

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.M. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	1
ILLINOIS			CONTRACT NO. 62J28	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED IN THE CITY OF OAK FOREST AND THE FOREST PRESERVES DISTRICT OF COOK COUNTY.

PROPOSED  
HIGHWAY PLANS

FAU ROUTE 1602 (147TH STREET)  
OVER TRIBUTARY C OF THE CAL-SAG CHANNEL  
(1.2 MI WEST OF IL 50 AT MENARD AVE)  
SECTION 2019-051-T

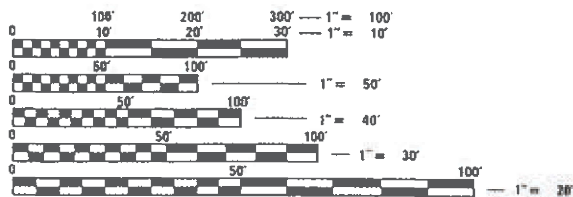
CULVERT REPLACEMENT  
COOK COUNTY

C-91-396-19  
R13E



TRAFFIC DATA  
FUNCTIONAL CLASSIFICATION: SUBURBAN MINOR ARTERIAL  
2018 ADT = 11100  
POSTED SPEED = 45 MPH  
DESIGN SPEED = 45 MPH

N  
LOCATION MAP  
NOT TO SCALE



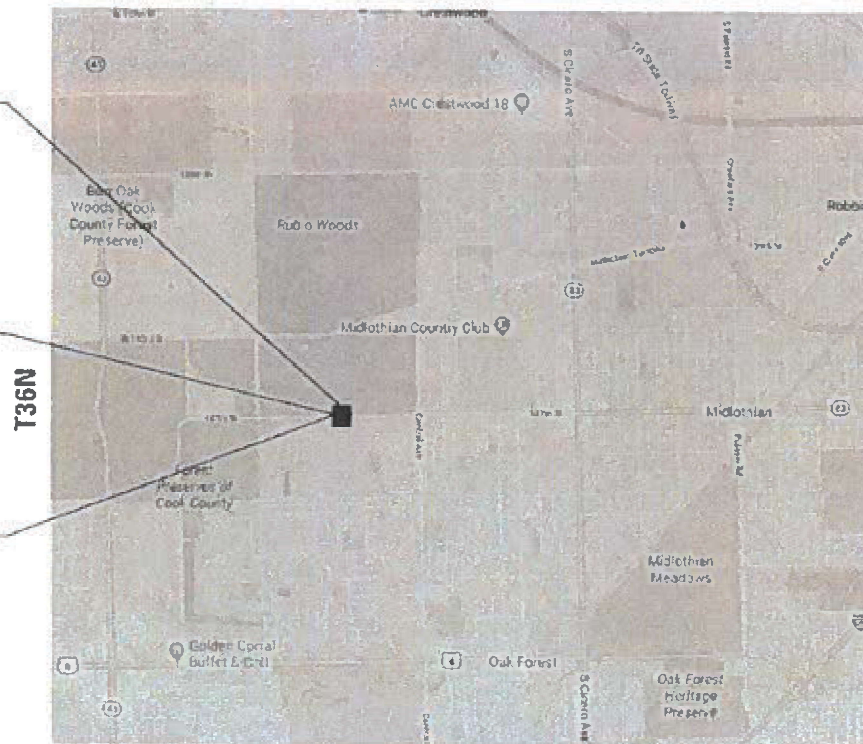
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

END IMPROVEMENT  
STA 520 + 90

CULVERT REPLACEMENT  
STA 520 + 75  
EXIST SN: N/A  
PROP SN: 016-2272

BEGIN IMPROVEMENT  
STA 520 + 60



BREMEN TOWNSHIP

GROSS LENGTH = 351 FT. = 0.07 MILE  
NET LENGTH = 351 FT. = 0.07 MILE



Signed: [Signature]  
Date: 03/05/2020  
License Expires: 11/30/2021  
The seal shown above is valid for Sheets 1-18, 27-32, 37-45



Signed: [Signature]  
Date: 3/5/2020  
License Expires: 11/30/2020  
The seal shown above is valid for Sheets 33-35



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED: March 9, 2020  
[Signature] REGIONAL ENGINEER  
May 8, 2020  
[Signature] ENGINEER OF DESIGN AND ENVIRONMENT  
May 8, 2020  
[Signature] DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

PROJECT ENGINEER: PRAVEEN KAINI, PE (847)705-4237  
PROJECT MANAGER: FAWAD AQUEEL, PE (847)705-4247

CONTRACT NO. 62J28

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX, GENERAL NOTES, STANDARDS
3-7	SUMMARY OF QUANTITIES
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**HIGHWAY STANDARDS**

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006-00	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701311-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

**GENERAL NOTES**

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE CITY OF OAK FOREST, AND THE FOREST PRESERVE OF COOK COUNTY.
- THE CONTRACTOR SHALL INFORM THE COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS DESIGN ENGINEER AT (312) 603-1730 PRIOR TO THE START OF ANY WORK ON THE CONTRACT. A MINIMUM OF FIVE (5) WORKING DAYS ADVANCED NOTICE IS REQUIRED.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE RESIDENT ENGINEER.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE RESIDENT ENGINEER SHALL CONTACT PATRICE HARRIS, AREA TRAFFIC FIELD TECHNICIAN, AT PATRICE.HARRIS@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THIS PROJECT REQUIRES A U.S. ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. AS A CONDITION OF THIS PERMIT, THE CONTACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED WITH THE EXCEPTION OF COFFERDAMS WHICH WILL PAID FOR AS COFFERDAM (TYPE 1) (IN-STREAM/WETLAND WORK) WITH A BASIS OF PAYMENT OF EACH.
- ALL UTILITIES, SCHOOL DISTRICTS, LOCAL POLICE, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS THAT WILL NOT BE REMOVED INCLUDING PREVIOUSLY SEEDED AREAS. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER.
- COMED COMPANY WIRES ARE NOT INSULATED AND EXTRA CAUTION AND VIGILANCE MUST BE ADHERED TO WHEN WORKING AROUND THEM. CONTRACTORS SHOULD ALWAYS USE CAUTION IN OPERATING CRANES AND OR OTHER EQUIPMENT NEAR OVERHEAD ELECTRICAL FACILITIES. THE OCCUPATIONAL HEALTH AND SAFETY ORGANIZATION (OSHA) RULES REQUIRE THAT WORKERS AND EQUIPMENT SHALL NOT APPROACH WITHIN TEN (10) FEET AWAY OF OVERHEAD ELECTRICAL EQUIPMENT WITHOUT APPROPRIATE SUPPLEMENTAL PROTECTION. PLEASE BE CERTAIN THAT ALL WORKERS ON THIS PROJECT HAVE BEEN FULLY TRAINED AND CONFORM TO OSHA RULES AND OTHER APPLICABLE GUIDELINES REGARDING WORKING SAFELY AROUND ELECTRICAL POWER LINES.

**DRAINAGE AND UTILITIES GENERAL NOTES**

- THE CONTRACTOR SHALL MAINTAIN THE SURFACE DRAINAGE OF ALL ROADWAYS DURING CONSTRUCTION OF THIS PROJECT. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS, INLETS, AND CATCH BASINS. THE CONTRACTOR SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER, WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE SAME. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM ALL THESE TEMPORARY CONNECTIONS UNTIL INSTALLATION IS COMPLETE, INCLUDING PAVEMENT. THIS WORK SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT. COORDINATION WITH ALL AGENCIES INVOLVED IS REQUIRED.
- THE LOCATION AND ELEVATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE PROVIDED BY THE OWNERS. THE EXACT LOCATIONS AND ELEVATIONS ARE TO BE VERIFIED BY THE CONTACTOR THROUGH THE OWNERS OF THE UTILITIES.
- THE COST OF MAKING STORM SEWER CONNECTIONS TO EXISTING SEWER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STORM SEWER BEING CONNECTED.
- THE RESIDENT ENGINEER SHALL CONTACT THE VILLAGE OF OAK LAWN A MINIMUM OF 48 HOURS IN ADVANCE OF EXCAVATION.
- A MINIMUM OF TWO (2) FEET OF COVER SHALL BE MAINTAINED ABOVE THE EXISTING WATERMAIN AT ALL TIMES.

**EROSION CONTROL AND LANDSCAPING GENERAL NOTES**

- THE CONTRACTOR SHALL INSTALL PERIMETER EROSION BARRIER PRIOR TO STRIPPING OF VEGETATION.
- RUNOFF FROM EXCAVATED AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES SHOWN IN IDOT STD 280001, AND/OR NRCS DETAILS FROM THE MOST RECENT VERSION OF THE ILLINOIS URBAN MANUAL.
- THE CONTRACTOR SHALL SURROUND ANY NECESSARY EARTH STOCKPILES WITH PERIMETER EROSION BARRIER.
- ALL EROSION CONTROL MEASURES SHOULD BE CHECKED WEEKLY AND AFTER EACH RAINFALL 0.5 INCHES OR GREATER. ADDITIONALLY DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED AFTER EACH SNOWMELT.
- STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN ONE (1) WORKING DAY OF THE TEMPORARY OR PERMANENT CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NO LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION OF WORK IN AN AREA.
- ALL WASTE GENERATED AS A RESULT OF THE PROJECT INCLUDING DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER, SANITARY WASTE, OR ANY OTHER WASTE SHALL BE PROPERLY DISPOSED OF AND BE PREVENTED FROM BEING CARRIED OFF THE SITE BY EITHER WIND OR WATER.
- ALL EXPOSED IDLE EARTH, INCLUDING EARTH STOCKPILES, WILL BE SEEDED WITH TEMPORARY EROSION CONTROL SEEDING. THE APPLICATION RATE FOR TEMPORARY EROSION CONTROL SEEDING IS 100 POUNDS PER ACRE FOR THREE APPLICATIONS.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF ACHIEVING PERMANENT SOIL STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM TEMPORARY MEASURES SHALL BE PROPERLY DISPOSED OF AND THE AREA PERMANENTLY STABILIZED.
- ALL ESC MEASURES WILL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION FOUND ON THE CONSTRUCTION TAB AT (HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/ENVIRONMENT/EROSION-AND-SEDIMENT-CONTROL).
- THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION.
- ANY LOOSE MATERIAL DESPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL.
- THE CONTRACTOR SHOULD PROVIDE TO THE RE A PLAN TO ENSURE THAT A STABILIZED FLOW LINE WILL BE PROVIDED DURING STORM SEWER CONSTRUCTION. THE USE OF A STABILIZED FLOW LINE BETWEEN INSTALLED STORM SEWER AND OPEN DISTURBANCE WILL REDUCE THE POTENTIAL FOR THE OFFSITE DISCHARGE OF SEDIMENT-BEARING WATERS, ESPECIALLY WHEN RAIN IS FORECASTED, SO THAT FLOW WILL NOT ERODE. LACK OF APPROVED PLAN OR FAILURE TO COMPLY WILL RESULT IN AN ESC DEFICIENCY DEDUCTION.
- UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.
- EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THE CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE RE.
- "WETLANDS NO INTRUSION" SIGNAGE SHOULD ALSO BE PROVIDED AT THE BOUNDARY OF ALL UN-IMPACTED WETLANDS AND/OR WOUS. THE CONTRACTOR CAN BORROW THE SIGNS FROM THE BUREAU OF MAINTENANCE. INCLUDE TEMPORARY FENCING AND WETLAND SIGNAGE WITHIN THE EROSION AND SEDIMENT CONTROL STRATEGY.

**COMMITMENTS**

NONE.

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USER NAME = RGal	DESIGNED - RAG	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL INDEX, GENERAL NOTES, STANDARDS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	<b>REV-SEP</b>
DRAWN - CS	CHECKED - JH	REVISED -			1602	2019-051-T	COOK	45	2	
PLOT SCALE = 100.0000' / in.	DATE - 11/8/19	REVISED -			CONTRACT NO. 62J28					
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -			ILLINOIS FED. AID PROJECT					
				SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.

CODE NO.	ITEM	UNIT	100% STATE URBAN TOTAL QUANTITY	CONSTR. CODE
				BOX CULVERT
				0010 S.N. 016-2272
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	486	486
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	124	124
20101000	TEMPORARY FENCE	FOOT	458	458
20200100	EARTH EXCAVATION	CU YD	455	455
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	235	235
20700220	POROUS GRANULAR EMBANKMENT	CU YD	44	44
** 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1118	1118
** 25000210	SEEDING, CLASS 2A	ACRE	0.25	0.25
** 25000314	SEEDING, CLASS 4B	ACRE	0.25	0.25
** 25000324	SEEDING, CLASS 5B	ACRE	0.25	0.25
** 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23	23
** 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23	23
** 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23	23
** 25003310	INTERSEEDING, CLASS 4	ACRE	0.50	0.50

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\* DENOTES SPECIAL PROVISION REQUIRED  
 \*\* DENOTES SPECIALTY ITEM

REV-SEP

USER NAME = RGall	DESIGNED - RAG	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL SUMMARY OF QUANTITIES</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100,0000' / in.	DRAWN - CS	REVISED -					1602	2019-051-T	COOK	45	3
PLOT DATE = 3/17/2020	CHECKED - JH	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 62J28				
DATE - 11/8/19	REVISOR -	REVISED -		ILLINOIS FED. AID PROJECT							

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				80% FED 20% STATE
URBAN				BOX CULVERT
				0010
				S.N. 016-2272
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	113	113
28000305	TEMPORARY DITCH CHECKS	FOOT	240	240
28000400	PERIMETER EROSION BARRIER	FOOT	110	110
28000510	INLET FILTERS	EACH	1	1
* 30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	64	64
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	144	144
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	86	86
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	65	65
40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	9	9
44000100	PAVEMENT REMOVAL	SQ YD	80	80
48101200	AGGREGATE SHOULDERS, TYPE B	TON	5	5
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	302	302
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50104400	CONCRETE HEADWALL REMOVAL	EACH	1	1

\* DENOTES SPECIAL PROVISION REQUIRED

\*\* DENOTES SPECIALTY ITEM

REV-SEP

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PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	4
			CONTRACT NO. 62J28	
		ILLINOIS	FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				80% FED 20% STATE
				BOX CULVERT 0010 S.N. 016-2272
				URBAN
50800105	REINFORCEMENT BARS	POUND	4140	4140
51500100	NAME PLATES	EACH	1	1
54003000	CONCRETE BOX CULVERTS	CU YD	20.4	20.4
54010603	PRECAST CONCRETE BOX CULVERTS 6' X 3'	FOOT	36	36
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	108	108
55100700	STORM SEWER REMOVAL 15"	FOOT	117	117
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	51	51
63200310	GUARDRAIL REMOVAL	FOOT	383	383
* 67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
67100100	MOBILIZATION	L SUM	1	1
** 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	100	100
** 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4

\* DENOTES SPECIAL PROVISION REQUIRED  
 \*\* DENOTES SPECIALTY ITEM

REV-SEP

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PLOT DATE = 3/17/2020	CHECKED - JH	REVISED -
	DATE - 11/8/19	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
 SUMMARY OF QUANTITIES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	5
CONTRACT NO. 62J28				
SCALE:		SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTR. CODE
				80% FED 20% STATE BOX CULVERT 0010 S.N. 016-2272
** A2000216	TREE, ACER X FREEMANII MARMO (MARMO FREEMAN MAPLE), 2" CALIPER, BALLED AND BURLAPPED	EACH	3	3
** A2002916	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4
** A2C022G3	TREE, CARYA ILLINOENSIS (PECAN), CONTAINER GROWN, 3-GALLON	EACH	10	10
** A2C026G3	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), CONTAINER GROWN, 3-GALLON	EACH	10	10
** A2C040G3	TREE, PLATANUS OCCIDENTALIS (SYCAMORE), CONTAINER GROWN, 3-GALLON	EACH	10	10
** A2C056G3	TREE, QUERCUS MACROCARPA (BURR OAK), CONTAINER GROWN, 3-GALLON	EACH	10	10
** A2C060G3	TREE, QUERCUS PALUSTRIS (PIN OAK), CONTAINER GROWN, 3-GALLON	EACH	10	10
** B2000564	TREE, AMELANCHIER CANADENSIS (SHADBLOW SERVICEBERRY), 5' HEIGHT, SHRUB FORM, BALLED AND BURLAPPED	EACH	15	15
** B2001064	TREE, BETULA NIGRA LITTLE KING (FOX VALLEY RIVER BIRCH), 5' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED	EACH	15	15
** C2002736	SHRUB, EUONYMUS ATROPURPUREA (EASTERN WAHOO), 3' HEIGHT, BALLED AND BURLAPPED	EACH	10	10
* K0029614	WEED CONTROL, AQUATIC	GALLON	1	1
* K0029634	WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE	POUND	5	5
* X0326806	WASHOUT BASIN	L SUM	1	1
* X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	51	51

\* DENOTES SPECIAL PROVISION REQUIRED  
 \*\* DENOTES SPECIALTY ITEM

REV-SEP

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USER NAME = RGall	DESIGNED - RAG	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - CS	REVISIED -
PLOT DATE = 3/17/2020	CHECKED - JH	REVISIED -
	DATE - 11/8/19	REVISIED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
SUMMARY OF QUANTITIES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	6
			CONTRACT NO. 62J28	
		ILLINOIS	FED. AID PROJECT	

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTR. CODE
				80% FED 20% STATE BOX CULVERT 0010 S.N. 016-2272
* X0900075	COFFERDAM (TYPE 1) (IN-STREAM/WETLAND WORK)	EACH	1	1
* X2503110	MOWING (SPECIAL)	ACRE	0.50	0.50
* X2511630	EROSION CONTROL BLANKET (SPECIAL)	SQ YD	3615	3615
* X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
<input type="checkbox"/> Z0005300	BOX CULVERTS TO BE CLEANED	EACH	1	1
* Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
* Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4
* Z0064800	SELECTIVE CLEARING	UNIT	20	20
* Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	4	4
** 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	160	160
** 66900530	SOIL DISPOSAL ANALYSIS	EACH	2	2
** 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	1
** 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1	1
** 66901006	REGULATED SUBSTANCES MONITORING	DAYS	10	10

- NON-PART. 100% STATE
- \* DENOTES SPECIAL PROVISION REQUIRED
- \*\* DENOTES SPECIALTY ITEM

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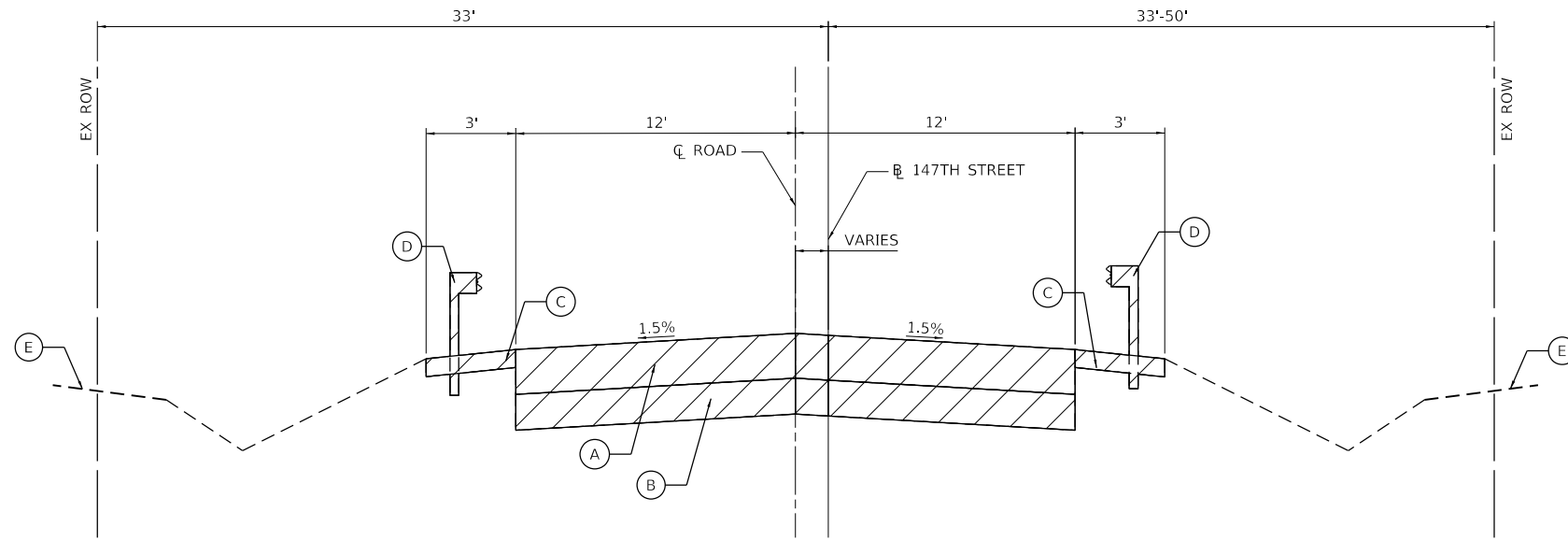
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
SUMMARY OF QUANTITIES**

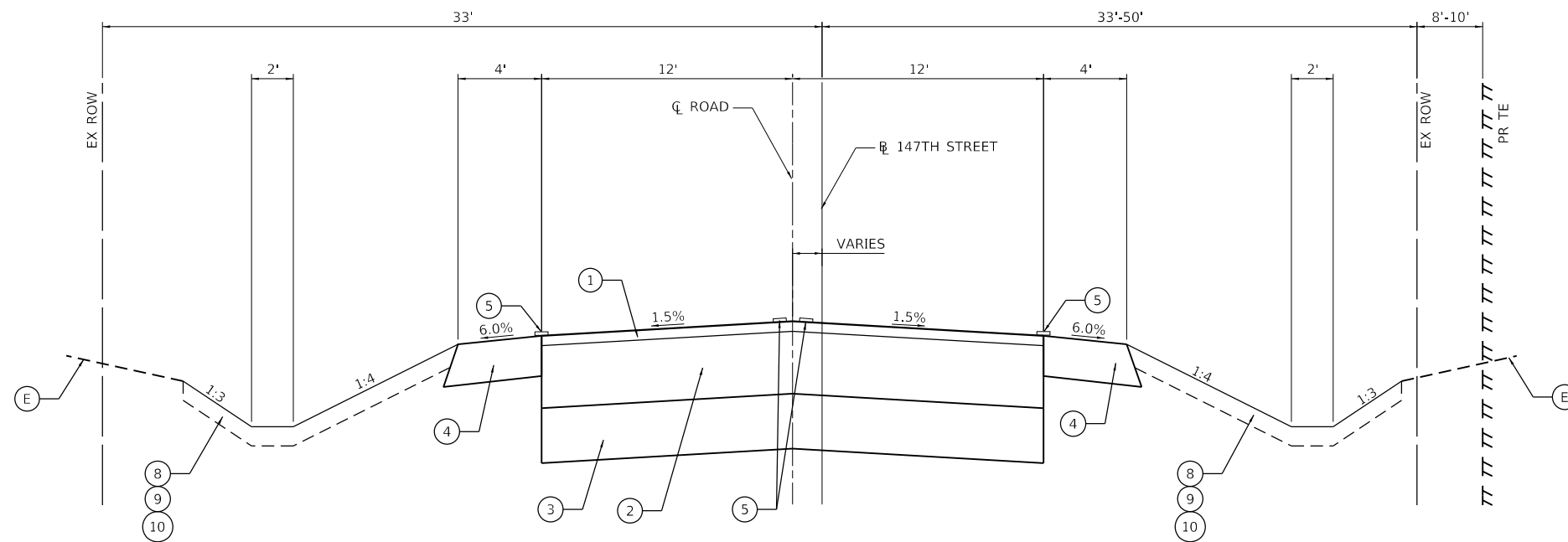
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62J28	

REV-SEP



**EXISTING TYPICAL SECTION**  
**147TH STREET**  
STA. 520+60.00 TO STA. 520+90.00



**PROPOSED TYPICAL SECTION**  
**147TH STREET**  
STA. 520+60.00 TO STA. 520+71.42  
STA. 520+78.58 TO STA. 520+90.00

**EXISTING LEGEND**

- (A) EXISTING HMA PAVEMENT, 8 1/2" \*
- (B) EXISTING CONCRETE BASE COURSE, 4" \*
- (C) EXISTING AGGREGATE SHOULDER
- (D) EXISTING GUARDRAIL
- (E) EXISTING GROUND
- DENOTES REMOVAL ITEM

**PROPOSED LEGEND**

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70, 2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 \*\*
- (3) AGGREGATE SUBGRADE IMPROVEMENT 12" \*\*\*
- (4) AGGREGATE SHOULDERS TYPE B, 8" \*\*\*\*
- (5) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
- (6) PROPOSED HEADWALL (SEE STRUCTURAL PLANS FOR CULVERT)
- (7) PROPOSED CULVERT (SEE STRUCTURAL PLANS FOR CULVERT)
- (8) EROSION CONTROL BLANKET (SPECIAL)
- (9) SEEDING CLASS 2A
- (10) TOPSOIL FURNISH AND PLACE, 4"
- (11) SEEDING CLASS 4B
- (12) SEEDING CLASS 5B

**MIXTURE REQUIREMENTS**

MIXTURE TYPE	AIR VOIDS @ NDES	QMP
PROPOSED PAVEMENT		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70, 2"	4% @ 70 GYR	QC/QA
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 16 1/4" (VARIES) **	4% @ 70 GYR	QC/QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP); PAY FOR PERFORMANCE (PFP)		

**NOTES**

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LB/SY/IN.
  2. 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 DISTRICT ONE SPECIAL PROVISIONS.
  3. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
  4. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.
- \* SEE SOIL BORING LOGS FOR EXISTING PAVEMENT THICKNESS.
- \*\* DEPTH OF HMA BINDER COURSE PLACED OVER CULVERT VARIES FROM 6" MAX. AT CENTER OF CULVERT TO 4" MIN. AT EDGE OF PAVEMENT. DEPTH OF HMA BINDER COURSE AT ALL OTHER LOCATIONS SHALL BE 16 1/4".
- \*\*\* AGGREGATE SUBGRADE IMPROVEMENT 12" NOT PLACED OVER CULVERT.
- \*\*\*\* AGGREGATE SHOULDER OVER CULVERT VARIES FROM 6" MAX. AT EDGE OF PAVEMENT TO 5" MIN. AT EDGE OF SHOULDER. DEPTH OF AGGREGATE SHOULDER AT ALL OTHER LOCATIONS SHALL BE 8".

