

03-03-2017 LETTING ITEM 128

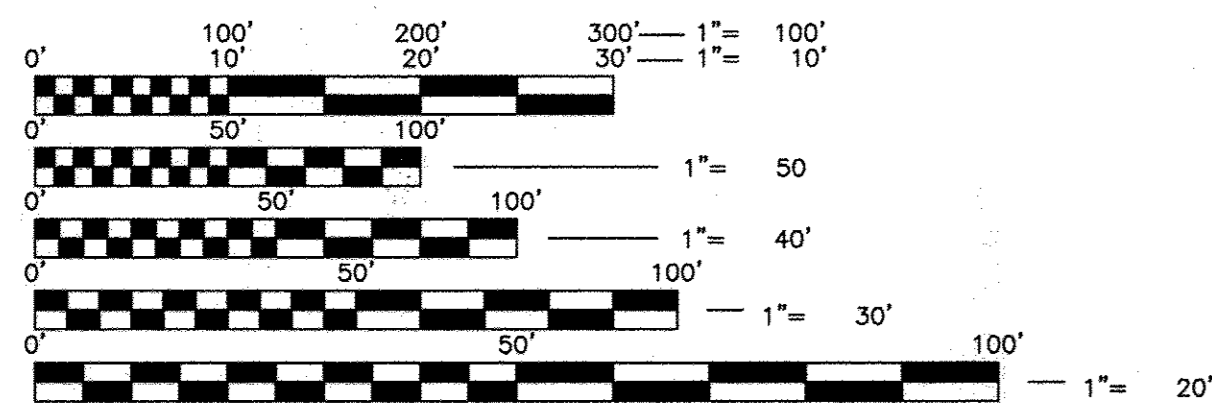
FOR INDEX OF SHEETS, SEE SHEET NO.2

FOR INDEX OF HIGHWAY STANDARDS, SEE SHEET NO.2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY
FAU 3702 (DARRELL ROAD)
PONDVIEW DRIVE TO BENDING CREEK ROAD
BICYCLE/PEDESTRIAN PATH
PROJECT NO.: TE-00D1(997)
SECTION NO.: 14-00011-00-BT
VILLAGE OF LAKEMOOR
LAKE COUNTY
JOB NO.: C-91-209-15

RTE.	NAME	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
LAKE COUNTY HIGHWAY 44	SOUTH DARRELL ROAD	14-00011-00-BT	LAKE	57	1
FAU 3702	NORTH DARRELL ROAD	STA. 233+89.72 TO STA. 246+40.96			
		STA. 246+40.96 TO STA. 289+66			
			ILLINOIS	ITEP 131018	
				CONTRACT NO. 61C28	

TRAFFIC DATA			
ROAD	POSTED SPEED LIMIT	CLASSIFICATION	2014 ADT
DARRELL ROAD (SOUTH OF IL 120)	45	ARTERIAL	6,400
IL RTE 120	40/45	ARTERIAL	19,600
DARRELL ROAD (NORTH OF IL 120)	25	MAJOR COLLECTOR	5,000



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 SCALE MAYBE USED.

JULIE.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-890-0123

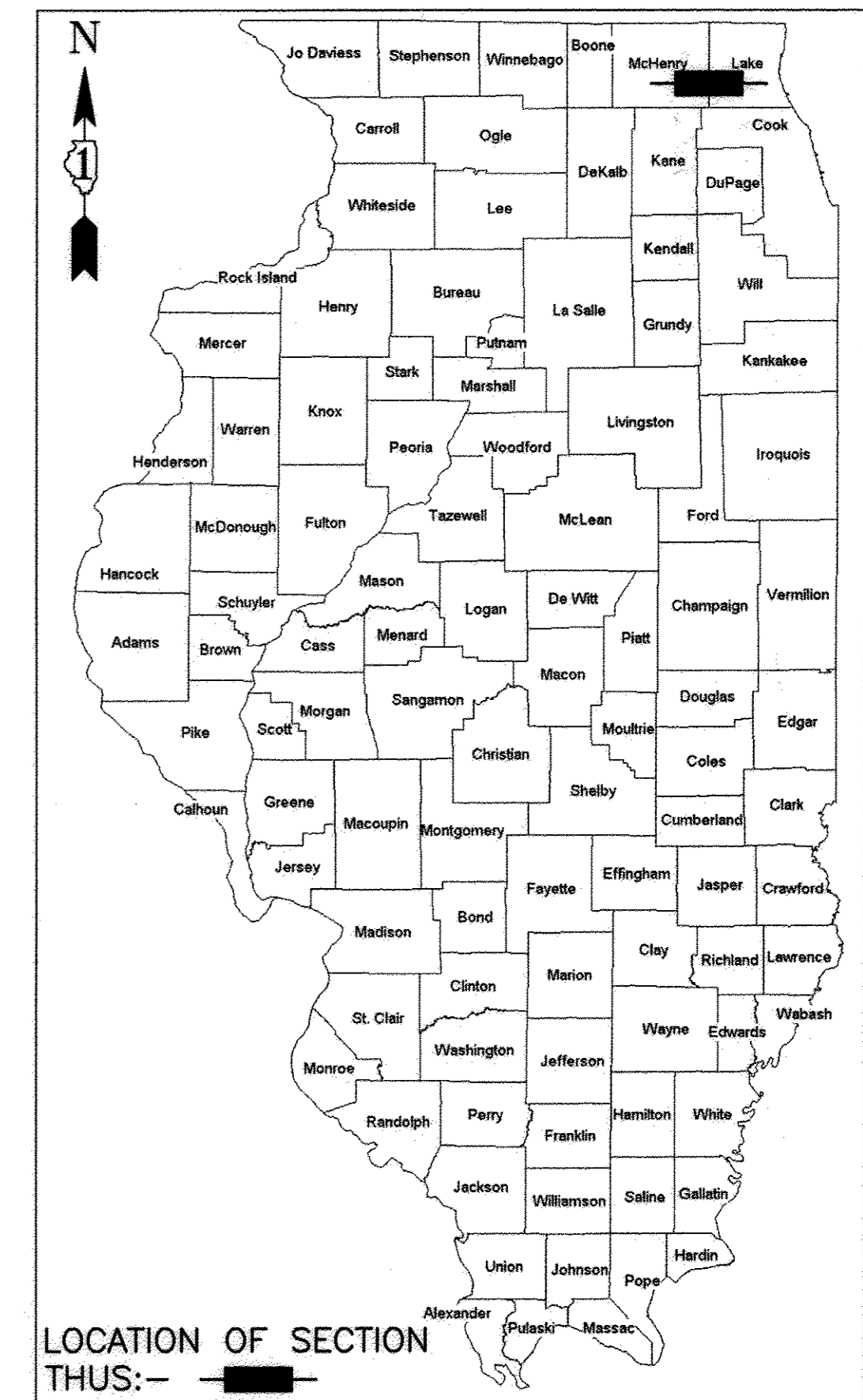
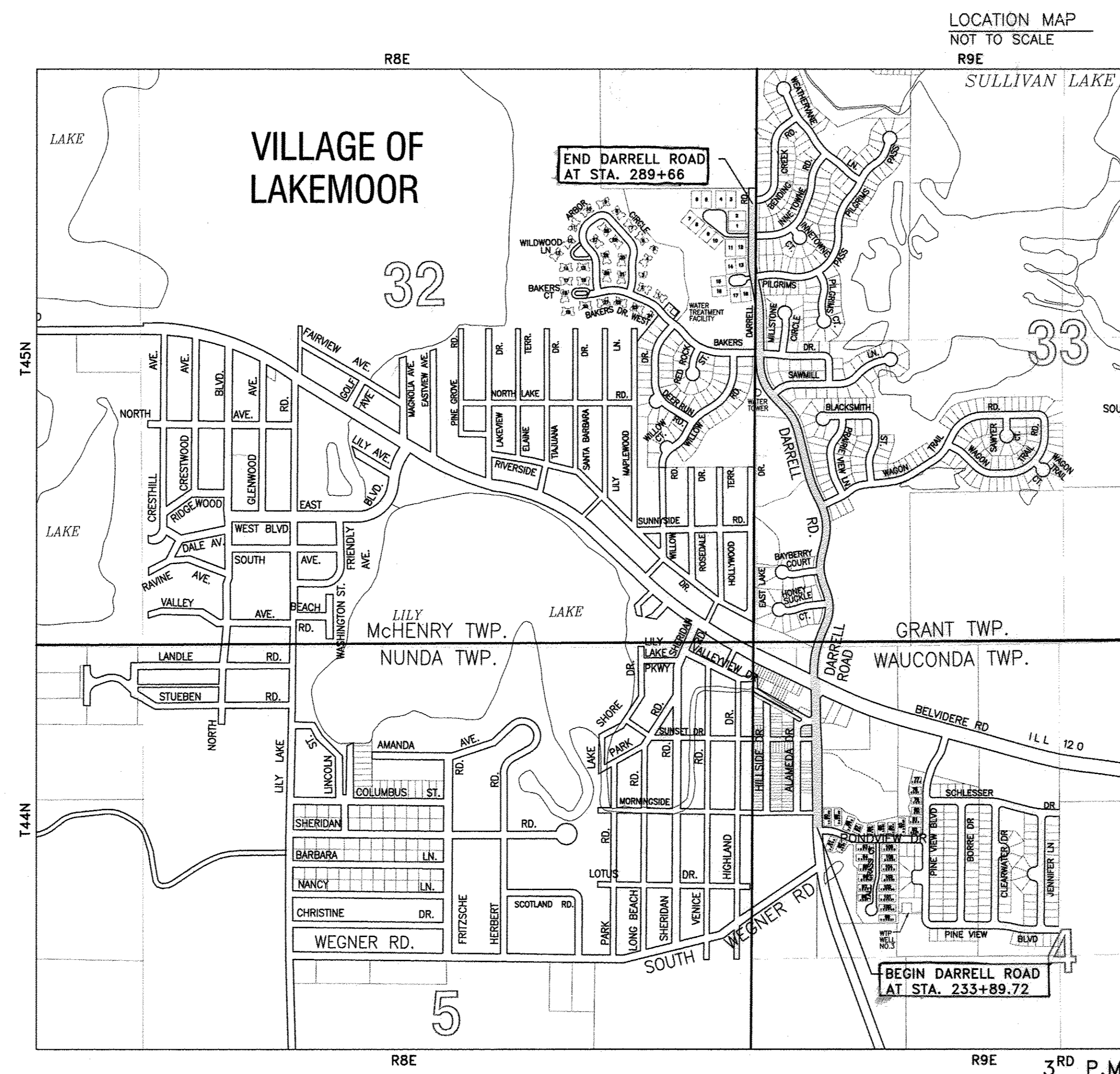
IG CONSULTING, INC.
INFRACON GEOCON
 CONSULTING - CIVIL ENGINEERS & LAND SURVEYORS
 300 MARQUAND DRIVE WHEELING, ILLINOIS 60090 PH. (847) 215-1133 FAX (847) 215-1177

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
 LICENSE NO. 184-001330

PROJECT MANAGER: *Jerry Kotowski*
 JERRY KOTOWSKI

PROJECT ENGINEER: *Carl Kupper*
 CARL KUPPER

CONTRACT NO. 61C28



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED *[Signature]*
 12/15/16
 VILLAGE OF LAKEMOOR

PASSED *[Signature]*
 JANUARY 5, 2017
 DISTRICT 4 ENGINEER OF LOCAL ROADS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW *[Signature]*
 REGIONAL ENGINEER

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

NUNDA/WAUCONDA/McHENRY/GRANT TOWNSHIPS
 GROSS LENGTH OF IMPROVEMENT = 5,576.34 FEET OR 1.06 MILES
 NET LENGTH OF IMPROVEMENT = 5,576.34 FEET OR 1.06 MILES

IG PROJECT NO. 11427

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E., 847-705-4406 SCHAUMBURG, IL

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS IN THE PLANS, THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, AND THE LATEST EDITION OF THE FOLLOWING STATE OF ILLINOIS SPECIFICATIONS: THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (REFERRED TO AS THE "STANDARD SPECIFICATIONS"), THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE "MANUAL OF TEST PROCEDURES FOR MATERIALS" AND THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS".
- THE LOCATIONS OF PUBLIC AND PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE DEPARTMENT DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES, INCLUDING SPRINKLER SYSTEMS, EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL NOTIFY THE VILLAGE PUBLIC WORKS ADMINISTRATOR AND NORTHERN MORAIN WASTEWATER RECLAMATION DISTRICT AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK TO OBTAIN VILLAGE OF UTILITY LOCATIONS.
- THE CONTRACTOR MAY OBTAIN MUNICIPAL WATER IN BULK, AT NO CHARGE, AS LONG AS THERE IS NOT A "WATERING BAN" IN EFFECT. THE INDISCRIMINATE USE OF FIRE HYDRANTS IS STRICTLY PROHIBITED. WATER FOR CONSTRUCTION SHALL BE METERED OR OTHERWISE ACCOUNTED FOR AND A DAILY LOG MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE WATER TRUCK AND DRIVER REQUIRED TO OBTAIN AND TRANSPORT THIS WATER. THE VILLAGE RESERVES THE RIGHT TO RESTRICT OR REFUSE THE USE OF VILLAGE WATER IF DEEMED NECESSARY.
- ACCESS TO PRIVATE DRIVEWAYS SHALL BE PROVIDED AT ALL TIMES EXCEPT DURING ACTUAL CONSTRUCTION ADJACENT THERETO. TEMPORARY RAMPS SHALL BE CONSTRUCTED AS NEEDED TO PROVIDE SUCH ACCESS, UTILIZING CRUSHED STONE AS TEMPORARY ACCESS.
- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY RESIDENTS AND THE VILLAGE WHEN ACCESS TO THEIR DRIVEWAYS WILL BE TEMPORARILY CLOSED DUE TO CURB AND GUTTER AND/OR DRIVEWAY REPLACEMENT. THE CONTRACTOR SHALL DISTRIBUTE NOTICES PROVIDED BY THE ENGINEER TO RESIDENTS AT LEAST 24 HOURS PRIOR TO PLANNED CLOSURE. EVERY EFFORT SHALL BE MADE TO ACCOMMODATE ACCESS TO THESE PROPERTIES INCLUDING KNOCKING ON DOORS WHEN DRIVEWAYS ARE ABOUT TO BE CLOSED.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED. ONE (1) WEIGHTED SANDBAG SHALL BE PLACED ACROSS EACH BOTTOM RAIL.
- THE CONTRACTOR SHALL CONTACT THE LOCAL AGENCY MATERIAL INSPECTOR AT LEAST 48 HOURS PRIOR TO ANY CONCRETE OR HOT-MIX ASPHALT MATERIAL DELIVERIES.
- IN AREAS WHERE THE EXISTING DRIVEWAY, SIDEWALK, OR CURB AND GUTTER IS TO BE REMOVED AND REPLACED, THE REMOVAL AND DISPOSAL OF ANY ADDITIONAL MATERIAL REQUIRED TO ESTABLISH THE PROPOSED DRIVEWAY, SIDEWALK, OR CURB AND GUTTER SUBGRADE ELEVATION SHALL BE INCLUDED IN THE REMOVAL PAY ITEMS.
- THE CURB SHALL BE TAPERED TO THE GUTTER IN A FIVE (5) FOOT LENGTH WHEREVER THE CURB TERMINATES, WITH AN EXPANSION JOINT PLACED AT THE START OF THE TAPER.
- TRENCH BACKFILL FOR THIS PROJECT SHALL CONSIST OF CRUSHED CA-6 AND SHALL BE COMPACTED BY METHOD 1 ONLY. TRENCHES SHALL NOT BE LEFT OPEN OVER-NIGHT.
- ALL POSTS, MAILBOXES, RAILROAD TIES AND DECORATIVE TIMBER IN CONFLICT WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND RELOCATED AS DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION AND SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR WHEN REMOVING THESE ITEMS TO PRESERVE THEM FROM HARM. ITEMS NOT RELOCATED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
- PORTABLE TOILETS SHALL BE PLACED ON THE JOB SITE(S) AND RELOCATED WHEN NECESSARY FOR ACCESSIBILITY TO WORKERS. IF WORK IS OCCURRING AT SEVERAL LOCATIONS, ONE PORTABLE TOILET SHALL BE PLACED AT EACH LOCATION WITHIN A REASONABLE DISTANCE FROM THE WORK AS DETERMINED BY THE ENGINEER.
- DURING CONSTRUCTION, THE CONTRACTOR WILL BE PERMITTED TO LIMIT PARKING IN SPACES APPROVED BY THE VILLAGE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PLACE SIGNS 48 HOURS IN ADVANCE TO ALERT RESIDENTS OF PENDING CONSTRUCTION WORK. PARKING SHALL BE ACCESSIBLE BY THE END OF EACH WORKING DAY.
- A 2' WIDE MAILBOX TURNOUT SHALL BE PROVIDED ADJACENT TO PROPOSED BIKE LANE AS SHOWN ON THE DETAIL. MAILBOX TURNOUTS SHALL BE AT LEAST 2 INCHES THICK AND SHALL BE PAID FOR AS HMA SURFACE COURSE. ALL MAILBOXES WITHIN THE PROJECT LIMITS SHALL BE WITHIN COMPLIANCE WITH LOCAL US POST OFFICE STANDARDS BEFORE COMPLETION OF THE PROJECT.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND SHALL NOT EXCEED 1 INCH WHERE THE SPEED LIMIT IS OVER 45 MPH. A MAXIMUM GRADE DIFFERENCE OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H), AS DETERMINED BY THE ENGINEER.
- FULL-DEPTH SAW CUTS SHALL BE MADE ALONG THE EXISTING EDGE OF PAVEMENT AT THE APPROPRIATE DISTANCE FROM CENTERLINE, AS DETERMINED BY THE ENGINEER, TO PROVIDE A NEAT VERTICAL FACE BETWEEN THE EXISTING AND PROPOSED PAVEMENTS.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING LANDSCAPING, INCLUDING PLANTS, SHRUBS, TREES, FENCES, ETC. THAT ARE NOT DIRECTLY IMPACTED BY PAVEMENT, STORM SEWER, OR DITCH CONSTRUCTION.
- INCREASE APPLICATION RATE OF MULCH METHOD 3A TO 3500 LB/ACRE ON SLOPES EXCEEDING 2H: 1V OR AS RECOMMENDED BY THE MANUFACTURER.

LAKE COUNTY GENERAL NOTES:

- THE CONSTRUCTION, INCLUDING MATERIALS USED, OF THIS UTILITY AND FACILITY SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF THE MOST RECENT EDITIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, AND ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, INCLUDING ALL AMENDMENTS AND SUCCESSOR DOCUMENTS TO THE FOREMENTIONED DOCUMENTS AS PUBLISHED OR ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION UNLESS OTHERWISE STATED IN THESE ENGINEERING PLANS.
- THE CONSTRUCTION OF THIS UTILITY OR FACILITY SHALL ALSO BE IN ACCORDANCE WITH THE LAKE COUNTY HIGHWAY UTILITY AND FACILITY PLACEMENT ORDINANCE, LATEST EDITION, AS AMENDED, OR ANY SUCCESSOR DOCUMENT OR DOCUMENTS THERETO.
- THE LAKE COUNTY DIVISION OF TRANSPORTATION SHALL NOT BE HELD LIABLE FOR ANY ERRORS OR OMISSIONS IN THESE ENGINEERING PLANS OR FOR ANY ADDITIONAL WORK, WHICH MAY BE NEEDED DUE TO ERRORS OR OMISSIONS IN THESE ENGINEERING PLANS.
- THE PERMITTEE SHALL BE RESPONSIBLE FOR ANY ADDITIONAL WORK, AND ALL COSTS THEREOF, REQUIRED BECAUSE OF ERRORS OR OMISSIONS IN THESE ENGINEERING PLANS AND FOR THE CORRECTION OF ANY CONSTRUCTION, MAINTENANCE, OR SAFETY PROBLEMS WHICH BECOME NECESSARY DURING CONSTRUCTION OR BY INSPECTIONS MADE BY THE PERSON IN CHARGE OR THE LAKE COUNTY DIVISION OF TRANSPORTATION.
- THE PERSON IN CHARGE SHALL NOTE ANY CHANGES FROM THESE ENGINEERING PLANS AND SHALL NOTIFY THE PERMIT DEPARTMENT OF THE LAKE COUNTY DIVISION OF TRANSPORTATION ABOUT ANY CHANGES THAT DEVIATE FROM THE INTENT OF THE ENGINEERING PLANS.

SPECIAL CONDITIONS FOR CONSTRUCTION WITHIN A COUNTY HIGHWAY RIGHT-OF-WAY

WORK NOTIFICATION
Prior to starting construction the Permit Section, (847) 377-7400, shall be called and given the construction start date.

SPECIFICATIONS

The construction and restoration methods and procedures, materials used and construction signing and traffic control shall, when applicable, conform to the standards and requirements set forth in the current "Manual on Uniform Traffic Control Devices for Street and Highways", "Standard Specifications for Road and Bridge Construction", "Standard Specification for Traffic Control Items" and the "Highway Standards" manual as published or adopted by the Illinois Department of Transportation.

FIELD CHANGES FOR WATERMAIN OR SEWER LOCATION

No changes to the depth or location of the watermain or sewer as shown on these plans due to unforeseen field conditions or conflicts can be made unless prior approval has been obtained from the Permit Section of the Lake County Division of Transportation.

ADDITIONS, EXTENSIONS OR DELETIONS FOR THE WATERMAIN OR SEWER

No additions, extensions or deletions can be made to the watermain or sewer as shown on these plans unless prior approval has been obtained from the Permit Section of the Lake County Division of Transportation.

APPROVAL OF MATERIALS

The Lake County Division of Transportation Permit Section, (847) 377-7400, shall be called for approval of any materials (i.e. trench backfill, sand, gravel or other granulated materials) that will be placed within the County Highway right-of-way that are not on the approved engineering plans.

HAZARDS TO THE PUBLIC

Measures shall be taken to prevent or protect the public from hazards caused by the construction operations.

PARKING OF VEHICLES, EQUIPMENT AND STORAGE OF MATERIALS

Construction workers' vehicles and construction equipment shall be parked in areas outside of the County Highway right-of-way or in areas where there will be no interference with the normal use of the highway or vehicle sight distance. Construction materials shall be located at least 12 feet from a through traffic lane or outside of the County Highway right-of-way.

MAINTAINING EXISTING TRAFFIC CONTROL DEVICES

Existing traffic control devices that are removed shall be re-erected as soon as possible. Damaged or lost traffic control signs shall be reported to the Sign Shop, (847) 377-7501, of the Lake County Division of Transportation for replacement. Regulatory and warning traffic signs shall be kept in view of the highway traffic.

EXISTING DRAINAGE AND ACCESS

Disturbed highway drainage facilities shall be re-established at the close of each work day. Occupants of adjacent properties having access to the County Highway shall be notified prior to being blocked and suitable arrangements made with the occupants. Adjacent property access shall be re-established as soon as possible.

HIGHWAY PAVEMENTS

Care shall be taken not to break, crack or damage the highway pavement with equipment operating on it. Also, any dirt or debris tracked onto the highway pavement shall be removed. Equipment with grozer pads, cleats or studs are not permitted to operate on the highway pavement.

If, due to construction operations, the highway pavement becomes damaged or undermined, all construction work in that area shall be stopped and the highway pavement repaired as directed by the Lake County Division of Transportation. Alternate construction measures shall then be used to prevent further highway pavement damage.

EXCAVATIONS, TRENCHES AND BORE PITS

Excavated material shall, when practical, be piled on the near traffic side of the excavation, trench or bore pit. Open excavations, trenches or bore pits remaining after working hours shall not exceed 50 feet in length and shall be properly protected (fencing, covered, caps) and marked with orange (Type I) or red (Type II) flags in series, only steady burning lights shall be used. Bore pits shall be located no closer than 10 feet to the highway pavement, back of curb or gutter, or shoulder break line, whichever is further. If casing pipes are used, the voids in the casing pipe shall be filled and/or the ends sealed so there will be no siltation into the casing pipe.

BACKFILLING

Backfilling operations shall be simultaneous with the construction operations and shall be in accordance with the "Standard Specifications for Road and Bridge Construction". Any excavation, trench, bore pit or portion thereof within a 1:1 slope of the pavement edge or back of curb shall be backfilled with Trench Backfill (sand). In addition, Trench Backfill (sand) shall be used for all access crossings and pavement areas and shall extend two feet beyond the edge of the access or pavement area. Areas between the pavement edge and the shoulder break line shall be backfilled with Aggregate Base Course (gravel). Backfill of shoulder areas shall not extend above the existing ground and any settlement shall be promptly filled.

MANHOLES, VALVES, VALVE VAULTS AND APPURTENANCES

The top of the frame and lid or cover of a manhole, valve, or valve vault shall be flush and contoured to the surrounding ground. If this is not possible due to an excessive slope, the surrounding ground shall be regraded or the frame and lid or cover partially buried to provide for a gradual transition slope so the area can be safely mowed and no hazard to the public will result. The top of the frame and lid or cover that is located within the gravel shoulder shall have a bituminous apron installed around the frame or cover as directed by the Lake County Division of Transportation. Any frame and lid or cover located in a paved area shall be contoured and 1/2 inch below the surface of the surrounding pavement. The top of the frame and lid or cover shall not be located within the area of 27.5 feet to 30.5 feet from the highway pavement centerline. Surface appurtenances that extend above the surrounding ground surface shall be located within 2' of the County Highway right-of-way.

TILE LINES AND STORM SEWERS

Existing tile lines and storm sewers that are encountered during construction operations shall be replaced if broken with like size and kind of material. Tile line and storm sewer crossings of the excavation shall be bridged with rigid material such as wood or steel. The location and depth of any encountered tile lines and storm sewers shall be recorded and a copy given to the Lake County Division of Transportation.

WINTER CONSTRUCTION WORK

Snow and ice removal operations of the Lake County Division of Transportation shall have precedence over the construction operations. A 12-foot wide (minimum) clear area from the highway pavement edge shall be maintained for the roadside storage of snow and ice. No construction equipment or materials shall be stored in this 12-foot wide (minimum) clear area nor shall any piles of dirt or excavated materials be left in this area.

RESTORATION AND CLEAN-UP

The area of the County Highway right-of-way disturbed by construction operations shall be kept to a minimum and shall be restored as promptly as weather and soil conditions permit. If restoration is not accomplished voluntarily, the Lake County Division of Transportation may set a final date for the completion of the restoration work.

Turf areas of the right-of-way disturbed by construction operations shall be compacted and regraded to an equal or better condition than existed before construction. Also an average 3-inch depth of topsoil, fertilizer, seed and mulch shall be used. Hydro seeding is also acceptable. Sod shall be used in high erosion areas. This restoration work will not be considered completed until the turf cover is established. Gravel and paved shoulders that are damaged shall be replaced as directed by the Lake County Division of Transportation. Driveways, side roads and other accesses, which are damaged, shall be restored with similar materials and thickness. The edges of excavated paved surfaces shall be sawcut prior to repair. Culverts, storm sewer systems and other drainage facilities including ditch lines shall be cleaned of siltation and debris due to the construction operations. Other areas of the right-of-way that have been disturbed such as curb and gutters shall be restored with similar materials. Any damaged property of the County of Lake, its Division of Transportation, or of others (including utility companies) shall be repaired or replaced or the owner of the damaged property reimbursed for the costs of repairing the damaged property by the owner.

RESTORATION GUARANTEE

Any restoration work that fails within one year of completion shall be redone. Also, any settlement that occurs within one year of completion of the surface restoration work shall be filled and the surface area restored.

KEEPING ROADS OPEN TO TRAFFIC

All roads shall remain open to traffic. The Contractor may close one lane because of construction only between the hours of 9:00 a.m. and 3:00 p.m. The person in charge shall notify the Lake County Division of Transportation - Transportation Management Center, (847) 377-7000, of any lane closure and when the lane re-opens. This information will be broadcast on the Lake County Peace and Highway Advisory Radio. The Contractor shall maintain traffic during these restricted hours as shown on the Traffic Control Standards. Two lanes of traffic will be maintained between 3:00 p.m. and 9:00 a.m. and when no construction activities are being carried out. Traffic routed around construction areas shall be over paved surfaces and not over gravel shoulders.

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424001-09	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
442001-04	CLASS A PATCHES
542401-02	METAL END SECTION FOR PIPE CULVERTS
604001-04	FRAME AND LIDS, TYPE 1
604006-05	GRATE, TYPE 3
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' (4.5M) TO 24' (600 MM) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING FOR SPEED ≥ 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-06	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
B.L.R. 24-2	MAILBOX TURNOUT FOR LOCAL ROADS

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LAKE COUNTY NOTE:
THE REVIEW AND APPROVAL OF THESE FINAL ENGINEERING PLANS AND SPECIFICATIONS BY THE LAKE COUNTY DIVISION OF TRANSPORTATION DOES NOT CONSTITUTE A RELEASE FROM OR GRANT OF VARIATION FROM THE RULES, REGULATIONS, AND SPECIFICATIONS REQUIRED IN THE LAKE COUNTY HIGHWAY UTILITY AND FACILITY PLACEMENT ORDINANCE, LATEST EDITION, AS AMENDED, OR ANY SUCCESSOR DOCUMENT OR DOCUMENTS THERETO. THE PERMITTEE, THE PERMITTEE'S DESIGNATED REPRESENTATIVES, AND/OR ALL SUCCESSORS AND ASSIGNS SHALL BE SOLELY RESPONSIBLE FOR ALL WORK AND IMPROVEMENTS WITHIN THE LIMITS OF THE COUNTY HIGHWAY RIGHT-OF-WAY, UNLESS OTHERWISE SPECIFIED, APPROVED IN WRITING BY THE LAKE COUNTY COUNTY ENGINEER, AND ON FILE WITH THE LAKE COUNTY DIVISION OF TRANSPORTATION. ALL WORK AND MATERIALS NECESSARY TO CONSTRUCT UTILITIES AND FACILITIES AND RESTORE THE RIGHT-OF-WAY WITHIN THE LIMITS OF THE COUNTY HIGHWAY SHALL BE IN CONFORMANCE WITH THE RULES, REGULATIONS, AND SPECIFICATIONS OF THE LAKE COUNTY UTILITY AND FACILITY PLACEMENT ORDINANCE, LATEST EDITION, AS AMENDED, OR ANY SUCCESSOR DOCUMENT OR DOCUMENTS THERETO.

BENCHMARKS (NAVD 29)

BM #15	+	CUT CROSS IN CONCRETE WALK AT THE NORTHEAST INTERSECTION OF DARRELL ROAD AND BELVIDERE ROAD. ELEVATION = 759.05
BM #17	+	CUT CROSS IN BACK OF CURB AT THE EAST SIDE OF DARRELL ROAD 331± SOUTH OF INTERSECTION OF DARRELL ROAD AND BELVIDERE ROAD. ELEVATION = 755.70
BM #21	+	CUT CROSS IN CONCRETE WALK AT THE WEST SIDE OF DARRELL ROAD, 131± NORTH OF INTERSECTION OF BAYBERRY COURT AND DARRELL ROAD. ELEVATION = 759.89
BM #26	+	CUT CROSS IN CONCRETE WALK AT WEST SIDE OF DARRELL ROAD 248± SOUTH OF INTERSECTION OF DARRELL ROAD AND BELVIDERE ROAD. ELEVATION = 758.66
BM #27	+	CUT CROSS IN BACK OF CURB AT WEST SIDE OF DARRELL ROAD, 108± SOUTH OF INTERSECTION OF DARRELL ROAD AND BAKERS DRIVE. ELEVATION = 758.27
BM #34	+	CUT CROSS IN BACK OF CURB AT WEST SIDE OF DARRELL ROAD, 47± SOUTH OF INTERSECTION OF DARRELL ROAD AND INNETOWNE ROAD. ELEVATION = 757.65
BM #37	+	P.K. NAIL IN ASPHALT SHOULDER AT WEST SIDE OF DARRELL ROAD 800± SOUTH OF INTERSECTION OF DARRELL ROAD AND BELVIDERE ROAD. ELEVATION=758.37

LEGEND

EXISTING	PROPOSED
SANITARY SEWER STORM SEWER WATER MAIN YARD DRAIN STORM MANHOLE SANITARY MANHOLE CLEAN OUT B.BOX DOWNSPOUT PAVEMENT FENCE DRAINAGE FLOW PAVEMENT @ GROUND ELEVATION CONTOURS TOP OF FOUNDATION ELEVATION FIRST FLOOR ELEVATION GARAGE FLOOR ELEVATION EXISTING TREE TREE TO BE REMOVED SILT FENCE TREE PROTECTION FENCE TRAFFIC MANHOLE TRAFFIC SIGNAL UTILITY POLE LIGHT POLE TRANSFORMER TELEPHONE MANHOLE	SANITARY SEWER STORM SEWER WATER MAIN YARD DRAIN STORM MANHOLE SANITARY MANHOLE CLEAN OUT B.BOX DOWNSPOUT PAVEMENT FENCE DRAINAGE FLOW PAVEMENT @ GROUND ELEVATION CONTOURS TOP OF FOUNDATION ELEVATION FIRST FLOOR ELEVATION GARAGE FLOOR ELEVATION EXISTING TREE TREE TO BE REMOVED SILT FENCE TREE PROTECTION FENCE TRAFFIC MANHOLE TRAFFIC SIGNAL UTILITY POLE LIGHT POLE TRANSFORMER TELEPHONE MANHOLE

	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, GENERAL NOTES, HIGHWAY STANDARDS,
COMMITMENTS AND BENCHMARKS**

SCALE: - STA. 0+00 TO STA. 0+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	2
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				


SUMMARY OF QUANTITIES

SPECIAL PROVISION	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
				0028
	20200100	EARTH EXCAVATION	CU YD	206
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	189
	20400800	FURNISHED EXCAVATION	CU YD	153
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	178
	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	107
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	652
	21400100	GRADING AND SHAPING DITCHES	FOOT	200
	25000210	SEEDING, CLASS 2A	ACRE	0.10
	25000310	SEEDING, CLASS 4	ACRE	0.10
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	22.5
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	22.5
	25100127	MULCH, METHOD 3A	ACRE	0.25
	25100900	TURF REINFORCEMENT MAT	SQ YD	130
	25200200	SUPPLEMENTAL WATERING	UNIT	10
	28000305	TEMPORARY DITCH CHECKS	FOOT	15
	28000400	PERIMETER EROSION BARRIER	FOOT	280
	28000510	INLET FILTERS	EACH	3

SUMMARY OF QUANTITIES

SPECIAL PROVISION	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
				0028
	28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	463
	30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	165
	31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	255
	35101400	AGGREGATE BASE COURSE, TYPE B	TON	221
	35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	300
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	61
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	61
	40700100	BITUMINOUS MATERIALS (TACK COAT)	POUNDS	1,460
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	567
	42400800	DETECTABLE WARNINGS	SQ FT	115
	44000100	PAVEMENT REMOVAL	SQ YD	18
	44000500	COMBINATION CONCRETE CURB AND GUTTER REMOVAL	FOOT	17
	44000600	SIDEWALK REMOVAL	SQ FT	106
	Δ 52200800	SEGMENTAL CONCRETE BLOCK WALL	SQ FT	800
	550B0040	STORM SEWERS, CLASS B, TYPE 1 10"	FOOT	12
	60255500	MANHOLES TO BE ADJUSTED	EACH	1
	60403530	GRATES, TYPE "V"	EACH	22
	60403700	LIDS, TYPE 1, OPEN LID	EACH	1
	60604400	COMBINATION CONCRETE CURB+ CUTTER, TYPE B-6.18	FOOT	17

Δ SPECIMITY ITEMS

	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED - 12/29/16 IDOT SUBMITTAL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: -	STA. TO STA.	F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 3
		C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)						

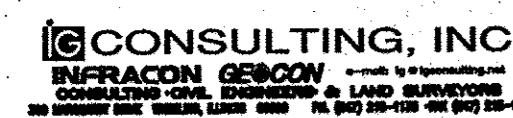
SUMMARY OF QUANTITIES

SPECIAL PROVISION	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
				0028
	67100100	MOBILIZATION	LSUM	1
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	LSUM	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1
Δ	72000100	SIGN PANEL - TYPE 1	SQ FT	131
Δ	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	1
Δ	72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	6.25
Δ	72900100	METAL POST - TYPE A	FOOT	232
Δ	78000600	THERMOPLASTIC PAVEMENT MARKING LINE - 12"	FOOT	717
Δ	78000650	THERMOPLASTIC PAVEMENT MARKING LINE - 24"	FOOT	222
Δ	78001100	PAINT PAVEMENT MARKING LINE - LETTERS AND SYMBOLS	SQ FT	247
Δ	78001110	PAINT PAVEMENT MARKING LINE - 4"	FOOT	6,573
Δ	78001130	PAINT PAVEMENT MARKING LINE - 6"	FOOT	360
Δ	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	30
Δ	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
Δ	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	896

SUMMARY OF QUANTITIES

SPECIAL PROVISION	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY
				0028
Δ	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	932
Δ	87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
Δ	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4
Δ	87900200	DRILL EXISTING HANDHOLE	EACH	1
Δ	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
Δ	88800100	PEDESTRIAN PUSH-BUTTON	EACH	4
Δ	89502200	MODIFY EXISTING CONTROLLER	EACH	1
Δ	X0320029	TEMPORARY CHAIN LINK FENCE, 6'	FOOT	251
Δ *	X6330705	RUB RAIL	FOOT	226
Δ *	XX001249	ORNAMENTAL FENCE	FOOT	226
*	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	104

Δ SPECIALTY ITEMS

	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED - 12/29/16 IDOT SUBMITTAL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: --	STA. TO STA.	F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 4
		C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)						

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ NDES
BIKE PATH	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, (IL 9.5 MM); 1 1/2"	4% @ 50 GYR.
HOT MIX ASPHALT BINDER COURSE, IL-19.0, N50 1 1/2"	4% @ 50 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

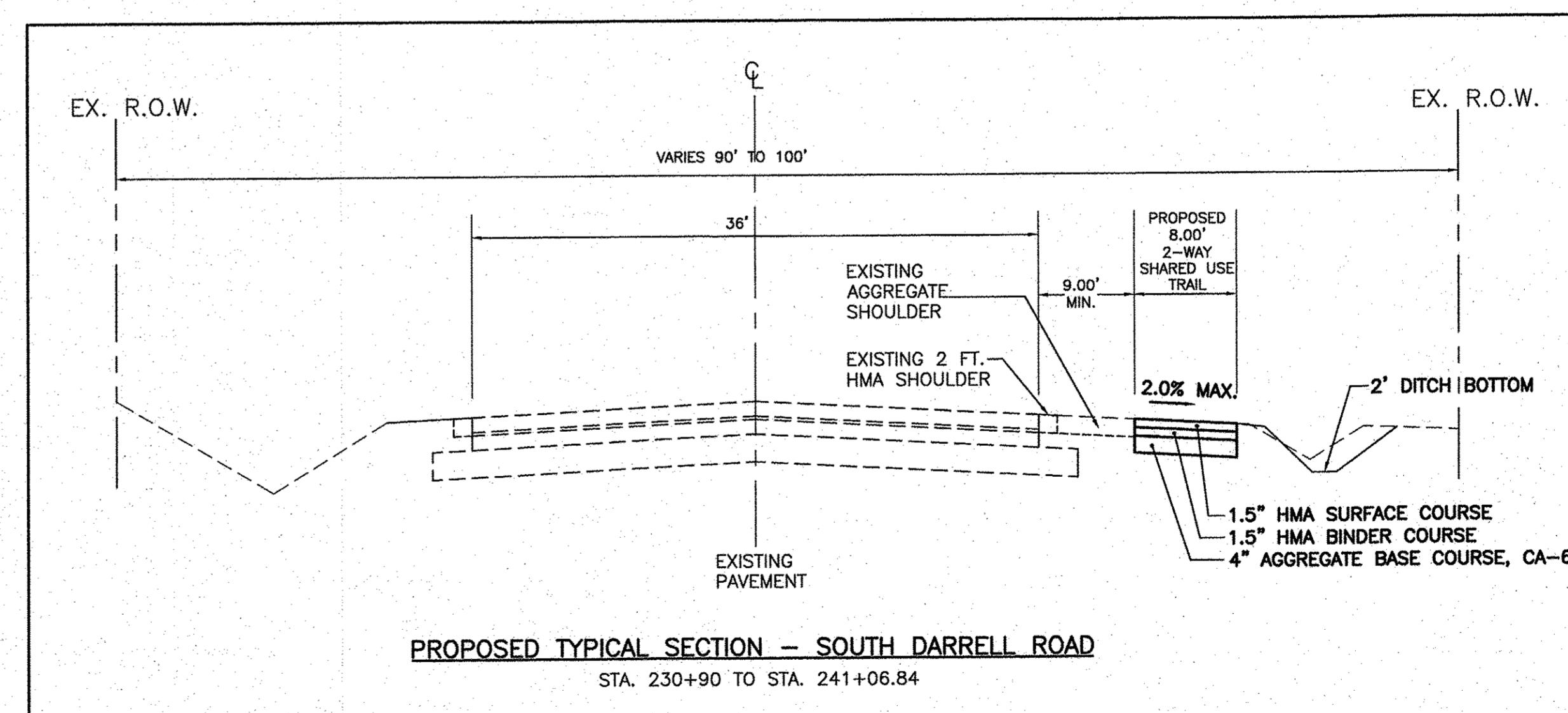
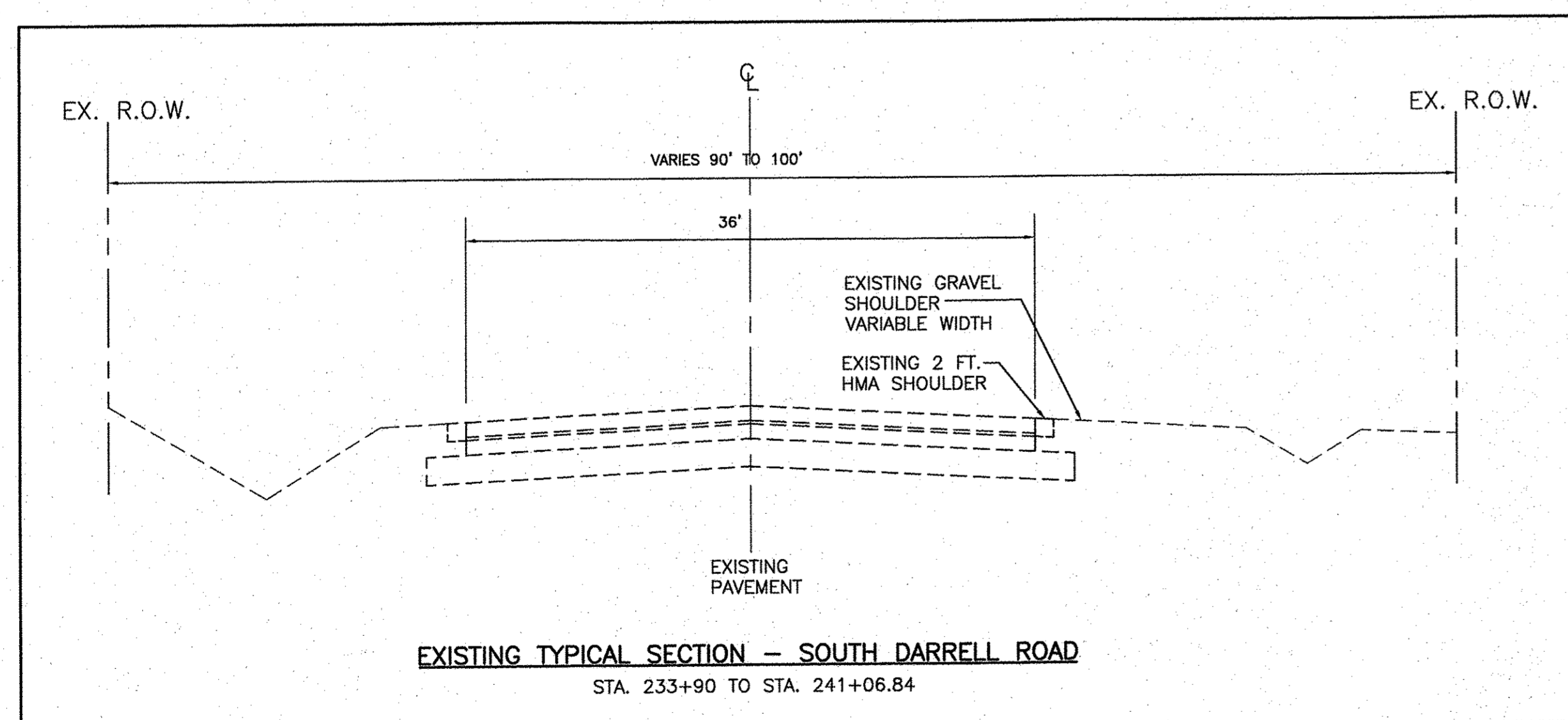
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY THE DISTRICT ONE SPECIAL PROVISIONS.

FOR HMA FULL DEPTH "AC TYPE" SEE SPECIAL PROVISIONS

FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS

THE CONTRACTOR SHALL MILL BEFORE PATCHING

NOTE: AGGREGATE SUBGRADE IMPROVEMENT (ASI) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ASI WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.03 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE SOIL SHALL BE REMOVED AND REPLACED WITH ASI OR EMBANKMENT AS DETERMINED BY THE ENGINEER. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE THE CONTRACTOR. A QUANTITY OF REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL SHALL ALSO BE DEDUCTED WITH NO ADDITIONAL COMPENSATION DUE THE CONTRACTOR.



IC CONSULTING, INC.
INFRACON GENCOV
CONSULTING ENGINEERS & LAND SURVEYORS
300 WEST WASHINGTON, SUITE 1000, CHICAGO, ILLINOIS 60601-1000

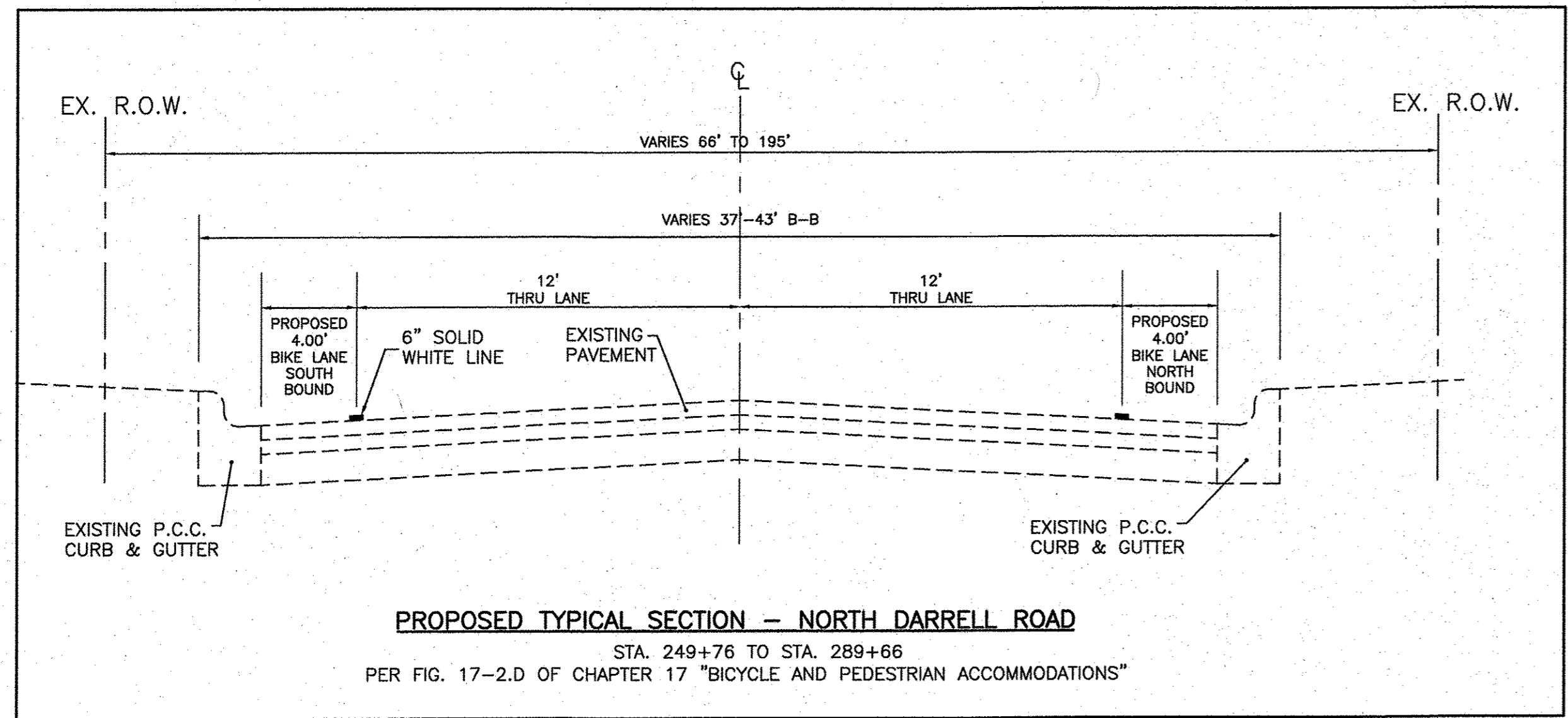
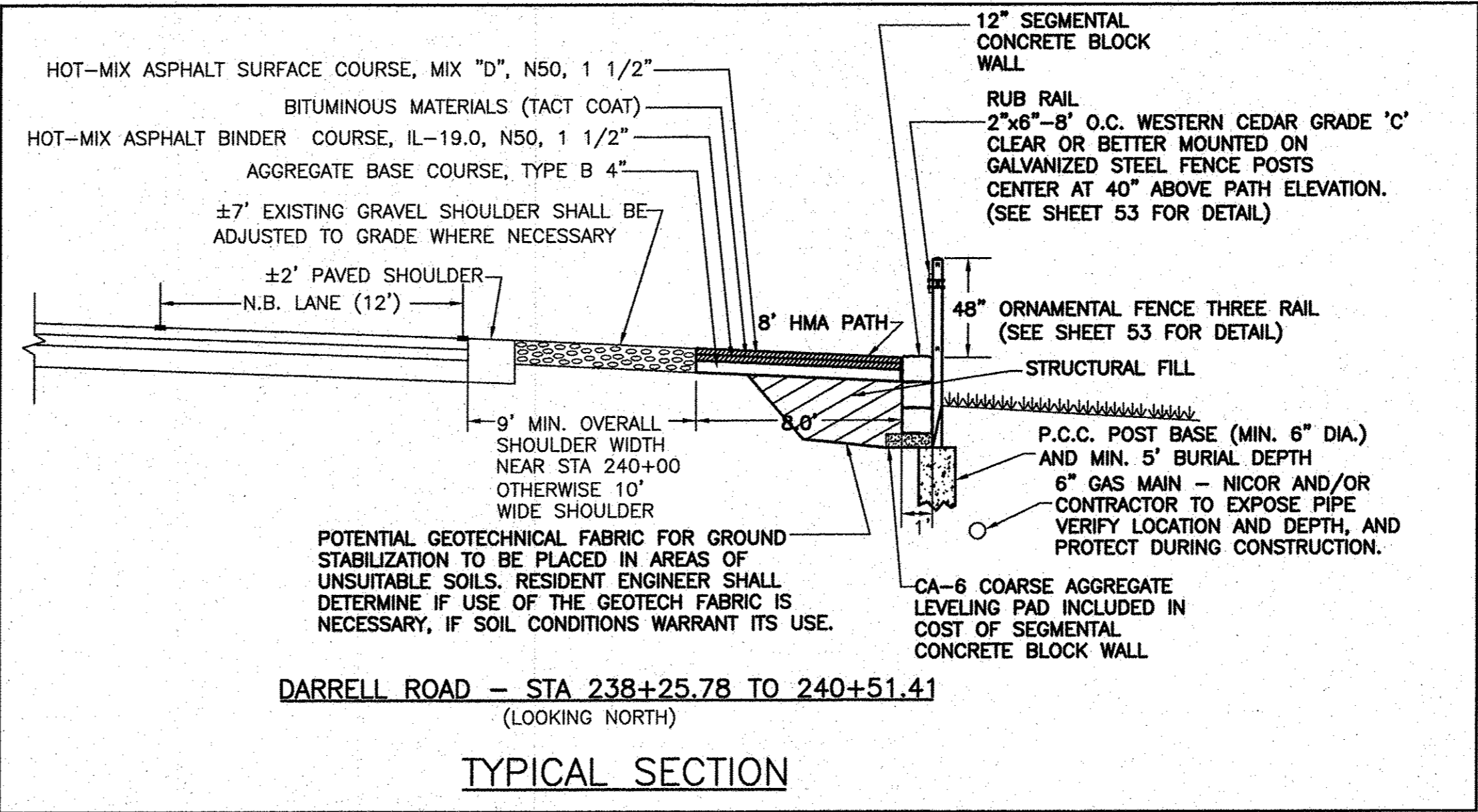
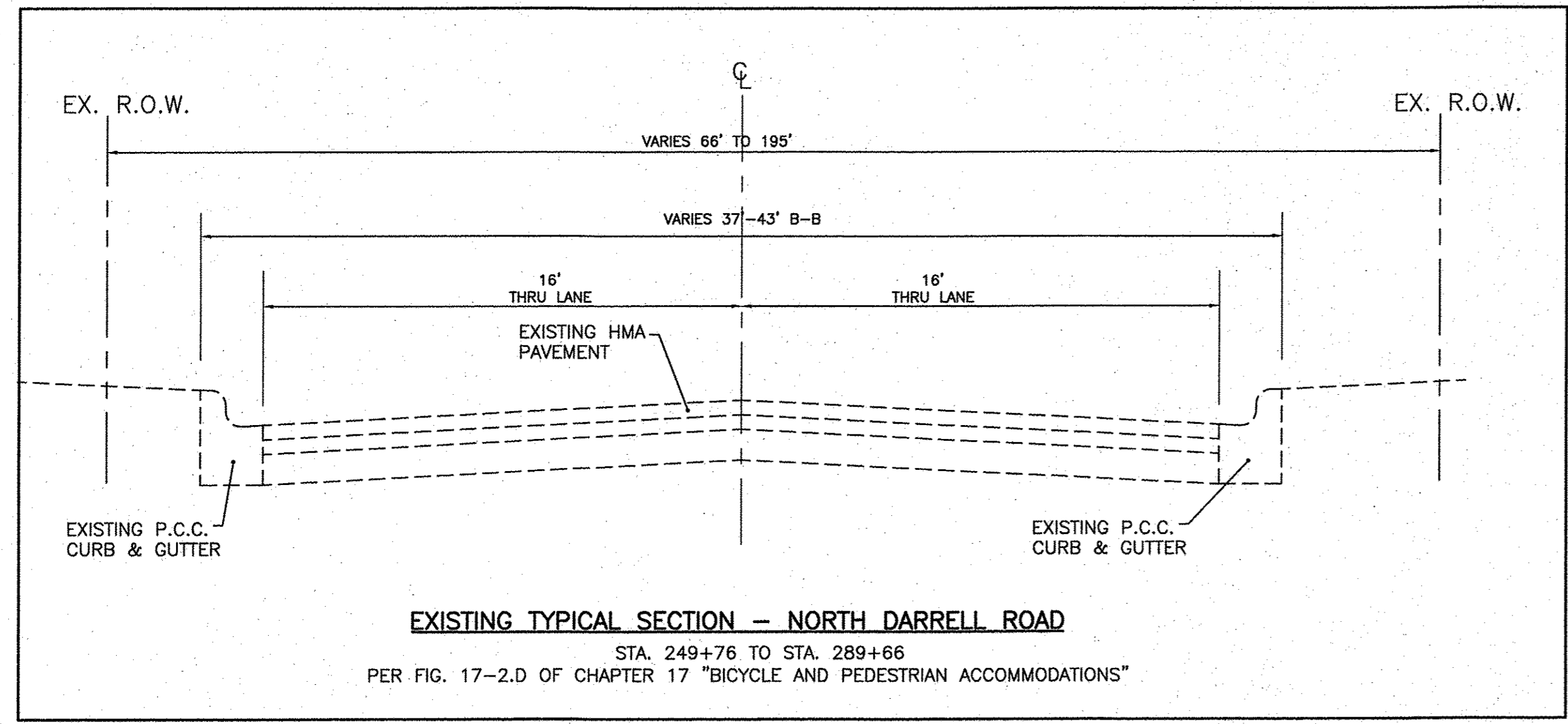
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED - 12/29/16 IDOT SUBMITTAL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING & PROPOSED TYPICAL SECTIONS

SCALE: -- STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	5
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



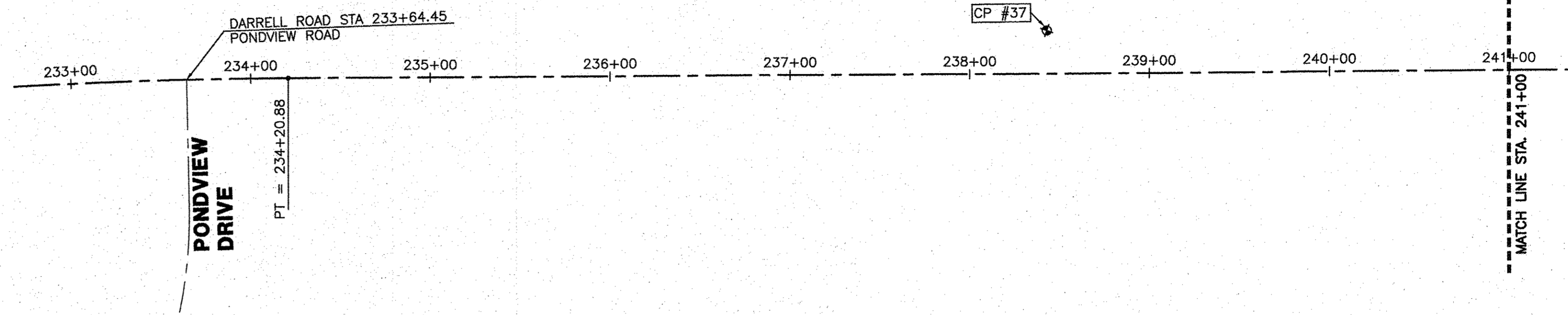
CONSULTING, INC.
 INFRACON GEOTECH
 CONSULTING ENGINEERS & LAND SURVEYORS
 1000 N. WILSON AVENUE, SUITE 1000, CHICAGO, ILLINOIS 60642-3917

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED - 12/29/16 IDOT SUBMITTAL

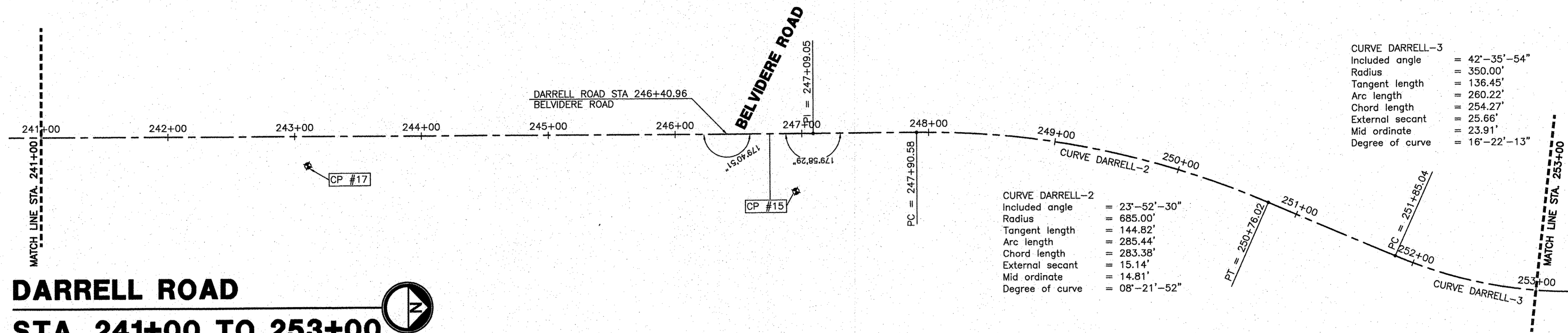
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: -	STA. TO STA.	0012	14-00011-00-BT	LAKE	57	6
		C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)						

DARRELL ROAD
STA. 233+64.45 TO 230+00



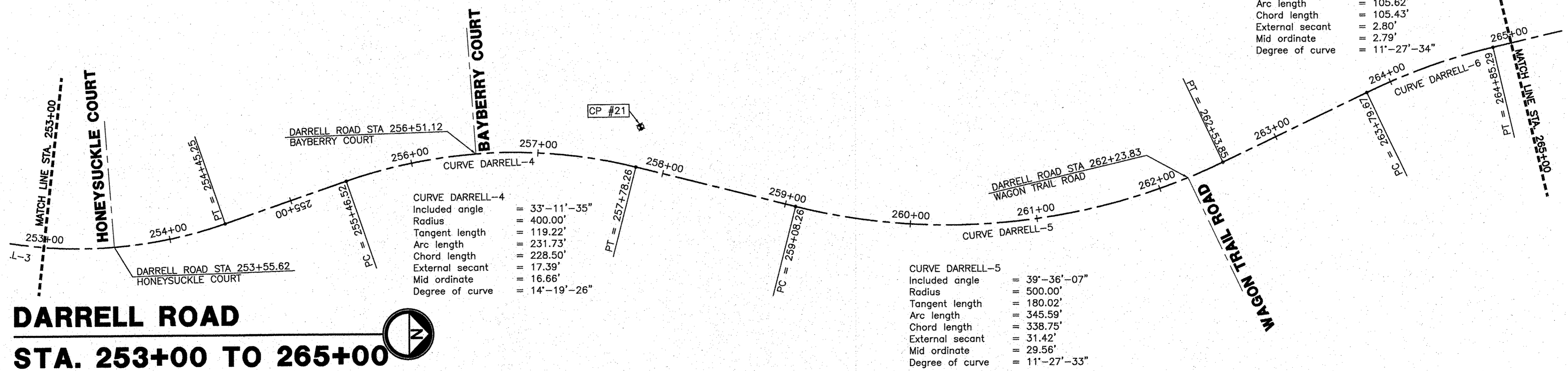
DARRELL ROAD
STA. 241+00 TO 253+00



CURVE DARRELL-3
 Included angle = 42°-35'-54"
 Radius = 350.00'
 Tangent length = 136.45'
 Arc length = 260.22'
 Chord length = 254.27'
 External secant = 25.66'
 Mid ordinate = 23.91'
 Degree of curve = 16°-22'-13"

CURVE DARRELL-2
 Included angle = 23°-52'-30"
 Radius = 685.00'
 Tangent length = 144.82'
 Arc length = 285.44'
 Chord length = 283.38'
 External secant = 15.14'
 Mid ordinate = 14.81'
 Degree of curve = 08°-21'-52"

DARRELL ROAD
STA. 253+00 TO 265+00



CURVE DARRELL-4
 Included angle = 33°-11'-35"
 Radius = 400.00'
 Tangent length = 119.22'
 Arc length = 231.73'
 Chord length = 228.50'
 External secant = 17.39'
 Mid ordinate = 16.66'
 Degree of curve = 14°-19'-26"

CURVE DARRELL-5
 Included angle = 39°-36'-07"
 Radius = 500.00'
 Tangent length = 180.02'
 Arc length = 345.59'
 Chord length = 338.75'
 External secant = 31.42'
 Mid ordinate = 29.56'
 Degree of curve = 11°-27'-33"

