00% SHALL BE A MINIMUM OF 25 FEET IN LENGTH.



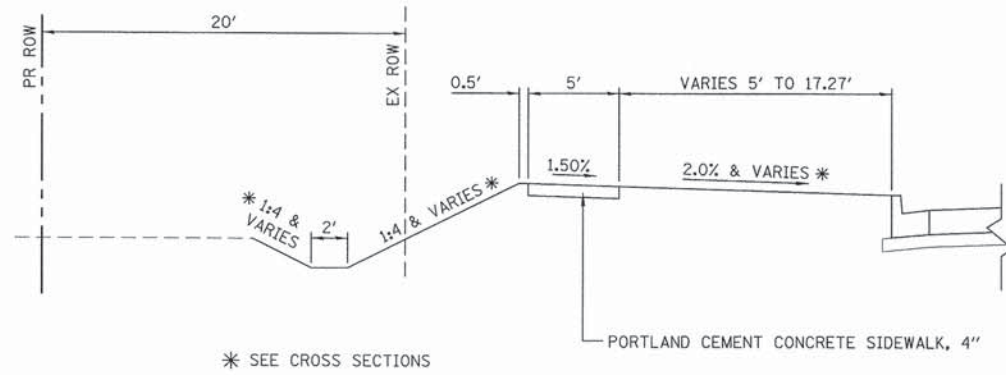
DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

TOWN OF NORMAL  
 RAAB ROAD

TYPICAL CROSS SECTIONS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	11
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT *M-5227(057)				

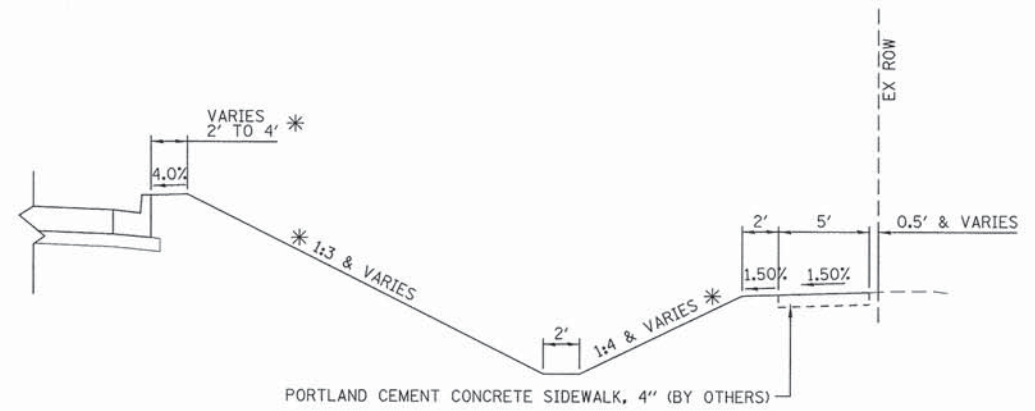
SCALE: N.T.S. SHEET 3 OF 4 SHEETS STA. 333+61.37 TO STA. 357+40.56



\* SEE CROSS SECTIONS

**DETAIL 1**

STA 335+00.00 TO STA 337+00.00



\* SEE CROSS SECTIONS

**DETAIL 2**

STA 333+61.37 TO STA 338+50.00



\* SEE CROSS SECTIONS

**DETAIL 3**

STA 354+00.00 TO STA 357+00.00

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED	-	LAT	REVISED	-
DRAWN	-	LAT	REVISED	-
CHECKED	-	ERB	REVISED	-
DATE	-	08/31/15	REVISED	-

**TOWN OF NORMAL  
RAAB ROAD**

**TYPICAL CROSS SECTIONS**

SCALE: N.T.S. SHEET 4 OF 4 SHEETS STA. 335+00.00 TO STA. 357+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	MCLEAN	56	12
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT #M-5227(057)				

SCHEDULE OF EARTHWORK								
1	2	3	4	5	6	7	8	9
STATION TO STATION	20200100	ESTIMATED CUT MATERIAL FOR EMBANKMENT	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	EARTH EXCAVATION WASTE (+) OR SHORTAGE (-)	ESTIMATED TOPSOIL EXCAVATION	21101505	ESTIMATED TOPSOIL WASTE (+) OR SHORTAGE (-)
	TOTAL EARTH EXCAVATION						TOPSOIL EXCAVATION AND PLACEMENT	
STATION TO STATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
332+72 TO 358+51 LT/RT	8,456	5,638	4,229	3,258	+971	2,818	1,473	+1,345
TOTAL	8,456	5,638	4,229	3,258	+971	2,818	1,473	+1,345

EARTHWORK TABLE SHOWN FOR INFORMATION ONLY

- COLUMN 1: LOCATION FROM PLANS  
 COLUMN 2: CUT QUANTITIES (END AREA) FROM CROSS SECTIONS (INCLUDES TOPSOIL STRIPPING WITHIN THE LIMITS SHOWN ON THE CROSS SECTIONS AND REMOVAL OF EXISTING BITUMINOUS PAVING MATERIALS ON AGGREGATE BASE, SHOULDERS, DRIVEWAYS, AND AGGREGATE ON A FLEXIBLE BASE OR SUBGRADE.  
 COLUMN 3: =2-7, ESTIMATED EARTH EXCAVATION THAT CAN BE USED AS FILL MATERIAL IN EMBANKMENT.  
 COLUMN 4: =75% $\times$ 3, EARTH EXCAVATION ADJUSTED 25% FOR SHRINKAGE  
 COLUMN 5: FILL QUANTITIES FROM CROSS SECTIONS  
 COLUMN 6: =4-5, ESTIMATED MATERIAL TO WASTE  
 COLUMN 7: ESTIMATED TOPSOIL TO BE EXCAVATED  
 COLUMN 8: ESTIMATED TOPSOIL TO BE PLACED  
 COLUMN 9: =7-8, ESTIMATED TOPSOIL TO BE WASTED

SCHEDULE OF SEEDING						
	SEEDING, CLASS 2A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2	TEMPORARY EROSION CONTROL SEEDING
	25000210	25000400	25000500	25000600	25100115	28000250
STATION TO STATION	ACRE	POUND	POUND	POUND	ACRE	POUND
332+72 TO 358+51 LT/RT	3.5	315	315	315	3.5	700
TOTAL	3.5	315	315	315	3.5	700

INLET AND PIPE PROTECTION	
28000500	
STATION	EACH
335+38.00 LT/RT	2
335+58.00 LT/RT	2
336+97.01 LT	1
336+97.40 RT	1
338+50.00 LT/RT	3
339+54.23 LT/RT	2
340+11.00 LT/RT	3
340+50.00 LT/RT	2
341+35.00 LT/RT	3
342+30.00 LT/RT	3
343+55.00 LT/RT	3
344+25.00 LT/RT	3
345+15.00 RT	1
345+35.00 LT/RT	3
346+85.00 LT/RT	3
348+10.00 LT/RT	3
349+35.00 LT/RT	4
350+50.00 RT	1
350+75.00 LT/RT	2
353+61.75 LT	1
352+15 LT/RT	2
357+30 LT/RT	2
358+22 RT	1
TOTAL	51

GROUND STABILIZATION				
	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	PROCESSING MODIFIED SOIL 12"	LIME	AGGREGATE SUBGRADE IMPROVEMENT
	21001000	30200650	30201500	30300011
STATION TO STATION	SO YD	SO YD	TON	TON
337+44.00 TO 357+40.56 LT/RT	1,812	7,314	150	2,536
TOTAL	1,812	7,314	150	2,536

SCHEDULE OF EROSION CONTROL				
	TEMPORARY DITCH CHECKS	AGGREGATE DITCH CHECKS	PERIMETER EROSION BARRIER	STABILIZED CONSTRUCTION ENTRANCE
	28000305	28000315	28000400	Z0013797
STATION TO STATION	FOOT	TON	FOOT	SO YD
333+61.37				35
335+50	15			
336+90	15			
337+27		5		
337+50 TO 340+50 LT			320	
345+00 TO 347+00 LT			200	
347+30 TO 351+40 LT			410	
351+65 TO 352+50 LT			85	
353+40 TO 358+50 RT			540	
354+00 TO 357+75 LT			375	
335+75 LT	15			
336+25 LT	15			
336+75 LT	15			
337+50 RT	15			
338+00 RT	15			
357+40.56				35
TOTAL	105	5	1,930	70

RIPRAP		
	STONE RIPRAP, CLASS A4	FILTER FABRIC
	28100107	28200200
STATION	SO YD	SO YD
335+58.32 RT	19	19
337+24.00 LT	73	73
TOTAL	92	92

AGGREGATE BASE COURSE, TYPE A	
35100100	
STATION TO STATION	TON
333+61.37 TO 334+59.66	110
334+59.66 TO 335+26.92	60
335+26.92 TO 335+49.64	63
335+49.64 TO 337+06.55	403
337+06.55 TO 338+44.00	65
338+44.00 TO 352+68.62	1,137
352+68.62 TO 353+83.21	156
353+83.21 TO 356+09.08	189
356+07.50 TO 356+72.33	57
356+72.33 TO 357+40.56	70
357+40.56 TO 358+17.93	6
TOTAL	2,316

SEE THE "DRAINAGE SCHEDULE" FOR STORM SEWER AND PIPE CULVERT SCHEDULES.



DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - RGD	REVISED -
DATE - 08/31/15	REVISED -

TOWN OF NORMAL  
RAAB ROAD

SCHEDULE OF QUANTITIES

SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	13
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT #M-52270571	

PAVEMENT ITEMS									
	PROTECTIVE COAT	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	PAVEMENT REMOVAL	DRIVEWAY PAVEMENT REMOVAL	PORTLAND CEMENT CONCRETE PAVEMENT 8", SPECIAL
STATION TO STATION	SQ YD	SQ YD	SQ YD	SQ FT	SQ FT	SQ FT	SQ YD	SQ YD	SQ YD
332+81.40 TO 334+59.66				619		90	61		190
334+26.54 TO 334+44.54					90				
334+59.66 TO 335+26.92				336					66
335+26.92 TO 335+49.64				114			44		77
335+49.64 TO 337+06.55				785					474
337+06.55 TO 352+68.62				7,630		180			4,687
352+68.62 TO 353+83.21				210			308		608
353+83.21 TO 356+09.08									678
354+45 TO 358+18									
354+58.82 TO 357+34.71									
356+09.08 TO 356+72.33									206
356+72.33 TO 357+40.56									259
331+61.59 TO 357+40.56	10,560								
333+81.65, RT		68							
334+35.54 LT		64							
338+89.79, RT			167					72	
341+02.13, RT			167					84	
342+90.89, RT			161						
343+93.52, RT			96						
347+13.16, LT			75						
351+51.66, LT			60						
<b>TOTAL</b>	<b>10,560</b>	<b>132</b>	<b>726</b>	<b>9,694</b>	<b>90</b>	<b>180</b>	<b>413</b>	<b>156</b>	<b>7,245</b>

DETECTABLE WARNINGS	
42400800	
STATION TO STATION	SQ FT
332+85.4	10
333+27.3	10
352+96.0	10
353+53.4	10
<b>TOTAL</b>	<b>40</b>

CATCH BASINS TO BE ADJUSTED	
60250200	
STATION	EACH
337+21.23 LT	1
<b>TOTAL</b>	<b>1</b>

REMOVING CATCH BASINS	
60500050	
STATION	EACH
336+97.02 LT	1
<b>TOTAL</b>	<b>1</b>

CURB AND GUTTER			
	COMBINATION CURB AND GUTTER REMOVAL	CLASS SI CONCRETE (OUTLET)	COMBINATION CONCRETE CURB AND GUTTER, TY B-6.18
STATION TO STATION	FOOT	CU YD	FOOT
332+81.40 TO 333+33.47 LT	36		36
333+56.37 RT		0.5	
333+61.37 TO 335+06.55 LT			145
333+61.37 TO 335+64.35 RT			203
335+06.55 TO 337+06.55 LT			200
335+64.35 TO 356+09.08 RT			2,045
337+06.55 TO 352+68.62 LT			1562
352+68.62 TO 352+98.62 LT	9		54.5
353+53.21 TO 353+83.21 LT	11		54.5
353+83.21 TO 356+09.08 LT			226
356+09.08 TO 356+72.33 LT			63
356+09.08 TO 357+80.04 RT			171
356+72.33 TO 357+40.42 LT			69
357+80.04 TO 358+17.93 RT			38
<b>TOTAL</b>	<b>56</b>	<b>0.5</b>	<b>4,867</b>

SCHEDULE OF PAVEMENT MARKING							
	EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	EPOXY PAVEMENT MARKING - LINE 6"	EPOXY PAVEMENT MARKING - LINE 12"	EPOXY PAVEMENT MARKING - LINE 24"	RAISED REFLECTIVE PAVEMENT MARKER	PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
STATION TO STATION	SQ FT	FOOT	FOOT	FOOT	EACH	SQ FT	EACH
333+27.3 TO 335+41.87 LT/RT						215	10
333+79.7 LT RT TURN ARROW	15.6						
334+43.1 LT RT TURN ARROW	15.6						
333+27.3 TO 335+64.3 RT		237					
333+27.3 TO 336+44.9 LT/RT (DOUBLE YELLOW)		1,270			18		
333+27.3 TO 336+44.9 LT/RT (STRIPED MEDIAN)			115				
333+61.6 TO 334+61.6 LT		100			5		
334+61.6 TO 335+64.3 LT (SKIP DASH)		26					
336+44.9 TO 352+70.1 RT (DOUBLE YELLOW)		3,250			42		
353+25 LT (CROSS-WALK & STOP BAR)		111		26			
353+81.7 TO 355+69.1 LT/RT (DOUBLE YELLOW)		375			6		
355+69.1 TO 356+74.1 RT (DOUBLE YELLOW)		210					
355+69.1 TO 358+29.1 LT (DOUBLE YELLOW)		520			15		
355+69.1 TO 358+29.1 LT/RT (STRIPED MEDIAN)			19				
356+94.5 TO 357+40.56 LT		50					
356+74.1 TO 358+29.1 RT (DOUBLE YELLOW)		310					
356+74.1 TO 358+29.1 RT (SKIP DASH)		40					
<b>TOTAL</b>	<b>31</b>	<b>6,500</b>	<b>134</b>	<b>26</b>	<b>86</b>	<b>215</b>	<b>10</b>

FIRE HYDRANTS TO BE ADJUSTED	
56400300	
STATION TO STATION	EACH
336+23 LT	1
338+71 LT	1
346+21 LT	1
351+21 LT	1
353+73 LT	1
<b>TOTAL</b>	<b>5</b>

VALVE BOXES TO BE ADJUSTED	
60266600	
STATION	EACH
336+23 LT	1
338+71 LT	1
346+21 LT	1
352+91 LT	1
352+94 LT	1
353+67 LT	1
<b>TOTAL</b>	<b>6</b>

STORM SEWER REMOVAL	
X5510100	
STATION	FOOT
336+97	100
337+05 TO 337+15 RT	10
<b>TOTAL</b>	<b>110</b>

SEE THE "DRAINAGE SCHEDULE" FOR STORM SEWER AND PIPE CULVERT SCHEDULES.

**Farnsworth**  
GROUP, INC.  
2709 McDraw Drive  
Bloomington, Illinois 61704  
309/663-9435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	RGD	REVISED -	
DATE -	08/31/15	REVISED -	

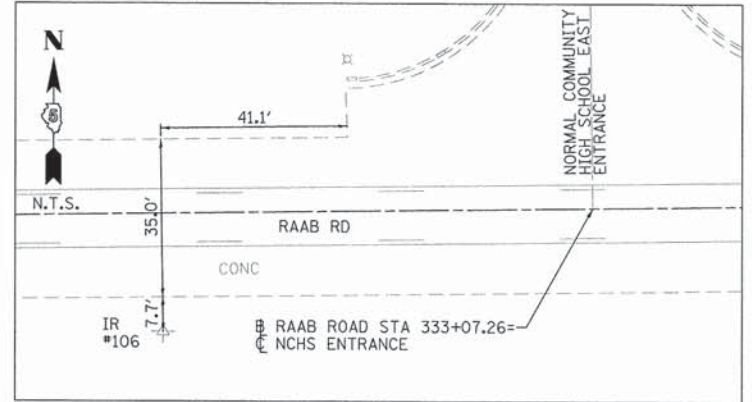
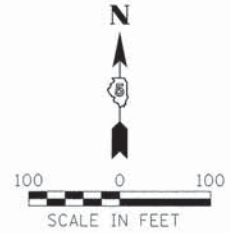
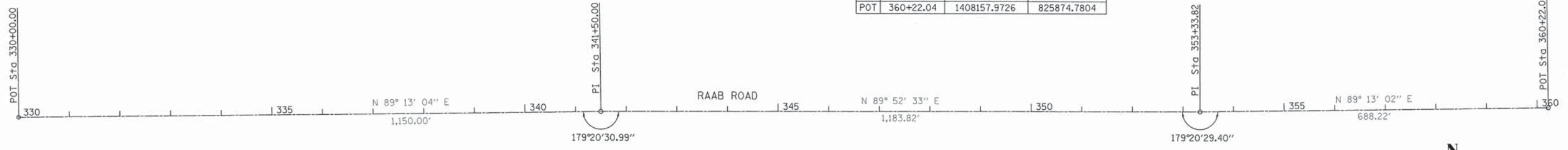
**TOWN OF NORMAL**  
**RAAB ROAD**

**SCHEDULE OF QUANTITIES**

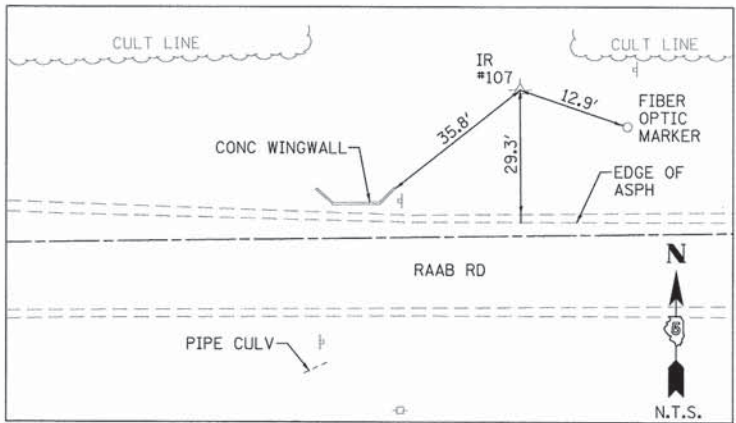
SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	14
<b>CONTRACT NO. 91522</b>				
<small>(ILLINOIS) FED. AID PROJECT #M-5227(057)</small>				

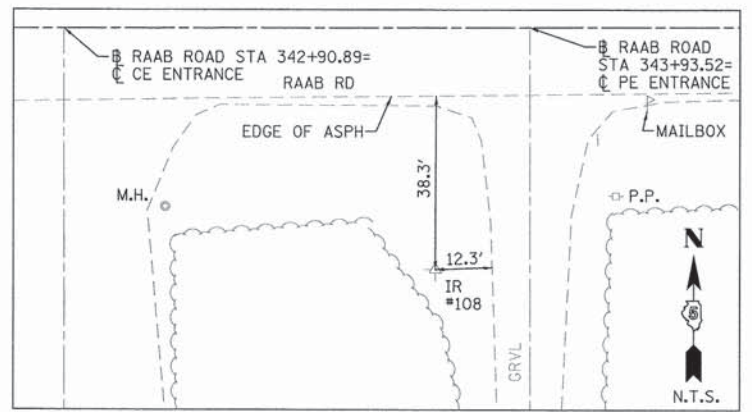
ALIGNMENT COORDINATES			
	STATION	NORTHING	EASTING
POT	330+00.00	1408130.3062	822852.9178
PI	341+50.00	1408146.0061	824002.8107
PI	353+33.82	1408148.5718	825186.6320
POT	360+22.04	1408157.9726	825874.7804



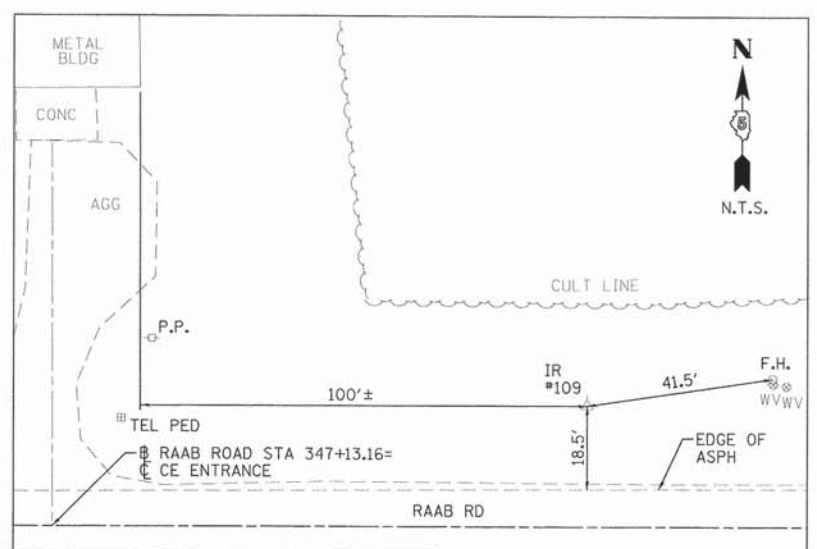
CONTROL POINT #106  
N= 1408106.915  
E= 823065.617



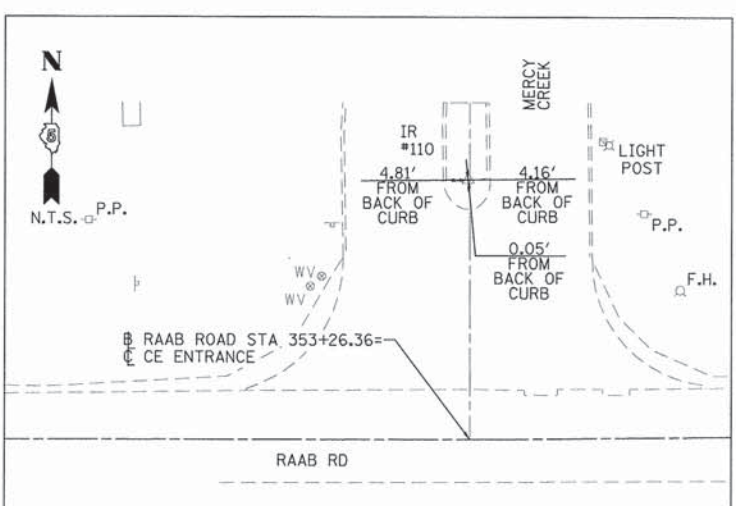
CONTROL POINT #107  
N= 1408172.839  
E= 823609.071



CONTROL POINT #108  
N= 1408093.263  
E= 824225.587



CONTROL POINT #109  
N= 1408174.263  
E= 824683.634



CONTROL POINT #110  
N= 1408205.851  
E= 825178.648

BENCHMARK  
STA 336+23.50, 26.22' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
2ND FIRE HYDRANT EAST  
OF NCHS EAST ENTRANCE  
ELEV = 807.54

BENCHMARK  
STA 337+19.73, 6.65' LT  
CHISLED "□" IN HEADWALL  
NORTH OF RAAB RD  
ELEV = 807.31

BENCHMARK  
STA 338+70.85, 24.49' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
3RD FIRE HYDRANT EAST  
OF NCHS EAST ENTRANCE  
ELEV = 809.41

BENCHMARK  
STA 341+21.21, 25.11' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
4TH FIRE HYDRANT EAST  
OF NCHS EAST ENTRANCE  
NORTH OF NORTHEAST  
CORNER POWER STATION  
ELEV = 814.33

BENCHMARK  
STA 343+71.04, 26.51' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
5TH FIRE HYDRANT EAST  
OF NCHS EAST ENTRANCE  
ELEV = 812.42

BENCHMARK  
STA 346+20.97, 29.24' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
6TH FIRE HYDRANT EAST  
OF NCHS EAST ENTRANCE  
SOUTHWEST OF SOUTHWEST  
CORNER OF STEEL MORTON BLDG  
ELEV = 812.59

BENCHMARK  
STA 348+71.84, 32.93' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
2ND FIRE HYDRANT WEST  
OF MERCY CREEK DRIVE  
ELEV = 814.51

BENCHMARK  
STA 351+20.75, 35.00' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
1ST FIRE HYDRANT WEST  
OF MERCY CREEK DRIVE  
ELEV = 818.40

BENCHMARK  
STA 353+72.57, 32.78' LT  
TOP OF FIRE HYDRANT  
NORTH OF RAAB RD  
1ST FIRE HYDRANT EAST  
OF MERCY CREEK DRIVE  
ELEV = 821.95

NOTE:  
THE CONTRACTOR SHALL BE RESPONSIBLE TO SET  
ADDITIONAL SITE BENCHMARKS PRIOR TO CONSTRUCTION  
OPERATIONS TO USE DURING CONSTRUCTION. SOME  
BENCHMARKS SHOWN ABOVE MAY NOT BE VALID DUE  
TO FIRE HYDRANT ADJUSTMENTS DURING CONSTRUCTION.

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8436, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

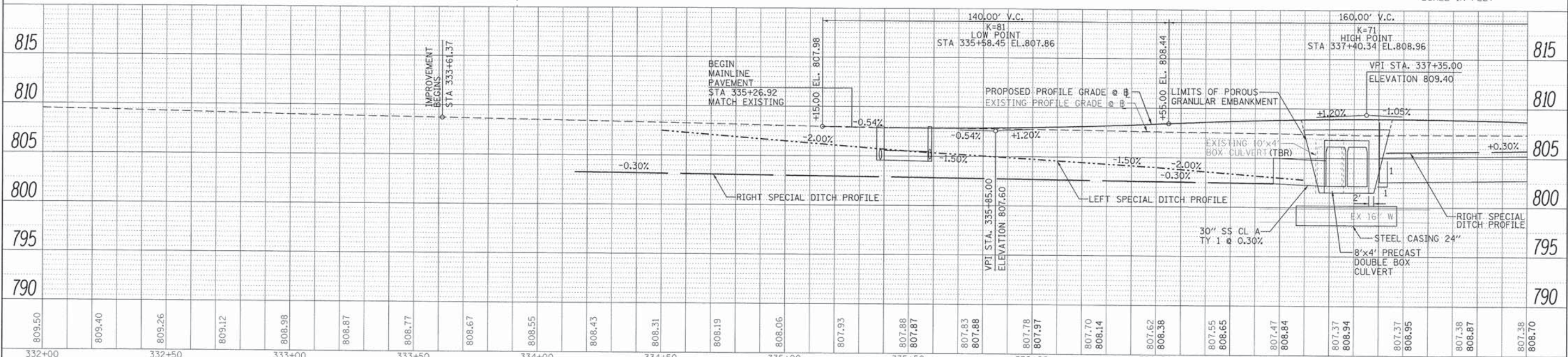
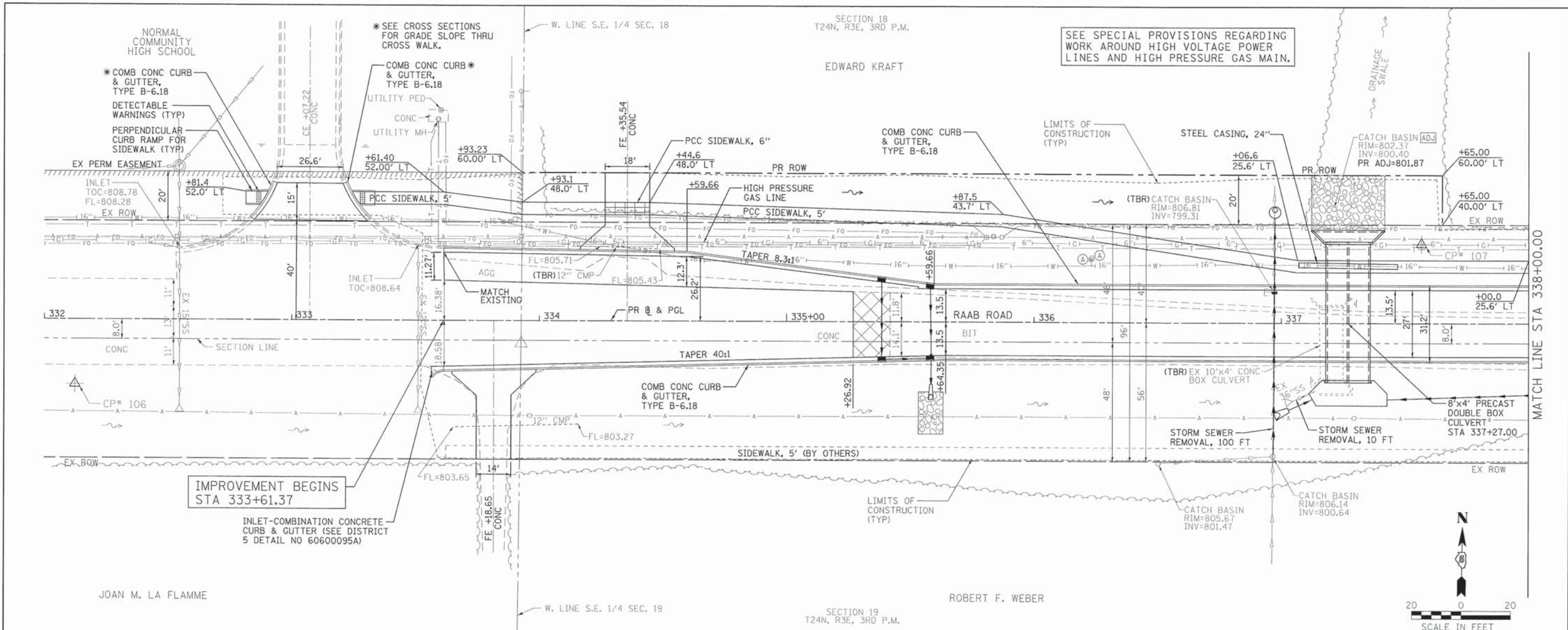
**ALIGNMENT, SURVEY TIES, AND BENCHMARKS**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	15
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT #M-5227(057)				

DATE	
BY	
REVISIONS	
PLANNED	
NOTED	
NO.	

DATE	
BY	
REVISIONS	
PLANNED	
NOTED	
NO.	