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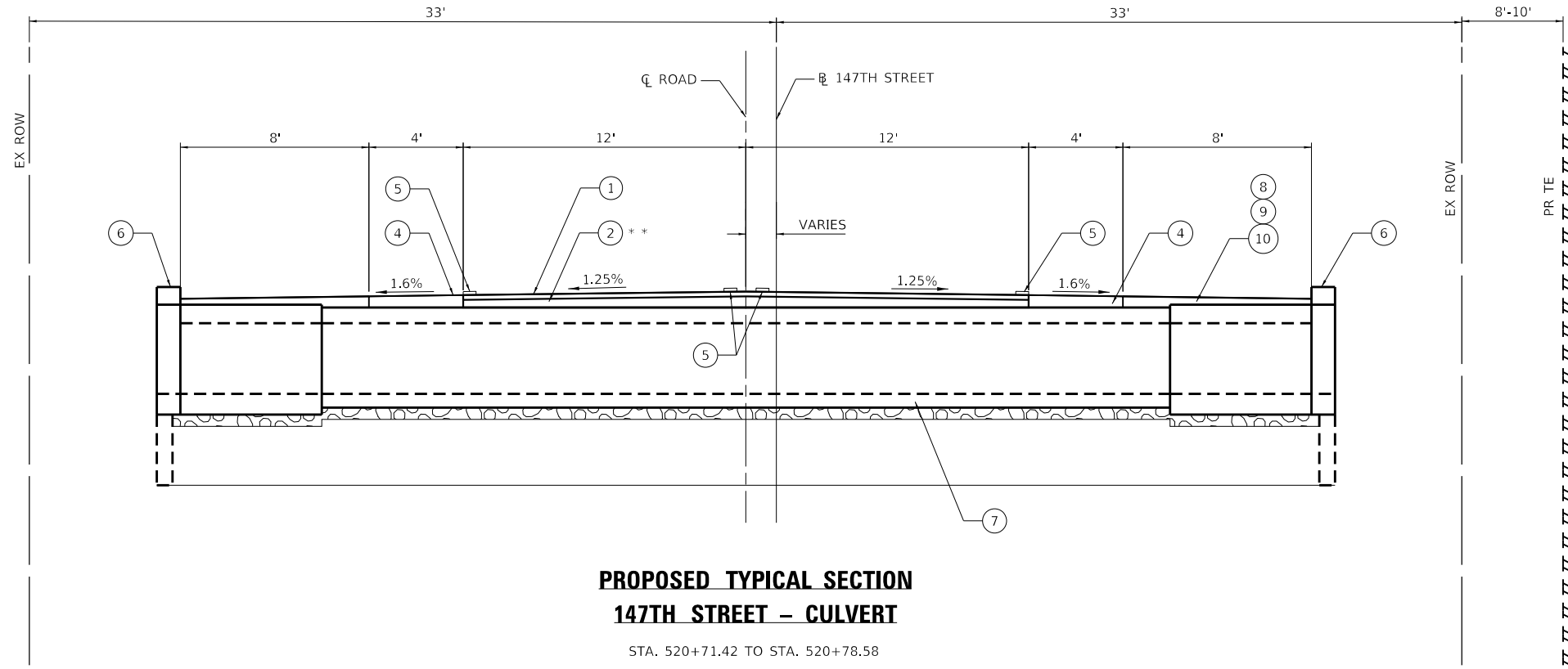
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL**  
**TYPICAL SECTIONS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	8
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				





**PROPOSED TYPICAL SECTION  
147TH STREET - CULVERT**

STA. 520+71.42 TO STA. 520+78.58

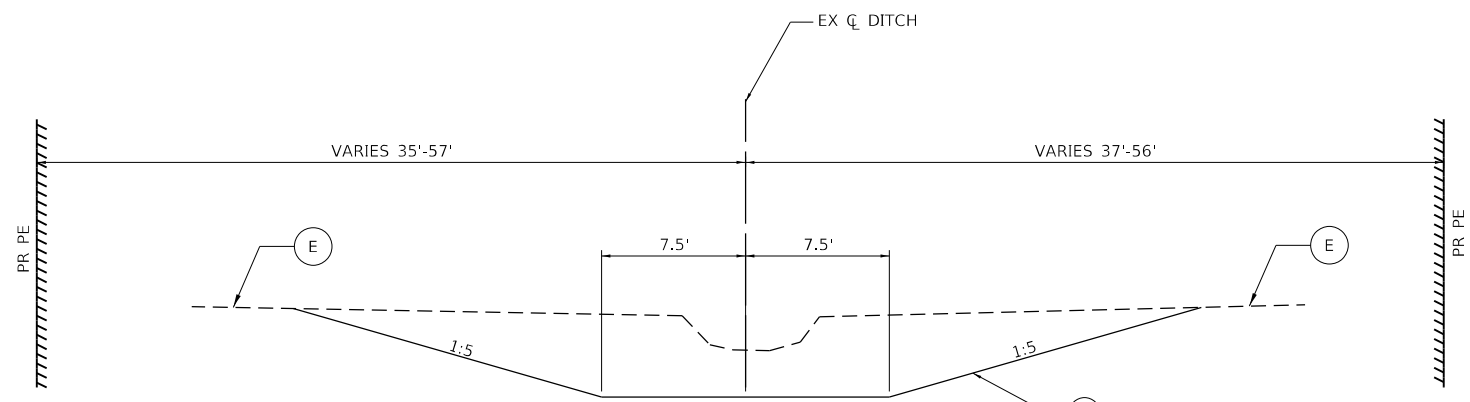
**EXISTING LEGEND**

- (A) EXISTING HMA PAVEMENT, 8 1/2" \*
  - (B) EXISTING CONCRETE BASE COURSE, 4" \*
  - (C) EXISTING AGGREGATE SHOULDER
  - (D) EXISTING GUARDRAIL
  - (E) EXISTING GROUND
- ▨ DENOTES REMOVAL ITEM

**PROPOSED LEGEND**

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70, 2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 \*\*
- (3) AGGREGATE SUBGRADE IMPROVEMENT 12" \*\*\*
- (4) AGGREGATE SHOULDERS TYPE B \*\*\*\*
- (5) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
- (6) PROPOSED HEADWALL (SEE STRUCTURAL PLANS FOR CULVERT)
- (7) PROPOSED CULVERT (SEE STRUCTURAL PLANS FOR CULVERT)
- (8) EROSION CONTROL BLANKET (SPECIAL)
- (9) SEEDING CLASS 2A
- (10) TOPSOIL FURNISH AND PLACE, 4"
- (11) SEEDING CLASS 4B
- (12) SEEDING CLASS 5B

\* SEE SOIL BORING LOGS FOR EXISTING PAVEMENT THICKNESS.  
 \*\* DEPTH OF HMA BINDER COURSE PLACED OVER CULVERT VARIES FROM 6" MAX. AT CENTER OF CULVERT TO 4" MIN. AT EDGE OF PAVEMENT. DEPTH OF HMA BINDER COURSE AT ALL OTHER LOCATIONS SHALL BE 16 1/4".  
 \*\*\* AGGREGATE SUBGRADE IMPROVEMENT 12" NOT PLACED OVER CULVERT.  
 \*\*\*\* AGGREGATE SHOULDER OVER CULVERT VARIES FROM 6" MAX. AT EDGE OF PAVEMENT TO 5" MIN. AT EDGE OF SHOULDER. DEPTH OF AGGREGATE SHOULDER AT ALL OTHER LOCATIONS SHALL BE 8".



**PROPOSED TYPICAL SECTION  
147TH STREET - STREAM**

(LOOKING NORTH)  
STA. 10+26.50 TO STA. 12+02.79

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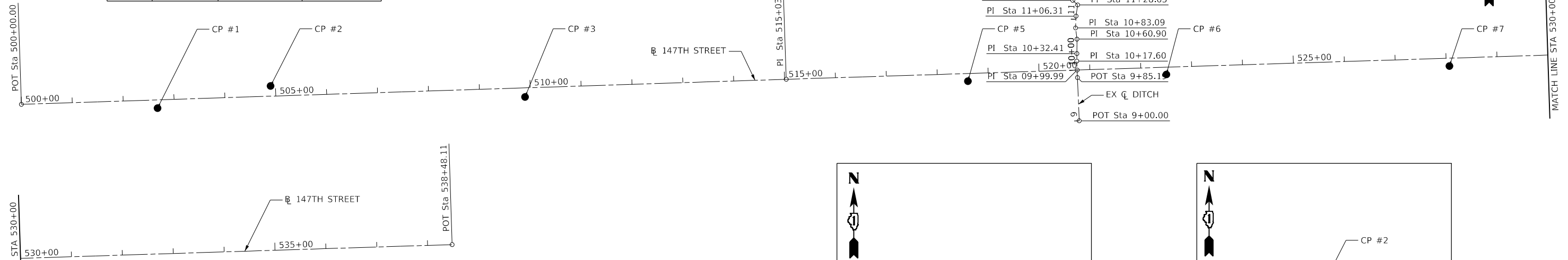
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL</b>			
<b>TYPICAL SECTIONS</b>			
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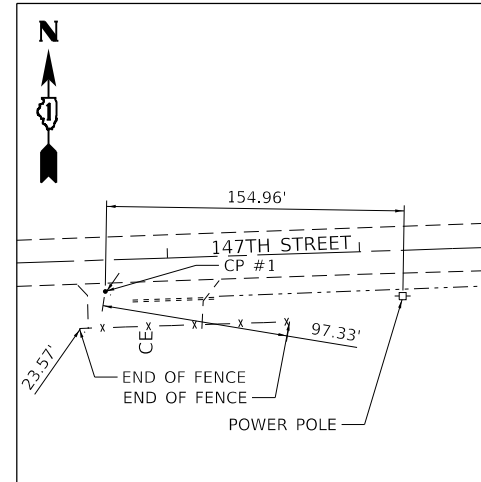
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CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				



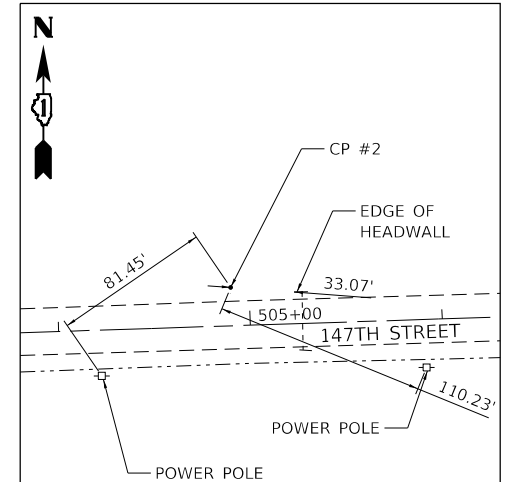
ALIGNMENT COORDINATES - B 147TH STREET			
POINT	STATION	N	E
POT	500+00.00	1806320.4312	1138465.5506
PI	515+03.25	1806369.6932	1139967.9912
POT	538+48.11	1806444.3962	1142311.6628



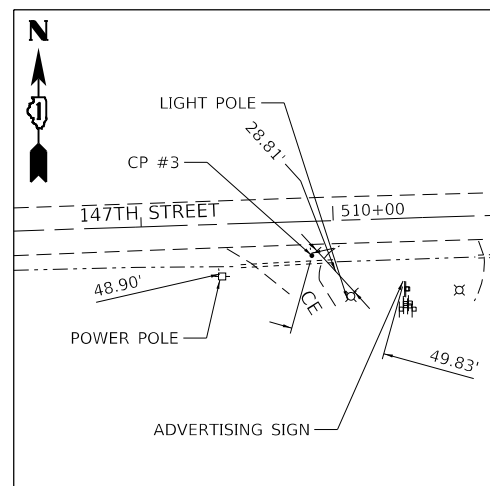
ALIGNMENT COORDINATES - C DITCH			
POINT	STATION	N	E
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PI	9+99.99	1806387.9089	1140539.4759
PI	10+17.60	1806405.5011	1140538.7175
PI	10+32.41	1806420.3120	1140538.8756
PI	10+60.90	1806448.8022	1140539.1299
PI	10+83.09	1806470.8150	1140536.3302
PI	11+06.31	1806494.0208	1140537.2692
PI	11+28.63	1806516.1035	1140540.4572
PI	11+41.75	1806525.0322	1140530.8442
PI	11+55.34	1806538.0764	1140526.9997
PI	11+88.08	1806547.6561	1140495.6983
PI	12+01.28	1806554.8196	1140484.6083
PI	12+11.58	1806565.0875	1140483.8511
PI	12+29.14	1806580.0050	1140474.5905
PI	12+38.68	1806583.4346	1140465.6880
PI	12+63.29	1806601.6258	1140449.0999
POT	12+79.26	1806617.3959	1140446.6175



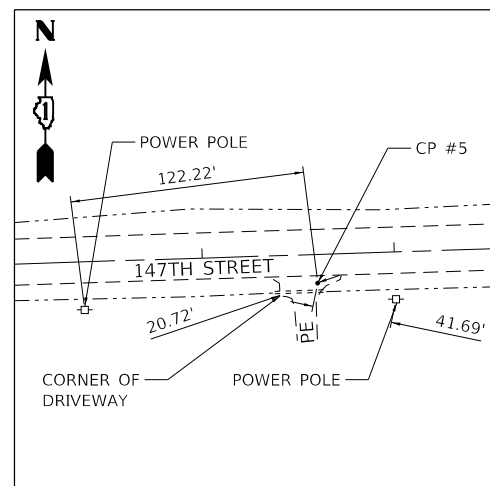
**CONTROL POINT #1**  
 PK NAIL  
 STA. 502+67.00, 16.35' RT  
 N: 1806312.8427, E: 1138732.9395  
 EL: 666.809



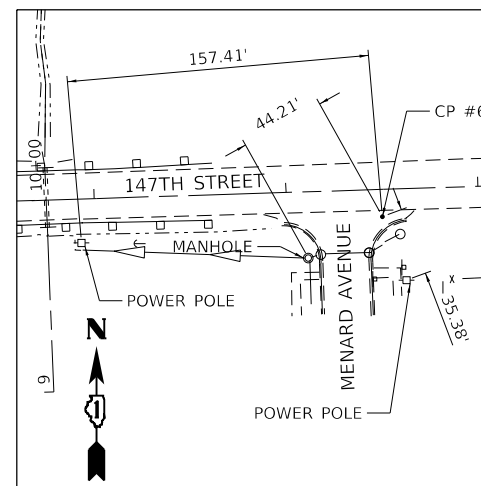
**CONTROL POINT #2**  
 IRON ROD W/ CAP  
 STA. 504+90.42, 19.98' LT  
 N: 1806356.4707, E: 1138955.0475  
 EL: 663.723



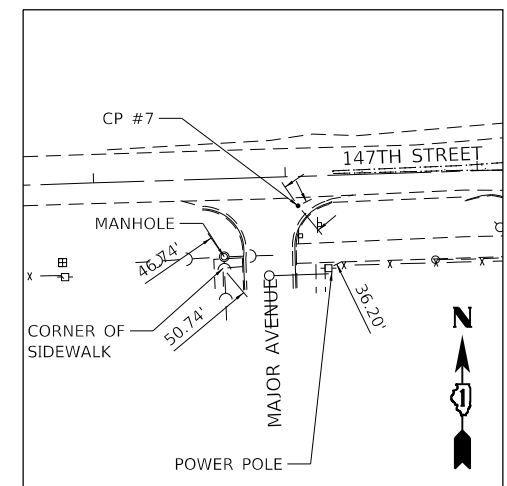
**CONTROL POINT #3**  
 PK NAIL  
 STA. 509+89.21, 17.88' RT  
 N: 1806334.9738, E: 1139454.8203  
 EL: 666.105



**CONTROL POINT #5**  
 PK NAIL  
 STA. 518+59.71, 14.94' RT  
 N: 1806366.1142, E: 1140324.7493  
 EL: 662.606



**CONTROL POINT #6**  
 PK NAIL  
 STA. 522+49.82, 14.24' RT  
 N: 1806379.2430, E: 1140714.6350  
 EL: 661.664



**CONTROL POINT #7**  
 PK NAIL  
 STA. 528+06.09, 15.31' RT  
 N: 1806395.8991, E: 1141270.6608  
 EL: 665.577

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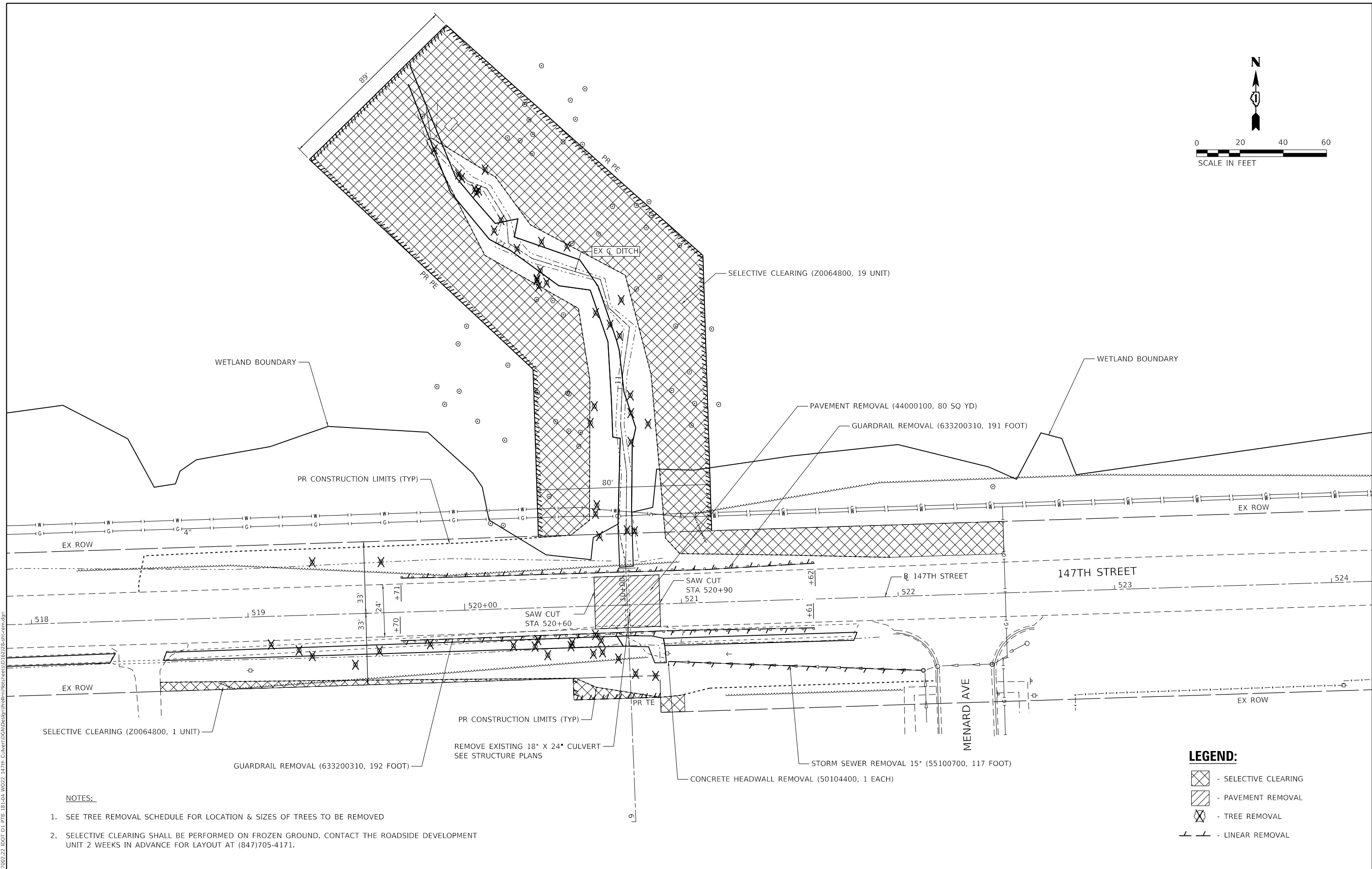
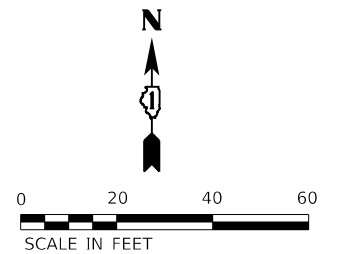
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
 ALIGNMENT, TIES, AND BENCHMARK**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	11
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				



**NOTES:**

- SEE TREE REMOVAL SCHEDULE FOR LOCATION & SIZES OF TREES TO BE REMOVED
- SELECTIVE CLEARING SHALL BE PERFORMED ON FROZEN GROUND. CONTACT THE ROADSIDE DEVELOPMENT UNIT 2 WEEKS IN ADVANCE FOR LAYOUT AT (847)705-4171.

**LEGEND:**

	- SELECTIVE CLEARING
	- PAVEMENT REMOVAL
	- TREE REMOVAL
	- LINEAR REMOVAL

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL REMOVAL PLAN</b>				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

NOTES:

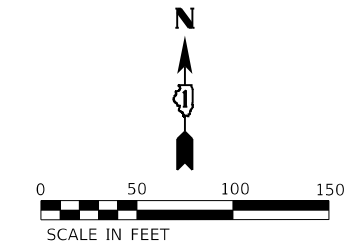
- SEE STRUCTURE PLANS FOR CULVERT DETAILS.
- SEE GRADING AND DRAINAGE PLAN FOR DRAINAGE DETAILS.

\* SEE SOIL BORING LOGS FOR EXISTING PAVEMENT THICKNESS.

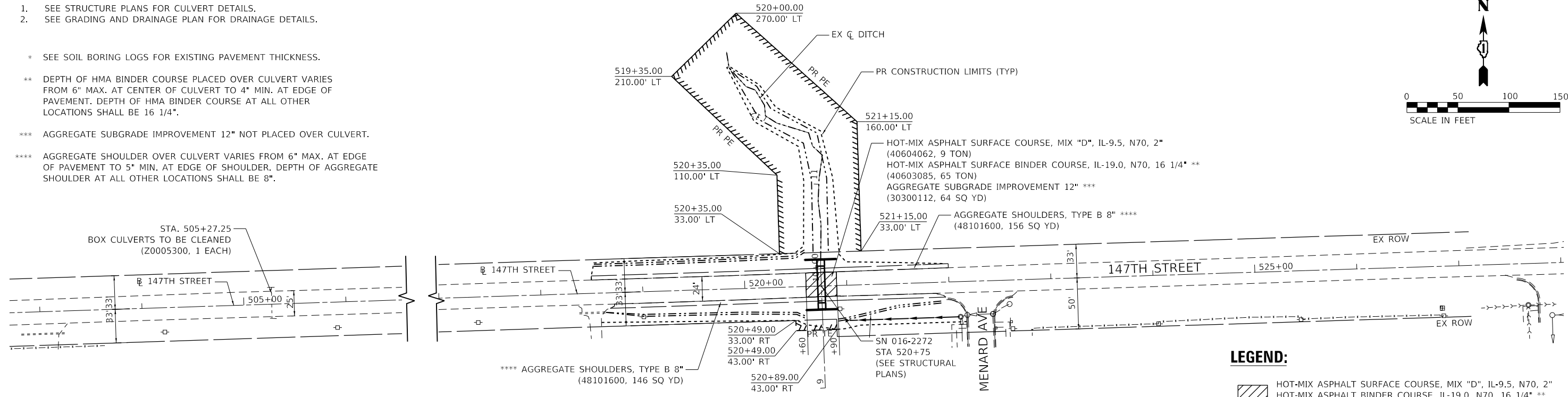
\*\* DEPTH OF HMA BINDER COURSE PLACED OVER CULVERT VARIES FROM 6" MAX. AT CENTER OF CULVERT TO 4" MIN. AT EDGE OF PAVEMENT. DEPTH OF HMA BINDER COURSE AT ALL OTHER LOCATIONS SHALL BE 16 1/4".

\*\*\* AGGREGATE SUBGRADE IMPROVEMENT 12" NOT PLACED OVER CULVERT.

\*\*\*\* AGGREGATE SHOULDER OVER CULVERT VARIES FROM 6" MAX. AT EDGE OF PAVEMENT TO 5" MIN. AT EDGE OF SHOULDER. DEPTH OF AGGREGATE SHOULDER AT ALL OTHER LOCATIONS SHALL BE 8".



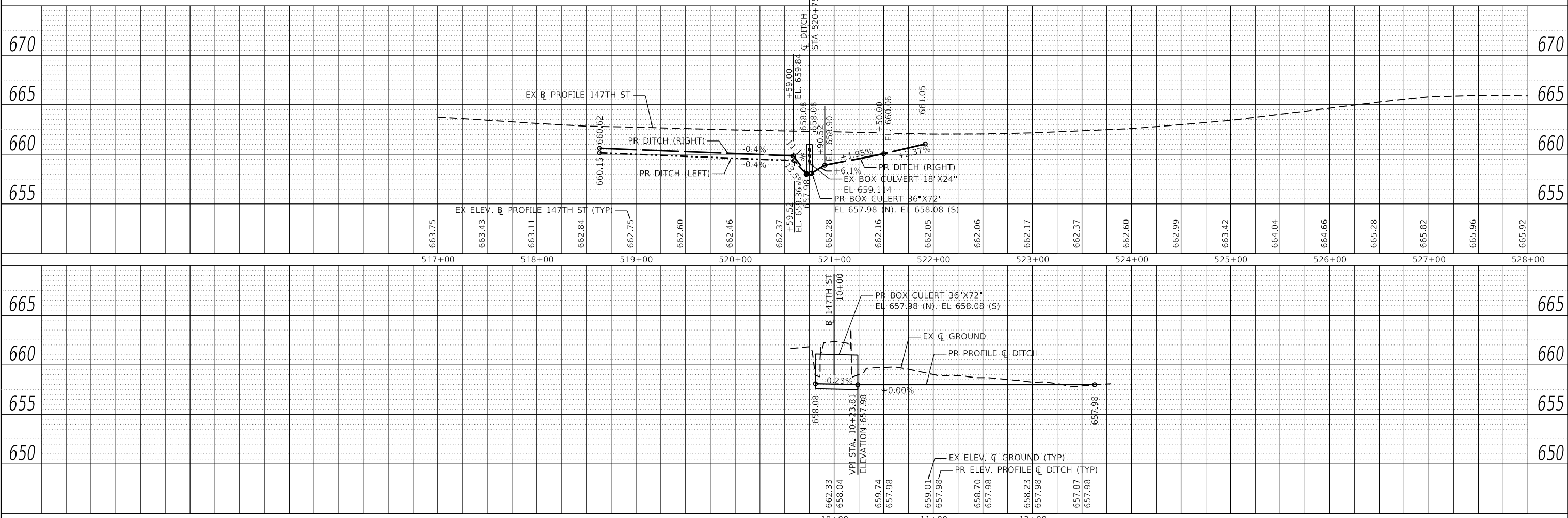
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	CHECKED	
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	BY	



**LEGEND:**

	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70, 2"
	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 16 1/4" **
	AGGREGATE SUBGRADE IMPROVEMENT, 12" ***
	DITCH FLOWLINE

PROFILE	SURVIVED	DATE
	PLOTTED	
	GRADES	
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	NOTATION	
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	BY	



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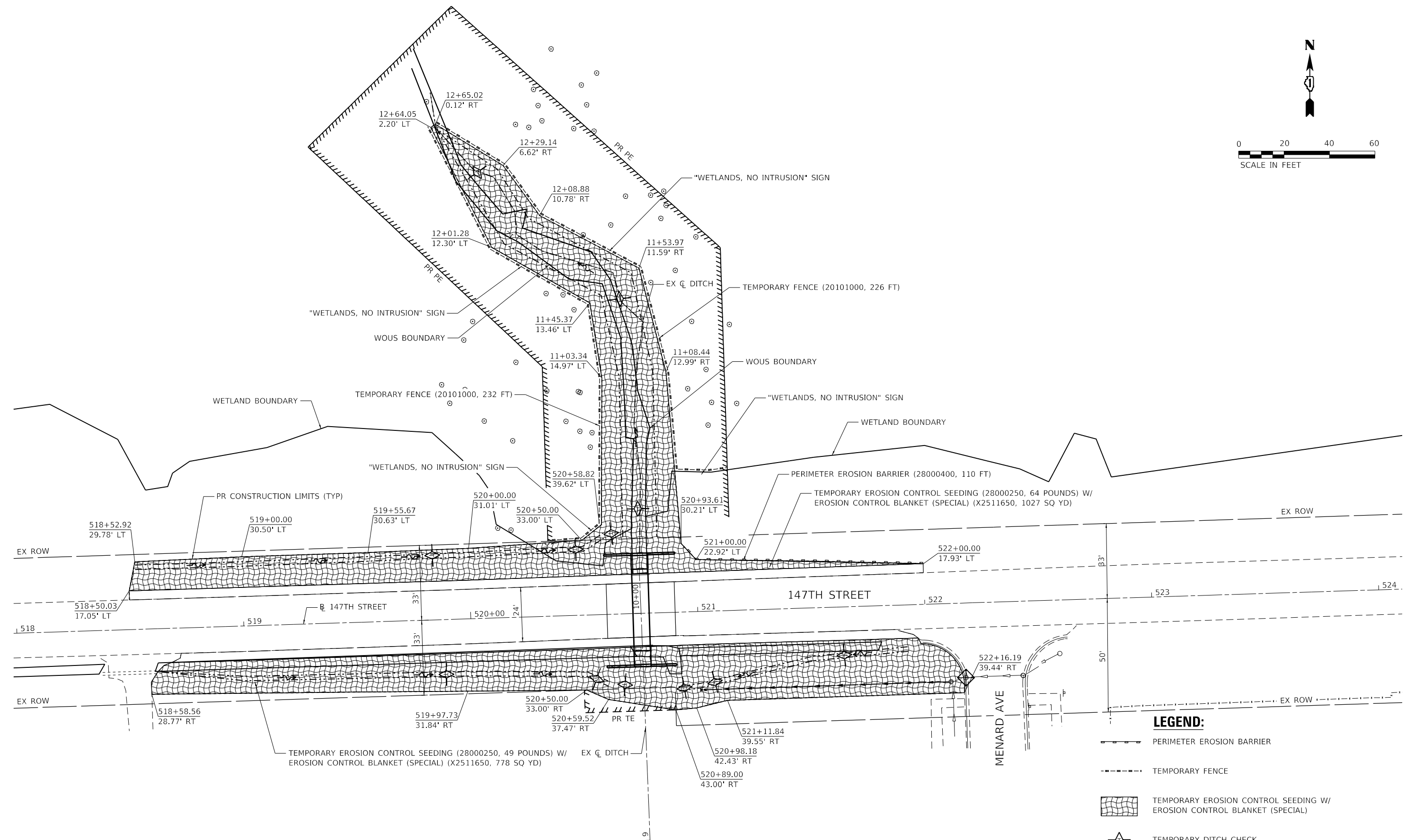
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL</b>			
<b>PLAN AND PROFILE</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	13
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				





**LEGEND:**

	PERIMETER EROSION BARRIER
	TEMPORARY FENCE
	TEMPORARY EROSION CONTROL SEEDING W/ EROSION CONTROL BLANKET (SPECIAL)
	TEMPORARY DITCH CHECK
	INLET FILTER

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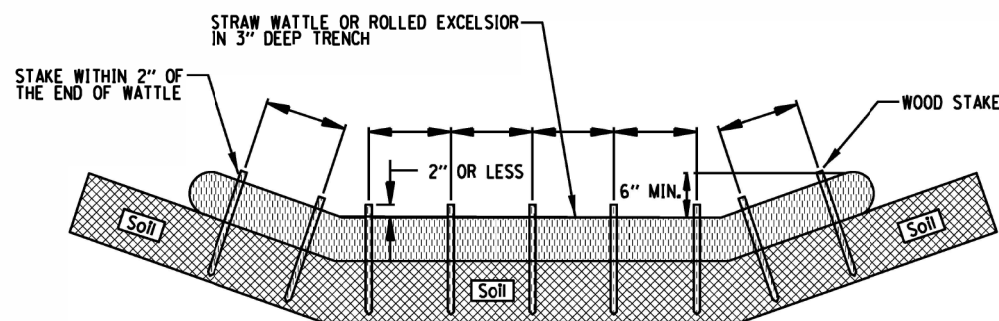
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL</b> <b>TEMPORARY EROSION CONTROL PLAN</b>			
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	STA.	TO	STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

# ROLLED EROSION CONTROL PRODUCTS

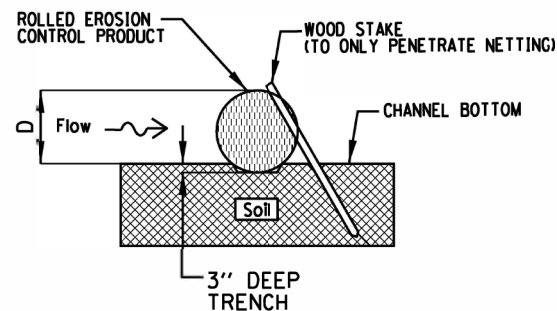
## STAKING PATTERN GUIDE



### NOTES:

1. OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
2. 4' SPACING FOR WATTLES.
3. 2' SPACING FOR ROLLED EXCELSIOR.
4. OR SPACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

## STAKE DETAIL



### NOTES:

1. DRAWINGS ARE NOT TO SCALE.
2. ENDS OF WATTLES OR ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6" UPSLOPE.
3. RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG.
4. STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLE MORE THAN 2".
5. SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.

