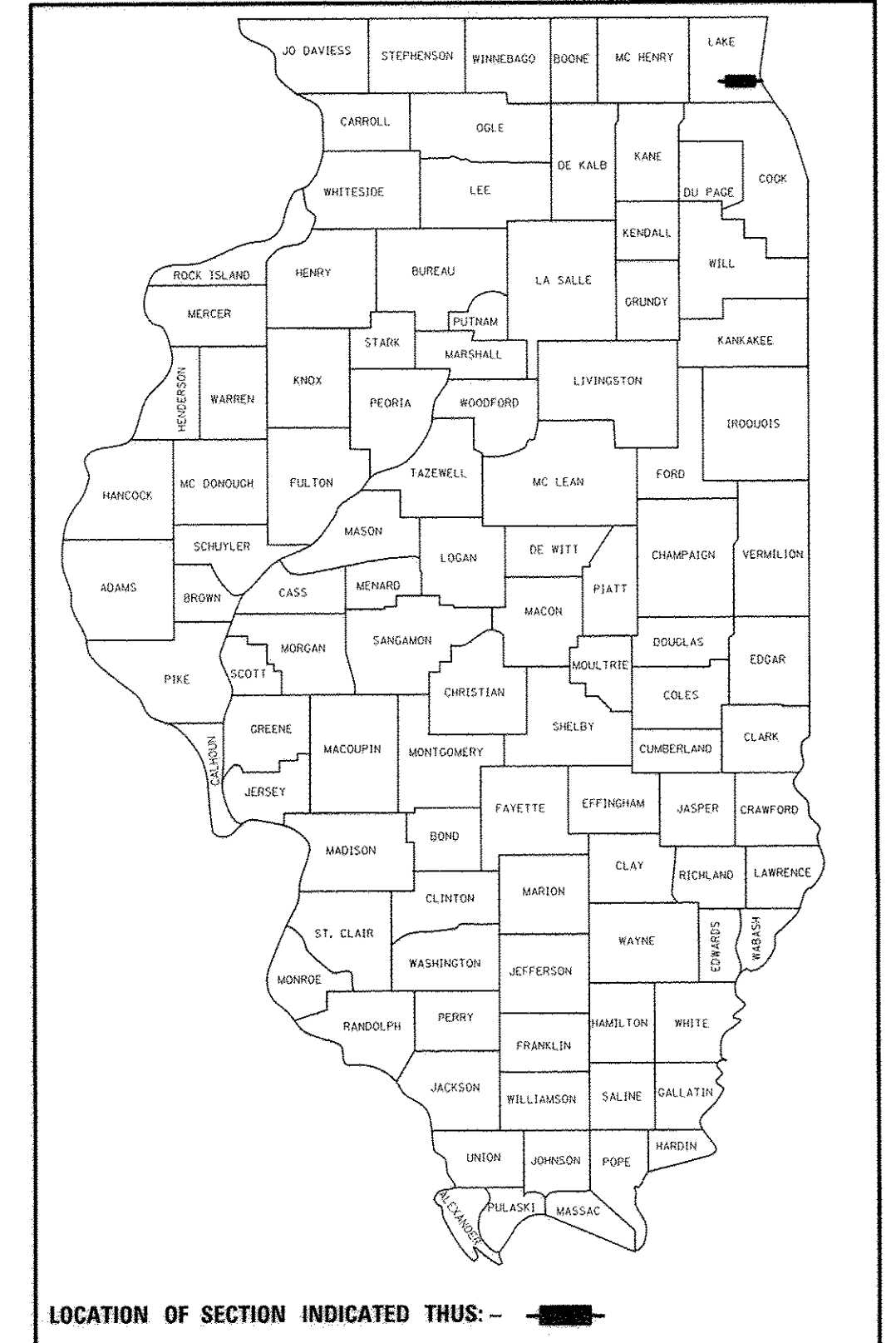


CONSULTANT ENGINEER: REID T. MAGNER, P.E. CIVILTECH ENGINEERING, INC. FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, P.E. 847-705-4021 SCHAUMBURG, IL

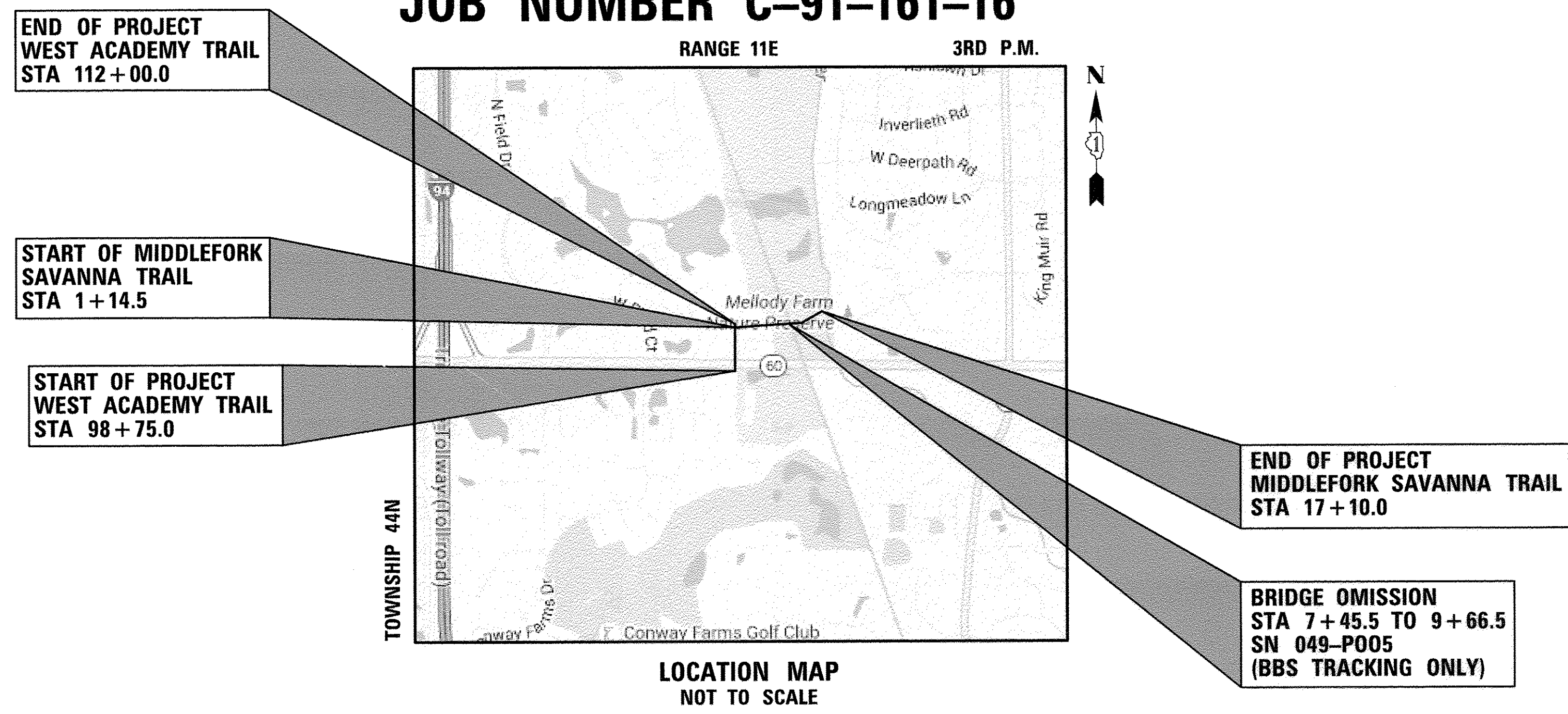
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F30003-BT	LAKE	70	1
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**  
**FAP RTE 0335 (IL ROUTE 60)**  
**MIDDLEFORK SAVANNA - FOREST PRESERVE TRAIL**  
**ACADEMY DRIVE**  
**BRIDGE AND TRAIL CONNECTION**  
**SECTION 14-F3000-03-BT**  
**PROJECT NUMBER ~~GMM-1005(043)~~ TE-01D1 (044)**  
**LAKE COUNTY**  
**JOB NUMBER C-91-161-16**

**PROJECT LOCATED IN THE CITY OF LAKE FOREST**

**INDEX OF SHEETS**  
SEE PAGE 2

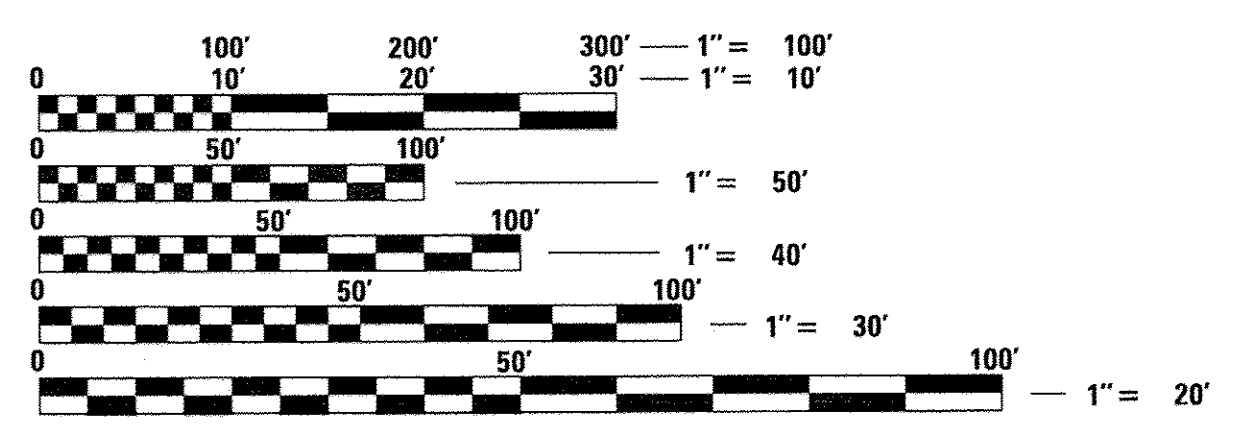


**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

Approved: *[Signature]*  
 Director of Lake County Forest Preserves

Passed: *[Signature]* July 7, 2016  
 District One Engineer of Local Roads & Streets

Releasing for Bid Based on Limited Review: *[Signature]* July 7, 2016  
 Deputy Director of Highways, Region One Engineer



**PROJECT LENGTH:**

TRAIL NAME	GROSS	NET
WEST ACADEMY TRAIL - STA 98+75.0 TO 112+00.0	1,325.0'	1,200.0'
MIDDLEFORK SAVANNA TRAIL - STA 1+14.5 TO 17+10.0	1,595.5'	1,253.9'
EXISTING MIDDLEFORK TRAIL MODIFICATION STA 500+00.0 TO 502+25.0	225.0'	225.0'

TOTAL LENGTH OF THE IMPROVEMENT	3,145.5'	2,678.9'
	(0.60 Miles)	(0.51 Miles)

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

**CONTRACT NO. 61C39**

APPLIES TO SHEETS 1 - 20, 46 - 70

*Reid T. Magner*  
 REGISTERED P.E., STATE OF ILLINOIS EXPIRES 11/30/2017

APPLIES TO SHEETS 32 - 45

*Gregory J. Hatlestad*  
 REGISTERED P.E., STATE OF ILLINOIS EXPIRES 11/30/2017

APPLIES TO SHEETS 21 - 31

*Joseph J. Eary*  
 REGISTERED P.E., STATE OF ILLINOIS EXPIRES 11/30/2017

**CIVILTECH ENGINEERING, INC.**  
 184-000826  
 LS/PE/SE  
 CORPORATION  
 ILLINOIS

**CIVILTECH**

450 E. Devon Ave. Suite 300 - Itasca, Illinois 60143  
 Tel: 630.773.3900 - Fax: 630.773.3975  
 www.civiltechinc.com

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

**GENERAL NOTES**

1. THE CONTRACTOR SHALL INDEMNIFY THE ENGINEER, THEIR AGENTS, ETCETERA. THE LAKE COUNTY FOREST PRESERVE DISTRICT AND ITS AGENTS, FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT AND NAME THEM AS CO-INSURED.
2. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING STANDARD SPECIFICATIONS:
  - A. "STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS" AS PREPARED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
  - B. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, SHALL GOVERN ALL WATER AND SEWER MAIN CONSTRUCTION.
  - C. THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" AS PUBLISHED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
  - D. MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) BY THE FEDERAL HIGHWAYS ADMINISTRATION.
  - E. IEPA STANDARD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. CONTRACTOR SHALL WORK IN A CLEARED CORRIDOR. IF ADDITIONAL CLEARING IS REQUIRED TO CONSTRUCT ANY OF THE PROPOSED IMPROVEMENTS EITHER WITHIN THE CLEARED CORRIDOR OR OUTSIDE THE CLEARED CORRIDOR IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSIDERED INCLUDED IN THE RELATED ITEMS AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
4. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS (SERIES 1926) AND WITH APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS OF THE WILLIAMS STELGER OCCUPATIONAL HEALTH STATE SAFETY ACT OF 1970 (REVISED)
5. THE CONTRACTOR SHALL BE REQUIRED TO ATTEND A PRE- CONSTRUCTION MEETING WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION TO REVIEW SHOP DRAWING PROCEDURES, CONSTRUCTION METHODS, PHASING, SEQUENCING AND TO ESTABLISH A WELL DEFINED CONSTRUCTION SCHEDULE.
6. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE TO THE ENGINEER IN COORDINATION WITH THE OWNER PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ALL CHANGES IN THE CONSTRUCTION SCHEDULE AS SOON AS THEY BECOME APPARENT.
7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK AND SHALL COORDINATE ALL CONSTRUCTION OPERATIONS WITH THE ENGINEER.
8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER IN COORDINATION WITH THE OWNER SHALL BE FINAL AND CONCLUSIVE.
9. THE CONTRACTOR SHALL KEEP A SET OF "APPROVED" CONSTRUCTION PLANS ON THE JOB SITE, AND SHALL MAINTAIN (AS INDICATED HEREIN AND ELSEWHERE WITHIN THESE CONSTRUCTION NOTES, SPECIFICATIONS, AND PLANS) LEGIBLE RECORD ON SAID PLANS OF ANY FIELD TILE ENCOUNTERED, ANY MODIFICATIONS/ALTERATIONS TO ALIGNMENT AND/OR TO PLANS AND SPECIFICATIONS OF PROPOSED IMPROVEMENTS, ETC. UPON COMPLETION OF THE CONTRACTORS' WORK, SAID PLANS AND INFORMATION SHALL BE PROVIDED TO THE ENGINEER. FINAL CONTRACT PAYMENT SHALL NOT COME DUE UNTIL THIS INFORMATION IS RECEIVED BY THE ENGINEER.
10. LOCATION, SIZE AND SHAPE OF ALL HAUL ROADS, STAGING AREAS, BORROW AREAS AND CONSTRUCTION ROUTES SHALL BE DETERMINED IN FIELD AS COORDINATED WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
11. THE CONTRACTOR SHALL CALL J.U.L.I.E. AT 1.800.892.0123 FOR UTILITY LOCATIONS. IF ELECTRIC, TELEPHONE, NATURAL GAS, CABLE T.V. AND OTHER UTILITY COMPANIES HAVE UNDERGROUND AND/OR OVERHEAD SERVICE FACILITIES IN THE VICINITY OF THE PROPOSED WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.

12. THE CONTRACTOR SHALL LOCATE ALL EXISTING DRY UTILITIES AND FACILITIES (WATER/SANITARY/STORM) PRIOR TO CONSTRUCTION. EXPLORATORY DIGGING MAY BE REQUIRED AND PAID FOR AS "EXPLORATION TRENCH, SPECIAL". REPORT CONFLICTS TO THE ENGINEER.
13. ALL WETLANDS SHALL BE DELINEATED AND STAKED IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION. NO FILL OR CONSTRUCTION ACTIVITY SHALL TAKE PLACE WITHIN THE LIMITS OF EXISTING WETLAND BOUNDARIES UNTIL THE APPROPRIATE PERMIT(S) HAVE BEEN RECEIVED.
14. ALL TEMPORARY CONSTRUCTION FENCE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
15. CONCRETE WASHOUT FACILITY SHOULD BE PROVIDED IN THE FIELD BY THE CONTRACTOR. THE COST OF THIS FACILITY SHALL BE INCLUDED IN THE CONCRETE WORK ITEMS.
16. THIS PROJECT MAY REQUIRE PHASED CONSTRUCTION AS COORDINATED BY THE ENGINEER. IF SO REQUIRED, THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION OF EACH PHASE IN ITS ENTIRETY BEFORE BEGINNING WORK ON THE NEXT PHASE. THE ENGINEER, IN COORDINATION WITH THE OWNER, SHALL INSPECT AND APPROVE EACH PHASE UPON ITS COMPLETION AND AUTHORIZE THE CONTRACTOR TO ADVANCE TO THE NEXT AREA OF WORK. TYPICAL CONSTRUCTION SEQUENCING FOR EACH PHASE SHALL BE AS FOLLOWS:
  - A. MOBILIZATION
  - B. INSTALL EROSION CONTROL AND RESOURCE PROTECTION MEASURES
    - 1.STABILIZED CONSTRUCTION ENTRANCES
    - 2.SITE CLEARING AND VEGETATION REMOVAL
    - 3.SILT FENCE
    - 4.TREE PROTECTION AND TEMPORARY CONSTRUCTION FENCING
  - C. EARTHWORK AND DRAINAGE
    - 1.STRIP AND STOCKPILE EXISTING TOPSOIL ALONG BOTH SIDES OF TRAIL, PARKING LOT AND OTHER AREAS TO BE GRADED
    - 2.MASS GRADING PARKING LOT / TRAIL INCLUDING EXCAVATION OF DITCHES AND DEPOSITION OF TRAIL SUBGRADE MATERIALS
    - 3.INSTALL CULVERTS AND OTHER DRAINAGE STRUCTURES.
    - 4.PERFORM COMPACTION AND SUBGRADE PREPARATION FOR ALL TRAILS AND PAVEMENT
    - 5.RE SPREAD TOPSOIL AREAS DISTURBED BY GRADING AND DEPOSIT A WIND ROW OF TOPSOIL ALONG TRAIL EDGES
    - 6.STABILIZE ALL UNUSED STOCKPILES OF TOPSOIL (STOCKPILES TO BE LOCATED OUTSIDE OF 100 YR BFE)
  - D. PAVING / TRAIL
    - 1.PROOF ROLL SUBGRADE
    - 2.RE MEDIATE AREAS OF UNSUITABLE SOILS AS DIRECTED BY THE ENGINEER
    - 3.INSTALL AGGREGATE BASE COURSE
    - 4.PERFORM DENSITY TESTING AND PROOF ROLL OF BASE COURSE
    - 5.INSTALL BINDER COURSE
    - 6.PERFORM DENSITY TESTING ON BINDER COURSE
    - 7.APPLY PRIME COAT TO BINDER
    - 8.INSTALL AGGREGATE TRAIL SURFACE COURSE AND HMA SURFACE COURSE
    - 9.PERFORM DENSITY TESTING ON HMA SURFACE COURSE
  - E. FINE GRADE, SEED AND STABILIZE ALL DISTURBED AREAS WITH EROSION CONTROL BLANKET OR HYDROMULCH
  - F. CLEAN UP AND COMPLETE PHASE
    - 1.RESTORE STAGING AREAS AND HAUL ROADS
    - 2.TOPSOIL AND SEED BORROW AREAS
  - G. BARRICADE OFF TRAIL WITH CONSTRUCTION FENCE TO PREVENT PUBLIC ACCESS
  - H. REMOVE ALL TEMPORARY SE/SC MEASURES AFTER SITE IS STABILIZED WITH VEGETATION
  - I. REMOVE BARRICADES AFTER HMA SURFACE COURSE IS SET AND HARDENS TO THE POINT WHICH RUTTING DOES NOT OCCUR
17. ONCE A PHASE HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER IN COORDINATION WITH THE OWNER, THE CONTRACTOR SHALL COMPLETELY BARRICADE OFF THE PHASE WITH 4-FOOT HIGH ORANGE CONSTRUCTION FENCE TO PREVENT CONSTRUCTION TRAFFIC FROM ENTERING THE COMPLETED PHASE.
18. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. HE SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE RE PAIRS AS NECESSARY TO THE RATIFICATION OF THE ENGINEER.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 107.14 AND SECTION 700 OF THE I.D.O.T. STANDARD SPECIFICATIONS. ADEQUATE LIGHTING SHALL BE MAINTAINED FROM DUSK TO DAWN AT ALL LOCATIONS WHERE CONSTRUCTION OPERATIONS WARN, OR AS DESIGNATED BY THE ENGINEER, ALL TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
20. THIS CONTRACT REQUIRES THE REMOVAL OF BRUSH, SHRUBS AND TREES WITHIN THE TRAIL CORRIDOR. REFER TO INDIVIDUAL PLAN AND PROFILE SHEETS FOR ADDITIONAL VEGETATION REMOVAL INFORMATION. IT IS THE CONTRACTORS RESPONSIBILITY TO THOROUGHLY INVESTIGATE / INSPECT ALL AREAS OF WORK TO DETERMINE THE FULL EXTENT OF CLEARING REQUIRED.

**INDEX OF SHEETS**

<b>1</b>	<b>COVER SHEET</b>
<b>2</b>	<b>INDEX OF SHEETS AND LIST OF STATE AND LOCAL STANDARDS</b>
<b>3</b>	<b>GENERAL NOTES</b>
<b>4-5</b>	<b>SUMMARY OF QUANTITIES</b>
<b>6</b>	<b>TYPICAL SECTIONS</b>
<b>7</b>	<b>ALIGNMENT, TIES AND BENCHMARKS</b>
<b>8-14</b>	<b>TRAIL PLAN AND PROFILE</b>
<b>15</b>	<b>SITE ACCESS PLAN /TRAFFIC CONTROL PLAN</b>
<b>16-20</b>	<b>EROSION CONTROL AND LANDSCAPING PLANS</b>
<b>21-31</b>	<b>TRAFFIC SIGNAL PLANS</b>
<b>32-45</b>	<b>STRUCTURAL PLANS</b>
<b>46</b>	<b>BD-8 FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>
<b>47</b>	<b>BD-24 CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>
<b>48</b>	<b>BD-51 BENCHING DETAIL FOR EMBANKMENT WIDENING</b>
<b>49</b>	<b>TC-10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS</b>
<b>50</b>	<b>TC-13 TYPICAL PAVEMENT MARKINGS</b>
<b>51</b>	<b>TC-22 ARTERIAL ROAD INFORMATION SIGN</b>
<b>52-57</b>	<b>CONSTRUCTION DETAILS</b>
<b>58-70</b>	<b>TRAIL CROSS SECTIONS</b>

**IDOT HIGHWAY STANDARDS**

000001 -06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001 -07	TEMPORARY EROSION CONTROL SYSTEMS
424021 -03	DEPRESSED CORNER FOR SIDEWALKS
542301 -03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602001 -02	CATCH BASIN TYPE A
604036 -03	GRATE TYPE 8
606001 -06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701001 -02	OFF -RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006 -05	OFF -RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM EDGE OF PAVEMENT
701101 -05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM EDGE OF PAVEMENT
701106 -02	OFF-RD OPERATIONS, MULTILANE, MORT THAN 15' (4,5 m) AWAY
701421 -07	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701426 -08	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER.,FOR SPEEDS ≥ 45 MPH
701701 -10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801 -06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901 -05	TRAFFIC CONTROL DEVICES
720001 -01	SIGN PANEL MOUNTING DETAILS
720006 -04	SIGN PANEL ERECTION DETAILS

**LCDOT HIGHWAY STANDARDS**

LC 2050	TEMPORARY DITCH CHECK INSTALLATION FOR ROADWAY OR DRAINAGE DITCH
LC 2051	PERIMETER EROSION BARRIER INSTALLATION
LC 2100	DRY RUBBLE STONE OR BROKEN CONCRETE TREE WELLS
LC 4202	CONCRETE WASHOUT FACILITIES
LC 6601	ORNAMENTAL FENCE CLASSIC THREE RAIL (ONE MFGR'S DETAILS)

**POINTS OF CONTACT**

<b>LAKE COUNTY FOREST PRESERVES</b> MS. KIRSTEN SITTLER LANDSCAPE ARCHITECT 1899 W. WINCHESTER ROAD LIBERTYVILLE, IL 60048 847.968.3267 ksittler@lcfpd.org	<b>PUBLIC WORKS</b> MR. MICHAEL THOMAS DEPARTMENT HEAD 847.810.3540 thomasm@cityoflakeforest.com
<b>CITY OF LAKE FOREST</b> 800 NORTH FIELD DRIVE LAKE FOREST, IL 60045	<b>PUBLIC WORKS</b> MR. DANIEL MARTIN SUPERINTENDENT 847.810.3561 martind@cityoflakeforest.com
<b>ENGINEERING</b> MR. ROBERT ELLS 847.810.3555 ellsr@cityoflakeforest.com	<b>LAKE FOREST ACADEMY</b> MR. MIKE REIDY 1500 WEST KENNEDY RD. LAKE FOREST, IL 60045 847.615.3213

DATE	BY	SURVEYED	PLANNED	NOTED	CHECKED	PT. OF WAY CHECKED
NO.		NOTE BOOK				ADD. FILE NAME

DATE	BY	SURVEYED	PLANNED	NOTED	CHECKED	PT. OF WAY CHECKED
NO.		NOTE BOOK				ADD. FILE NAME



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS AND LIST OF  
STATE AND LOCAL STANDARDS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F30003-BT	LAKE	70	2
<b>CONTRACT NO. 61C39</b>				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

SHEET NO. 1 OF 2 SHEETS

DATE	BY	SURVEYED	ALIGNED	CHECKED	RT. OF WAY	CHECKED
PLAN	NOTE BOOK	NO.	NO.	NO.	NO.	NO.

DATE	BY	SURVEYED	NOTED	CHECKED	NO.	NO.
PROFILE	NOTE BOOK	NO.	NO.	NO.	NO.	NO.

21. WHERE OVERHANGING BRANCHES INTERFERE WITH OPERATIONS, SAID BRANCHES SHALL BE TRIMMED AND SEALED IN ACCORDANCE WITH SECTION 201 OF THE I.D.O.T. STANDARD SPECIFICATIONS, AND THE COST OF SAME SHALL BE INCLUDED IN THE COST OF THE TEMPORARY ACCESS ROAD (SPECIAL), OR ITEMS AS CALLED OUT PER THE PLAN. TREES SHALL BE REMOVED ONLY AFTER RECEIVING APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL ALTER THE ALIGNMENT OF THE PROJECT IMPROVEMENTS AS DIRECTED TO PRESERVE TREES. A CONTRACTOR REMOVING TREES WITHOUT ENGINEER'S APPROVAL WILL BE RESPONSIBLE FOR REPLACEMENT OF SAID TREE(S) AS DIRECTED IN COORDINATION WITH THE ENGINEER AT CONTRACTOR'S EXPENSE.
22. THE PROPOSED LINES AND GRADES SHOWN ON THE CONSTRUCTION PLANS REPRESENT FINISHED GRADE ELEVATIONS. LINE AND GRADE STAKES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
23. DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR OTHER ACCEPTABLE METHOD. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
24. IT SHALL BE THE RESPONSIBILITY OF EACH RESPECTIVE CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE.
25. THE ENGINEER IS NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES. TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. THE CONTRACTOR IS TO PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, ETC. NECESSARY TO PERFORM ALL THE WORK REQUIRED FOR CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS INDICATED IN THE CONSTRUCTION DOCUMENTS.
26. SITE BENCH MARKS ARE SHOWN ON THE CONTRACT PLANS. ANY ADDITIONAL LAYOUT OF LINES AND GRADES OR ANY OTHER SURVEYING REQUIRED TO CONSTRUCT THE PROPOSED IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND INCLUDED IN THE COST OF CONSTRUCTION LAYOUT.
27. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIALS ARE DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, CULVERTS ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THIS LOOSE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY BY THE RESPONSIBLE PARTY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS AT NO ADDITIONAL EXPENSE.
28. WHEN DEWATERING THE CONSTRUCTION AREA IS NECESSARY, ALL WATERS SHALL BE FILTERED BY USING FILTER BAGS OR AN ALTERNATIVE MEASURE APPROVED BY THE ENGINEER. ALL FILTER BAGS MUST HAVE SECONDARY CONTAINMENT DEVICES AND SHOULD BE PLACED ON LEVEL GROUND. WATER MUST HAVE SEDIMENT REMOVED BEFORE BEING ALLOWED TO DISCHARGE TO THE ADJACENT STREAM. THE DISCHARGE SHALL BE DESIGNED SO THAT THE RETURNING WATERS DO NOT CAUSE EROSION. DEWATERING AND PUMPING FOR CONSTRUCTION OPERATIONS SHALL BE INCLUDED IN THE COST OF THE WORK BEING COMPLETED AND SHALL INCLUDE MEANS METHODS AND ALL MATERIALS AND EQUIPMENT TO DEWATER AND PROVIDE FILTRATION OF WATERS.
29. ALL PERMANENT TYPE PAVEMENTS OR OTHER PERMANENT IMPROVEMENTS WHICH ABOUT THE PROPOSED IMPROVEMENT AND MUST BE REMOVED, SHALL BE SAWED AS DIRECTED PRIOR TO REMOVAL. ALL ITEMS SO REMOVED SHALL BE REPLACED WITH SIMILAR CONSTRUCTION MATERIALS TO THEIR ORIGINAL CONDITION OR BETTER. PAYMENT FOR SAWING SHALL BE INCLUDED IN THE COST FOR REMOVAL OF EACH ITEM AND REPLACEMENT WILL BE PAID UNDER THE RESPECTIVE ITEMS IN THE CONTRACT, UNLESS OTHERWISE INDICATED.
30. CONTRACTOR SHALL GRADE SUBGRADE TO LINES AND GRADES SHOWN ON THE CONSTRUCTION PLANS IN ACCORDANCE WITH SPECIFICATIONS AND DETAILS. THIS SHALL INCLUDE STRIPPING OF TOPSOIL & REMOVING UNSUITABLE MATERIALS FROM ALL TRAIL, DRIVEWAY, PARKING LOT, BUILDING PAD & OTHER DESIGNATED STRUCTURAL AREAS.
31. SUBGRADE SHALL BE PREPARED PER SPECIFICATIONS AND COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) BASED ON STANDARD PROCTOR IN ACCORDANCE WITH ASTM D-698 AND THE STANDARD SPECIFICATIONS.
32. ALL PROOF ROLLING AND FIELD TESTING SHALL BE DONE IN THE PRESENCE OF THE ENGINEER.
33. WHEN PROOF ROLLING OF SUBGRADE REVEALS UNSTABLE AREAS OR UNSUITABLE SOIL IS ENCOUNTERED IT SHALL BE UNDERCUT, AND REMOVED AS DIRECTED BY THE SOILS ENGINEER. IF THE SOILS ENGINEER IS REQUIRED TO RETEST AN AREA MORE THAN ONE TIME IT WILL BE AT THE CONTRACTORS EXPENSE.

### TRAIL CONSTRUCTION AND PAVING

34. GEOTEXTILE FABRIC AND AGGREGATE SUBGRADE IMPROVEMENT SHALL BE USED IN AREAS DIRECTED BY THE SOIL ENGINEER TO STABILIZE THE SUBGRADE IN ACCORDANCE WITH SPECIFICATIONS.
35. SUBGRADE FOR PROPOSED PAVEMENT SHALL BE FINISHED BY THE EXCAVATION CONTRACTOR TO WITHIN 0.1 FOOT, PLUS OR MINUS, OF SUBGRADE ELEVATION.
36. SUBGRADE SHALL BE APPROVED BY THE ENGINEER, AS COORDINATED WTH THE SOILS ENGINEER AND SHALL BE SMOOTH, CLEAN OF ALL DEBRIS AND FREE OF RUTS, POT HOLES, ETC. PRIOR TO PLACEMENT OF AGGREGATE BASE COURSE.
37. AGGREGATE BASE COURSE (TRAIL ONLY) SHALL BE PLACED WITH A PAVER BOX OR OTHER METHOD APPROVED BY THE ENGINEER TO ENSURE UNIFORM WIDTH, DEPTH, CROWN, AND FINAL SURFACE SMOOTHNESS.
38. AGGREGATE BASE COURSE (TRAIL ONLY) SHALL BE COMPACTED WITH A SMALL ROLLER, HALF THE TRAIL WIDTH AT A TIME (TO PRESERVE THE CROWN) TO A MINIMUM OF 95% STANDARD PROCTOR IN ACCORDANCE WITH THE SPECIFICATIONS. ANY PORTION OF THE TRAIL WITHOUT THE SPECIFIED CROWN WILL NOT BE ACCEPTED BY THE ENGINEER.
39. AGGREGATE BASE COURSE SHALL BE APPROVED IN COORDINATION WITH THE ENGINEER AND SOILS ENGINEER AND SHALL BE SMOOTH, CLEAN OF ALL DEBRIS AND FREE OF RUTS, POT HOLES, ETC. PRIOR TO PLACEMENT OF AGGREGATE SURFACE, BITUMINOUS BINDER COURSE, BITUMINOUS SURFACE COURSE, OR CONCRETE.
40. AGGREGATE SURFACE COURSE (TRAIL ONLY) SHALL BE FA-21 IN ACCORDANCE WITH SPECIFICATIONS. LIMESTONE SCREENINGS ARE NOT ACCEPTABLE. SCREENINGS SHALL CONSIST OF 100% CRUSHED MATERIAL. SAMPLES OF THE SPECIFIED MATERIAL SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT.
41. AGGREGATE SURFACE COURSE (TRAIL ONLY) SHALL BE PLACED WITH A PAVER BOX OR OTHER METHOD APPROVED BY THE ENGINEER TO ENSURE UNIFORM WIDTH, DEPTH, CROWN AND FINAL SURFACE SMOOTHNESS.
42. AGGREGATE SURFACE COURSE (TRAIL ONLY) SHALL BE COMPACTED WITH A SMALL ROLLER, HALF THE TRAIL WIDTH AT A TIME (TO PRESERVE THE CROWN) TO A MINIMUM OF 95% STANDARD PROCTOR IN ACCORDANCE WITH THE SPECIFICATIONS. ANY PORTION OF THE TRAIL WITHOUT THE SPECIFIED CROWN WILL NOT BE ACCEPTED BY THE ENGINEER.
43. TOPSOIL SHALL BE STRIPPED AND SALVAGED FROM TRAIL EXCAVATION OPERATIONS AND RE SPREAD. FURNISHED TOPSOIL SHALL BE SUPPLIED AND INSTALLED ONLY IF, IN THE ENGINEERS OPINION, SUFFICIENT ON -SITE TOPSOIL IS NOT AVAILABLE.
44. THE ENGINEER EXPECTS THAT A SIGNIFICANT AMOUNT OF HANDWORK WILL BE REQUIRED TO ENSURE A CLEAN SMOOTH HORIZONTAL TRAIL EDGE AND SMOOTH TRANSITION IS ACHIEVED BETWEEN THE EDGE OF THE TRAIL AND GRASSED AREAS. HIGH AREAS ALONG THE EDGE OF THE TRAIL THAT BLOCK FLOW OFF THE TRAIL OR OVERSPILL OF TOPSOIL OR SURFACE MATERIAL WILL NOT BE TOLERATED.
45. THE SELECTED STRUCTURAL FILL MATERIAL SHALL BE PLACED IN LEVEL UNIFORM LAYERS SO THAT THE COMPACTED THICKNESS IS APPROXIMATELY SIX INCHES (6"); IF COMPACTION EQUIPMENT DEMONSTRATES THE ABILITY TO COMPACT GREATER THICKNESSES, THEN A GREATER THICKNESS MAY BE SPECIFIED. EACH LAYER SHALL BE THOROUGHLY MIXED DURING SPREADING TO ENSURE UNIFORMITY.
46. EMBANKMENT MATERIAL WITHIN TRAIL, DRIVEWAY, PARKING LOT, AND OTHER STRUCTURAL CLAY FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-698 (STANDARD PROCTOR METHOD), OR EMBANKMENT MATERIAL FOR BUILDING PADS SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 (MODIFIED PROCTOR METHOD) OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOILS ENGINEER.

### UNDERGROUND

47. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
48. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE OR ON -SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF ITEMS BEING INSTALLED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
49. CULVERTS SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PIPE IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE CULVERTS SHALL BE OF DIAMETERS AND LENGTHS SPECIFIED ON PLANS. ALL CULVERTS SHALL BE INSTALLED SO THERE IS EQUAL DISTANCE FROM THE TRAIL CENTER LINE TO THE END OF THE CULVERT ON BOTH SIDES OR AS SPECIFIED ON THE PLANS.
50. DITCHING SHALL BE CONSTRUCTED AT LOCATIONS, LINES AND GRADES SHOWN ON CONSTRUCTION PLANS. EROSION CONTROL BLANKET SHALL BE INSTALLED ON BOTTOM OF ALL PROPOSED DITCHES, AND ON ALL SLOPES STEEPER THAN 3 FEET HORIZONTAL TO 1 FOOT VERTICAL.
51. RIP RAP SHALL BE PLACED AT LOCATIONS SPECIFIED ON CONSTRUCTION PLANS. THE RIP RAP SHALL BE OF CLASS DESIGNATING DIAMETER AND GRADATION. LIMESTONE RIP RAP IS NOT ACCEPTABLE. SAMPLES OF THE SPECIFIED MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL IN COORDINATION WITH THE OWNER PRIOR TO DELIVERY AND PLACEMENT

### SIGNING, STRIPING, AND LANDSCAPING

52. THE CONTRACTOR WILL BE REQUIRED TO RELOCATE OR REMOVE AND REPLACE SIGNS WHICH INTERFERE WITH HIS CONSTRUCTION OPERATIONS, AND TO TEMPORARILY RESET ALL SUCH SIGNS DURING CONSTRUCTION OPERATIONS. THIS WORK WILL BE INCLUDED IN THE COST OF THE ASSOCIATED TRAFFIC CONTROL AND PROTECTION ITEMS.
53. ANY SIGNS WHICH ARE DAMAGED BEYOND REPAIR DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE CONTRACT.
54. THE CONTRACTOR SHALL ADHERE TO LIMITS OF RESTORATION SHOWN, INCLUDING CONCRETE WASHOUT FACILITIES. AREAS OUTSIDE THESE LIMITS THAT ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
55. PHOSPHORUS FERTILIZER NUTRIENT SHALL NOT BE USED.

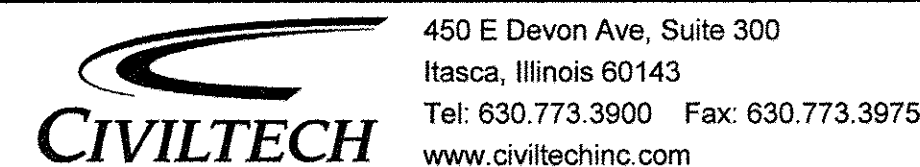
### SPECIAL PROJECT NOTES

56. NO HEAVY EQUIPMENT WILL BE ALLOWED ON COMPLETED BRIDGE.
57. THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA TO DOCUMENT THE FLOOD PLAIN CUT & FILL. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO COLLECT DATA AND DOCUMENT WITH PLANS AND CROSS-SECTIONS THE RELATED FLOODPLAIN IMPACTS (FILL) TO THE LAKE COUNTY STORMWATER MANAGEMENT COMMISSION. THE COST OF ALL MATERIAL REQUIRED AND ALL LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF MOBILIZATION.
58. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COORDINATE WITH METRA RAILROAD (THE COMMUTER RAIL DIVISION OF THE REGIONAL TRANSPORTATION AUTHORITY) WHENEVER CONSTRUCTION ACTIVITY IS WITHIN 25 FEET OF THE RAILROAD ROW. THE CONTRACTOR SHALL RETAIN FLAGMEN EMPLOYED AND DESIGNATED BY THE METRA RAILROAD TO MONITOR ON-COMING TRAIN TRAFFIC, AND ADVISE CONTRACTOR PERSONNEL WHEN ACTIVITY ON OR NEAR THE RAILROAD RIGHT-OF-WAY MAY PROCEED. THIS ITEM WILL BE PAID ACCORDING TO ARTICLE 107.12 AND WILL BE REIMBURSED ACCORDING TO ARTICLE 109.05. THE CONTRACTOR MUST CONTACT MILWAUKEE DISTRICT DIRECTOR OF ENGINEERING, AT (312) 322-4101 AT LEAST 72 HOURS PRIOR TO WORK START UP TO ARRANGE FOR RAILROAD FLAGGING, PROTECTION ETC.
59. THERE IS A WINDOW ON WEEKDAYS FROM 2:00 AM UNTIL 5:00 AM WHERE THERE ARE NO SCHEDULED PASSENGER TRAINS. CP RAIL RUNS FREIGHT TRAINS 24 HOURS A DAY 7 DAYS A WEEK. ANYTHING THAT WILL REQUIRE BOTH MAIN TRACKS TO BE SHUT DOWN AT THE SAME TIME SHALL BE COORDINATED THROUGH METRA.

### SURVEY

60. BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM NAD83 (2007) EAST ZONE. GRID COORDINATES ARE SHOWN.
61. VERTICAL CONTROL REFERENCED TO NAVD 88

BM#	DESCRIPTION	ELEVATION
<b>SOURCE BENCHMARKS</b>		
SBM 1	LAKE COUNTY BENCHMARK RECOVERY SHEET MARKER DESIGNATION: 5-72 AT THE INTERSECTION OF EVERETT ROAD AND ELM ROAD	676.2200
SBM 2	CITY OF LAKE FOREST MONUMENT NO. 43 AT THE INTERSECTION OF GAGE LANE AND U.S. ROUTE 41	668.0400
SBM 3	CITY OF LAKE FOREST MONUMENT NO. 5 AT THE INTERSECTION OF ILLINOIS ROUTE 60 AND THE DRIVEWAY ENTRANCE TO THE RECYCLING CENTER	670.1300
<b>SITE BENCHMARKS</b>		
BM1	SURVEY CONTROL CUT CROSS ON EXISTING CURB JUST NORTH OF ACADEMY DRIVE AT THE ENTRANCE OF FACULTY CIRCLE	674.3700
BM2	SURVEY CONTROL IRON ROD	667.0900



DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

### GENERAL NOTES

SHEET NO. 2 OF 2 SHEETS

F.A.P. RTE. 0335	SECTION 14-F300P03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 3
<b>CONTRACT NO. 61C39</b>				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

# SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 SIGNALS	0028 TRAILS
^ 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	891		891
^ 20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	337		337
^ 20101200	TREE ROOT PRUNING	EACH	18		18
^ 20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	7		7
^ 20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	11		11
20200100	EARTH EXCAVATION	CU YD	2,075		2,075
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	75		75
20400800	FURNISHED EXCAVATION	CU YD	8,905		8,905
20800150	TRENCH BACKFILL	CU YD	12		12
20900110	POROUS GRANULAR BACKFILL	CU YD	26		26
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	3,698		3,698
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	3,510		3,510
^ 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	90		90
^ 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	90		90
^ 25100630	EROSION CONTROL BLANKET	SQ YD	15,575		15,575
^ 25200200	SUPPLEMENTAL WATERING	UNIT	10		10
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	700		700
* 28000305	TEMPORARY DITCH CHECKS	FOOT	28		28
* 28000400	PERIMETER EROSION BARRIER	FOOT	4,172		4,172
28000510	INLET FILTERS	EACH	9		9
28200200	FILTER FABRIC	SQ YD	16		16
* 30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	75		75
* 35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	84		84
* 35101700	AGGREGATE BASE COURSE, TYPE B 5"	SQ YD	3,306		3,306
* 35800100	PREPARATION OF BASE	SQ YD	484		484
* 40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	7,392		7,392
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	550		550
42001300	PROTECTIVE COAT	SQ YD	91		91
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	633		633
* 42400800	DETECTABLE WARNINGS	SQ FT	85		85

^ DENOTES SPECIALTY ITEM  
 ^^ DENOTES CONSTRUCTION TYPE CODE 0042  
 \* DENOTES SPECIAL PROVISION

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 SIGNALS	0028 TRAILS
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	974		974
50200100	STRUCTURE EXCAVATION	CU YD	126		126
50300225	CONCRETE STRUCTURES	CU YD	62		62
50300255	CONCRETE SUPERSTRUCTURE	CU YD	8		8
50300300	PROTECTIVE COAT	SQ YD	27		27
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6,430		6,430
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1		1
* 54215550	METAL END SECTIONS 15"	EACH	4		4
* 542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	62		62
550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	26		26
55100700	STORM SEWER REMOVAL 15"	FOOT	13		13
58700300	CONCRETE SEALER	SQ FT	89		89
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	30		30
60200805	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 8 GRATE	EACH	1		1
^ 66400305	CHAIN LINK FENCE, 6'	FOOT	2,000		2,000
67100100	MOBILIZATION	LSUM	1		1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	3		3
72000100	SIGN PANEL - TYPE 1	SQ FT	91		91
72900200	METAL POST - TYPE B	FOOT	129		129
^ 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	372		372
^ 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	504		504
^ 81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL 2 1/2" DIA.	FOOT	14	14	
* ^ 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	
^ 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	571	571	
^ 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	647	647	
^ 87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	296	296	
^ 87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	24	24	
^ 87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4	4	
^ 87900200	DRILL EXISTING HANDHOLE	EACH	1	1	
^ 88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4	4	
* ^ 88800100	PEDESTRIAN PUSH-BUTTON	EACH	4	4	

DATE	
BY	
PLANNING	
DESIGNED	
DRAWN	
CHECKED	
DATE	

DATE	
BY	
PROFILE	
DESIGNED	
DRAWN	
CHECKED	
DATE	

# SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 SIGNALS	0028 TRAILS
^ 89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	2	2	
^ 89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1	1	
^ 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	474	474	
^ 89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	72	72	
* ^ 89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	
* ^ 89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	3	3	
* ^ X0100003	CLEARING AND GRUBBING	SQ YD	3,475		3,475
* X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	2,682		2,682
* ^ X0324062	ENTRANCE SIGN	LSUM	1		1
* X0327039	TEMPORARY ACCESS ROAD (SPECIAL)	LSUM	1		1
* ^ X0327732	PRECAST ORNAMENTAL CENTER PILASTER	EACH	2		2
* ^ X0327733	PRECAST ORNAMENTAL CORNER PILASTER	EACH	2		2
* X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	50		50
* ^ X2501010	SEEDING, CLASS 2 (MODIFIED)	ACRE	0.50		0.50
* ^ X2501700	SEEDING, CLASS 3 (MODIFIED)	ACRE	2.25		2.25
* ^ X2501800	SEEDING, CLASS 4 (MODIFIED)	ACRE	0.75		0.75
* ^ X2510635	HEAVY DUTY EROSION CONTROL BLANKET, SPECIAL	SQ YD	100		100
* X2800302	TEMPORARY DITCH CHECKS (SPECIAL)	FOOT	28		28
* X2810106	STONE RIPRAP, CLASS A3 (SPECIAL)	SQ YD	16		16
* X4400220	CURB REMOVAL AND REPLACEMENT	FOOT	101		101
* X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	2		2
* ^ X6640302	CHAIN LINK FENCE REMOVAL (SPECIAL)	FOOT	1,058		1,058
* X6700405	ENGINEER'S FIELD OFFICE, TYPE A (MODIFIED)	CAL MO	6		6
* X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1		1
* ^ XX000503	SPLIT RAIL FENCE	FOOT	568		568
* ^ XX001249	ORNAMENTAL FENCE	FOOT	76		76
* XX003301	GEOTEXTILE FILTER FABRIC	SQ YD	543		543
* XX005238	TOPSOIL FURNISH AND PLACE, VARIABLE DEPTH	CU YD	1,731		1,731
* XX006429	SIDEWALK, SPECIAL	SQ FT	232		232
* ^ XX006570	TREES (SPECIAL)	EACH	23		23
* XX006658	FLOCCULATION LOGS	EACH	6		6

^ DENOTES SPECIALTY ITEM  
 ^^ DENOTES CONSTRUCTION TYPE CODE 0042  
 \* DENOTES SPECIAL PROVISION

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 SIGNALS	0028 TRAILS
* XX006659	FLOCCULATION POWDER	POUND	18		18
* ^ XX006750	OUTLOOK RAILING	FOOT	24		24
* ^ XX007147	REMOVE AND REPLACE LAWN SPRINKLER SYSTEM	FOOT	1,200		1,200
* ^ XX007852	PEDESTRIAN BENCH, FURNISH AND INSTALL	EACH	1		1
* XX008310	AGGREGATE SURFACE COURSE, TYPE B 3" (SPECIAL)	SQ YD	9		9
* ^ XX008639	SHRUBS (SPECIAL)	EACH	39		39
* XZ127902	RETAINING WALL, SPECIAL	SQ FT	2,822		2,822
* Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	374		374
* Z0013798	CONSTRUCTION LAYOUT	LSUM	1		1
* Z0017400	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	2		2
* Z0018700	DRAINAGE STRUCTURE TO BE REMOVED	EACH	22		22
* ^ Z0019400	DRY RUBBLE STONE OR BROKEN CONCRETE TREE WELLS	CU YD	3		3
* Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	103		103
* ^ Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1	1	
* Z0046304	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	78		78
* Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1		1
* Z0055905	TEMPORARY CONSTRUCTION FENCE	FOOT	2,500		2,500
^^ Z0076600	TRAINEES	HOURL	500		500
^^ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOURL	500		500

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 ALIGNED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 PLAN NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 PART OF WAY CHECKED \_\_\_\_\_  
 ROAD TITLE NAME \_\_\_\_\_

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 GRADES CHECKED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 PROFILE NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 STRUCTURE NOTATIONS CHECKED \_\_\_\_\_



DESIGNED - TFS  
 DRAWN - JRR  
 CHECKED - RTM  
 DATE - 1/14/2016  
 REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

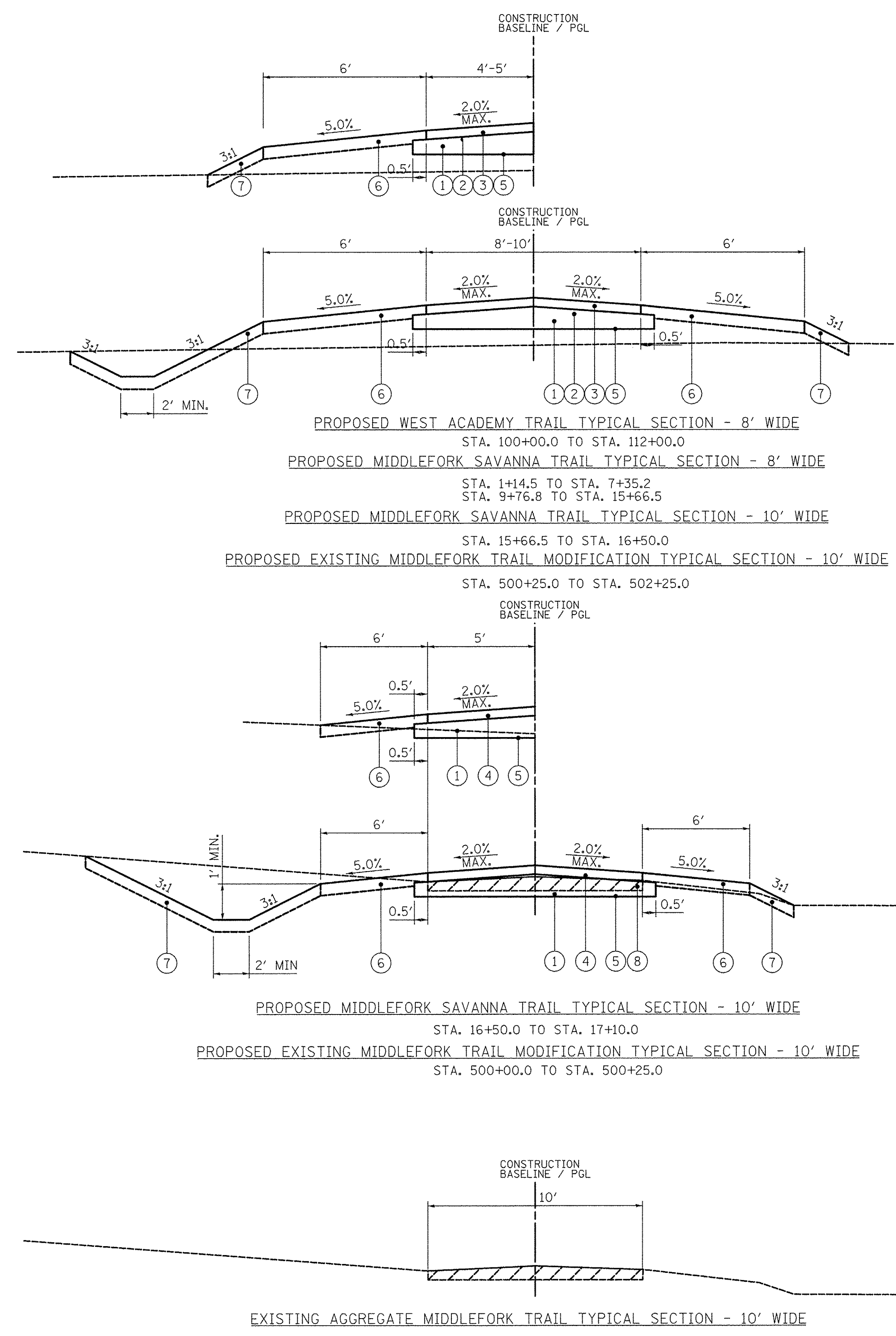
## SUMMARY OF QUANTITIES

SHEET NO. 2 OF 2 SHEETS

F.A.P. RTE. 0335	SECTION 14-F30003-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 5
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

DATE	
BY	
PLANNING	
DESIGNED	
DRAWN	
CHECKED	
NO. OF WAY CHECKED	
NO. OF STRUCTURE NOTATIONS CHECKED	
NO.	

DATE	
BY	
PROFILE	
DESIGNED	
DRAWN	
CHECKED	
NO. OF WAY CHECKED	
NO. OF STRUCTURE NOTATIONS CHECKED	
NO.	



CONDENSED SUMMARY OF EARTHWORK QUANTITIES			
	EARTH EXCAVATION (20200100)	TOPSOIL EXCAVATION AND PLACEMENT (21101505)	FURNISHED EXCAVATION (20400800)
	(CU FT)	(CU FT)	(CU FT)
SUBTOTAL WEST ACADEMY TRAIL	1,862	20,417	12,811
SUBTOTAL MIDDLEFORK SAVANNA TRAIL	49,417	65,597	192,717
SUBTOTAL EXISTING MIDDLEFORK TRAIL MODIFICATION	4,655	5,985	3,439
<b>PROJECT SUBTOTAL (CU. FT.)</b>	<b>55,933</b>	<b>91,999</b>	<b>208,966</b>
<b>PROJECT SUBTOTAL (CU. YD.)</b>	<b>2,072</b>	<b>3,408</b>	<b>7,739</b>
SHRINKAGE FACTOR ADJUSTMENT (15%)	-	-	x 1.15
<b>PROJECT TOTAL (CU. YD.)</b>	<b>2,075</b>	<b>3,410</b>	<b>8,905</b>

ESTIMATE INCLUDES 8" OF TOPSOIL STRIPPING INSTEAD OF 12" BECAUSE REMAINING TRAIL HMA WILL BE HAULED OFF.

THERE IS NO HAUL-OFF ANTICIPATED AND ALL CUT SHOULD BE WASTED ON SITE AT THE DIRECTION OF ENGINEER.

PROJECT TOTAL QUANTITIES ROUNDED UP TO THE NEAREST 5 CU. YD. PER BDE MANUAL QUANTITY ROUNDING CRITERIA.

AN EXISTING STOCKPILE OF EARTH IS AVAILABLE ON PROPERTY FOR POTENTIAL USE AT THE CONTRACTOR'S OPTION. CONTACT MR. MIKE REIDY, LAKE FOREST ACADEMY, (847) 615- 3213 FOR DETAILS. SOIL BORINGS & DATA IN REGARD TO THE SOIL STOCK PILE LOCATIONS ARE INCLUDED WITHIN THE SOILS REPORT SECTION OF THE SPECIAL PROVISIONS.

LEGEND

- ① PROPOSED AGGREGATE BASE COURSE - TYPE B 5" GRADED TO 2% SLOPE AND COMPACTED
- ② PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ③ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 3"
- ④ PROPOSED AGGREGATE SURFACE COURSE, TYPE B, 3" (SPECIAL)
- ⑤ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION (AS REQUIRED)
- ⑥ PROPOSED TOPSOIL EXCAVATION AND PLACEMENT (4" MINIMUM) SEEDING, CLASS 2 EROSION CONTROL BLANKET
- ⑦ PROPOSED TOPSOIL EXCAVATION AND PLACEMENT (4" MINIMUM) SEEDING CLASS 3 EROSION CONTROL BLANKET
- ⑧ PREPARATION OF BASE (QUANTITY PROVIDED FOR THE PREPARATION OF TRAIL SUBGRADE OVER EXISTING AGGREGATE TRAIL SECTIONS)

NOTES:

1. ALL TRAIL SECTIONS TO BE INSTALLED WITH A PAVING BOX.
2. LOCATION OF DITCHES VARIES. SEE PLANS FOR LOCATION OF DITCHES ADJACENT TO TRAILS.
3. SEE STRUCTURAL SHEETS FOR STA. 7+35.2 TO 9+76.8
4. MIDDLEFORK SAVANNA TRAIL TRANSITIONS FROM 8' WIDE TO 12' WIDE BETWEEN STA. 6+52.0 TO 7+35.2 AND FROM 12' WIDE TO 8' WIDE BETWEEN STA. 9+76.8 TO 10+64.0 TO MATCH PROPOSED 12' WIDE PEDESTRIAN BRIDGE.
5. MIDDLEFORK SAVANNA TRAIL TRANSITIONS FROM 8' WIDE TO 10' WIDE BETWEEN STA. 16+12 TO 16+13 TO MATCH INTO EXISTING TRAIL.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
<b>PAVEMENT RESURFACING</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm); 2" (IN 1 LIFT)	4% @ 50 Gyr.
<b>BIKE PATH PAVEMENT</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm); 3" (IN 1 LIFT)	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.  
THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.  
FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 ALIGNMENT CHECKED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 PLAN NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 DATE FILED \_\_\_\_\_  
 NO. \_\_\_\_\_

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 GRAPHS CHECKED \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_  
 DATE FILED \_\_\_\_\_  
 NO. \_\_\_\_\_

MIDDLEFORK SAVANNA TRAIL				
DESCRIPTION	STATION	NORTHING	EASTING	
500 BOA	1+00.00	2031576.7298	1105498.4843	
BCR1 PC	1+59.17	2031585.5968	1105556.9872	
PI	1+88.86	2031590.0456	1105586.3397	
PT	2+05.98	2031560.7412	1105591.0954	
BCR2 PC	2+60.08	2031507.3389	1105599.7619	
PI	2+76.28	2031491.3542	1105602.3560	
PT	2+92.19	2031477.0052	1105609.8623	
BCR3 PC	3+93.86	2031386.9175	1105658.9890	
PI	4+86.50	2031304.8299	1105699.9307	
PT	5+73.57	2031261.2473	1105781.6798	
BCR4 PC	6+52.01	2031224.3454	1105850.8975	
PI	6+99.79	2031201.8666	1105893.0617	
PT	7+42.95	2031214.5232	1105939.1370	
BCR5 PC	9+76.58	2031276.4063	1106164.4171	
PI	10+20.98	2031288.1682	1106207.2351	
PT	10+64.47	2031313.9558	1106243.3837	
BCR6 PC	11+39.87	2031357.7459	1106304.7679	
PI	14+28.86	2031525.5750	1106540.0277	
PT	16+63.94	2031813.2044	1106512.0439	
630 EOA	18+00.00	2031948.6250	1106498.8686	

PROP. CURVE BCR1	PROP. CURVE BCR2	PROP. CURVE BCR3	PROP. CURVE BCR4	PROP. CURVE BCR5	PROP. CURVE BCR6
PI STA. = 1+88.86	PI STA. = 2+76.28	PI STA. = 4+86.50	PI STA. = 6+99.79	PI STA. = 10+20.98	PI STA. = 14+28.86
$\Delta = 89^\circ 24' 02''$ (RT)	$\Delta = 18^\circ 23' 49''$ (LT)	$\Delta = 34^\circ 19' 18''$ (LT)	$\Delta = 43^\circ 25' 24''$ (LT)	$\Delta = 20^\circ 08' 36''$ (LT)	$\Delta = 60^\circ 03' 13''$ (LT)
D = 190' 59' 09"	D = 57' 17' 45"	D = 19' 05' 55"	D = 47' 44' 47"	D = 22' 55' 06"	D = 11' 27' 33"
R = 30.00'	R = 100.00'	R = 300.00'	R = 120.00'	R = 250.00'	R = 500.00'
T = 29.69'	T = 16.19'	T = 92.64'	T = 47.78'	T = 44.40'	T = 288.99'
L = 46.81'	L = 32.11'	L = 179.71'	L = 90.95'	L = 179.71'	L = 524.07'
E = 12.21'	E = 1.30'	E = 13.98'	E = 9.16'	E = 3.91'	E = 77.51'
P.C. STA = 1+59.17	P.C. STA = 2+60.08	P.C. STA = 3+93.86	P.C. STA = 6+52.01	P.C. STA = 9+76.58	P.C. STA = 11+39.87
P.T. STA = 2+05.98	P.T. STA = 2+92.19	P.T. STA = 5+73.57	P.T. STA = 7+42.95	P.T. STA = 10+64.47	P.T. STA = 16+63.94

PROP. CURVE WA_CRV01	PROP. CURVE WA_CRV02	PROP. CURVE WA_CRV03
PI STA. = 100+29.14	PI STA. = 101+08.51	PI STA. = 102+67.23
$\Delta = 8^\circ 48' 29''$ (RT)	$\Delta = 11^\circ 05' 27''$ (LT)	$\Delta = 28^\circ 16' 47''$ (RT)
D = 19' 05' 55"	D = 19' 05' 55"	D = 57' 17' 45"
R = 300.00'	R = 300.00'	R = 100.00'
T = 23.10'	T = 25.13'	T = 25.19'
L = 46.12'	L = 58.07'	L = 49.36'
E = 0.89'	E = 1.41'	E = 3.12'
P.C. STA = 100+06.03	P.C. STA = 100+79.38	P.C. STA = 102+42.04
P.T. STA = 100+52.15	P.T. STA = 101+37.45	P.T. STA = 102+91.40

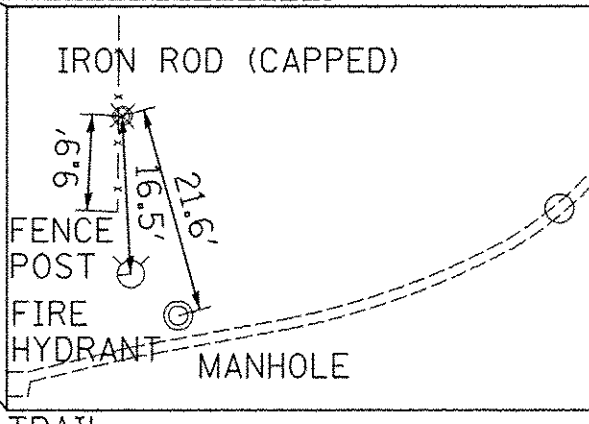
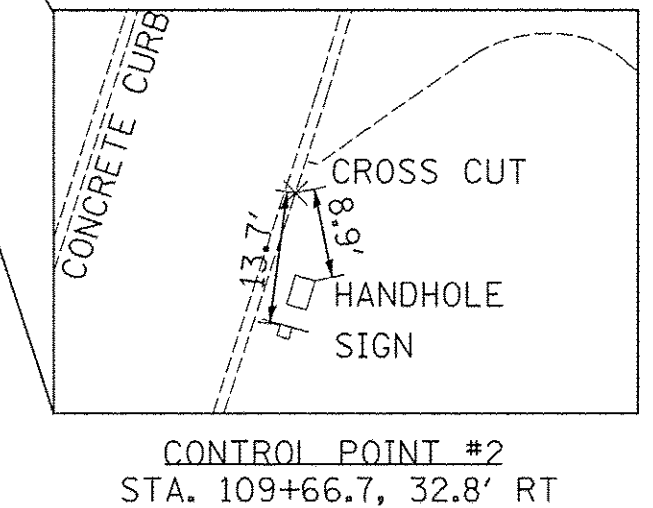
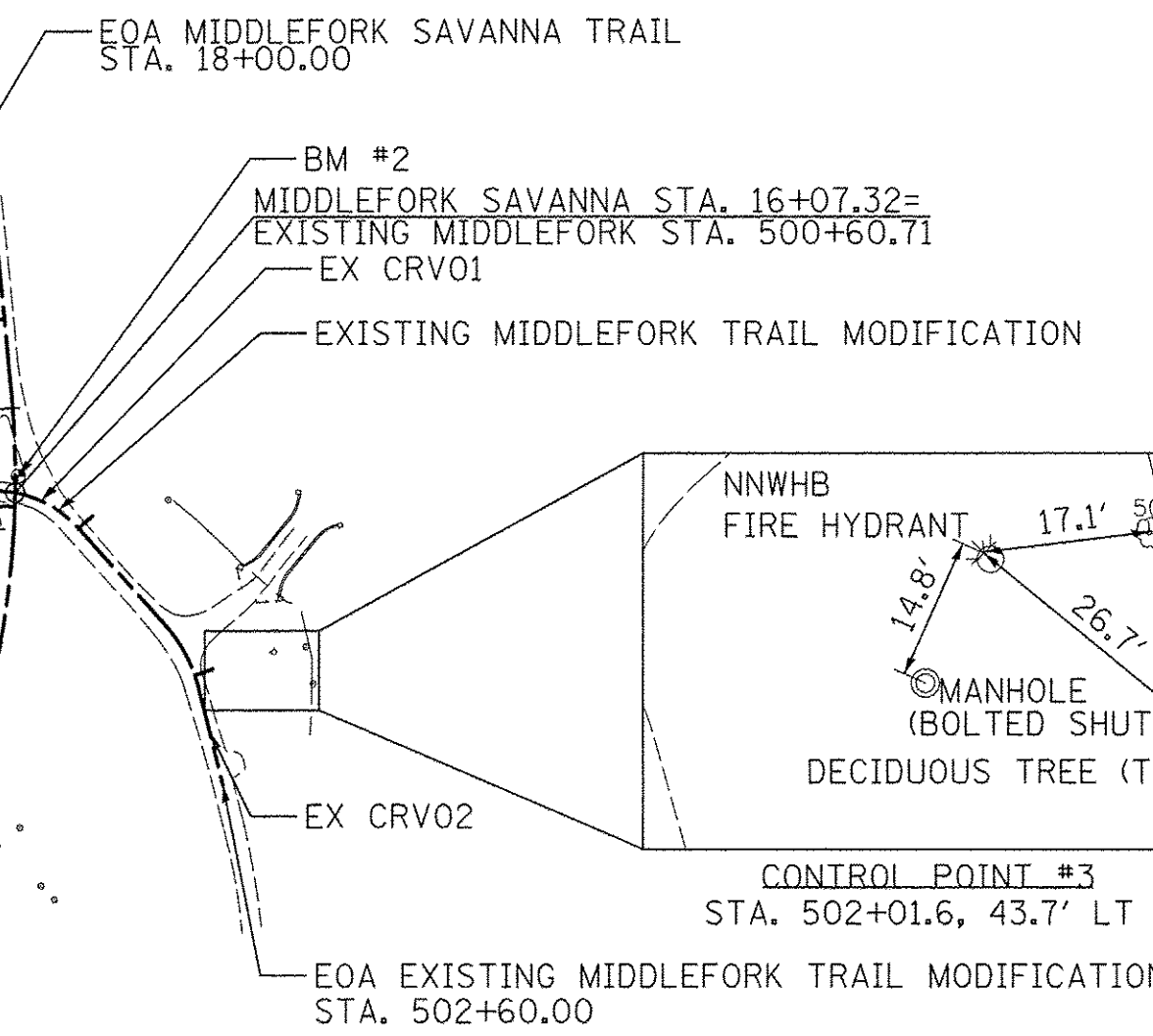
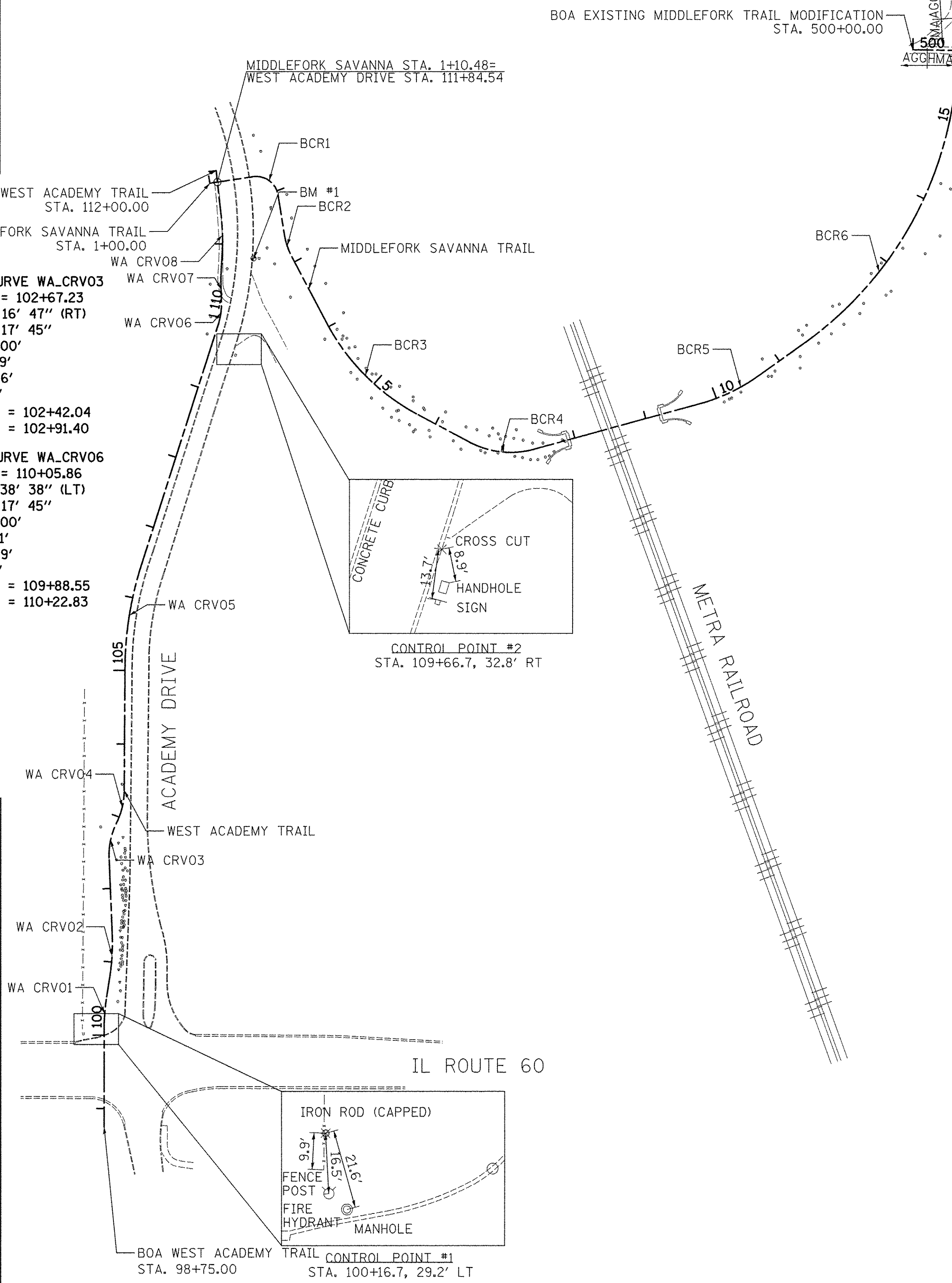
  

PROP. CURVE WA_CRV04	PROP. CURVE WA_CRV05	PROP. CURVE WA_CRV06
PI STA. = 103+14.85	PI STA. = 105+75.31	PI STA. = 110+05.86
$\Delta = 25^\circ 39' 40''$ (LT)	$\Delta = 17^\circ 21' 45''$ (RT)	$\Delta = 19^\circ 38' 38''$ (LT)
D = 57' 17' 45"	D = 11' 57' 42"	D = 57' 17' 45"
R = 100.00'	R = 479.00'	R = 100.00'
T = 22.78'	T = 73.14'	T = 17.31'
L = 44.79'	L = 145.15'	L = 34.29'
E = 2.56'	E = 5.55'	E = 1.49'
P.C. STA = 102+92.07	P.C. STA = 105+02.17	P.C. STA = 109+88.55
P.T. STA = 103+36.86	P.T. STA = 106+47.33	P.T. STA = 110+22.83

PROP. CURVE WA_CRV07	PROP. CURVE WA_CRV08
PI STA. = 110+51.76	PI STA. = 111+12.25
$\Delta = 5^\circ 08' 08''$ (RT)	$\Delta = 9^\circ 26' 59''$ (LT)
D = 19' 05' 55"	D = 19' 05' 55"
R = 300.00'	R = 300.00'
T = 13.45'	T = 24.80'
L = 26.89'	L = 49.48'
E = 0.30'	E = 1.02'
P.C. STA = 110+38.31	P.C. STA = 110+87.46
P.T. STA = 110+65.19	P.T. STA = 111+36.94

WEST ACADEMY TRAIL				
DESCRIPTION	STATION	NORTHING	EASTING	
190 BOA	98+75.00	2030292.2640	1105354.9868	
200 PI	100+00.00	2030417.2640	1105354.9975	
PC	100+06.03	2030423.2967	1105354.9975	
WA_CRV01 PI	100+29.14	2030446.4014	1105354.9975	
PT	100+52.15	2030469.2337	1105358.5354	
PC	100+79.38	2030496.1435	1105362.7050	
WA_CRV02 PI	101+08.51	2030524.9268	1105367.1650	
PT	101+37.45	2030554.0305	1105366.0048	
PC	102+42.04	2030658.5321	1105361.8389	
WA_CRV03 PI	102+67.23	2030683.7044	1105360.8354	
PT	102+91.40	2030706.3477	1105371.8778	
PC	102+92.07	2030706.9573	1105372.1750	
WA_CRV04 PI	103+14.85	2030727.4284	1105382.1581	
PT	103+36.86	2030750.2036	1105382.2915	
PC	105+02.17	2030915.5141	1105383.2602	
WA_CRV05 PI	105+75.31	2030988.6499	1105383.6888	
PT	106+47.33	2031058.3255	1105405.9228	
PC	109+88.55	2031383.3977	1105509.6553	
WA_CRV06 PI	110+05.86	2031399.8909	1105514.9183	
PT	110+22.83	2031417.1934	1105514.3305	
PC	110+38.31	2031432.6547	1105513.8052	
WA_CRV07 PI	110+51.76	2031446.1006	1105513.3484	
PT	110+65.19	2031459.5334	1105514.0970	
PC	110+87.46	2031481.7635	1105515.3358	
WA_CRV08 PI	111+12.25	2031506.5207	1105516.7155	
PT	111+36.94	2031531.1685	1105514.0117	
370 PI	111+84.35	2031578.2996	1105508.8416	
380 EOA	112+00.00	2031593.8548	1105507.1353	



PROP. CURVE EX_CRV01	PROP. CURVE EX_CRV02
PI STA. = 500+76.55	PI STA. = 501+88.32
$\Delta = 47^\circ 21' 10''$ (RT)	$\Delta = 27^\circ 45' 37''$ (RT)
D = 95' 29' 35"	D = 71' 37' 11"
R = 60.00'	R = 80.00'
T = 26.31'	T = 19.77'
L = 49.59'	L = 38.76'
E = 5.51'	E = 2.41'
P.C. STA = 500+50.24	P.C. STA = 501+68.55
P.T. STA = 500+99.83	P.T. STA = 502+07.31

EXISTING MIDDLEFORK TRAIL MODIFICATION				
DESCRIPTION	STATION	NORTHING	EASTING	
10 BOA	500+00.00	2031758.4451	1106453.6929	
EX_CRV01 PC	500+50.24	2031757.7198	1106503.9252	
PI	500+76.55	2031757.3400	1106530.2312	
PT	500+99.83	2031737.7336	1106547.7737	
EX_CRV02 PC	501+68.55	2031686.5169	1106593.5988	
PI	501+88.32	2031671.7846	1106606.7803	
PT	502+07.31	2031652.6083	1106611.5827	
60 EOA	502+60.00	2031601.4997	1106624.3822	

CONTROL POINTS				
WEST ACADEMY TRAIL				
CP#	NORTHING	EASTING	STATION	OFFSET
CP #1	2031646.9450	1106603.6720	100+16.7	29.2' LT
CP #2	2031352.4220	1105534.1670	109+66.7	32.8' RT
EXISTING MIDDLEFORK TRAIL				
CP #3	2031671.7810	1106651.5320	502+01.6	43.7' LT

NOTE: THREE POINT TIES ARE PROVIDED ONLY TO FIND GENERAL LOCATIONS OF CONTROL POINTS, NOT TO ACCURATELY ESTABLISH THE POINTS.