809.50	809.40	809.26	809.12	808.98	808.87	808.77	808.67	808.55	808.43	808.31	808.19	808.06	807.93	807.88	807.87	807.83	807.88	807.78	807.97	807.70	808.14	807.62	808.38	807.55	808.65	807.47	808.84	807.37	808.94	807.37	808.95	807.38	808.87	807.38	808.70			
332+00	332+50	333+00	333+50	334+00	334+50	335+00	335+50	336+00	336+50	337+00	337+50	338+00																										

**Farnsworth GROUP, INC.**  
2709 McSwain Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1574 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**PLAN & PROFILE**

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS
6435	14-00252-00-RP	McLEAN	56
CONTRACT NO. 91522			16

SCALE: 1"=20' SHEET 1 OF 5 SHEETS STA. 333+61.37 TO STA. 338+00.00

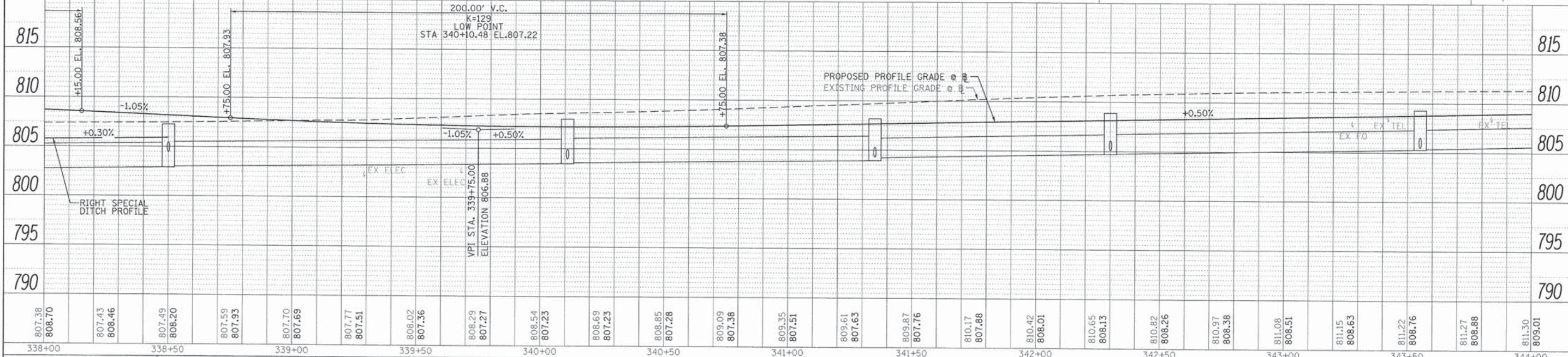
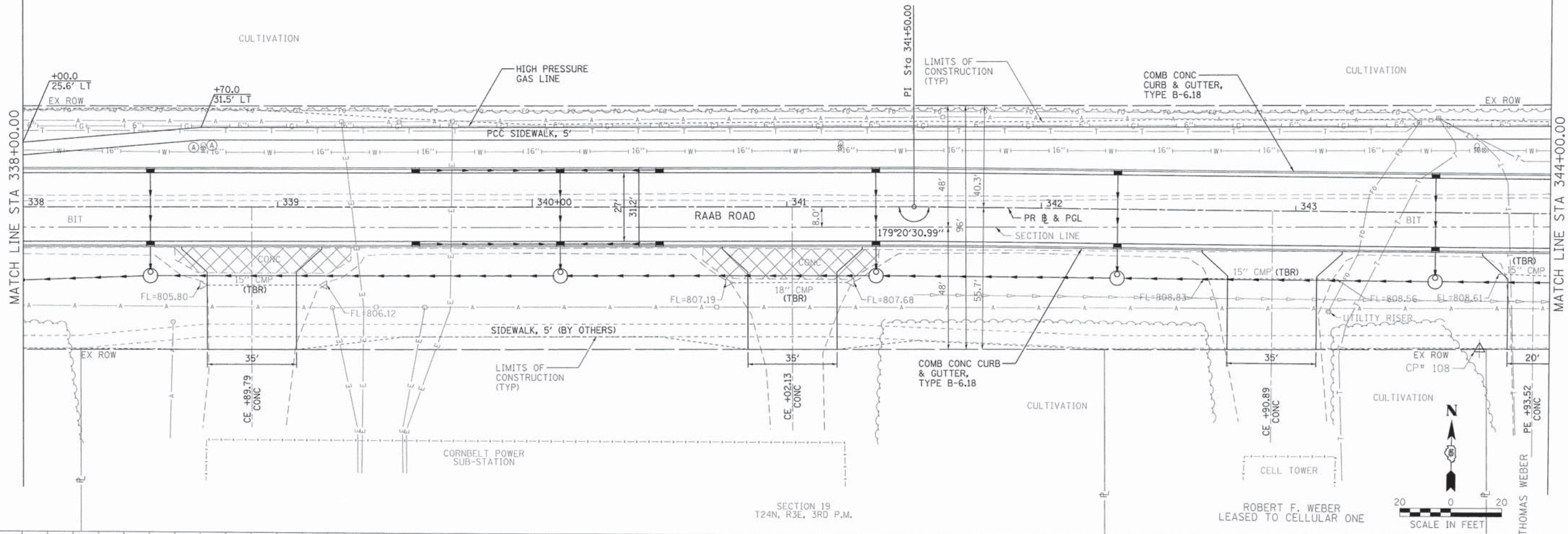
ILLINOIS FED. AID PROJECT \*M-52710571



SECTION 18  
T24N, R3E, 3RD P.M.

EDWARD KRAFT

SEE SPECIAL PROVISIONS REGARDING  
WORK AROUND HIGH VOLTAGE POWER  
LINES AND HIGH PRESSURE GAS MAIN.



DATE	
BY	
REVISION	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

DATE	
BY	
REVISION	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

**Farnsworth GROUP, INC.**  
2709 McCreary Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

**PLAN & PROFILE**

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	17
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT *M-5227(057)				

SCALE: 1"=20' SHEET 2 OF 5 SHEETS STA. 338+00.00 TO STA. 344+00.00

SECTION 18  
T24N, R3E, 3RD P.M.

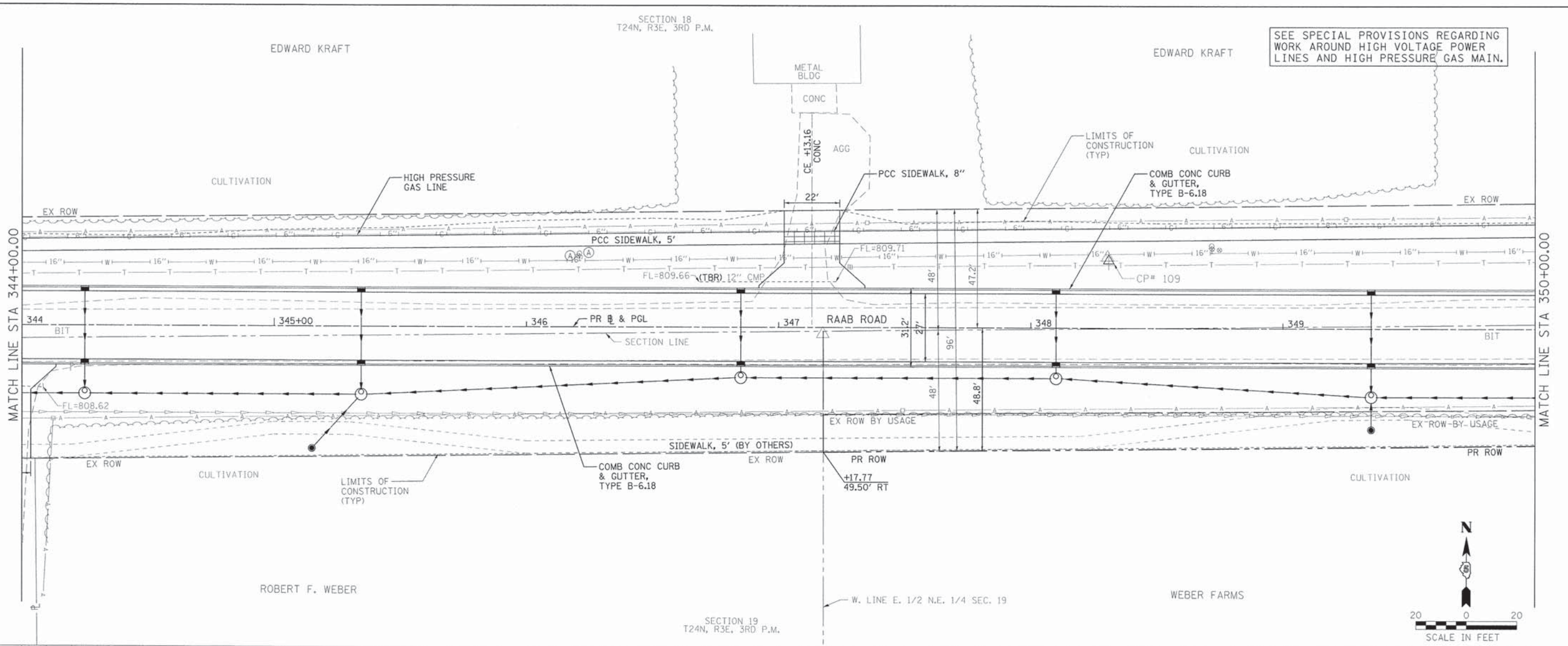
EDWARD KRAFT

EDWARD KRAFT

SEE SPECIAL PROVISIONS REGARDING  
WORK AROUND HIGH VOLTAGE POWER  
LINES AND HIGH PRESSURE GAS MAIN.

DATE	
BY	
PLAN	
NO.	
DATE	
BY	
PROFILE	
NO.	

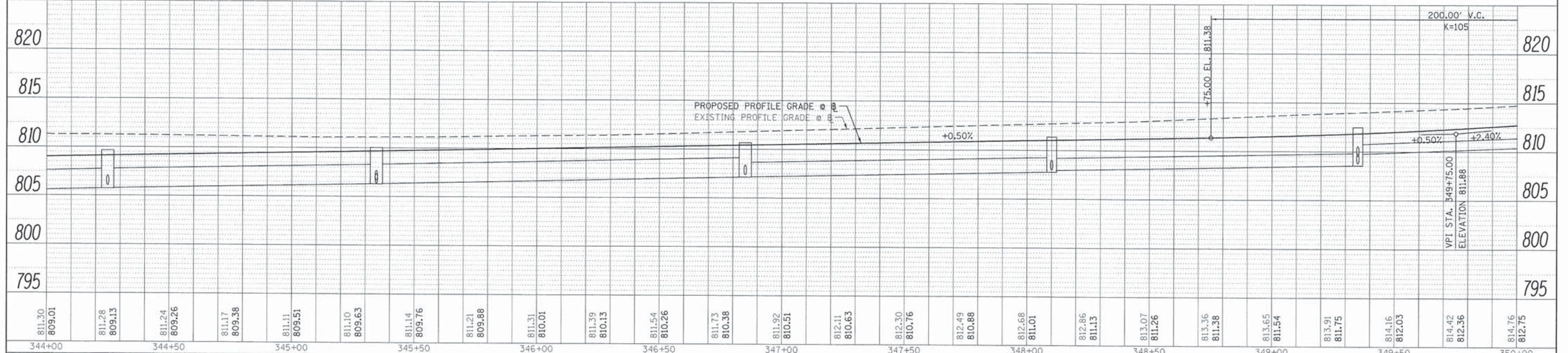
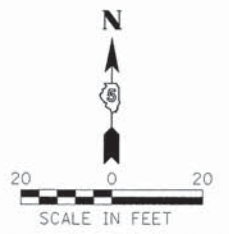
DATE	
BY	
PROFILE	
NO.	
DATE	
BY	
PLAN	
NO.	



SECTION 19  
T24N, R3E, 3RD P.M.

ROBERT F. WEBER

WEBER FARMS



811.30 809.01	811.28 809.13	811.24 809.26	811.17 809.38	811.11 809.51	811.10 809.63	811.14 809.76	811.21 809.88	811.31 810.01	811.39 810.13	811.54 810.26	811.73 810.38	811.92 810.51	812.11 810.63	812.30 810.76	812.49 810.88	812.68 811.01	812.86 811.13	813.07 811.26	813.36 811.38	813.65 811.54	813.91 811.75	814.16 812.03	814.42 812.36	814.76 812.75
344+00	344+50	345+00	345+50	346+00	346+50	347+00	347+50	348+00	348+50	349+00	349+50	350+00												

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

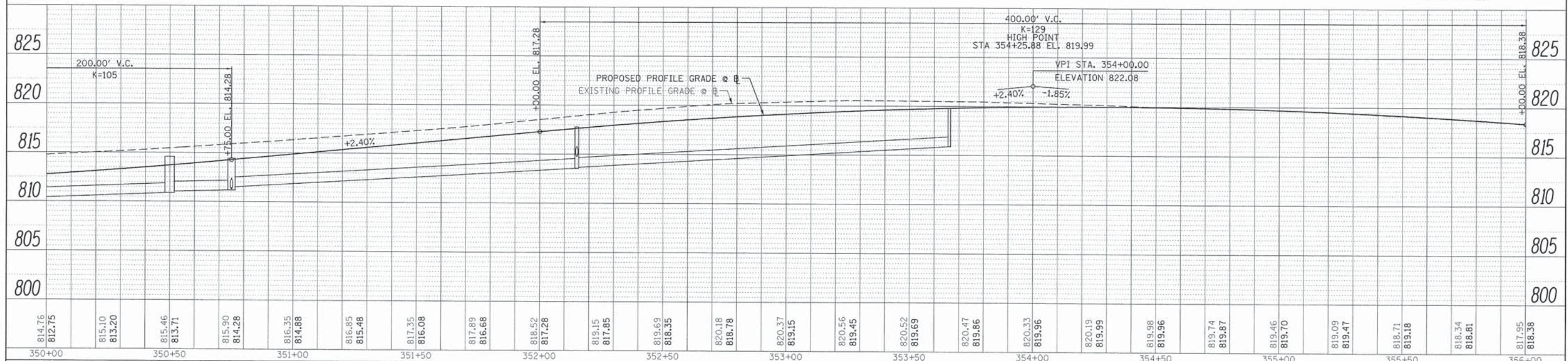
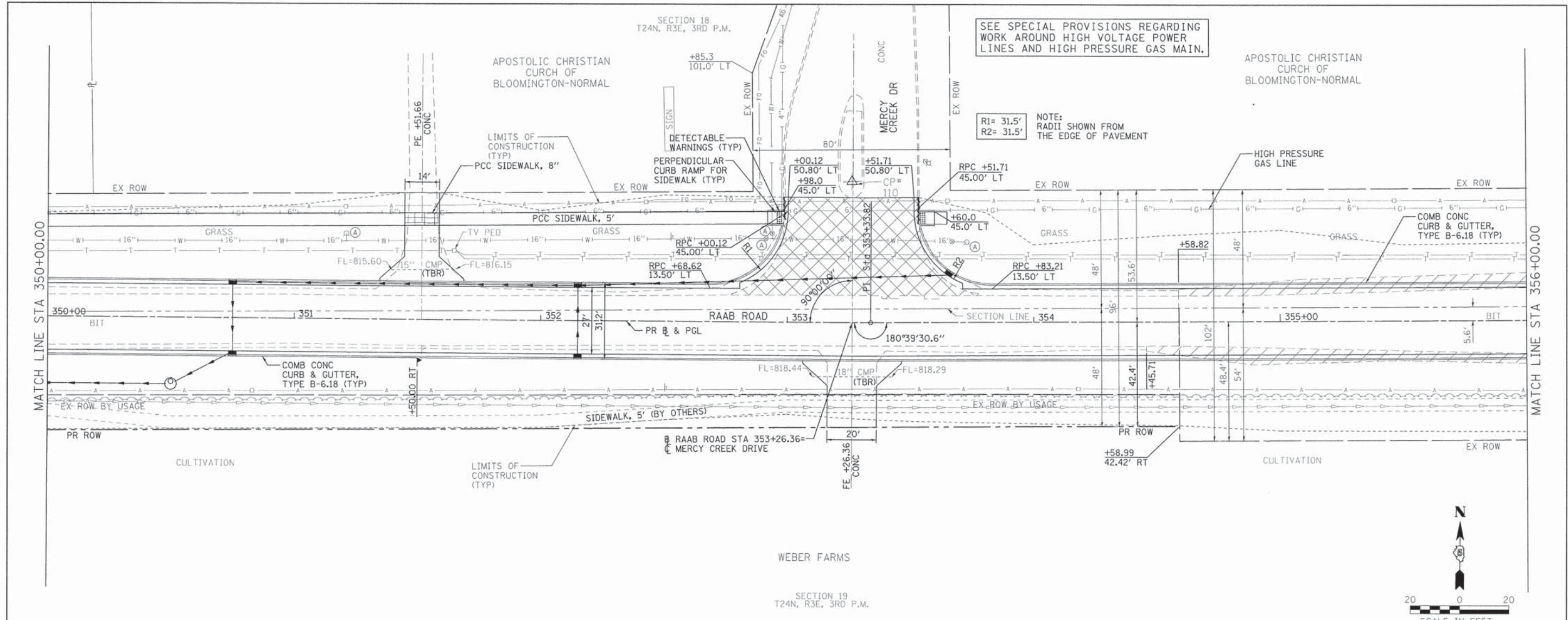
**TOWN OF NORMAL  
RAAB ROAD**

**PLAN & PROFILE**

F.A.U. RTE. 6435	SECTION 14-00252-00-RP	COUNTY McLEAN	TOTAL SHEETS 56	SHEET NO. 18
SCALE: 1"=20'			SHEET 3 OF 5 SHEETS	
STA. 344+00.00 TO STA. 350+00.00			CONTRACT NO. 91522	
ILLINOIS FED. AID PROJECT *M-5227(057)				

PLAN	DATE
BY	
NO.	
DATE	
BY	
NO.	
DATE	
BY	
NO.	
DATE	

PROFILE	DATE
BY	
NO.	
DATE	
BY	
NO.	
DATE	
BY	
NO.	
DATE	



814.76 812.75	815.10 813.20	815.46 813.71	815.90 814.28	816.35 814.88	816.85 815.48	817.35 816.08	817.89 816.68	818.52 817.28	819.15 817.85	819.69 818.35	820.18 818.78	820.37 819.15	820.56 819.45	820.52 819.69	820.47 819.86	820.33 819.96	820.19 819.99	819.98 819.96	819.74 819.87	819.46 819.70	819.09 819.47	818.71 819.18	818.34 818.81	817.95 818.38	
350+00	350+50	351+00	351+50	352+00	352+50	353+00	353+50	354+00	354+50	355+00	355+50	356+00													

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

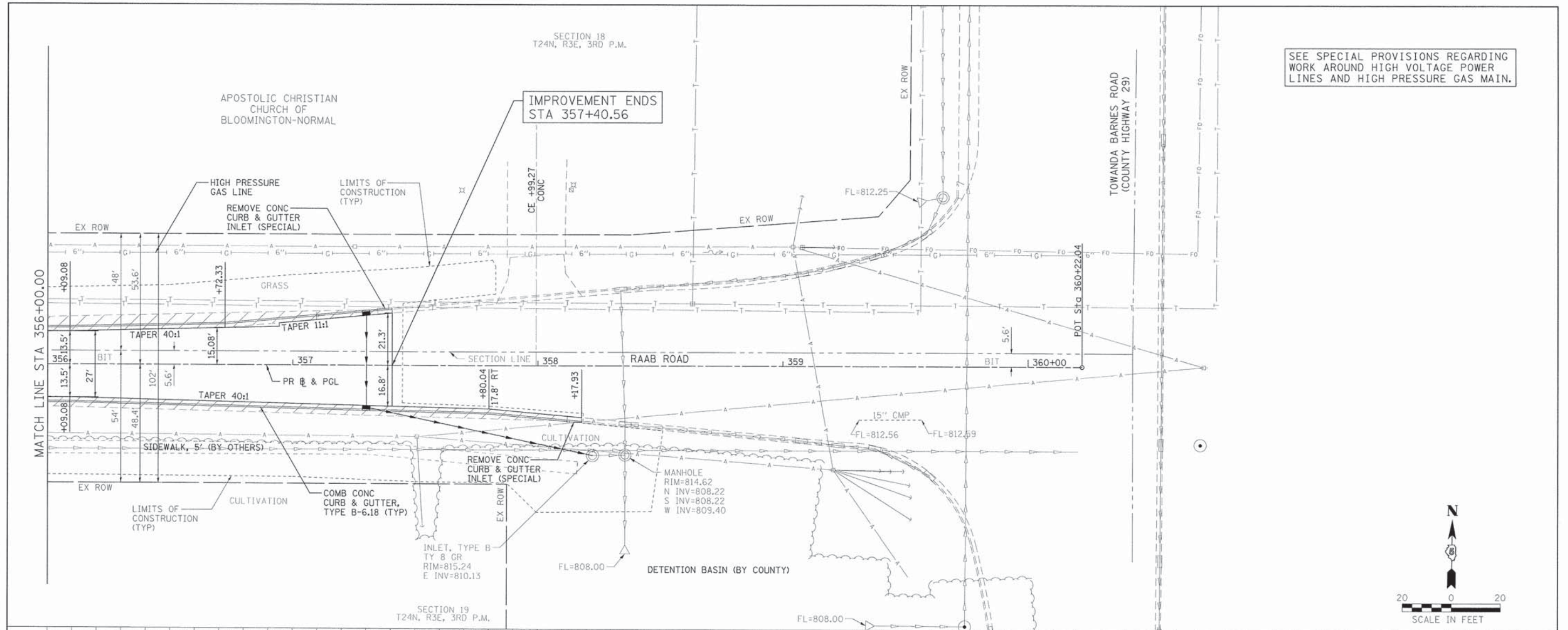
**PLAN & PROFILE**

SCALE: 1"=20' SHEET 4 OF 5 SHEETS STA. 350+00.00 TO STA. 356+00.00

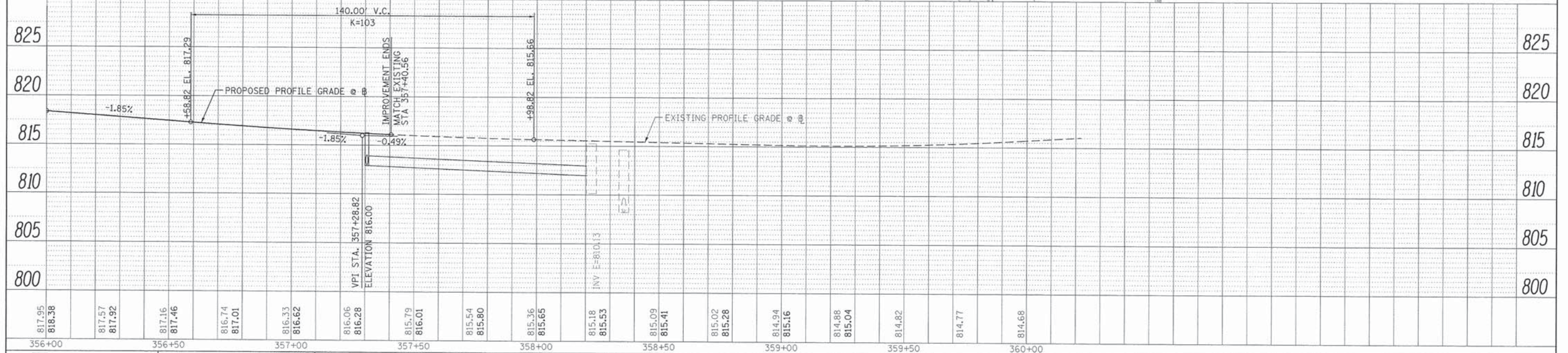
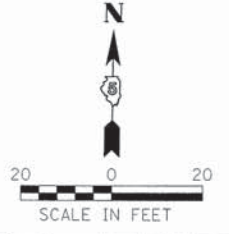
F.A.U. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	19
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-52270571	

PLAN	SURVEYED	DATE
	PLOTTED	
	DESIGNED	
	CHECKED	
	DATE	
	BY	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	DESIGNED	
	CHECKED	
	DATE	
	BY	
	NO.	



SEE SPECIAL PROVISIONS REGARDING WORK AROUND HIGH VOLTAGE POWER LINES AND HIGH PRESSURE GAS MAIN.



**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

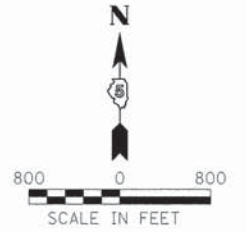
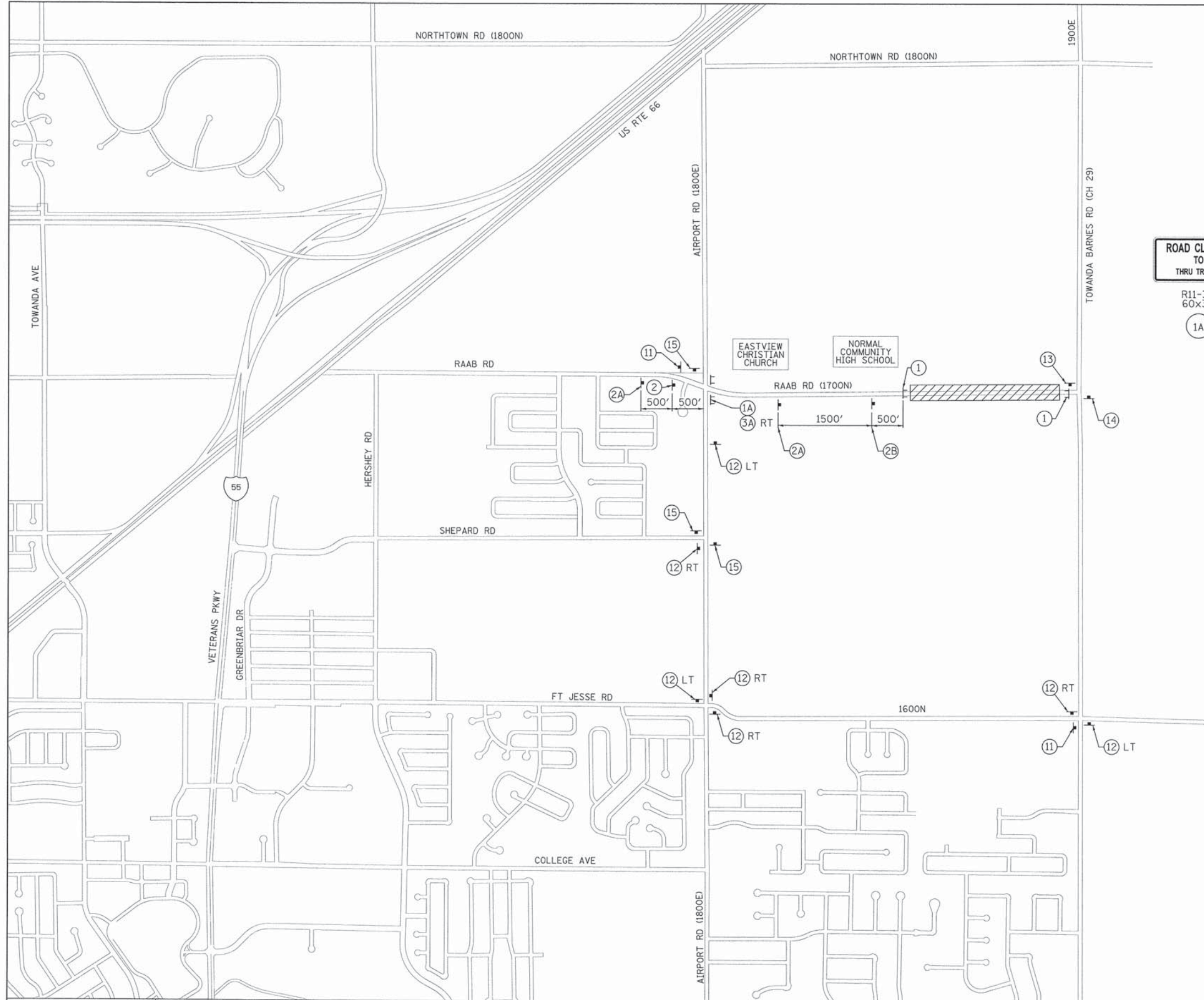
DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

**PLAN & PROFILE**

SCALE: 1"=20' SHEET 5 OF 5 SHEETS STA. 356+00.00 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	20
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	



**LEGEND**

- TYPE III BARRICADES  
 TYPE III BARRICADES FROM OUTSIDE OF SHOULDER TO OUTSIDE OF SHOULDER WITH "ROAD CLOSED" (R11-2) AND TWO FLASHING AMBER LIGHTS ON TOP OF EACH BARRICADE AS SHOWN IN "ROAD CLOSED TO ALL THRU TRAFFIC" DETAIL INCLUDED IN STANDARD 701901
- ROAD CLOSED TO THRU TRAFFIC**  
 R11-3A 60x30 (1A)
- ROAD CLOSED**  
 R11-2 48x30 (1)
- ROAD CLOSED AHEAD** FO  
 W20-3 36x36 (2A)
- DETOUR AHEAD** FO  
 W20-2 36x36 (2)
- ROAD CLOSED 500 FT** FO  
 W20-3 36x36 (2B)
- DETOUR**  
 M4-10 BARRICADE MOUNTED 48x18 (3A)
- END DETOUR** FO  
 M4-8a 24x18 (11)
- Raab Rd DETOUR**  
 30x36 (12)
- R3-1** 24x24 (13)
- R3-2** 24x24 (14)
- Raab Rd DETOUR**  
 30x36 (15)

**Farnsworth GROUP, INC.**  
 2709 McDraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

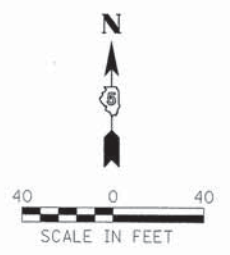
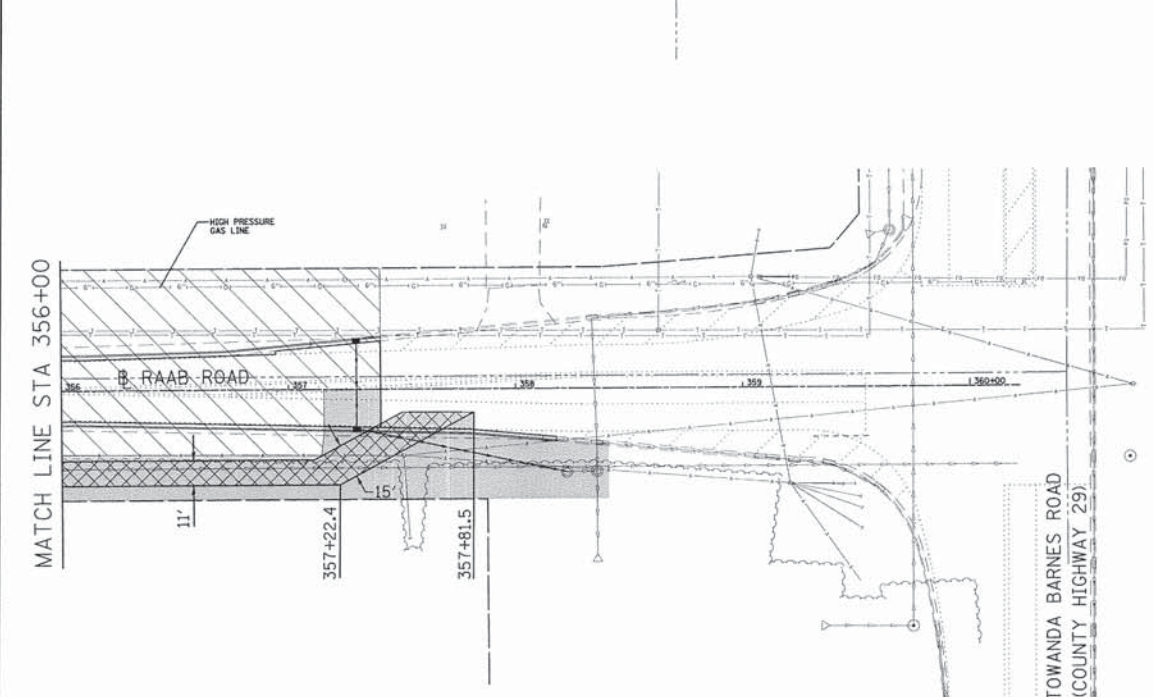
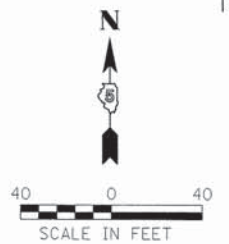
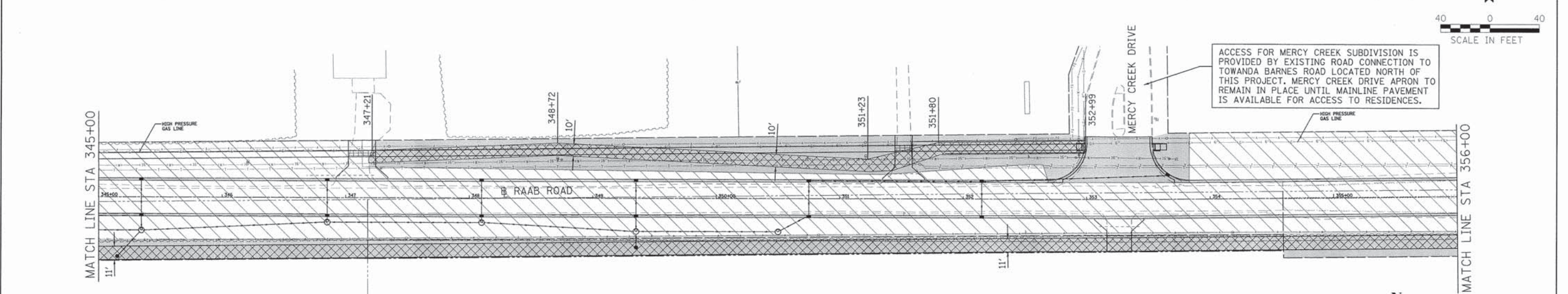
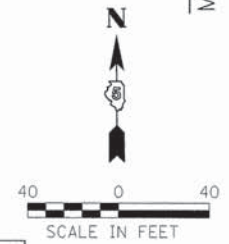
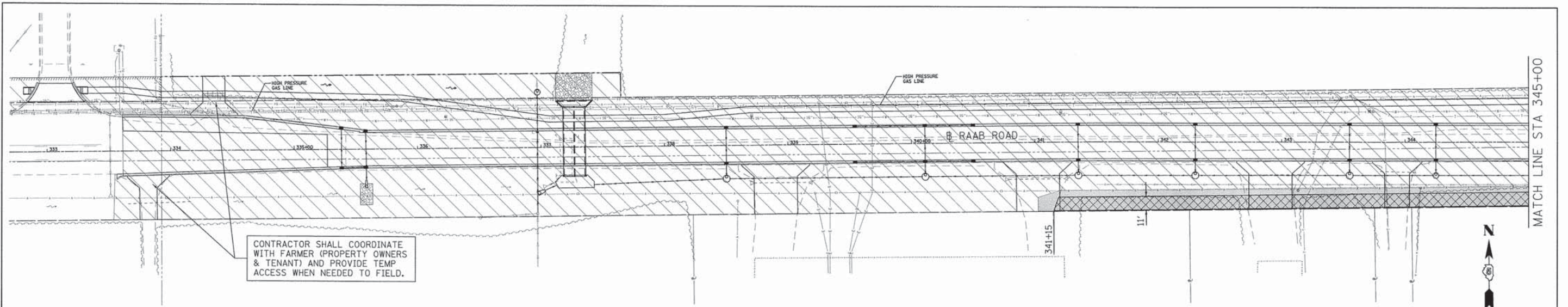
DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
 RAAB ROAD**

