

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS NO.
631	111N-B)B-R	WILL	47
FED. ROAD DIST. NO.	TR. LOTS	CONTRACT NO. 60V28	

THE IMPROVEMENT IS LOCATED IN THE WESLEY TOWNSHIP

**PROPOSED  
HIGHWAY PLANS**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

F.A.P ROUTE 631: (ILLINOIS ROUTE 102)  
SECTION (111N-B)B-R  
FEDERAL PROJECT STP-54IP (860)

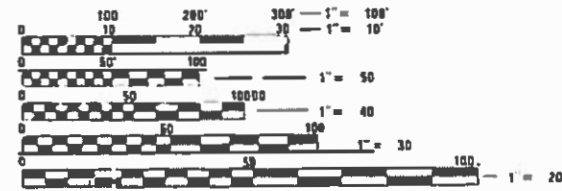
ILLINOIS ROUTE 102 AT RAYNS CREEK 6 MILES SOUTH OF ILL ROUTE 53  
BRIDGE REPLACEMENT  
WILL COUNTY  
C - 91 - 535 - 12



**DESIGN DESIGNATION:**

IL 102  
MINOR ARTERIAL  
ADT (2015) = 2450  
ADT (2040) = 1500  
POSTED SPEED LIMIT = 55 MPH

OLD CHICAGO RD  
LOCAL ROAD  
ADT (2012) = 1350  
POSTED SPEED LIMIT = 55 MPH

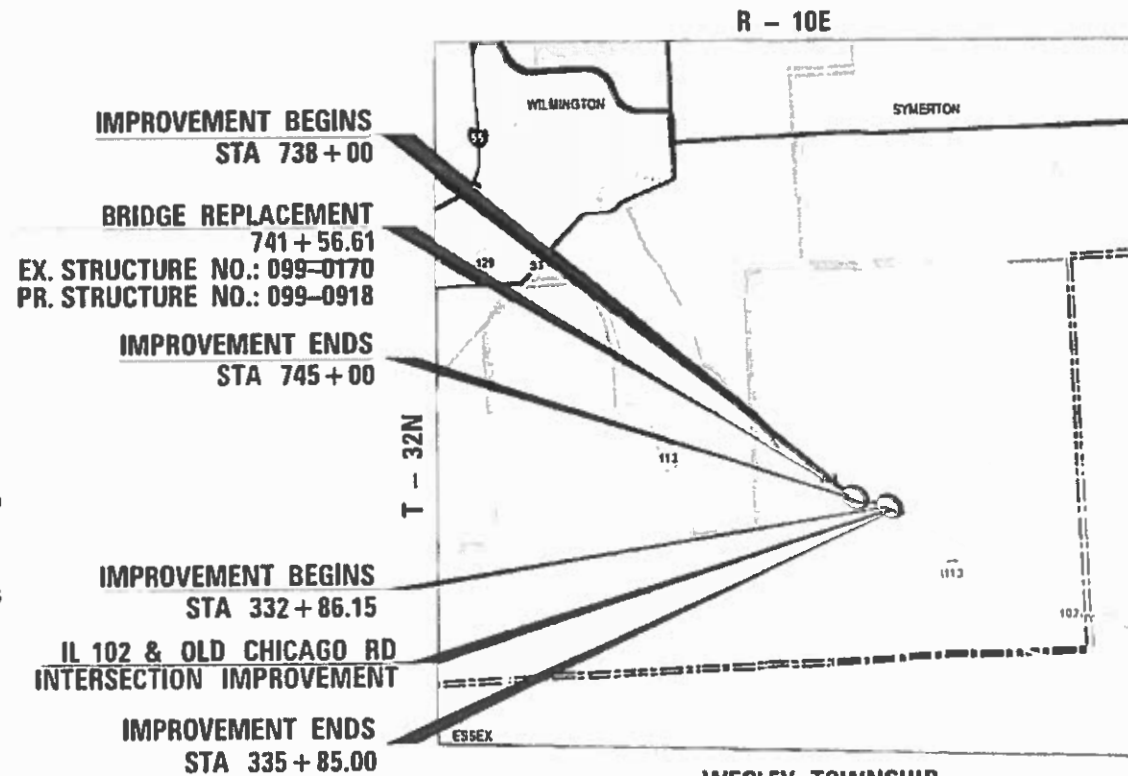


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT MANAGER: MATTHEW ROTHENBERG (847) 705-4230  
PROJECT ENGINEER: JEAN ALIX BRICE (847) 705-4552

CONTRACT NO.: 60V28



WESLEY TOWNSHIP  
LOCATION MAP

NOT TO SCALE  
GROSS LENGTH = 300 FT. = 0.056 MI.  
NET LENGTH = 300 FT. = 0.056 MI

AES SERVICES INC.  
SHEETS  
1-11, 14, 15, 17, 19, 22, 25, 27, 29, 37, 41, 47

JAMEEL AHMED  
ILLINOIS LICENSED PROFESSIONAL ENGINEER  
DATE 5/29/2018  
LICENSE EXPIRES ON 11/30/2019

AES SERVICES INC.  
SHEETS  
30 - 36

MOHAMMED SALEM  
OBL006145  
LICENSED STRUCTURAL ENGINEER  
DATE 05/29/2018  
LICENSE EXPIRES ON 11/30/2019

WIGHT SHEETS  
12-13, 16, 18, 23-24, 26, 28, 42-46

JACOB H. HOWE  
062-064381  
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS  
DATE 5/29/18  
LICENSE EXPIRES ON 11/30/2019

AES  
ENGINEERS & SURVEYORS  
111 S. Wacker Drive, Suite 3910  
Chicago, IL 60606  
Ph: 312-235-6783  
ILLINOIS PROFESSIONAL DESIGN FIRM  
LICENSE NO. 184-0030 2

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
SUBMITTED MAY 30 2018  
Anthony P. Pagan / OAB REGIONAL ENGINEER  
Aug 01 2018  
Paul P. Ch...  
ENGINEER OF DESIGN AND ENVIRONMENT  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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## HIGHWAY STANDARDS

### STANDARD NO DESCRIPTION

000001-06	STANDARDS SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
601001-05	PIPE UNDERDRAINS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
606001-07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
610001-08	SHOULDER INLET WITH CURB
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-08	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-09	TRAFFIC BARRIER TERMINAL, TYPE 6A
642006	SHOULDER RUMBLE STRIPS, 8 IN.
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURES, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701901-07	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

## DISTRICT 1 STANDARDS

### STANDARD NO DESCRIPTION

BD-51	BENCHING DETAIL FOR EMBANKMENT WIDENING
BD-55	RUMBLE STRIPES FOR CENTERLINE, NON-FREEWAY
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS.
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-LOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-21	DETOUR SIGNING FOR CLOSING STATE HIGHWAYS
TC-22	ARTERIAL ROAD INFORMATION SIGN