CURVE DARRELL-6
 Included angle = 12°-06'-13"
 Radius = 499.99'
 Tangent length = 53.01'
 Arc length = 105.62'
 Chord length = 105.43'
 External secant = 2.80'
 Mid ordinate = 2.79'
 Degree of curve = 11°-27'-34"

IC CONSULTING, INC.
 INFRACON DESIGN AND CONSTRUCTION
 CONSULTING, INC. LAND SURVEYORS
 1000 WEST WISCONSIN AVENUE, SUITE 200
 CHICAGO, ILLINOIS 60606

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

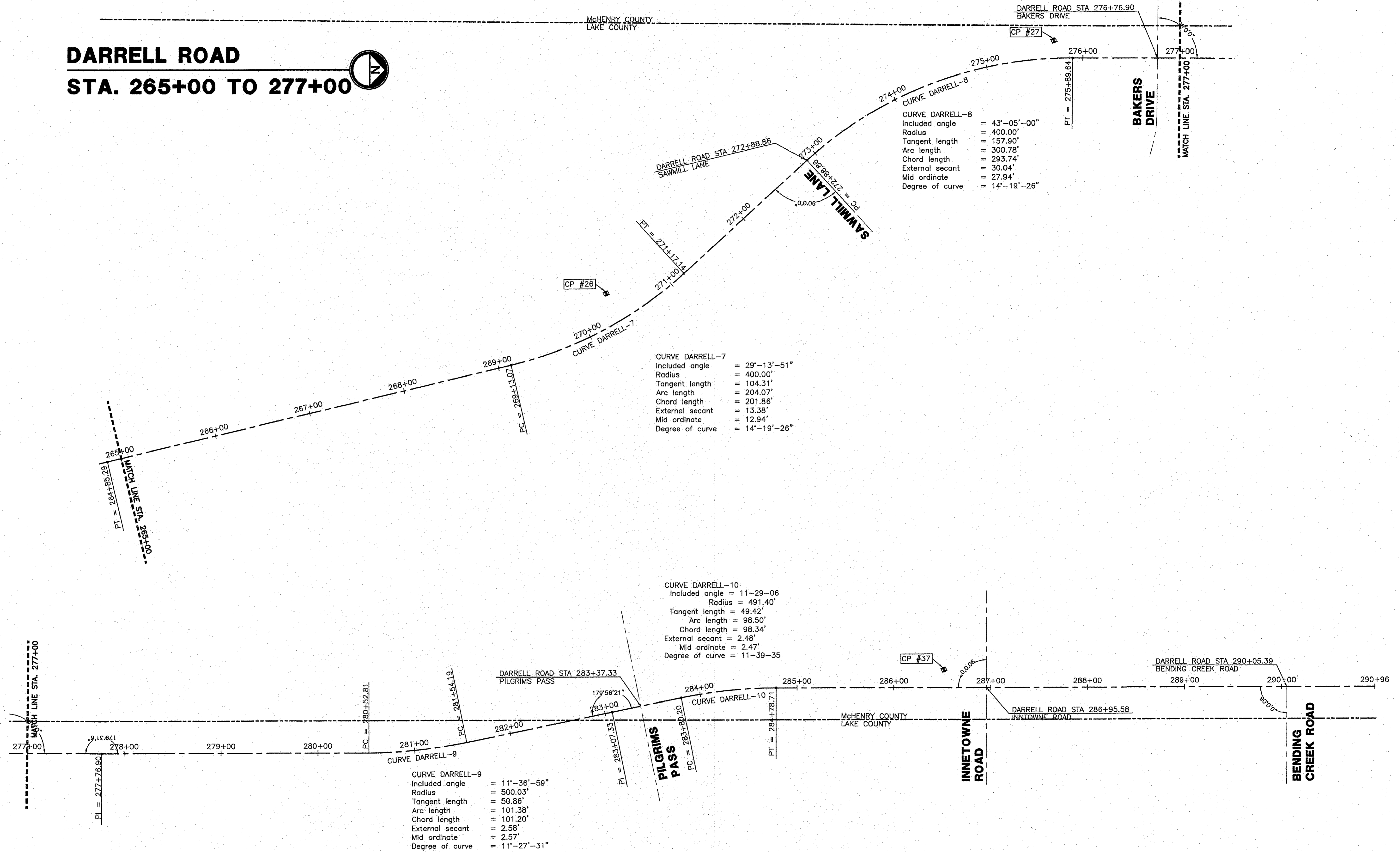
ALIGNMENT AND TIES
DARRELL ROAD

SCALE: 1"=50'

STA. 229+00 TO STA. 253+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	8
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				

DARRELL ROAD STA. 265+00 TO 277+00



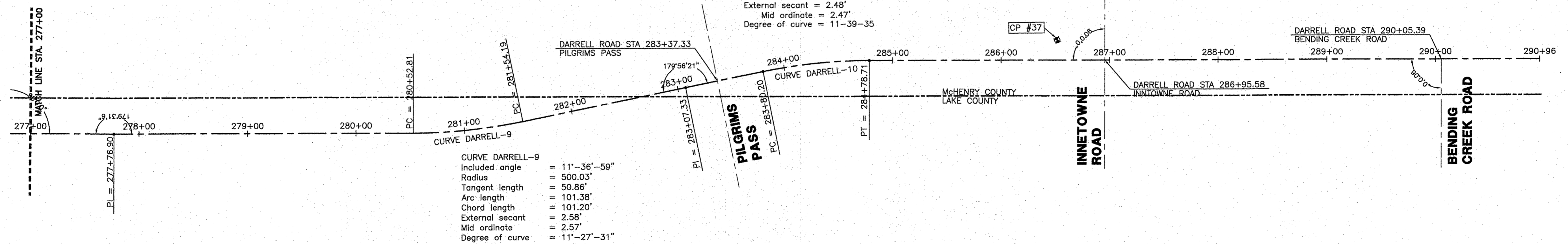
CURVE DARRELL-8
 Included angle = 43°-05'-00"
 Radius = 400.00'
 Tangent length = 157.90'
 Arc length = 300.78'
 Chord length = 293.74'
 External secant = 30.04'
 Mid ordinate = 27.94'
 Degree of curve = 14°-19'-26"

CURVE DARRELL-7
 Included angle = 29°-13'-51"
 Radius = 400.00'
 Tangent length = 104.31'
 Arc length = 204.07'
 Chord length = 201.86'
 External secant = 13.38'
 Mid ordinate = 12.94'
 Degree of curve = 14°-19'-26"

CURVE DARRELL-10
 Included angle = 11°-29'-06"
 Radius = 491.40'
 Tangent length = 49.42'
 Arc length = 98.50'
 Chord length = 98.34'
 External secant = 2.48'
 Mid ordinate = 2.47'
 Degree of curve = 11°-39'-35"

CURVE DARRELL-9
 Included angle = 11°-36'-59"
 Radius = 500.03'
 Tangent length = 50.86'
 Arc length = 101.38'
 Chord length = 101.20'
 External secant = 2.58'
 Mid ordinate = 2.57'
 Degree of curve = 11°-27'-31"

DARRELL ROAD STA. 277+00 TO 290+96



CONSULTING, INC.
 INFRASTRUCTURE GROUP
 CONSULTING ENGINEERS & LAND SURVEYORS
 1100 N. WASHINGTON ST., SUITE 200, CHICAGO, IL 60610

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 07/21/15	REVISED -

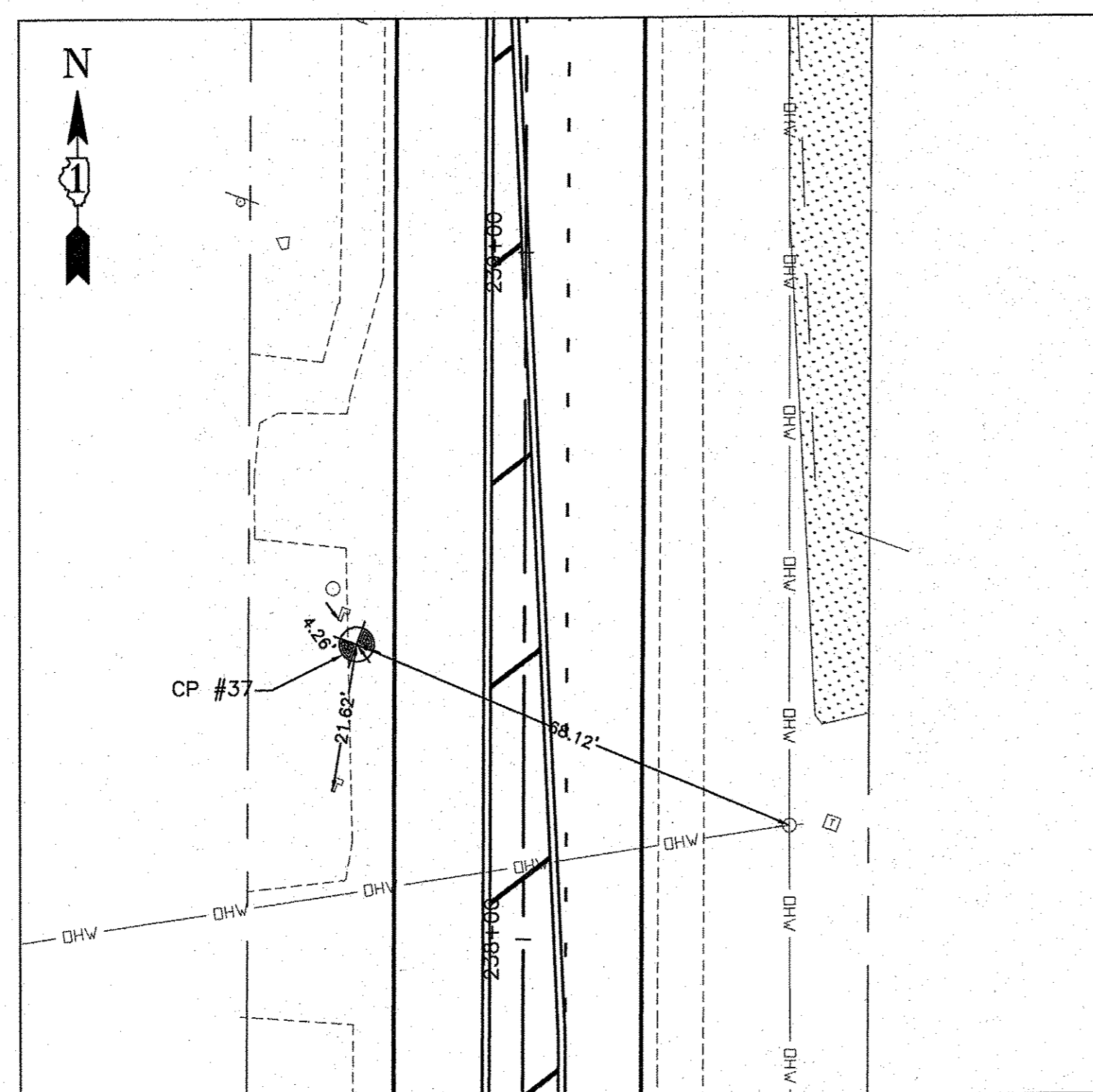
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE: 1"=50'

ALIGNMENT AND TIES DARRELL ROAD

STA. 229+00 TO STA. 253+00

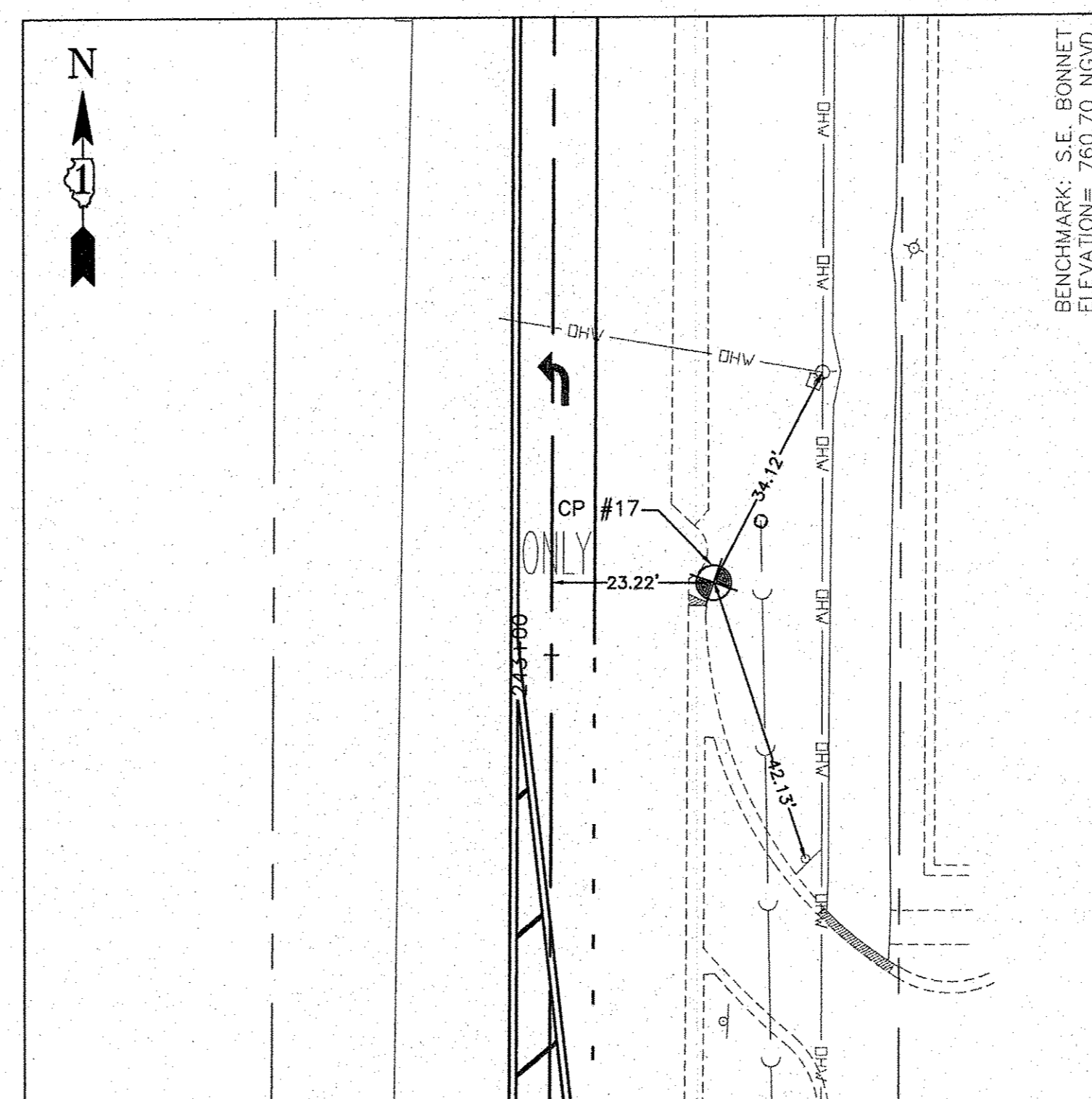
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY/LAKE	57	9
C-91-209-15		CONTRACT NO. 61C2B		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



CONTROL POINT #37

P.K. NAIL IN ASPHALT SHOULDER

STA. 238+42.92, 24.30 LT.
 N = 4254.1618
 E = 3362.4548
 ELEVATION = 758.37

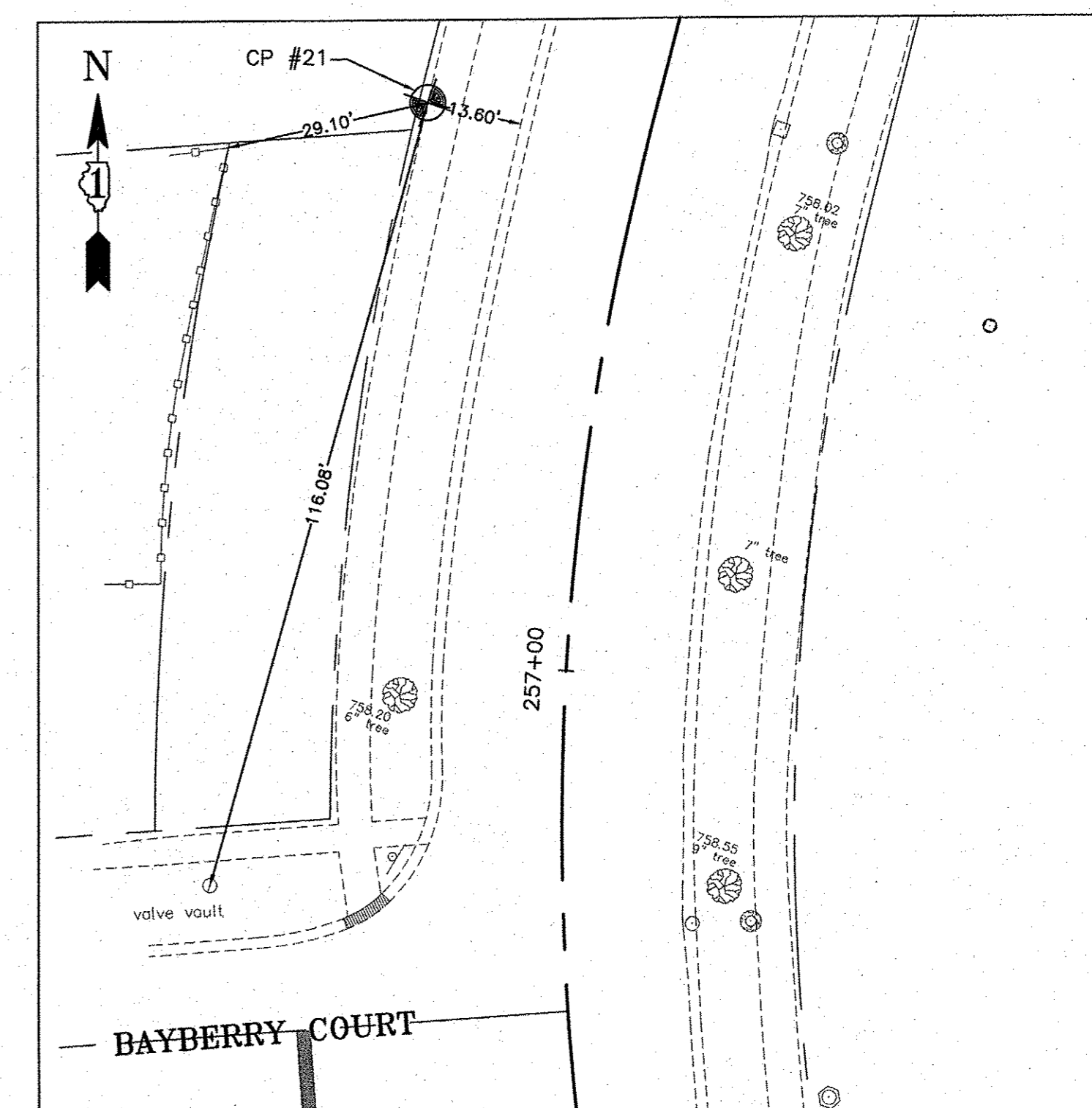


CONTROL POINT #17

CUT CROSS IN BACK OF CONCRETE CURB

STA. 243+10.44, 23.22 RT.
 N = 4710.8633
 E = 3251.7758
 ELEVATION = 755.70

BENCHMARK: S.E. BONNET
 ELEVATION = 760.70 NGVD



CONTROL POINT #21

CUT CROSS IN CONCRETE WALK

STA. 257+74.53, 31.74 LT.
 N = 6072.6537
 E = 2784.7948
 ELEVATION = 757.89

IC CONSULTING, INC.
 INFRACON GEOTECH
 CONSULTING, CIVIL, ENVIRONMENTAL & LAND SERVICES
 1000 W. BROADWAY, SUITE 1000, CHICAGO, IL 60604

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

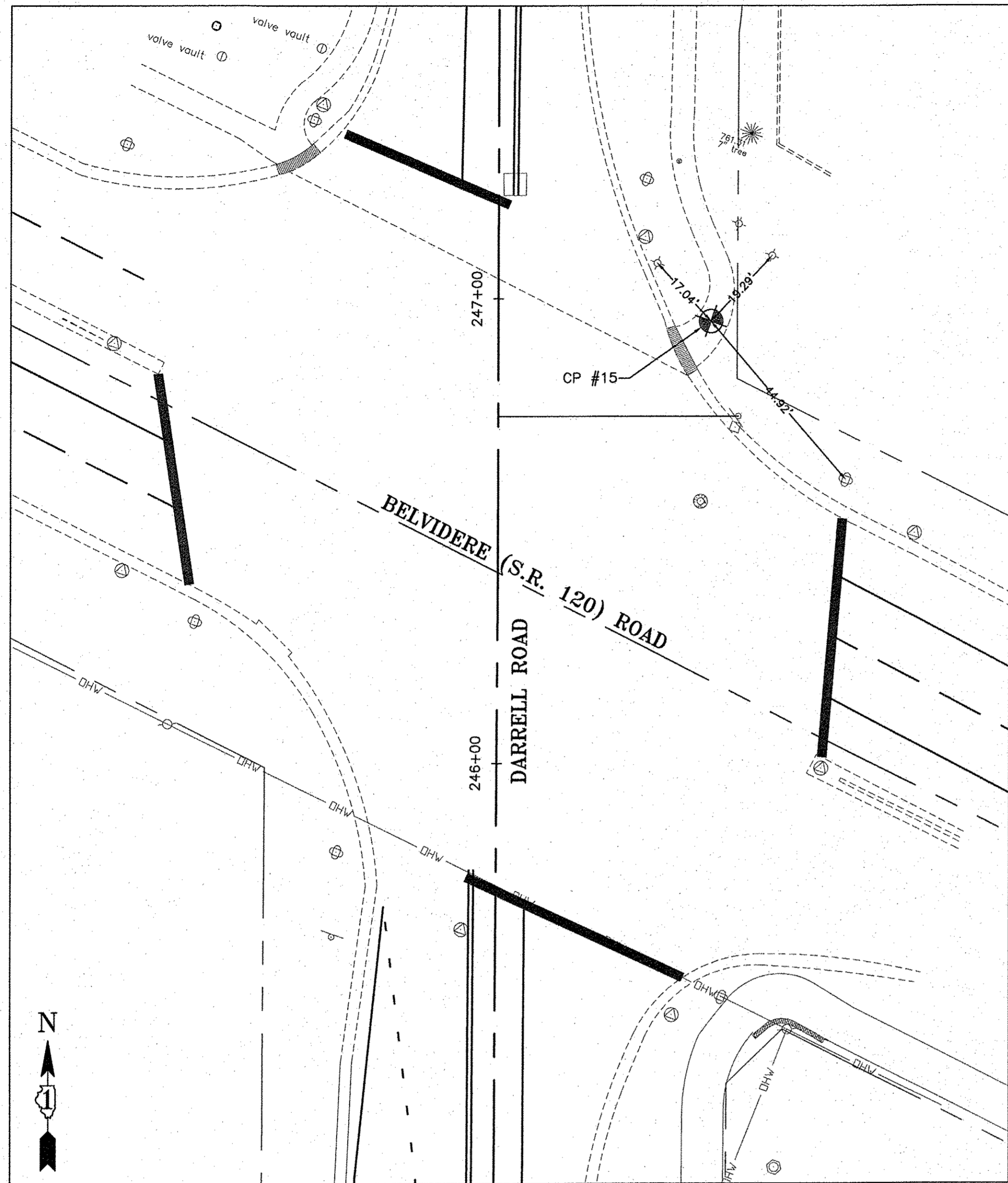
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT AND TIES
 DARRELL ROAD**

SCALE: 1"=20'

STA. 229+00 TO STA. 253+00

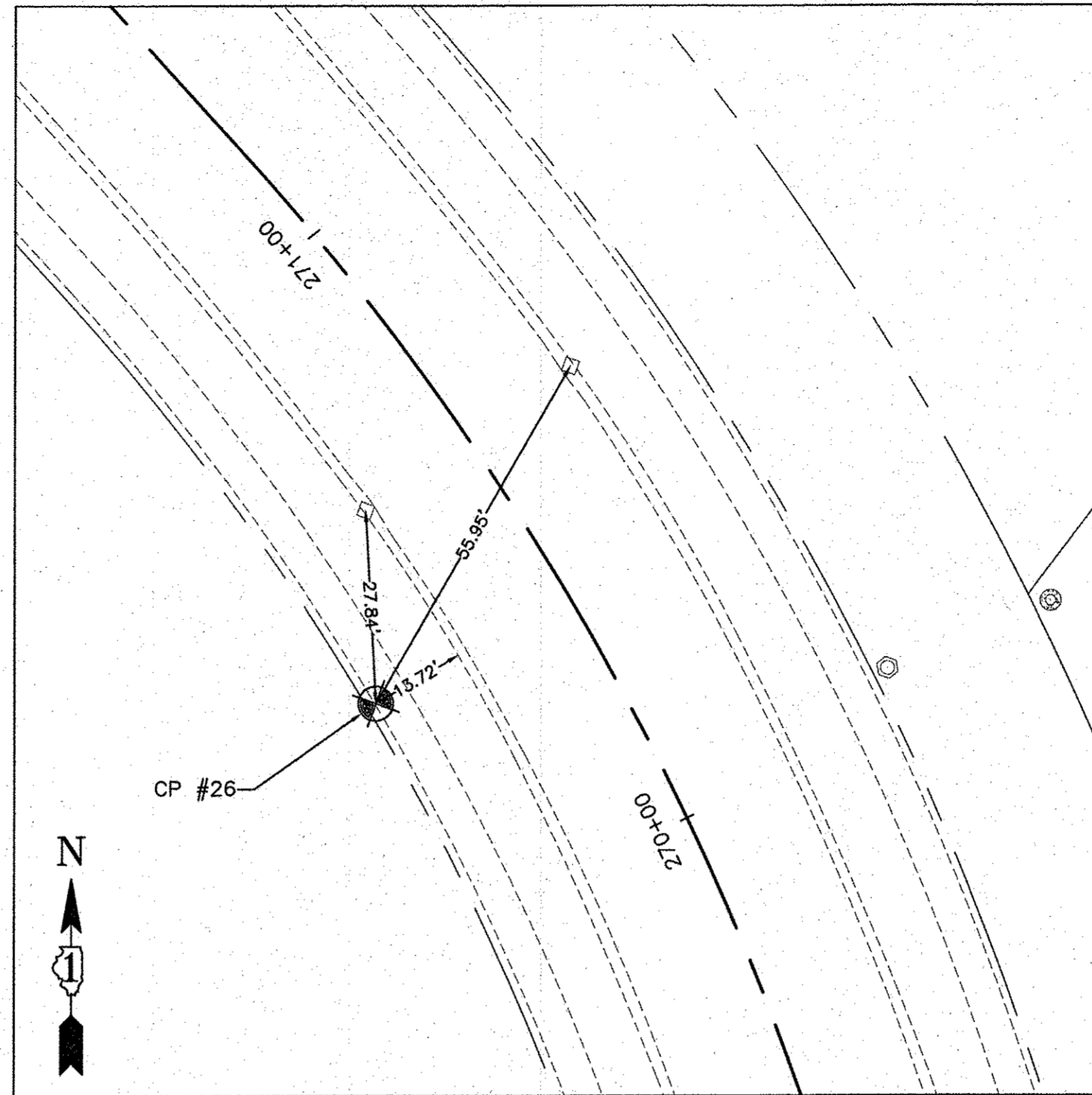
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY/LAKE	57	10
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				



CONTROL POINT #15

CUT CROSS IN CONCRETE WALK

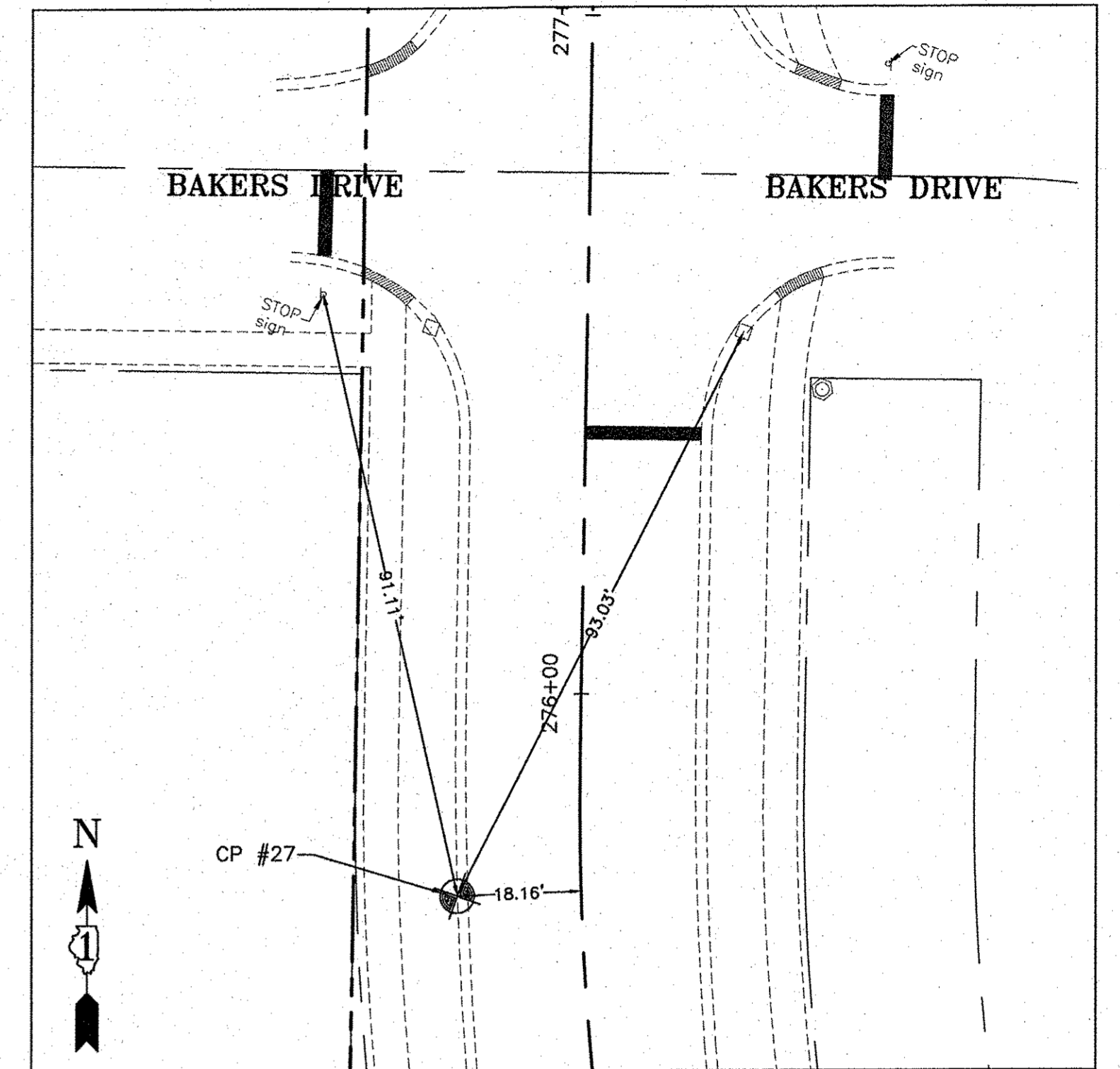
STA. 246+95.17, 45.82 RT.
 N = 5081.3500
 E = 3144.7650
 ELEVATION = 759.05



CONTROL POINT #26

CUT CROSS IN CONCRETE WALK

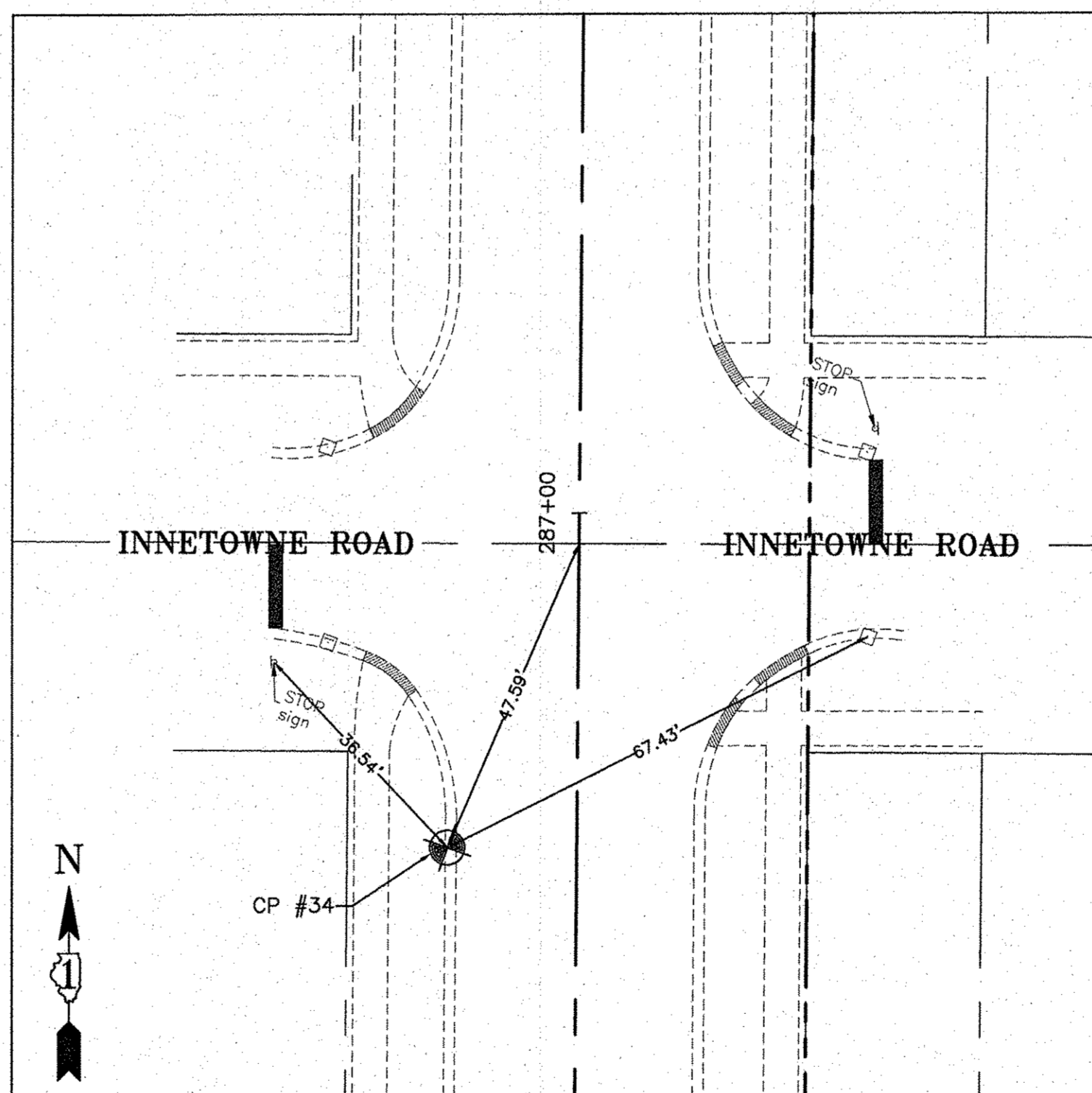
STA. 270+37.09, 31.67 LT.
 N = 7114.9385
 E = 2172.2790
 ELEVATION = 758.66



CONTROL POINT #27

CUT CROSS IN BACK OF CURB

STA. 275+70.83, 18.16 LT.
 N = 7463.6905
 E = 1773.4723
 ELEVATION = 758.27



CONTROL POINT #34

CUT CROSS IN BACK OF CURB

STA. 286+51.77, 18.60 LT.
 N = 8456.8755
 E = 1355.3645
 ELEVATION = 757.65

IC CONSULTING, INC.
 TRAFACON DESIGN
 CONSULTING ENGINEERS & LAND SURVEYORS
 10000 W. BROADWAY, SUITE 2000, CHICAGO, IL 60618

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

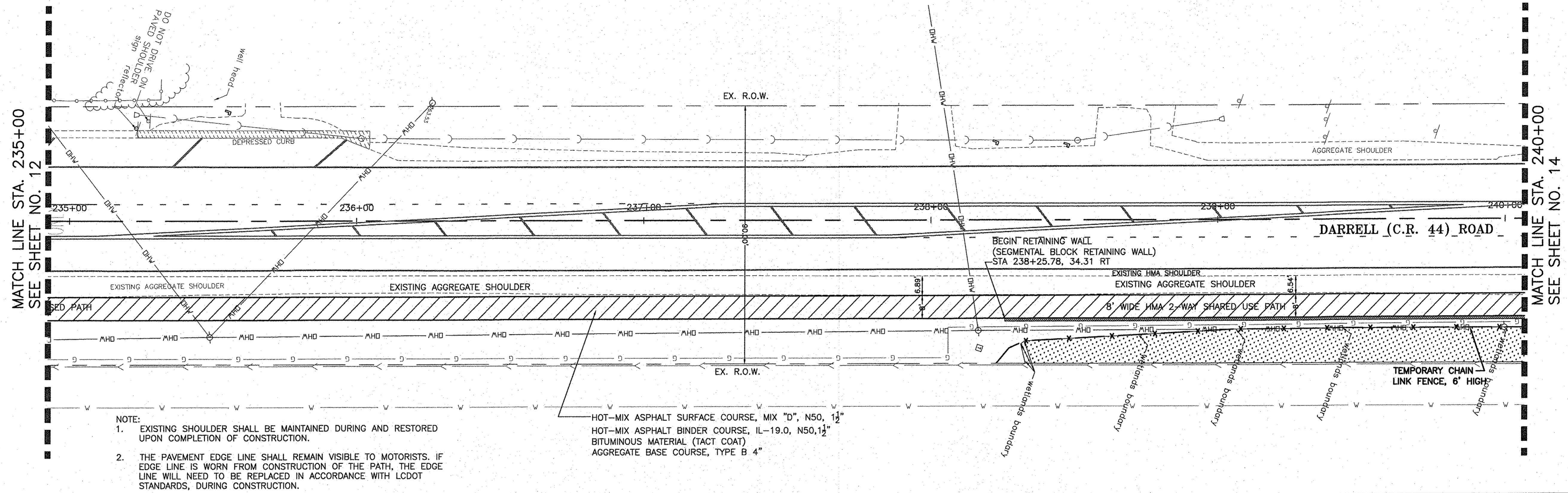
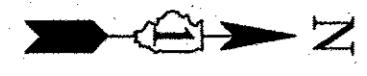
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT AND TIES
 DARRELL ROAD**

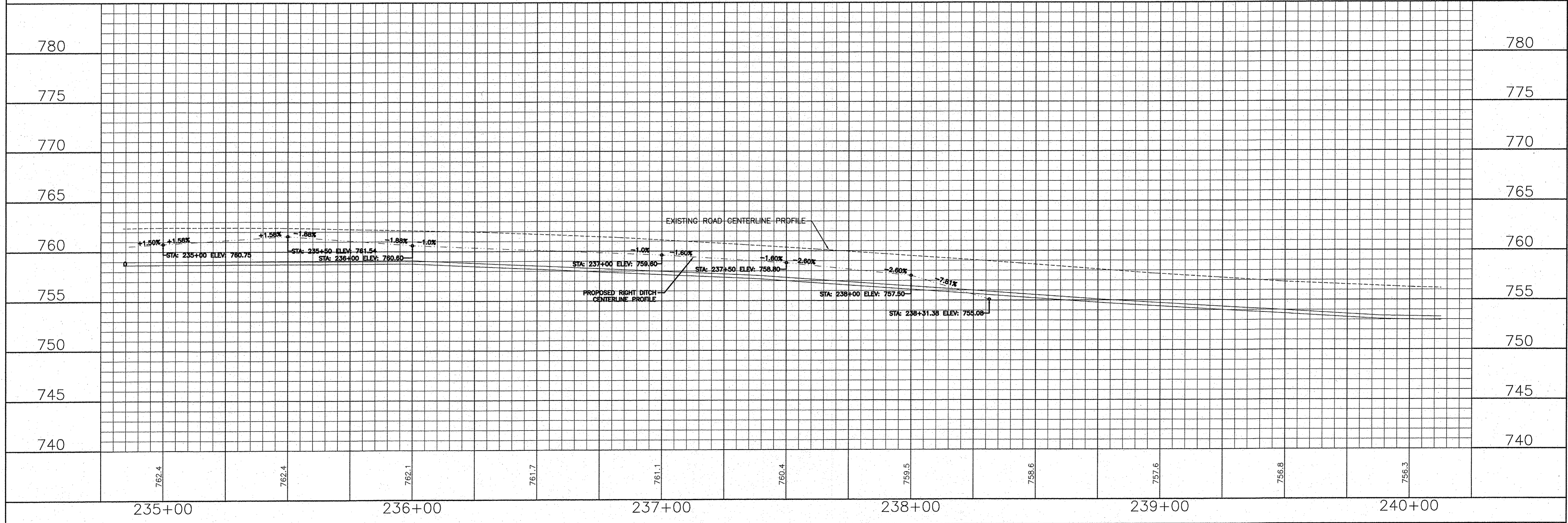
SCALE: 1"=20'

STA. 229+00 TO STA. 253+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY/LAKE	57	11
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00T(997)				

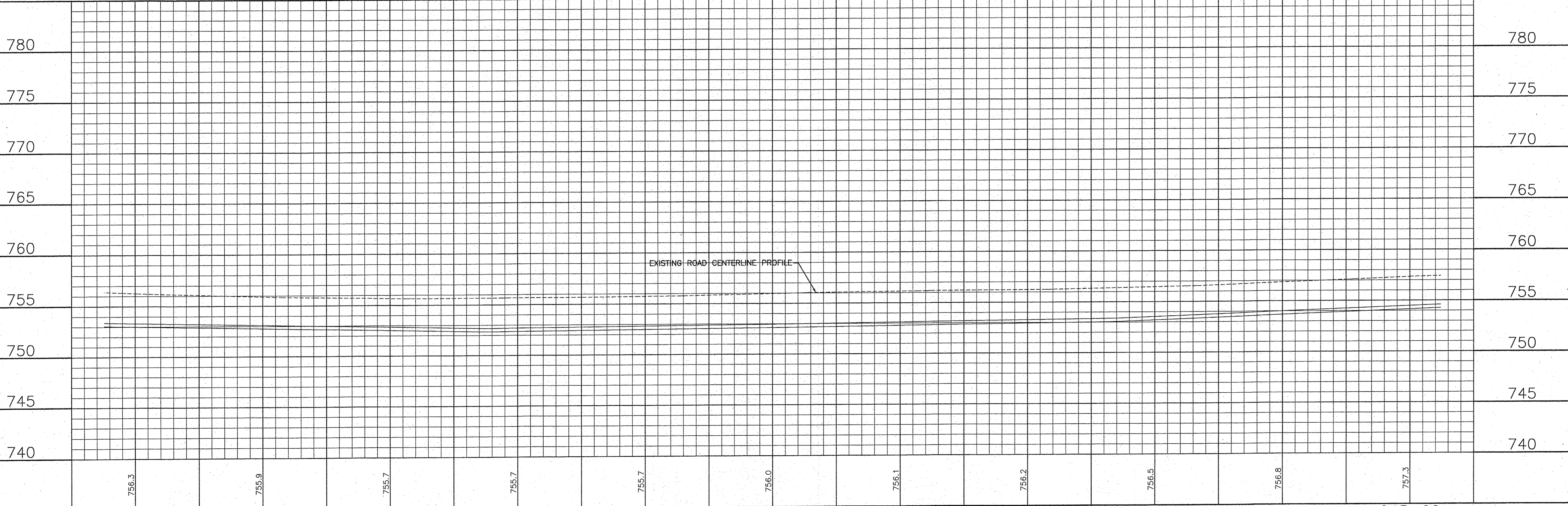
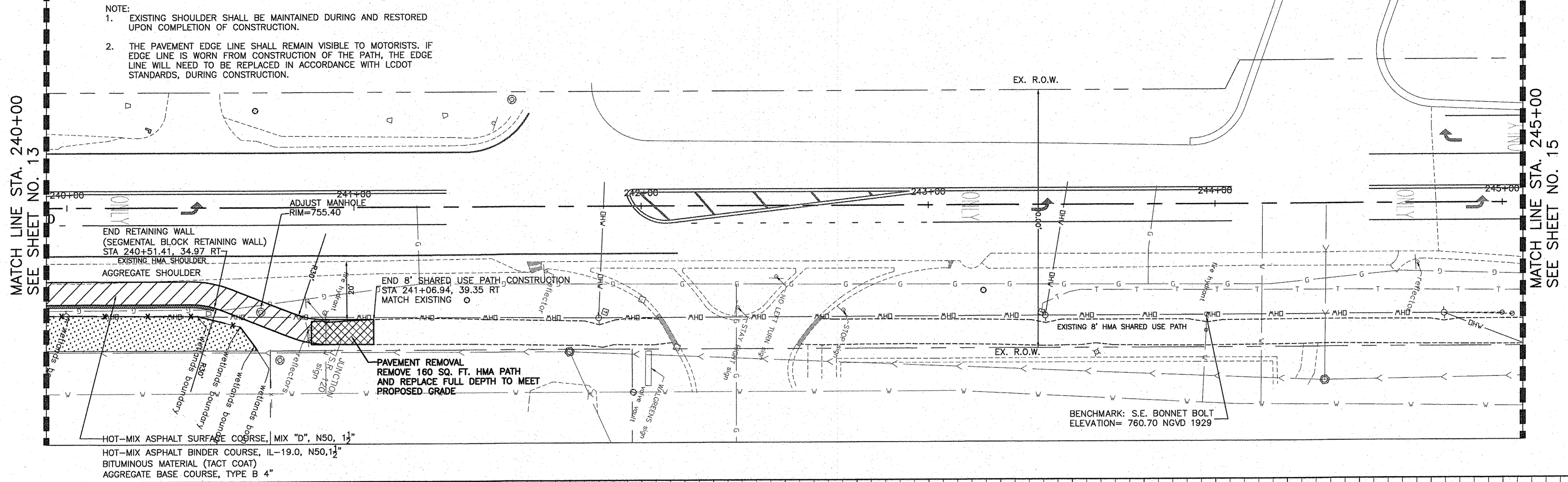


- NOTE:
- EXISTING SHOULDER SHALL BE MAINTAINED DURING AND RESTORED UPON COMPLETION OF CONSTRUCTION.
 - THE PAVEMENT EDGE LINE SHALL REMAIN VISIBLE TO MOTORISTS. IF EDGE LINE IS WORN FROM CONSTRUCTION OF THE PATH, THE EDGE LINE WILL NEED TO BE REPLACED IN ACCORDANCE WITH LCDOT STANDARDS, DURING CONSTRUCTION.



	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE DARRELL ROAD	F.A.U. SECTION COUNTY TOTAL SHEETS
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL			0012 14-00011-00-BT LAKE 57 13
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL			C-91-209-15 CONTRACT NO. 61C28
	DATE - 10/03/16	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)

SCALE: H: 1"=20' V: 1"=5' STA. 235+00 TO STA. 240+00



CONSULTING, INC.
 INFRACON GEOTECH
 CONSULTING, INC. ENGINEERS & LAND SURVEYORS
 1000 W. WASHINGTON ST., SUITE 200, CHICAGO, IL 60607

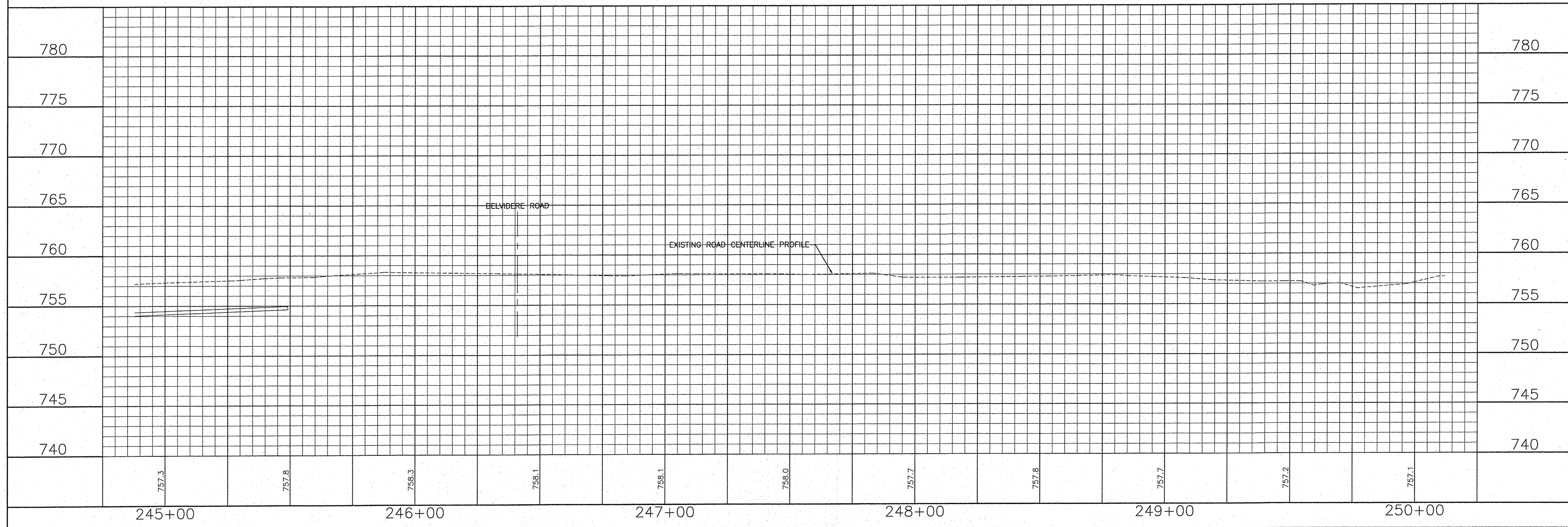
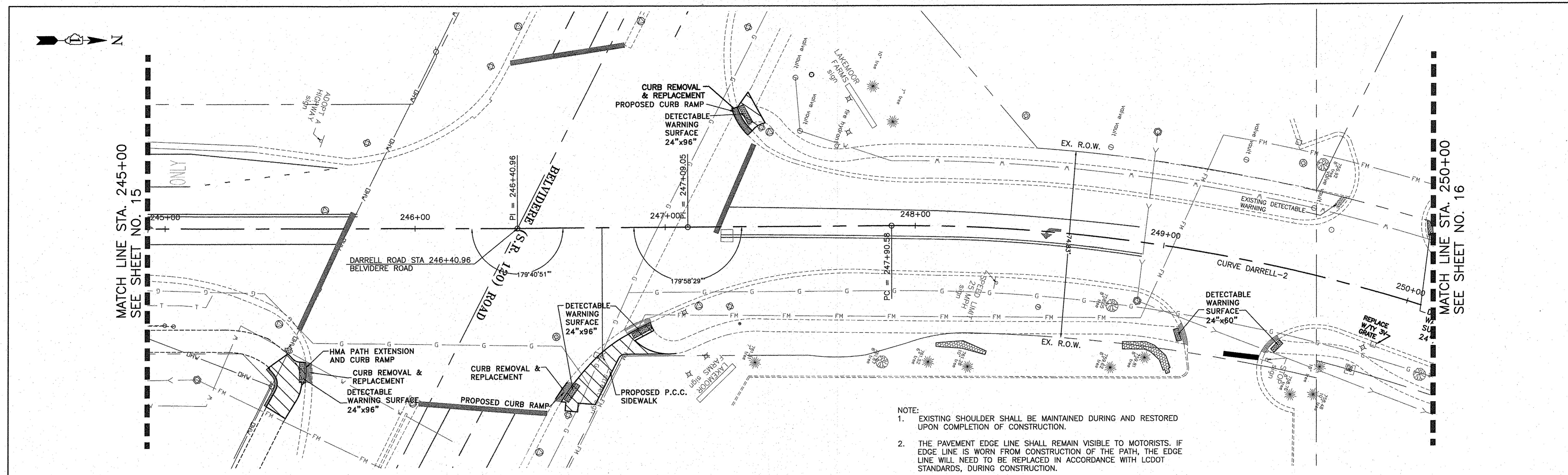
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

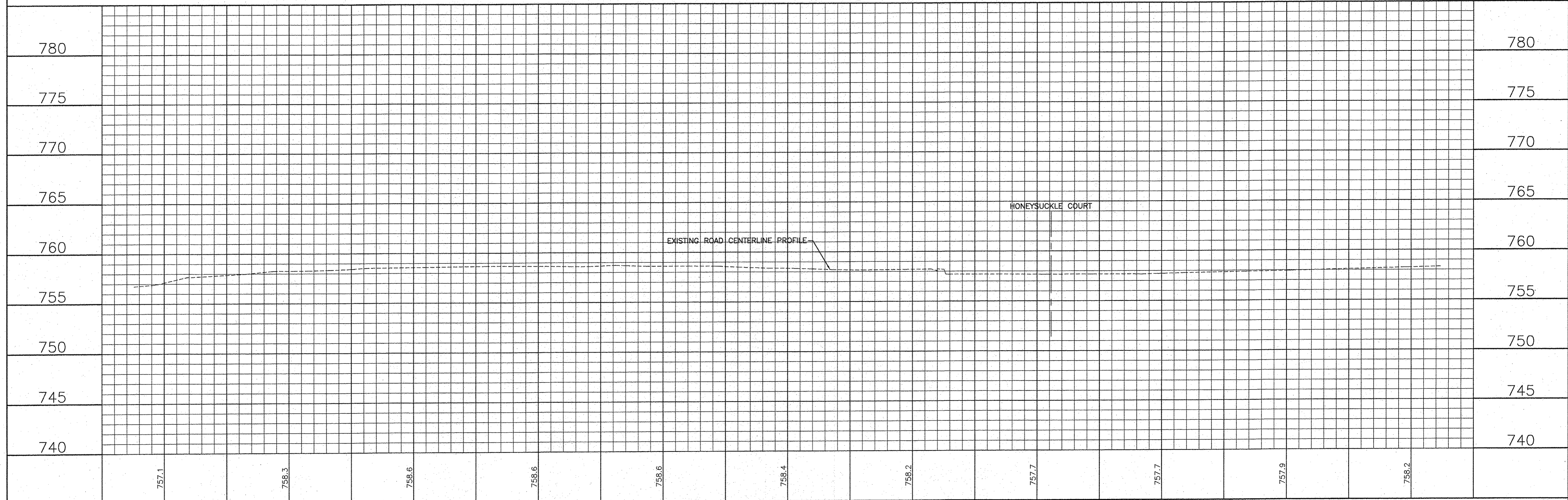
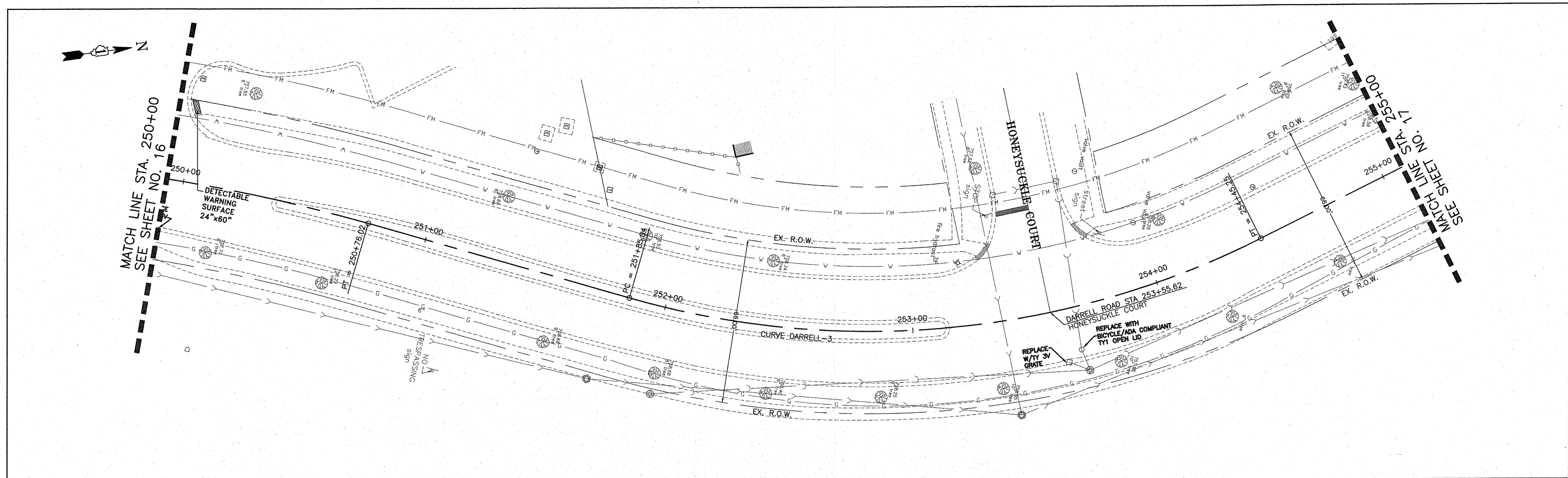
PLAN AND PROFILE
DARRELL ROAD

SCALE: H: 1"=20' V: 1"=5' STA. 240+00 TO STA. 245+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	14
C-91-209-15			CONTRACT NO. 61C28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				



	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE DARRELL ROAD	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET	SHEET NO.	
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL			0012	14-00011-00-BT	LAKE	57	15	
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL			C-91-209-15			CONTRACT NO. 61C28		
	DATE - 10/03/16	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT TE-0001(997)		



DESIGNED - C.K.	REVISOR - 10/06/16 IDOT SUBMITTAL	F.A.U. RT.	SECTION	COUNTY	TOTAL SHEETS		
					NO.	NO.	
DRAWN - S.R.M.	REVISOR - 12/02/16 IDOT SUBMITTAL	0012	14-00011-00-BT	LAKE	57	16	
CHECKED - J.K.	REVISOR - 12/07/16 COUNTY SUBMITTAL	C-91-209-15				CONTRACT NO. 61C2B	
DATE - 10/03/16	REVISOR -	FED. ROAD DIST. NO. 1 ILLINOIS				FED. AID PROJECT TE-00D1(997)	

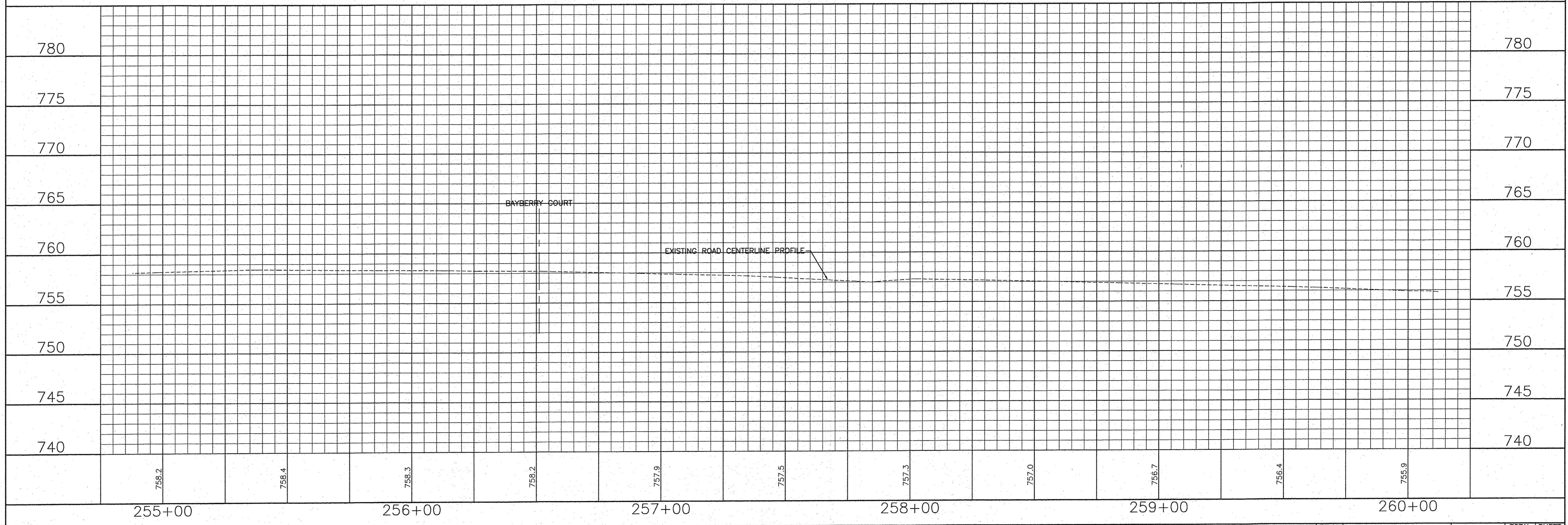
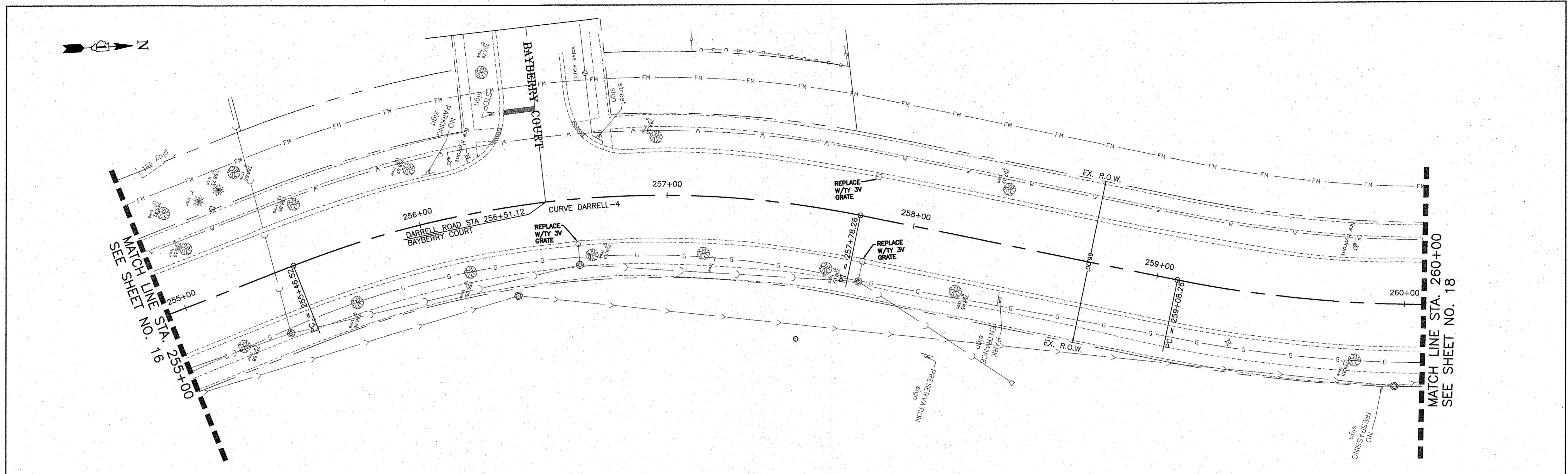
CONSULTING, INC.
 INFRASTRUCTURE DESIGN & CONSTRUCTION
 1000 N. MILWAUKEE AVENUE, SUITE 200
 CHICAGO, IL 60610

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PLAN AND PROFILE
 DARRELL ROAD**