**DETOUR PLAN**

SCALE: 1"=800' SHEET 1 OF 1 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	21
CONTRACT NO. 91522				
(ILLINOIS) FED. AID PROJECT *M-5227(057)				



- LEGEND**
- AGGREGATE FOR TEMPORARY ACCESS (8")
  - AREA TO BE CONSTRUCTED IN STAGE 1
  - AREA TO BE CONSTRUCTED IN STAGE 2

**Farnsworth GROUP, INC.**  
 2708 MacCraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

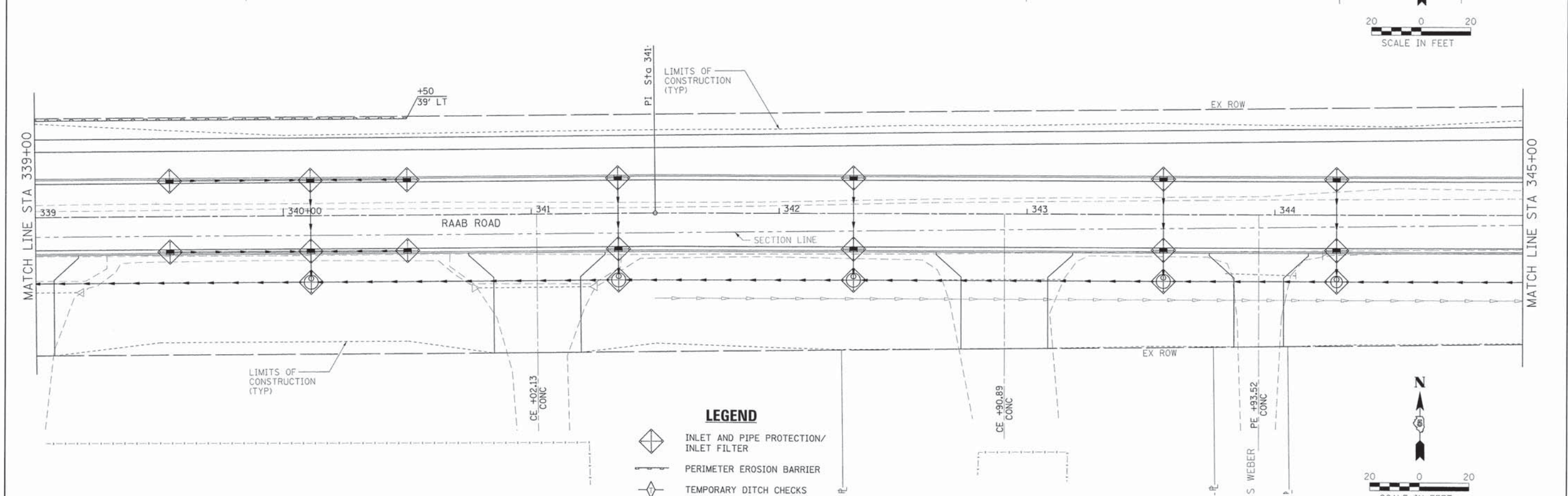
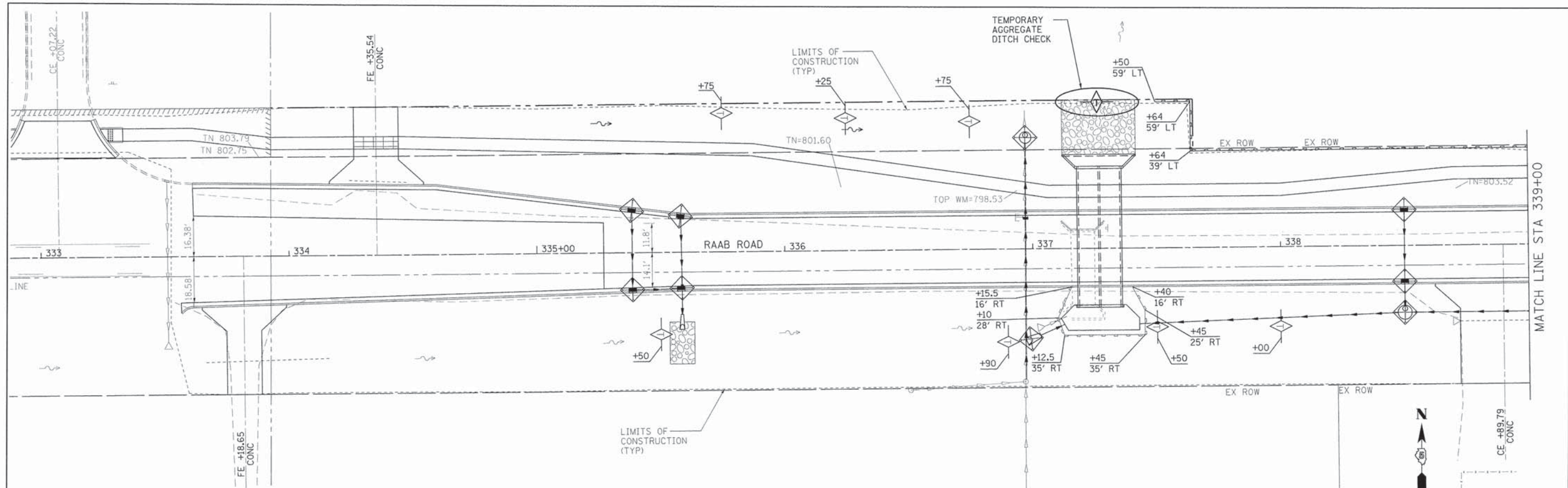
DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -




**TOWN OF NORMAL  
 RAAB ROAD**

**STAGE CONSTRUCTION PLAN**

SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	22
CONTRACT NO. 91522				
<small>ILLINOIS FED. AID PROJECT #M-5227(057)</small>				



- LEGEND**
-  INLET AND PIPE PROTECTION/  
INLET FILTER
  -  PERIMETER EROSION BARRIER
  -  TEMPORARY DITCH CHECKS

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

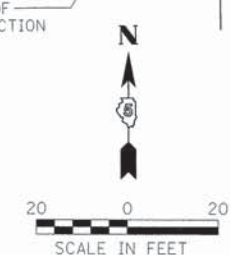
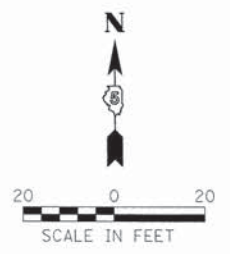
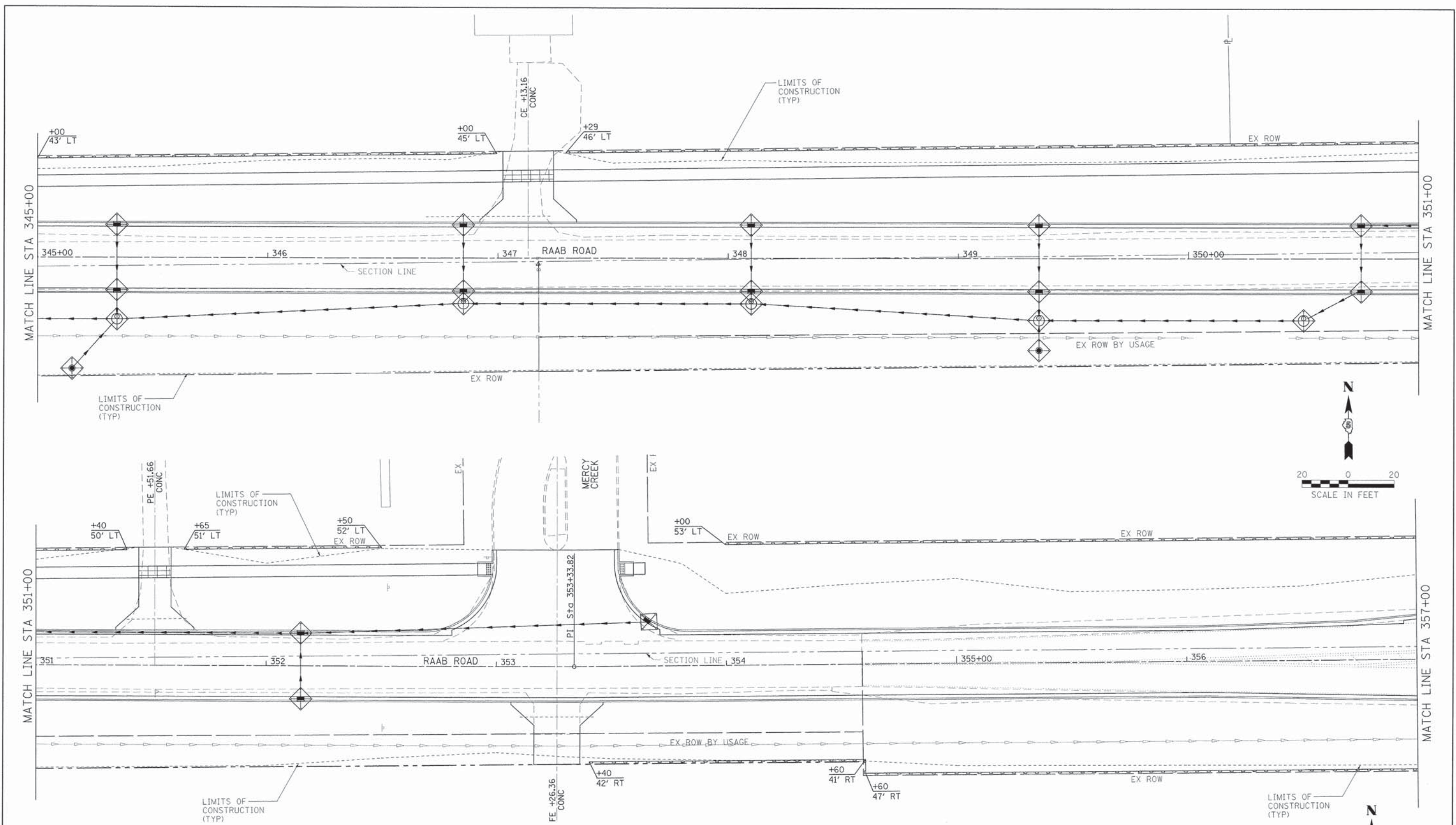
**TOWN OF NORMAL  
RAAB ROAD**




**EROSION CONTROL PLAN**

SCALE: 1"=20' SHEET 1 OF 3 SHEETS STA. 333+61.37 TO STA. 345+00.00

F.A.U. RTE. 6435	SECTION 14-00252-00-RP	COUNTY McLEAN	TOTAL SHEETS 56	SHEET NO. 23
			CONTRACT NO. 91522	

(ILLINOIS) FED. AID PROJECT \*M-5227(057)



- LEGEND**
-  INLET AND PIPE PROTECTION/  
INLET FILTER
  -  PERIMETER EROSION BARRIER
  -  TEMPORARY DITCH CHECKS

WEBER FARMS

**Farnsworth**  
GROUP, INC.  
2709 McGrath Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

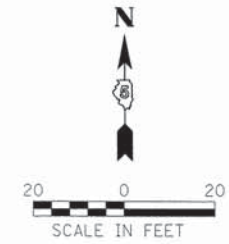
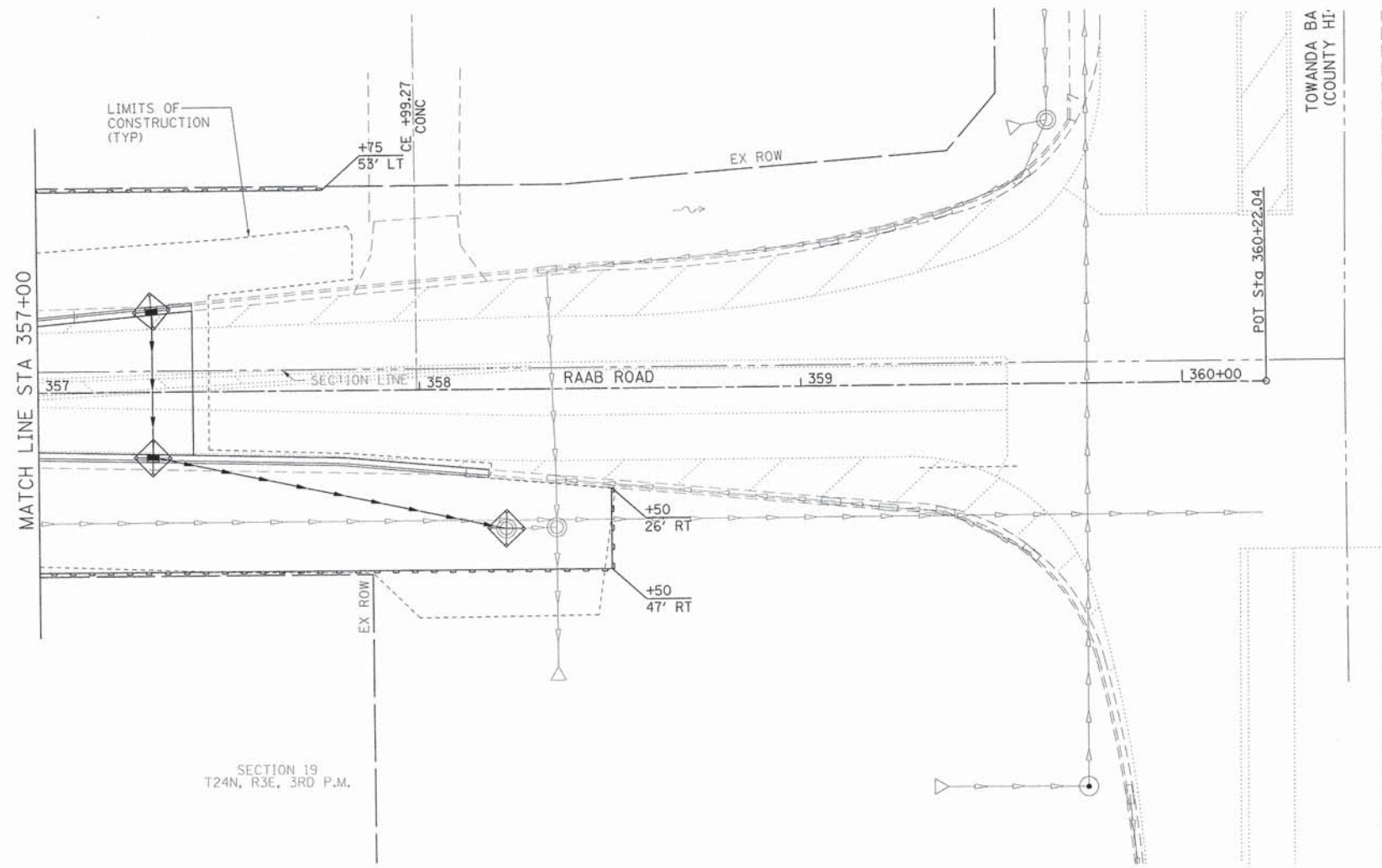
**TOWN OF NORMAL  
RAAB ROAD**




**EROSION CONTROL PLAN**

SCALE: 1"=20' SHEET 2 OF 3 SHEETS STA. 345+00.00 TO STA. 357+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	24
CONTRACT NO. 91522				
[ILLINOIS] FED. AID PROJECT *M-5227(057)				





- LEGEND**
-  INLET AND PIPE PROTECTION/  
INLET FILTER
  -  PERIMETER EROSION BARRIER
  -  TEMPORARY DITCH CHECKS

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

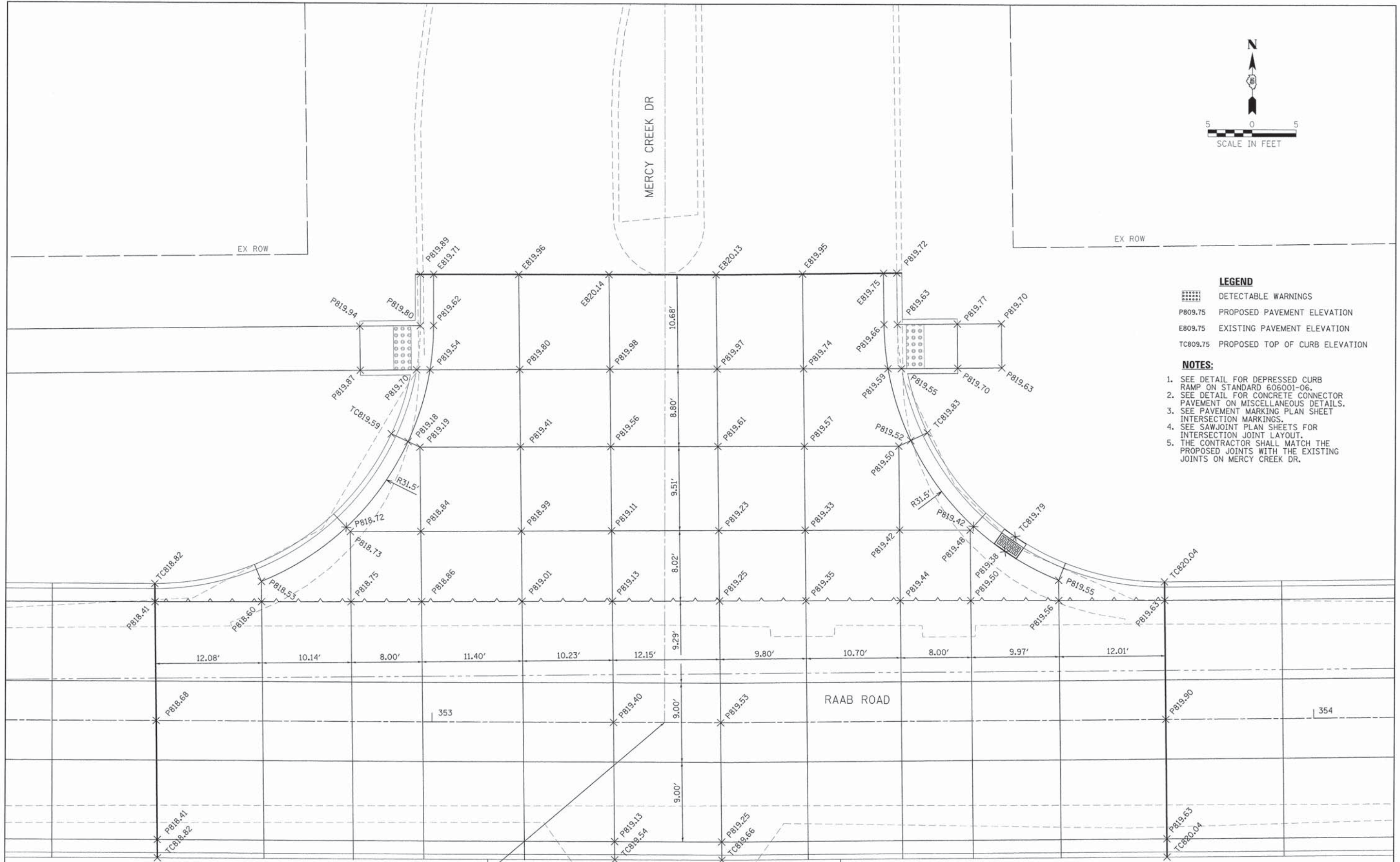
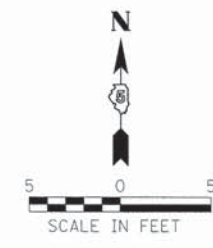
DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	


**TOWN OF NORMAL  
RAAB ROAD**


**EROSION CONTROL PLAN**

SCALE: 1"=20' SHEET 3 OF 3 SHEETS STA. 357+00.00 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	25
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	



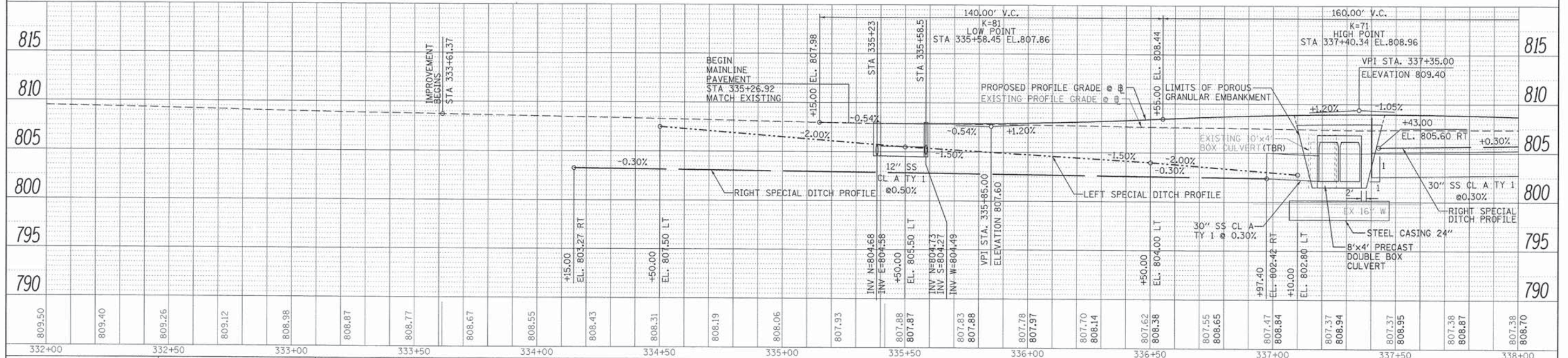
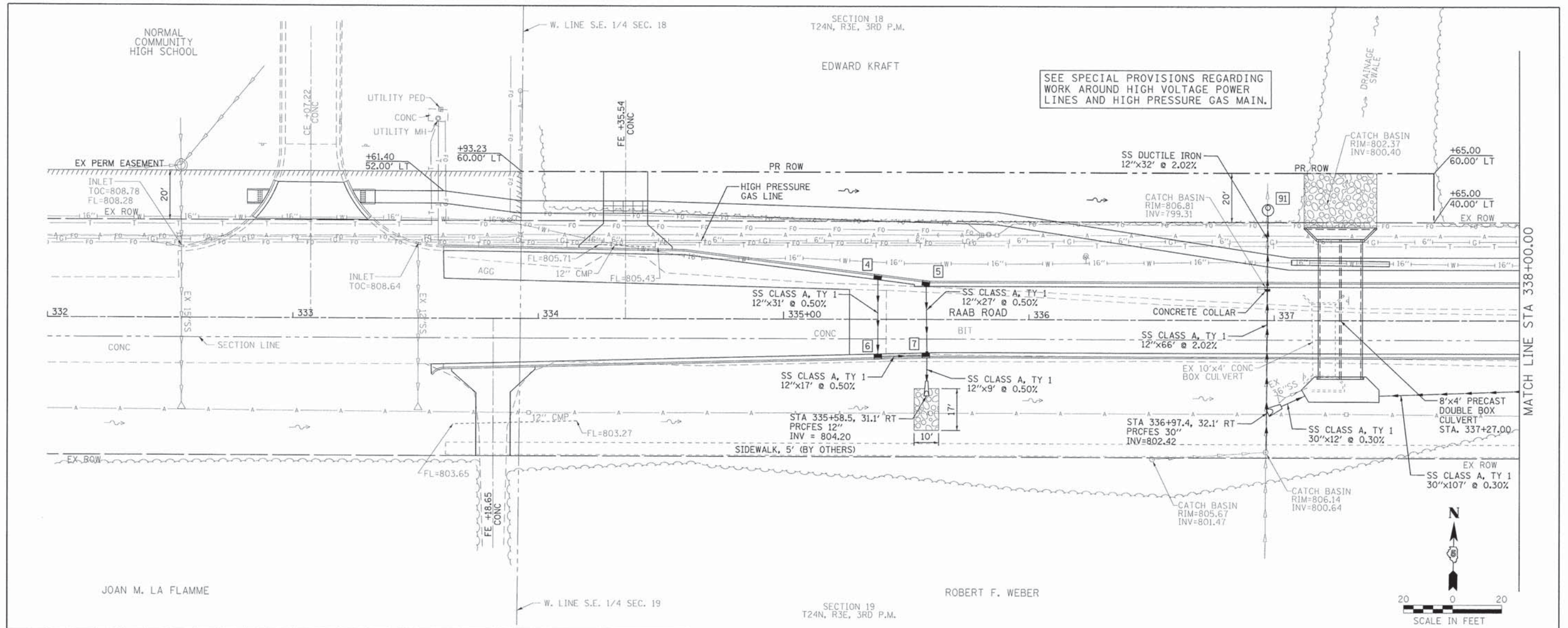
- LEGEND**
-  DETECTABLE WARNINGS
  - P809.75 PROPOSED PAVEMENT ELEVATION
  - E809.75 EXISTING PAVEMENT ELEVATION
  - TC809.75 PROPOSED TOP OF CURB ELEVATION
- NOTES:**
1. SEE DETAIL FOR DEPRESSED CURB RAMP ON STANDARD 606001-06.
  2. SEE DETAIL FOR CONCRETE CONNECTOR PAVEMENT ON MISCELLANEOUS DETAILS.
  3. SEE PAVEMENT PLAN SHEET INTERSECTION MARKINGS.
  4. SEE SAWJOINT PLAN SHEETS FOR INTERSECTION JOINT LAYOUT.
  5. THE CONTRACTOR SHALL MATCH THE PROPOSED JOINTS WITH THE EXISTING JOINTS ON MERCY CREEK DR.

 <p>Farnsworth GROUP, INC. 2709 McClure Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	DESIGNED - LAT	REVISED -	<b>TOWN OF NORMAL</b> <b>RAAB ROAD</b>	<b>INTERSECTION DETAIL</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	DRAWN - LAT	REVISED -			6435	14-00252-00-RP	McLEAN	56	26		
	CHECKED - ERB	REVISED -			CONTRACT NO. 91522						
	DATE - 08/31/15	REVISED -			ILLINOIS FED. AID PROJECT #M-52710571						
					SCALE: 1"=5'    SHEET 1 OF 1 SHEETS    STA.    TO STA.						



DATE	
BY	
PLAN	
NO. _____	
NO. _____	
NO. _____	
NO. _____	
NO. _____	
NO. _____	

DATE	
BY	
PROFILE	
NO. _____	
NO. _____	
NO. _____	
NO. _____	
NO. _____	
NO. _____	

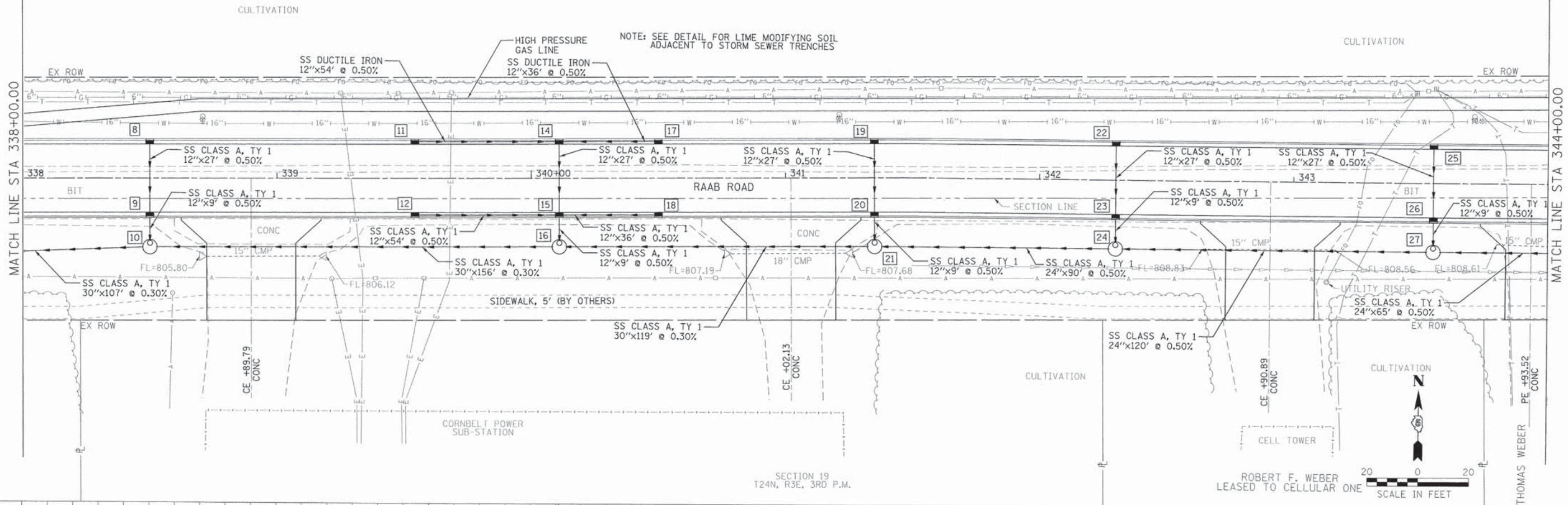


<p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p>	DESIGNED - LAT	REVISED -	<b>TOWN OF NORMAL</b> <b>RAAB ROAD</b>	<b>DRAINAGE PLAN &amp; PROFILE</b>	F.A.U. RTEL. 6435	SECTION 14-00252-00-RP	COUNTY McLEAN	TOTAL SHEET NO. 56	SHEET NO. 28		
	DRAWN - LAT	REVISED -			SCALE: 1"=20'	SHEET 1 OF 5 SHEETS	STA. 333+61.37	TO STA. 338+00.00	CONTRACT NO. 91522		
	CHECKED - ERB	REVISED -			ILLINOIS FED. AID PROJECT #M-5227(057)						
	DATE - 08/31/15	REVISED -			24-9002						

SECTION 18  
T24N, R3E, 3RD P.M.

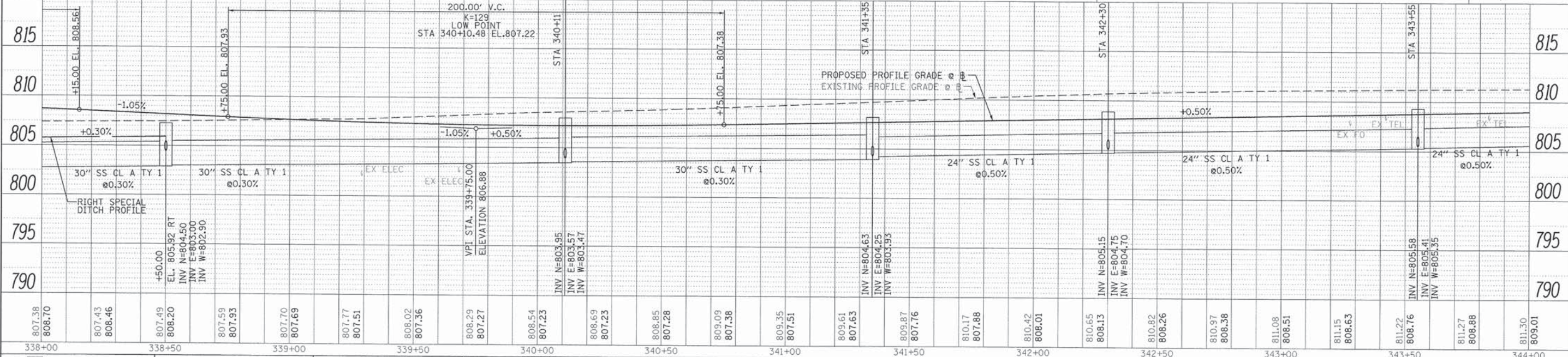
EDWARD KRAFT

SEE SPECIAL PROVISIONS REGARDING  
WORK AROUND HIGH VOLTAGE POWER  
LINES AND HIGH PRESSURE GAS MAIN.



SECTION 19  
T24N, R3E, 3RD P.M.

ROBERT F. WEBER  
LEASED TO CELLULAR ONE  
SCALE IN FEET



DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

**DRAINAGE PLAN & PROFILE**

SCALE: 1"=20' SHEET 2 OF 5 SHEETS STA. 338+00.00 TO STA. 344+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS
6435	14-00252-00-RP	McLEAN	56
			29
			CONTRACT NO. 91522
ILLINOIS FED. AID PROJECT #M-52270571			

SECTION 18  
T24N, R3E, 3RD P.M.