## GENERAL NOTES

- THE CONTRACTOR SHALL ERECT A TEMPORARY FENCE AROUND ALL TREES WITHIN THE CONSTRUCTION AREA TO ESTABLISH A "TREE PROTECTION ZONE" BEFORE ANY WORK BEGINS OR ANY MATERIAL IS DELIVERED TO THE JOB SITE. NO WORK IS TO BE PERFORMED (OTHER THAN ROOT PRUNING), MATERIALS STORED OR VEHICLES DRIVEN OR PARKED WITHIN THE "TREE PROTECTION ZONE." REMOVE PROTECTIVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED. TEMPORARY FENCE SHOULD BE ERECTED ALONG THE DRIPLINE OF THE TREES AND SHRUBS WITHIN THE LIMITS OF CONSTRUCTION.
- THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- TREE ROOT PRUNING IS TO BE USED ON EXISTING TREES TO PREVENT THE RIPPING UP OF ROOTS WHEN TRENCHING OR EXCAVATION IS WITHIN THE ROOT ZONE OF ADJACENT TREES TO REMAIN. SUPPLEMENTAL WATERING OF TREES SHOULD BEGIN IMMEDIATELY AFTER ROOT PRUNING OF THE TREES HAS OCCURRED.
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES (48 HOUR NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE WESLEY TOWNSHIP.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE PREFERENCE. ALL EXISTING PAVEMENT MARKING LINES AND REVISED 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 ENGINEER.
- THE RESIDENT ENGINEER SHALL CONTACT MR. ERIC CAMPOS, AREA TRAFFIC FIELD ENGINEER AT ERIC.CAMPOS@ILLINOIS.GOV, A MINIMUM OF TWO WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- DRAINAGE STRUCTURE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 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 BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT 1 DETAIL " TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW - PLOW RESISTANT)" SHOWN IN THE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, I.D.O.T.'S COMMUNICATIONS CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.
- THE RESIDENT ENGINEER SHALL CONTACT THE KANKAKEE RIVER STATE PARK OFFICIALS PRIOR TO START OF THE CONSTRUCTION TO INFORM THEM OF THE INITIATION OF CONSTRUCTION ACTIVITIES NEAR THEIR PROPERTIES.
- THE CONTRACTOR SHALL TAKE MEASURES TO AVOID OVER EXCAVATION AND UNDERCUTTING TO LEAVE THE ARCHEOLOGICAL SITES ADJACENT TO THE PROJECT AREA UNDISTURBED.
- REMOVAL OF GUARDRAIL TERMINAL SECTIONS PAID AT CONTRACT PRICE PER FOOT AS " GUARDRAIL REMOVAL".
- CONTRACTOR IS RESPONSIBLE FOR DIVERTING RAYNS CREEK TO ALLOW CONSTRUCTION OF THE PROPOSED BOX CULVERT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE DIVERSION.

- THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW REVIEW (BDE 2289) AND USE/WASTE REVIEW (BDE 2290) SUBMITTALS, THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION II.G.1 AND 2 OF THE SWPPP. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS 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.

## COMMITMENTS

- THE CONTRACTOR SHALL ATTACH AN ALUMINUM SIGN WITH THE FOLLOWING TEXT: "PROTECTED WETLAND - NO INTRUSION". THE SIGN(S) SHALL BE ATTACHED TO THE PERIMETER EROSION BARRIER STAKES BY A METHOD APPROVED BY THE ENGINEER. THE SIGN(S) WILL BE PROVIDED BY THE DEPARTMENT AND SHALL BE PICKED UP BY THE CONTRACTOR FROM THE DISTRICT ONE ROADSIDE DEVELOPMENT ARCHITECT IN SCHAUMBURG, ILLINOIS. SCHEDULING THE PICKUP OF THE SIGNS CAN BE ARRANGED BY CONTACTING THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT AT (847) 705-4171. WHEN WORK HAS BEEN COMPLETED, THE SIGN(S) SHALL BE RETURNED TO THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT. THE COST OF PICKING UP, ATTACHING THE SIGNS TO THE TEMPORARY STAKES AND RETURNING THE SIGNS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PERIMETER EROSION BARRIER.
- DURING THE PLANNING PHASE OF THIS PROJECT, HIGH QUALITY WETLANDS WERE DISCOVERED IN THE VICINITY OF THE IMPROVEMENT. TO THE EXTENT POSSIBLE, AVOID ENTERING THE UN-IMPACTED WETLAND AREAS DURING CONSTRUCTION.
- DURING THE PLANNING PHASE OF THIS PROJECT, ARCHEOLOGICALLY SIGNIFICANT SITES WERE DISCOVERED ADJACENT TO THE PROJECT AREA. THE PROJECT LIMITS WERE DEFINED TO AVOID ADVERSE EFFECTS TO THESE SITES; HOWEVER, THEY MUST BE AVOIDED DURING CONSTRUCTION. BY LAW, ARCHEOLOGICAL SITE LOCATIONS ARE PROTECTED AND CANNOT BE DISCLOSED TO THE PUBLIC. SITE LOCATIONS WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. STOCKPILING OF MATERIALS OR EQUIPMENT, OR INTRUSION BY CONSTRUCTION PERSONNEL INTO THESE AREAS WILL BE STRICTLY PROHIBITED.

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PLOT DATE = 8/21/2018	DATE - 08/14/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD	
HIGHWAY STANDARDS, COMMITMENTS & GENERAL NOTES.	
SCALE	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	2
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY 0021 RURAL	BOX CULVERT 0044 099-0918	ROADWAY 0021 RURAL
20101000	TEMPORARY FENCE	FOOT	300	300		
20101200	TREE ROOT PRUNING	EACH	4	4		
20101700	SUPPLEMENTAL WATERING	UNIT	12	12		
20200100	EARTH EXCAVATION	CU YD	436	305		131
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	143	130		13
20700220	POROUS GRANULAR EMBANKMENT	CU YD	206	130	76	
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	771	771		
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	200	200		
25000310	SEEDING, CLASS 4	ACRE	0.25	0.25		
25000314	SEEDING, CLASS 4B	ACRE	0.05	0.05		

\* SPECIALTY ITEMS

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**AES**  
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PLOT SCALE = 2.0000' / 1" =	DRAWN - AWM	REVISED -
PLOT DATE = 5/31/2018	CHECKED - JA	REVISED -
	DATE - 05/24/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK  
SUMMARY OF QUANTITIES - SHEET 1 OF 6

SCALE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60V28	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY	BOX CULVERT	ROADWAY
0021	0044	0021				
RURAL	099-0918	RURAL				
25000775	SELECTIVE MOWING STAKES	EACH	4	4		
25100630	EROSION CONTROL BLANKET	SQ YD	730	730		
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	590	590		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25	25		
28000305	TEMPORARY DITCH CHECKS	FOOT	86	86		
28000315	AGGREGATE DITCH CHECKS	TON	11	11		
28000400	PERIMETER EROSION BARRIER	FOOT	700	700		
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	1320	1320		
28100109	STONE RIPRAP, CLASS A5	SQ YD	99		99	
28100705	STONE DUMPED RIPRAP, CLASS A3	SQ YD	15	15		
28200200	FILTER FABRIC	SQ YD	114	15	99	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	55	55		
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	1672	1414		258
40600825	POLYMERIZED LEVELING BINDER (MACHINE METHOD), N50	TON	37			37

\* SPECIALTY ITEMS

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USER NAME = tmohammed  
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CHECKED - JA  
DATE - 05/24/2018

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK  
SUMMARY OF QUANTITIES - SHEET 2 OF 6