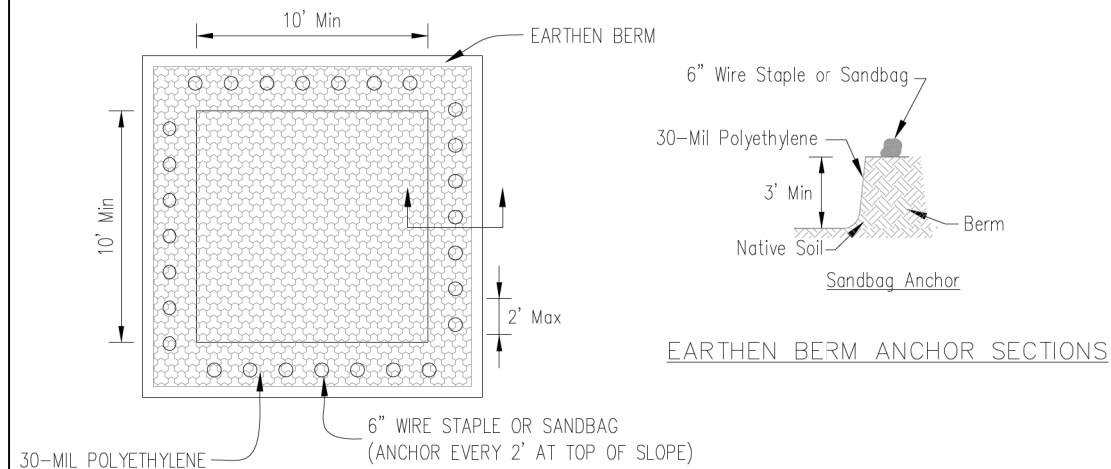
### REFERENCE

Project \_\_\_\_\_  
 Designed \_\_\_\_\_ Date \_\_\_\_\_  
 Checked \_\_\_\_\_ Date \_\_\_\_\_  
 Approved \_\_\_\_\_ Date \_\_\_\_\_

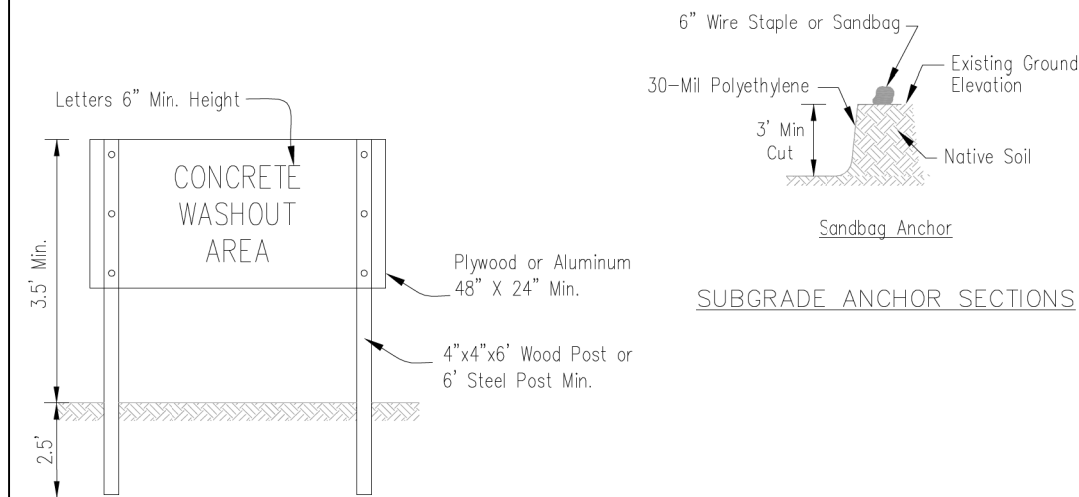


### STANDARD DWG. NO.

IUM-514  
 SHEET 1 OF 1  
 DATE 08-2-2019



## PLAN VIEW



## SIGN DETAIL

### NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

Sheet 2 of 3  
 Drawn IUM-514-DT  
 Date 6/8/19

## TEMPORARY CONCRETE WASHOUT FACILITY - EARTHEN TYPE

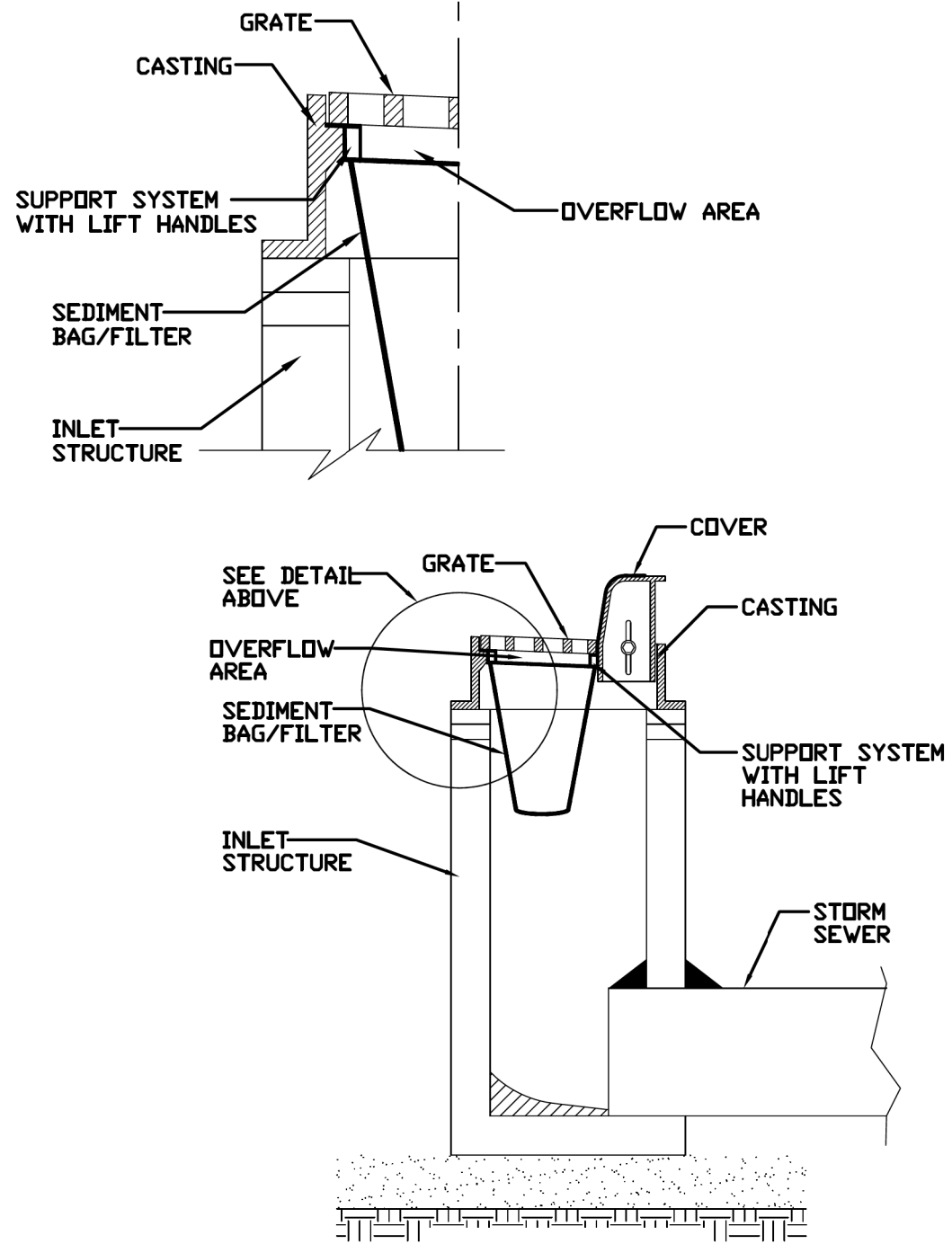
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 Drawn B. JOHNSON 6/8/19  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_

USER NAME = RGal	DESIGNED - RAG	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - CS	REVISED -
PLOT DATE = 3/17/2020	CHECKED - JH	REVISED -
	DATE - 11/8/19	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	16
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				



# INLET PROTECTION - PAVED AREAS DROP-IN PROTECTION



REFERENCE  
 Project \_\_\_\_\_  
 Designed \_\_\_\_\_ Date \_\_\_\_\_  
 Checked \_\_\_\_\_ Date \_\_\_\_\_  
 Approved \_\_\_\_\_ Date \_\_\_\_\_



STANDARD DWG. NO.  
**IUM-561D**  
 SHEET 1 OF 1  
 DATE 01-11-11

MODEL: D:\d\h\it  
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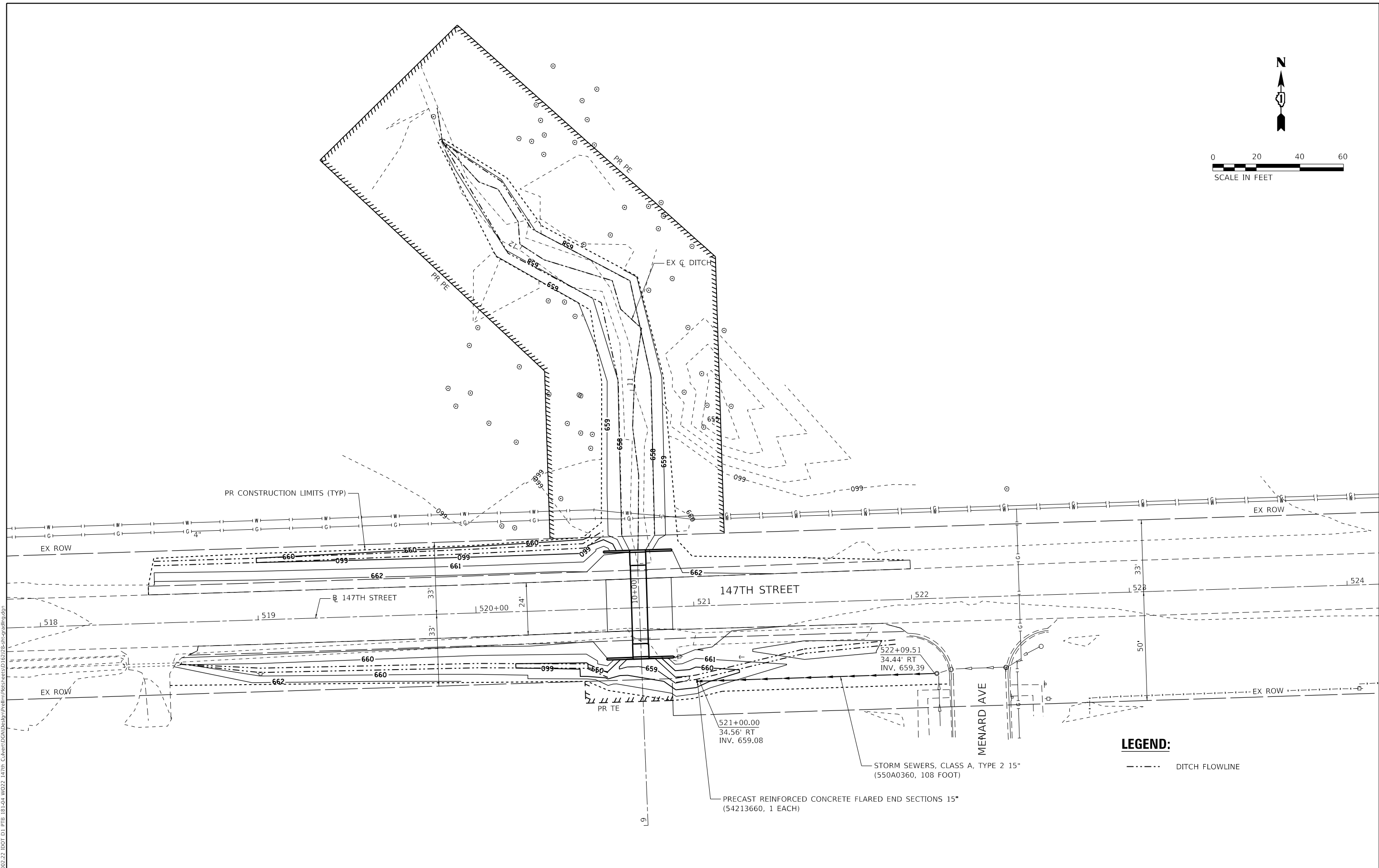
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PLOT SCALE = 100,0000' / in.	DRAWN - CS	REVISED -
PLOT DATE = 3/17/2020	CHECKED - JH	REVISED -
	DATE - 11/8/19	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
EROSION CONTROL DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	17
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				



**LEGEND:**  
 - - - - - DITCH FLOWLINE

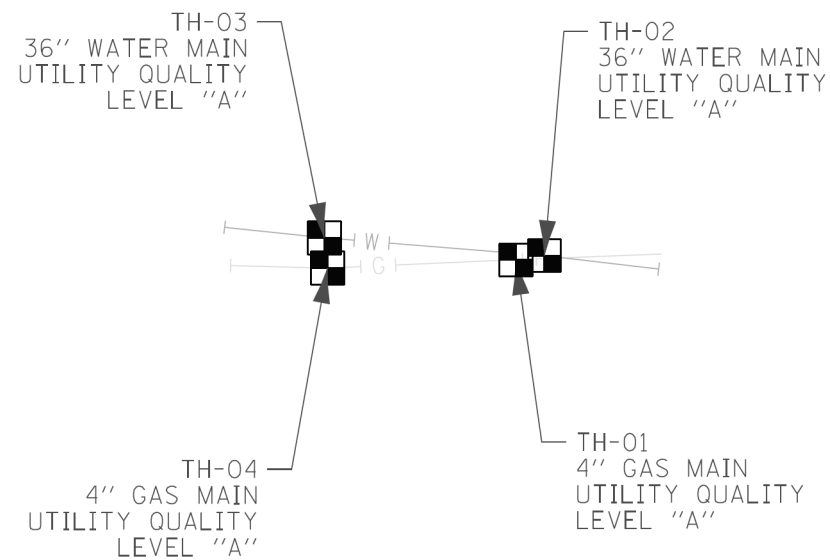
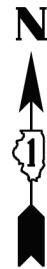
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USER NAME = RGal	DESIGNED - RAG	REVISED -
	DRAWN - CS	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -

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

<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL</b> <b>GRADING &amp; DRAINAGE PLAN</b>			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	18
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				



147th ST.

MENARD AVE.

IDOT W.O. 226

**ASCE STANDARDS OF DEPICTION OF SUBSURFACE UTILITIES**

**QUALITY LEVEL A (OLA)**  
 INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. QUALITY LEVEL A DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT AND REDUCED ONTO PLAN DOCUMENTS.

**QUALITY LEVEL B (QLB)**  
 INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

**QUALITY LEVEL C (QLC)**  
 INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGEMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

**QUALITY LEVEL D (QLD)**  
 INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

**GENERAL NOTES:**

WGI INC. HAS EXERCISED ITS BEST PROFESSIONAL EXPERTISE AND GEOPHYSICAL PROSPECTING TECHNIQUES TO DEVELOP THIS MAPPING OF SUBSURFACE UTILITIES WITHIN THE PROJECT LIMITS.

WGI INC. DOES NOT GUARANTEE THAT UTILITIES SHOWN COMPRISE ALL UTILITIES WITHIN THE PROJECT AREA.

WGI'S FIELD INVESTIGATION WAS PERFORMED ON 02/28/2020. CHANGES TO UTILITIES AFTER 02/28/2020 MAY HAVE BEEN MADE AND THEREFORE MAY RESULT IN VARIANCES FROM THIS PLAN IF DEEMED ADVISABLE PRIOR TO FINAL DESIGN AND CONSTRUCTION.

FIELD LOCATED UTILITIES MEET THE FEDERAL HIGHWAY ADMINISTRATION DEFINITION FOR "QUALITY LEVEL B" (QLB) STANDARDS.

UTILITY SIZE AND INFORMATION IS BASED ON BEST AVAILABLE FIELD AND RECORD INFORMATION.

**UTILITY LEGEND:**

- A — - AERIAL
- O — - UNKNOWN UTILITY
- CTV — - CABLE TV
- T — - TELEPHONE
- G — - GAS
- E — - ELECTRIC
- E — - TRAFFIC SIGNAL/LIGHTING
- W — - WATER
- FM — - FORCE MAIN
- FO — - FIBER OPTIC
- - TEST HOLE
- EOI - END OF INFORMATION
- ED - ELECTRONIC DEPTH



*John J. Bellis*  
 signature  
 03/12/2020  
 date

license expires 11/30/2021



Sanchez & Associates, P.C.  
 8604 W. Catalpa Avenue, Suite 912  
 Chicago, IL 60656  
 Phone No. (773) 444-0144



2001 Butterfield Road, Suite 410  
 Downers Grove, IL 60515  
 Phone No. (630) 307-3800  
 Fax No. (630) 307-7030  
 Cert No. 6091 - LB No. 7055

USER NAME = Erick.Maleza	DESIGNED -	REVISED -
	DRAWN - EM	REVISED -
PLOT SCALE = 20,0000' / in.	CHECKED - EG	REVISED -
PLOT DATE = 3/12/2020	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**147th ST. OVER TRIBUTARY C TO CAL-SAG CHANNEL  
 OAK FOREST, ILLINOIS**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

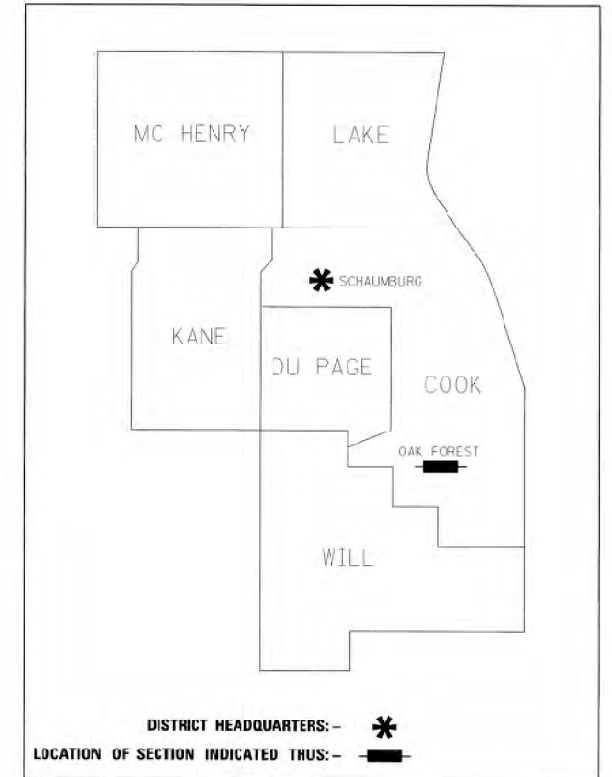
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	19
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PLAT OF HIGHWAYS

**ROUTE: 147TH STREET  
SECTION  
COUNTY: COOK  
LIMITS: TRIBUTARY C CAL-SAG  
JOB NO.: R-90-018-17**

PARCEL NUMBER	OWNER	SHEET NUMBER	PROPERTY ACQUIRED BY
0LR0002PE	THE FOREST PRESERVE DISTRICT OF COOK COUNTY	3, 6, 7	19182 46096
0LR0001TE	FATHER MARTIN WINTERS	3	18 L 050937



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



**LOCATION MAP**

GROSS LENGTH = x.xx FT. = x.xxx MILE  
NET LENGTH = x.xx FT. = x.xxx MILE

**IDOT USE ONLY**

MODEL: D:\p1\17002.22 IDOT D1 P1B 1B1-04 W022 147th Culvert\CGM\Design\Prelim\PreSheets\01E2128-shc-P01H-01.dgn

USER NAME = RGall	DESIGNED - RAG	REVISED -
	DRAWN - CS	REVISED -
PLOT SCALE = 2,000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

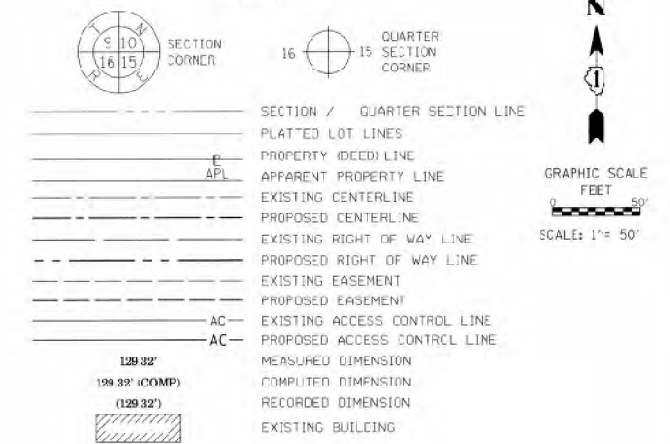
**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
PLAT OF HIGHWAYS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	20
CONTRACT NO. 62J28				
ILLINOIS		FED. AID PROJECT		

PART OF SECTION 8, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE 3RD P.M.  
COOK COUNTY, ILLINOIS

LEGEND



BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.

- IRON PIPE OR ROD FOUND
- + CUT CROSS FOUND OR SET
- "MAG" NAIL SET
- 5 / 8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- B11 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- B12
- B13
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS )  
  )SS  
COUNTY OF COOK                  )

THIS IS TO CERTIFY THAT I, THOMAS J. GALBREATH, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, (WE, DB STERLIN CONSULTANTS, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001909), HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 8, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 31 DAY OF OCTOBER, 2019 A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 033-3134  
LICENSE EXPIRATION DATE: NOV. 30, 2020

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

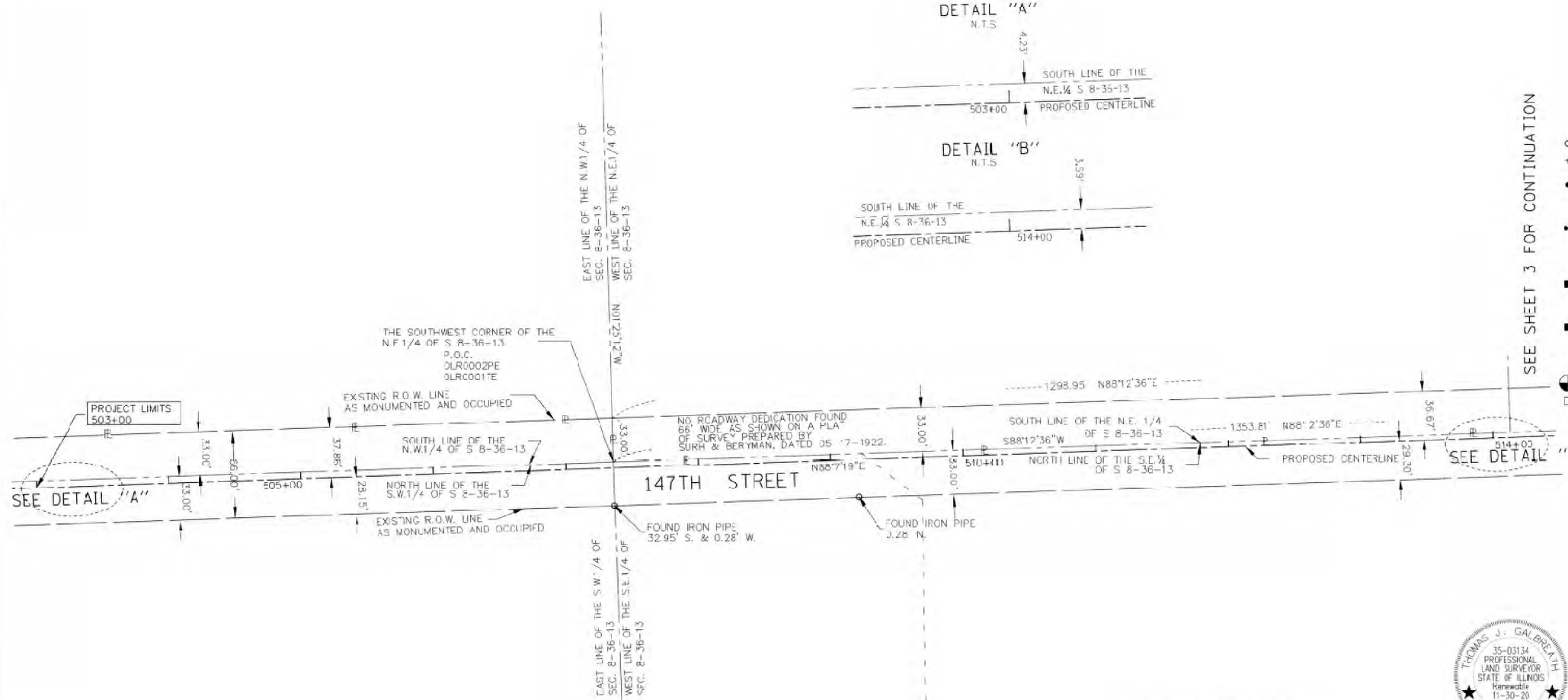
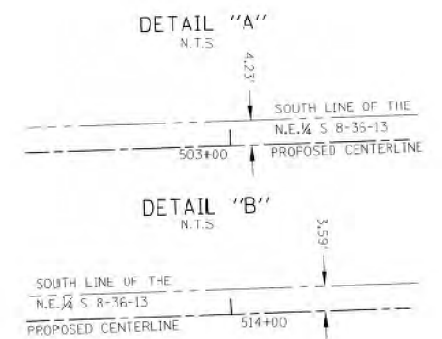
**DBS** DB STERLIN CONSULTANTS, INC.  
121 N. WACKER DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL: (312)857-1306 FAX: (312)857-1058

**PLAT OF HIGHWAYS**  
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**(147TH STREET)**

LIMITS: TRIBUTARY C CAL-SAG COUNTY: COOK  
SECTION: STA. 503+00 TO STA. 527+00 JOB NO.: R-93-018-17  
SCALE: 1"=50' SHEET 2 OF 7 SHEETS

**BUREAU OF LAND ACQUISITION**  
**201 WEST CENTER COURT**  
**SCHAUMBURG, ILLINOIS 60196**

SEE SHEET 3 FOR CONTINUATION



PROPOSED CENTERLINE

PROJECT COORDINATES			
ILLINOIS STATE PLANE, EAST ZONE, NAD 83 (2011)			
STATION	NORTHING	EASTING	
BEGIN PROJECT	500+30	1806520.43	1138465.55
P.I.	515+03.25	1826369.69	1139967.99
END PROJECT	538+48.1	1806444.40	1142311.66

- NOTES:
- ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED.
  - BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".
  - ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.9999726.
  - AREAS SHOWN ON THIS PLAT ARE "GROUND".