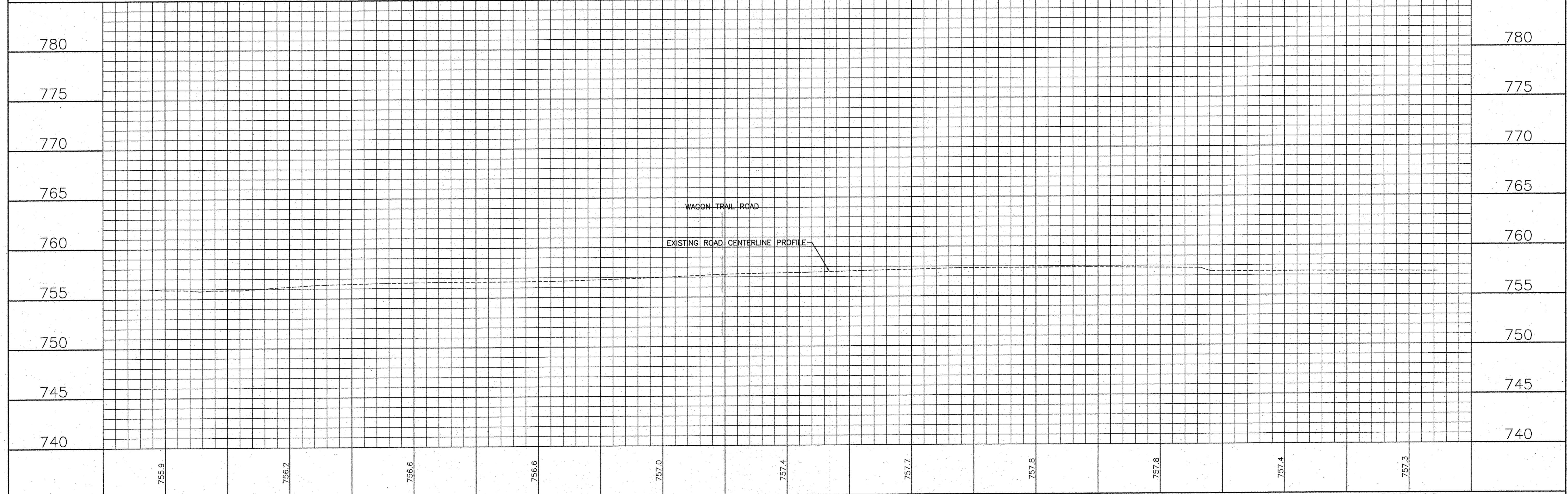
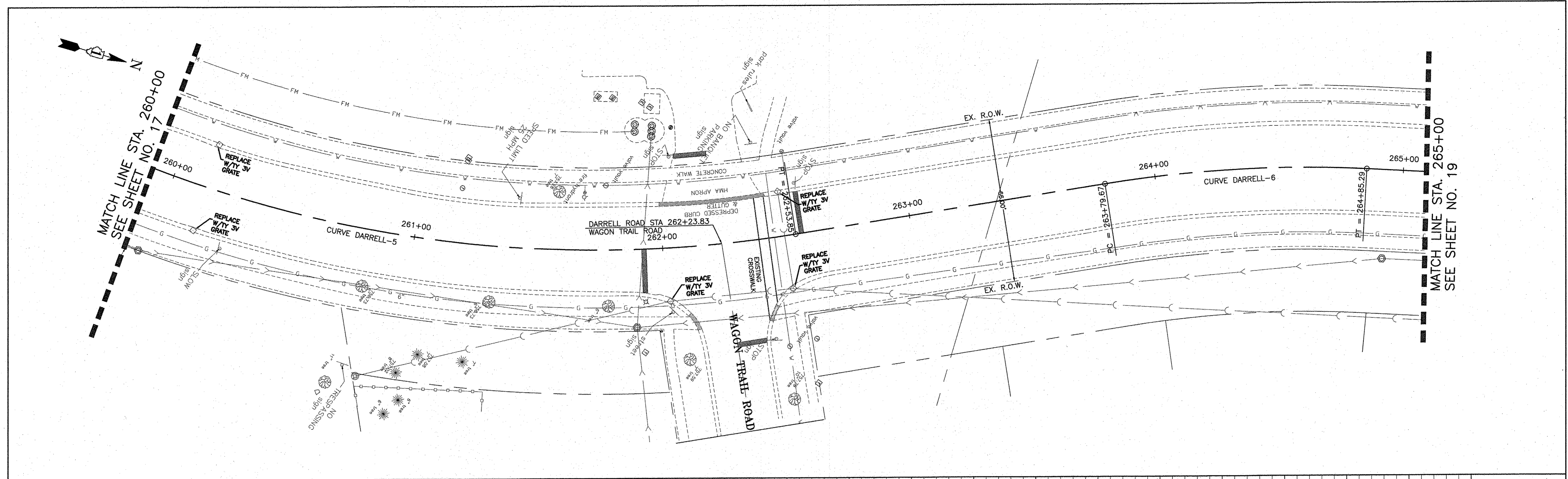
SCALE: H: 1"=20' V: 1"=5'

STA. 250+00 TO STA. 255+00



CONSULTING, INC. <small>INTEGRATION DESIGN CONSULTING AND SURVEYING</small>	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE DARRELL ROAD	F.A.U. SECTION COUNTY TOTAL SHEETS NO.
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL			0012 14-00011-00-BT LAKE 57 17
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL			C-91-209-15 CONTRACT NO. 61C28
	DATE - 10/03/16	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)

SCALE: H: 1"=20' V: 1"=5' STA. 255+00 TO STA. 260+00



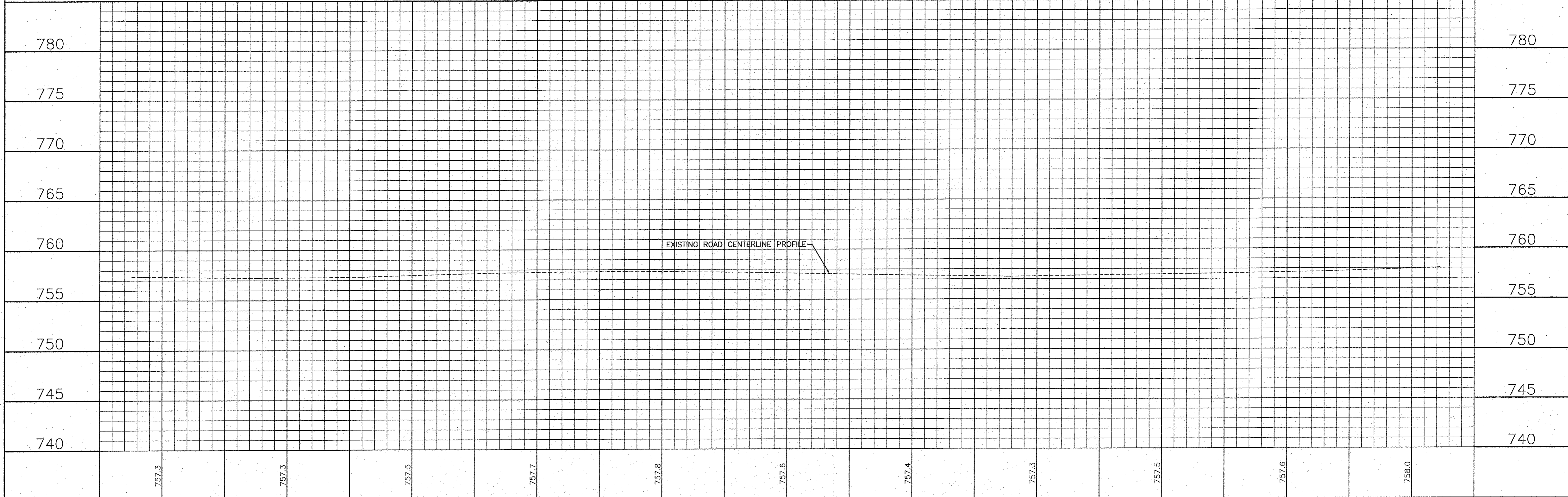
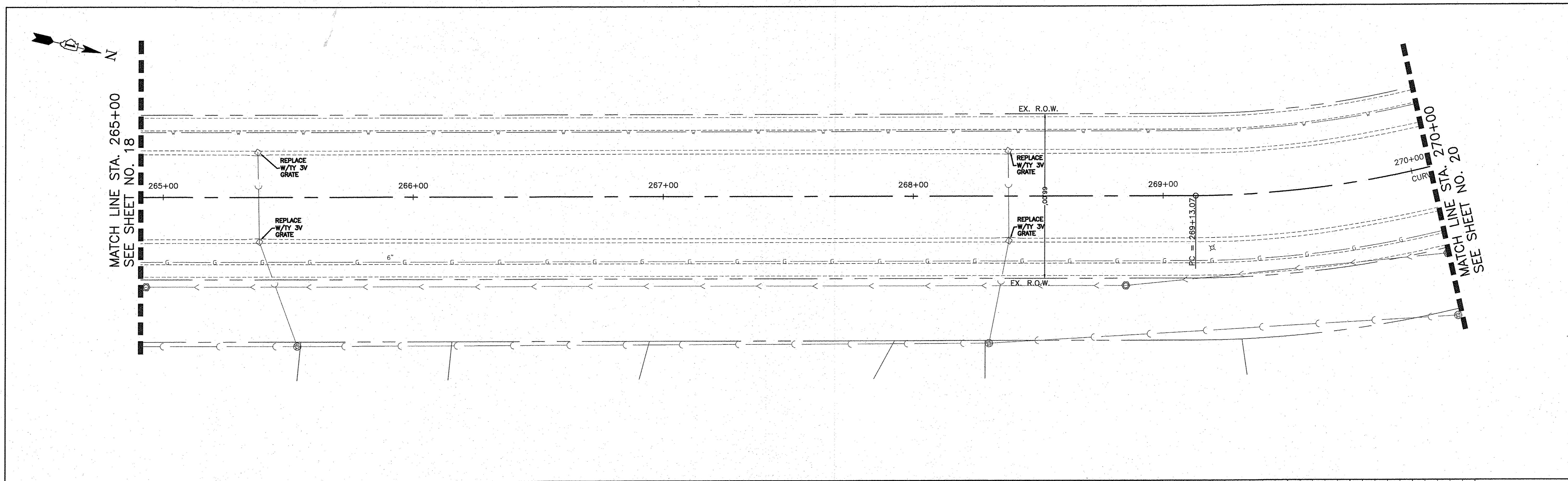
	260+00	261+00	262+00	263+00	264+00	265+00
Elevation (ft)	755.9	756.2	756.6	757.0	757.4	757.8
Elevation (ft)	756.6	757.0	757.4	757.7	757.8	757.4
Elevation (ft)	757.3					757.3

CONSULTING, INC. <small>INFRACON DESIGN</small> <small>CONSULTING, INC.</small> <small>3000 N. LAKE ST., SUITE 100</small> <small>CHICAGO, IL 60657</small>	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

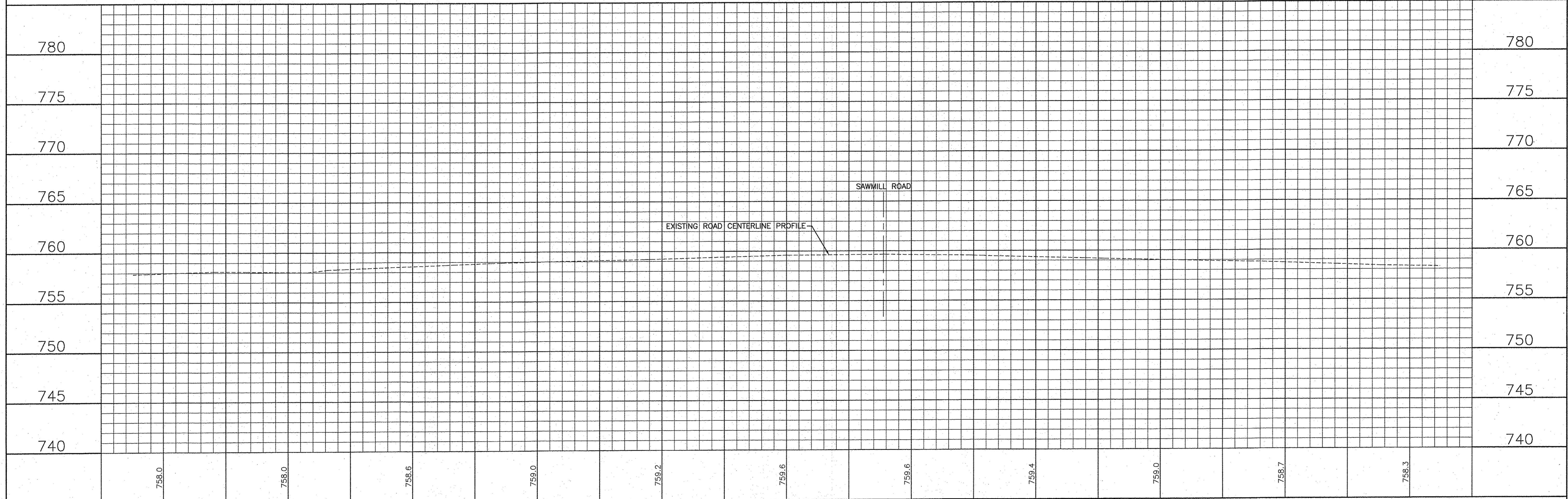
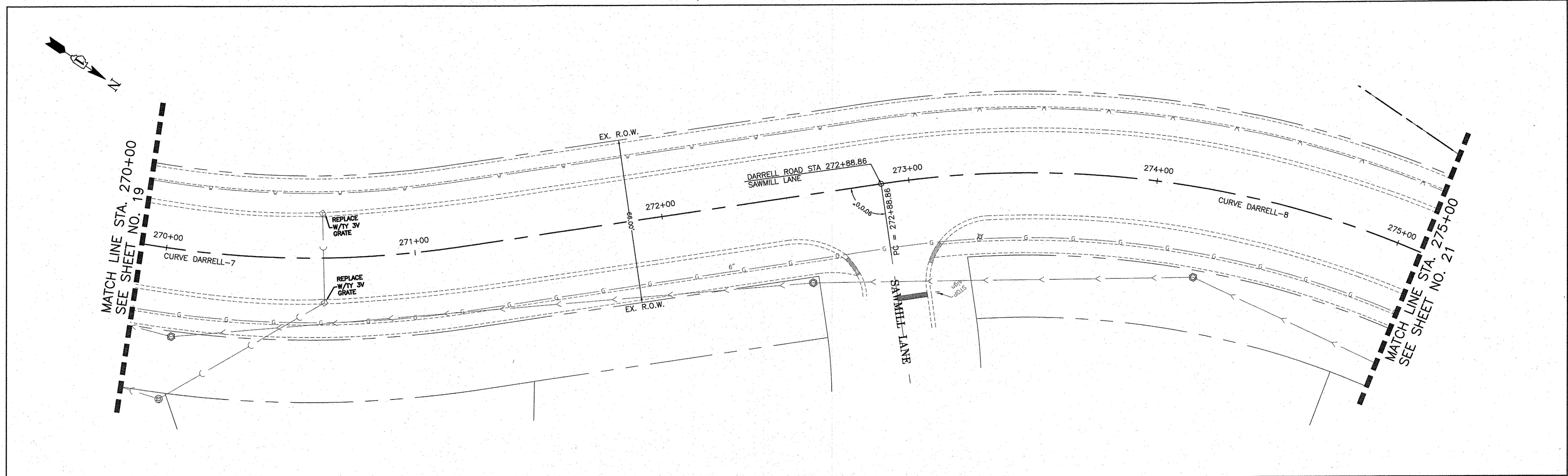
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE	
DARRELL ROAD	
SCALE: H: 1"=20' V: 1"=5'	STA. 260+00 TO STA. 265+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	18
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT TE-00D(1997)				

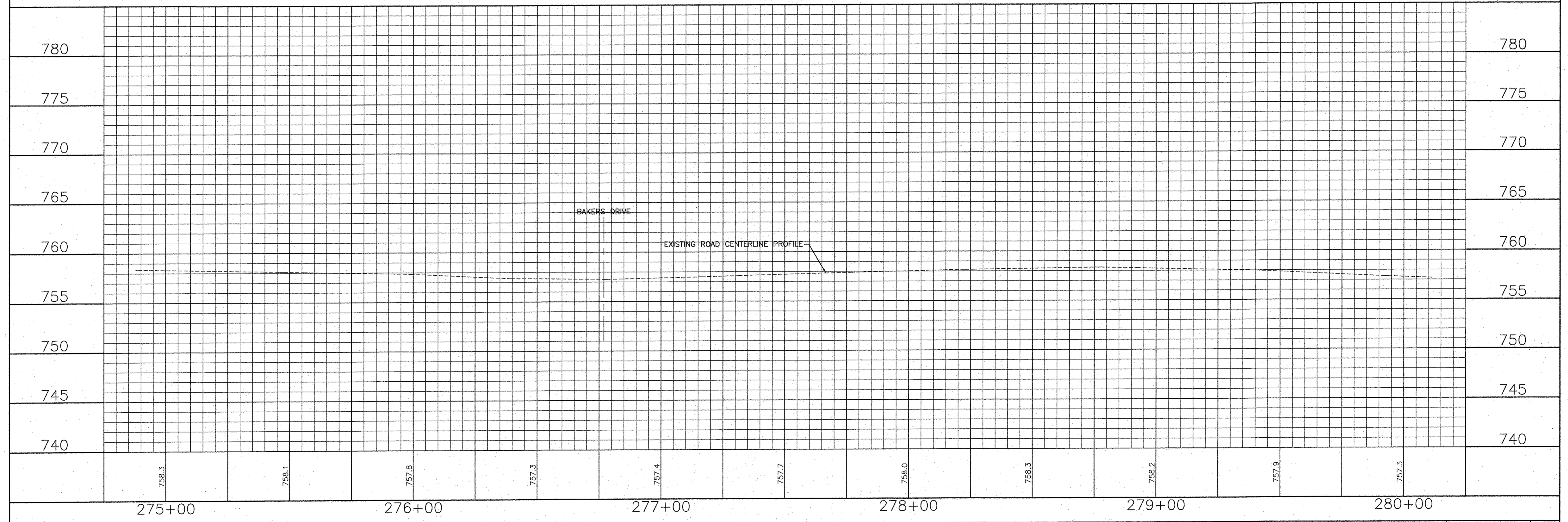
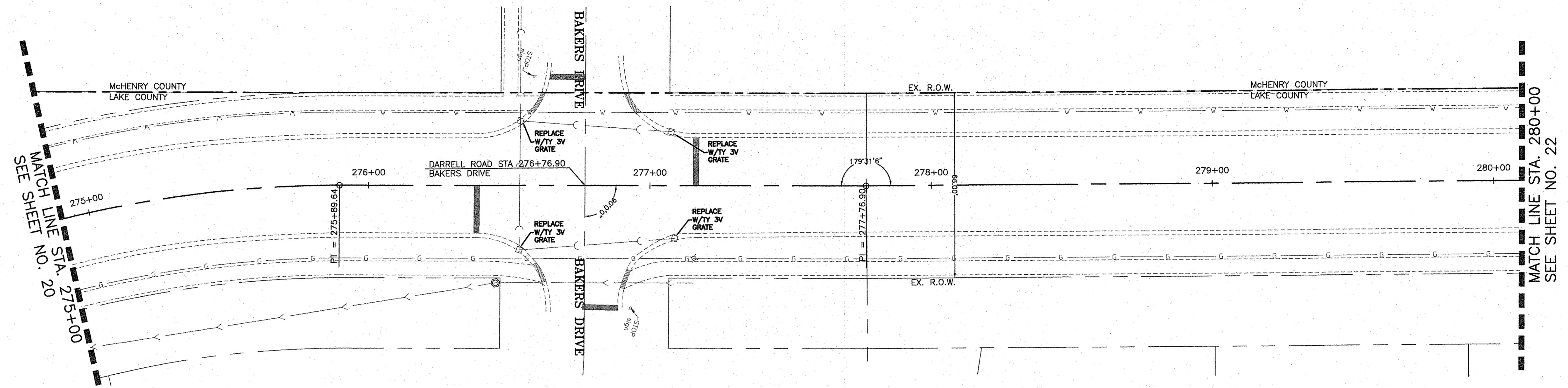


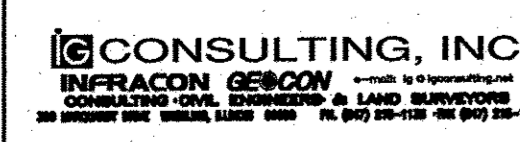
	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE DARRELL ROAD	F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 19
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL			C-91-209-15	CONTRACT NO. 61C28			
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				
	DATE - 10/03/16	REVISED -			SCALE: H: 1"=20' V: 1"=5' STA. 265+00 TO STA. 270+00				



	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE DARRELL ROAD	F.A.U. SECTION COUNTY TOTAL SHEETS SHEET NO.
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL			0012 14-00011-00-BT LAKE 57 20
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL			C-91-209-15 CONTRACT NO. 61C28
	DATE - 10/03/16	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)

SCALE: H: 1"=20' V: 1"=5' STA. 270+00 TO STA. 275+00

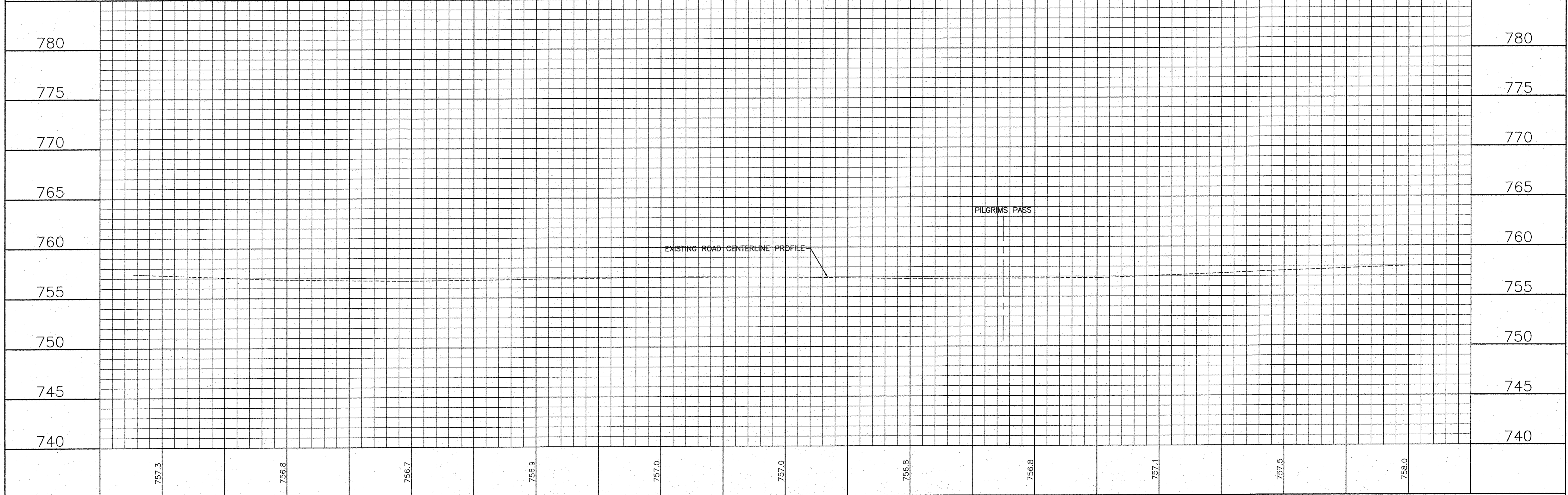
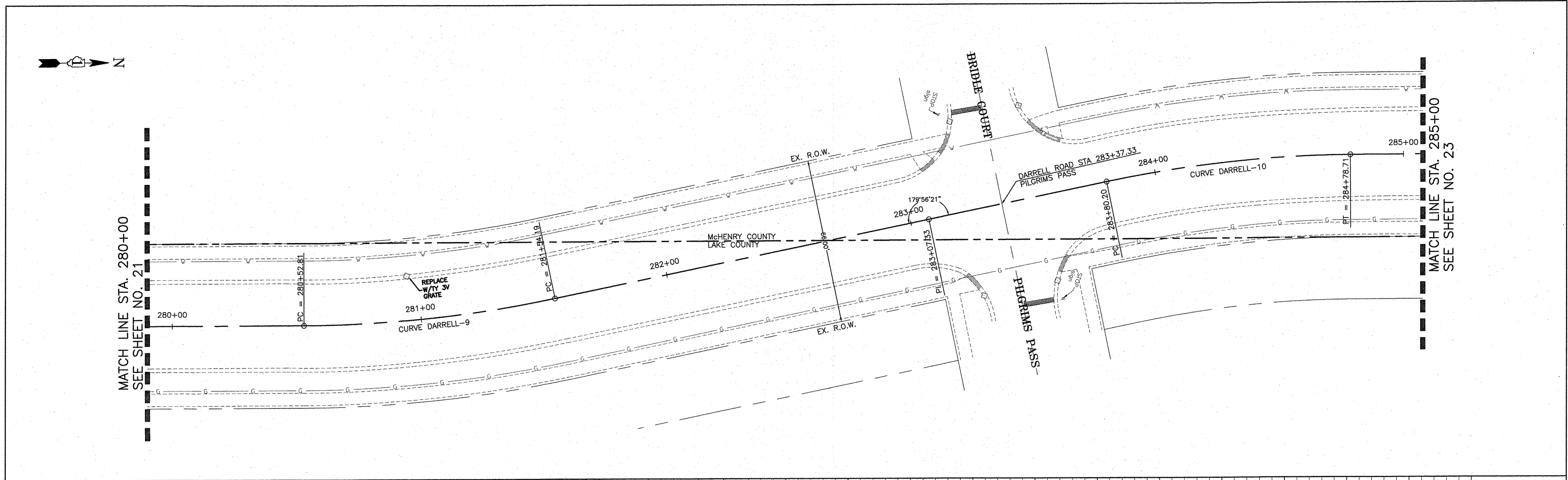


	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

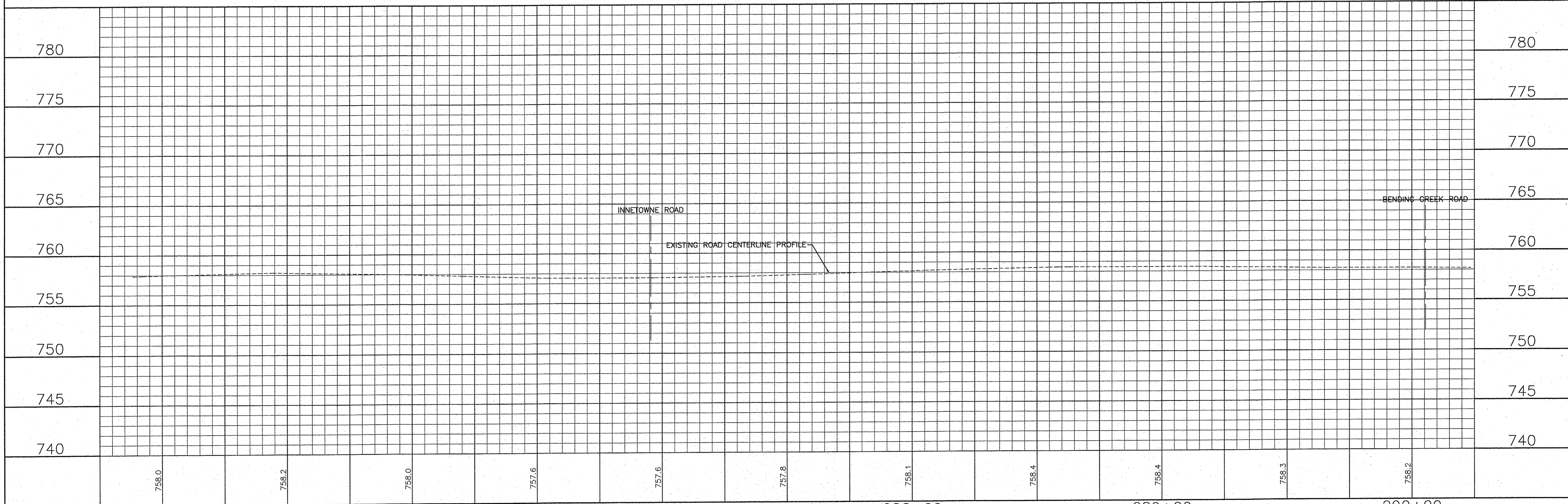
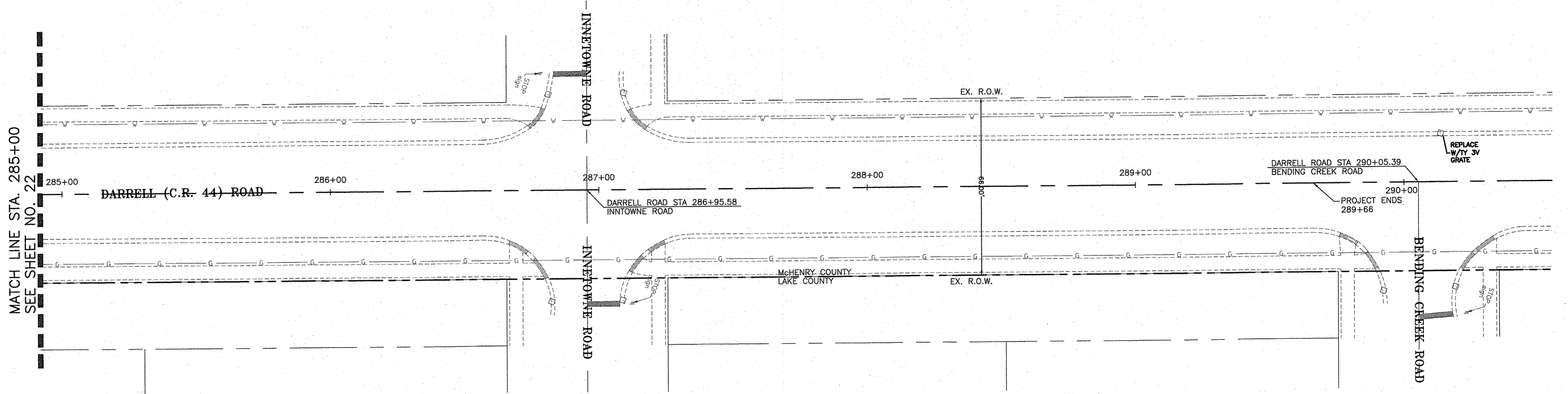
PLAN AND PROFILE DARRELL ROAD	
SCALE: H: 1"=20' V: 1"=5'	STA. 275+00 TO STA. 280+00

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	21
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



CONSULTING, INC. <small>ENGINEERING ARCHITECTURE SURVEYING CONSULTING-CIVIL-MECHANICAL-ELECTRICAL-PLUMBING 1100 WEST WASHINGTON, SUITE 1000 CHICAGO, IL 60604-3125 TEL: 312.467.1000</small>		DESIGNED - C.K. DRAWN - S.R.M. CHECKED - J.K. DATE - 10/03/16	REVISED - 10/06/16 IDOT SUBMITTAL REVISED - 12/02/16 IDOT SUBMITTAL REVISED - 12/07/16 COUNTY SUBMITTAL REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE DARRELL ROAD	F.A.U. SECTION COUNTY TOTAL SHEETS SHEET NO. 0012 14-00011-00-BT MCHENRY/LAKE 57 22 C-91-209-15 CONTRACT NO. 61C28 <small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)</small>
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SCALE: H: 1"=20' V: 1"=5' STA. 280+00 TO STA. 285+00



CONSULTING, INC. <small>INCORPORATED IN ILLINOIS</small> <small>1100 N. WASHINGTON ST., SUITE 200, DEERFIELD, IL 60015</small> <small>TEL: 847.938.8800 FAX: 847.938.8801</small>		DESIGNED - C.K. DRAWN - S.R.M. CHECKED - J.K. DATE - 10/03/16	REVISED - 10/06/16 IDOT SUBMITTAL REVISED - 12/02/16 IDOT SUBMITTAL REVISED - 12/07/16 COUNTY SUBMITTAL REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PLAN AND PROFILE DARRELL ROAD		F.A.U. SECTION COUNTY TOTAL SHEETS SHEET NO. 0012 14-00011-00-BT MCHENRY 57 23	C-91-209-15 CONTRACT NO. 61C28 <small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)</small>
SCALE: H: 1"=20' V: 1"=5' STA. 285+00 TO STA. 290+00									

**LAKE COUNTY STORMWATER MANAGEMENT
COMMISSION SOIL EROSION AND SEDIMENT
CONTROL CONSTRUCTION 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 UNDERLAIN 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.

CONSULTING, INC.
ENGINEERING CONSULTING & LAND SURVEYING
 200 WEST WASHINGTON STREET, SUITE 200, CHICAGO, IL 60601-3000
 TEL: 312.552.1000 FAX: 312.552.1001

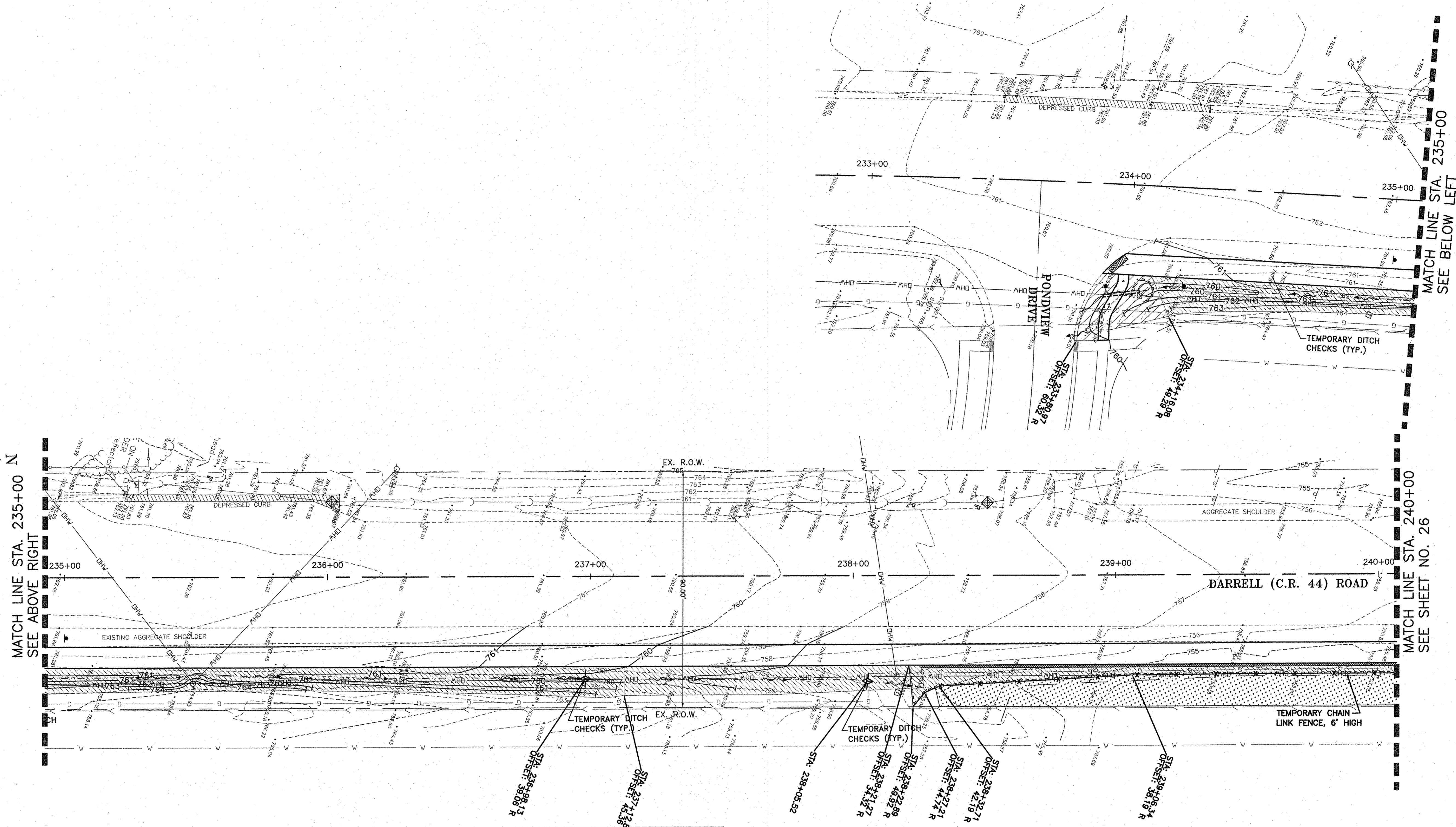
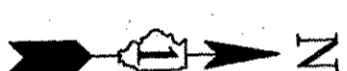
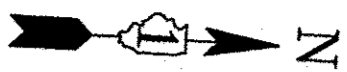
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DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EROSION AND SEDIMENT CONTROL NOTES

SCALE: N/A STA. 229+00 TO STA. 253+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY	57	24
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



MATCH LINE STA. 235+00
SEE ABOVE RIGHT

MATCH LINE STA. 240+00
SEE SHEET NO. 26

EROSION CONTROL LEGEND:	
	PERIMETER EROSION BARRIER
	CULVERT INLET PROTECTION (PAID FOR AS PERIMETER EROSION BARRIER)
	TEMPORARY DITCH CHECK
	INLET FILTER
	TURF REINFORCEMENT MAT WITH SEEDING, CLASS 2A SALT TOLERANT ROAD SIDE MIX
	SEEDING, CLASS 2A WITH MULCH, METHOD 3A
	SEEDING CLASS 4 WITH MULCH, METHOD 3A
	EXISTING WETLANDS (AVOID DISTURBANCE)

NOTE:
1. SEEDING, CLASS 2A AND MULCH, METHOD 3A WILL BE INSTALLED IN ALL OTHER GRASSED AREAS OF DISTURBANCE.

CONSULTING, INC.
EROSION CONTROL DESIGN & LAND SURVEYING
1000 N. W. 10th St., Suite 100, Ft. Lauderdale, FL 33304
TEL: 954-561-1111 FAX: 954-561-1112

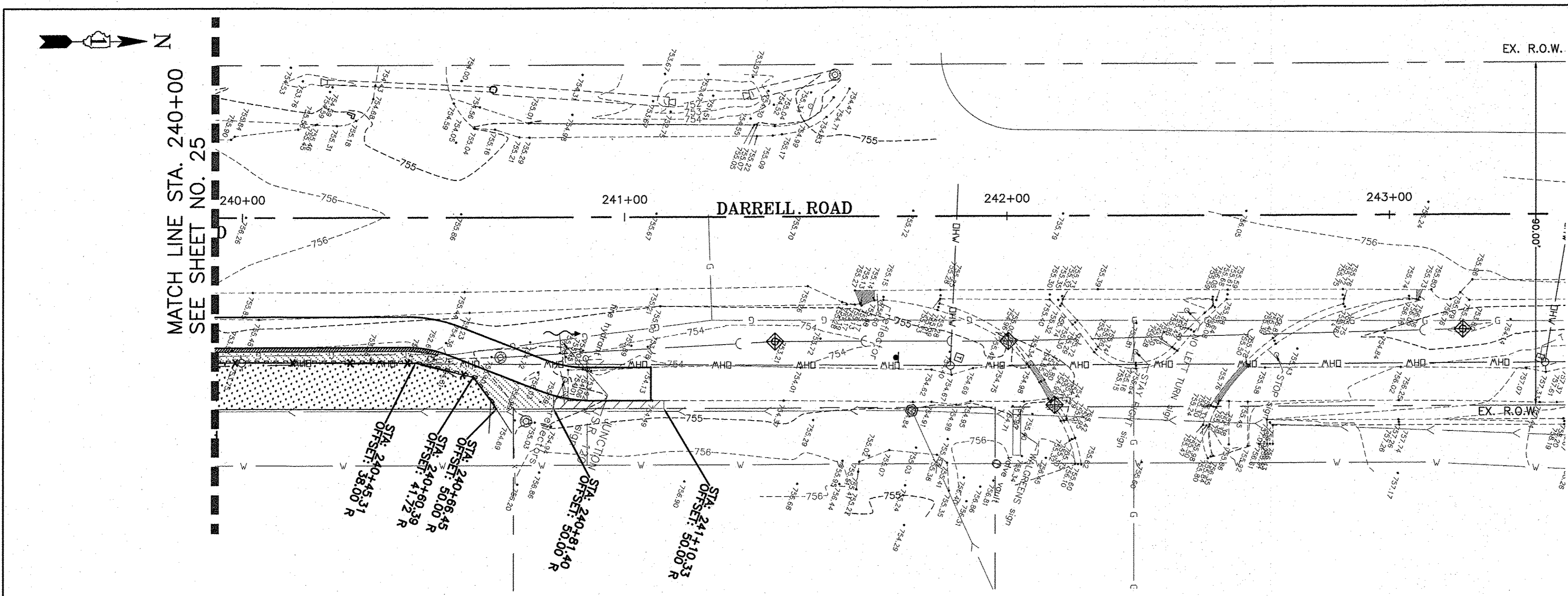
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN
S. DARRELL ROAD

SCALE: 1"=20'
STA. 230+00 TO STA. 240+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	25
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				



EROSION CONTROL LEGEND:

	PERIMETER EROSION BARRIER		SEEDING, CLASS 2A WITH MULCH, METHOD 3A
	CULVERT INLET PROTECTION (PAID FOR AS PERIMETER EROSION BARRIER)		SEEDING CLASS 4 WITH MULCH, METHOD 3A
	TEMPORARY DITCH CHECK		EXISTING WETLANDS (AVOID DISTURBANCE)
	INLET FILTER		
	TURF REINFORCEMENT MAT WITH SEEDING, CLASS 2A SALT TOLERANT ROAD SIDE MIX		

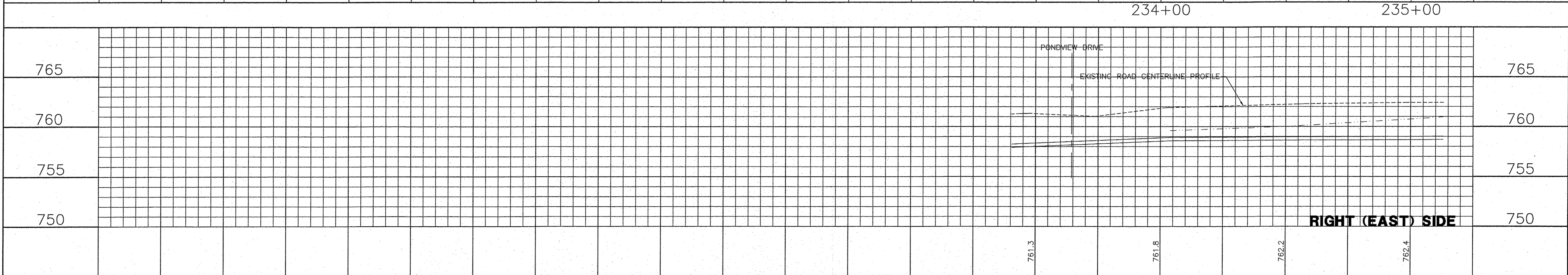
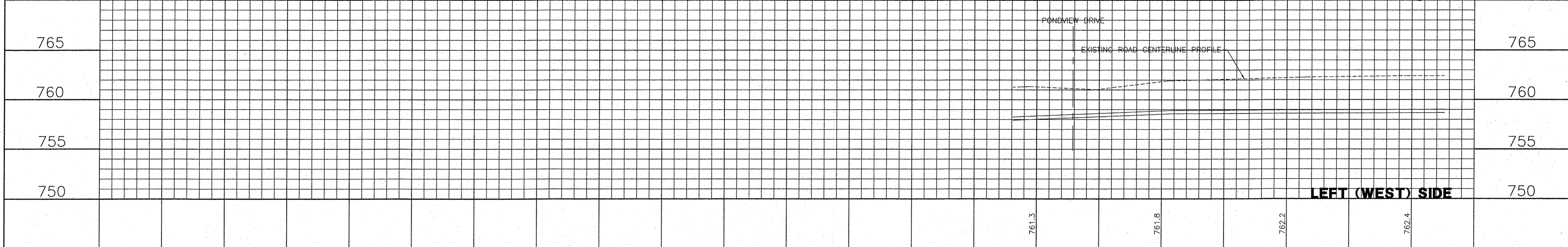
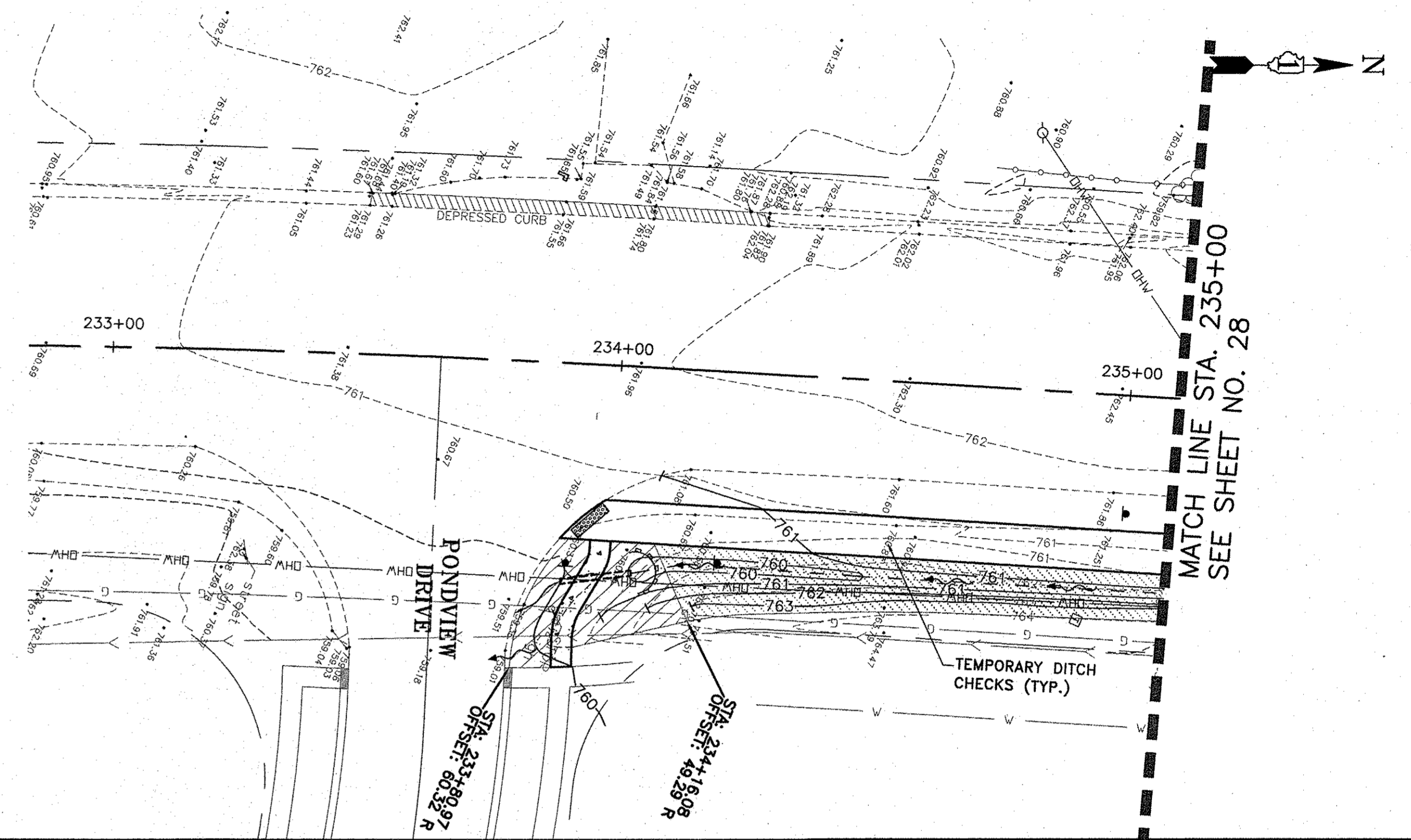
NOTE:
1. SEEDING, CLASS 2A AND MULCH, METHOD 3A WILL BE INSTALLED IN ALL OTHER GRASSED AREAS OF DISTURBANCE.


	DRAWN	- S.R.M.	REVISED	- 10/06/16 IDOT SUBMITTAL
	CHECKED	- J.K.	REVISED	- 12/02/16 IDOT SUBMITTAL
	DATE	- 10/03/16	REVISED	- 12/07/16 COUNTY SUBMITTAL
			REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EROSION AND SEDIMENT CONTROL PLAN		
S. & N. DARRELL ROAD		
SCALE: 1"=20'	STA. 240+00	TO STA. 250+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	26
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				

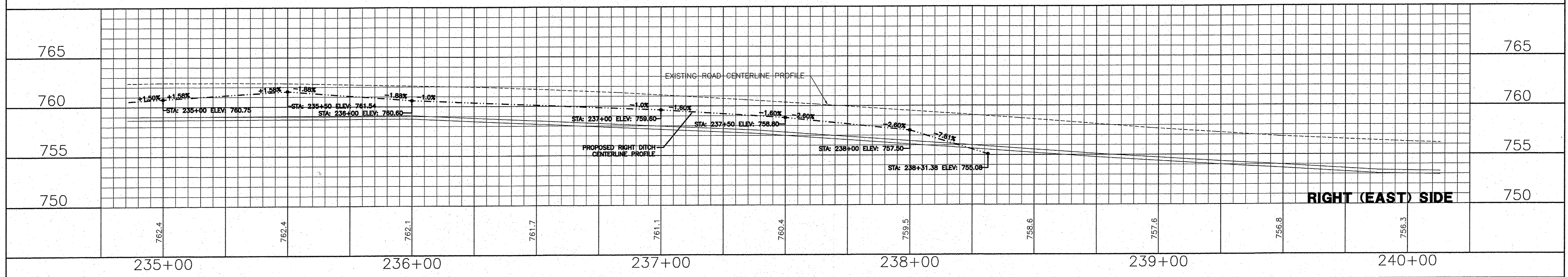
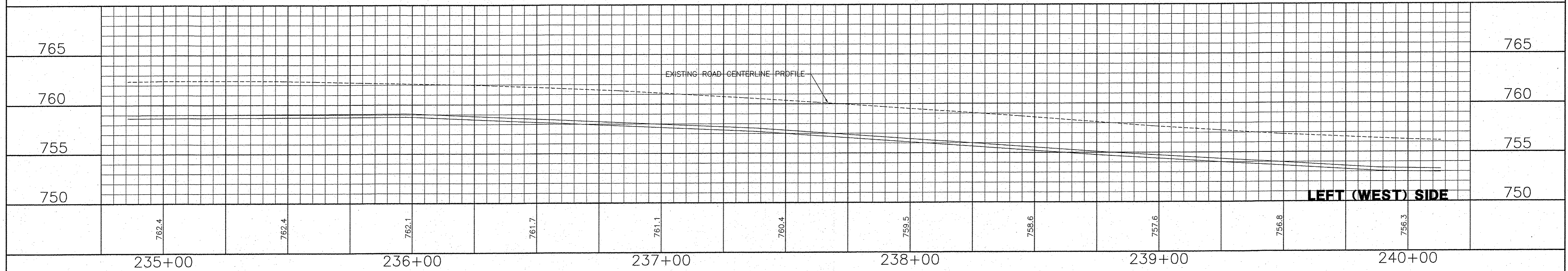
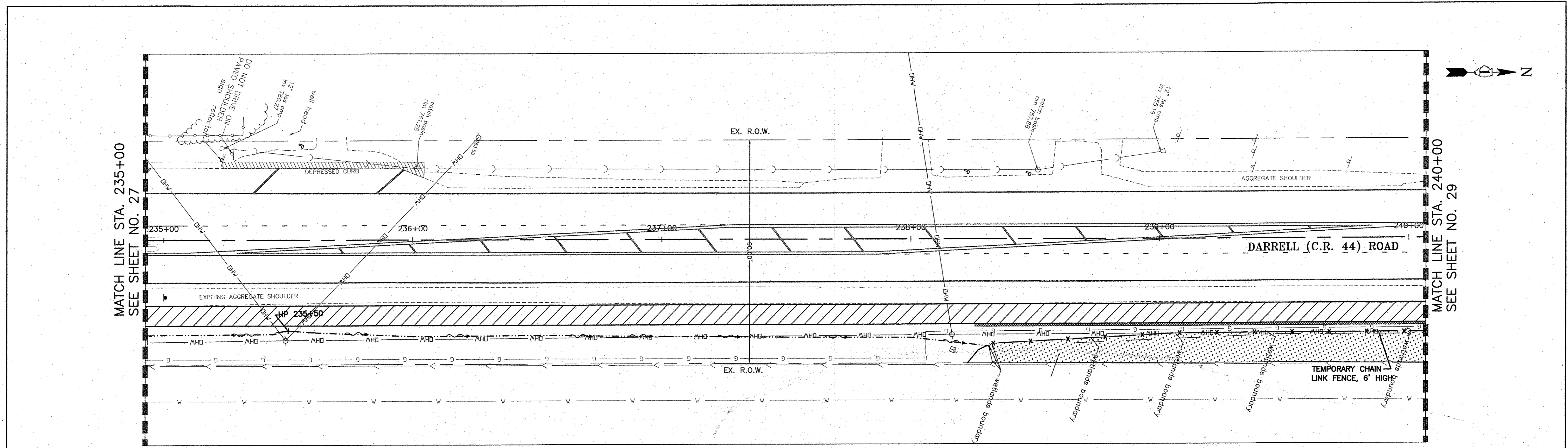


	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

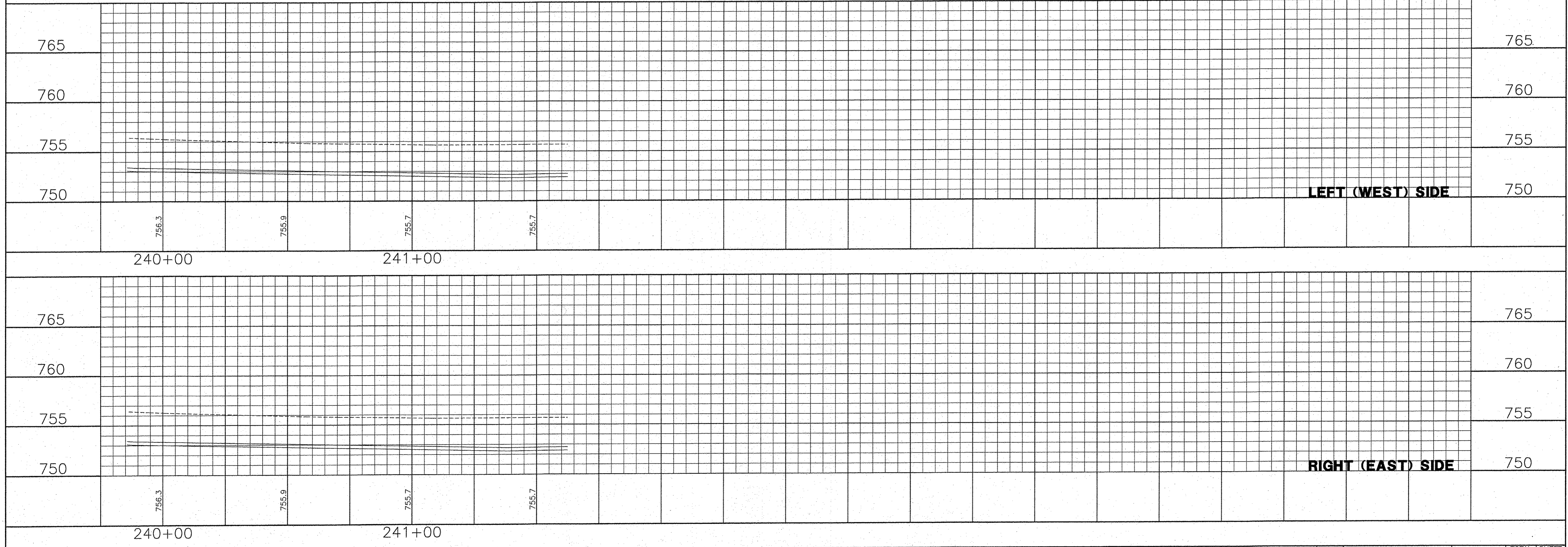
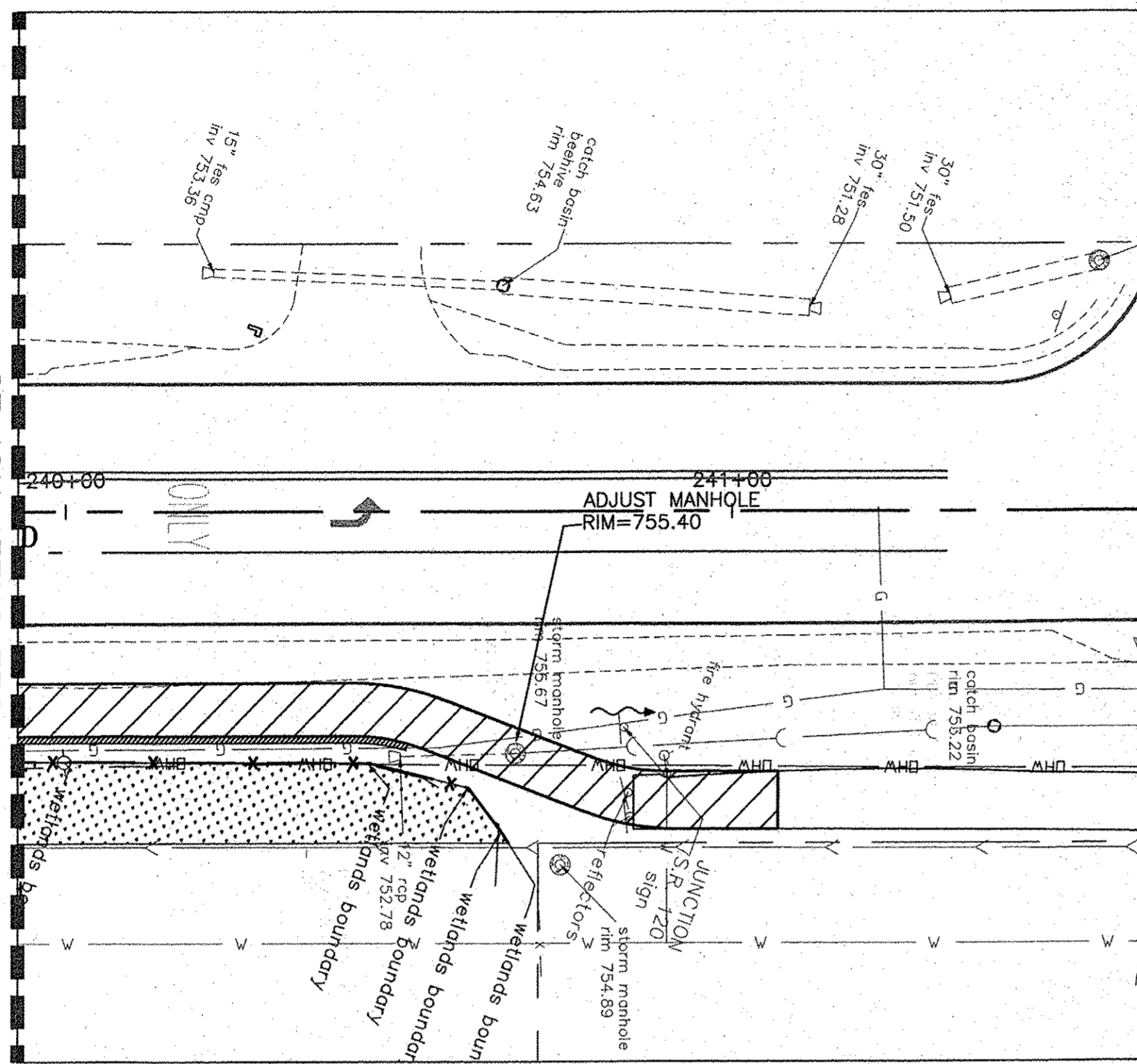
DRAINAGE AND UTILITIES DARRELL ROAD		
SCALE: 1"=20'	STA. 230+00	TO STA. 235+00

F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 27
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-001(997)				



	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE AND UTILITIES DARRELL ROAD	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL			0012	14-00011-00-BT	LAKE	57	28	
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL			C-91-209-15				CONTRACT NO. 61C28	
	DATE - 10/03/16	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS				FED. AID PROJECT TE-00D1(997)	
SCALE: 1"=20'					STA. 235+00 TO STA. 240+00					

MATCH LINE STA. 240+00
SEE SHEET NO. 28



CONSULTING, INC.
 ENGINEERING CONSULTING & LAND SURVEYING
 1100 WEST 150TH STREET, SUITE 200
 WEST DES MOINES, IOWA 50395

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

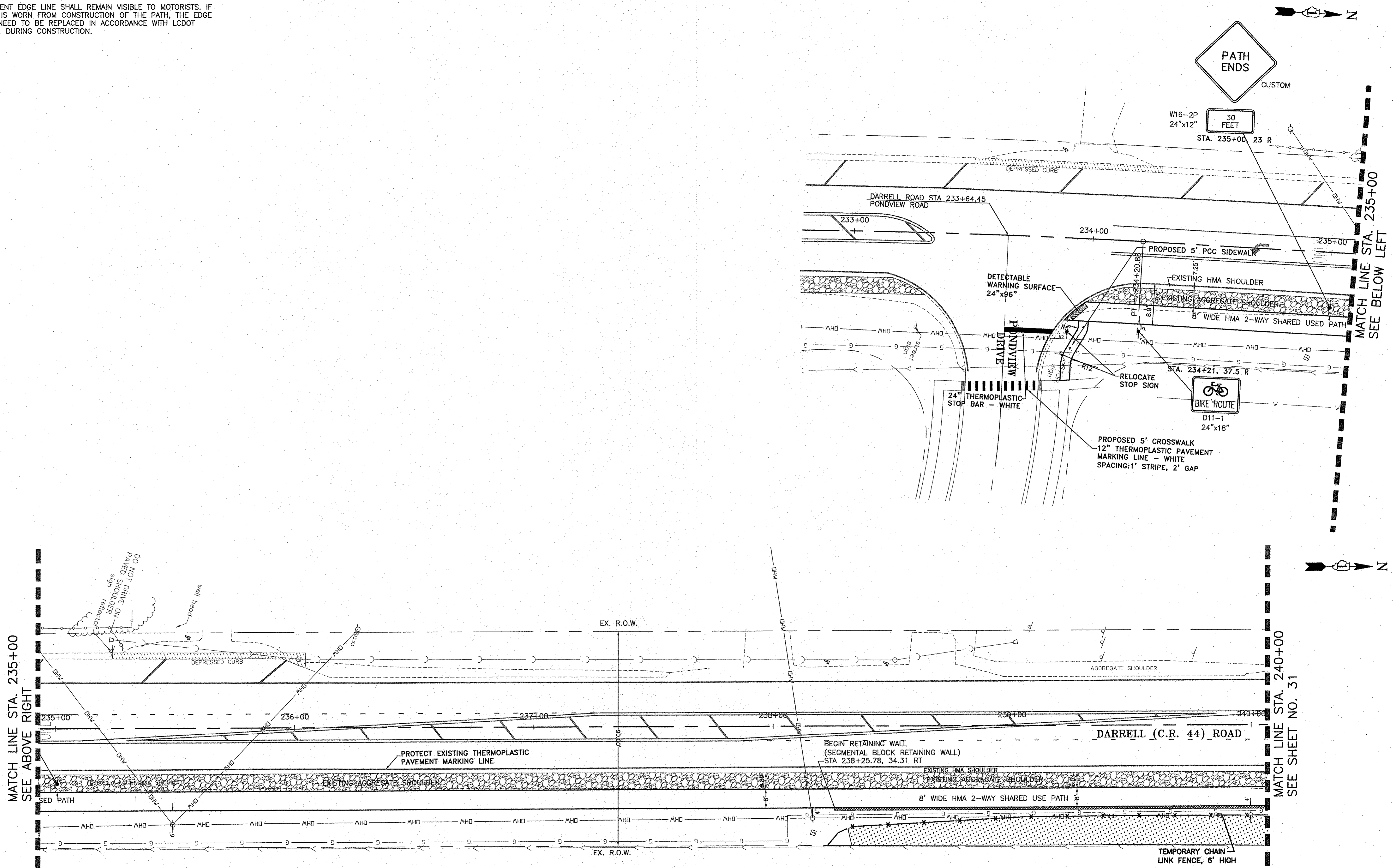
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES
DARRELL ROAD

SCALE: 1"=20'
 STA. 240+00 TO STA. 245+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	29
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				

NOTE:
 1. THE PAVEMENT EDGE LINE SHALL REMAIN VISIBLE TO MOTORISTS. IF EDGE LINE IS WORN FROM CONSTRUCTION OF THE PATH, THE EDGE LINE WILL NEED TO BE REPLACED IN ACCORDANCE WITH LCDOT STANDARDS, DURING CONSTRUCTION.