EDWARD KRAFT

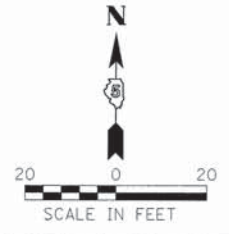
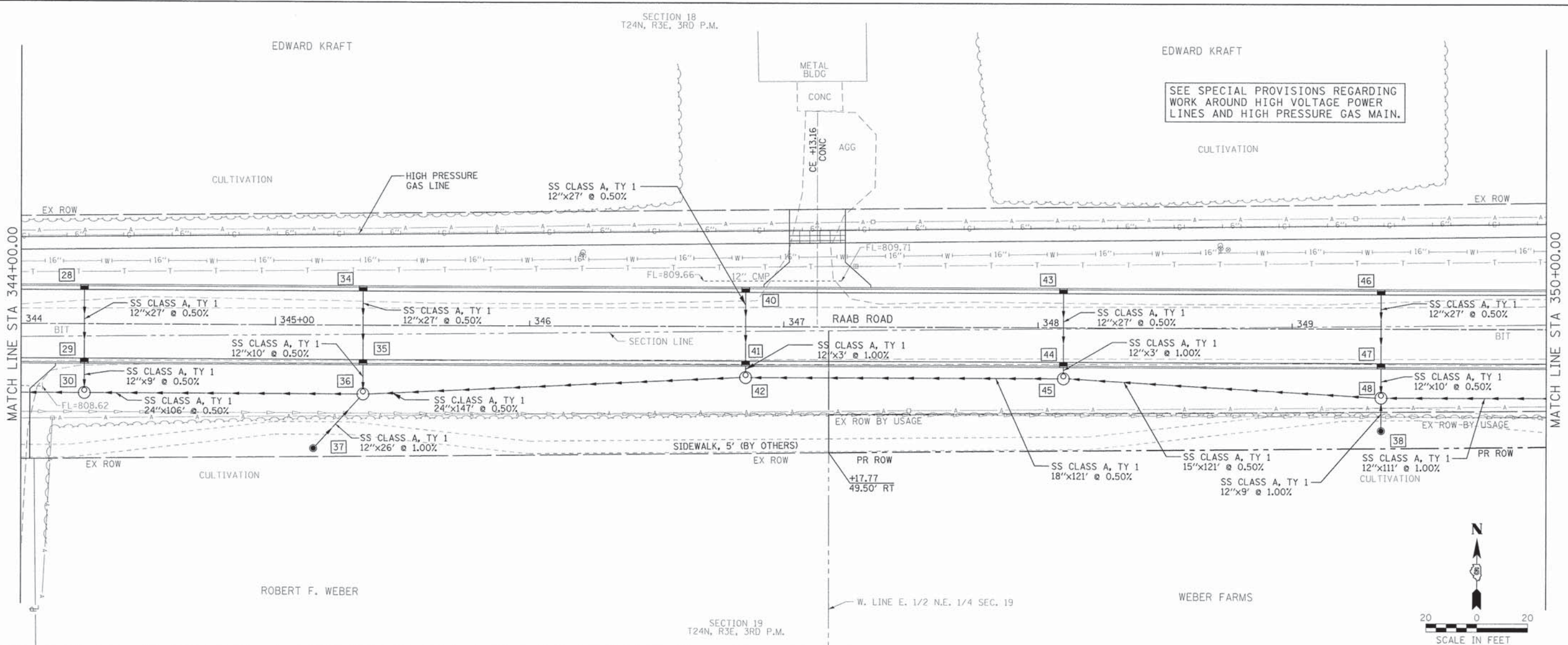
EDWARD KRAFT

SEE SPECIAL PROVISIONS REGARDING  
WORK AROUND HIGH VOLTAGE POWER  
LINES AND HIGH PRESSURE GAS MAIN.

CULTIVATION

DATE	
BY	
REVISIONS	
NO.	DESCRIPTION
1	ALIGNED CHECKED
2	FIELD FILE NAME
3	NO.
4	NO.
5	NO.
6	NO.
7	NO.
8	NO.
9	NO.
10	NO.

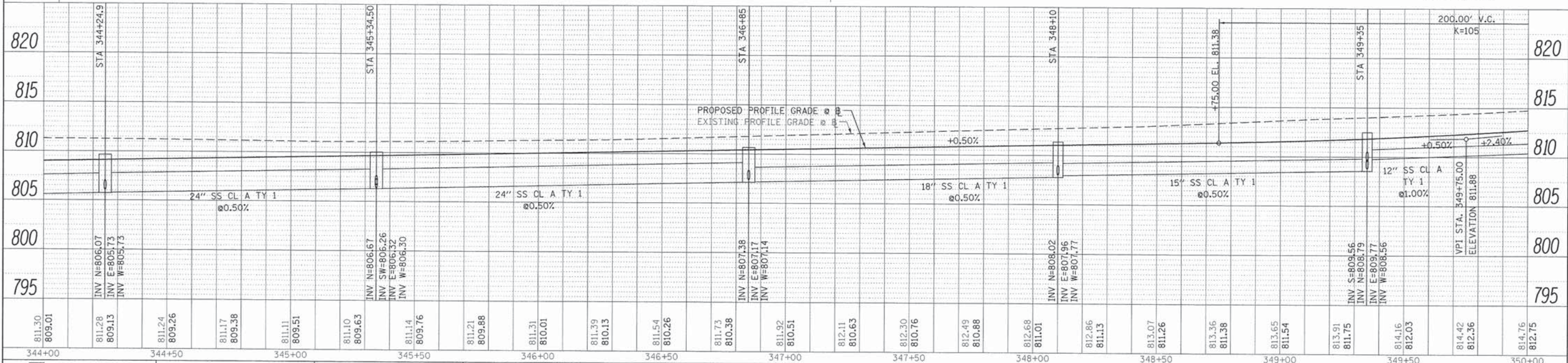
DATE	
BY	
REVISIONS	
NO.	DESCRIPTION
1	ALIGNED CHECKED
2	FIELD FILE NAME
3	NO.
4	NO.
5	NO.
6	NO.
7	NO.
8	NO.
9	NO.
10	NO.



SECTION 19  
T24N, R3E, 3RD P.M.

ROBERT F. WEBER

WEBER FARMS



**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

**DRAINAGE PLAN & PROFILE**

SCALE: 1"=20' SHEET 3 OF 5 SHEETS STA. 344+00.00 TO STA. 350+00.00

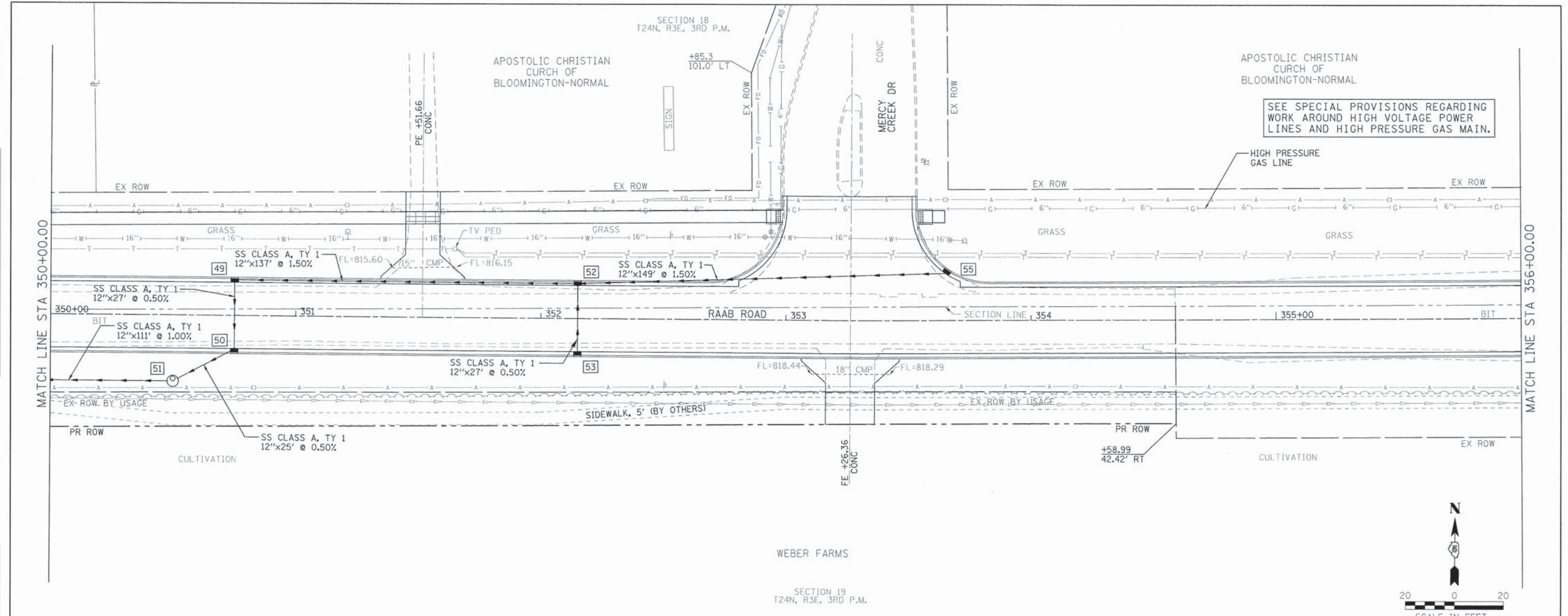
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS
6435	14-00252-00-RP	McLEAN	56 30
			CONTRACT NO. 91522
ILLINOIS FED. AID PROJECT *M-52210571			

SECTION 18  
T24N, R3E, 3RD P.M.

APOSTOLIC CHRISTIAN  
CHURCH OF  
BLOOMINGTON-NORMAL

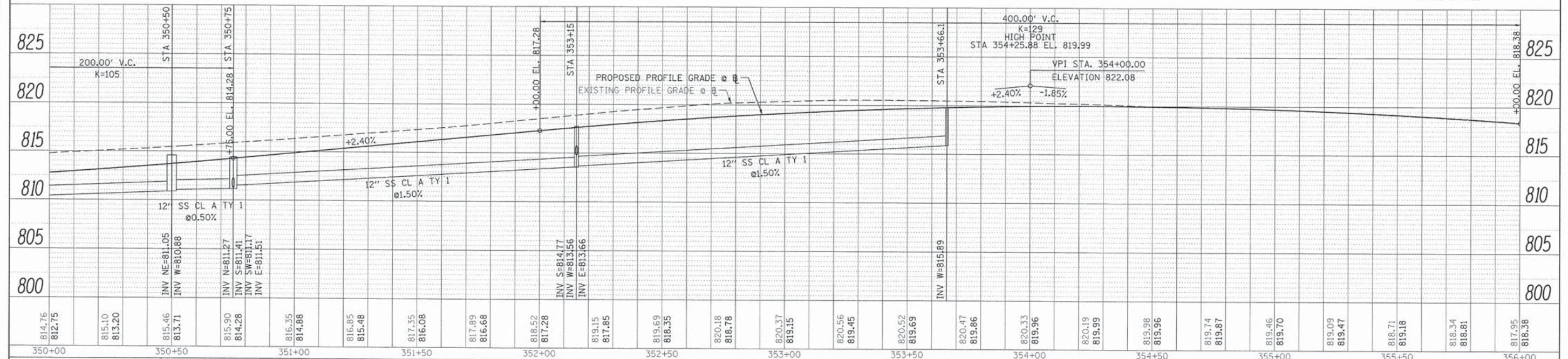
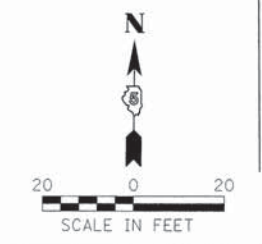
APOSTOLIC CHRISTIAN  
CHURCH OF  
BLOOMINGTON-NORMAL

SEE SPECIAL PROVISIONS REGARDING  
WORK AROUND HIGH VOLTAGE POWER  
LINES AND HIGH PRESSURE GAS MAIN.



DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
DESCRIPTION	
DATE	
BY	
DESCRIPTION	

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
DESCRIPTION	
DATE	
BY	
DESCRIPTION	



814.76 812.75	815.10 813.20	815.46 813.71	815.90 814.28	816.35 814.88	816.85 815.48	817.35 816.08	817.89 816.68	818.52 817.28	819.15 817.85	819.69 818.35	820.18 818.78	820.37 819.15	820.56 819.45	820.52 819.69	820.47 819.86	820.33 819.96	820.19 819.99	819.98 819.96	819.74 819.87	819.46 819.70	819.09 819.47	818.71 819.18	818.34 818.81	817.95 818.38
350+00	350+50	351+00	351+50	352+00	352+50	353+00	353+50	354+00	354+50	355+00	355+50	356+00												

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED	LAT	REVISED	-
DRAWN	LAT	REVISED	-
CHECKED	ERB	REVISED	-
DATE	08/31/15	REVISED	-

**TOWN OF NORMAL**  
**RAAB ROAD**

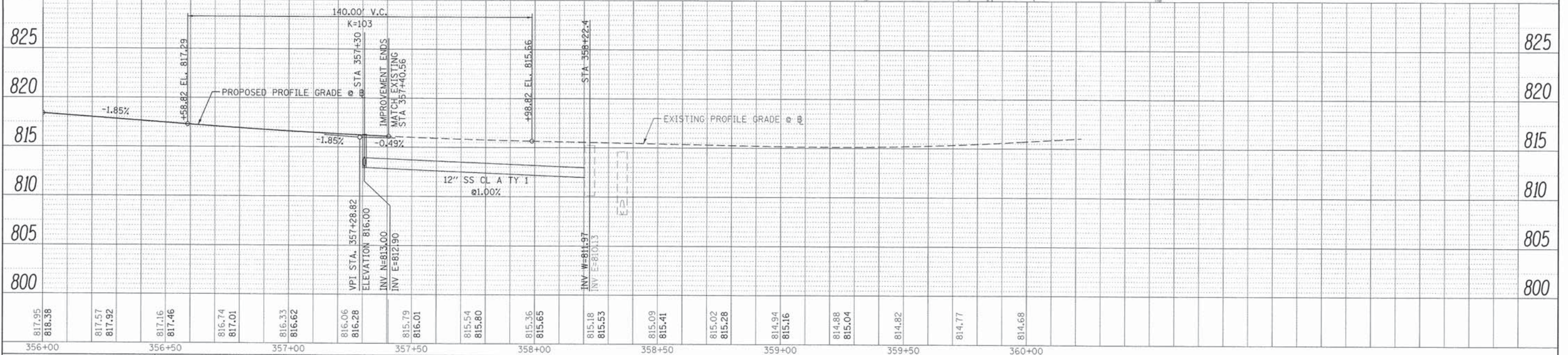
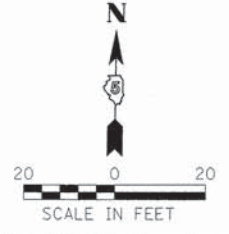
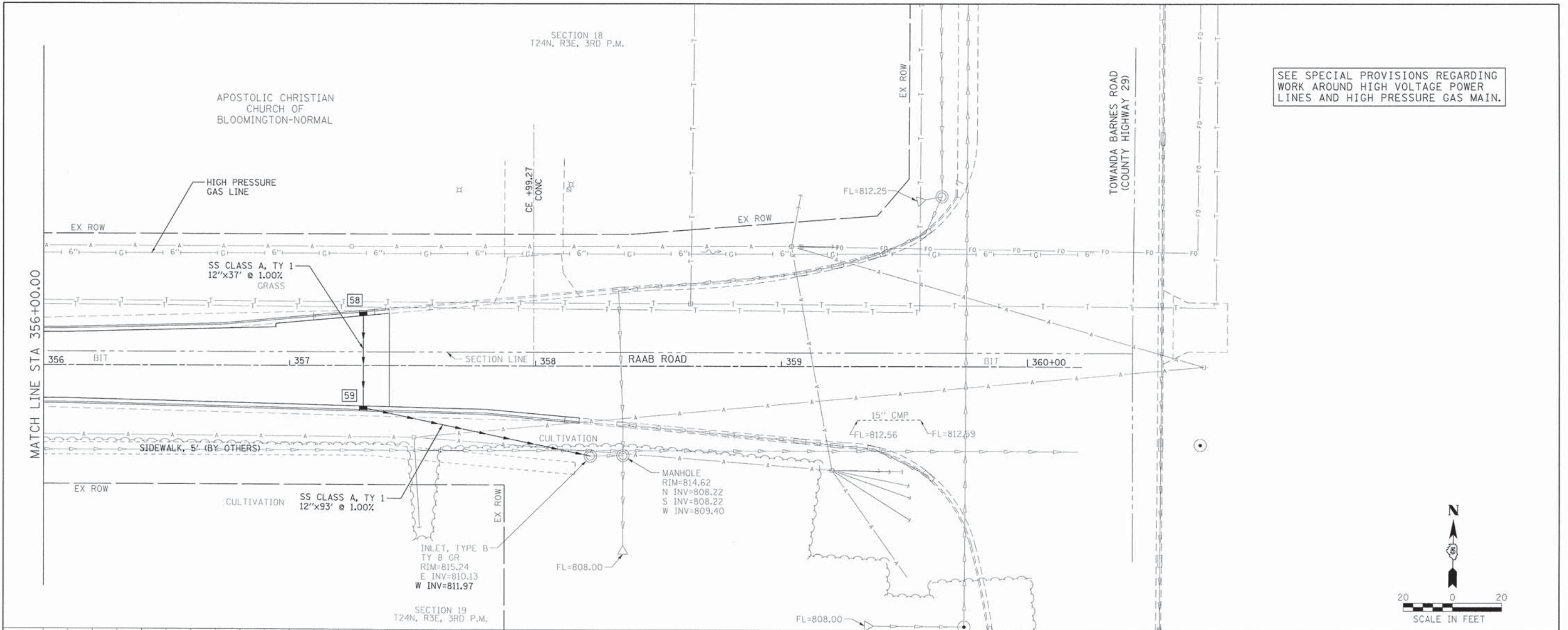
**DRAINAGE PLAN & PROFILE**

SCALE: 1"=20' SHEET 4 OF 5 SHEETS STA. 350+00.00 TO STA. 356+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS
6435	14-00252-00-RP	McLEAN	56
			SHEET NO. 31
			CONTRACT NO. 91522
ILLINOIS FED. AID PROJECT #M-52270571			

PLAN	DESIGNED	DATE
	DRAWN	
	CHECKED	
	DATE	

PROFILE	DESIGNED	DATE
	DRAWN	
	CHECKED	
	DATE	



**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

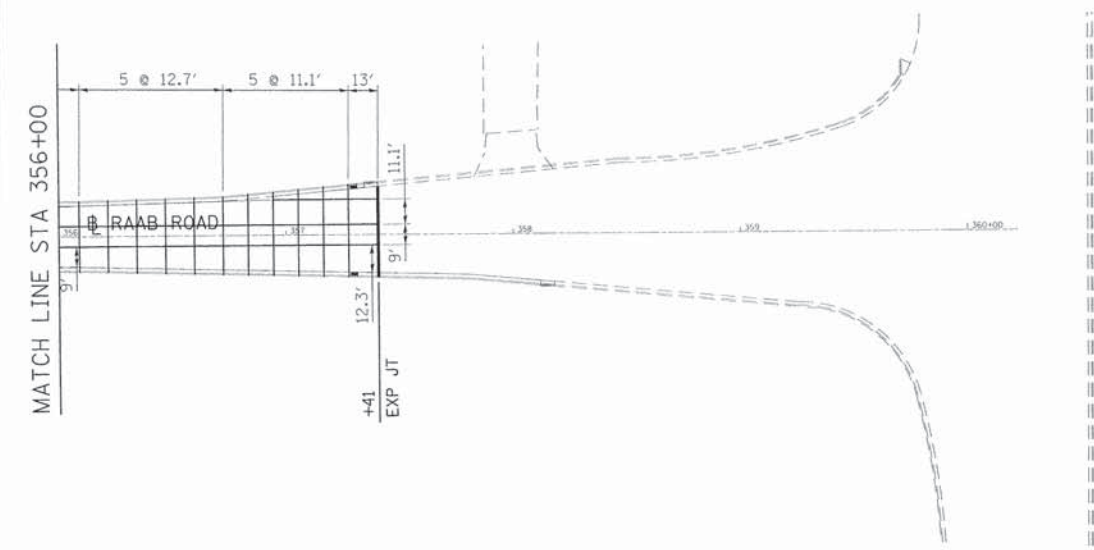
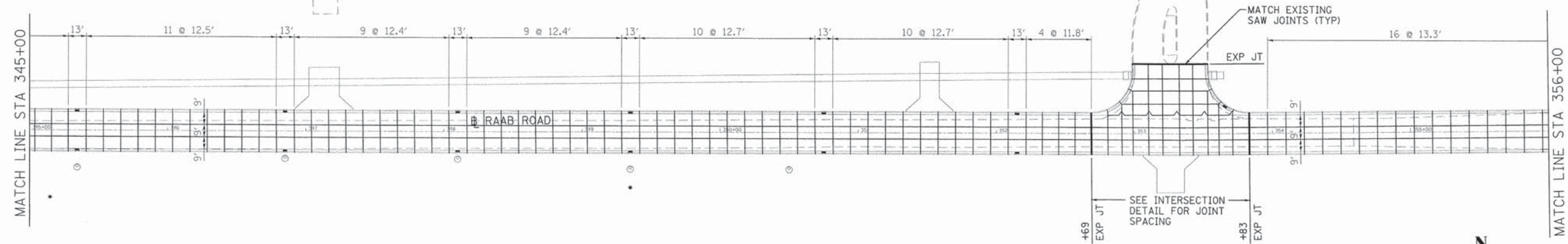
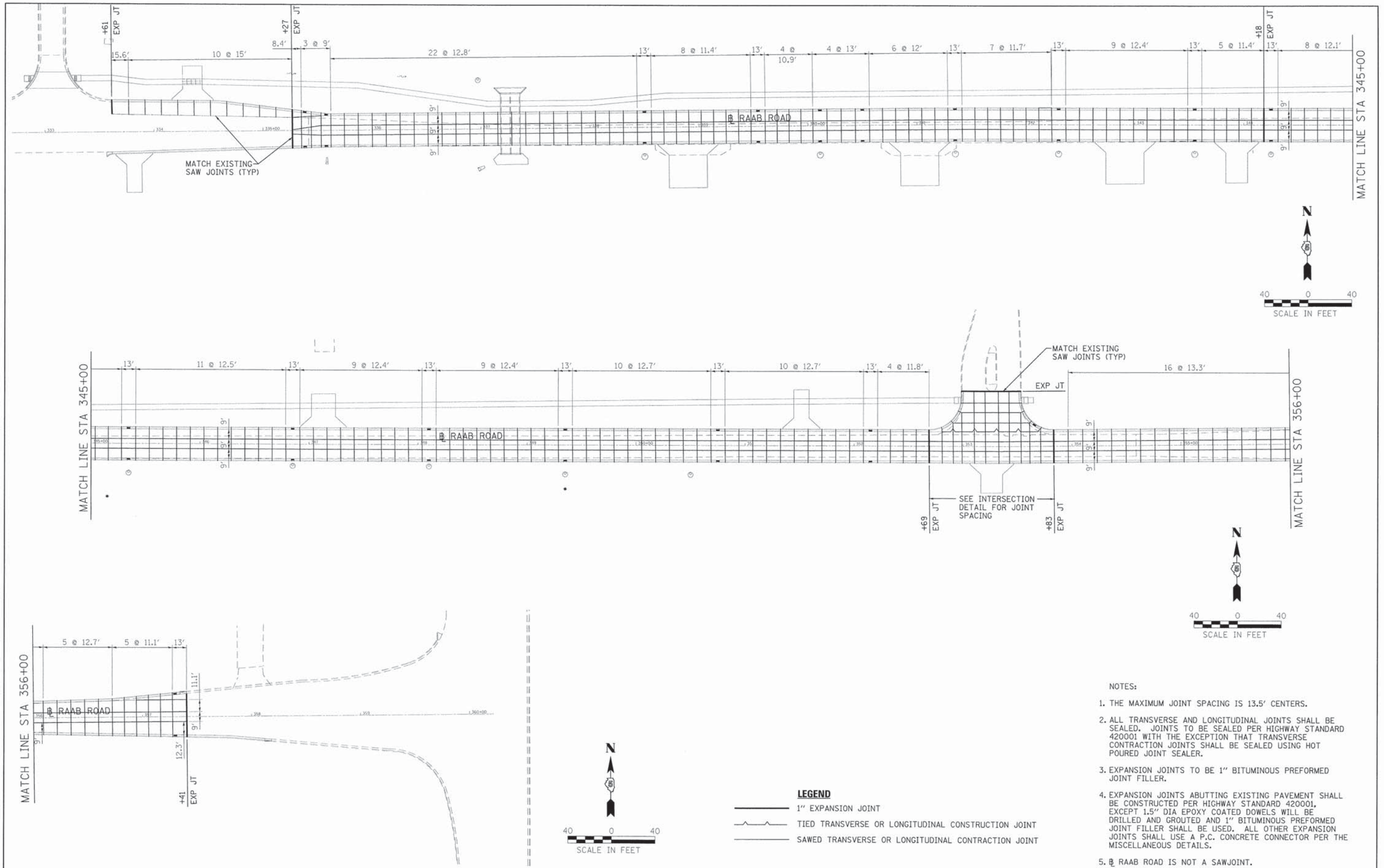
**TOWN OF NORMAL  
RAAB ROAD**

**DRAINAGE PLAN & PROFILE**

SCALE: 1"=20' SHEET 5 OF 5 SHEETS STA. 356+00.00 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	32
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT *M-52210571				





- NOTES:**
1. THE MAXIMUM JOINT SPACING IS 13.5' CENTERS.
  2. ALL TRANSVERSE AND LONGITUDINAL JOINTS SHALL BE SEALED. JOINTS TO BE SEALED PER HIGHWAY STANDARD 420001 WITH THE EXCEPTION THAT TRANSVERSE CONTRACTION JOINTS SHALL BE SEALED USING HOT POURED JOINT SEALER.
  3. EXPANSION JOINTS TO BE 1" BITUMINOUS PREFORMED JOINT FILLER.
  4. EXPANSION JOINTS ABUTTING EXISTING PAVEMENT SHALL BE CONSTRUCTED PER HIGHWAY STANDARD 420001, EXCEPT 1.5" DIA EPOXY COATED DOWELS WILL BE DRILLED AND GROUTED AND 1" BITUMINOUS PREFORMED JOINT FILLER SHALL BE USED. ALL OTHER EXPANSION JOINTS SHALL USE A P.C. CONCRETE CONNECTOR PER THE MISCELLANEOUS DETAILS.
  5. RAAB ROAD IS NOT A SAWJOINT.

**LEGEND**

	1" EXPANSION JOINT
	TIED TRANSVERSE OR LONGITUDINAL CONSTRUCTION JOINT
	SAWED TRANSVERSE OR LONGITUDINAL CONTRACTION JOINT

**Farnsworth GROUP, INC.**  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

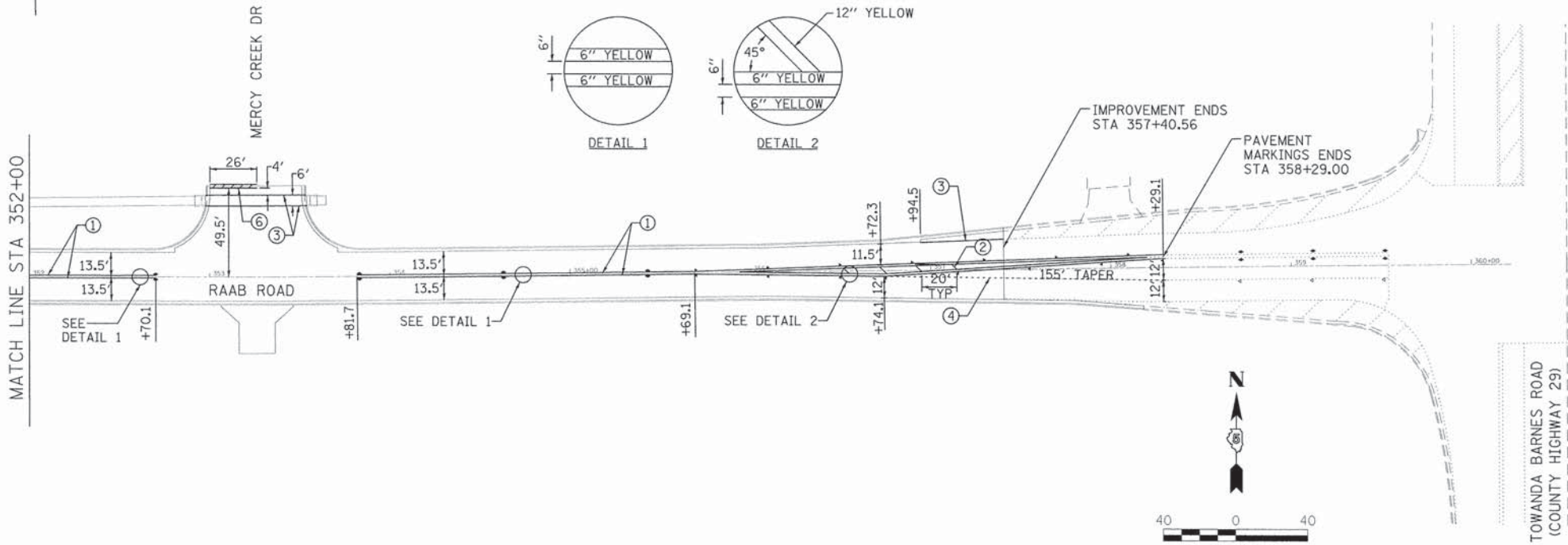
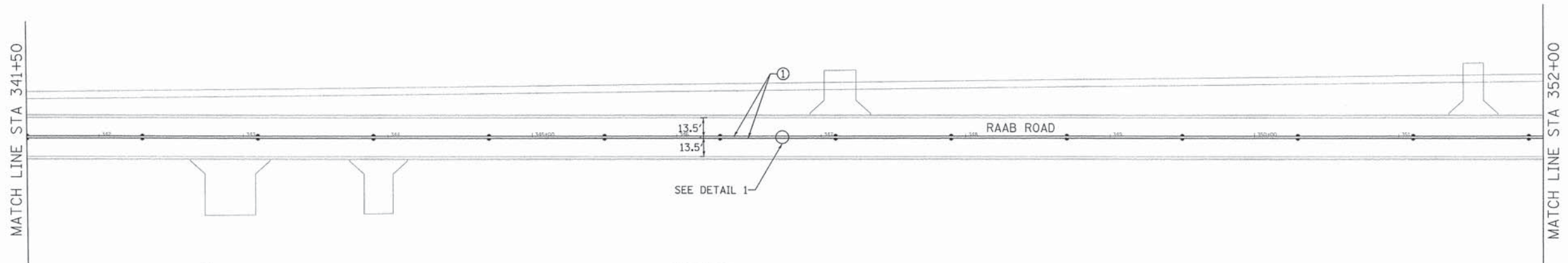
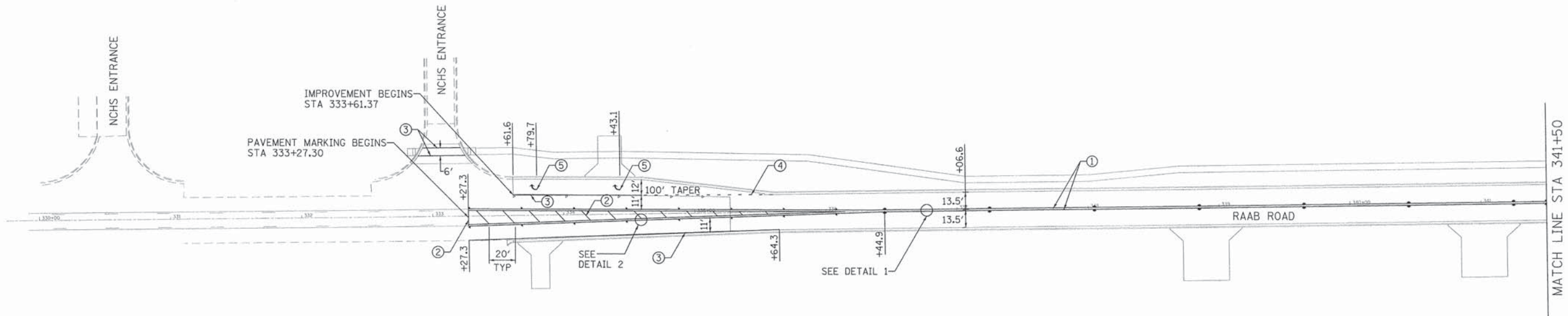
DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

**TOWN OF NORMAL  
 RAAB ROAD**

**SAW JOINT PLAN**

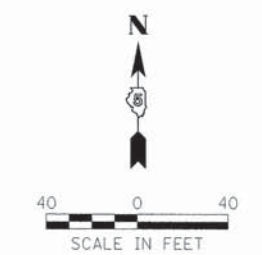
SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	33
				CONTRACT NO. 91522
ILLINOIS FED. AID PROJECT #M-5227(057)				



- GENERAL NOTES:**
- REMOVE ALL EXISTING PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKINGS FROM STA 333+27.3 TO STA 335+41.87.
  - PROPOSED PAVEMENT MARKINGS AND PROPOSED RAISED REFLECTIVE MARKERS ARE TO BE INSTALLED IN ACCORDANCE WITH HIGHWAY STANDARDS 780001 AND 781001 AND DISTRICT 5 STANDARD 7800AAAA.
  - SIGNS AND POSTS WILL BE FURNISHED AND INSTALLED BY OTHERS.