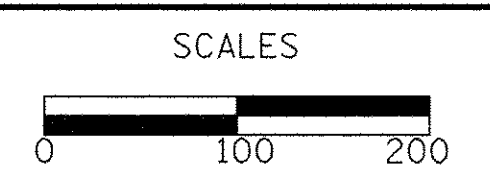
BM#	DESCRIPTION	NORTHING	EASTING	ELEVATION
SOURCE BENCHMARKS				
SBM 1	LAKE COUNTY BENCHMARK RECOVERY SHEET MARKER DESIGNATION: 5-72 AT THE INTERSECTION OF EVERETT ROAD AND ELM ROAD	2023738.5170	1097371.4940	676.2200
SBM 2	CITY OF LAKE FOREST MONUMENT NO. 43 AT THE INTERSECTION OF GAGE LANE AND U.S. ROUTE 41	2038914.8800	1111514.6000	668.0400
SBM 3	CITY OF LAKE FOREST MONUMENT NO. 5 AT THE INTERSECTION OF ILLINOIS ROUTE 60 AND THE DRIVEWAY ENTRANCE TO THE RECYCLING CENTER	2030339.4050	1106806.2710	670.1300
SITE BENCHMARKS				
BM1	SURVEY CONTROL CUT CROSS ON EXISTING CURB JUST NORTH OF ACADEMY DRIVE AT THE ENTRANCE OF FACULTY CIRCLE	2031474.7850	1105557.8730	674.3700
BM2	SURVEY CONTROL IRON ROD	2031765.5500	1106516.0250	667.0900

BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM NAD83 (2007) EAST ZONE. GRID COORDINATES ARE SHOWN. VERTICAL CONTROL REFERENCED TO NAVD 88

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

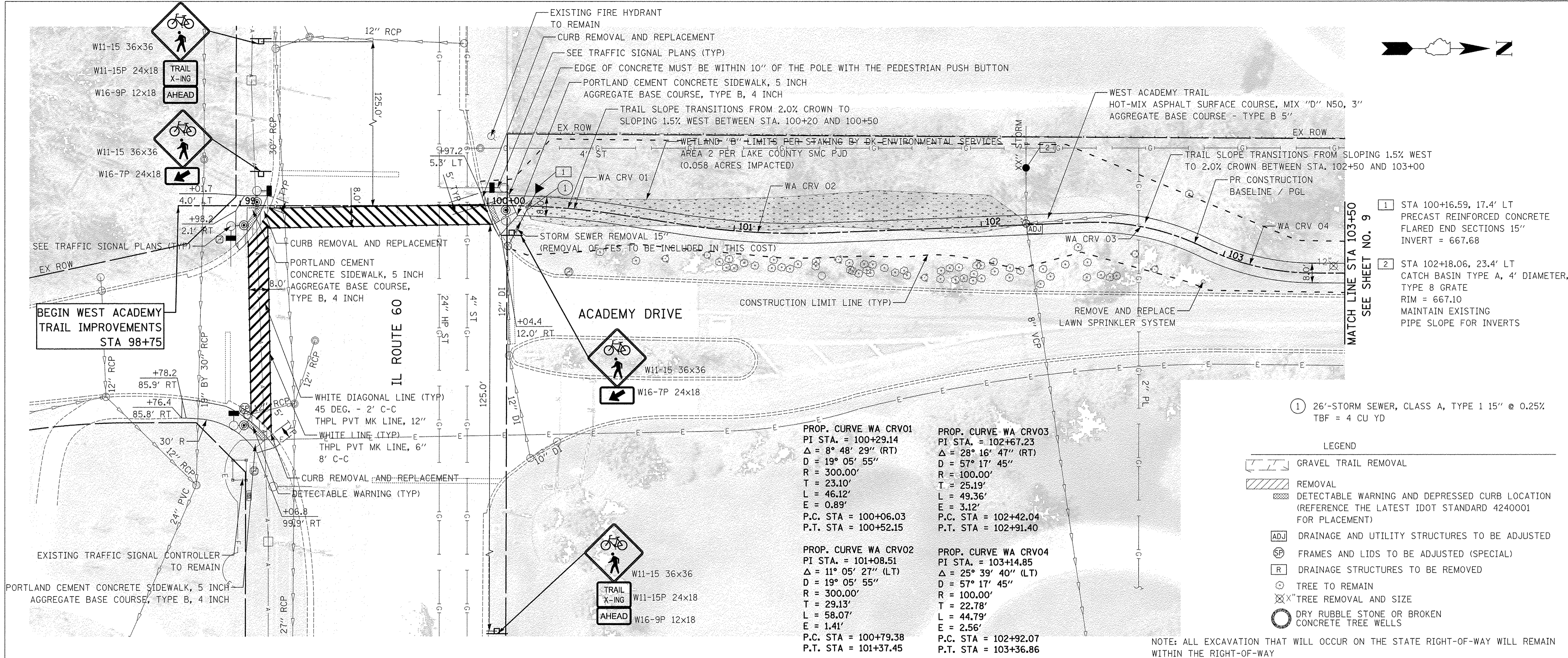


ALIGNMENT, TIES AND BENCHMARKS  
 SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F30003-BT	LAKE	70	7
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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

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



- 1 STA 100+16.59, 17.4' LT PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15' INVERT = 667.68
- 2 STA 102+18.06, 23.4' LT CATCH BASIN TYPE A, 4' DIAMETER, TYPE 8 GRATE RIM = 667.10 MAINTAIN EXISTING PIPE SLOPE FOR INVERTS

**PROP. CURVE WA CRV01**  
 PI STA. = 100+29.14  
 $\Delta = 8^\circ 48' 29''$  (RT)  
 $D = 19^\circ 05' 55''$   
 $R = 300.00'$   
 $T = 23.10'$   
 $L = 46.12'$   
 $E = 0.89'$   
 P.C. STA = 100+06.03  
 P.T. STA = 100+52.15

**PROP. CURVE WA CRV02**  
 PI STA. = 101+08.51  
 $\Delta = 11^\circ 05' 27''$  (LT)  
 $D = 19^\circ 05' 55''$   
 $R = 300.00'$   
 $T = 29.13'$   
 $L = 58.07'$   
 $E = 1.41'$   
 P.C. STA = 100+79.38  
 P.T. STA = 101+37.45

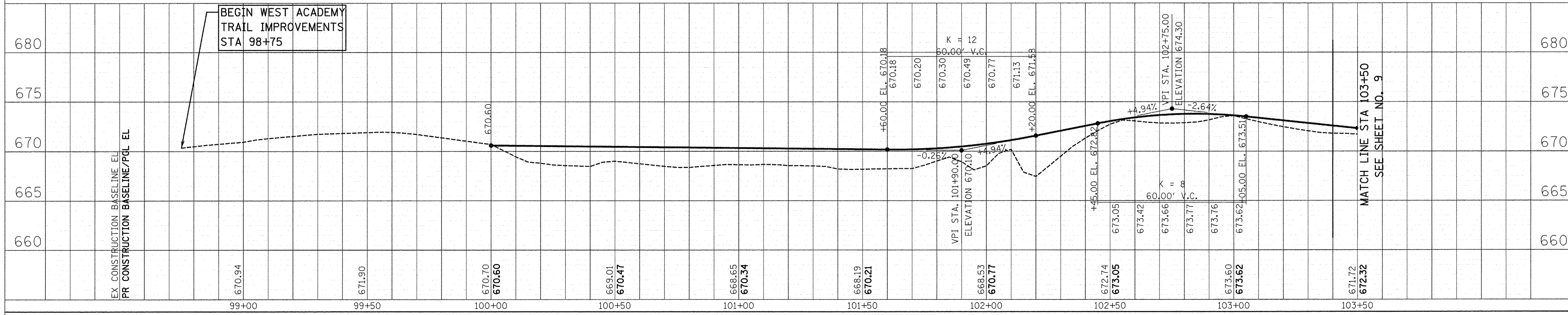
**PROP. CURVE WA CRV03**  
 PI STA. = 102+67.23  
 $\Delta = 28^\circ 16' 47''$  (RT)  
 $D = 57^\circ 17' 45''$   
 $R = 100.00'$   
 $T = 25.19'$   
 $L = 49.36'$   
 $E = 3.12'$   
 P.C. STA = 102+42.04  
 P.T. STA = 102+91.40

**PROP. CURVE WA CRV04**  
 PI STA. = 103+14.85  
 $\Delta = 25^\circ 39' 40''$  (LT)  
 $D = 57^\circ 17' 45''$   
 $R = 100.00'$   
 $T = 22.78'$   
 $L = 44.79'$   
 $E = 2.56'$   
 P.C. STA = 102+92.07  
 P.T. STA = 103+36.86

1 26'-STORM SEWER, CLASS A, TYPE 1 15" @ 0.25% TBF = 4 CU YD

- LEGEND**
- GRAVEL TRAIL REMOVAL
  - REMOVAL
  - DETECTABLE WARNING AND DEPRESSED CURB LOCATION (REFERENCE THE LATEST IDOT STANDARD 4240001 FOR PLACEMENT)
  - DRAINAGE AND UTILITY STRUCTURES TO BE ADJUSTED
  - FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)
  - DRAINAGE STRUCTURES TO BE REMOVED
  - TREE TO REMAIN
  - TREE REMOVAL AND SIZE
  - DRY RUBBLE STONE OR BROKEN CONCRETE TREE WELLS

NOTE: ALL EXCAVATION THAT WILL OCCUR ON THE STATE RIGHT-OF-WAY WILL REMAIN WITHIN THE RIGHT-OF-WAY



**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

VERT. 0 5 10  
 HORIZ. 0 20 40

**WEST ACADEMY TRAIL  
 PLAN AND PROFILE**

F.A.P. RTE. 0335	SECTION 14-F30003-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 8
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SHEET NO. 1 OF 7 SHEETS STA. 100+00 TO STA. 103+50

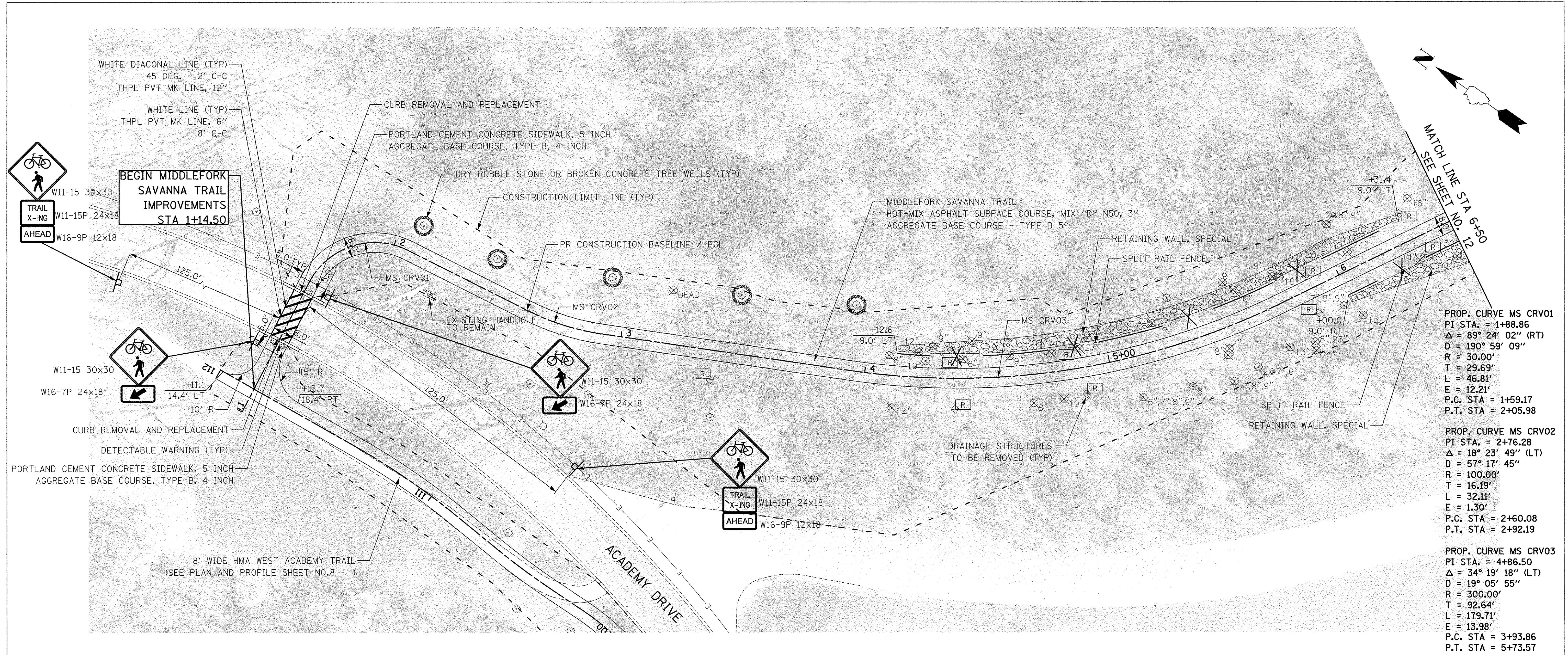






DATE	
BY	
SURVEYED	
ALIGNED	
CHECKED	
PT. OF WAY	
CHECKED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

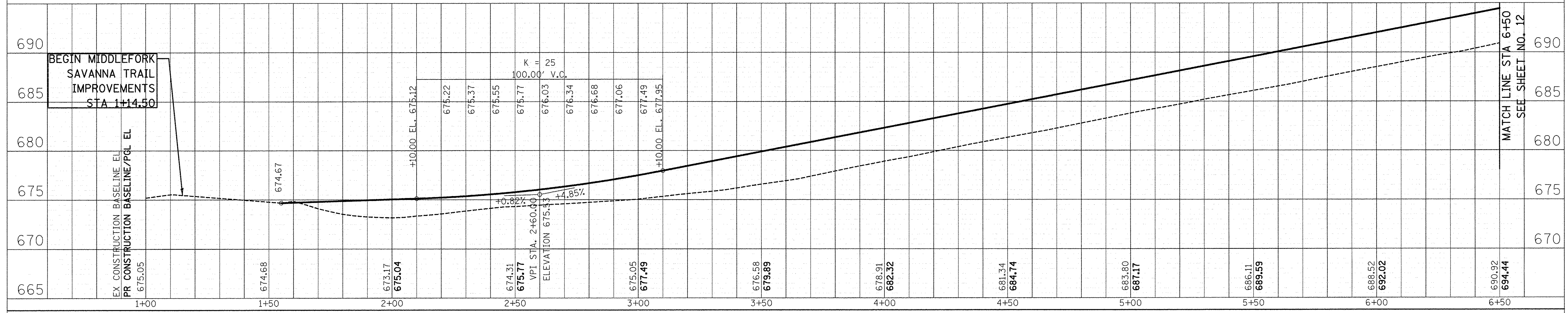
DATE	
BY	
PROF. EL.	
GRADES	
CHECKED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	



PROP. CURVE MS CRV01  
 PI STA. = 1+88.86  
 $\Delta = 89^\circ 24' 02''$  (RT)  
 D = 190' 59' 09"  
 R = 30.00'  
 T = 29.69'  
 L = 46.81'  
 E = 12.21'  
 P.C. STA = 1+59.17  
 P.T. STA = 2+05.98

PROP. CURVE MS CRV02  
 PI STA. = 2+76.28  
 $\Delta = 18^\circ 23' 49''$  (LT)  
 D = 57' 17' 45"  
 R = 100.00'  
 T = 16.19'  
 L = 32.11'  
 E = 1.30'  
 P.C. STA = 2+60.08  
 P.T. STA = 2+92.19

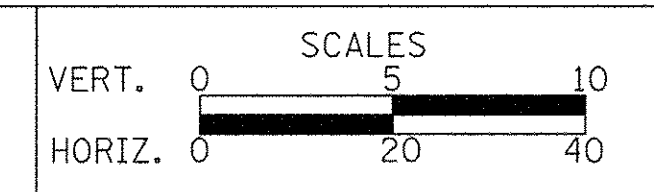
PROP. CURVE MS CRV03  
 PI STA. = 4+86.50  
 $\Delta = 34^\circ 19' 18''$  (LT)  
 D = 19' 05' 55"  
 R = 300.00'  
 T = 92.64'  
 L = 179.71'  
 E = 13.98'  
 P.C. STA = 3+93.86  
 P.T. STA = 5+73.57



**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



**MIDDLEFORK SAVANNA TRAIL**  
**PLAN AND PROFILE**

SHEET NO. 4 OF 7 SHEETS STA. 1+00 TO STA. 6+50

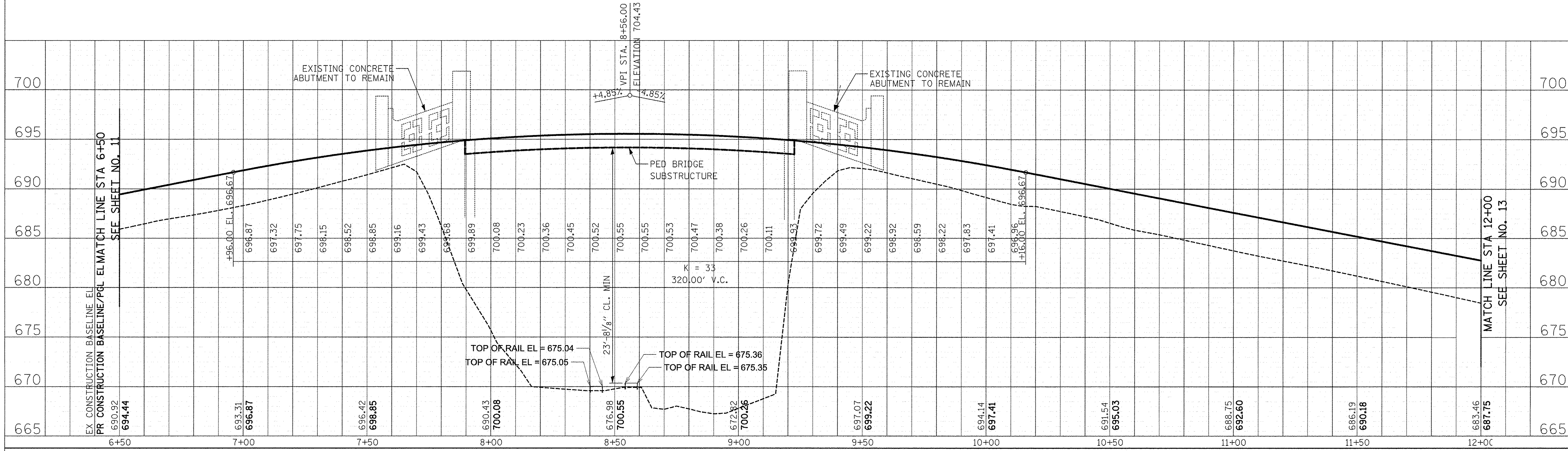
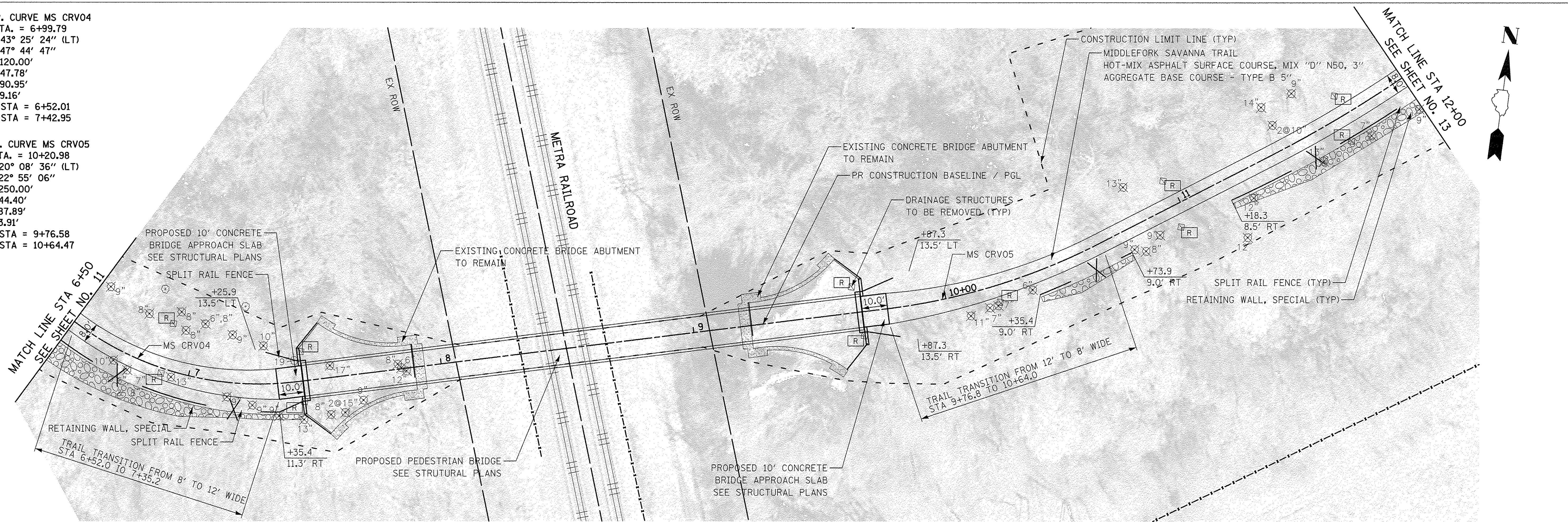
F.A.P. RTE. 0335	SECTION 14-F3000-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 11
CONTRACT NO. 61C39			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

PROP. CURVE MS CRV04  
 PI STA. = 6+99.79  
 $\Delta = 43^\circ 25' 24''$  (LT)  
 $D = 47^\circ 44' 47''$   
 $R = 120.00'$   
 $T = 47.78'$   
 $L = 90.95'$   
 $E = 9.16'$   
 P.C. STA = 6+52.01  
 P.T. STA = 7+42.95

PROP. CURVE MS CRV05  
 PI STA. = 10+20.98  
 $\Delta = 20^\circ 08' 36''$  (LT)  
 $D = 22^\circ 55' 06''$   
 $R = 250.00'$   
 $T = 44.40'$   
 $L = 87.89'$   
 $E = 3.91'$   
 P.C. STA = 9+76.58  
 P.T. STA = 10+64.47

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

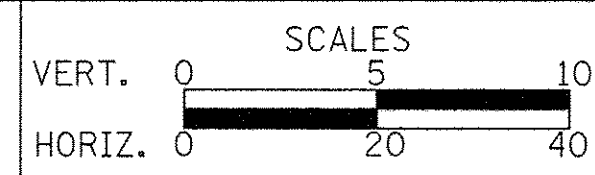
DATE	
BY	
REVISIONS	
NO.	
DESCRIPTION	
DATE	
BY	
NO.	
DESCRIPTION	
DATE	
BY	
NO.	
DESCRIPTION	



**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**



**MIDDLEFORK SAVANNA TRAIL  
 PLAN AND PROFILE**

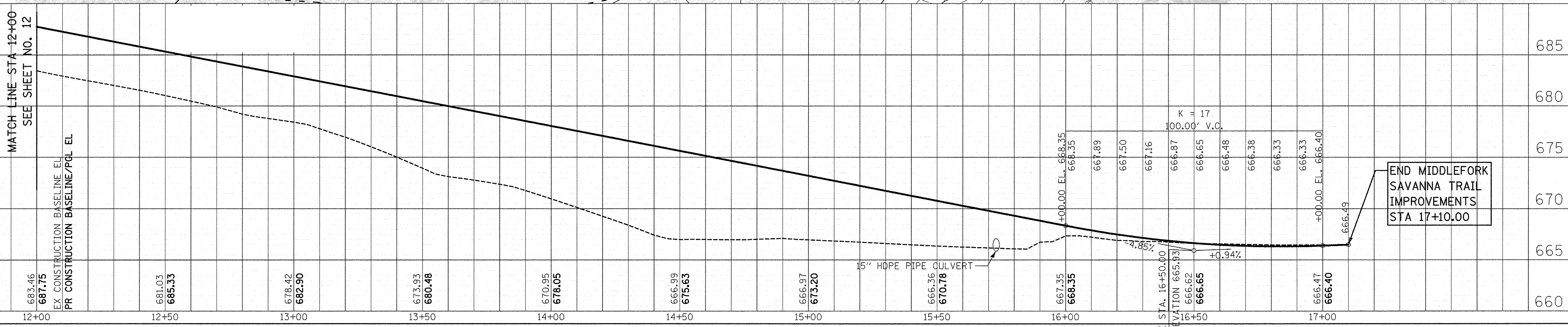
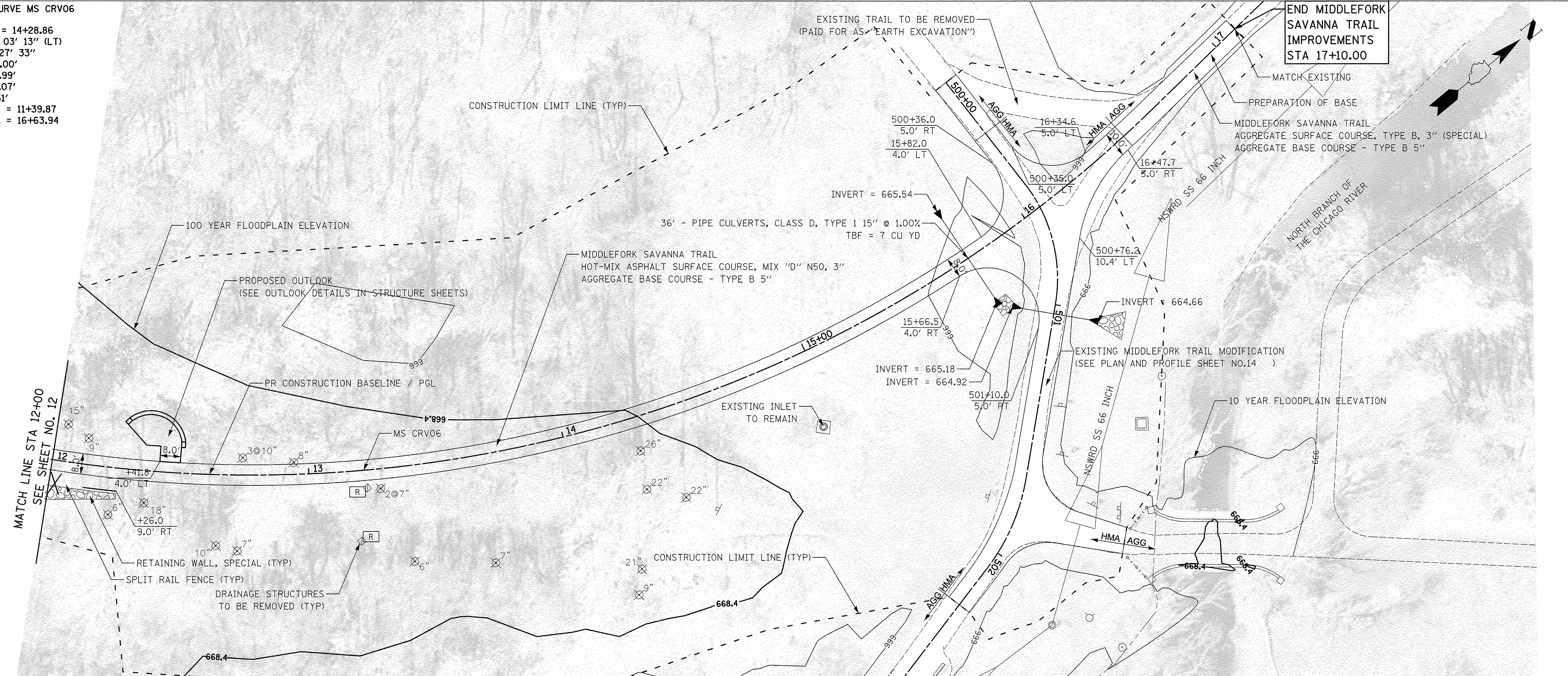
SHEET NO. 5 OF 7 SHEETS STA. 6+50 TO STA. 12+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F30003-BT	LAKE	70	12
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PROP. CURVE MS CRV06

PI STA. = 14+28.86  
 $\Delta = 60^\circ 03' 13''$  (LT)  
 $D = 11^\circ 27' 33''$   
 $R = 500.00'$   
 $T = 288.99'$   
 $L = 524.07'$   
 $E = 77.51'$   
P.C. STA = 11+39.87  
P.T. STA = 16+63.94

END MIDDLEFORK SAVANNA TRAIL IMPROVEMENTS STA 17+10.00



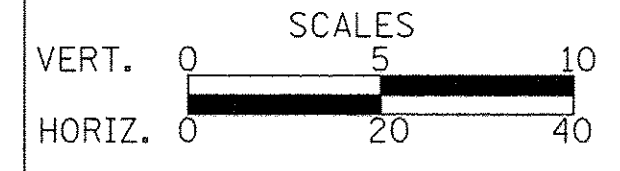
REVIEWED	DATE
ALIGNMENT CHECKED	
PLOTTED	
NOTE BOOK	
NO.	

REVIEWED	DATE
GRADES CHECKED	
PLOTTED	
NOTE BOOK	
NO.	

**CIVILTECH**  
450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

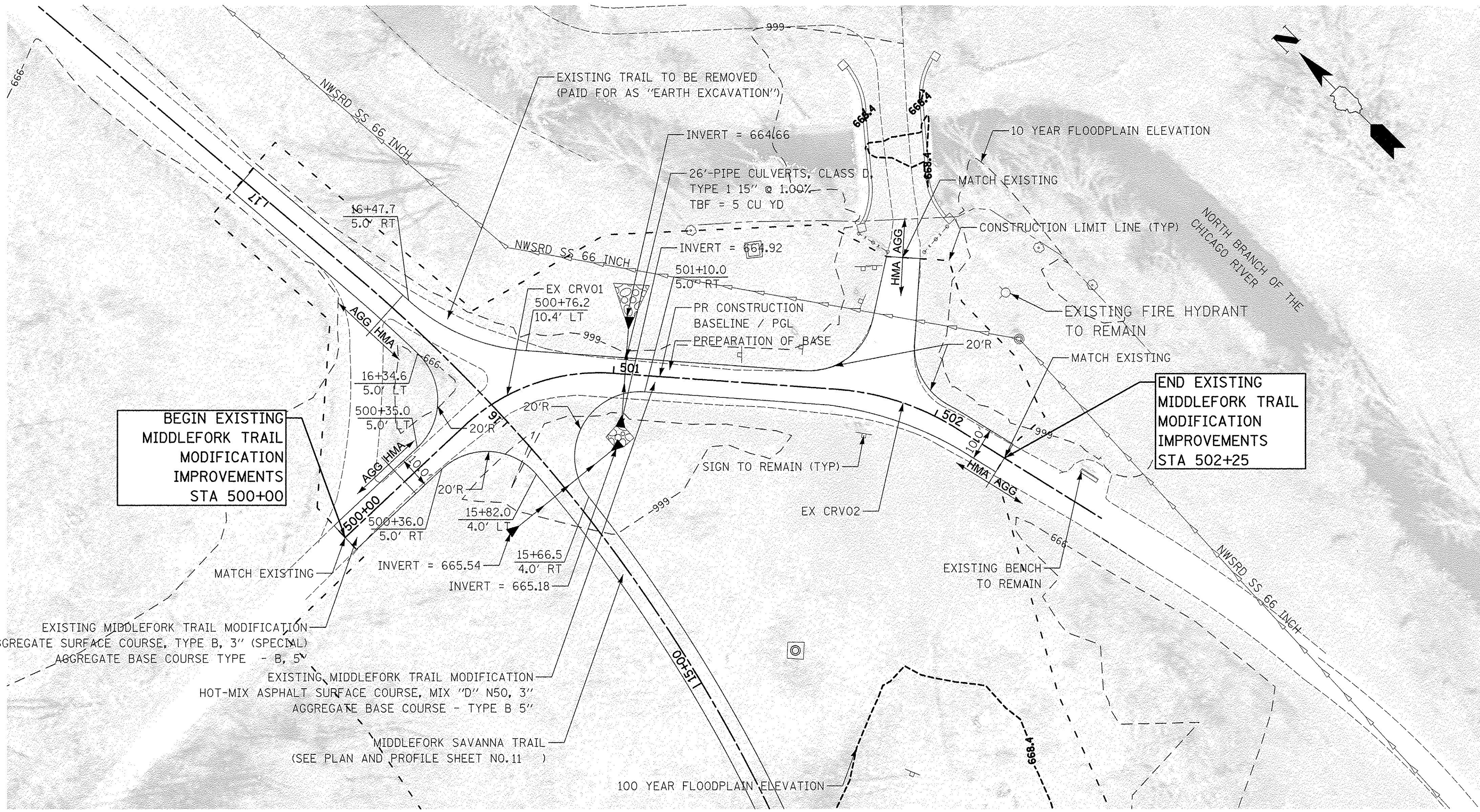
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



**MIDDLEFORK SAVANNA TRAIL**  
**PLAN AND PROFILE**

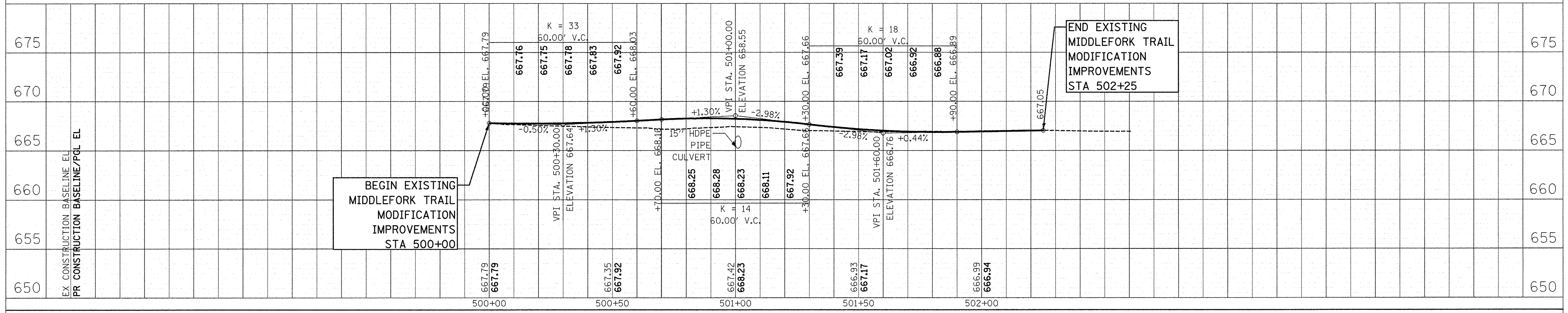
SHEET NO. 6 OF 7 SHEETS STA. 12+00 TO STA. 17+10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	13
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



PROP. CURVE EX\_CRV01  
 PI STA. = 500+76.55  
 $\Delta = 47^\circ 21' 10''$  (RT)  
 D = 95' 29' 35"  
 R = 60.00'  
 T = 26.31'  
 L = 49.59'  
 E = 5.51'  
 P.C. STA = 500+50.24  
 P.T. STA = 500+99.83

PROP. CURVE EX\_CRV02  
 PI STA. = 501+88.32  
 $\Delta = 27^\circ 45' 37''$  (RT)  
 D = 71' 37' 11"  
 R = 80.00'  
 T = 19.77'  
 L = 38.76'  
 E = 2.41'  
 P.C. STA = 501+68.55  
 P.T. STA = 502+07.31



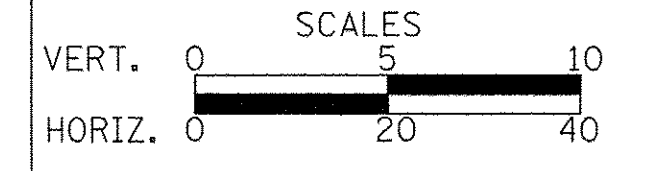
DATE	
BY	
REVISION	
NO.	
PLAN	
NOTE BOOK	
NO.	
NO.	
NO.	
NO.	
NO.	

DATE	
BY	
REVISION	
NO.	
PROFILE	
NOTE BOOK	
NO.	
NO.	
NO.	
NO.	
NO.	

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



**EXISTING MIDDLEFORK TRAIL MODIFICATION**  
**PLAN AND PROFILE**

SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A.P. RTE. 0335	SECTION 14-F300-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 14
CONTRACT NO. 61C39			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



EROSION CONTROL NOTES

THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE FOLLOWING LAKE COUNTY STORMWATER MANAGEMENT COMMISSION (LCSMC) SEDIMENTATION AND EROSION CONTROL NOTES:

- A. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- B. FOR THOSE DEVELOPMENTS THAT REQUIRE A DESIGNATED EROSION CONTROL INSPECTOR (DECI), INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
  - UPON COMPLETION OF SEDIMENT AND RUNOFF CONTROL MEASURES (INCLUDING PERIMETER CONTROLS AND DIVERSIONS), PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
  - AFTER EVERY SEVEN (7) CALENDAR DAYS OR STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
- C. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- D. A STABILIZED MAT OF CRUSHED STONE MEETING IDOT GRADATION CA-1 UNDERPLAIN WITH FILTER FABRIC AND IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL, OR OTHER APPROPRIATE MEASURE(S) AS APPROVED BY THE ENFORCEMENT OFFICER, SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- E. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN.
- F. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE OR REDISTURBANCE.
- G. ALL STOCKPILES SHALL HAVE APPROPRIATE MEASURES TO PREVENT EROSION. STOCKPILES SHALL NOT BE PLACED IN FLOOD PRONE AREAS OR WETLANDS AND DESIGNATED BUFFERS.
- H. SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH APPROPRIATE MEASURES AS APPROVED BY THE ENFORCEMENT OFFICER.
- I. APPROPRIATE EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL INTERIOR DETENTION BASIN SIDE SLOPES BETWEEN THE NORMAL WATER LEVEL AND HIGH WATER LEVEL.
- J. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- K. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DISCHARGES SHALL BE ROUTED THROUGH AN APPROVED ANIONIC POLYMER DEWATERING SYSTEM OR A SIMILAR MEASURE AS APPROVED BY THE ENFORCEMENT OFFICER. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE ENFORCEMENT OFFICER, OR APPROVED REPRESENTATIVE, MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- L. IF INSTALLED SOIL EROSION AND SEDIMENT CONTROL MEASURES DO NOT MINIMIZE SEDIMENT LEAVING THE DEVELOPMENT SITE, ADDITIONAL MEASURES SUCH AS ANIONIC POLYMERS OR FILTRATION SYSTEMS MAY BE REQUIRED BY THE ENFORCEMENT OFFICER.
- M. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR.
- N. ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- O. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.

EROSION CONTROL NOTES

- 1. CONTRACTOR MUST EMPLOY A LAKE COUNTY STORMWATER MANAGEMENT COMMISSION (LCSMC) APPROVED DESIGNATED EROSION CONTROL INSPECTOR (DECI) FOR THIS PROJECT. THE CONTRACTOR'S DECI SHALL BE RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL INSPECTIONS, RECORD KEEPING, AND OTHER REQUIREMENTS INCLUDING MAINTENANCE OF THE PROJECT'S STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS WELL AS THE RESPONSIBILITY OF THE CONTRACTOR'S DECI TO UNDERSTAND AND COMPLY WITH ALL REGULATIONS. ANY SOIL EROSION AND SEDIMENT CONTROL RELATED FINES OR OTHER PENALTIES IMPOSED UPON OWNER AS A RESULT OF ACTIONS OR INACTIONS OF CONTRACTOR'S DECI SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. SOIL EROSION CONTROL MEASURES IN ACCORDANCE WITH THESE SPECIFICATIONS SHALL BE FOLLOWED AS DIRECTED BY THE OWNER OR LCSMC. ANY SOIL EROSION CONTROL MEASURES, IN ADDITION TO THOSE OUTLINED IN THESE PLANS AND WHICH ARE DEEMED NECESSARY BY THE OWNER AND/OR LCSMC, SHALL BE IMPLEMENTED IMMEDIATELY BY THE CONTRACTOR.
- 3. STREETS ADJACENT TO THE SITE SHALL BE KEPT FREE OF DIRT, MUD AND DEBRIS THROUGH THE USE OF RUBBER TIRE TRACTORS OR STREET SWEEPER.
- 4. ALL STORM SEWER, CULVERTS, CATCH BASINS, AND/OR DETENTION BASINS PROVIDED WITHIN THIS PROJECT ARE TO BE CLEANED AT THE END OF CONSTRUCTION OF THE PROJECT AND PRIOR TO FINAL ACCEPTANCE. CLEANING MAY ALSO BE REQUIRED DURING THE COURSE OF THE CONSTRUCTION OF THE PROJECT IF IT IS DETERMINED THAT THE SILT AND DEBRIS TRAPS ARE NOT PROPERLY FUNCTIONING AND THEIR PERFORMANCE IS IMPAIRED. UNLESS SOIL EROSION CONTROL ITEMS ARE SPECIFICALLY REFERRED TO AS BID ITEMS SUCH AS SILT FENCE, MISC. EROSION CONTROL, ETC., THEY ARE TO BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT.
- 5. UPON COMPLETION OF TOPSOIL RESPREAD OPERATIONS, ALL DISTURBED AREAS SHALL BE SEED, SODDED, OR LANDSCAPED AS NOTED ON THE PLAN OR AS DIRECTED BY OWNER.
- 6. ALL DISTURBED GROUND WITHIN THE STATE, COUNTY AND VILLAGE RIGHT-OF-WAY SHALL BE RESTORED PER THE STANDARDS OF THE APPLICABLE AGENCY.
- 7. EACH RESPECTIVE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND ANY NECESSARY CORRECTIVE ACTION ASSOCIATED WITH THE EROSION CONTROL MEASURES SO DESIGNATED FOR THAT CONTRACTOR. THE ITEMS ARE TO BE PROVIDED BY THE DESIGNATED CONTRACTOR AT THE TIME AND IN THE SEQUENCE INDICATED WITHIN THE GENERAL CONSTRUCTION NOTES.

SEEDING AND RESTORATION NOTES

- 1. STABILIZED CONSTRUCTION ENTRANCES CONSTRUCTED BY CONTRACTOR ARE TO BE REMOVED AND DISPOSED OF OFFSITE AT THE COMPLETION OF THE WORK BY CONTRACTOR. ONCE REMOVED, AREA SHALL BE RESTORED TO FINISH GRADE WITH A MINIMUM OF 4-INCHES OF TOPSOIL, SEEDING WITH CLASS 3 (MODIFIED) AND HYDROMULCHED (UNLESS NOTED OTHERWISE ON THE CONSTRUCTION DRAWINGS) BY CONTRACTOR. LOCATION, REMOVAL & RESTORATION OF CONSTRUCTION ACCESS TO RECEIVE PRIOR APPROVAL BY OWNER. THE ABOVE WORK SHALL BE COMPLETED BY THE CONTRACTOR AT THEIR OWN EXPENSE UNLESS OTHERWISE NOTED ON PLANS.
- 2. ALL HAUL ROADS, STAGING AREAS, BORROW AREAS, CONCRETE WASHOUT AREAS AND CONSTRUCTION ROUTES SHALL BE LOOSENEED TO REMOVE COMPACTION AND RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT THEIR OWN EXPENSE UNLESS OTHERWISE NOTED ON PLANS.
- 3. ALL DISTURBED AREAS TO RECEIVE A MINIMUM OF 4-INCHES OF TOPSOIL GENERATED ON-SITE AND BE SEED AS SPECIFIED ON THE CONSTRUCTION PLANS AND SPECIFICATIONS.
- 4. AREAS TO BE SEED SHALL BE FIRM BUT NOT COMPACTED AND SHALL BE FINE GRADED TO A SMOOTH AND NATURAL CONTOUR PRIOR TO SEEDING. ALL ROCKS, STICKS, ROOTS, CLODS, AND DEBRIS GREATER THAN ONE INCH IN DIAMETER SHALL BE REMOVED AND DISPOSED OF OFF-SITE. STARTER FERTILIZER SHALL ONLY BE APPLIED TO AREAS THAT WILL BE PLANTED WITH CLASS 1 AND CLASS 2.
- 5. THE FIRST SIX (6) FEET IMMEDIATELY ADJACENT TO THE TRAILS EDGE SHALL BE SEED WITH CLASS 2 (MODIFIED) SEED MIX AND ALL OTHER AREAS SHALL BE SEED WITH CLASS 3 (MODIFIED) SEED MIX UNLESS NOTED OTHERWISE ON THE CONSTRUCTION DRAWINGS. IN SENSITIVE WOODED AREAS, ALL SEEDING SHALL BE CLASS 2 (MODIFIED).
- 6. CLASS 3 (MODIFIED) SEED MIX SHALL BE USED FOR ALL DISTURBED AREAS INCLUDING DISPOSAL AREAS, HAUL ROADS, CONCRETE WASHOUT AREAS AND BORROW AREAS. (UNLESS NOTED OTHERWISE IN CONSTRUCTION DRAWINGS)
- 7. ON-SITE BORROW AREA SHALL BE GRADED NOT TO BLOCK OR CHANGE EXISTING DRAINAGE PATTERNS, AS DIRECTED BY OWNER. ON-SITE BORROW AREA SHALL BE RESTORED WITH MINIMUM OF 4-INCHES OF TOP SOIL AND BE SEED WITH CLASS 3 (MODIFIED) - PRAIRIE MIX AND HYDROMULCHED AS SPECIFIED ON CONSTRUCTION PLANS AND SPECIFICATIONS BY THE CONTRACTOR AT THEIR OWN EXPENSE.
- 8. IMMEDIATELY AFTER ROLLING SEEDING AREA, PLACE EROSION CONTROL BLANKET OR APPLY HYDROMULCH AS SPECIFIED.
- 9. ALL SEEDING AND MULCHING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS.

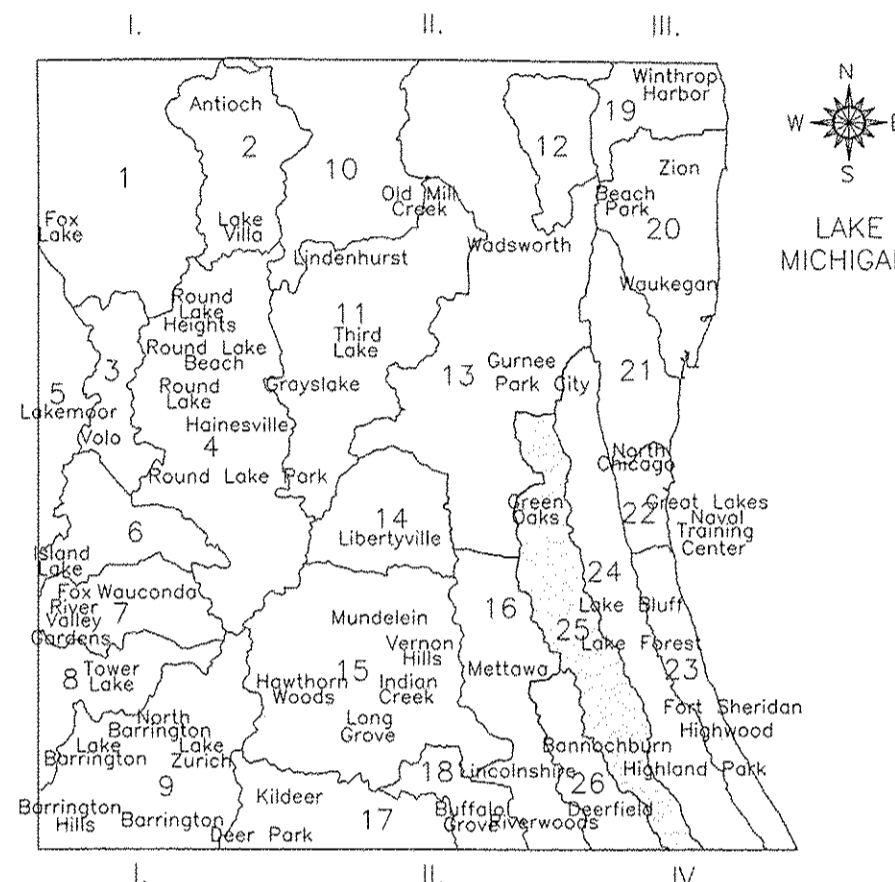
SOIL EROSION SEDIMENT CONTROL AND LANDSCAPING PLANS

NPDES STATEMENT:

THIS PROJECT DISTURBS 4.0 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS ONLY NECESSARY IF A PROJECT DISTURBS 1.0 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES STORMWATER PERMIT IS REQUIRED FOR THIS PROJECT.

DRAINAGE BASINS OF LAKE COUNTY

- I. FOX RIVER WATERSHED
  - 1. Upper Fox River
  - 2. Sequoit Creek
  - 3. Fish Lake Drain
  - 4. Squaw Creek
  - 5. Lower Fox River
  - 6. Mutton Creek
  - 7. Slocum Lake Drain
  - 8. Tower Lake Drain
  - 9. Flint Creek
- II. DES PLAINES RIVER WATERSHED
  - 10. North Mill Creek
  - 11. Mill Creek
  - 12. Newport Drainage Ditch
  - 13. Upper Des Plaines River
  - 14. Bull Creek
  - 15. Indian Creek
  - 16. Lower Des Plaines River
  - 17. Buffalo Creek
  - 18. Aptakisic Creek
- III. LAKE MICHIGAN WATERSHED
  - 19. Kellogg Creek
  - 20. Dead River
  - 21. Waukegan River
  - 22. Pettibone Creek
  - 23. Bluff/Ravine
- IV. CHICAGO RIVER WATERSHED
  - 24. Skokie River
  - 25. Middle Fork
  - 26. West Fork



LEGEND

- DITCH FLOW ARROW
- OVERLAND FLOW DIRECTION
- TEMPORARY DITCH CHECKS
- INLET AND PIPE PROTECTION (PAID FOR AS 1 INLET FILTER AND 16 LF OF PERIMETER EROSION BARRIER PER IDOT STANDARD 280001-07)
- INLET FILTERS
- SILT FILTER
- EXISTING TREES
- TREE PRESERVATION, TREE ROOT PRUNING AND TREE PRUNING (AT THE DIRECTION OF ENGINEER)
- PROPOSED STORM SEWER, RCP, 15"
- PRECAST REINFORCED CONCRETE FLARED END SECTION
- STEEL FLARED END SECTION WITH GRADING
- STEEL FLARED END SECTION WITH GRADING AND RIPRAP
- DRY RUBBLE STONE OR BROKEN CONCRETE TREE WELLS
- TOPSOIL EXCAVATION AND PLACEMENT (8" MINIMUM) SEEDING, CLASS 2 (MODIFIED) LCFP LOW MAINTENANCE MIX EROSION CONTROL BLANKET
- TOPSOIL EXCAVATION AND PLACEMENT (8" MINIMUM) SEEDING, CLASS 3 (MODIFIED) LCFP PRAIRIE MIX EROSION CONTROL BLANKET
- TOPSOIL EXCAVATION AND PLACEMENT (8" MINIMUM) SEEDING, CLASS 4 (MODIFIED) LCFPD PARKLAND MIX EROSION CONTROL BLANKET
- RIPRAP

LAKE COUNTY STORMWATER MANAGEMENT COMMISSION TYPICAL CONSTRUCTION SEQUENCE

- 1. INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL SE/SC MEASURES
    - A.) SELECTIVE VEGETATION REMOVAL FOR SILT FENCE INSTALLATION
    - B.) SILT FENCE INSTALLATION
    - C.) CONSTRUCTION FENCING AROUND AREAS NOT TO BE DISTURBED
    - D.) STABILIZED CONSTRUCTION ENTRANCE
  - 2. TREE REMOVAL WHERE NECESSARY (CLEAR & GRUB)
  - 3. CONSTRUCT SEDIMENT TRAPPING DEVICES (SEDIMENT TRAPS, BASINS...)
  - 4. CONSTRUCT DETENTION FACILITIES AND OUTLET CONTROL STRUCTURE WITH RESTRICTOR & TEMPORARY PERFORATED RISER
  - 5. STRIP TOPSOIL, STOCKPILE TOPSOIL AND GRADE SITE
  - 6. TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE AROUND TOE OF SLOPE)
  - 7. INSTALL STORM SEWER, SANITARY SEWER, WATER AND ASSOCIATED INLET & OUTLET PROTECTION
  - 8. PERMANENTLY STABILIZE DETENTION BASINS WITH SEED AND EROSION CONTROL BLANKET
  - 9. TEMPORARILY STABILIZE ALL AREAS INCLUDING LOTS THAT HAVE REACHED TEMPORARY GRADE
  - 10. INSTALL ROADWAYS
  - 11. PERMANENTLY STABILIZE ALL OUTLOT AREAS
  - 12. INSTALL STRUCTURES AND GRADE INDIVIDUAL LOTS
  - 13. PERMANENTLY STABILIZE LOTS
  - 14. REMOVE ALL TEMPORARY SE/SC MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION
- \* SOIL EROSION AND SEDIMENT CONTROL MAINTENANCE MUST OCCUR EVERY TWO WEEKS AND AFTER EVERY 1/2" OR GREATER RAINFALL EVENT

ESTIMATED QUANTITIES:

3,809 FEET	-	PERIMETER EROSION BARRIER
0.50 ACRE	-	SEEDING, CLASS 2 (MODIFIED)
2.25 ACRE	-	SEEDING, CLASS 3 (MODIFIED)
0.75 ACRE	-	SEEDING, CLASS 4 (MODIFIED)
14,940 SQ YD	-	EROSION CONTROL BLANKET
6 EACH	-	FLOCCULATION LOGS
18 POUND	-	FLOCCULATION POWDER
32 EACH	-	TREE PROTECTION & PRESERVATION
9 EACH	-	INLET FILTERS
28 FEET	-	TEMPORARY DITCH CHECKS
700 POUND	-	TEMPORARY SEED

- 11. WHEN DEWATERING THE CONSTRUCTION AREA IS NECESSARY, ALL WATERS SHALL BE FILTERED BY USING FILTER BAGS OR AN ALTERNATIVE MEASURE APPROVED BY THE ENGINEER. ALL FILTER BAGS MUST HAVE SECONDARY CONTAINMENT DEVICES AND SHOULD BE PLACED ON LEVEL GROUND. WATER MUST HAVE SEDIMENT REMOVED BEFORE BEING ALLOWED TO DISCHARGE TO THE ADJACENT STREAM. THE DISCHARGE SHALL BE DESIGNED SO THAT THE RETURNING WATERS DO NOT CAUSE EROSION. DEWATERING AND PUMPING FOR CONSTRUCTION OPERATIONS SHALL BE INCIDENTAL TO THE WORK BEING COMPLETED AND SHALL INCLUDE MEANS METHODS AND ALL MATERIALS AND EQUIPMENT TO DEWATER AND PROVIDE FILTRATION OF WATERS.
- 12. NO WORK SHALL BE PERFORMED IN FLOWING WATER. CROSSING OF THE WATERS OF THE U.S. BY CONTRACTOR'S EQUIPMENT SHALL NOT BE ALLOWED.

DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	

DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TRAIL EROSION CONTROL PLAN

SHEET NO. 1 OF 5 SHEETS

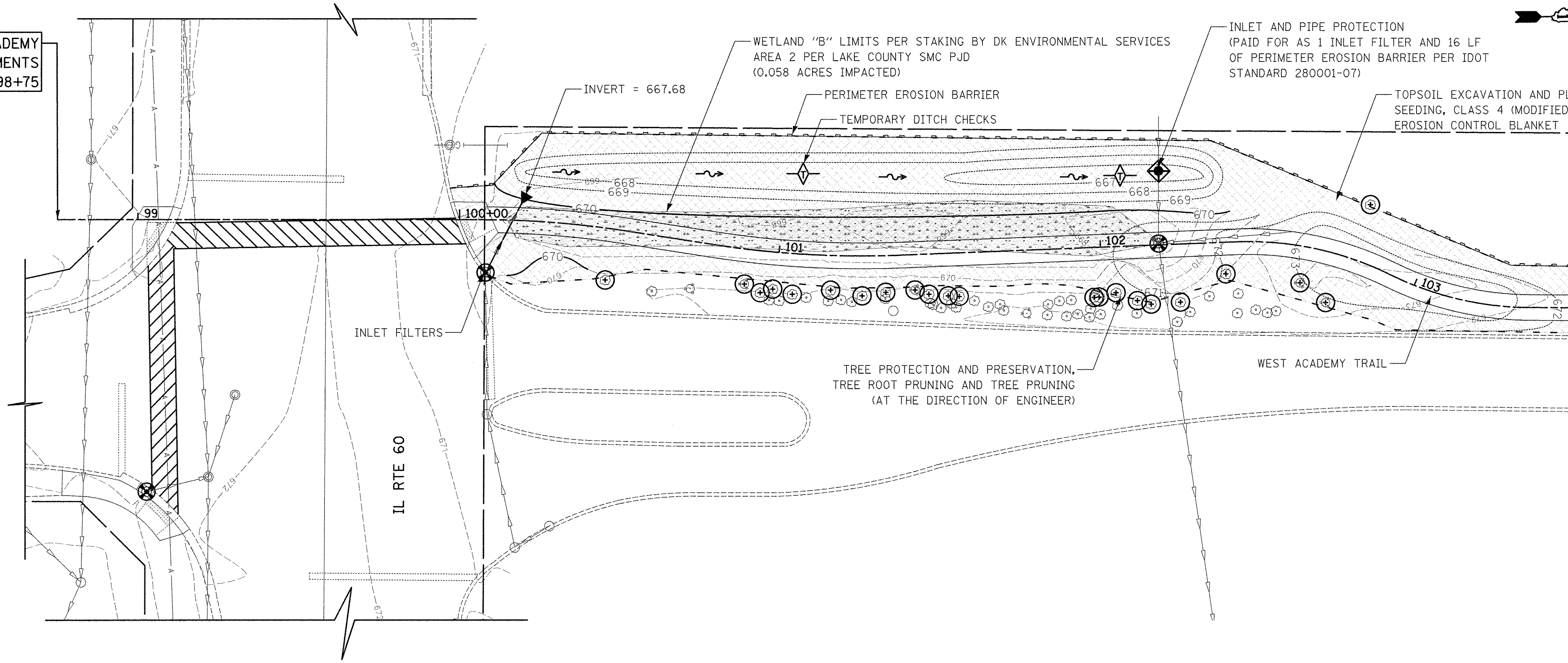
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300P03-BT	LAKE	70	16
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	ALL DIMENSIONS CHECKED	
	GRADE CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	DRAWN FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	ALL DIMENSIONS CHECKED	
	GRADE CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	DRAWN FILE NAME	
	NO.	

BEGIN WEST ACADEMY TRAIL IMPROVEMENTS STA 98+75



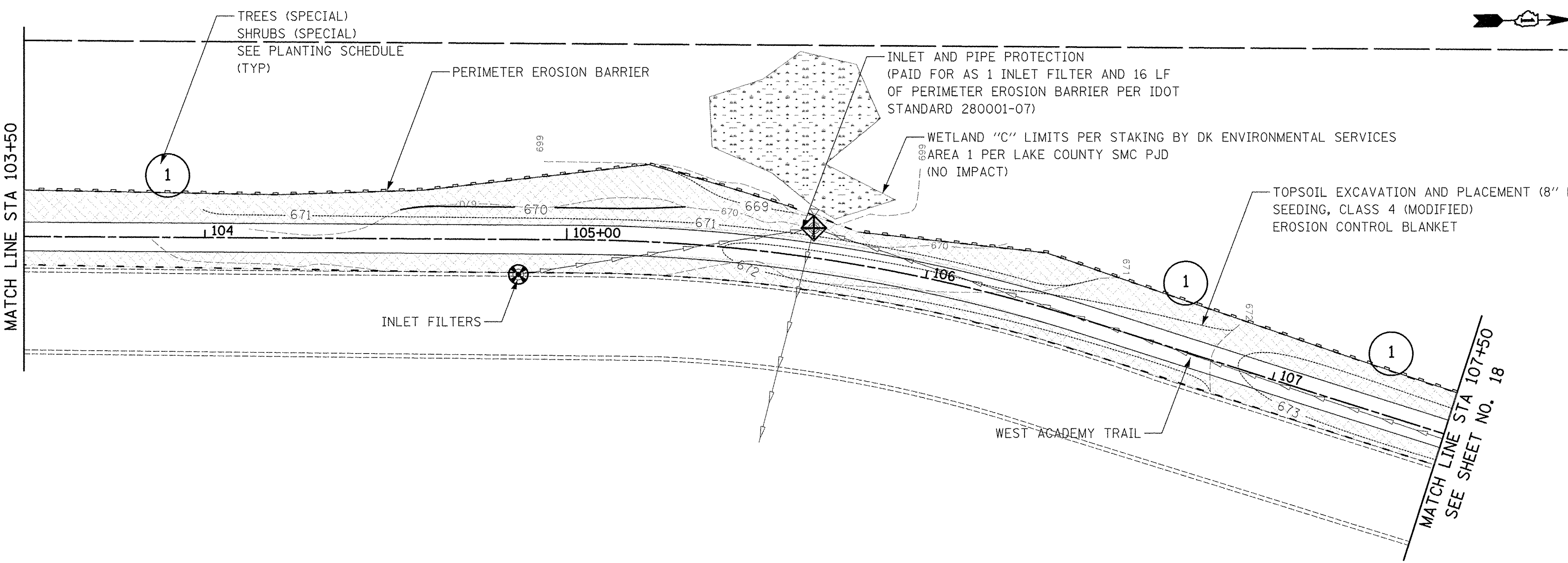
PEB QUANTITIES  
 293  
 62  
 315  
 172  
 32 (16 FOR EACH INLET AND PIPE PROTECTION)  
 TOTAL - 774 LF

INLET PIPE PROTECTION  
 2 EACH

WEST ACADEMY TRAIL

PLANTING SCHEDULE

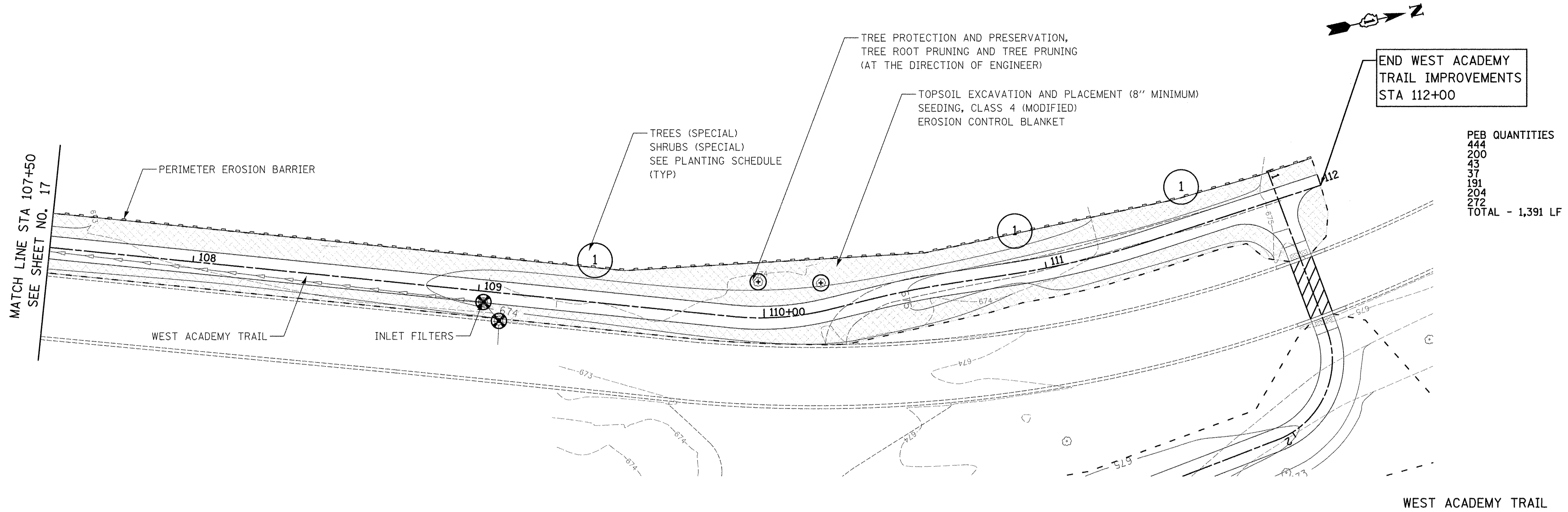
TREES (SPECIAL)	
①	3 - Bur Oak, 1 1/4" 3 - Hill's Oak, 1 1/4" 6 - Red Oak, 1 1/4" Note: Tree species shall be randomly mixed and planted in the locations indicated.
②	7 - Bur Oak, 1 1/4" 4 - Hill's Oak, 1 1/4" Note: Tree species shall be randomly mixed and planted in the locations indicated.
SHRUBS (SPECIAL)	
③	1 - American Plum, 5 gal 9 - Hazelnut/American Filbert, 3 gal 6 - Smooth Rose, 3 gal 9 - New Jersey Tea, 3 gal Note: Plans shall be randomly distributed in groups of 3-7 in the locations indicated.
④	6 - Downy Hawthorn, 5 gal 3 - American Plum, 5 gal 3 - Iowa Crab, 5 gal 2 - Quaking Aspen, 5 gal Note: Plans shall be randomly distributed in groups of 3-7 in the locations indicated.



WEST ACADEMY TRAIL

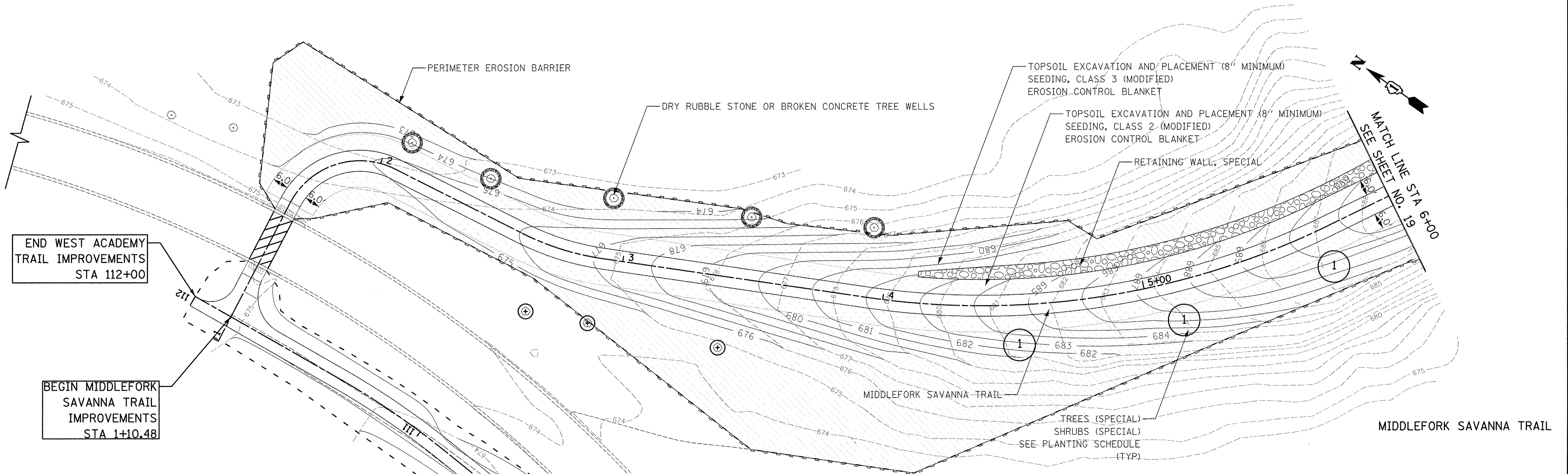
PLAN	SURVEYED	DATE
	PLOTTED	
	NOTED	
	CHECKED	
	BY	
	DATE	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTED	
	CHECKED	
	BY	
	DATE	
	NO.	



PEB QUANTITIES

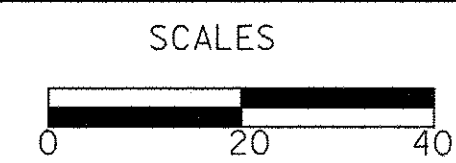
444
200
43
37
191
204
272
TOTAL - 1,391 LF



**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION



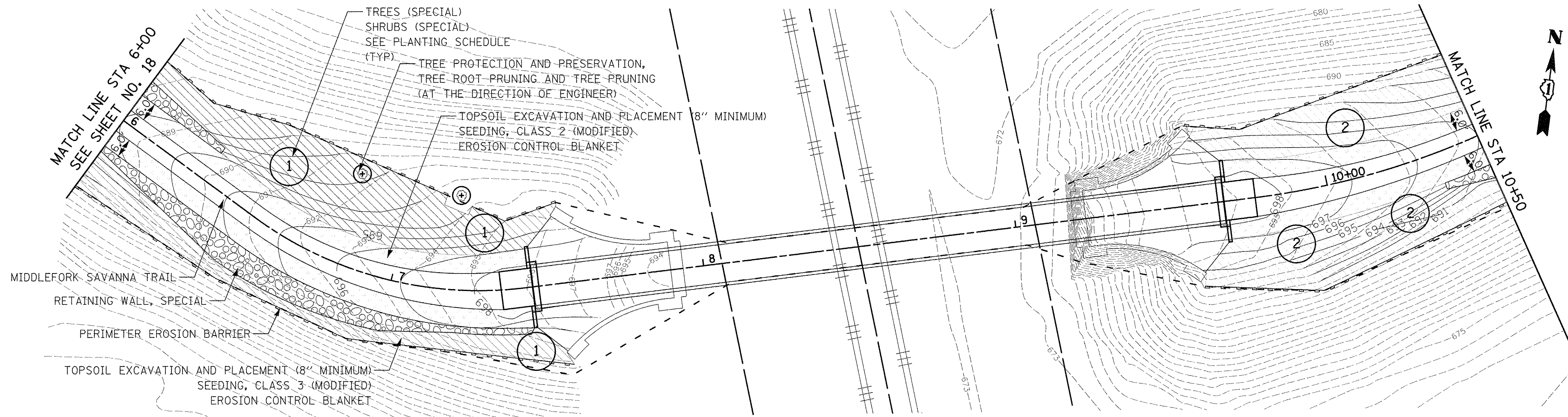
WEST ACADEMY AND MIDDLEFORK SAVANNA TRAIL  
 EROSION CONTROL AND LANDSCAPING PLANS

SHEET NO. 3 OF 5 SHEETS STA. 107+50 TO STA. 115+00

F.A.P. RTE. 0335	SECTION 14-F300#03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 18
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	NOTED	
	CHECKED	
	BY	
	NO.	

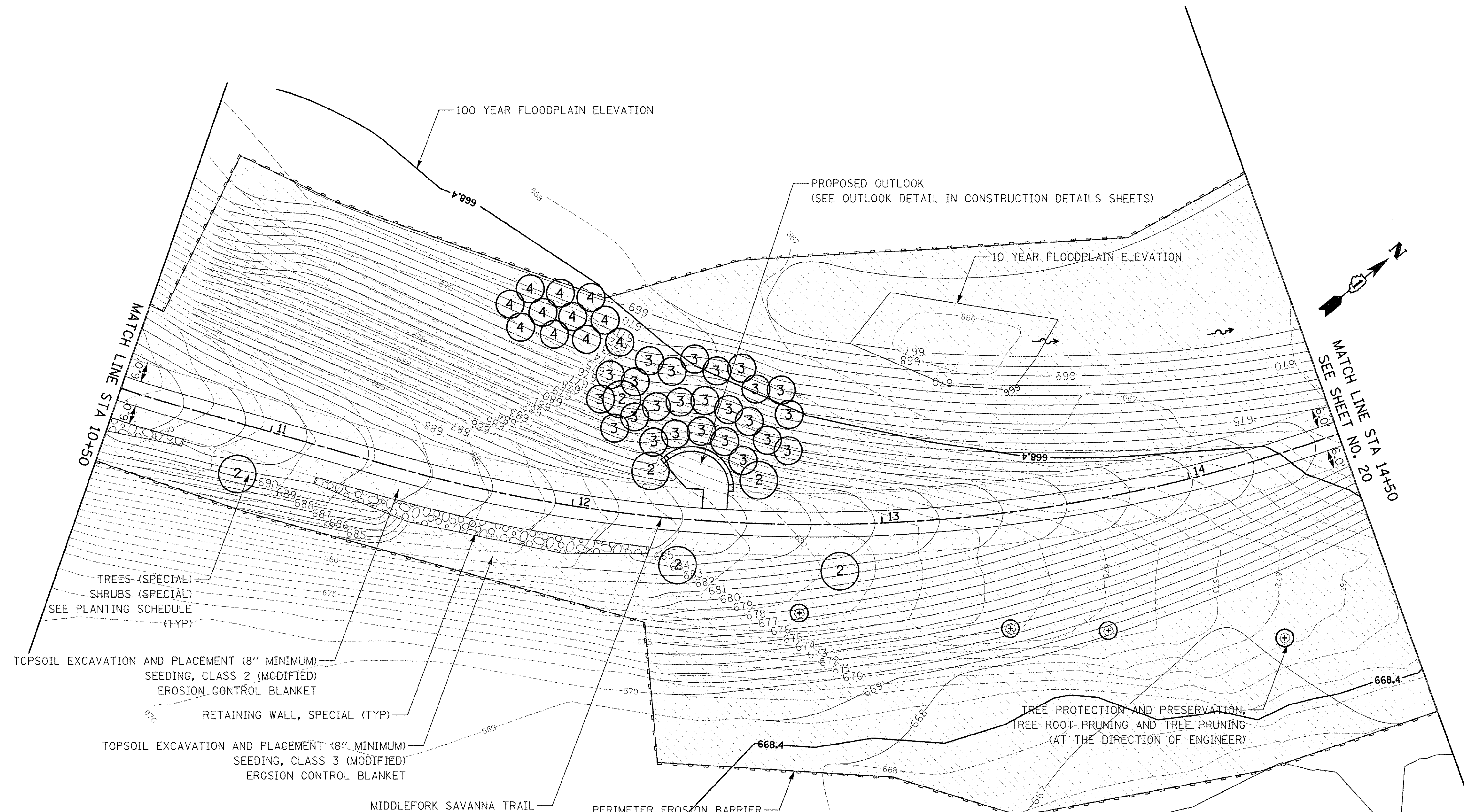
PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTED	
	CHECKED	
	BY	
	NO.	



PEB QUANTITIES

100
29
87
102
172
400
257
230
TOTAL - 1,377 LF

MIDDLEFORK SAVANNA TRAIL

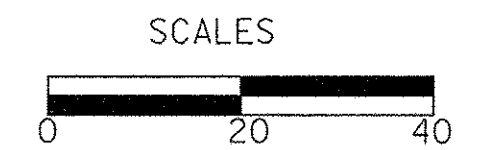


MIDDLEFORK SAVANNA TRAIL

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



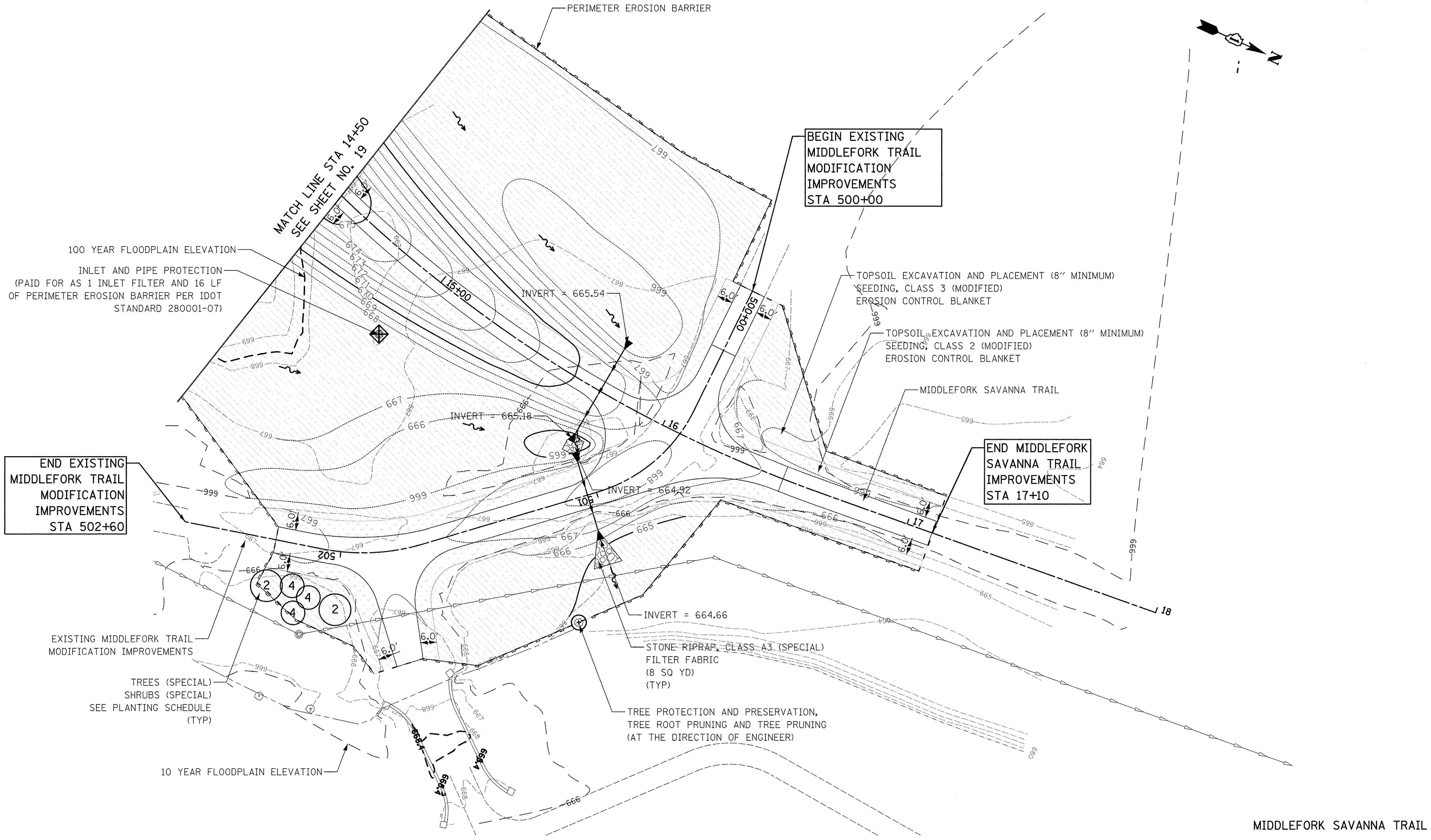
**MIDDLEFORK SAVANNA TRAIL**  
**EROSION CONTROL AND LANDSCAPING PLANS**

SHEET NO. 4 OF 5 SHEETS STA. 6+00 TO STA. 14+50

F.A.P. RTE. 0335	SECTION 14-F300*03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 19
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	PAID FILE NAME	
	NO.	

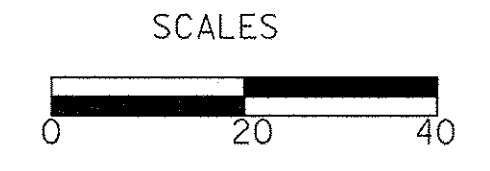
PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRABES CHECKED	
	STRUCTURE NOTATION CHECKED	
	NO.	