SCALE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	4
			CONTRACT NO. 60V28	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY	BOX CULVERT	ROADWAY
0021	0044	0021				
				RURAL	099-0918	RURAL
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	73			73
40700100	BITUMINOUS MATERIALS (TACK COAT)	POUND	720	720		
40701886	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10 1/4"	SQ YD	980	800		180
44000100	PAVEMENT REMOVAL	SQ YD	822	822		
44004250	PAVED SHOULDER REMOVAL	SQ YD	301	171		130
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	446	371		75
48203038	HOT-MIX ASPHALT SHOULDERS, 10 1/4"	SQ YD	546	546		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
50104000	BRIDGE RAIL REMOVAL	FOOT	45		45	
50200100	STRUCTURE EXCAVATION	CU YD	934		934	
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	76		76	
50300300	PROTECTIVE COAT	SQ YD	43		43	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	116630		116630	

\* SPECIALTY ITEMS

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PLOT SCALE = 2.0000' / 1" =	CHECKED - JA	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK  
SUMMARY OF QUANTITIES - SHEET 3 OF 6

SCALE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60V28	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY	BOX CULVERT	ROADWAY
0021	0044	0021				
RURAL	099-0918	RURAL				
50900200	STEEL RAILING, TYPE 2399	FOOT	179		179	
51500100	NAME PLATES	EACH	1		1	
54003000	CONCRETE BOX CULVERTS	CU YD	425		425	
54213447	END SECTIONS 12"	EACH	2	2		
58700300	CONCRETE SEALER	SQ FT	572		572	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	13		13	
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	2	2		
60100945	PIPE DRAINS 12"	FOOT	12	12		
60108204	PIPE UNDERDRAINS, TYPE 2, 4"	FOOT	20	20		
60600605	CONCRETE CURB, TYPE B	FOOT	64	64		
61000050	CONCRETE THRUST BLOCKS	EACH	2	2		
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	2	2		
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	225	225		

\* SPECIALTY ITEMS

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USER NAME = tmohammed	DESIGNED - TOM	REVISED -
PLOT SCALE = 2.0000' / 1" =	DRAWN - AWM	REVISED -
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	DATE - 05/24/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK  
SUMMARY OF QUANTITIES - SHEET 4 OF 6

SCALE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	6
			CONTRACT NO. 60V28	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY	BOX CULVERT	ROADWAY
0021	0044	0021				
RURAL	099-0918	RURAL				
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	831	831		
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	614	614		
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	530	530		
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1		
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	2	2		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
67100100	MOBILIZATION	L SUM	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	233	112		121
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	77	37		40
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1754	614		1140
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	17			17

\* SPECIALTY ITEMS

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USER NAME = tmohammed	DESIGNED - TOM	REVISED -
	DRAWN - AWM	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK  
SUMMARY OF QUANTITIES - SHEET 5 OF 6

SCALE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	7
			CONTRACT NO. 60V28	
ILLINOIS FED. AID PROJECT				

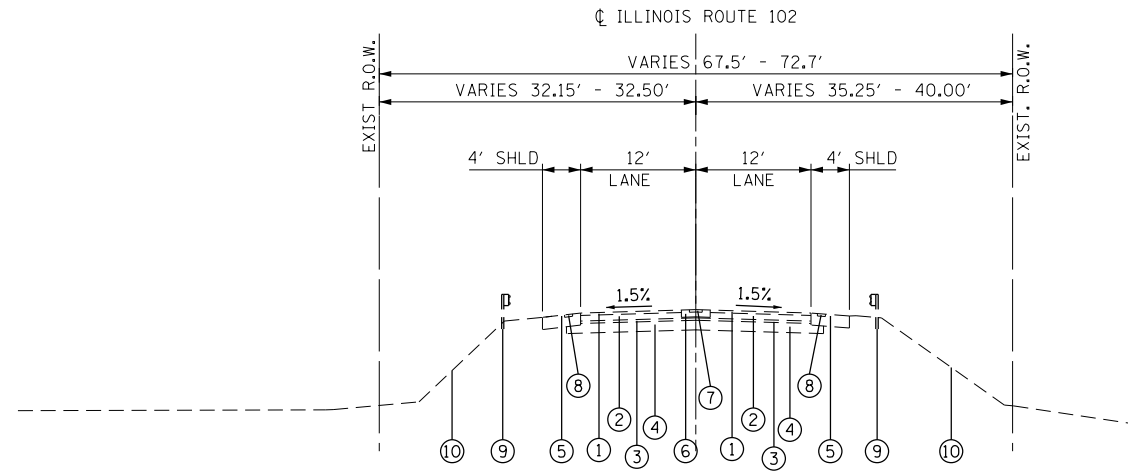
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY 0021 RURAL	BOX CULVERT 0044 099-0918	ROADWAY 0021 RURAL
				URBAN		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	8	8		
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	20	20		
* K0013000	PERENNIAL PLANTS, PRAIRIE TYPE, 2" DIAMETER BY 4" DEEP PLUG	UNIT	5	5		
X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	235		235	
X0325222	WEED CONTROL, BASAL TREATMENT	GALLON	2.5	2.5		
X0326519	STEEL RAILING REMOVAL	FOOT	45	45		
X0326898	CENTER LINE - RUMBLE STRIP - 16"	FOOT	300	300		
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	377			377
X2503112	MOWING (SPECIAL)	SQ YD	2500	2500		
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	90		90	
X6061005	CONCRETE CURB, TYPE B (SPECIAL)	FOOT	64	64		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	115	90		25
* X7800815	HOT SPRAY THERMOPLASTIC PAVEMENT MARKING LINE - 4 INCH	FOOT	380	380		
* * Z0076600	TRAINEES	HOURS	500	500		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
* * Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOURS	500	500		
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	104	52		52

\* SPECIALTY ITEMS  
\* \* = 0042

P:\6061\60605\14-PTB177-004-WD14-IL-102-Culvert over Rayns Creek\BICOD\BSSheets\8.60V28-ht-5006.dgn

 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	USER NAME = tmohammed	DESIGNED - TOM	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK</b> <b>SUMMARY OF QUANTITIES - SHEET 6 OF 6</b>	F.A.P. RTE. 631	SECTION 111N-B1B-R	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 8
	PLOT SCALE = 2.0000' / 1" =	CHECKED - JA	REVISED -			SCALE	SHEET OF SHEETS	STA. TO STA.	CONTRACT NO. 60V28	
	PLOT DATE = 5/31/2018	DATE - 05/24/2018	REVISED -							