NOTES:
 1. ALL SIGNS TO BE MOUNTED ON METAL POSTS, TYPE A.
 2. SIGNS SHALL CONFORM TO THE MUTCD.

CONSULTING, INC.
 INFRA-CON CONSULTING, INC. A LIND SUBSIDIARY
 1000 N. W. 10th St., Suite 1000, Ft. Lauderdale, FL 33304-4000
 TEL: 954-575-1100 FAX: 954-575-1101

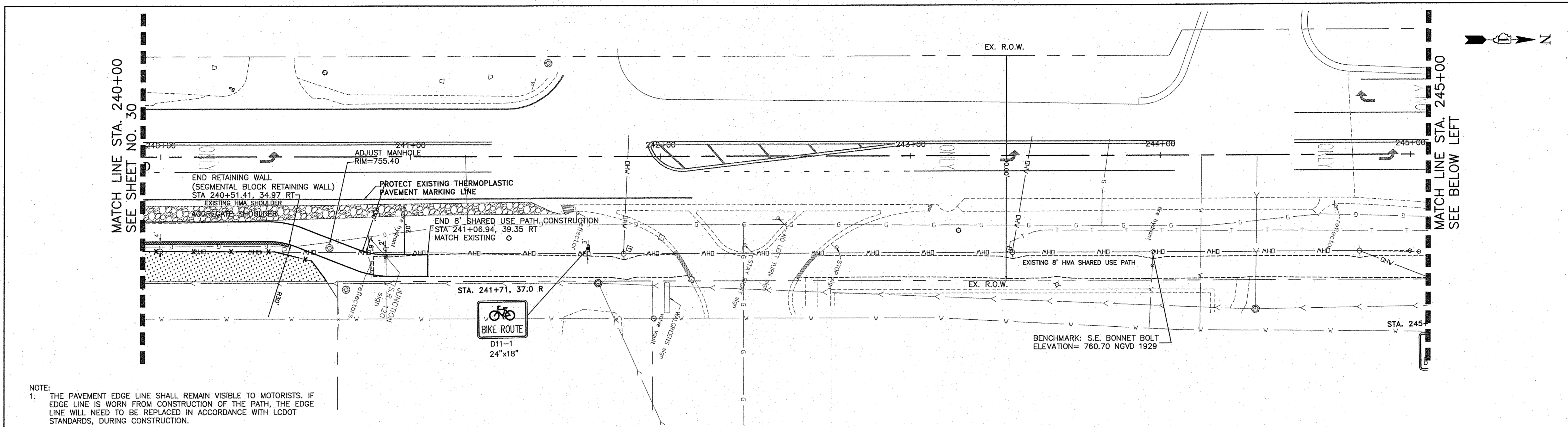
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

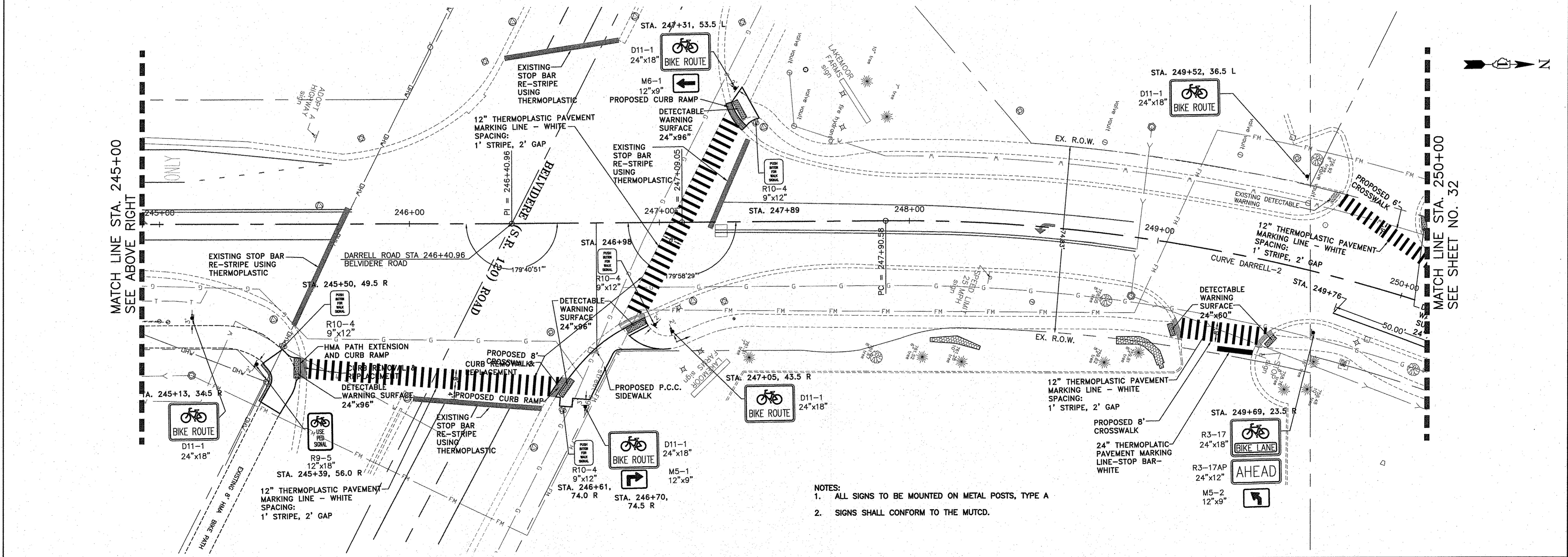
PAVEMENT MARKING AND SIGNING PLAN
S. DARRELL ROAD

SCALE: 1"=20'
 STA. 230+00 TO STA. 240+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	30
C-91-209-15			CONTRACT NO. 61C28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



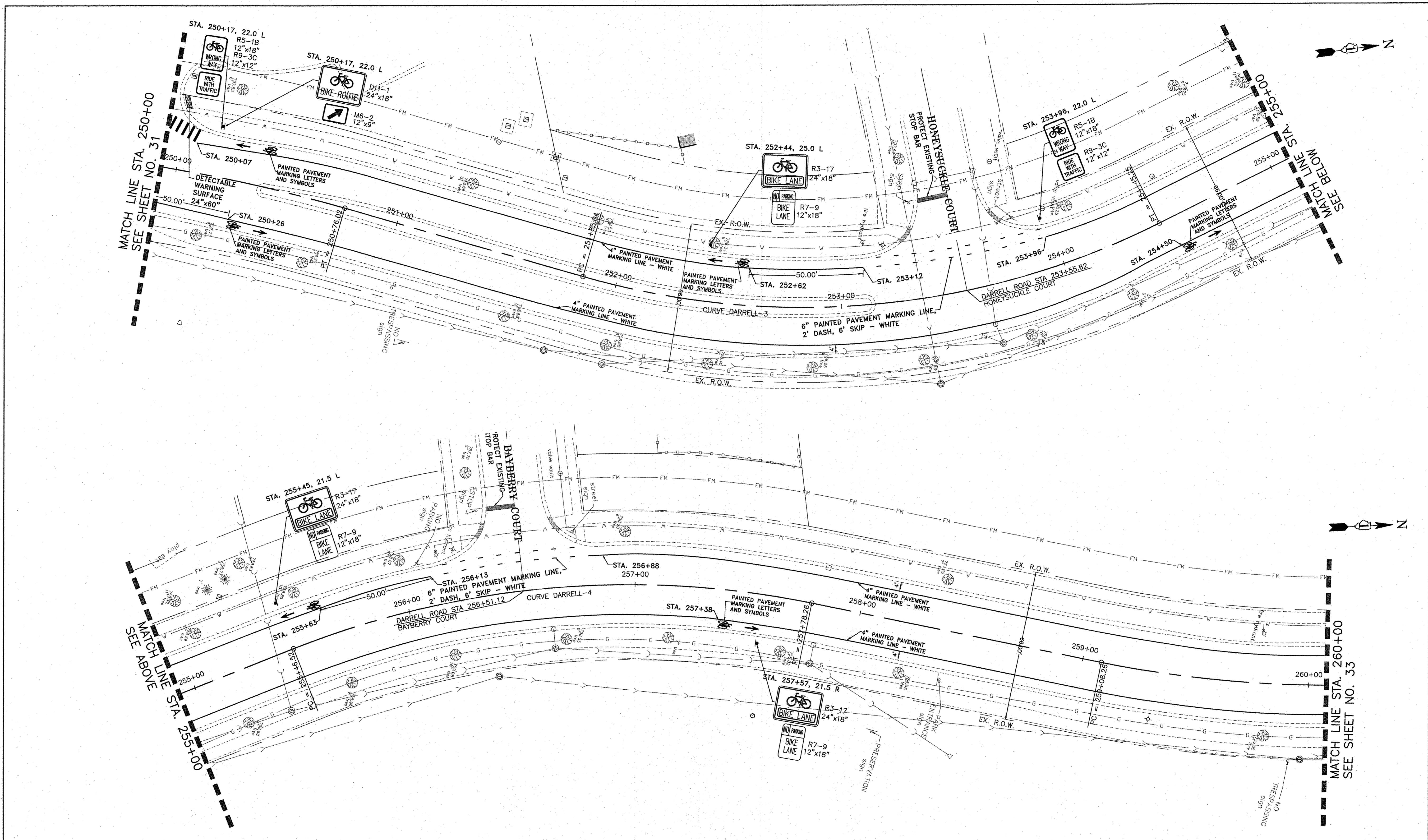
NOTE:
 1. THE PAVEMENT EDGE LINE SHALL REMAIN VISIBLE TO MOTORISTS. IF EDGE LINE IS WORN FROM CONSTRUCTION OF THE PATH, THE EDGE LINE WILL NEED TO BE REPLACED IN ACCORDANCE WITH LCDOT STANDARDS, DURING CONSTRUCTION.



NOTES:
 1. ALL SIGNS TO BE MOUNTED ON METAL POSTS, TYPE A
 2. SIGNS SHALL CONFORM TO THE MUTCD.

	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PAVEMENT MARKING AND SIGNING PLAN S. & N. DARRELL ROAD		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL					0012	14-00011-00-BT	LAKE	57	31
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL					C-91-209-15		CONTRACT NO. 61C28		
	DATE - 10/03/16	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT TE-0001(997)		

SCALE: 1"=20'
 STA. 240+00 TO STA. 250+00



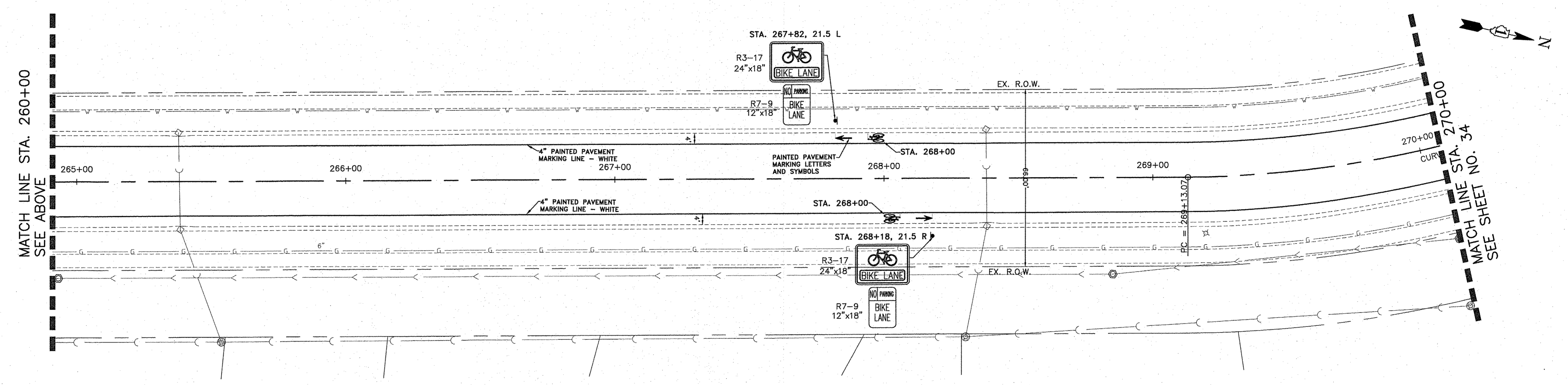
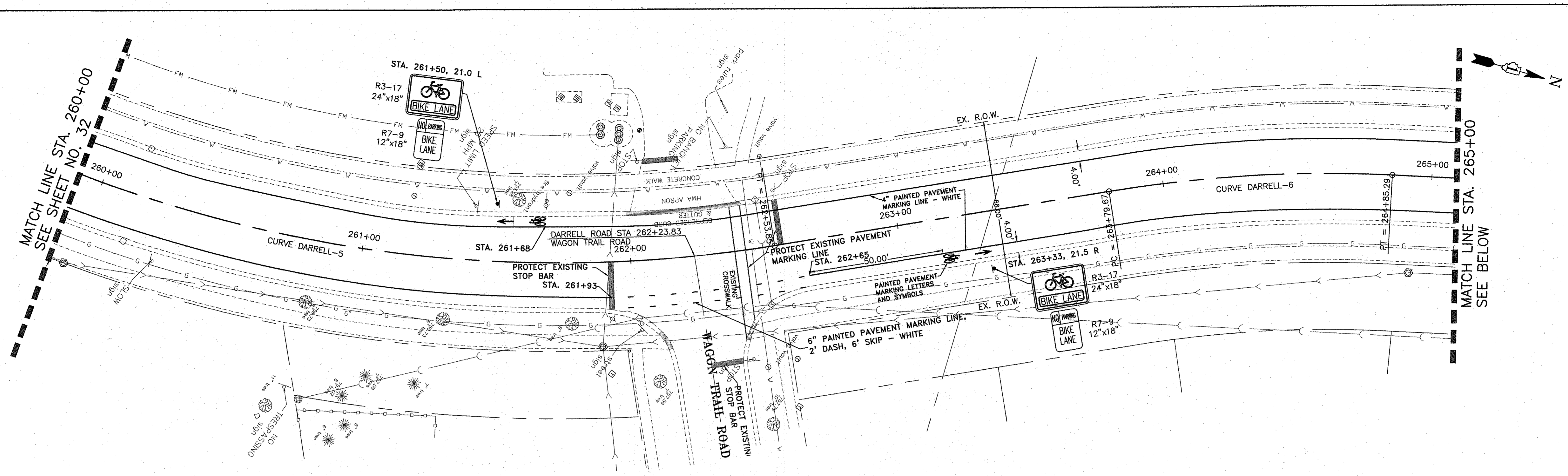
- NOTES:
1. ALL SIGNS TO BE MOUNTED ON METAL POSTS, TYPE A
 2. SIGNS SHALL CONFORM TO THE MUTCD.

	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING AND SIGNING PLAN N. DARRELL ROAD		
SCALE: 1"=20'	STA. 250+00 TO STA. 260+00	

F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 32
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



- NOTES:
1. ALL SIGNS TO BE MOUNTED ON METAL POSTS, TYPE A.
 2. SIGNS SHALL CONFORM TO THE MUTCD.

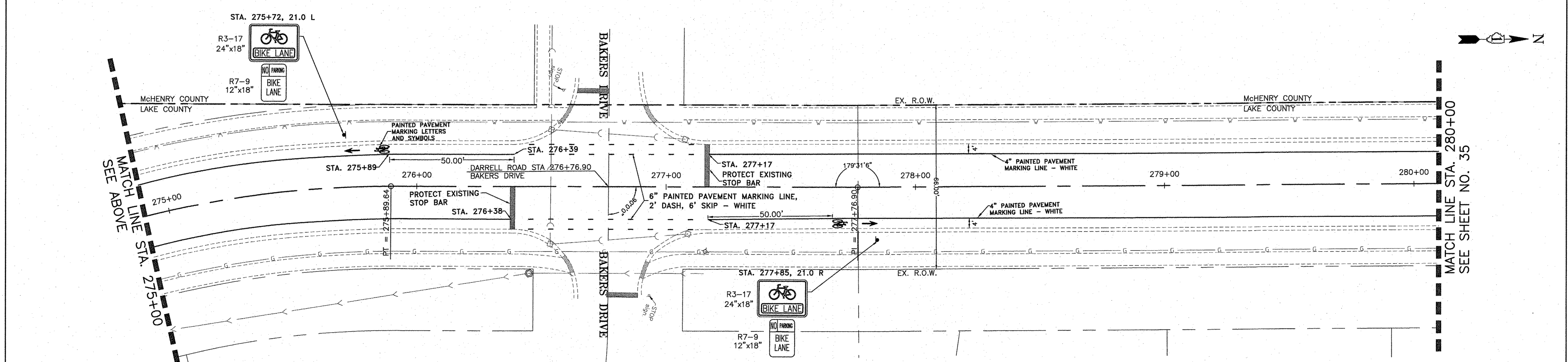
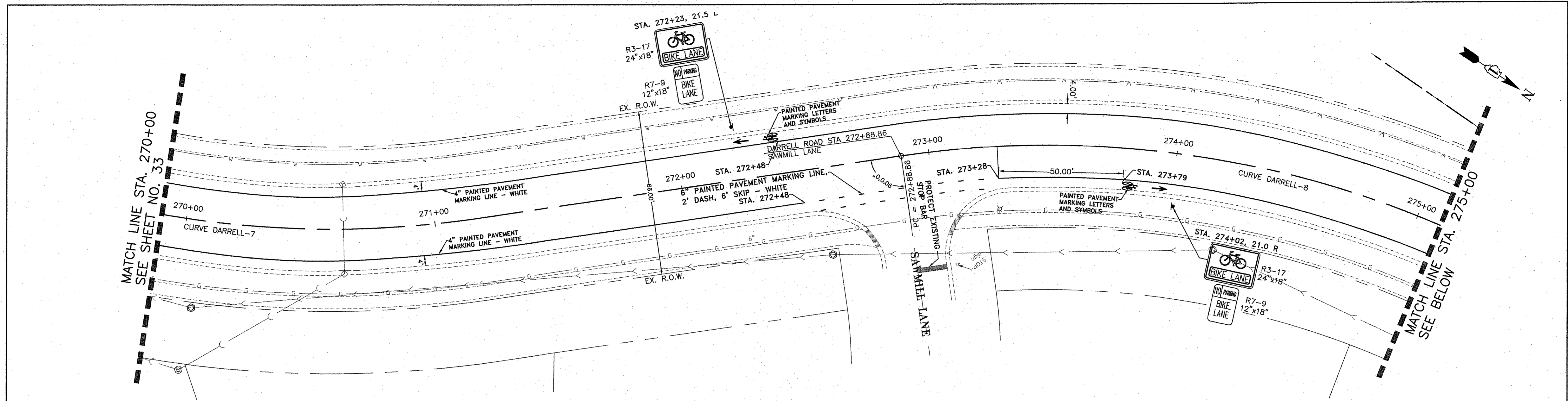
	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND SIGNING PLAN
N. DARRELL ROAD**

SCALE: 1"=20'
STA. 260+00 TO STA. 270+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	33
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



- NOTES:
1. ALL SIGNS TO BE MOUNTED ON METAL POSTS, TYPE A.
 2. SIGNS SHALL CONFORM TO THE MUTCD.

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 10000 W. 111TH ST., SUITE 100, OVERLAND PARK, MO 66204-3000

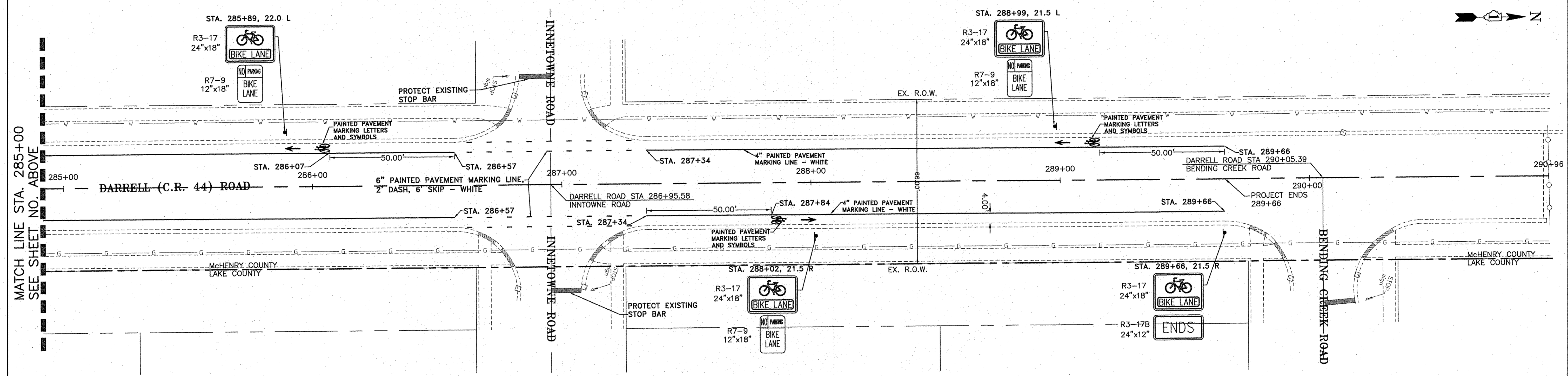
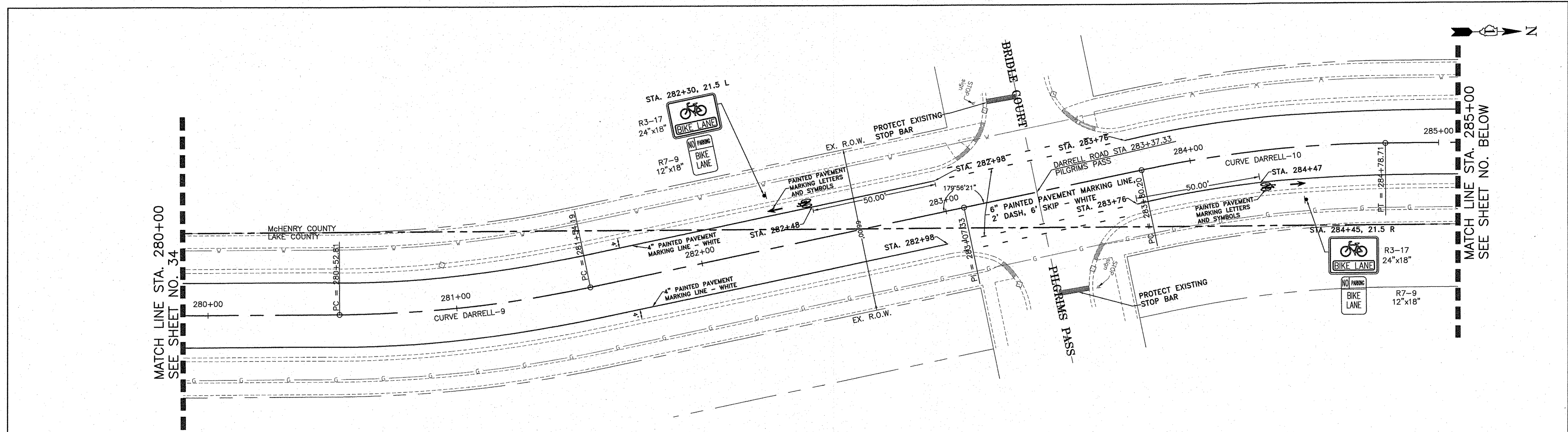
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**


**PAVEMENT MARKING AND SIGNING PLAN
 N. DARRELL ROAD**

SCALE: 1"=20'
 STA. 270+00 TO STA. 280+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	34
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



- NOTES:
 1. ALL SIGNS TO BE MOUNTED ON METAL POSTS, TYPE A.
 2. SIGNS SHALL CONFORM TO THE MUTCD.

	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING AND SIGNING PLAN N. DARRELL ROAD	
SCALE: 1"=20'	STA. 280+00 TO STA. 289+66

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY/LAKE	57	35
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(897)				

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED												
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE															
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE															
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA															
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED															
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F															
UNINTERRUPTABLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F															
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F															
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F															
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE															
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED															
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S		STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED															
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I		ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED															
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED															
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED															
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR															
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR															
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				QUEUE DETECTOR															
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PERFORMED QUEUE DETECTOR															
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PERFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR															
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				"RB" INDICATES REFLECTIVE BACKPLATE				PERFORMED SAMPLING (SYSTEM) DETECTOR															
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				<h2 style="margin: 0;">RAILROAD SYMBOLS</h2> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">EXISTING</th> <th style="width: 50%;">PROPOSED</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> </tbody> </table>				EXISTING	PROPOSED										
EXISTING	PROPOSED																						
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED																			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																			
ILLUMINATED SIGN "NO LEFT TURN"				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO INTERCONNECT																			
DETECTOR LOOP, TYPE I				RADIO REPEATER																			
PERFORMED DETECTOR LOOP				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																			
MICROWAVE VEHICLE SENSOR				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																			
VIDEO DETECTION CAMERA																							
VIDEO DETECTION ZONE																							
PAN, TILT, ZOOM CAMERA																							
WIRELESS DETECTOR SENSOR																							
WIRELESS ACCESS POINT																							

CONSULTING, INC. <small>INFRACON GENCON CONSULTING, INC. 1000 W. 11TH ST. SUITE 1000 CHICAGO, IL 60606-4400 TEL: (312) 467-1100 FAX: (312) 467-1101</small>	DESIGNED — C.K.	REVISED — 10/06/16 IDOT SUBMITTAL
	DRAWN — S.R.M.	REVISED — 12/02/16 IDOT SUBMITTAL
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

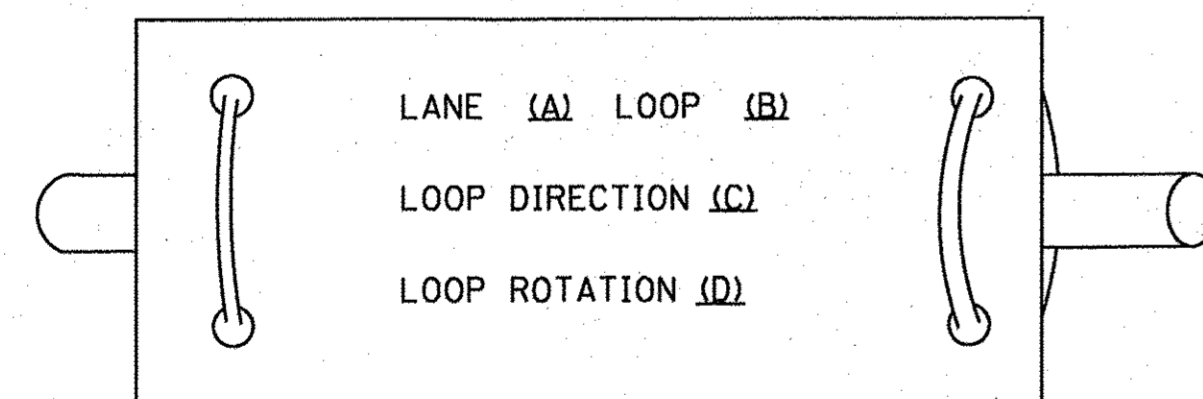
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	36
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				

SCALE: NONE STA. TO STA.

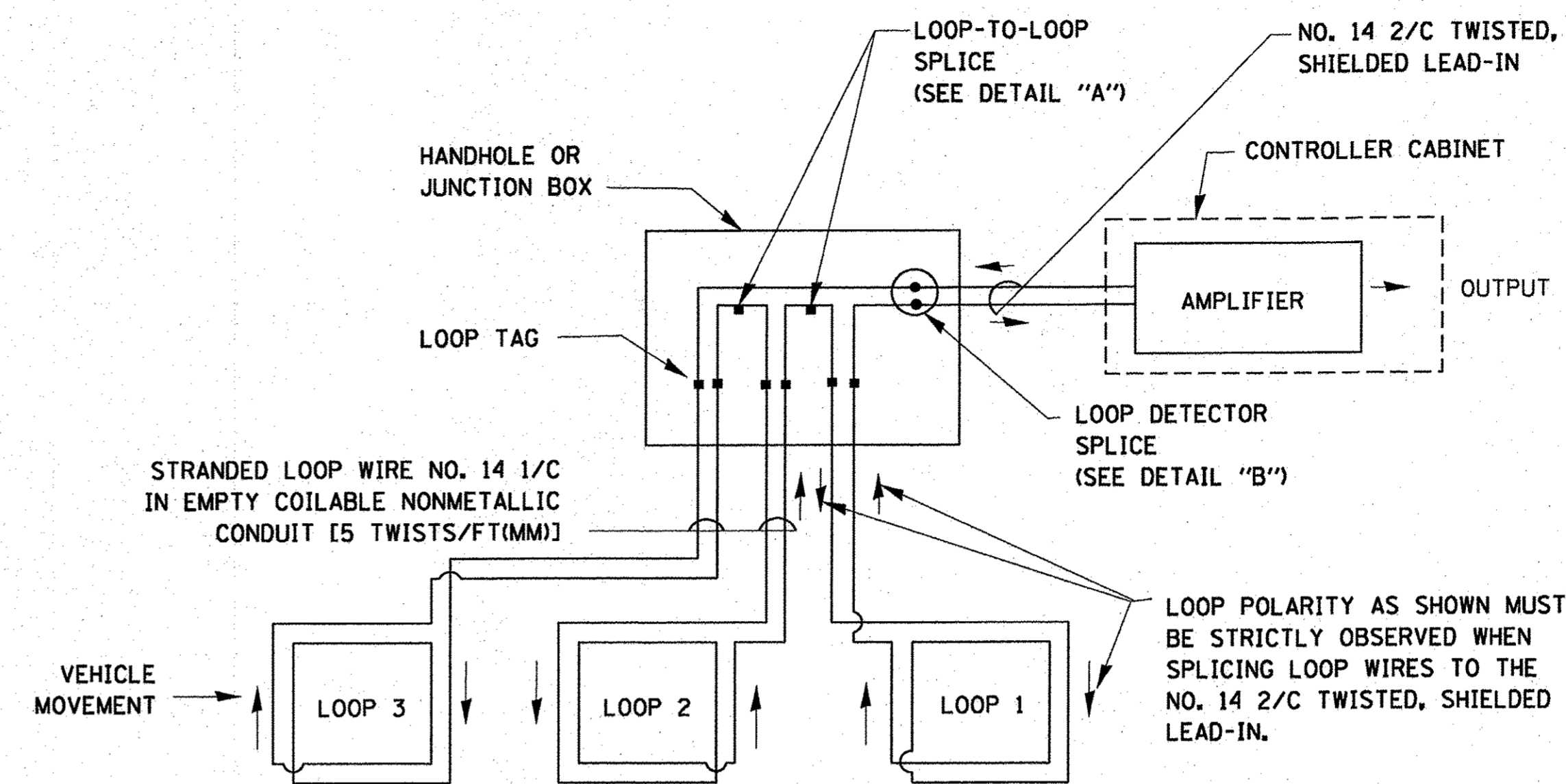
LOOP DETECTOR NOTES

1. 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.
2. 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.
3. 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.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. 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.
6. 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.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

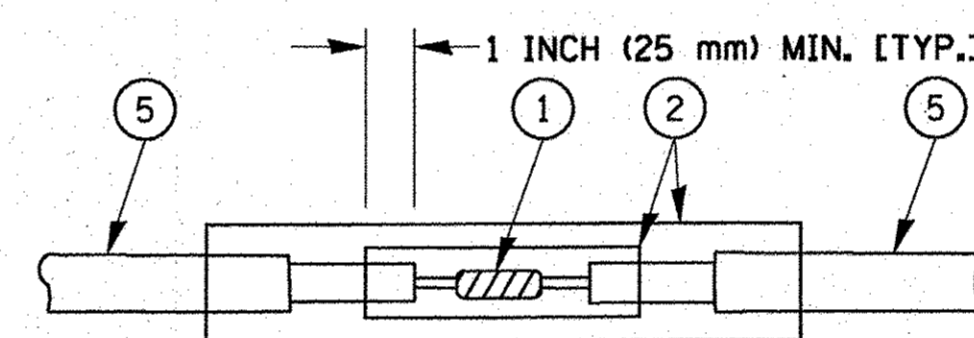


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

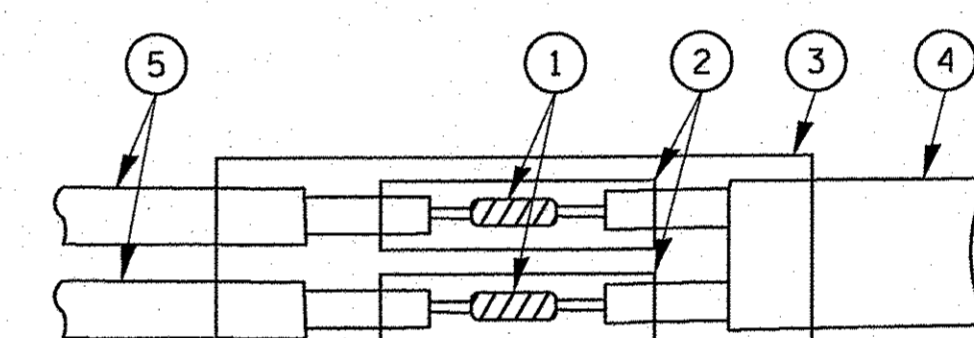


DETECTOR LOOP WIRING SCHEMATIC

- 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.

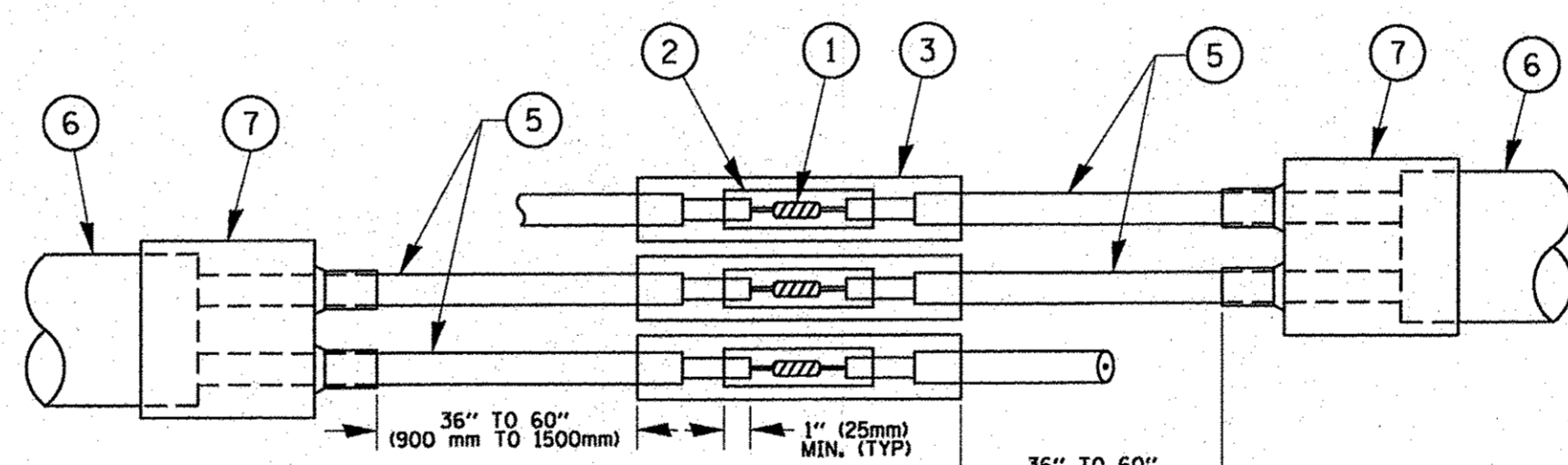


DETAIL "A"
LOOP-TO-LOOP SPLICE

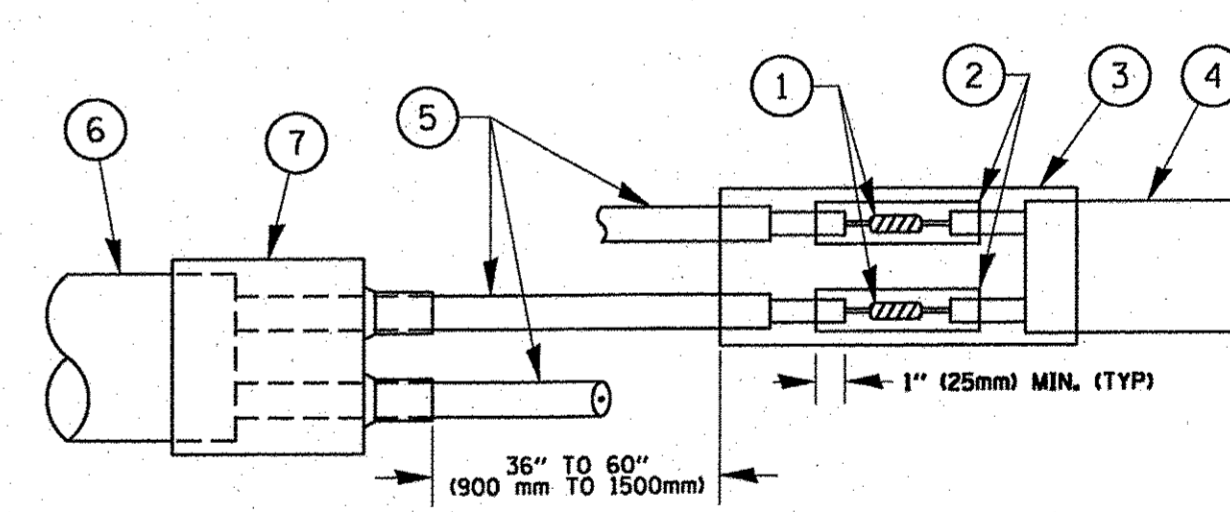


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PREFORMED LOOP

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PREFORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
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	DATE - 10/03/16	REVISED -

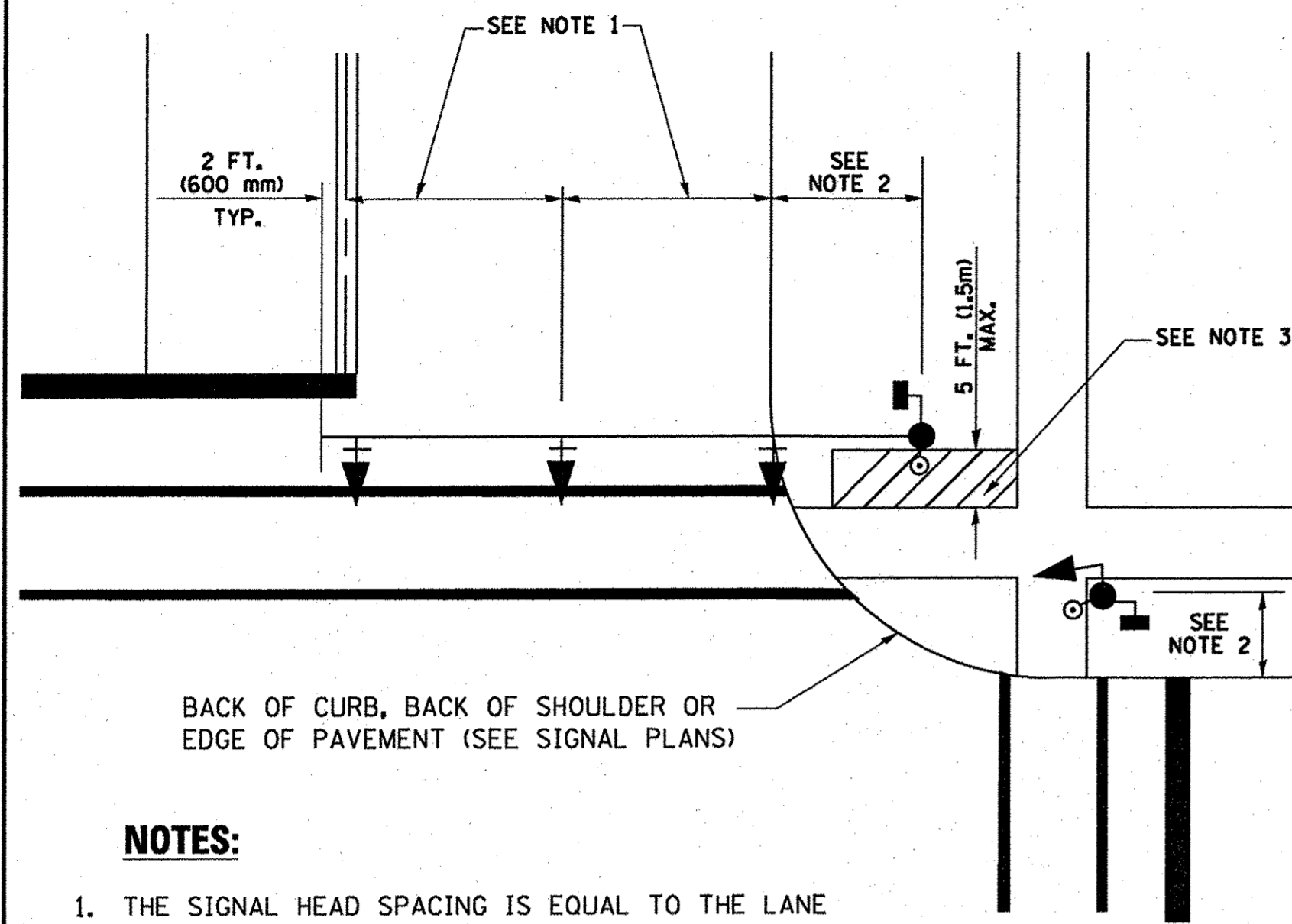
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	37
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(987)				

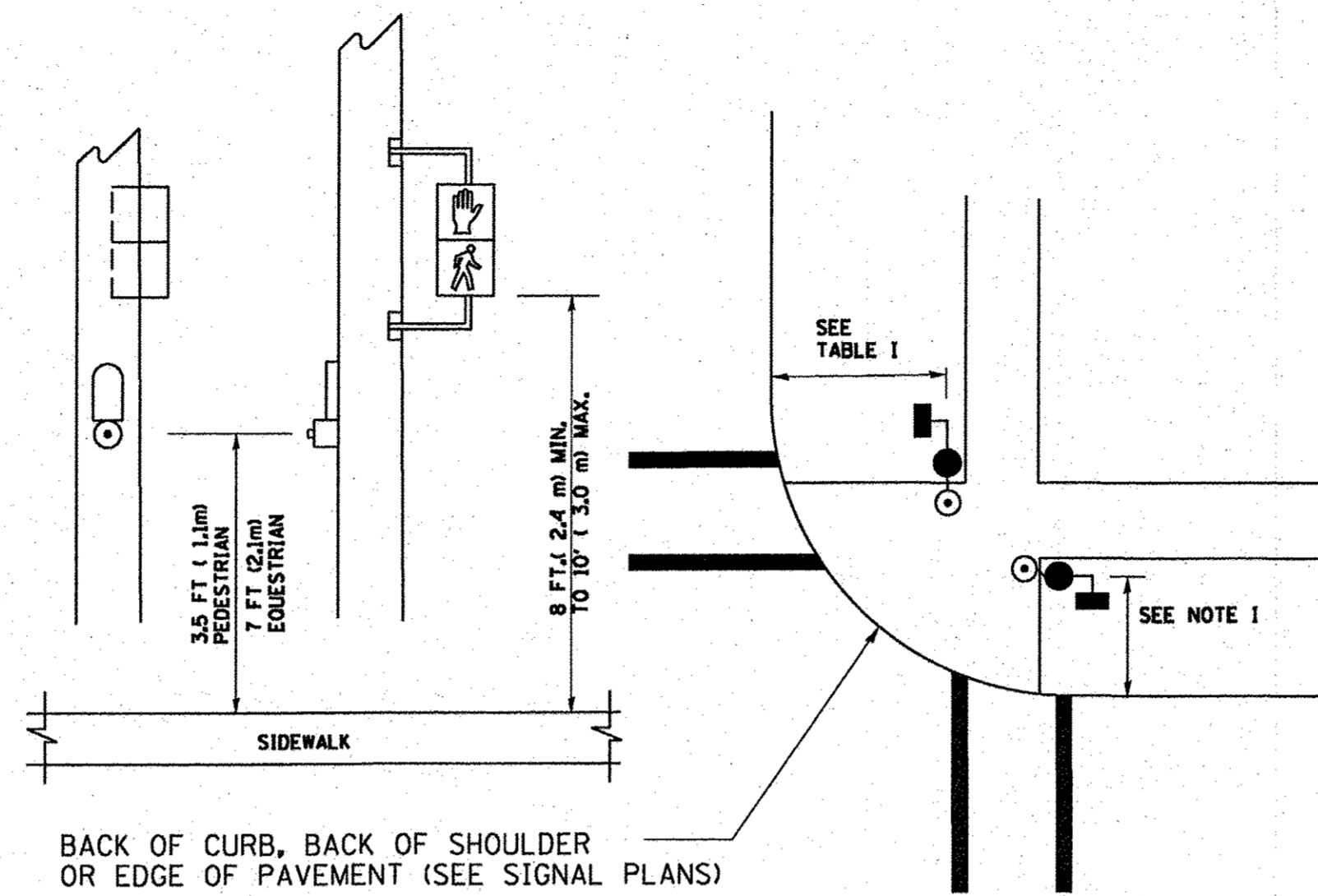
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



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."

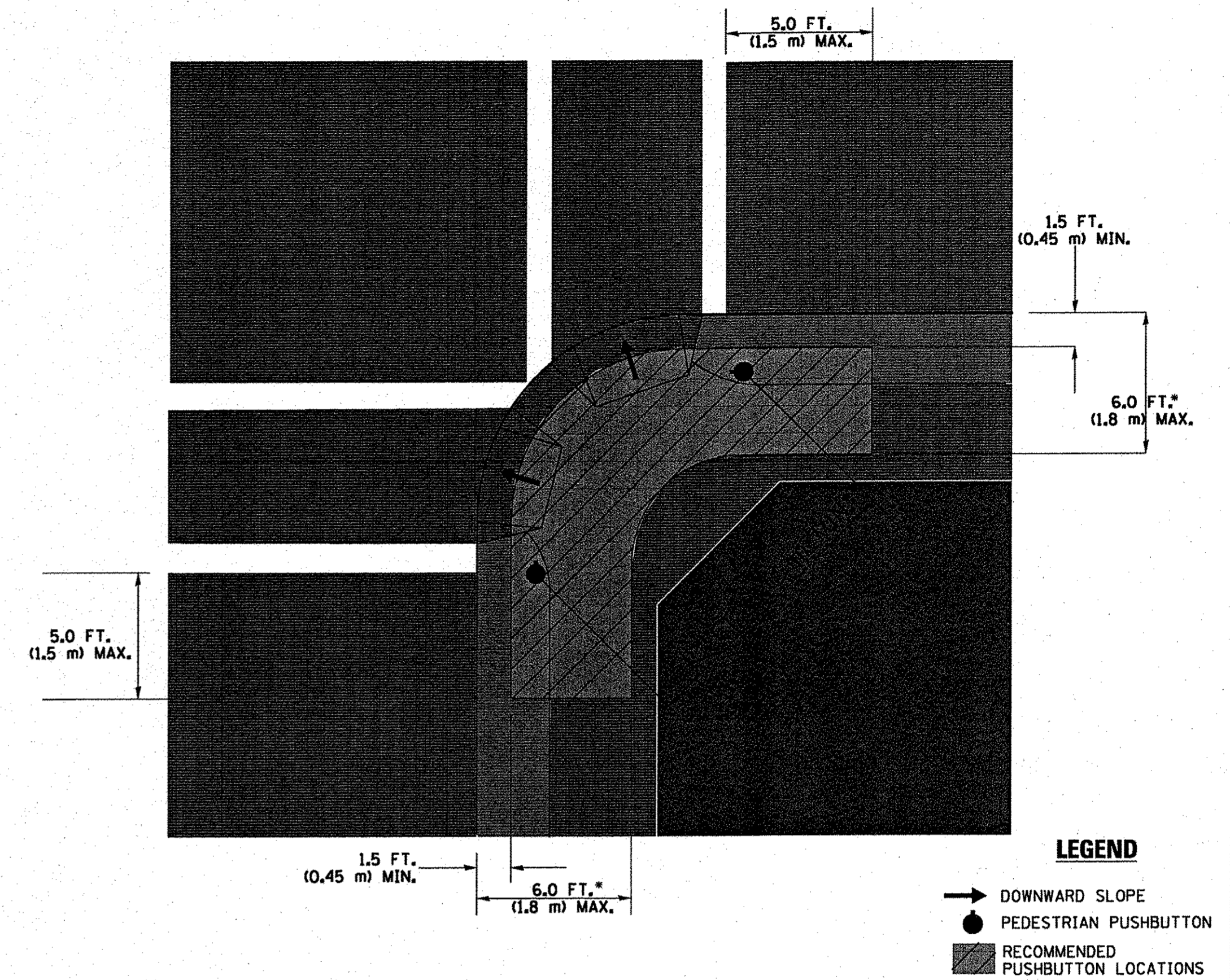
**PEDESTRIAN SIGNAL POST
AND
PEDESTRIAN PUSH BUTTON POST**



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



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ 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.

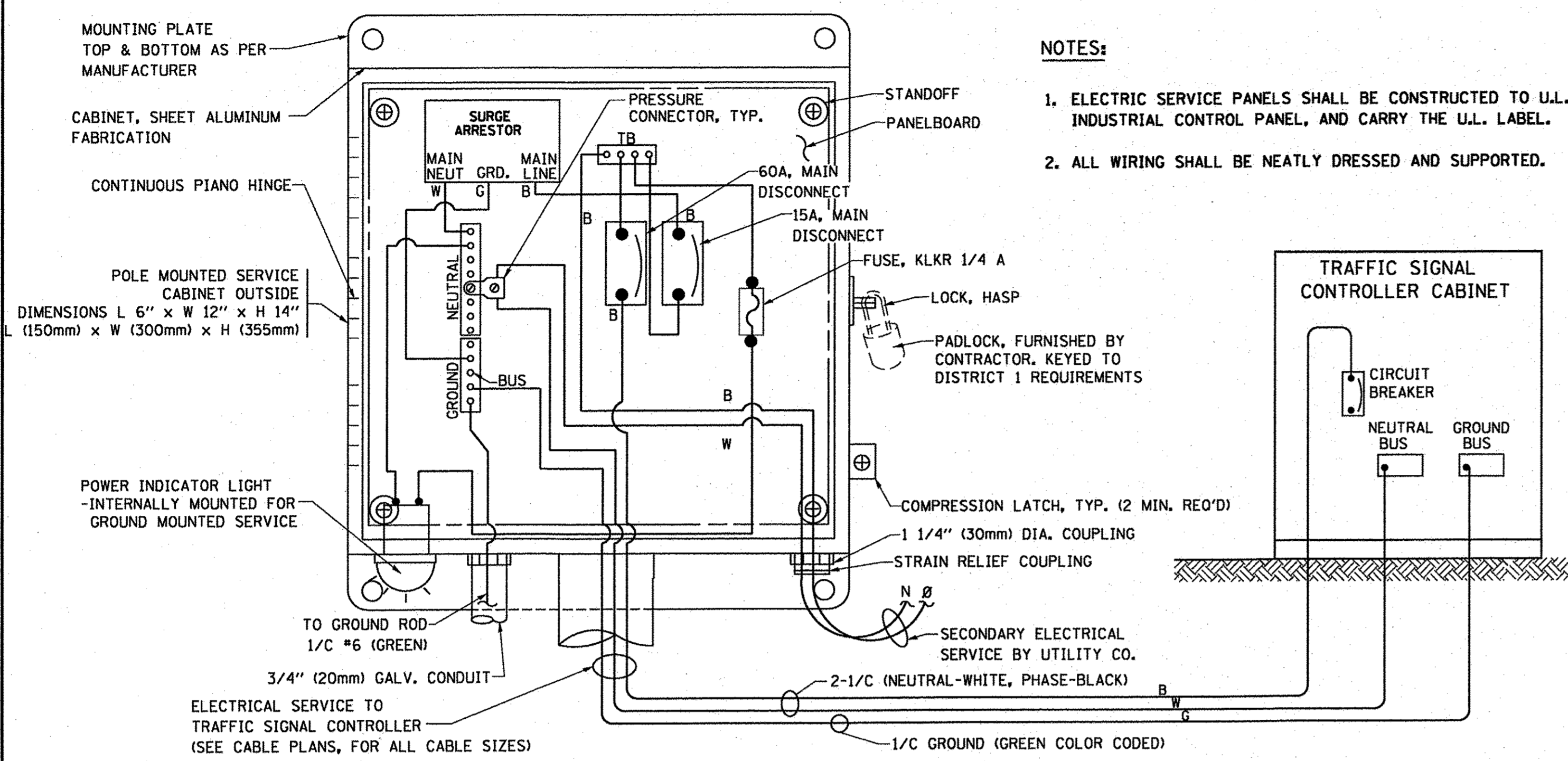
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

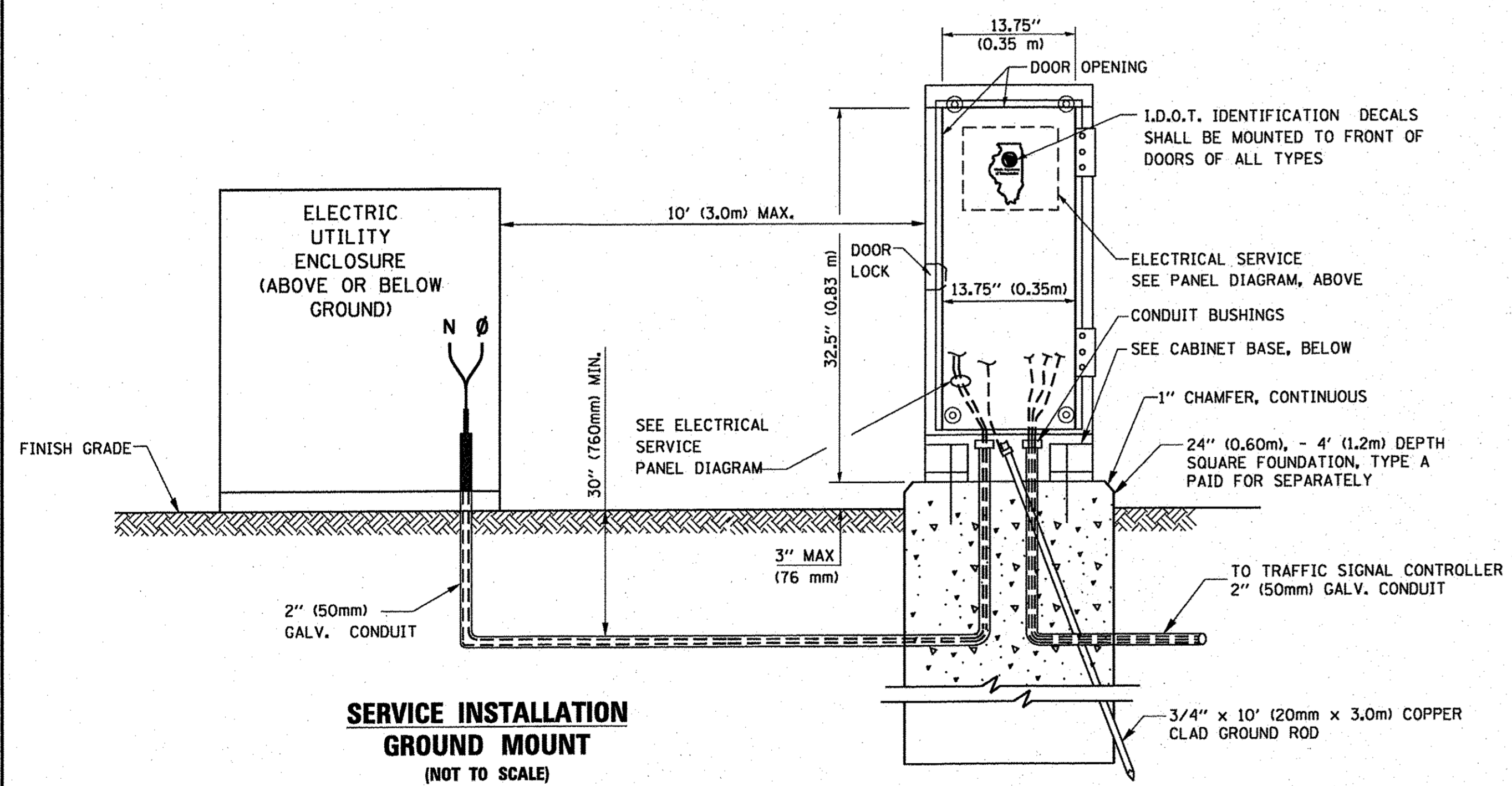
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	38
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				

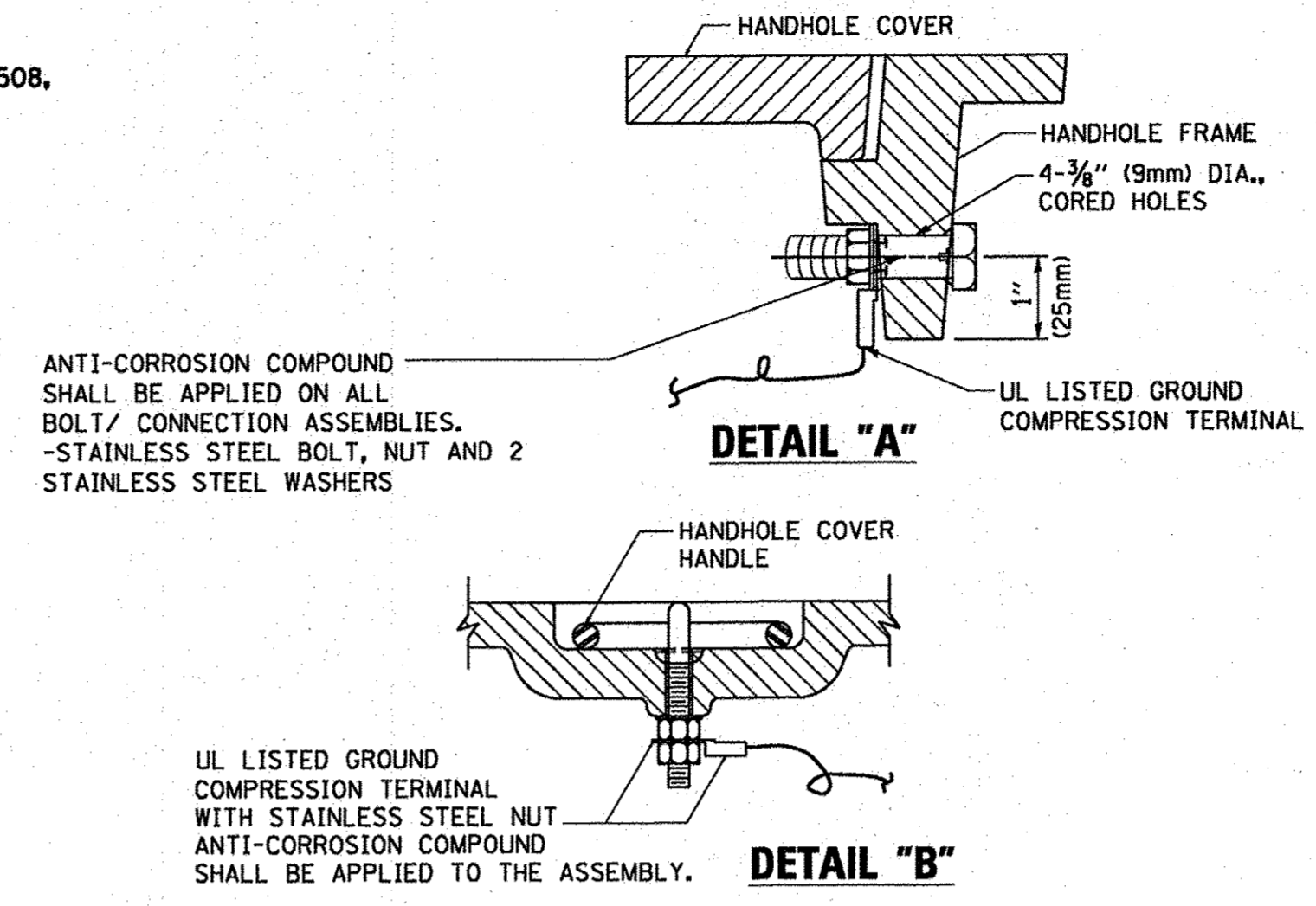
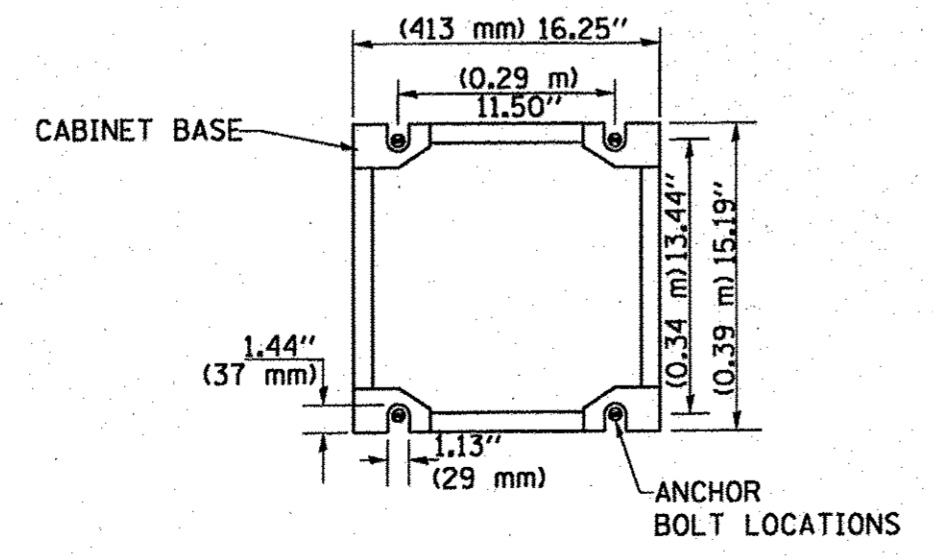