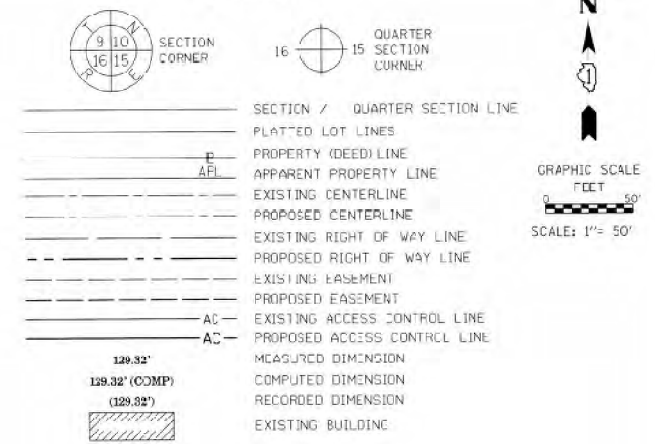
REVISION DATE: / / REVISION MADE BY:

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USER NAME = RGal	DESIGNED - RAG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL PLAT OF HIGHWAYS				F.A.U. RTE. 1602	SECTION 2019-051-T	COUNTY COOK	TOTAL SHEETS 45	SHEET NO. 21
PLOT SCALE = 2,000' / in.	CHECKED - JH	REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT					
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -		CONTRACT NO. 62J28								
BUREAU OF LAND ACQUISITION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196												

PART OF THE S.E.1/4 AND N.E.1/4 OF SECTION 8, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE 3RD P.M.  
COOK COUNTY, ILLINOIS

LEGEND



BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.

IRON PIPE OR ROD FOUND      \* \* \* \* \* "MAC" NAIL SET  
 CUT CROSS FOUND OR SET      \* \* \* \* \* 5 / 8" REBAR SET

THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO MARK THE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

PERMANENT SURVEY MARKER, I.P.S.T. STANDARD 2135, TO BE SET BY OTHERS.

RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS )  
 COUNTY OF )

THIS IS TO CERTIFY THAT I, THOMAS J. GALBREATH, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, (WE, DB STERLIN CONSULTANTS, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-021909,) HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREIN IN SECTION 8, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 31 DAY OF OCTOBER, 2019 A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-3134  
 LICENSE EXPIRATION DATE: NOV. 30, 2020

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

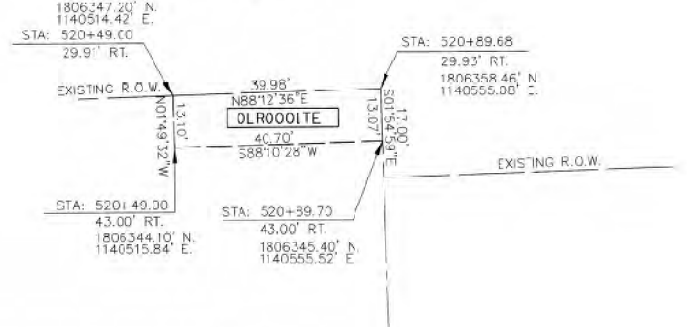


**PLAT OF HIGHWAYS**  
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**(147TH STREET)**

LIMITS: TRIBUTARY C CAL-SAG COUNTY: COOK  
 SECTION: STA. 503+00 TO STA. 5271+00 JOB NO.: R-90-018-17  
 SCALE: 1"=50' SHEET 3 OF 7 SHEETS

**BUREAU OF LAND ACQUISITION**  
**201 WEST CENTER COURT**  
**SCHAUMBURG, ILLINOIS 60196**

DETAIL "A"  
N.T.S.

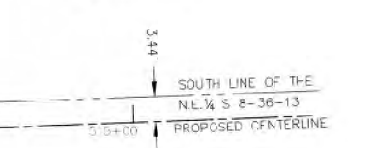


SEE SHEET 2 FOR CONTINUATION

SEE DETAIL "B"



DETAIL "B"

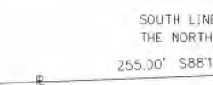
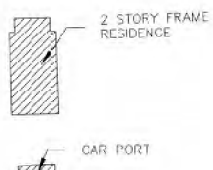


PROJECT COORDINATES  
 ILLINOIS STATE PLANE, EAST ZONE, NAD 83 (2011)

STATION	NORTHING	EASTING	
BEGIN PROJECT	503+00	1806320.43	1138465.55
P.I.	515+03.25	1806369.69	1139967.99
END PROJECT	536+48.11	1806444.40	1142311.66

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.C.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA		PARCEL INDEX NUMBER
					ACRES	SQUARE FEET	
OLR0001E	3.571	N/A	N/A	3.571	0.012		28-08-400-0081p+1
OLR0002PE	317.037	N/A	N/A	317.037	0.492		28-08-200-004 28-08-201-007 28-08-100-001 28-08-101-002 28-08-101-001 28-08-102-004

NOTES:  
 ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED.  
 BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".  
 ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.9999726.  
 AREAS SHOWN ON THIS PLAT ARE "GROUND".



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
 PLAT OF HIGHWAYS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	22

CONTRACT NO. 62J28

SCALE: SHEET OF SHEETS STA. TO STA.

MODEL: D:\p1\170022.DDT D1.PFB 181-04 W022 147th\_CulvertDesign\p1\170022.DDT.dwg 11/8/2020 11:50:00 AM

PART OF THE S.E.1/4 AND N.E.1/4 OF THE SECTION 8, TWP. 36 NORTH, RANGE 13 EAST OF 3RD P.M., COOK COUNTY, ILLINOIS

LEGEND

SECTION / QUARTER SECTION LINE  
 PLATTED LOT LINES  
 PROPERTY (DEED) LINE  
 APPARENT PROPERTY LINE  
 EXISTING CENTERLINE  
 PROPOSED CENTERLINE  
 EXISTING RIGHT OF WAY LINE  
 PROPOSED RIGHT OF WAY LINE  
 EXISTING EASEMENT  
 PROPOSED EASEMENT  
 AC - EXISTING ACCESS CONTROL LINE  
 AC - PROPOSED ACCESS CONTROL LINE  
 MEASURED DIMENSION  
 COMPUTED DIMENSION  
 RECORDED DIMENSION  
 EXISTING BUILDING

GRAPHIC SCALE  
 FEET  
 SCALE: 1" = 50'

BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NA83 (2011 ADJUSTMENT), EAST ZONE.

- IRON PIPE OR ROD FOUND    ⊗ 'MAD' NAIL SET
- + LUL CROSS FOUND OR SET    ● 5 / 8" REBAR SET
- T. THESE STAKES REFERENCE FOUND OR SET MONUMENTAL, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTAL, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTAL, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊗ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS )  
 COUNTY OF )

THIS IS TO CERTIFY THAT I, THOMAS J. GALBREATH, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, (ME, DB STERLIN CONSULTANTS, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001909), HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 8, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

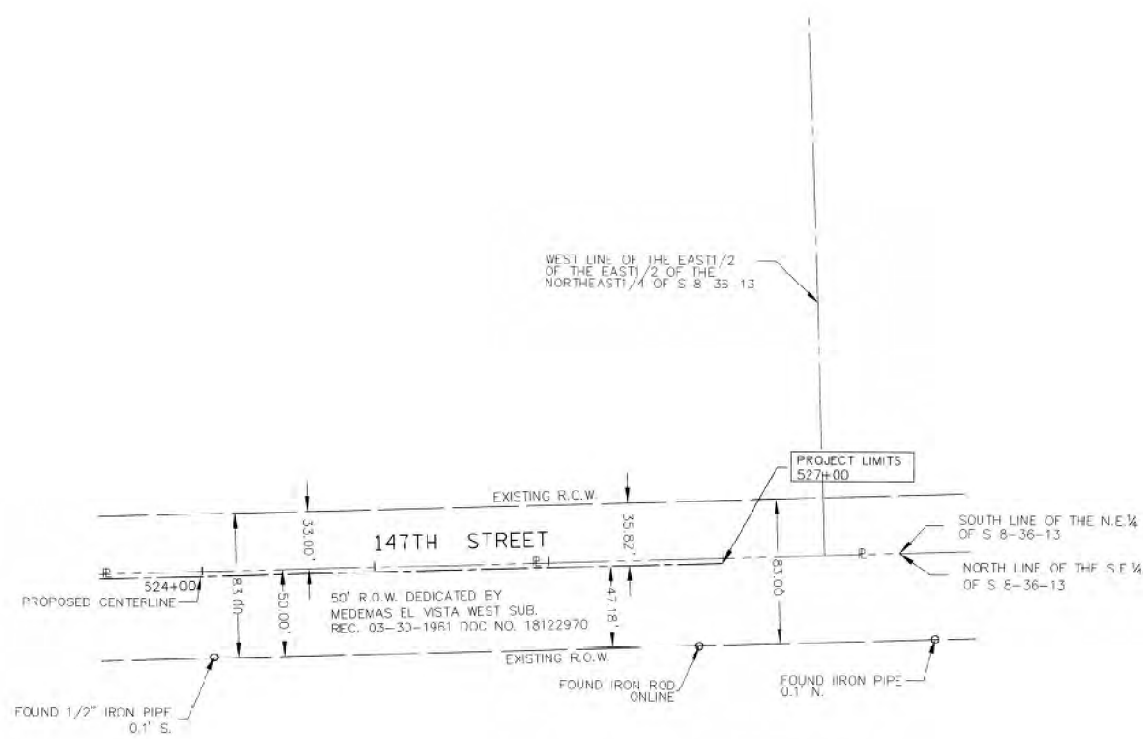
DATED AT CHICAGO, ILLINOIS THIS 31 DAY OF OCTOBER 2019 A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-2134  
 LICENSE EXPIRATION DATE: NOV. 30, 2020

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



SEE SHEET 3 FOR CONTINUATION



PROPOSED CENTERLINE

PROJECT COORDINATES ILLINOIS STATE PLANE, EAST ZONE, NAD 83 (2011)			
	STATION	NORTHING	EASTING
R.F.G.I.N. PROJECT	500+00	1806320.43	1138465.55
P.T.	515+03.25	1806369.69	1139967.99
END PROJECT	538+46.11	1806444.40	1142311.66

NOTES:  
 ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED.  
 BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".  
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 AREAS SHOWN ON THIS PLAT ARE "GROUND".

**PLAT OF HIGHWAYS**  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 (147TH STREET)

LIMITS: TRIBUTARY C CAL-SAG COUNTY: COOK  
 SECTION: JOB NO.: R-90-018-17  
 STA. 503+00 TO STA. 527+00  
 SCALE: 1"=50' SHEET 4 OF 7 SHEETS

**BUREAU OF LAND ACQUISITION**  
 201 WEST CENTER COURT  
 SCHAUMBURG, ILLINOIS 60196

DOT USE ONLY

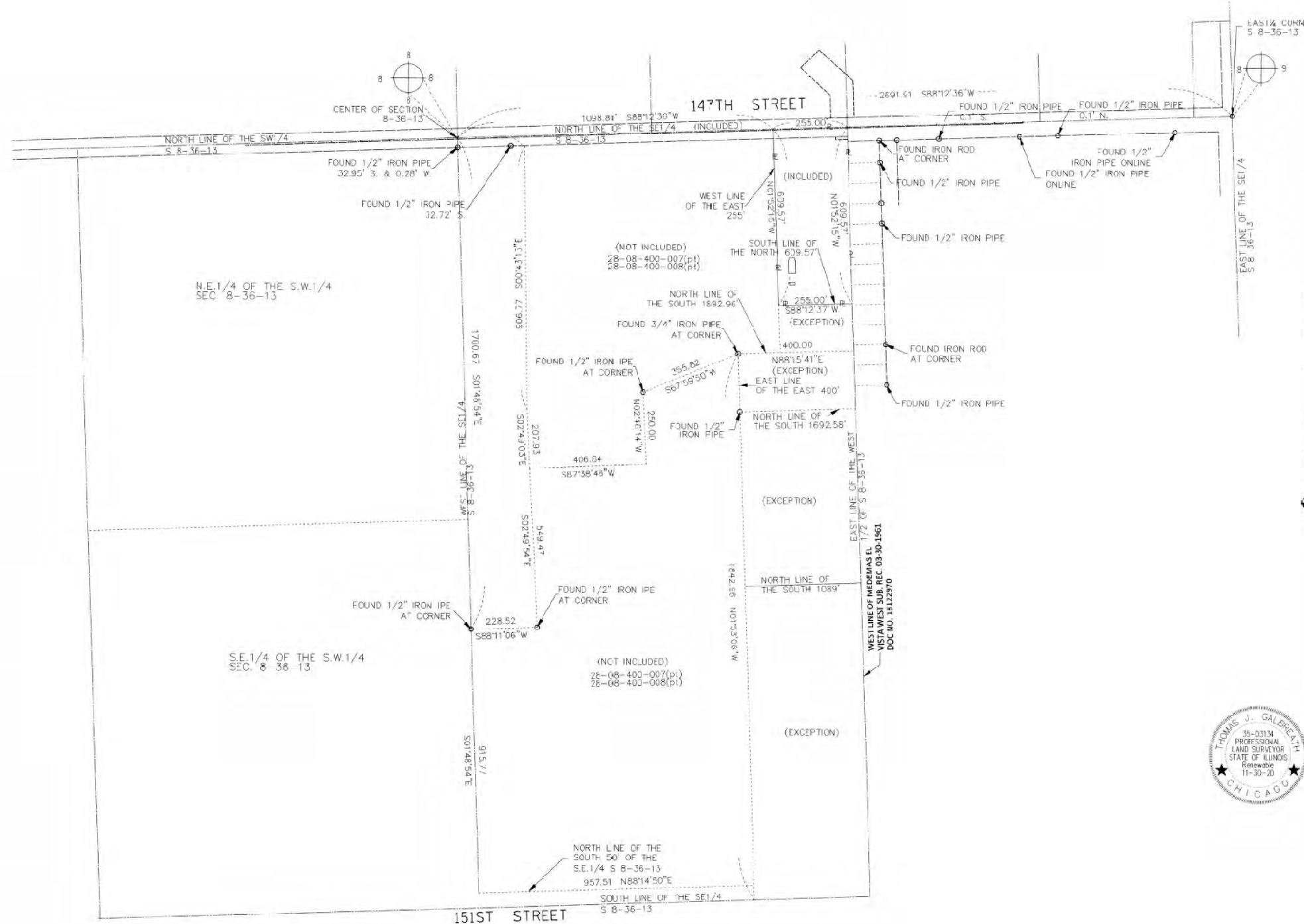
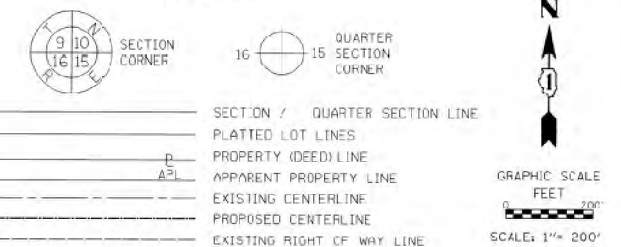
REVISION DATE: / / REVISION MADE BY:

MODEL: D:\s\1700222.DDT D1.PBL 181-04.W022.147B\_Culvert\CGM\Design\Print\147B\_Plate\147B\_Plate.dwg

USER NAME = RGal	DESIGNED - RAG	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL PLAT OF HIGHWAYS</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN - CS	REVISIONS -	1602					2019-051-T	COOK	45	23	
PLOT SCALE = 2,000' / in.	CHECKED - JH	REVISED -					CONTRACT NO. 62J28				
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -					ILLINOIS FED. AID PROJECT				

PART OF THE S.E.1/4 AND S.W.1/4 OF THE SECTION 8, TWP. 36 NORTH, RANGE 13 EAST OF 3RD P.M.  
COOK COUNTY, ILLINOIS

**LEGEND**



- 129.32'
  - 129.32' (COMP)
  - (129.32')
- BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.
- IRON PIPE OR ROD FOUND
  - ⊕ MAG NAIL SET
  - + CUT CROSS FOUND OR SET
  - 5 / 8" REBAR SET
  - T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
  - T2
  - T3
  - BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
  - BT2
  - BT3
  - STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
  - M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
  - ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
  - ⊔ RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS )  
                                  )SS  
COUNTY OF )

THIS IS TO CERTIFY THAT I, THOMAS J. GALBREATH, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, I.E., DB STERLIN CONSULTANTS, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-031909, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 8, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 31 DAY OF OCTOBER 2019 A.D.

*Thomas J. Galbreath*

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-3134  
LICENSE EXPIRATION DATE: NOV. 30, 2020

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

**DBS** DB STERLIN CONSULTANTS, INC.  
123 N. WACKER DRIVE SUITE 2000  
CHICAGO, ILLINOIS 60606  
TEL (312)857-1106 FAX (312)857-1056

**PLAT OF HIGHWAYS**  
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**(147TH STREET)**

LIMITS: TRIBUTARY C CAL-SAG COUNTY: COOK  
SECTION: JOB NO.: R-90-018-17  
STA. 503+00 TO STA. 527+00 SHEET 5 OF 7 SHEETS  
SCALE: 1"=200'

**BUREAU OF LAND ACQUISITION**  
**201 WEST CENTER COURT**  
**SCHAUMBURG, ILLINOIS 60196**

NOTES:  
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BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".  
ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99997266.  
AREAS SHOWN ON THIS PLAT ARE "GROUND".

REVISION DATE: / / REVISION MADE BY:

MODEL: D:\p\h\147th\_Culvert\CGM\Design\Print\Plat\PlatSheet1.DWG DATE: 2/17/2022 2:22 IDOT D1 PFB 191-04 W022 147th\_Culvert\CGM\Design\Print\Plat\PlatSheet1.DWG

USER NAME = RGal	DESIGNED - RAG	REVISED -
	DRAWN - CS	REVISED -
PLOT SCALE = 2,000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -

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

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL**  
**PLAT OF HIGHWAYS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	24
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				



THE N.E. 1/4 OF SECTION 8, TWP. 36 NORTH, RANGE 13 EAST OF THE 3RD P.M.  
COOK COUNTY, ILLINOIS



SEE SHEET 7 FOR CONTINUATION

N.W. 1/4 S 8-36-13

LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- SECTION / QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORDED DIMENSION
- EXISTING BUILDING



BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.

- IRON PIPE OR ROD FOUND
- CUT CROSS FOUND OR SET
- 'MAD' NAIL SET
- 5/8" REBAR SET
- THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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- PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS )  
COUNTY OF )

THIS IS TO CERTIFY THAT I, THOMAS J. GALBREATH, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, (WE, DB STERLIN CONSULTANTS, INC. AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-001903,) HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 8, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT CHICAGO, ILLINOIS THIS 31 DAY OF OCTOBER, 2019 A.D.

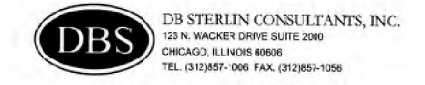
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-3134  
LICENSE EXPIRATION DATE: NOV. 30, 2020

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AREAS SHOWN ON THIS PLAT ARE "GRID".

REVISION DATE: / / REVISION MADE BY:



PLAT OF HIGHWAYS  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
(147TH STREET)

LIMITS: TRIBUTARY C CAL-SAG COUNTY: COOK  
SECTION: STA. 503+00 TO STA. 527+00 JOB NO.: R-90-018-17  
SCALE: 1"=200' SHEET 6 OF 7 SHEETS

BUREAU OF LAND ACQUISITION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
PLAT OF HIGHWAYS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	25
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

USER NAME = RGal	DESIGNED - RAG	REVISED -
	DRAWN - CS	REVISED -
PLOT SCALE = 2,000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -

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THE N.W. 1/4 OF SECTION 8, TWP. 36 NORTH, RANGE 13 EAST OF THE 3RD P.M.  
COOK COUNTY, ILLINOIS

LEGEND



BEARINGS ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.

- IRON PIPE OR ROD FOUND      ⊕ 'MAG' NAIL SET
- + CUT CROSS FOUND OR SET      ● 5 / 8" REBAR SET
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- ◐ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS )  
                                  )SS  
COUNTY OF         )

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DATED AT CHICAGO, ILLINOIS THIS 31 DAY OF OCTOBER 20 19 A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-3134  
LICENSE EXPIRATION DATE: NOV. 30, 2020

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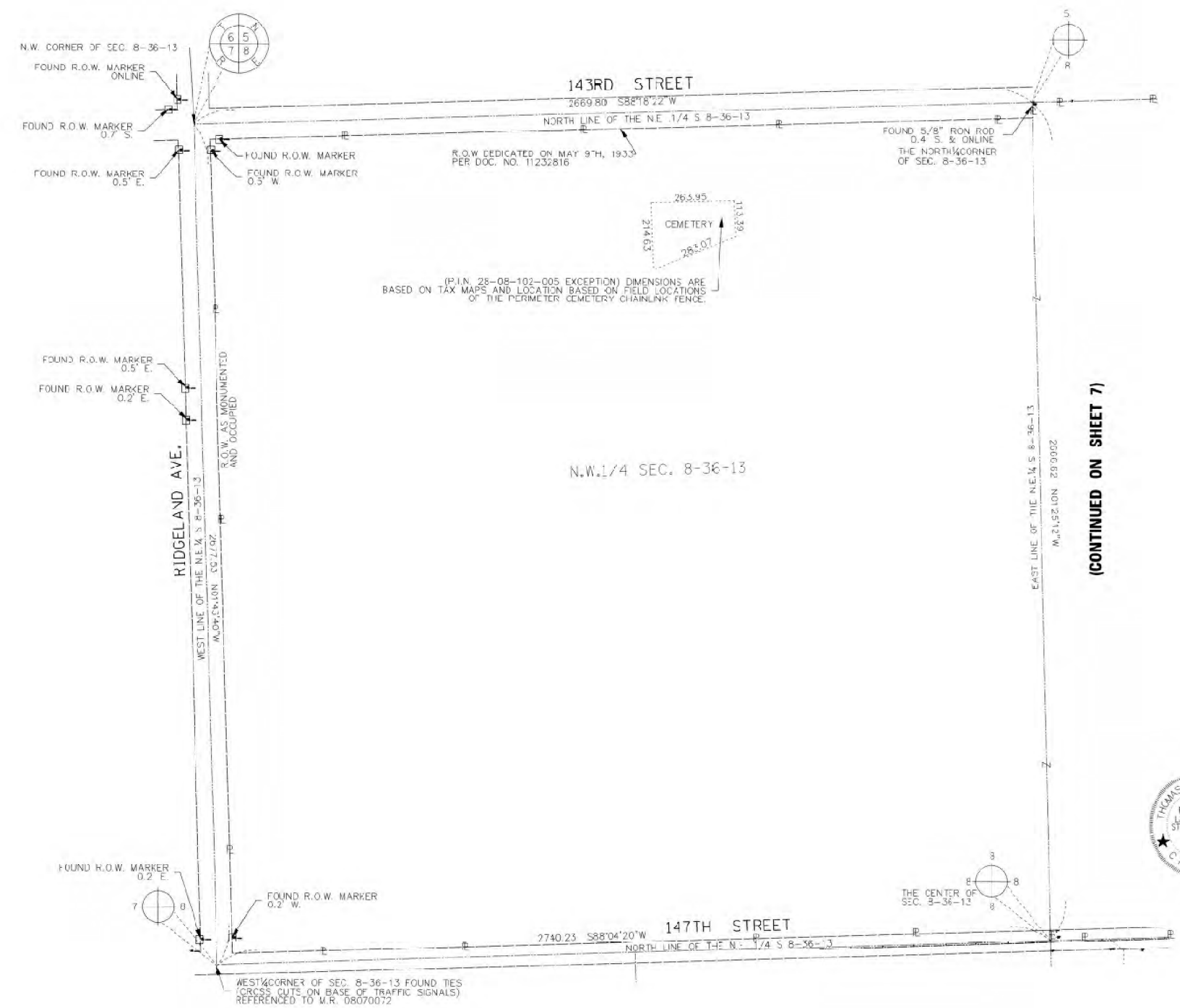
**DBS** DB STERLIN CONSULTANTS, INC.  
123 N. WACKER DRIVE SUITE 2100  
CHICAGO, ILLINOIS 60606  
TEL: (312)857-1000 FAX: (312)857-1055

**PLAT OF HIGHWAYS**  
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**(147TH STREET)**

LIMITS: TRIBUTARY C CAL-SAG COUNTY: COOK  
SECTION: JOB NO.: R-9C-018-17  
STA. 503+00 TO STA. 527+00  
SCALE: 1"=200' SHEET 7 OF 7 SHEETS

IDOT USE ONLY

**BUREAU OF LAND ACQUISITION**  
**201 WEST CENTER COURT**  
**SCHAUMBURG, ILLINOIS 60196**



(P.L.N. 28-08-102-005 EXCEPTION) DIMENSIONS ARE BASED ON TAX MAPS AND LOCATION BASED ON FIELD LOCATIONS OF THE PERIMETER CEMETERY CHAINLINK FENCE.

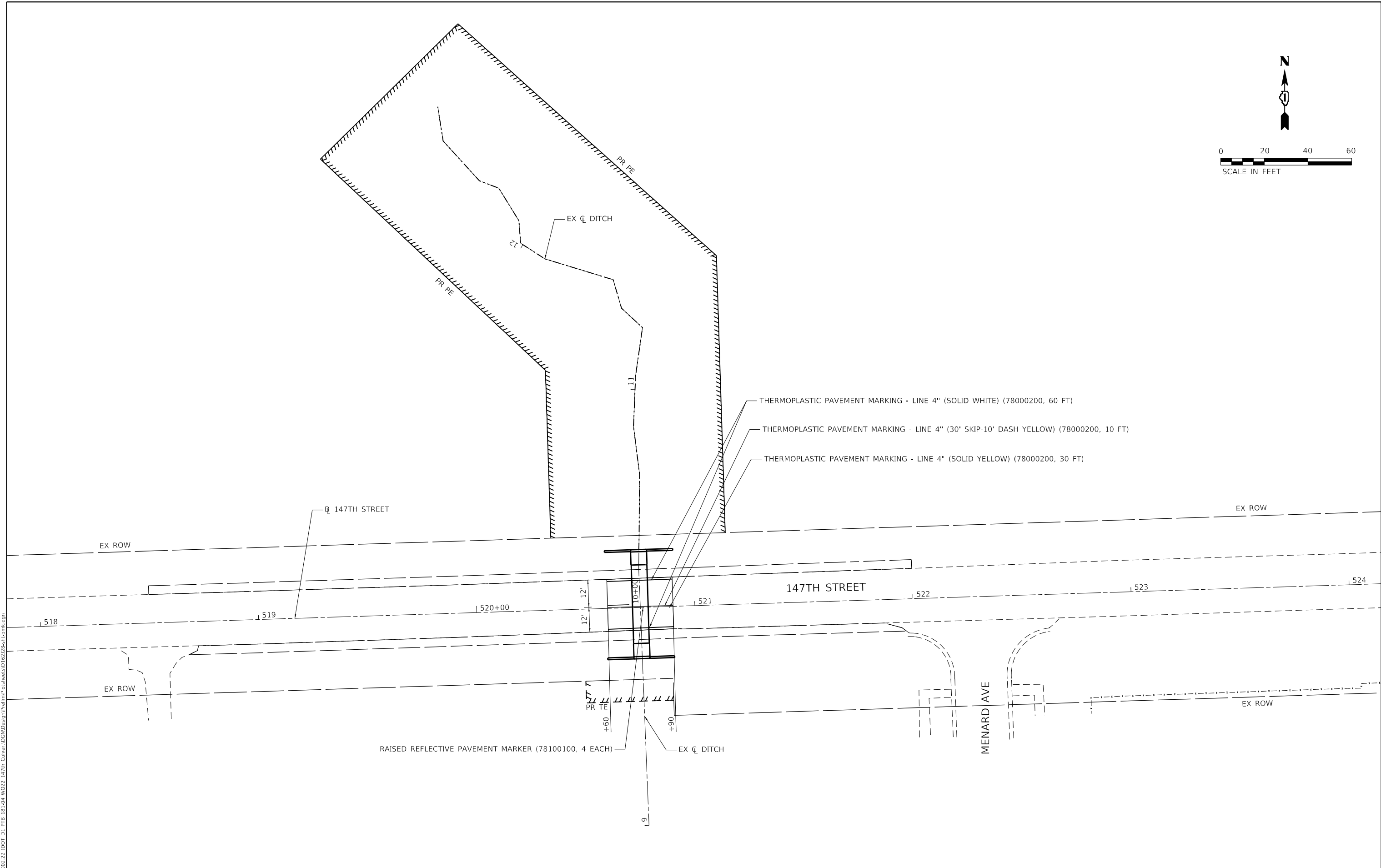
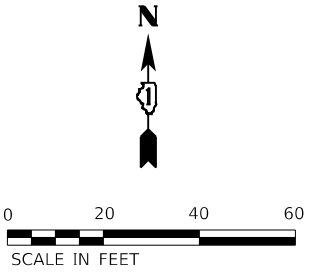
(CONTINUED ON SHEET 7)

NOTES:  
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AREAS SHOWN ON THIS PLAT ARE "GROUND".