**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED -	TFS	REVISED -	
DRAWN -	JRR	REVISED -	
CHECKED -	RTM	REVISED -	
DATE -	1/14/2016	REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



**MIDDLEFORK SAVANNA, EX. MIDDLEFORK AND LINK TRAIL**  
**EROSION CONTROL AND LANDSCAPING PLANS**

SHEET NO. 5 OF 5 SHEETS STA. 14+50 TO STA. 17+10

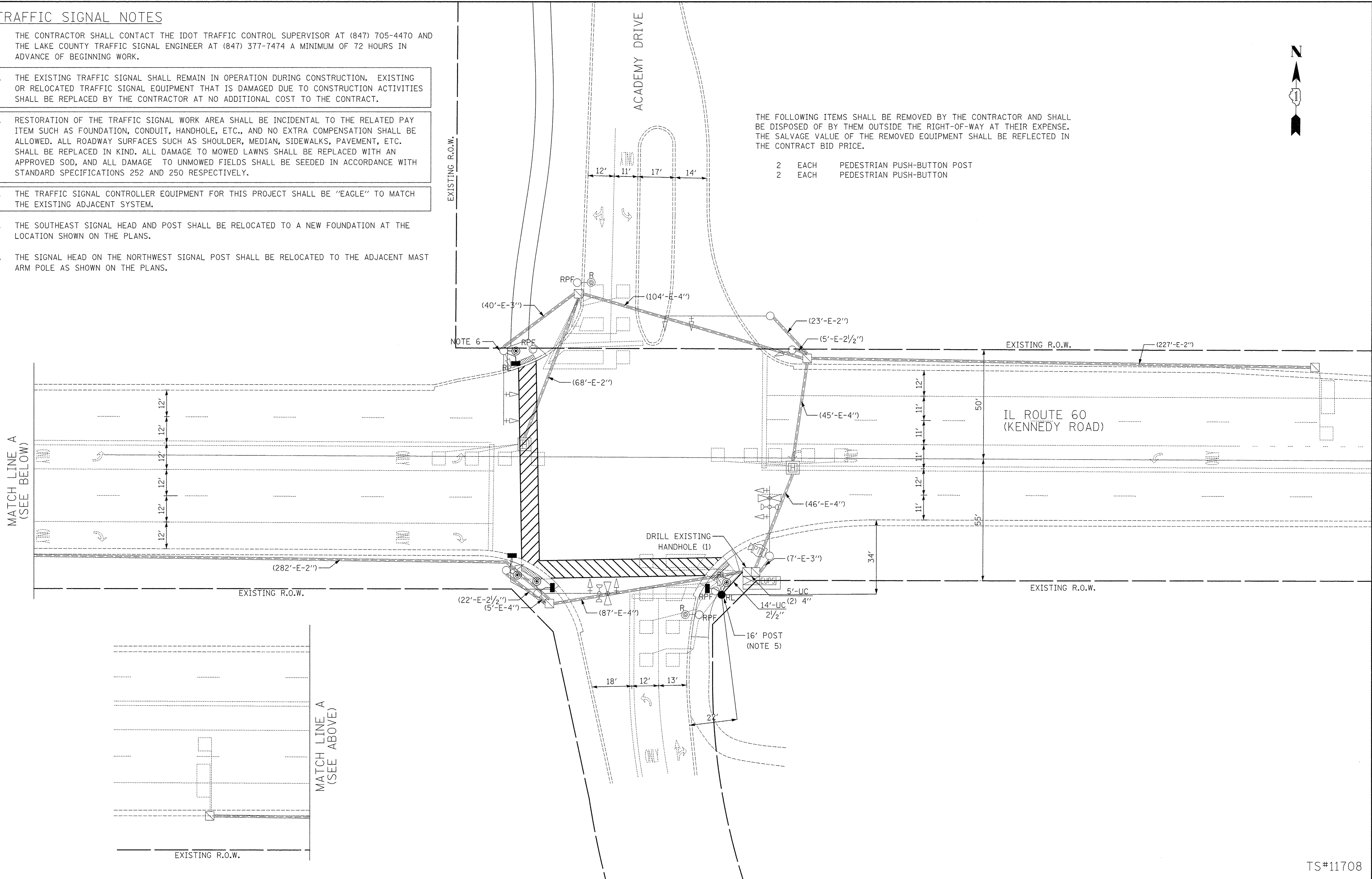
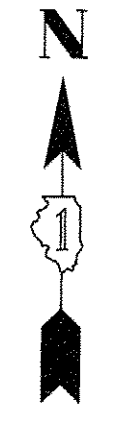
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	20
				CONTRACT NO. 61C39
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

# TRAFFIC SIGNAL NOTES

1. THE CONTRACTOR SHALL CONTACT THE IDOT TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 AND THE LAKE COUNTY TRAFFIC SIGNAL ENGINEER AT (847) 377-7474 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
2. THE EXISTING TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING CONSTRUCTION. EXISTING OR RELOCATED TRAFFIC SIGNAL EQUIPMENT THAT IS DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.
3. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDER, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.
4. THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.
5. THE SOUTHEAST SIGNAL HEAD AND POST SHALL BE RELOCATED TO A NEW FOUNDATION AT THE LOCATION SHOWN ON THE PLANS.
6. THE SIGNAL HEAD ON THE NORTHWEST SIGNAL POST SHALL BE RELOCATED TO THE ADJACENT MAST ARM POLE AS SHOWN ON THE PLANS.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH PEDESTRIAN PUSH-BUTTON POST
- 2 EACH PEDESTRIAN PUSH-BUTTON



PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	REVISIONS CHECKED	
	BY DATE	
	STRUCTURE NOTATIONS CHECKED	
	DATE	

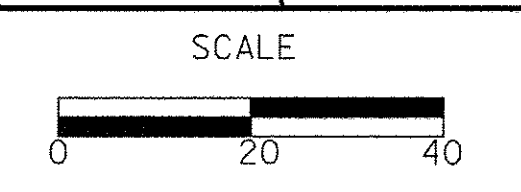
PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	REVISIONS CHECKED	
	BY DATE	
	STRUCTURE NOTATIONS CHECKED	
	DATE	

TS#11708

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED	- LEP	REVISED	-
DRAWN	- LEP	REVISED	-
CHECKED	- JJE	REVISED	-
DATE	- 1/14/2016	REVISED	-

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



**TRAFFIC SIGNAL MODIFICATION PLAN**  
**IL ROUTE 60 AND ACADEMY DRIVE**

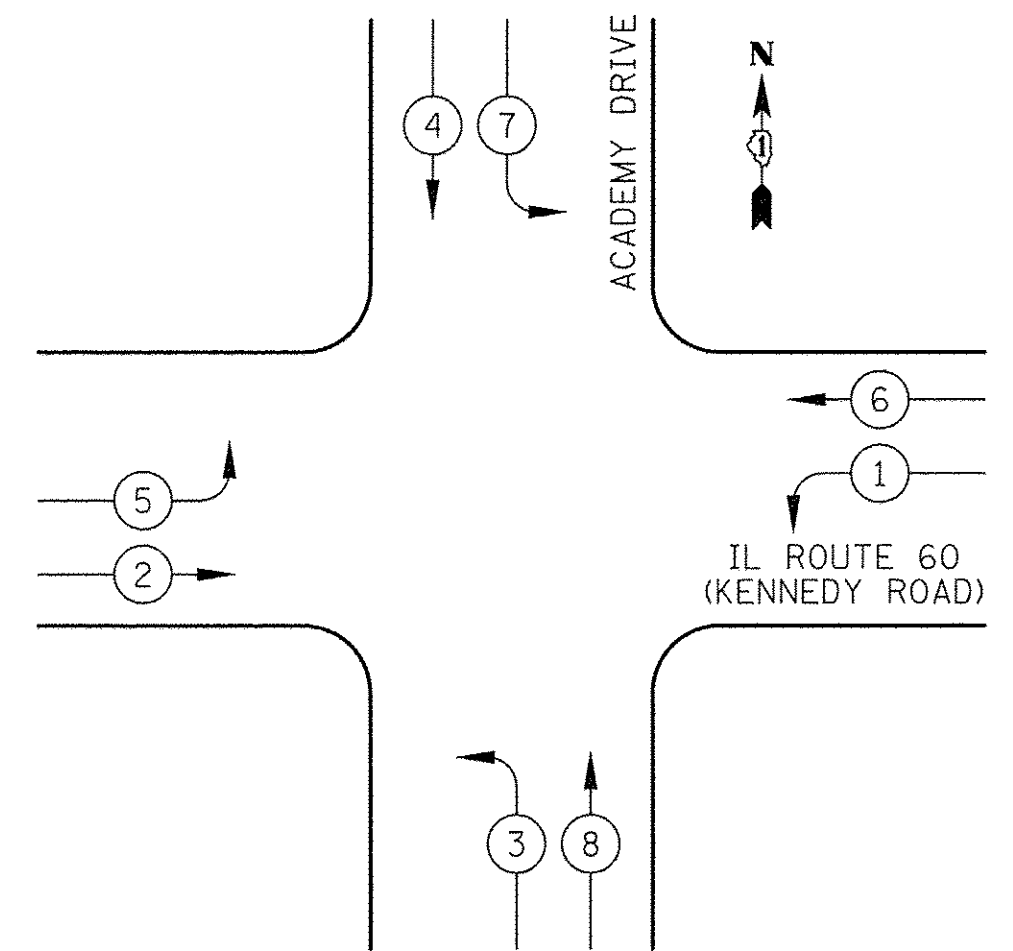
SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300#03-BT	LAKE	70	21
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

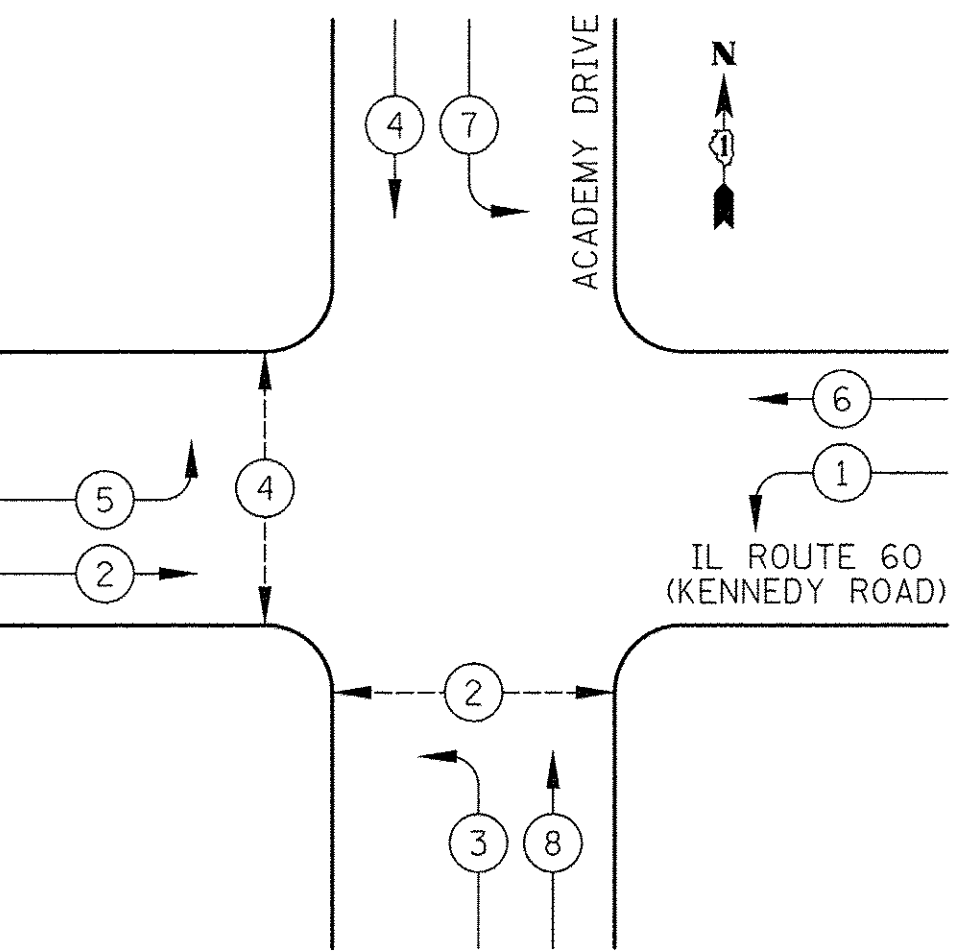
DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 REVISIONS \_\_\_\_\_  
 NO. \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 STRUCTURE, NOTATIONS, CHECK \_\_\_\_\_  
 FILE NAME \_\_\_\_\_

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 REVISIONS \_\_\_\_\_  
 NO. \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 STRUCTURE, NOTATIONS, CHECK \_\_\_\_\_  
 FILE NAME \_\_\_\_\_

EXISTING CONTROLLER SEQUENCE

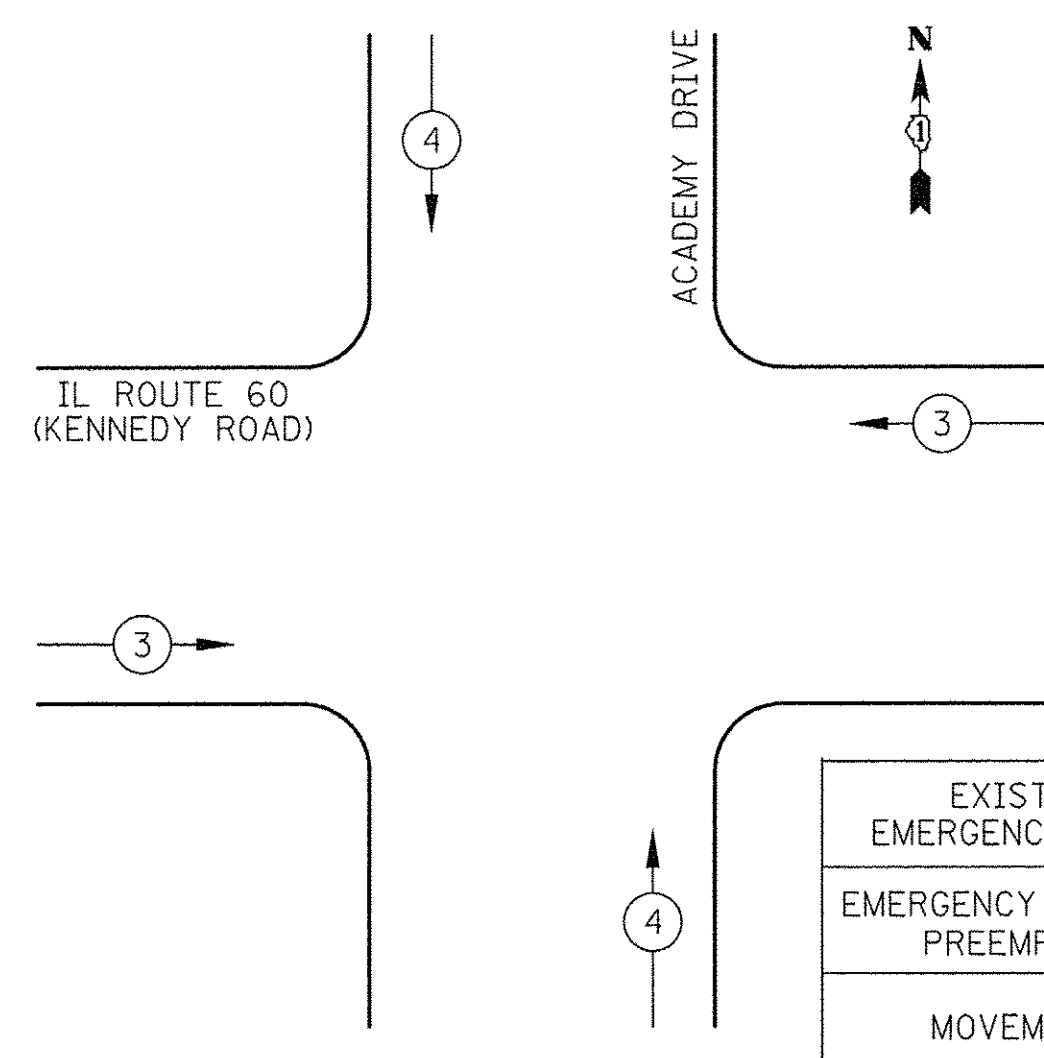


PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAMS

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



- LEGEND**
- DUAL ENTRY PHASE
  - SINGLE ENTRY PHASE
  - OVERLAP
  - PROPOSED PEDESTRIAN PHASE
  - NUMBER REFERS TO ASSOCIATED PHASE

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

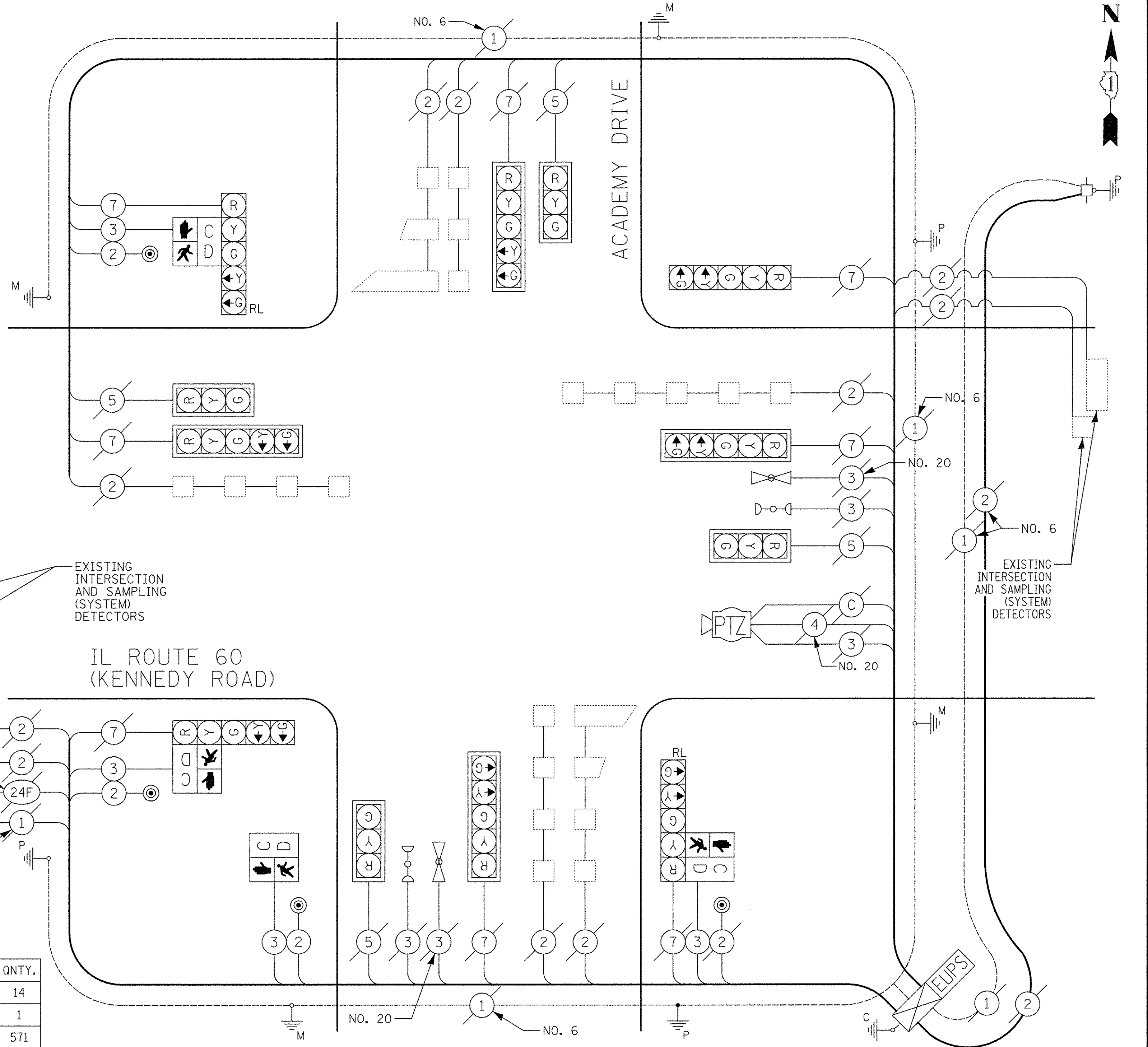
SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL 2 1/2" DIA.	FOOT	14
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	571
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	647
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	296
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	24
CONCRETE FOUNDATION, TYPE A	FOOT	4
DRILL EXISTING HANDHOLE	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	474
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	72
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	12	INCAND.	17	0.50	136
	12	LED	25	0.25	100
	12	LED	15	0.25	60
ARROW	16	LED	12	0.10	48
PED. SIGNAL	4	LED	25	1.00	100
CONTROLLER	1	LED	100	1.00	100
FLASHER				0.50	
TOTAL =					944

ENERGY COSTS TO: CITY OF LAKE FOREST  
 220 E. DEERPATH  
 LAKE FOREST, IL 60045

ENERGY SUPPLY: TERRI BLECK  
 (847) 816-5239  
 COMMONWEALTH EDISON



CABLE PLAN NOT TO SCALE

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - LEP  
 DRAWN - LEP  
 CHECKED - BRD  
 DATE - 1/14/2016

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, SEQUENCES AND SCHEDULE OF QUANTITIES  
 IL ROUTE 60 AT ACADEMY DRIVE**

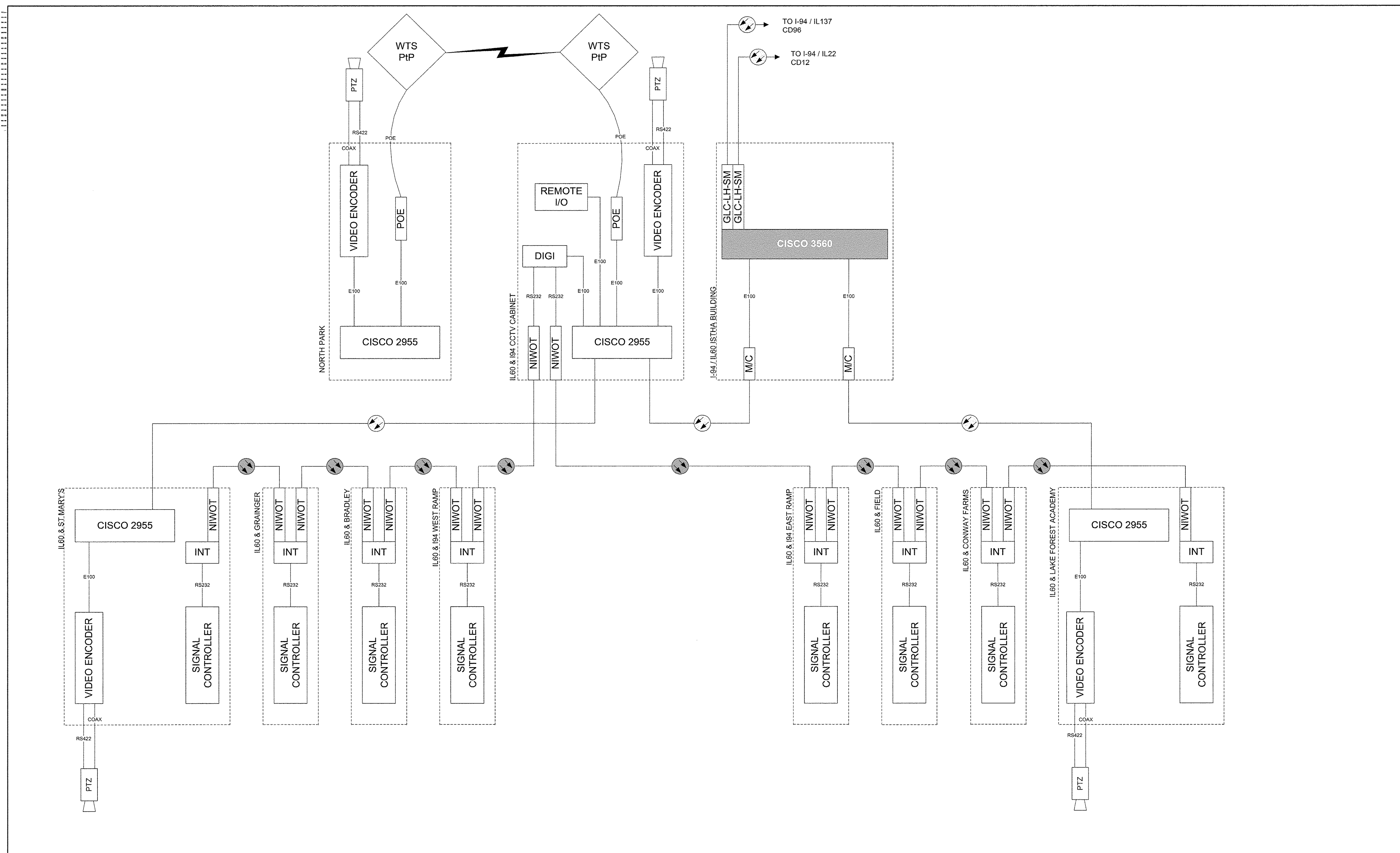
SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 0335 SECTION 14-F30003-BT COUNTY LAKE TOTAL SHEETS 70 SHEET NO. 22  
 CONTRACT NO. 61C39  
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

TS#11708

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	RT. OF WAY CHECKED		
	PAID FILE NAME		
	NO.		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	STRUCTURE NOTATION CHKO		
	NO.		



DESIGNED - DG	REVISD -	LAKE COUNTY DIVISION OF TRANSPORTATION	28A 194 & IL60		ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
DRAWN - YM	REVISD -		SCALE N/A				28A		
CHECKED - DG	REVISD -								
DATE 2015.07.17	REVISD -								

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

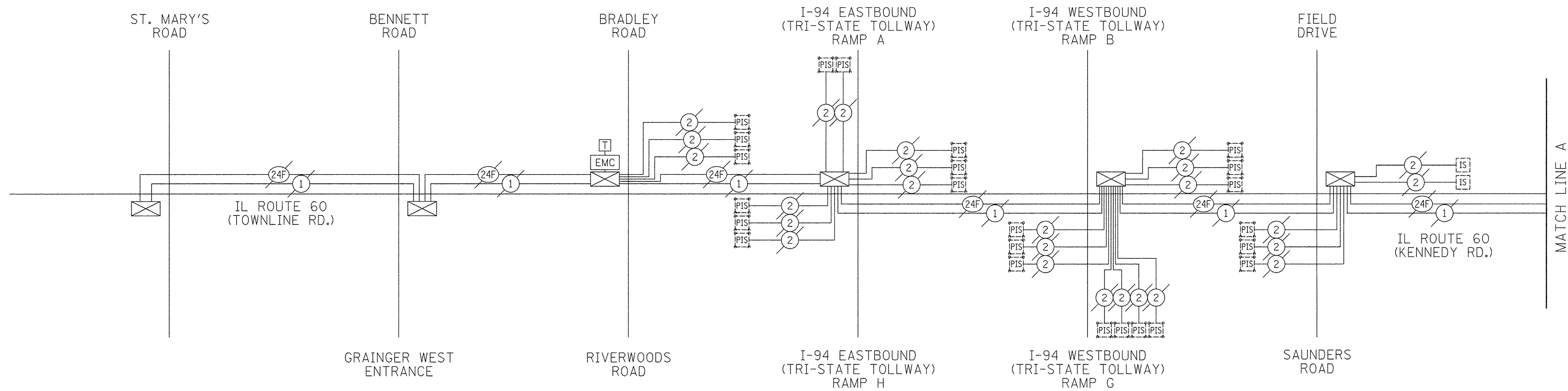
DESIGNED - LEP	REVISD -
DRAWN - LEP	REVISD -
CHECKED - BRD	REVISD -
DATE - 1/14/2016	REVISD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LCDOT CABINET DETAIL  
IL ROUTE 60**

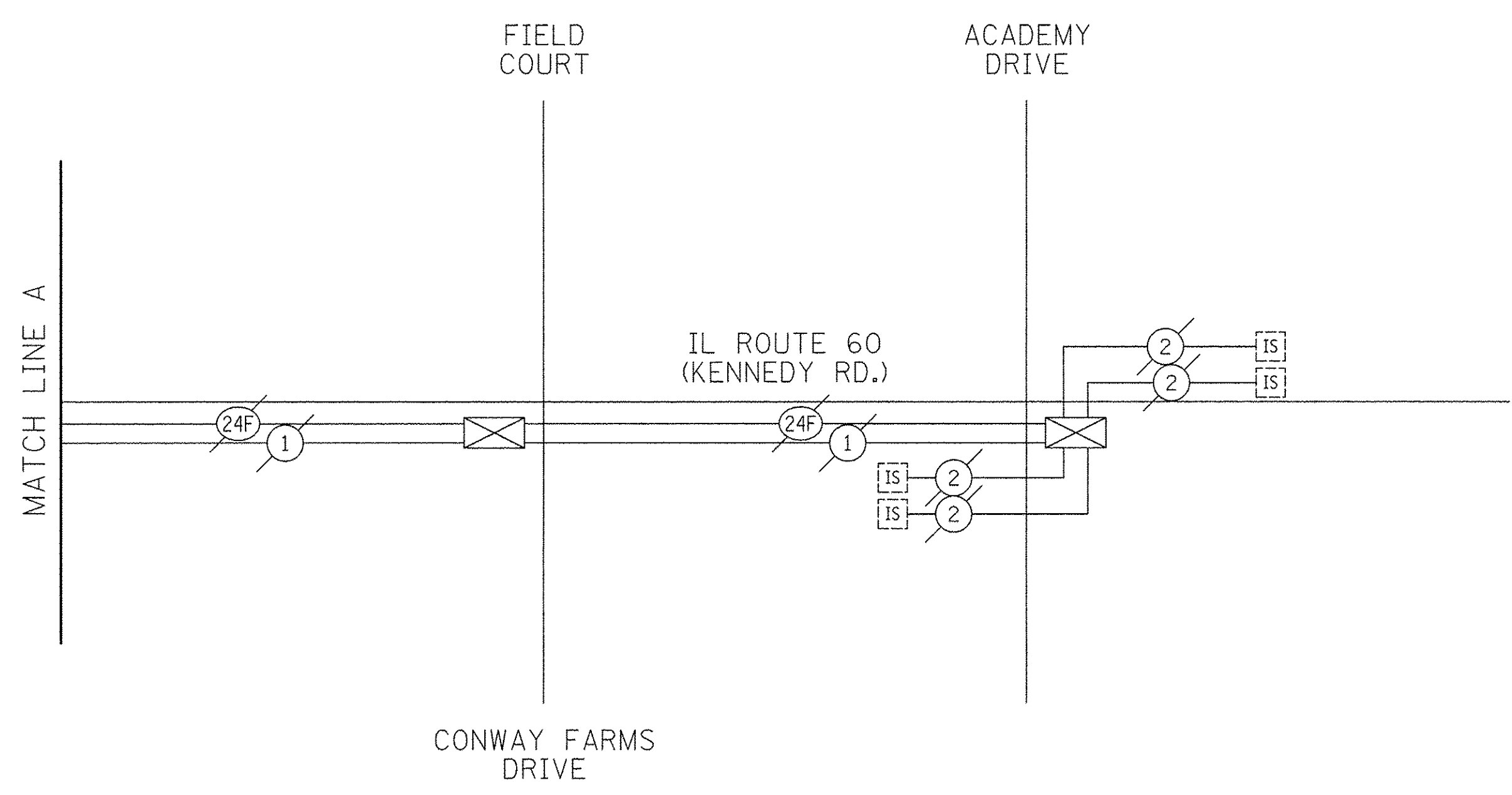
NO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 0335	SECTION 14-F3000-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 23
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



INTERCONNECT SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL 1	EACH	1



PLAN	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
	CHECKED	
	BY	
	DATE	

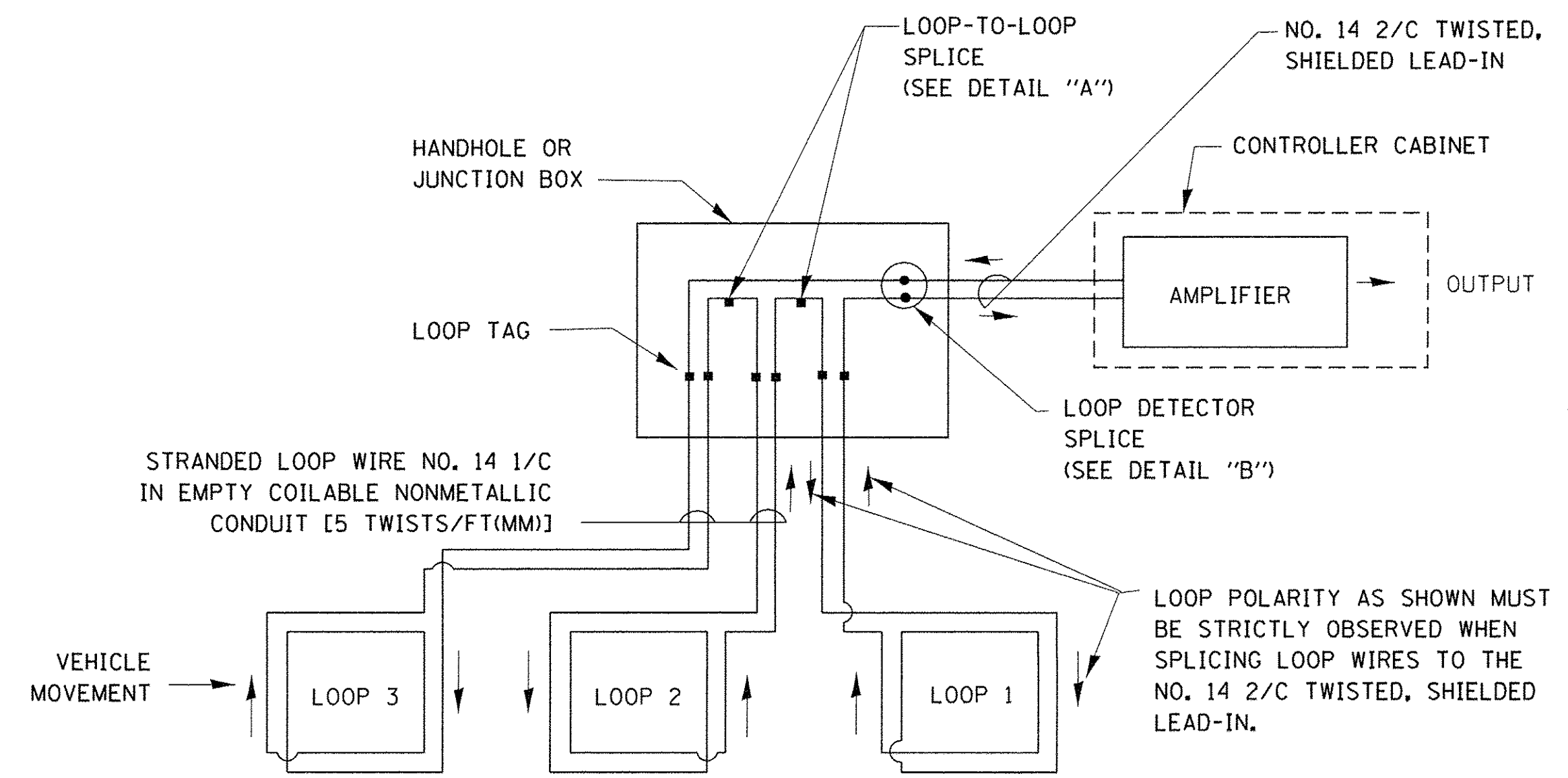
PROFILE	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
	CHECKED	
	BY	
	DATE	





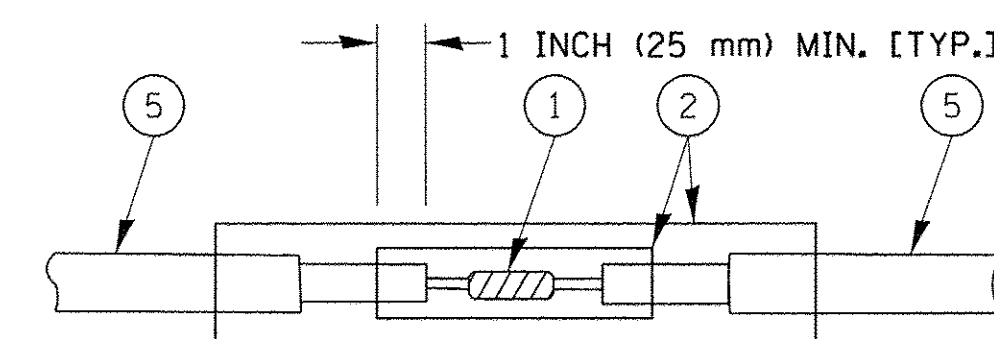
**LOOP DETECTOR NOTES**

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PERFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PERFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

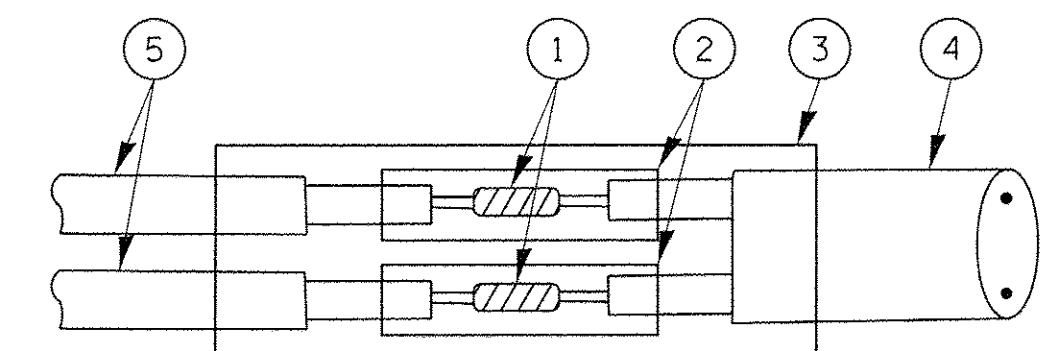


**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

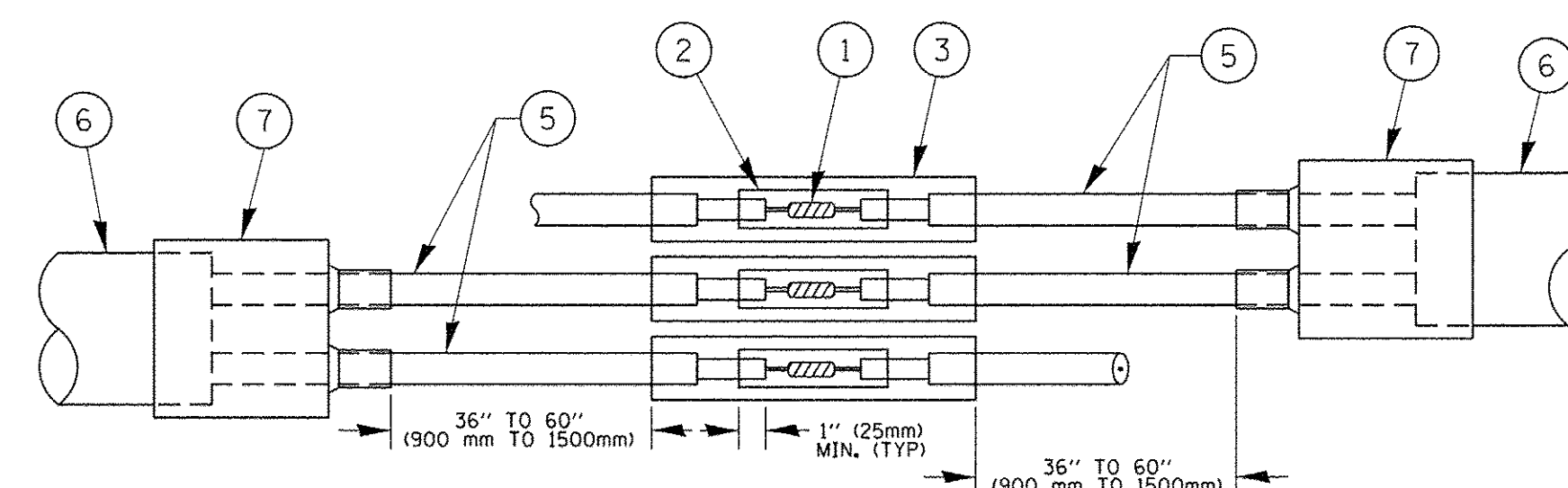


DETAIL "A"  
LOOP-TO-LOOP SPLICE

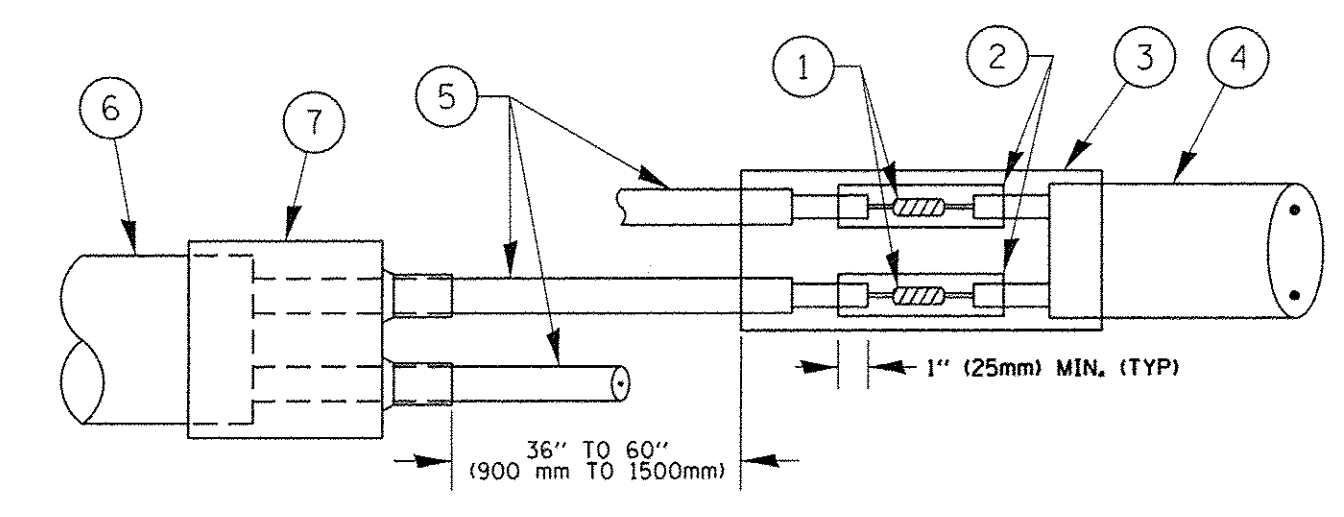


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE

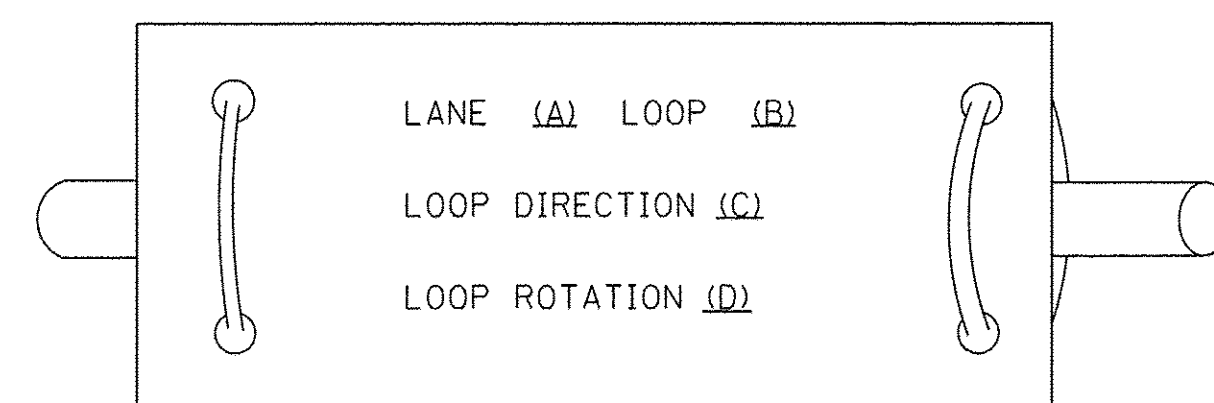


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PRE-FORMED LOOP**

**LOOP DETECTOR SPLICE**

**LOOP LEAD-IN CABLE TAG**



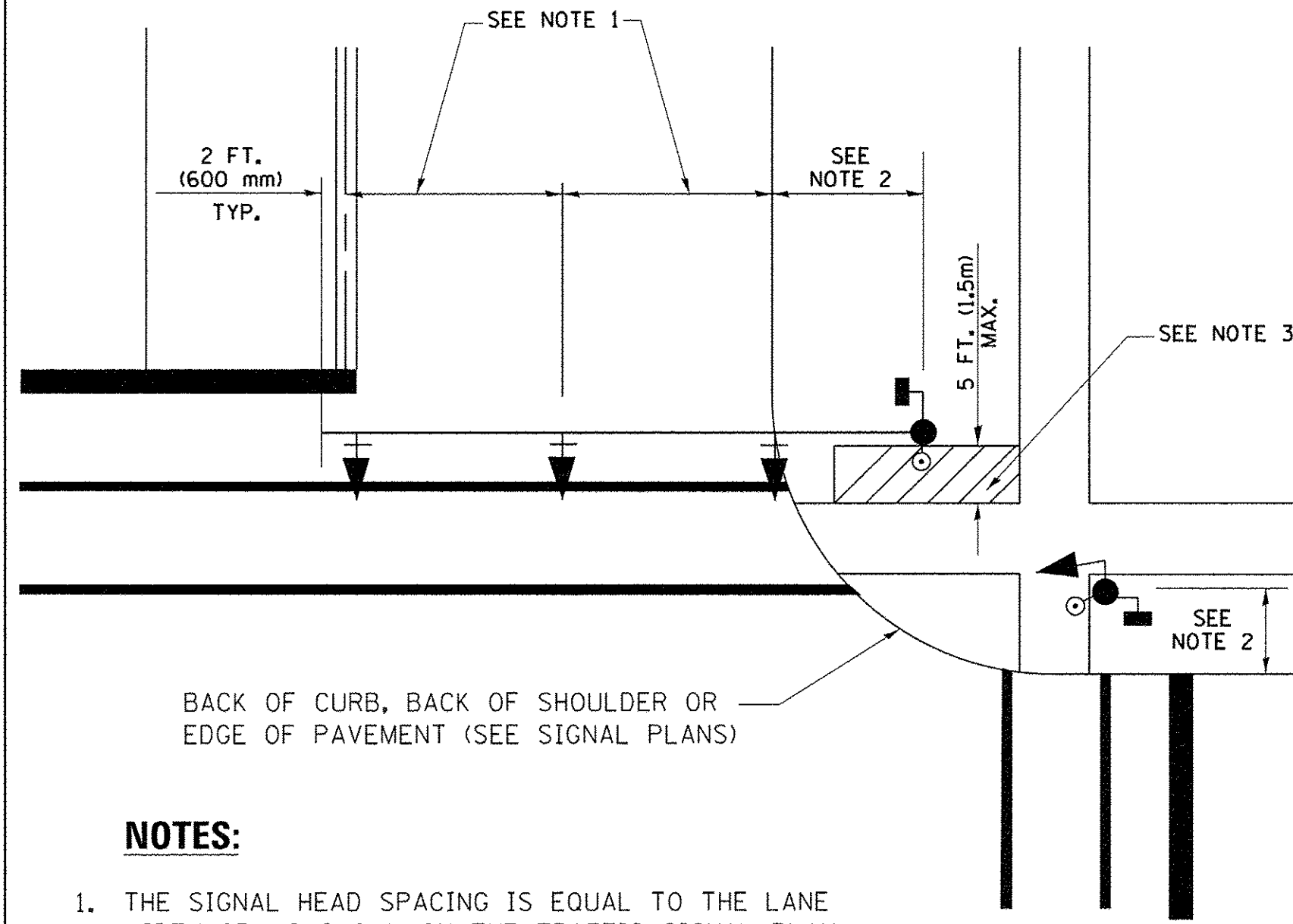
- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.

- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A.P. RTE. 0335	SECTION 14-F3000-03-8T	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 26
CONTRACT NO. 61C39	PLOT SCALE = 50.0000' / in.	CHECKED - DAD	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -									

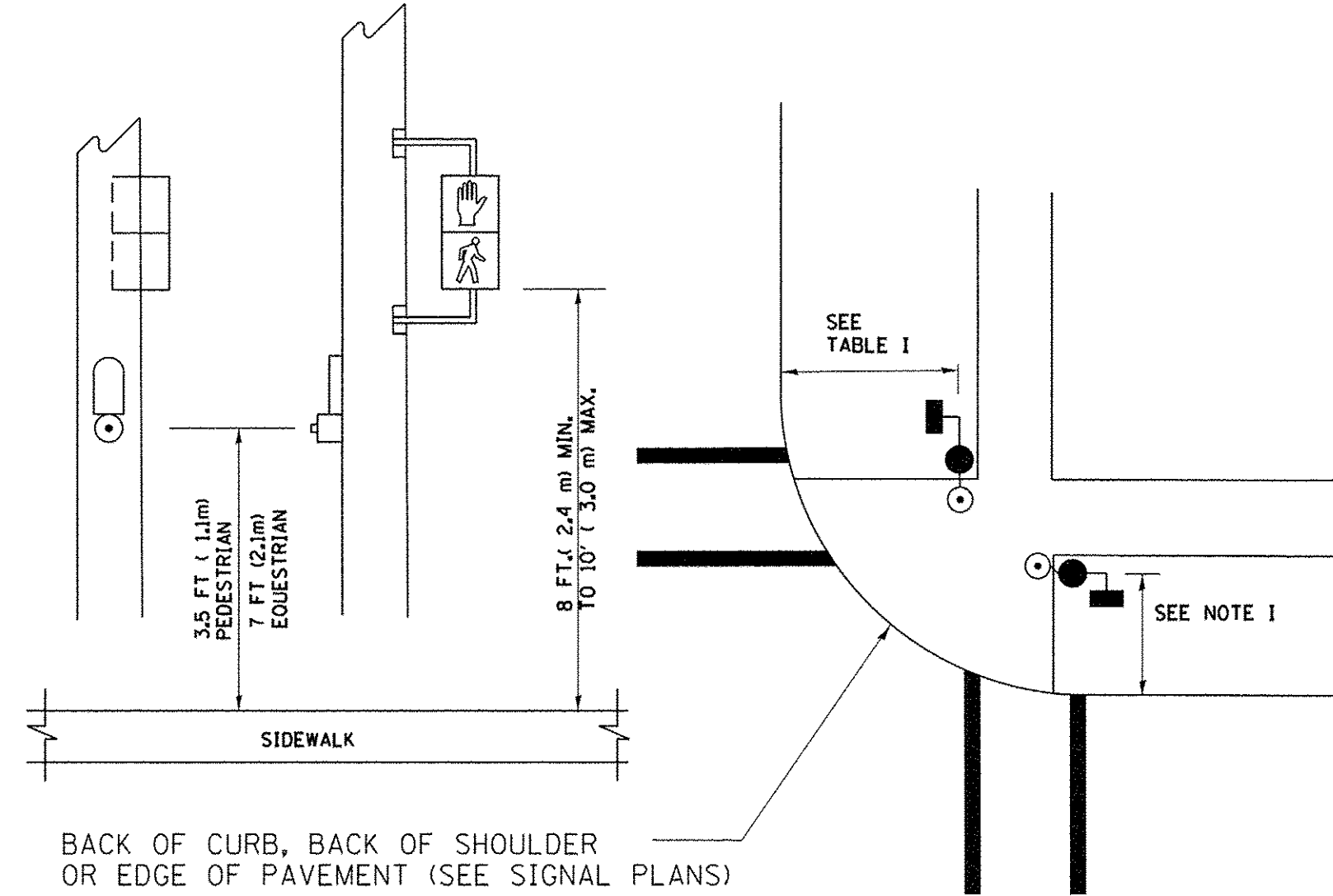
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

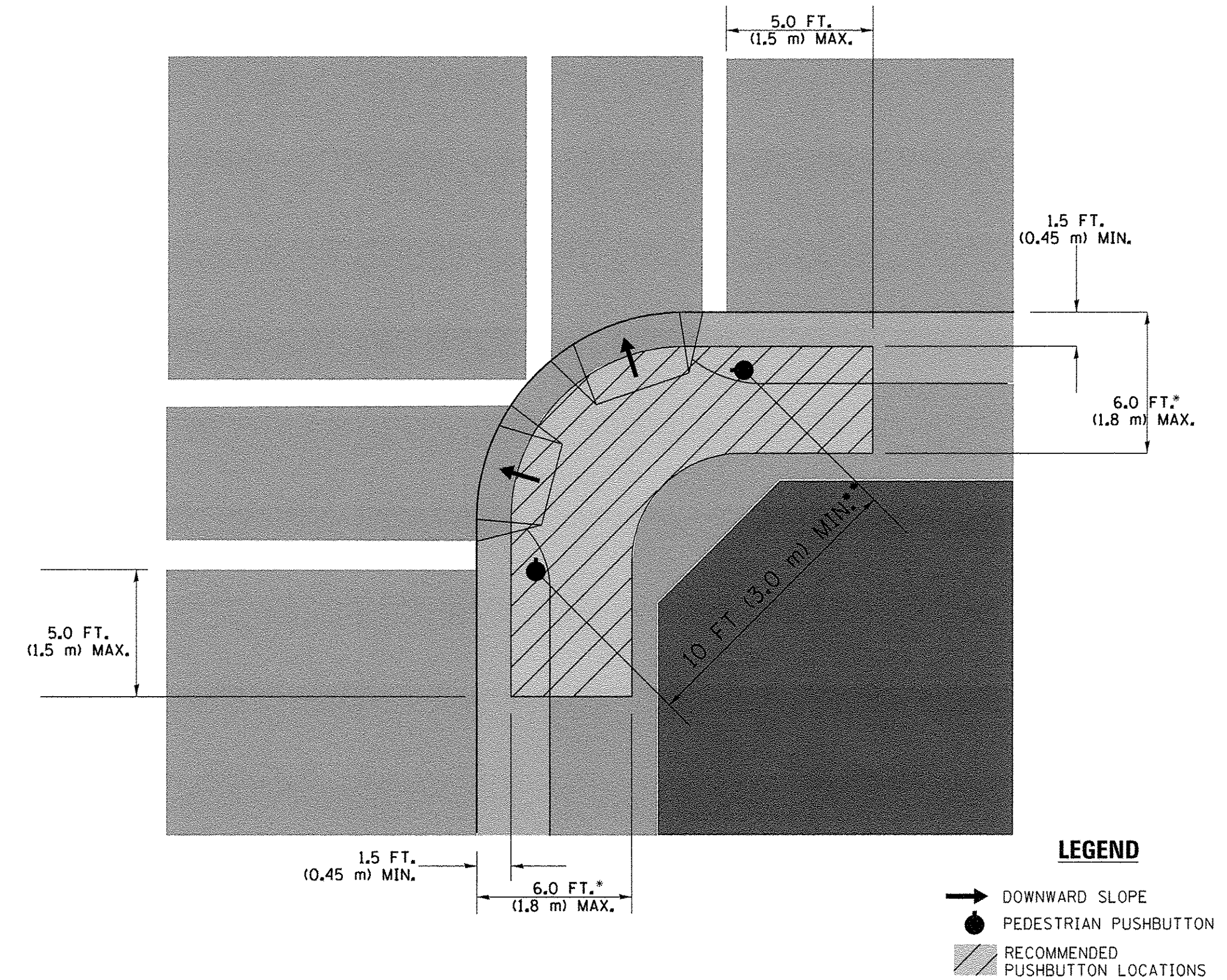
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT ( 1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

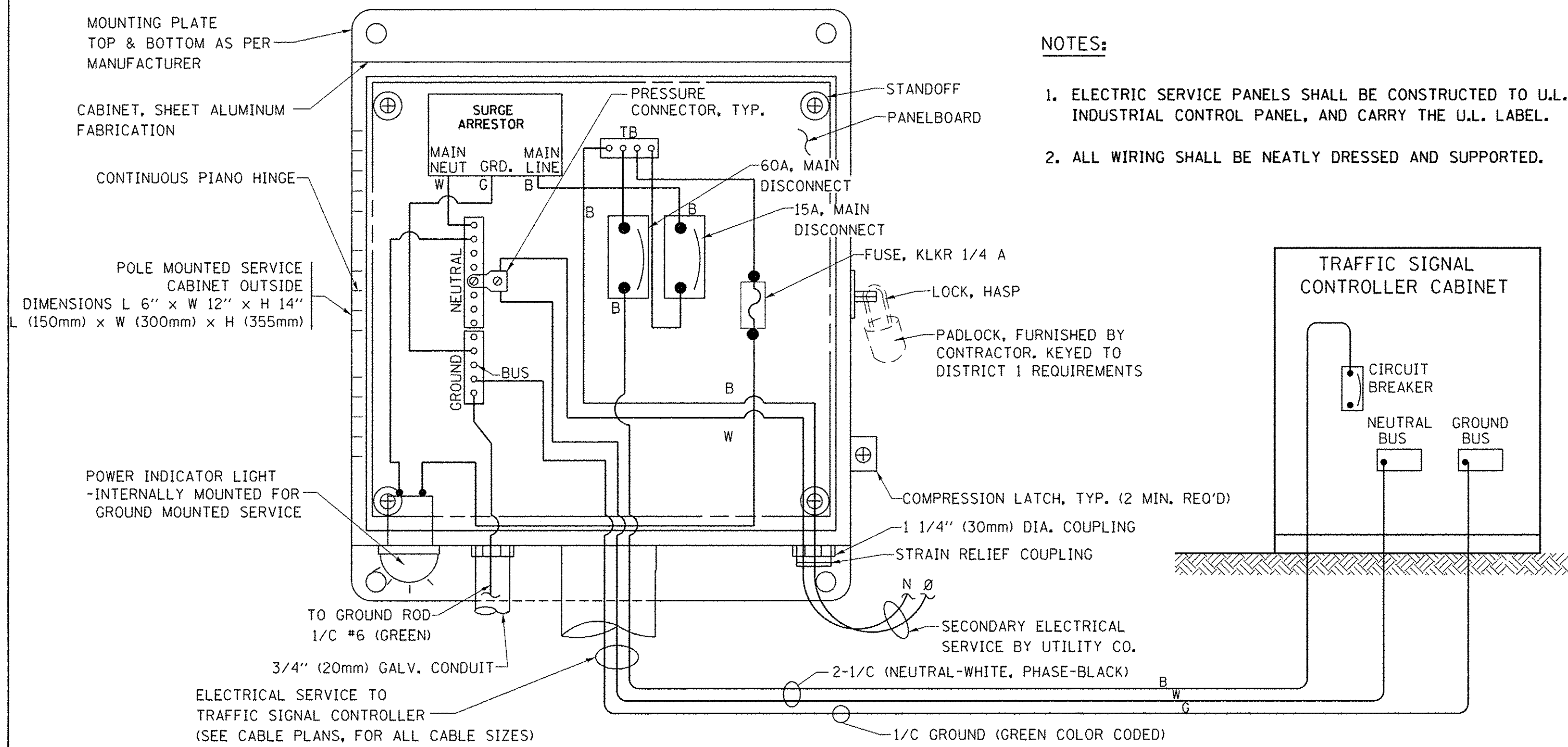
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

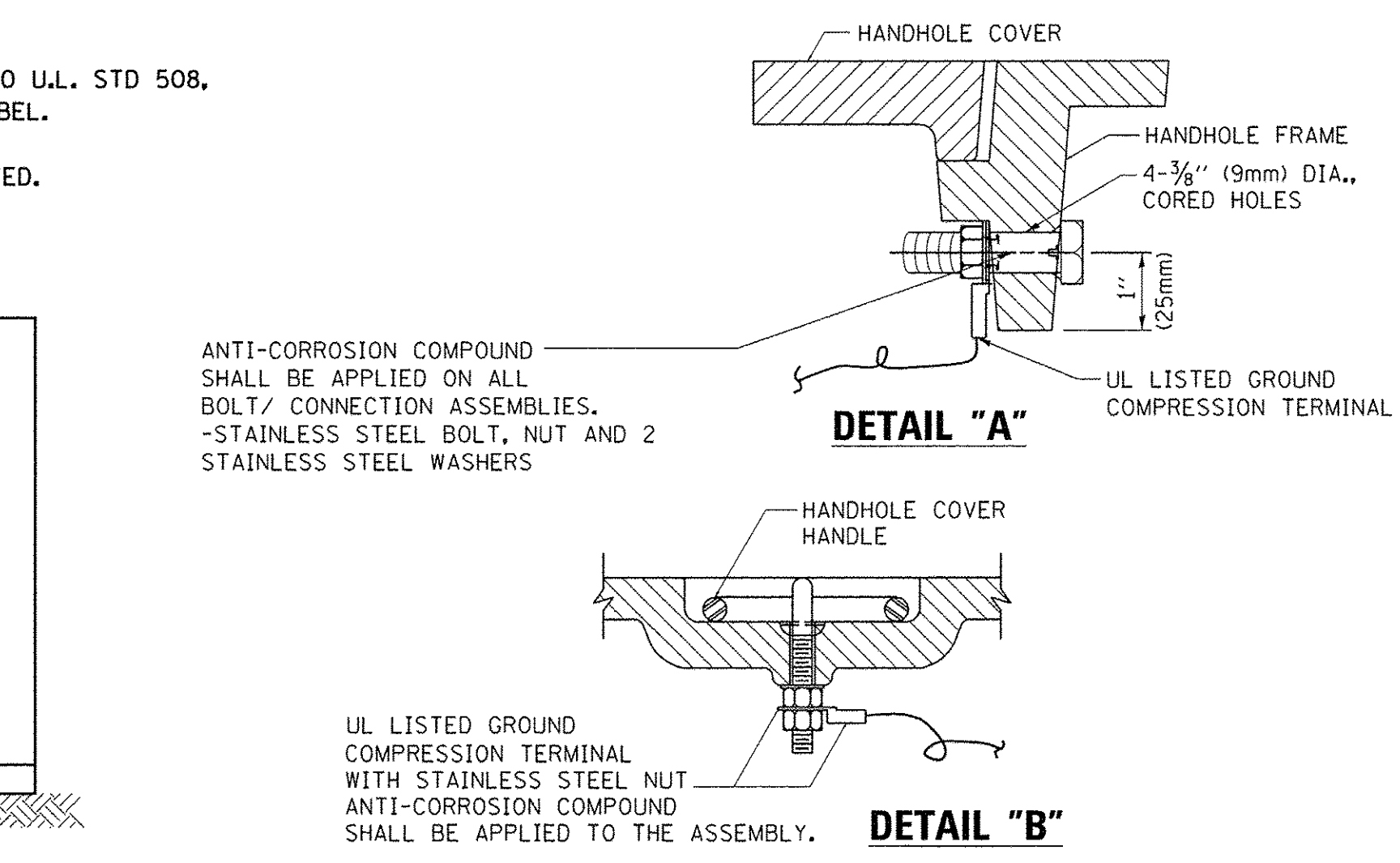
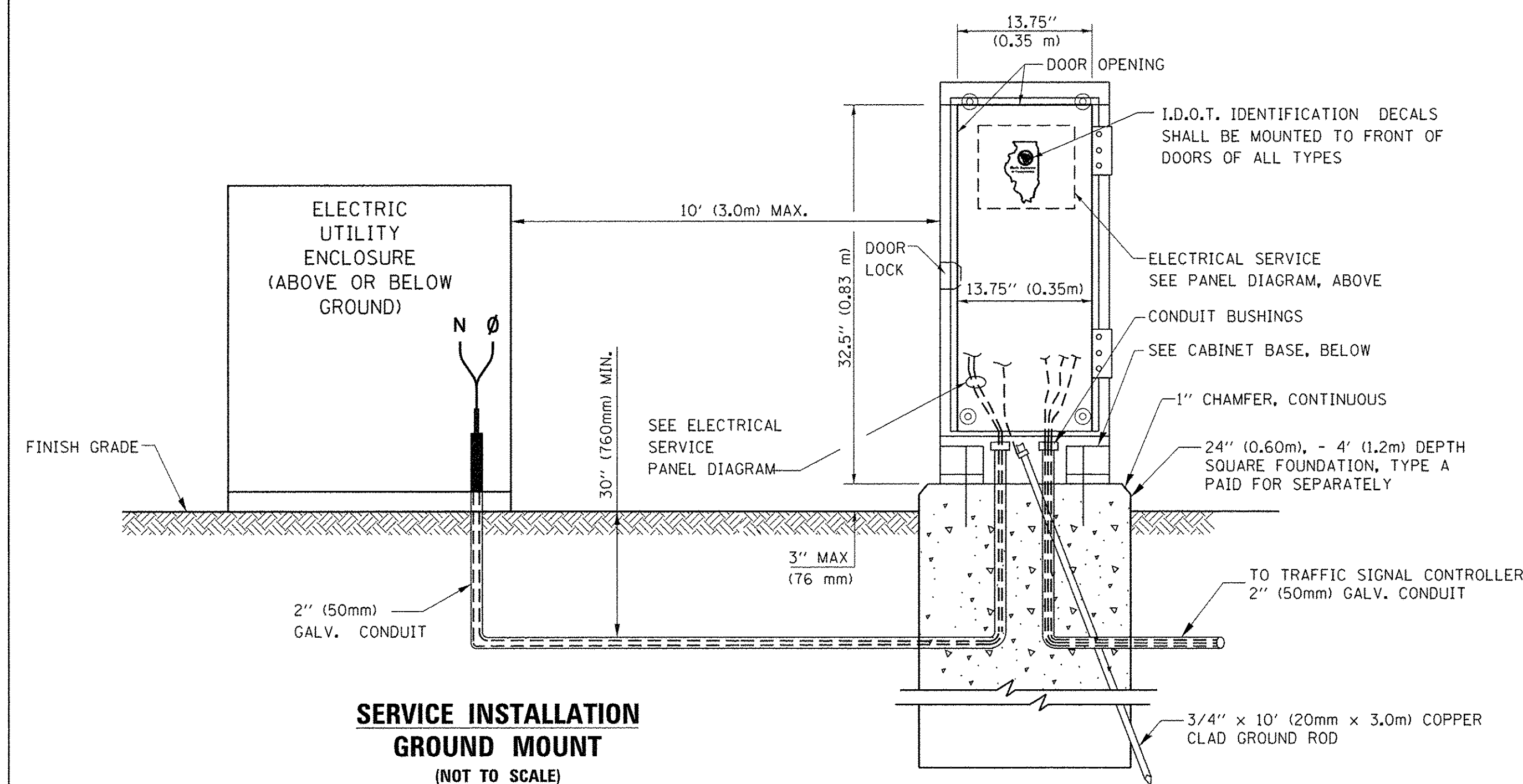
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

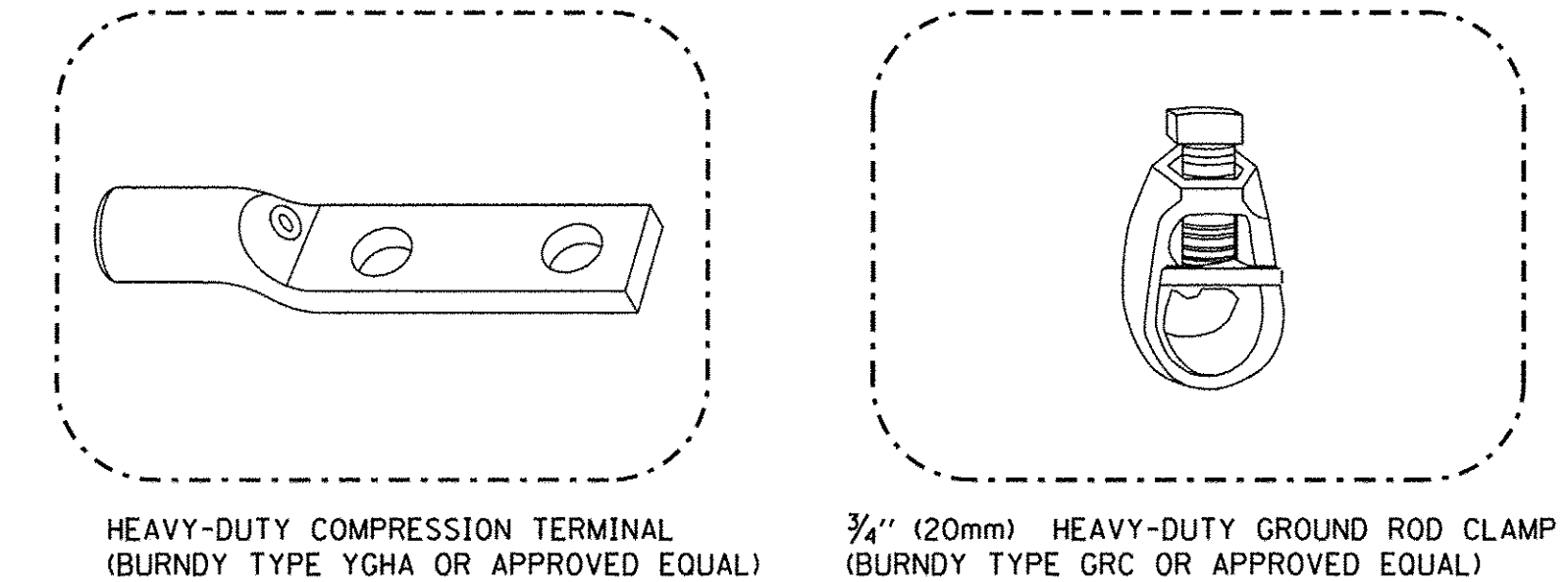


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



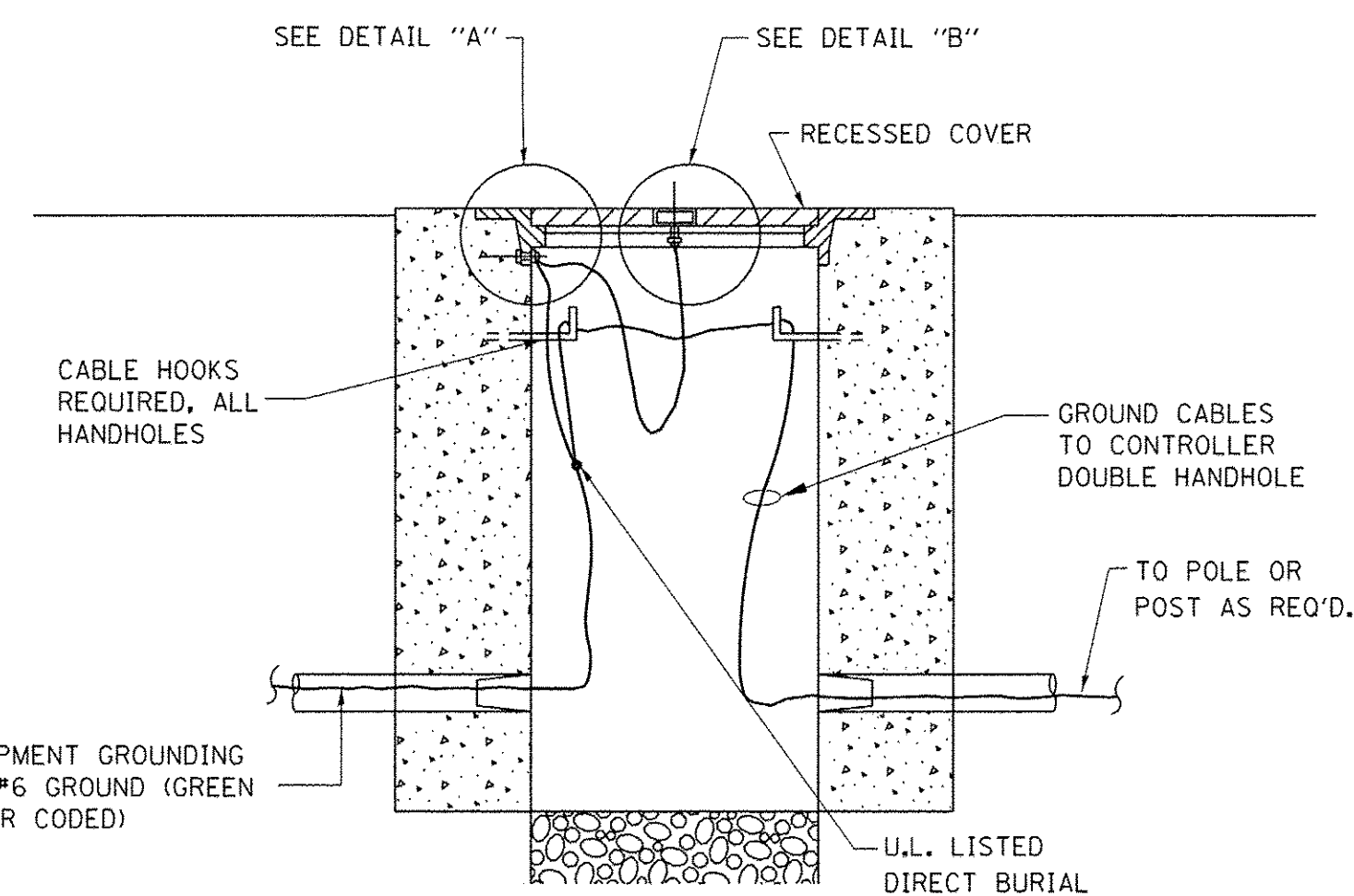
**NOTES:**  
**GROUNDING SYSTEM**

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD, ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

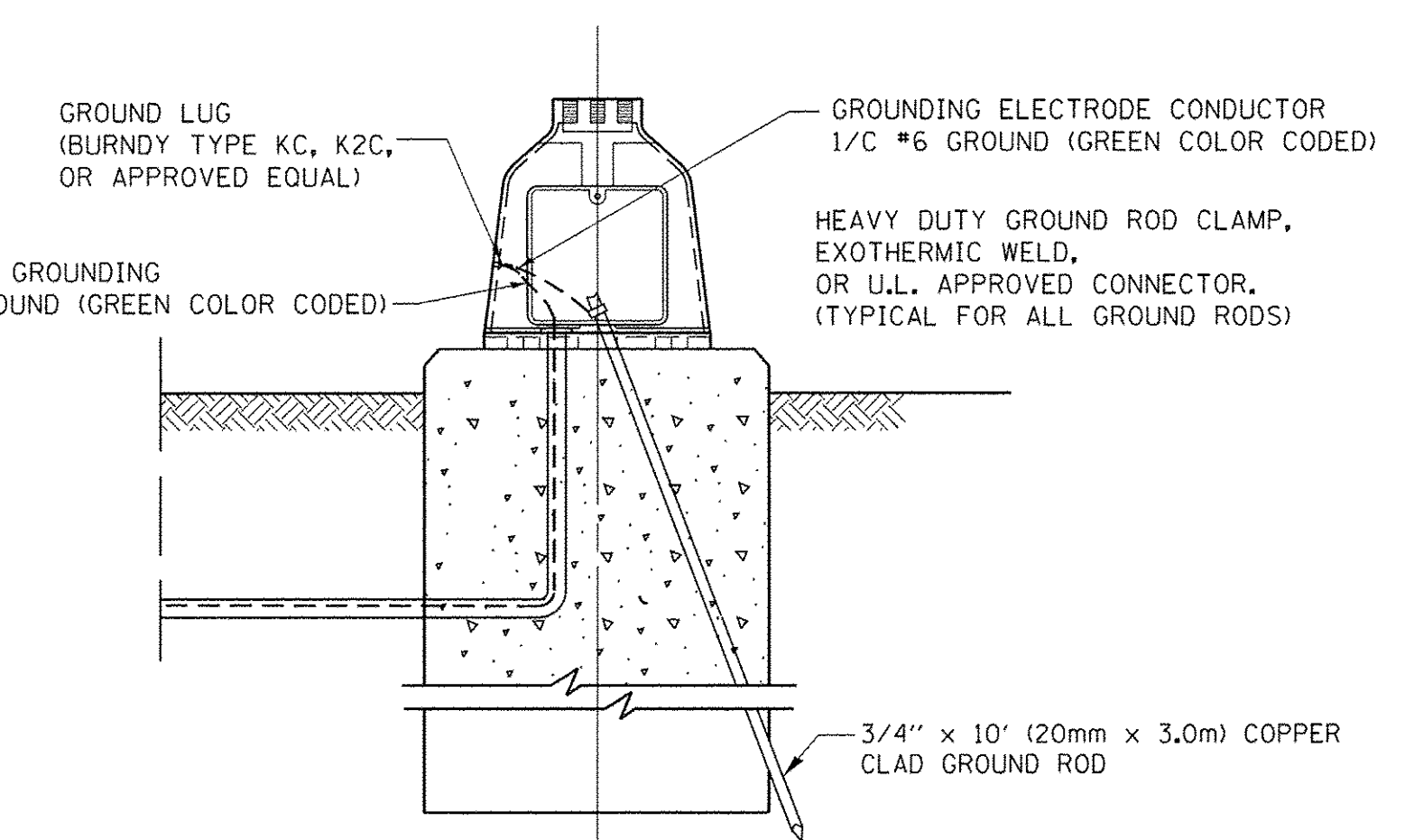
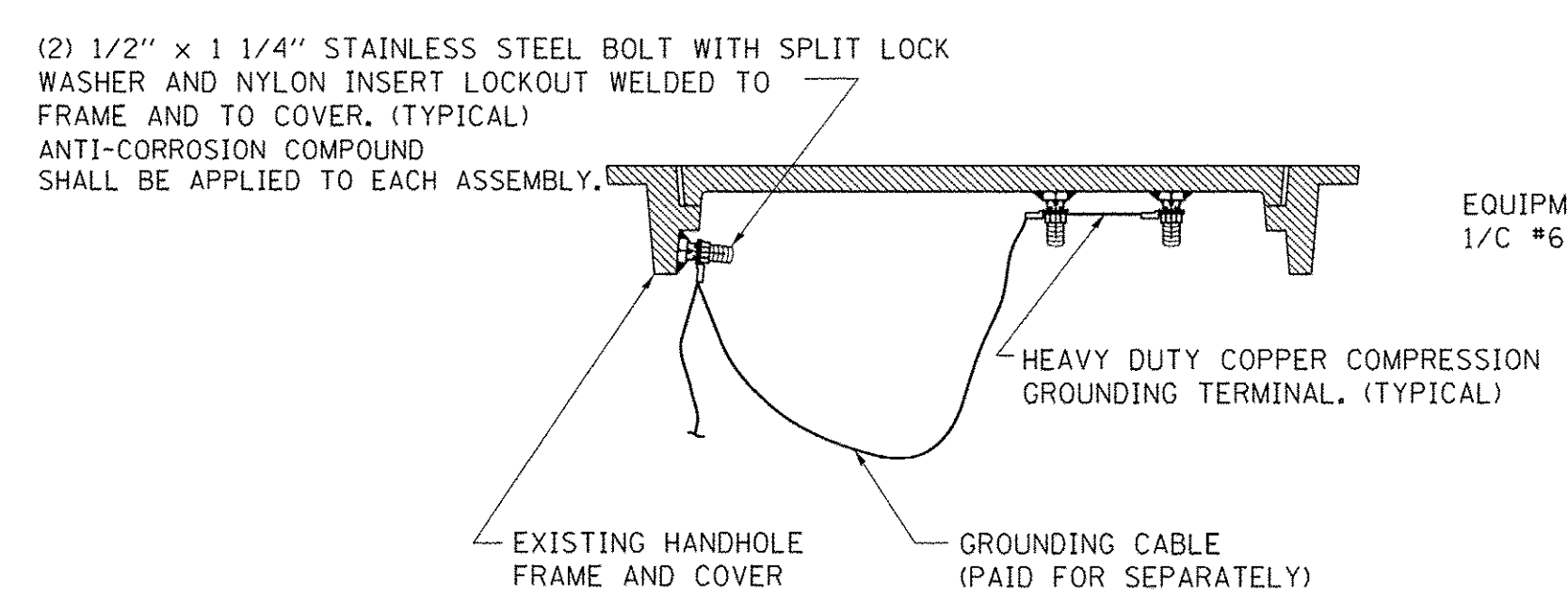


**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



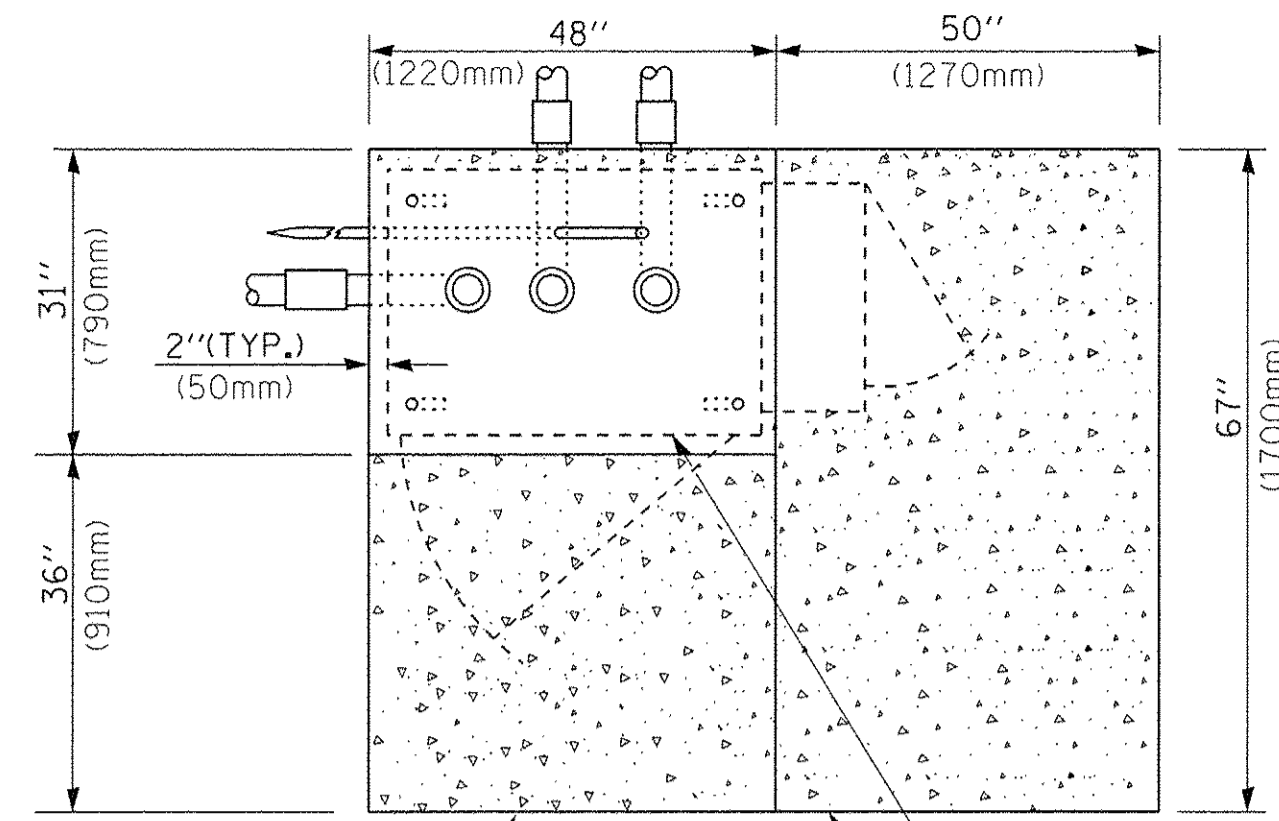
FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
DRAWN - BCK	CHECKED - DAD	DATE - 10-28-09	REVISED -
PLOT SCALE = 50.0000' / 1in.		DATE - 10-28-09	
PLOT DATE = 1/13/2014		REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

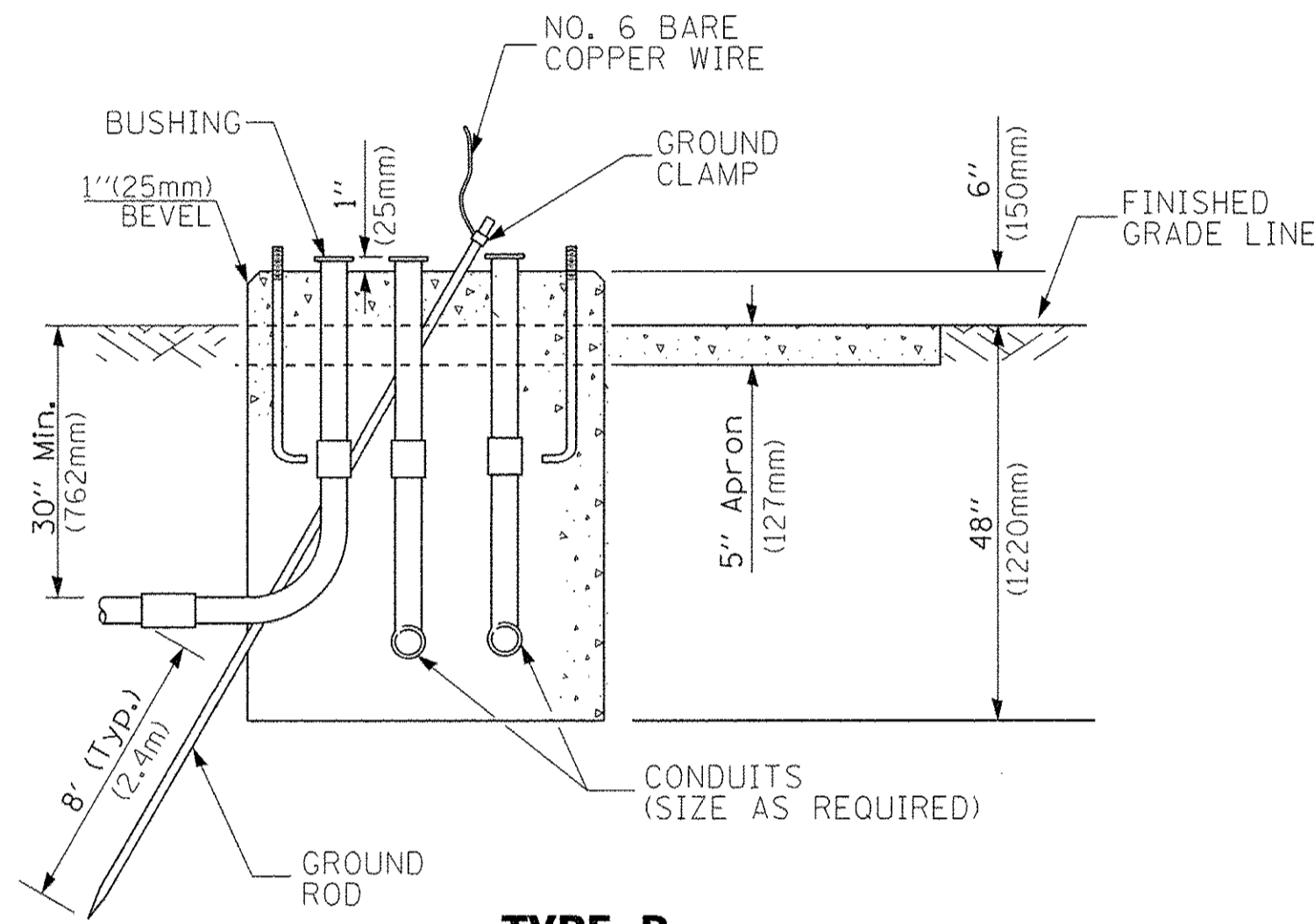
**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 4 OF 7 SHEETS STA. TO STA.