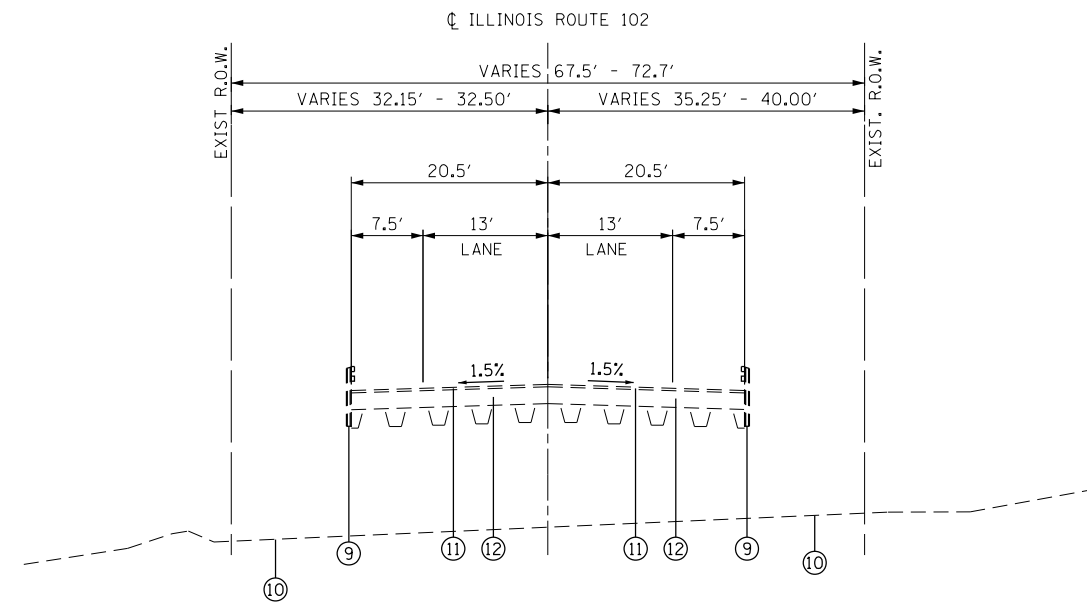


**EXISTING TYPICAL SECTION**

STA. 741+00.00 TO STA. 741+46.00  
 STA. 741+69.00 TO STA. 744+00.00

**EXISTING LEGEND**

- ① EXISTING HMA SURFACE COURSE, 1 1/2"
- ② EXISTING HMA OVERLAY 4" TO 6 1/2"
- ③ EXISTING HMA OVERLAY 3"
- ④ EXISTING HMA BASECOURSE (VAR. THICKNESS)
- ⑤ EXISTING HMA SHOULDER 8"
- ⑥ EXISTING HMA SURFACE COURSE, MIX "D", N50
- ⑦ EXISTING CENTERLINE RUMBLE STRIPS, (16" WIDE)
- ⑧ EXISTING SHOULDER RUMBLE STRIPS, (8" WIDE)
- ⑨ EXISTING GUARD RAIL
- ⑩ EXISTING EMBANKMENT
- ⑪ EXISTING PCC PAVEMENT
- ⑫ EXISTING STRUCTURE TO BE REMOVED



**EXISTING TYPICAL SECTION**

STA. 741+46.00 TO STA. 741+69.00

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111 S. Wacker Drive,  
 Suite 3910  
 Chicago, IL 60606  
 Ph: 312-235-6783

USER NAME = tmohammed	DESIGNED - TOM	REVISED -
DRAWN - AWM	REVISIONS -	
CHECKED - JA	REVISIONS -	
DATE - 05/24/2018	REVISIONS -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK  
 EXISTING TYPICAL SECTIONS**

SCALE	SHEET	OF	SHEETS	STA.	TO	STA.
-------	-------	----	--------	------	----	------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	9
<b>CONTRACT NO. 60V28</b>				
ILLINOIS FED. AID PROJECT				

## HMA MIXTURE REQUIREMENTS

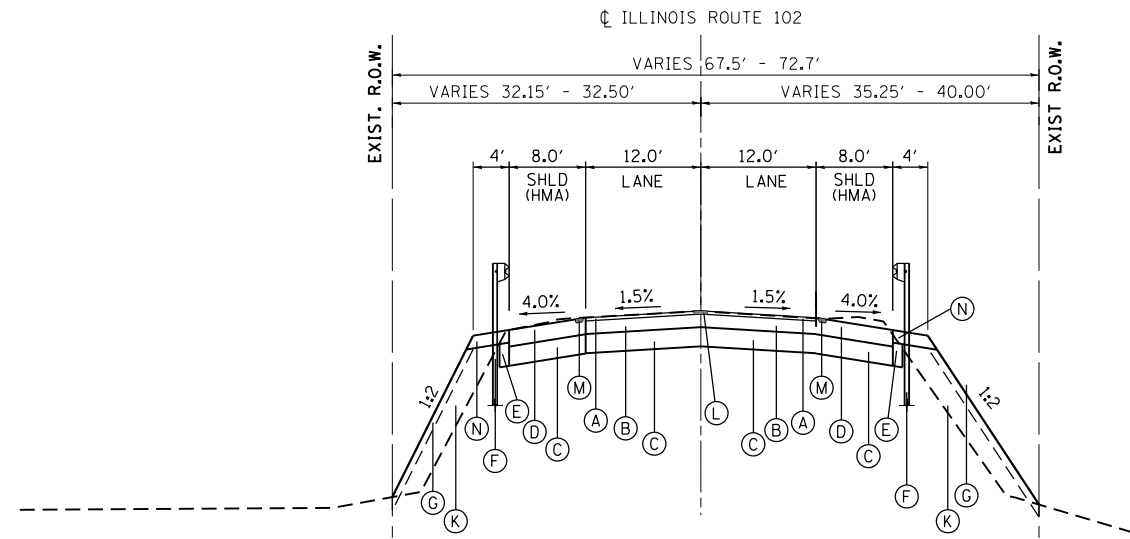
MIXTURE TYPE	AIR VOIDS @ NDES	QUALITY MANAGEMENT PROGRAM (QMP)
<b>HMA PAVEMENT (FD), 10 1/4"</b>		
2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5MM)	4% @ 70 GYR	QC/OA
HOT-MIX ASPHALT, BASE COURSE 8 1/4", (HMA BINDER, IL-19.0)	4% @ 70 GYR	QC/OA
<b>HOT MIX ASPHALT SHOULDERS, 10 1/4"</b>		
2" HMA SURFACE COURSE, MIX D N70 (IL-9.5MM)	4% @ 70 GYR	QC/OA
8 1/4" HMA BINDER IL-19 MM	4% @ 70 GYR	QC/OA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/OA)		

### MIXTURE TABLE NOTES

- THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQYD/IN.
- THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.
- QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