REVISION DATE: / / REVISION MADE BY:

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PLOT SCALE = 2,000' / in.	CHECKED - JH	REVISED -		PLAT OF HIGHWAYS		CONTRACT NO. 62J28		ILLINOIS FED. AID PROJECT		
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.				



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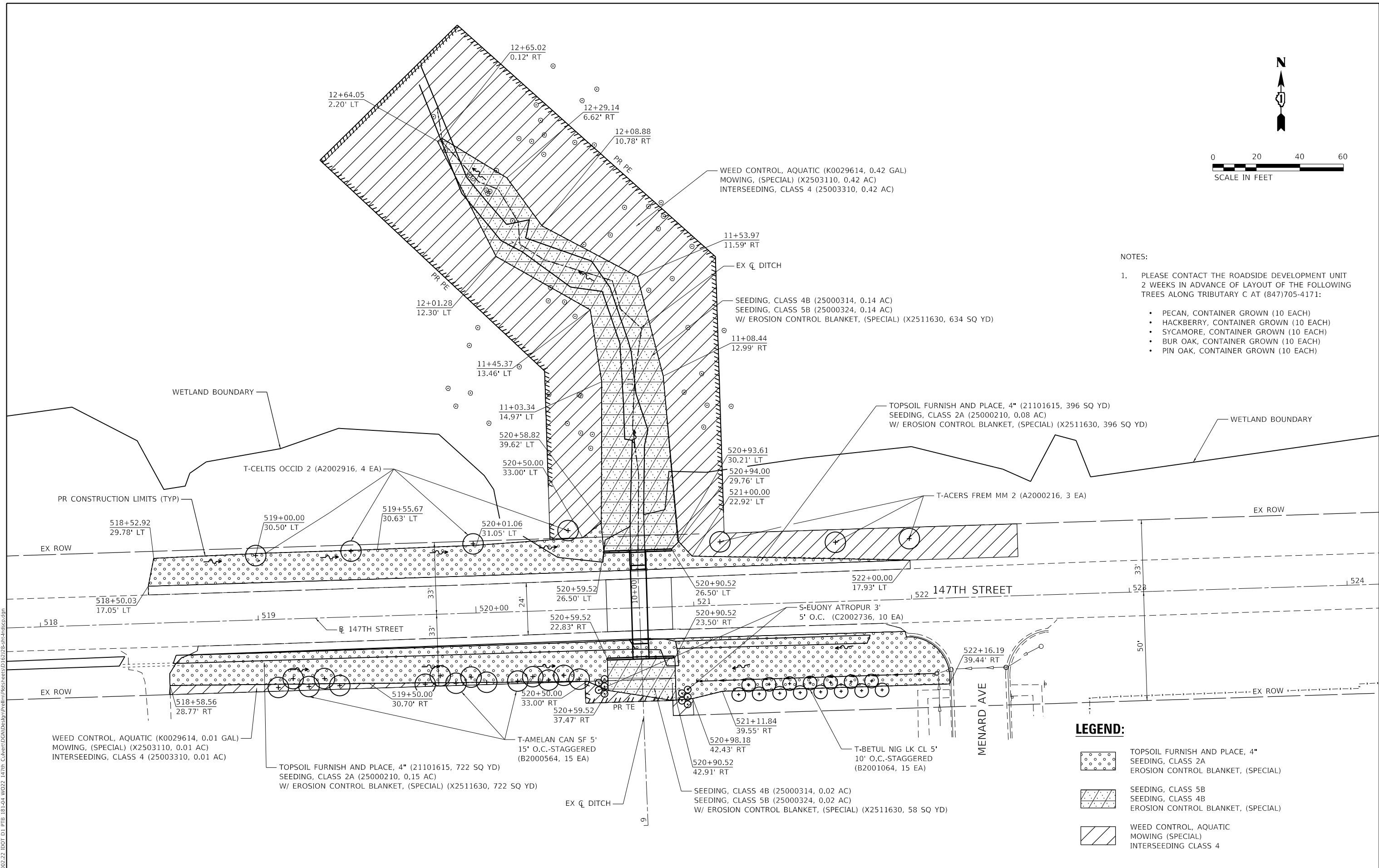
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DRAWN - CS	CHECKED - JH	REVISIED -
PLOT SCALE = 40.0000 ' / in.	DATE - 11/8/19	REVISIED -
PLOT DATE = 3/17/2020		

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

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL**  
**PAVEMENT MARKING PLAN**

F.A.U. RTE. 1602	SECTION 2019-051-T	COUNTY COOK	TOTAL SHEETS 45	SHEET NO. 27
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.



- NOTES:
- PLEASE CONTACT THE ROADSIDE DEVELOPMENT UNIT 2 WEEKS IN ADVANCE OF LAYOUT OF THE FOLLOWING TREES ALONG TRIBUTARY C AT (847)705-4171:
    - PECAN, CONTAINER GROWN (10 EACH)
    - HACKBERRY, CONTAINER GROWN (10 EACH)
    - SYCAMORE, CONTAINER GROWN (10 EACH)
    - BUR OAK, CONTAINER GROWN (10 EACH)
    - PIN OAK, CONTAINER GROWN (10 EACH)

- LEGEND:**
- TOPSOIL FURNISH AND PLACE, 4" SEEDING, CLASS 2A EROSION CONTROL BLANKET, (SPECIAL)
  - SEEDING, CLASS 5B SEEDING, CLASS 4B EROSION CONTROL BLANKET, (SPECIAL)
  - WEED CONTROL, AQUATIC MOWING (SPECIAL) INTERSEEDING CLASS 4

MODEL: D:\p\17002.22\DOT D1\17B\_181-04\_W022\_147th\_CulvertDesign\Prct\17B\_181-04\_W022\_147th\_CulvertDesign.dgn  
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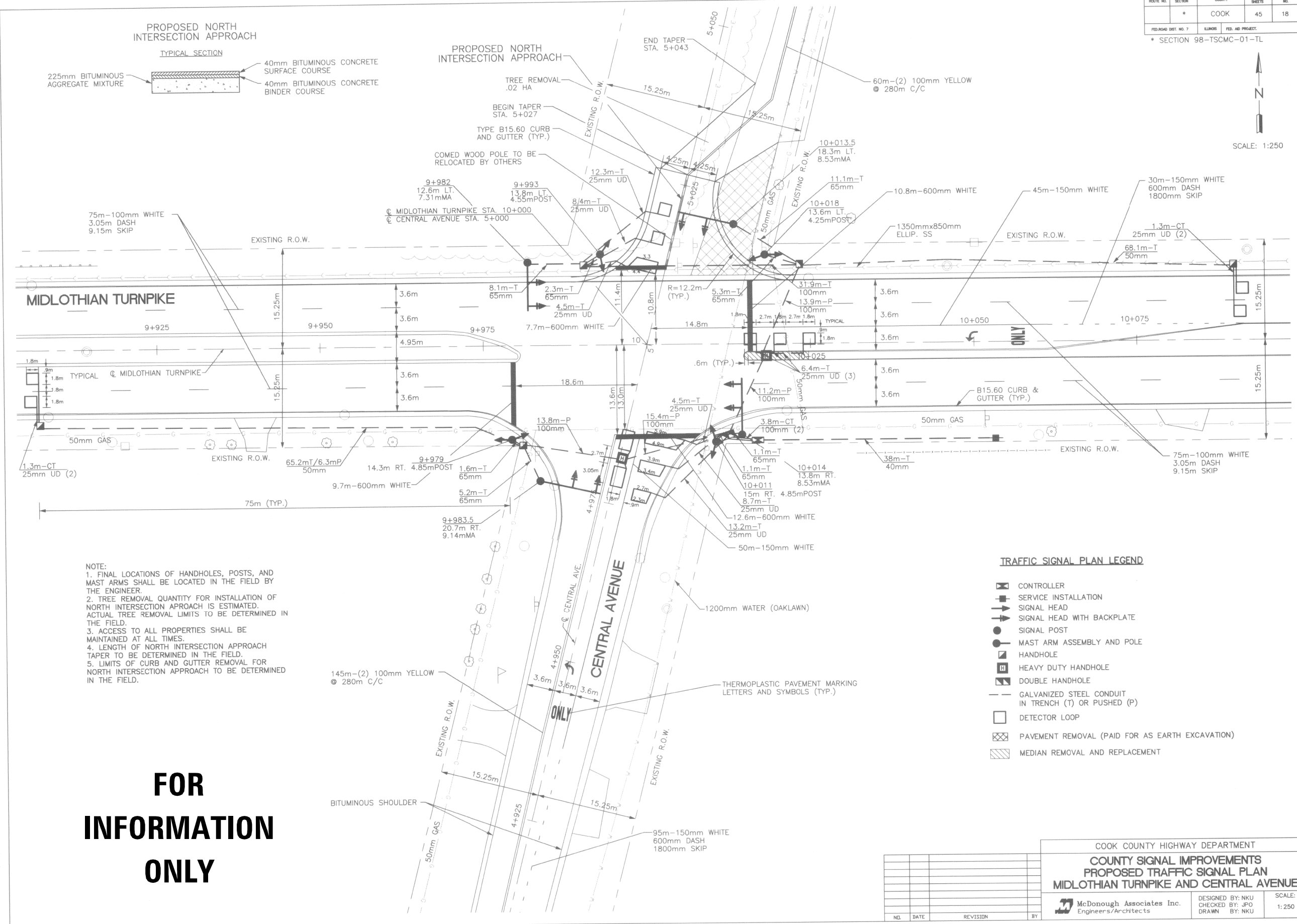
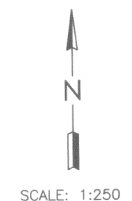
USER NAME = RGal	DESIGNED - RAG	REVISED -
	DRAWN - CS	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -

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

<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL</b> <b>LANDSCAPING PLAN</b>		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		1602	2019-051-T	COOK	45	28
SCALE:		SHEET OF SHEETS		STA. TO STA.		CONTRACT NO. 62J28

ILLINOIS		FED. AID PROJECT	
----------	--	------------------	--

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*		COOK	45	18
FED. AID PROJ. NO. 7				
* SECTION 98-TSCMC-01-TL				



NOTE:  
 1. FINAL LOCATIONS OF HANDHOLES, POSTS, AND MAST ARMS SHALL BE LOCATED IN THE FIELD BY THE ENGINEER.  
 2. TREE REMOVAL QUANTITY FOR INSTALLATION OF NORTH INTERSECTION APPROACH IS ESTIMATED. ACTUAL TREE REMOVAL LIMITS TO BE DETERMINED IN THE FIELD.  
 3. ACCESS TO ALL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.  
 4. LENGTH OF NORTH INTERSECTION APPROACH TAPER TO BE DETERMINED IN THE FIELD.  
 5. LIMITS OF CURB AND GUTTER REMOVAL FOR NORTH INTERSECTION APPROACH TO BE DETERMINED IN THE FIELD.

**TRAFFIC SIGNAL PLAN LEGEND**

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)
- DETECTOR LOOP
- PAVEMENT REMOVAL (PAID FOR AS EARTH EXCAVATION)
- MEDIAN REMOVAL AND REPLACEMENT

**FOR INFORMATION ONLY**

COOK COUNTY HIGHWAY DEPARTMENT  
**COUNTY SIGNAL IMPROVEMENTS**  
**PROPOSED TRAFFIC SIGNAL PLAN**  
**MIDLOTHIAN TURNPIKE AND CENTRAL AVENUE**

McDonough Associates Inc.  
 Engineers/Architects

DESIGNED BY: NKU  
 CHECKED BY: JPO  
 DRAWN BY: NKU

SCALE: 1:250

NO.	DATE	REVISION	BY

USER NAME = RGall	DESIGNED - RAG	REVISED -
PLOT SCALE = 2,000' / in.	DRAWN - CS	REVISED -
PLOT DATE = 3/17/2020	CHECKED - JH	REVISED -
	DATE - 11/8/19	REVISED -

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

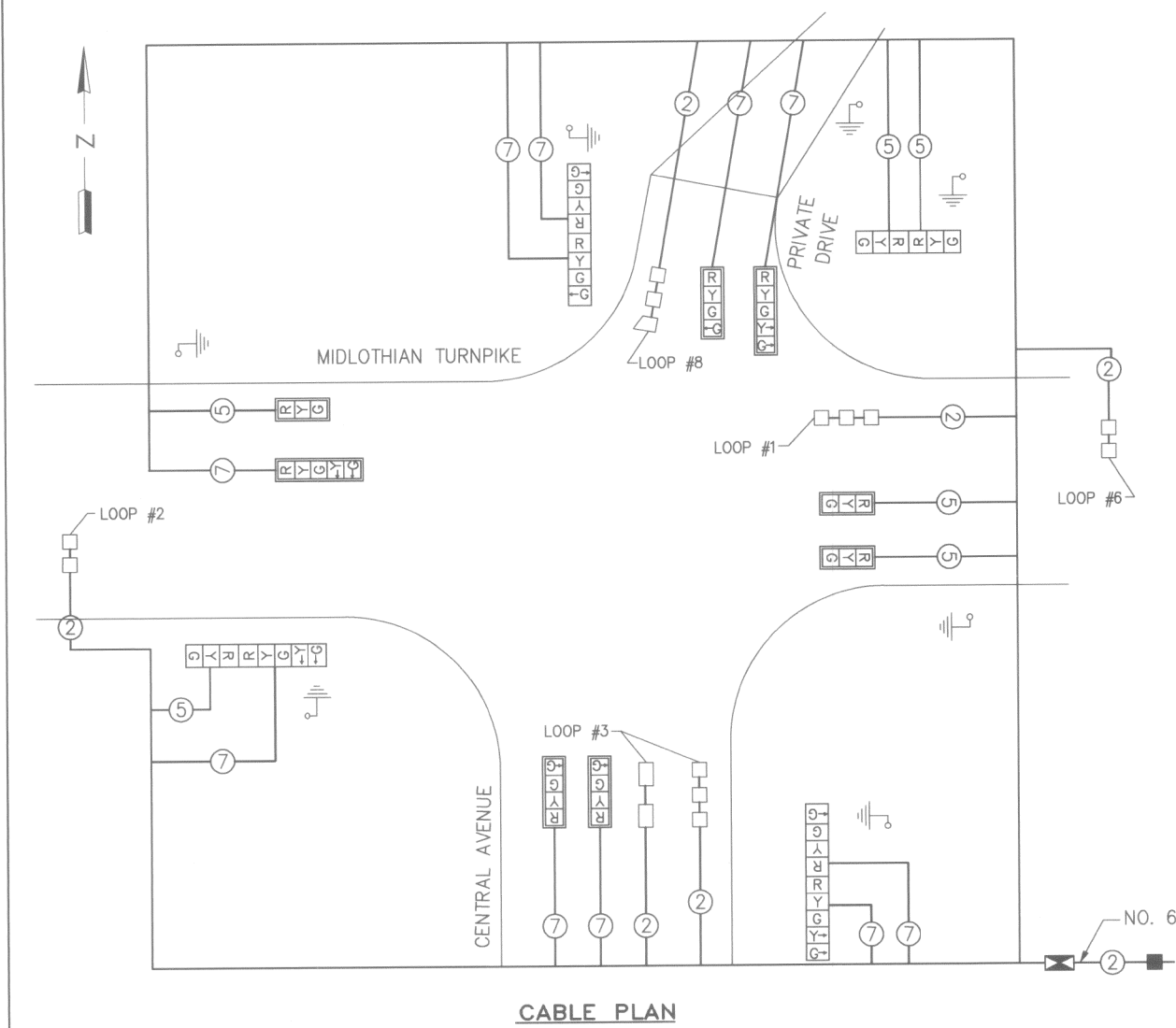
**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL**  
**EXISTING TRAFFIC SIGNAL PLANS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	29
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

MODEL: D:\p1\17002.22.DDOT.D1.PFB.1B1-04.W022.147th\_Culvert\CGM\Design\Project\Sheet\98-TSCMC-01-TL.dwg  
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*		COOK	45	19
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* SECTION 98-TSCMC-01-TL				



**CABLE PLAN**

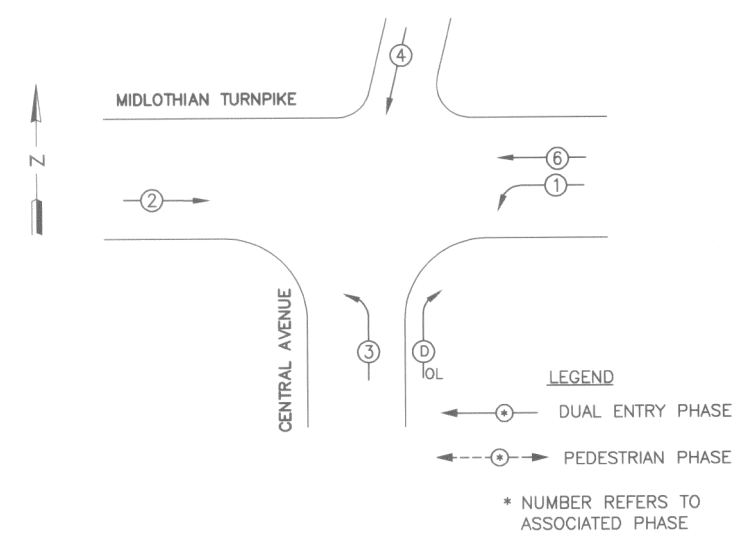
**CABLE PLAN LEGEND**

TRAFFIC SIGNAL SECTION	
CONTROLLER CABINET	
SERVICE INSTALLATION	
VEHICLE DETECTOR LOOP	
DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED	
SIGNAL FACE WITH BACKPLATE	
GROUND ROD	

SCHEDULE OF TRAFFIC SIGNAL QUANTITIES	
ITEM	QUANTITY
SIGN PANEL, TYPE 1	3 SM
SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED	3 EA
SIGNAL HEAD, 1-FACE, 4-SECTION, MAST ARM MOUNTED	3 EA
SIGNAL HEAD, 2-FACE, 2-3 SECTION, BRACKET MOUNTED	1 EA
SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, B.M.	1 EA
SIGNAL HEAD, 2-FACE, 1-4 SECTION, 1-5 SECTION, B.M.	1 EA
SIGNAL HEAD, 2-FACE, 2-4 SECTION, BRACKET MOUNTED	1 EA
SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED	2 EA
TRAFFIC SIGNAL BACKPLATE	8 EA
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 4.25m	1 EA
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 4.55m	1 EA
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 4.85m	2 EA
STEEL MAST ARM ASSEMBLY AND POLE, 7.31m	1 EA
STEEL MAST ARM ASSEMBLY AND POLE, 8.53m	2 EA
STEEL MAST ARM ASSEMBLY AND POLE, 9.14m	1 EA
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	1 EA
INDUCTIVE LOOP DETECTOR	6 EA
DETECTOR LOOP, TYPE 1	190 M
UNIT DUCT WITHOUT CABLE IN TRENCH, 25mm	64 M
GALVANIZED STEEL CONDUIT IN TRENCH, 40mm	38 M
GALVANIZED STEEL CONDUIT IN TRENCH, 50mm	134 M
GALVANIZED STEEL CONDUIT IN TRENCH, 65mm	32 M
GALVANIZED STEEL CONDUIT IN TRENCH, 100mm	40 M
GALVANIZED STEEL CONDUIT, PUSHED, 50mm	7 M
GALVANIZED STEEL CONDUIT, PUSHED, 100mm	55 M
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2/C	42 M
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C	255 M
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	506 M
SERVICE INSTALLATION, TYPE C	1 EA
CONCRETE FOUNDATION, TYPE A	4.88 M
CONCRETE FOUNDATION, TYPE D	1.22 M
CONCRETE FOUNDATION, TYPE E, 610mm DIAMETER	13.6 M
CONCRETE HANDHOLE	5 EA
CONCRETE DOUBLE HANDHOLE	1 EA
CONCRETE HEAVY DUTY HANDHOLE	2 EA
TRENCH AND BACKFILL FOR ELECTRICAL WORK	308 M
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1-PAIR	307 M
TREE REMOVAL	.02 HA
EARTH EXCAVATION	50 CM
CURB AND GUTTER REMOVAL	20 M
BITUMINOUS CONCRETE SURFACE COURSE	35 MTON
BITUMINOUS CONCRETE BINDER COURSE	35 MTON
BITUMINOUS CONCRETE BASE COURSE	300 SM
COMBINATION CONCRETE CURB AND GUTTER, TYPE B15.60	70 M
PAVEMENT MARKING REMOVAL	54 SM
THERMOPLASTIC PAVEMENT MARKING-LETTERS AND SYMBOLS	7 SM
THERMOPLASTIC PAVEMENT MARKING - LINE 100 mm	127 M
THERMOPLASTIC PAVEMENT MARKING - LINE 150 mm	127 M
THERMOPLASTIC PAVEMENT MARKING - LINE 600 mm	42 M
MEDIAN REMOVAL AND REPLACEMENT	14 SM

**STANDARD CONTROLLER SEQUENCE**

REFERRING TO IDOT STANDARD DRAWING 857001 THE VEHICULAR PHASES USED ARE DESIGNATED BELOW



**PHASE DESIGNATION DIAGRAM**

DUAL ENTRY-ALL LEGS  
PROTECTED/PERMITTED LEFT TURN PHASING

**FOR INFORMATION ONLY**

COOK COUNTY HIGHWAY DEPARTMENT

**COUNTY SIGNAL IMPROVEMENTS**  
MIDLOTHIAN TURNPIKE AT CENTRAL AVENUE  
CABLE PLAN AND SIGNAL QUANTITIES

DESIGNED BY: NKU  
CHECKED BY: JPO  
DRAWN BY: NKU

SCALE: N.T.S.

McDonough Associates Inc.  
Engineers/Architects

NO.	DATE	REVISION	BY

MODEL: D:\cadd\17002.22\DOT D1.PFB.191-04.W022.147th\_Culvert\CGM\Design\Plan\Signal\Sheet\98-TSCMC-01-TL.dwg  
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	DRAWN - CS	REVISED -
PLOT SCALE = 2,000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 3/17/2020	DATE - 11/8/19	REVISED -

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

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL**  
**EXISTING TRAFFIC SIGNAL PLANS**

SCALE: SHEET OF SHEETS STA. TO STA.

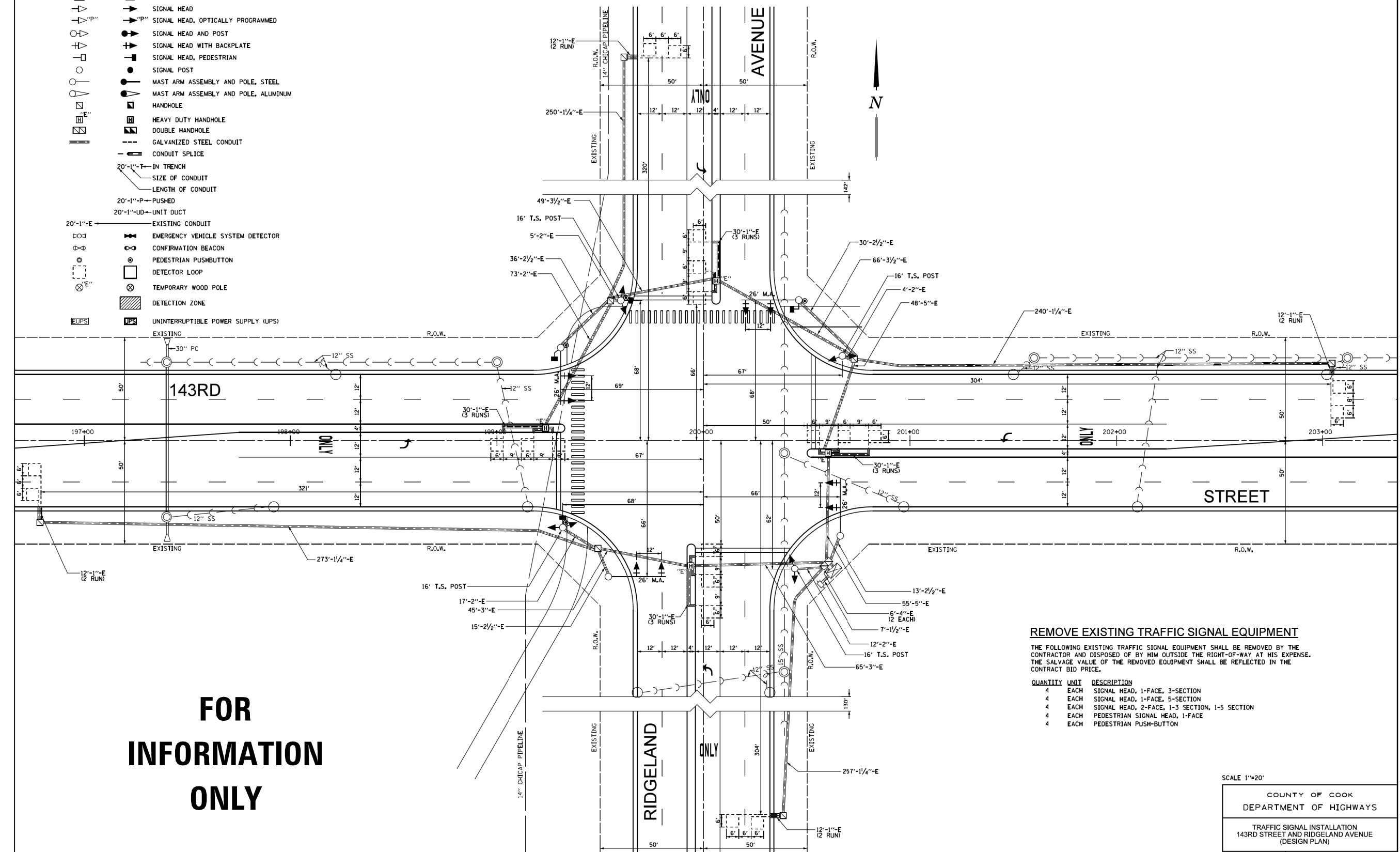
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	30
CONTRACT NO. 62J28				
ILLINOIS		FED. AID PROJECT		

COUNTY HIGHWAY	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
B80/W37	2011	11	117

SECTION: 10-TSCMC-08-TL

**LEGEND**

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER
		SERVICE INSTALLATION
		SIGNAL HEAD
		SIGNAL HEAD, OPTICALLY PROGRAMMED
		SIGNAL HEAD AND POST
		SIGNAL HEAD WITH BACKPLATE
		SIGNAL HEAD, PEDESTRIAN
		SIGNAL POST
		MAST ARM ASSEMBLY AND POLE, STEEL
		MAST ARM ASSEMBLY AND POLE, ALUMINUM
		HANDHOLE
		HEAVY DUTY HANDHOLE
		DOUBLE HANDHOLE
		GALVANIZED STEEL CONDUIT
		CONDUIT SPLICE
		20'-1" IN TRENCH
		SIZE OF CONDUIT
		LENGTH OF CONDUIT
		20'-1" -P- PUSHED
		20'-1" -UD- UNIT DUCT
		EXISTING CONDUIT
		EMERGENCY VEHICLE SYSTEM DETECTOR
		CONFIRMATION BEACON
		PEDESTRIAN PUSHBUTTON
		DETECTOR LOOP
		TEMPORARY WOOD POLE
		DETECTION ZONE
		UNINTERRUPTIBLE POWER SUPPLY (UPS)



**FOR INFORMATION ONLY**

**REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

QUANTITY	UNIT	DESCRIPTION
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	PEDESTRIAN PUSH-BUTTON

SCALE 1"=20'

COUNTY OF COOK  
DEPARTMENT OF HIGHWAYS

TRAFFIC SIGNAL INSTALLATION  
143RD STREET AND RIDGELAND AVENUE  
(DESIGN PLAN)