- LEGEND:**
- ① EPOXY PAVEMENT MARKING - LINE 6" (YELLOW)
  - ② EPOXY PAVEMENT MARKING - LINE 12" (YELLOW)
  - ③ EPOXY PAVEMENT MARKING - LINE 6" (WHITE)
  - ④ EPOXY PAVEMENT MARKING - LINE 6" (WHITE) 2' LINE 6' GAP
  - ⑤ EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS (WHITE)
  - ⑥ EPOXY PAVEMENT MARKING - LINE 24" (WHITE)
  - ◆ TWO-WAY AMBER RAISED REFLECTIVE PAVEMENT MARKER
  - ▲ ONE-WAY AMBER RAISED REFLECTIVE PAVEMENT MARKER
  - ◀ ONE-WAY CRYSTAL RAISED REFLECTIVE PAVEMENT MARKER



**Farnsworth GROUP, INC.**  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
 RAAB ROAD**

**PAVEMENT MARKING AND SIGNING PLAN**

SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 333+61.37 TO STA. 357+40.56

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	34
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	

Benchmarks: Chiseled "□" in Headwall North of Raab Rd. Sta. 337+19.73, 6.65' Lt. Elev. 807.31  
 Top of 2nd Fire Hydrant East of NCHS East Entrance. Sta. 336+23.50, 26.22' Lt. Elev. 807.54  
 Top of 3rd Fire Hydrant East of NCHS East Entrance. Sta. 338+70.85, 24.49' Lt. Elev. 809.41

Existing Structure: The structure consists of a single barrel 10'x4' cast-in-place concrete box culvert with horizontal cantilever wingwalls at the North end and a drop box on the South end. The out to out headwall dimension measures 31'-0". The structure is to be replaced during road closure.

No Salvage.

**WATERWAY INFORMATION**

Drainage Area = 544 Acres		Existing Low Grade Elev. 807.37 @ Sta. 337+35		Proposed Low Grade Elev. 807.87 @ Sta. 335+60	
Flood Yr.	Freq. C.F.S.	Opening Sq. Ft.	Nat. Head - Ft.	Head - Ft.	Headwater El.
Overtop. (Ex.)	9	285	33	52	805.5
	10	311	34	54	805.6
Design	30	465	37	58	805.9
Overtop. (Pr.)	41	506	38	60	806.0
Base	100	621	40	63	806.2

10 Yr. Velocity = 8.6 ft./sec. (Existing)  
 10 Yr. Velocity = 5.6 ft./sec. (Proposed)

**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications, Customary U.S. Units 7th Edition with Interims

**LOADING HL-93**

Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**

**PRECAST UNITS**

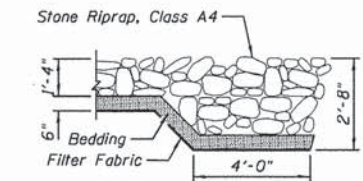
f'c = 5,000 psi  
 fy = 60,000 psi (Reinforcement)  
 fy = 65,000 psi (Welded Wire Fabric)

**FIELD UNITS**

f'c = 3,500 psi (Cast-In-Place Concrete)  
 fy = 60,000 psi (Reinforcement)  
 fy = 65,000 psi (Welded Wire Fabric)  
 fy = 50,000 psi (ASTM A588 Steel Sheet Piling)

**INDEX OF SHEETS**

SHEET NO.	TITLE
C1	GENERAL PLAN AND ELEVATION
C2	GENERAL DATA
C3	CONCRETE END SECTION
C4	PERMANENT STEEL SHEET PILING DROP STRUCTURE
C5	SOIL BORING LOG

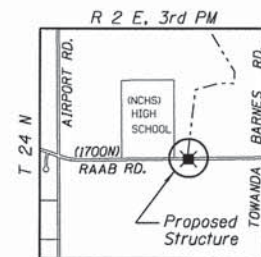


**SECTION A-A**

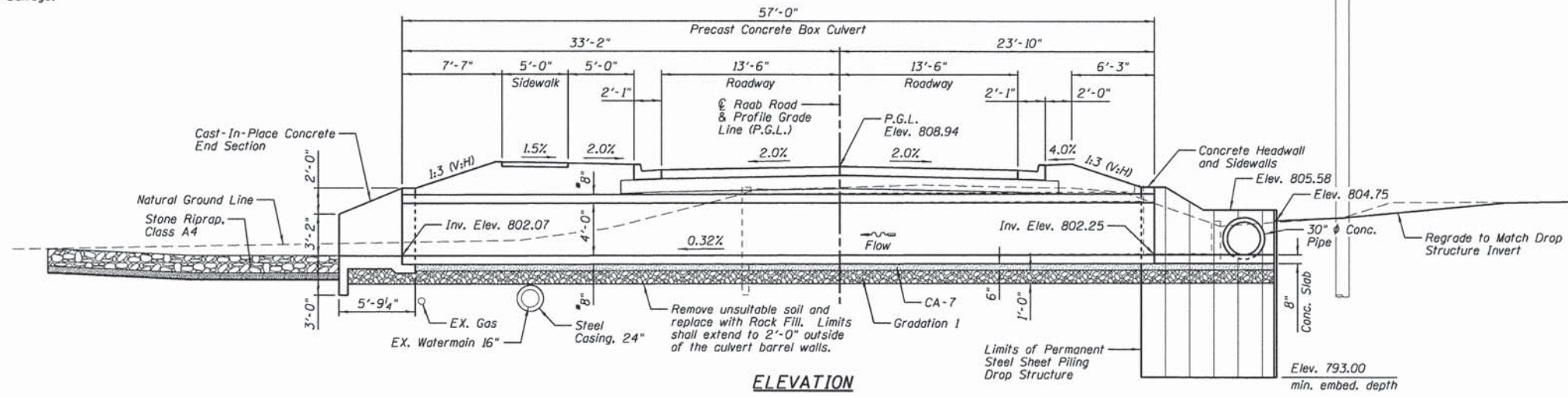


Joseph M. Lowrance Date 8-31-15  
 JOSEPH M. LOWRANCE  
 ILLINOIS STRUCTURAL ENGINEER  
 NO. 081-006446  
 Exp. Date 11/30/16

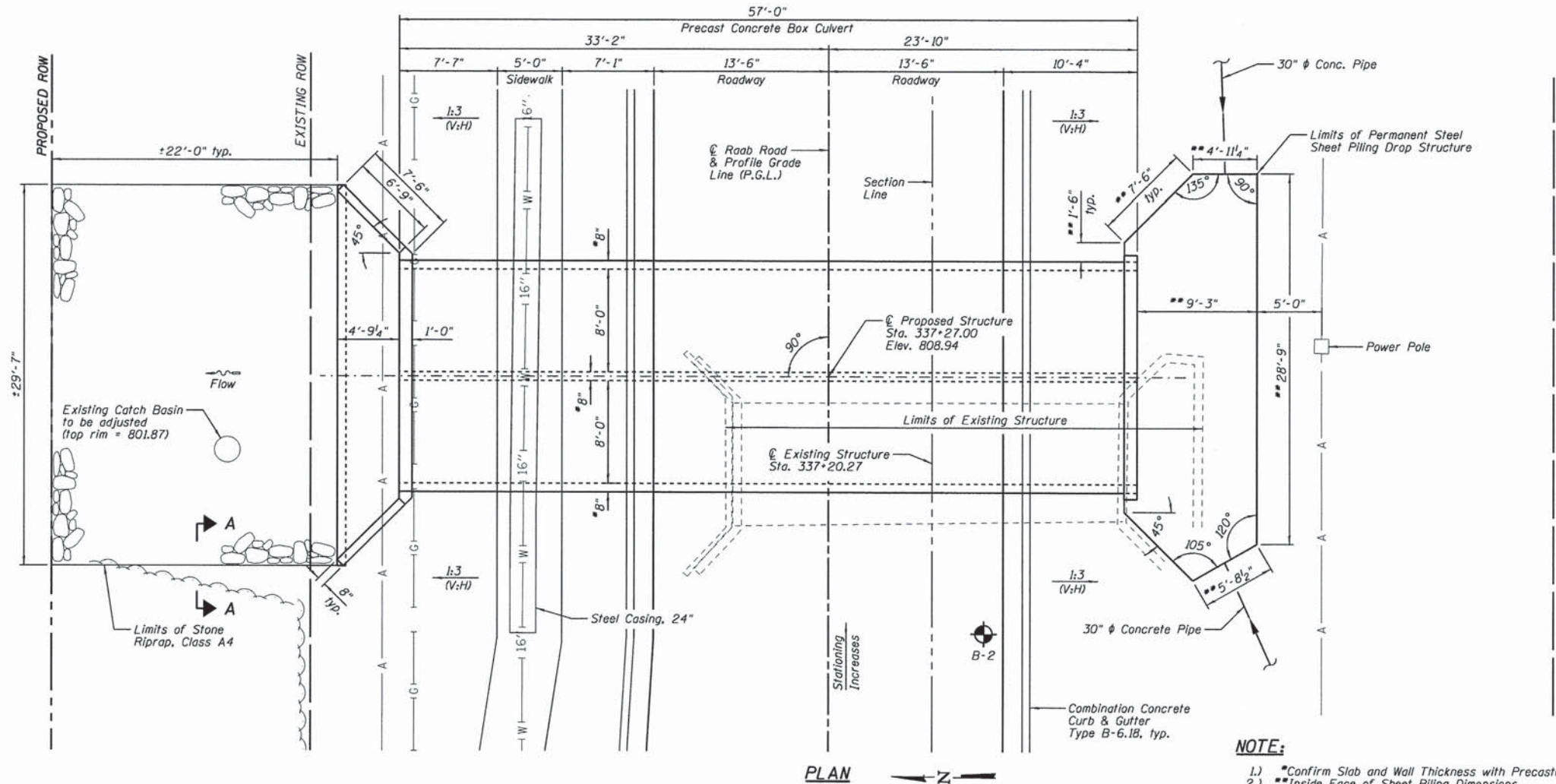
NOTE:  
 Structural Seal does not cover precast portions of the structure.



**RAAB ROAD OVER DRAINAGE DITCH**  
**SECTION 14-00252-00-RP**  
**MCLEAN COUNTY**  
**STATION 337+27.00**



**ELEVATION**



**PLAN**

NOTE:  
 1.) Confirm Slab and Wall Thickness with Precaster.  
 2.) Inside Face of Sheet Piling Dimensions.

**Farnsworth GROUP, INC.**  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

DESIGNED - MSJ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM/MSJ	REVISED
DATE - 08/31/15	CHECKED - JML
	REVISED

**TOWN OF NORMAL**  
**RAAB ROAD**

**GENERAL PLAN AND ELEVATION**

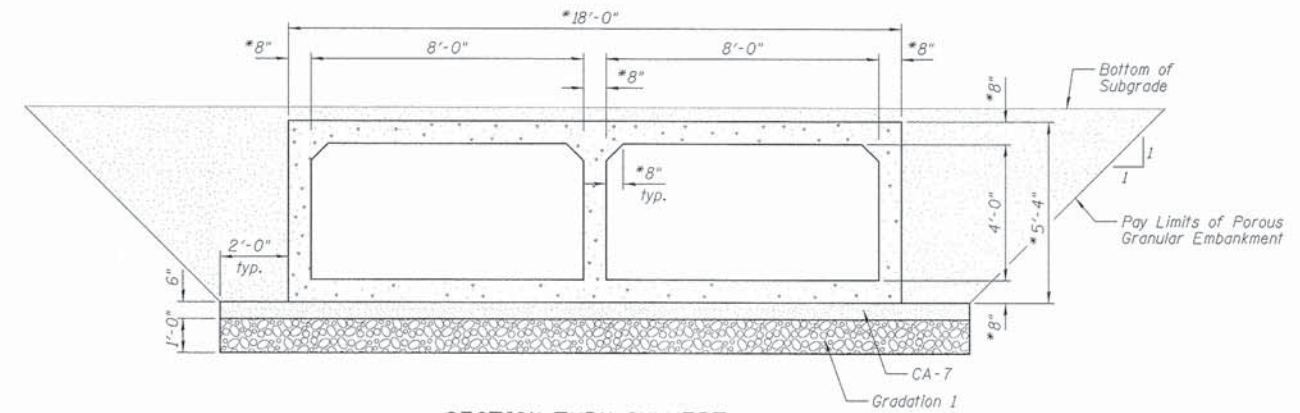
SHEET NO. C1 OF 5 SHEETS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	35
				CONTRACT NO. 91522

ILLINOIS FED. AID PROJECT #M-5221(057)

**GENERAL NOTES**

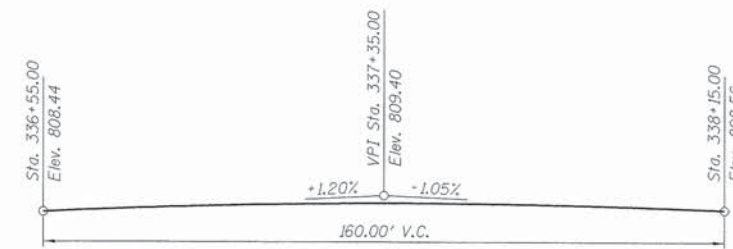
- 1.) Exposed edges shall be beveled  $\frac{3}{4}$ ".
- 2.) For backfilling and embankment, see the Standard Specifications and roadway plans.
- 3.) It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with "Precast Concrete Box Culverts".
- 4.) The Contractor shall field locate and protect all utilities before starting construction. The Contractor shall submit information regarding the protection of all utilities to the Engineer for review.
- 5.) There will be no additional compensation should any reinforcement need to be cut or bent in the field.
- 6.) Reinforcement bars designated (E) shall be epoxy coated.
- 7.) The Precast Concrete Box Culvert shall be constructed in accordance with Article 540.06 of the Standard Specifications and the Special Provision for "Precast Concrete Box Culverts, 8'x4' (Special)".
- 8.) The Precast Concrete Box Culvert sections shall be designed in accordance with the AASHTO LRFD Specifications.
- 9.) The exposed ends of the Precast Concrete Box Culvert shall not have a bell or spigot.
- 10.) The Contractor shall confirm all Precast Concrete Culvert dimensions with the Supplier before starting construction.
- 11.) Drain holes shall be provided in accordance with Article 503.11 of the Standard Specifications.
- 12.) Layout of the Slope Protection System may be varied to suit ground conditions in the field as directed by the Engineer.
- 13.) The pay item "Removal and Disposal of Unsuitable Material for Structures" shall include the excavation of unsuitable material for a depth of 1'-6" below the structure and for a width of approximately 22'-0" within the limits of the toe wall (North end) and permanent steel sheet piling (South end) as shown on the plans. The actual quantity shall be determined in the field by the Engineer.
- 14.) The pay item "Rock Fill" shall include the placement of Gradation 1 and CA-7 below the structure for a width of approximately 22'-0" within the limits of the toe wall (North end) and permanent steel sheet piling (South end) as shown on the plans. The actual quantity shall be determined in the field by the Engineer.
- 15.) The Permanent Steel Sheet Piling shall be driven to the required embedment depth as shown on the plans and then the concrete pipe penetrations shall be cut through the sheet piling as required for the pipe installation. The cost of each pipe penetration shall be included with "Permanent Sheet Piling".



**SECTION THRU CULVERT**  
\*Confirm Slab and Wall Thickness with Precaster

**TOTAL BILL OF MATERIAL**

ITEMS	UNITS	TOTAL
Porous Granular Embankment	Cu. Yd.	126
Stone Riprap, Class A4	Sq. Yd.	73
Filter Fabric	Sq. Yd.	73
Removal of Existing Structures	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	90
Reinforcement Bars, Epoxy Coated	Pound	1,180
Concrete Box Culverts	Cu. Yd.	16.0
Concrete Collar	Cu. Yd.	0.5
Rock Fill	Cu. Yd.	90
Permanent Steel Sheet Piling	Sq. Ft.	725
Precast Concrete Box Culverts, 8' x 4' (Special)	Foot	57



**PROFILE GRADE**  
(Along & Roadway)

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

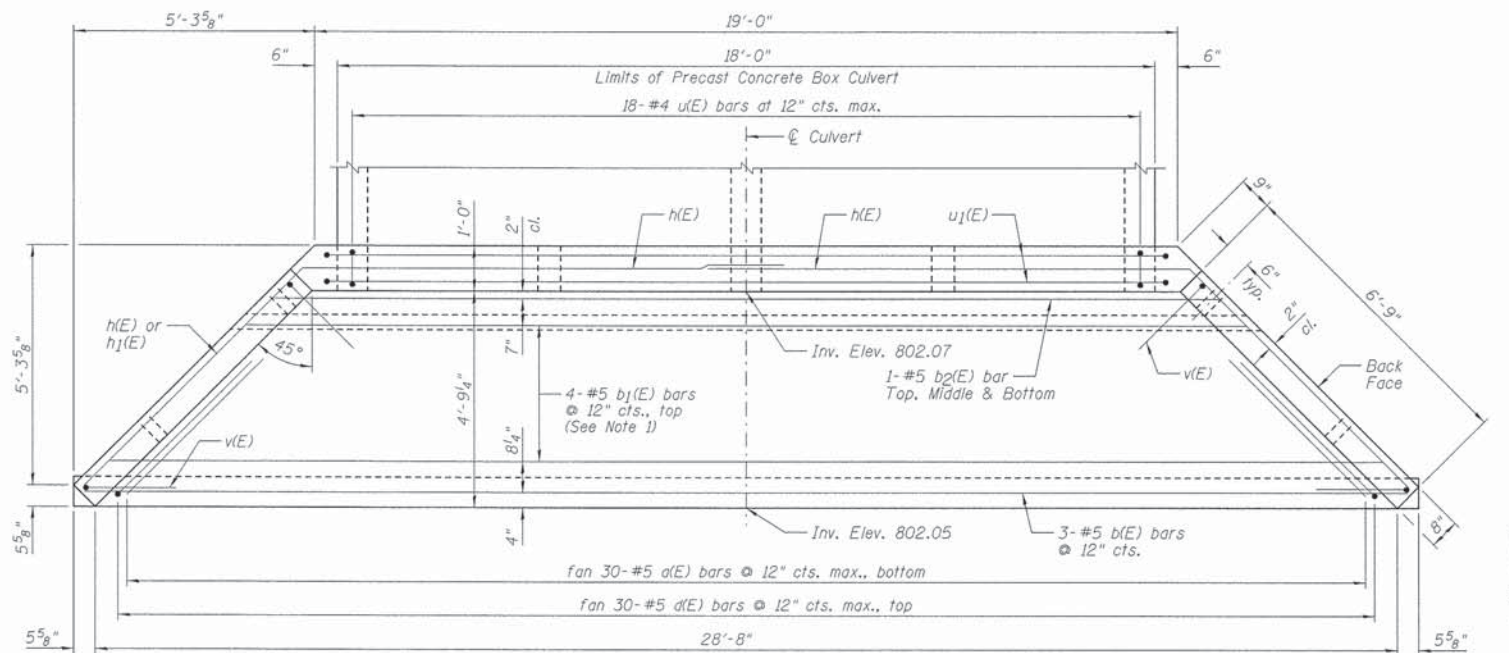
DESIGNED - MSJ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM/MSJ	REVISED
CHECKED - JML	REVISED

**TOWN OF NORMAL  
RAAB ROAD**

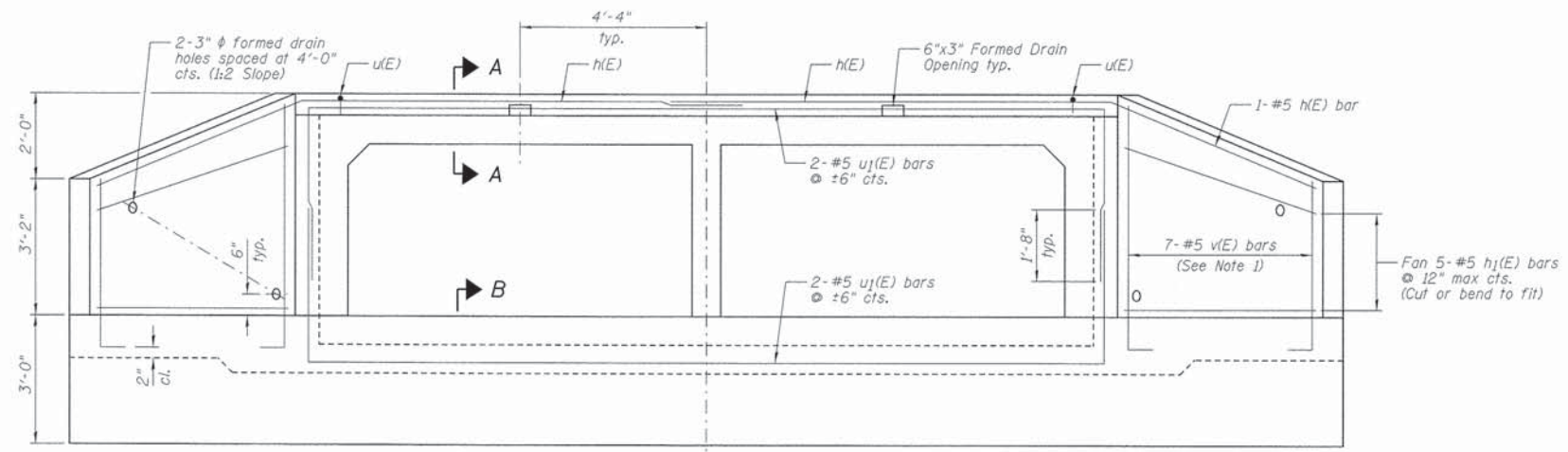
**GENERAL DATA**

SHEET NO. C2 OF 5 SHEETS

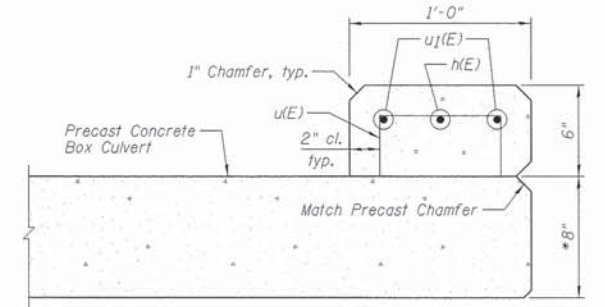
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	36
			CONTRACT NO. 91522	
ILLINOIS FED. AID PROJECT *M-52210571				



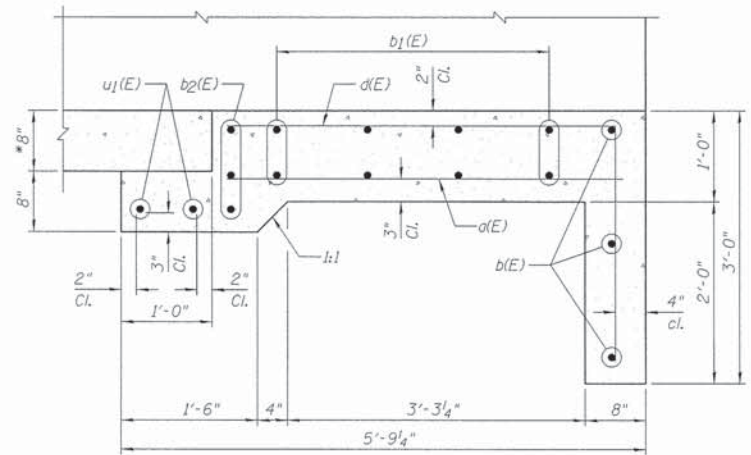
END SECTION PLAN



END SECTION ELEVATION



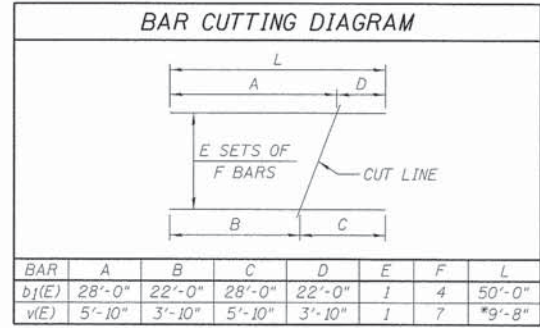
SECTION A-A  
\*Confirm Thickness with Precaster



SECTION B-B  
\*Confirm Thickness with Precaster

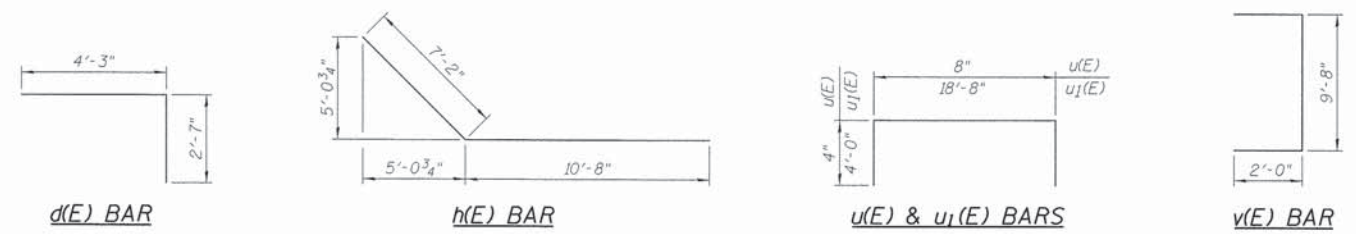
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	30	#5	4'-5"	—
b1(E)	3	#5	29'-1"	—
b2(E)	4	#5	50'-0"	—
b2(E)	3	#5	20'-10"	—
d(E)	30	#5	6'-10"	┌
h(E)	2	#5	17'-10"	┌
h1(E)	10	#5	7'-2"	—
u(E)	18	#4	1'-4"	┌
u1(E)	4	#5	26'-8"	┌
v(E)	7	#5	13'-8"	└
Item	Unit	Quantity		
Reinforcement Bars, Epoxy Coated	Pound	1,060		
Concrete Box Culverts	Cu. Yd.	8.6		



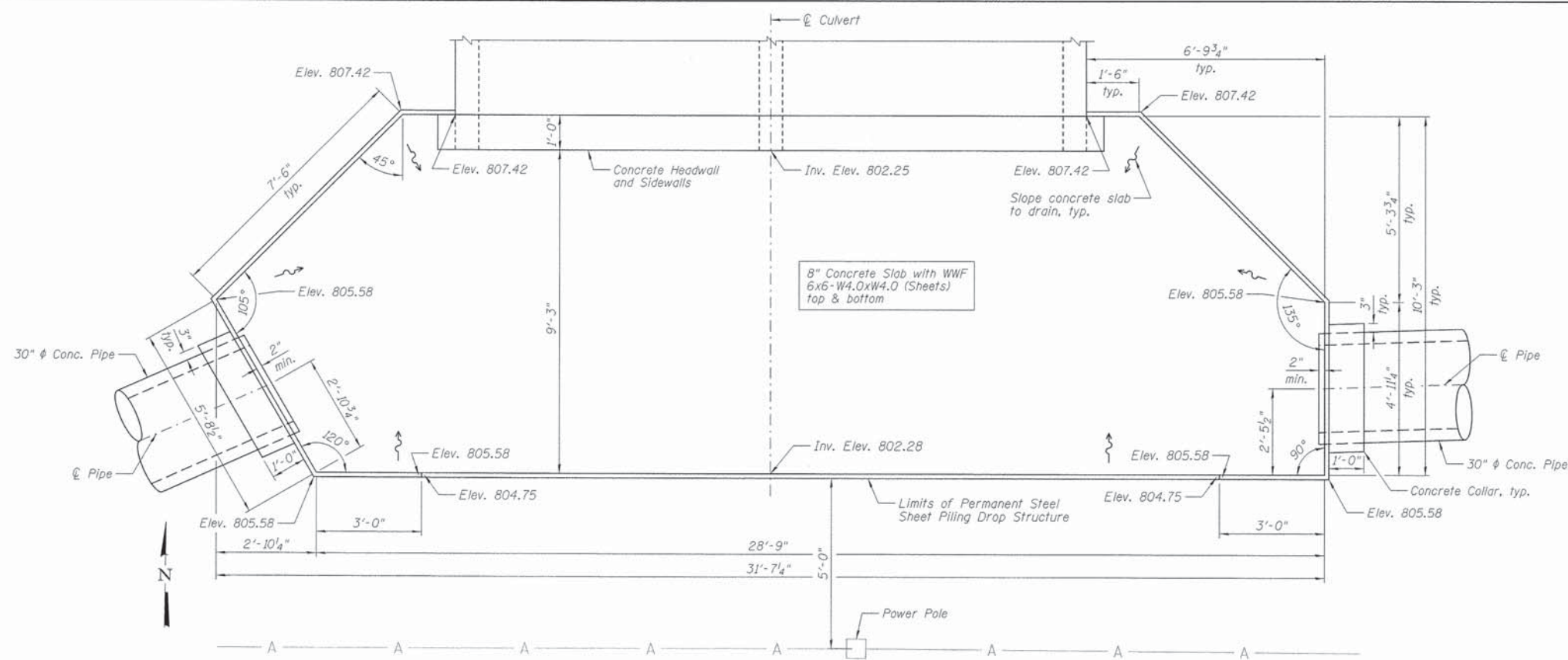
BAR	A	B	C	D	E	F	L
b1(E)	28'-0"	22'-0"	28'-0"	22'-0"	1	4	50'-0"
v(E)	5'-10"	3'-10"	5'-10"	3'-10"	1	7	9'-8"

\*Cut length of v(E) bars does not include the 2'-0" bent legs.

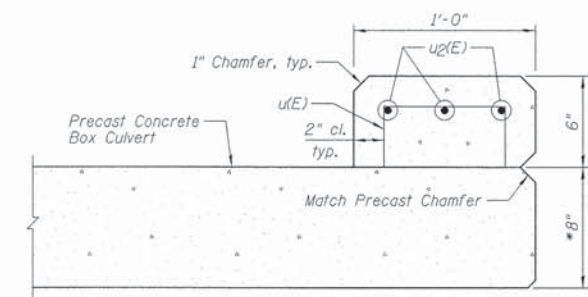


- NOTES:
- Order b1(E) & v(E) bars full length. Cut according to the Bar Cutting Diagram. Use remainder of b1(E) bars in bottom of slab and remainder of v(E) bars in opposite wingwall.
  - Minimum bar lap: #5 = 1'-8".
  - The volume of concrete for the concrete end section shall be paid for as "Concrete Box Culverts".