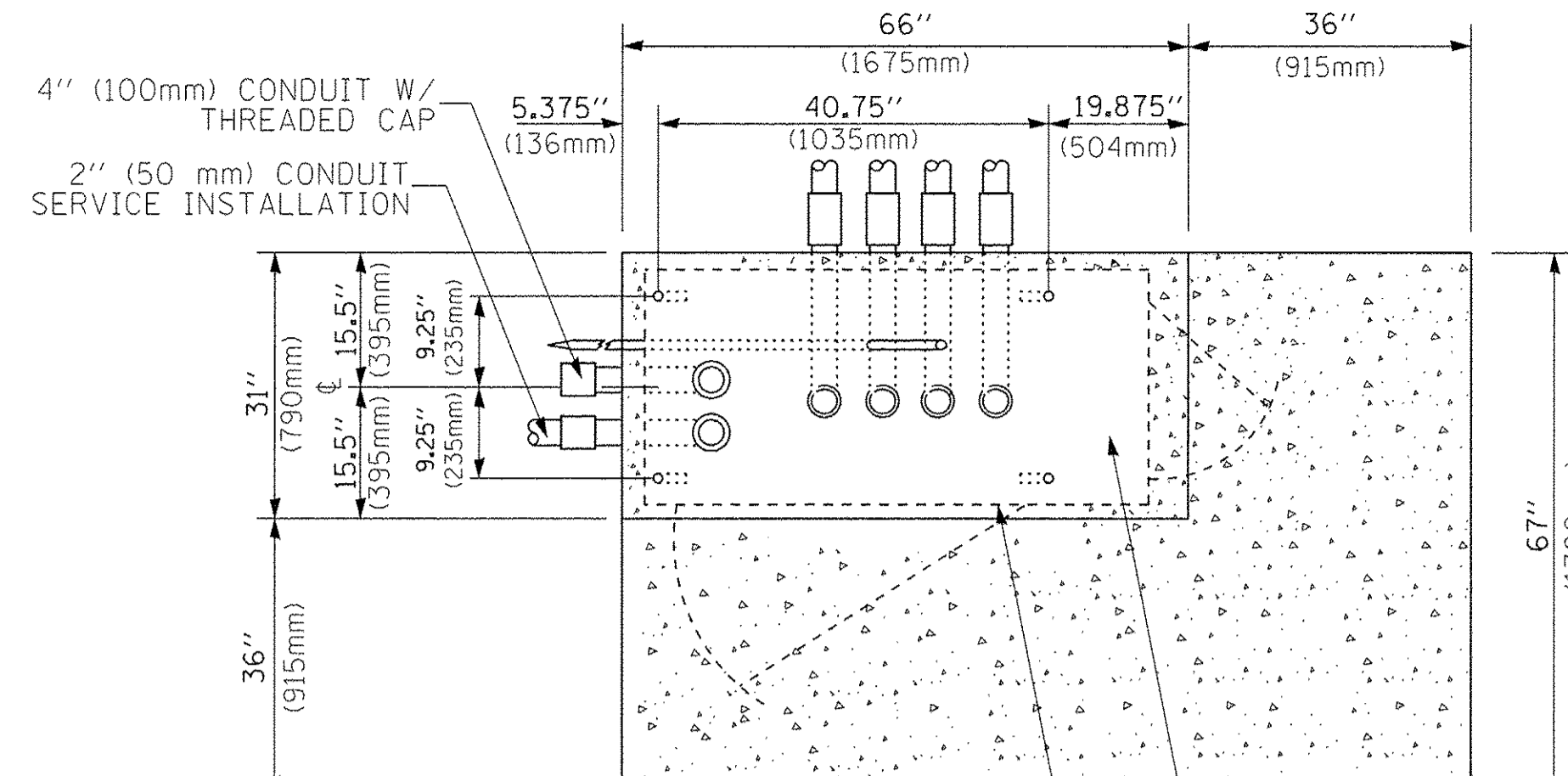
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0339	14-F3000-03-8T	LAKE	70	28
TS-05		CONTRACT NO.	61C39	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



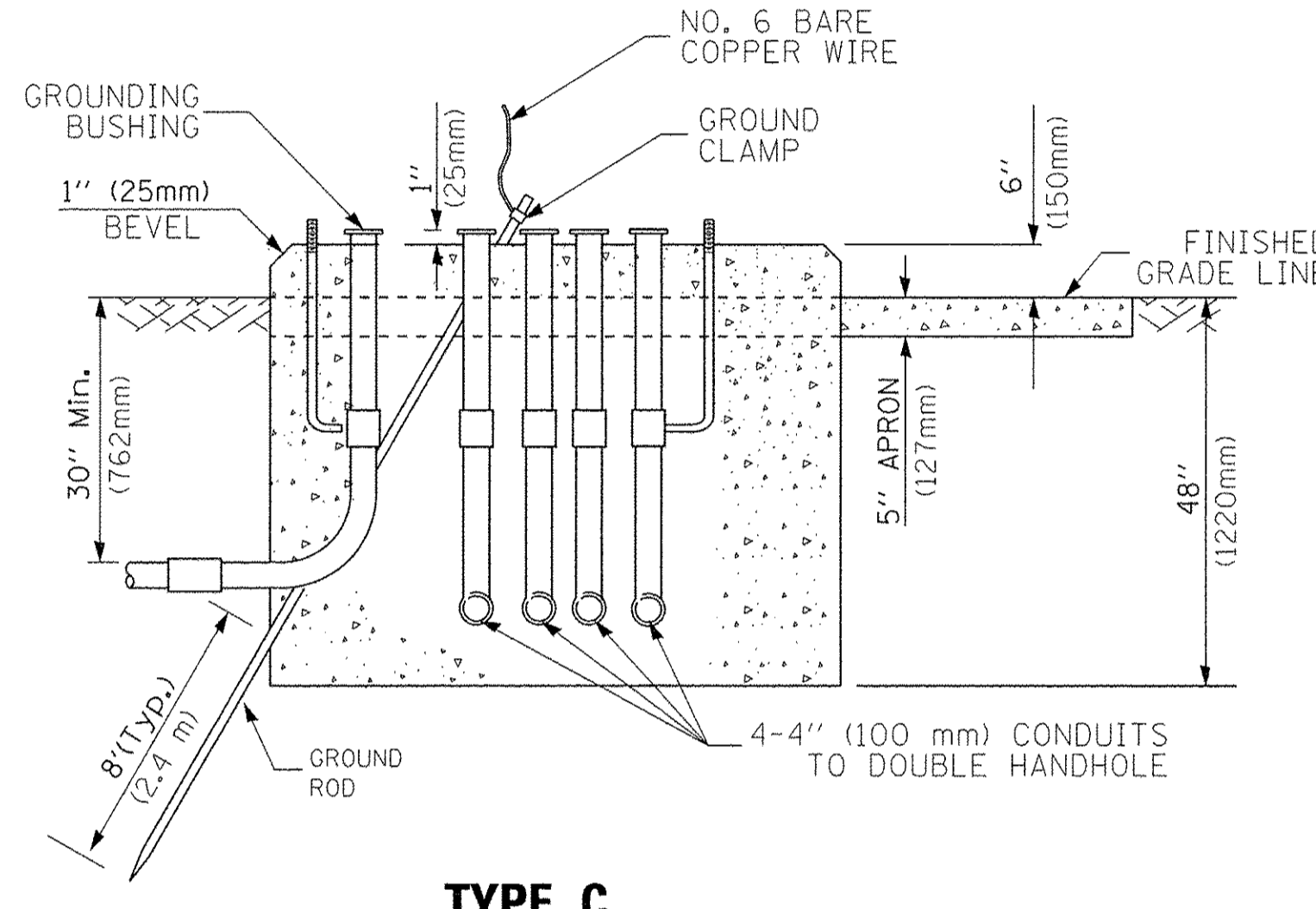
**TOP VIEW**



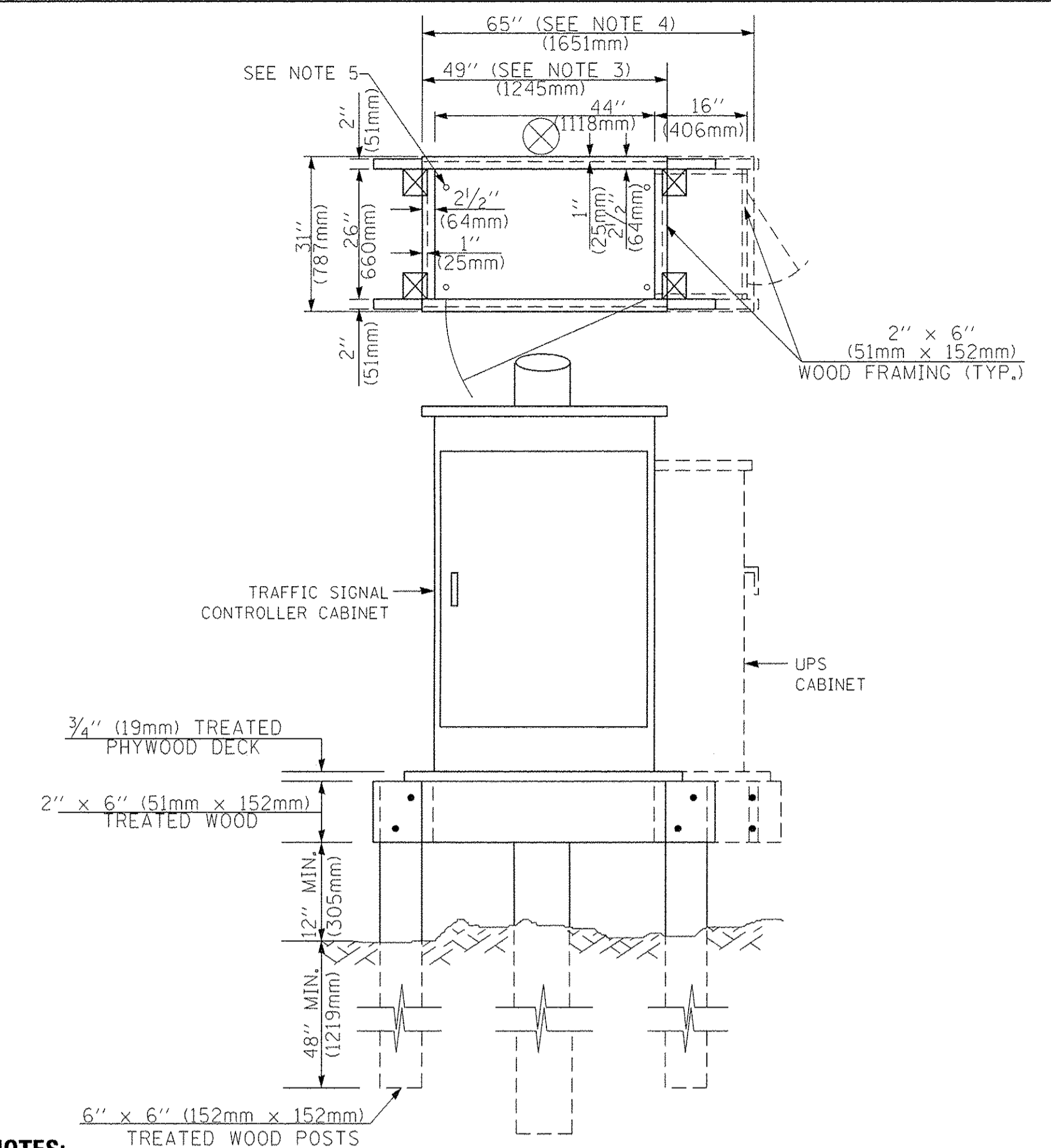
**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**TOP VIEW**



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

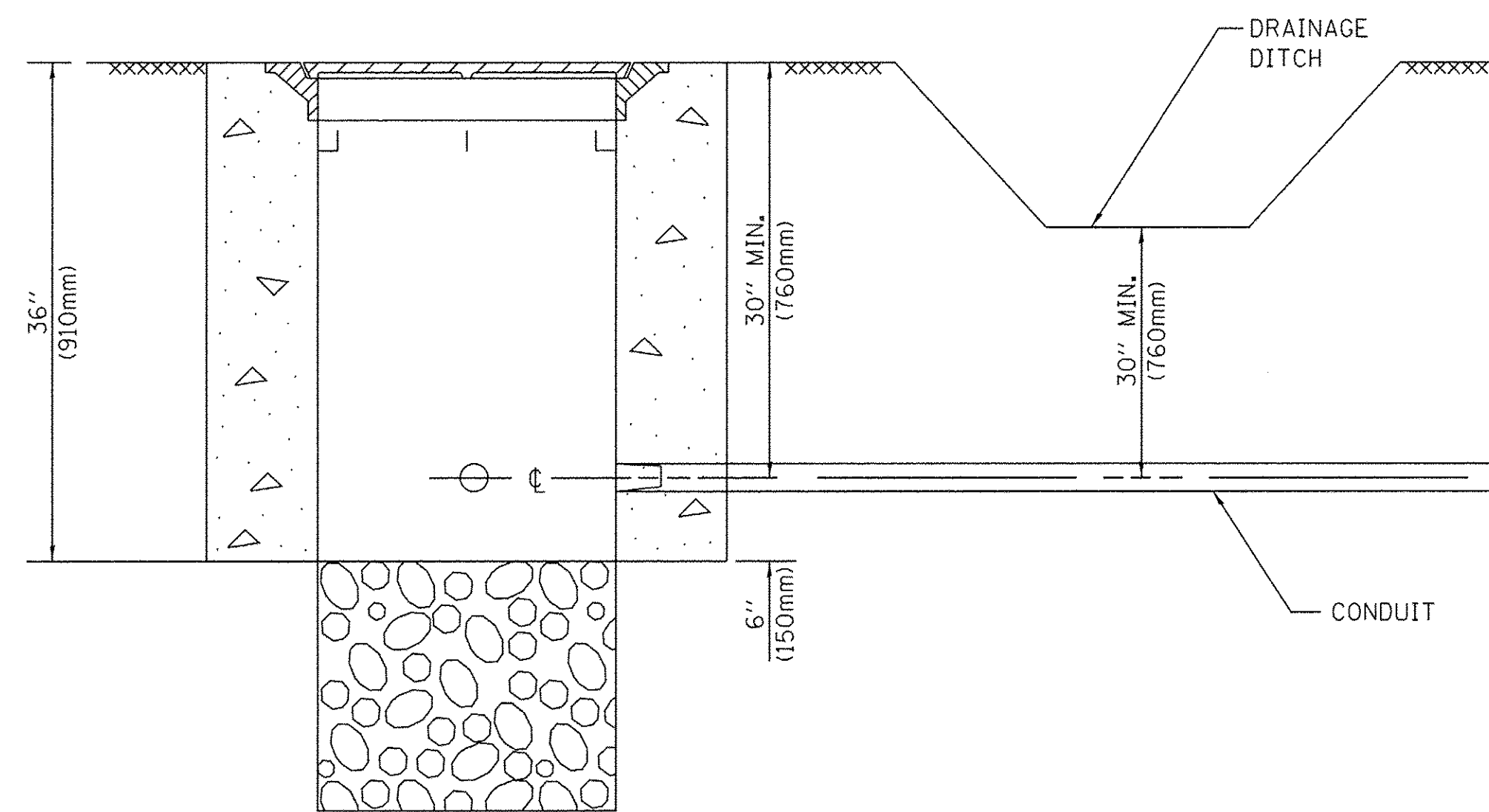
**DEPTH OF FOUNDATION**

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

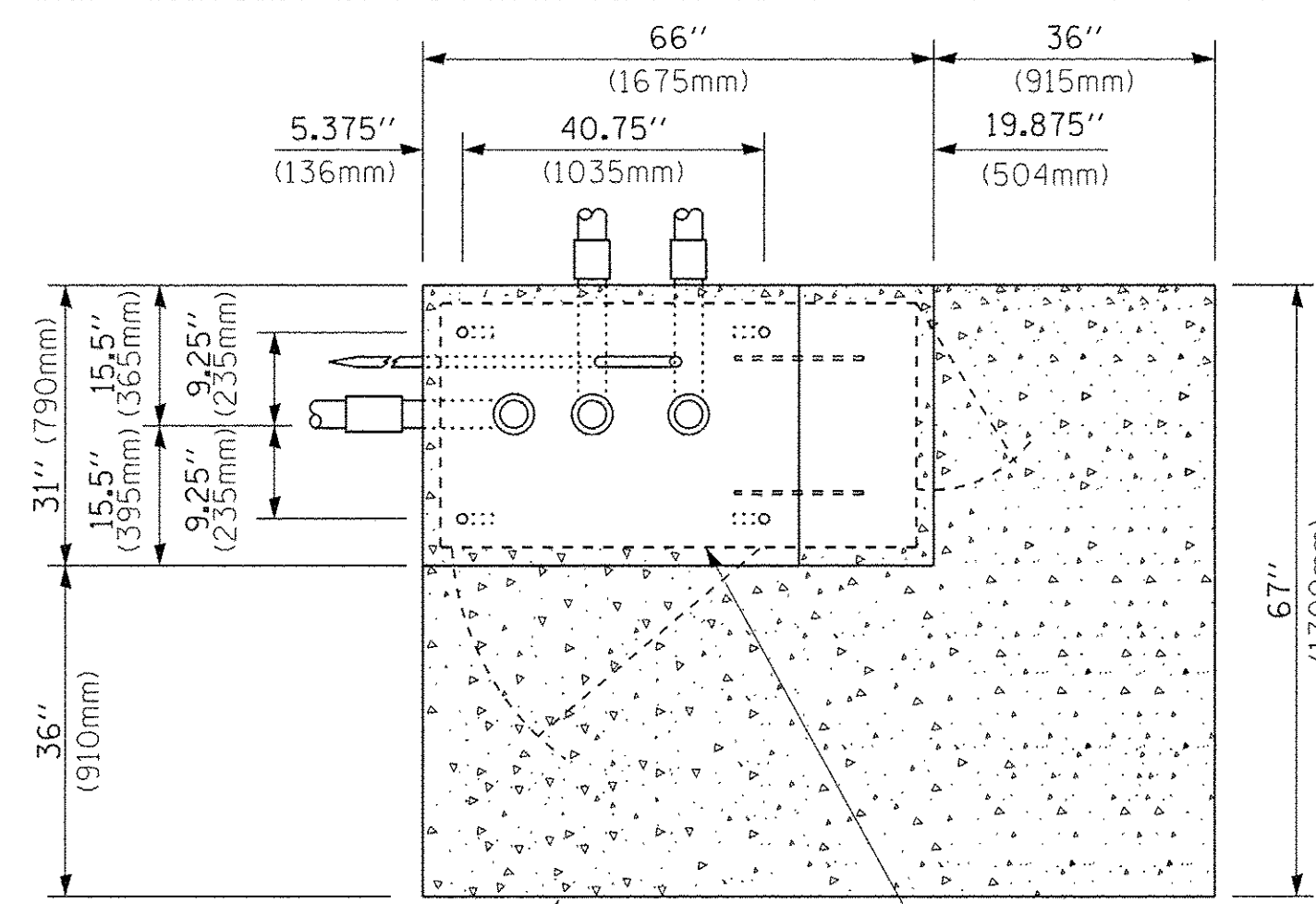
**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**



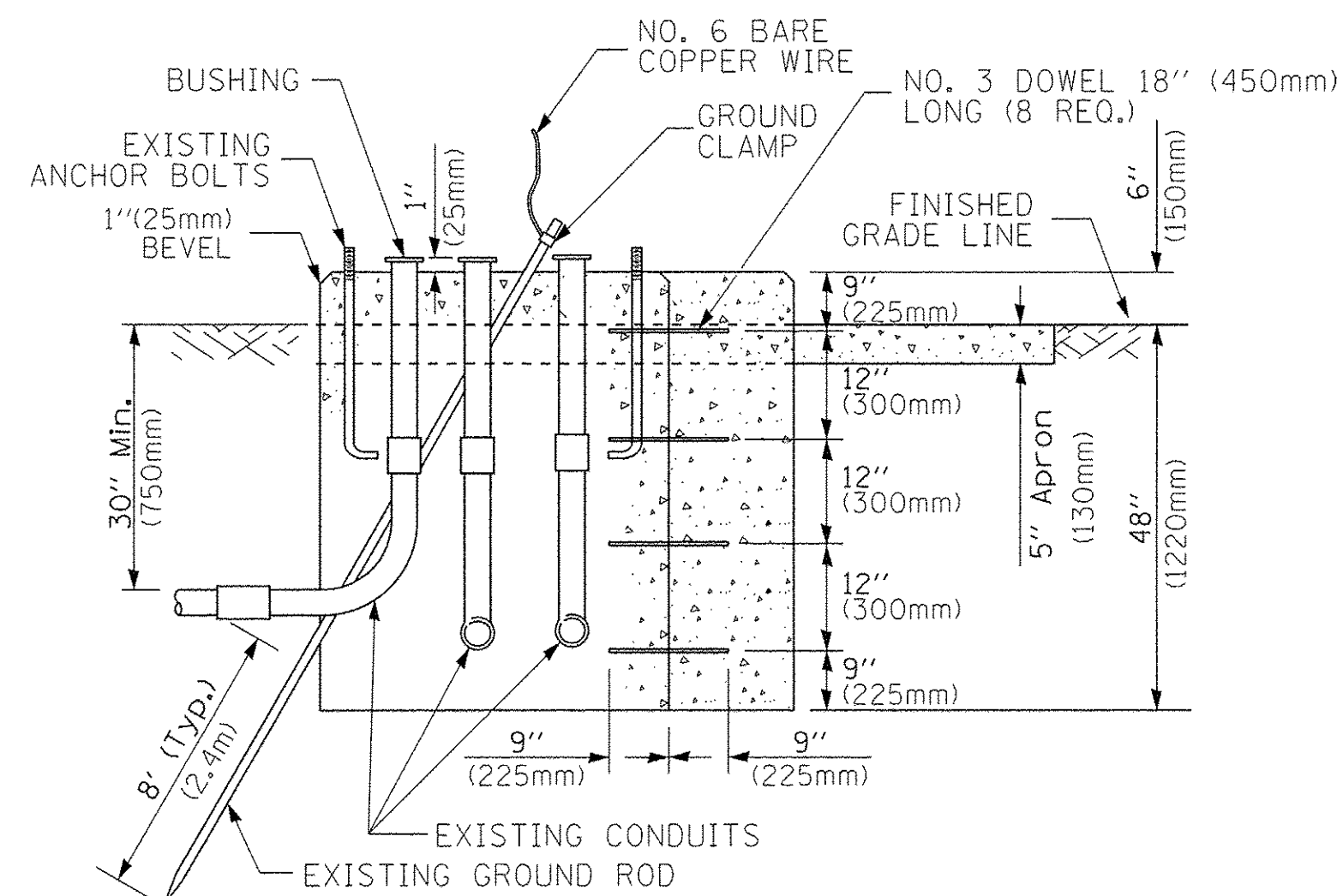
**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**TOP VIEW**  
(NOT TO SCALE)

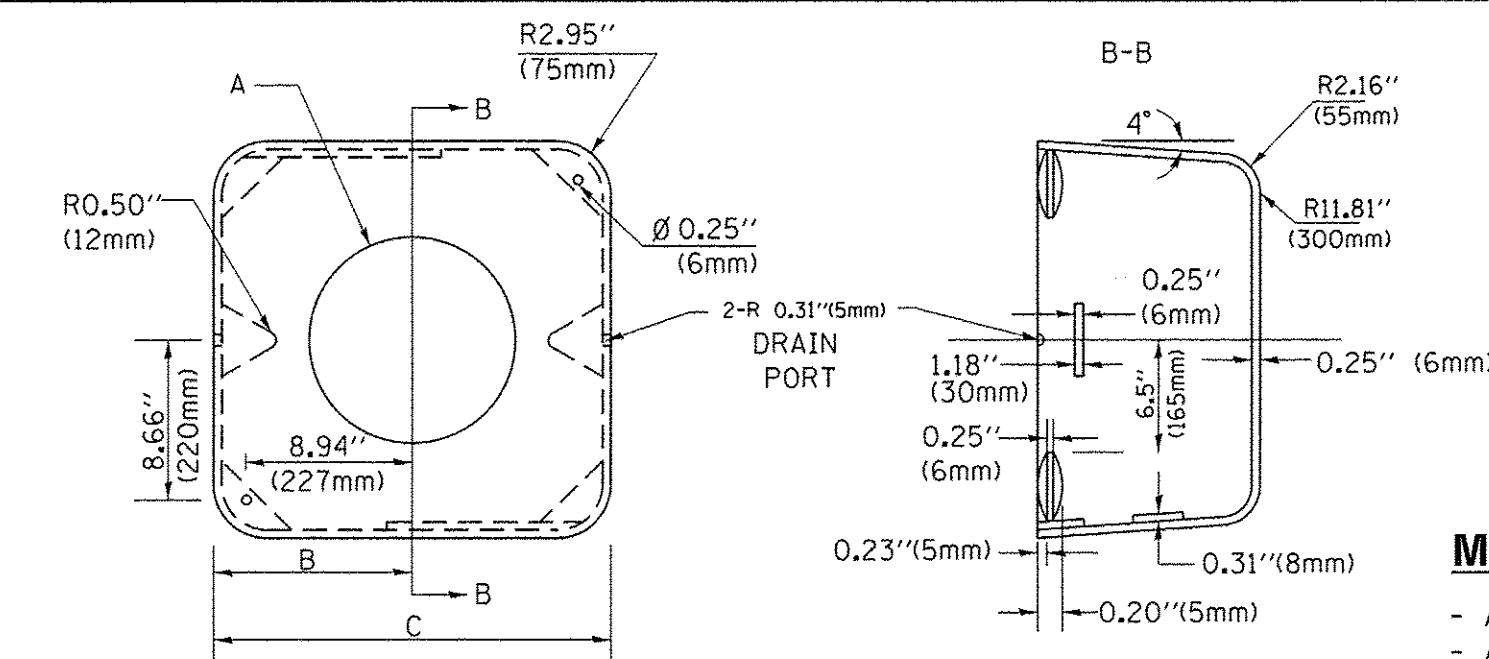


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4"(19 mm) CLOSE NIPPLE
7	3/4"(19 mm) LOCKNUT
8	3/4"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

**NOTES:**

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



**MATERIAL:**  
- ASTM A36 STEEL  
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

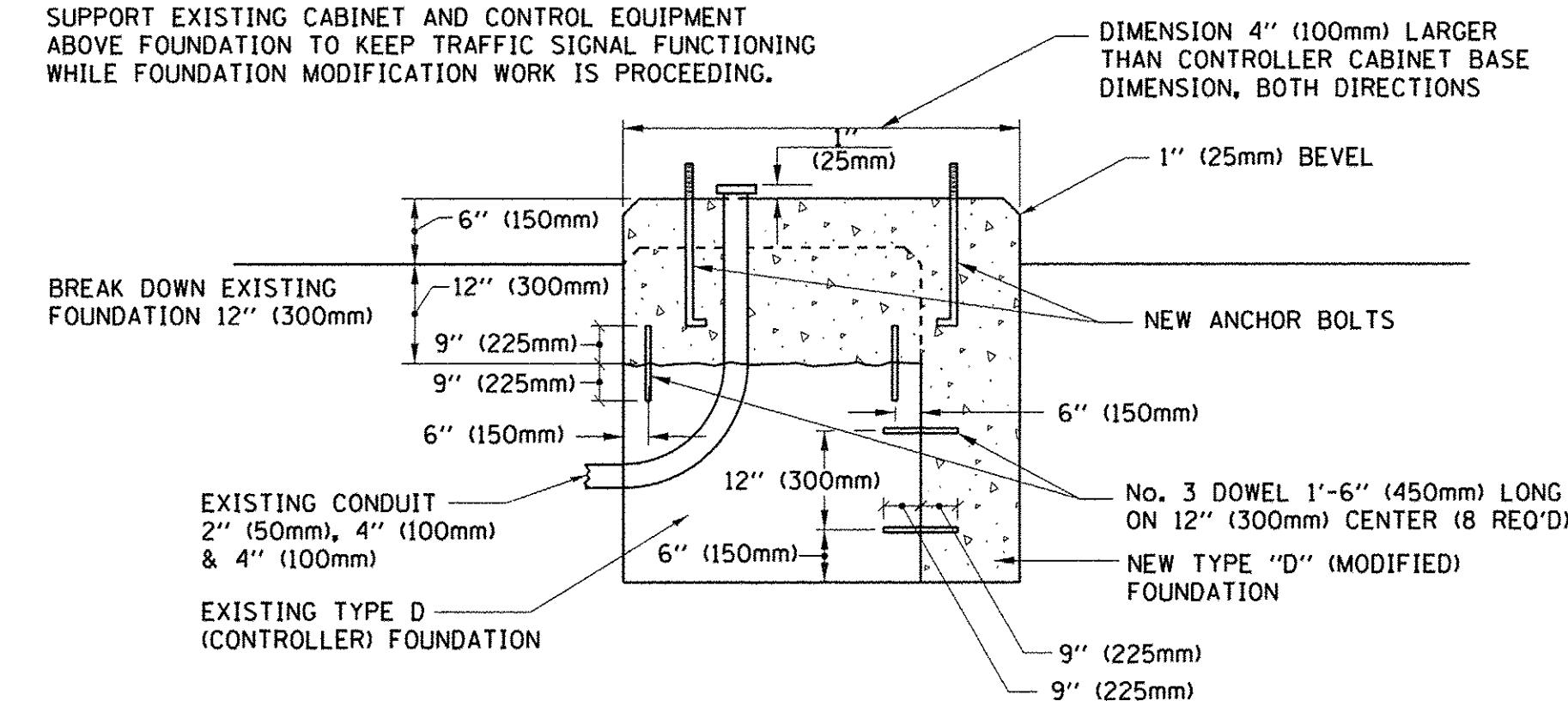
**SHROUD**

**NOTES:**

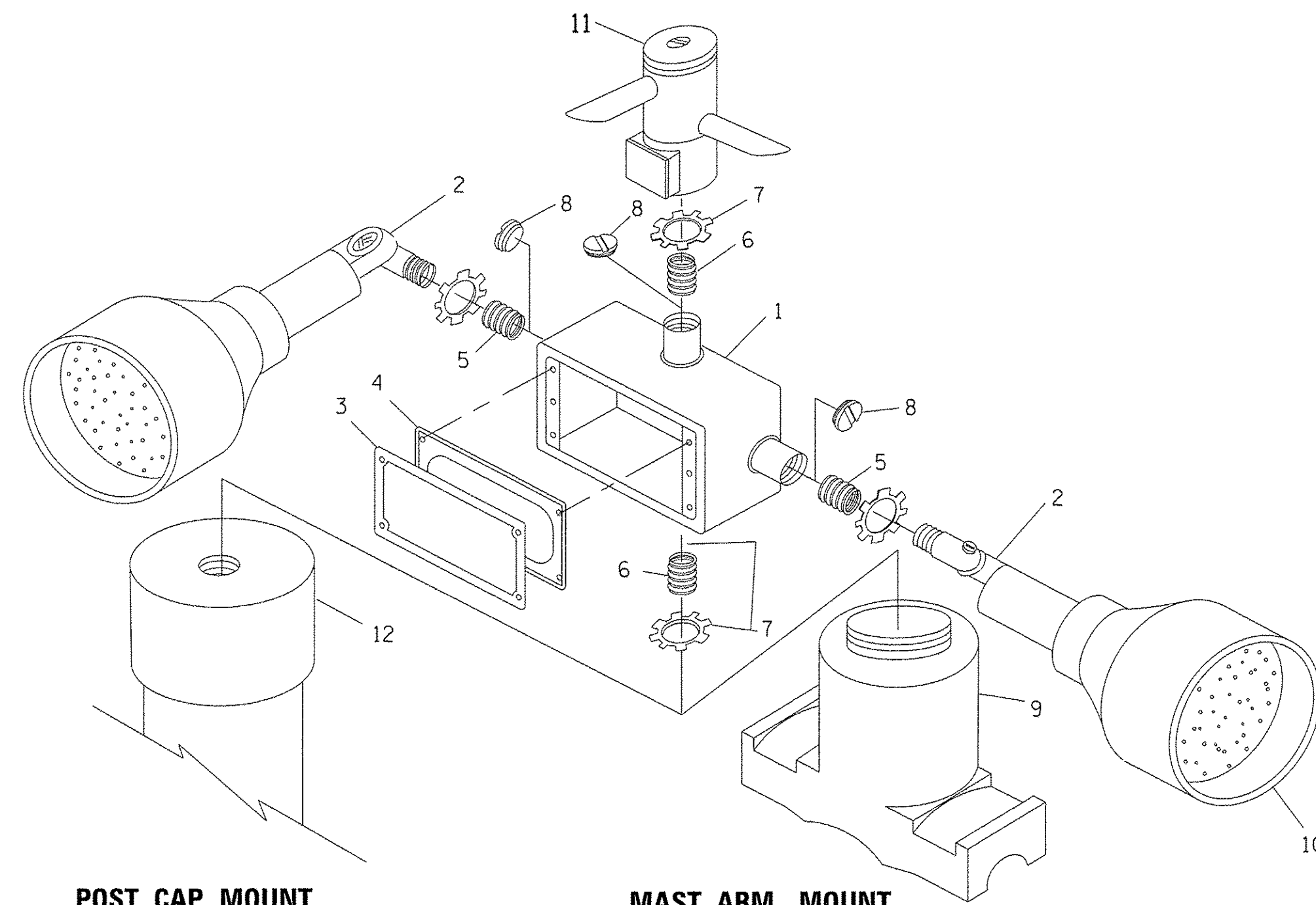
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



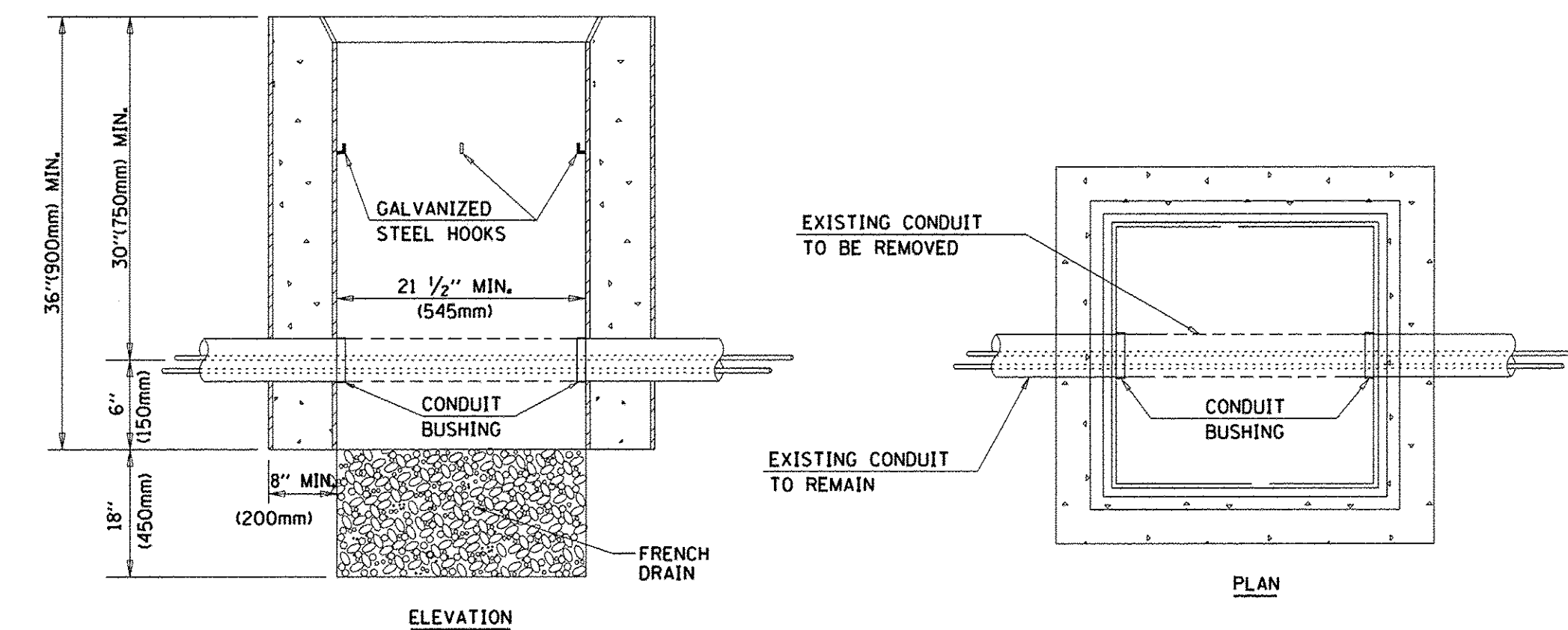
**MODIFY EXISTING TYPE "D" FOUNDATION**



**POST CAP MOUNT**

**MAST ARM MOUNT**

**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



**NOTES:**

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

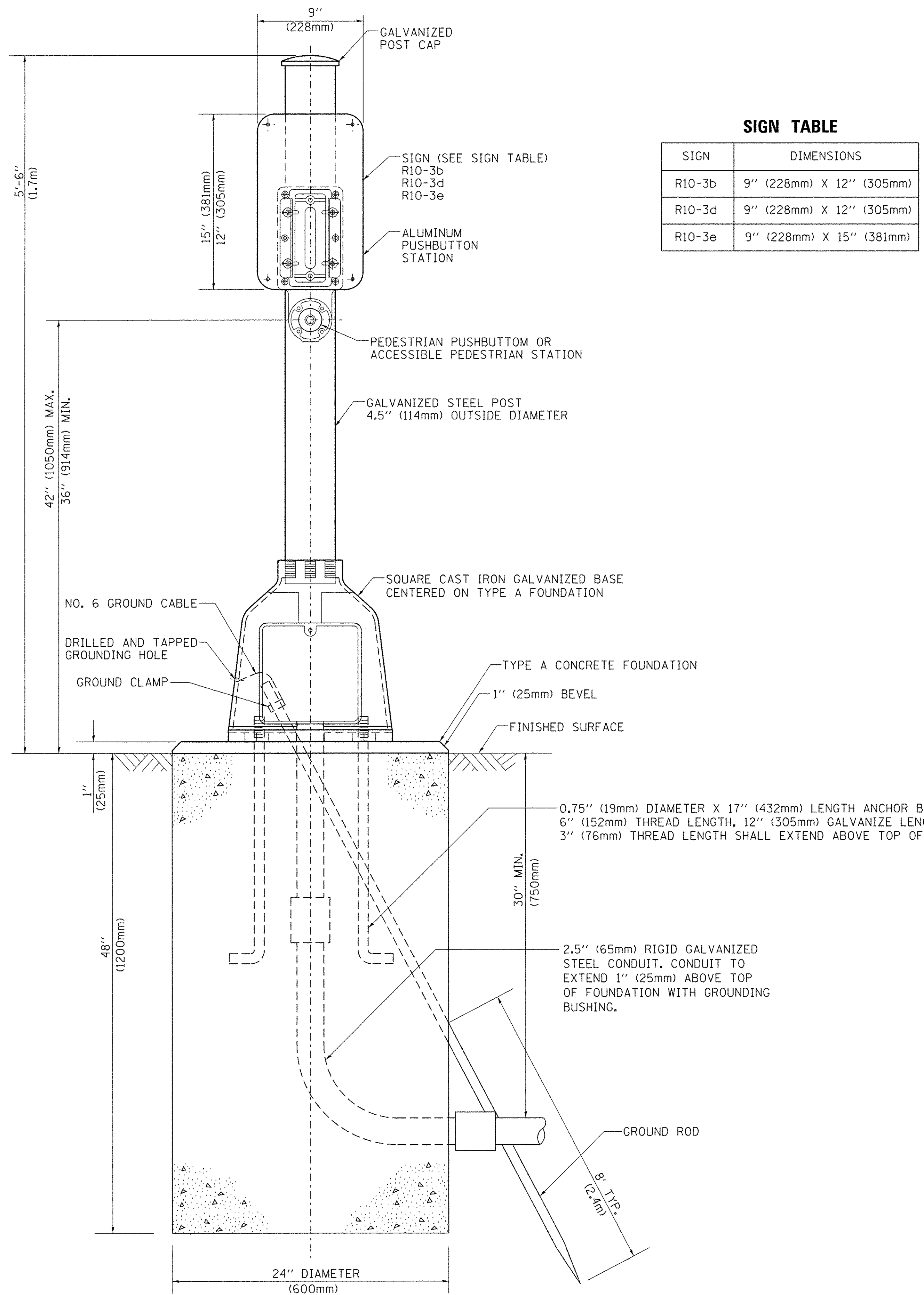
FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
c:\pwwork\pwwork\footemj\d0108315\ts05.dgn		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000' / 1"	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

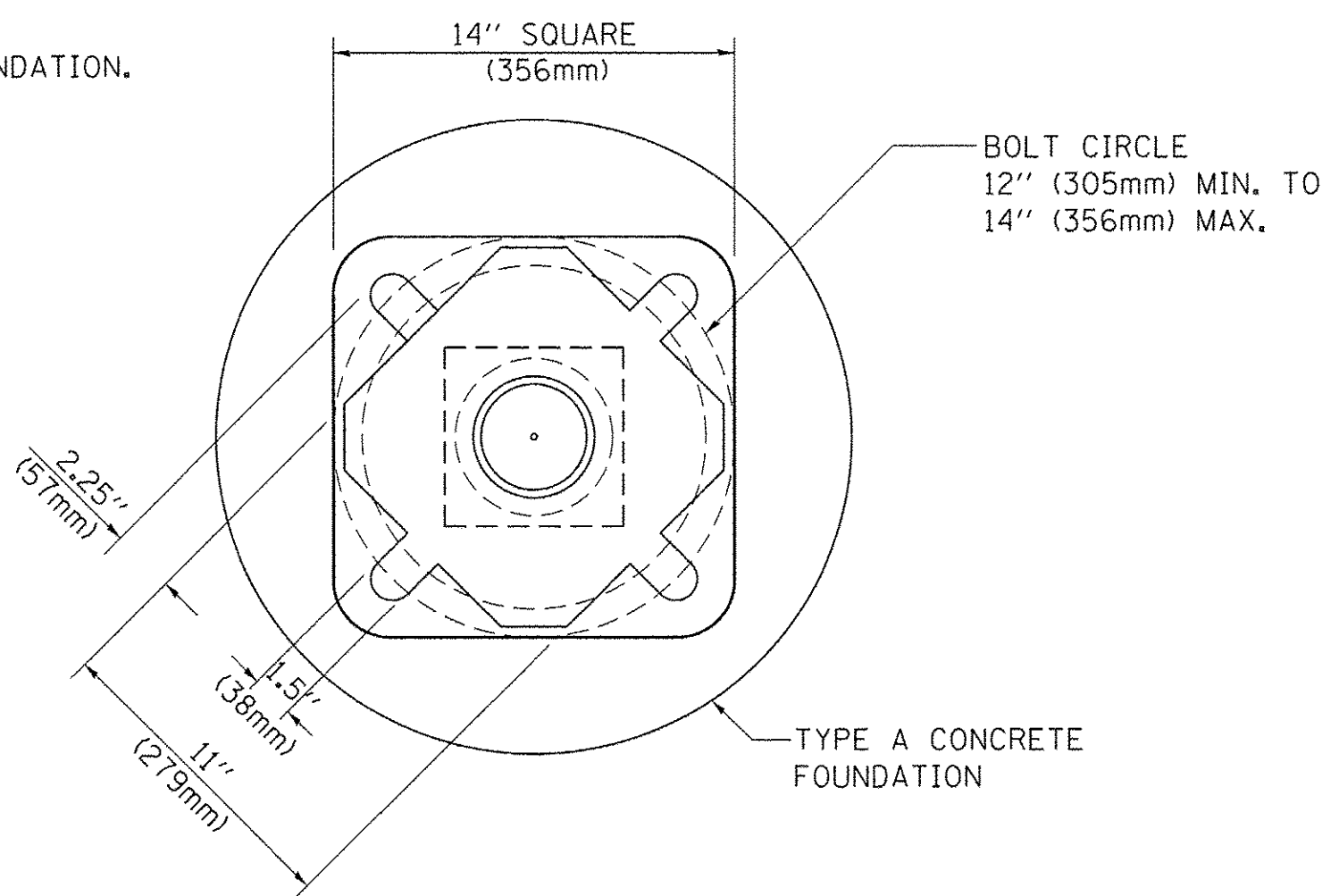
SCALE: NONE SHEET NO. 6 OF 7 SHEETS STA. TO STA.

F.A.P. RTE. 0335	SECTION 14-F300-03-0T	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 30
<b>TS-05</b>		CONTRACT NO. 61C39		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**  
**PEDESTRIAN PUSH BUTTON POST, TYPE A**

FILE NAME =	USER NAME = footemj	DESIGNED - DAG	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - GND	REVISED -			0335	14-F3000-03-BT	LAKE	70	31	
	PLOT SCALE = 50.0000' / in.	CHECKED - DAD	REVISED -			<b>TS-05</b>					
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -			CONTRACT NO. 61C39					
					SCALE: NONE	SHEET NO. 7 OF 7 SHEETS	STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT											

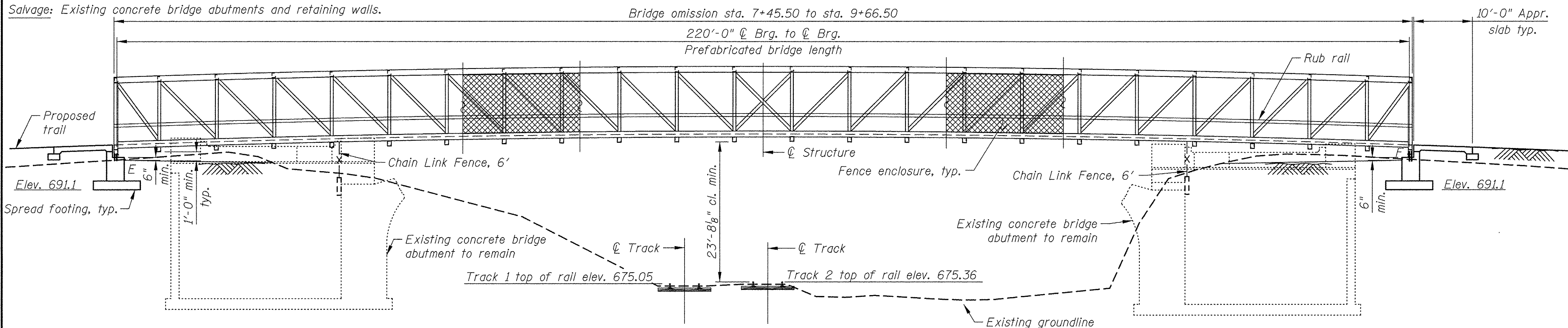
Benchmark: Cut cross on existing curb just north of Academy Road at the entrance of Faculty Circle. Northing 2031474.785, Easting 1105557.873, Elev. = 674.37 (NAVD88)

Existing Structure: Concrete bridge abutments and retaining walls.

Salvage: Existing concrete bridge abutments and retaining walls.

**CLASSIFICATION**  
Pedestrian/Bicycle Bridge

**DESIGN LOADING**  
Pedestrian Live Load (PL) 90 psf  
H-10 Truck (20,000 lbs)



**ELEVATION**

**CURVE DATA**

Curve 4	Curve 5
$\Delta = 43^\circ 25' 24''$ (LT)	$\Delta = 20^\circ 08' 36''$ (LT)
$D = 47^\circ 44' 47''$	$D = 22^\circ 55' 06''$
$T = 47.78'$	$T = 44.40'$
$L = 90.95'$	$L = 87.89'$
$E = 9.16'$	$E = 3.91'$
$R = 120.00'$	$R = 250.00'$
SE = None	SE = None
P.C. = Sta. 6+52.01	P.C. = Sta. 9+76.58
P.T. = Sta. 7+42.95	P.T. = Sta. 10+64.47
P.I. = Sta. 6+99.79	P.I. = Sta. 10+20.98

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50W)

**SEISMIC DATA**

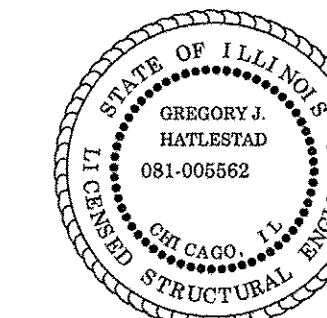
Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.091g  
 Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.128g  
 Soil Site Class = D

**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims  
 2009 AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, 2nd Edition

I certify that to the best of knowledge, information, and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications for Highway Bridges.

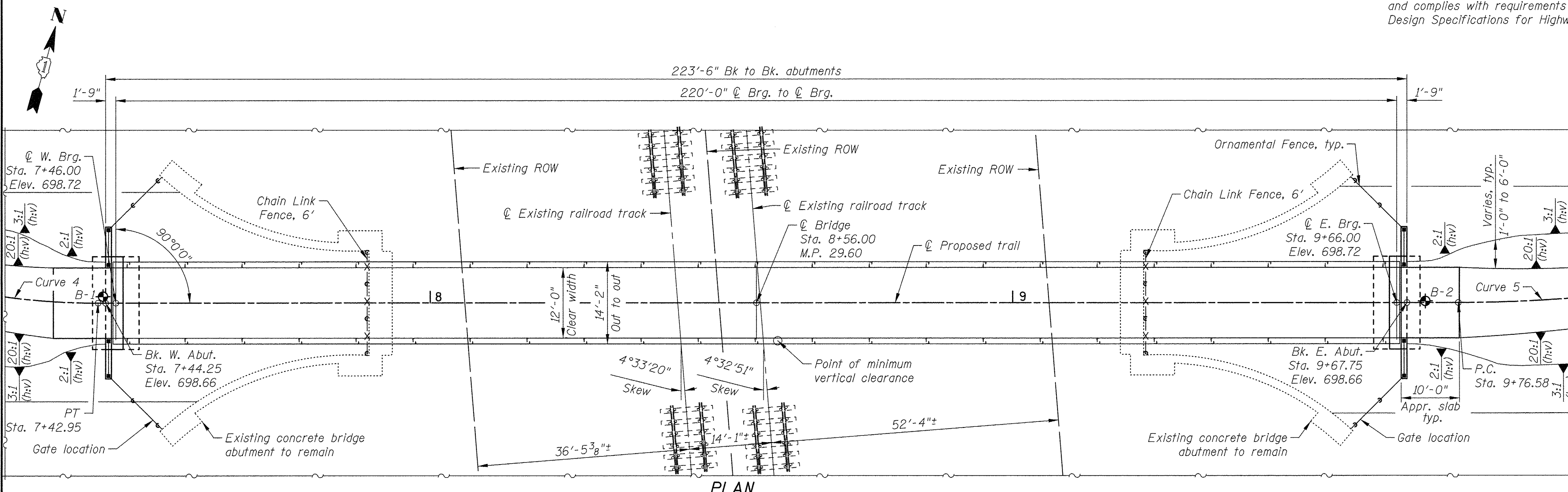
CIVILTECH ENGINEERING, INC.  
GREGORY J. HATLESTAD, S.E.



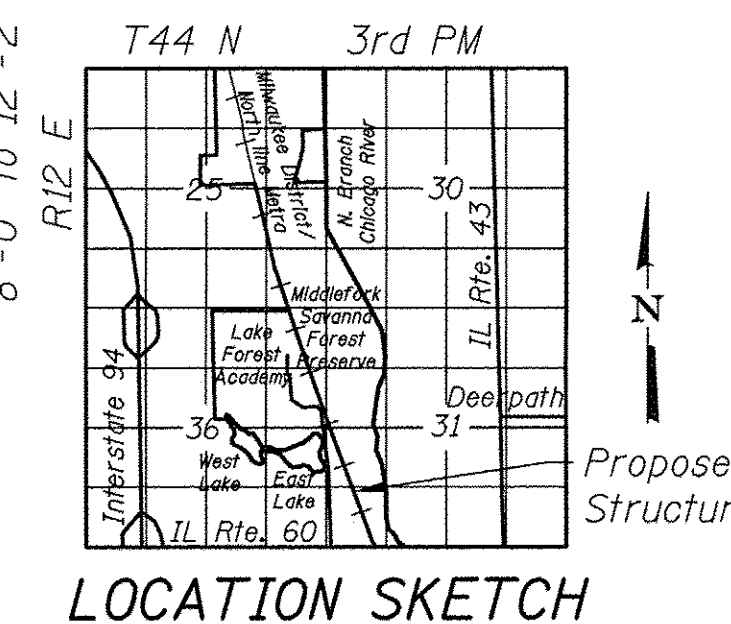
GREGORY J. HATLESTAD, S.E.  
# 081-005562

EXP 11-30-2016

DATE 12-7-2015



**PLAN**



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION  
MIDDLEFORK SAVANNA TRAIL  
OVER METRA MD/N LINE  
SECTION 14-F3000-03-BT  
LAKE COUNTY, STA. 8+56.00  
SN 049-P005 (TRACKING ONLY)**

**CIVILTECH**  
450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN - JTS	REVISED -
DESIGNED - MFL	REVISED -
CHECKED - GJH	REVISED -
DATE - 12/07/2015	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION  
MIDDLEFORK SAVANNA TRAIL CONNECTION  
PEDESTRIAN BRIDGE**  
SHEET NO. 51 OF 57 SHEETS

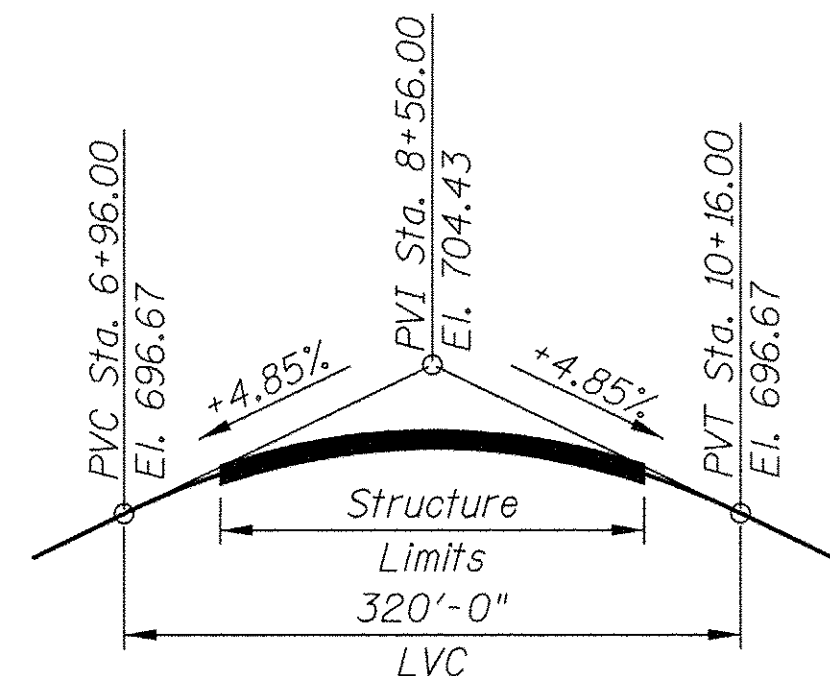
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	32
CONTRACT NO. 61C39				

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT



**GENERAL NOTES**

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolt size shall be determined by the Contractor.
- All structural steel shall be AASHTO M270 Grade 50W.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Concrete Sealer shall be applied to the bridge seat and front face of abutment backwall.
- All structural steel and exposed surfaces of bearings within a distance of 10 ft. each way from the deck joints shall be painted as specified in Section 506 of the Standard Specifications. The color of the final finish coat shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- The Illinois Department of Transportation is not the owner of record for this bridge. Historic as-built or other record plans are not available for the following reason: The bridge plans were not part of a public roadway contract and no record exists.



**MIDDLEFORK SAVANNA TRAIL PROFILE**  
(Profile grade along  $\phi$  trail)

West rail level elev. = 675.05  
East rail level elev. = 675.36  
0.00%

**METRA MD/N LINE PROFILE (M.P. 29.60)**  
(Profile grade along rail)

**TRUSS MANUFACTURER**

The substructure is designed per AASHTO LRFD and based on the assumed truss dead loads (including deck) shown under Bridge Reactions Table. The bridge shall have a vertical camber dimension at midspan equal to 100% of the full dead load deflection. Bridge bearing seat elevations are subject to revision based on the approved pedestrian truss superstructure shop drawings. Contractor shall verify all dimensions and elevations with final shop drawings. The truss manufacturer shall design and furnish all truss bearing anchor bolts. Total factored superstructure dead load at each abutment = 131,250 LBS.

**INDEX OF SHEETS**

- S1 General Plan & Elevation
- S2 General Data
- S3 Approach Slab Details
- S4 Abutment Plan
- S5 Abutment Details
- S6 Soil Borings I
- S7 Soil Borings II

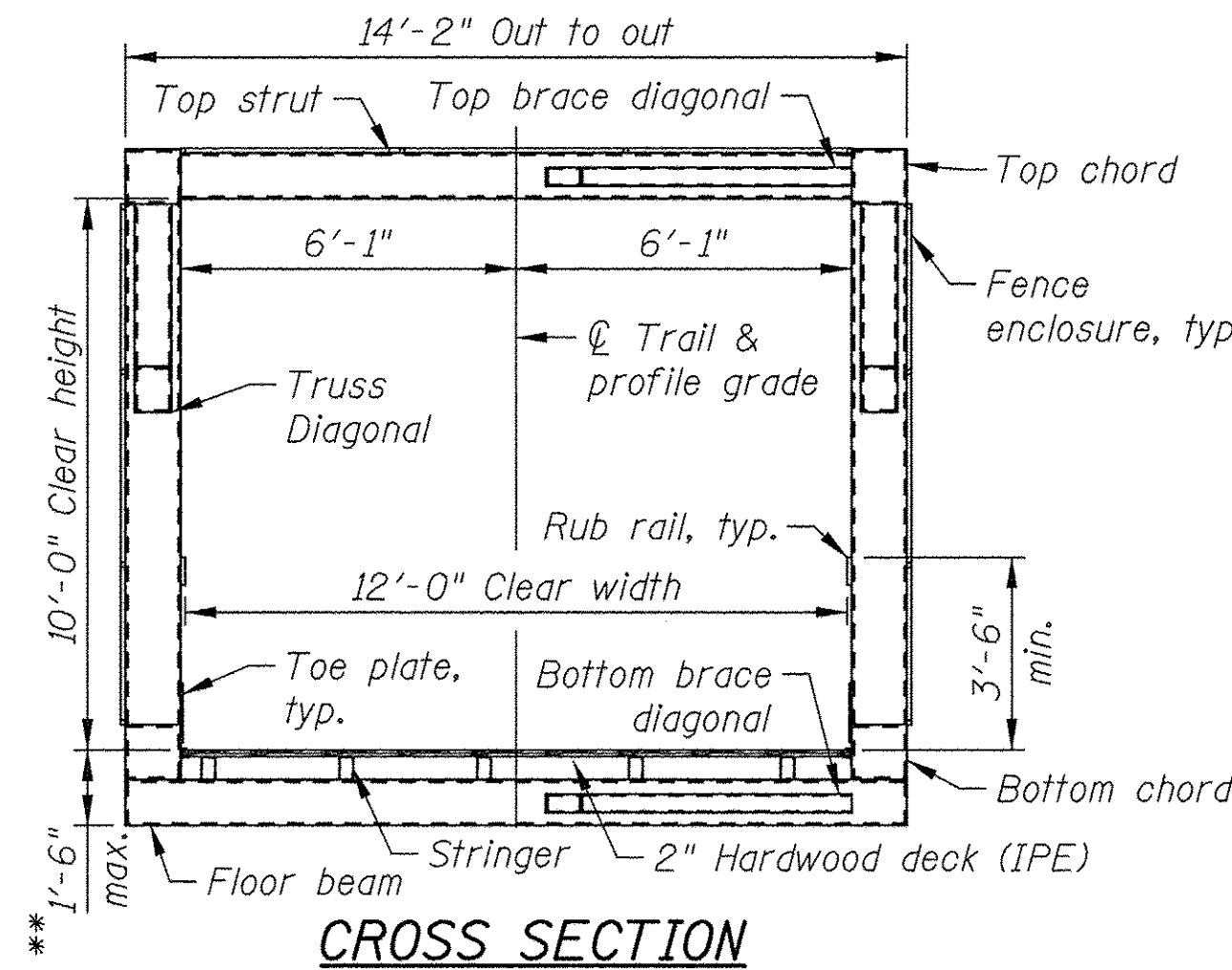
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Backfill	Cu. Yd.	-	16	16
Structure Excavation	Cu. Yd.	-	104	104
Concrete Structures	Cu. Yd.	-	36.8	36.8
Concrete Superstructure	Cu. Yd.	8.1	-	8.1
Protective Coat	Sq. Yd.	27	-	27
Reinforcement Bars, Epoxy Coated	Pound	1,080	3,710	4,790
Concrete Sealer	Sq. Ft.	-	89	89
Geocomposite Wall Drain	Sq. Yd.	-	22	22
Chain Link Fence, 6'	Foot	-	36	36
Chain Link Fence Removal	Foot	-	36	36
Pedestrian Truss Superstructure	Sq. Ft.	2,682	-	2,682
Ornamental Fence	Foot	76	-	76
Pipe Underdrains for Structures, 4"	Foot	-	78	78

**BRIDGE REACTIONS TABLE**

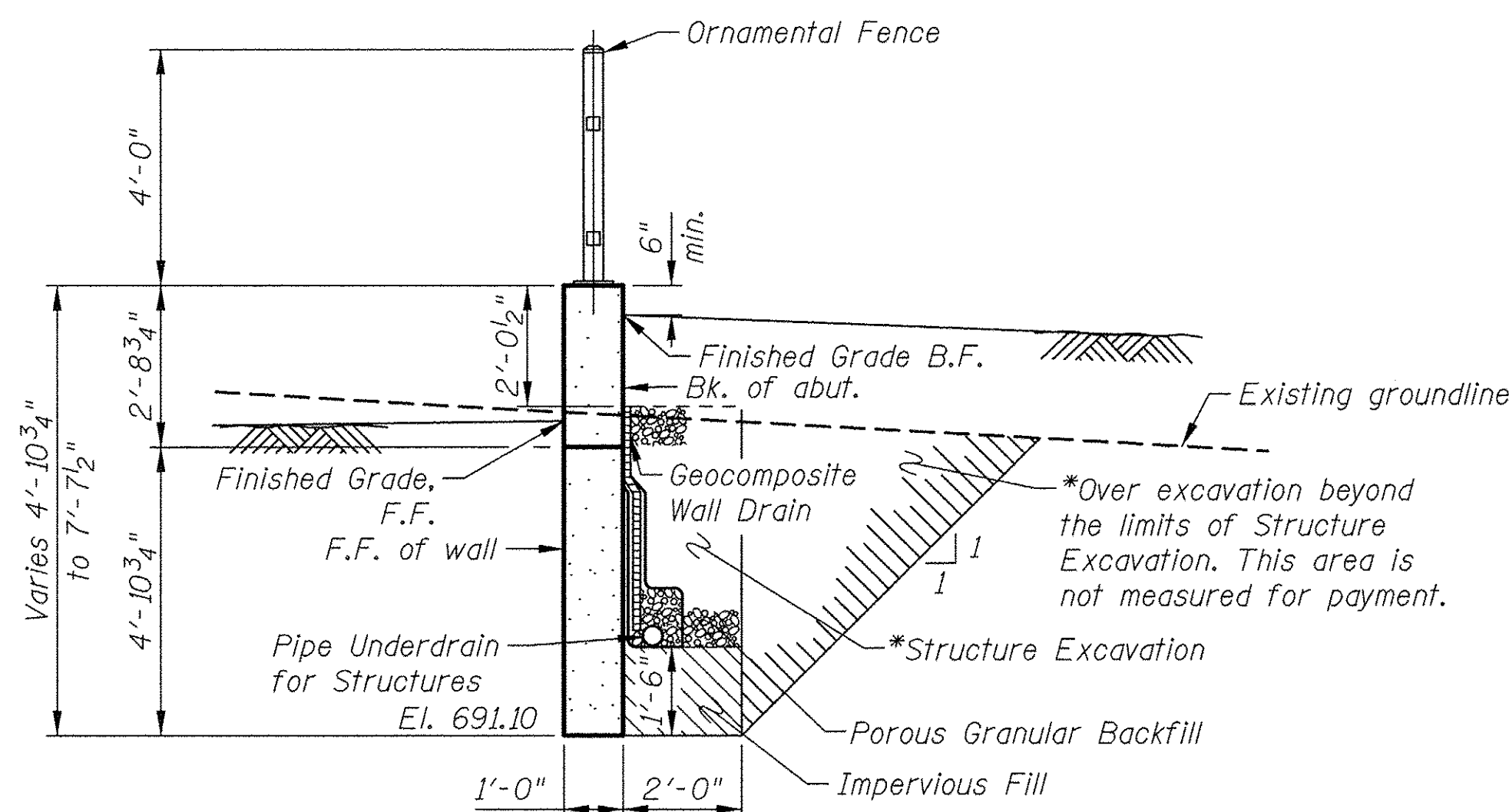
LOAD (+Downward load, -Upward load)	P (LBS)	H (LBS)	L (LBS)
Dead Load	52,500	-	-
Uniform Live Load	59,670	-	-
Vehicle Load	10,000	-	-
Wind Uplift			
20 PSF Windward	-23,485	-	-
Leeward	-7,830	-	-
Wind	$\pm 25,025$	44,480	-
Thermal	-	-	7,875

"P" - Vertical load each base plate (4 per bridge)  
"H" - Horizontal load each footing (2 per bridge)  
"L" - Longitudinal load each base plate (4 per bridge)  
Bridge lifting weight: 210,000 LBS



**CROSS SECTION**

\*\* Truss manufacturer to use a max. height of 1'-6" for combined structure depth of deck, stringers, and floor beams.

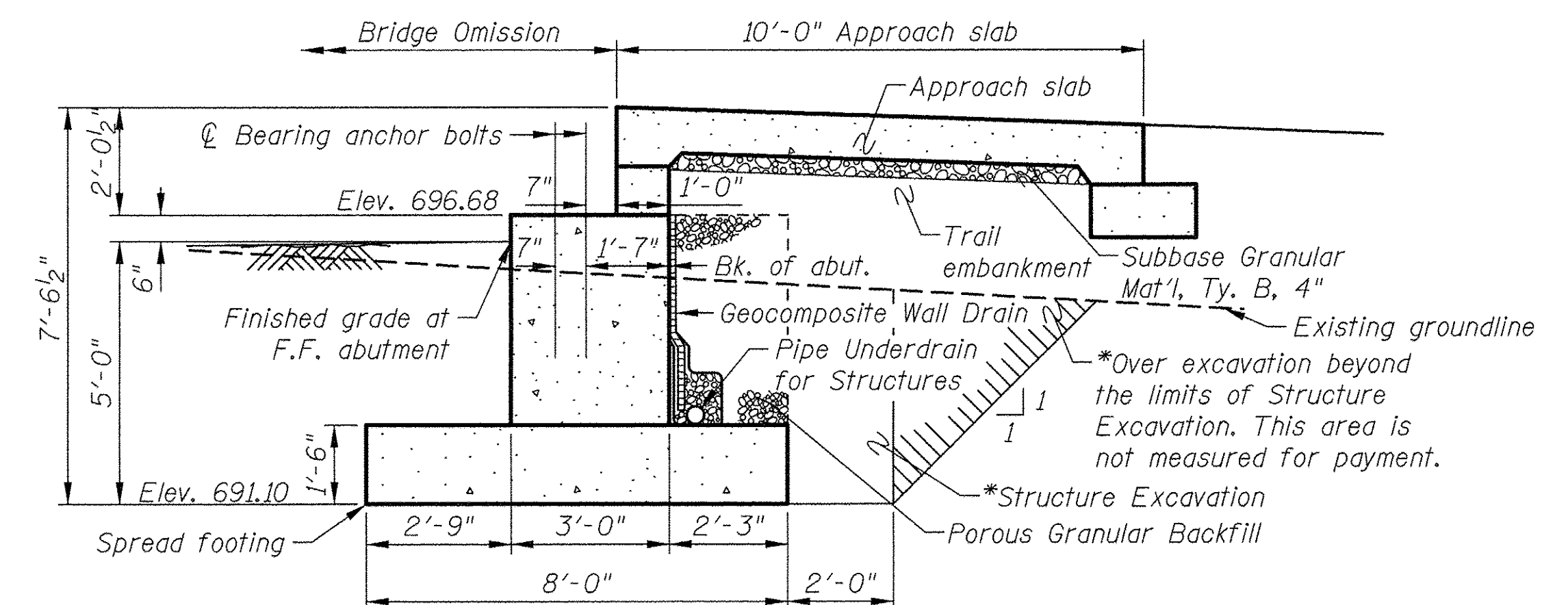


**SECTION THRU WINGWALL**

\* Backfill remainder of Structure Excavation and over excavation with same material specified for bike trail embankment.

Note:

All drainage system components shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. Concrete headwalls included in the cost of Pipe Underdrains for Structures, 4". (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



**SECTION THRU ABUTMENT**

J:\2961\road\Struct\Ped Bridge\02.General\Draw.dgn 3:04:48 PM 12/23/2015



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN	- JTS	REVISED	-
DESIGNED	- MFL	REVISED	-
CHECKED	- GJH	REVISED	-
DATE	- 12/07/2015	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

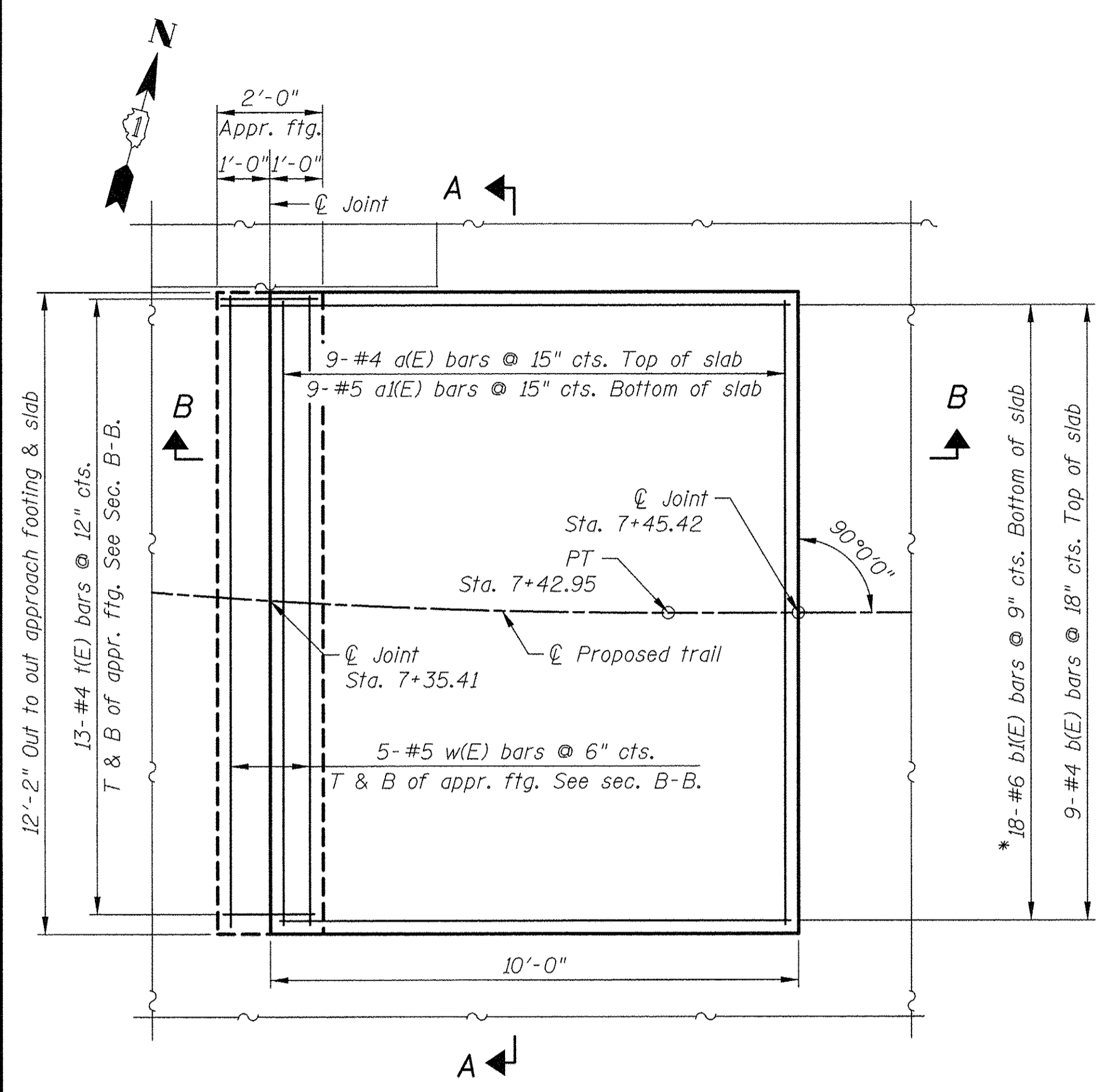
**GENERAL DATA  
MIDDLEFORK SAVANNA TRAIL CONNECTION  
PEDESTRIAN BRIDGE**

SHEET NO. 52 OF 57 SHEETS

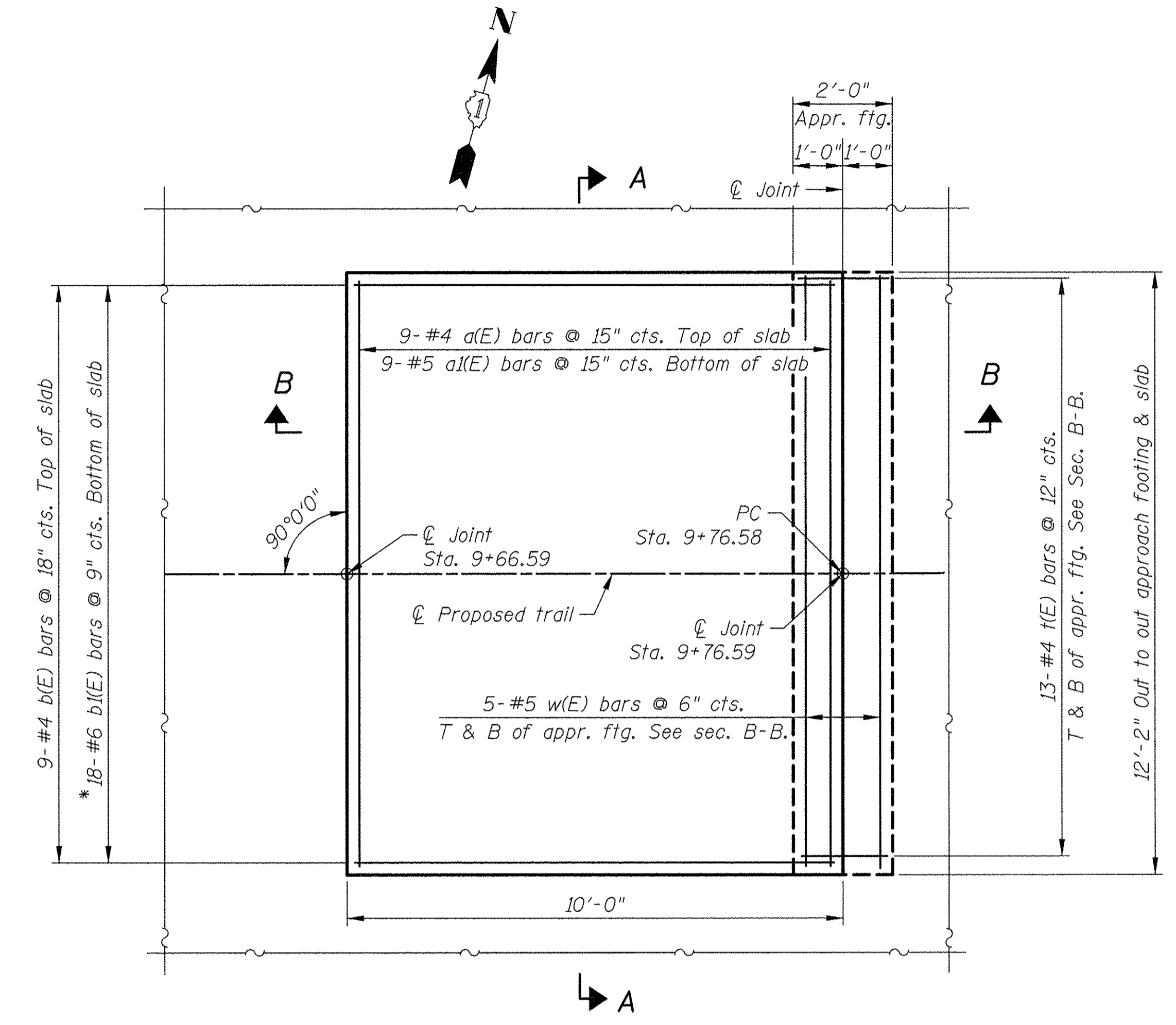
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	33
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**BILL OF MATERIAL  
TWO APPROACHES**

Bar	No.	Size	Length	Shape
a(E)	18	#4	11'-10"	—
a1(E)	18	#5	11'-10"	—
b(E)	18	#4	9'-8"	—
b1(E)	36	#6	11'-0"	—
t(E)	52	#4	1'-8"	—
w(E)	20	#5	11'-10"	—
Concrete Structures			Cu. Yd.	1.8
Concrete Superstructure			Cu. Yd.	8.1
Protective Coat			Sq. Yd.	27
Reinforcement Bars, Epoxy Coated			Pound	1,380

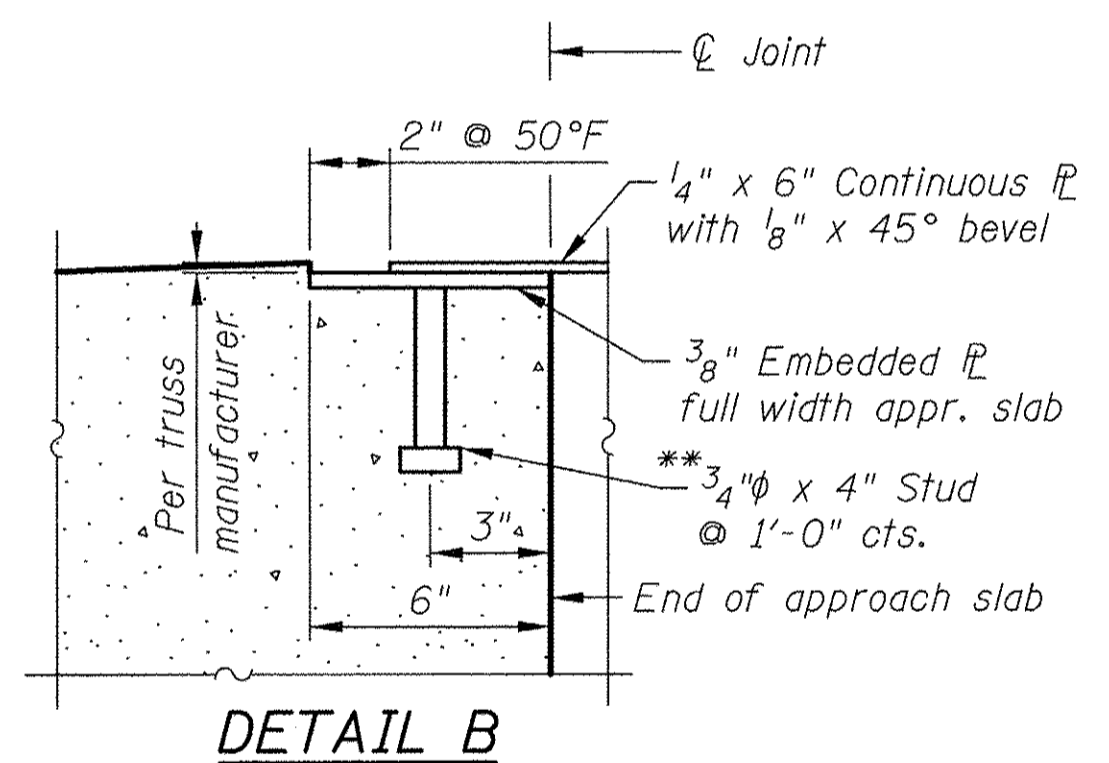
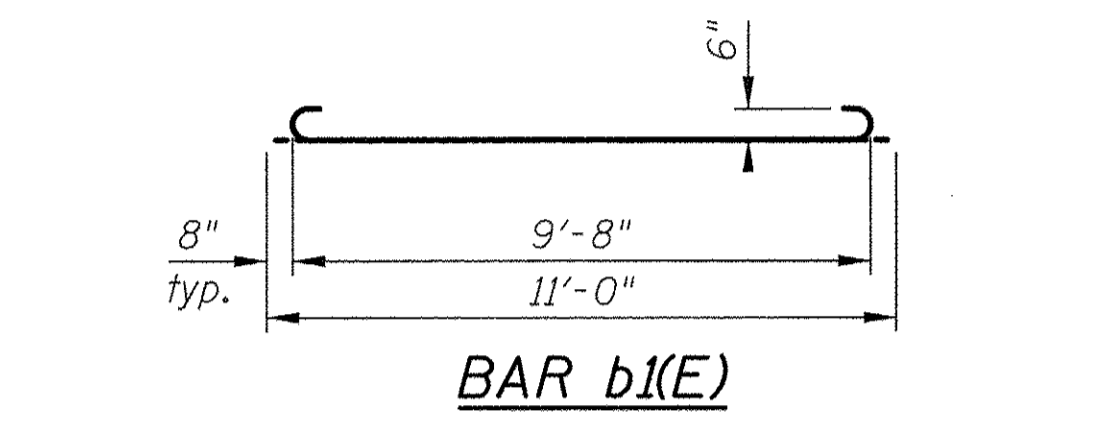


**WEST APPROACH PLAN**



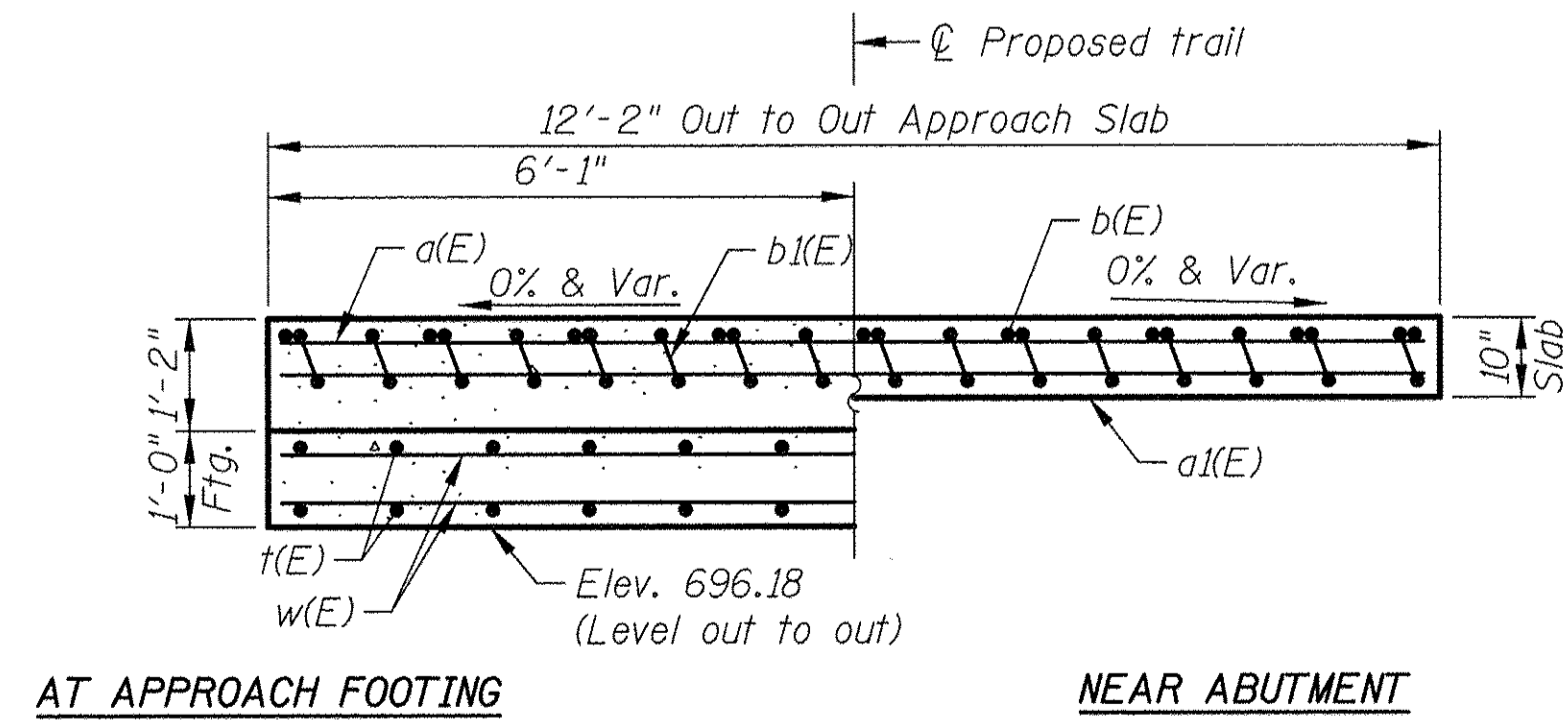
**EAST APPROACH PLAN**

\* Tilt #5 b1(E) bars as required to maintain clearance.



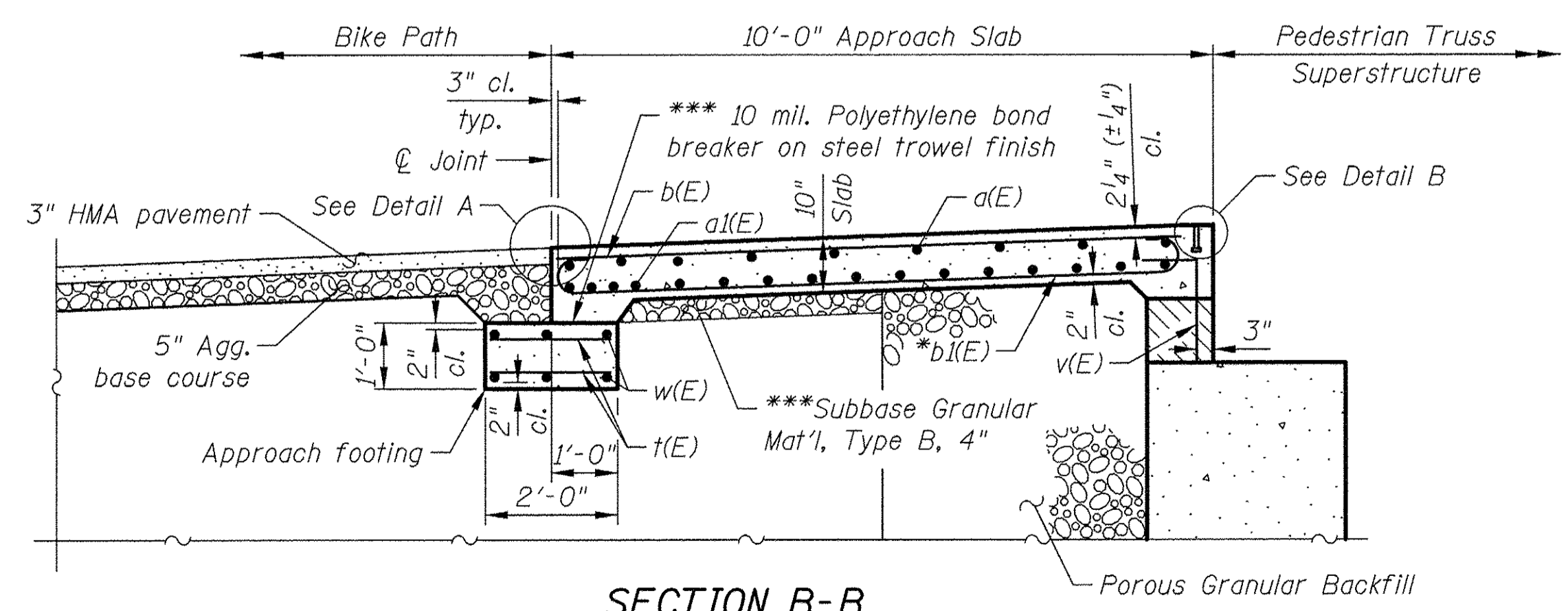
**DETAIL B**

(Studs and plates included in the cost of Concrete Superstructure)  
\*\* Granular or solid flux filled headed studs conforming to Article 100632 of the Std. Specs., automatically end welded.



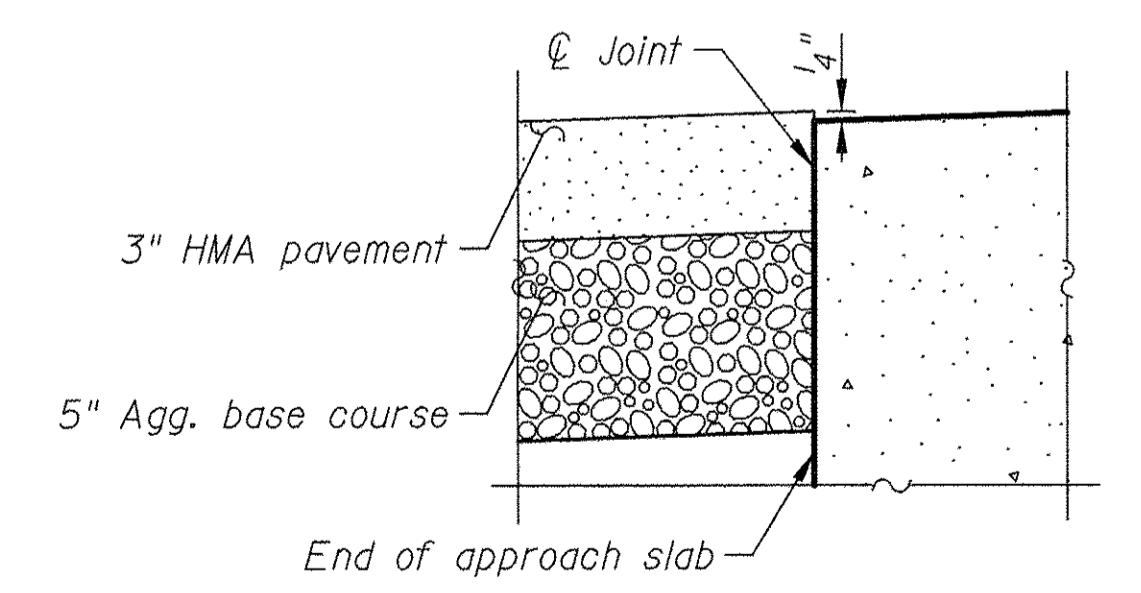
**SECTION A-A**

(See Plan for dimensions not shown)



**SECTION B-B**

\*\*\* Included in cost of Concrete Superstructure.



**DETAIL A**

Notes:  
Approach slab concrete shall be paid for as Concrete Superstructure.  
Approach footing concrete shall be paid for as Concrete Structures.  
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
The approach footing maximum applied service bearing pressure (Qmax) = 3.0 ksf.  
Cost of excavation for approach footing included with Concrete Structures.  
a(E) and a1(E) bar spacings measured along  $\varnothing$  Rdwy.