COMPUTED: WKC APPROVED: \_\_\_\_\_ 20\_\_\_\_  
DRAWN: WKC  
CHECKED: PLW/RJJ CHIEF ENGINEER

MODEL: Default  
FILE NAME: 2017002.22.DDOT.D1.PFB.1B1-04.W022.147th\_CulvertDesignProject\Project\Sheet\147th-TS.dgn

USER NAME = RGal	DESIGNED - RAG	REVISED -
DRAWN - CS	CHECKED - JH	REVISED -
PLOT SCALE = 2,000' / in.	DATE - 11/8/19	REVISED -
PLOT DATE = 3/17/2020		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
EXISTING TRAFFIC SIGNAL PLANS

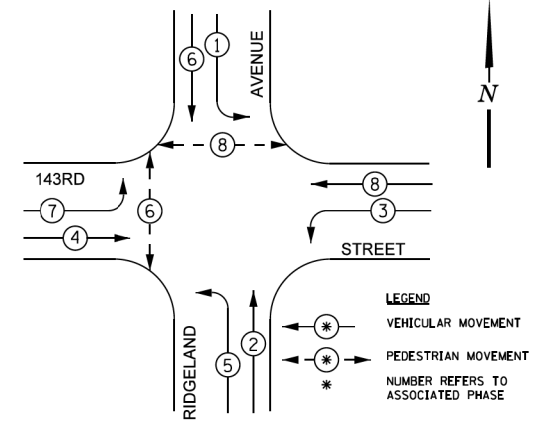
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

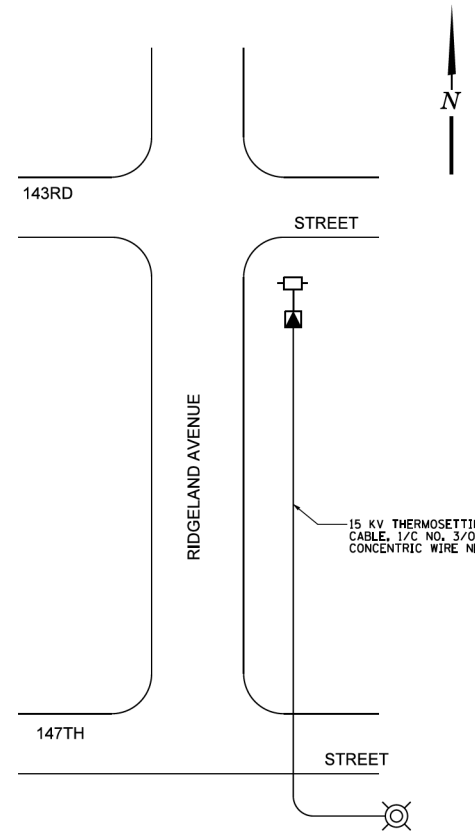
COUNTY HIGHWAY	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
B80/W37	2011	12	117

SECTION: 10-TSCMC-08-TL

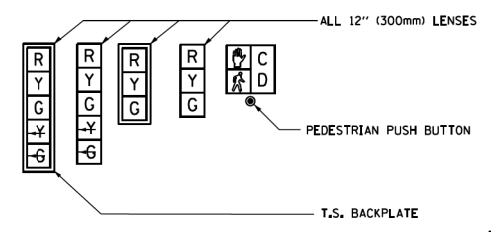
**EXISTING CONTROLLER SEQUENCE**



PHASE DESIGNATION DIAGRAM  
DUAL ENTRY - ALL LEGS  
PROTECTED / PERMITTED LEFT TURN PHASING



**SIGNAL FACES**

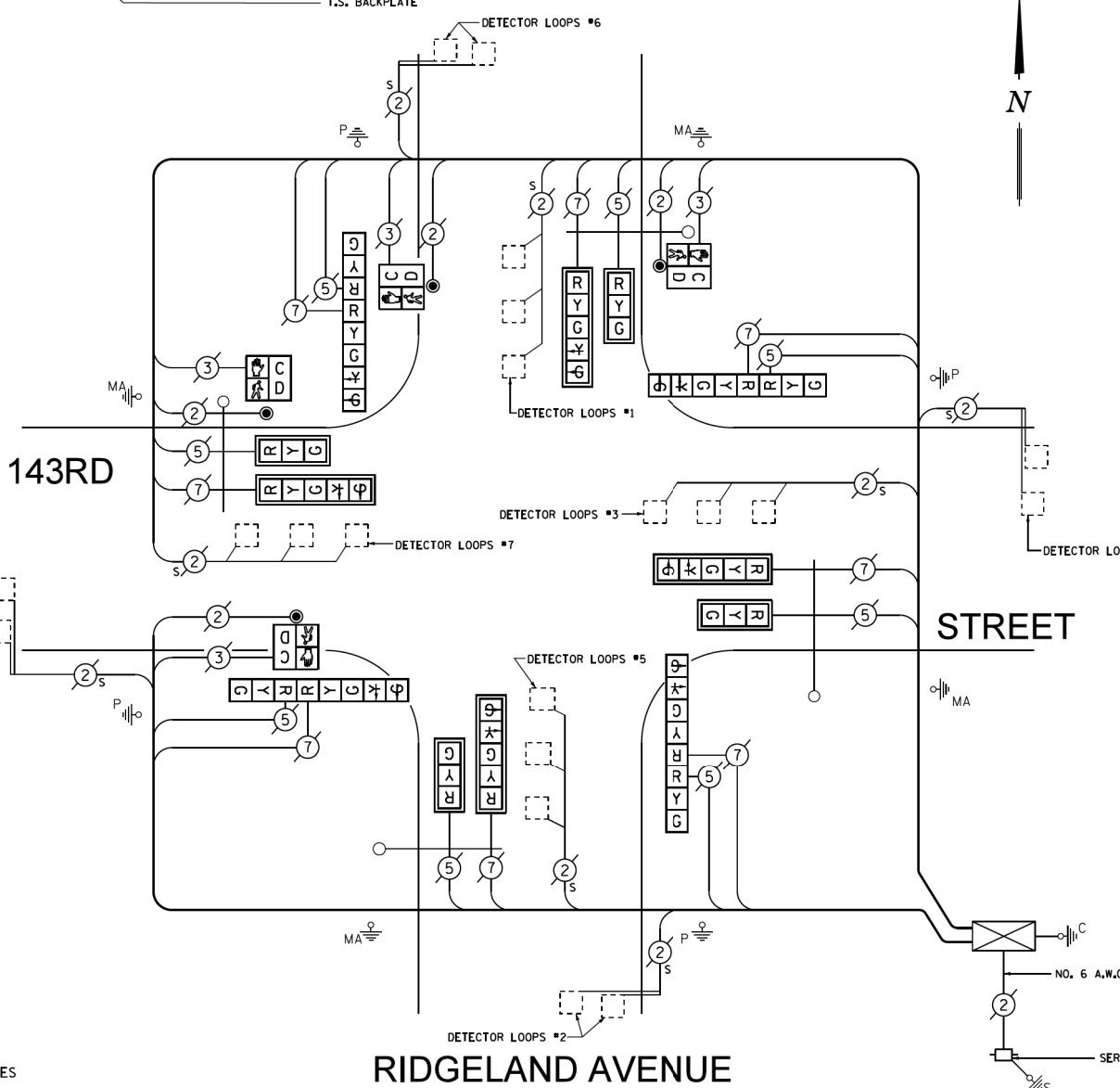


**SIGNAL LENSES**

- R RED
- Y YELLOW
- G GREEN
- Y- TURN INDICATOR
- G- TURN INDICATOR

**CABLE PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION		
8" (200mm) TRAFFIC SIGNAL SECTION		
12" (300mm) TRAFFIC SIGNAL SECTION		
12" (300mm) PEDESTRIAN SIGNAL SECTION		
2 DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE TWISTED AND SHIELDED.		
TELEPHONE INSTALLATION		
VEHICLE DETECTOR, INDUCTION LOOP		
SHIELDED & TWISTED		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
OPTICOM CABLE, NO. 20		
16" (406mm) x 18" (457mm) PEDESTRIAN COUNTDOWN SIGNAL HEAD		
PUSHBUTTON DETECTOR		
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.		
GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), CONTROLLER (C), SERVICE (S), POST (P), OR MAST ARM POLE (MA).		
FIBER OPTIC CABLE, NO. 62.5/125 MULTIMODE 12 FIBERS AND SINGLE MODE 12 FIBERS		
UNINTERRUPTIBLE POWER SUPPLY (UPS)		
COMED COMPARTMENTAL TRANSFORMER		
COMED POLE		



**CABLE PLAN**  
NOT TO SCALE

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN COUNTDOWN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LOAD SWITCH	EACH	10

CCHD TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	% OPERATION
SIGNAL (RED)	16 x	17	x 0,50	136
(YELLOW)	16 x	25	x 0,25	100
(GREEN)	16 x	15	x 0,25	60
ARROW	8 x	12	x 0,10	9,6
PED. SIGNAL	4 x	25	x 1,00	100
CONTROLLER	1 x	100	x 1,00	100
VEHICLE DET.	8 x	5	x 1,00	40
FLASHER			x 0,50	
ENERGY COSTS TO CALL CCHD FOR BILLING INFORMATION AT (312) 603-1730.				TOTAL = 545,6
ENERGY SUPPLY CONTACT: ComEd PHONE: (866)-639-3532 COMPANY: ComEd				

**FOR INFORMATION ONLY**

COUNTY OF COOK DEPARTMENT OF HIGHWAYS	
TRAFFIC SIGNAL INSTALLATION 143RD STREET AND RIDGELAND AVENUE (CABLE PLAN)	
COMPUTED: WJC	APPROVED: _____ 20
DRAWN: WJC	
CHECKED: PLW/RJW	CHIEF ENGINEER

MODEL: D:\p1\17002.22.DDOT.D1.PFB.1B1-04.W022.147th\_Culvert\CGN\Design\Project\Revisions\152128-shc-TS.dgn



Benchmark: None

Existing Structure: Culvert with no S.N. built on an unknown date, is 18"x24" and approximately 31'-10" long. Traffic is to be detoured.

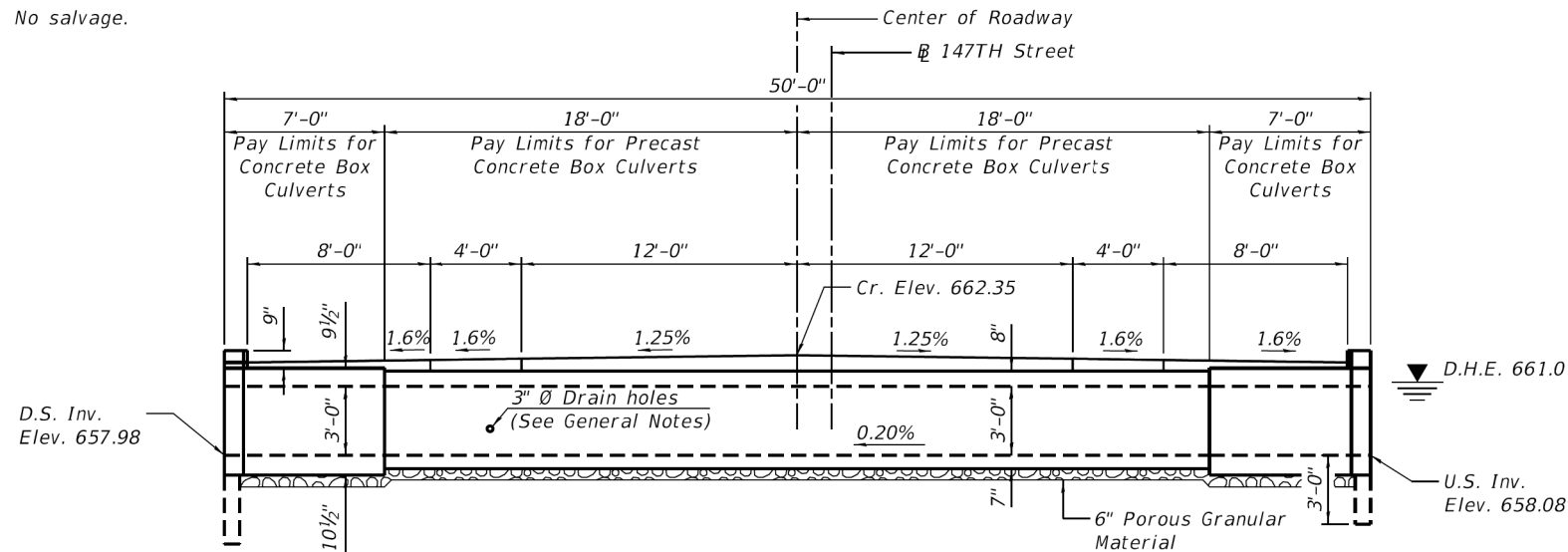
No salvage.

**INDEX OF SHEETS**

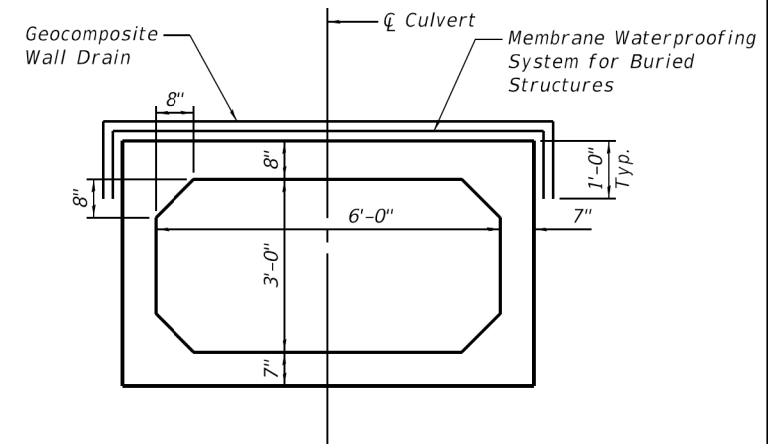
- 1. General Plan and Elevation
- 2.-3. Culvert Details
- 4. Soil Boring Logs

**GENERAL NOTES**

The design fill height for this box is 1.0 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.  
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.  
 The 6 in. thick layer of porous granular material required for the precast concrete box culvert per Art. 540.06 of the Standard Specifications shall also apply to the end sections. Cost of the porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.  
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.  
 Precast concrete box culverts and concrete box culverts shall be backfilled with Porous Granular Embankment below the top of the box culvert extending to a vertical plane 2 ft from the exterior sides of the culvert, 2 ft from the back face of the end sections, and not closer than 2 ft from the face of embankment.



**ELEVATION**



**SECTION THRU BARREL**

**WATERWAY INFORMATION**

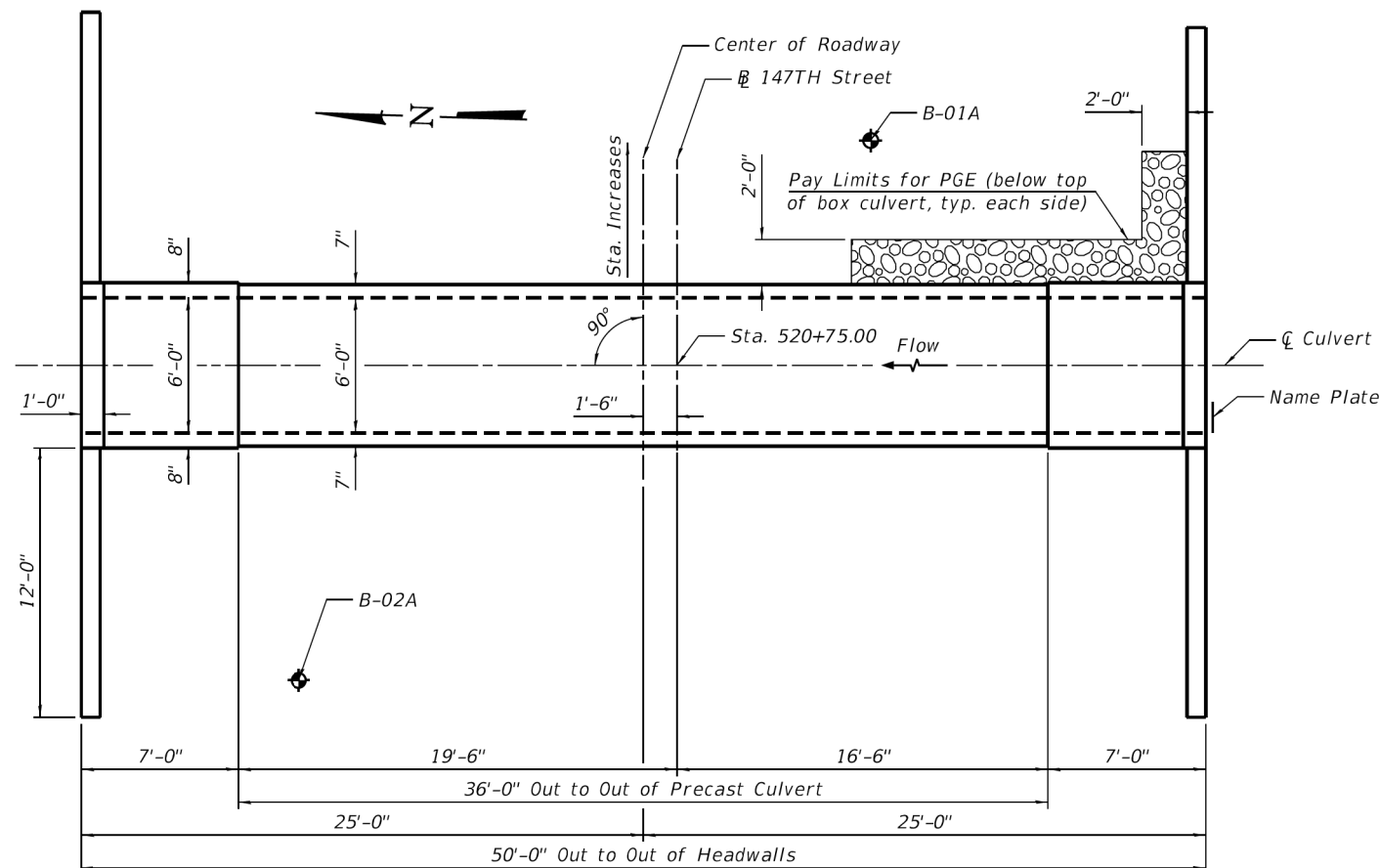
Drainage Area = 0.08 sq. mi. Low Grade Elev. = 662.05 ft @ Sta. 522+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	15.4	3.0	15.0		0.8	0.5	661.5	659.6
Design	50	62.7	3.0	15.0		1.2	1.0	662.3	660.9
Base	100	129.7	3.0	15.0		1.2	1.2	662.3	661.3
Overtopping		20.0	3.0	15.0		0.9	0.5	662.2	659.7
Max. Calc.	500								

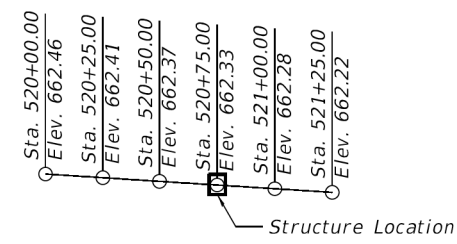
10 year existing velocity = 5.1 fps      2-year peak flow = 8.6 c.f.s.  
 10 year proposed velocity = 3.2 fps      2-year peak elevation = 658.9 ft  
 2-year peak bypass opening = 3 sq. ft.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	44
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	4,140
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	20.4
Precast Concrete Box Culverts, 6'x3'	Foot	36
Geocomposite Wall Drain	Sq. Yd.	51
Membrane Waterproofing System for Buried Structures	Sq. Yd.	51
Cofferdam (Type 1) (In-Stream/Wetland Work)	Each	1



**PLAN**



**PROFILE GRADE**

(Along 147th Street)

**DESIGN SPECIFICATIONS**

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

**LOADING HL-93**

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

**DESIGN STRESSES**

**PRECAST UNITS**

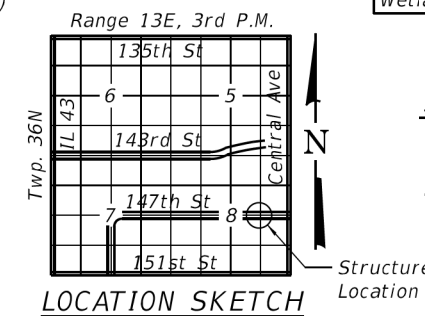
f<sub>c</sub> = 5,000 psi  
 f<sub>y</sub> = 65,000 psi (Welded Wire Reinforcement)

**FIELD UNITS**

f<sub>c</sub> = 3,500 psi  
 f<sub>y</sub> = 60,000 psi (Reinforcement)

STATION 520+75  
 BUILT BY  
 STATE OF ILLINOIS  
 F.A.U. RT. 1602  
 SEC. 2019-051-T  
 LOADING HL-93  
 STR. NO. 016-2272

**NAME PLATE**  
 See Std. 515001



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**147TH STREET OVER TRIBUTARY C**  
**OF THE CAL-SAG CHANNEL**  
**F.A.U. RTE. 1602 SEC. 2019-051-T**  
**COOK COUNTY**  
**STATION 520+75**  
**S.N. 016-2272**

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**EFK Moen**  
 Civil Engineering Design

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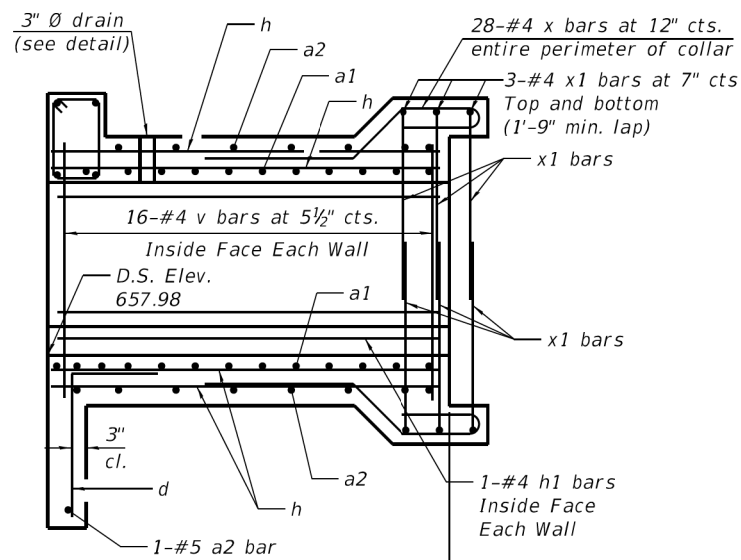
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION**  
**STRUCTURE NO. 016-2272**

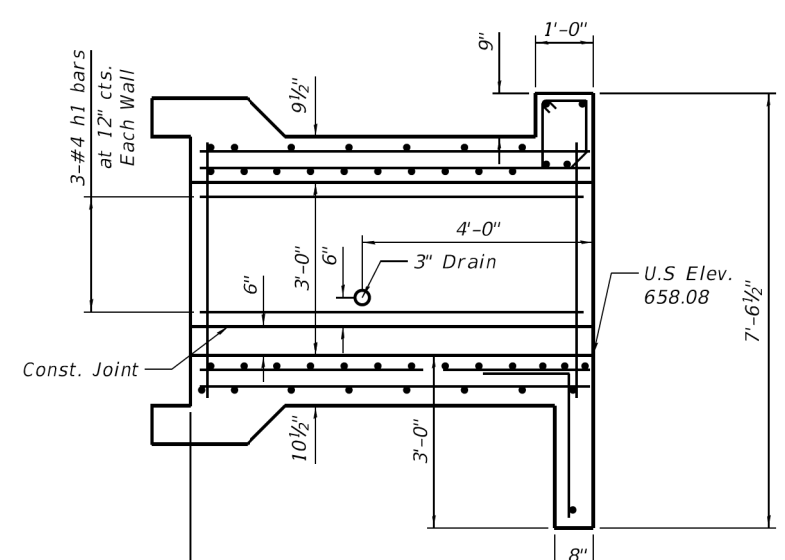
SHEET 1 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	33
CONTRACT NO. 62J28				
ILLINOIS / FED. AID PROJECT				

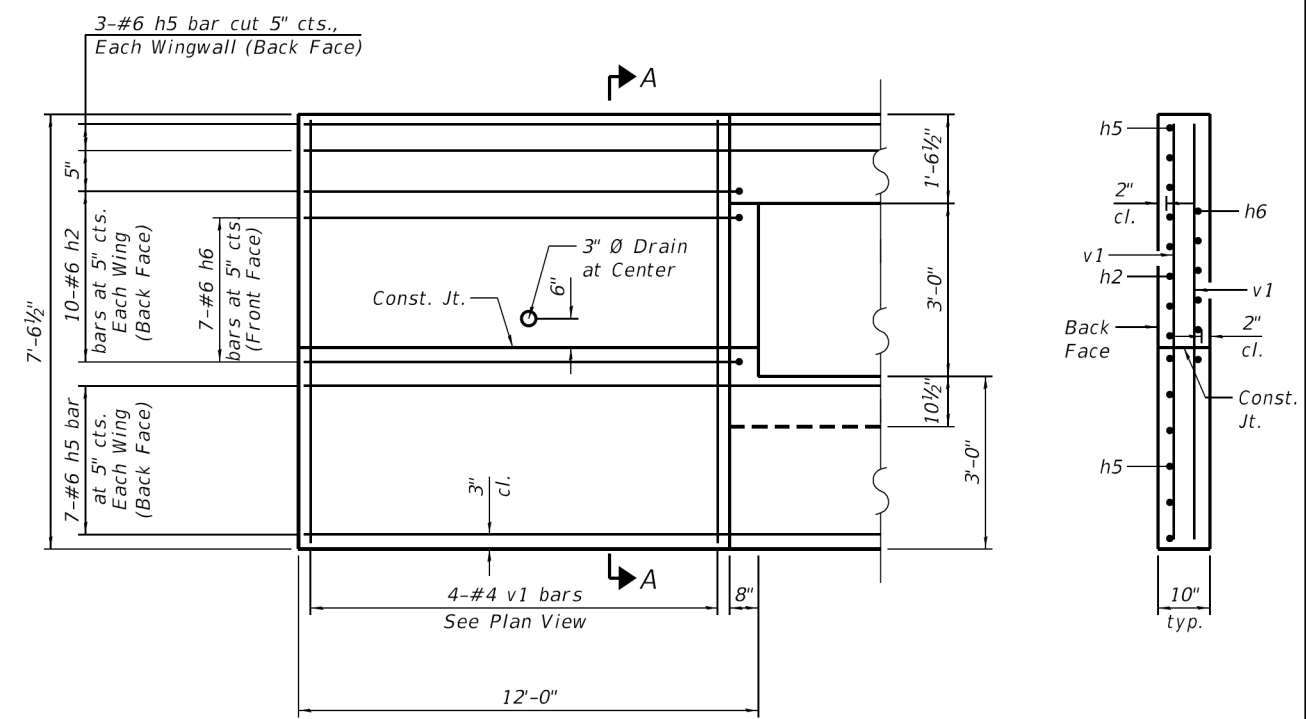
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HALF LONG. SECTION