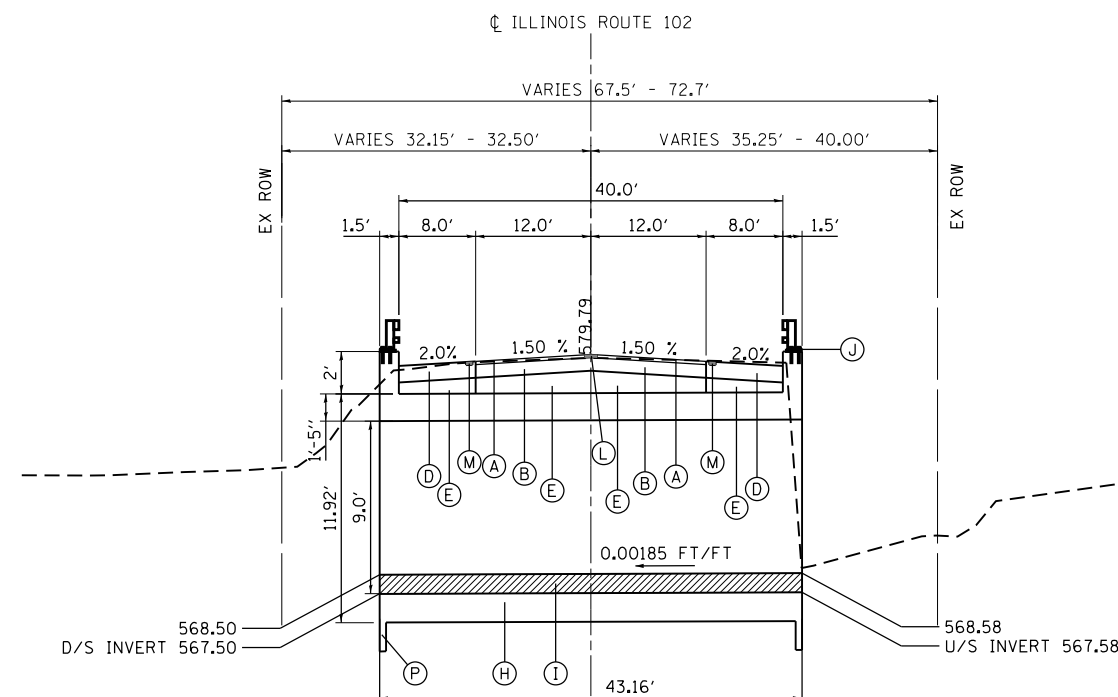
### PROPOSED LEGEND

- (A) 2" HMA SURFACE COURSE, MIX "D", N70
- (B) 8 1/4" HMA BASE COURSE, IL-19.0, N70
- (C) 12" AGGREGATE SUBGRADE IMPROVEMENT
- (D) HMA SHOULDERS, 10-1/4"
- (E) AGGREGATE SUBGRADE IMPROVEMENT
- (F) STEEL PLATE GUARDRAIL, TYPE A
- (G) RESTORATION LANDSCAPING:
  - EROSION CONTROL BLANKET
  - SEEDING CLASS 4/4B
  - TOPSOIL 4"
- (H) CONCRETE BOX CLVERT
- (I) GRANULAR BACKFILL FOR STRUCTURES (FOR EMBEDMENT-12")
- (J) STEEL RAILING, TYPE 2399
- (K) EMBANKMENT
- (L) CENTERLINE RUMBLE STRIPS, (16" WIDE)
- (M) SHOULDER RUMBLE STRIPS, (8" WIDE)
- (N) AGGREGATE SHOULDERS, TYPE B 8"
- (P) TOE WALL



### PROPOSED TYPICAL SECTION

STA. 741+00.00 TO STA. 741+35.00  
 STA. 741+78.00 TO STA. 744+00.00  
**CONSTRUCTION LIMITS**  
 STA. 738+00.00 TO STA. 741+00.00  
 STA. 744+00.00 TO STA. 745+00.00



### PROPOSED TYPICAL SECTION

STA. 741+35.00 TO STA. 741+78.00

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## HMA MIXTURE REQUIREMENTS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS MIXTURE TYPE	AIR VOIDS @ NDES	OMP
<b>PAVEMENT RESURFACING 2 1/4"</b>		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM) - 1 1/2"	4% @ 50 GYR.	QC/QA
POLYMERIZED LEVELING BINDER, (MM), IL 4.75, N50 - 3/4"	3.5% @ 50 GYR.	QC/QA
<b>PAVEMENT RECONSTRUCTION, 10 1/4"</b>		
HOT-MIX ASPHALT SURFACE COURSE, (IL-9.5MM) - 2"	4.0% @ 50 GYR.	QC/QA
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 - 8 1/4"	4.0% @ 50 GYR.	QC/QA
OMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA):		

### MIXTURE TABLE NOTES



- THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SOYD/IN.
- THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS. QUALITY MANAGEMENT PROGRAM (OMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.
- QUALITY MANAGEMENT PROGRAM (OMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