J:\2961\road\struct\ped\bridge\03\_approach\_slab.dgn 3/04/2015 3:04:50 PM



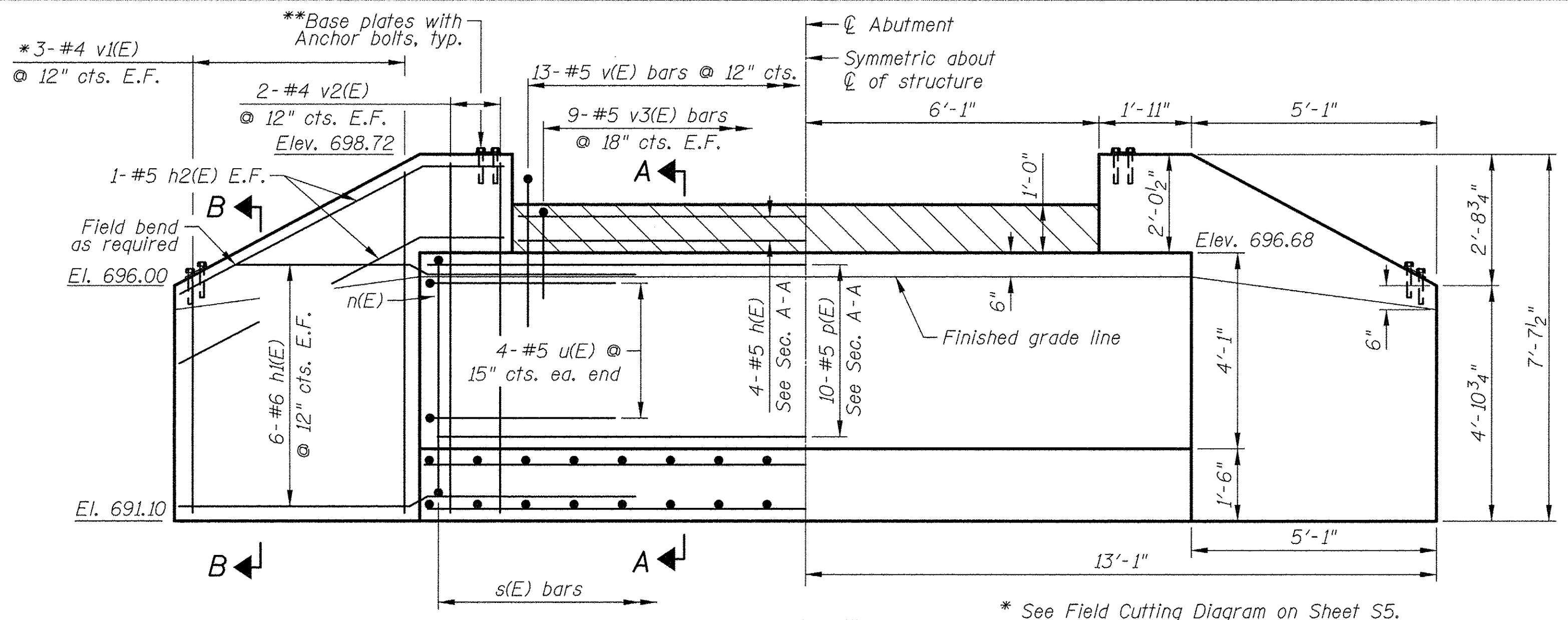
DRAWN	- JTS	REVISED	-
DESIGNED	- MFL	REVISED	-
CHECKED	- GJH	REVISED	-
DATE	- 12/07/2015	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

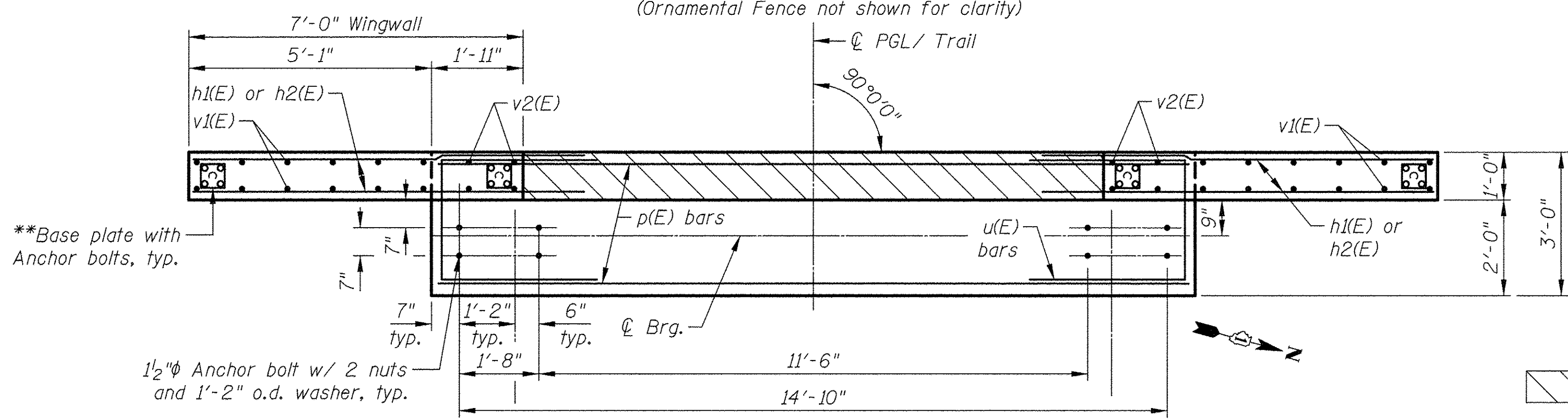
**APPROACH SLAB DETAILS  
MIDDLEFORK SAVANNA TRAIL CONNECTION  
PEDESTRIAN BRIDGE**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	34
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

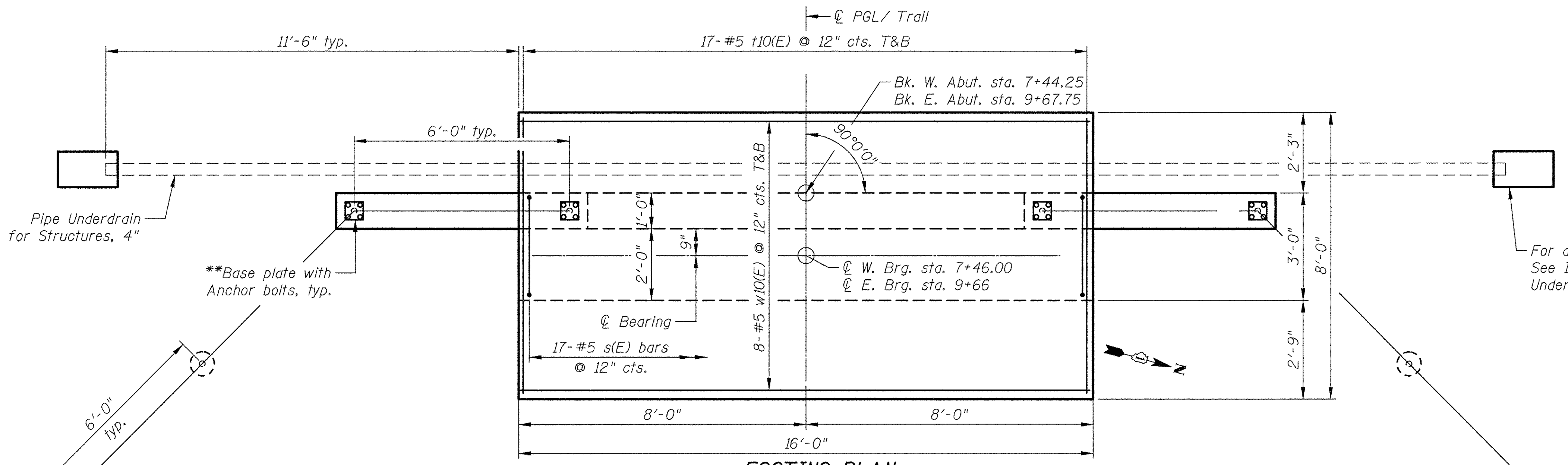
SHEET NO. 53 OF 57 SHEETS



**ELEVATION**  
 (Looking at F.F. of abutment & wingwall)  
 (Ornamental Fence not shown for clarity)



**TOP PLAN**  
 (West abutment shown; east abutment is a mirror image)  
 (Showing anchor bolts and wingwall reinforcement)



**FOOTING PLAN**  
 (West abutment shown; east abutment is a mirror image)

- Notes:
1. Concrete clear cover shall be 2" minimum unless noted otherwise.
  2. Space reinforcement bars in bearing seat to miss anchor bolts, see Detail A. Cost of anchor bolts included with Pedestrian Truss Superstructure.
  3. All exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.
  4. The abutment backwall above the bridge seat shall be poured after the superstructure is in place.
  5. Ornamental Fence shall be painted black. See detail on Sheet 55.

J:\2961\Road\Struct\Ped Bridges\04\_Abutments.dgn  
 3:04:56 PM  
 12/3/2015

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DRAWN	- JTS	REVISED	-
DESIGNED	- MFL	REVISED	-
CHECKED	- GJH	REVISED	-
DATE	- 12/07/2015	REVISED	-

DESIGNED	- MFL	REVISED	-
CHECKED	- GJH	REVISED	-
DATE	- 12/07/2015	REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

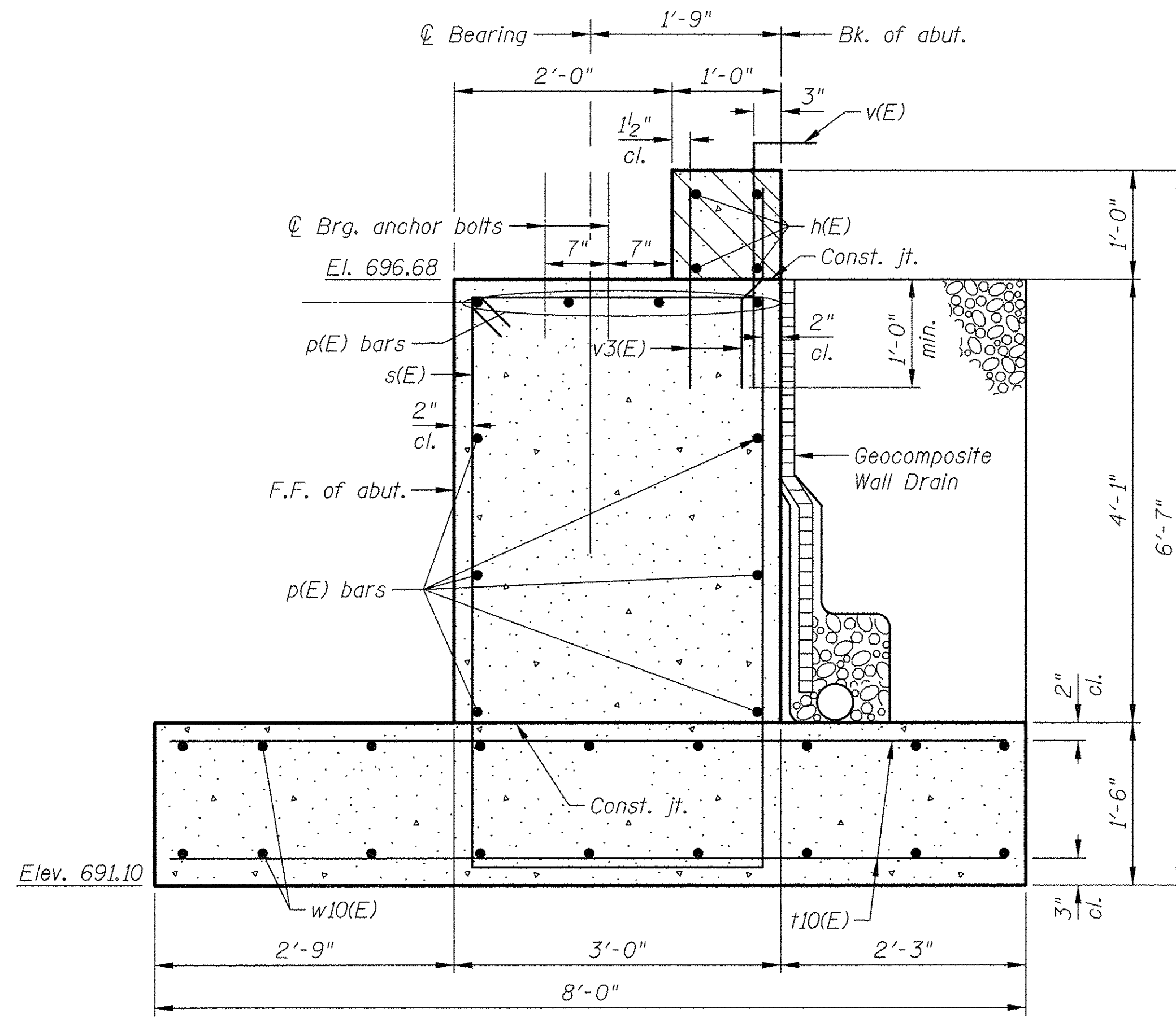
**ABUTMENT PLAN  
 MIDDLEFORK SAVANNA TRAIL CONNECTION  
 PEDESTRIAN BRIDGE**

SHEET NO. 54 OF 57 SHEETS

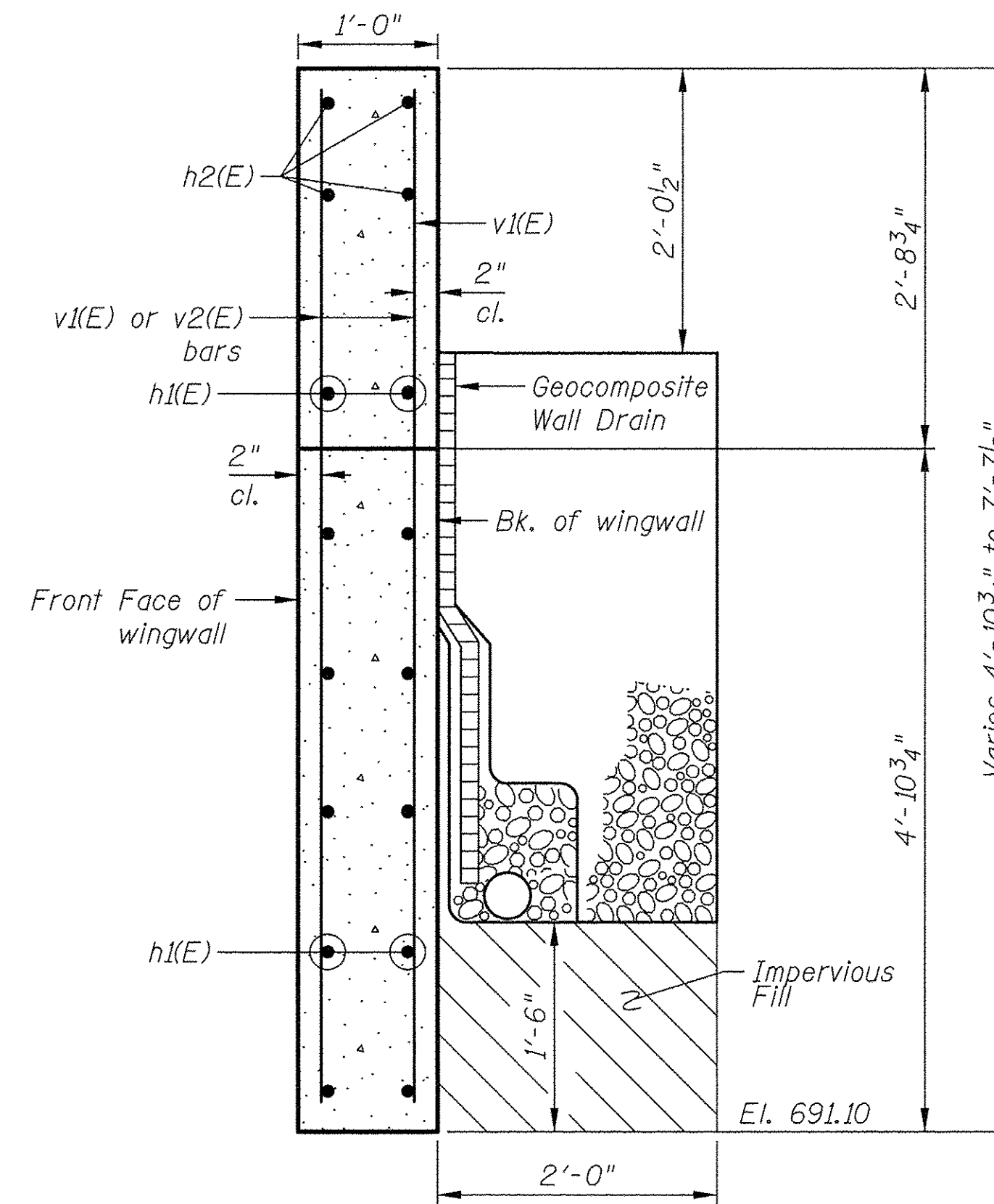
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	35
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

**BILL OF MATERIAL - TWO ABUTMENTS**

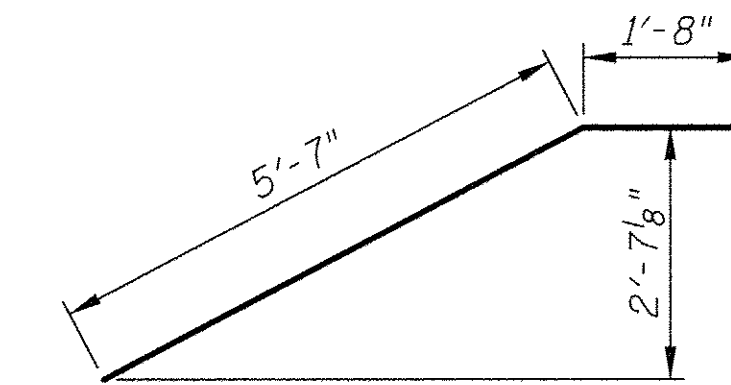
Bar	No.	Size	Length	Shape
h(E)	8	#5	11'-10"	—
h1(E)	48	#6	8'-11"	—
h2(E)	16	#5	7'-3"	—
p(E)	20	#5	15'-8"	—
s(E)	34	#5	16'-7"	□
t10(E)	68	#5	7'-8"	—
u(E)	16	#5	9'-1"	□
v(E)	26	#5	3'-1"	┌
v1(E)	24	#4	11'-10"	—
v2(E)	16	#4	7'-3"	—
v3(E)	36	#4	2'-3"	—
w10(E)	32	#5	15'-10"	—
Item	Unit	Quantity		
Structure Excavation	Cu. Yd.	104		
Porous Granular Backfill	Cu. Yd.	16		
Concrete Structures	Cu. Yd.	35.0		
Reinforcement Bars, Epoxy Coated	Pound	3,410		
Concrete Sealer	Sq. Ft.	89		
Geocomposite Wall Drain	Sq. Yd.	22		
Pipe Underdrain For Structures, 4"	Foot	78		



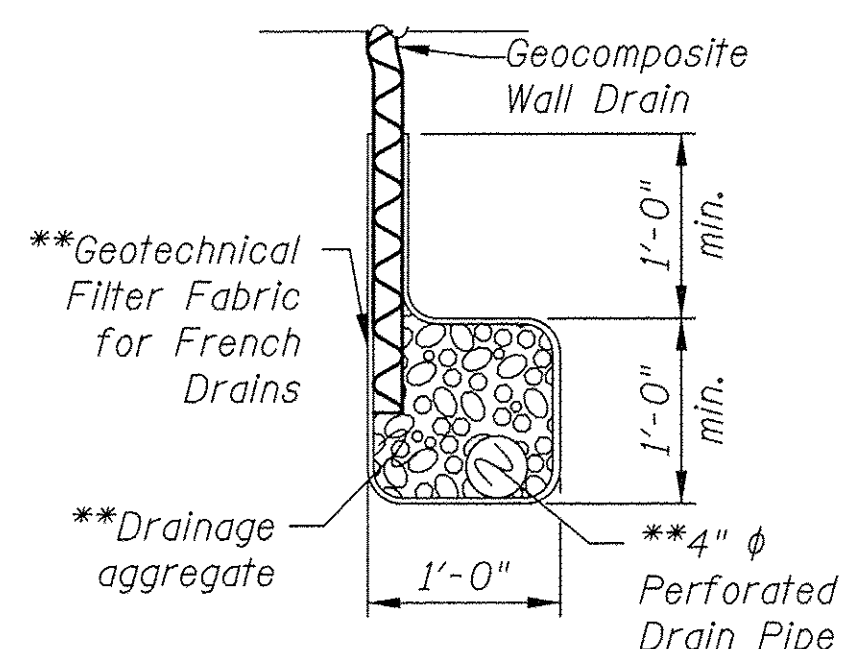
**SECTION A-A**



**SECTION B-B**

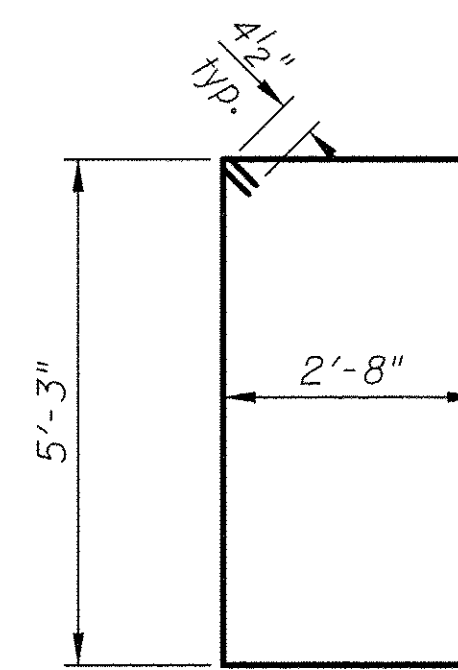


**BAR h2(E)**

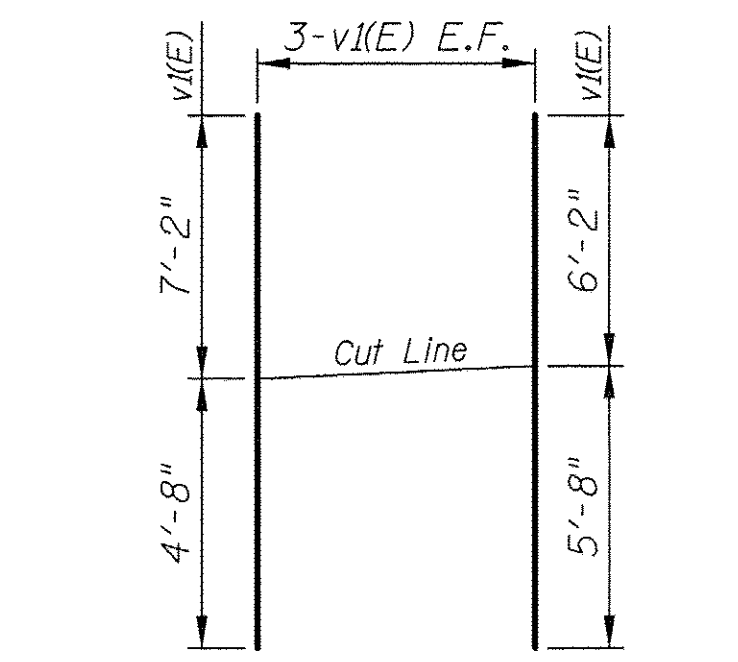


**PIPE UNDERDRAIN DETAIL**

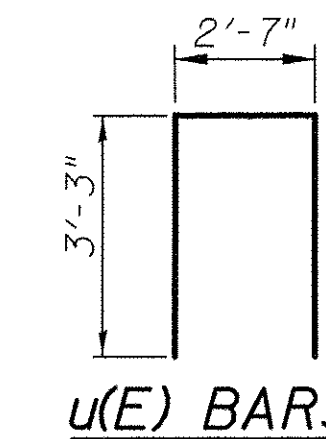
\*\* Included in the cost of Pipe Underdrains for Structures, 4"



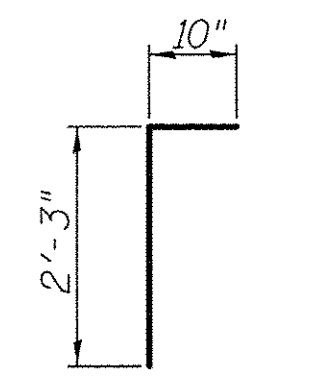
**S(E) BARS**



**FIELD CUTTING DIAGRAM**



**u(E) BARS**



**BAR v(E)**

K:\2\3\2015\3\0457 PM\4\2961\oad\Struct\Ped Bridge\05\_Abument\Detail.dgn  
 3/04/15 PM

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DRAWN - JTS	REVISED -
DESIGNED - MFL	REVISED -
CHECKED - GJH	REVISED -
DATE - 12/07/2015	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS  
 MIDDLEFORK SAVANNA TRAIL CONNECTION  
 PEDESTRIAN BRIDGE**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	36
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

SHEET NO. 55 OF 57 SHEETS

**SOIL BORING LOG** 1

Logged By: DA Page: 1 of 2

Client: Lake County Forest Preserve District

File No. 19846 Date Drilled: 1/15/10

Reference: New Pedestrian Bridge over Metra RR  
Middle Fork Savanna  
Lake Forest, IL

Comments:

Equipment:  CME 45B  CME 55  Hand Auger  Other

CLASSIFICATION

Elevation 696.0' Existing Surface

Crushed limestone with fines - 22.0"  
(a) see page 2 of 2  
(b) see page 2 of 2

5 Brown-dark brown clay & silt, trace sand & gravel, damp, hard - Fill

25 Brown-gray clay & silt, trace sand & gravel damp, hard

30 Brown clay, some silt, trace sand & gravel, damp, very tough

35 Gray clay, some silt, trace sand & gravel, damp, very tough

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq.ft.	penetrometer reading, tons/sq.ft.	standard penetration "N", blows/ft.	moisture content, %
	X	Δ	γ	○	1.0	2.0	3.0	4.0
					10	20	30	40
21		3.5 12.9						
11		19.1						
22		18.1						
23		17.5						
16		13.4						
17		16.2						
15		20.0						
19		17.3						
18		20.5						
23		16.5	115.1	4.9				
23		16.4	119.5	5.7				
21		19.0	113.9	3.5				
18		20.1	111.6	2.9				
14		17.7	120.3	3.0				

Water encountered at 44.5 feet during drilling operations (W.D.).  
Water recorded at 40.0 feet on completion of drilling operations (A.D.).  
Water recorded at \_\_\_\_\_ feet \_\_\_\_\_ hours after completion of drilling operations (A.D.).

G-303

**SOIL BORING LOG** 1

Logged By: DA Page: 2 of 2

Client: Lake Forest Forest Preserve District

File No. 19846 Date Drilled: 1/15/10

Reference: New Pedestrian Bridge over Metra RR  
Middle Fork Savanna  
Lake Forest, IL

Comments:

Equipment:  CME 45B  CME 55  Hand Auger  Other

CLASSIFICATION

Elevation

Gray clay, some silt, trace sand & gravel, damp, very tough

45 Gray sand & gravel, some silt & clay, damp-very damp, medium dense

Gray fine sand, trace medium-coarse sand & gravel, damp-very damp, dense

End of Boring

(a) Bituminous concrete - 2.0"

(b) Black cinders, trace clay & silt, damp, medium dense - Fill

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq.ft.	penetrometer reading, tons/sq.ft.	standard penetration "N", blows/ft.	moisture content, %
	X	Δ	γ	○	1.0	2.0	3.0	4.0
					10	20	30	40
29		19.8 9.9	110.4	3.8				
31		12.8						

Water encountered at 44.5 feet during drilling operations (W.D.).  
Water recorded at 40.0 feet on completion of drilling operations (A.D.).  
Water recorded at \_\_\_\_\_ feet \_\_\_\_\_ hours after completion of drilling operations (A.D.).

G-303b

u:\2961\cod\Struct\Ped\_Bridge\06\_SoilBorings.dgn 3:04:57 PM 12/3/2015



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN - JTS  
DESIGNED - MFL  
CHECKED - GJH  
DATE - 12/07/2015

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**SOIL BORINGS I**  
**MIDDLEFORK SAVANNA TRAIL CONNECTION**  
**PEDESTRIAN BRIDGE**

SHEET NO. 56 OF 57 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	37
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SOIL BORING LOG** 2

Logged By: DA Page: 1 of 2

Client: Lake County Forest Preserve District

File No. 19846 Date Drilled: 1/18/10

Reference: New Pedestrian Bridge over Metra RR  
Middle Fork Savanna  
Lake Forest, IL

Comments:

Equipment:  CME 45B  CME 55  Hand Auger  Other

depth, ft.	CLASSIFICATION	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq.ft.	penetrometer reading, tons/sq.ft.	standard penetration "N", blows/ft.	moisture content, %
	Elevation 696.0' Existing Surface (a) see page 2 of 2	X	Δ	⊗	○	1.0	2.0	3.0	4.0
						10	20	30	40
16	Crushed limestone, some cinders, damp, medium dense - 34.0"		34.5					X	Δ
5	Brown-dark brown clay & silt, trace sand & gravel, damp, very tough - Fill	9	18.5	112.8	2.8			X	Δ ● ○
		9	18.6					X	Δ ●
10		19	19.1	113.1	2.9			X	Δ ● ○
		13	20.4	109.4	3.1			X	Δ ●
15		11	20.2					X	Δ ●
		14	21.2	105.7	2.9			X	Δ ○
20	Brown clay, some silt, trace sand & gravel, damp, very tough to hard	14	21.0 18.2					X	Δ ●
		18	18.7	113.7	3.3			X	Δ ●
25		26	18.9	117.9	3.3			Δ	X ○
		19	18.0	118.2	4.0			Δ	X ● ○
30	Gray clay, some silt, trace sand & gravel, damp, tough to very tough	22	17.1	119.8	4.4			Δ	X ● ○
35		12	17.6	118.6	1.7			X	Δ
40		17	19.2	112.8	3.2			X	Δ ●

Water encountered at 44.0 feet during drilling operations (W.D.).  
Water recorded at 37.0 feet on completion of drilling operations (A.D.).  
Water recorded at \_\_\_\_\_ feet \_\_\_\_\_ hours after completion of drilling operations (A.D.).

G-303

**SOIL BORING LOG** 2

Logged By: DA Page: 2 of 2

Client: Lake County Forest Preserve District

File No. 19846 Date Drilled: 1/18/10

Reference: New Pedestrian Bridge over Metra RR  
Middle Fork Savanna  
Lake Forest, IL

Comments:

Equipment:  CME 45B  CME 55  Hand Auger  Other

depth, ft.	CLASSIFICATION	standard penetration	moisture content	dry unit weight lbs./cu.ft.	unconfined compressive strength	unconfined compressive strength, tons/sq.ft.	penetrometer reading, tons/sq.ft.	standard penetration "N", blows/ft.	moisture content, %
	Elevation	X	Δ	⊗	○	1.0	2.0	3.0	4.0
						10	20	30	40
	Gray clay, some silt, trace sand & gravel, damp, very tough								
45	(b) see below		18.1 18.5 14.9	116.0	2.5				Δ ● ○
	Gray fine-medium sand, some coarse sand & gravel, very damp-saturated, medium dense	25							Δ ● ○
	Gray silt, trace fine sand & clay, very damp, medium dense	14	20.4						Δ
50	End of Boring								
	(a) Bituminous concrete - 2-0"								
	(b) Gray silt, some clay, trace fine sand, damp, medium dense								

Water encountered at 44.0 feet during drilling operations (W.D.).  
Water recorded at 37.0 feet on completion of drilling operations (A.D.).  
Water recorded at \_\_\_\_\_ feet \_\_\_\_\_ hours after completion of drilling operations (A.D.).

G-303b

3:05:40 PM 12/23/2015 \\s:\2961\road\Structure\Ped Bridge\07\_Soil Borings 11.dgn



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN - JTS  
DESIGNED - MFL  
CHECKED - GJH  
DATE - 12/07/2015

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**SOIL BORINGS II**  
**MIDDLEFORK SAVANNA TRAIL CONNECTION**  
**PEDESTRIAN BRIDGE**  
SHEET NO. 57 OF 57 SHEETS

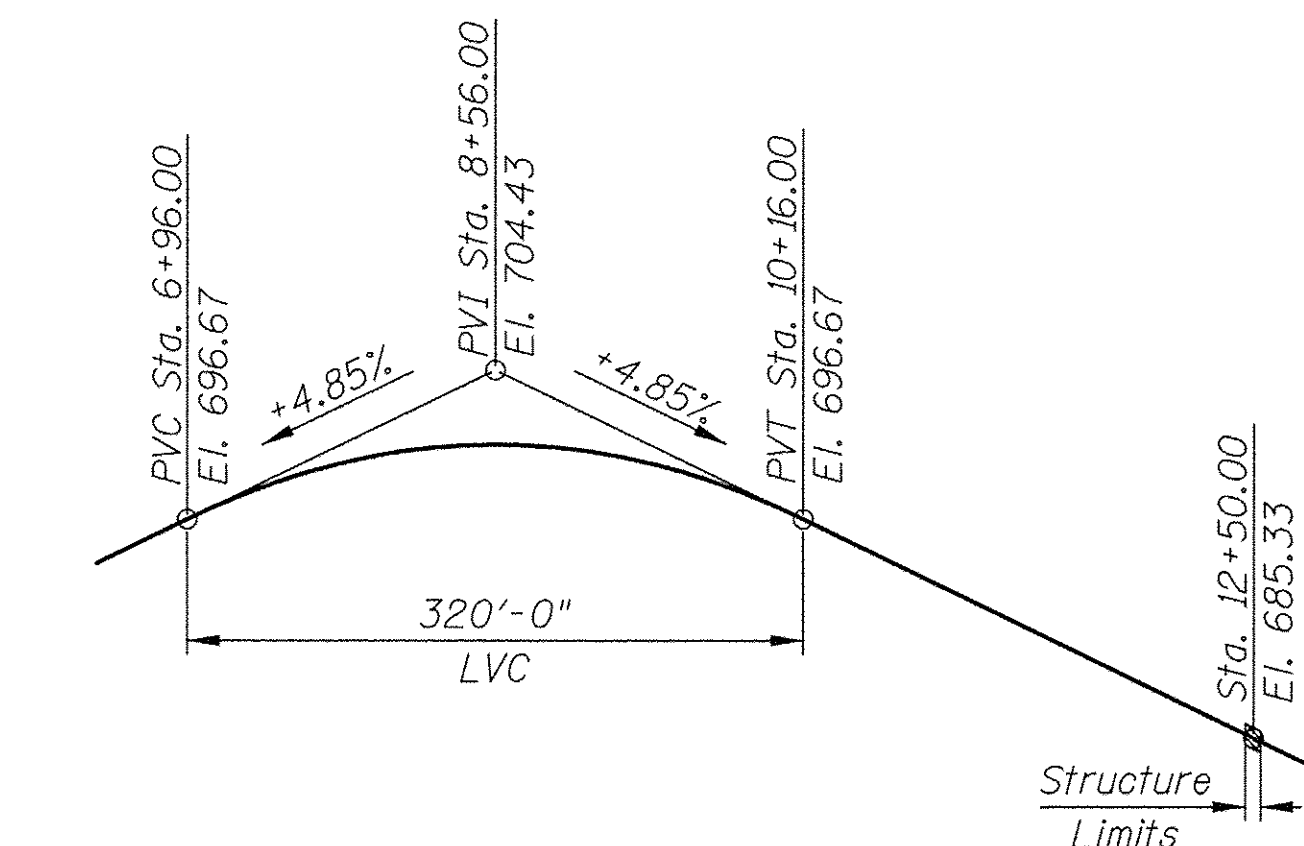
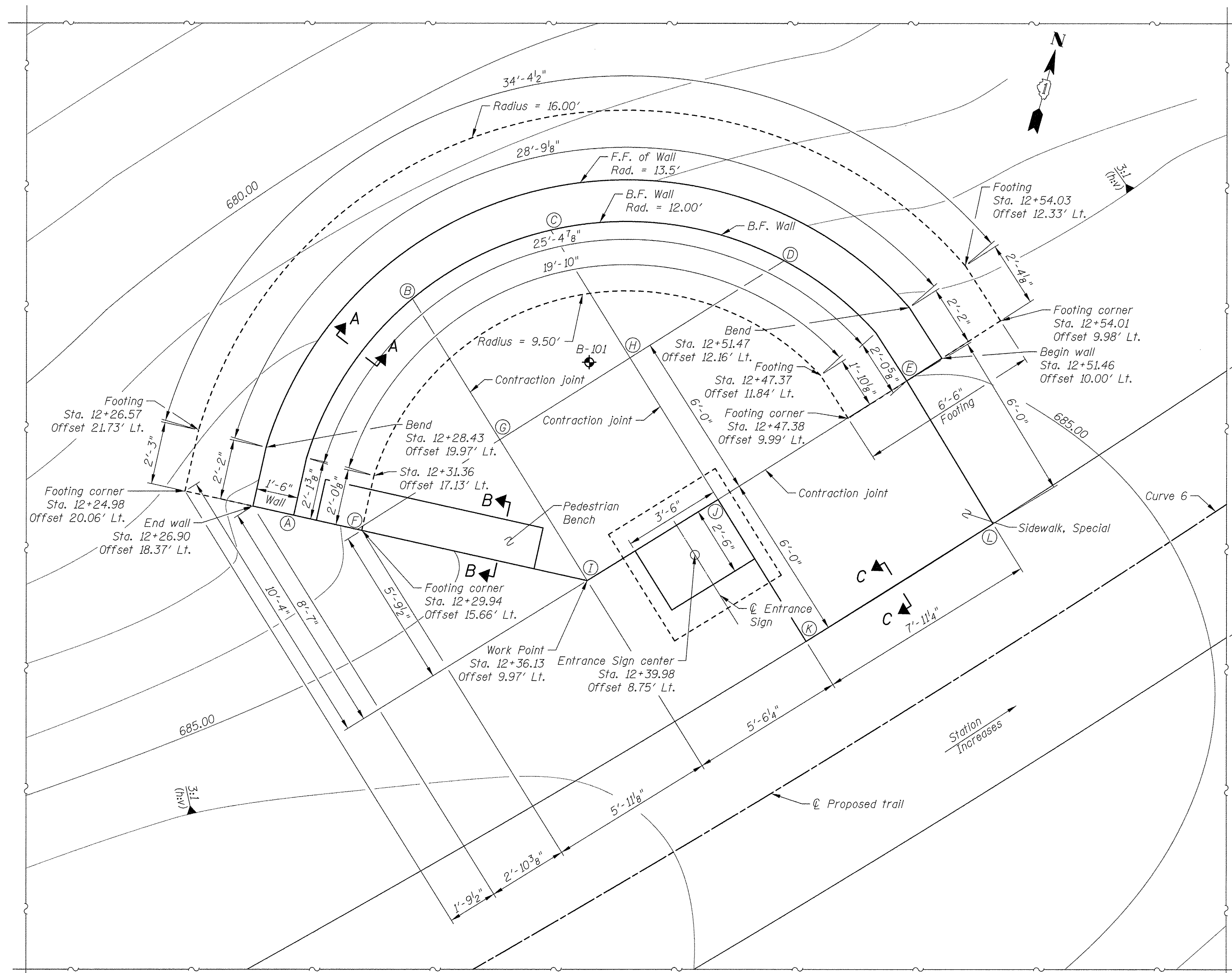
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	38
CONTRACT NO. 61C39			FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT	

Benchmark: Cut cross on existing curb just north of Academy Road at the entrance of Faculty Circle. Northing 2031474.785, Easting 1105557.873, Elev. = 674.37 (NAVD88)

Existing Structure: None.

Salvage: None.

Note:  
See Sheet 03 for Section A-A, Section B-B, & Section C-C.  
Offsets are measured from the  $\text{\textcircled{C}}$  proposed trail.



**MIDDLEFORK SAVANNA TRAIL PROFILE**  
(Profile grade along  $\text{\textcircled{C}}$  trail)

**INDEX OF SHEETS**

- 01 General Plan Layout
- 02 Outlook Retaining Wall Plan & Elevation
- 03 Outlook Details
- 04 Outlook Railing Details
- 05 Entrance Sign
- 06 Entrance Sign Details
- 07 Soil Borings

**TOP OF SIDEWALK, SPECIAL ELEVATIONS**

Location	Station	Offset	Elevation
A	12+28.04	-17.36	685.92
B	12+35.99	-21.88	685.93
C	12+41.76	-21.40	685.73
D	12+48.51	-16.01	685.51
E	12+49.93	-10.00	685.38
F	12+29.82	-15.77	685.91
G	12+36.06	-15.92	685.90
H	12+41.76	-16.00	685.70
I	12+36.13	-9.97	685.87
J	12+41.76	-10.00	685.67
K	12+41.76	-4.00	685.64
L	12+49.76	-4.00	685.26

**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

**DESIGN LOADING**

Live load surcharge 260 psf  
Equivalent fluid pressure 40 psf/ft

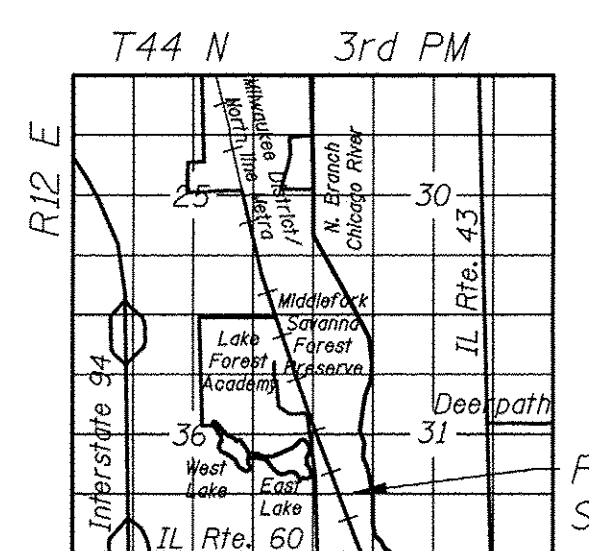
**CURVE DATA**

Curve 6  
 $\Delta = 60^\circ 03' 13.22''$  (LT)  
 $D = 11^\circ 27' 32.96''$   
 $T = 288.99'$   
 $L = 524.07'$   
 $E = 77.51'$   
 $R = 500.00'$   
 SE = None  
 P.C. = Sta. 11+39.87  
 P.T. = Sta. 16+63.94  
 P.I. = Sta. 14+28.86

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**PRECAST UNITS**  
 $f'_c = 4,500$  psi



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION  
 OUTLOOK: MIDDLEFORK SAVANNA TRAIL  
 SECTION 14-F3000-03-BT  
 LAKE COUNTY  
 STA. 12+26.90 TO 12+51.46**

J:\2981\road\struct\overlook\01\overlook.dgn 8/29/2015 8:29:54 AM

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DRAWN - JTS	REVISED -
DESIGNED - MFL	REVISED -
CHECKED - GJH	REVISED -
DATE - 12/07/2015	REVISED -

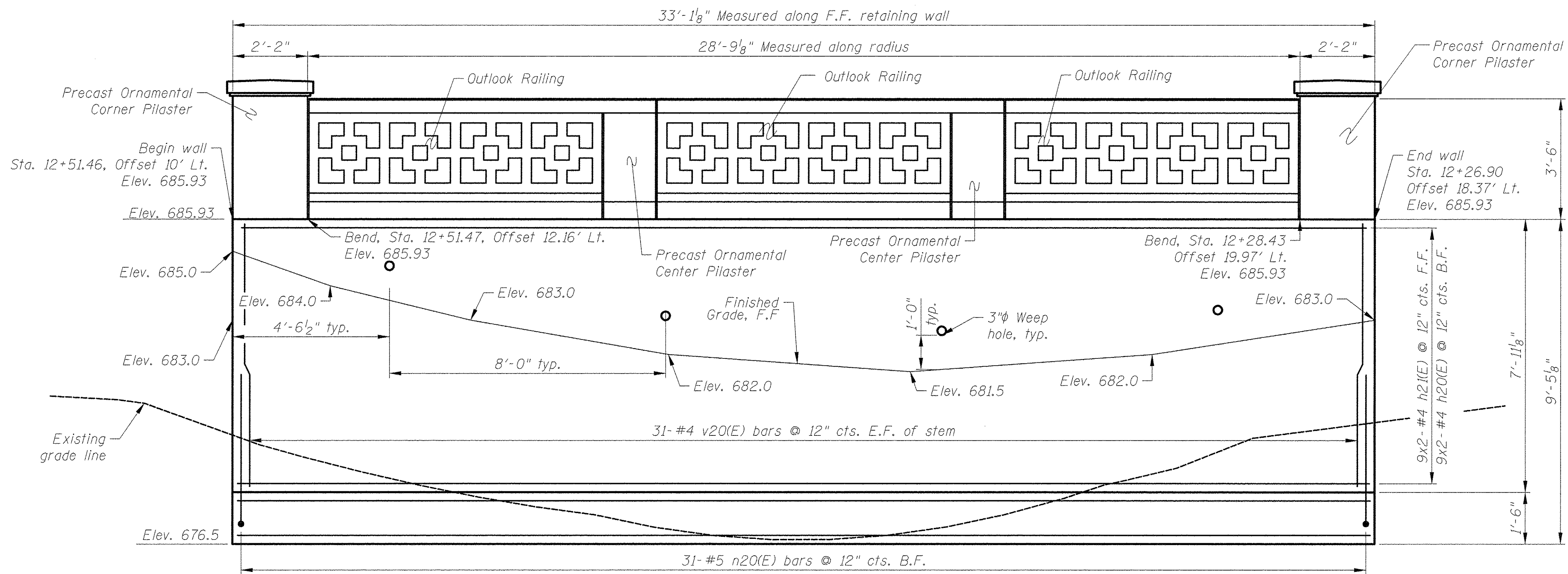
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN LAYOUT  
 MIDDLEFORK SAVANNA TRAIL CONNECTION**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	39
CONTRACT NO. 61C39				

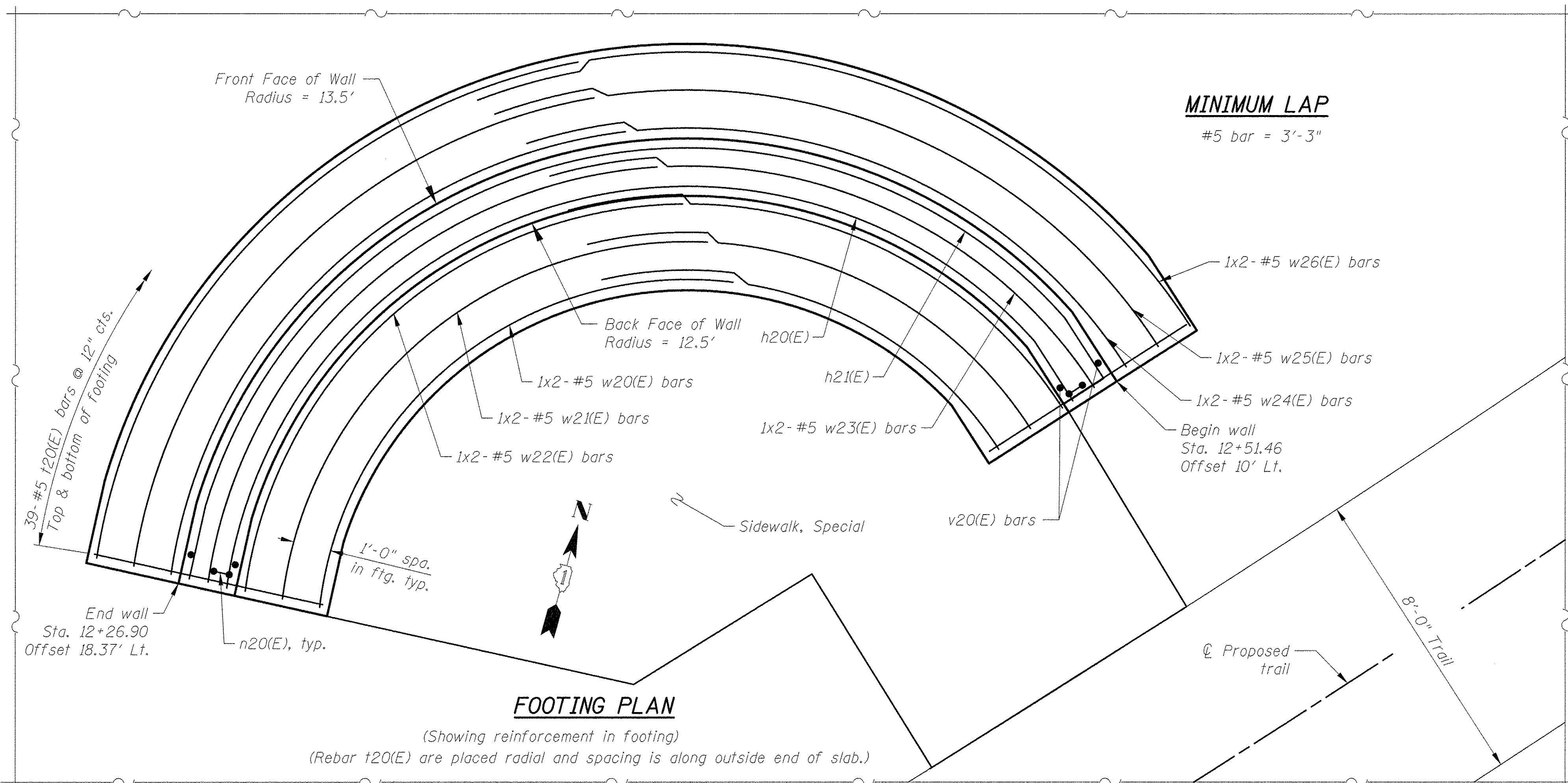
SHEET NO. 01 OF 07 SHEETS

FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT



**ELEVATION**

(Unfolded, looking at Front Face of wall - Opposite of Plan View)

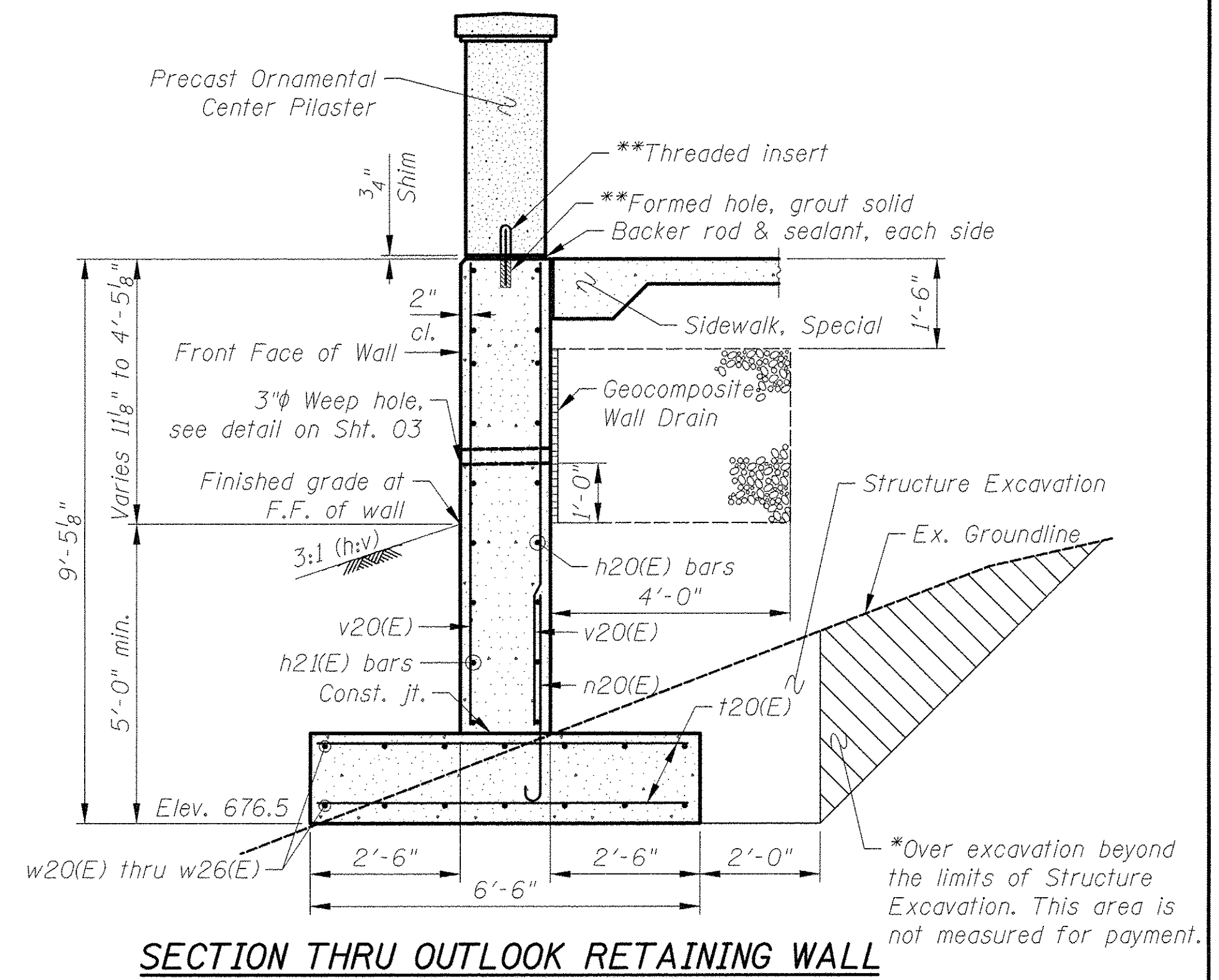


**FOOTING PLAN**

(Showing reinforcement in footing)  
(Rebar t20(E) are placed radial and spacing is along outside end of slab.)

**MINIMUM LAP**

#5 bar = 3'-3"



**SECTION THRU OUTLOOK RETAINING WALL**

**General Notes:**

1. Precast concrete shall be designed in accordance with the "Building Code Requirements for Reinforced Concrete," ACI 318, "PCI Design Handbook for Precast and Pre-Stressed Concrete" and the "Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products", PCI MNL-117, current edition.
2. The precast concrete Contractor shall have total design responsibility for the design of the Outlook Railing, Precast Bench, and Entrance Sign for the loads shown on the drawings for handling, thermal, and volume change forces. Contractor is also responsible for all connections between these items and the cast-in-place concrete retaining wall or foundations and all plates, anchors, and other devices embedded within the panels.
3. Furnish anchorages with a setting plan in time for foundation construction.
4. Submit shop drawings and calculations, signed and sealed by an Illinois licensed structural engineer for Engineer's review. Shop drawings shall show all dimensions, reinforcement, connections, finish and other information necessary for the fabrication and erection. Calculations shall show panel design for typical and special conditions, wind resistance, connections, and other information related to structural interaction with other elements of the structure.
5. Use non-metallic, non-shrink grout under architectural precast concrete. Install continuously under entire width and length of piece. Recess 1/4" back from face of precast to allow installation of backer rod and sealant.
6. Sealants shall be one-component, polyurethane. Install sealants in strict accordance with the manufacturer's recommendations. Sealant color shall match concrete.
7. Surfaces that are to accept sealant shall be primed in accordance with the manufacturer's recommendations.
8. Provide closed-cell backer rod compatible with sealant where indicated on the drawings.

J:\2961\road\Struct\Overlook\02\_Outlook\_Retaining\_Wall.dgn 8:58:11 AM 12/4/2015



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN	- JTS	REVISED	-
DESIGNED	- MFL	REVISED	-
CHECKED	- GJH	REVISED	-
DATE	- 12/07/2015	REVISED	-

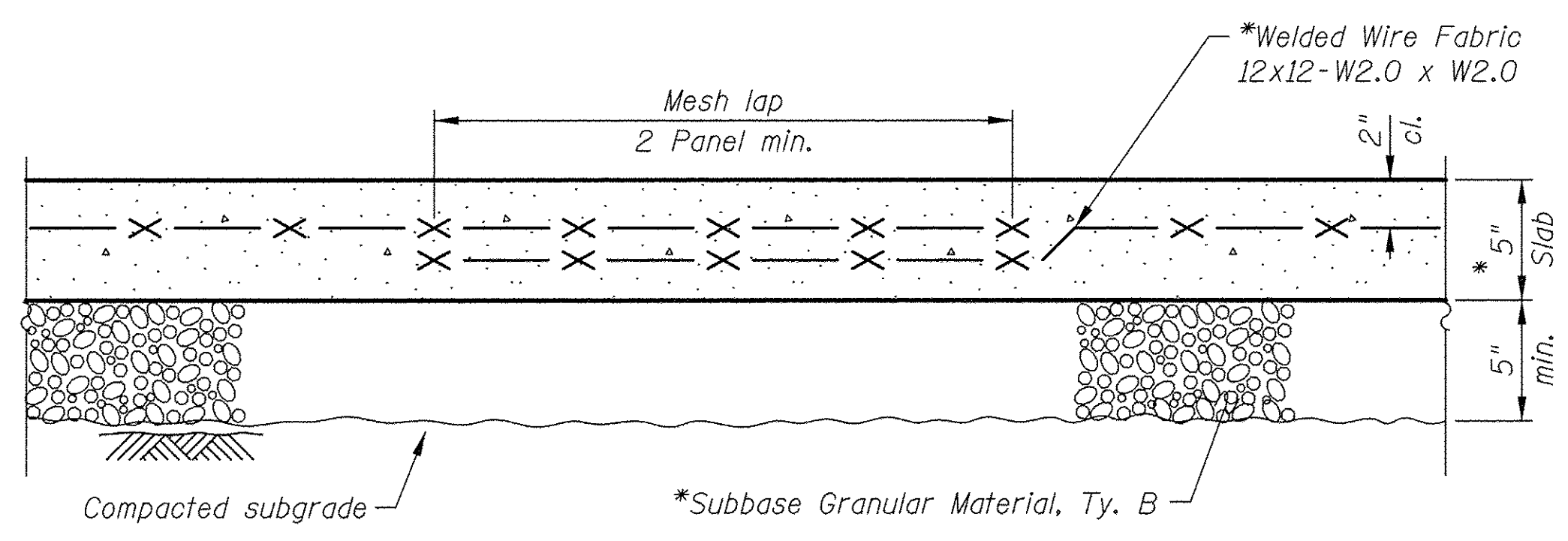
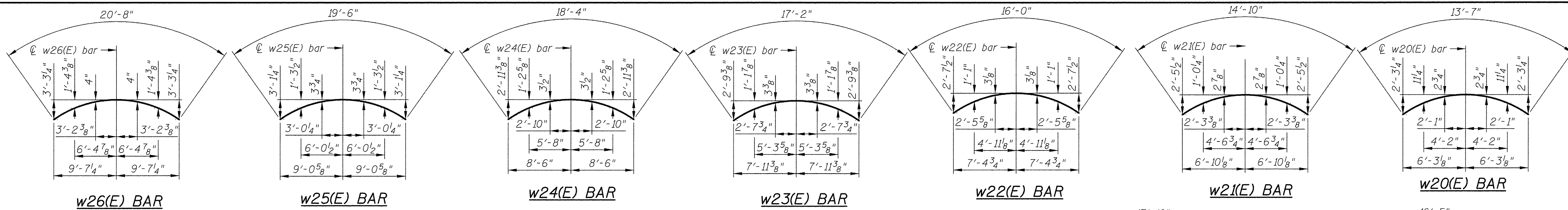
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OUTLOOK RETAINING WALL PLAN & ELEVATION  
MIDDLEFORK SAVANNA TRAIL CONNECTION**

SHEET NO. 02 OF 07 SHEETS

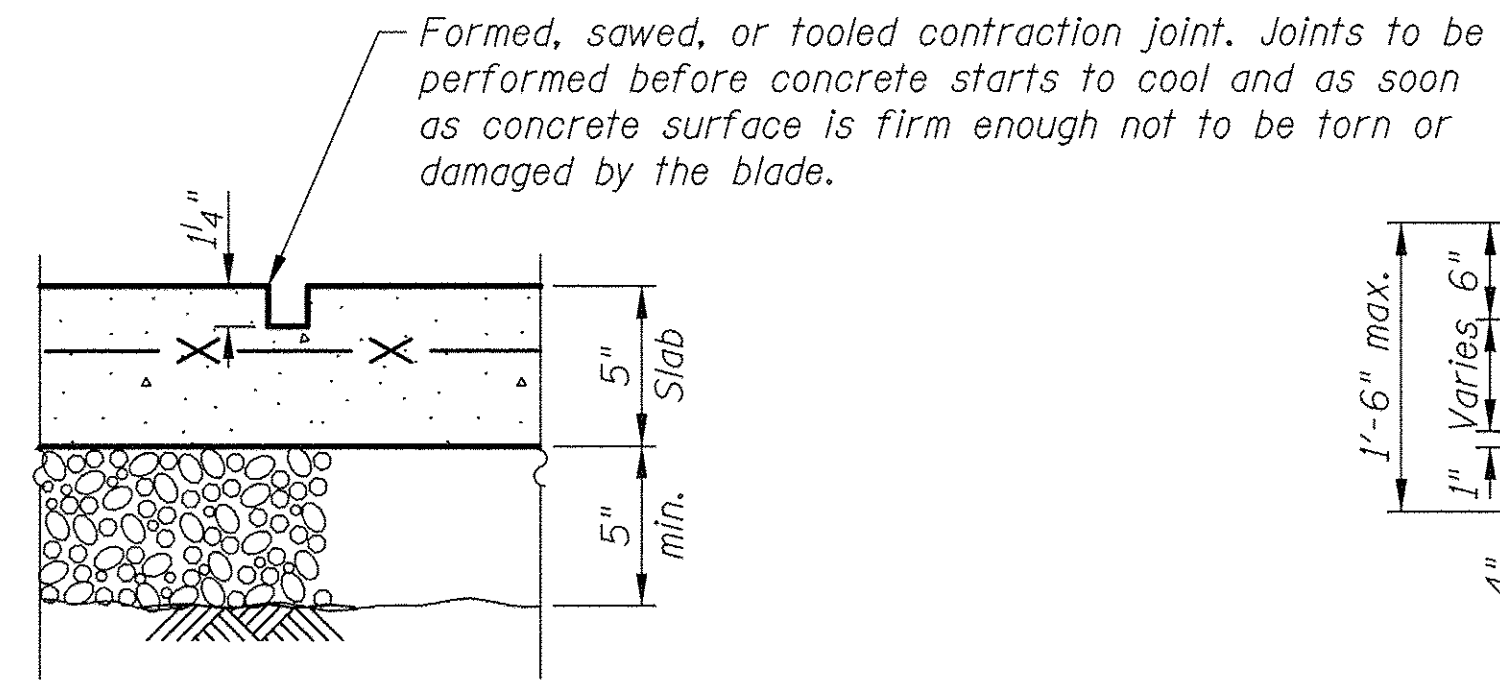
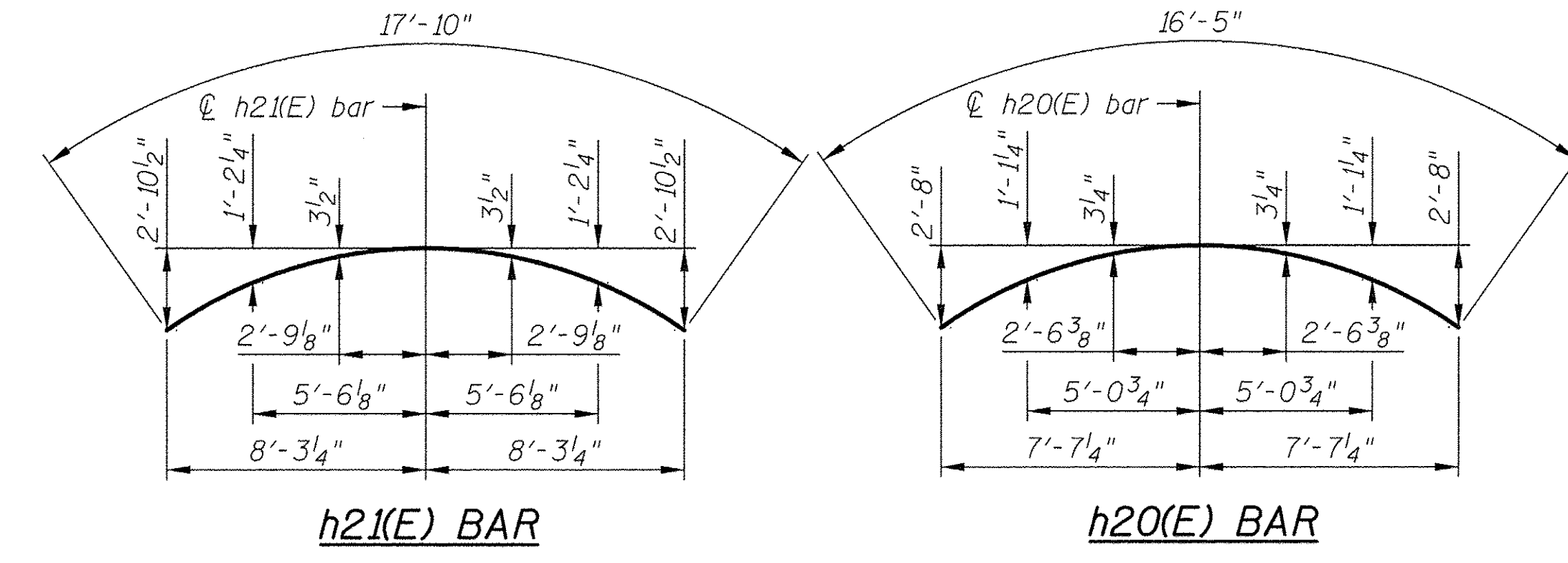
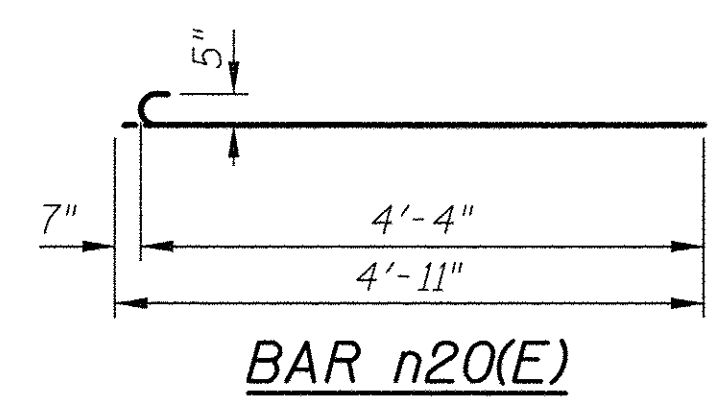
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	40
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



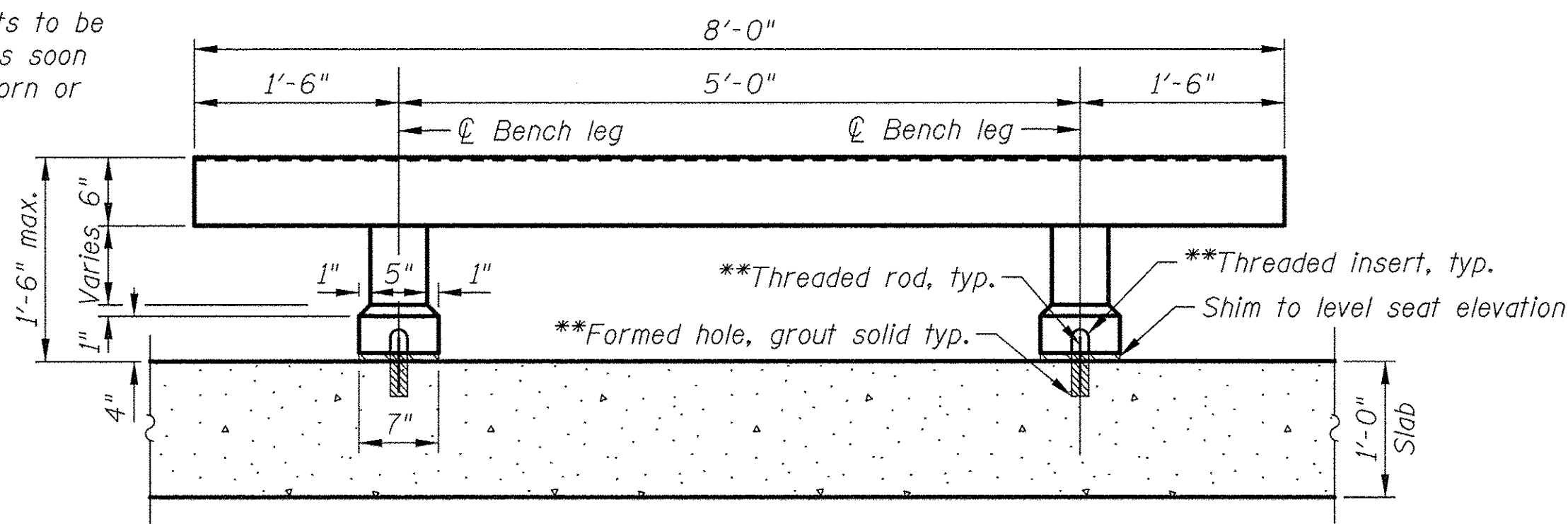


**SIDEWALK, SPECIAL**

\* Included in the cost of Sidewalk, Special

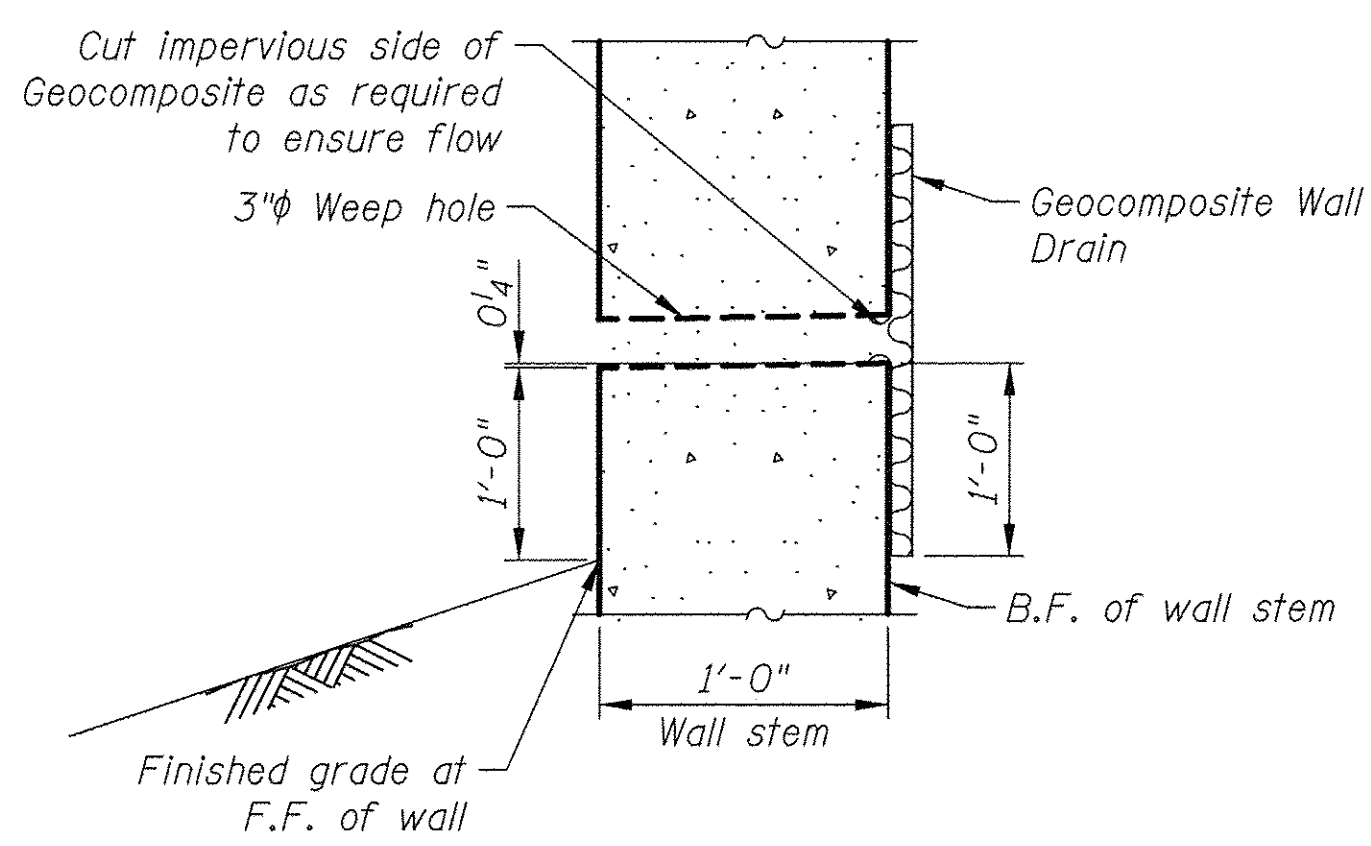


**CONTRACTION JOINT**



**PEDESTRIAN BENCH ELEVATION**

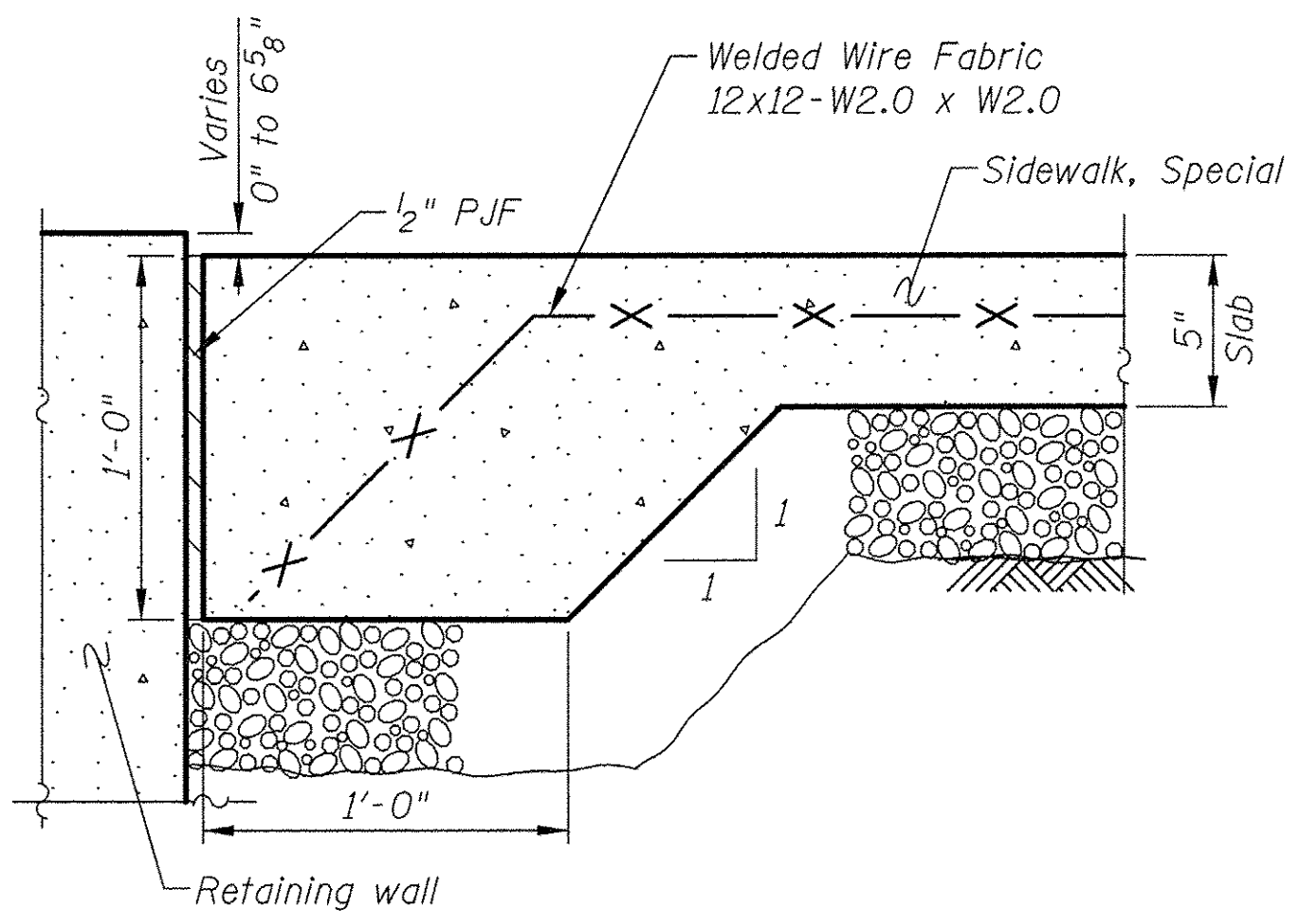
Precast manufacturer shall design bench for 100 psf live load.



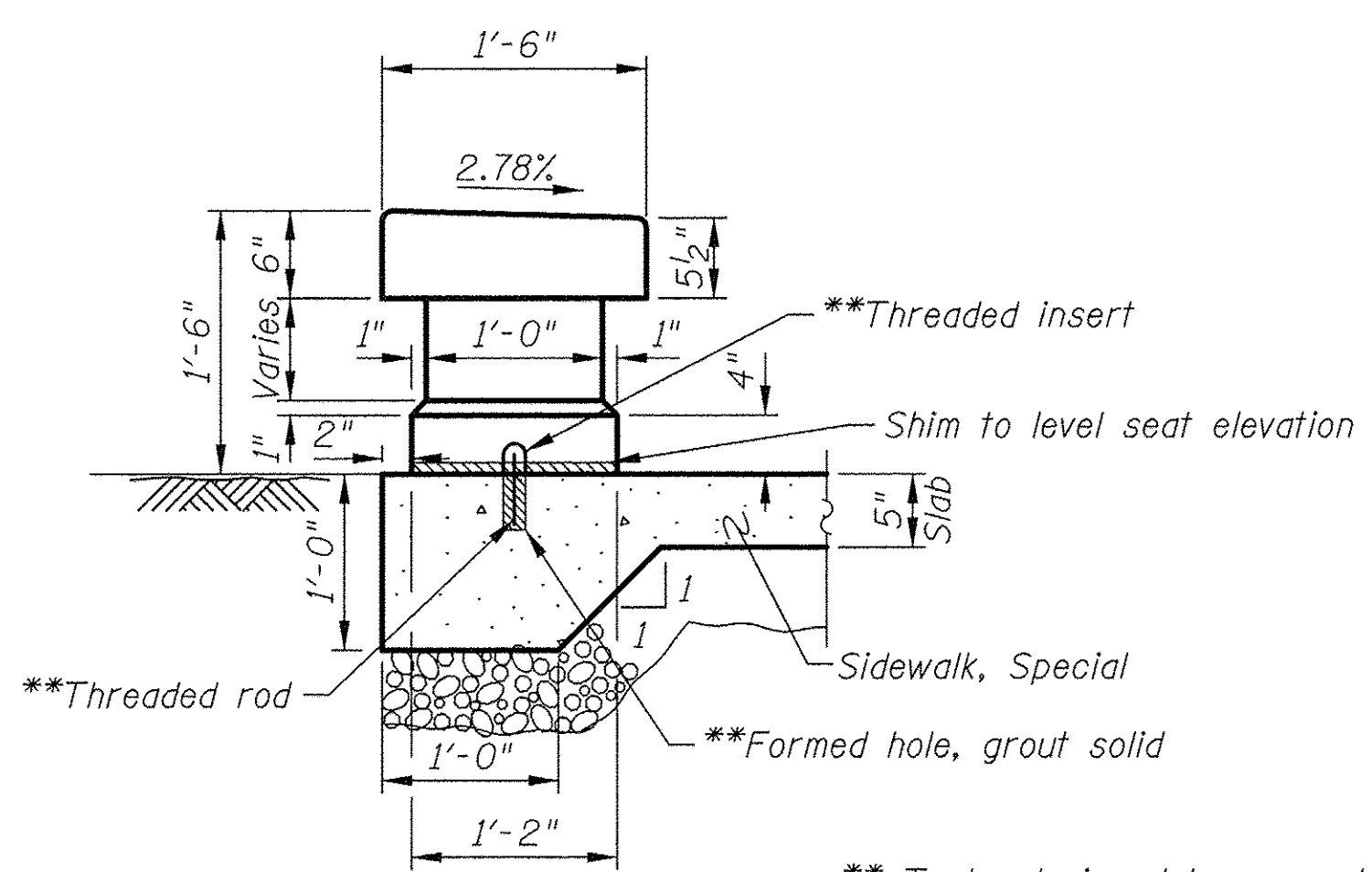
**WEEP HOLE DRAIN DETAIL**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h20(E)	18	#4	16'-5"	
h21(E)	18	#4	17'-10"	
n20(E)	31	#5	4'-11"	
t20(E)	78	#5	6'-2"	
v20(E)	62	#4	7'-7"	
w20(E)	2	#5	13'-7"	
w21(E)	2	#5	14'-10"	
w22(E)	2	#5	16'-0"	
w23(E)	2	#5	17'-2"	
w24(E)	2	#5	18'-4"	
w25(E)	2	#5	19'-6"	
w26(E)	2	#5	20'-8"	
Item	Unit	Quantity		
Porous Granular Backfill	Cu. Yd.	10		
Structure Excavation	Cu. Yd.	22		
Concrete Structures	Cu. Yd.	25.1		
Reinforcement Bars, Epoxy Coated	Pound	1,640		
Geocomposite Wall Drain	Sq. Yd.	8		
Sidewalk, Special	Sq. Ft.	232		
Pedestrian Bench, Furnish and Install	L. Sum	1		

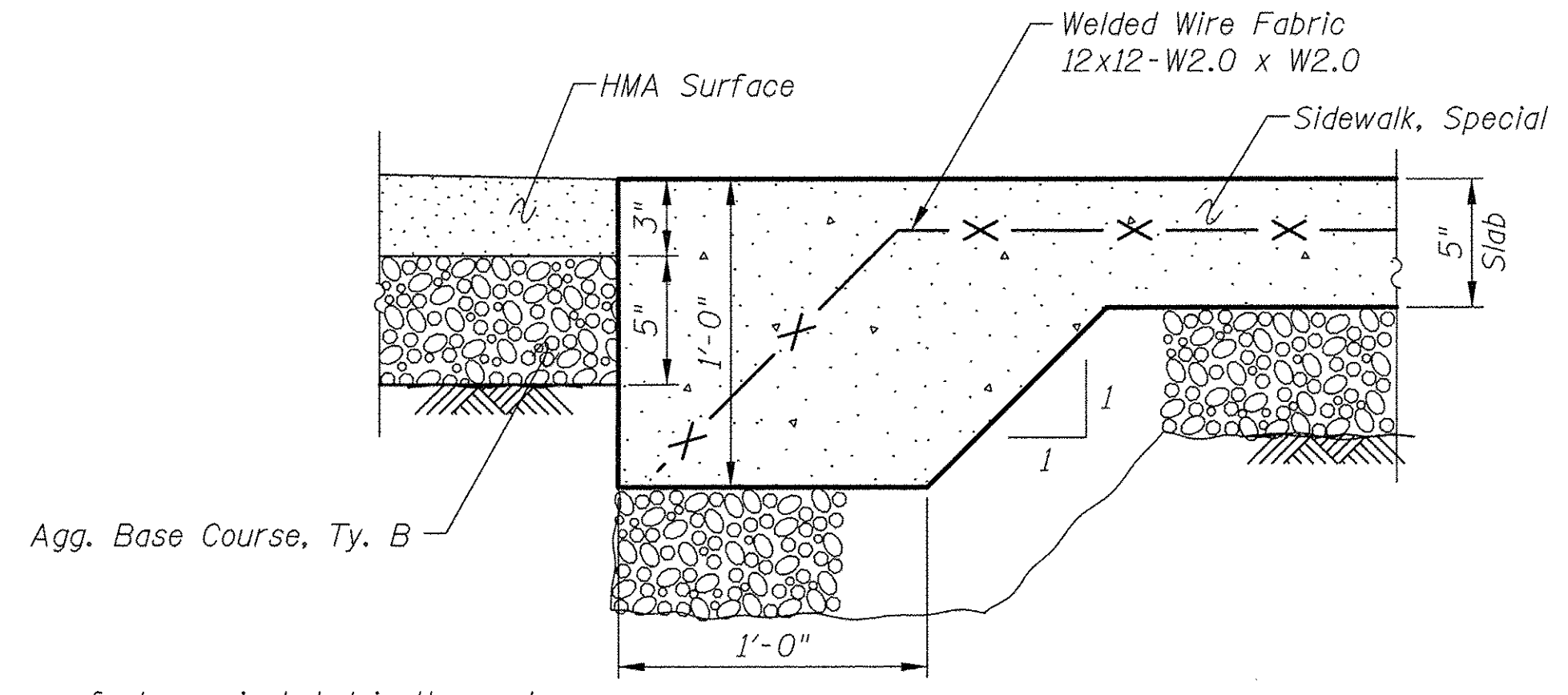


**SECTION A-A**



**SECTION B-B**

\*\* To be designed by precast manufacturer, included in the cost of Pedestrian Bench, Furnish and Install.