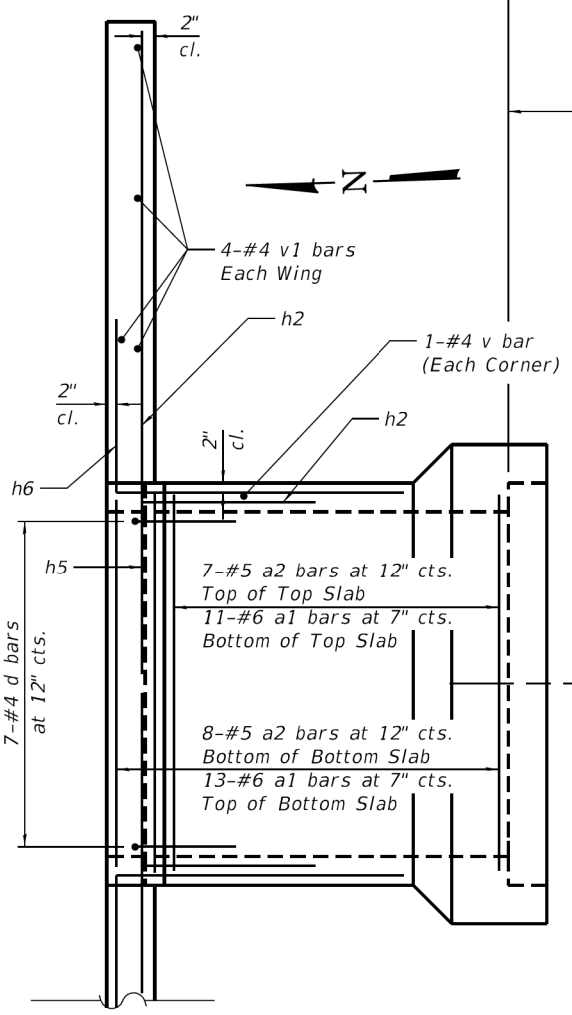


HALF ELEVATION

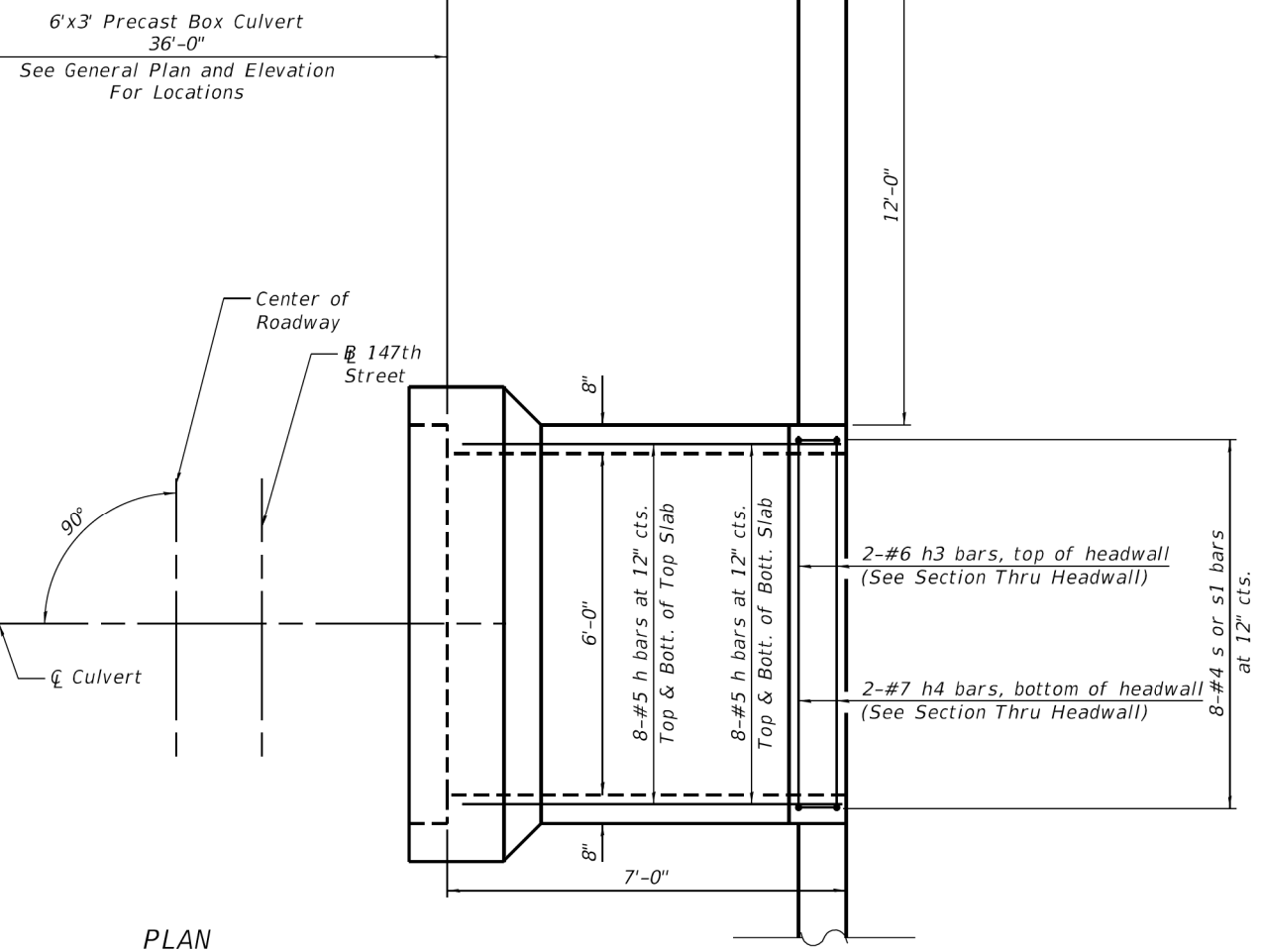


ELEVATION OF WINGWALLS

SECTION A-A

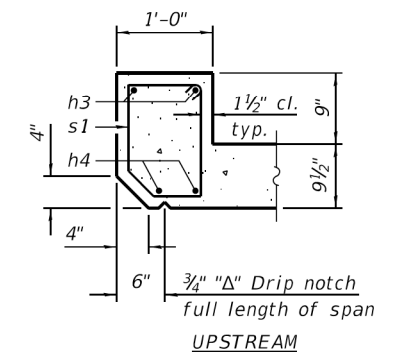


SHOWN REINFORCEMENT

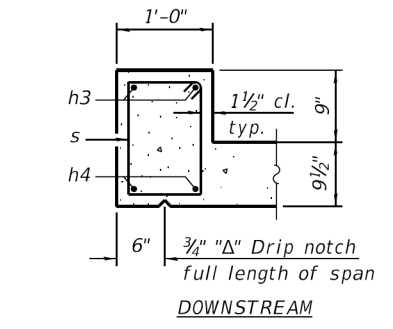


PLAN

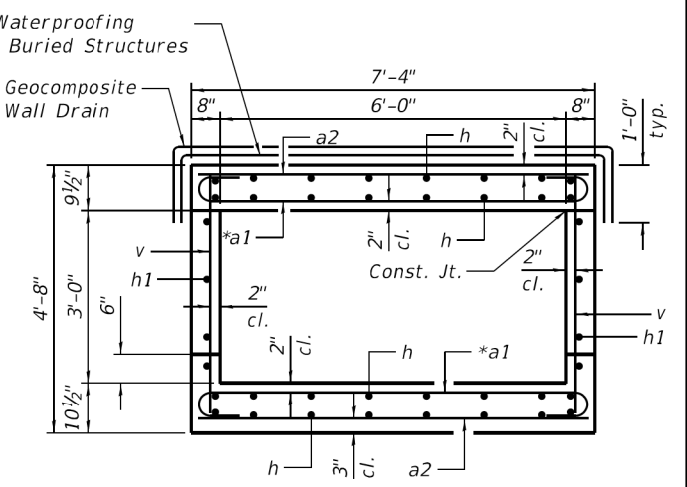
SHOWING OUTLINES



SECTION THRU HEADWALL UPSTREAM

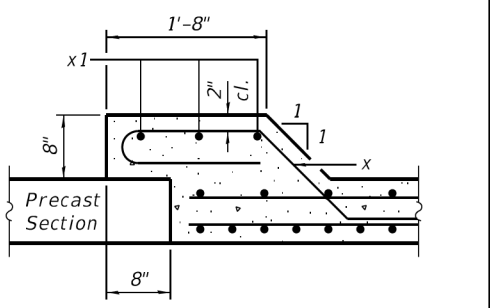


SECTION THRU HEADWALL DOWNSTREAM



SECTION THRU BARREL

\*Tilt hook of a1 bar if necessary for 2" min. cl.



SECTION THRU CONNECTION COLLAR

Note:  
 A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

**EFK•Moen**  
 Civil Engineering Design

USER NAME = acb	DESIGNED - KAB	REVISED -
PLOT SCALE = 0.1667"/in.	CHECKED - ACB	REVISED -
PLOT DATE = 11/7/2019	DRAWN - KAB	REVISED -
	CHECKED - ACB	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

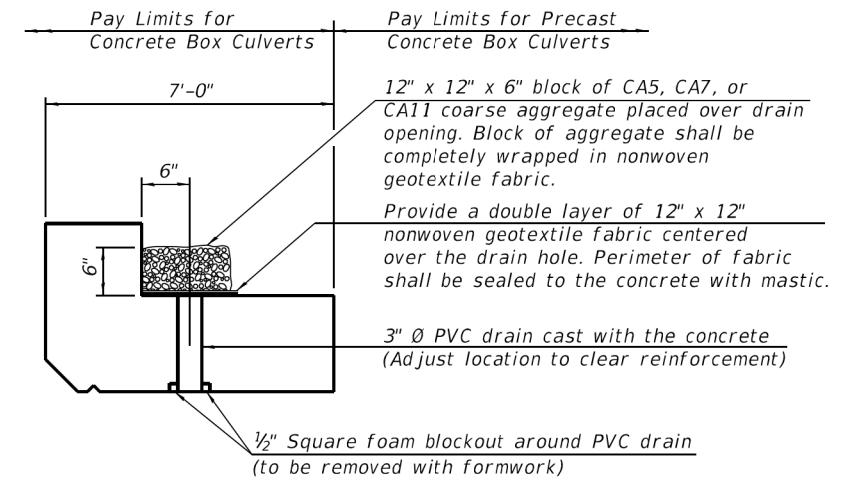
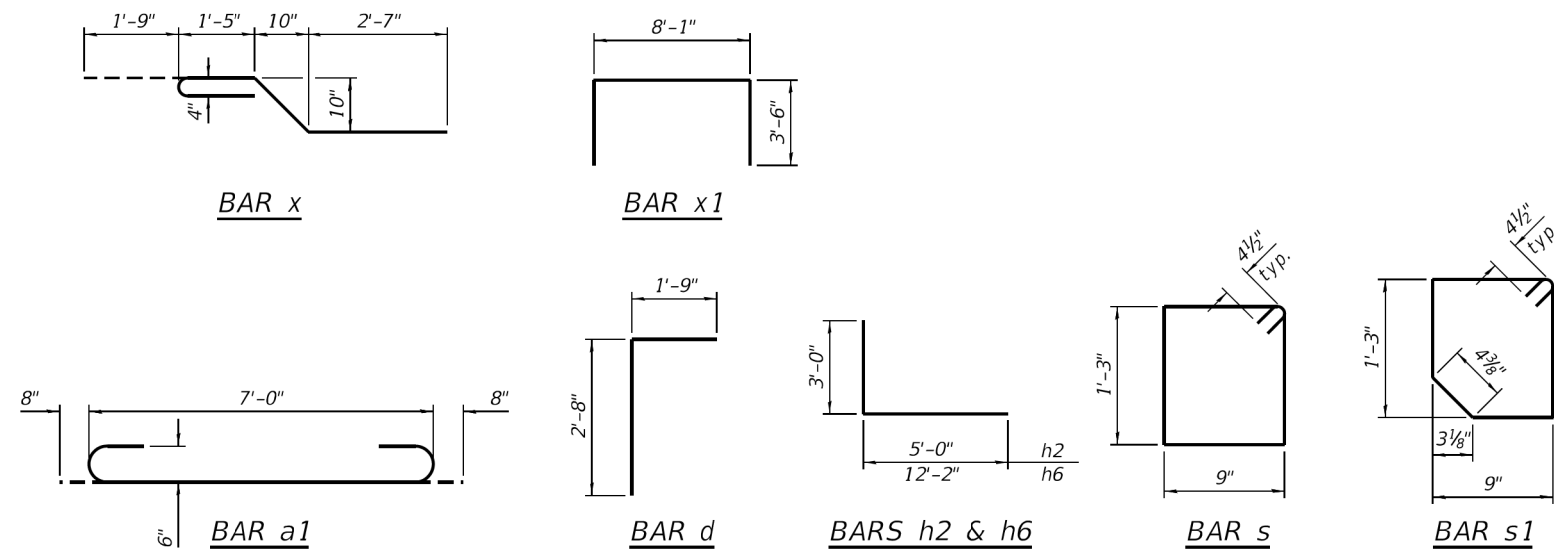
CULVERT DETAILS  
 STRUCTURE NO. 016-2272

SHEET 2 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	34
CONTRACT NO. 62J28				

ILLINOIS FED. AID PROJECT

MODEL: Default  
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 11/7/2019 8:57:21 AM



**DRAIN DETAIL**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1	48	#6	8'-4"	
a2	32	#5	7'-0"	
d	14	#4	4'-5"	
h	64	#5	6'-8"	
h1	16	#4	6'-8"	
h2	40	#6	8'-0"	
h3	4	#6	7'-0"	
h4	4	#7	7'-0"	
h5	40	#6	15'-2"	
h6	24	#6	15'-2"	
s	8	#4	4'-9"	
s1	8	#4	4'-8"	
v	68	#4	4'-5"	
v1	16	#4	7'-3"	
x	56	#4	7'-0"	
x1	12	#4	15'-1"	
Concrete Box Culverts			Cu. Yd.	20.4
Reinforcement Bars			Pound	4,140

USER NAME = acb	DESIGNED - KAB	REVISED -
CHECKED - ACB	REVISIONS -	
PLOT SCALE = 0:2,0000 "/>		

F.A.U. RTE. 1602	SECTION 2019-051-T	COUNTY COOK	TOTAL SHEETS 45	SHEET NO. 35
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62J28	



GSI Job No. 16131-B

SOIL BORING LOG

Page 1 of 1

Date 6/13/19

ROUTE 147th Street DESCRIPTION IDOT PTB 181-004 WO# 22 LOGGED BY RT
SECTION LOCATION NW 1/4, SEC. 8, TWP. T36N, RNG. R13E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for Depth (ft), Blows (blows/ft), UCS (tsf), and Moisture (%). Includes soil descriptions like SILTY CLAY-black-stiff, SANDY LOAM-brown-loose, and FRACTURED ROCK-gray-very dense.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



GSI Job No. 16131-B

SOIL BORING LOG

Page 1 of 1

Date 6/13/19

ROUTE 147th Street DESCRIPTION IDOT PTB 181-004 WO# 22 LOGGED BY RT
SECTION LOCATION NW 1/4, SEC. 8, TWP. T36N, RNG. R13E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for Depth (ft), Blows (blows/ft), UCS (tsf), and Moisture (%). Includes soil descriptions like SILTY CLAY-black-stiff to very stiff, SANDY LOAM-brown-very loose, and SILTY CLAY LOAM with Fractured Rock-gray-very dense.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

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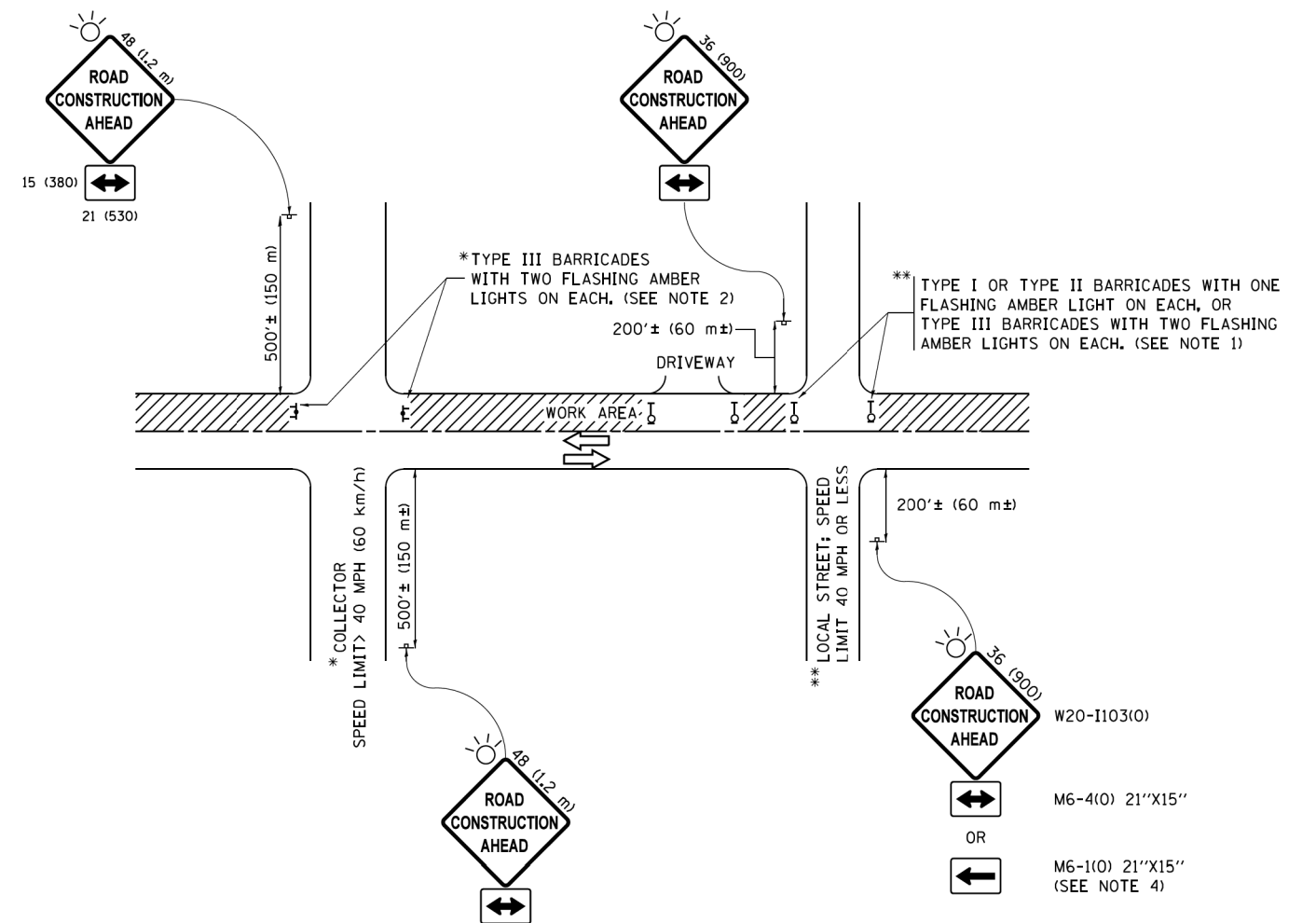
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 016-2272

SHEET 4 OF 4 SHEETS

Table with columns for F.A.U. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.



**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 STANDARD(S). 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.

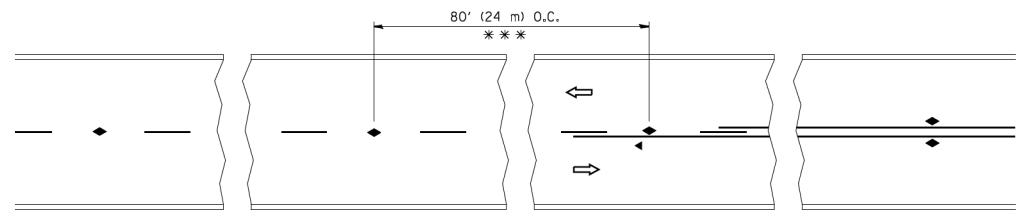
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	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

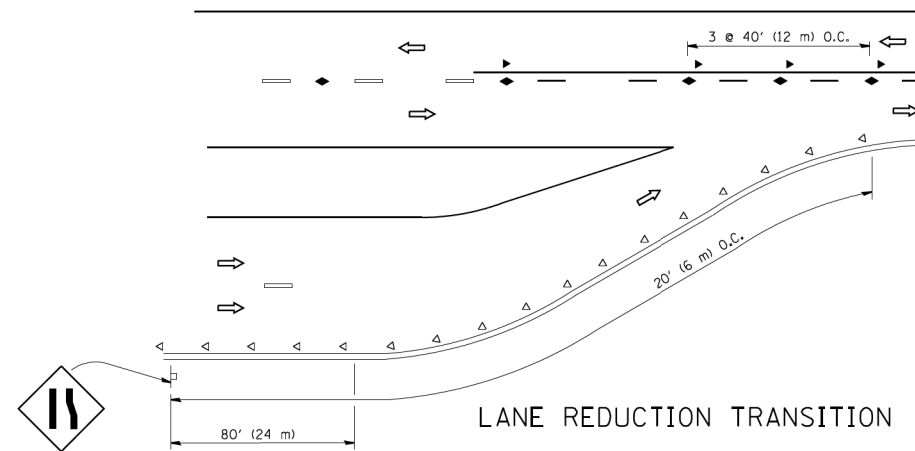
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>TC-10</b>			<b>CONTRACT NO. 62J28</b>	
ILLINOIS FED. AID PROJECT				

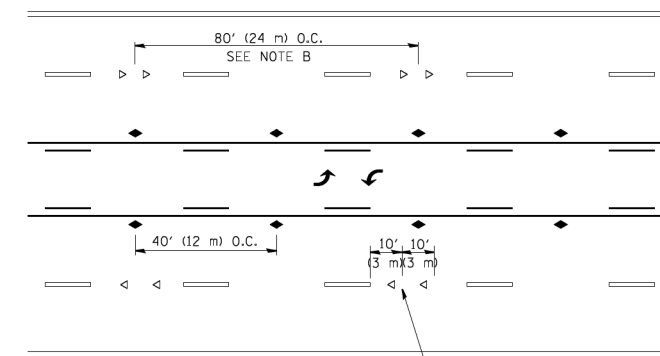


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

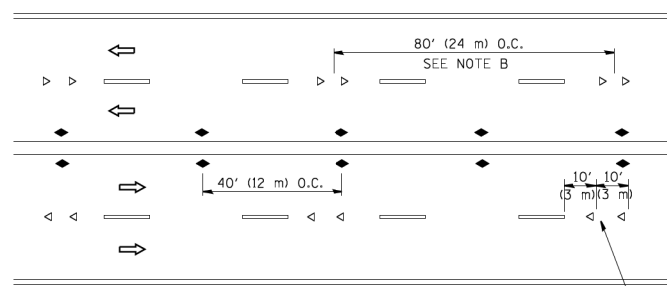
TWO-LANE/TWO-WAY



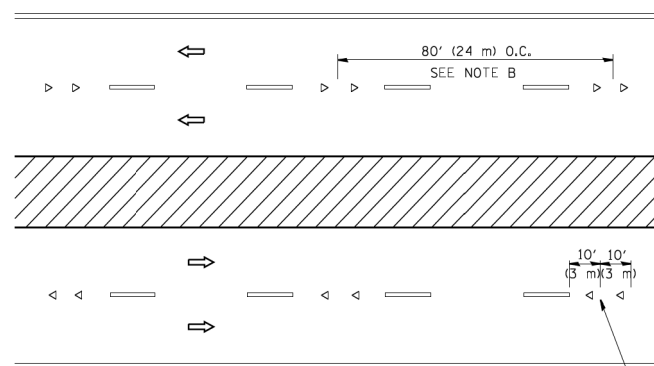
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

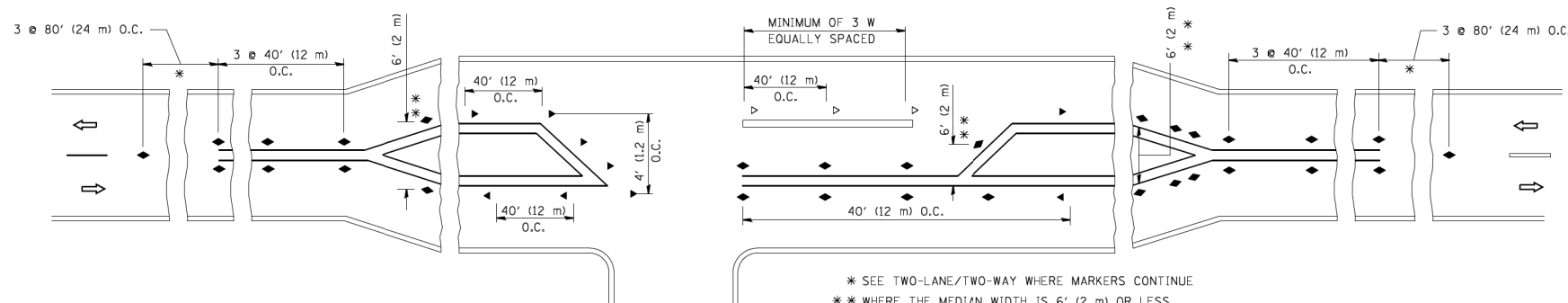
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- < ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

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

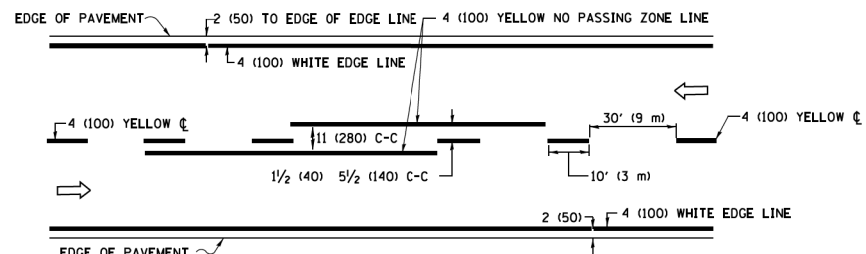
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

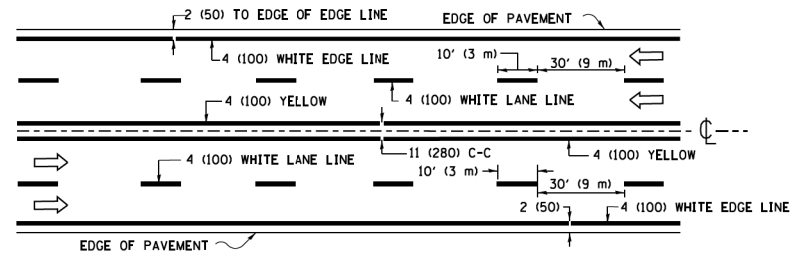
TYPICAL APPLICATIONS  
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

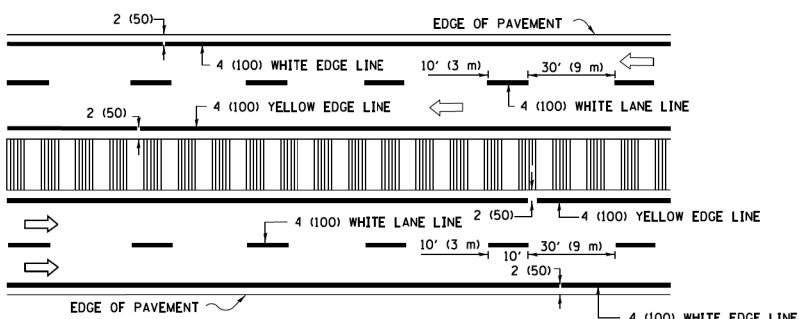
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	38
TC-11		CONTRACT NO. 62J28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**2-LANE ROADWAY**

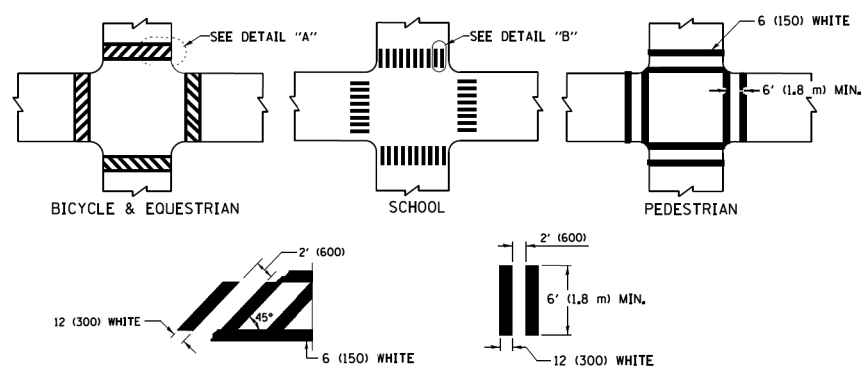


**MULTI-LANE UNDIVIDED**



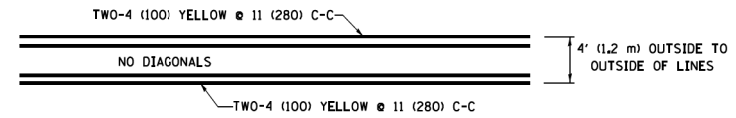
**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

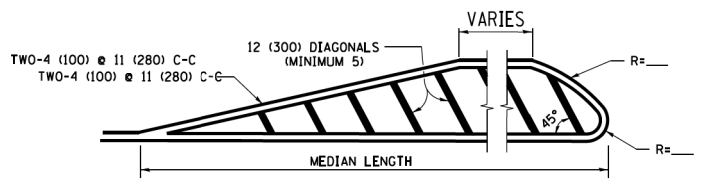


**TYPICAL CROSSWALK MARKING**

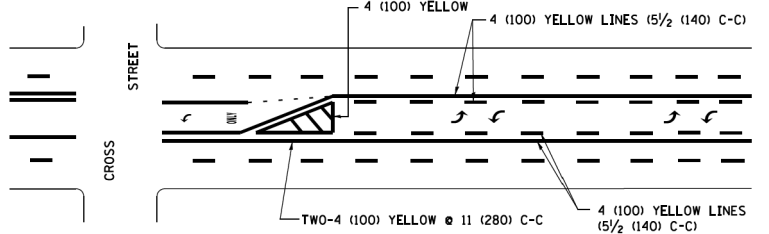
\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