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



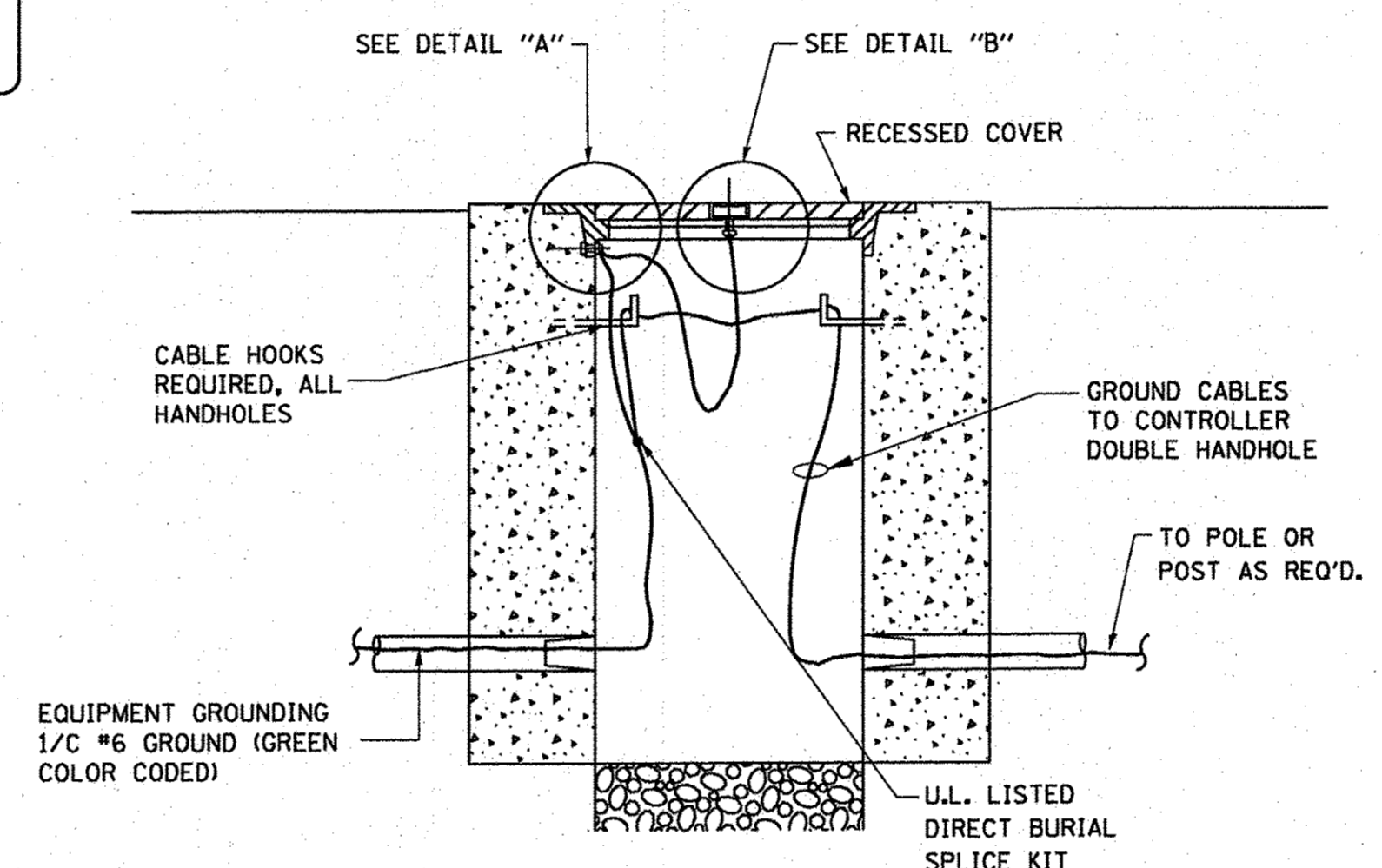
SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)

CABINET - BASE BOLT PATTERN (NOT TO SCALE)

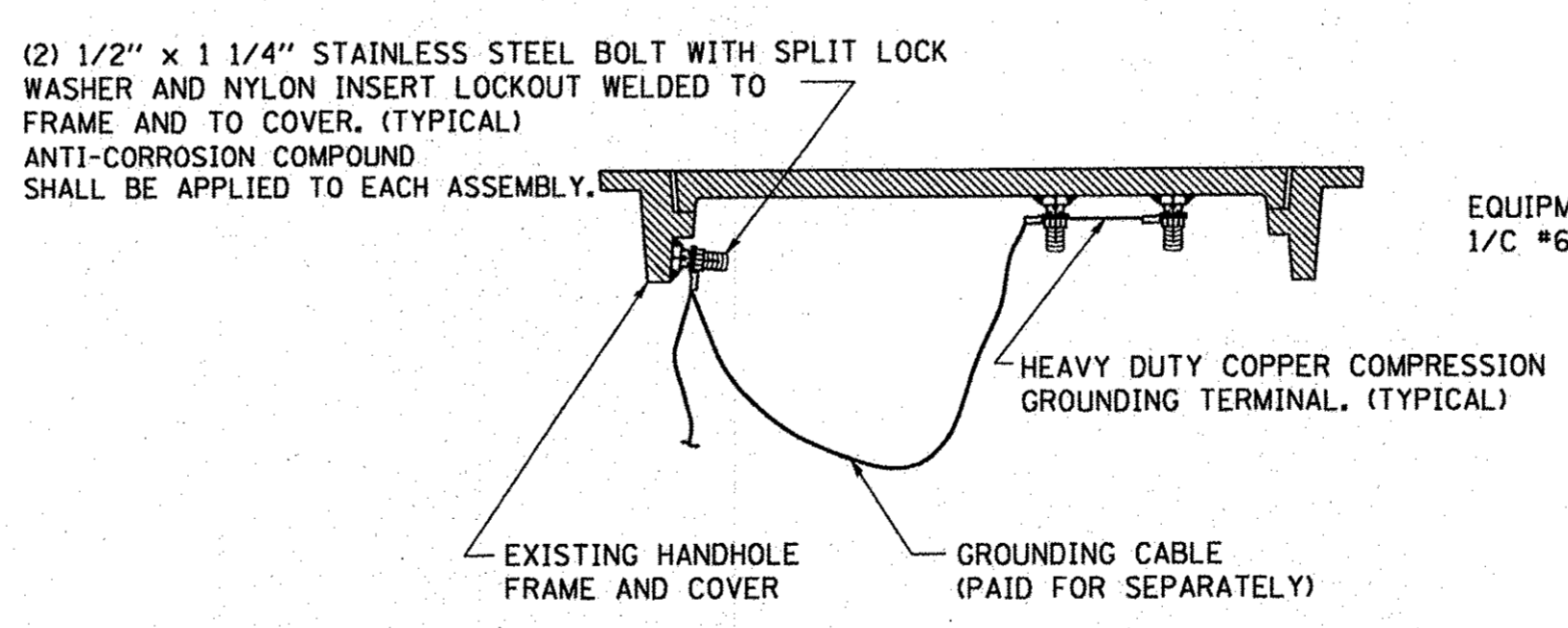


**NOTES:
GROUNDING SYSTEM**

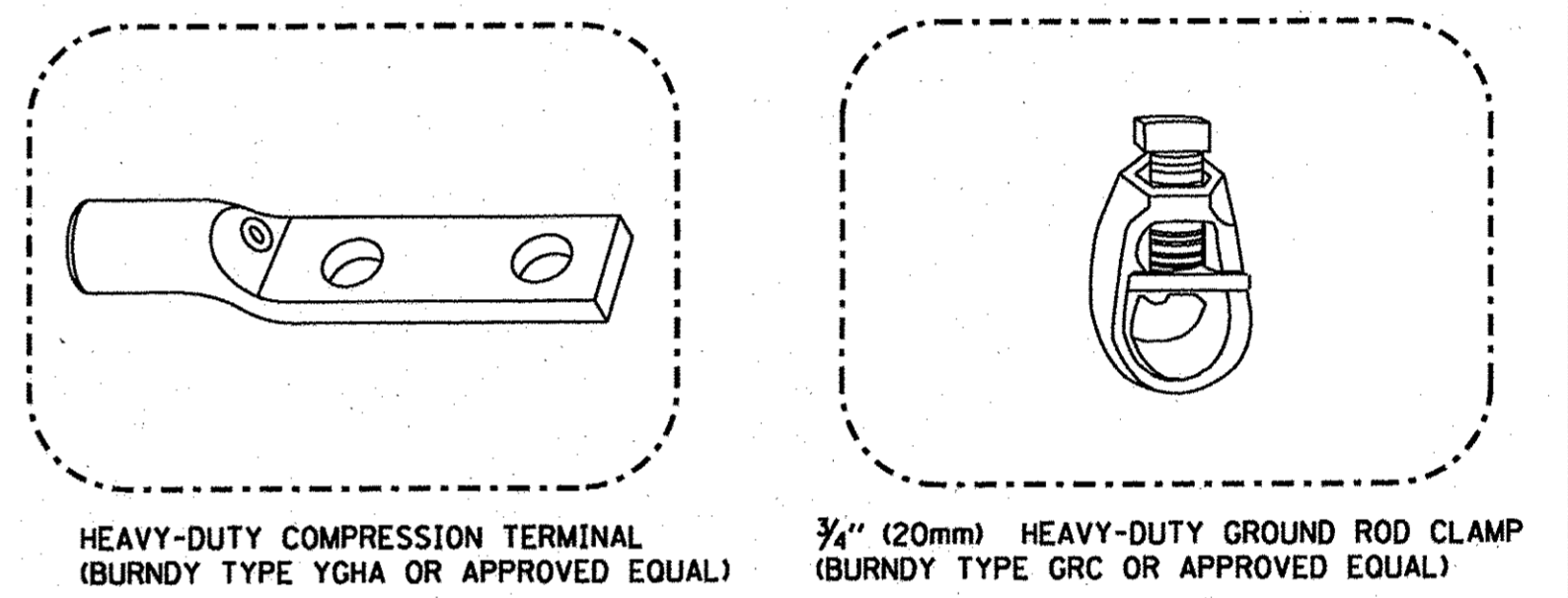
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, 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.



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

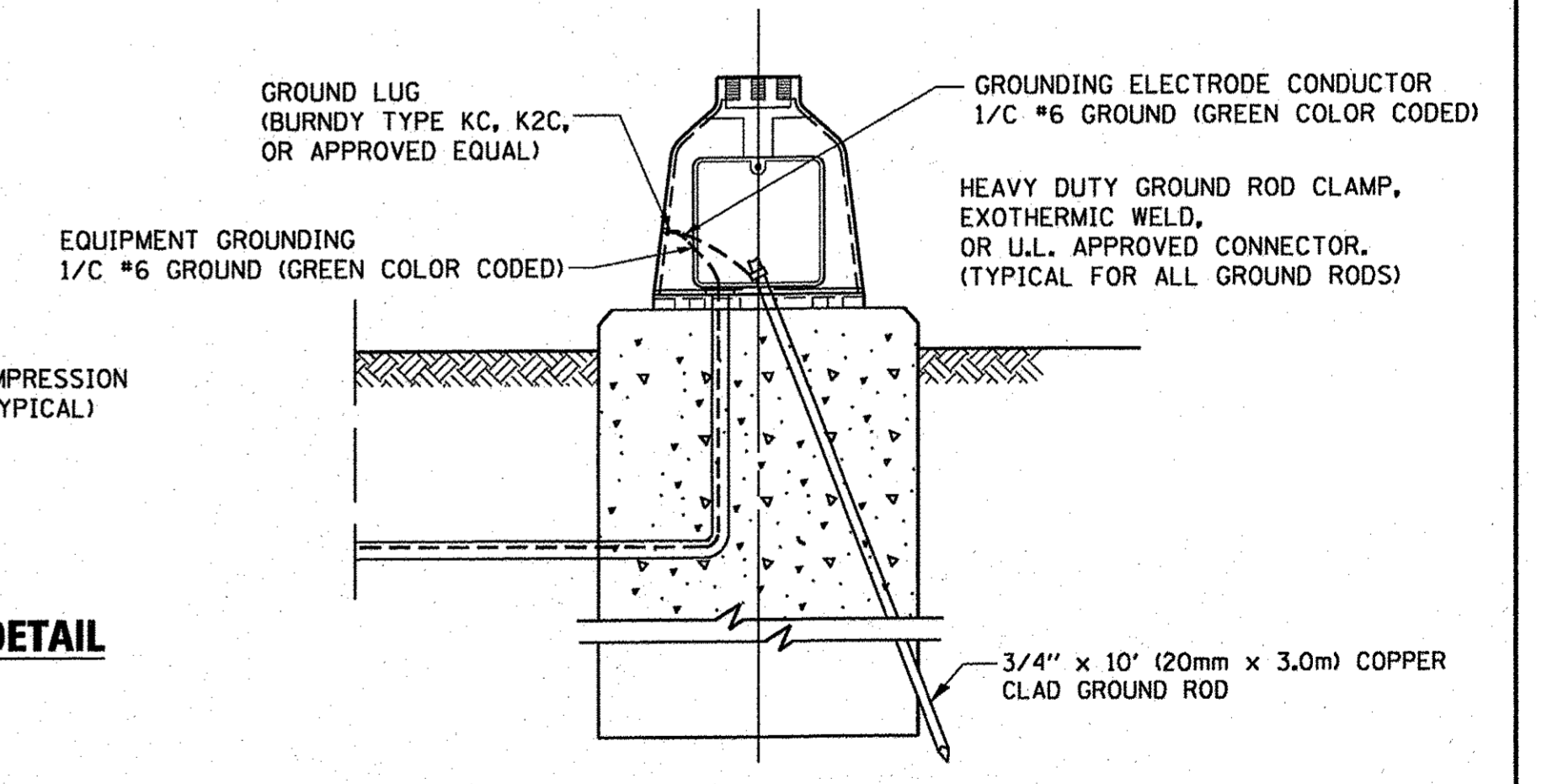


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)



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.



MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

CONSULTING, INC.
INFRACON GROUP
CONSULTING - CIVIL, ELECTRICAL & LAND SURVEYING
200 WEST WASHINGTON STREET, SUITE 200, CHICAGO, IL 60601-2000

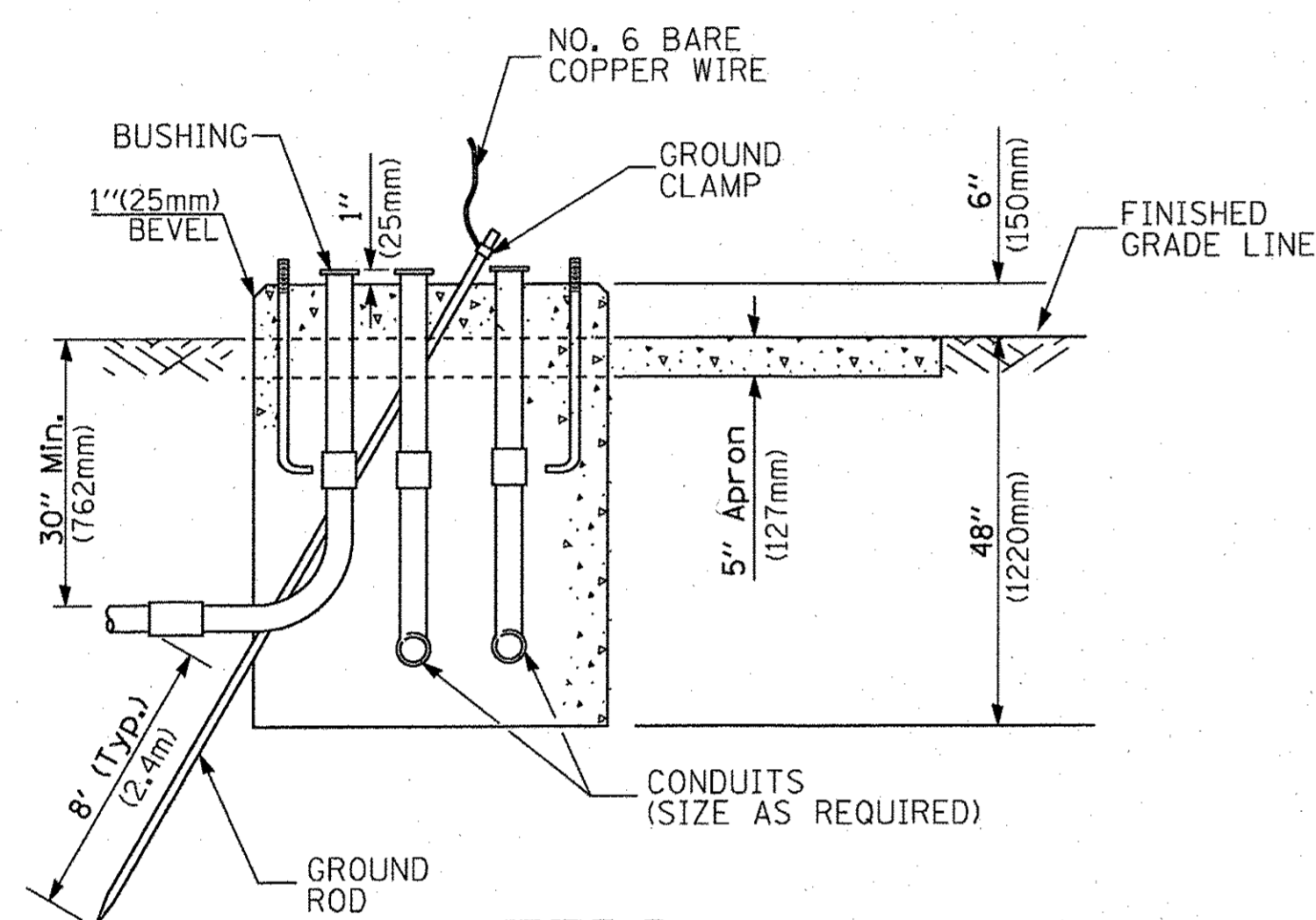
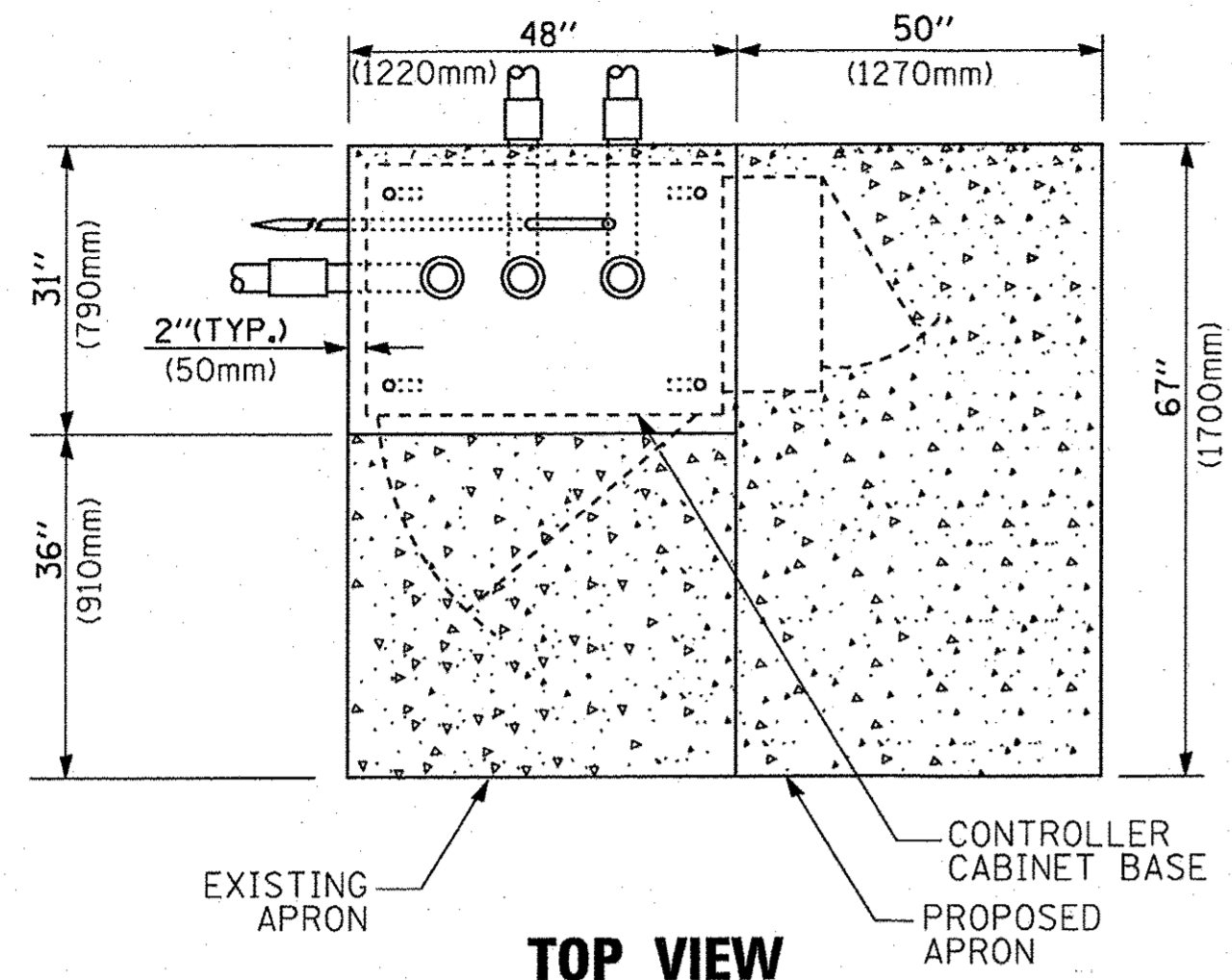
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

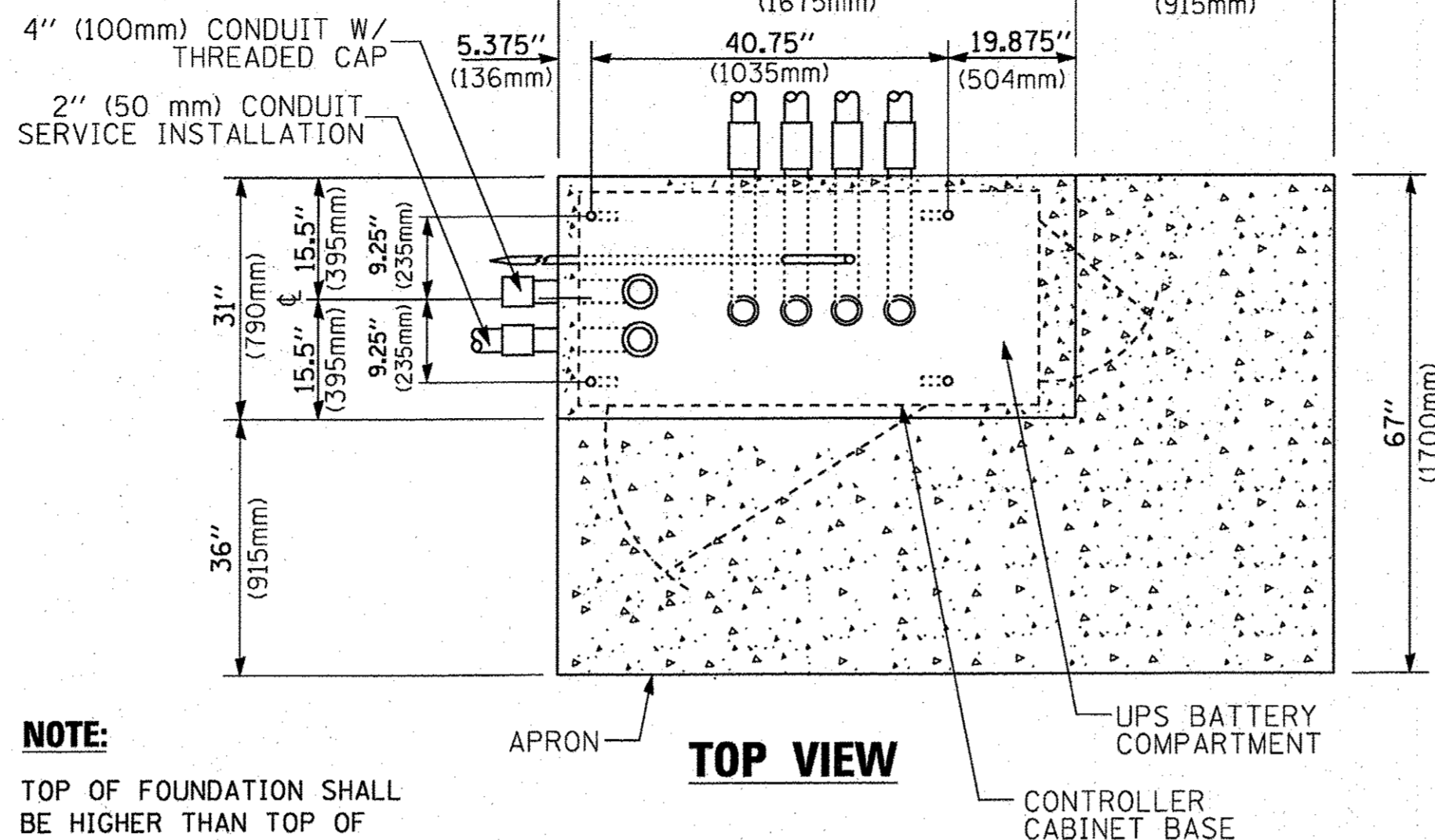
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE STA. TO STA.

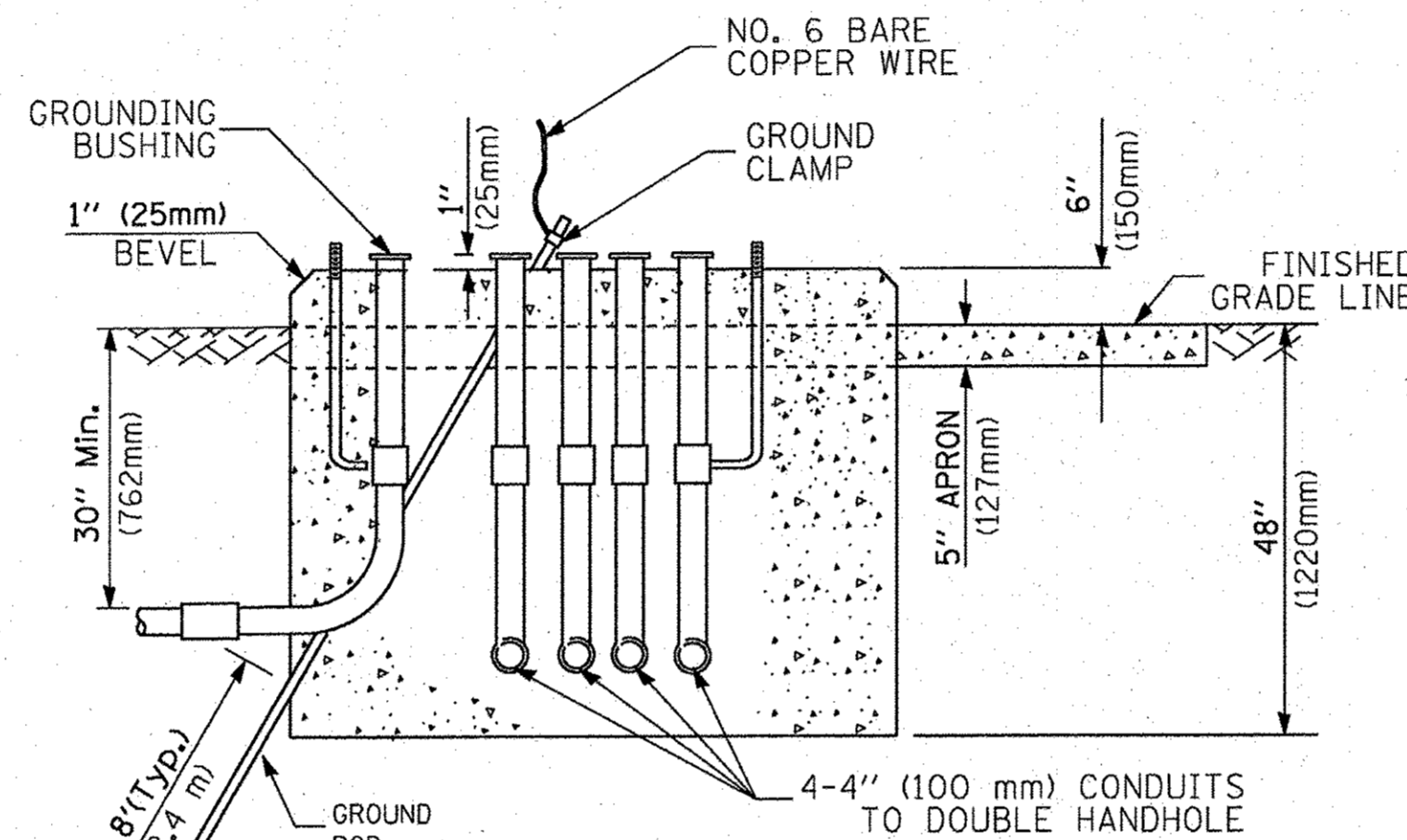
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	39
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				



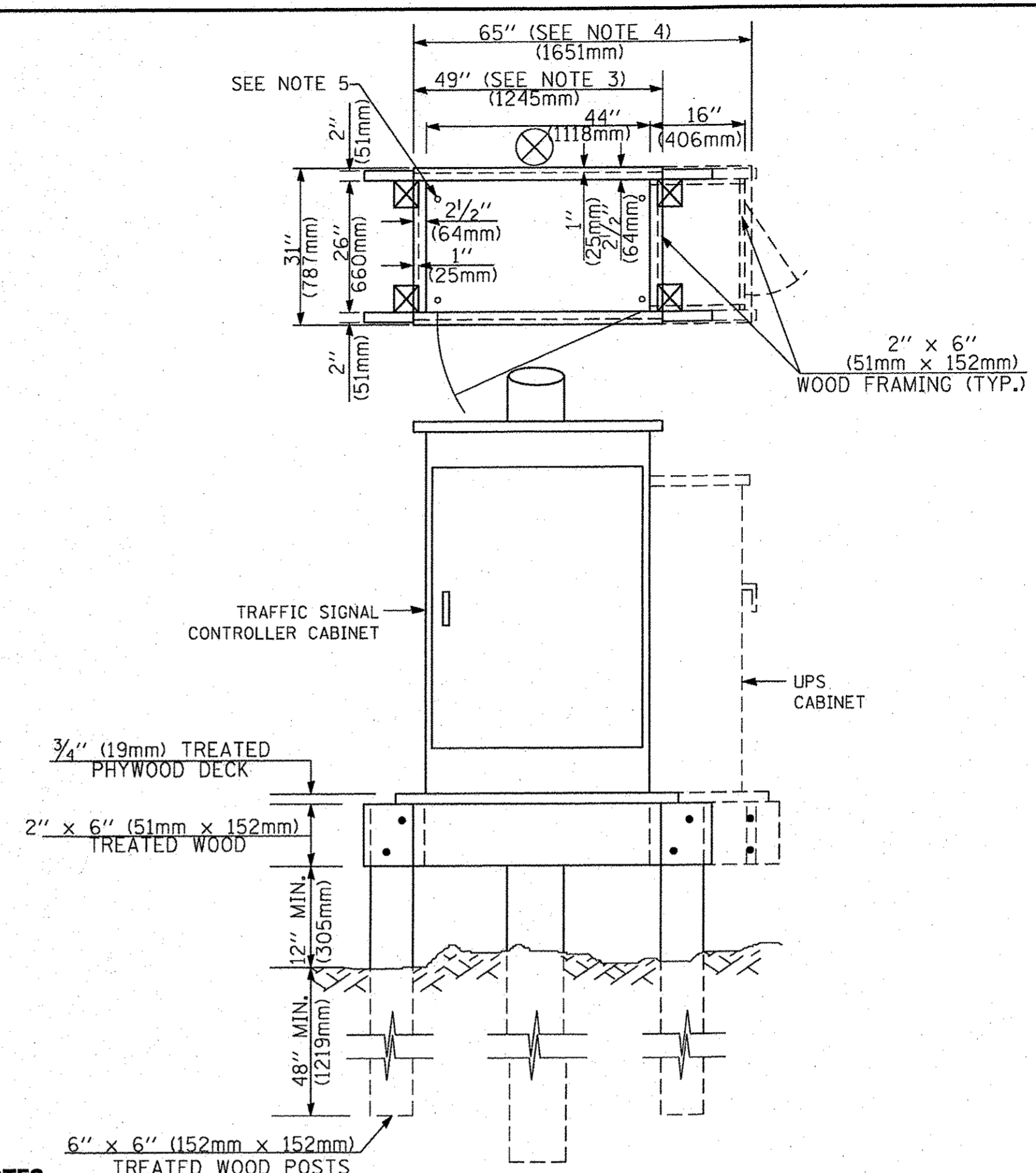
**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



NOTE:
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**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 up to 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 less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	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..

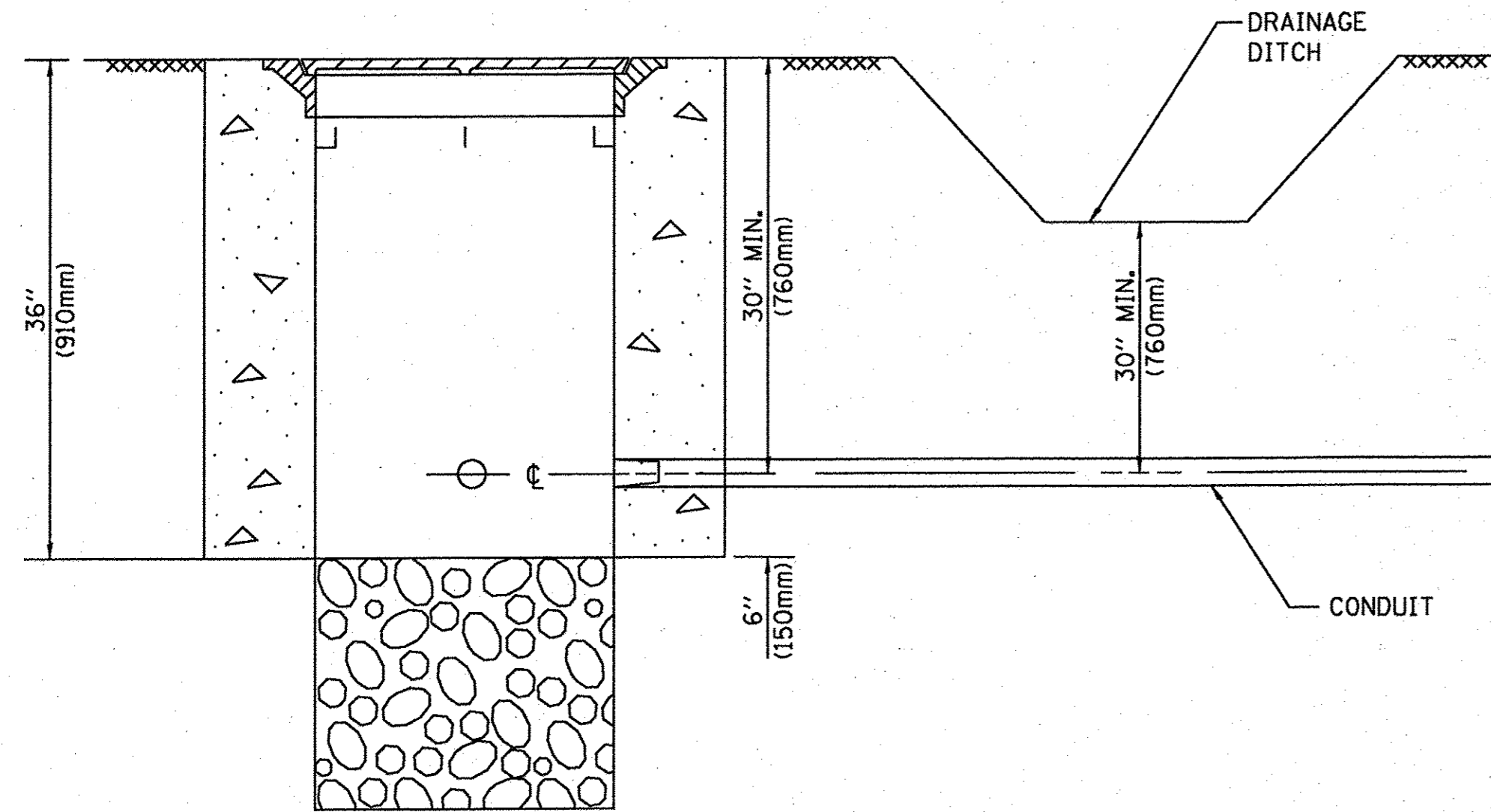
DEPTH OF MAST ARM FOUNDATIONS, TYPE E

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	STA. TO STA.

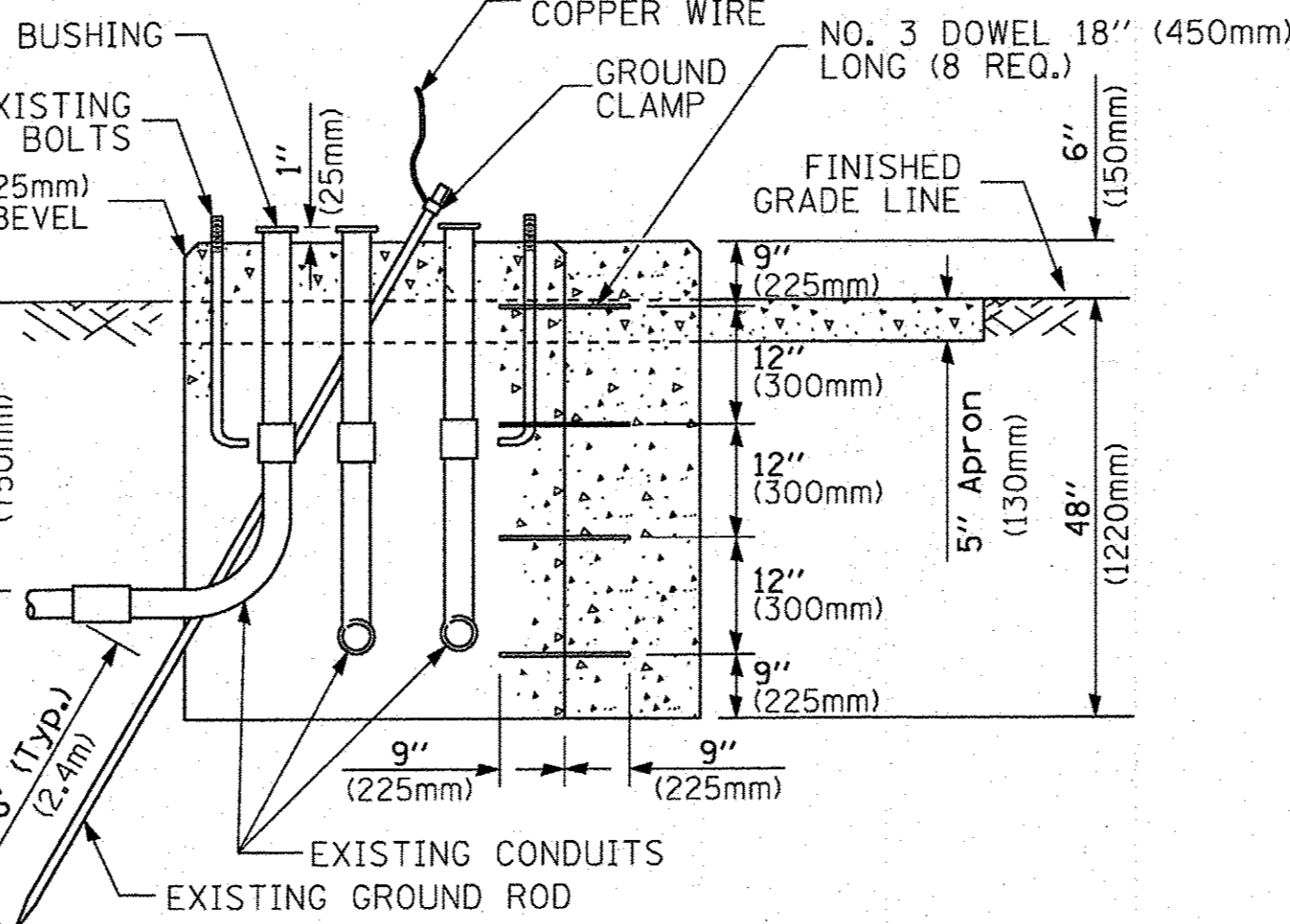
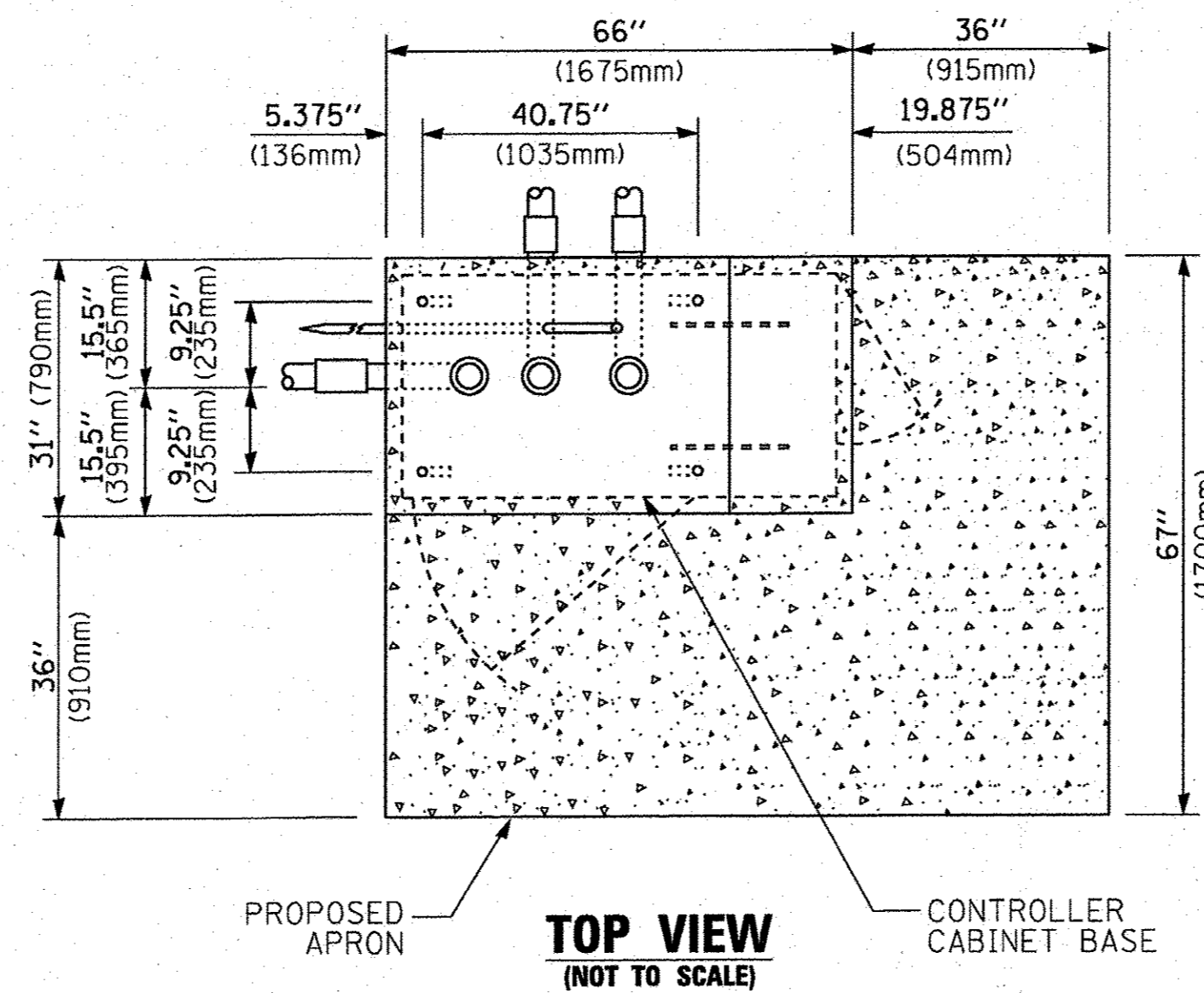
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	40
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-001(997)				



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)

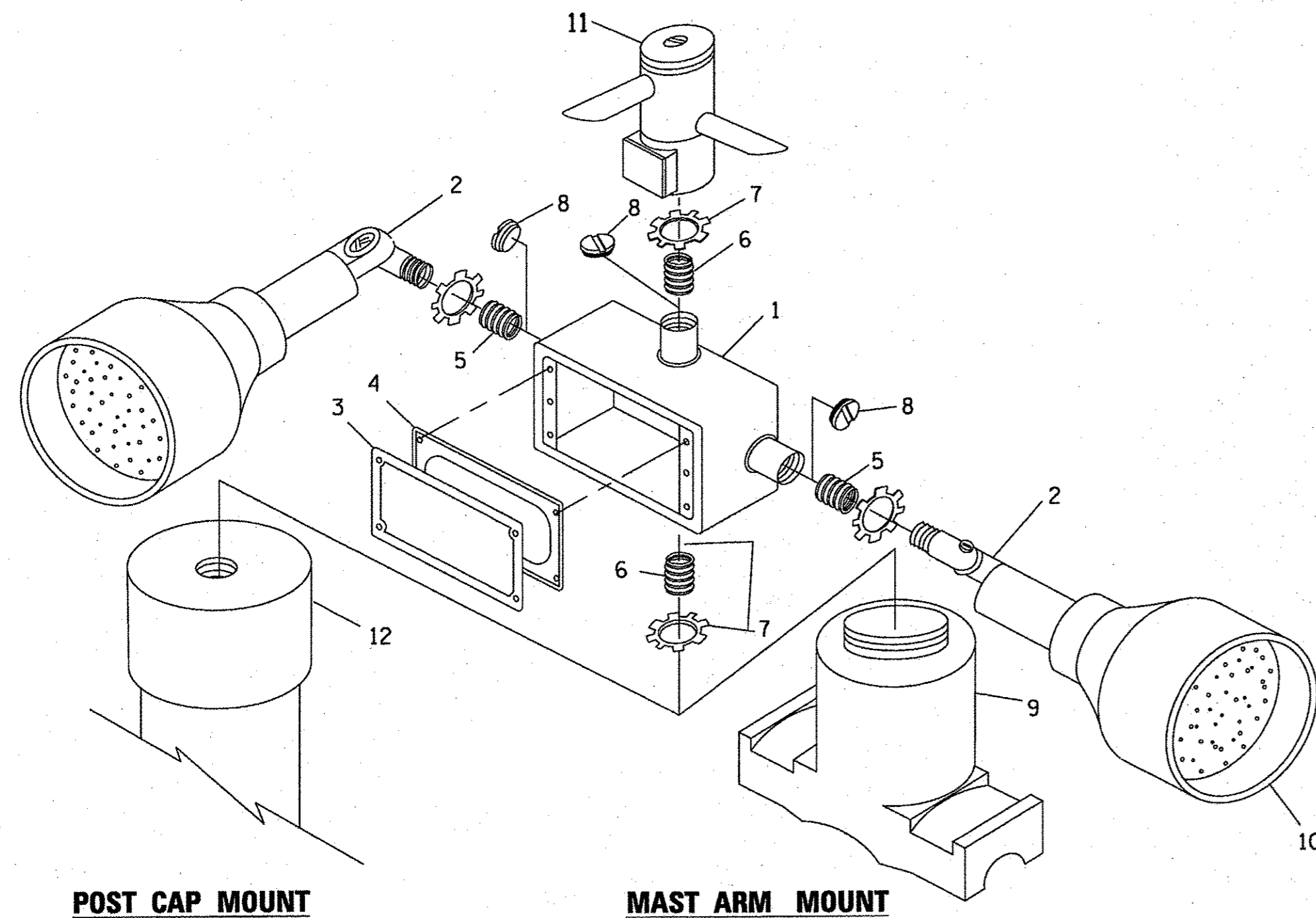


MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION
(NOT TO SCALE)

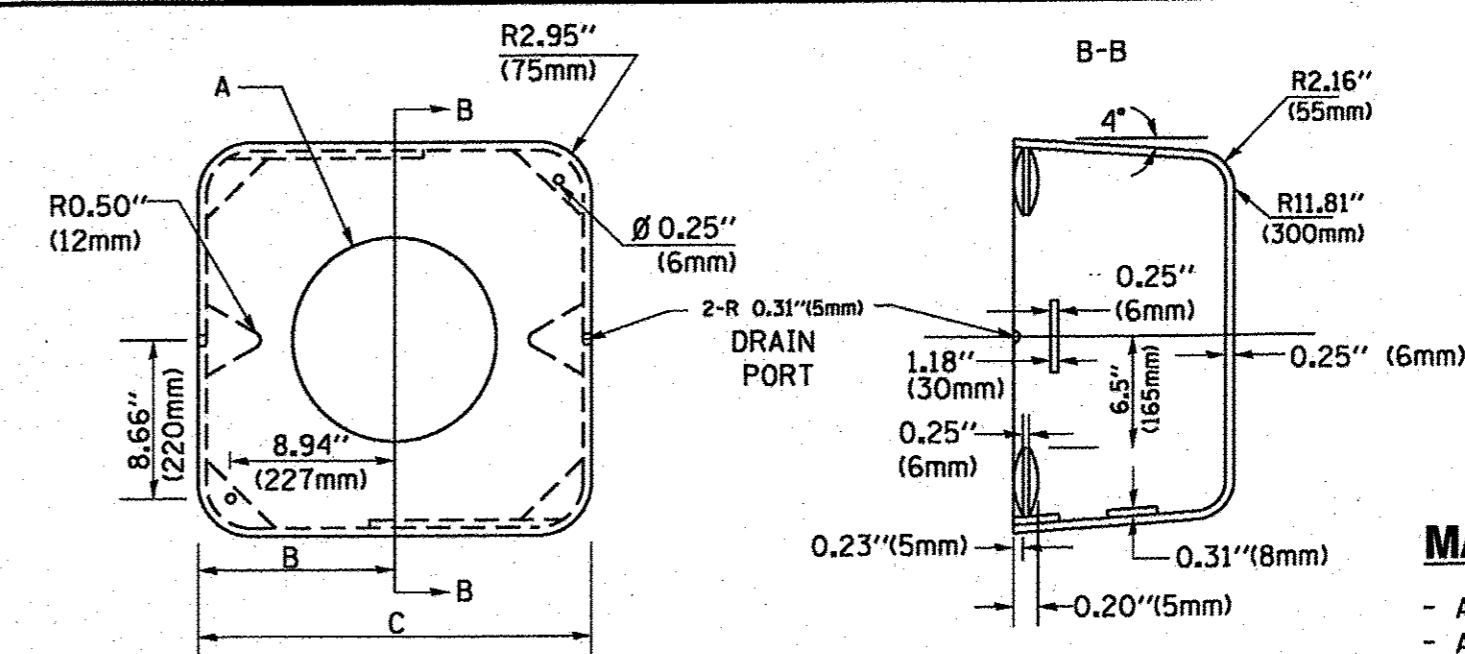
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
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.



EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

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

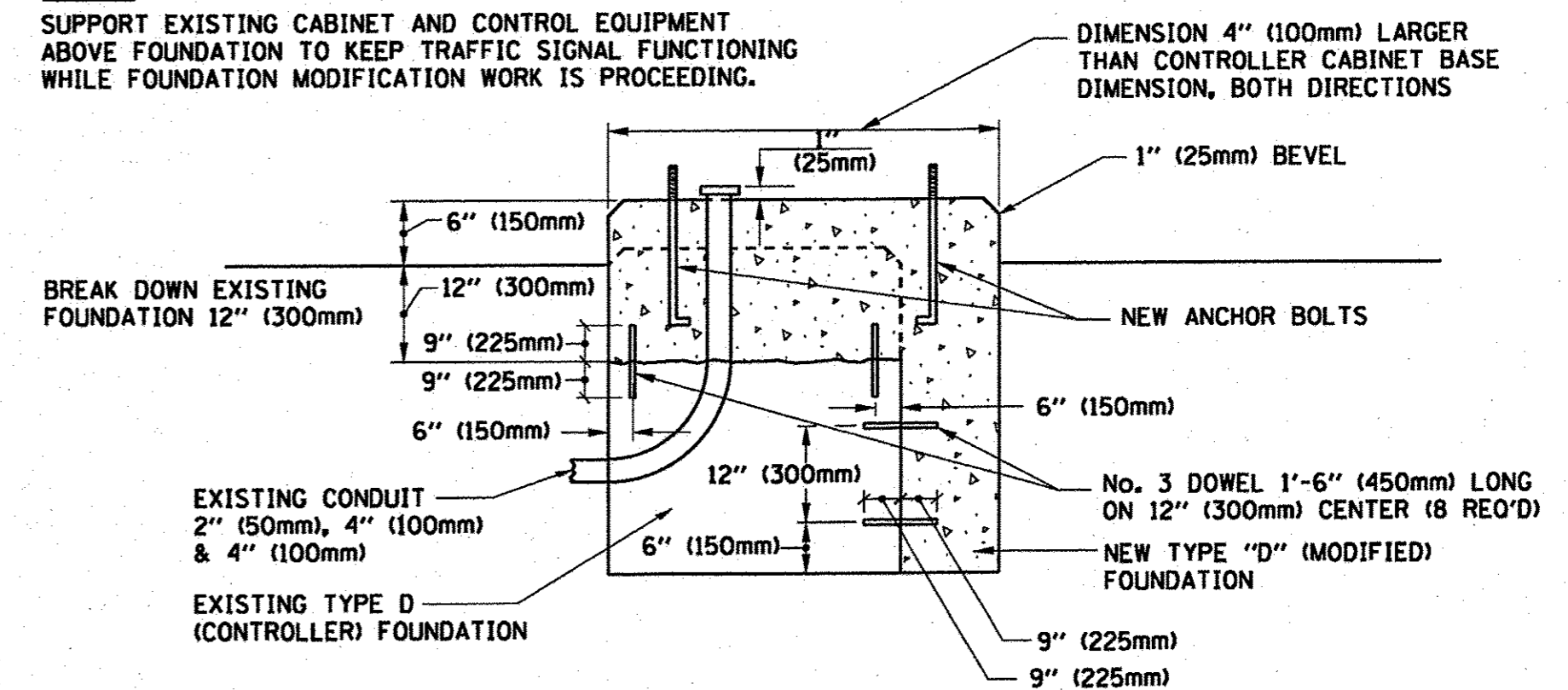
SHROUD

NOTES:

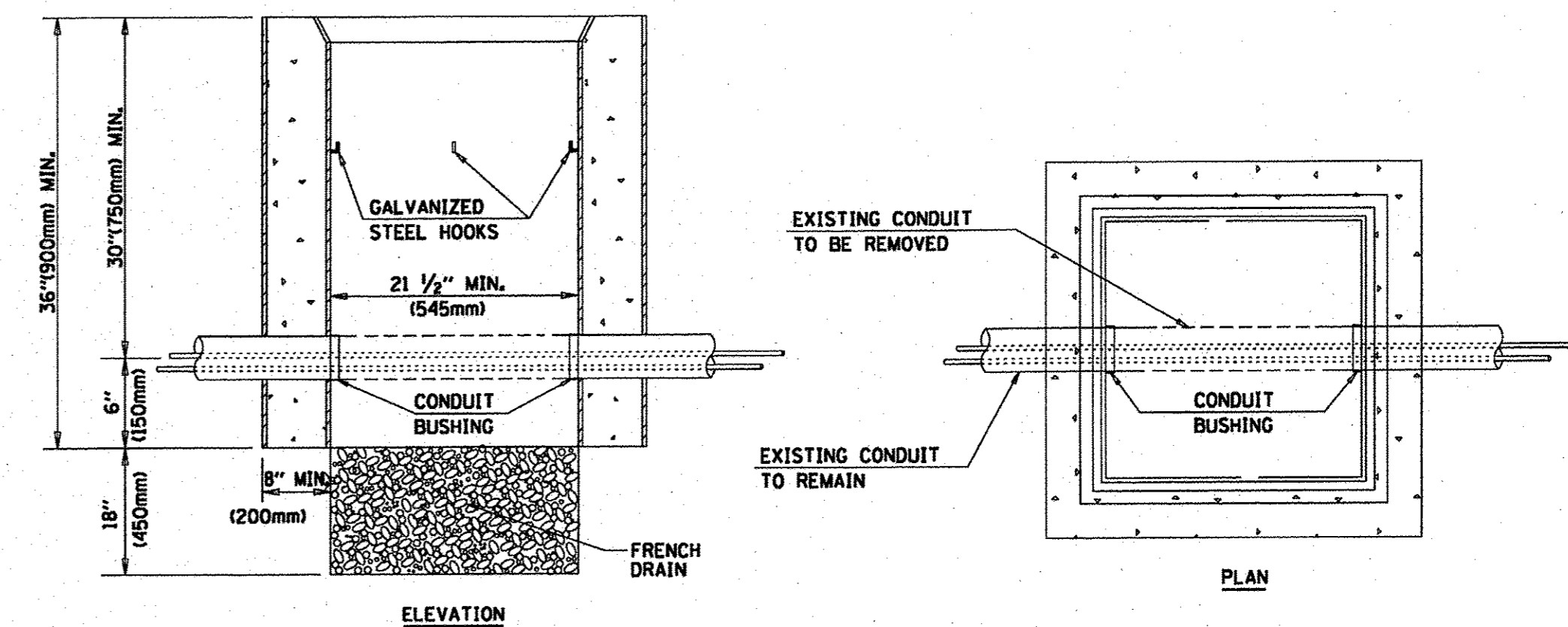
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

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



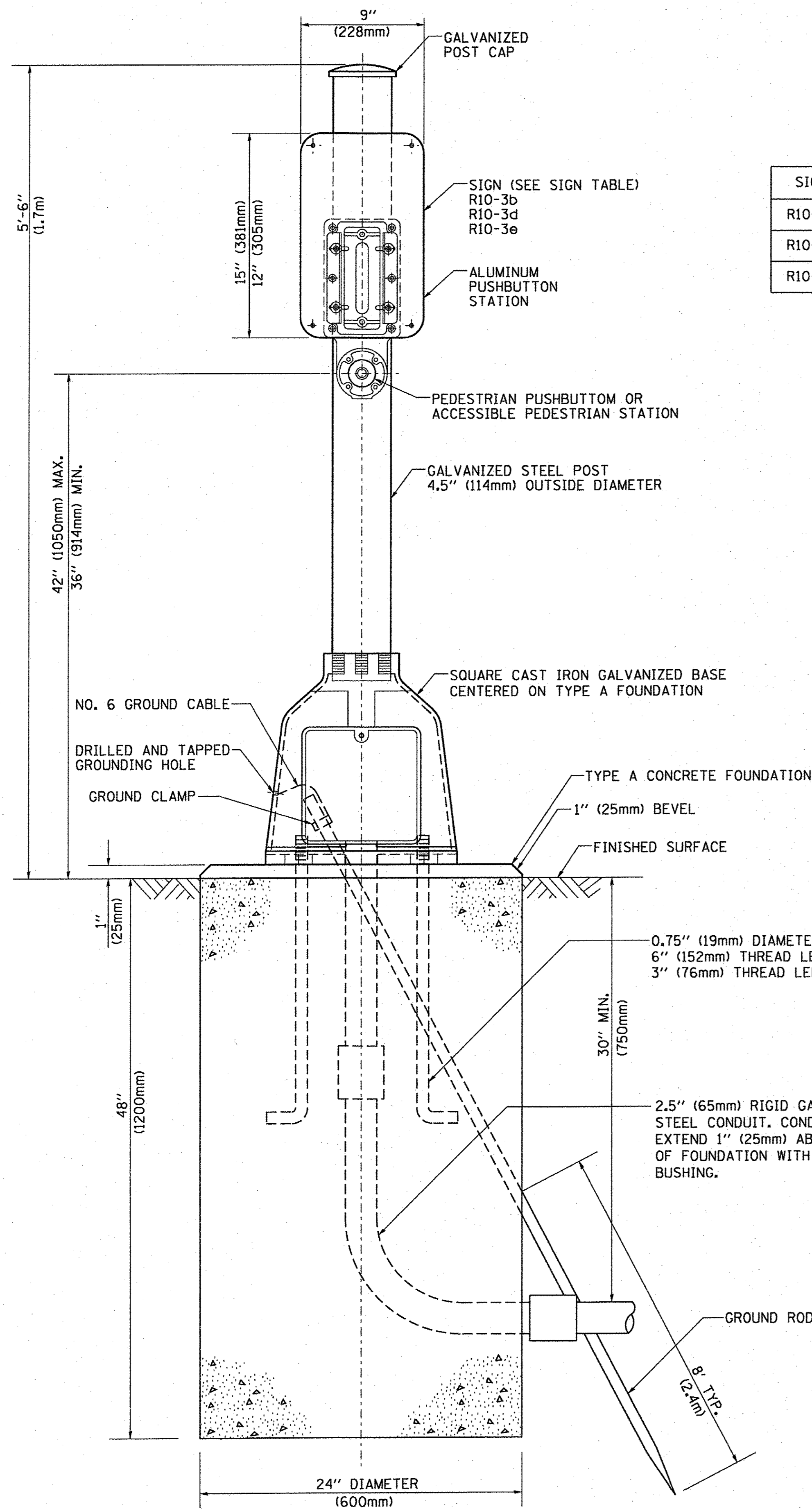
NOTES:

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

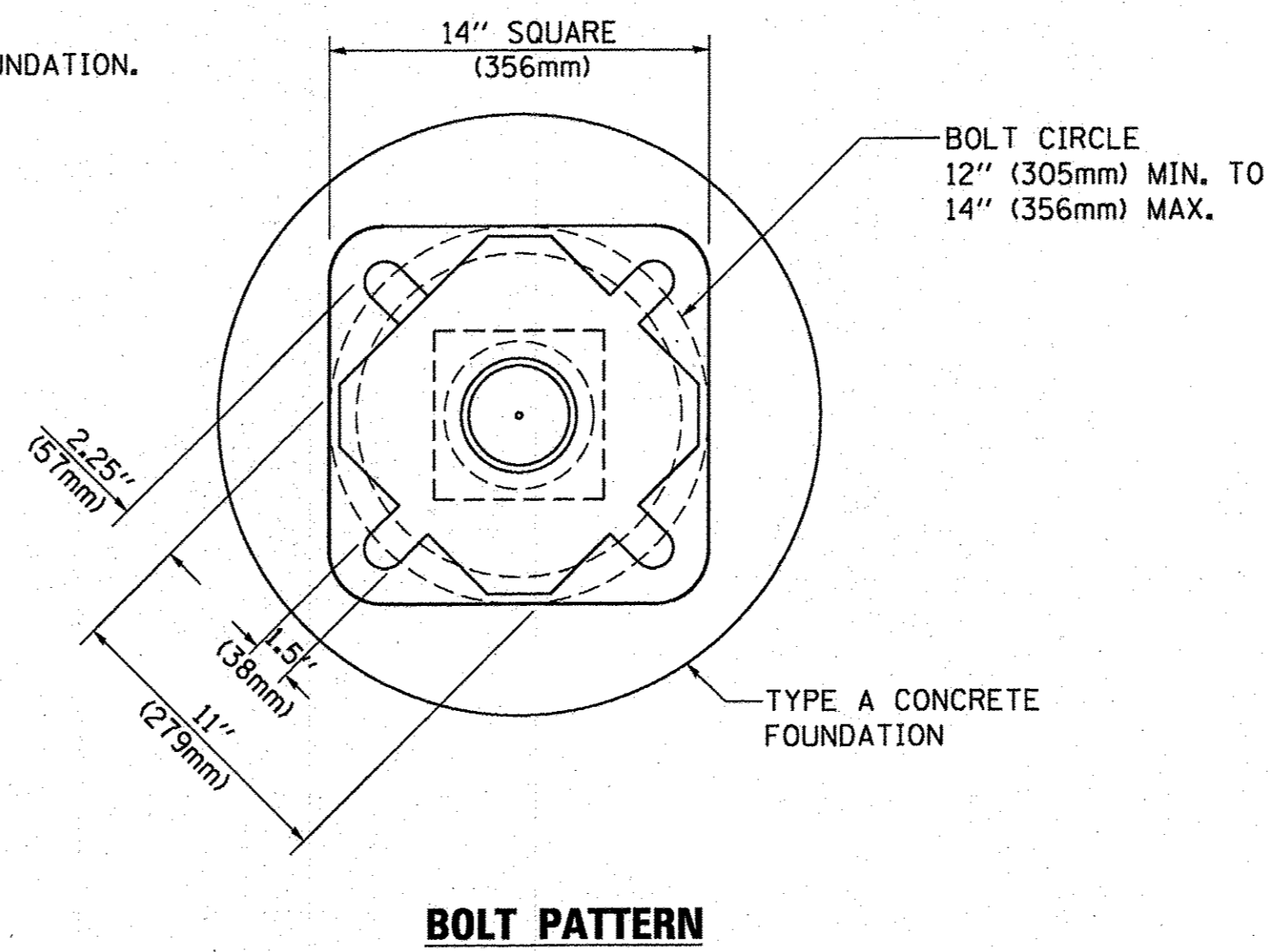
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 41
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-001(997)				



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)



PEDESTRIAN PUSH BUTTON POST, TYPE A

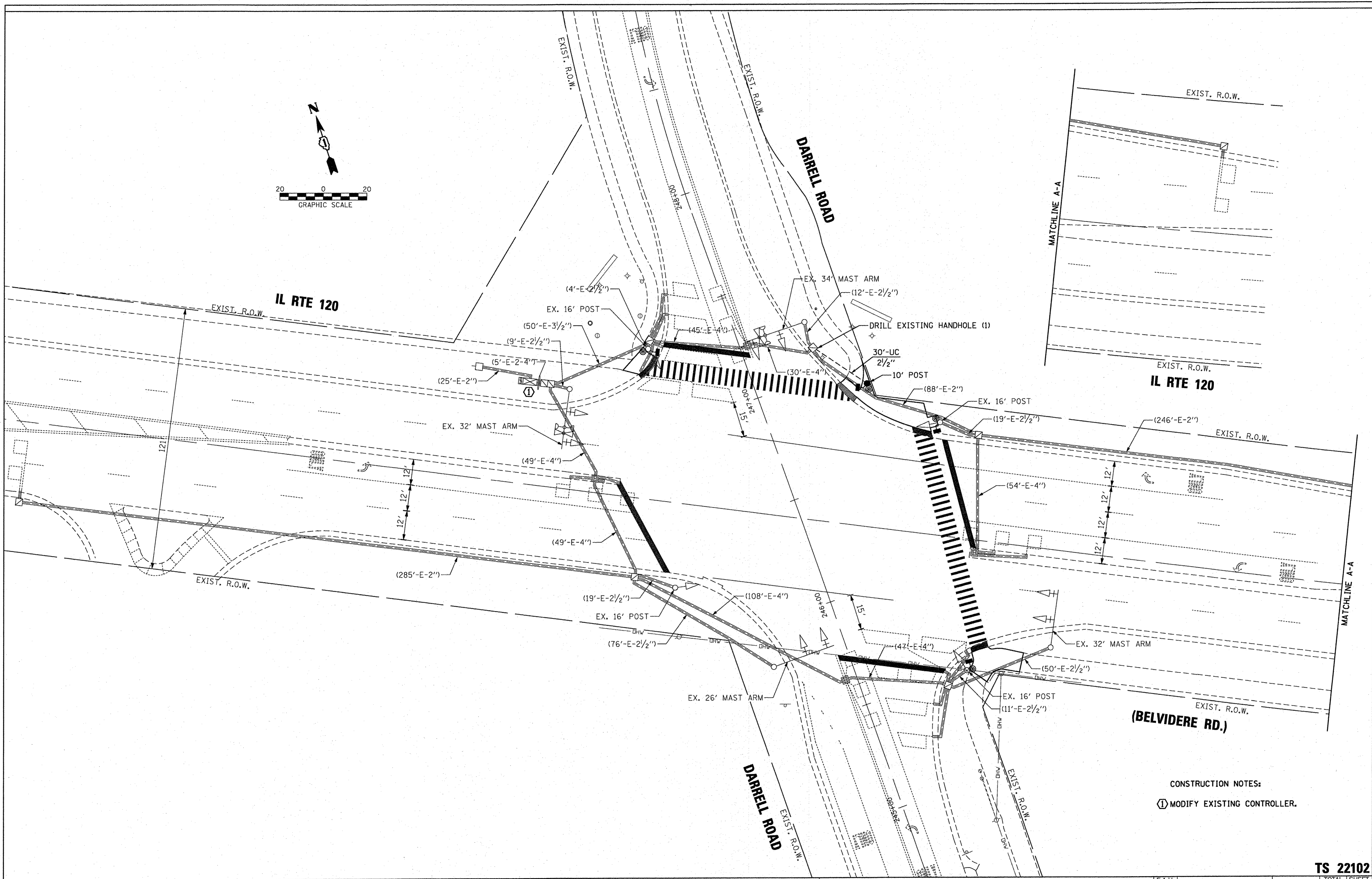
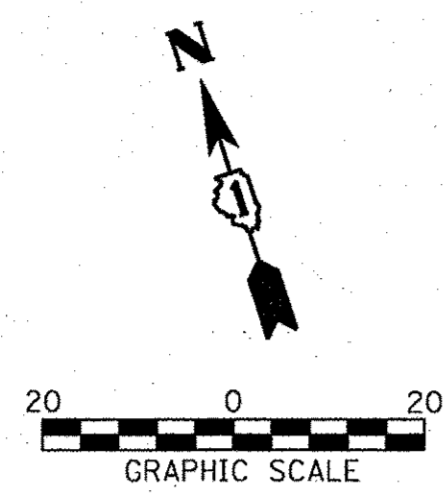
	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	42
C-91-209-15			CONTRACT NO. 61C28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-001(987)				



CONSTRUCTION NOTES:
 ① MODIFY EXISTING CONTROLLER.