**SECTION C-C**

12/3/2015 3:08:37 PM J:\2961\Cad\Struct\Overlook\03\_Outlook\_Details.dgn

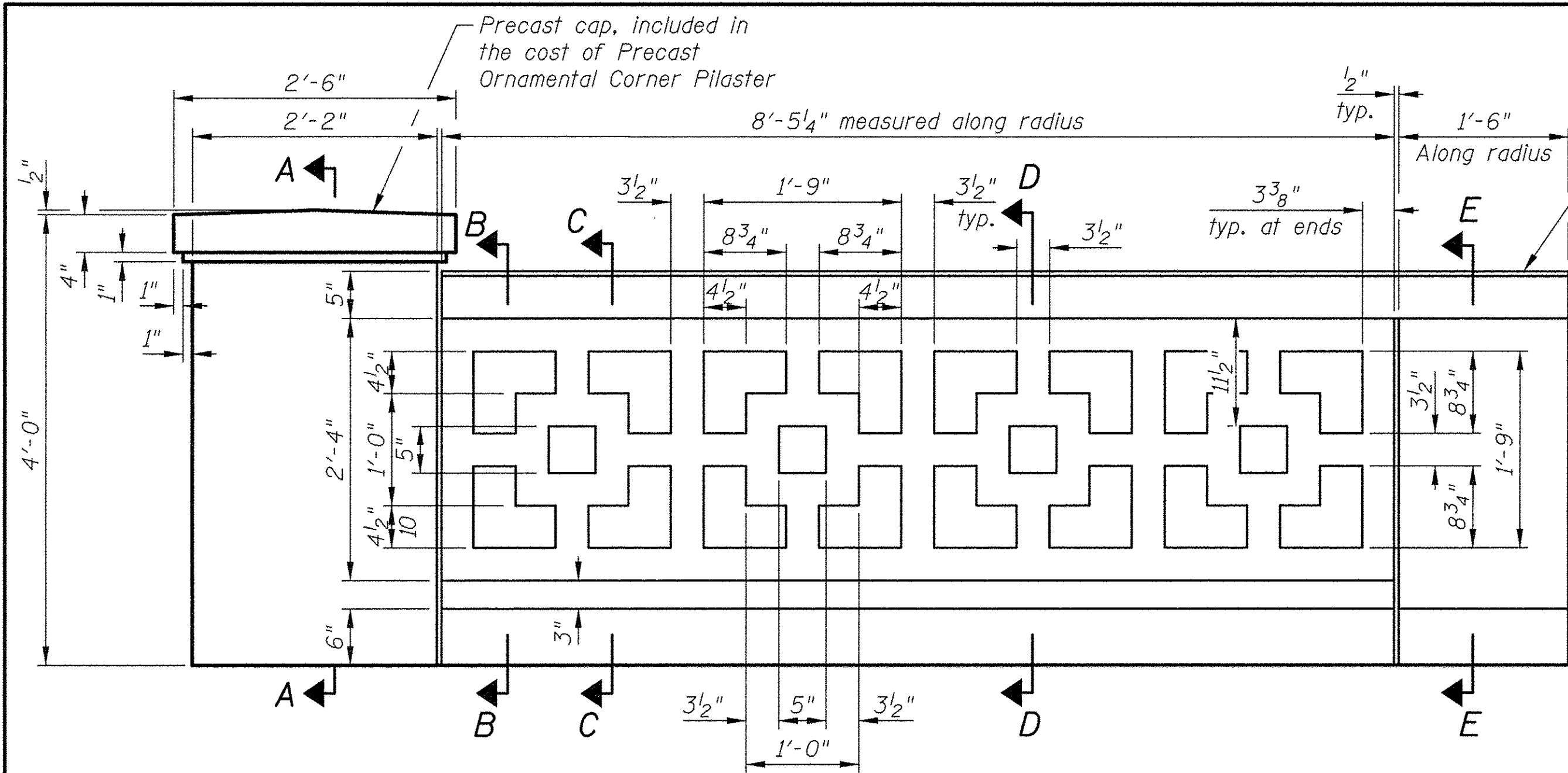
**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DRAWN - JTS	REVISD -
DESIGNED - MFL	REVISD -
CHECKED - GJH	REVISD -
DATE - 12/07/2015	REVISD -

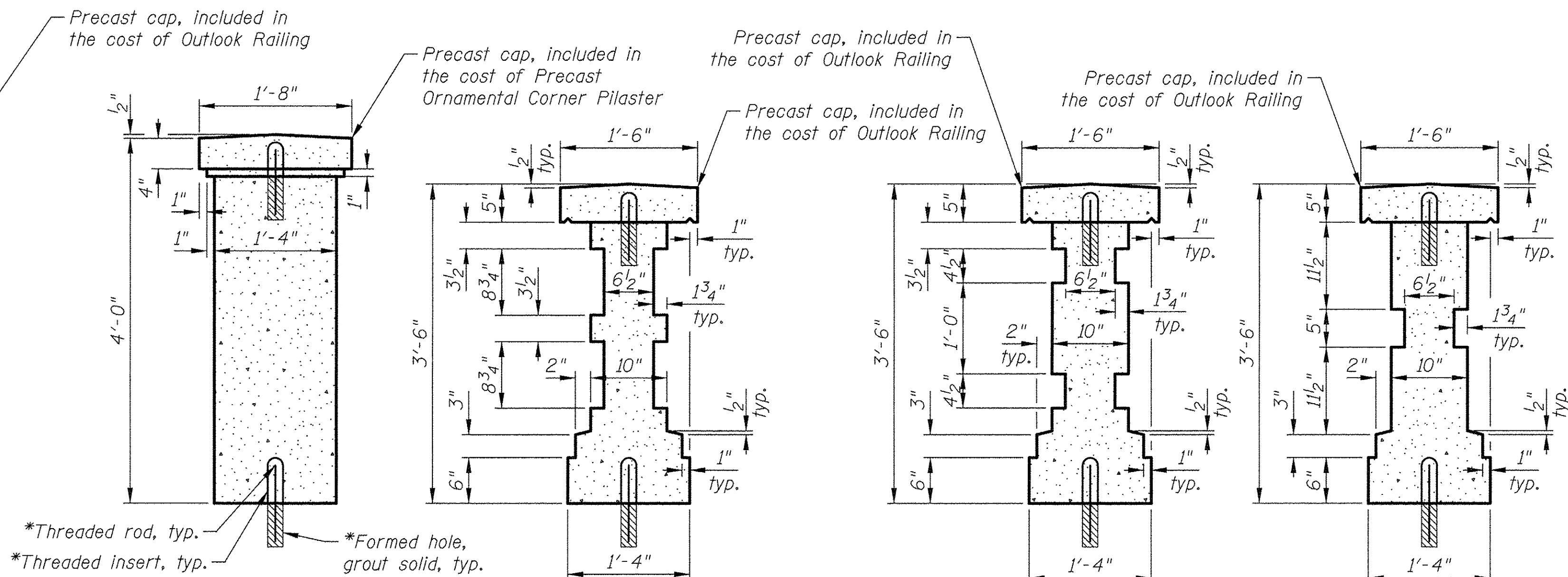
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**OUTLOOK DETAILS  
 MIDDLEFORK SAVANNA TRAIL CONNECTION**

F.A.U. RTE. 0335	SECTION 14-F3000-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 41
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TYPICAL OUTLOOK RAILING ELEVATION



SECTION A-A

(Precast Ornamental Corner Pilaster)

SECTION B-B

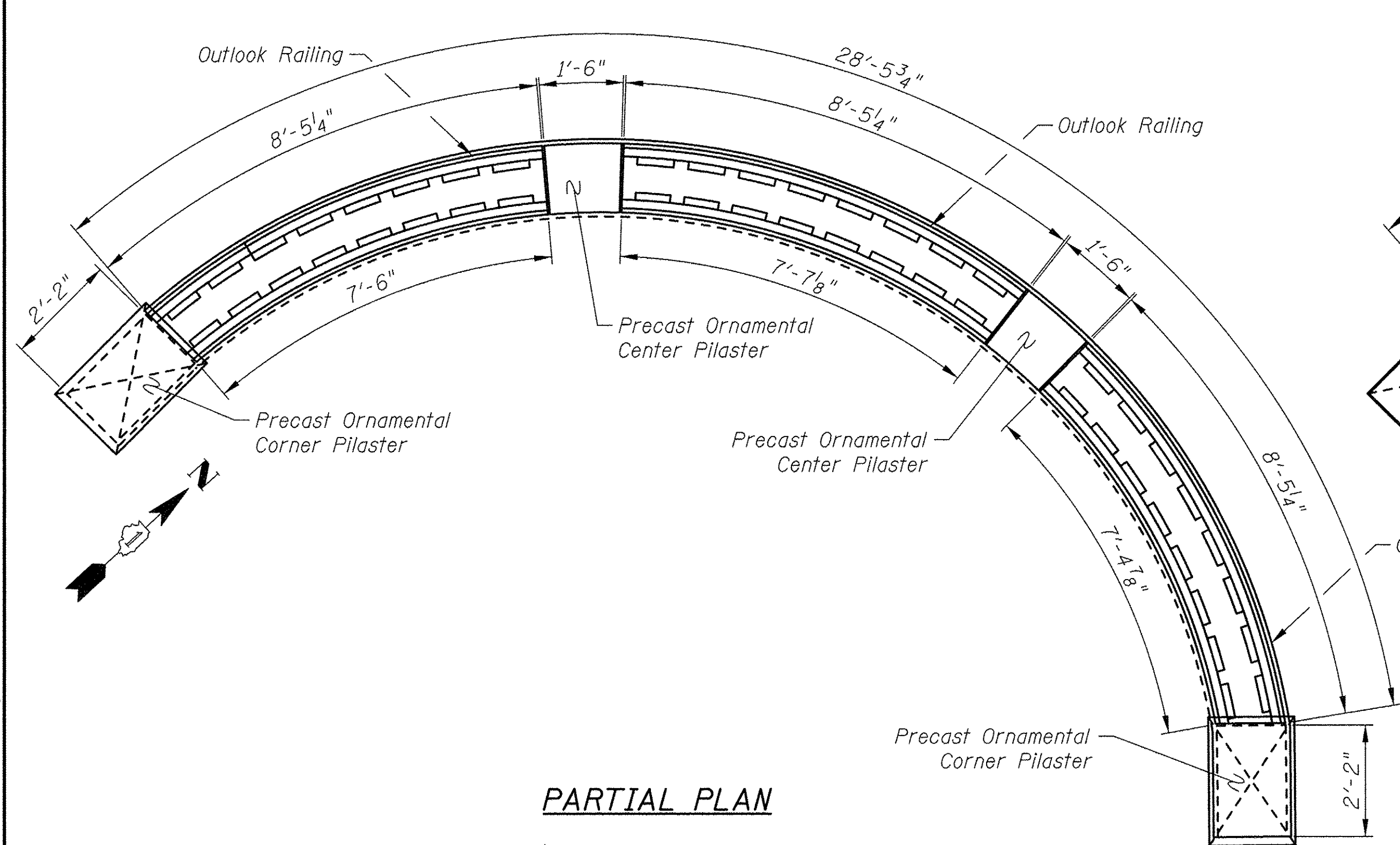
(Depressed Decorative Pattern)

SECTION C-C

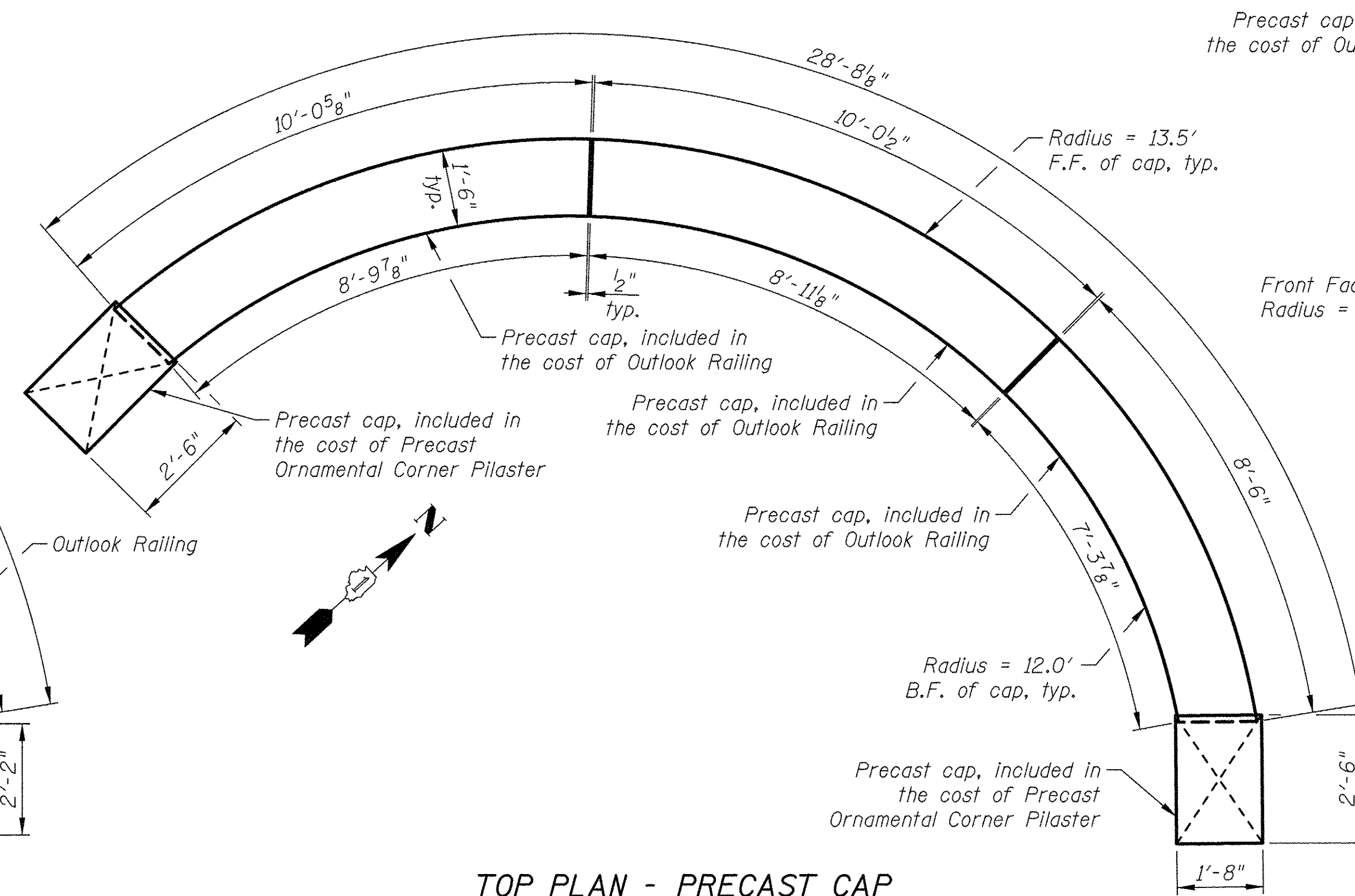
(Depressed Decorative Pattern)

SECTION D-D

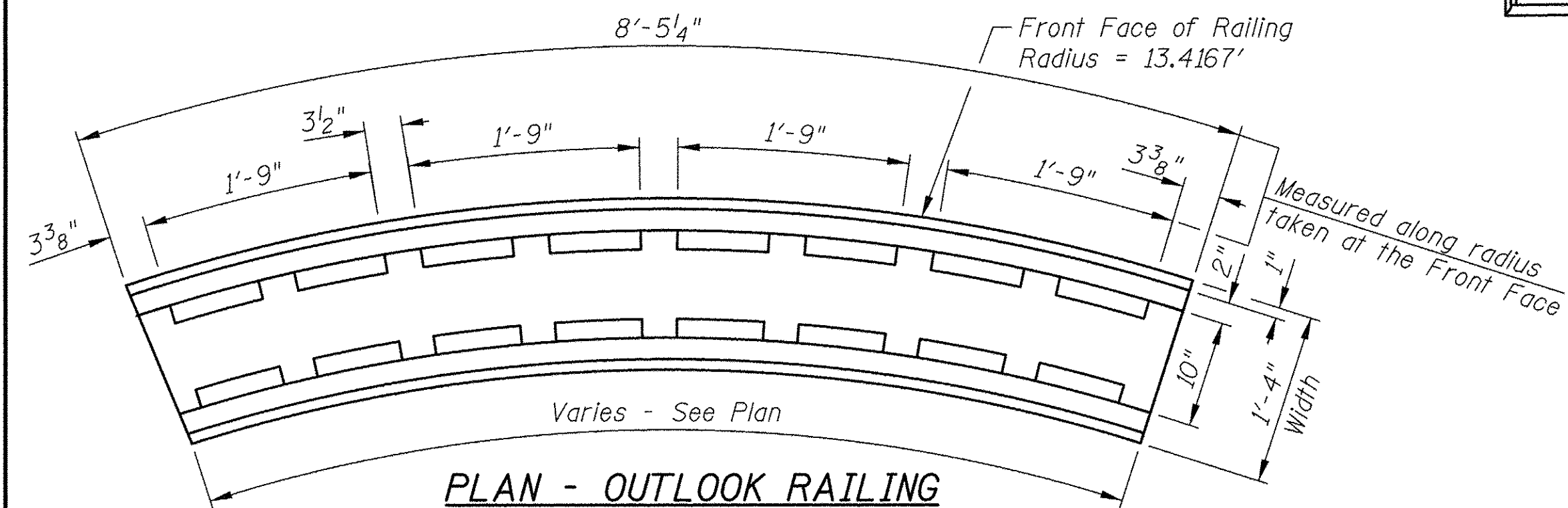
(Depressed Decorative Pattern)



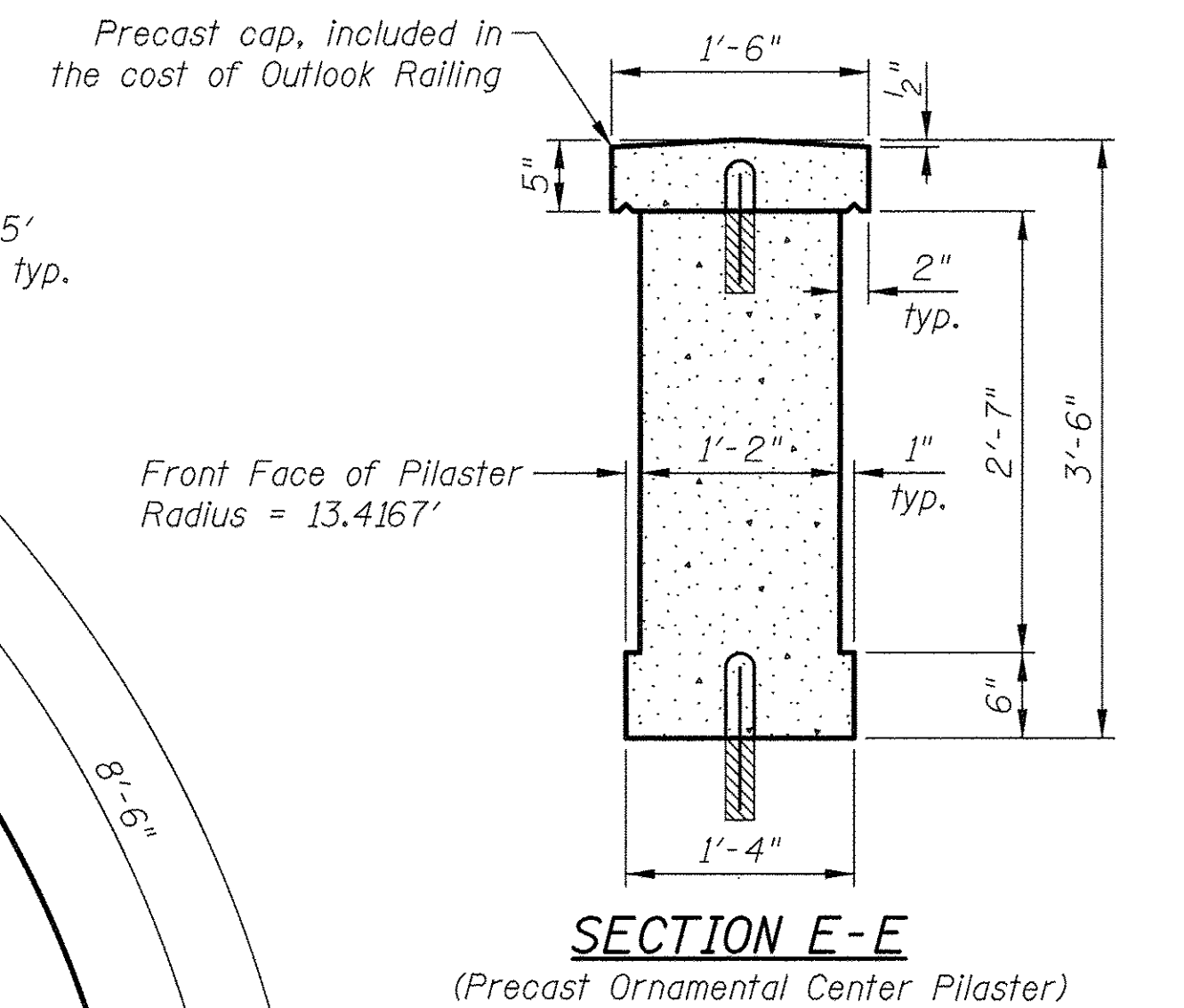
PARTIAL PLAN



TOP PLAN - PRECAST CAP



PLAN - OUTLOOK RAILING



SECTION E-E

(Precast Ornamental Center Pilaster)

Front Face of Pilaster  
Radius = 13.4167'

PLAN - PRECAST ORNAMENTAL CENTER PILASTER

BILL OF MATERIAL

Item	Unit	Quantity
Precast Ornamental Center Pilaster	Each	2
Precast Ornamental Corner Pilaster	Each	2
Outlook Railing	Foot	24

\* To be designed by precast manufacturer, included in the cost of Outlook Railing, Precast Ornamental Center Pilaster, or Precast Ornamental Corner Pilaster.

12/3/2015 3:08:38 PM J:\2861\road\Struct\Overlook\04\_Precast\_Details.dgn



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN - JTS  
 DESIGNED - MFL  
 CHECKED - GJH  
 DATE - 12/07/2015

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

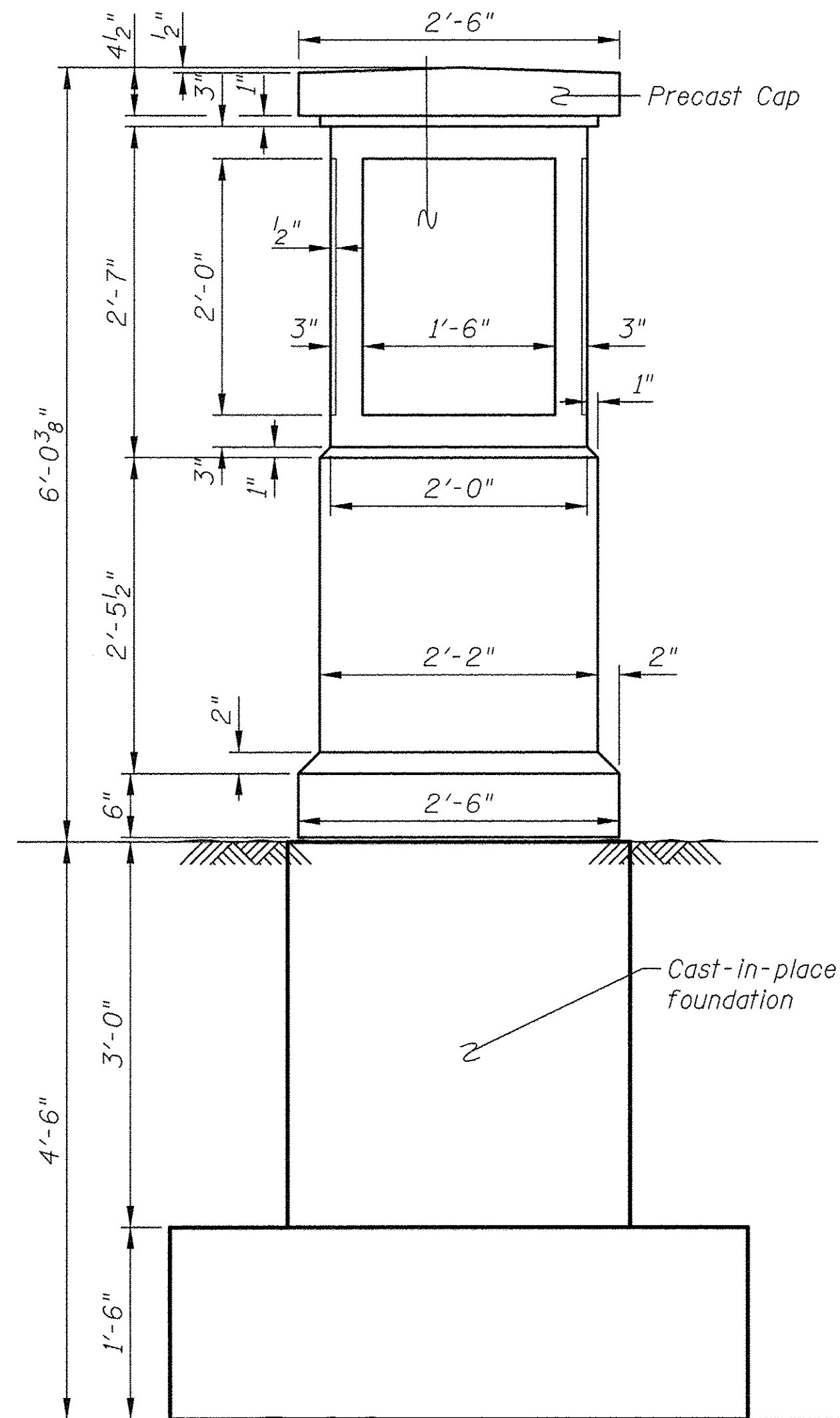
OUTLOOK RAILING DETAILS  
MIDDLEFORK SAVANNA TRAIL CONNECTION

SHEET NO. 04 OF 07 SHEETS

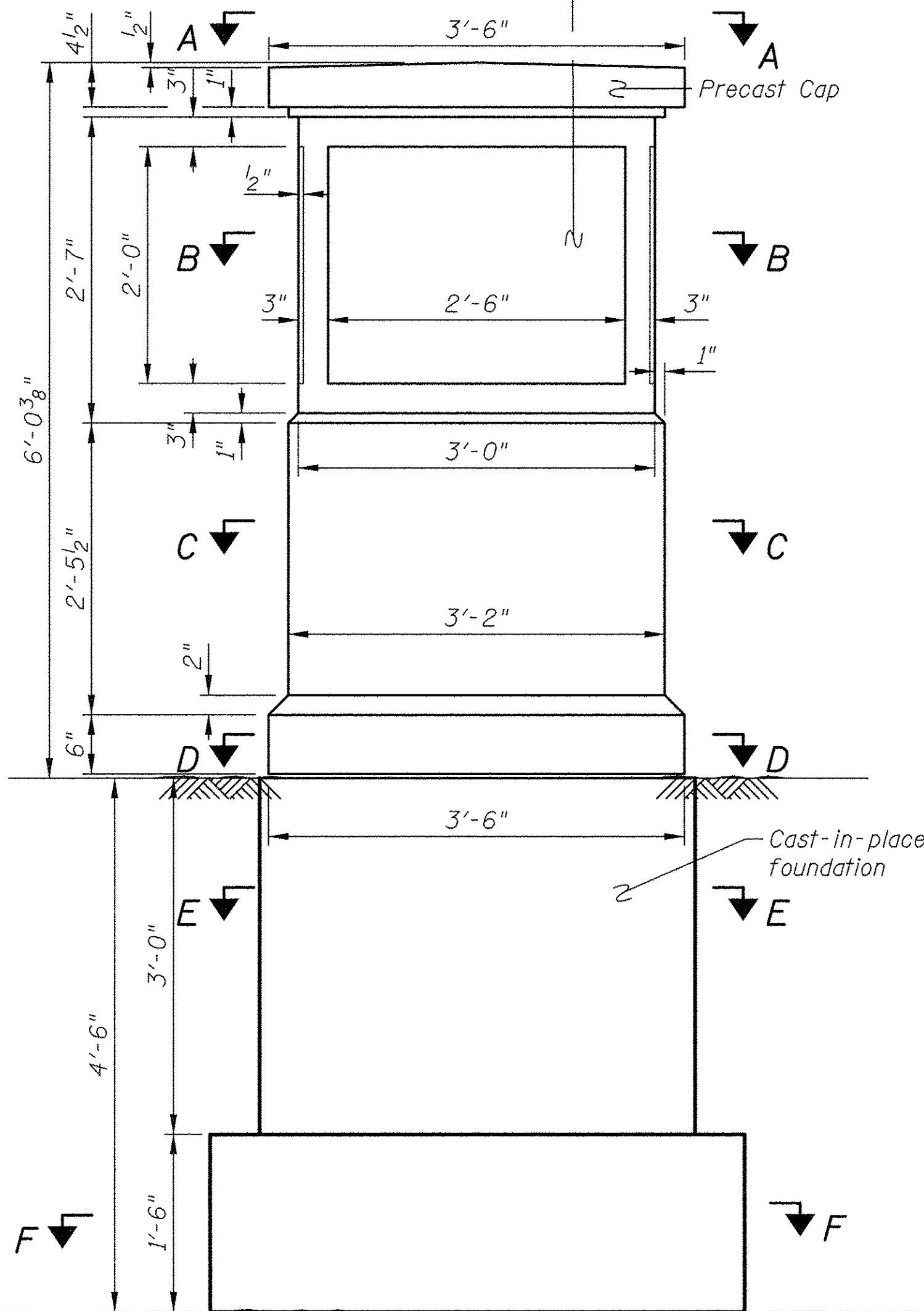
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	42
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Donor Acknowledgements  
Embed plaque with mounting  
pins per manufacturer

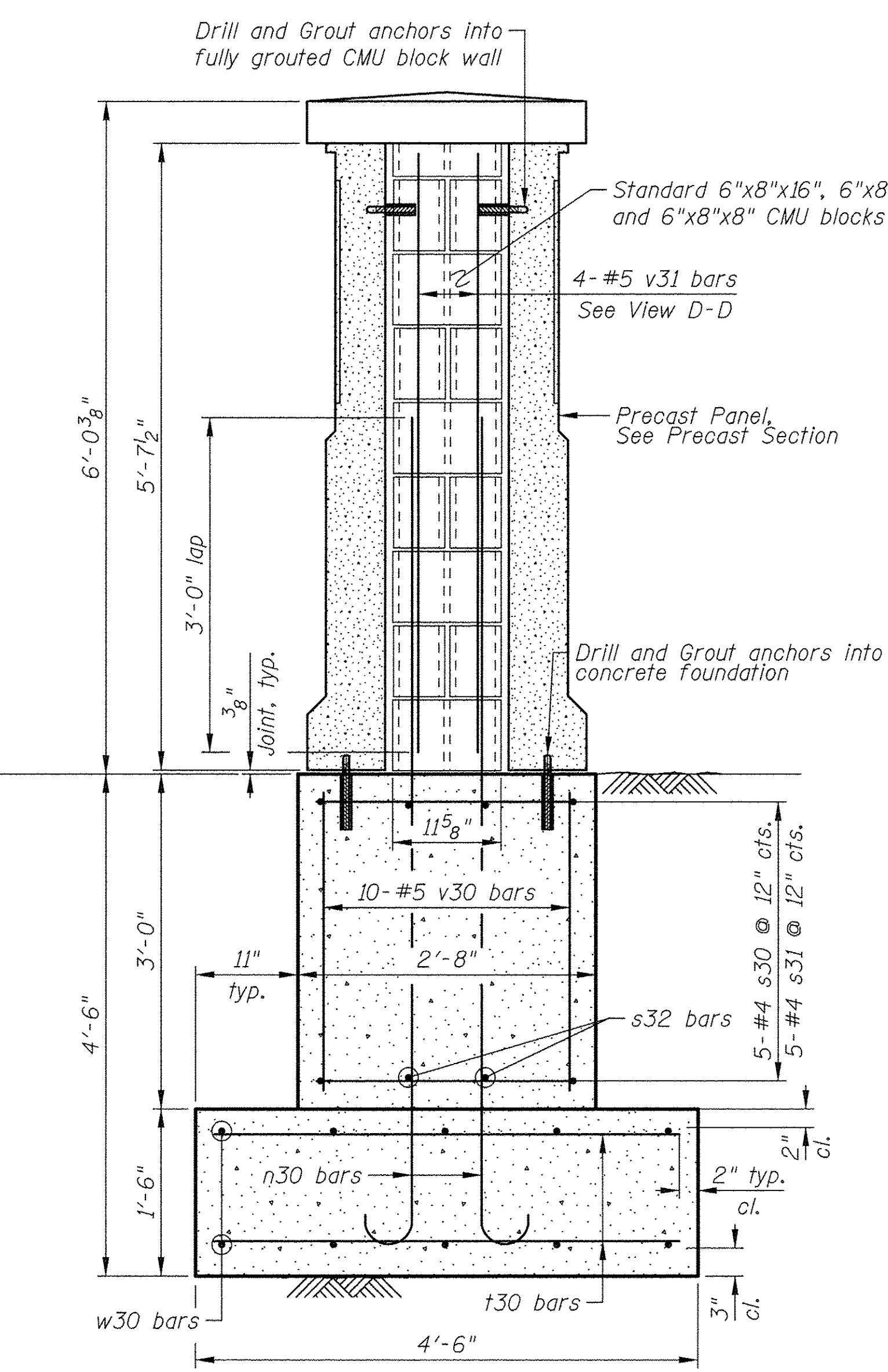
Historic Information  
Embed plaque with mounting  
pins per manufacturer



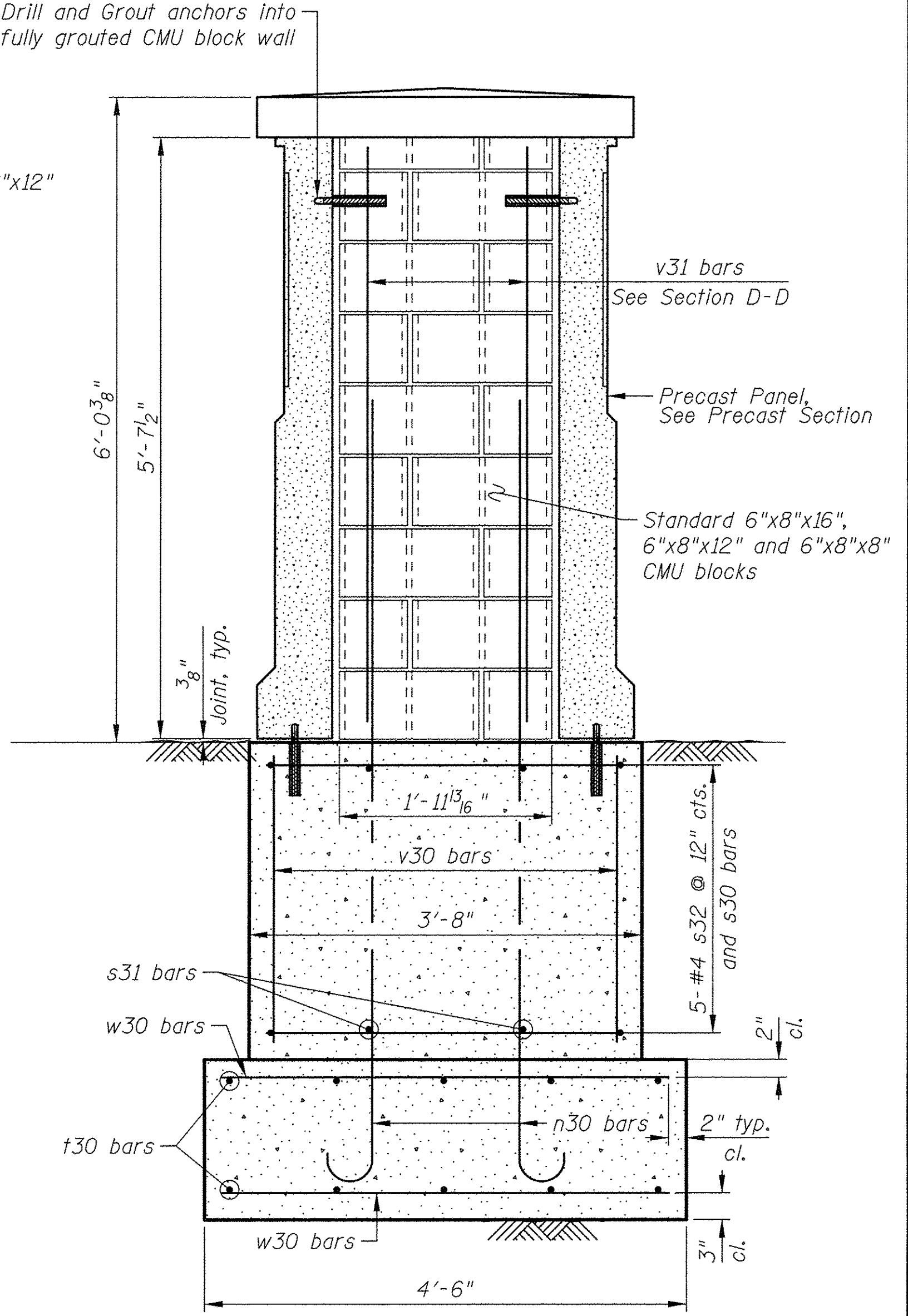
**ELEVATION A**



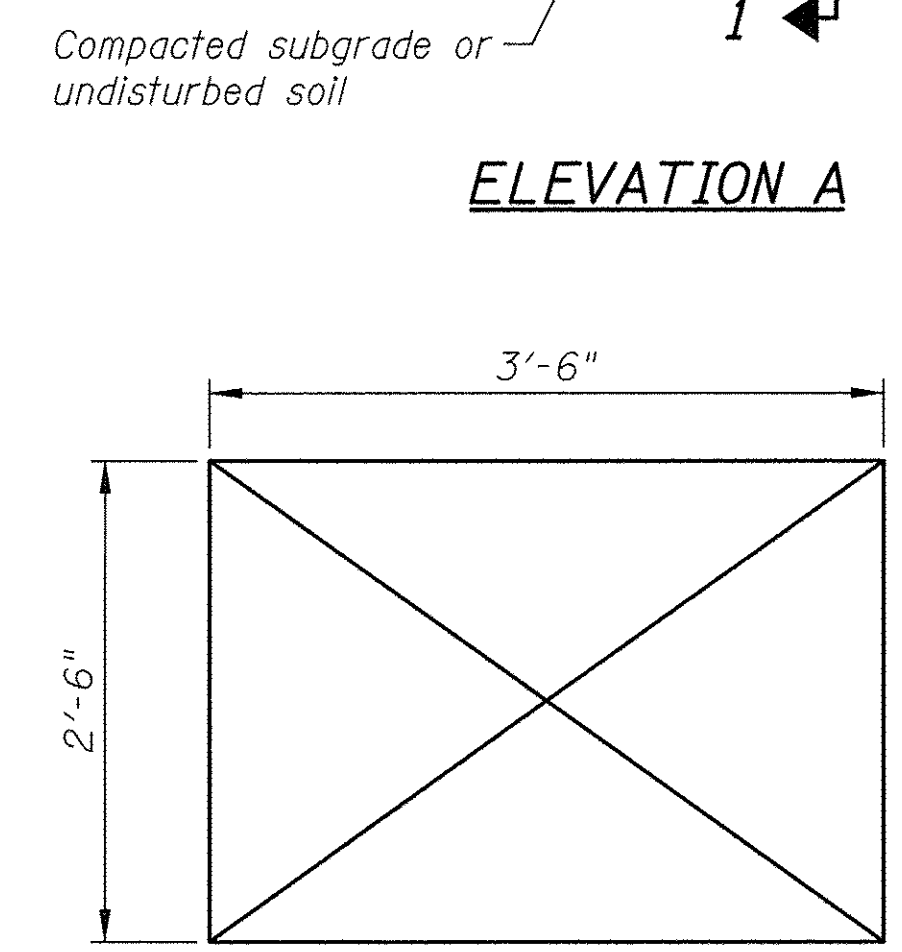
**ELEVATION B**



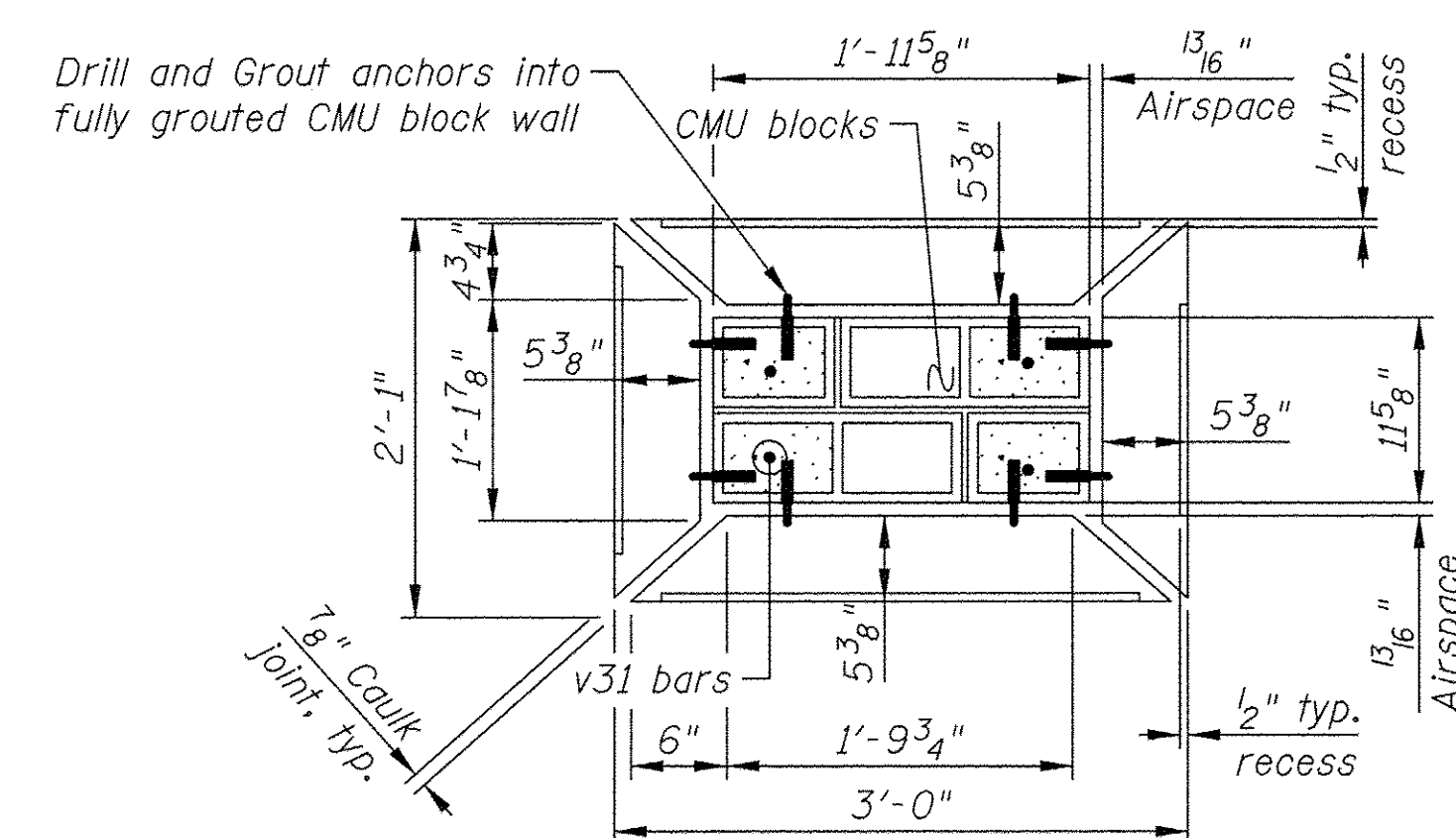
**SECTION 1-1**



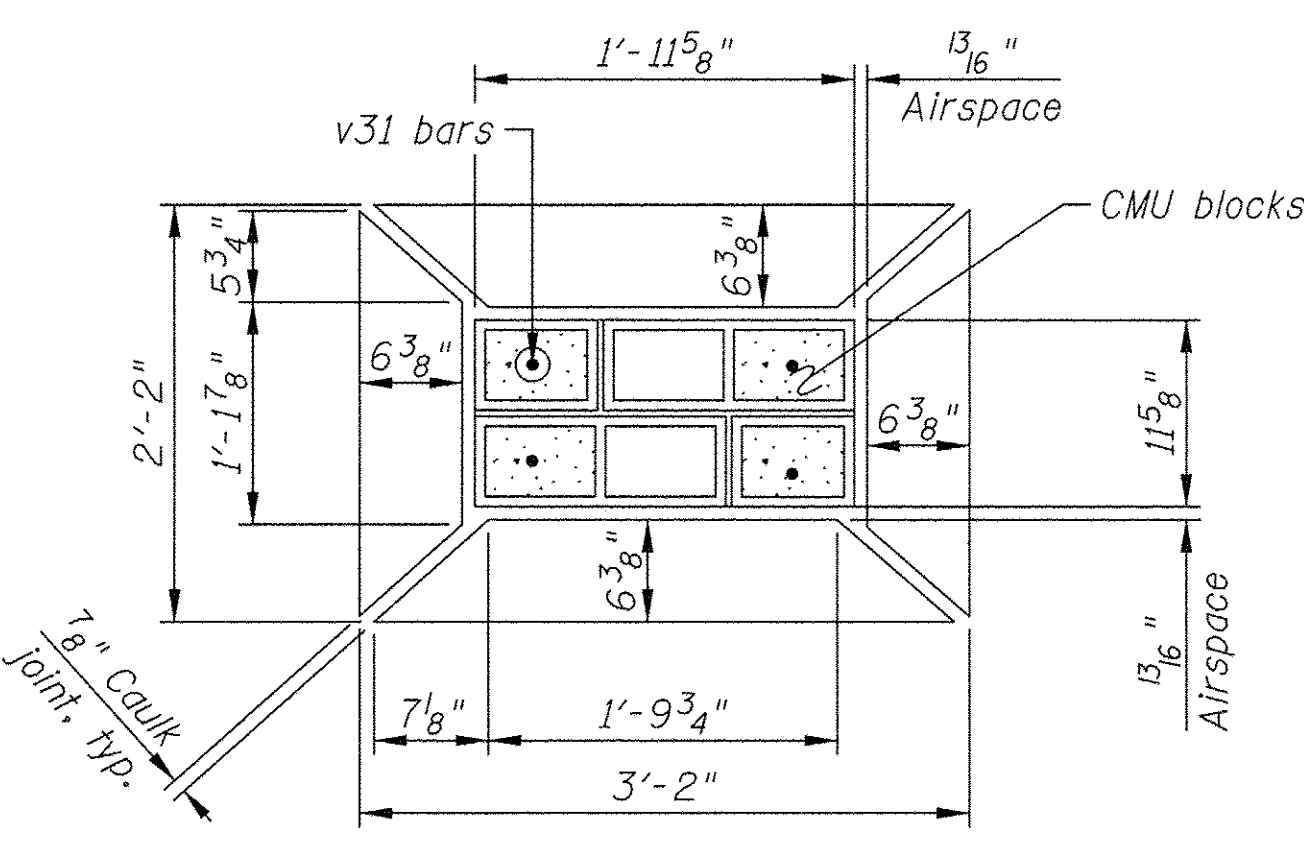
**SECTION 2-2**



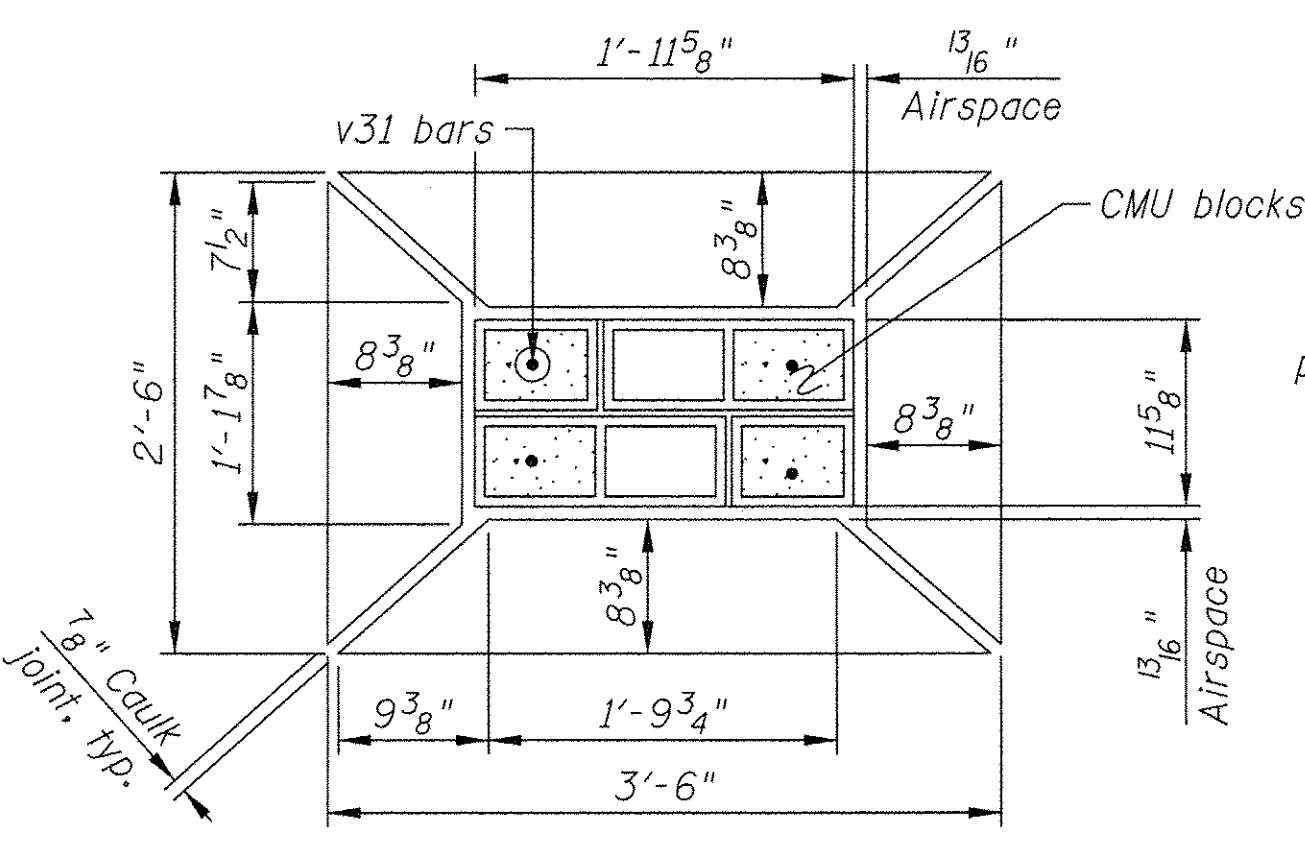
**VIEW A-A**  
(Precast Cap)



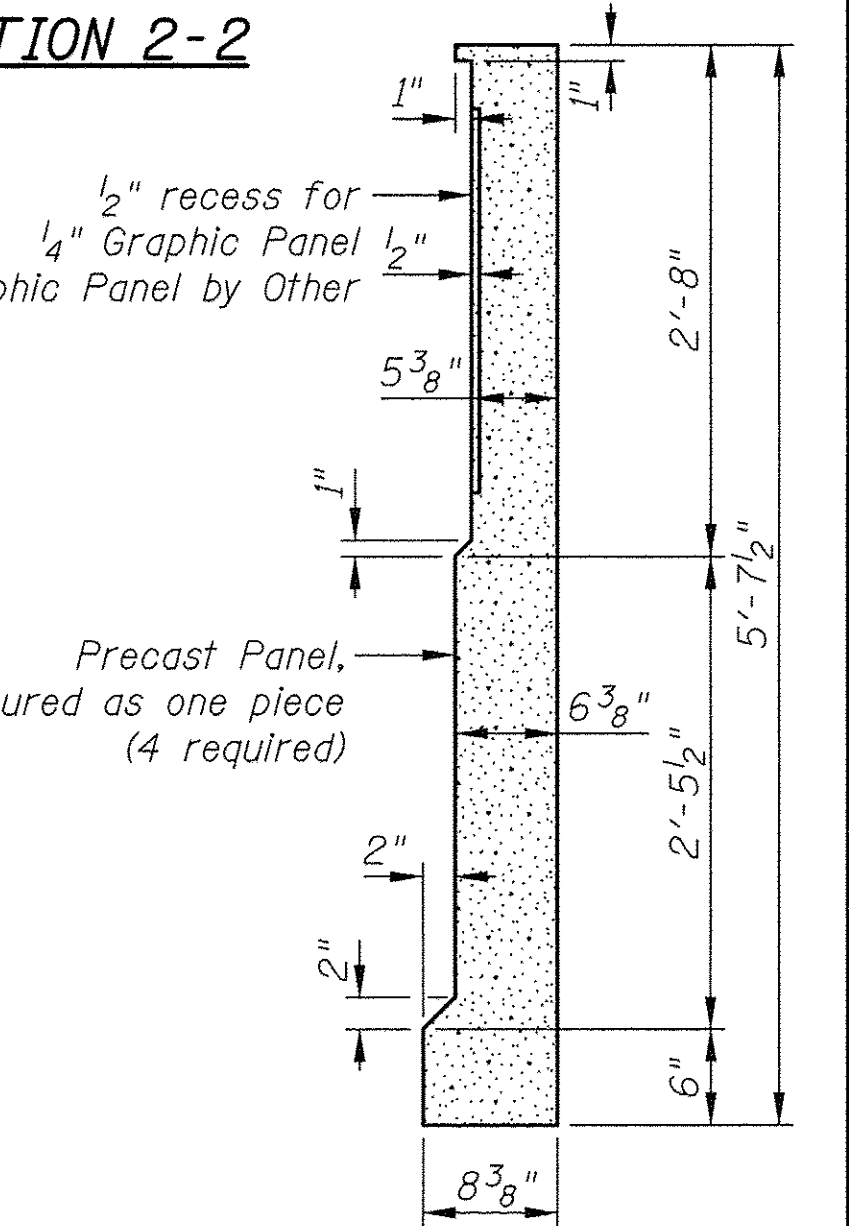
**VIEW B-B**



**VIEW C-C**



**VIEW D-D**



**PRECAST SECTION**

Note:  
Maximum applied bearing pressure = 1,540 psf

3/28/2015 11:52:20 AM I:\2861\road\structure\look\05.Entrance\_Sign.dgn 3:08:44 PM

General Notes:  
1. See Sheet 06 for View E-E and F-F.  
2. See Sheet 06 for Bill of material.

**CIVILTECH**  
450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN	- JTS	REVISED	-
DESIGNED	- MFL	REVISED	-
CHECKED	- GJH	REVISED	-
DATE	- 12/07/2015	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

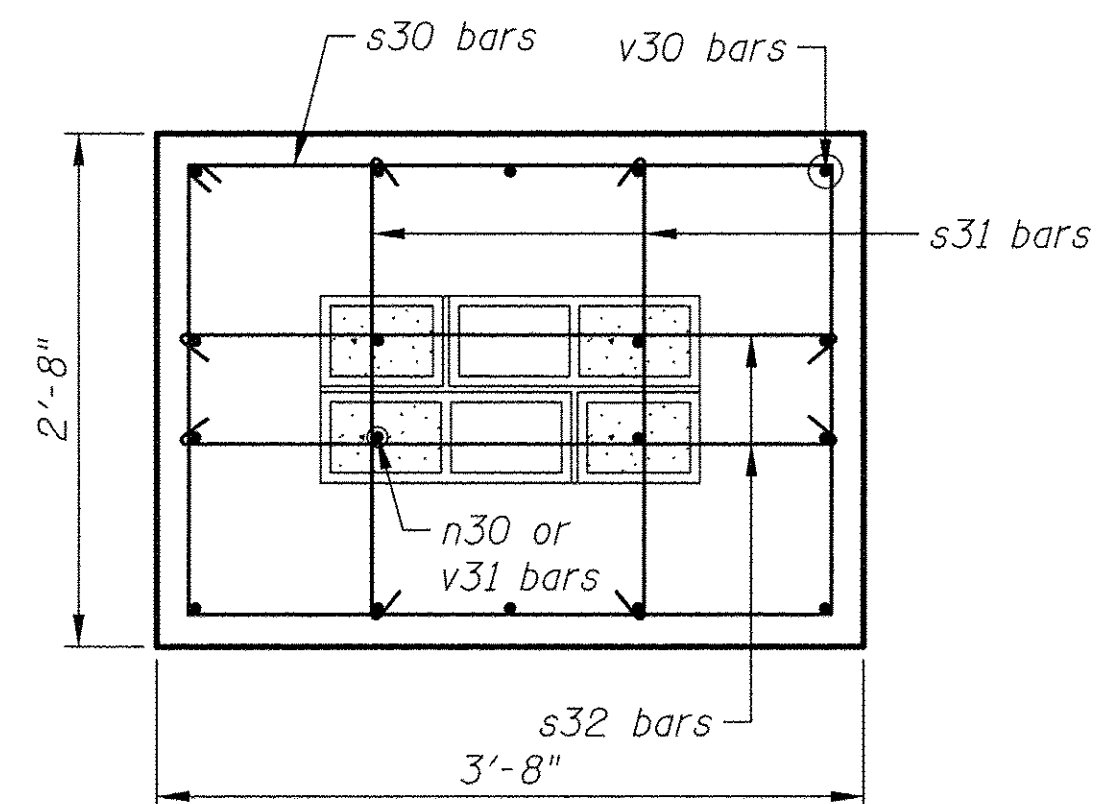
**ENTRANCE SIGN  
MIDDLEFORK SAVANNA TRAIL CONNECTION**

SHEET NO. 05 OF 07 SHEETS

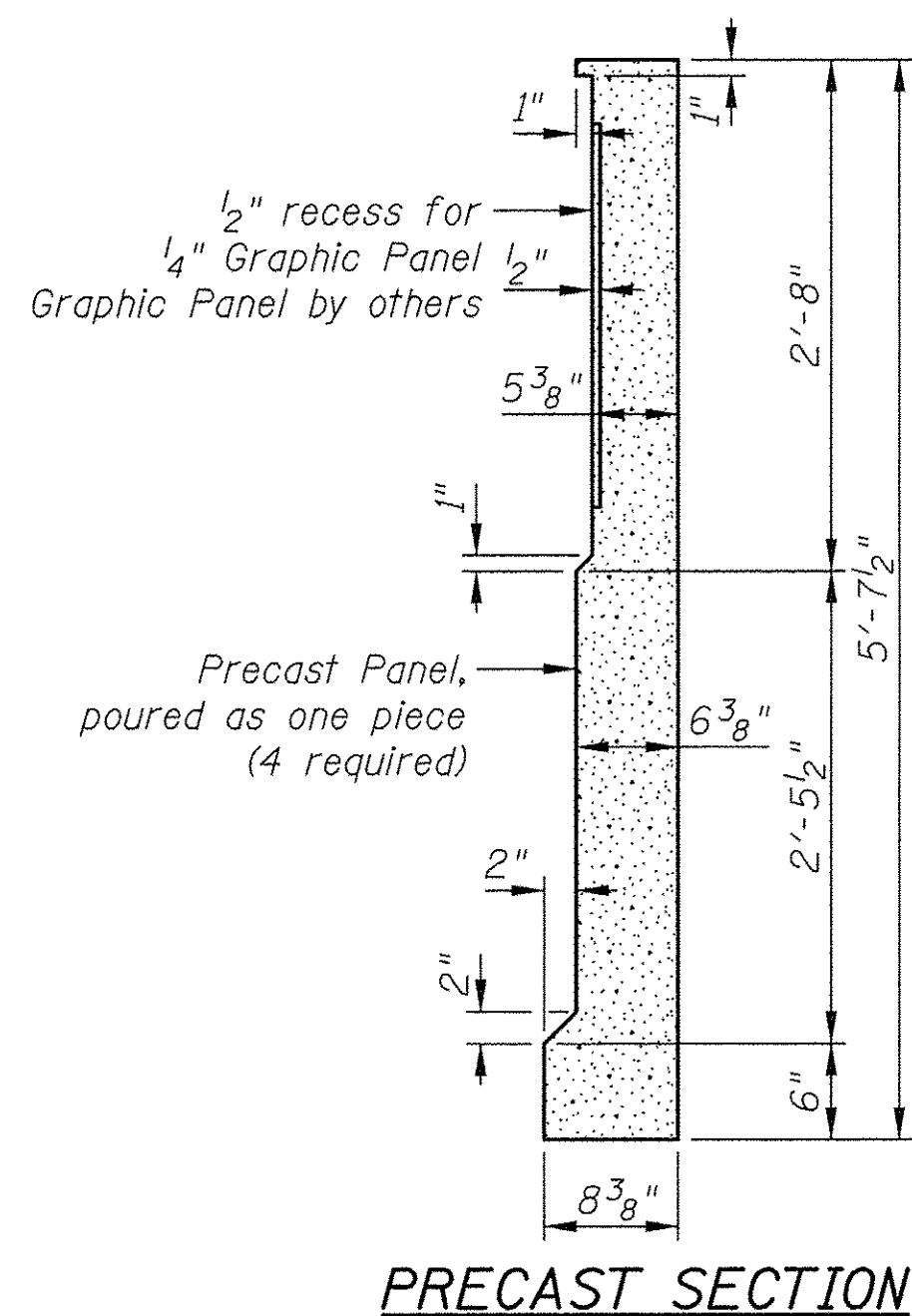
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	43
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Notes:

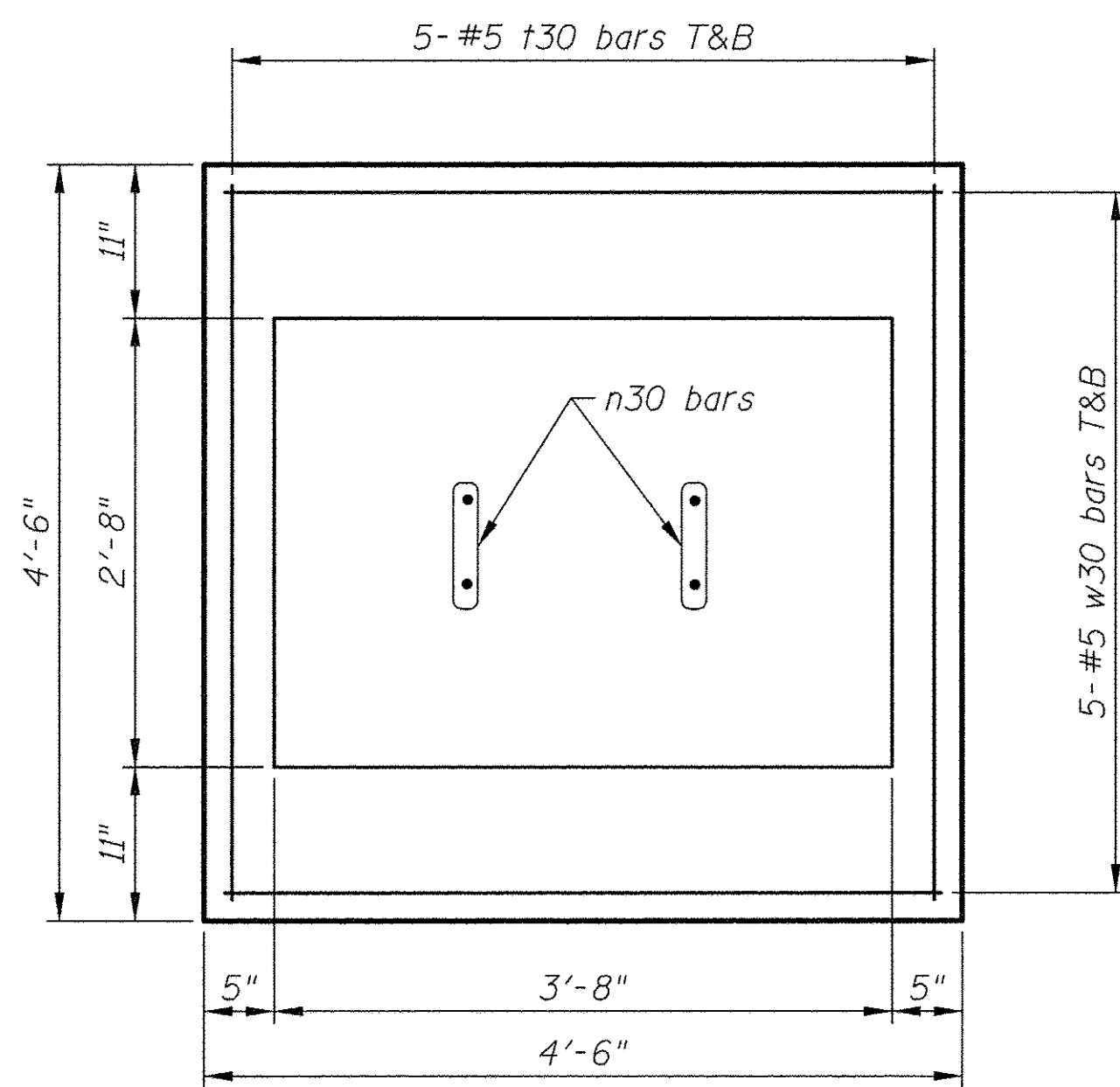
- Center of Entrance Sign location is Station 12+39.98, Offset 8.75' Lt.
- Concrete shall be class "SI". Concrete foundation must be cured for ten days before CMU blocks can be installed.
- Precast attachments shall be drilled and grouted into grouted CMU block wall. Minimum of 4 per panel.
- CMU wall shall conform to the following materials:  
 CMU Block: ASTM C90, Normal Weight - Type I  
 Mortar: ASTM C270 Type S  
 Grout: ASTM C476  
 Joint Reinforcement: ASTM A82, Truss or Ladder Type
- All cells with vertical reinforcement shall be grouted solid.
- All masonry walls shall have horizontal joint reinforcement at 16" OC.
- Min. Splice Length for all vertical reinforcement shall be 48 bar diameters.
- The min. compressive strength of masonry (F'm) shall be 1,500 psi.
- All corners shall be interlocked with metal ties, anchors, or joint reinforcement.
- All masonry units shall be placed with full faceshell mortar coverage on horizontal and vertical face shells. Webs shall also have full mortar coverage around all grouted cells.
- Calcium chloride shall not be used in mortar or grout.
- All precast concrete, cast-in-place concrete, masonry, and reinforcement is included in the cost of Entrance Sign.



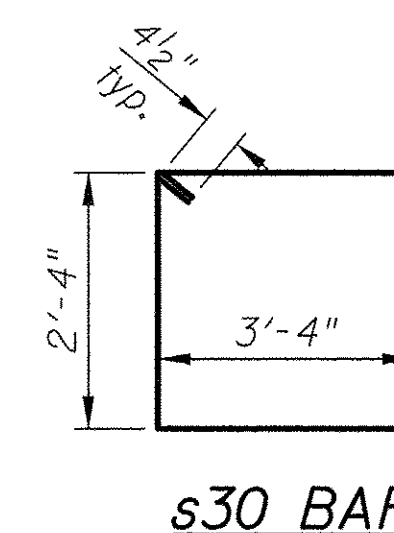
VIEW E-E



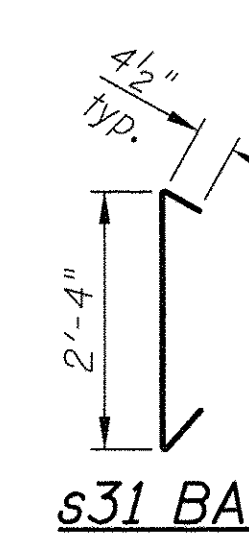
PRECAST SECTION



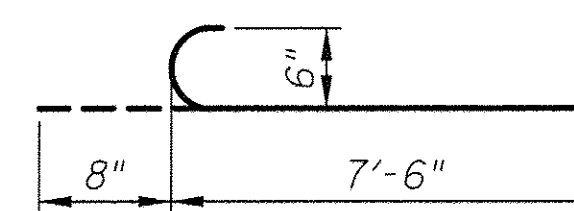
VIEW F-F



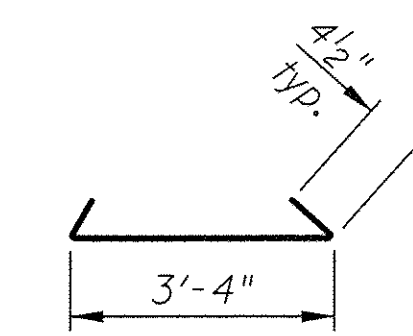
s30 BAR



s31 BAR



n30 BAR



s32 BAR

FOR INFORMATION ONLY

Bar	No.	Size	Length	Shape
s30	5	#4	12'-1"	□
s31	10	#4	3'-1"	└
s32	10	#4	4'-1"	└
n30	4	#6	8'-2"	└
t30	10	#5	4'-2"	—
v30	14	#5	2'-8"	—
v31	4	#6	5'-4"	—
w30	10	#5	4'-2"	—
Item		Unit	Quantity	
Concrete Structures		Cu. Yd.	2.3	
Reinforcement Bars		Pound	300	

BILL OF MATERIAL

Item	Unit	Quantity
Entrance Sign	L. Sum	1

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi  
 fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 4,500 psi  
 fy = 60,000 psi (Reinforcement)

K:\2\3\2015\3\0850 PM\4\2961\road\Struct\0\verlook\06.Entrance Sign\_Details.dgn

Client: Lake County Forest Preserve District

File No. 19846 Date Drilled: 6/25/14

Reference: New Pedestrian Bridge over Metra RR  
Middle Fork Savanna  
Lake Forest, IL

Comments:

Equipment:  CME 45B  CME 55  Hand Auger  Other

**CLASSIFICATION**

Elevation 681.5' Existing Surface

Black silt, some clay, trace sand & roots, damp (topsoil) - Fill

Dark brown-brown silt, some clay, trace sand & roots, damp, very loose - Fill

5 Brown silt, some clay, trace sand, damp, loose to medium dense - Fill

7

10

(a) see below

15 Brown clay, some silt, trace sand & gravel, damp, very tough to hard

20

(b) see below

(c) see below

25 End of Boring

(a) Dark brown silt, some clay, trace sand & roots, damp, loose (topsoil)

(b) Brown fine sand, very damp-saturated, loose

(c) Brown to gray clay, some silt, trace sand & gravel, damp, very tough

35

40

depth, ft.	standard penetration	moisture content	dry unit weight lbs./cu. ft.	unconfined compressive strength				
	X	Δ	γ	○	○	●	X	Δ
					1.0	2.0	3.0	4.0
					10	20	30	40
		45.9						45.9
4		21.0			X		Δ	
9		21.1			X		Δ	
7		19.3			X		Δ	
9		22.4			X		Δ	
10		20.3			X		Δ	
12		27.0	102.6	2.3	X		Δ	
12		21.2			X		Δ	
23		16.4	116.7	5.4			Δ	X
23		16.7	120.7	3.8	X		Δ	○

Water encountered at 23.0 feet during drilling operations (W.D.).  
Water recorded at 23.0 feet on completion of drilling operations (A.D.).  
Water recorded at \_\_\_\_\_ feet \_\_\_\_\_ hours after completion of drilling operations (A.D.).

G-303

4:28:51 PM 12/3/2015 \\22861\cod\struc\07\overlook\07\_soilBorIng.dgn



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DRAWN - JTS  
DESIGNED - MFL  
CHECKED - GJH  
DATE - 12/07/2015

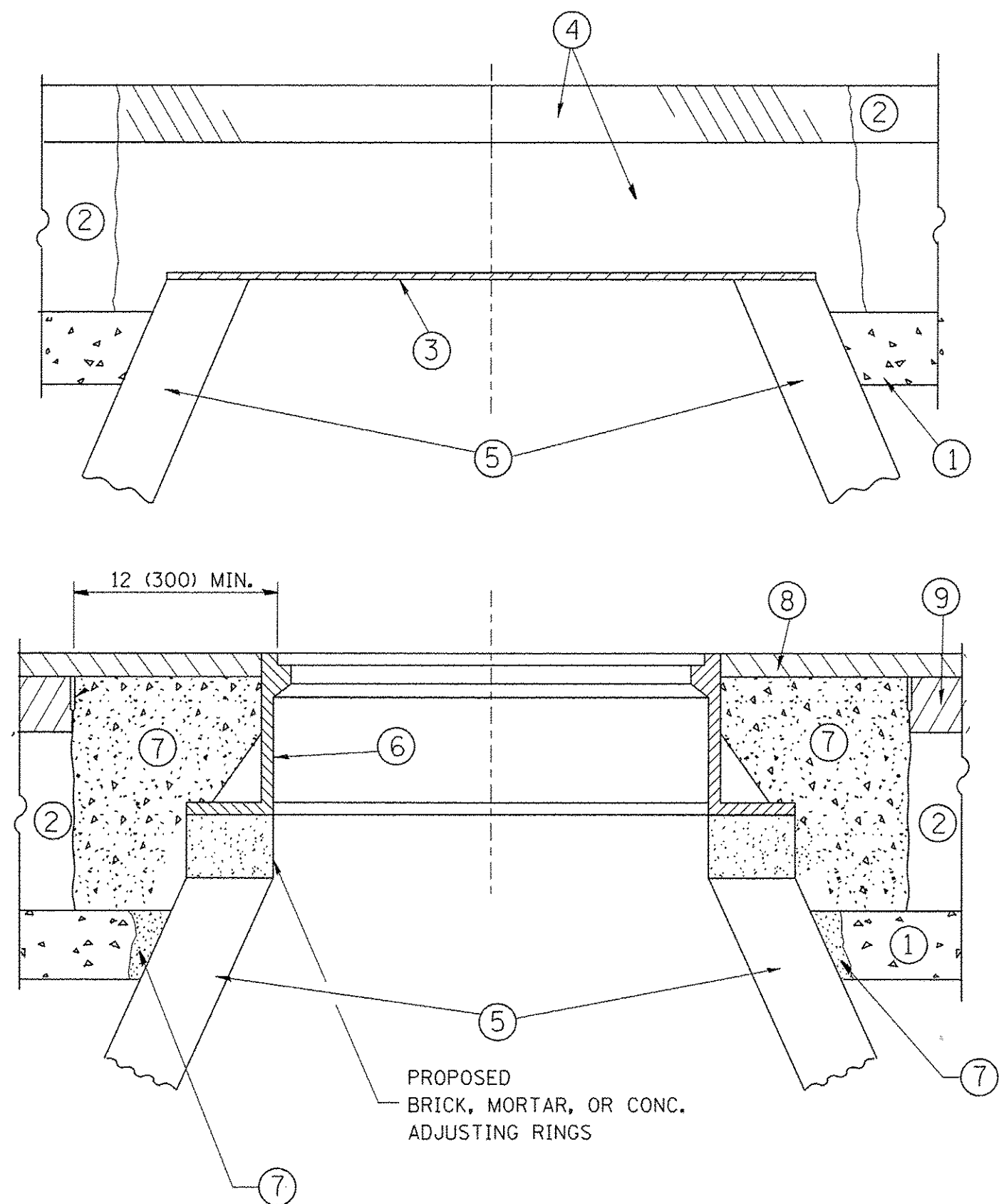
REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS  
MIDDLEFORK SAVANNA TRAIL CONNECTION

SHEET NO. 07 OF 07 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	45
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				



**CONSTRUCTION PROCEDURES**

- STAGE 1 (BEFORE PAVEMENT MILLING)**
- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
  - B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
  - C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
  - D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

- STAGE 2 (AFTER PAVEMENT MILLING)**
- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
  - B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
  - C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1\* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:**

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>	F.A.P. RTE. 0335	SECTION 14-F3000-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 46		
		DRAWN -	REVISED - R. BORO 01-01-07			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>BD600-03 (BD-8)</b>		CONTRACT NO. 61C39	
		PLOT SCALE = 1/8" = 1'-0"	REVISED - R. BORO 03-09-11			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						
		PLOT DATE = 12/6/2011	REVISED - R. BORO 12-06-11									

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001  
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) \*\*

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

\* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

\*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY,

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

**BASIS OF PAYMENT:**

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

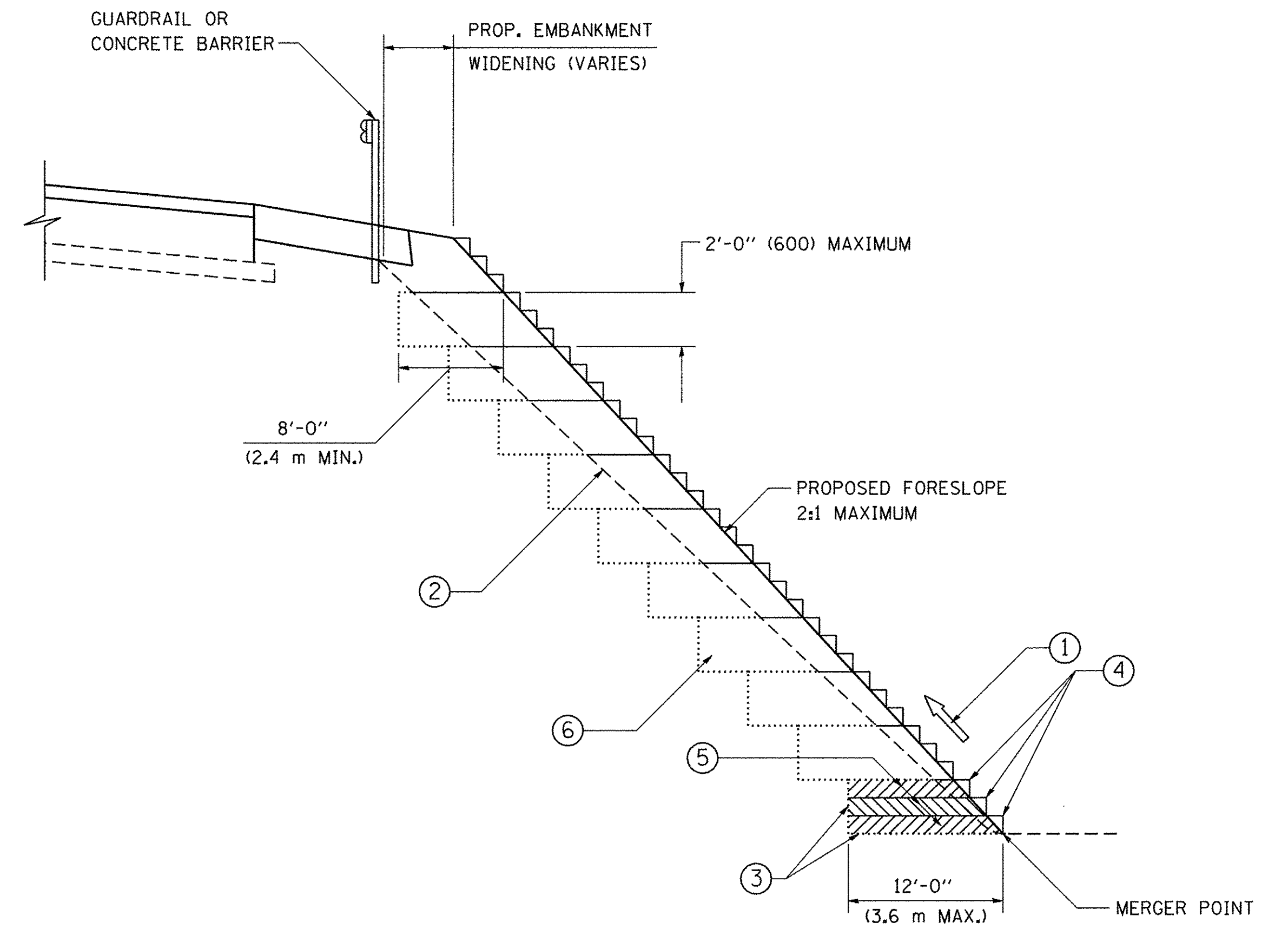
FILE NAME =	USER NAME = drivakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96
c:\pwork\pwork\drivakosgn\0108315\bd24.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01
	PLOT DATE = 12/15/2009	DATE - 03-11-94	REVISED - R. BORO 12-15-09

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CURB OR CURB AND GUTTER  
REMOVAL AND REPLACEMENT**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	47
BD600-06 (BD-24)		CONTRACT NO. 61C39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				



TYPICAL BENCHING DETAIL  
FOR EMBANKMENT

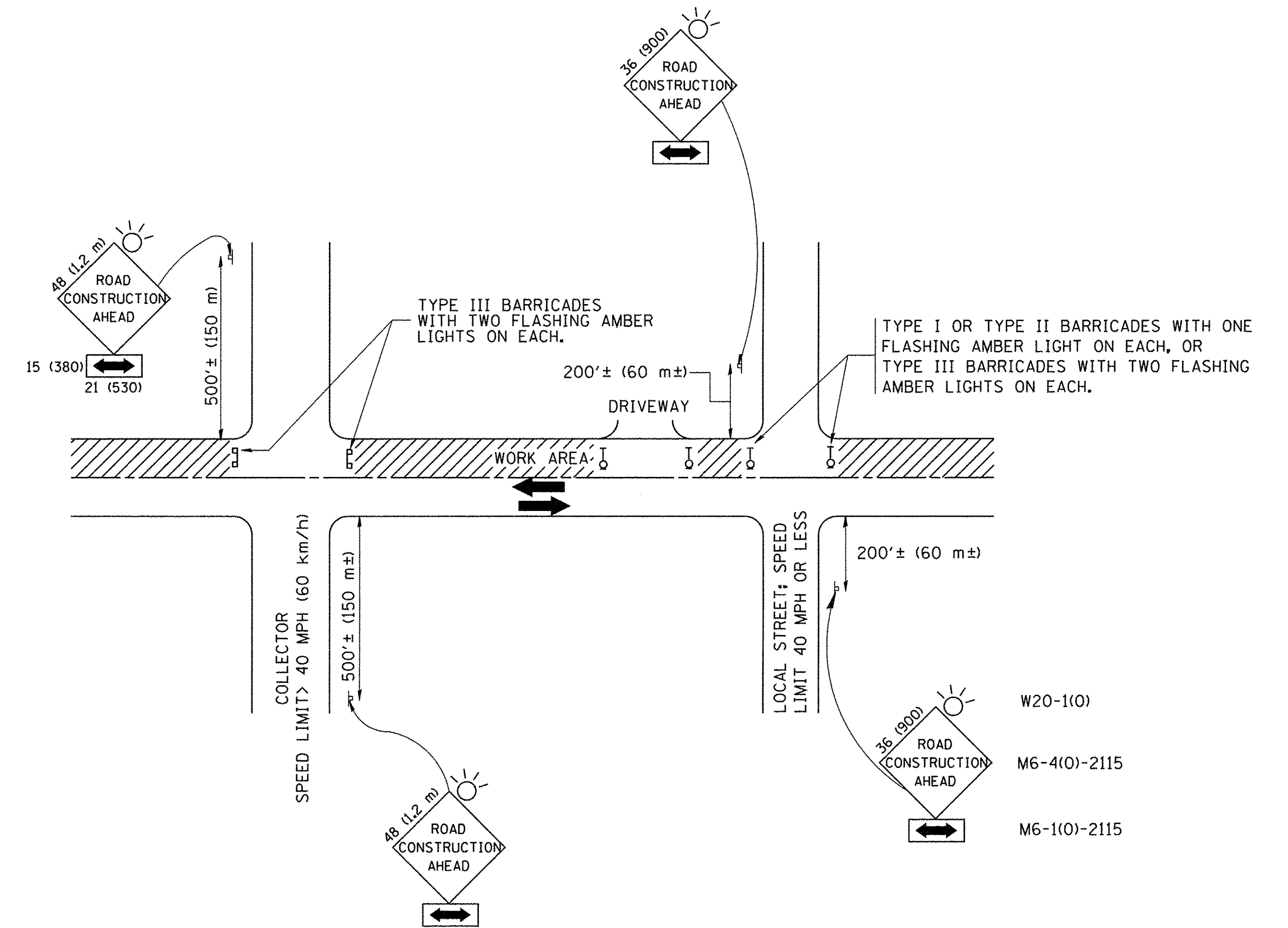
**NOTES:**

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = geglionbt	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BENCHING DETAIL FOR EMBANKMENT WIDENING</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN - CADD	REVISED -					0335	14-F3000-03-BT	LAKE	70	48
	PLOT DATE = 1/4/2008	CHECKED - S.E.B.	REVISED -					<b>BD-51</b>		CONTRACT NO. 61C39		
		DATE - 06-16-04	REVISED -					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT





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

NOTES:

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

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

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

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

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

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

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

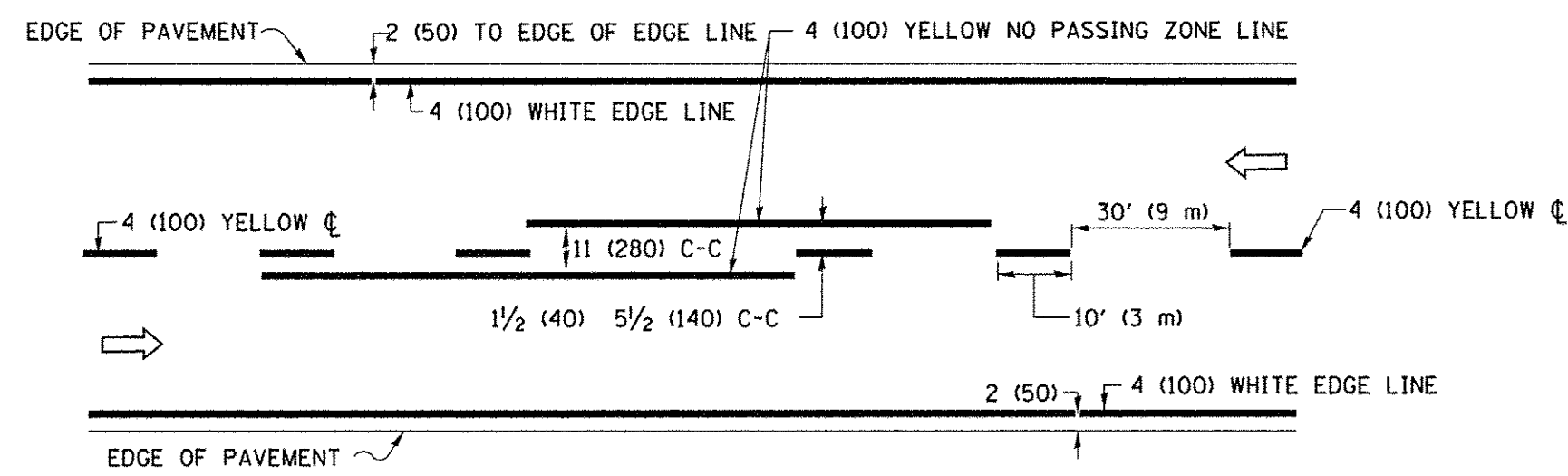
FILE NAME = W:\diststd\22x34\to10.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

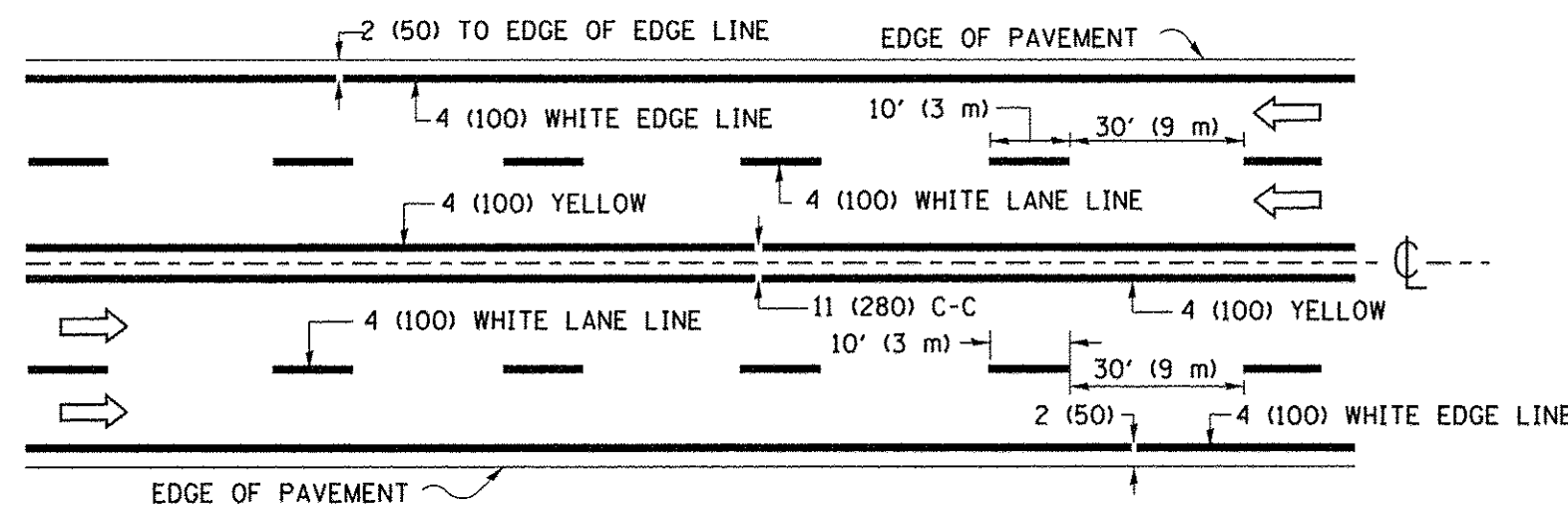
TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE SHEET NO. 01 OF 1 SHEETS STA. TO STA.