### EXISTING LEGEND

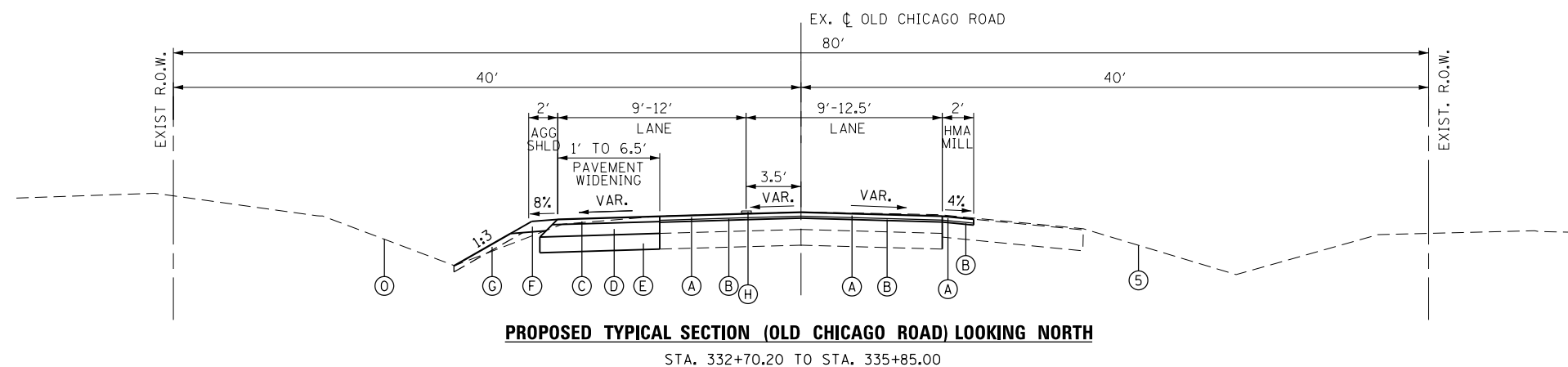
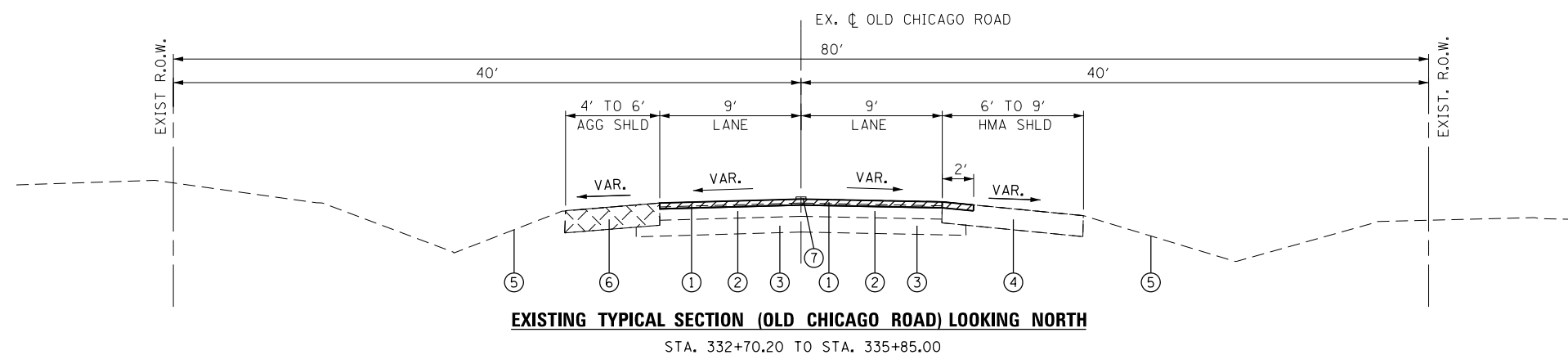
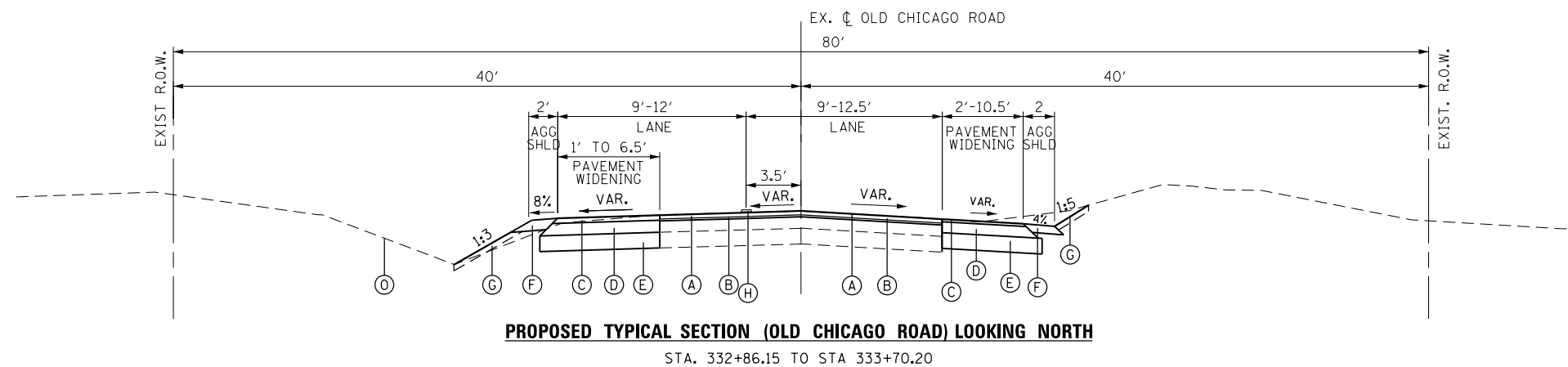
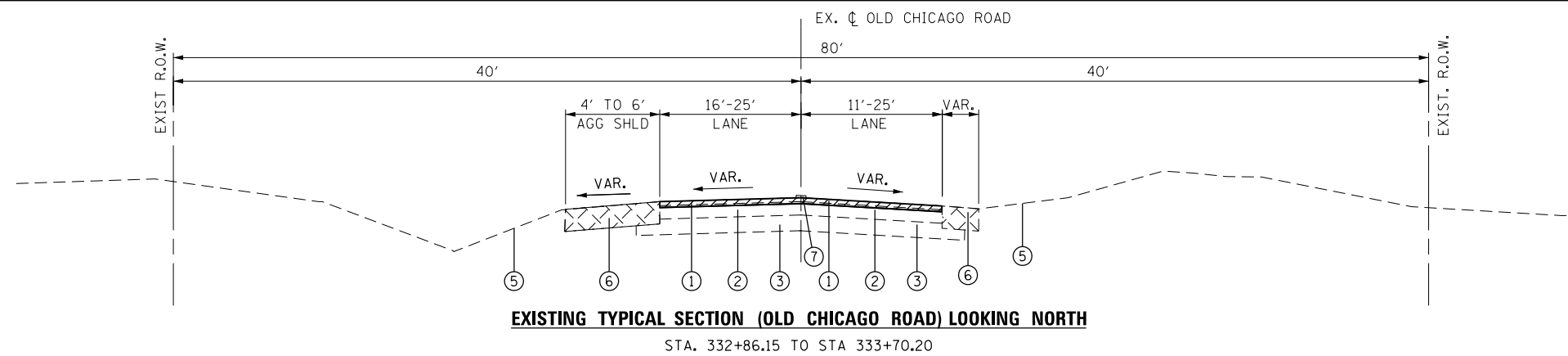
- ① HMA SURFACE MILLING 2 1/4"
- ② EXISTING HMA OVERLAY 4" TO 6 1/2"
- ③ EXISTING HMA BASECOURSE (VAR. THICKNESS)
- ④ EXISTING HMA SHOULDER 8" - (PAID FOR AS PAVED SHOULDER REMOVAL)
- ⑤ EXISTING EMBANKMENT
- ⑥ EXISTING AGGREGATE SHOULDER - (REMOVAL PAID FOR AS EARTH EXCAVATION)
- ⑦ EXISTING PAVEMENT MARKING LINE

### PROPOSED LEGEND

- (A) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM) 1 1/2"
- (B) POLYMERIZED LEVELING BINDER, (MM), IL 4.75, N50 3/4"
- (C) HOT-MIX ASPHALT SURFACE COURSE, 2"
- (D) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 8 1/4"
- (E) AGGREGATE SUBGRADE IMPROVEMENT 12"
- (F) AGGREGATE SHOULDERS, TYPE B 6"
- (G) RESTORATION LANDSCAPING:  
- EROSION CONTROL BLANKET  
- SEEDING CLASS 2A  
- TOPSOIL 4"
- (H) THERMOPLASTIC PAVEMENT MARKING LINE 4"  
(2 SOLID YELLOW)

-  HMA SURFACE MILLING 2 1/4"
-  SHOULDER REMOVAL (VAR DEPTH)

NOTE: PAVED SHOULDER STRUCTURE NOMINAL. NO ADJUSTMENT IN UNIT PRICE FOR VARIATIONS.



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**AES**  
ENGINEERS & SURVEYORS  
111 S. Wacker Drive,  
Suite 3910  
Chicago, IL 60606  
Ph: 312-235-6783

USER NAME = tmohammed	DESIGNED - TOM	REVISED -
PLOT SCALE = 10.0000' / in.	DRAWN - AWM	REVISED -
PLOT DATE = 5/31/2018	CHECKED - JA	REVISED -
	DATE - 05/24/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD INTERSECTION IMPROVEMENTS EX. & PR. TYPICALS		F.A.P. RTE. 631	SECTION (111N-B1B-R)	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 11
SCALE	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			
		CONTRACT NO. 60V28				



**SELECTIVE MOWING STAKES**

STATION	OFFSET	QUANTITY (EACH)
738+00	LT	1
738+35	RT	1
744+10	RT	1
744+84	LT	1
TOTAL		4

**AGGREGATE DITCH CHECKS**

STATION	OFFSET	QUANTITY (TONS)
738+00	LT	0.4
739+00	RT	0.9
742+50	RT	1.9
742+83	RT	1.9
743+17	RT	2.3
743+49	RT	2.3
744+00	RT	0.9
TOTAL		10.6

**PERIMETER EROSION BARRIER**

STATION	STATION	OFFSET	LENGTH (FT)
739+50.0	741+59.7	LT	209.7
739+50.0	741+27.0	RT	177.0
741+82.4	744+00.0	LT	217.6
741+55.0	742+50.0	RT	95.0
TOTAL			699.3

**CONCRETE HEADWALL FOR PIPE DRAINS**

STATION	OFFSET	QUANTITY (EACH)
740+68.3	29.7 LT	1
740+68.3	29.0 RT	1
TOTAL		2

**PIPE UNDERDRAIN TYPE 2 4"**

STATION	OFFSET	QUANTITY (FT)
740+68.3	29.7 LT	10
740+68.3	29.0 RT	10
TOTAL		20

**CONC CURB TB**

STATION	STATION	OFFSET	LENGTH (FT)	ADAJACENT TO
741+08.7	741+24.7	LT	16	GR1
742+11.4	742+27.4	LT	16	GR2
740+85.8	741+01.8	RT	16	GR3
741+88.6	742+04.6	RT	16	GR4
TOTAL			64	