TS 22102



DESIGNED - TCM	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - TCM	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - MKS	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 01/13/16	REVISED -

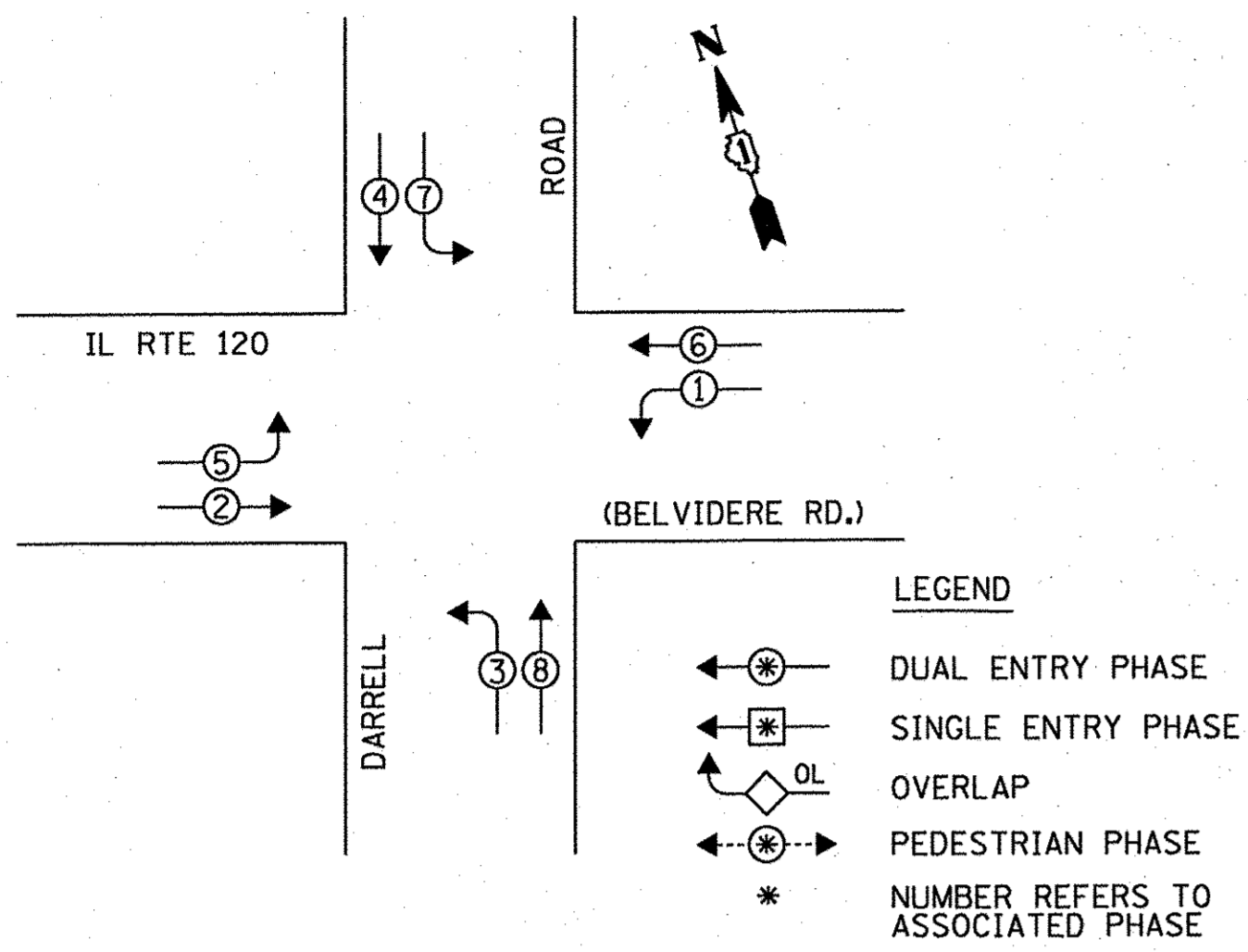
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
 IL RTE 120 (BELVIDERE RD.) AT DARRELL ROAD

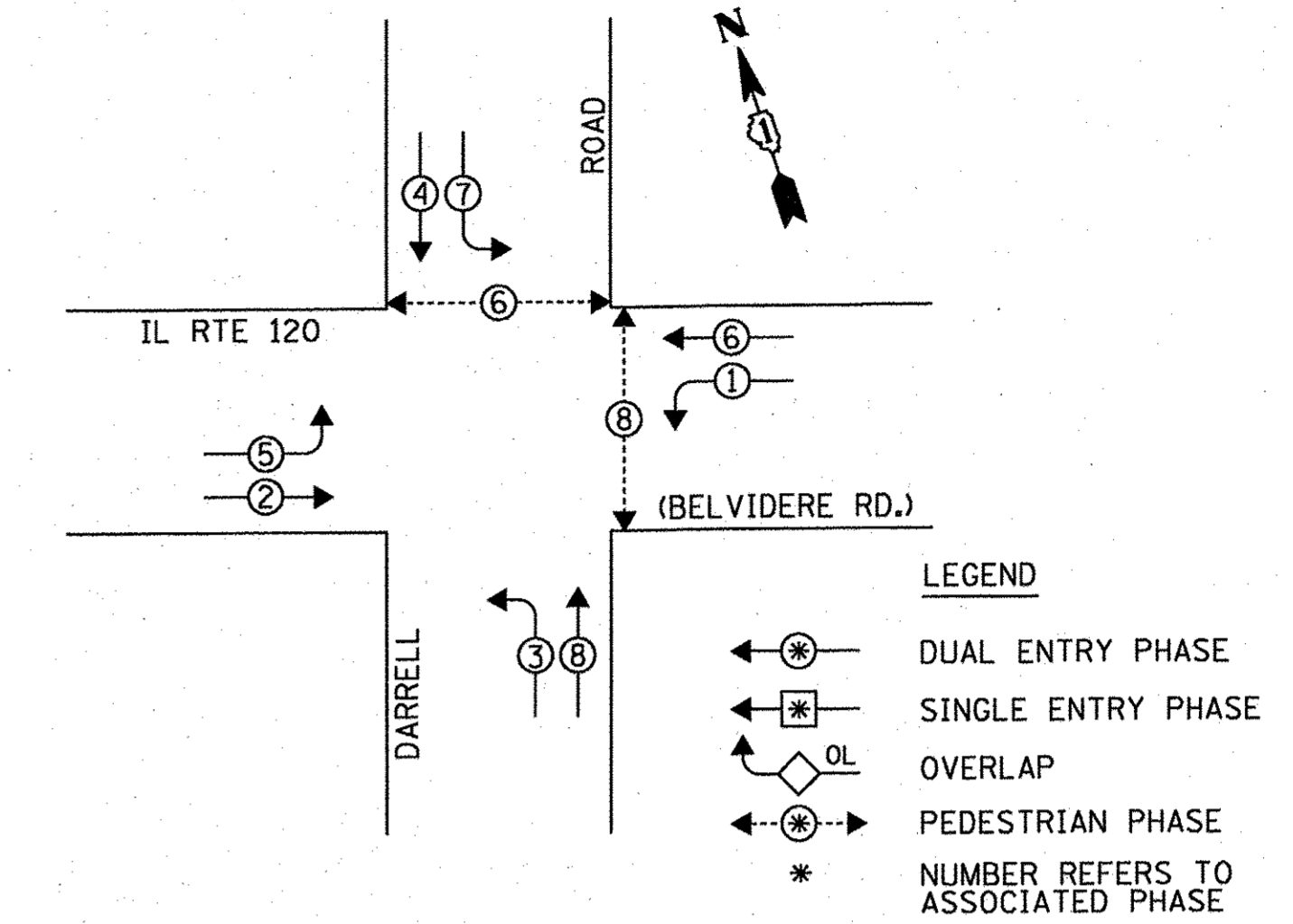
SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	43
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(097)				

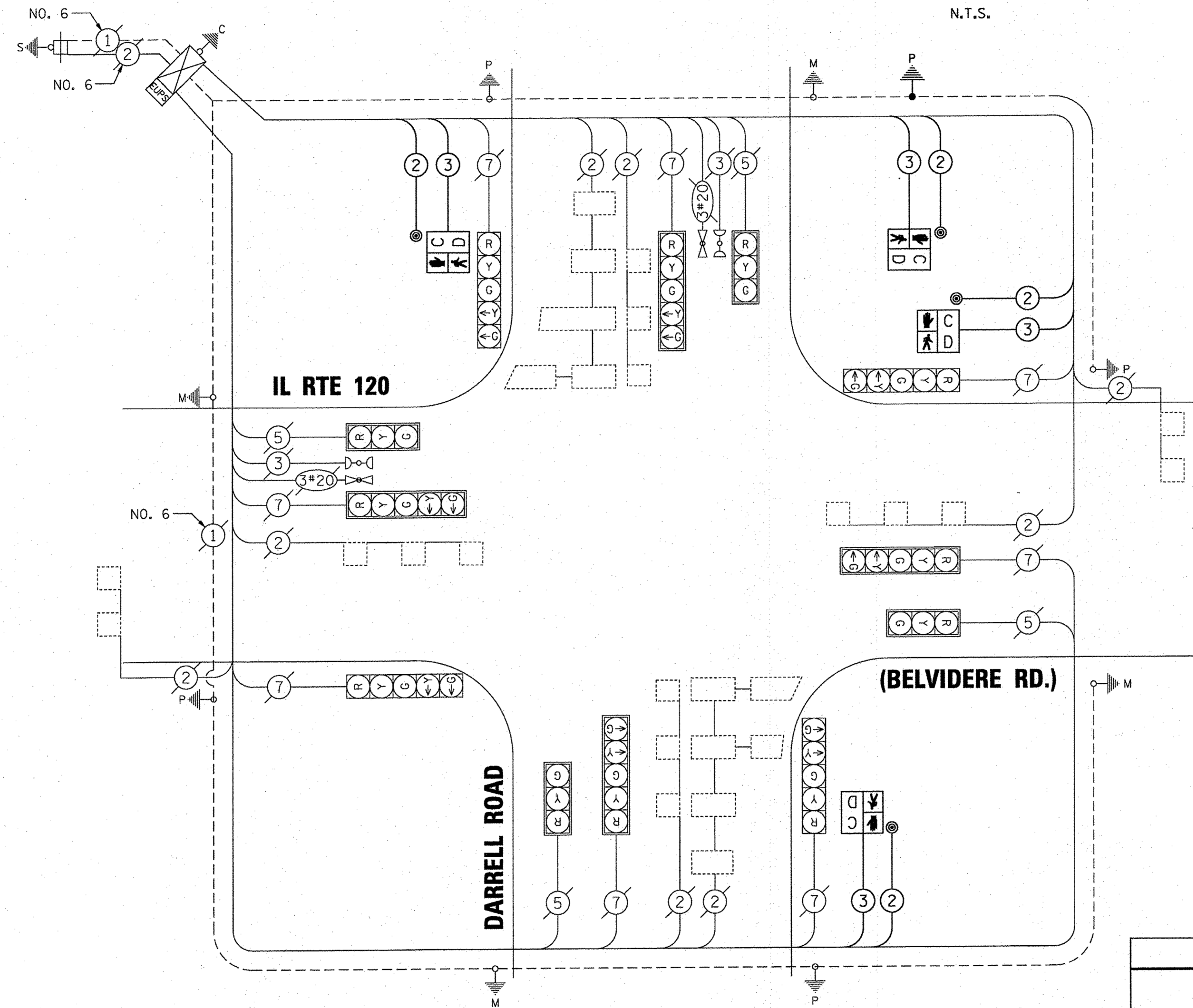
EXISTING CONTROLLER SEQUENCE



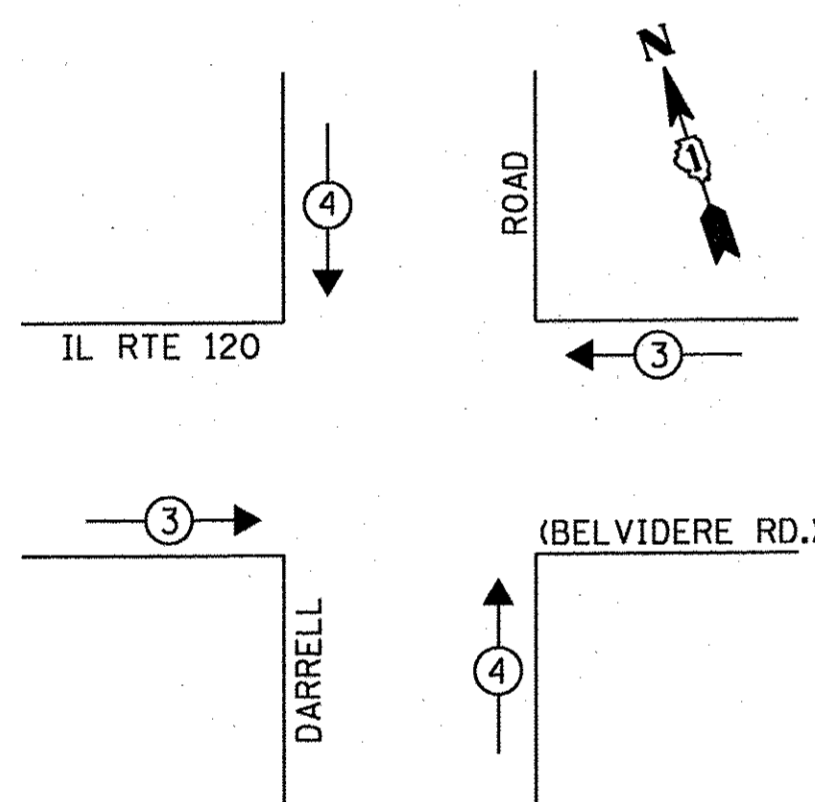
PROPOSED CONTROLLER SEQUENCE



PROPOSED CABLE PLAN



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50.00	66.00	
(YELLOW)	12	20	5.00	12.00	
(GREEN)	12	12	45.00	64.80	
ARROW	16	10	10.0	16.00	
PED. SIGNAL	4	20	100.00	-	
CONTROLLER	1	100	100.00	100.00	
ILLUM. SIGN	-	-	-	-	
U.P.S.	1	25	100.00	25.00	

ENERGY COSTS TO: TOTAL = 283.80

VILLAGE OF LAKEMOOR
28874 W. IL RTE 120, SUITE C & D
LAKEMOOR, IL 60051

ENERGY SUPPLY: CONTACT: RUTH DELGADO
PHONE: (847) 816-5459
COMPANY: COMED

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	30
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	945
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	960
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	45
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
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
MODIFY EXISTING CONTROLLER	EACH	1

TS 22102



8225 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 938-0000 F: (847) 938-0007
PROJECT # 16-028

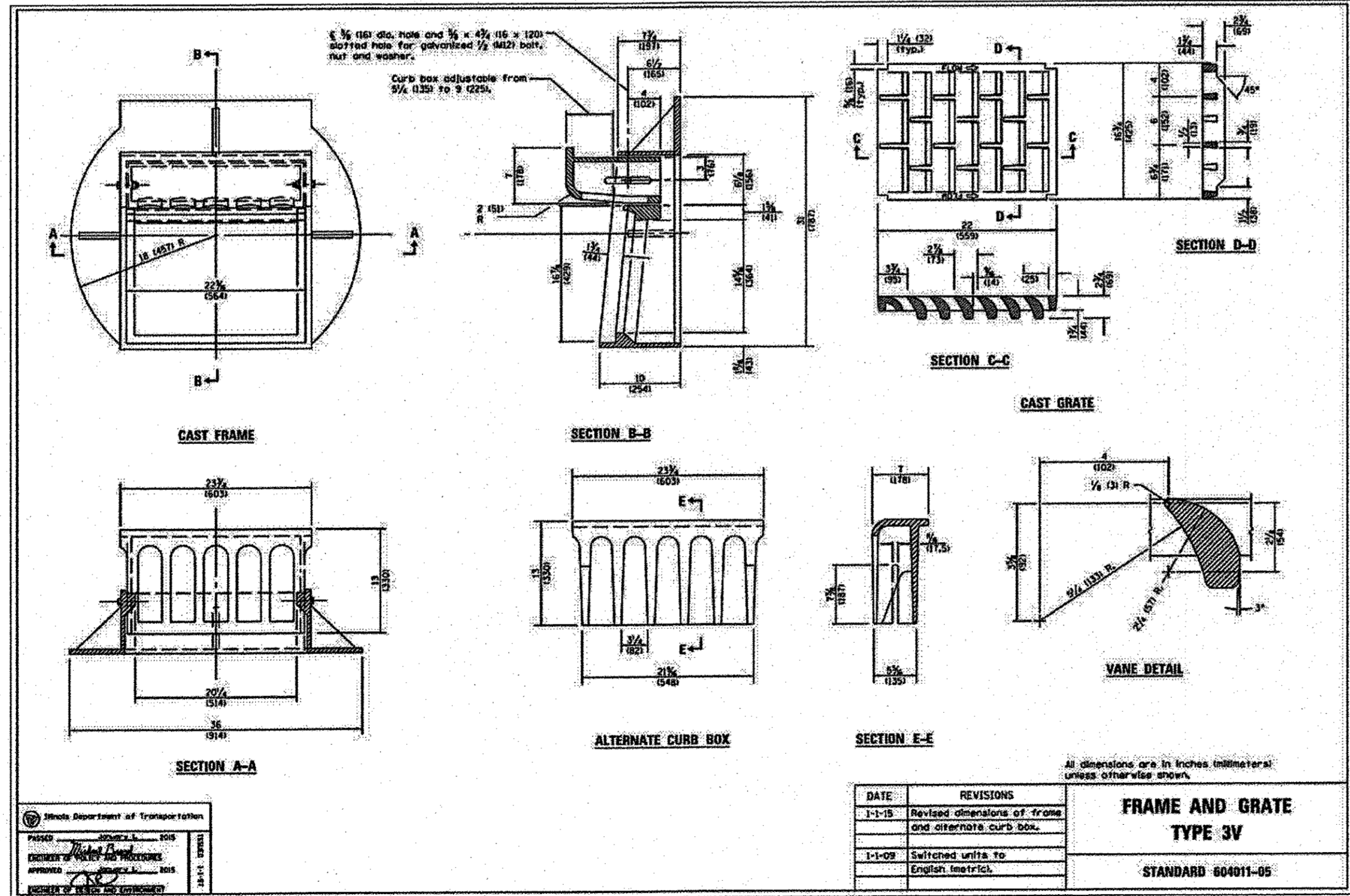
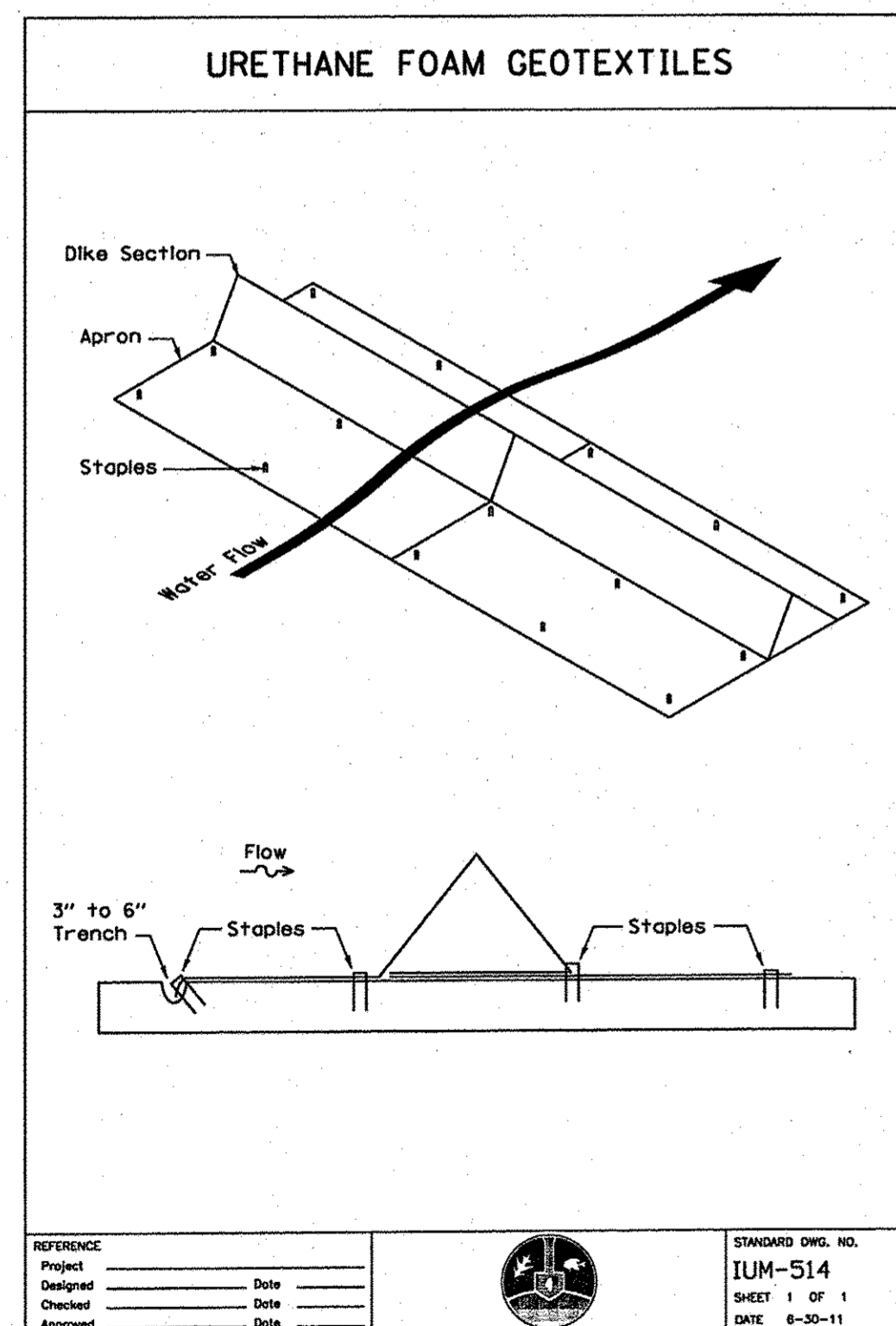
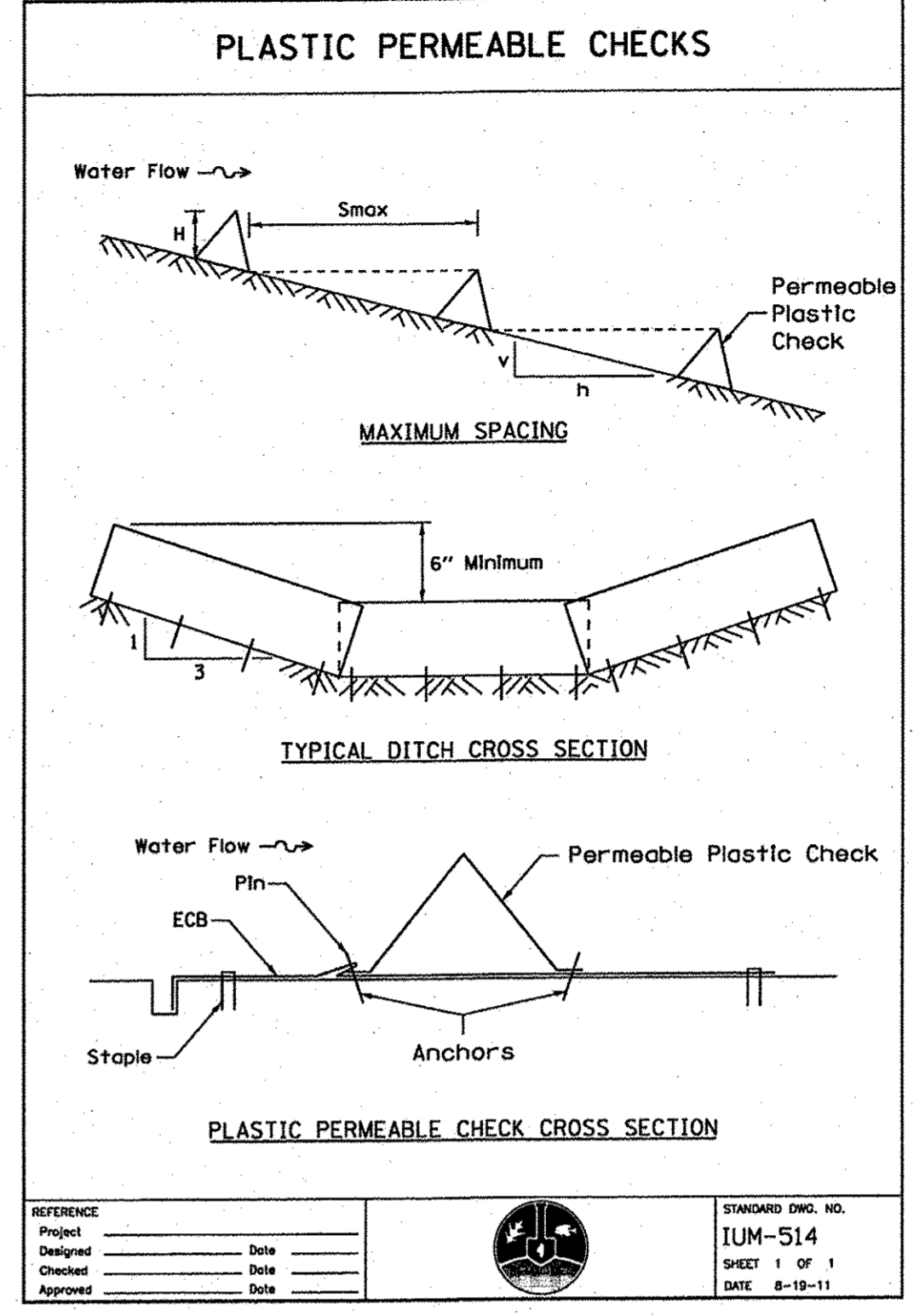
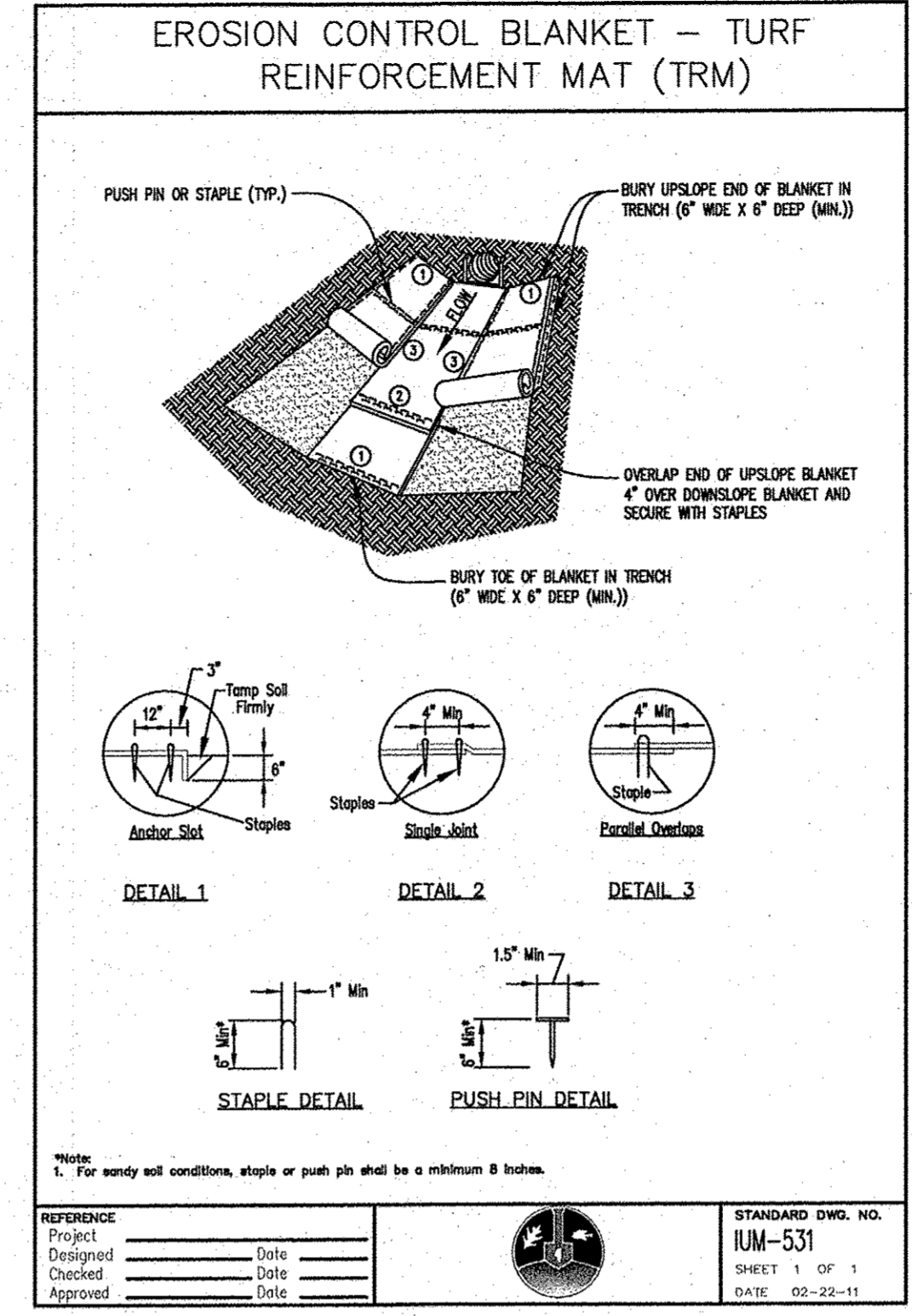
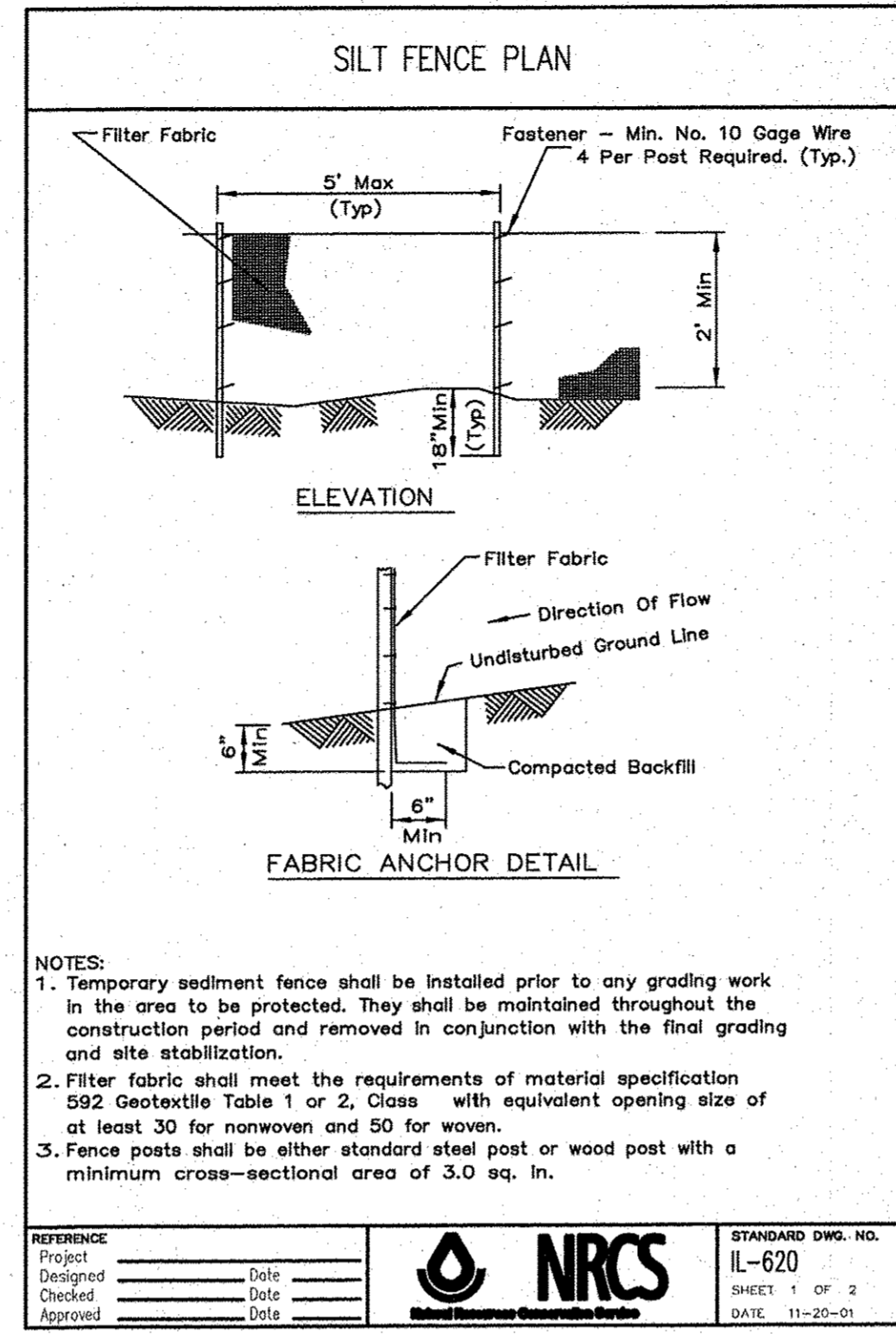
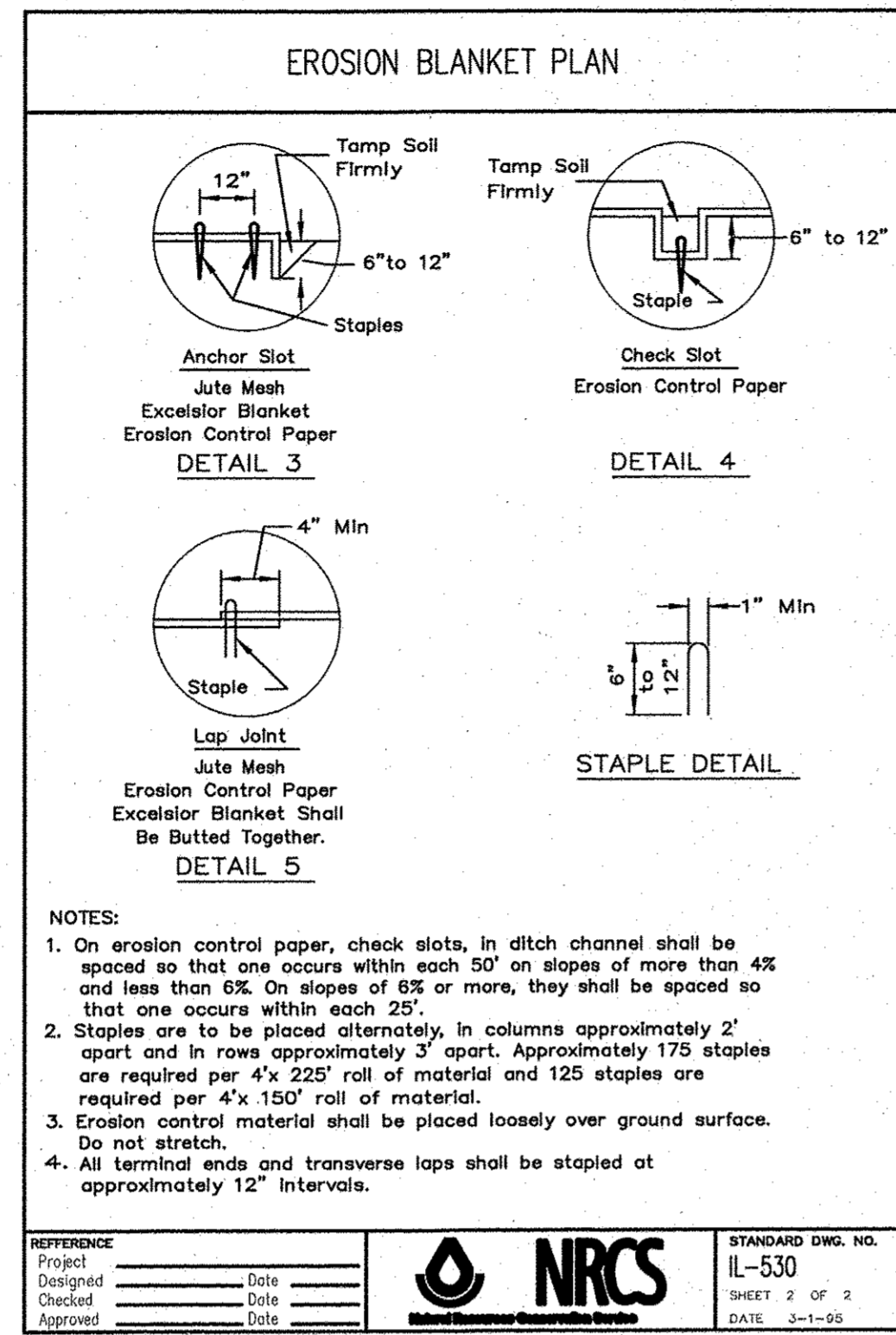
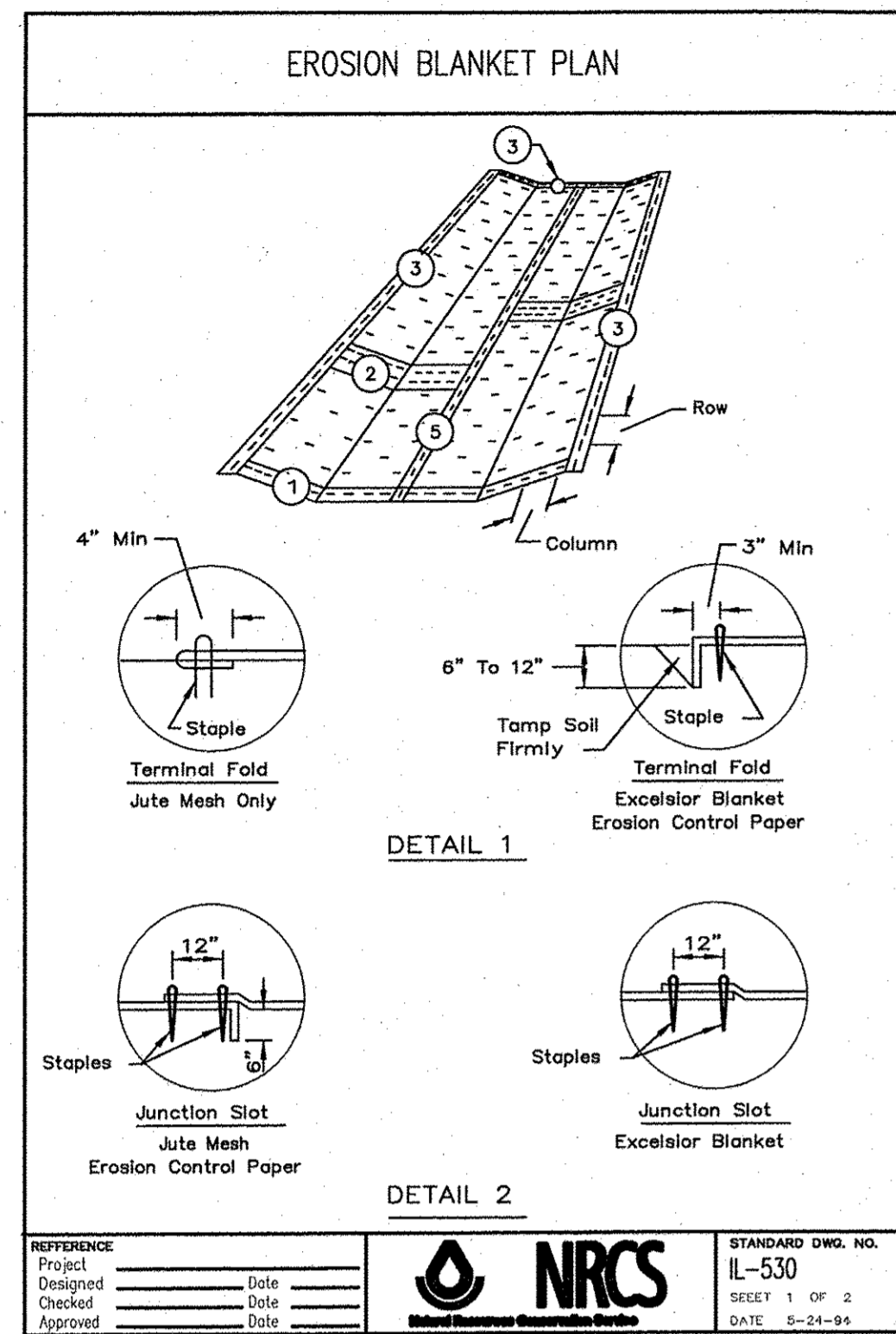
DESIGNED - TCM	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - TCM	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - MKS	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 01/13/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE
PREEMPTION SEQUENCE & SCHEDULE OF QUANTITIES
IL RTE 120 (BELVIDERE RD.) AND DARRELL ROAD**

SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	44
C-91-209-15			CONTRACT NO. 61C28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



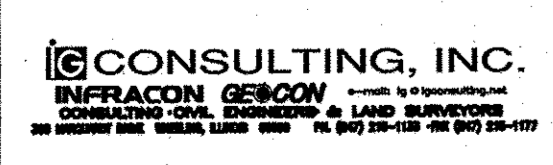
MISCELLANEOUS DETAILS

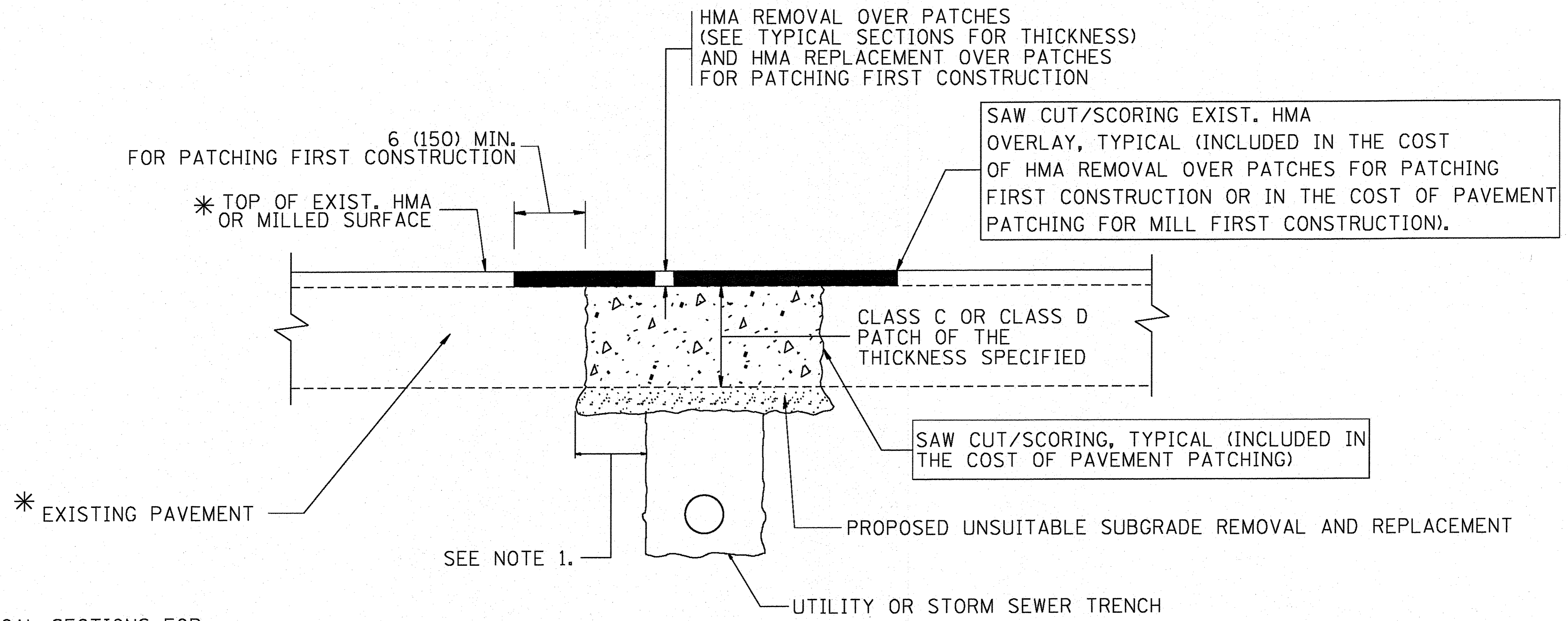
SCALE: NONE TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY/LAKE	57	45
C-91-209-15				CONTRACT NO. 61C28
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**





* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

CONSULTING, INC.
INFRACON GENCON
 CONSULTING, ENGINEERING & LAND SURVEYING
 1100 N. WASHINGTON ST. SUITE 200
 CHICAGO, IL 60610

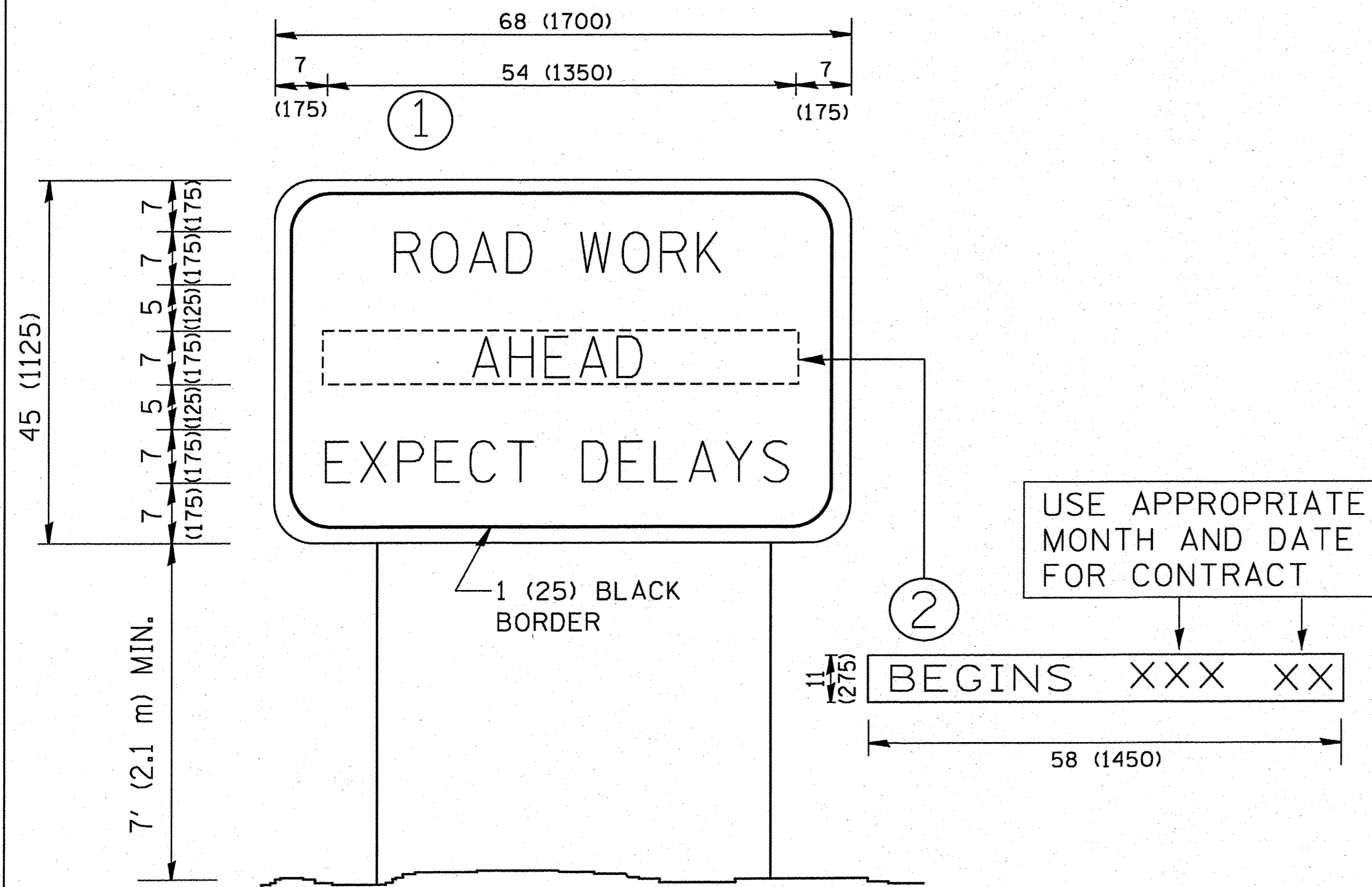
DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR
HMA SURFACED PAVEMENT

SCALE: NONE STA. TO STA.

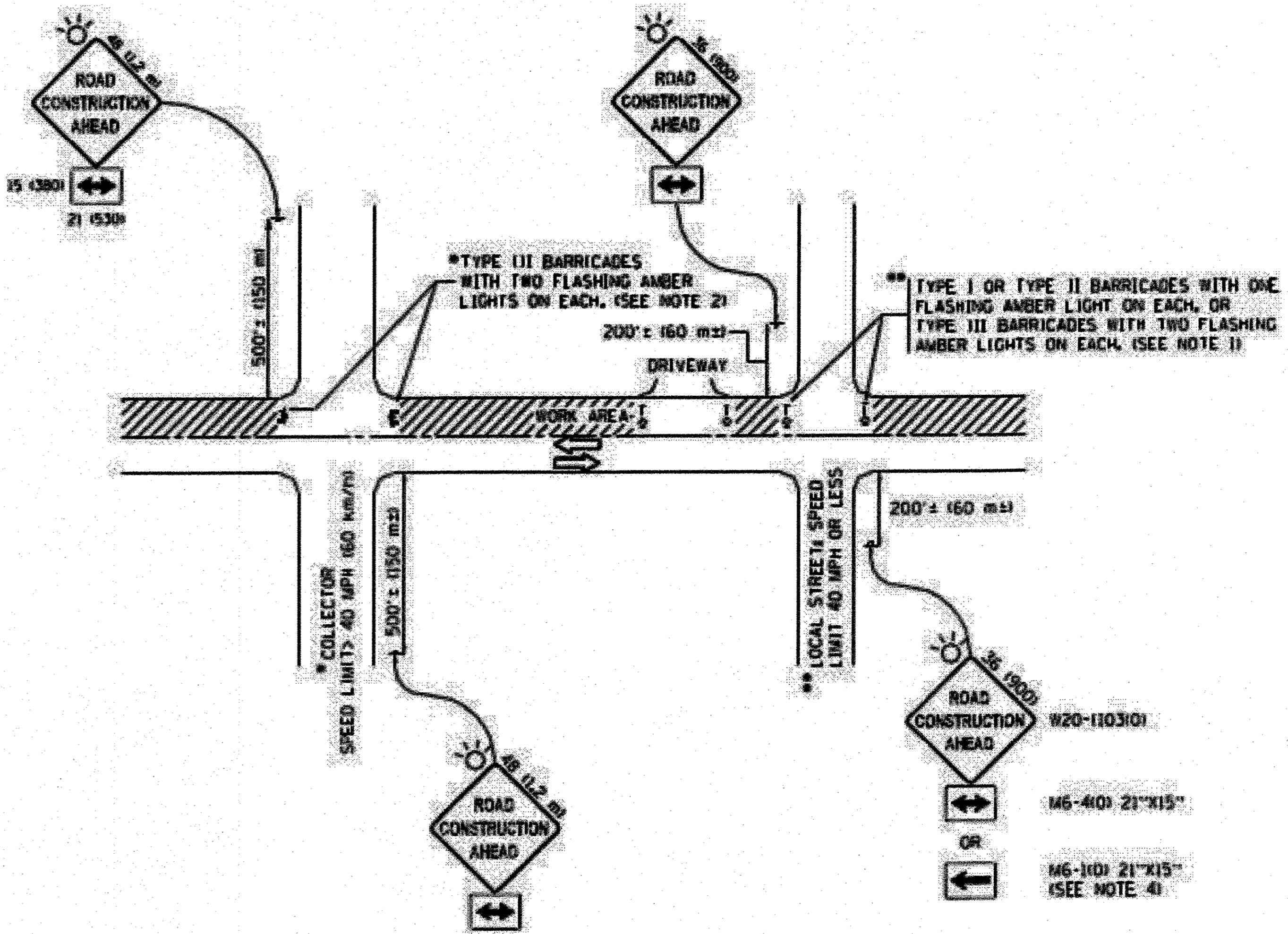
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY/LAKE	57	46
BD400-04 (BD-22)		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(897)				



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.



NOTES:

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 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. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. 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).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARDS. THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

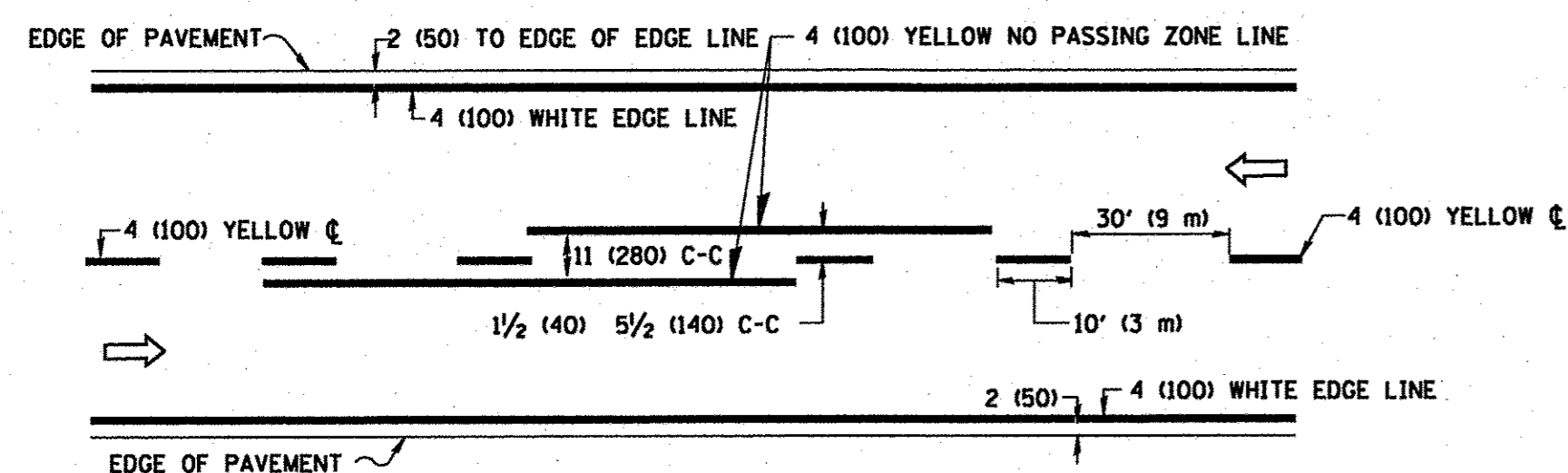
All dimensions are in inches (millimeters) unless otherwise shown.

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

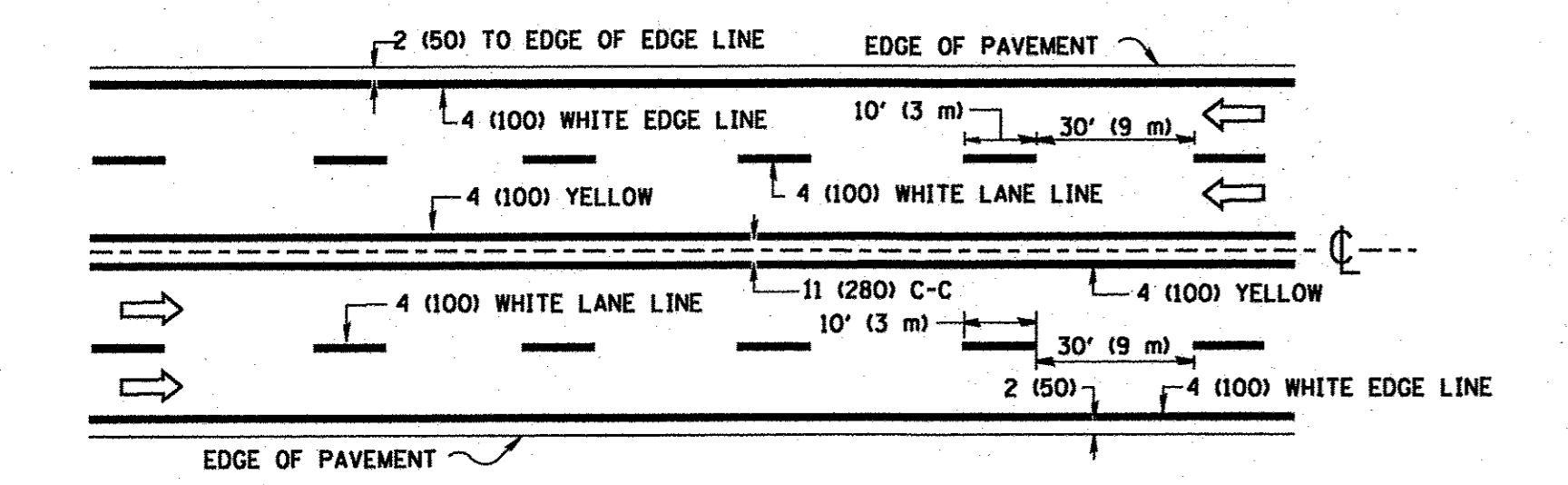
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	
SCALE: NONE	STA. TO STA.