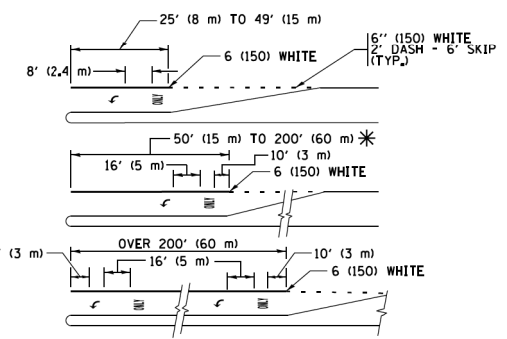
**4' (1.2 m) WIDE MEDIANS ONLY**



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

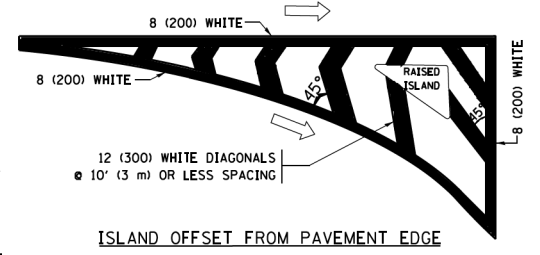


**MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING**

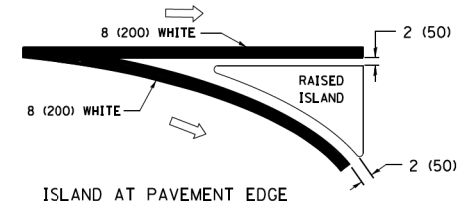


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

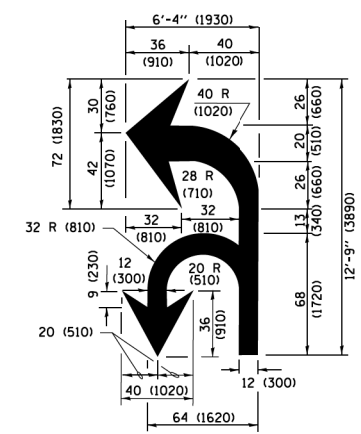
**TYPICAL LEFT (OR RIGHT) TURN LANE TYPICAL TURN LANE MARKING**



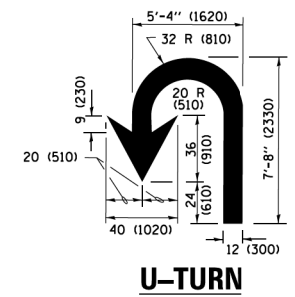
**ISLAND OFFSET FROM PAVEMENT EDGE**



**ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

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

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

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

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

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

FILE NAME =	USER NAME = lryss	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
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	PLOT DATE = 6/23/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	39
<b>TC-13</b>		CONTRACT NO. 62J28		
ILLINOIS FED. AID PROJECT				

**ROUTE MARKERS**

FOR U.S. ROUTES  
M1-40-2424

FOR ILLINOIS ROUTES  
M1-50-2424

R.R. UNMARKED ROUTES  
SPECIAL 24" x 18" VARIABLE  
4" BLACK LETTERS ON WHITE  
REFLECTIVE BACKGROUND

**ARROWS SIGNS**

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-2-2115

M6-3-2115

**CARDINAL DIRECTION & DETOUR SIGNS**

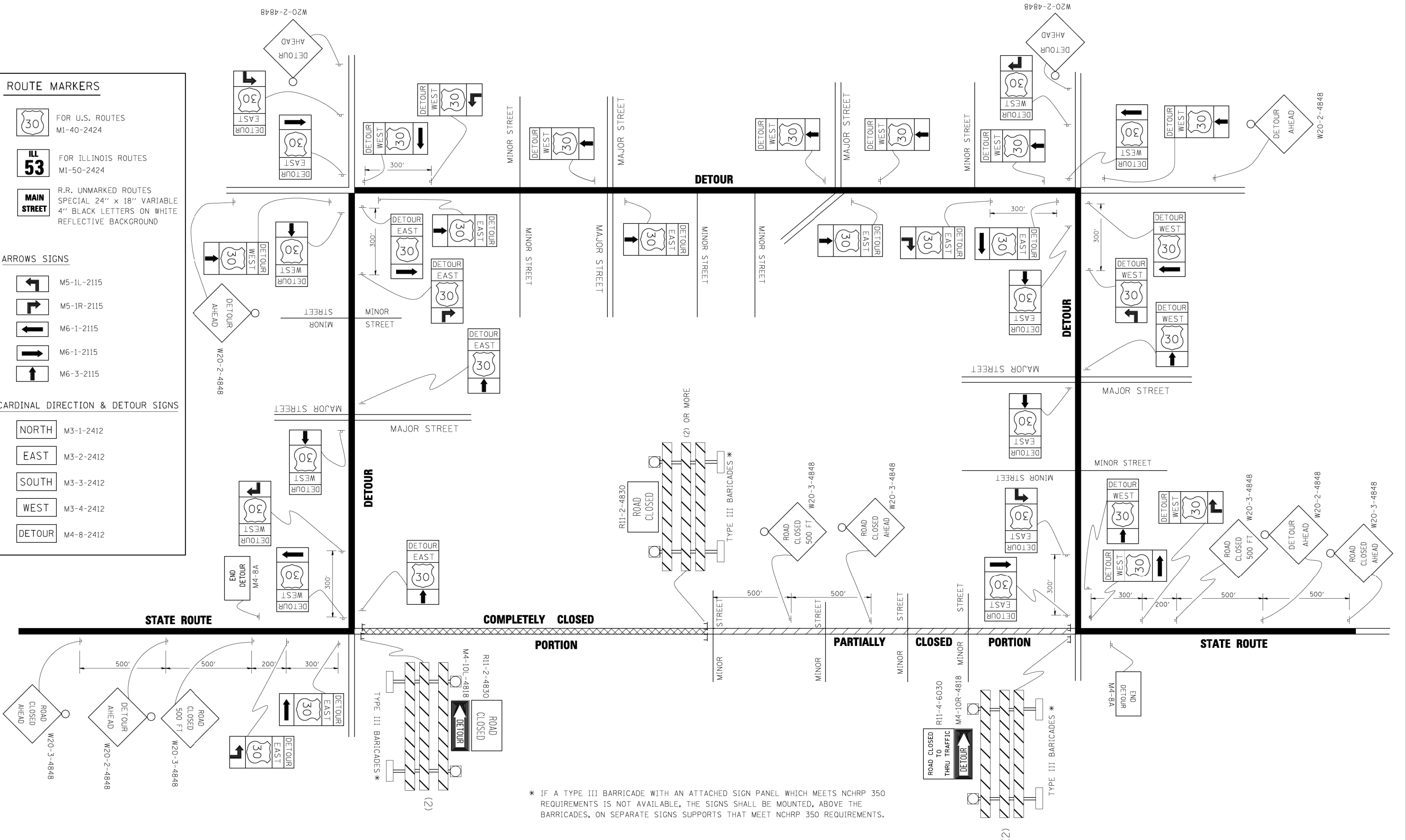
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412



\* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

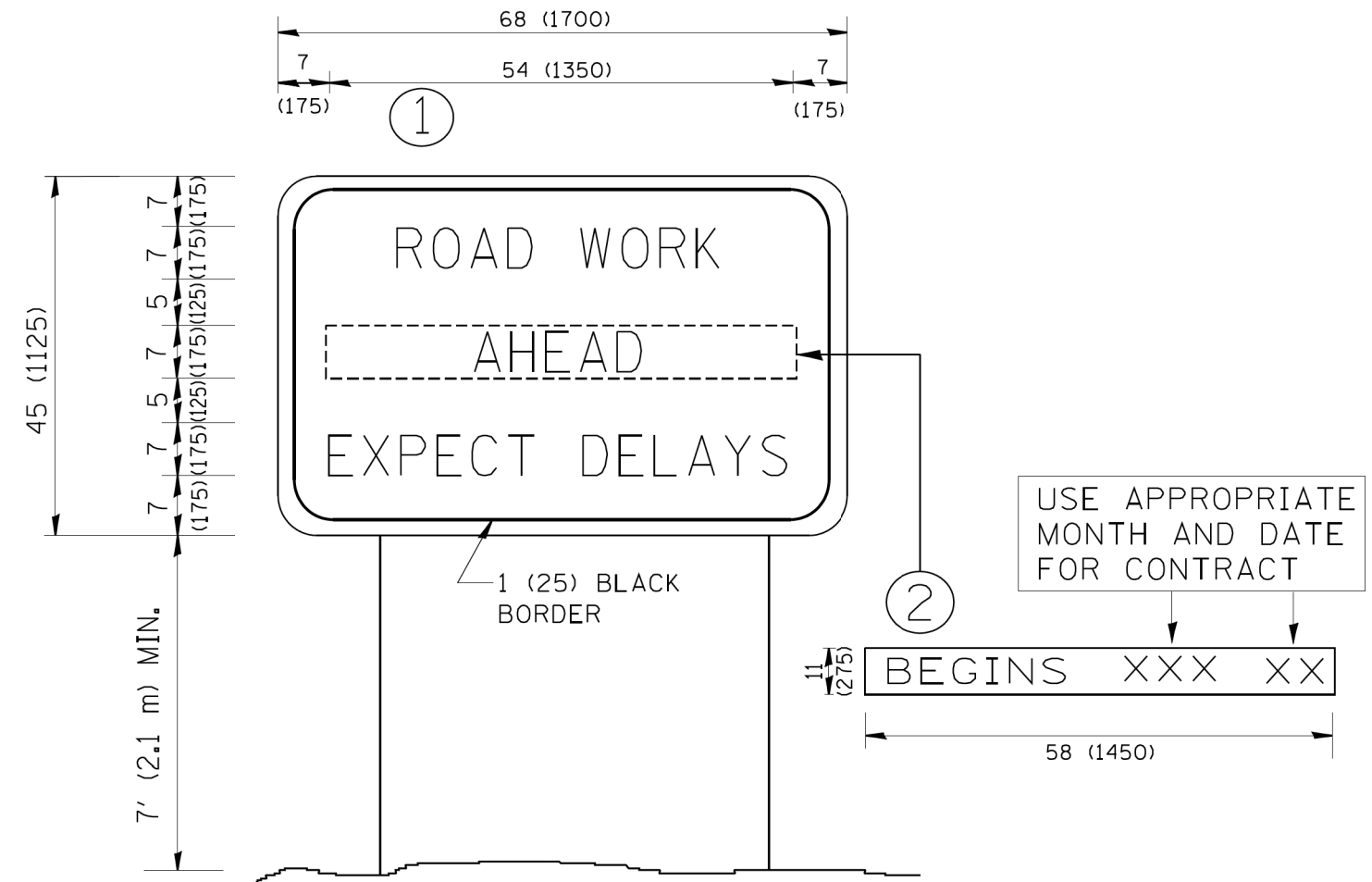
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		CHECKED -	REVISED -
		DATE - 9/14/2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETOUR SIGNING FOR CLOSING STATE HIGHWAYS</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	40
<b>TC-21</b>		CONTRACT NO. 62J28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





**NOTES:**

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

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

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		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

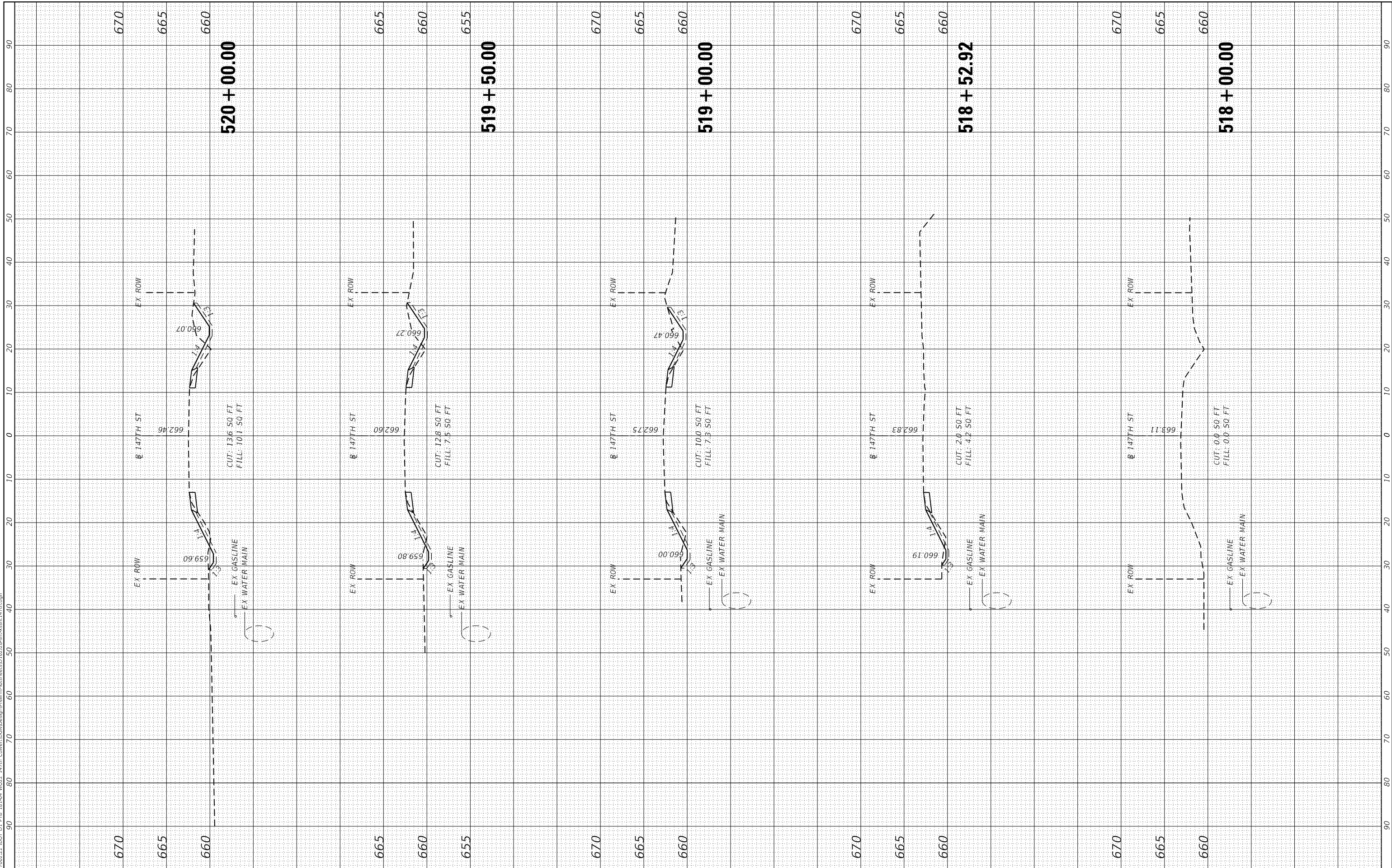
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	41
<b>TC-22</b>		<b>CONTRACT NO. 62J28</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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

MODEL: Defnair  
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USER NAME =	RGall
DESIGNED -	RAG
DRAWN -	CS
CHECKED -	JH
DATE -	3/17/2020

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

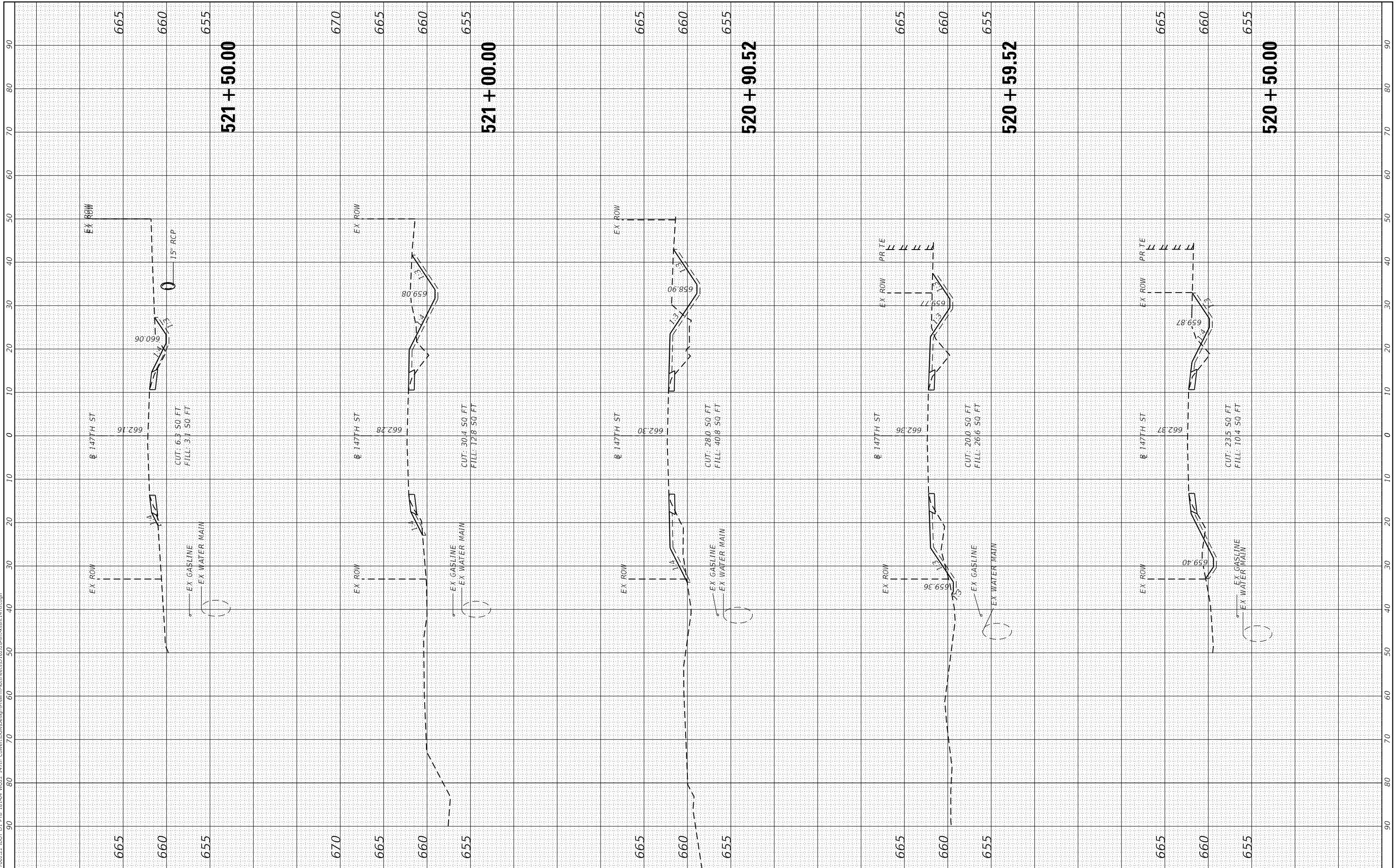
<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL CROSS SECTIONS - 147TH ST</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1602	2019-051-T	COOK	45	42
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

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

ORIGINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

MODEL: Defa01r  
 FILE NAME: Z:\1\2022\DOT D1\_P1B\_1B144\_W022\_147R\_CulvertDesign\Prelim\PreSiteD162J28-ribxsb147th.dgn



USER NAME = RGalil	DESIGNED - RAG	REVISD -
	DRAWN - CS	REVISD -
	CHECKED - JH	REVISD -
	DATE - 3/17/2020	REVISD -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

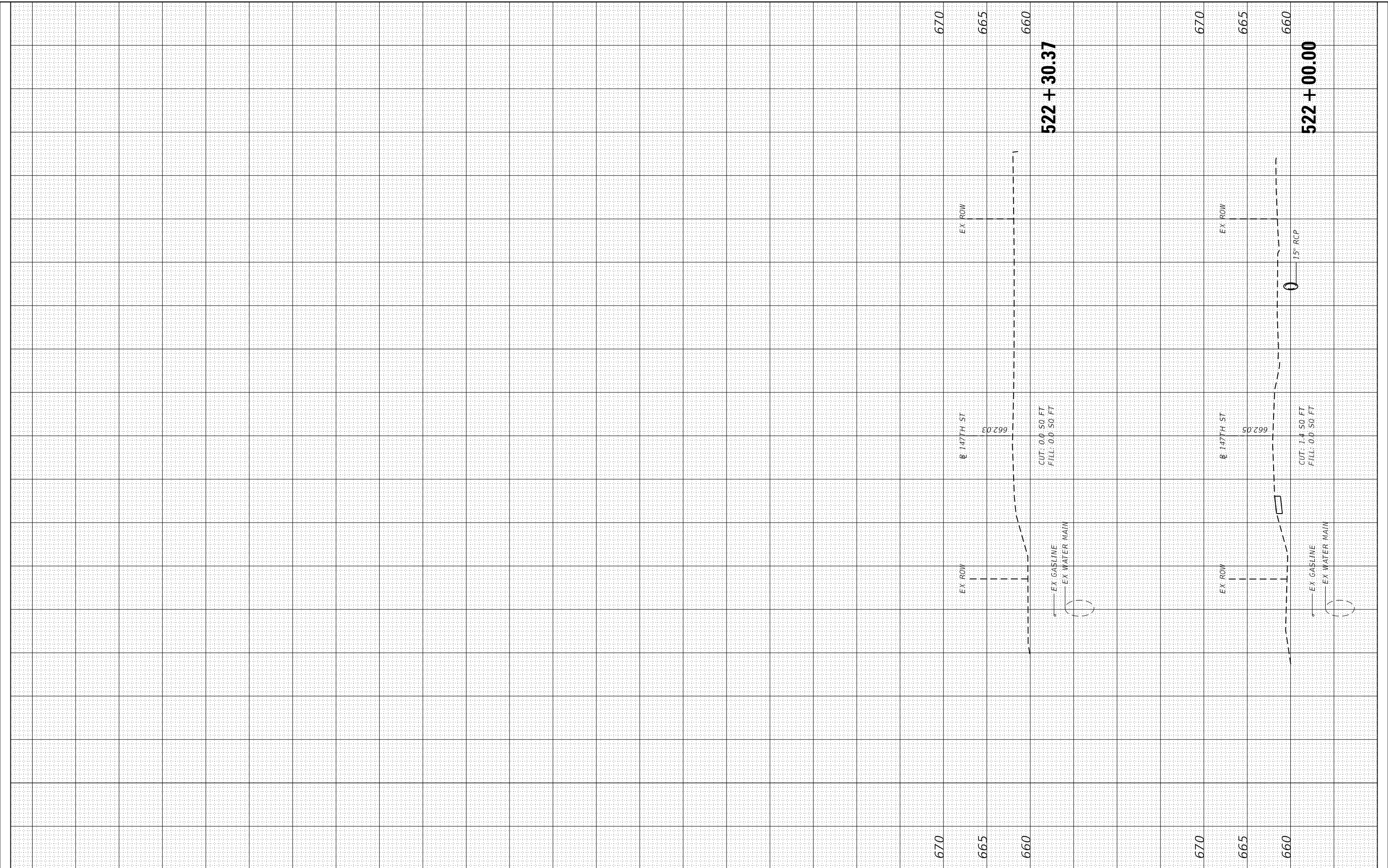
<b>147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL    CROSS SECTIONS - 147TH ST</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.U. RTE. 1602	SECTION 2019-051-T	COUNTY COOK	TOTAL SHEETS 45	SHEET NO. 43
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

MODEL: Defnair  
FILE NAME: Z:\1702.22\DOT D1\_PTB\_181-04\_W022\_147th\_CulvertDesign\Prelim\PreSiteID162128-shsxsst147th.dgn



USER NAME = RGall	DESIGNED - RAG	REVISED -
PLOT SCALE = 20.0000 ' / in.	DRAWN - CS	REVISED -
PLOT DATE = 3/17/2020	CHECKED - JH	REVISED -
	DATE - 3/17/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
CROSS SECTIONS - 147TH ST**

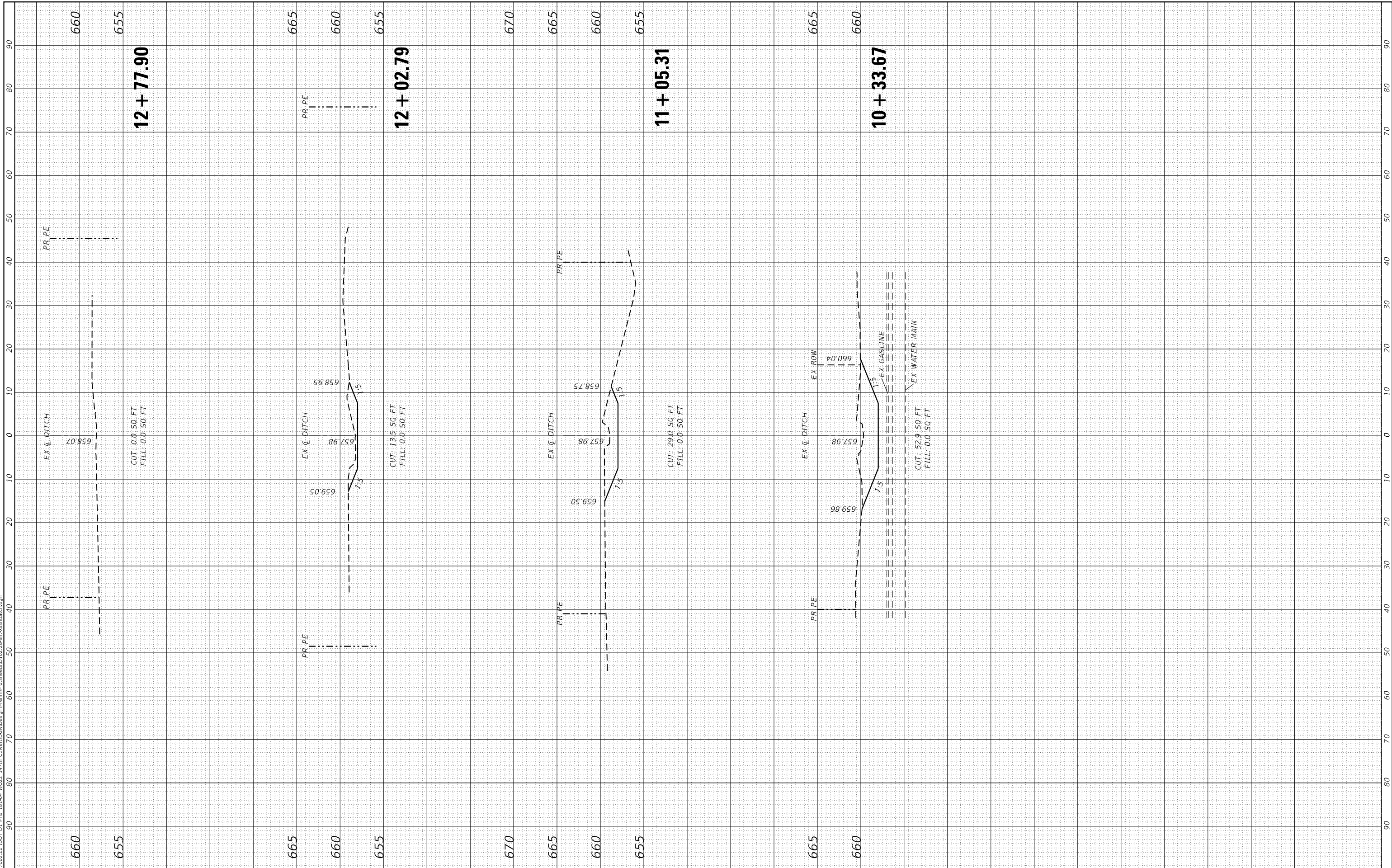
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE. 1602	SECTION 2019-051-T	COUNTY COOK	TOTAL SHEETS 45	SHEET NO. 44
CONTRACT NO. 62J28				
ILLINOIS		FED. AID PROJECT		

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

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

MODEL: Defnair  
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USER NAME = RGal	DESIGNED - RAG	REVISD -
PLOT SCALE = 20.0000 ' / in.	DRAWN - CS	REVISD -
PLOT DATE = 3/17/2020	CHECKED - JH	REVISD -
	DATE - 3/17/2020	REVISD -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**147TH ST OVER TRIBUTARY C TO CAL-SAG CHANNEL  
 CROSS SECTIONS - DITCH**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.U. RTE. 1602	SECTION 2019-051-T	COUNTY COOK	TOTAL SHEETS 45	SHEET NO. 45
CONTRACT NO. 62J28				
ILLINOIS FED. AID PROJECT				