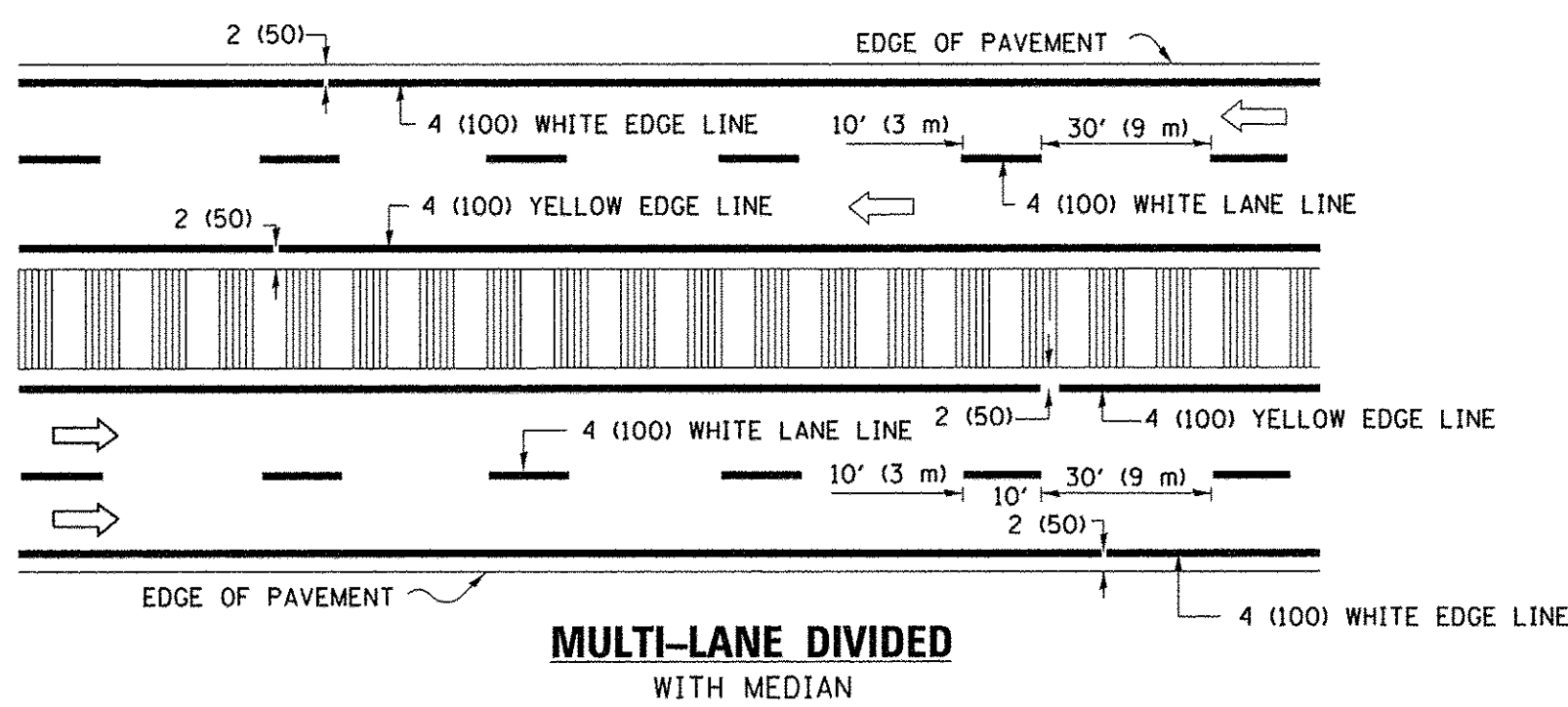
F.A.P. RTE. 0335	SECTION 14-F3000-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 49
TC-10			CONTRACT NO. 61C39	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



**2-LANE ROADWAY**

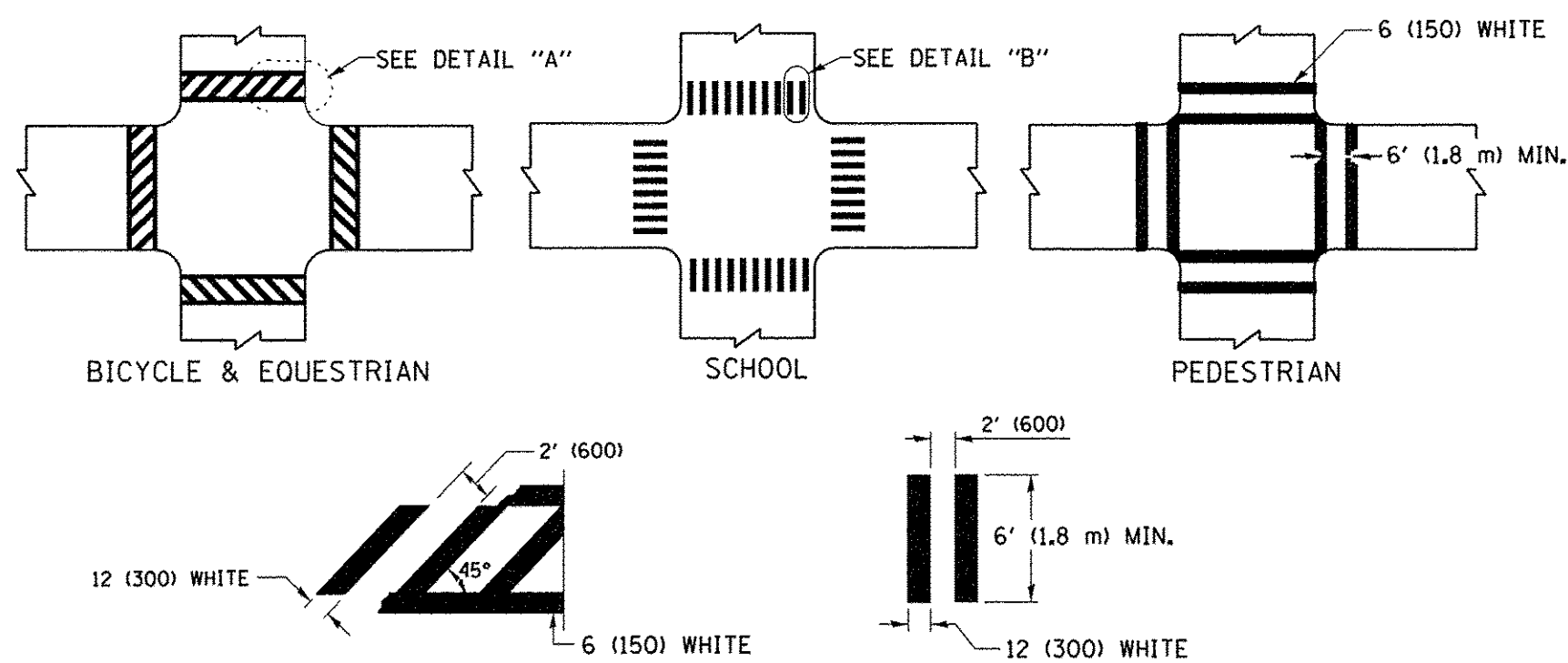


**MULTI-LANE UNDIVIDED**



**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

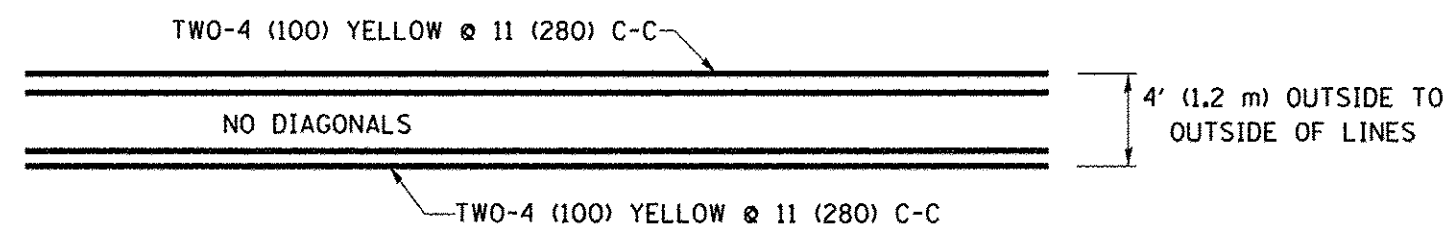


**DETAIL "A"**

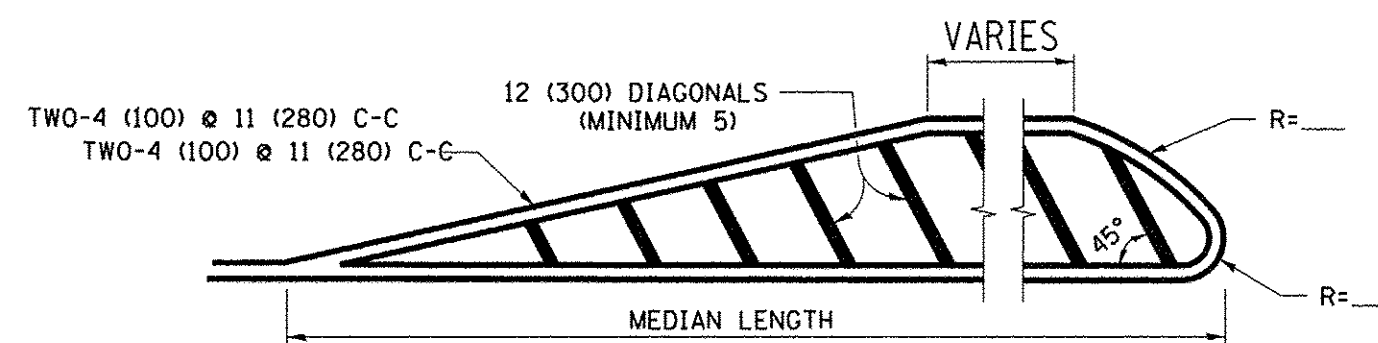
**DETAIL "B"**

**TYPICAL CROSSWALK MARKING**

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

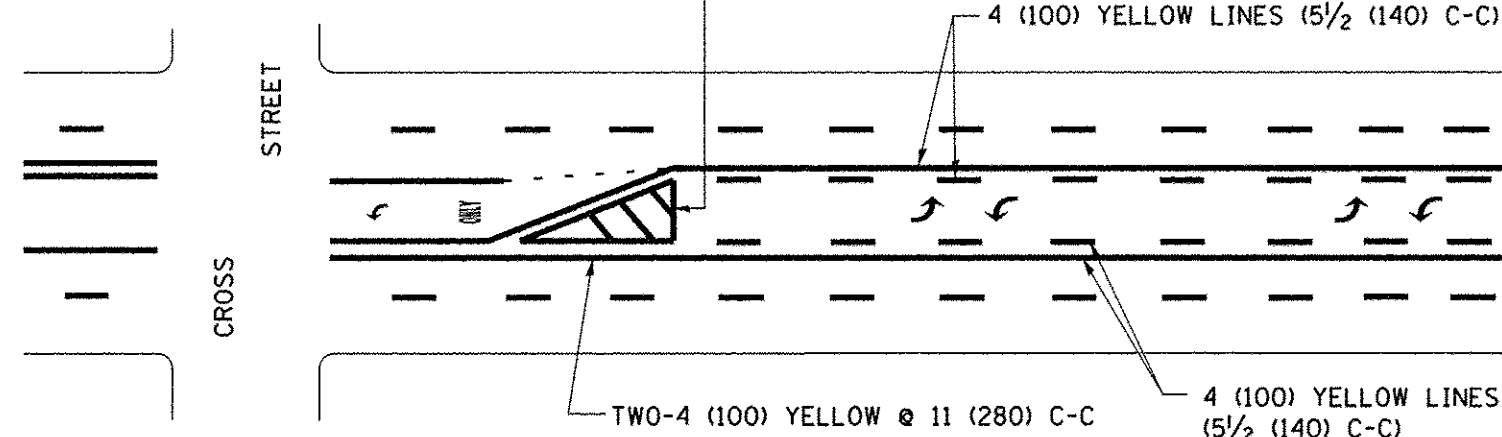


**4' (1.2 m) WIDE MEDIANS ONLY**



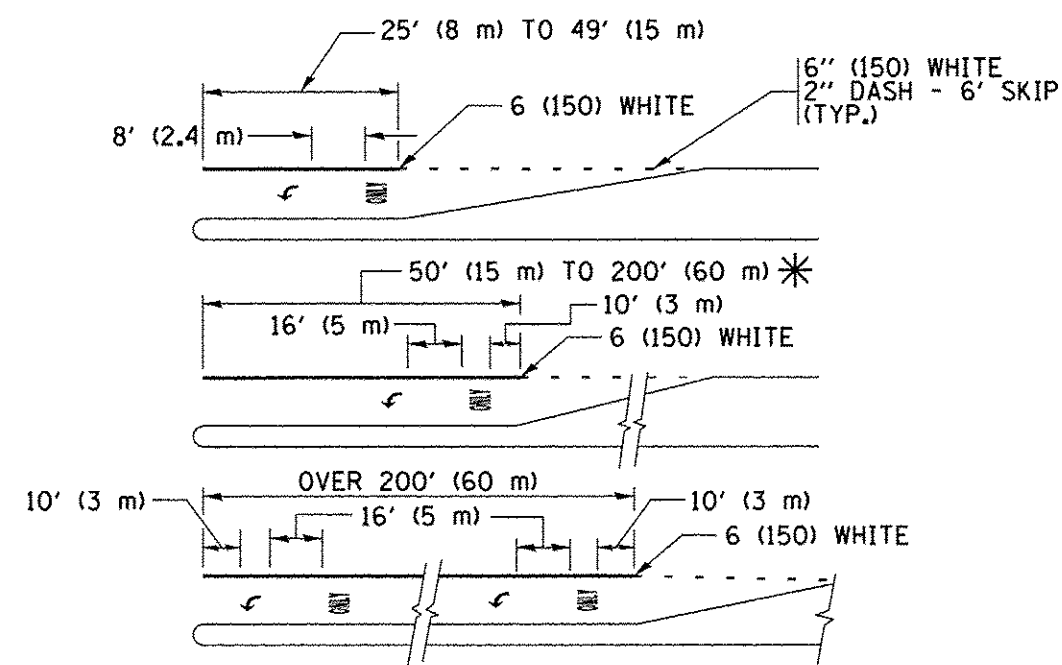
**MEDIANS OVER 4' (1.2 m) WIDE**

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



**MEDIAN WITH TWO-WAY LEFT TURN LANE**

**TYPICAL PAINTED MEDIAN MARKING**

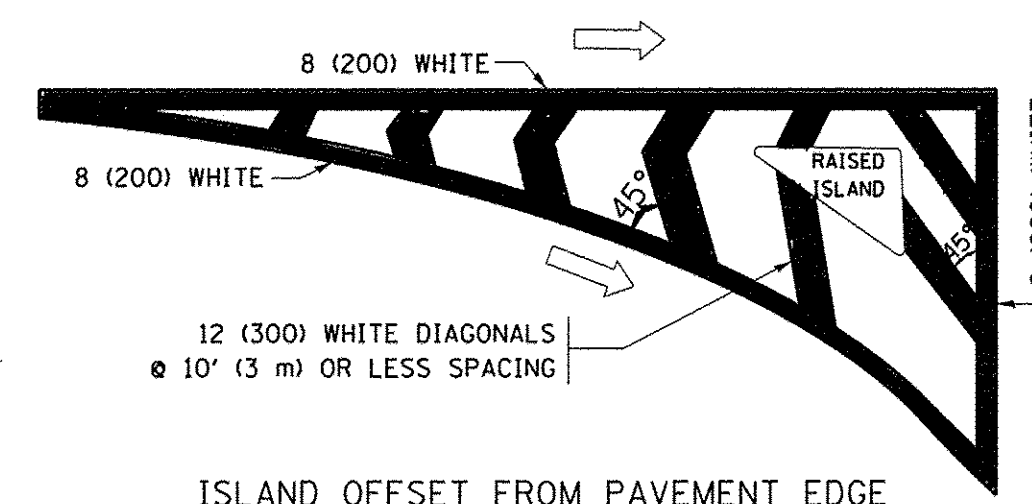


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

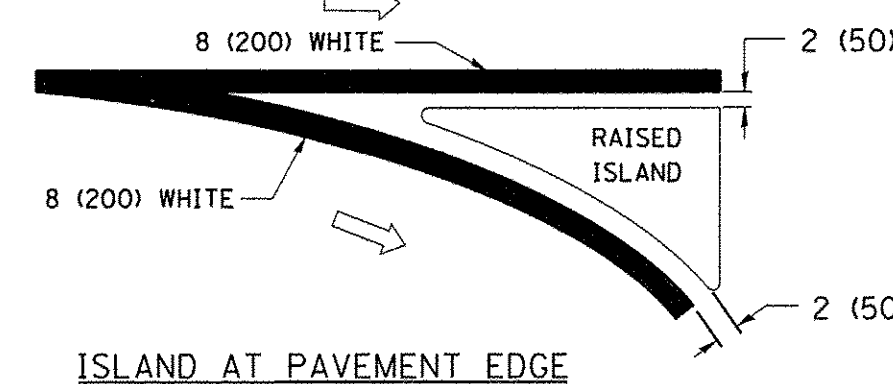
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

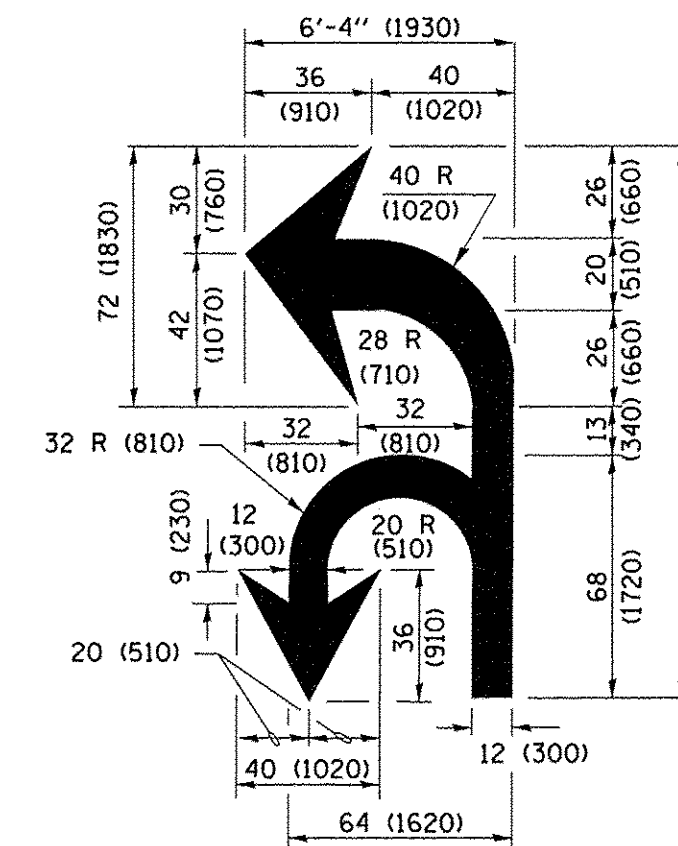


**ISLAND OFFSET FROM PAVEMENT EDGE**

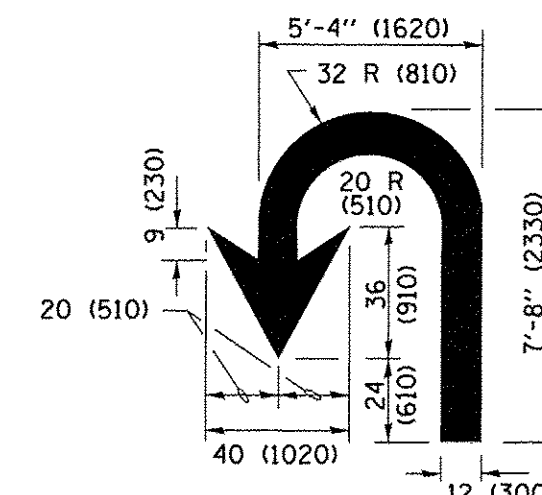


**ISLAND AT PAVEMENT EDGE**

**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

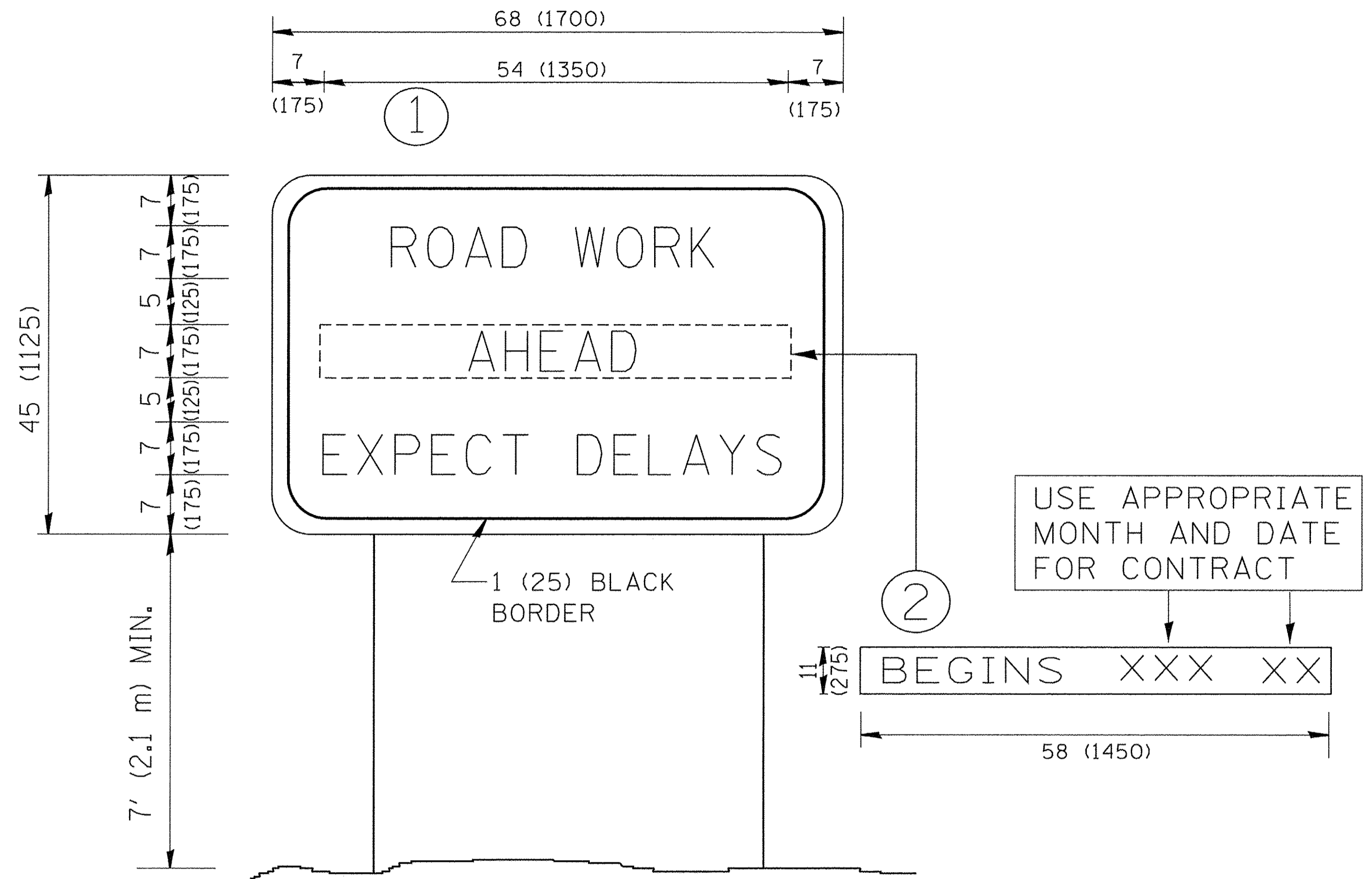
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
PH:\IL084EBID\INTEG\Illinois.gov\PIWIDOT\Documents\100T_Offices\District 1\Projects\Dist 1\DRAWN\CADData\CADsheets\to13.dgn		CHECKED -	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 50.000 "/ in.	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 4/13/2016		REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE TYPICAL PAVEMENT MARKINGS</b>			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.P RTE. 0355	SECTION 14-F3000-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 50
<b>TC-13</b>			CONTRACT NO. 61C39	
ILLINOIS FED. AID PROJECT				



**NOTES:**

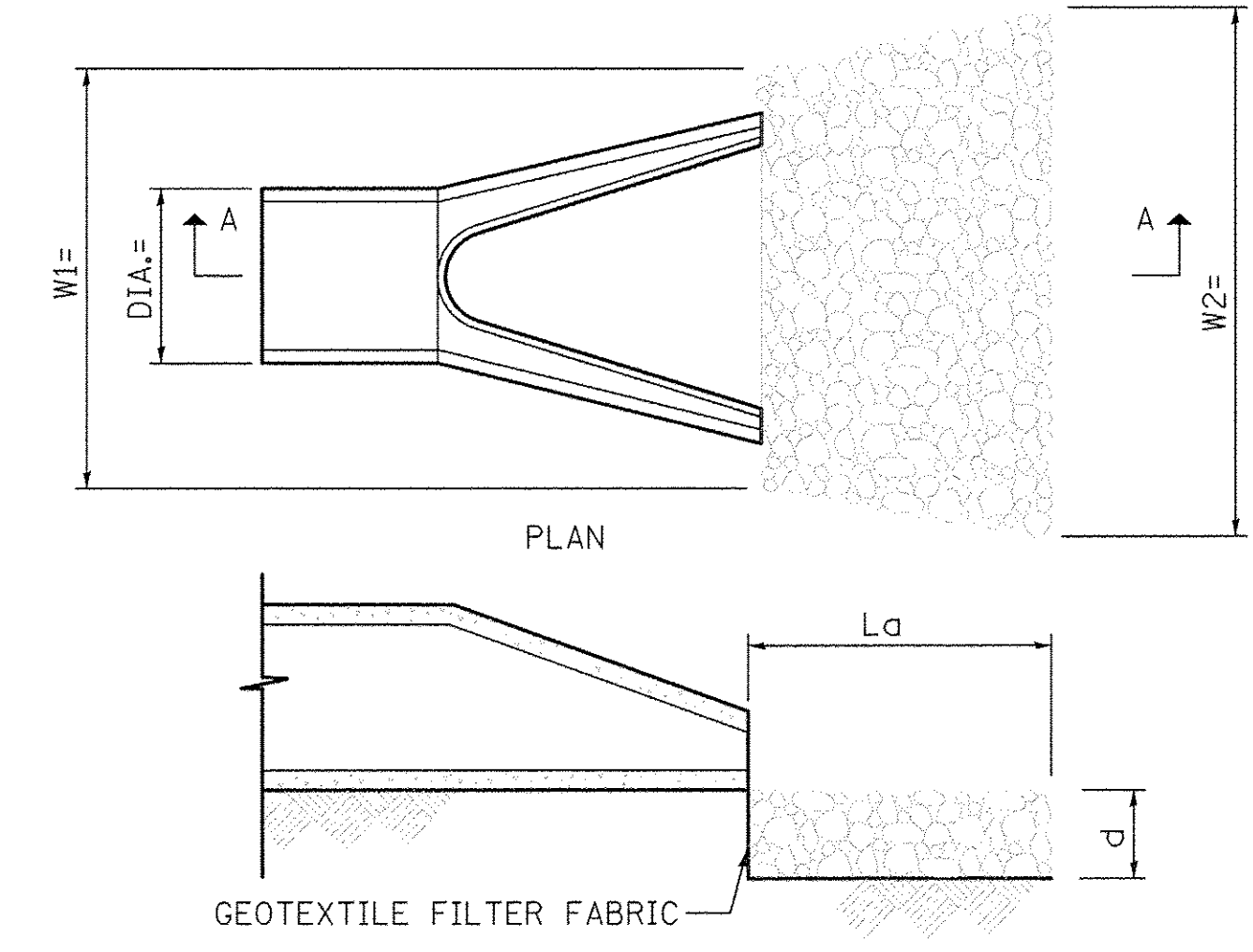
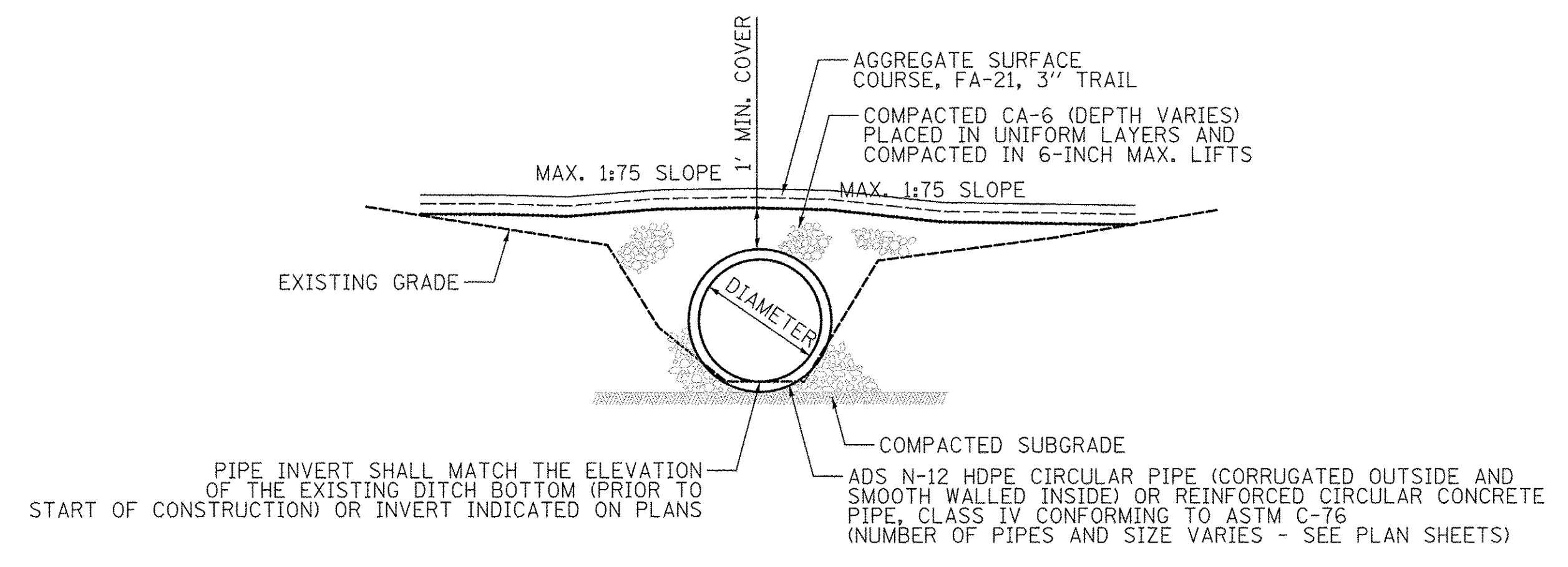
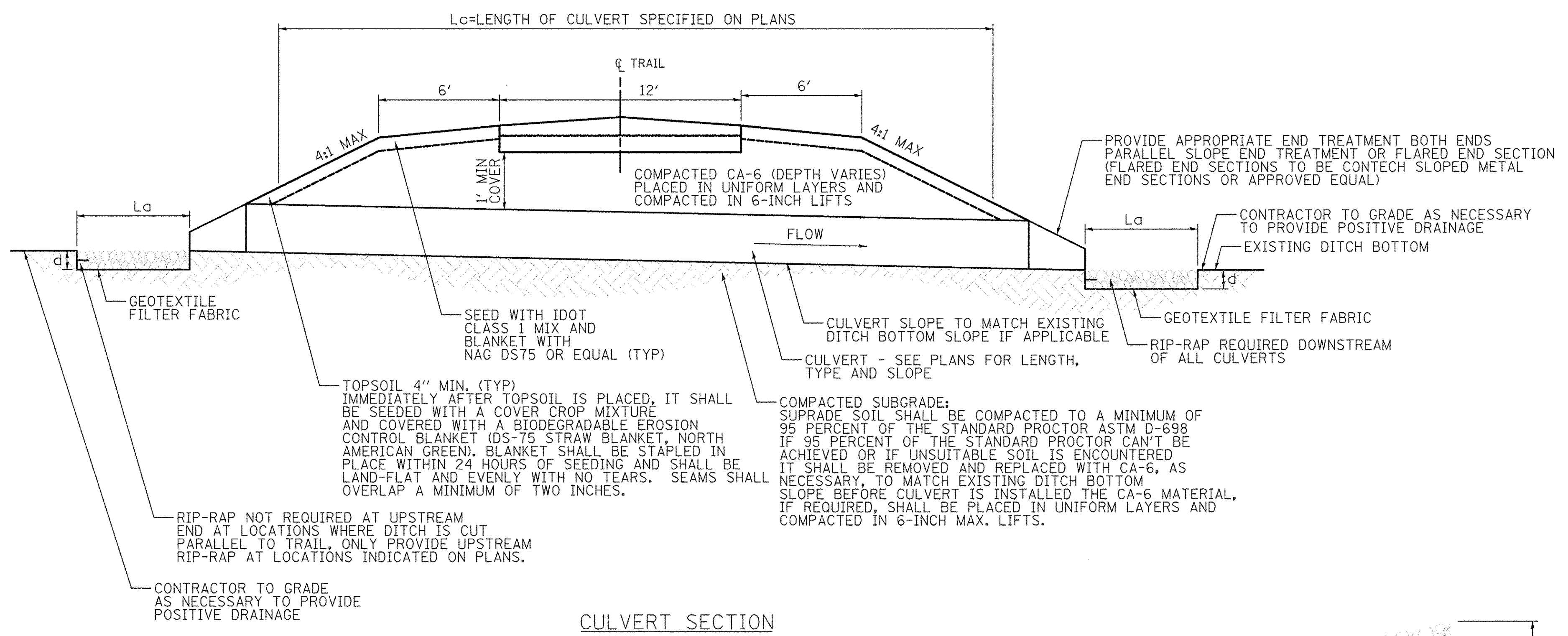
1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.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

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

FILE NAME = W:\diststd\22x34\to22.dgn	USER NAME = geglianobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97 REVISED - R. MIRS 12-11-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>			F.A.P. RTE. = 0335	SECTION 14-F3000-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 51
	PLOT SCALE = 50.000 "/ IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>TC-22</b>		CONTRACT NO. 61C39	
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

DATE	
BY	
SURVEYED	
PLANNED	
NOTED	
NO.	

DATE	
BY	
SURVEYED	
PLANNED	
NOTED	
NO.	



DIA. (Inches)	Lc(fft)	W1 (Inches)	W2 (fft)	RIP-RAP SIZE	d (Inches)	VOLUME(cy)
12	10	36	11	8"-12"	12	2.6
15	12	45	13.2	8"-12"	12	3.8
18	14	54	15.5	8"-12"	12	5.2

- NOTES**
- CULVERTS TO BE INSTALLED TO MATCH EXISTING DITCH BOTTOM SLOPE. MINIMUM 0.5% SLOPE OR SLOPE AND INVERTS INDICATED ON PLAN SHEET.
  - HDPE CULVERTS SHALL BE INSTALLED AS SPECIFIC BY THE MANUFACTURER WITH APPROPRIATE FLARED END SECTION SECURELY ANCHORED IN-PLACE WITH PE THREADED ROD WITH WING NUTS FOR END SECTIONS 12"-24" AND WELDED TO PIPE FOR END SECTION LARGER THAN 24" PER MANUFACTURER'S SPECIFICATIONS.
  - JOINTS FOR HDPE PIPE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
  - JOINTS FOR CONCRETE PIPE SHALL TYPICALLY BE A TROWEL APPLIED BITUMINOUS MASTIC COMPOUND IN ACCORDANCE WITH ASTM C-76.
  - RIP-RAP SHALL BE INSTALLED AT ALL CULVERT LOCATIONS PER RIP-RAP AT FLARED END END SECTION DETAIL.
  - CONTRACTOR TO PROVIDE PROPER DITCH TRANSITIONS PER DETAIL.
  - ALL DISTURBED DITCH BOTTOMS AND SIDE SLOPES SHALL BE COMPACTED TO A MINIMUM 95% OF STANDARD PROCTOR.

**COVER CROP SEED MIX**

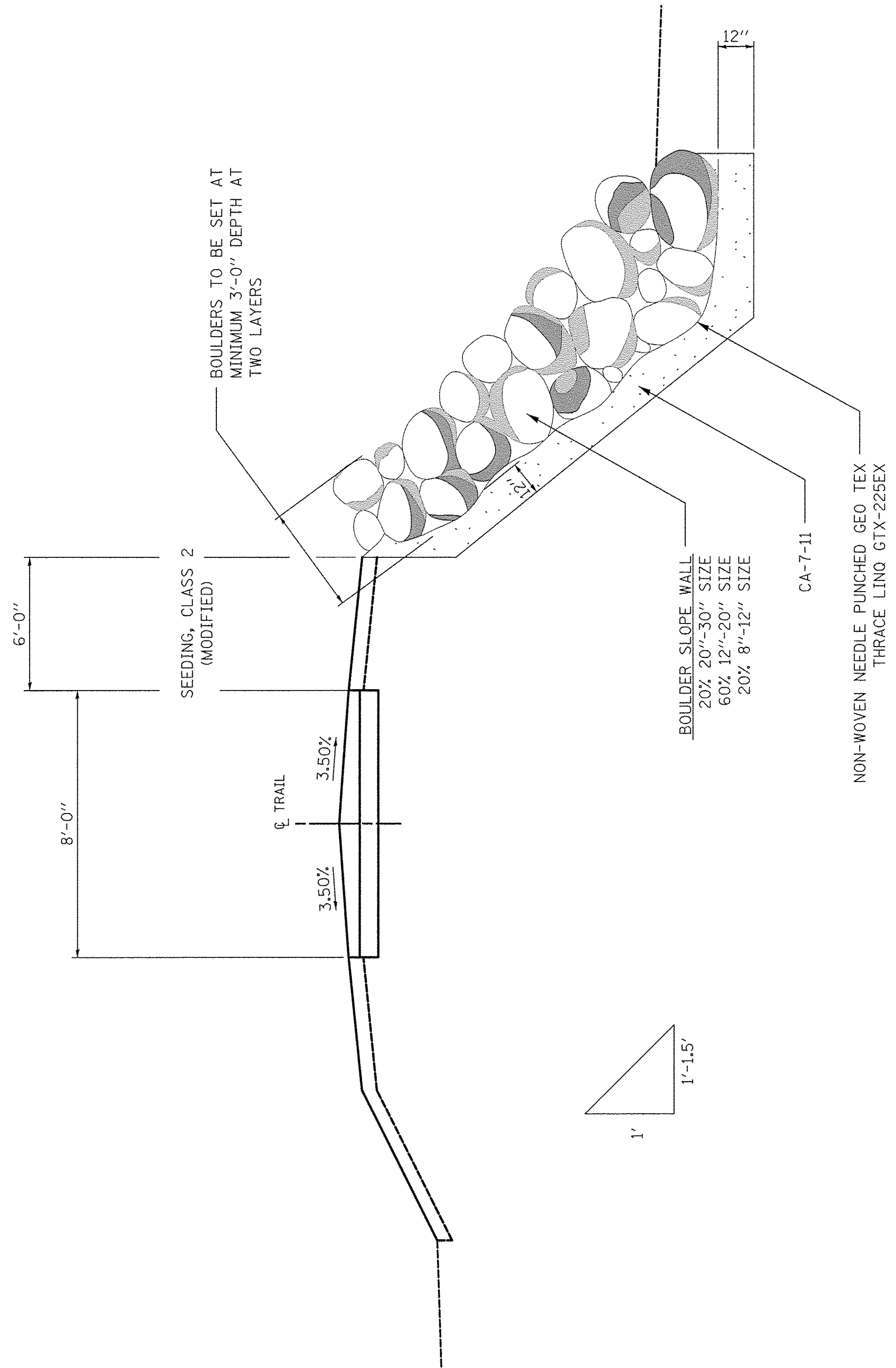
SEED	LBS./ACRE
AVENA SATIVA	30
AGROPYRON SMITTHII	4
ANDROPOGON SCOPARIUS	3
ELYMUS CANADENSIS	5
ASTER AZUREUS	0.12
MONDARDA FISTULOSA	0.252
PENSTOMEN DIGITALUS	0.252
POTENTILLA ARGUTA	0.252
RATIBIDA PINNATA	0.248
RUDBECKIA HIRTA	0.248

- NOTES:**
- ABOVE TABLE FOR PIPE OUTLET TO FLAT AREA WITH NO WELL DEFINED EXISTING OR PROPOSED CHANNEL OR DITCH.
  - FOR PIPE OUTLET TO AREAS WITH EXISTING OR PROPOSED WELL DEFINED CHANNEL OR DITCH THE RIP-RAP SHALL EXTEND ACROSS THE DITCH BOTTOM AND UP THE DITCH SIDE SLOPES TO TOP OF CULVERT ELEVATION FOR LENGTH, Lc SHOWN IN TABLE ABOVE.
  - THE FILTER FABRIC SHALL MEET THE REQUIREMENTS IN MATERIAL SPECIFICATIONS 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, II, III.
  - RIP-RAP SHALL BE IN ACCORDANCE WITH ARTICLE 281.04A OF THE STANDARD SPECIFICATIONS FOR STONE RIPRAP WITH THE FOLLOWING EXCEPTIONS. THE RIPRAP SHALL BE EIGHT (8) TO TWELVE (12) INCHES IN DIAMETER MINIMUM FIELD STONE COBBLES. LIMESTONE RIPRAP IS NOT ACCEPTABLE. SAMPLES OF SPECIFIED MATERIAL SHALL BE SUBMITTED FOR APPROVAL TO THE OWNER PRIOR TO DELIVERY AND PLACEMENT. THE FURNISHED MATERIAL SHALL BE FROM THELEN SAND AND GRAVEL - ANTIOCH QUARRY (847-395-3313) OR APPROVED EQUAL.

**RIP-RAP AT FLARED END SECTION**

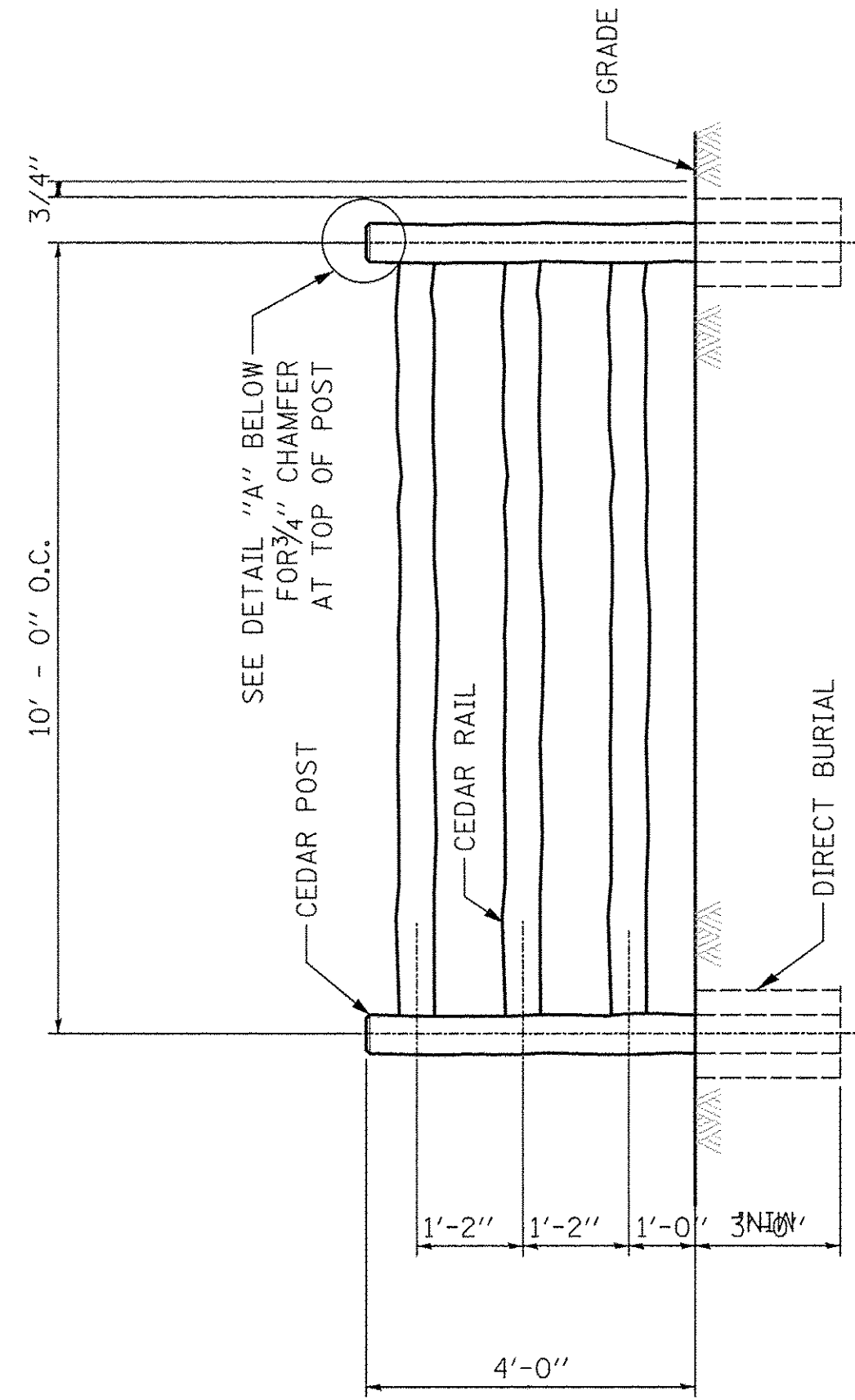
PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	NO. OF SHEETS		
	NO. CHECKED		
	DATE		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	NO. OF SHEETS		
	NO. CHECKED		
	DATE		
	FILE NAME		

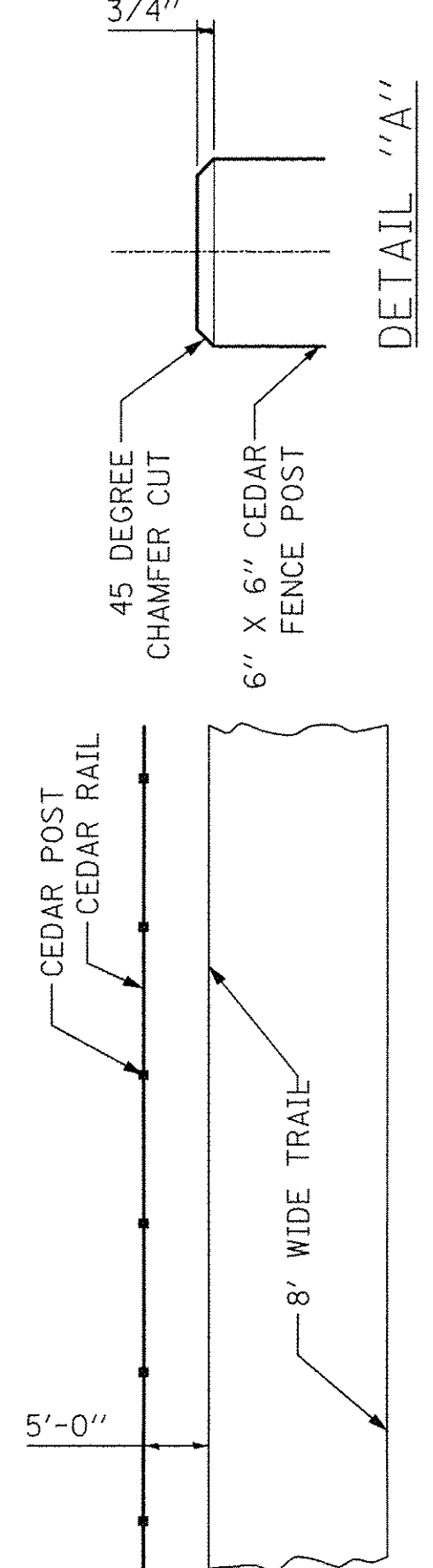


RETAINING WALL, SPECIAL

NOTES:  
1. ENGINEER RESERVES RIGHT TO ADJUST AND CHANGE BOULDER PLACEMENT TO ACCOMMODATE DESIRED APPEARANCE.



ELEVATION CEDAR SPLIT RAIL FENCE (3-RAIL)



PLAN ALONG TRAIL

DETAIL "A"

NOTES:  
1. CONTRACTOR SHALL SUBMIT AND PROVIDE DATA FOR FENCE POSTS, RAILS, MESH.  
2. PRIOR TO INSTALLATION OF THE FENCE, SAMPLES OF THE POSTS, RAILS, AND ALL ACCESSORIES SHALL BE PROVIDED TO THE A/E FOR APPROVAL.

FENCE DETAILS  
N.T.S.



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS**

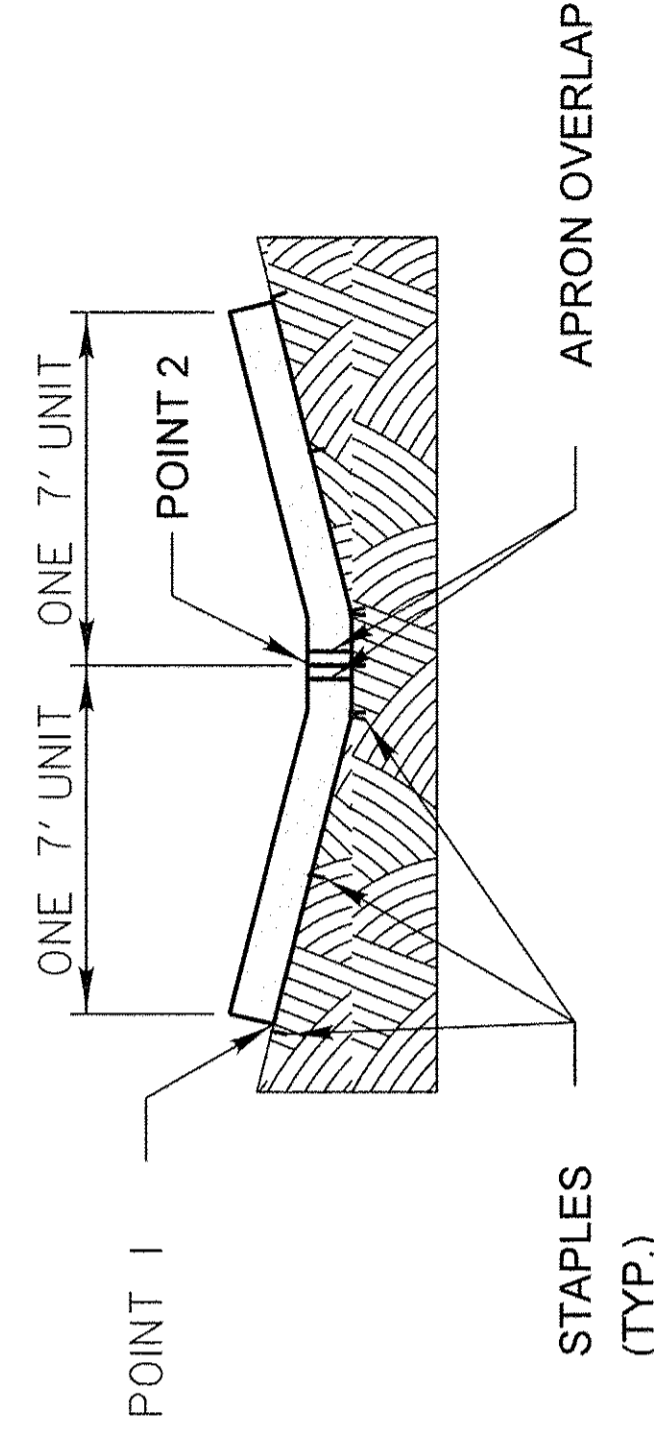
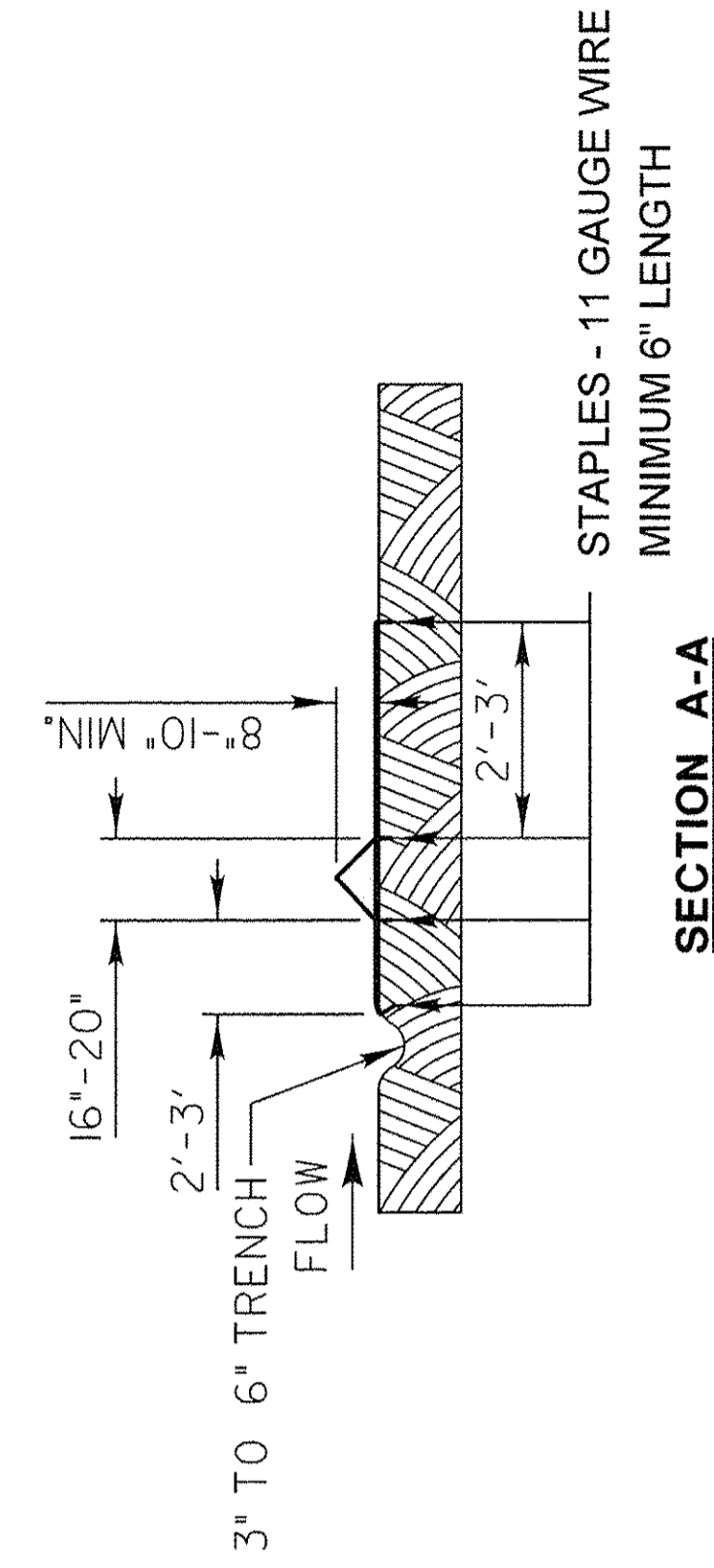
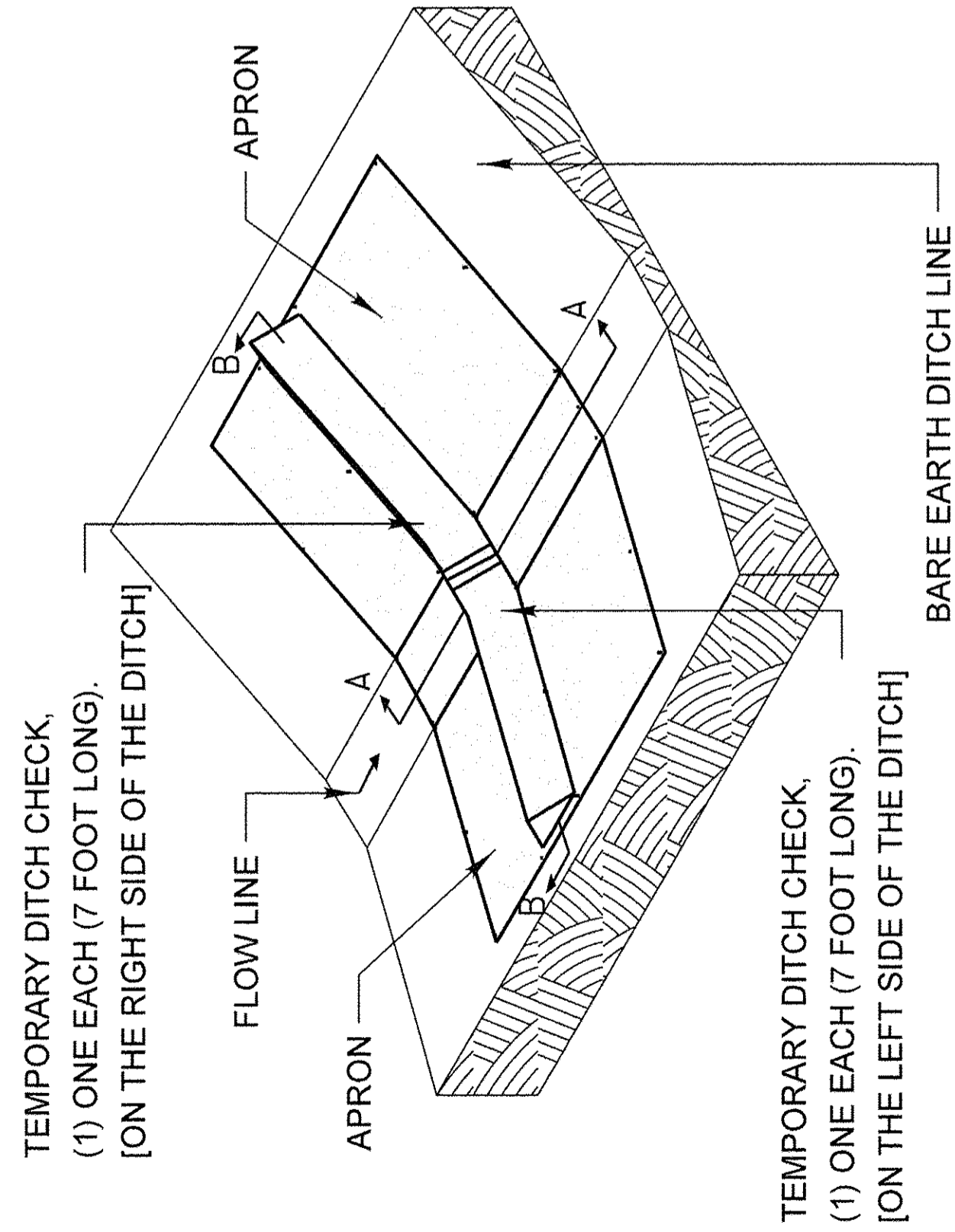
SHEET NO. 2 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F3000-03-BT	LAKE	70	53
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	FIELD FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		

# FOR BARE EARTH APPLICATION ONLY



### SILT DIKE UNIT ISOMETRIC

NOTES:  
 THE TEMPORARY DITCH CHECK SHALL BE USED IN BARE EARTH DITCH LINES AND SHALL BE REMOVED JUST PRIOR TO THE INSTALLATION OF EROSION CONTROL BLANKET AND SEEDING.

THE INSTALLATION SHOWN WILL BE MEASURED AND PAID FOR AS A TEMPORARY DITCH CHECK 14 FEET IN LENGTH.

STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE 7' UNIT AS SHOWN ON THE DIAGRAM.

POINT 1 MUST BE HIGHER THAN POINT 2 TO INSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

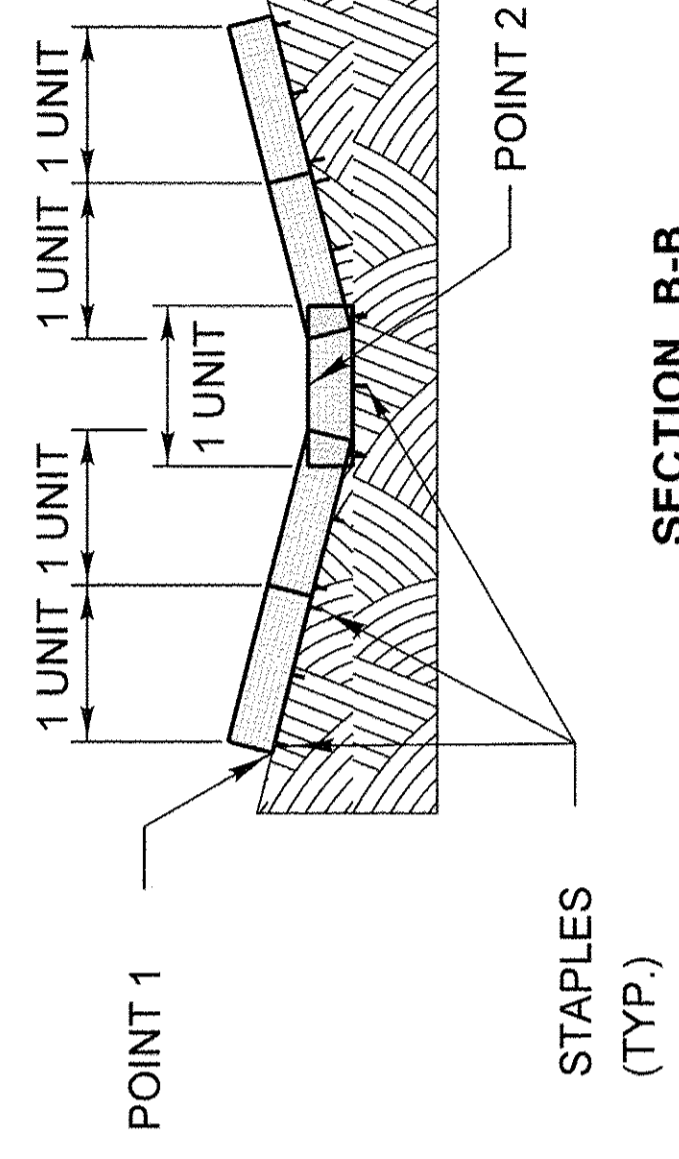
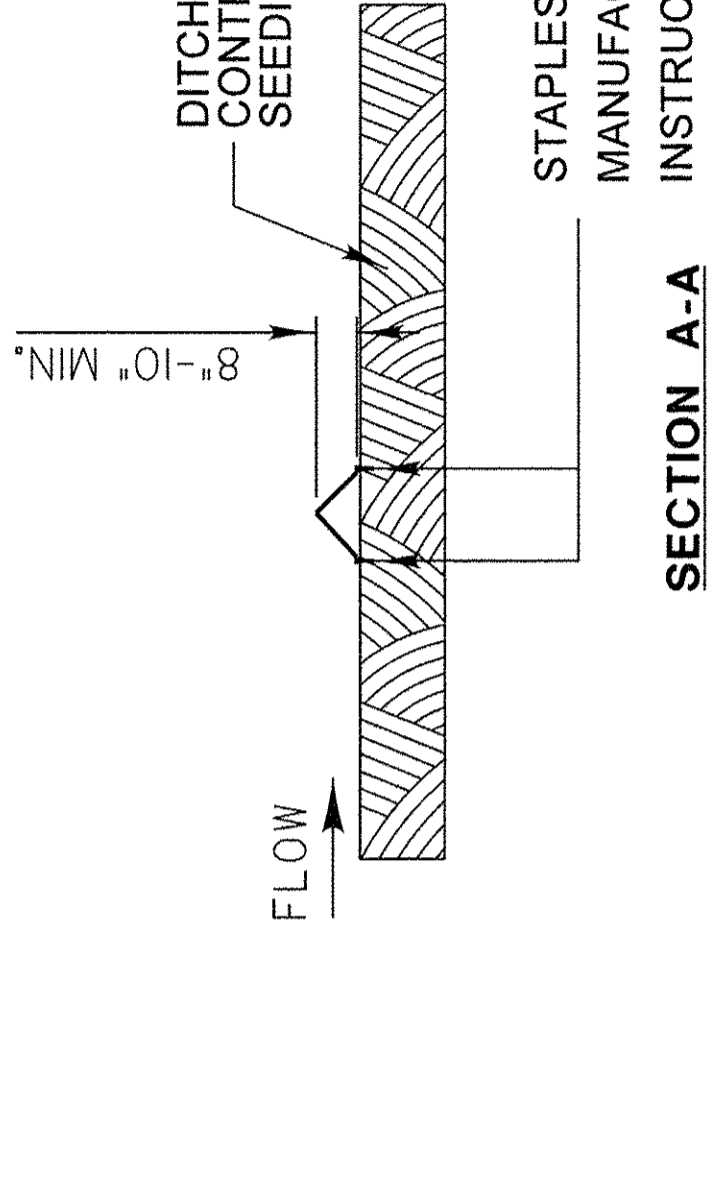
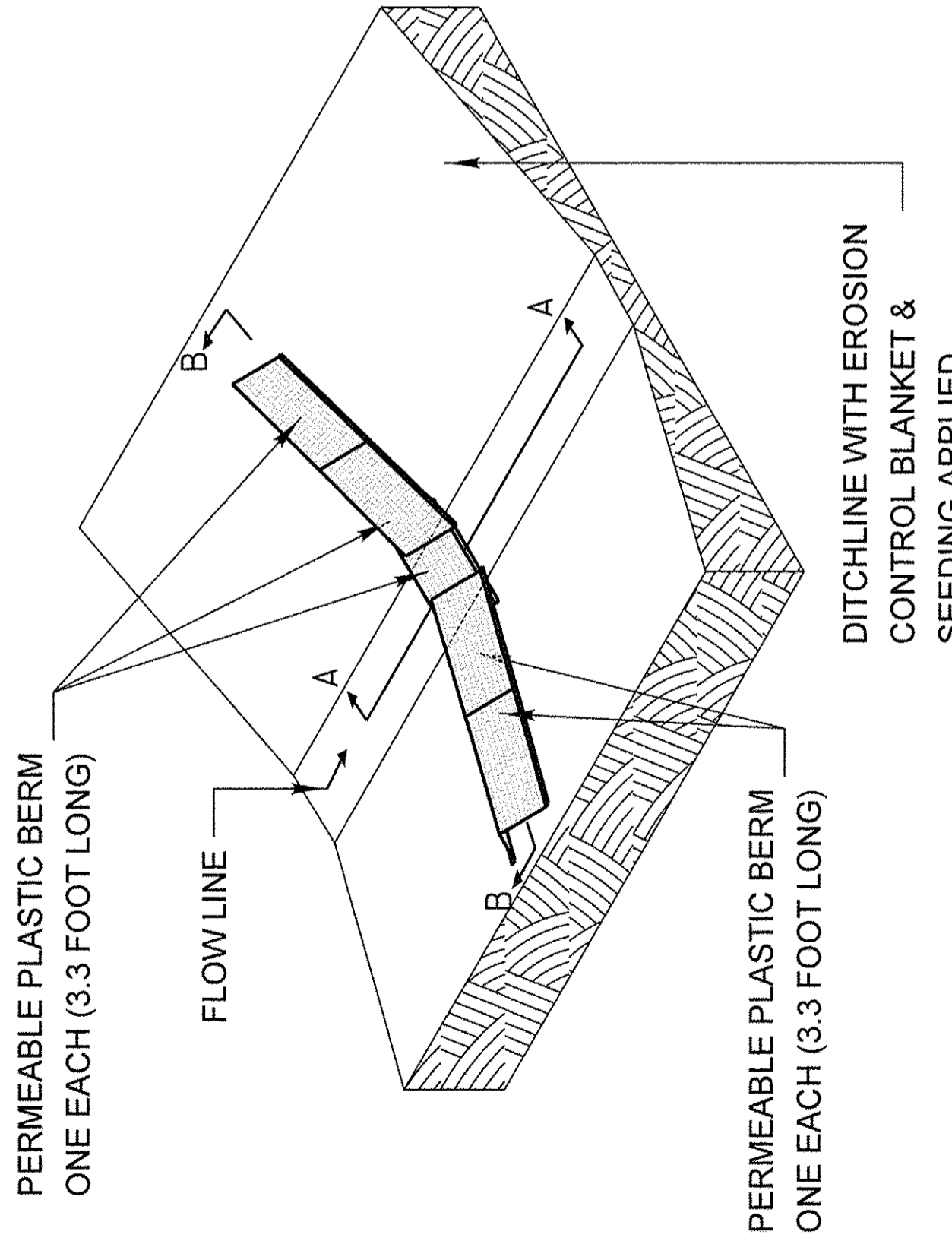
REVISIONS		DATE	APPROVED BY: M. G. ZEMAITIS
ADDED DIMENSIONS	04/11/08		DATE: APRIL 1, 2007
REVISED PAY ITEM	04/15/10		
ADDED PLASTIC BERM (pg2)	10/10/12		

## TEMPORARY DITCH CHECK INSTALLATION FOR ROADWAY OR DRAINAGE DITCH

(SHEET 1 OF 2)

LC2050

# FOR USE WHILE ESTABLISHING FINAL LANDSCAPING



### PERMEABLE PLASTIC BERM ISOMETRIC

NOTES:  
 THE PERMEABLE PLASTIC BERM SHALL REPLACE THE TEMPORARY DITCH CHECK AFTER THE INSTALLATION OF EROSION CONTROL BLANKET AND SEEDING.

EACH PERMEABLE PLASTIC BERM IS 3.3 FEET IN LENGTH. THE MINIMUM INSTALLATION IN A DITCH SHALL BE THREE UNITS. THE INSTALLATION SHOWN WILL BE MEASURED AND PAID FOR AS A PERMEABLE PLASTIC BERM 16.5 FEET IN LENGTH (5 UNITS).

STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

POINT 1 MUST BE HIGHER THAN POINT 2 TO INSURE THAT WATER FLOWS THROUGH OR OVER THE BERM AND NOT AROUND THE ENDS.

REVISIONS		DATE	APPROVED BY: M. G. ZEMAITIS
ADDED DIMENSIONS	04/11/08		DATE: APRIL 1, 2007
REVISED PAY ITEM	04/15/10		
ADDED PLASTIC BERM (pg2)	10/10/12		

## TEMPORARY DITCH CHECK INSTALLATION FOR ROADWAY OR DRAINAGE DITCH

(SHEET 2 OF 2)

LC2050

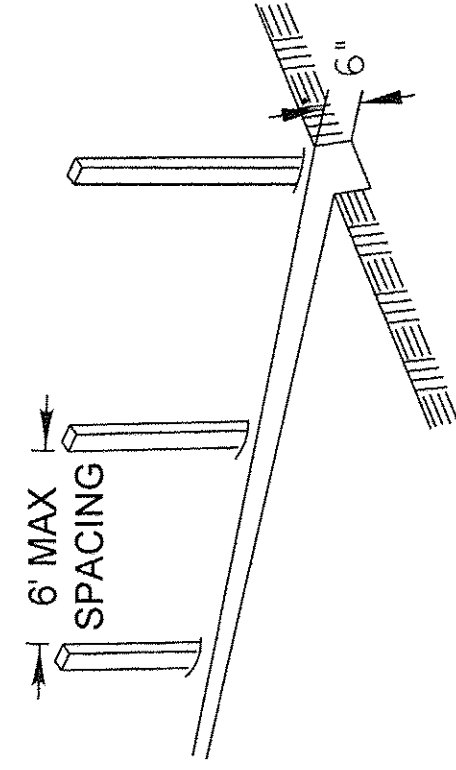
DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

F.A.P. RTE. 0335	SECTION 14-F300P03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 54
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

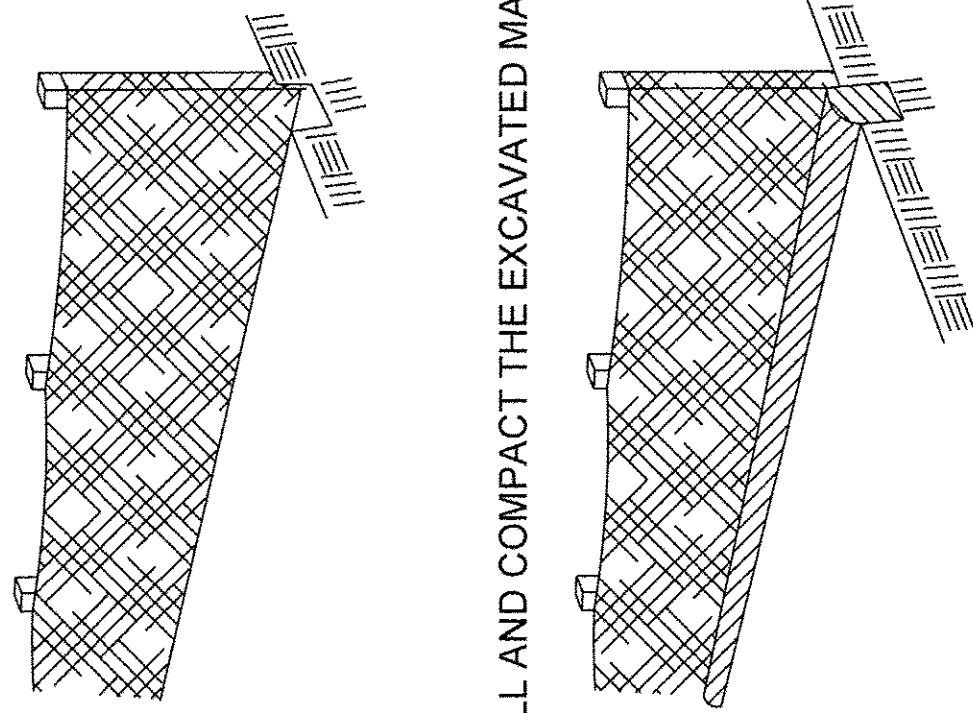
PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	CHECKED		
	BY		
	DATE		
	NO. OF WAY CHECKED		
	PAYD. FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	CHECKED		
	BY		
	DATE		
	NO. OF WAY CHECKED		
	PAYD. FILE NAME		

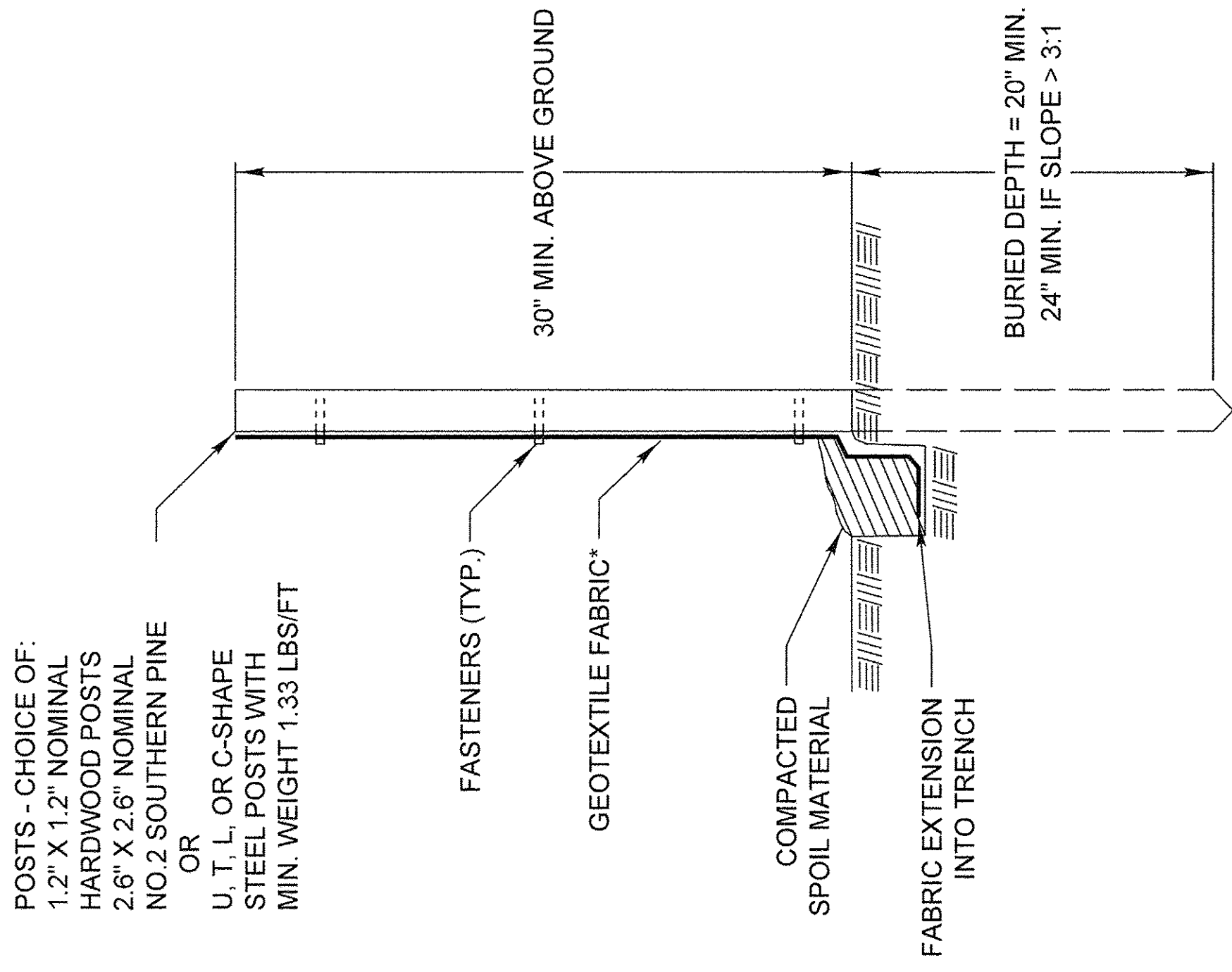
1. SET POSTS AND EXCAVATE OR SLIT-TRENCH A 6-INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF POSTS



2. ATTACH GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3 (THREE) FASTENERS PER POST AND EXTEND FABRIC TO THE BOTTOM OF THE TRENCH



3. BACKFILL AND COMPACT THE EXCAVATED MATERIALS



\* NOTE: OPTIONAL WIRE SUPPORT  
 - MIN. 30" HEIGHT  
 - MIN. 14 GAUGE WIRE  
 - MIN. 6 HORIZ. WIRES  
 - MIN. 6" VERTICAL SPACING

Requirements	Test Methods	Wire Backed Supported Slit Fence <sup>a</sup>	Unsupported Slit Fence
Maximum Post Spacing		4 feet	4 feet
Grab Strength	ASTM D 4632	124 lbs	124 lbs
Machine direction		90 lbs	100 lbs
X-Machine direction		90 lbs	100 lbs
Permittivity <sup>c</sup>	ASTM D 4491	0.05 sec <sup>-1</sup>	0.05 sec <sup>-1</sup>
Apparent Opening Size	ASTM D 4751	0.024in. maximum average roll value	0.05 sec <sup>-1</sup>
Ultraviolet stability (retained strength)	ASTM D 4355	70% after 500 hours of exposure	6 feet

APPROVED BY: M. G. ZEMAITIS  
 DATE: JUNE 20, 2008

Lake County  
 Division of Transportation

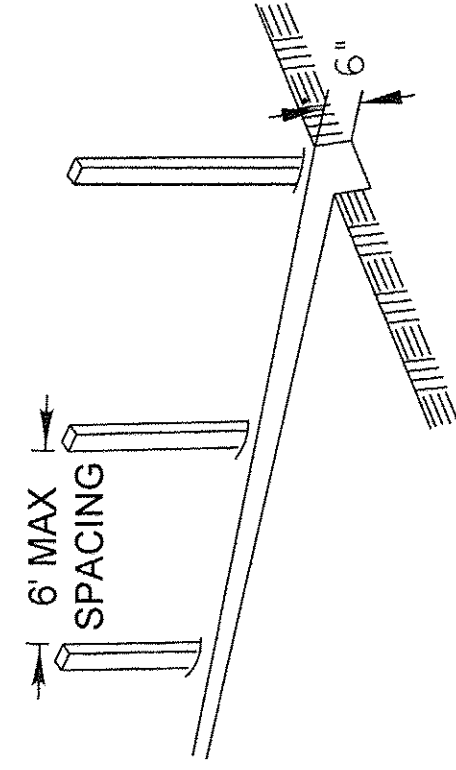
DATE: 7/15/11  
 ORIG. by LCSMC  
 Update Text

**PERIMETER EROSION BARRIER INSTALLATION**

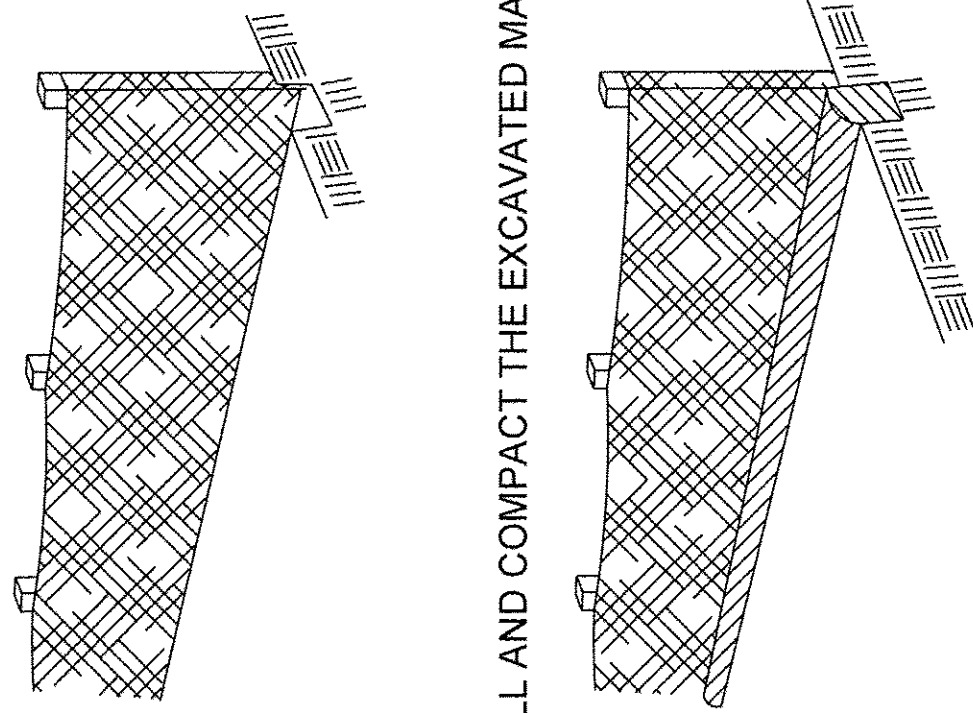
LC2051

SCALE 1" = 1'

1. SET POSTS AND EXCAVATE OR SLIT-TRENCH A 6-INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF POSTS



2. ATTACH GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3 (THREE) FASTENERS PER POST AND EXTEND FABRIC TO THE BOTTOM OF THE TRENCH



3. BACKFILL AND COMPACT THE EXCAVATED MATERIALS

\* NOTE: OPTIONAL WIRE SUPPORT  
 - MIN. 30" HEIGHT  
 - MIN. 14 GAUGE WIRE  
 - MIN. 6 HORIZ. WIRES  
 - MIN. 6" VERTICAL SPACING

Requirements	Test Methods	Wire Backed Supported Slit Fence <sup>a</sup>	Unsupported Slit Fence
Maximum Post Spacing		4 feet	4 feet
Grab Strength	ASTM D 4632	124 lbs	124 lbs
Machine direction		90 lbs	100 lbs
X-Machine direction		90 lbs	100 lbs
Permittivity <sup>c</sup>	ASTM D 4491	0.05 sec <sup>-1</sup>	0.05 sec <sup>-1</sup>
Apparent Opening Size	ASTM D 4751	0.024in. maximum average roll value	0.05 sec <sup>-1</sup>
Ultraviolet stability (retained strength)	ASTM D 4355	70% after 500 hours of exposure	6 feet

APPROVED BY: M. G. ZEMAITIS  
 DATE: JUNE 20, 2008

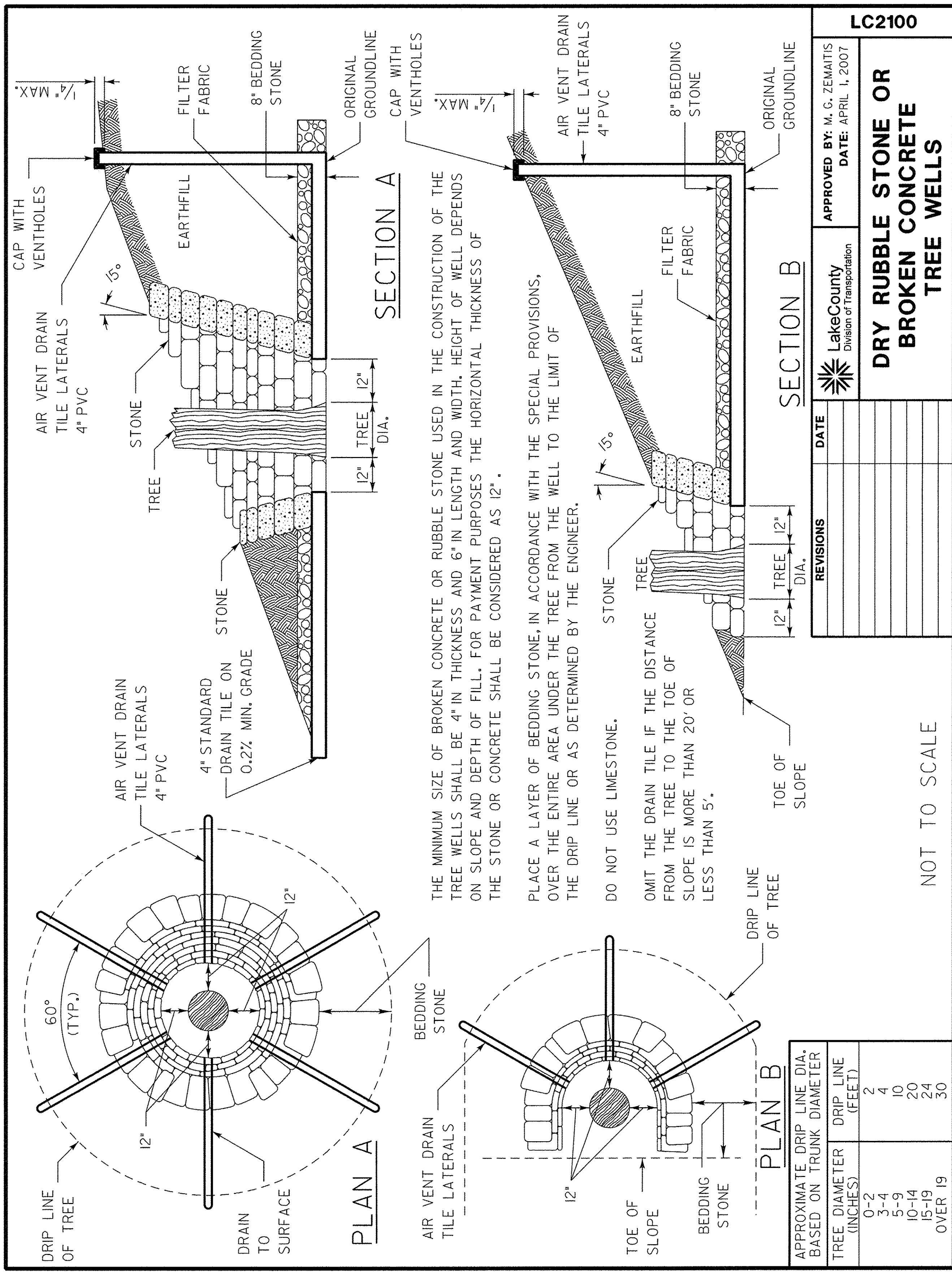
Lake County  
 Division of Transportation

DATE: 7/15/11  
 ORIG. by LCSMC  
 Update Text

**PERIMETER EROSION BARRIER INSTALLATION**

LC2051

SCALE 1" = 1'



THE MINIMUM SIZE OF BROKEN CONCRETE OR RUBBLE STONE USED IN THE CONSTRUCTION OF THE TREE WELLS SHALL BE 4" IN THICKNESS AND 6" IN LENGTH AND WIDTH. HEIGHT OF WELL DEPENDS ON SLOPE AND DEPTH OF FILL. FOR PAYMENT PURPOSES THE HORIZONTAL THICKNESS OF THE STONE OR CONCRETE SHALL BE CONSIDERED AS 12".