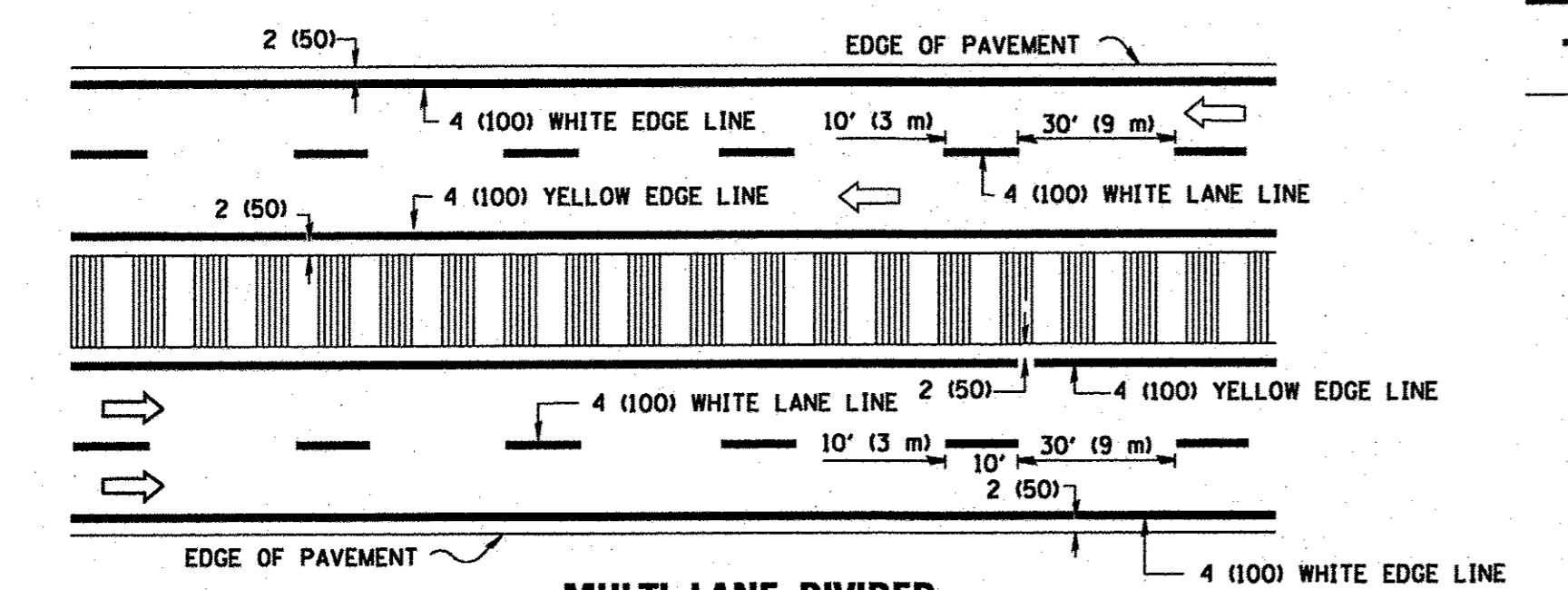
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	MCHENRY/LAKE	57	47
TC-10 & TC-22			CONTRACT NO. 61C28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



2-LANE ROADWAY

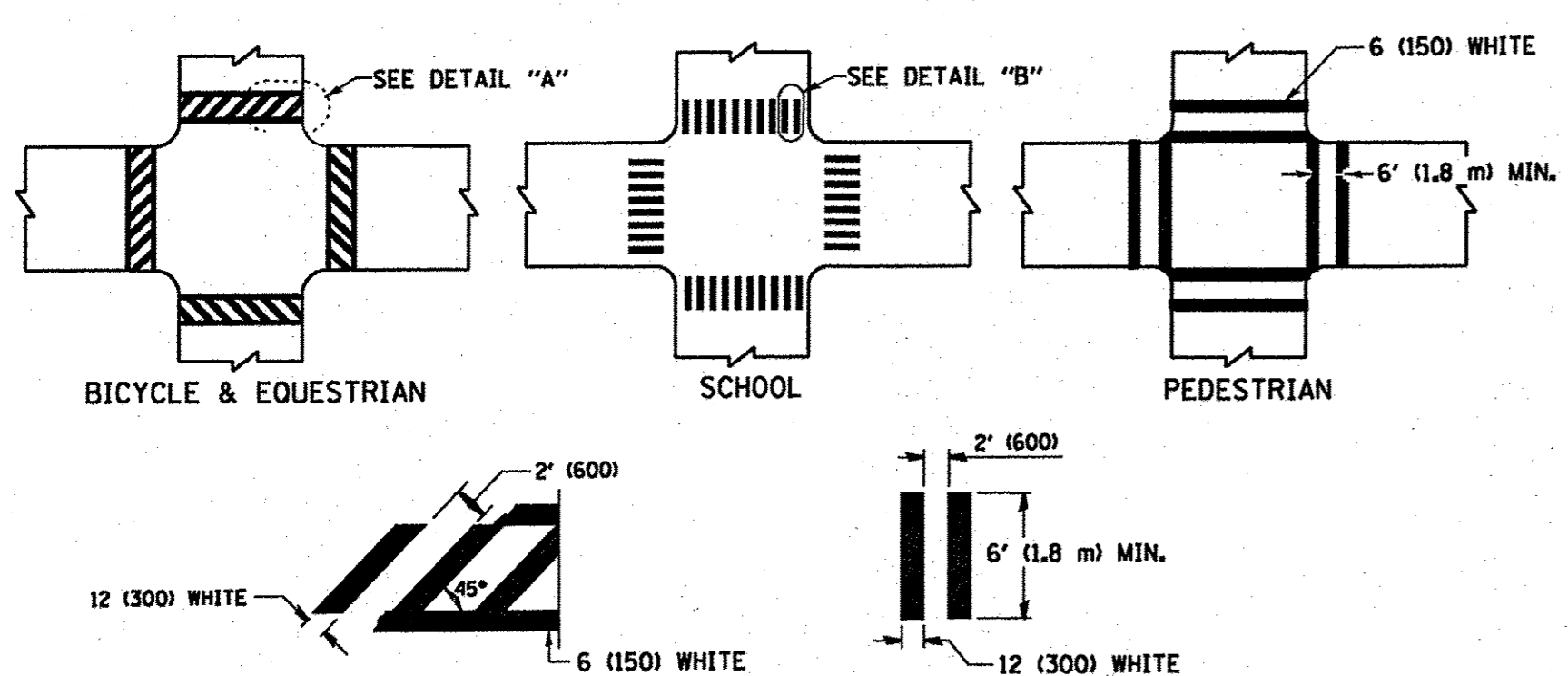


MULTI-LANE UNDIVIDED



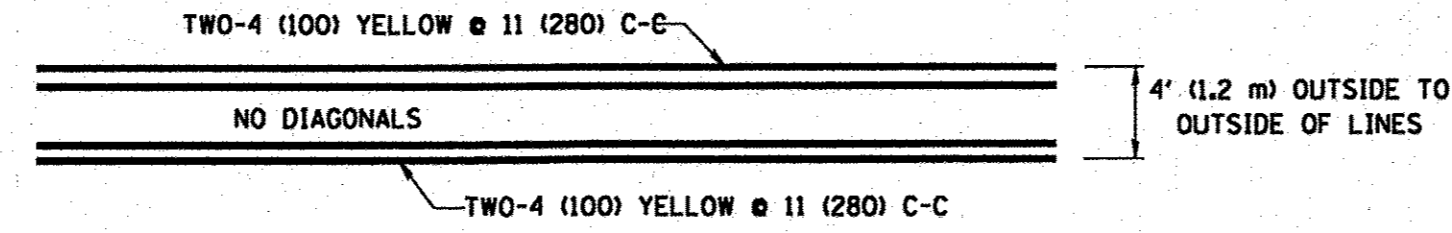
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

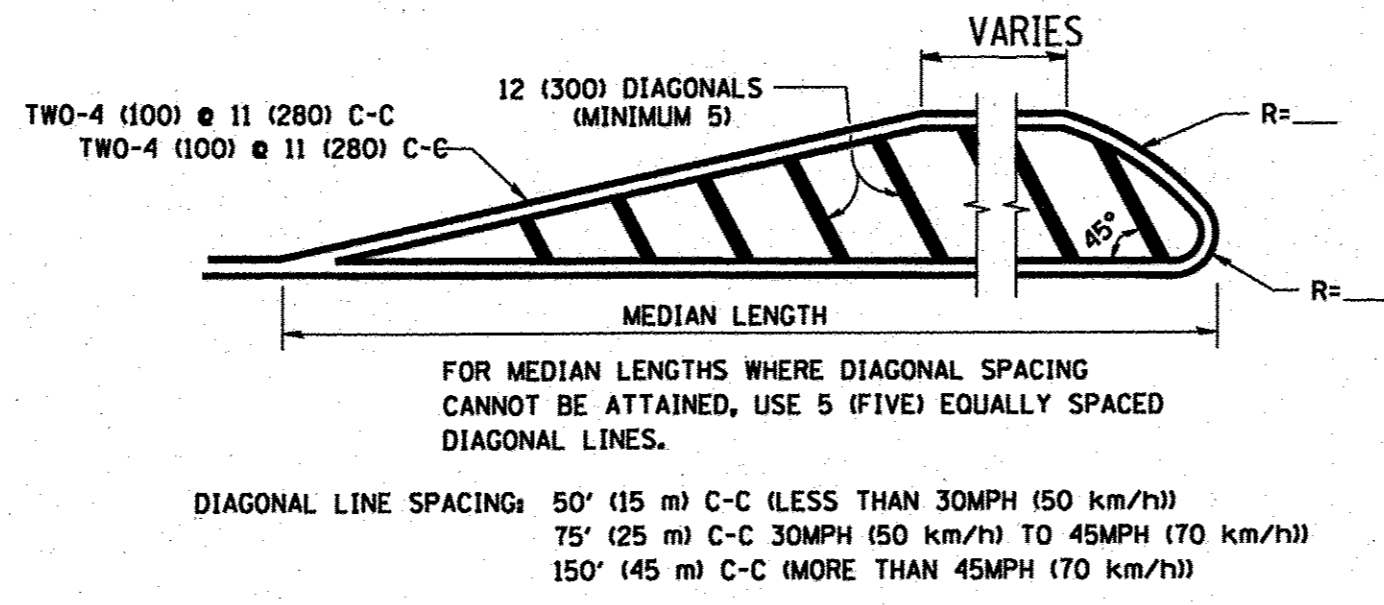


TYPICAL CROSSWALK MARKING

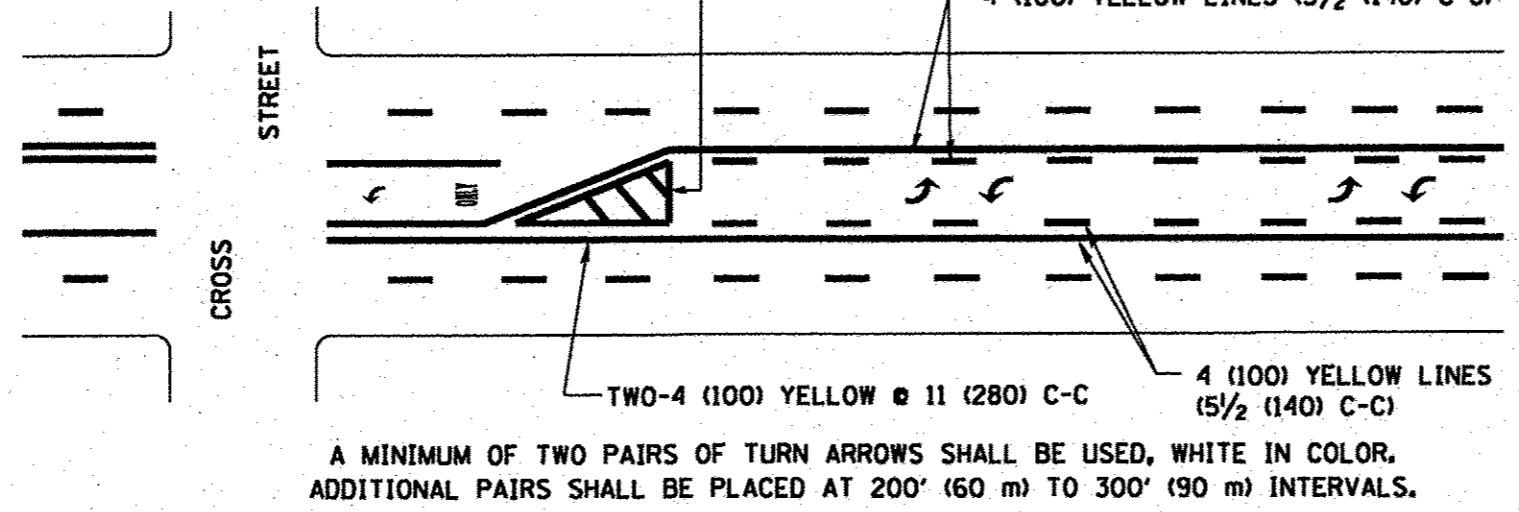
* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



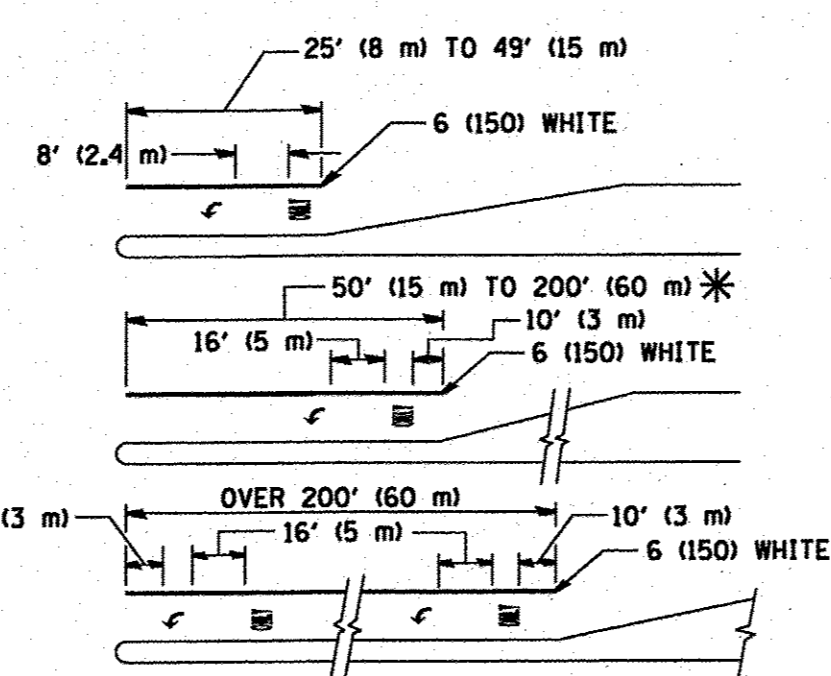
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE



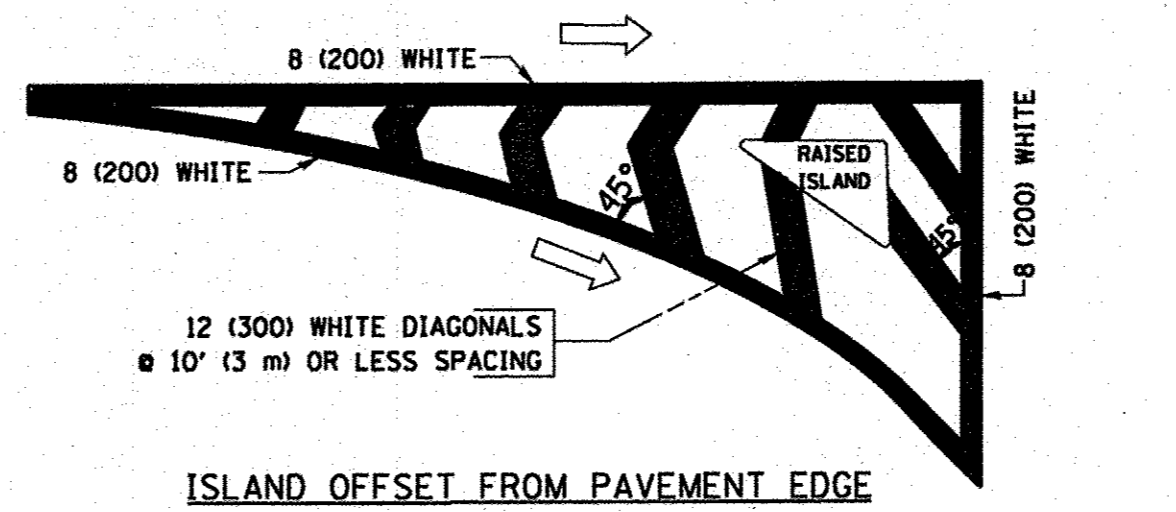
MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING



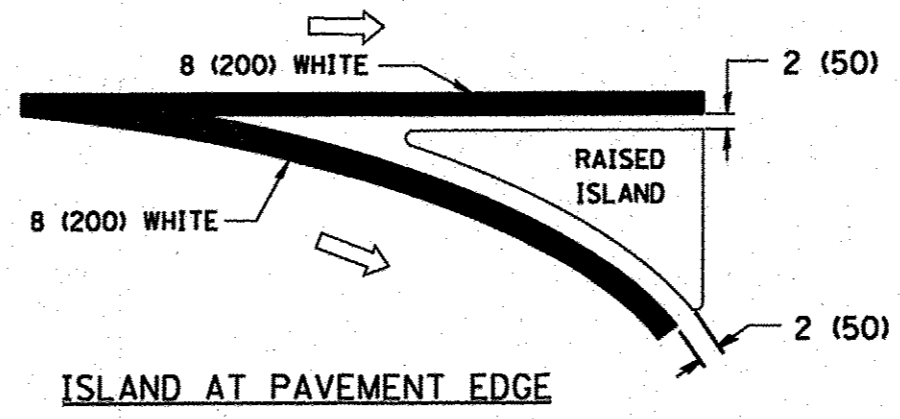
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

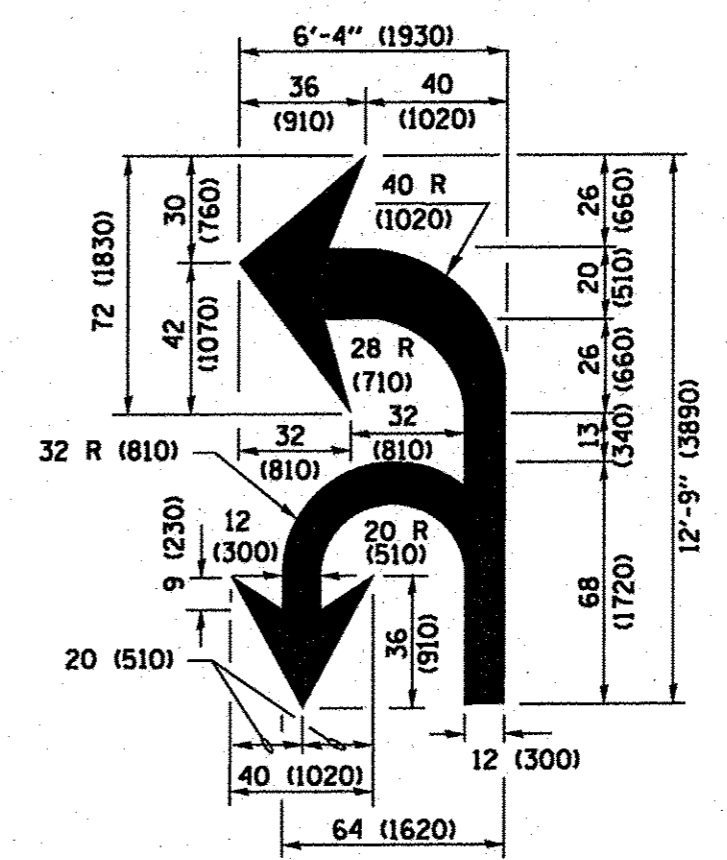
NOTE: PLEASE SEE COUNTY DETAILS FOR DARRELL ROAD IMPROVEMENTS STA 233+00 TO STA 245+70



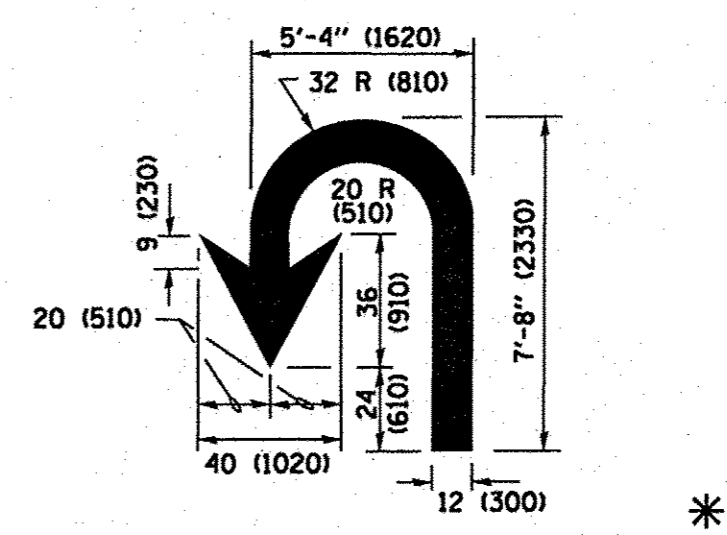
ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

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

LANE REDUCTION TRANSITION

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

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

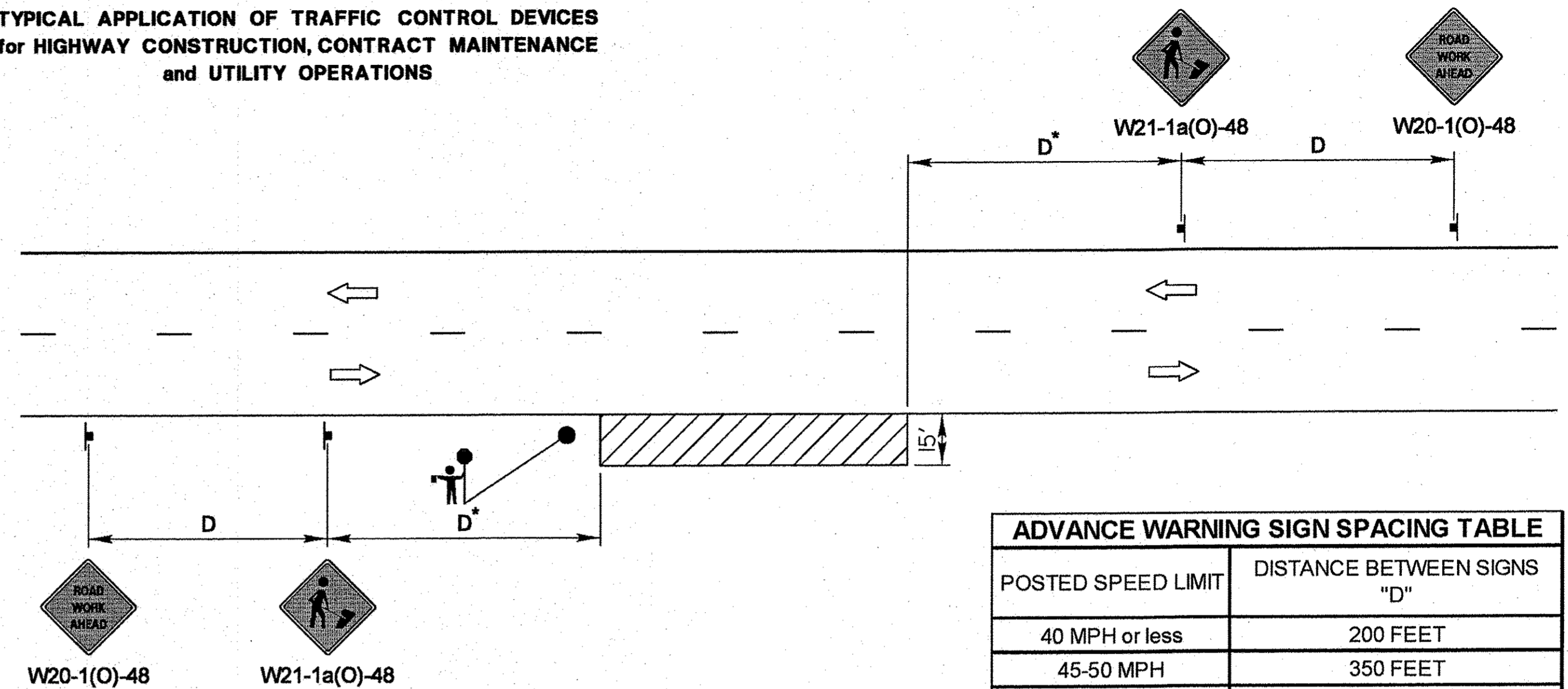
	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE	STA. TO STA.	F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY MCHENNY/LAKE	TOTAL SHEETS 57	SHEET NO. 48
		TC-13		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(897)						

**TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
for HIGHWAY CONSTRUCTION, CONTRACT MAINTENANCE
and UTILITY OPERATIONS**



ADVANCE WARNING SIGN SPACING TABLE	
POSTED SPEED LIMIT	DISTANCE BETWEEN SIGNS "D"
40 MPH or less	200 FEET
45-50 MPH	350 FEET
55 MPH	500 FEET

GENERAL NOTES:

This special detail is used at any time, any vehicle, equipment, workers or their activities require a stationary, intermittent or continuous moving operation within 15 feet of the traffic lane, where the average speed is 1 mph or less.

* Minimum distance "D" is shown in the Advance Warning Sign Spacing Table. If the work is a moving operation, the maximum distance "D" may be extended to 1/2 the length required for one normal working day's operation or 4 miles, whichever is less.

If the work operation does not exceed 60 minutes, traffic control may be according to I.D.O.T. Highway Standard 701301.

SYMBOLS	
	WORK AREA
	SIGN ON PORTABLE OR PERMANENT SUPPORT
	FLAGGER WITH TRAFFIC CONTROL SIGN WHEN REQUIRED

REVISIONS		DATE	MODIFIED IDOT STANDARD 701011-02	
Title Block Revision		8/1/09	Lake County Division of Transportation	APPROVED BY: A. KHAWAJA
Reformat LCDOT Standard		7/15/10		DATE: APRIL 1, 2007
			TWO LANE, TWO WAY, OFF-ROAD OPERATIONS DAY OPERATIONS ONLY	

NOT TO SCALE

LC7000

 INFRACON CONSULTING, INC. <small>CONSULTING ENGINEERS & LAND SURVEYORS</small> <small>200 WEST WASHINGTON STREET, SUITE 200, CHICAGO, IL 60601-3000</small>	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

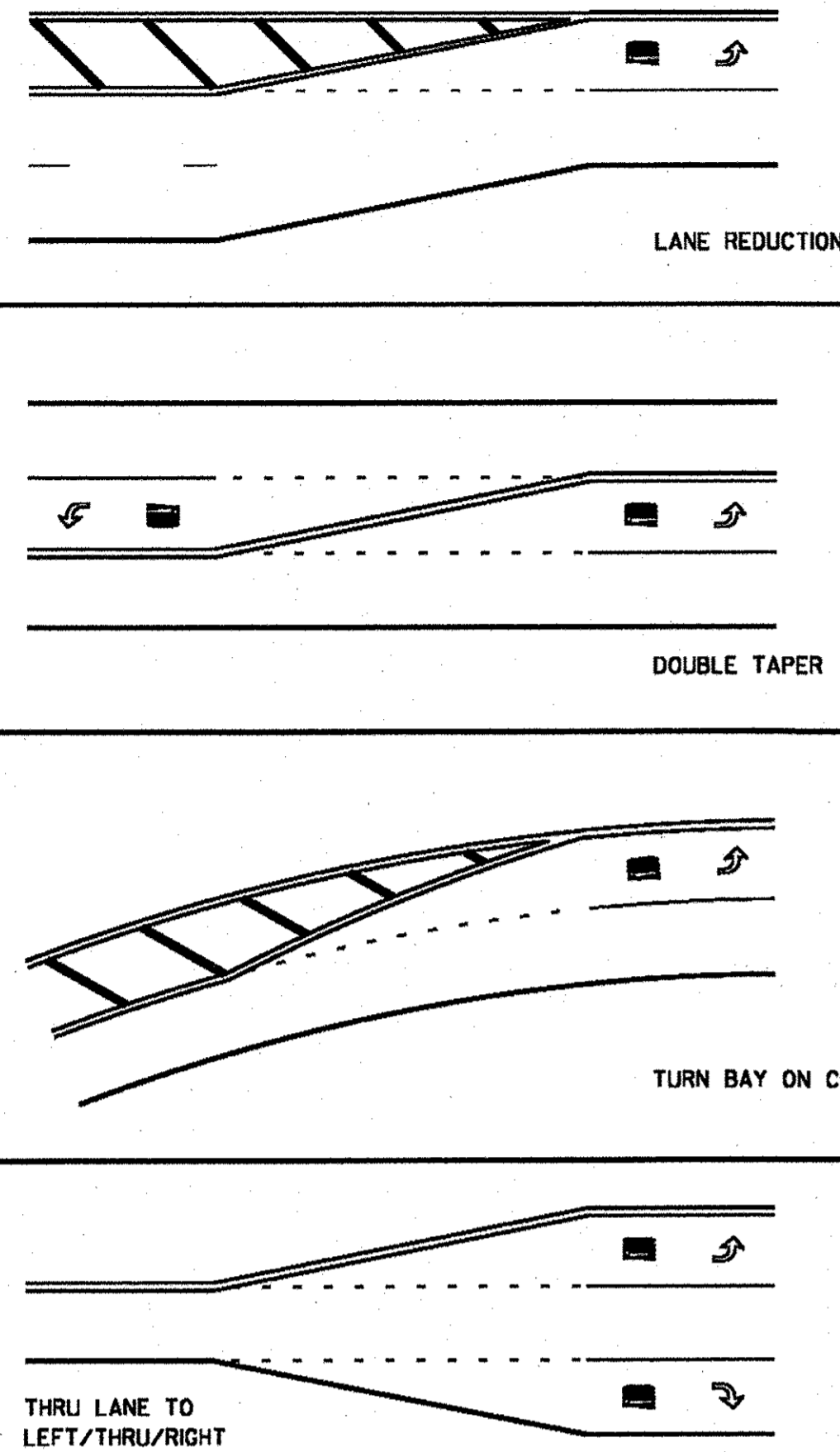
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MISCELLANEOUS DETAILS
LAKE COUNTY DETAILS**

SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	49
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				

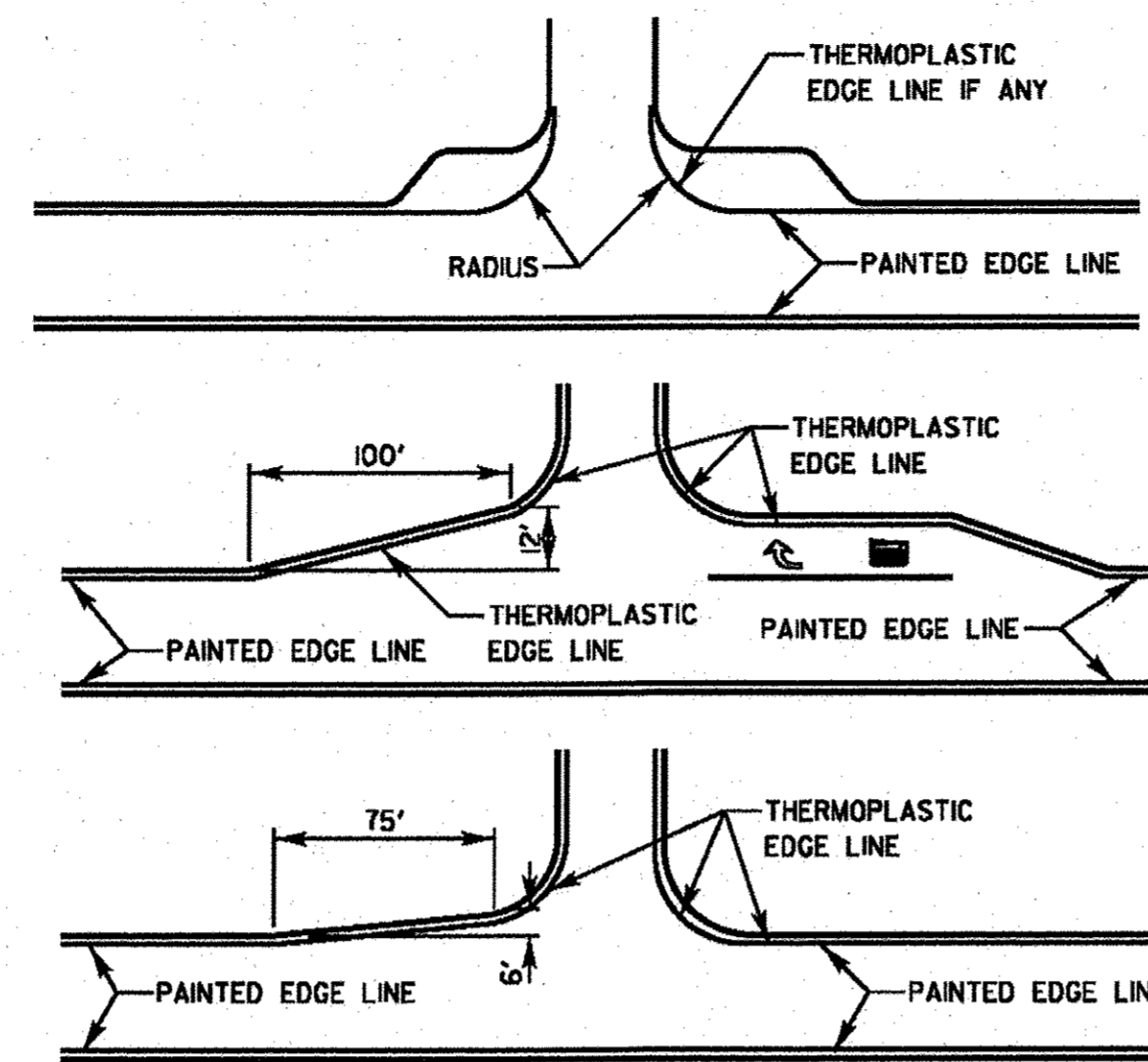
TYPICAL MINI-SKIP PAVEMENT MARKINGS



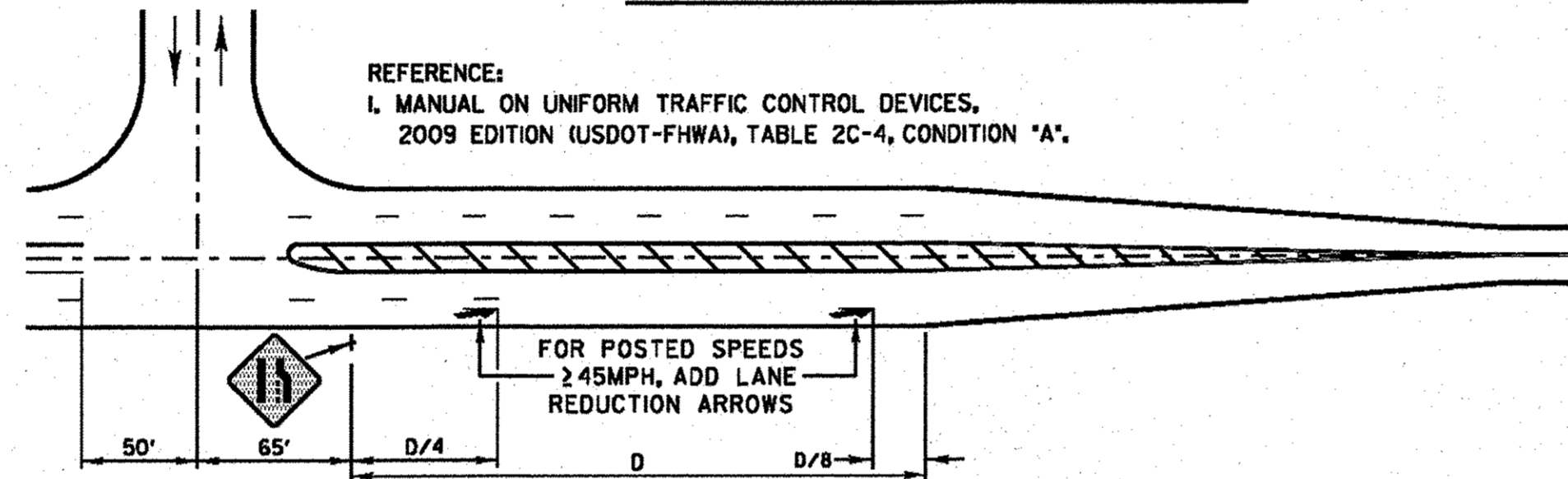
MINI-SKIPS ARE 2 FEET WHITE LINE WITH 6 FEET SPACING. THE MINI-SKIP IS THE SAME WIDTH AS THE PAVEMENT MARKING LINE, IT EXTENDS.

TYPICAL PAVEMENT MARKINGS

EDGE LINE RADII AT SIDE STREETS

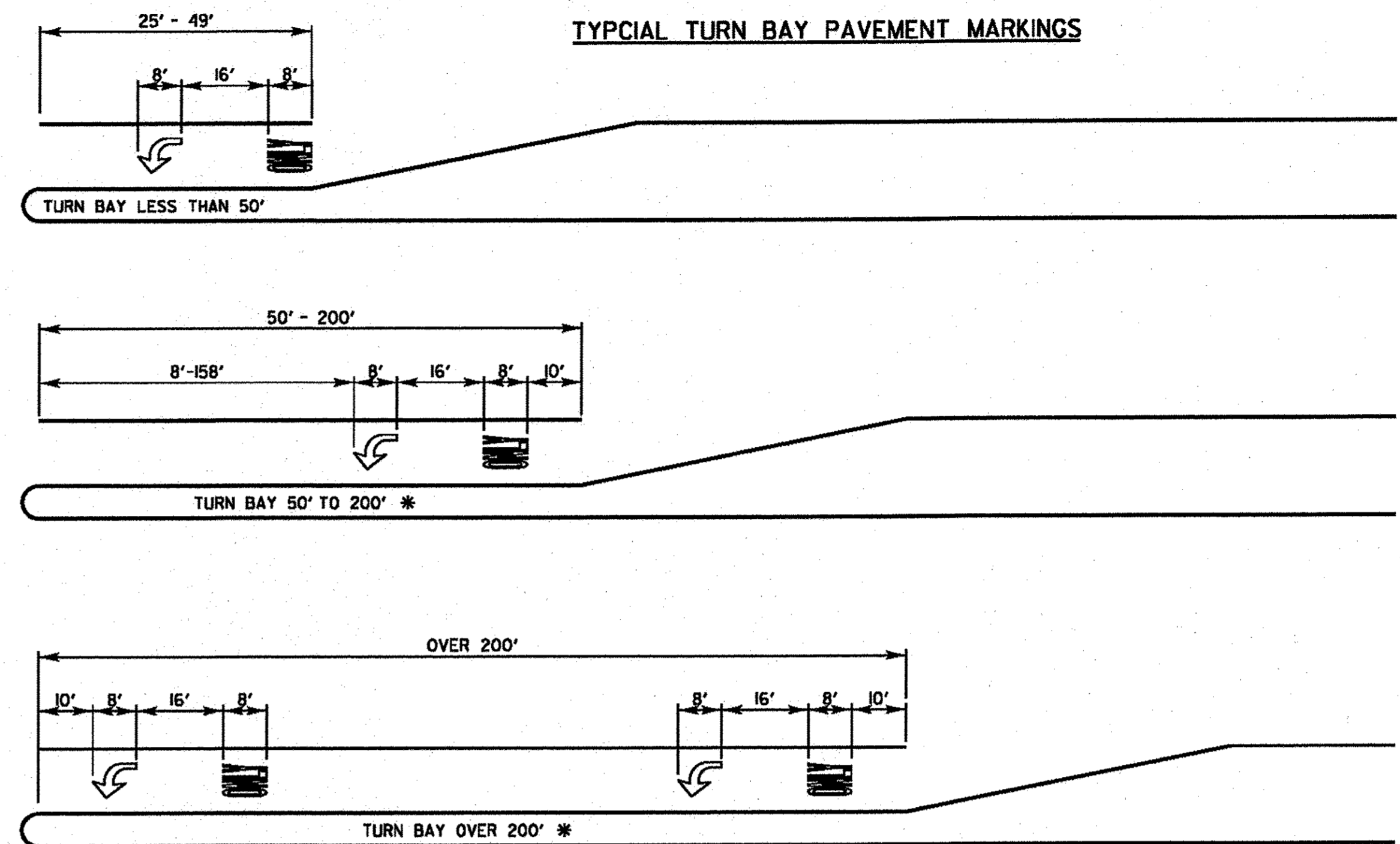


LANE REDUCTION ARROW PLACEMENT



DESIGN SPEED MPH	D (FEET)
<45	N/A
45	775' [1]
50	885' [1]
55	990' [1]

TYPICAL TURN BAY PAVEMENT MARKINGS



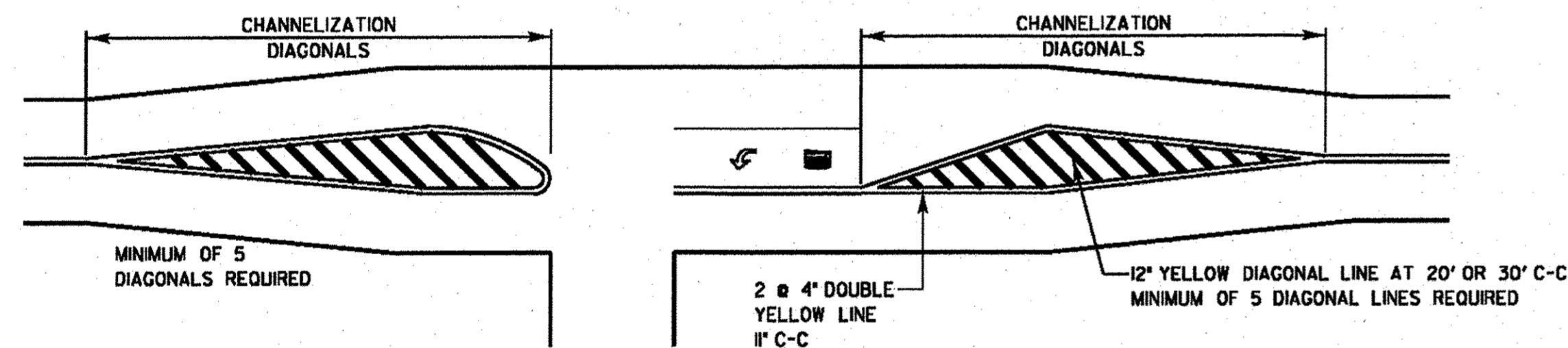
* AT INTERSECTIONS WITH VIDEO DETECTION, THE ARROW AND ONLY PAVEMENT MARKINGS SHALL BE A MINIMUM OF 30' BEHIND THE STOP BAR.

AREA = 15.6 SQ. FT.

AREA = 20.8 SQ. FT.

FULL SIZE LETTERS (8") AND ARROWS SHALL BE USED. TURN LANES IN EXCESS OF 400' IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW W/ "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW W/ "ONLY".

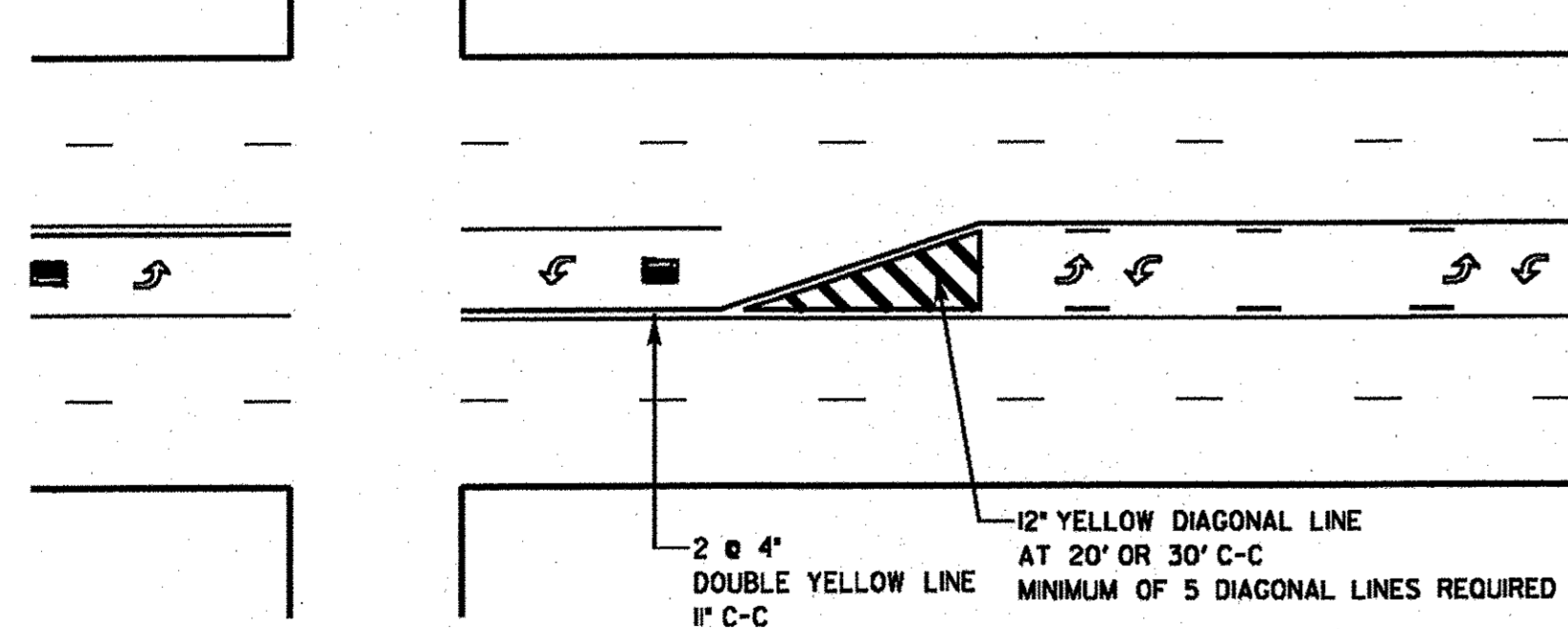
TWO LANE ROAD



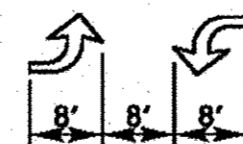
TYPICAL DIAGONAL SPACING

SPEED LIMIT RANGE	DIAGONAL SPACING	
	CONTINUOUS	INTERSECTION CHANNELIZATION
30-45 MPH	75 FT.	20 FT.
OVER 45 MPH	150 FT.	30 FT.

TWO-WAY LEFT TO LEFT TURN BAY



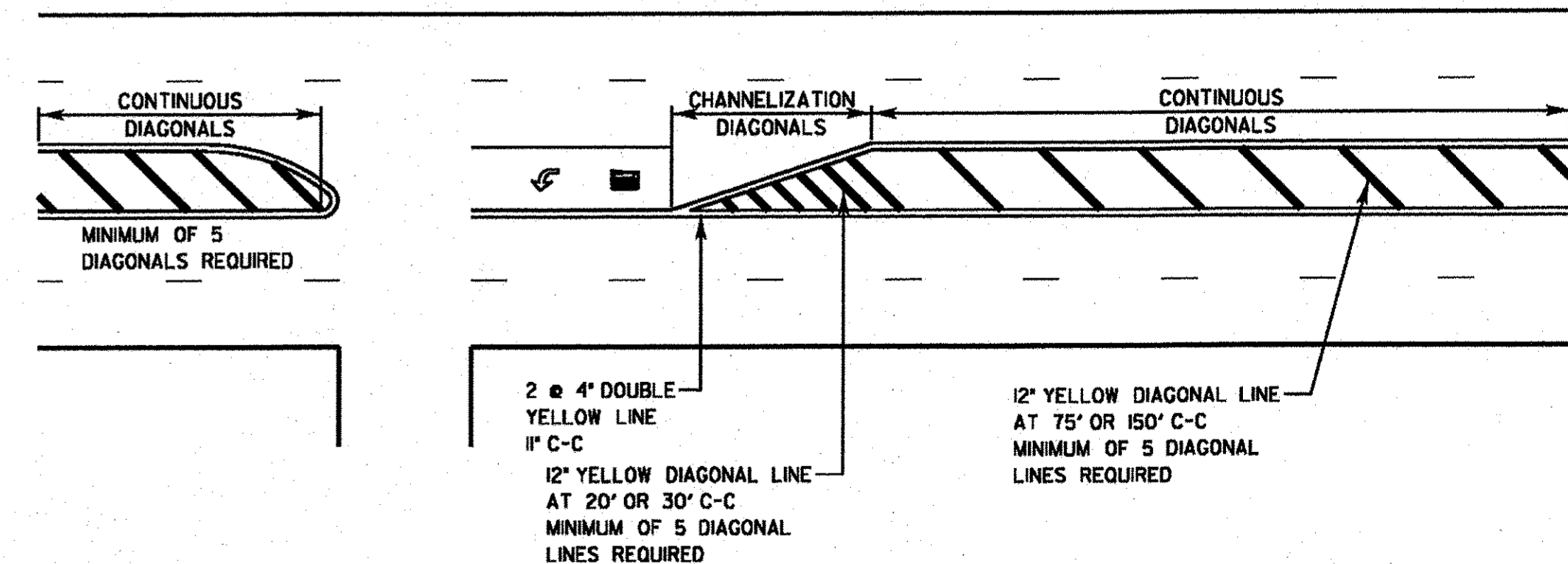
DUAL LEFT TURN ARROWS



31.2 SQ. FT. MINIMUM OF 2 SETS REQUIRED

A MINIMUM OF TWO PAIRS OF DUAL LEFT TURN ARROWS SHALL BE USED. THE DUAL LEFT TURN ARROWS SHALL BE WHITE IN COLOR. THE INTERVAL BETWEEN SETS OF DUAL LEFT TURN ARROWS SHOULD BE 200' AND 300'.

3 OR 5 LANE ROAD



REVISIONS	DATE
SEPARATED RAILROAD SHEET	06/02/08
ADDED LANE REDUCTION ARROWS	07/1/12
RAISED TO RECESSED MARKERS	12/2/13
REMOVE STATION NUMBERS	5/30/14



APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS
SHEET 1 OF 2

LC7800

NOTE: THIS DETAIL SHEET APPLIES TO DARRELL ROAD IMPROVEMENTS FROM STATION 233+00 (PONDVIEW DRIVE) TO STATION 245+70 (SOUTH OF IL 120)

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

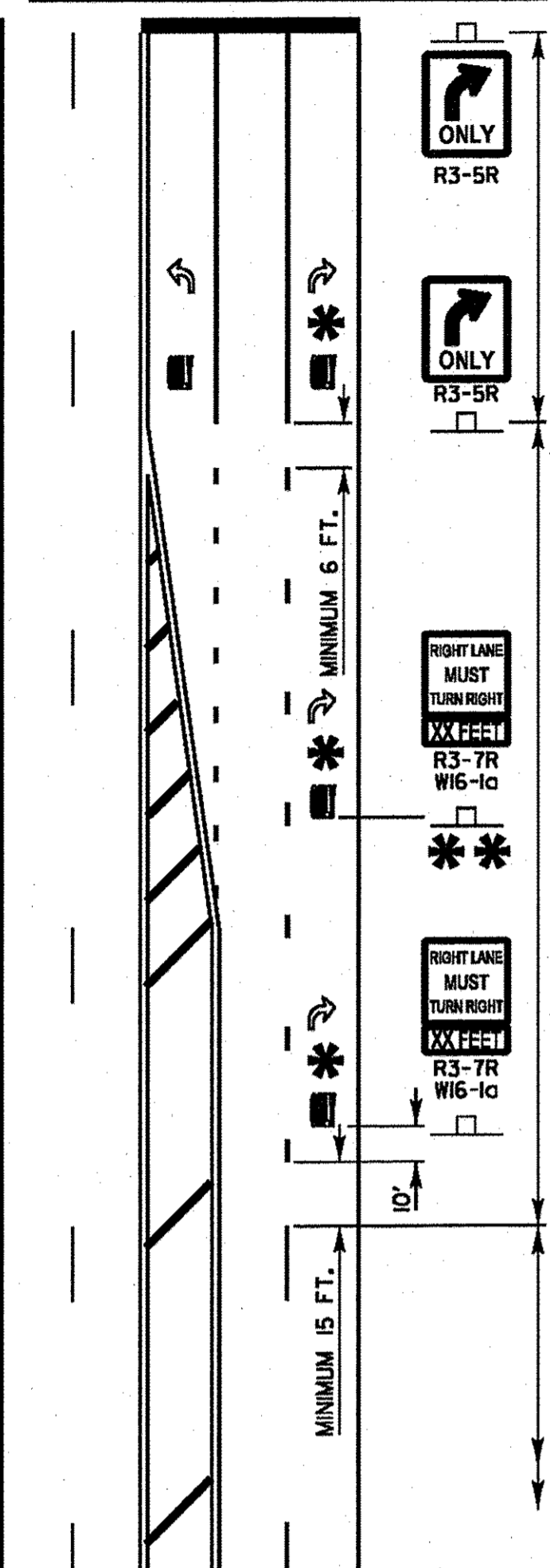
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
LAKE COUNTY DETAILS

SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	50
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(987)				

THRU LANE TO
TURN LANE CONVERSION



TURN LANE
6' WHITE LINE
(ADDITIONAL PAVEMENT MARKINGS AS SHOWN
ON SHEET ONE OF THE L.C.D.O.T TYPICAL
PAVEMENT MARKINGS DETAIL SHEETS)

MINIMUM TRANSITION ZONE LENGTH

POSTED SPEED	LENGTH
25 M.P.H.	255 FT
30 M.P.H.	330 FT
35 M.P.H.	405 FT
40 M.P.H.	480 FT
45 M.P.H.	555 FT
50 M.P.H.	630 FT
55 M.P.H.	705 FT

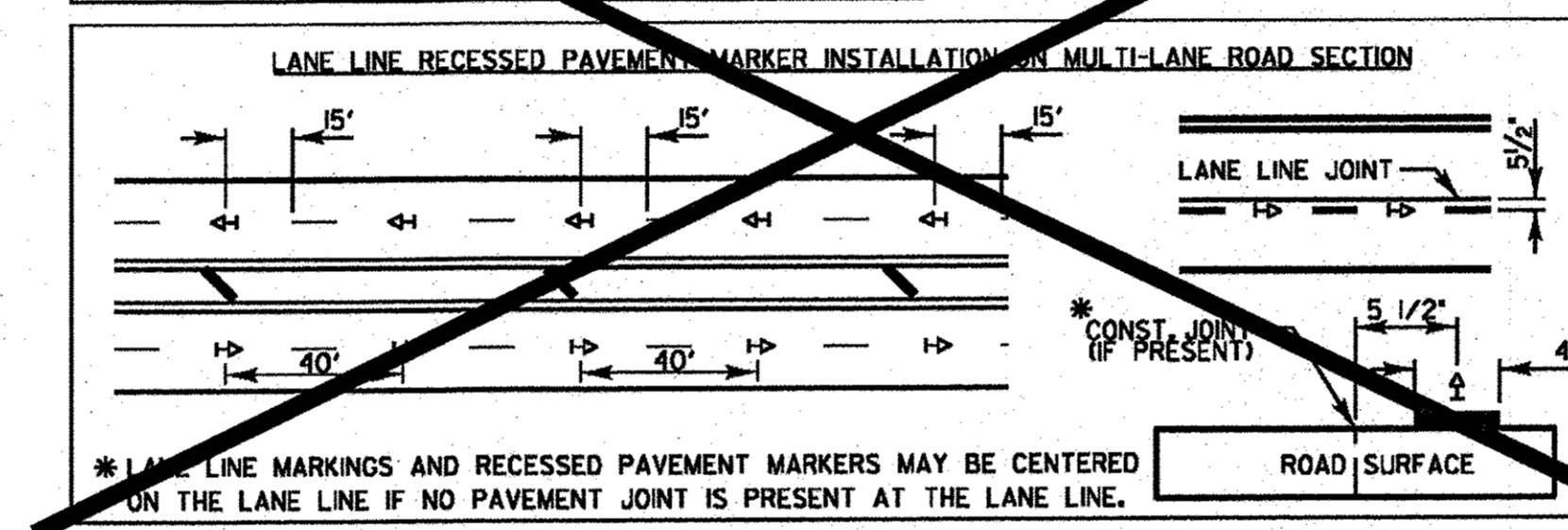
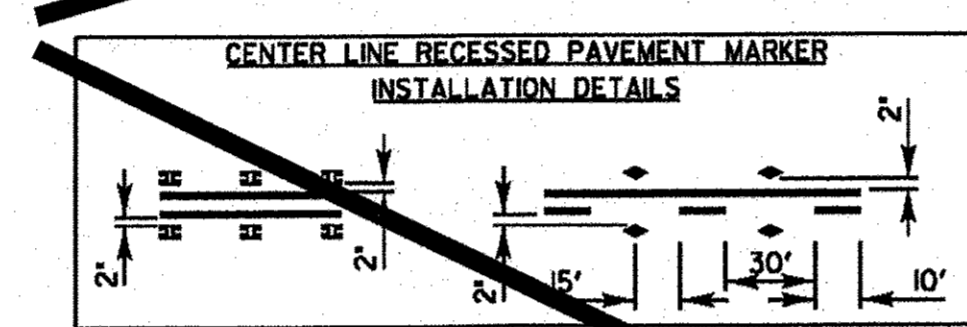
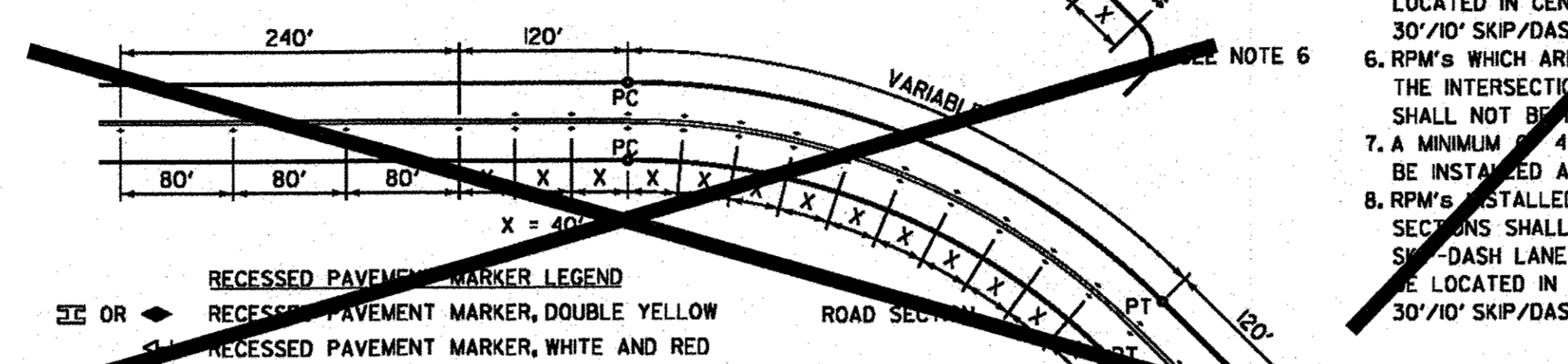
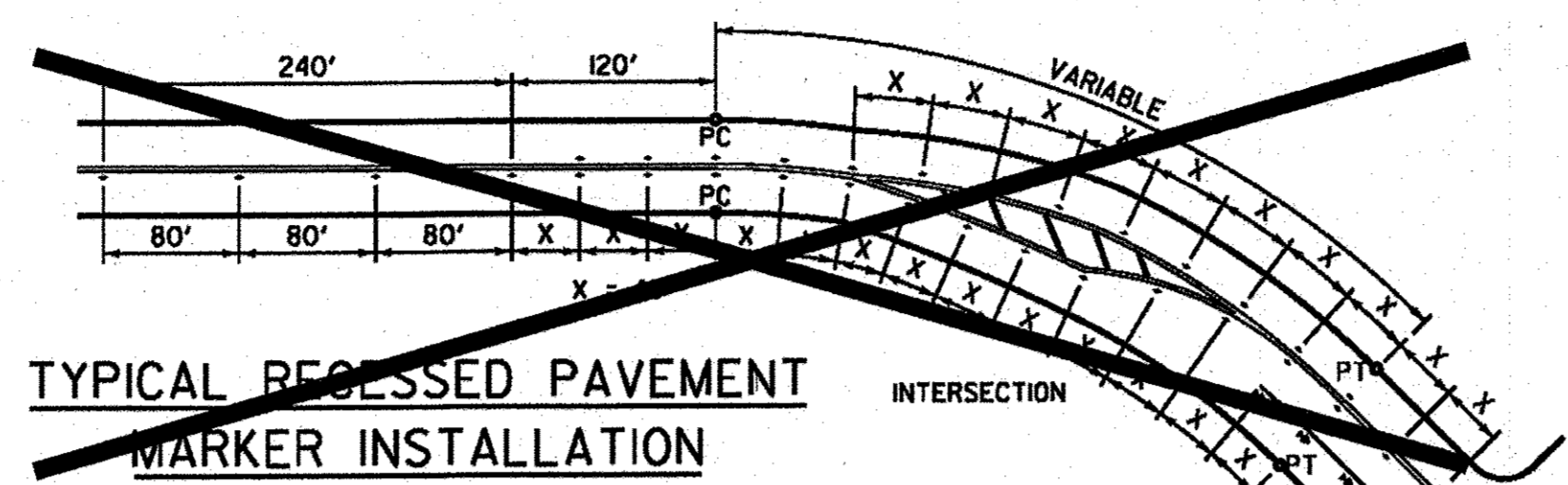
*** LOCATION OF PAV'T MARKINGS**
(MEASURED FROM BEGINNING OF TRANSITION ZONE)

POSTED SPEED	LOCATION OF PAV'T MARKINGS
25 M.P.H.	10 FT, 260 FT
30 M.P.H.	10 FT, 170 FT, 340 FT
35 M.P.H.	10 FT, 210 FT, 410 FT
40 M.P.H.	10 FT, 170 FT, 330 FT, 490 FT
45 M.P.H.	10 FT, 190 FT, 370 FT, 560 FT
50 M.P.H.	10 FT, 170 FT, 330 FT, 490 FT, 640 FT
55 M.P.H.	10 FT, 180 FT, 350 FT, 520 FT, 710 FT

THRU LANE
4' WHITE 10'/30' SKIP DASH
LANE LINE

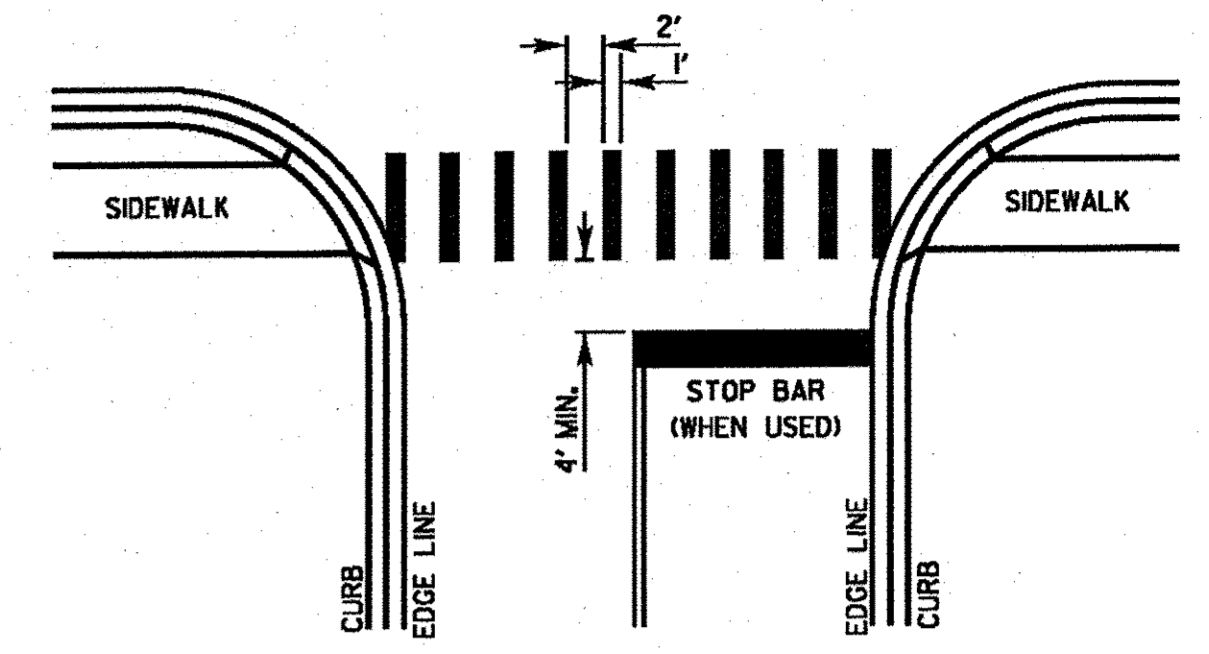
**** FOR POSTED SPEEDS 40 M.P.H. OR GREATER**
A SECOND R3-7/W16-10 SIGN INSTALLATION
SHALL BE LOCATED HALFWAY BETWEEN THE
BEGINNING OF THE TRANSITION ZONE AND THE
BEGINNING OF THE TURN LANE

TYPICAL PAVEMENT MARKINGS AND RECESSED PAVEMENT MARKERS



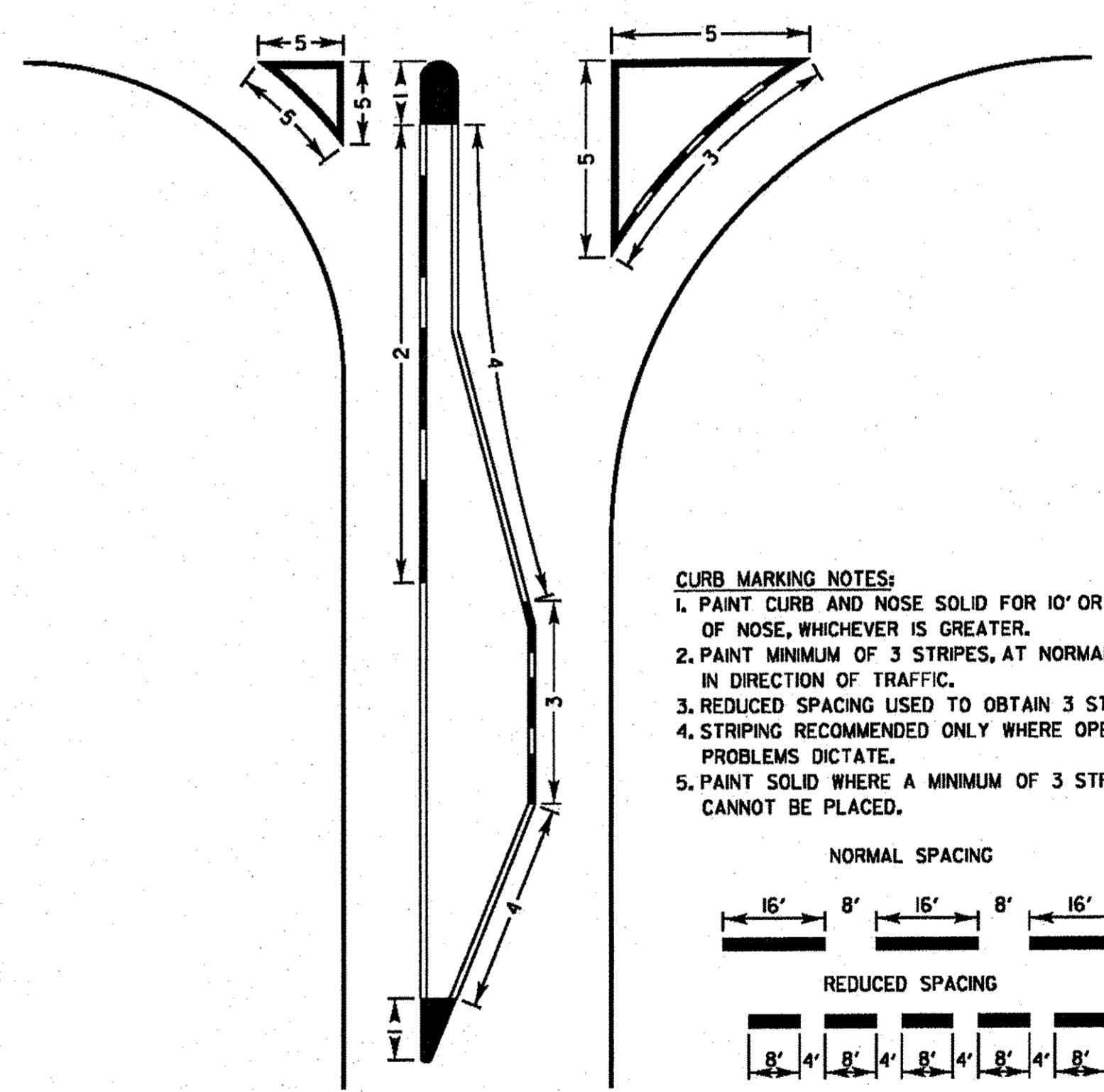
- RECESSED PAVEMENT MARKER NOTES:**
- CENTERLINE RECESSED PAVEMENT MARKERS (RPM'S) SHALL BE PLACED ON ALL TWO AND THREE LANE HIGHWAYS WITH CURVES OVER 3 1/2 DEGREE, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
 - SPACING 10' FOR CENTERLINE MARKERS.
 - ALL RPM'S ON CENTERLINE ARE 2" YELLOW. LANE LINE MARKERS ARE WHITE/RED.
 - MARKERS SHALL BE INSTALLED ACCORDING TO F.H.W.A. MEMORANDUM HO-21.
 - MARKERS SHALL BE FIELD ADJUSTED TO BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH CENTERLINE.
 - RPM'S WHICH ARE TO BE LOCATED WITHIN THE INTERSECTION OF A CROSS STREET, SHALL NOT BE INSTALLED.
 - A MINIMUM OF 4 WHITE/RED MARKERS SHALL BE INSTALLED ALONG THE TURN LANE LINE.
 - RPM'S INSTALLED ON MULTI-LANE ROAD SECTIONS SHALL BE INSTALLED ON THE WHITE SKIP/DASH LANE LINE ONLY. THESE RPM'S SHALL BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH LANE LINE.