**SPBGR TY A 9FT POSTS**

STATION	STATION	OFFSET	LENGTH (FT)	DESIGNATION
740+87.2	740+49.7	LT	37.5	GR1
742+48.9	743+23.9	LT	75.0	GR2
740+64.3	739+89.3	RT	75.0	GR3
742+26.1	742+63.6	RT	37.5	GR4
TOTAL			225.0	

**TRAFFIC BARRIER TERMINAL, TYPE 6A**

STATION	STATION	OFFSET	QUANTITY	DESIGNATION
741+26.6	740+87.2	LT	1.0	GR1
742+09.5	742+48.9	LT	1.0	GR2
741+03.7	740+64.3	RT	1.0	GR3
741+86.7	742+26.1	RT	1.0	GR4
TOTAL			4.0	

**TRAFFIC BARRIER TERMINAL, T1 (SPEC) TAN**

STATION	STATION	OFFSET	QUANTITY	DESIGNATION
740+49.7	739+99.7	LT	1.0	GR1
743+23.9	743+73.9	LT	1.0	GR2
739+89.3	739+39.3	RT	1.0	GR3
742+63.6	743+13.6	RT	1.0	GR4
TOTAL			4.0	

**TERMINAL MARKER - DIRECT APPLIED**

STATION	OFFSET	QUANTITY	DESIGNATION
739+99.7	LT	1.0	GR1
743+73.9	LT	1.0	GR2
739+39.3	RT	1.0	GR3
743+13.6	RT	1.0	GR4
TOTAL		4.0	

**PAVEMENT SCHEDULE**

FROM STATION	TO STATION	AGGREGATE SUBGRADE IMPROVE, 12"	HMA* PVT FD 10 1/4"	PVT REM	PAVED SHLD REM	HMA SHLD 10 1/4"
740+86.0	744+00.0	1414	800	822	171	546

\* 2" SURFACE, 8 1/4" BINDER

**IL 102 AT OLD CHICAGO ROAD  
PAVEMENT REMOVAL SCHEDULE**

LOCATION	SIDE	PAVED SHOULDER REMOVAL
STATION TO STATION	LT/RT	(SQ YD)
OLD CHICAGO ROAD		
333+00.00 TO 333+50.00	LT&RT	130
333+50.00 TO 334+00.00	LT&RT	-
334+00.00 TO 334+50.00	LT&RT	-
334+50.00 TO 335+00.00	LT&RT	-
TOTAL		130

**IL 102 AT OLD CHICAGO ROAD  
PAVEMENT SCHEDULE**

LOCATION	SIDE	AGGREGATE SUBGRADE IMPROVEMENT 12"	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10 1/4"
STATION TO STATION	LT/RT	(SQ YD)	(TON)
OLD CHICAGO ROAD			
333+00.00 TO 333+50.00	LT&RT	71.53	52.36
333+50.00 TO 334+00.00	LT&RT	47.50	34.72
334+00.00 TO 334+50.00	LT&RT	48.89	36.11
334+50.00 TO 335+00.00	LT&RT	43.33	30.56
335+00.00 TO 335+50.00	LT&RT	32.22	19.44
335+50.00 TO 335+85.00	LT&RT	13.81	6.81
TOTAL		258.0	180.0

**IL 102 AT OLD CHICAGO ROAD  
PAVEMENT MARKING SCHEDULE**

LOCATION	SIDE	THERMOPLASTIC PAVEMENT MARKING (FOOT)			PAVEMENT MARKING REMOVAL
		(YELLOW)	(WHITE)		
STATION TO STATION	LT/RT	LINE 4"	LINE 4"	LINE 24"	(SQ. FT.)
OLD CHICAGO ROAD					
333+00.00 TO 335+85.00	LT/RT	570	570	17	377
TOTAL	LT/RT	570	570	17	377

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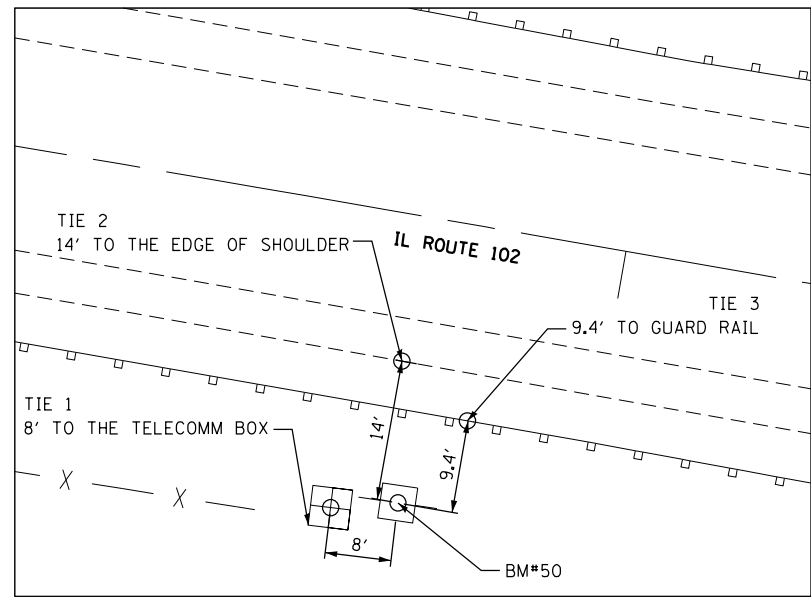
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	DRAWN - JNH	REVISED -
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PLOT DATE = 5/25/2018	DATE - 5/25/18	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

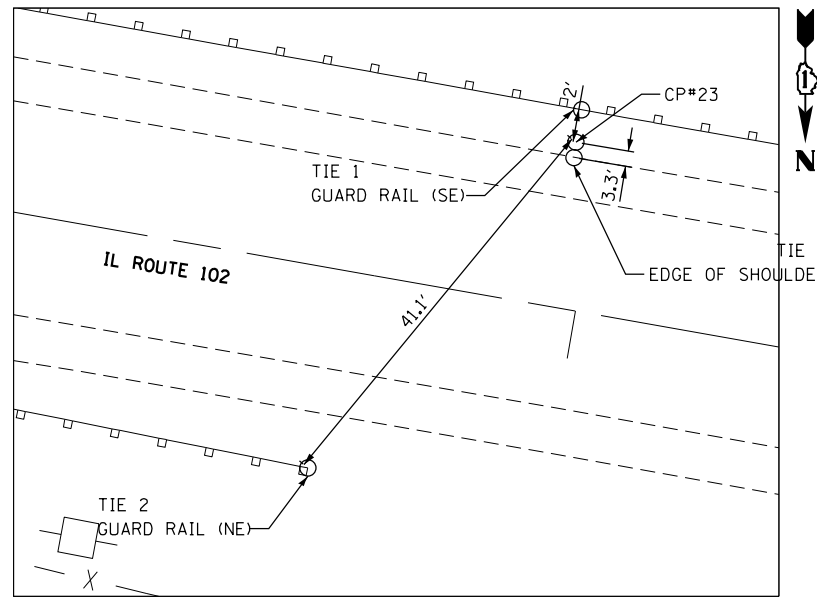
**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
SCHEDULE OF QUANTITIES**

SCALE: N/A SHEET 2 OF 2 SHEETS STA. TO STA.