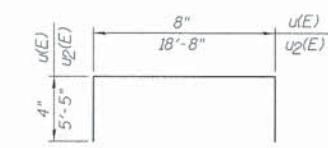
<b>Farnsworth GROUP, INC.</b> 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1971 fax	DESIGNED - MSJ	REVISIONS	<b>TOWN OF NORMAL RAAB ROAD</b>	<b>CONCRETE END SECTION</b>	F.A.U. RTE. 6435	SECTION 14-00252-00-RP	COUNTY McLEAN	TOTAL SHEETS 56	SHEET NO. 37
	CHECKED - JML	REVISIONS			DATE - 08/31/15	CHECKED - JML	REVISIONS	SHEET NO. C3 OF 5 SHEETS	



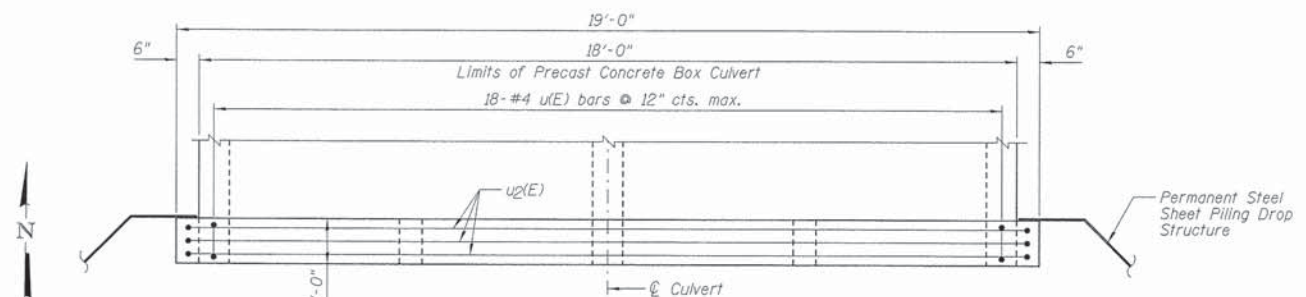
**DROP STRUCTURE PLAN**



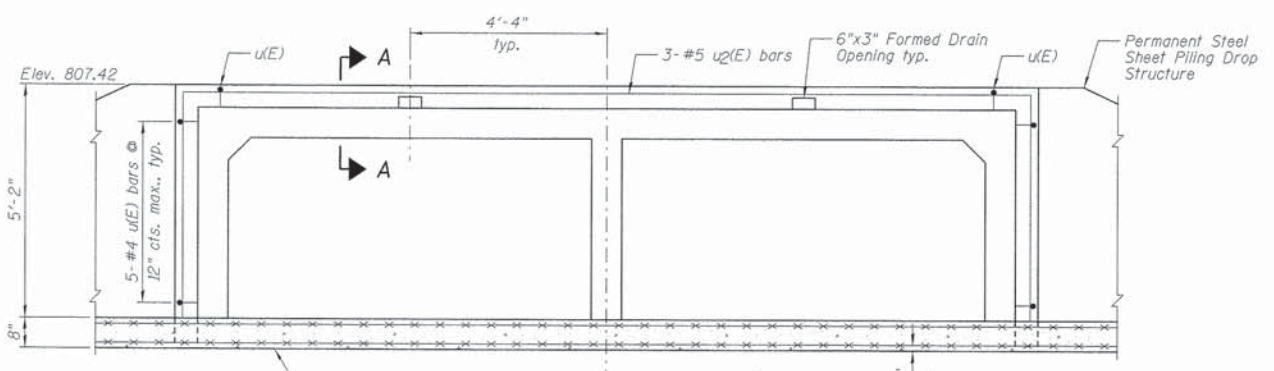
**SECTION A-A**  
\*Confirm Thickness with Precaster



**u(E) & u<sub>2</sub>(E) BARS**



**CONCRETE HEADWALL AND SIDEWALL PLAN**



**CONCRETE HEADWALL AND SIDEWALL ELEVATION**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
u(E)	28	#4	1'-4"	□
u <sub>2</sub> (E)	3	#5	29'-6"	□
Item	Unit	Quantity		
Reinforcement Bars, Epoxy Coated	Pound	120		
Concrete Box Culverts	Cu. Yd.	7.4		
Concrete Collar	Cu. Yd.	0.5		
Permanent Steel Sheet Piling	Sq. Ft.	725		

**NOTES:**

- 1.) The Permanent Steel Sheet Piling shall have a minimum elastic modulus of 3.3 in.<sup>3</sup>/ft. and a minimum moment of inertia of 5.3 in.<sup>4</sup>/ft. (similar to a PS 31 Section).
- 2.) All Sheet Piling Joints above pipe penetrations shall be welded. All welds shall have corrosion resistance and weathering characteristics compatible with the base material.
- 3.) The dimensions of the Permanent Steel Sheet Piling drop structure may change depending on the sheet piling section utilized and Precast Concrete Box Culvert dimensions. In no case shall the South wall of the drop structure be closer than 5' from the center of the existing adjacent power pole. No additional compensation will be provided for dimensional variations.
- 4.) The sheet piling sections are allowed to extend past each other at corner locations as long as a bent plate (ASTM A588) is welded to each sheet piling section in order to create a water tight corner/structure.
- 5.) The tops of the sheet piling shall be carefully cut to the elevations noted on the plans (straight and accurate).
- 6.) The volume of concrete for the Concrete Headwall and Sidewalls shall be paid for as "Concrete Box Culverts".
- 7.) The volume of concrete for the 8" Concrete Slab shall be paid for as "Concrete Box Culverts".

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - MSJ	REVISED
CHECKED - JML	REVISED
DRAWN - DJM/MSJ	REVISED
CHECKED - JML	REVISED

**TOWN OF NORMAL  
RAAB ROAD**

**PERMANENT STEEL SHEET PILING DROP STRUCTURE**

F.A.U. RTE. 6435	SECTION 14-00252-00-RP	COUNTY McLEAN	TOTAL SHEETS 56	SHEET NO. 38
			CONTRACT NO. 91522	

SHEET NO. C4 OF 5 SHEETS

ILLINOIS FED. AID PROJECT \*M-52210571

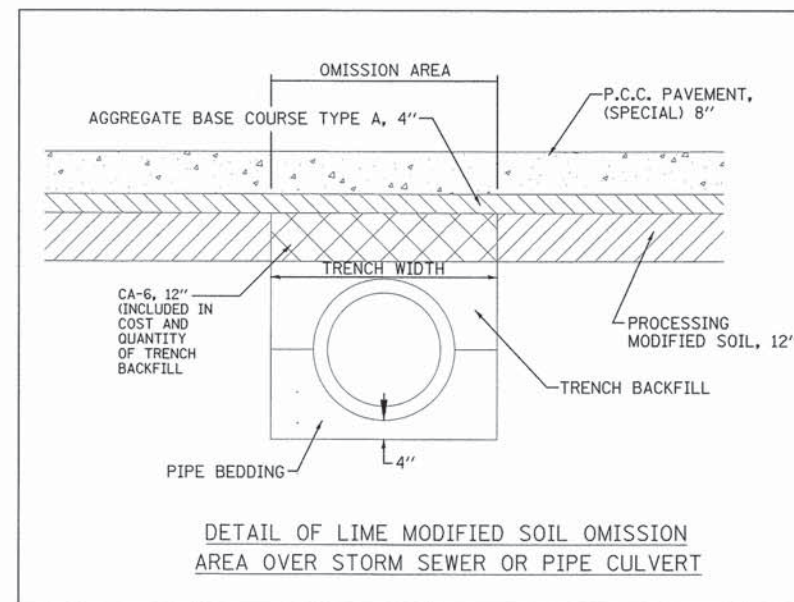
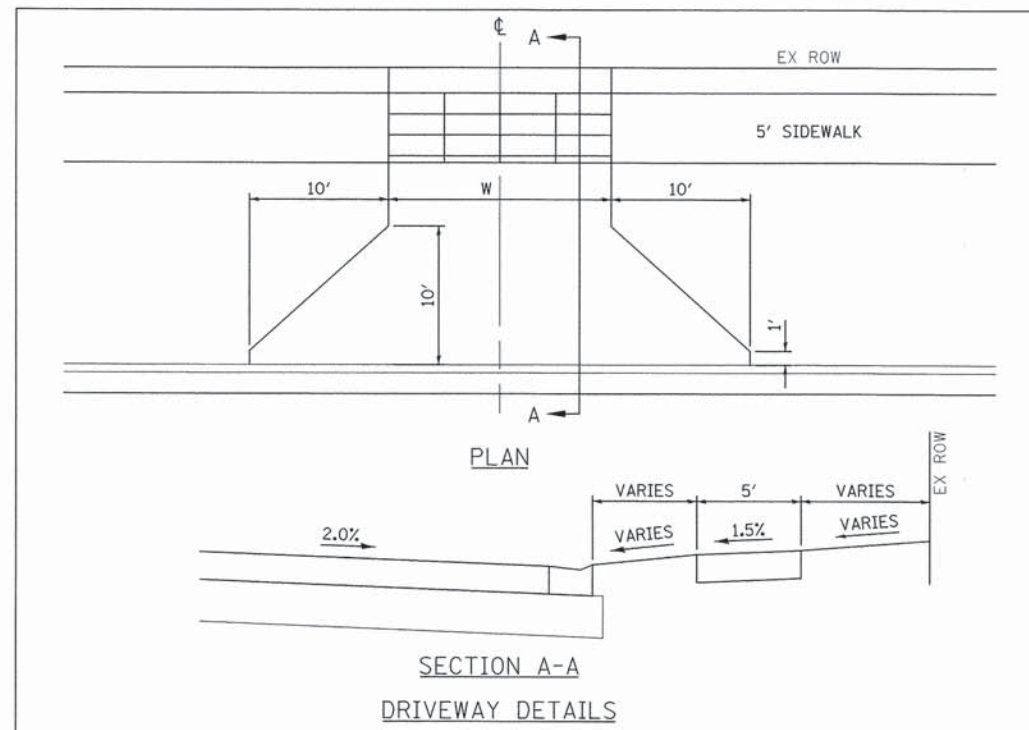
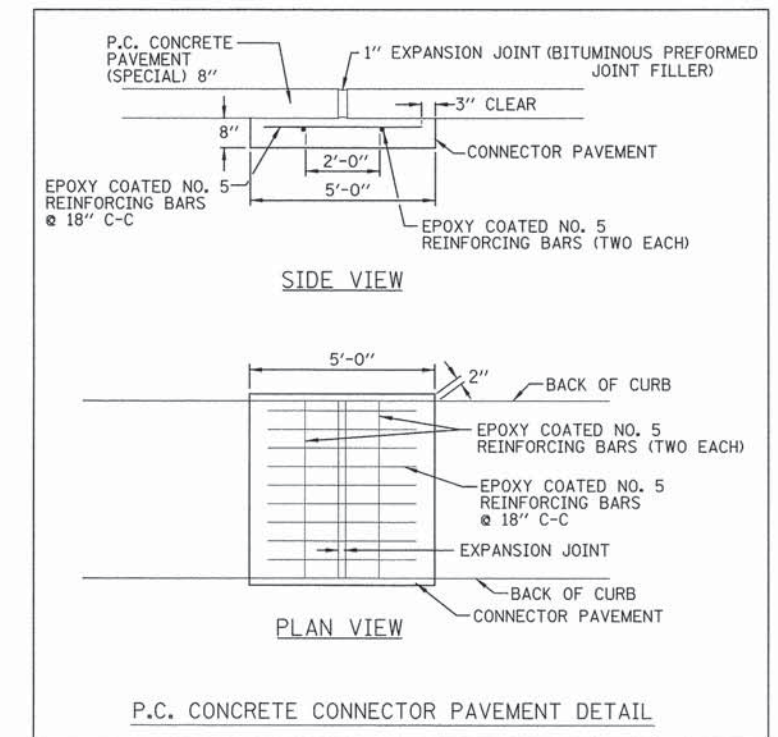
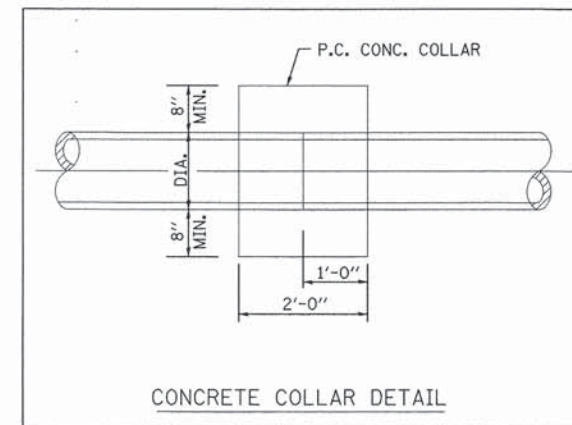
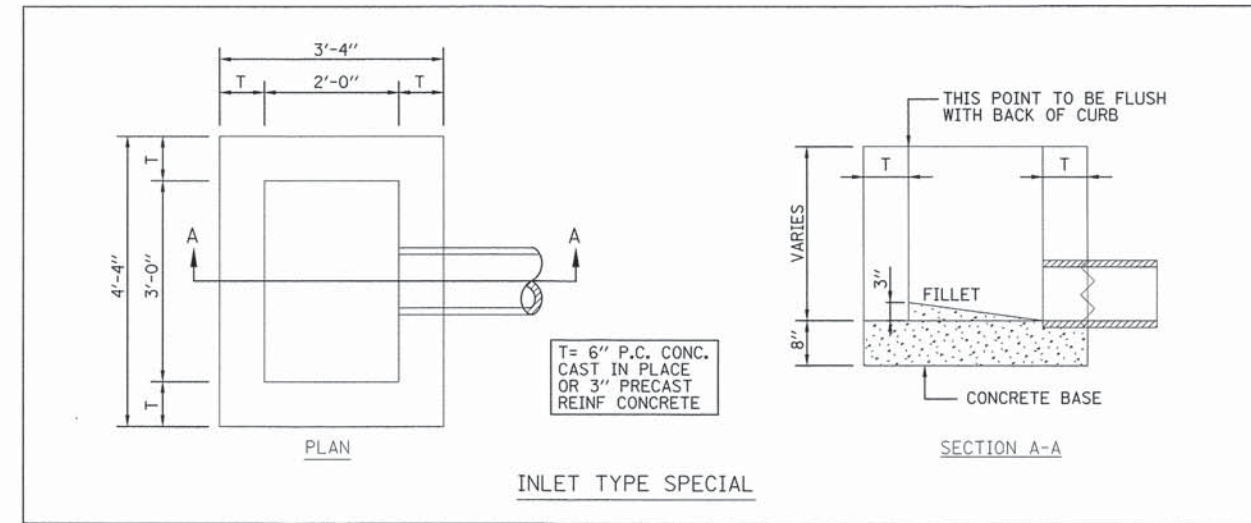
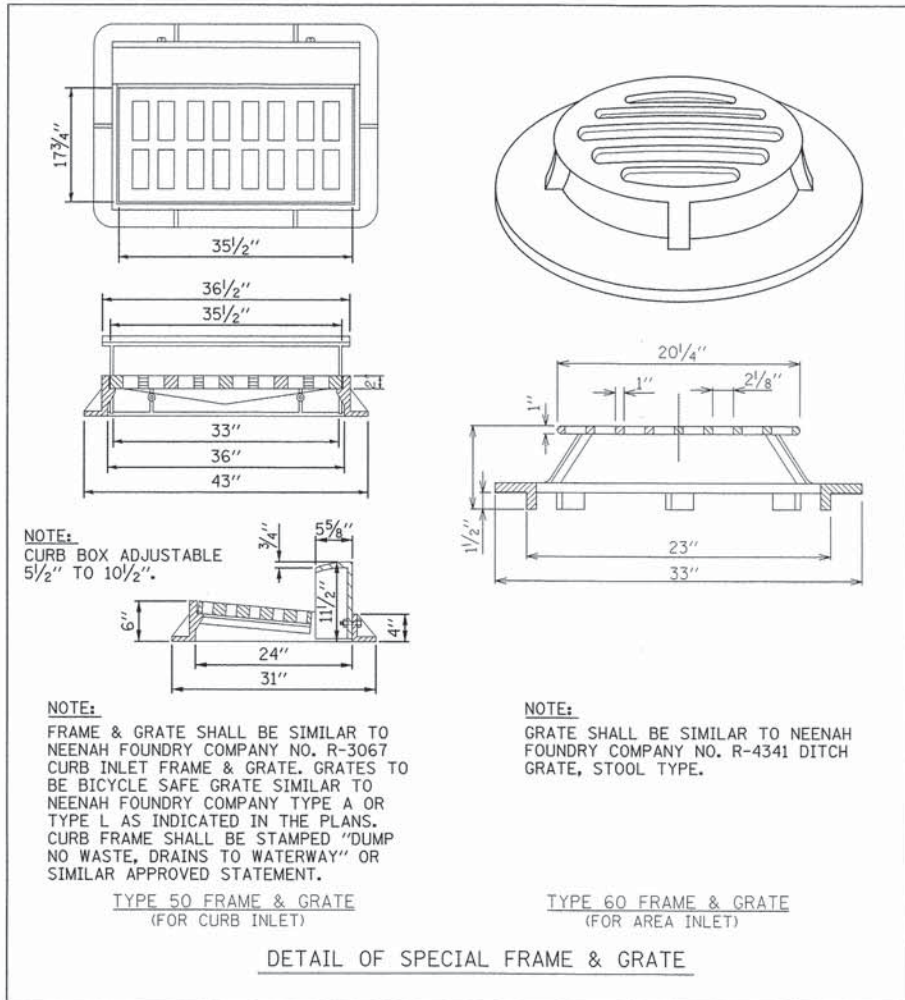
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 Ramsey Geotechnical Engineering  
 STRUCTURE BORING LOG

Page 1 of 1  
 Date 8/4/14

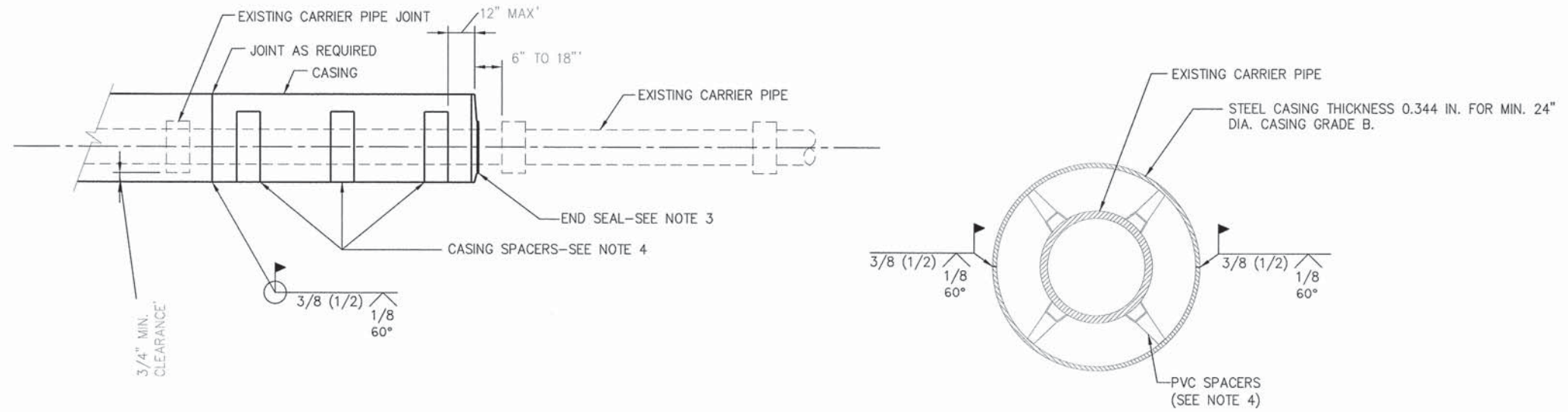
ROUTE Raab Road DESCRIPTION \_\_\_\_\_  
 SECT. \_\_\_\_\_ STRUCT. NO. \_\_\_\_\_ DRILLED BY BW  
 COUNTY McLean LOCATION Normal S. 19, TWP. 24N, RNG. 3E

Boring No.	Station	Offset	Surface Elev.	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev.	Groundwater Elev.:	D E P T H	B L O W S	Qu tsf	W %
B-2	337+07	12.00ft RT	807.40 ft						795.4				
Aggregate Shoulder 807.00								Stiff gray SILTY LOAM					
Stiff to medium stiff dark brown SILTY CLAY LOAM					3	P	23						
					4	1.25							
					4								
					2	P	35				3	B	13
					1	0.75					4	1.31	
					2						5		
				-5					777.40	-30			
Very soft brown-gray SILTY CLAY LOAM 801.40								End of Boring at 30'					
					2	P	22						
					1	0.25							
					3								
					2	P	22						
					3	0.5							
				-10	3								
					3	P	23						
					3	0.25							
					3								
					2	P	22						
					1	0.25							
				-15	3								
Stiff to very stiff gray SILTY LOAM 791.40													
					3	B	13						
					4	1.31							
					4								
					4	B	12						
					4	1.80							
				-20	5								
					4	B	12						
					5	2.58							
				-25	6								
					4	B	12						
					5	2.58							
				-30	6								
					4	B	12						
					5	2.58							
				-35	6								
					4	B	12						
					5	2.58							
				-40	6								
					4	B	12						
					5	2.58							
				-45	6								
					4	B	12						
					5	2.58							
				-50	6								

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations. Depths. Offset. and Elevations are in Feet







**Notes:**

1. CASING PIPE SHALL CONFORM TO ASTM A139, GRADE B, WITH 60,000 PSI MINIMUM TENSILE STRENGTH AND BE OF LEAK PROOF CONSTRUCTION. MIN. DIA. SHALL BE 24" WITH BIT. COATING ON INSIDE AND OUT.
2. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
3. END SEAL - EACH END OF THE CASING SHALL BE FITTED WITH AN END SEAL INSTALLED AS SHOWN AND SECURELY FASTENED WITH SST CLAMPS.
4. THE END SEAL SHALL BE 1/8" THICK (MIN.) RUBBER, CASCADE WATERWORKS MANUFACTURING MODEL CCES. CASING SPACERS - MINIMUM 3 SETS PER NOMINAL LENGTH OF CARRIER PIPE. CASING SPACERS SHALL BE PLACED 3 FEET FROM EACH PIPE END AND IN THE CENTER OF THE PIPE JOINT. CASING SPACERS SHALL BE MANUFACTURED BY CASCADE WATERWORKS MANUFACTURING AND SHALL BE MODEL CCS.
5. BACKFILL WITH TRENCH BACKFILL ACCORDING TO SECTION 208 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
6. ALL WELDS SHALL BE MADE WITH E70-XX LOW HYDROGEN ELECTRODES.

**Farnsworth**  
GROUP, INC.  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

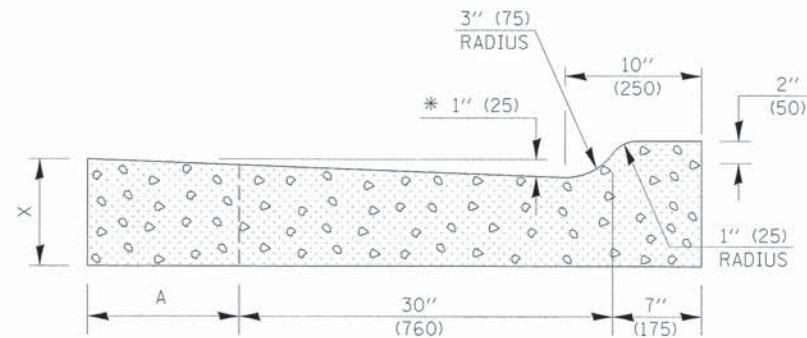
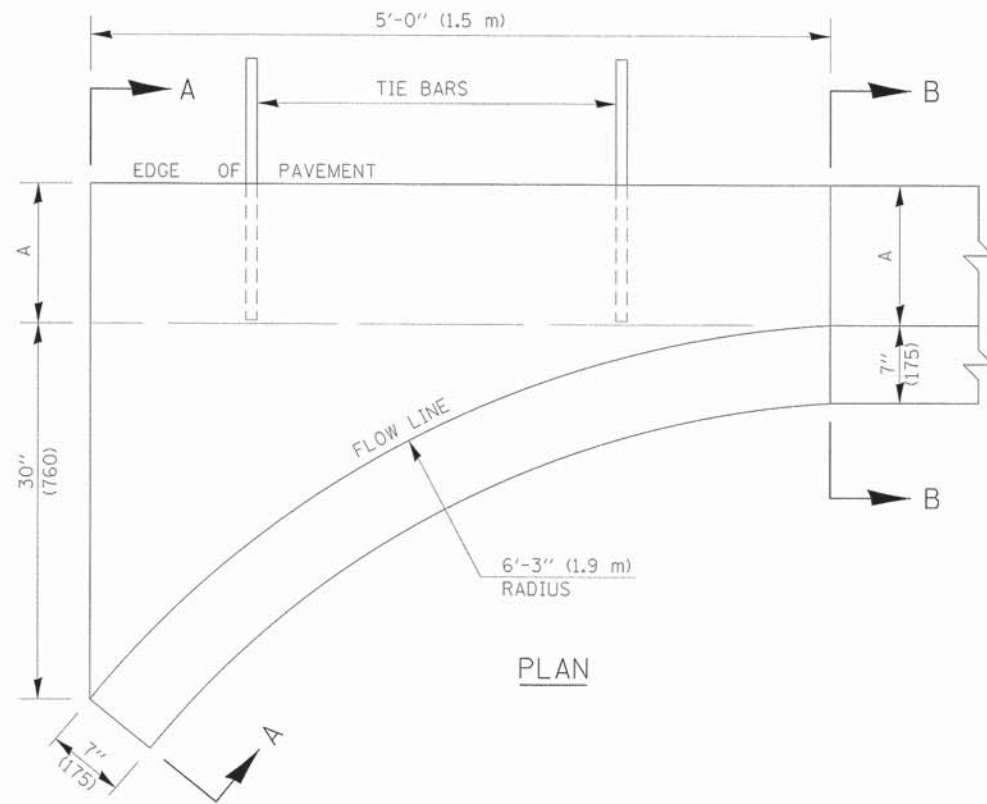
DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

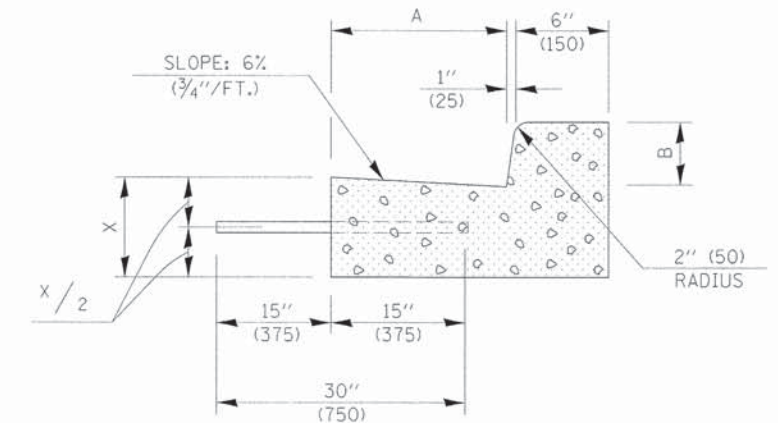
**MISCELLANEOUS DETAILS**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	41
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	

SCALE: N.T.S. SHEET 2 OF 7 SHEETS STA. 333+61.37 TO STA. 357+40.56



SECTION A-A



SECTION B-B

\* INCREASE TO 2" (50 mm) WHERE IN THE PLANS IT IS SPECIFIED THAT THESE SPECIAL INLETS ARE TO BE CONSTRUCTED AS OUTLETS. ALL OUTLET LOCATIONS WILL BE CONFIRMED BY THE ENGINEER.

GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. TIE BARS SHALL BE NO. 6 (NO. 20) AT 24" (600 mm) CENTERS UNLESS OTHERWISE SHOWN. SPECIAL INLETS AND OUTLETS SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.
3. TIE BARS SHOWN ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL TO CLASS SI CONCRETE (OUTLET).
4. WHEN SPECIAL INLET IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, THE TIE BARS SHALL BE OMITTED AND ALL CONSTRUCTION JOINTS SHALL BE PROVIDED WITH A DOWEL BAR CONFORMING TO ARTICLE 1006.11(b).
5. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU. YD. (m<sup>3</sup>) FOR CLASS SI CONCRETE (OUTLET) WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

	B-6.12 (B-15.30)	B-9.12 (B-22.30)	B-6.18 (B-15.45)	B-9.18 (B-22.45)	B-6.24 (B-15.60)	B-9.24 (B-22.60)
A	12" (300)	12" (300)	12" (300)	18" (450)	18" (450)	24" (600)
B	6" (150)	6" (150)	9" (225)	9" (225)	6" (150)	9" (225)
X	9" (225)	10" (250)	9" (225)	10" (250)	9" (225)	10" (250)
CU. YD. (m <sup>3</sup> )	0.37 (0.28)	0.42 (0.32)	0.38 (0.29)	0.42 (0.32)	0.44 (0.34)	0.49 (0.37)
CLASS SI CONCRETE (OUTLET)	0.37 (0.28)	0.42 (0.32)	0.38 (0.29)	0.42 (0.32)	0.44 (0.34)	0.49 (0.37)

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 60600095A

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	42
CONTRACT NO. 91522				

**Farnsworth**  
GROUP, INC.  
2709 McDraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

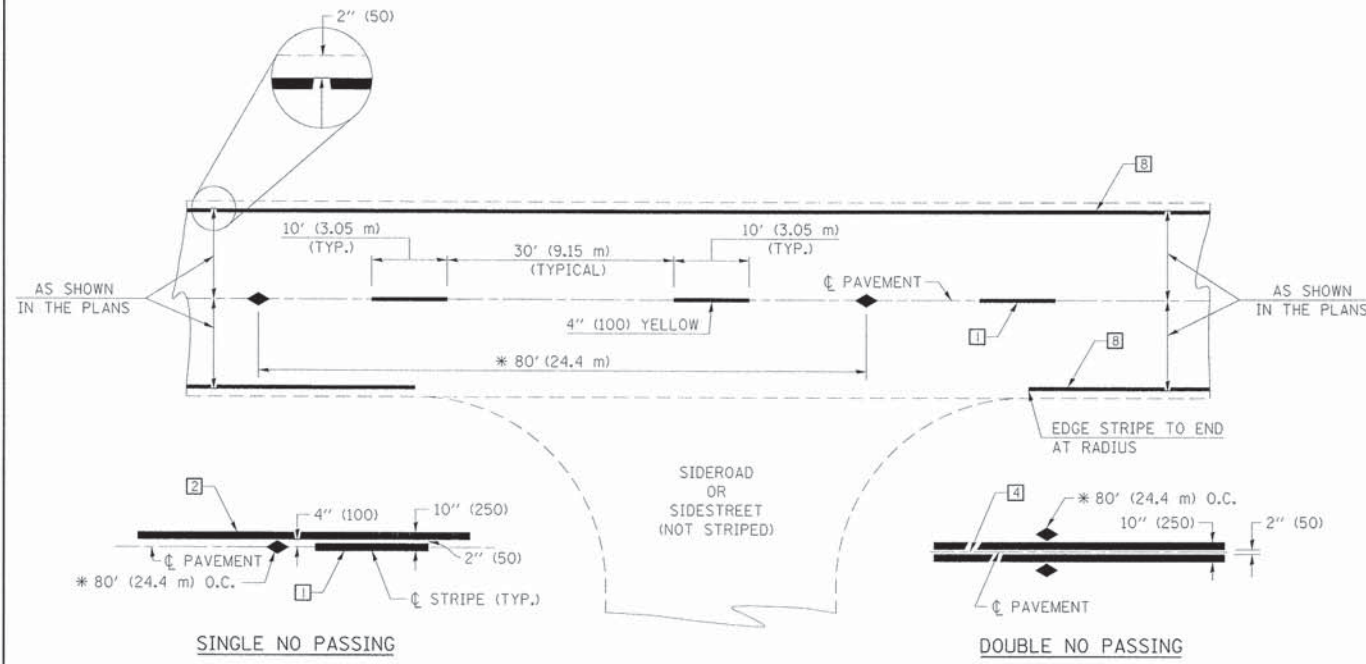
DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

TOWN OF NORMAL  
RAAB ROAD

INLET - COMBINATION CONCRETE CURB & GUTTER (BARRIER CURB)

SCALE: N.T.S. SHEET 3 OF 7 SHEETS STA. 333+61.37 TO STA. 357+40.56

ILLINOIS FED. AID PROJECT \*M-5227(057)



\* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

**TWO LANE/TWO WAY**

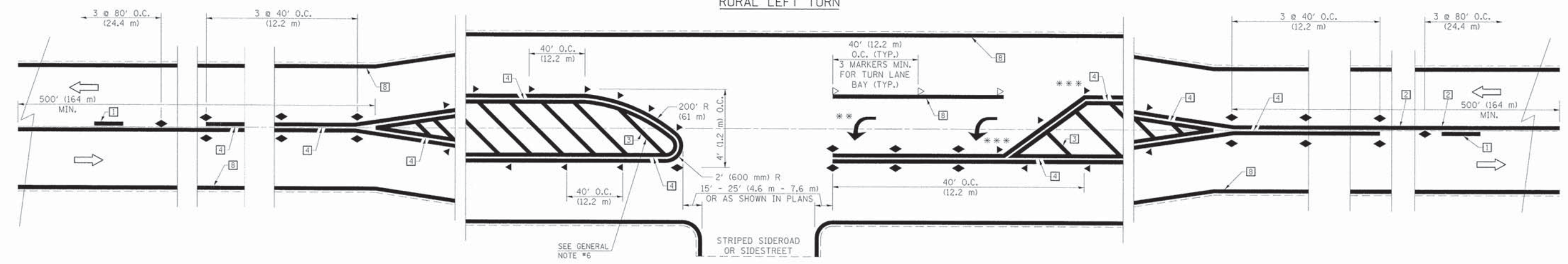
**TYPICAL PAVEMENT MARKING LEGEND**

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

**TYPICAL PAVEMENT MARKERS LEGEND**

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

**RURAL LEFT TURN**



\*\*\* REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.  
 \*\* TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