CROSSWALKS



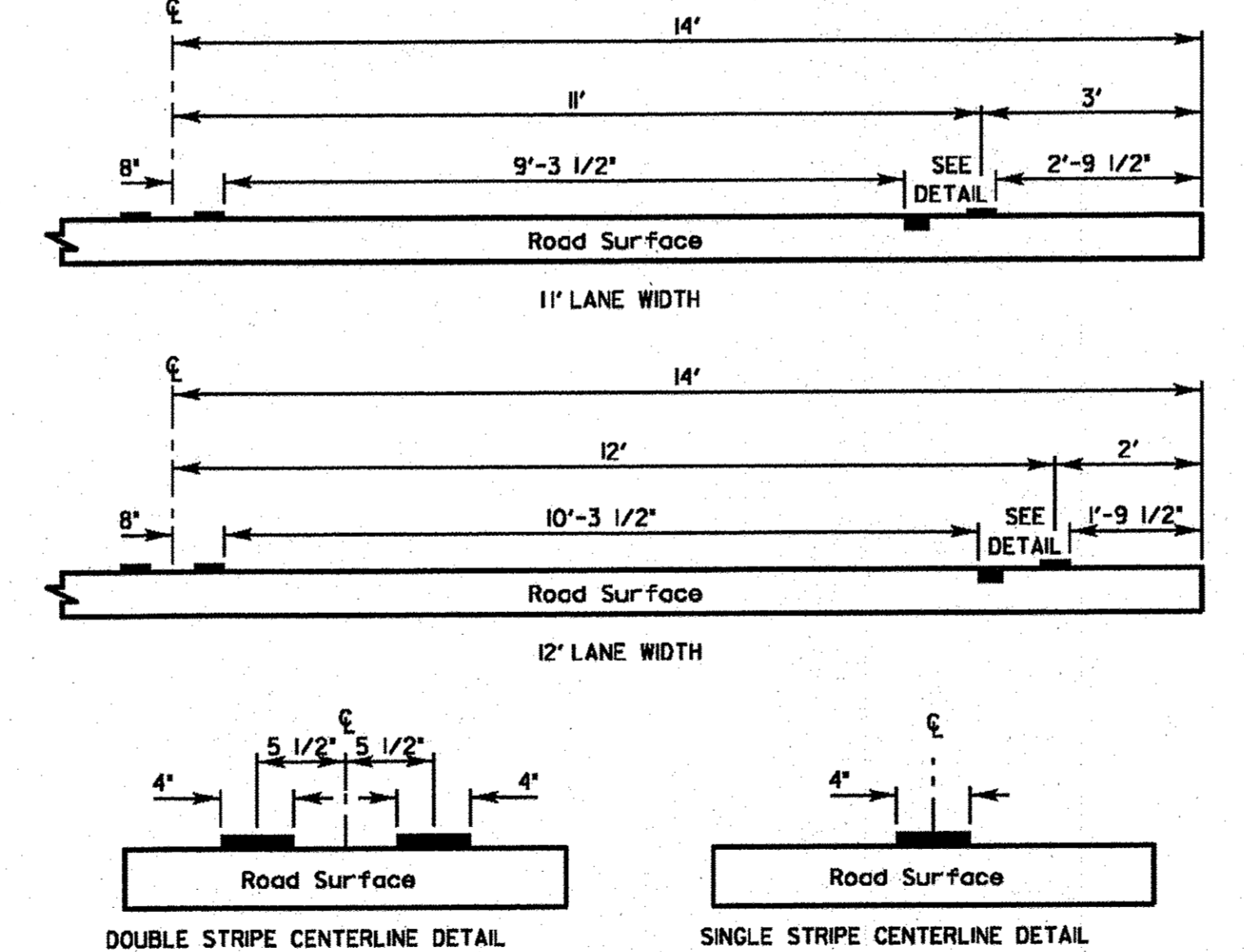
- CROSSWALK NOTES:**
- WIDTH OF THE CROSSWALK IS GENERALLY 6' EXCEPT AT SCHOOL CROSSINGS AND BICYCLE CROSSINGS, WHICH CAN BE 8'.
 - THE STOP BAR SHOULD BE INSTALLED A MINIMUM OF 4' IN ADVANCE OF THE CROSSWALK.

CURB MARKING



- CURB MARKING NOTES:**
- PAINT CURB AND NOSE SOLID FOR 10' OR RADIUS OF NOSE, WHICHEVER IS GREATER.
 - PAINT MINIMUM OF 3 STRIPES, AT NORMAL SPACING, IN DIRECTION OF TRAFFIC.
 - REDUCED SPACING USED TO OBTAIN 3 STRIPE MINIMUM.
 - STRIPING RECOMMENDED ONLY WHERE OPERATIONAL PROBLEMS DICTATE.
 - PAINT SOLID WHERE A MINIMUM OF 3 STRIPES CANNOT BE PLACED.

PAVEMENT CROSS SECTION SHOWING TYPICAL PAVEMENT MARKINGS (2-LANE ROADWAY)



DOUBLE STRIPE CENTERLINE DETAIL
SINGLE STRIPE CENTERLINE DETAIL

NOTE:
CENTERLINE MARKINGS ARE 4" LINES AT 11" CENTERS.

PAVEMENT MARKING GUIDELINES

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE OF 2 LANE PAVEMENT	4 IN.	SKIP-DASH	YELLOW	10 FT. LINE WITH 30 FT. SPACE
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 IN. 2 @ 4 IN.	SOLID SOLID	YELLOW YELLOW	5 1/2 IN. C-C FROM SKIP-DASH CENTERLINE 11 IN. C-C (OMIT SKIP-DASH CENTERLINE BETWEEN)
CENTERLINE ON MULTI-LANE UNDIVIDED LANE LINES	2 @ 4 IN. 4 IN.	SOLID SKIP-DASH	YELLOW WHITE	11 IN. C-C 10 FT. LINE WITH 30 FT. SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2 FT. LINE WITH 6 FT. SPACE
EDGE LINES	5 IN. WHITE 4 IN. YELLOW	SOLID	WHITE - RIGHT YELLOW - LEFT	OUTLINE RAISED MEDIANS IN YELLOW
TURN LANE MARKINGS	6 IN. LINE FULL SIZE LETTERS AND SYMBOLS (8 FT.)	SOLID	WHITE	TURN ARROW 15.6 SQ. FT., STRAIGHT ARROW 11.5 SQ. FT., ONLY 20.8 SQ. FT. COMB. ARROW 26.0 SQ. FT.
TWO WAY LEFT TURN MARKING	2 @ 4 IN. EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10 FT. LINE WITH 30 FT. SPACE FOR SKIP-DASH 5 1/2 IN. C-C BETWEEN SKIP-DASH LINE AND SOLID LINE
CROSSWALK	8 FT. LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
STOP BARS	12 IN. @ 90°	SOLID	WHITE	12 IN. LONGITUDINAL BAR WITH 24 IN. SPACE 6 FT. TO 12 FT. WIDE SEE TYPICAL CROSSWALK MARKING DETAIL
PAINTED MEDIANS	2 @ 4 IN. & 11 IN. C-C 12 IN. DIAGONALS @ 45° NO DIAGONALS USED FOR 4 FT. WIDE MEDIAN	SOLID	YELLOW 2-WAY TRAFFIC WHITE 1-WAY TRAFFIC	11 IN. C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING DETAIL MINIMUM OF 5 DIAGONALS
GORE MARKING AND CHANNELIZING LINES	8 IN. WITH 12 IN. DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS 15 FT. C-C (LESS THAN 30 M.P.H.) 20 FT. C-C (30 TO 45 M.P.H.) 30 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS
R.R. CROSSING	24 IN. TRANSVERSE LINES RR IS 5 FT. LETTER 16 IN. LINE FOR 'X'	SOLID	WHITE	SEE I.D.O.T. STD. 780001 50 FT. AREA OF: "R" = 3.6 SQ. FT., "R" "X" = 54.0 SQ. FT.
SHOULDER DIAGONALS (FOR PAVED SHOULDER > 6 FT.)	12 IN. @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50 FT. C-C (LESS THAN 30 M.P.H.) 75 FT. C-C (30 TO 45 M.P.H.) 150 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO PART III 'MARKINGS' IN THE 'ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES', THE 'STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION', AND THE LATEST I.D.O.T. HIGHWAY STANDARD 780001.

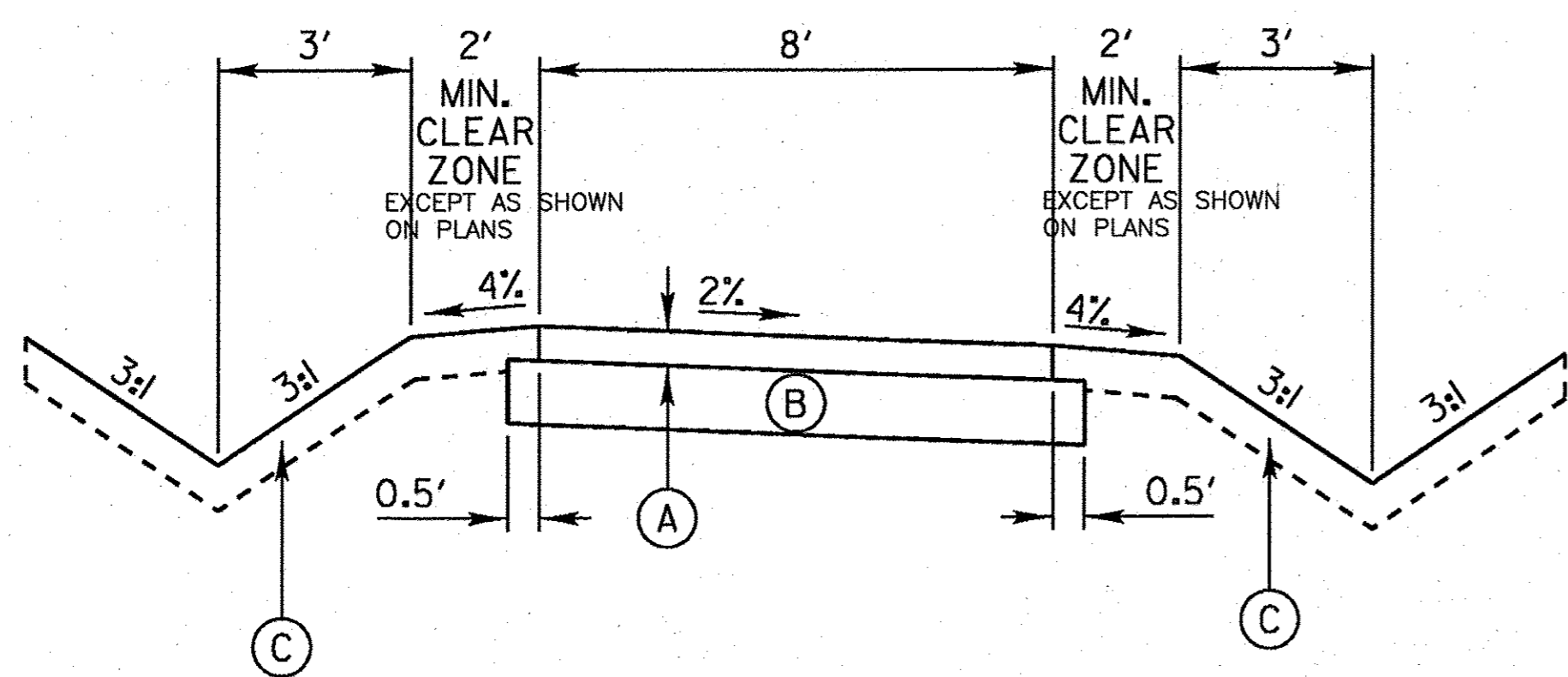
REVISIONS	DATE	Lake County Division of Transportation	APPROVED BY: A. KHAWAJA	LC7800
SEPARATED RAILROAD SHEET	06/02/08		DATE: APRIL 1, 2007	
REVISED RPM DETAILS	07/11/12			
RAISED TO RECESSED MARKERS	12/2/13			
REMOVE STATION NUMBERS	5/30/14			
TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS				
SHEET 2 OF 2				

NOTE: THIS DETAIL SHEET APPLIES TO DARRELL ROAD IMPROVEMENTS FROM STATION 233+00 (PONDVIEW DRIVE) TO STATION 245+70 (SOUTH OF IL 120)

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS LAKE COUNTY DETAILS	F.A.U. RTE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 51
SCALE: NONE	STA. TO STA.	CONTRACT NO. 61C28		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)	



- (A) 3" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50
- (B) AGGREGATE BASE COURSE, TYPE B 6"
- (C) FURNISHING AND PLACING TOPSOIL, 4", and SEEDING, CLASS 2A or SODDING

DESIGN NOTE:
If the Bike Path is being constructed in conjunction with the road improvement, then the Hot-Mix Asphalt mixes shall be the same as those used on the road in order to avoid multiple mix requirements.

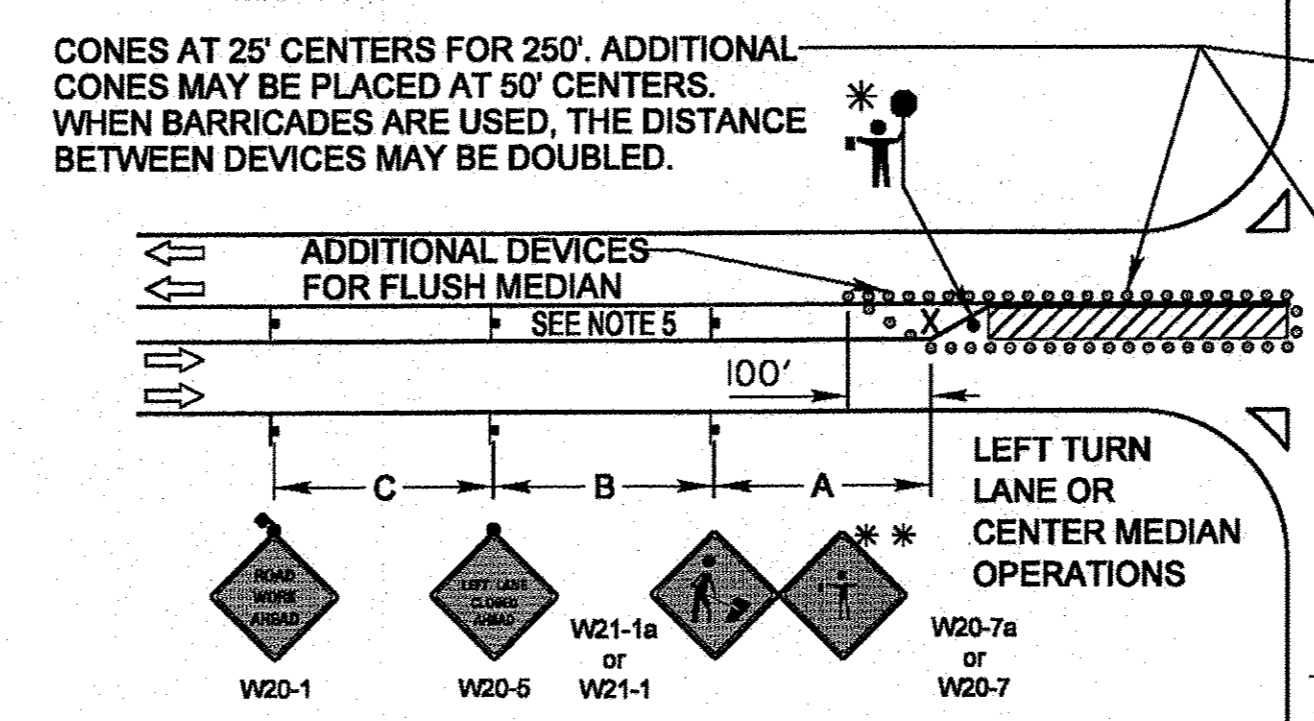
SCALE:
VERTICAL 1" = 2'
HORIZONTAL 1" = 4'

REVISIONS	DATE	APPROVED BY: M. G. ZEMAITIS
Changed BP to 3" Surface	5/1/2008	DATE: APRIL 1, 2007
Modified Agg. Base Course	3/1/2011	
CHANGE TO MIX "D"	2/20/12	
Revised Type A to Type B Aggregate	12/20/12	

**TYPICAL SECTION
8' HOT-MIX ASPHALT
BIKEPATH**

LC4051

**TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
for HIGHWAY CONSTRUCTION, CONTRACT MAINTENANCE
and UTILITY OPERATIONS**



- GENERAL NOTE:**
This Standard is used where at anytime, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in an urban area.
- DESIGN NOTES:**
- All warning signs shall have minimum dimensions of 48"x48". The Engineer may approve signs measuring 36"x36" when the posted speed limit is 30 mph or less.
 - All signs not on the traveled way shall be post mounted if the closure time exceeds four calendar days. All signs shall be posted with the bottom of the sign not less than 7' above the edge of pavement. "NO PARKING" signs shall be installed throughout the work area at the discretion of the Engineer.
 - The distance "L" shall be defined as:

SPEED	FORMULA
≤ 40 MPH	L = (WS) ² / 60
≥ 45 MPH	L = LW x S

 W = Width of Closure in FEET
 S = Normal Posted Speed Limit in MPH
 LW = Lane Width in FEET
 - Type II barricades with Type C steady burning lights shall be used in lieu of cones for night operations. All cones and barricades shall be according to IDOT Standard 701901.
 - For raised median operations, where the raised median is less than 10' signing shall not be installed on the median. No signing shall be installed on any painted median.
 - If the work operation is performed between 9:00 am and 3:00 pm and the work does not exceed 15 minutes, the traffic protection shall be as shown for IDOT Standard 701301. Signs, when required, shall be at the spacing specified in the advance warning sign spacing table.
 - If the work area is in the parking lane and the parking exists during work hours, a "ROAD WORK AHEAD" sign shall be installed in advance of work area at the spacing specified in the Advance Warning Sign Spacing Table and the area protected with cones or barricades.
 - Type A flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two sign in each series and the high level warning devices.
 - Longitudinal dimensions may be adjusted to fit field conditions.
 - Form BT 725 is required.

NOT TO SCALE

*TYPE II BARRICADE
SHOULDER OPERATIONS

W20-7a or W20-7
W21-1a or W21-1
W20-1

ADDITIONAL DEVICES FOR FLUSH MEDIAN
SEE NOTE 5

100'

LEFT TURN LANE OR CENTER MEDIAN OPERATIONS

W20-1
W20-5
W21-1a or W21-1
W20-7a or W20-7

CORNER/CORNER ISLAND OPERATIONS

W4-2
W20-5
W20-1

*FLAGGERS ARE REQUIRED WHEN THE POSTED SPEED IS 45 MPH OR GREATER. USE OF THE "FLAGGER" SIGN IS LIMITED TO WHEN FLAGGERS ARE PRESENT.
**HIGH LEVEL WARNING DEVICES ARE REQUIRED WHEN THE SPEED LIMIT IS 40 MPH OR LESS.

POSTED SPEED LIMIT	DISTANCE BETWEEN SIGNS		
	"A"	"B"	"C"
40 MPH or less	400 FEET	200 FEET	200 FEET
45-50 MPH	400 FEET	350 FEET	350 FEET
55 MPH	500 FEET	500 FEET	500 FEET

ADVANCE WARNING SIGN SPACING TABLE

SYMBOLS

- WORK AREA
- CONES, BARRICADE, OR DRUM
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- ARROW BOARD
- TYPE II BARRICADE W/TYPE A FLASHING LIGHT
- HIGH LEVEL WARNING DEVICE **
- FLAGGER WITH TRAFFIC CONTROL SIGN

**MODIFIED IDOT
STANDARD 701701-08**

REVISIONS	DATE	APPROVED BY: ANTHONY KHAWAJA
Revised IDOT Reference	2/1/08	DATE: APRIL 1, 2007
Title Block Revision	6/1/09	
Reformat LCDOT Standard	7/15/10	
Removed "Worker" & "Flagger" signs	9/28/12	

**URBAN LANE CLOSURE
MULTILANE INTERSECTION**

LC7003

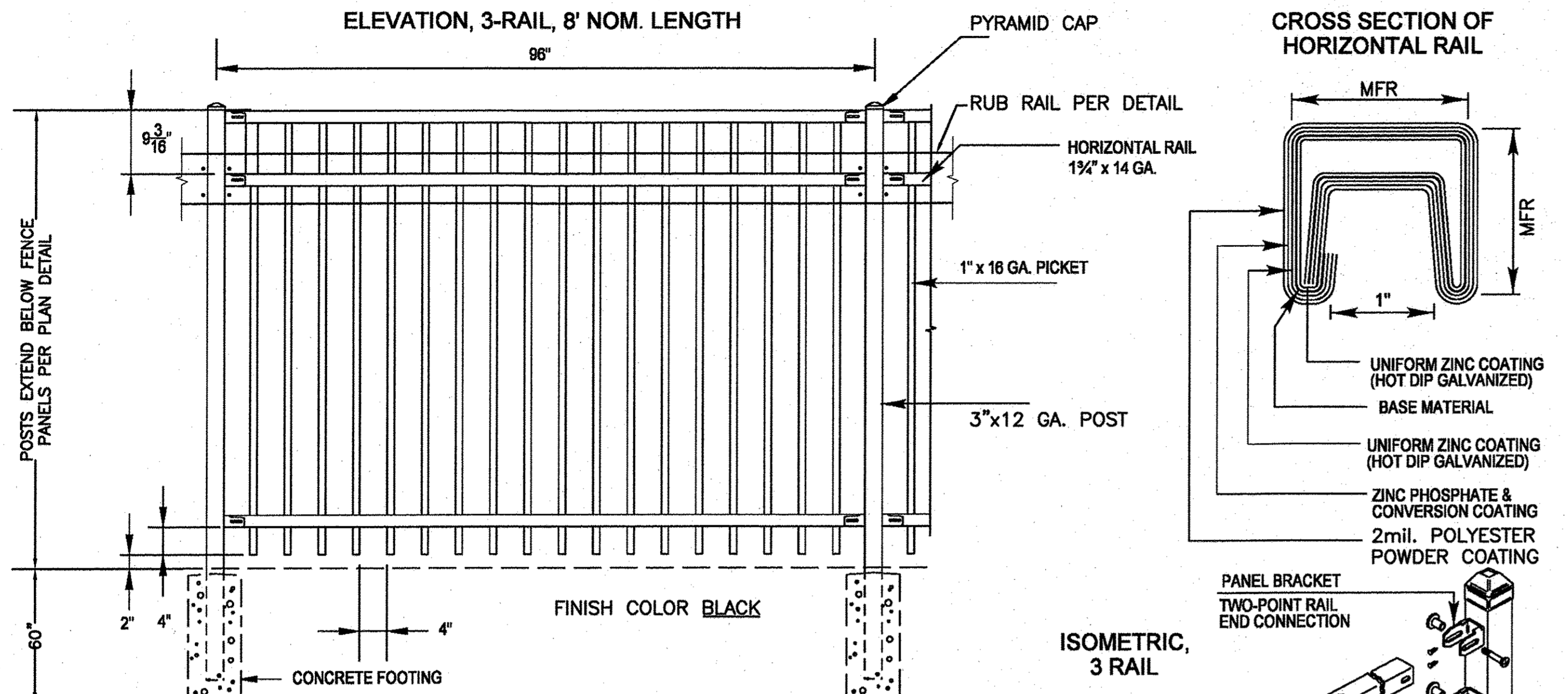
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DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MISCELLANEOUS DETAILS
LAKE COUNTY DETAILS**

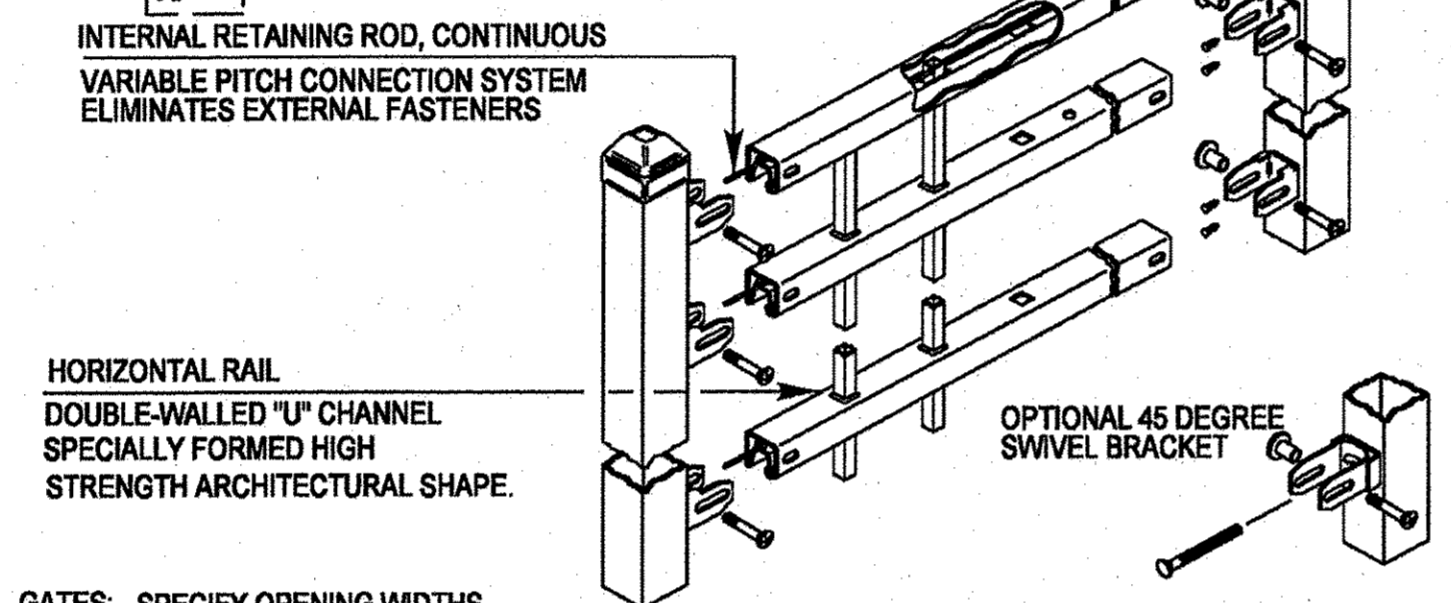
SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	52
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 1E-0001(997)				



Post Selection for Fence Height 6' - 10'

Wind Loading				
Fence Height (FT)	Rail Length (FT)	Post Size	Wind Load Capacity Factor (PSF)	Typical Wind Load Capacity (mph)
6	6	2 1/2" x 12 GA.	45.5	133.0
		3" x 12 GA.	54.6	146.0
	8	2 1/2" x 12 GA.	34.2	116.0
		3" x 12 GA.	41.0	127.0
7	6	2 1/2" x 12 GA.	33.4	114.0
		3" x 12 GA.	40.0	125.0
	8	2 1/2" x 12 GA.	25.0	99.0
		3" x 12 GA.	30.0	108.0
8	6	2 1/2" x 12 GA.	25.6	100.0
		3" x 12 GA.	30.7	110.0
	8	2 1/2" x 12 GA.	19.2	87.0
		3" x 12 GA.	23.0	95.0
9	4" x 12 GA.	32.0	113.0	
	6" x 12 GA.	28.7	107.0	



GATES: SPECIFY OPENING WIDTHS
 SINGLE QUANTITY _____
 DOUBLE QUANTITY _____

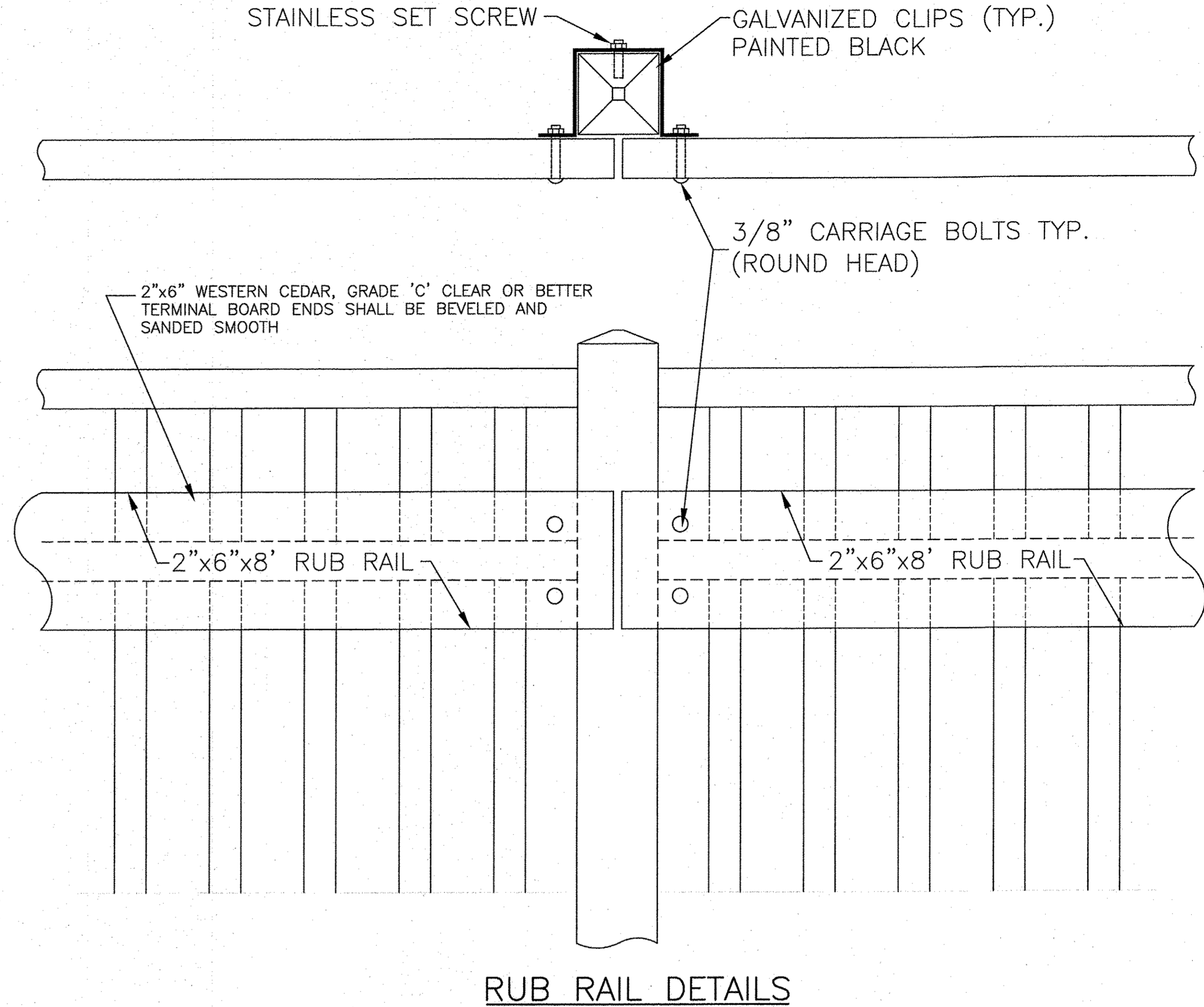
REVISIONS	DATE
Text Update	7/15/11

Lake County
 Division of Transportation

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

**ORNAMENTAL FENCE
 THREE RAIL
 (ONE MFR'S DETAILS)**

LC6601



CONSULTING, INC.
 INFRACON GEORCON
 CONSULTING CIVIL ENGINEERS & LAND SURVEYORS
 3000 W. 120th Street, Suite 1000, Overland Park, KS 66209-3000

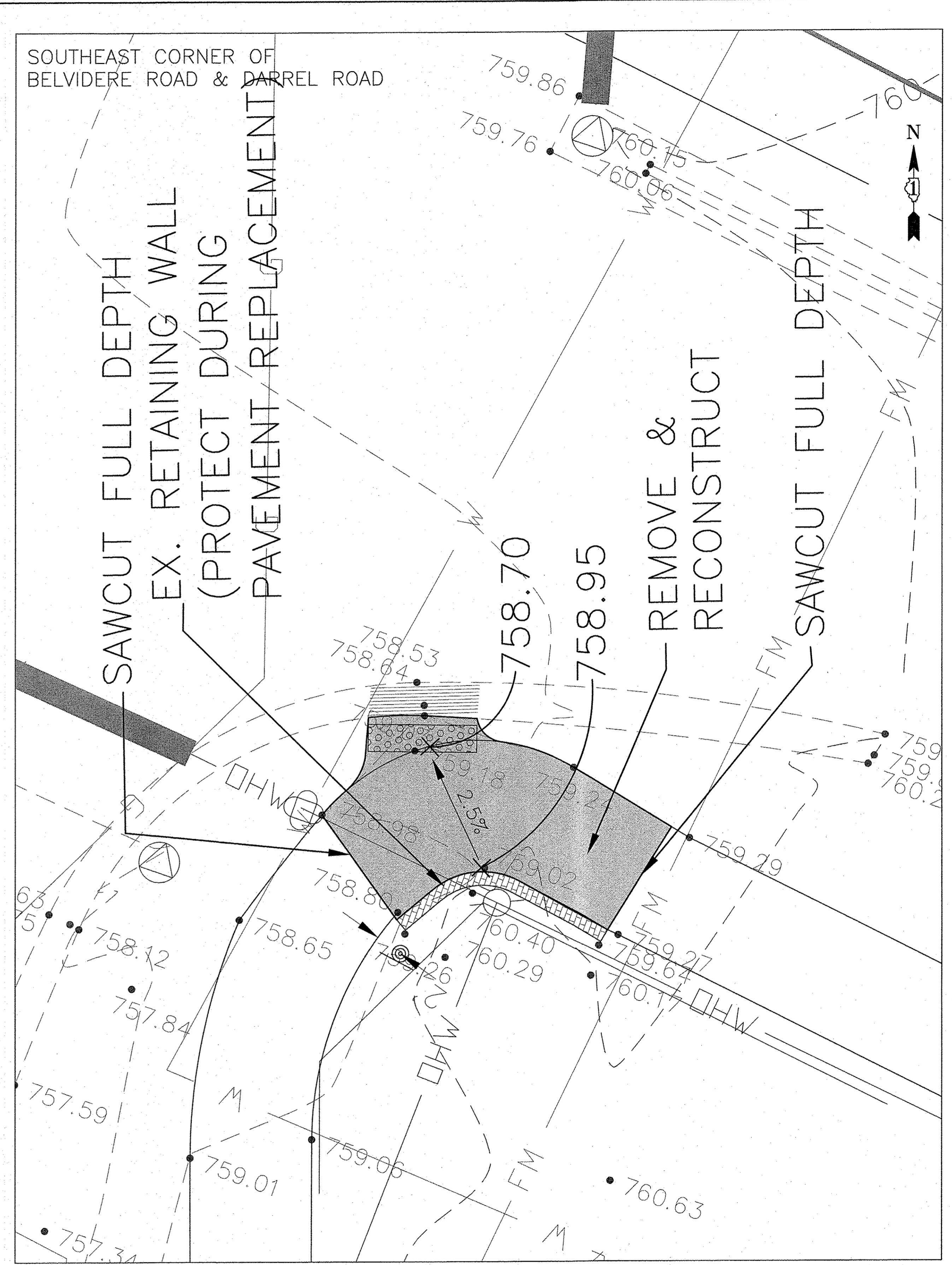
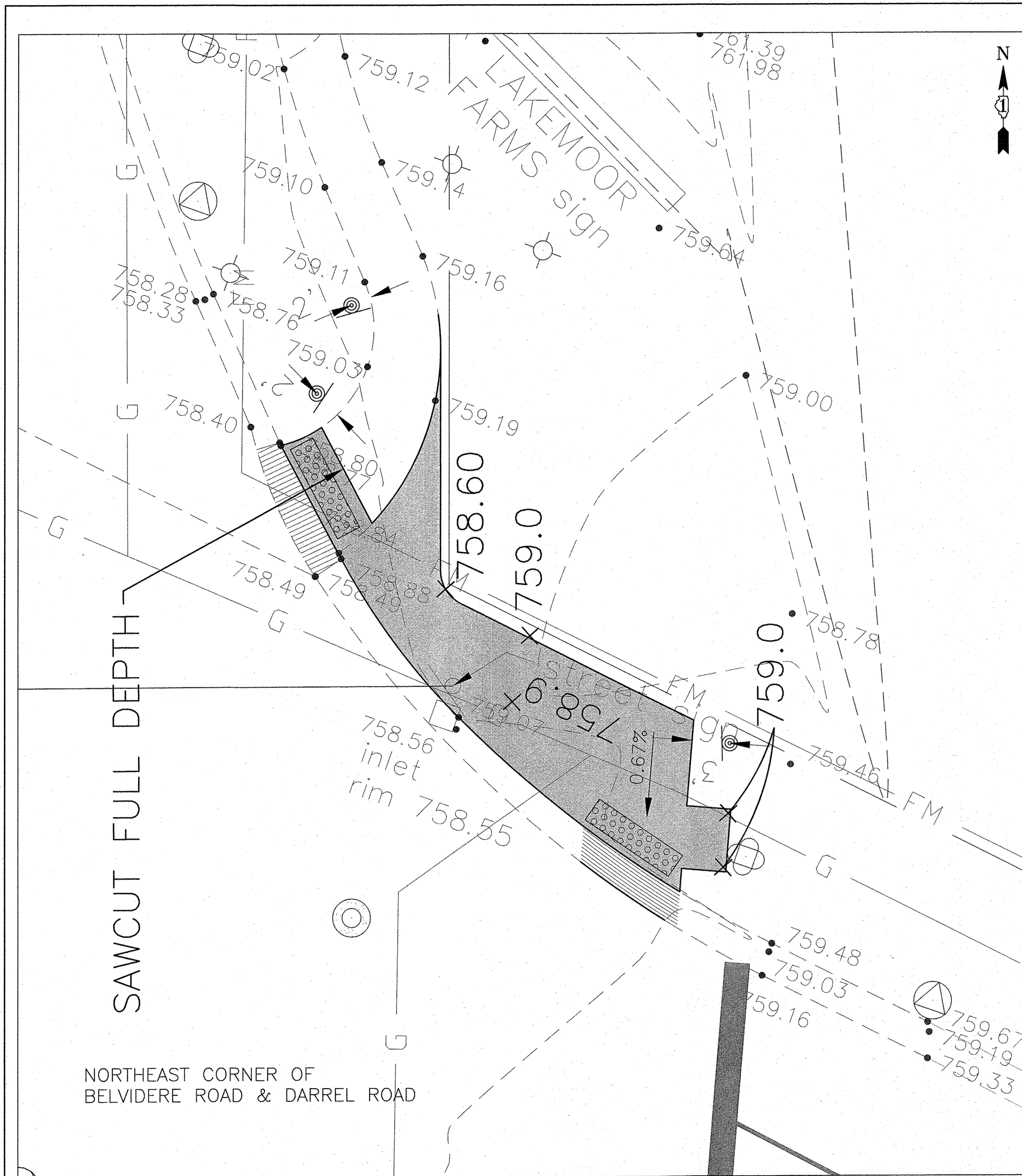
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DATE - 10/03/16	REVISED -


**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MISCELLANEOUS DETAILS
 LAKE COUNTY DETAILS**

SCALE: NONE STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	53
C-91-209-15			CONTRACT NO. 61C28	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				

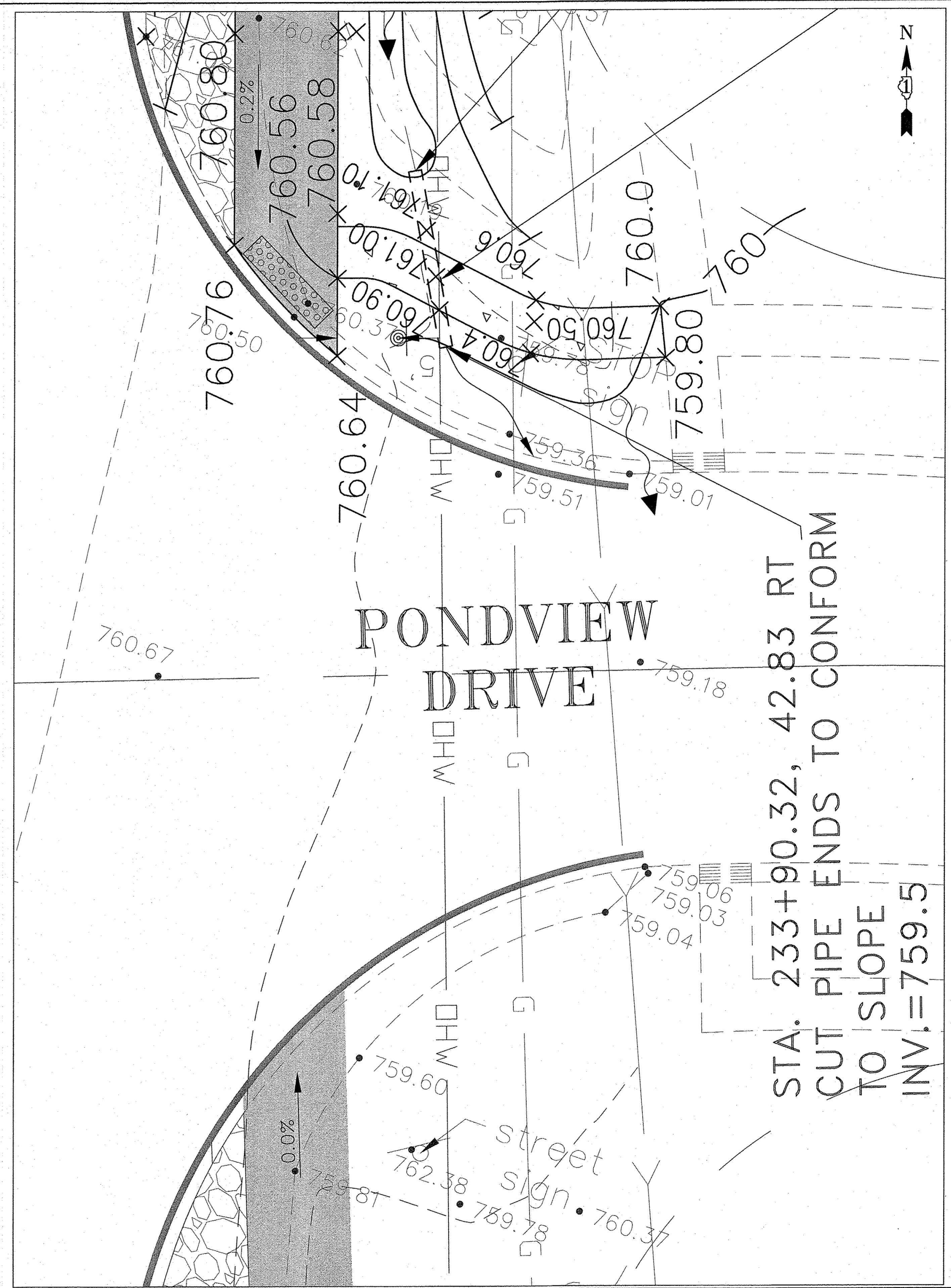
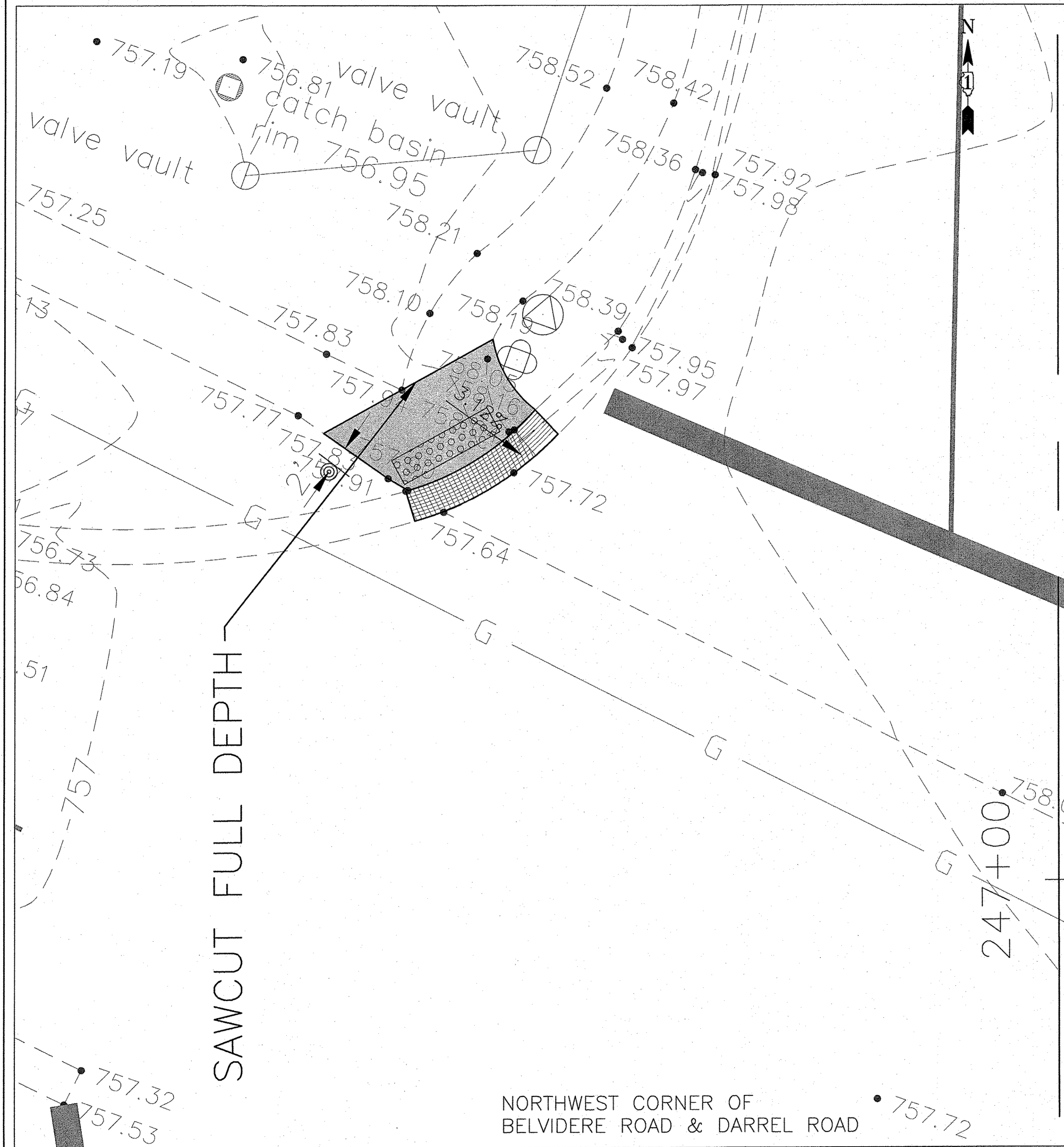


	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 07/21/15	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADA RAMPS AT CROSSWALKS BELVIDERE ROAD & DARRELL ROAD	
SCALE: 1"=5'	STA. 245+00 TO STA. 248+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	54
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				

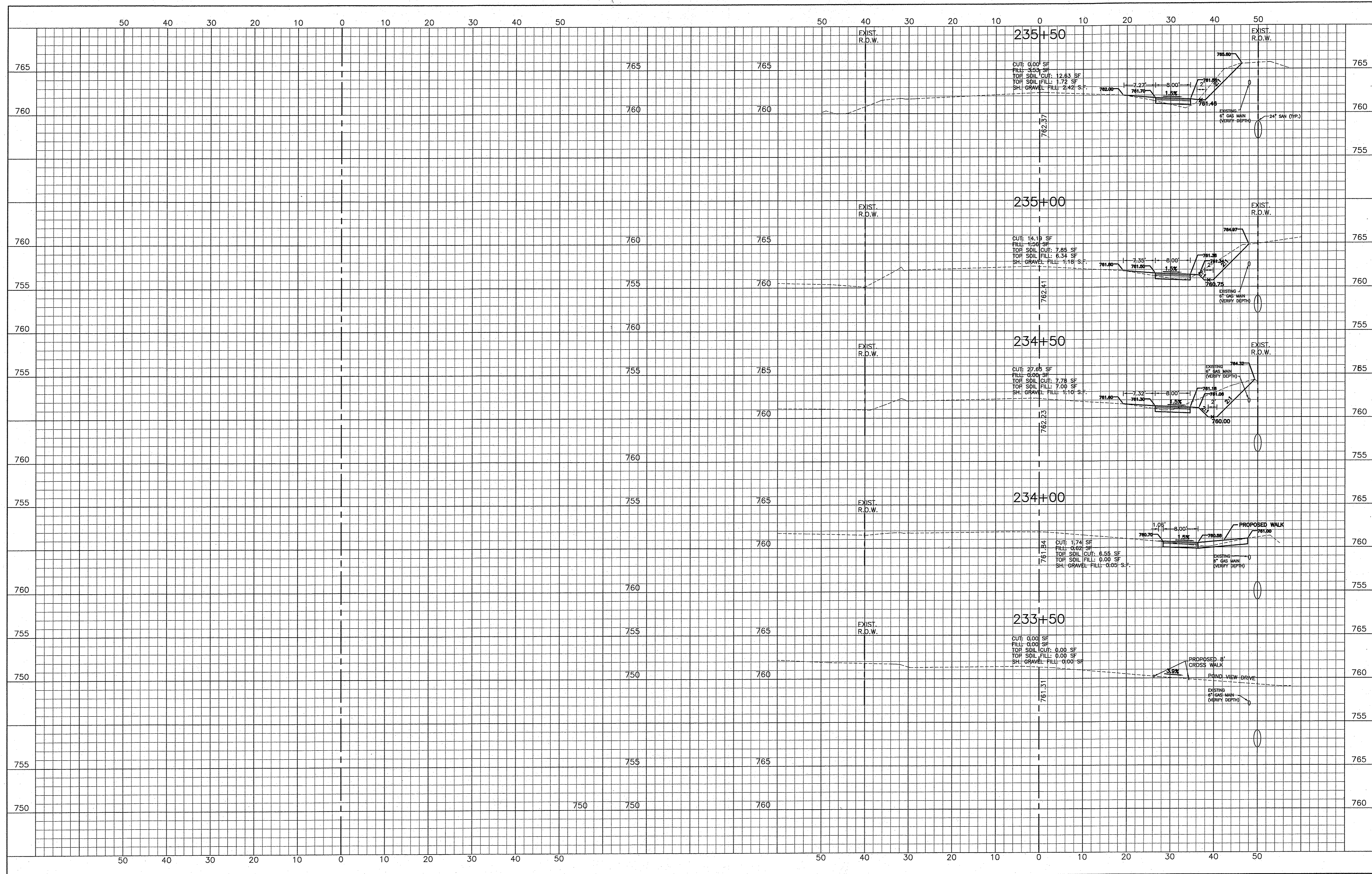


	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADA RAMPS AT CROSSWALKS BELVIDERE ROAD & DARRELL ROAD	
SCALE: 1"=5'	STA. 245+00 TO STA. 248+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	55
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-0001(997)				

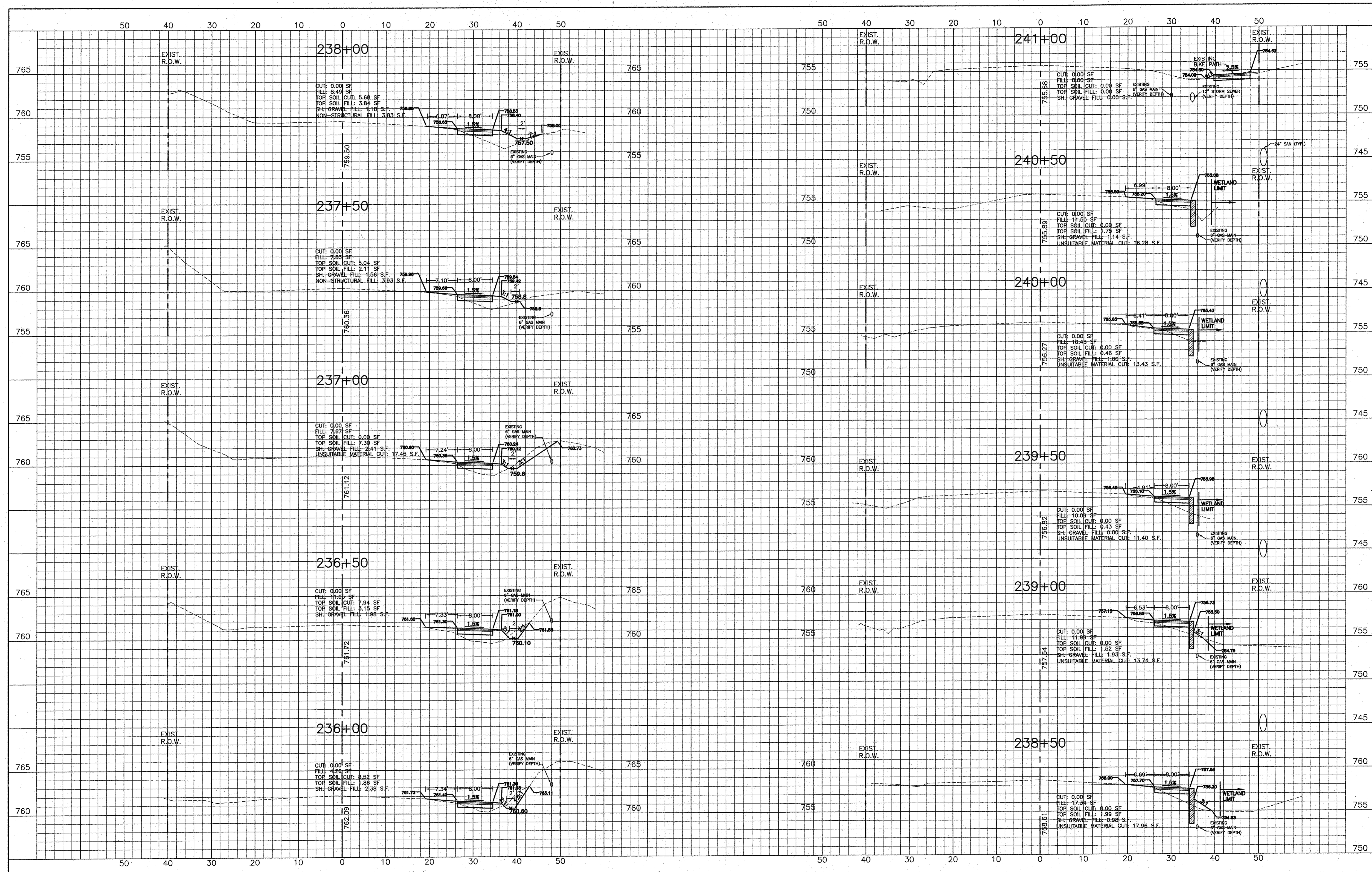


	DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
	DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
	CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
	DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS DARRELL ROAD	
SCALE: H: 1"=10' V: 1"=5'	STA. 230+06 TO STA. 235+50

F.A.U. RIE. 0012	SECTION 14-00011-00-BT	COUNTY LAKE	TOTAL SHEETS 57	SHEET NO. 56
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				



CONSULTING, INC.
 RUPAK KUMAR, GEORGINA J. GIBSON
 CONSULTING CIVIL ENGINEERS & LAND SURVEYORS
 1000 N. WILSON AVENUE, SUITE 200, CHICAGO, IL 60642

DESIGNED - C.K.	REVISED - 10/06/16 IDOT SUBMITTAL
DRAWN - S.R.M.	REVISED - 12/02/16 IDOT SUBMITTAL
CHECKED - J.K.	REVISED - 12/07/16 COUNTY SUBMITTAL
DATE - 10/03/16	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 DARRELL ROAD**

SCALE: H: 1"=10' V: 1"=5'

STA. 236+00 TO STA. 241+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0012	14-00011-00-BT	LAKE	57	57
C-91-209-15		CONTRACT NO. 61C28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT TE-00D1(997)				