PLACE A LAYER OF BEDDING STONE, IN ACCORDANCE WITH THE SPECIAL PROVISIONS, OVER THE ENTIRE AREA UNDER THE TREE FROM THE WELL TO THE LIMIT OF THE DRIP LINE OR AS DETERMINED BY THE ENGINEER.

DO NOT USE LIMESTONE.

OMIT THE DRAIN TILE IF THE DISTANCE FROM THE TREE TO THE TOE OF SLOPE IS MORE THAN 20' OR LESS THAN 5'.

APPROXIMATE DRIP LINE DIA. BASED ON TRUNK DIAMETER	DRIP LINE (FEET)
0-2	2
3-4	4
5-9	10
10-14	20
15-19	24
OVER 19	30

APPROVED BY: M. G. ZEMAITIS  
 DATE: APRIL 1, 2007

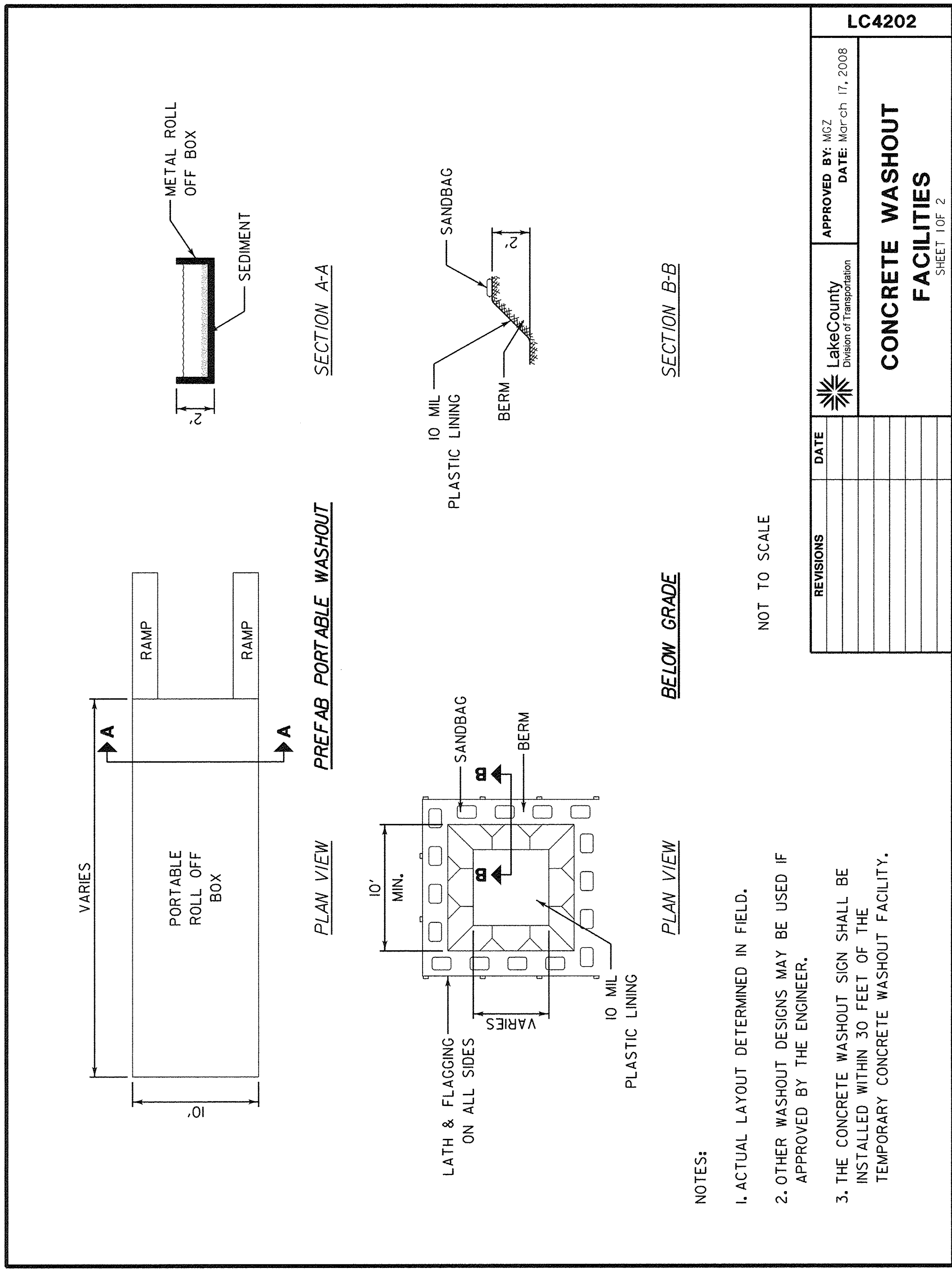
Lake County  
 Division of Transportation

**DRY RUBBLE STONE OR BROKEN CONCRETE TREE WELLS**

LC2100

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	PT. OF WAY CHECKED		
	NO. _____		
	DATE _____		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	NO. _____		
	DATE _____		



- NOTES:**
1. ACTUAL LAYOUT DETERMINED IN FIELD.
  2. OTHER WASHOUT DESIGNS MAY BE USED IF APPROVED BY THE ENGINEER.
  3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

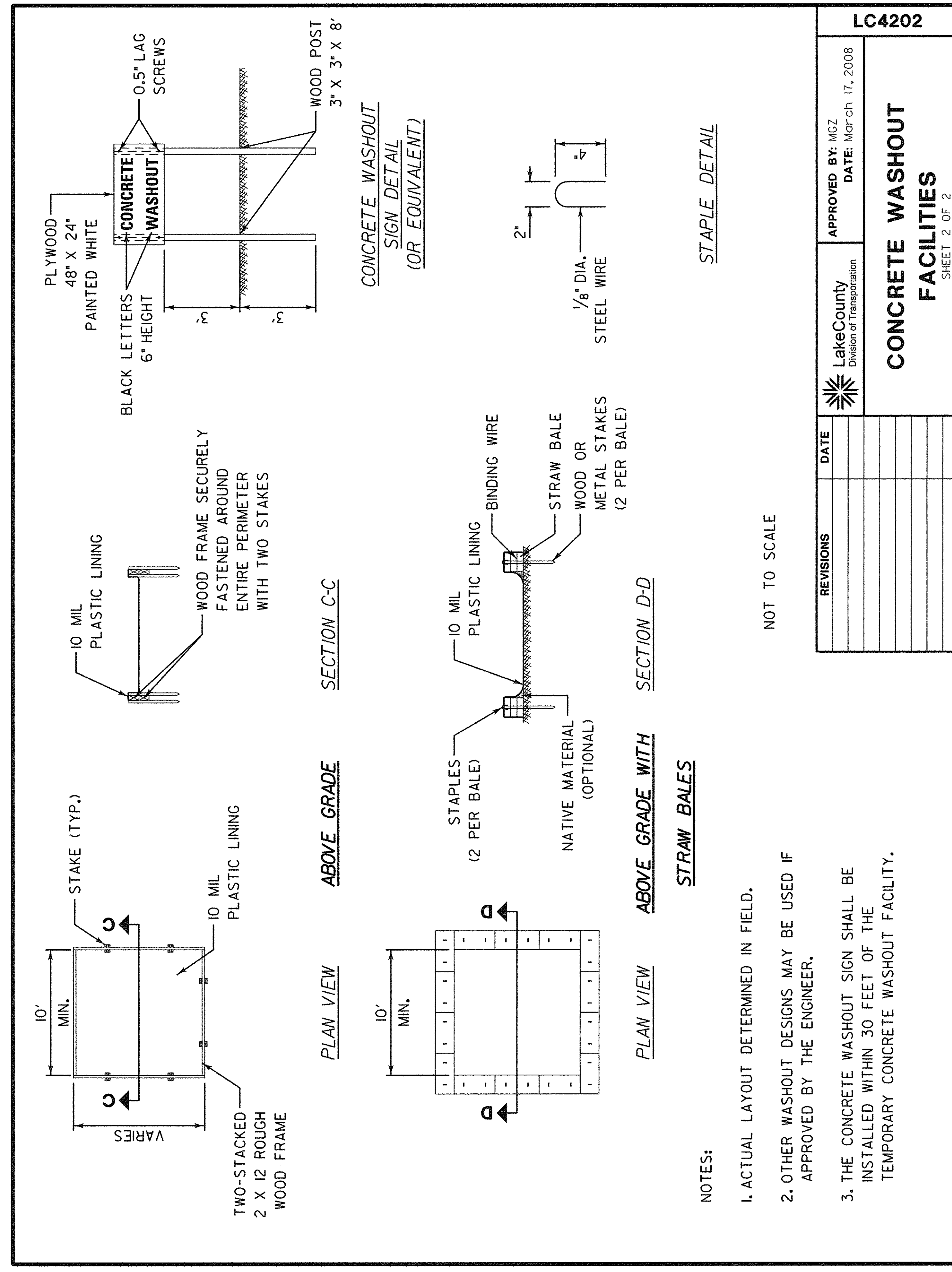
REVISIONS	DATE

APPROVED BY: MGZ  
DATE: March 17, 2008

Lake County  
Division of Transportation

**CONCRETE WASHOUT FACILITIES**  
SHEET 1 OF 2

LC4202



- NOTES:**
1. ACTUAL LAYOUT DETERMINED IN FIELD.
  2. OTHER WASHOUT DESIGNS MAY BE USED IF APPROVED BY THE ENGINEER.
  3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

REVISIONS	DATE

APPROVED BY: MGZ  
DATE: March 17, 2008

Lake County  
Division of Transportation

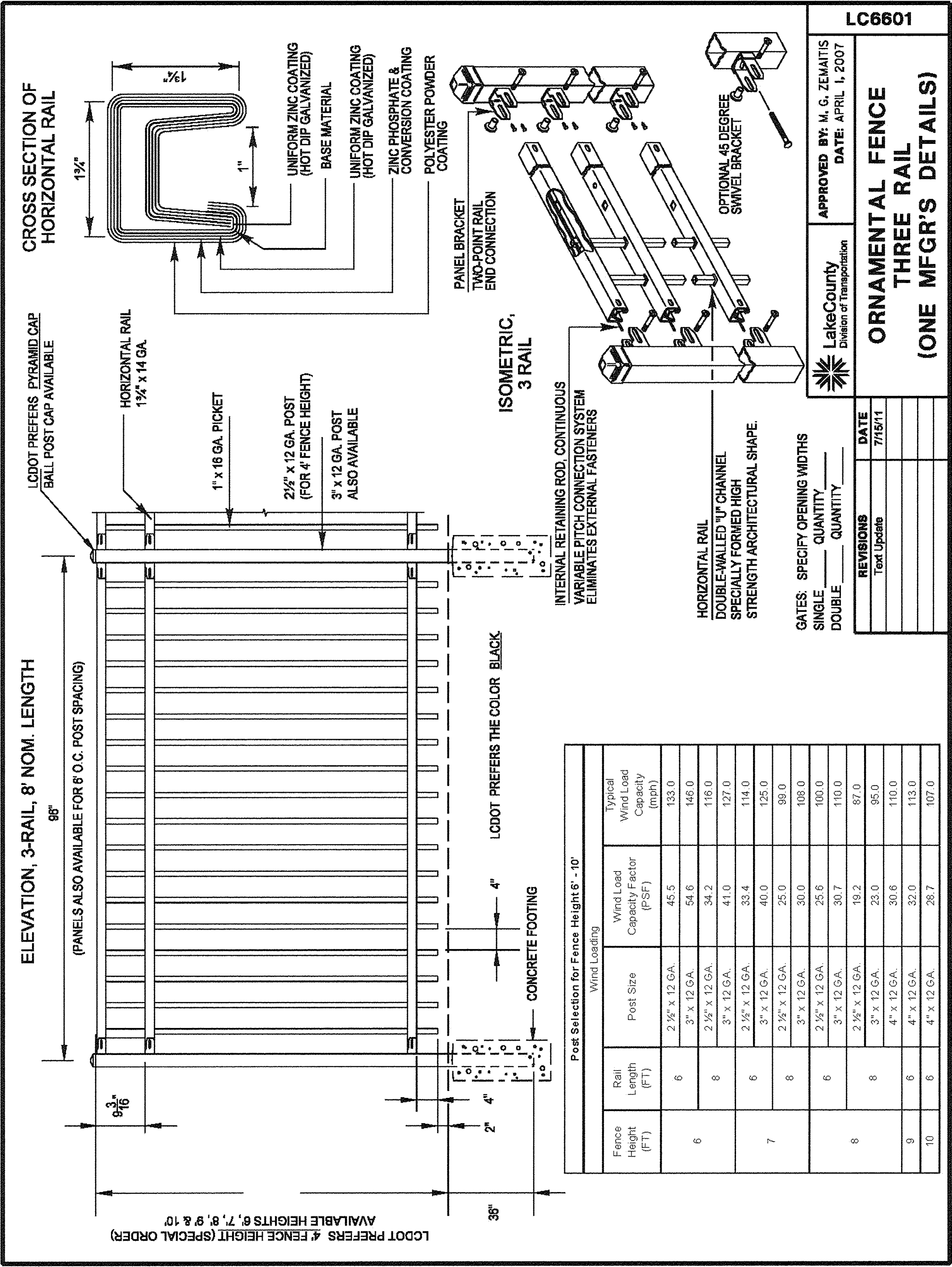
**CONCRETE WASHOUT FACILITIES**  
SHEET 2 OF 2

LC4202



PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	REVISIONS		
	STRUCTURE		
	NOTATIONS		
	CHECKED		
	NO.		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	REVISIONS		
	STRUCTURE		
	NOTATIONS		
	CHECKED		
	NO.		



Post Selection for Fence Height 6' - 10'

Fence Height (FT)	Rail Length (FT)	Post Size	Wind Load Capacity Factor (F/SF)	Wind Load Capacity (mph)	Typical Wind Load Capacity (mph)
6	6	2 1/2" x 12 GA.	45.5	133.0	133.0
	8	3" x 12 GA.	54.6	146.0	146.0
7	6	2 1/2" x 12 GA.	34.2	116.0	116.0
	8	3" x 12 GA.	41.0	127.0	127.0
8	6	2 1/2" x 12 GA.	33.4	114.0	114.0
	8	3" x 12 GA.	40.0	125.0	125.0
9	6	2 1/2" x 12 GA.	25.0	99.0	99.0
	8	3" x 12 GA.	30.0	108.0	108.0
10	6	2 1/2" x 12 GA.	25.6	100.0	100.0
	8	3" x 12 GA.	30.7	110.0	110.0
11	6	2 1/2" x 12 GA.	19.2	87.0	87.0
	8	3" x 12 GA.	23.0	95.0	95.0
12	6	4" x 12 GA.	30.8	113.0	113.0
	8	4" x 12 GA.	32.0	113.0	113.0

**LC6601**

**ORNAIMENTAL FENCE THREE RAIL (ONE MFGR'S DETAILS)**

APPROVED BY: M. G. ZEMAITIS  
DATE: APRIL 1, 2007

Lake County  
Division of Transportation

GATES: SPECIFY OPENING WIDTHS  
SINGLE \_\_\_\_\_ QUANTITY \_\_\_\_\_  
DOUBLE \_\_\_\_\_ QUANTITY \_\_\_\_\_

REVISIONS  
Text Update 7/15/11

**CIVILTECH**  
450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 1/14/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS**

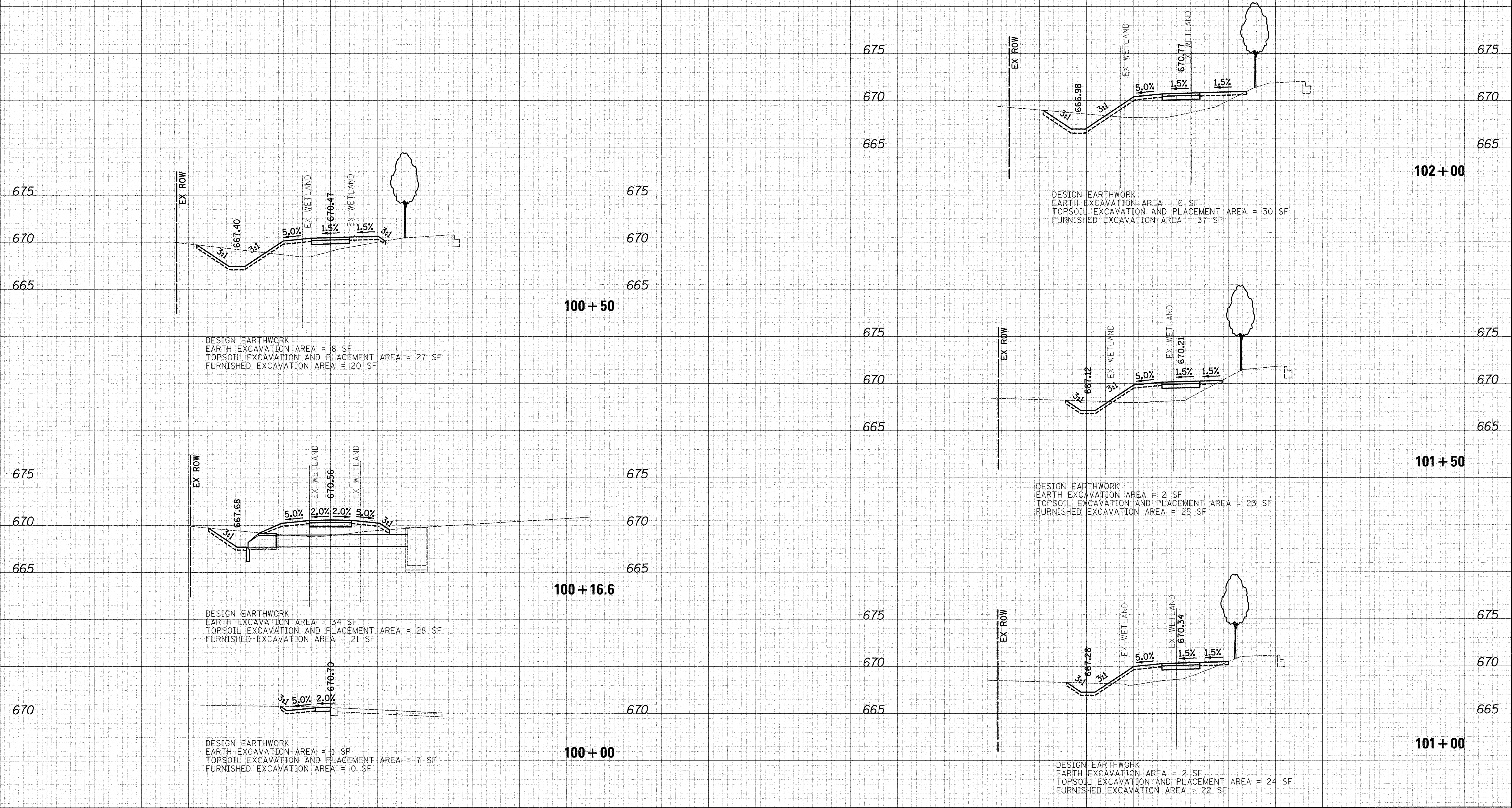
SHEET NO. 6 OF 6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300603-BT	LAKE	70	57
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

50 40 30 20 10 0 10 20 30 40 50 50 40 30 20 10 0 10 20 30 40 50

DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	

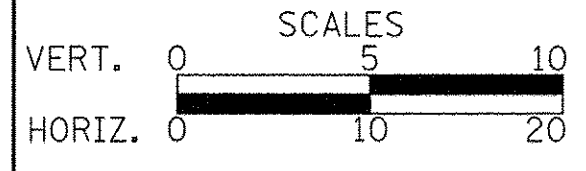


50 40 30 20 10 0 10 20 30 40 50 50 40 30 20 10 0 10 20 30 40 50

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/4/2015	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



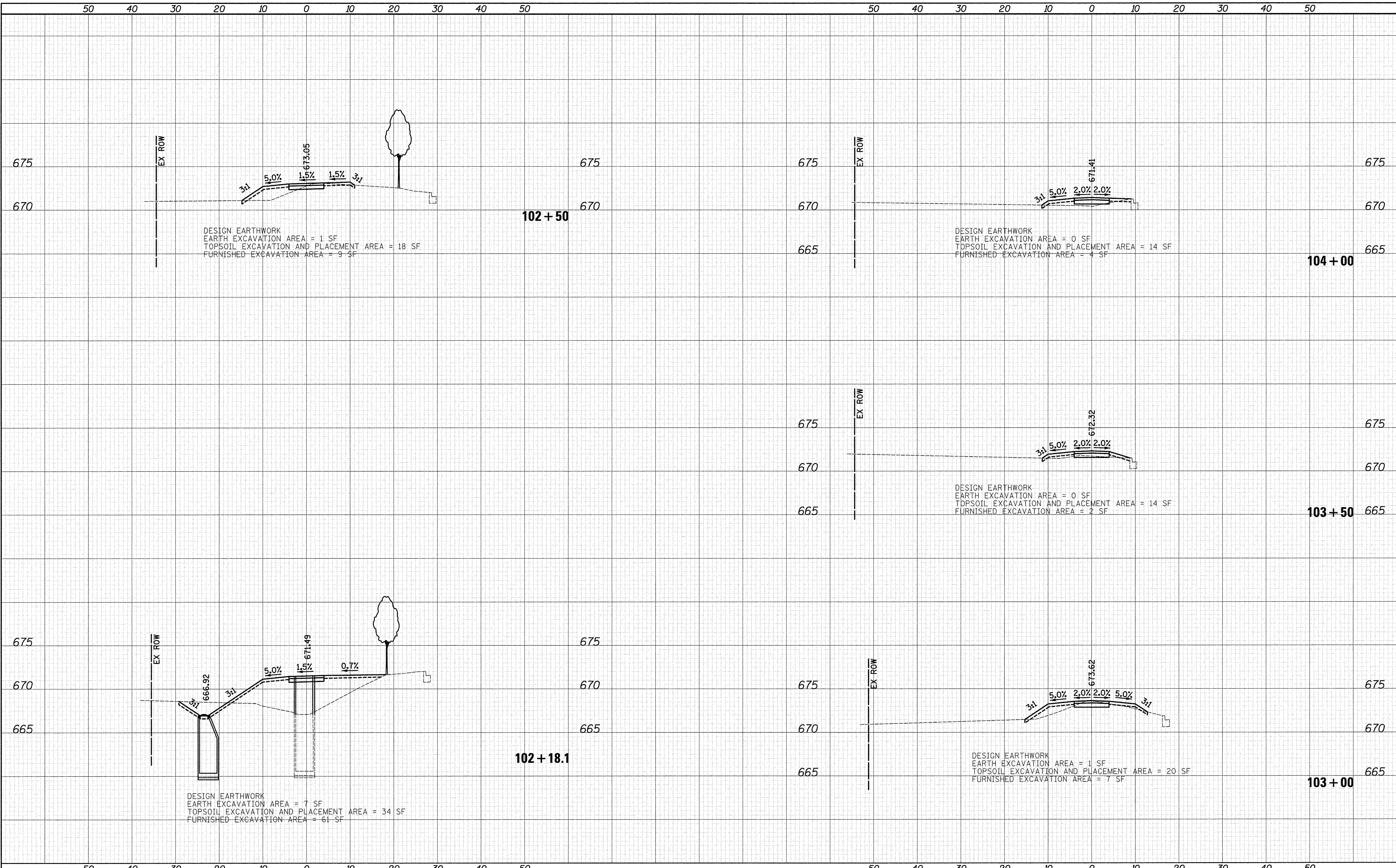
**WEST ACADEMY TRAIL CROSS SECTIONS**

SHEET NO. 1 OF 14 SHEETS STA. 100+00 TO STA. 102+00

F.A.B. RTE. 0335	SECTION 14-F300-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 58
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



DESIGN EARTHWORK  
 EARTH EXCAVATION AREA = 1 SF  
 TOPSOIL EXCAVATION AND PLACEMENT AREA = 18 SF  
 FURNISHED EXCAVATION AREA = 9 SF

DESIGN EARTHWORK  
 EARTH EXCAVATION AREA = 0 SF  
 TOPSOIL EXCAVATION AND PLACEMENT AREA = 14 SF  
 FURNISHED EXCAVATION AREA = 4 SF

DESIGN EARTHWORK  
 EARTH EXCAVATION AREA = 7 SF  
 TOPSOIL EXCAVATION AND PLACEMENT AREA = 34 SF  
 FURNISHED EXCAVATION AREA = 61 SF

DESIGN EARTHWORK  
 EARTH EXCAVATION AREA = 1 SF  
 TOPSOIL EXCAVATION AND PLACEMENT AREA = 20 SF  
 FURNISHED EXCAVATION AREA = 7 SF

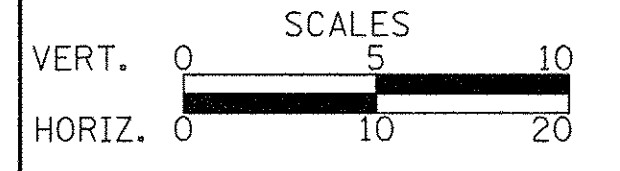
50 40 30 20 10 0 10 20 30 40 50 50 40 30 20 10 0 10 20 30 40 50



450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/17/2016	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION



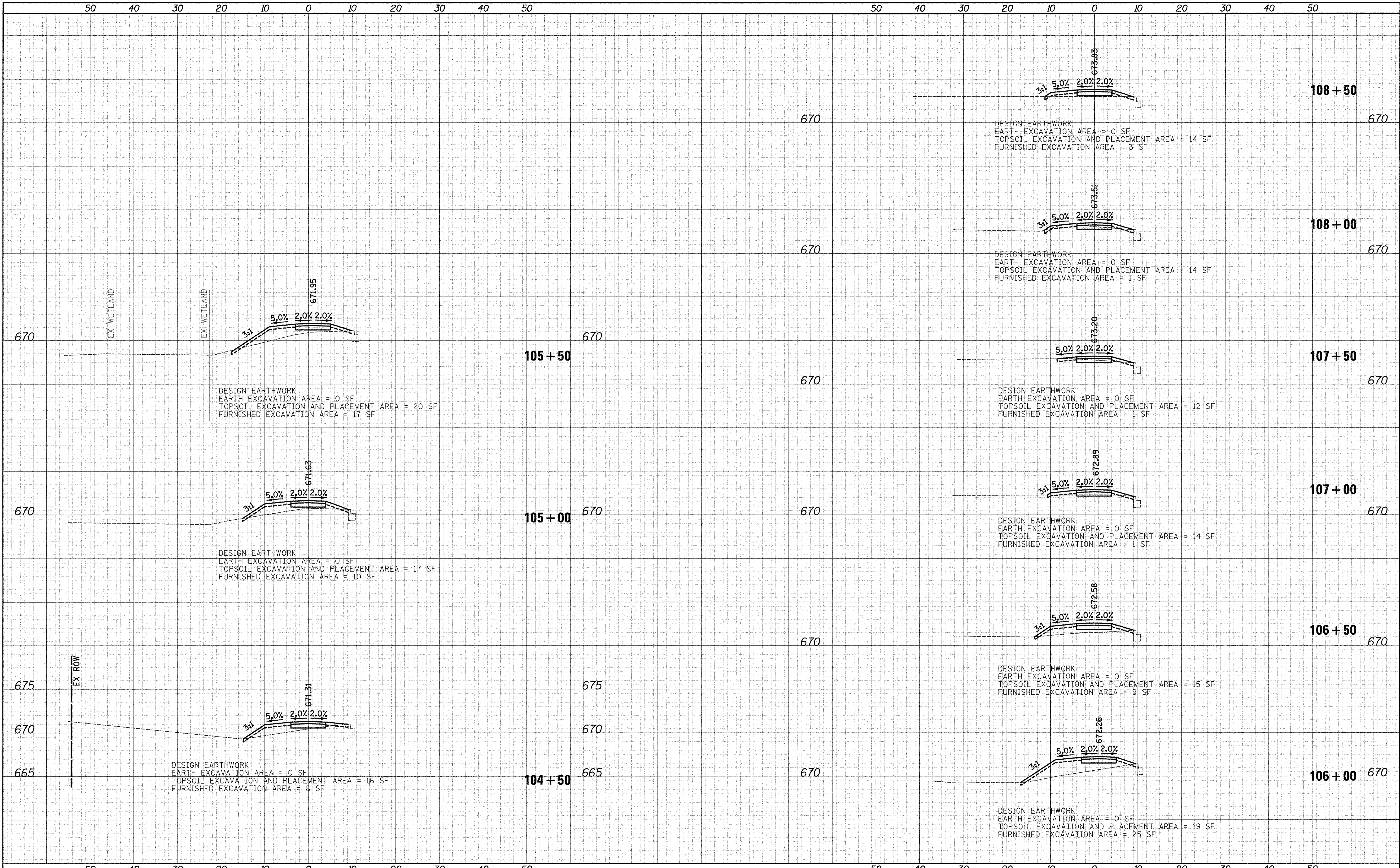
WEST ACADEMY TRAIL CROSS SECTIONS

SHEET NO. 2 OF 14 SHEETS STA. 102+18.1 TO STA. 104+00

F.A.B. RTE. 0335	SECTION 14-F300-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 59
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
SURVEYED	
NOTED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

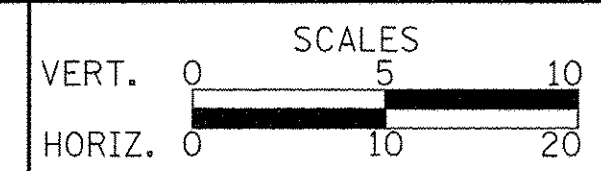
DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
NOTED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	



**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/4/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

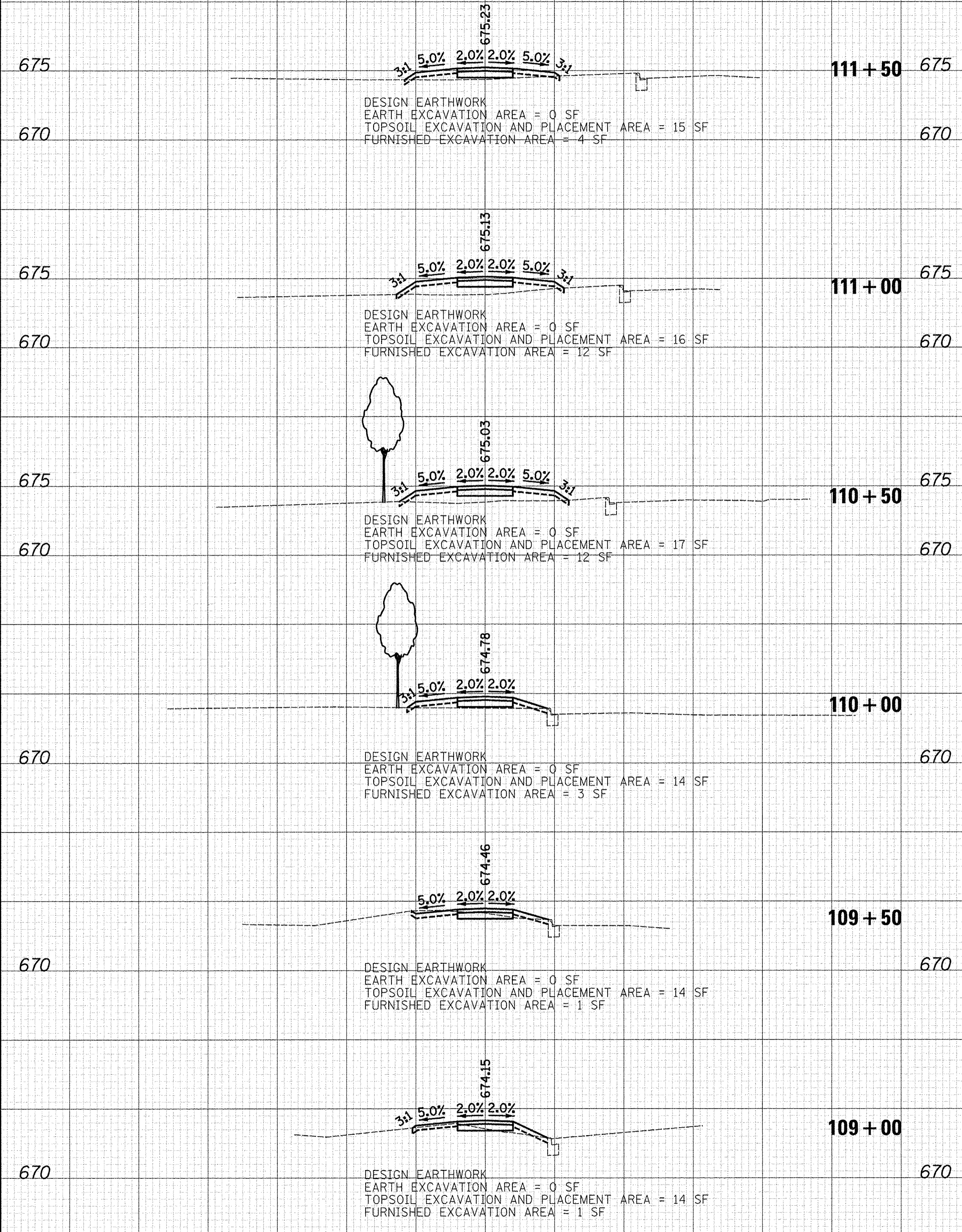


**WEST ACADEMY TRAIL CROSS SECTIONS**

SHEET NO. 3 OF 14 SHEETS STA. 104+50 TO STA. 108+50

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	60
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

50 40 30 20 10 0 10 20 30 40 50



50 40 30 20 10 0 10 20 30 40 50

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

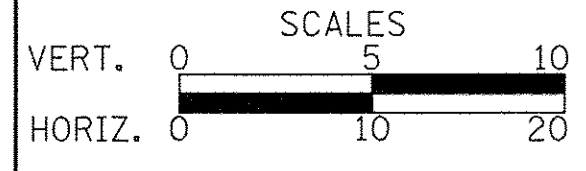
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/19/2015	REVISED -

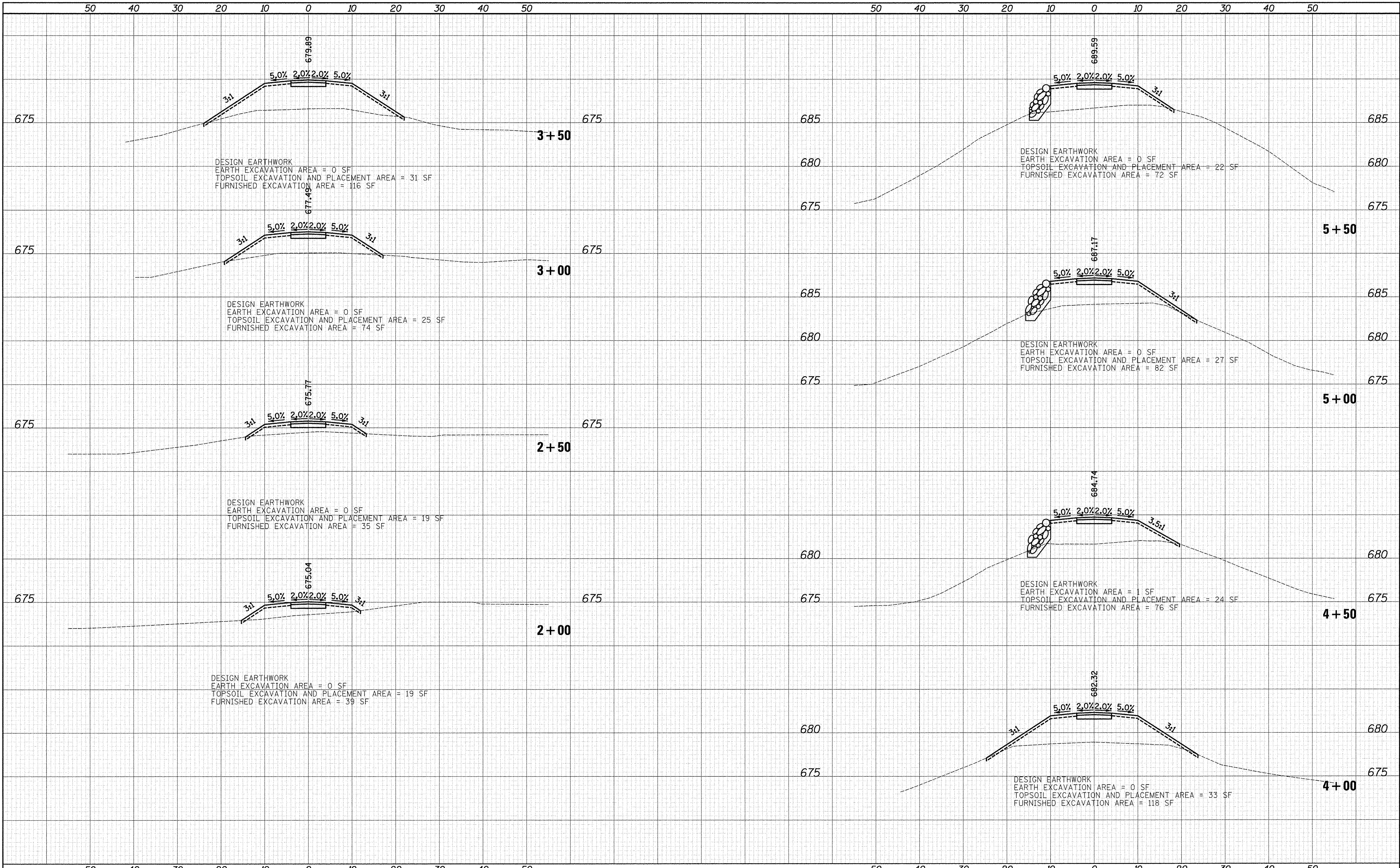
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



WEST ACADEMY TRAIL CROSS SECTIONS

SHEET NO. 4 OF 14 SHEETS STA. 109+00 TO STA. 111+50

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	61
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



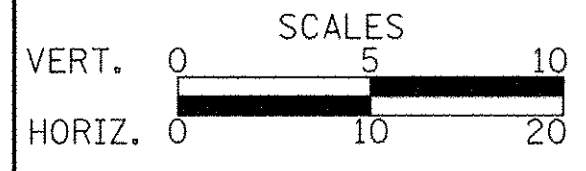
DATE	
BY	
FINAL SURVEY	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

**CIVILTECH**  
 450 E Devon Ave. Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/17/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**



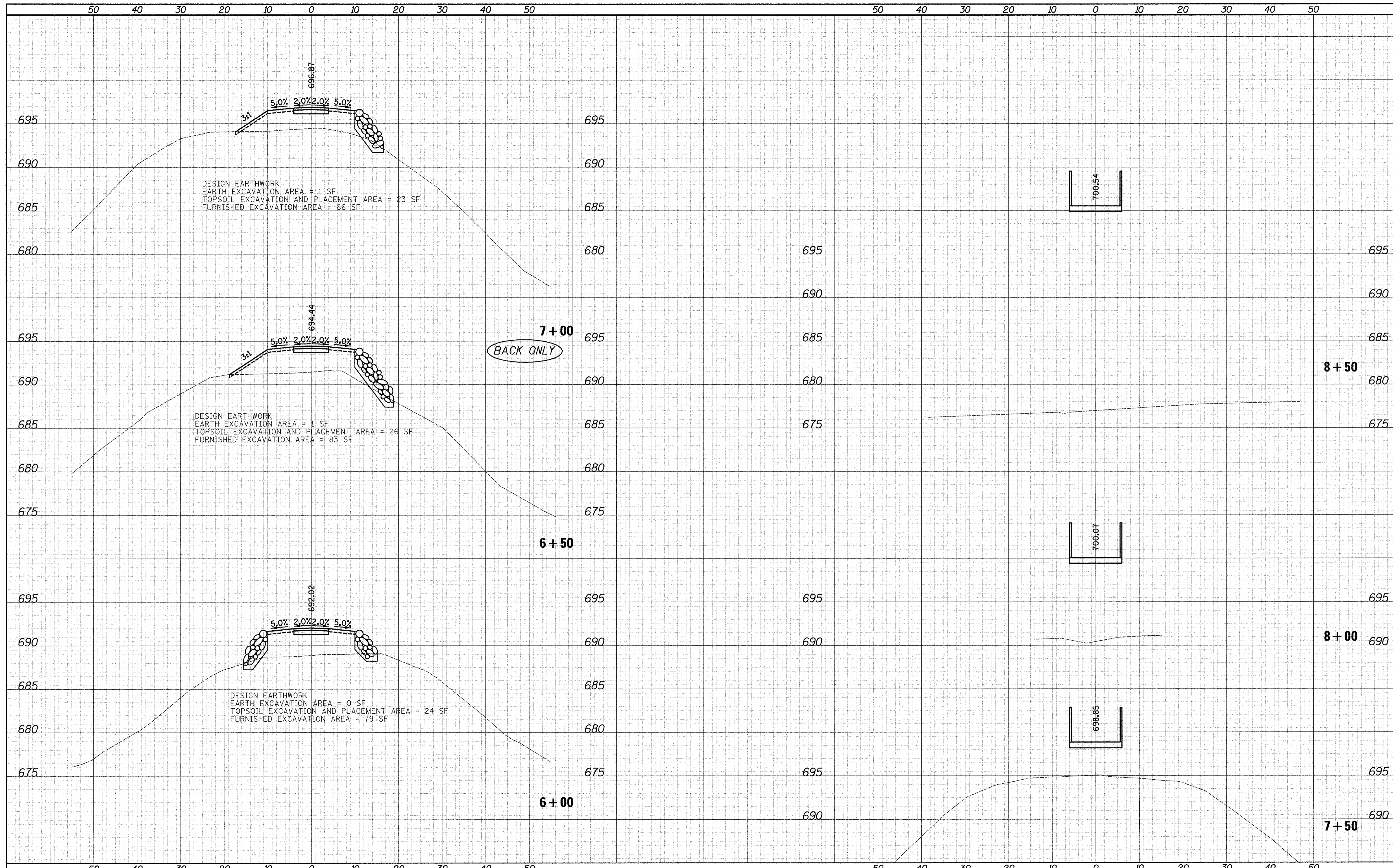
**MIDDLEFORK SAVANNA TRAIL CROSS SECTIONS**

SHEET NO. 5 OF 14 SHEETS STA. 1+50 TO STA. 5+50

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	62
CONTRACT 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/9/2015	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

VERT.	0	5	10
HORIZ.	0	10	20

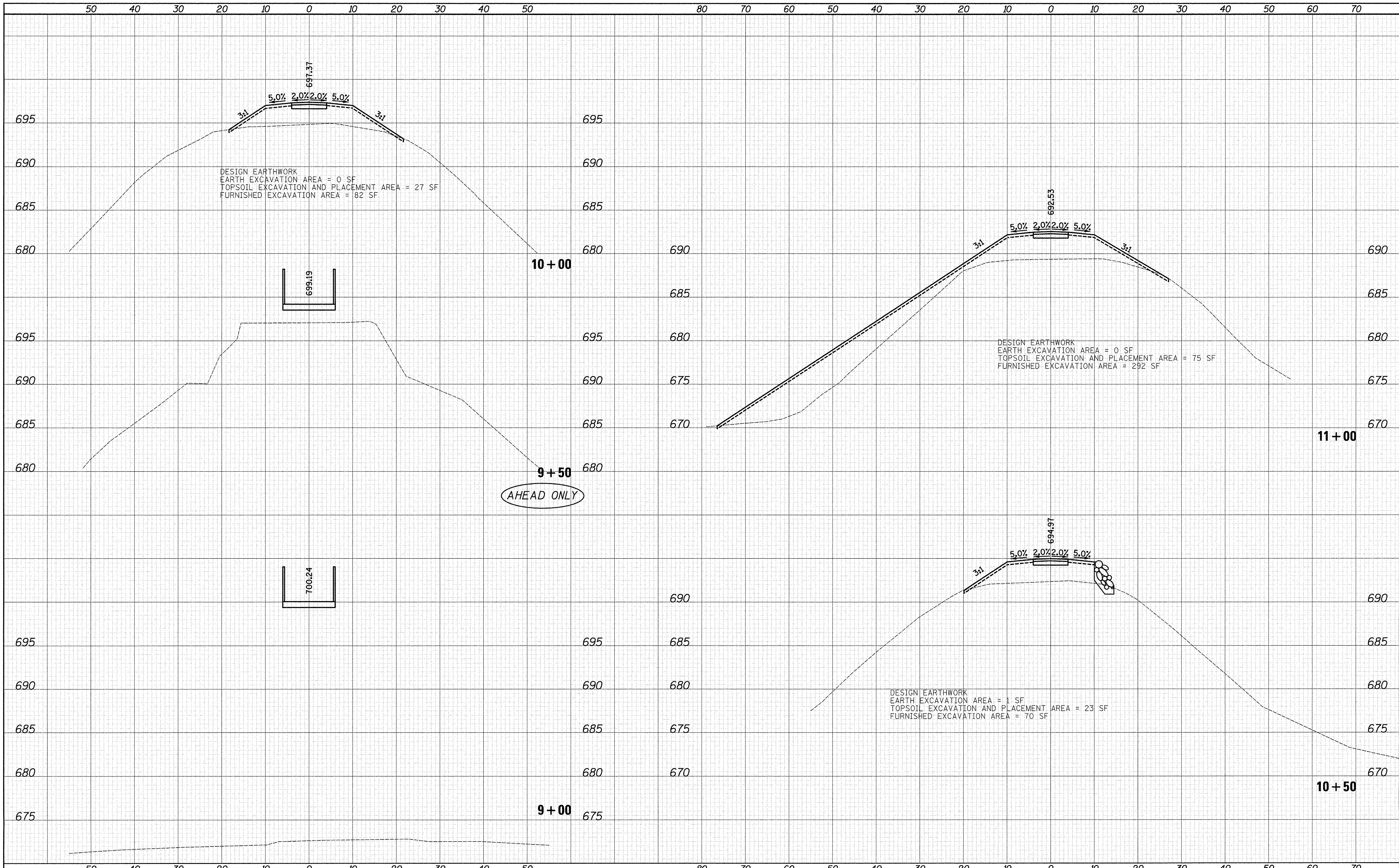
MIDDLEFORK SAVANNA TRAIL CROSS SECTIONS

SHEET NO. 6 OF 14 SHEETS STA. 6+00 TO STA. 9+00

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	63
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	
DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	
DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	

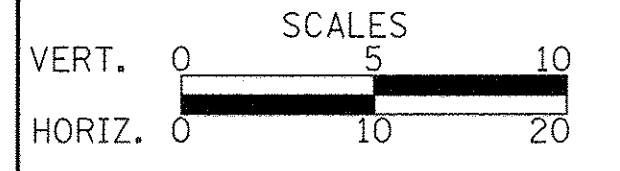
DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	
DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	



**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/7/2015	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**



**MIDDLEFORK SAVANNA TRAIL CROSS SECTIONS**

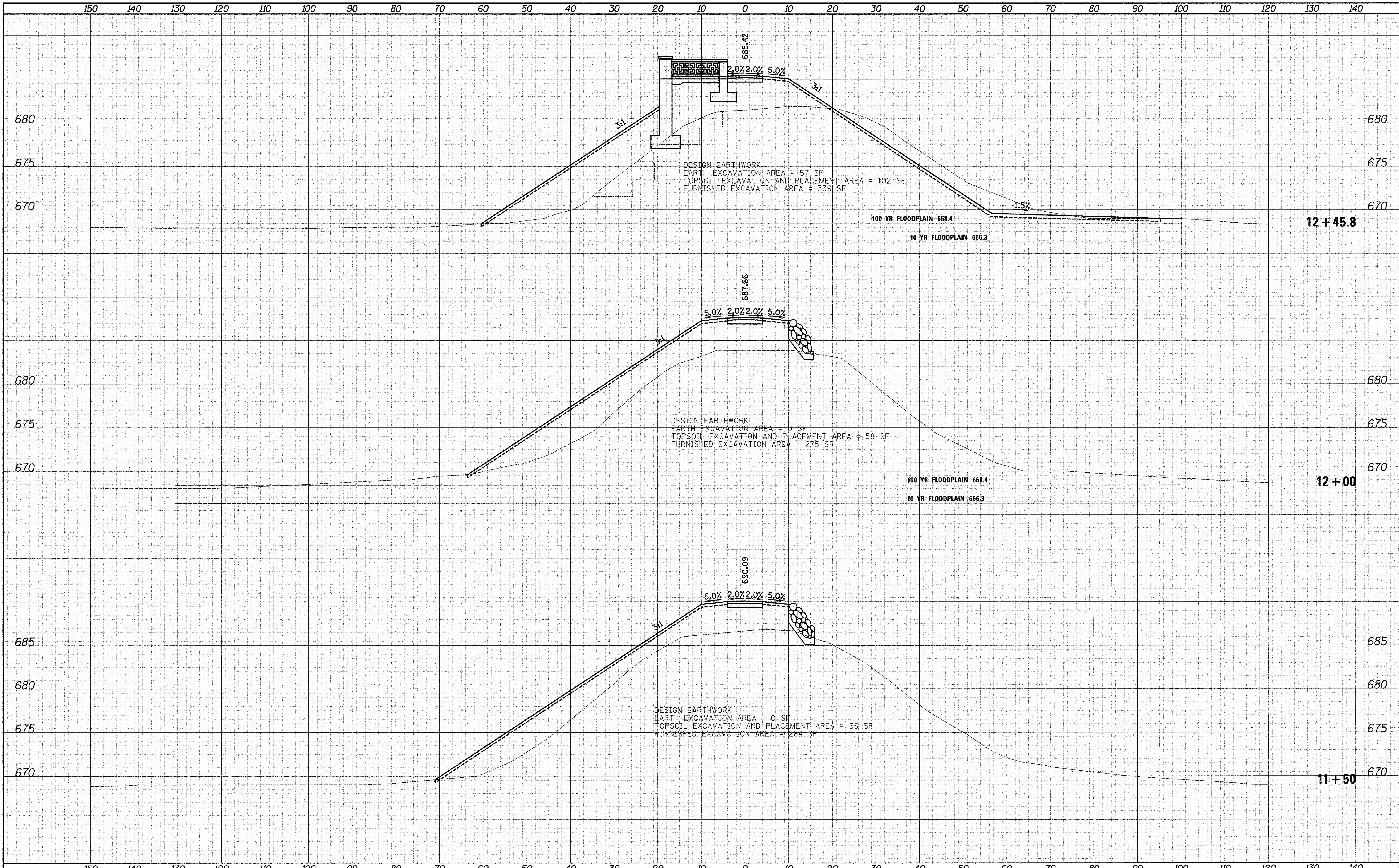
SHEET NO. 7 OF 14 SHEETS STA. 9+50 TO STA. 11+00

F.A.B. RTE. 0335	SECTION 14-F300-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 64
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

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



450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED -	TFS	REVISED -	
DRAWN -	JRR	REVISED -	
CHECKED -	RTM	REVISED -	
DATE -	12/9/2015	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

VERT.	0	5	10
HORIZ.	0	10	20

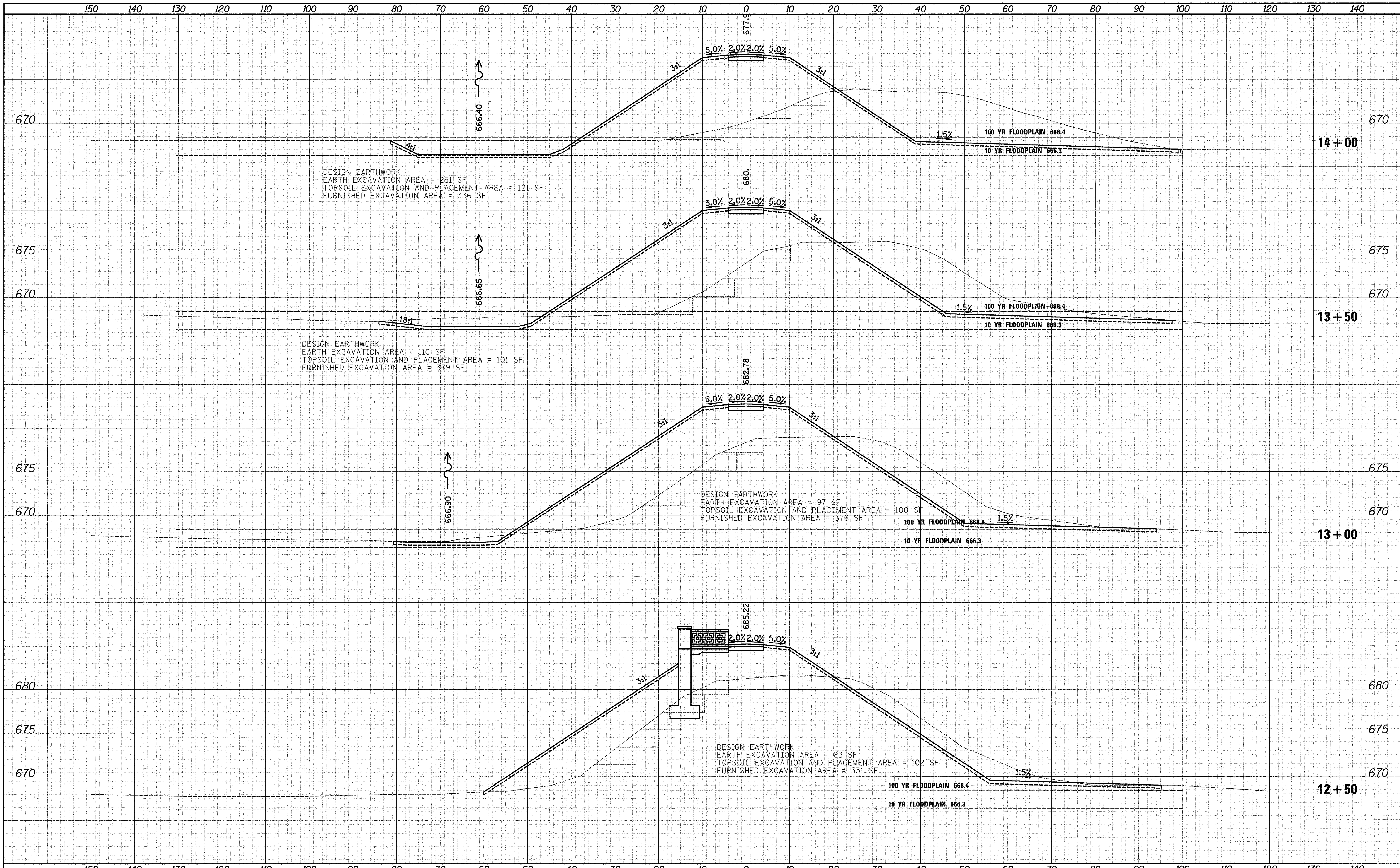
**MIDDLEFORK SAVANNA TRAIL CROSS SECTIONS**

SHEET NO. 8 OF 14 SHEETS STA. 11+50 TO STA. 12+45.8

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	65
CONTRACT NO 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
SUPERVISED	
DESIGNED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SUPERVISED	
DESIGNED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/17/2015	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

VERT. SCALES	
0	5
0	10
HORIZ. SCALES	
0	10
0	20

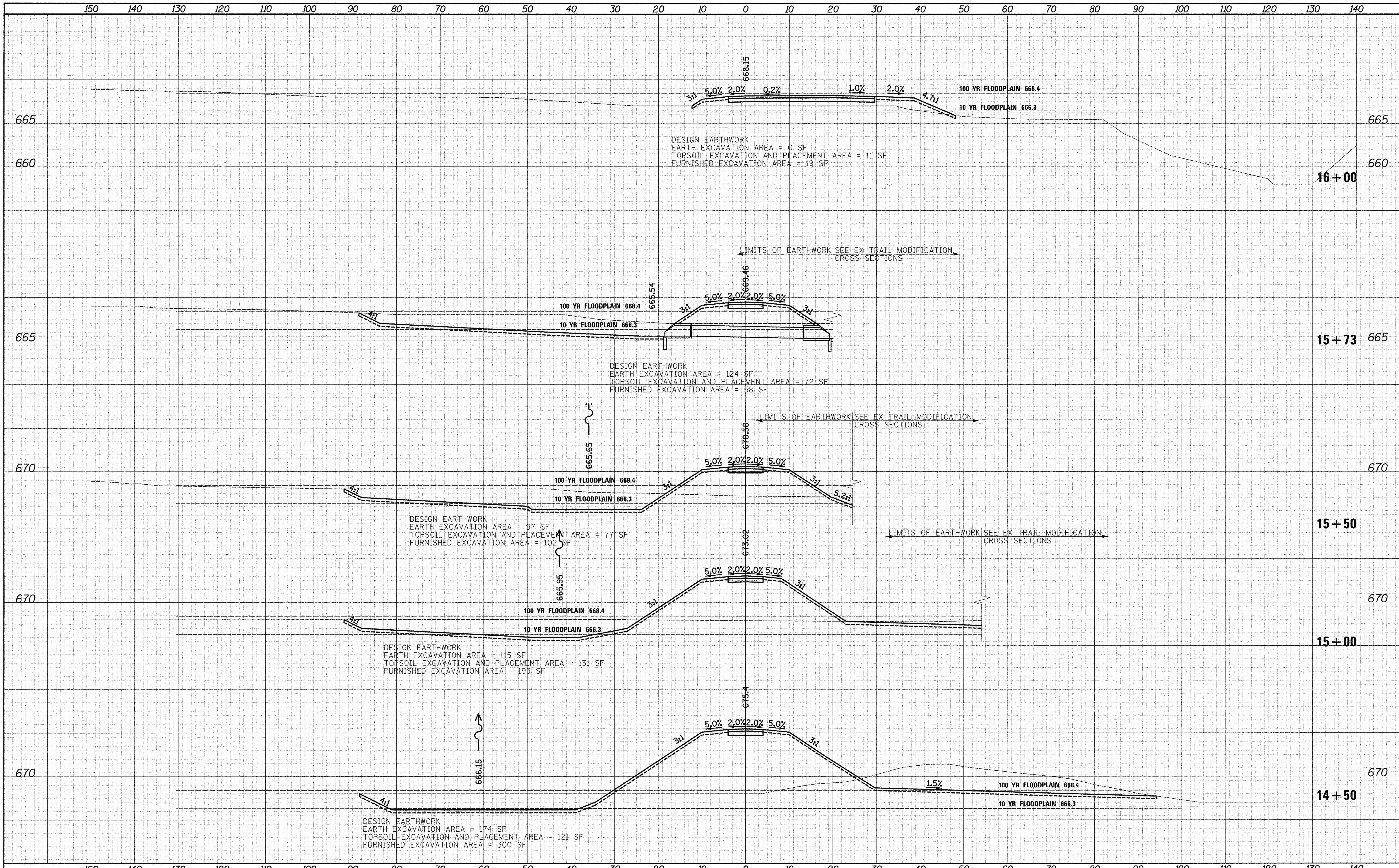
**MIDDLEFORK SAVANNA TRAIL CROSS SECTIONS**

SHEET NO. 9 OF 14 SHEETS STA. 12+50 TO STA. 14+00

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	66
CONTRACT NO. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	

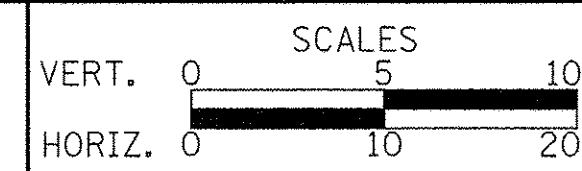
DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	



450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED	- TFS	REVISED	-
DRAWN	- JRR	REVISED	-
CHECKED	- RTM	REVISED	-
DATE	- 12/4/2015	REVISED	-

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**



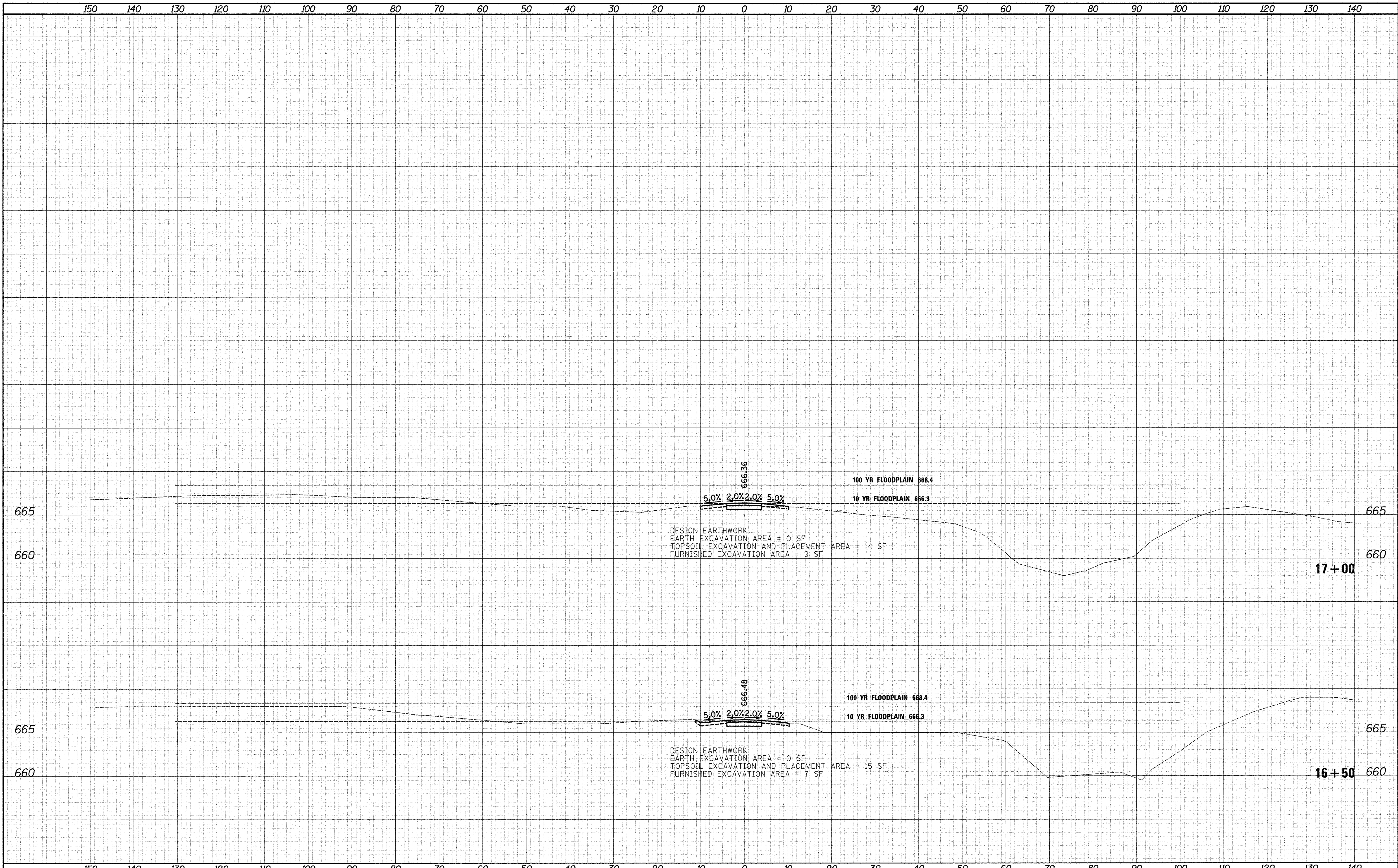
**MIDDLEFORK SAVANNA TRAIL CROSS SECTIONS**

SHEET NO. 10 OF 14 SHEETS STA. 14+50 TO STA. 16+00

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	67
CONTRACT NO. 61039				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

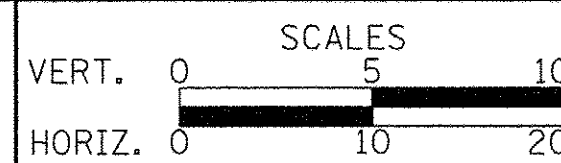
DATE	
BY	
SUPERSEDED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/17/2015	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**



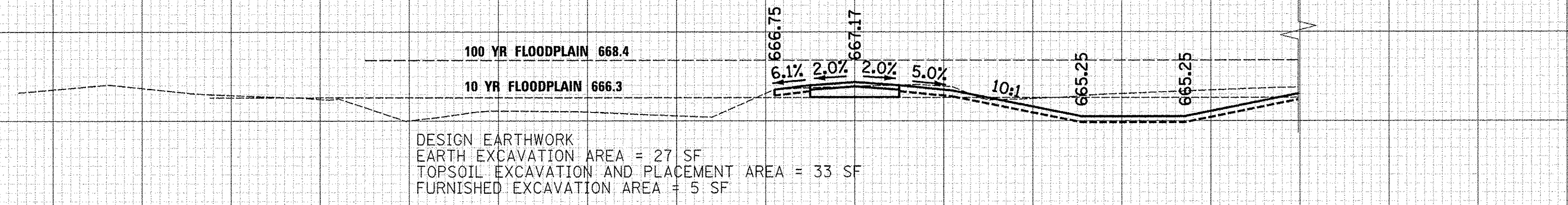
**MIDDLEFORK SAVANNA TRAIL CROSS SECTIONS**

SHEET NO. 11 OF 14 SHEETS STA. 16+50 TO STA. 17+00

F.A.B. RTE. 0335	SECTION 14-F300-03-BT	COUNTY LAKE	TOTAL SHEETS 70	SHEET NO. 68
CONTRACT No. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

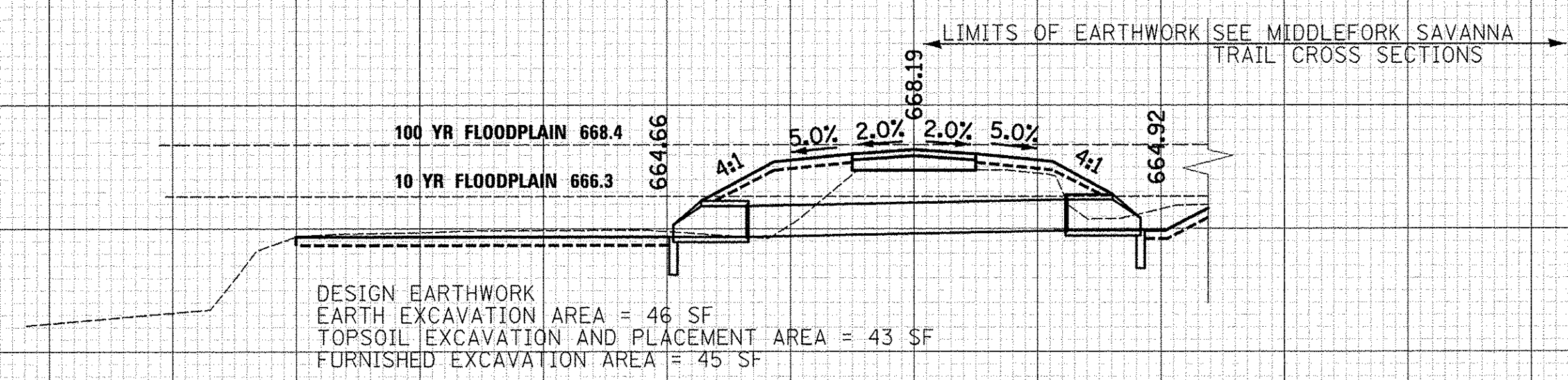
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

675 675  
670 670  
665 665



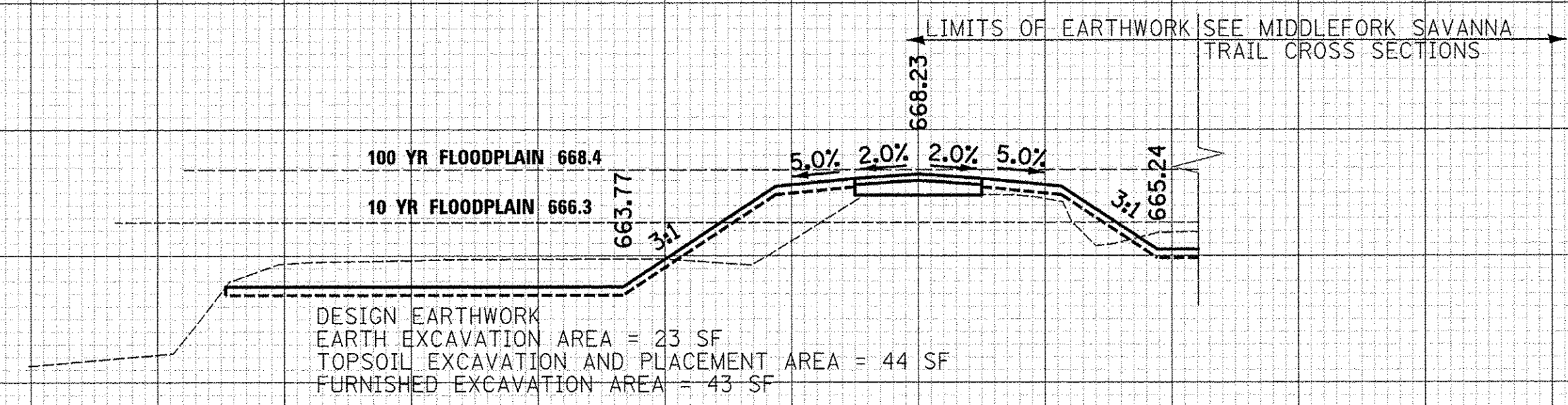
501 + 50

670 670  
665 665



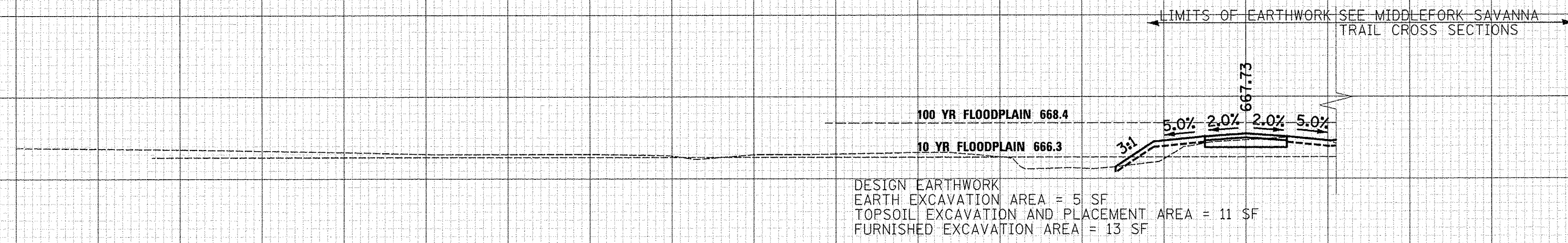
501 + 03.6

670 670  
665 665



501 + 00

670 670  
665 665



500 + 50

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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

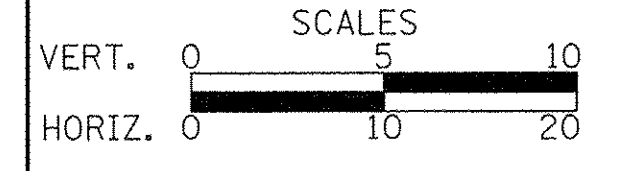
DATE	
BY	
SURVEYED	
PLANNED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/4/2016	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



EXISTING TRAIL MODIFICATION CROSS SECTIONS

SHEET NO. 13 OF 14 SHEETS STA. 500+50 TO STA. 501+50

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	69
CONTRACT No. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

FINAL SURVEY NOTE BOOK NO.	SURVEYED AREAS CHECKED	DATE

ORIGINAL SURVEY NOTE BOOK NO.	SURVEYED AREAS CHECKED	DATE

670

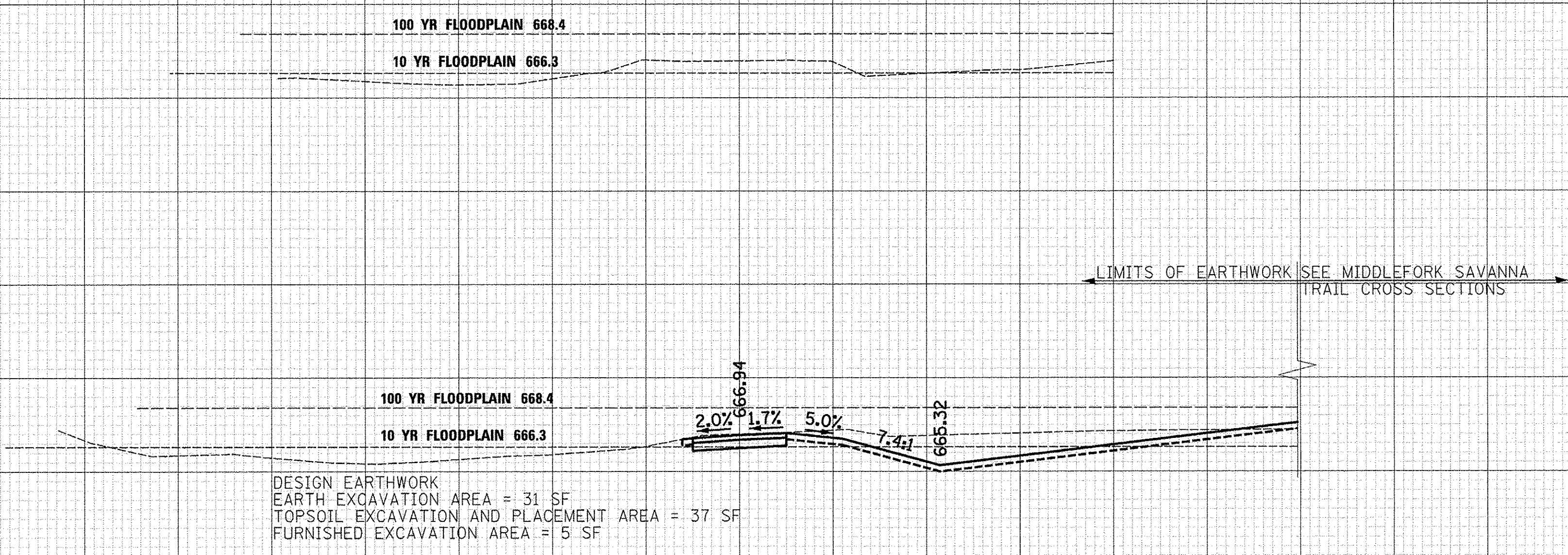
670

502 + 50

670

670

502 + 00

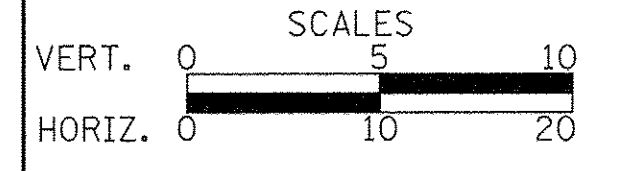


150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

**CIVILTECH**  
 450 E Devon Ave, Suite 300  
 Itasca, Illinois 60143  
 Tel: 630.773.3900 Fax: 630.773.3975  
 www.civiltechinc.com

DESIGNED - TFS	REVISED -
DRAWN - JRR	REVISED -
CHECKED - RTM	REVISED -
DATE - 12/7/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**



**EXISTING TRAIL MODIFICATION CROSS SECTIONS**

SHEET NO. 14 OF 14 SHEETS STA. 502+00 TO STA. 502+60

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0335	14-F300-03-BT	LAKE	70	70
CONTRACT No. 61C39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				