**DISTRICT 5 DETAIL NO. 7800AAAA**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	43
			CONTRACT NO. 91522	
(ILLINOIS) FED. AID PROJECT *M-5227(057)				

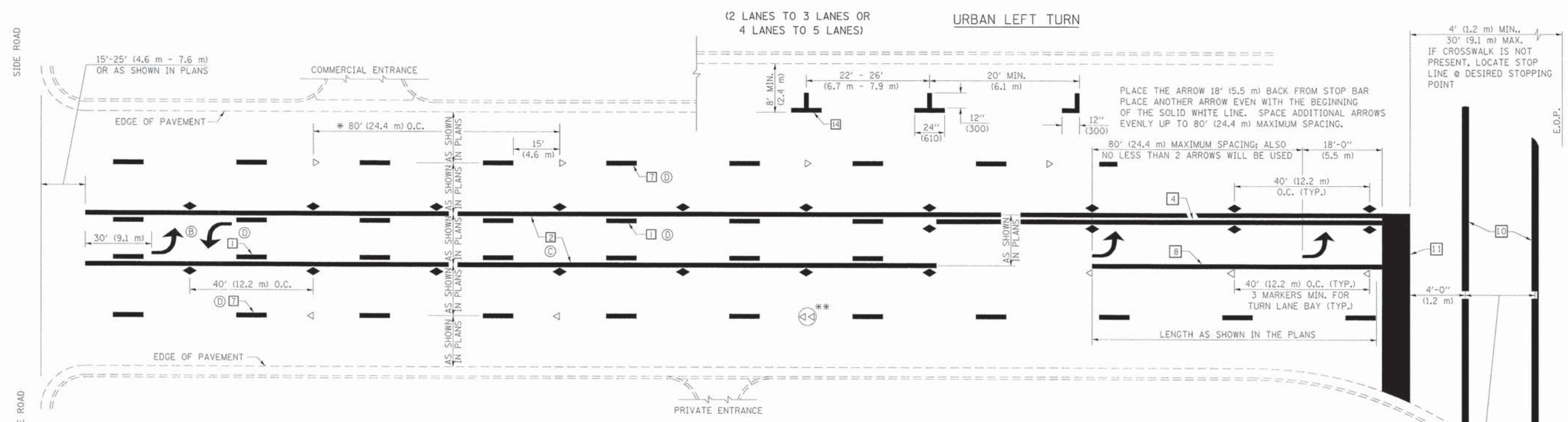
**Farnsworth GROUP, INC.**  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

DESIGNED	REVISIONS
LAT	REVISIONS
LAT	REVISIONS
ERB	REVISIONS
08/31/15	REVISIONS

**TOWN OF NORMAL  
 RAAB ROAD**

**PAVEMENT MARKING AND MARKERS  
 (RURAL & URBAN APPLICATIONS)**

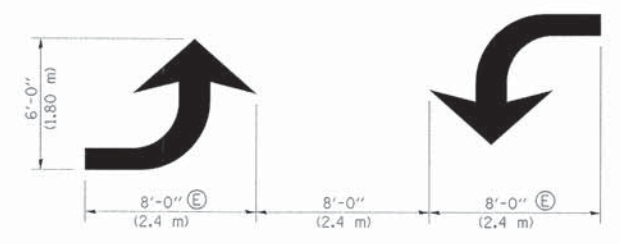
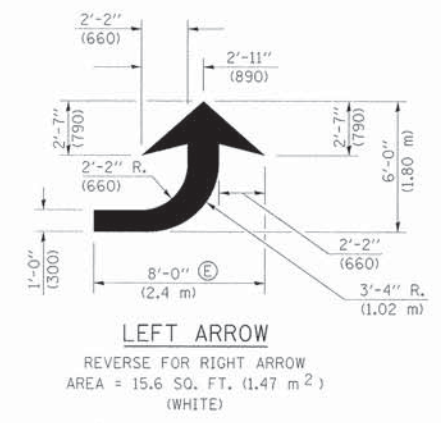
SCALE: N.T.S. SHEET 4 OF 7 SHEETS STA. 333+61.37 TO STA. 357+40.56



\* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

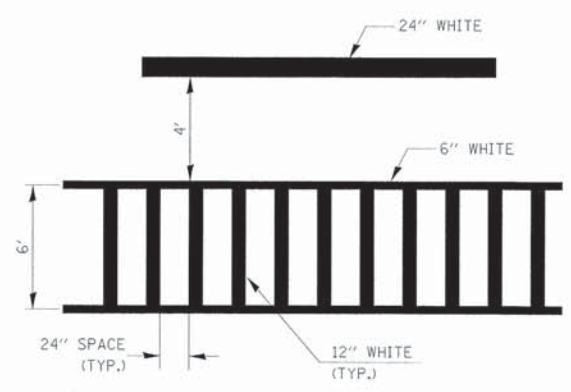
\*\* DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

- GENERAL NOTES:**
- (B) TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
  - (C) THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
  - (D) THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
  - (E) USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)

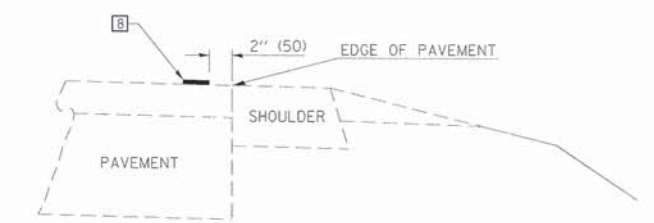


TYPICAL DOUBLE TURN ARROWS (WHITE)

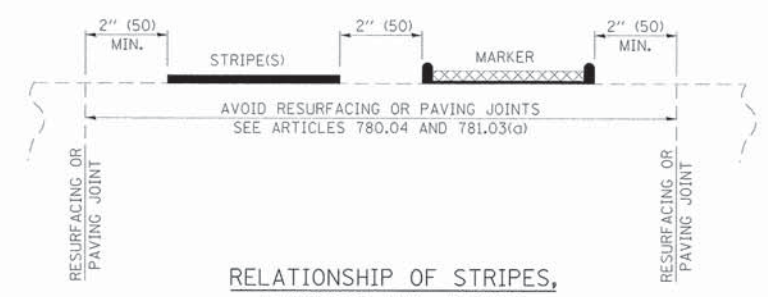
**BLOOMINGTON-NORMAL CITY LIMITS ONLY**



TYPICAL SPACING FOR CROSSWALKS & STOP BARS



RELATIONSHIP OF EDGE LINE TO EDGE OF PAVEMENT (SAFETY SHOULDER OR PAVED SURFACE) SEE ARTICLE 780.04



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

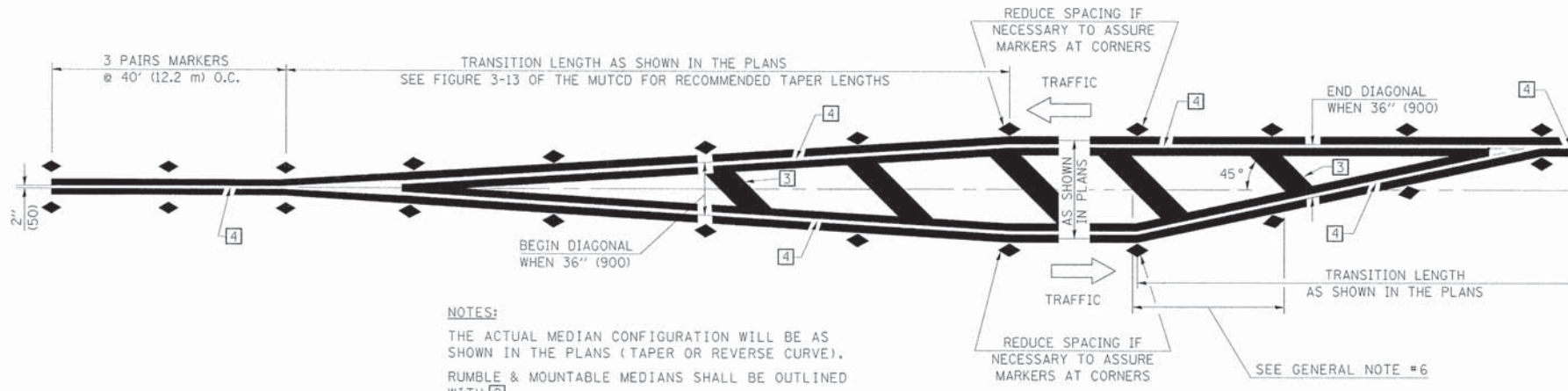
DISTRICT 5 DETAIL NO. 7800AAAA				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	44
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-52270571	

**Farnsworth GROUP, INC.**  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
 RAAB ROAD**

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)			
SCALE: N.T.S.	SHEET 5 OF 7 SHEETS	STA. 333+61.37 TO STA. 357+40.56	

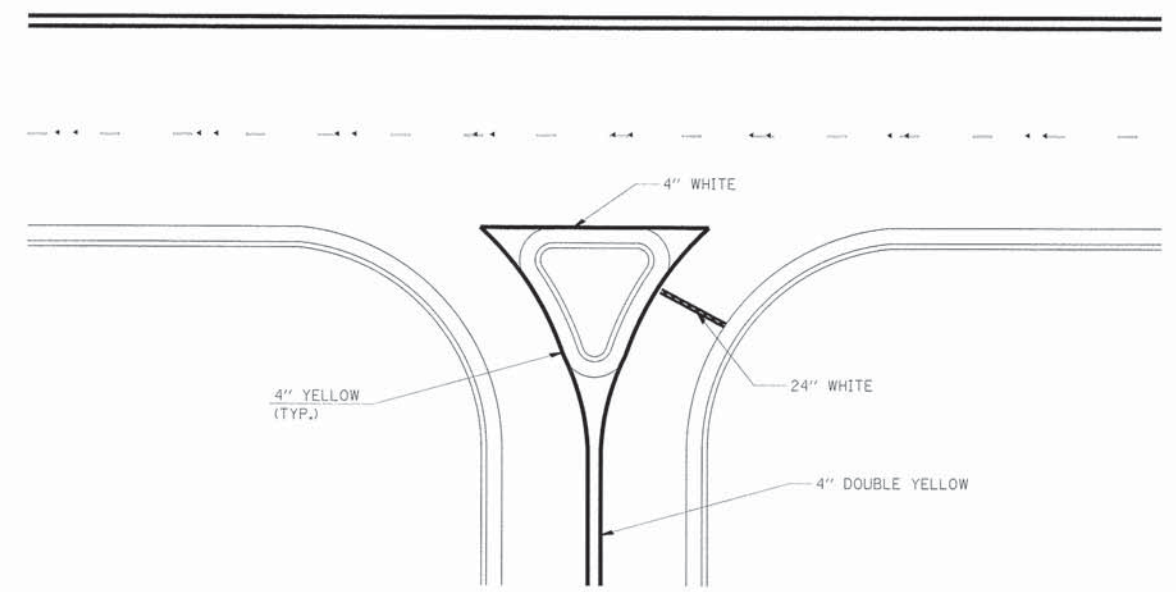


**NOTES:**  
 THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).  
 RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

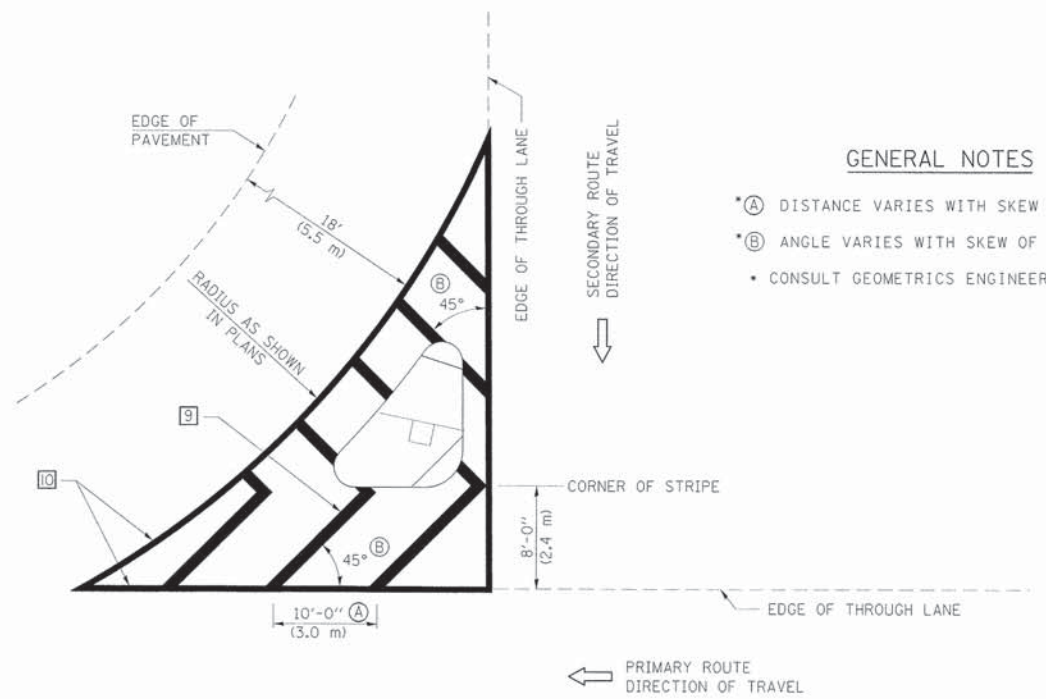
**TYPICAL MEDIAN TRANSITIONS**

**GENERAL NOTES**

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,  
 <30 MPH USE 15' (<50 km/h USE 4.5 m)  
 30-45 MPH USE 20' (50-75 km/h USE 6.0 m)  
 >45 MPH USE 30' (>75 km/h USE 9.0 m)



**RIGHT IN - RIGHT OUT ACCESS**



**GENERAL NOTES**

- \*A DISTANCE VARIES WITH SKEW OF INTERSECTION.
- \*B ANGLE VARIES WITH SKEW OF INTERSECTION.
- CONSULT GEOMETRICS ENGINEER

**ISLAND**

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

**DISTRICT 5 DETAIL NO. 7800AAAA**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	45
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	

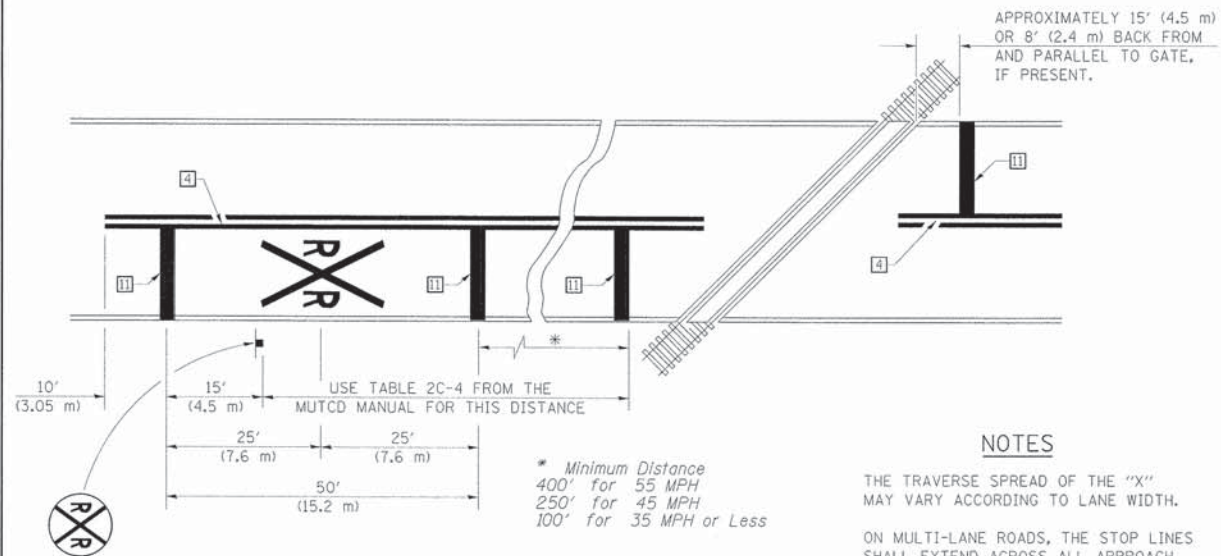
**Farnsworth GROUP, INC.**  
 2709 McGraw Drive  
 Bloomington, Illinois 61704  
 309/663-8435, 309/663-1571 fax

DESIGNED - LAT	REVISED -
DRAWN - LAT	REVISED -
CHECKED - ERB	REVISED -
DATE - 08/31/15	REVISED -

**TOWN OF NORMAL  
 RAAB ROAD**

**PAVEMENT MARKING AND MARKERS  
 (RURAL & URBAN APPLICATIONS)**

SCALE: N.T.S. SHEET 6 OF 7 SHEETS STA. 333+61.37 TO STA. 357+40.56



**PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING**

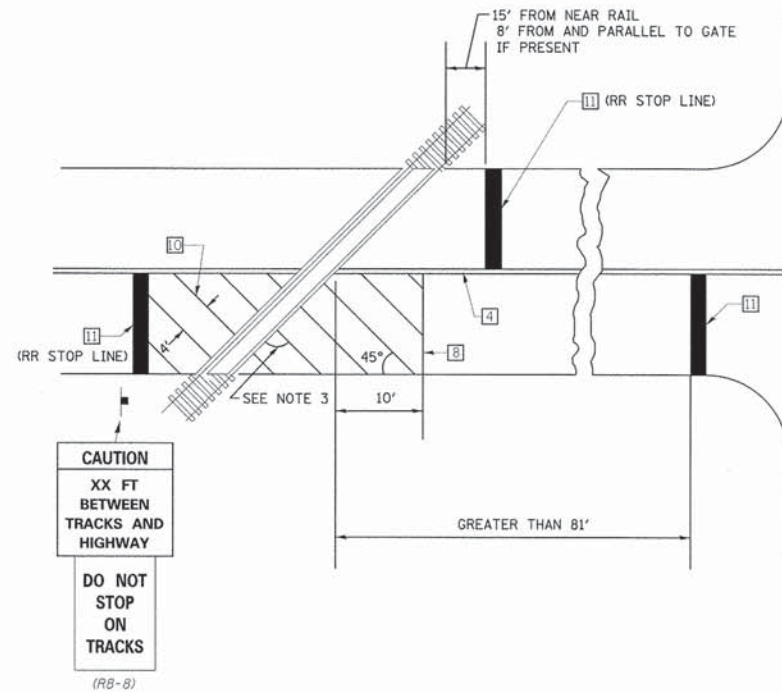
**NOTES**

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

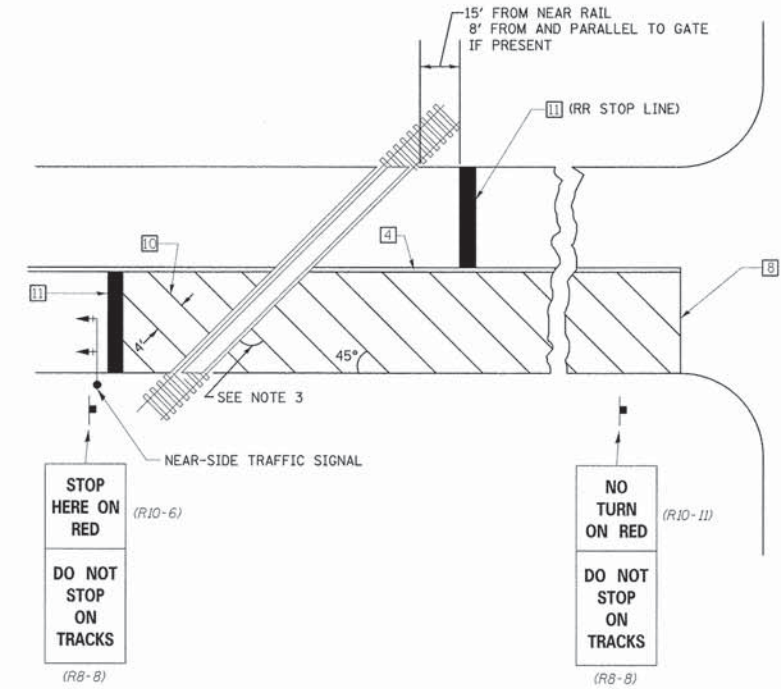
ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

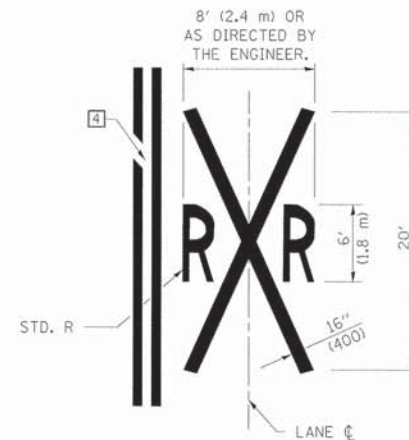
**RAILROAD CROSSING WITH INTERCONNECT ONLY**



**RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS**



**SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING**



**GENERAL NOTES**

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
- WHERE THE ANGLE BETWEEN THE DIAGONAL PAVEMENT MARKINGS AND THE TRACK WOULD BE LESS THAN 20°, THE PAVEMENT MARKINGS SHOULD BE PLACED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

**DISTRICT 5 DETAIL NO. 7800AAAA**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	MCLEAN	56	46
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-5227(057)	

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

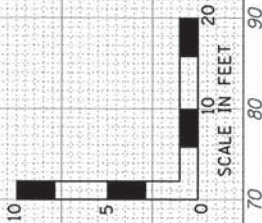
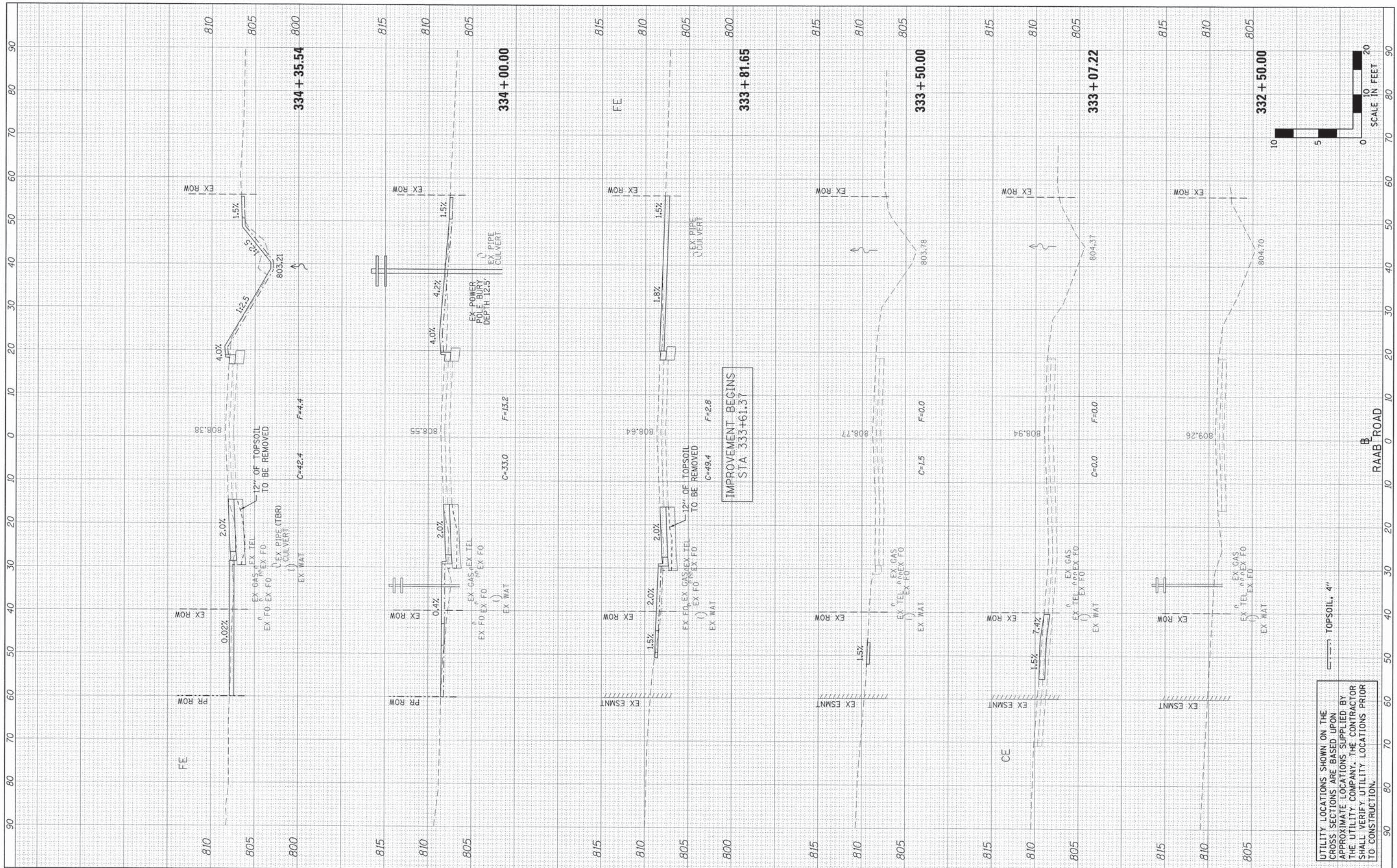
**TOWN OF NORMAL  
RAAB ROAD**

**PAVEMENT MARKING AND MARKERS  
(RURAL & URBAN APPLICATIONS)**

SCALE: N.T.S. SHEET 7 OF 7 SHEETS STA. 333+61.37 TO STA. 357+40.56

FINAL SURVEY	DATE
SURVEY	BY
NOTE BOOK	NO.
TEMP. DATE	
AREAS	
CHECKED	

ORIGINAL SURVEY	DATE
PLOT	BY
NOTE BOOK	NO.
TEMP. DATE	
AREAS	
CHECKED	



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

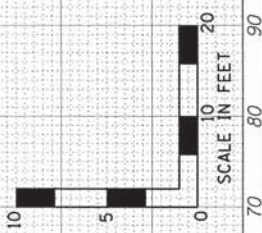
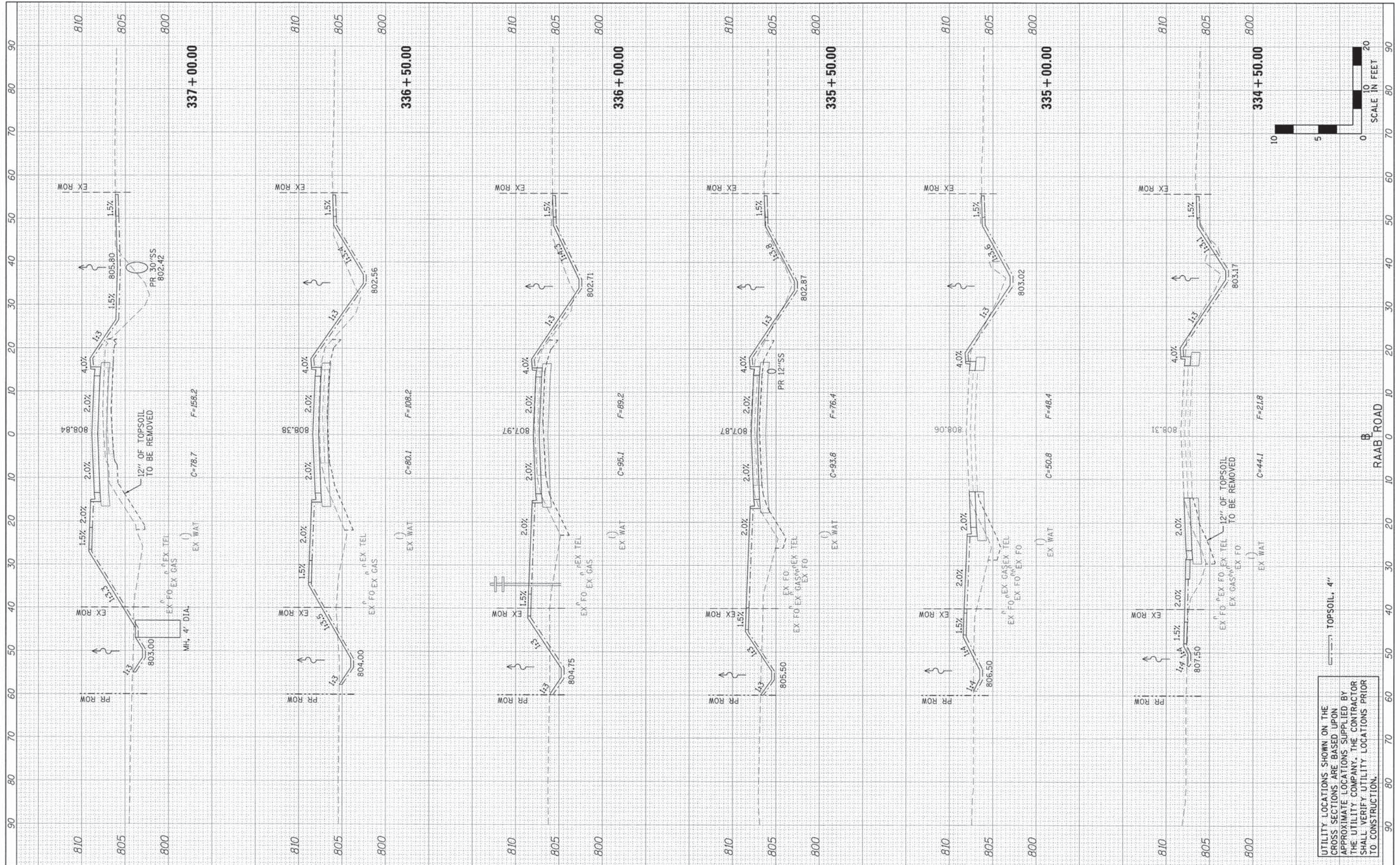
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 1 OF 10 SHEETS STA. 332+50.00 TO STA. 334+35.54

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	MCLEAN	56	47
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT #M-52270571				

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

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



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

**CROSS SECTIONS**

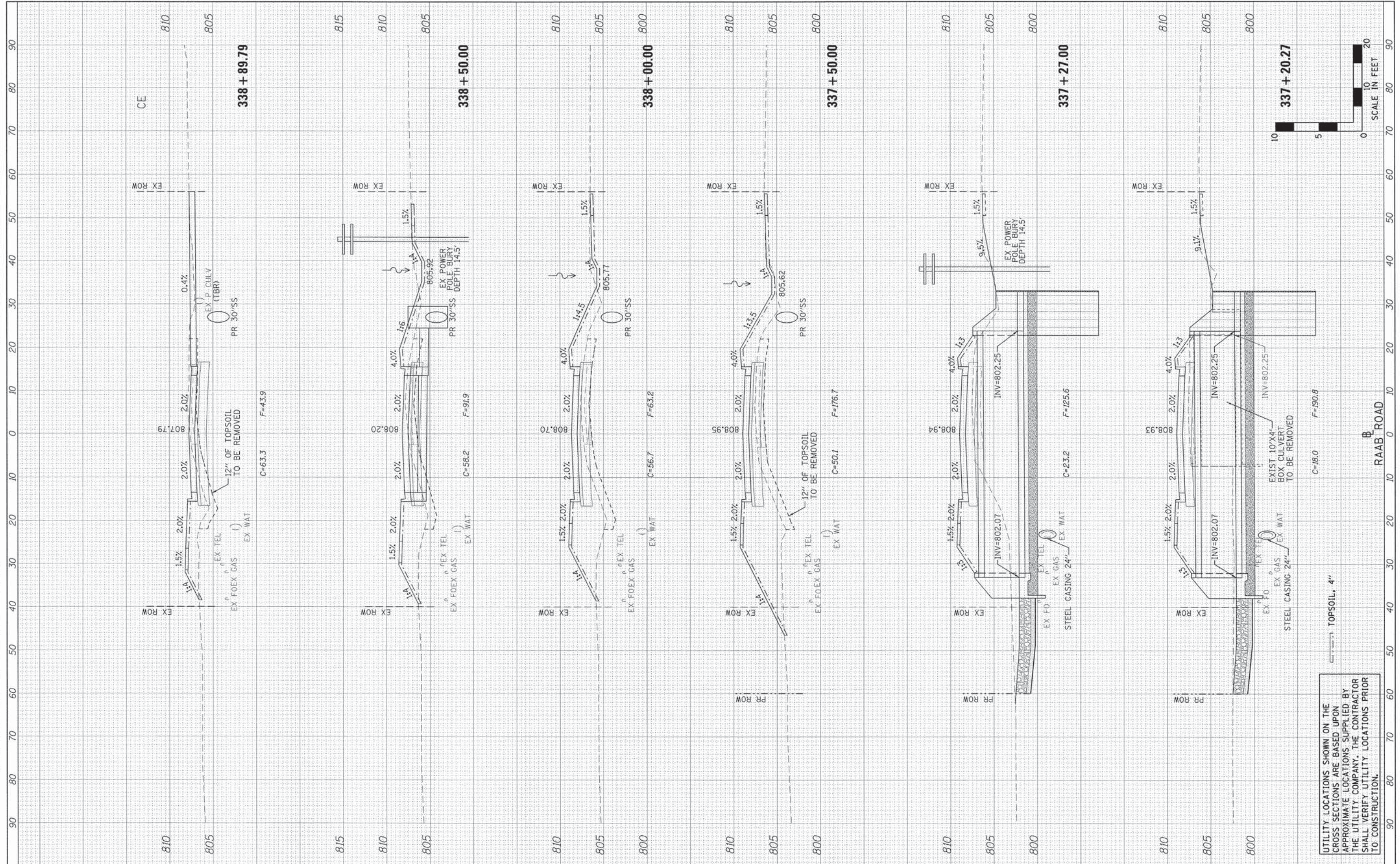
SCALE: H=10 V=5 SHEET 2 OF 10 SHEETS STA. 334+50.00 TO STA. 337+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	48
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT #M-52270571				



FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	NO.
TOP, DATE	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	NO.
TOP, DATE	
AREAS CHECKED	



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

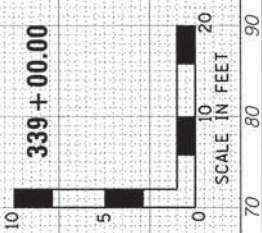
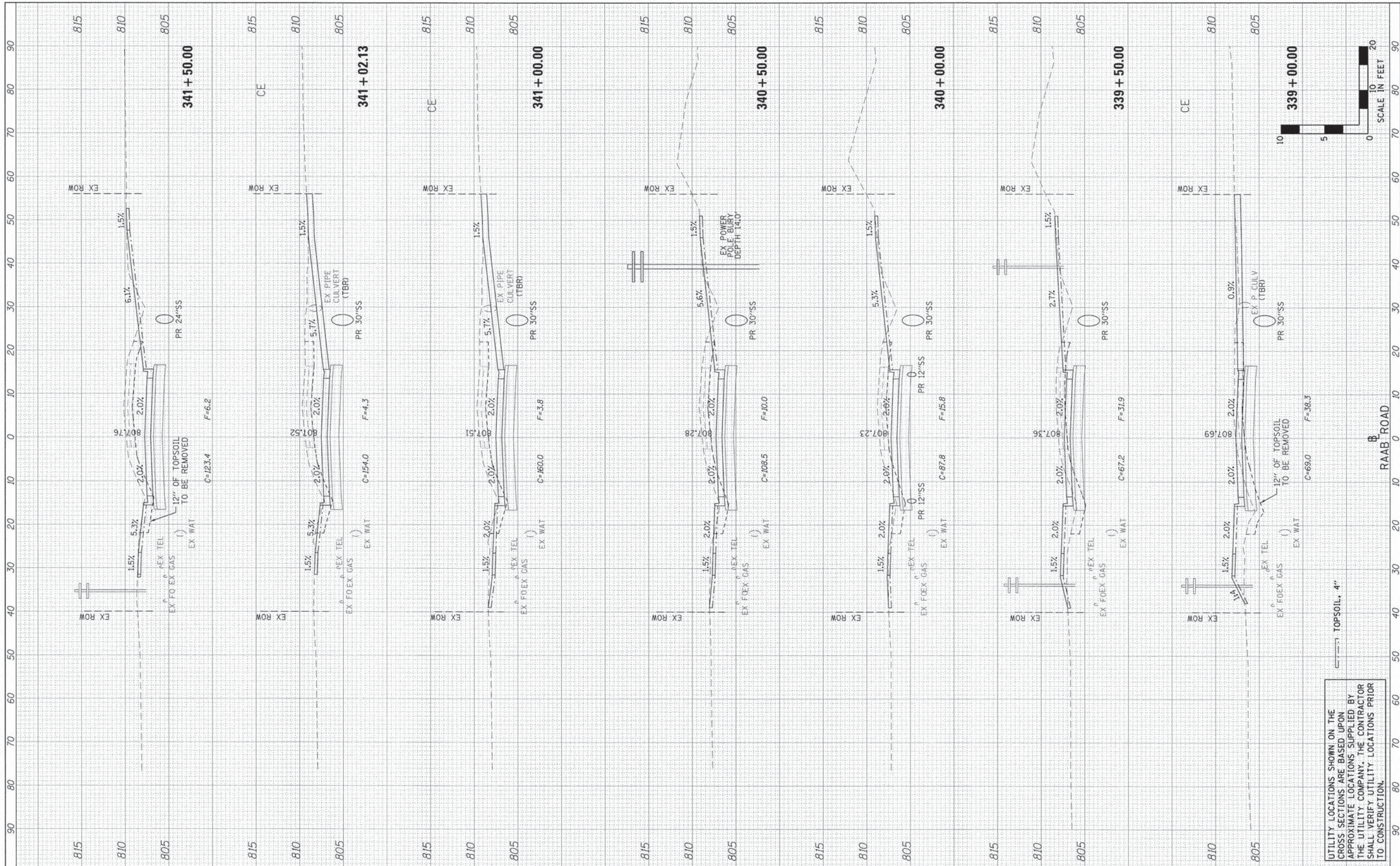
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 3 OF 10 SHEETS STA. 337+20.27 TO STA. 338+89.79

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	49
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT *M-52271057	

FINAL SURVEY	SUBMITTED	DATE
NO.	BY	
NOTE BOOK	PLOTTED	
AREAS CHECKED	TEMPLATE	
	AREAS	

ORIGINAL SURVEY	SUBMITTED	DATE
NO.	BY	
NOTE BOOK	PLOTTED	
AREAS CHECKED	TEMPLATE	
	AREAS	



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

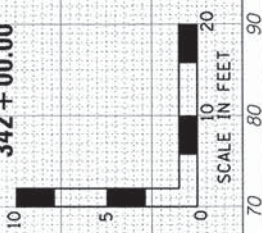
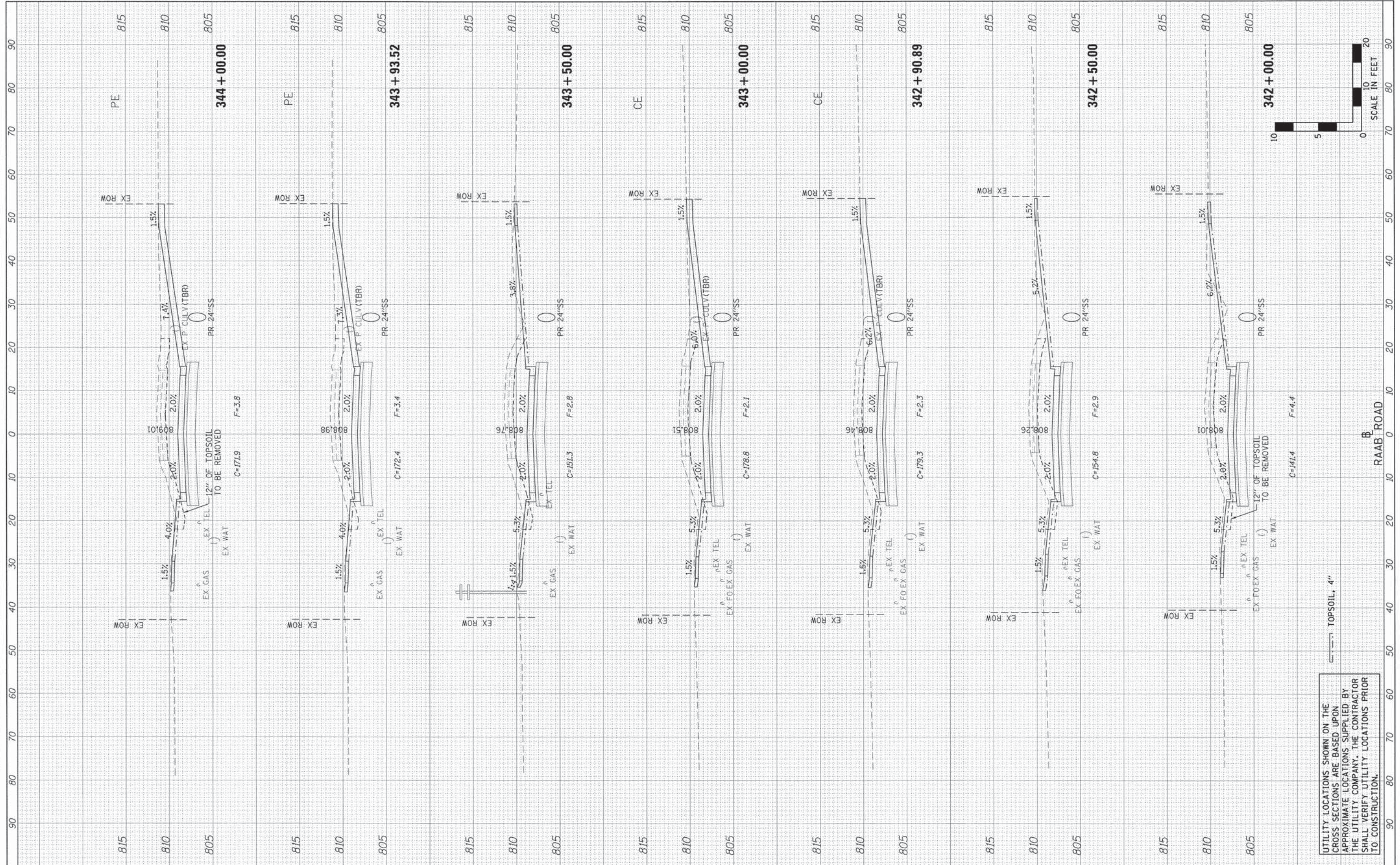
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 4 OF 10 SHEETS STA. 339+00.00 TO STA. 341+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	50
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT *M-52270571				

FINAL SURVEY	DATE
SURVEY	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
SURVEY	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

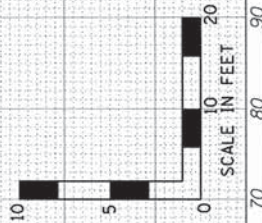
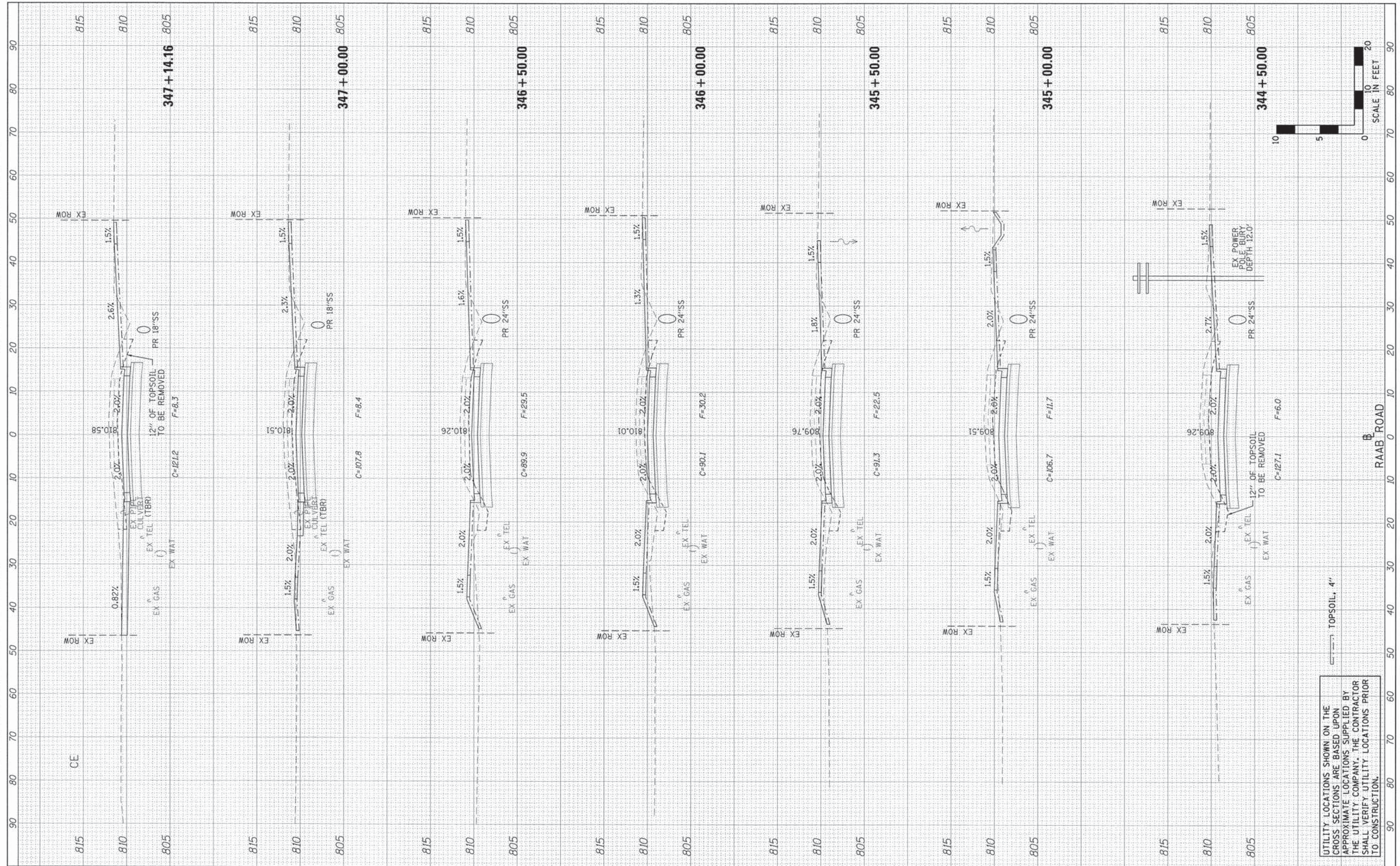
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 5 OF 10 SHEETS STA. 342+00.00 TO STA. 344+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	51
				CONTRACT NO. 91522
				[ILLINOIS] FED. AID PROJECT #4-52270571

FINAL SURVEY	BY	DATE
SURVEYED		
NOTED		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
NOTED		
AREAS CHECKED		
NO.		



TOPSOIL, 4"

UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

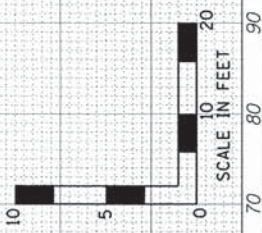
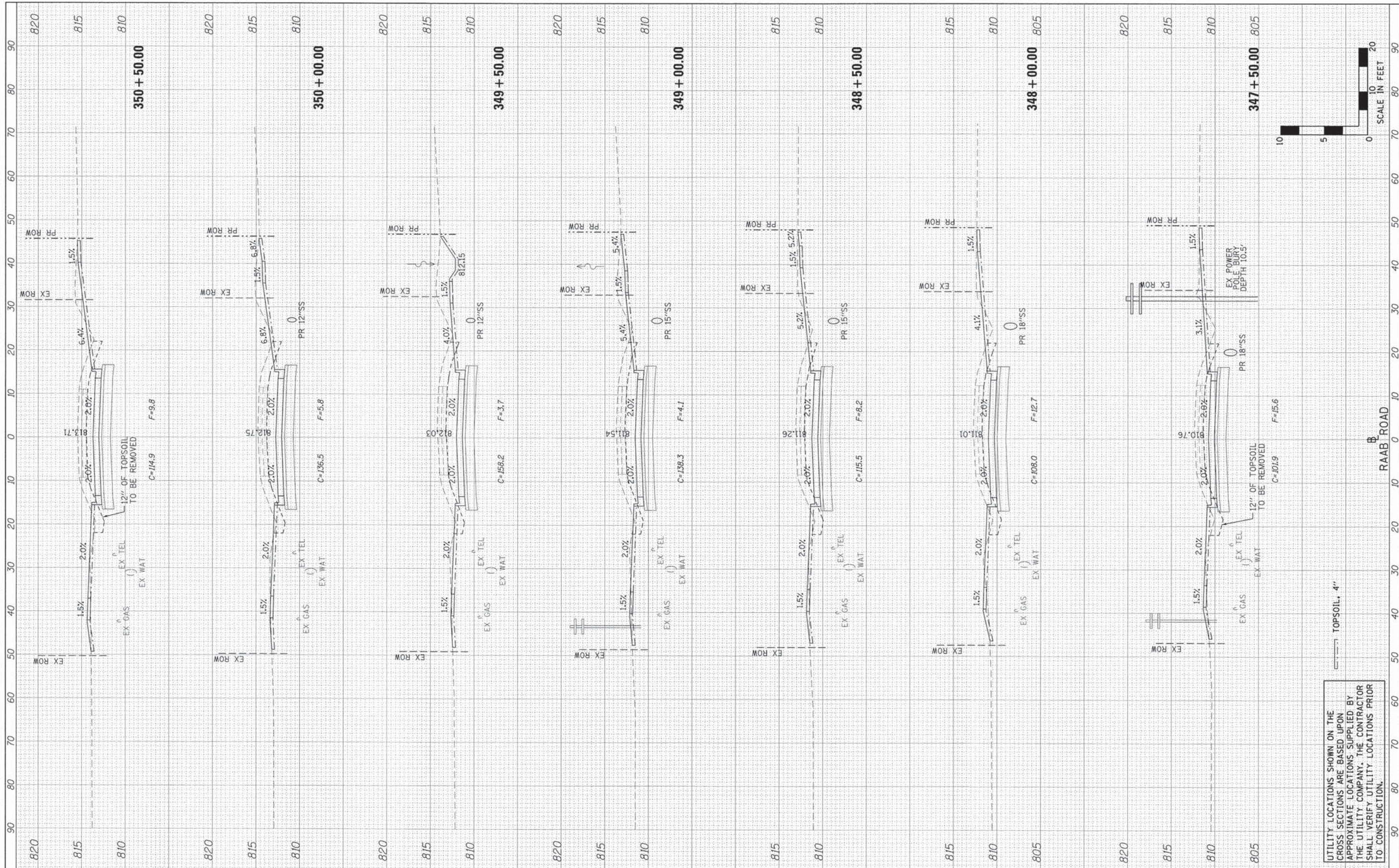
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 6 OF 10 SHEETS STA. 344+50.00 TO STA. 347+14.16

F.A.U. RTE. 6435	SECTION 14-00252-00-RP	COUNTY McLEAN	TOTAL SHEETS 56	SHEET NO. 52
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT #M-52271057				

FINAL SURVEY	SUBMITTED	DATE
NOTE BOOK	NO.	
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
AREAS CHECKED		



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/665-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

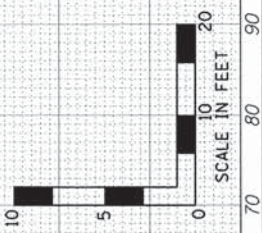
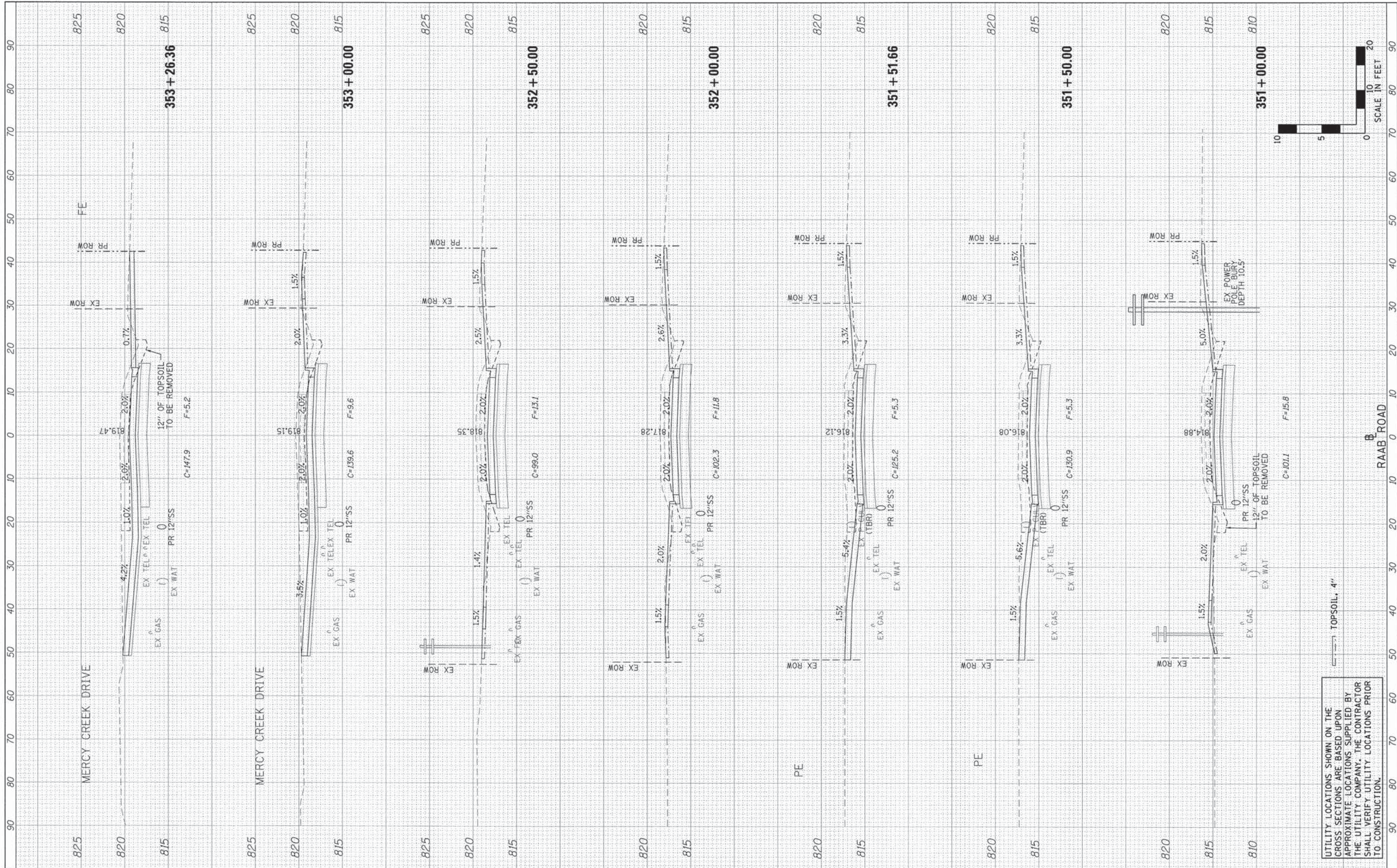
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 7 OF 10 SHEETS STA. 347+50.00 TO STA. 350+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	MCLEAN	56	53
CONTRACT NO. 91522				
[ILLINOIS] FED. AID PROJECT #M-5227(057)				

FINAL SURVEY PLOTTED	BY	DATE
NOTE BOOK		
AREAS CHECKED		

ORIGINAL SURVEY PLOTTED	BY	DATE
NOTE BOOK		
AREAS CHECKED		



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2708 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED -	LAT	REVISED -	
DRAWN -	LAT	REVISED -	
CHECKED -	ERB	REVISED -	
DATE -	08/31/15	REVISED -	

**TOWN OF NORMAL  
RAAB ROAD**

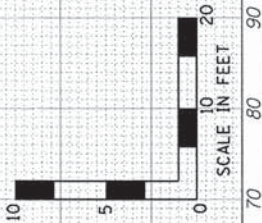
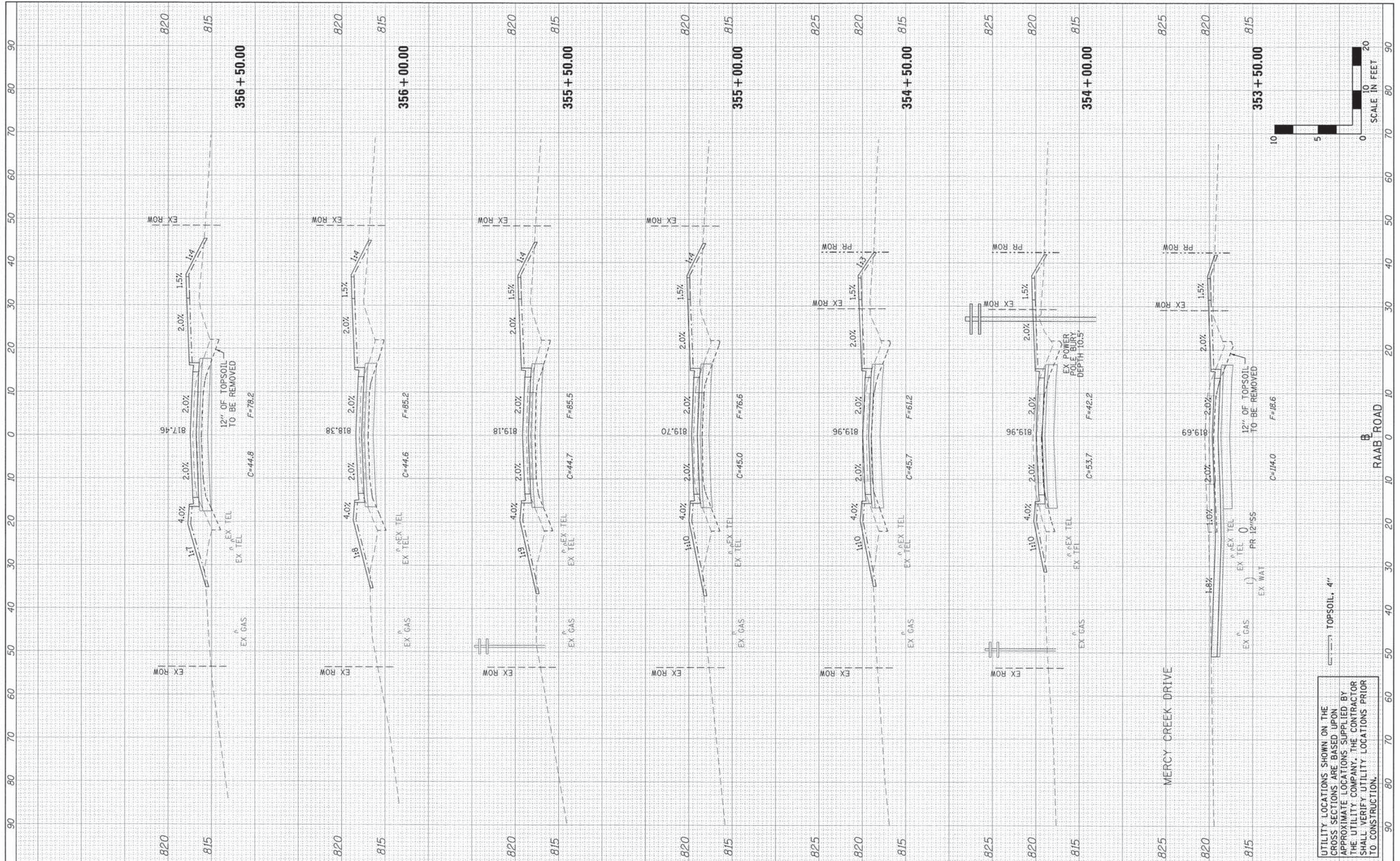
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 8 OF 10 SHEETS STA. 351+00.00 TO STA. 353+26.36

F.A.U. RTE. 6435	SECTION 14-00252-00-RP	COUNTY McLEAN	TOTAL SHEETS 56	SHEET NO. 54
CONTRACT NO. 91522			ILLINOIS FED. AID PROJECT #M-5227(057)	

FINAL SURVEY	BY	DATE
REVISED SURVEY		
NOTE BOOK		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
REVISED SURVEY		
NOTE BOOK		
AREAS CHECKED		
NO.		



UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

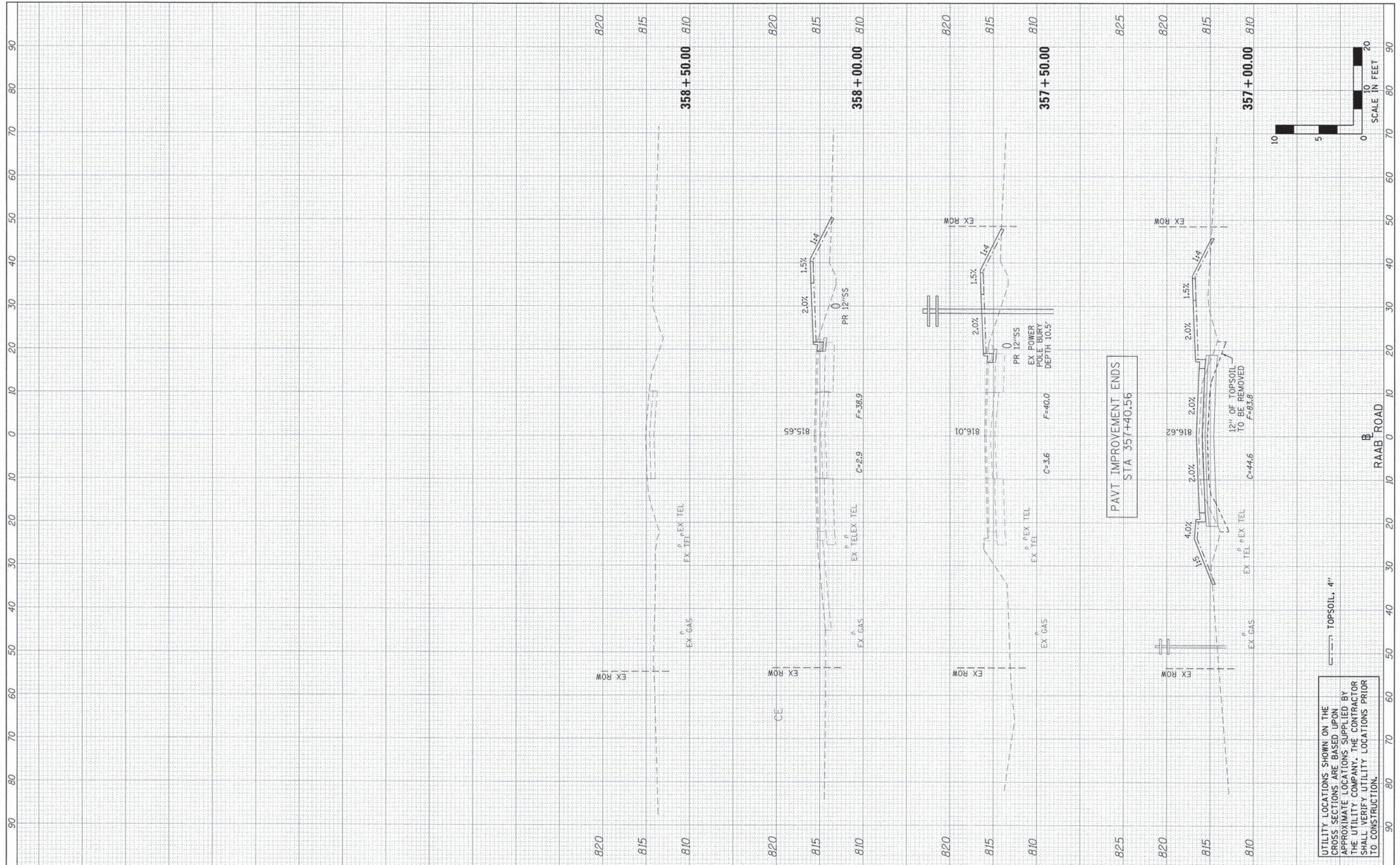
**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 9 OF 10 SHEETS STA. 353+50.00 TO STA. 356+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	McLEAN	56	55
CONTRACT NO. 91522				
ILLINOIS FED. AID PROJECT *M-5227057				

FINAL	SURVEYED	DATE
SURVEY	TOP/LATE	
NOTE BOOK	AREAS	
NO.	CHECKED	

ORIGINAL	SURVEYED	DATE
SURVEY	TOP/LATE	
NOTE BOOK	AREAS	
NO.	CHECKED	



PAVT IMPROVEMENT ENDS  
STA 357+40.56

UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

TOPSOIL, 4"

**Farnsworth GROUP, INC.**  
2709 McGraw Drive  
Bloomington, Illinois 61704  
309/663-8435, 309/663-1571 fax

DESIGNED - LAT  
DRAWN - LAT  
CHECKED - ERB  
DATE - 08/31/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

**TOWN OF NORMAL  
RAAB ROAD**

**CROSS SECTIONS**

SCALE: H=10 V=5 SHEET 10 OF 10 SHEETS STA. 357+00.00 TO STA. 358+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6435	14-00252-00-RP	MCLEAN	56	56
CONTRACT NO. 91522				
[ILLINOIS] FED. AID PROJECT #M-52270571				