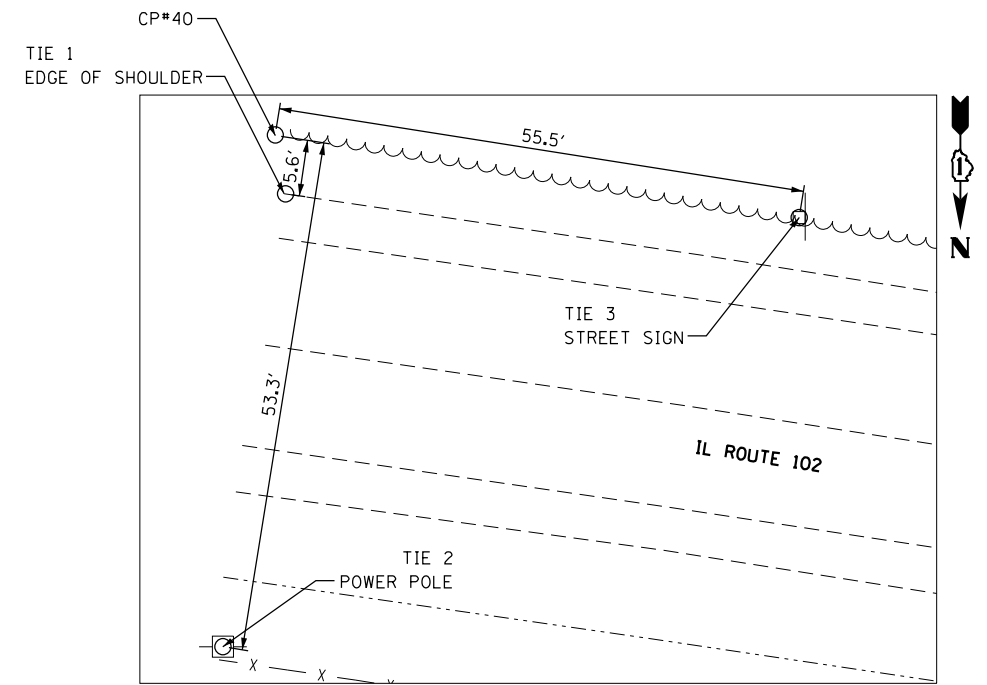
F.A.P. RTE. 631	SECTION (111N-B)B-R	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 13
CONTRACT NO. 60V28			ILLINOIS FED. AID PROJECT	



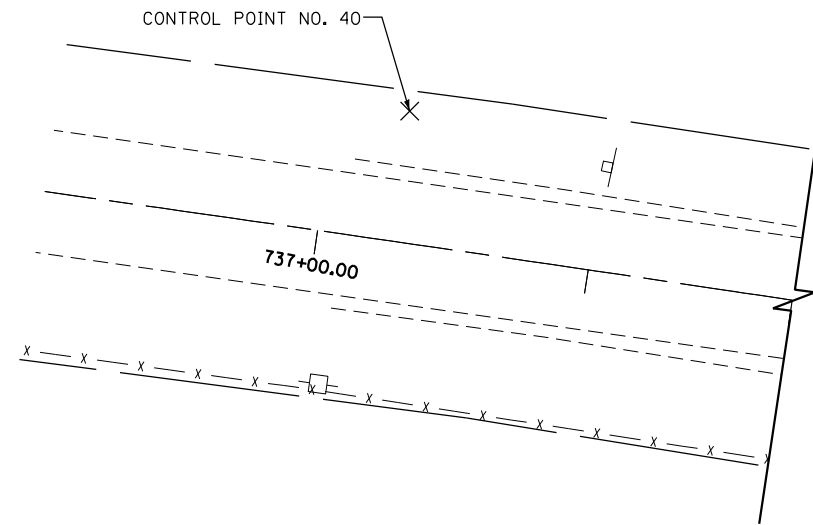
**TIE POINTS BM #50**



**TIE POINTS CP #23**



**TIE POINTS CP #40**



**CP #40**

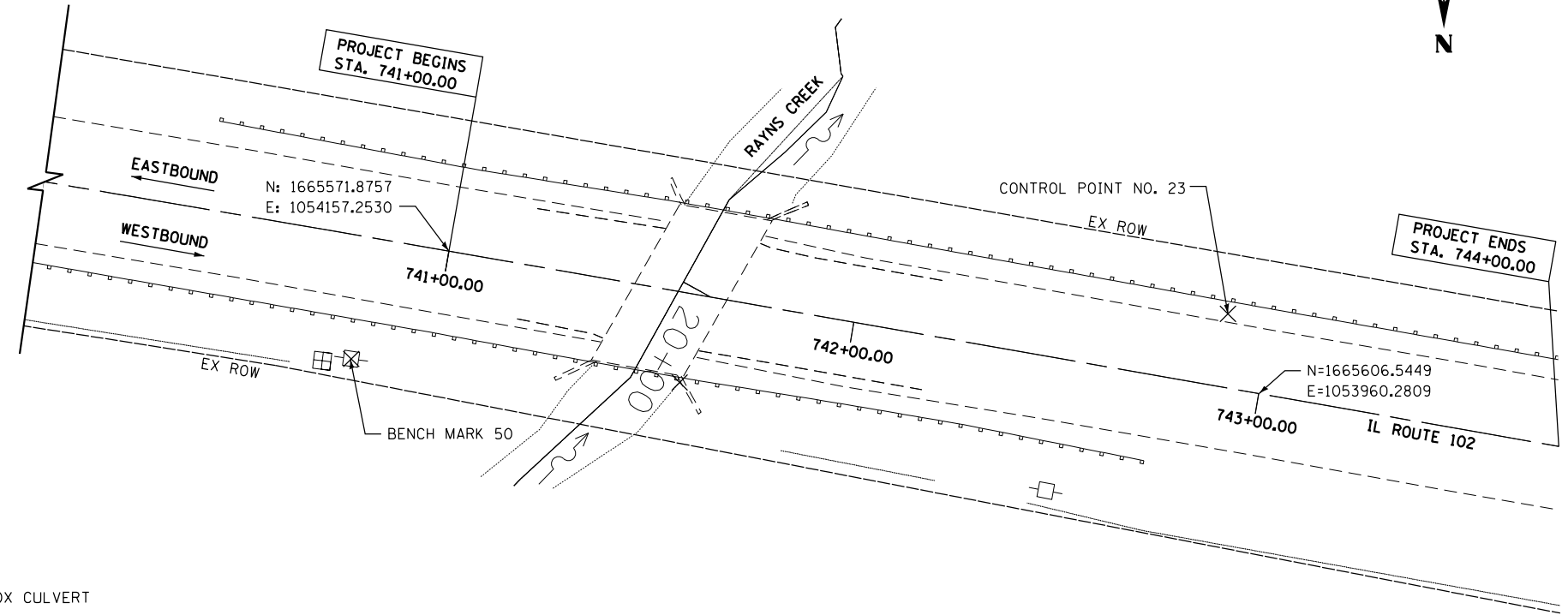
ELEV. : 584.872  
 TYPE OF MARKER : IRON ROD  
 NORTHING : 1665472.55  
 EASTING : 1054643.96  
 LOCATION : IRON ROD ON THE SOUTH SIDE OF ROUTE 102 500' EAST OF THE CULVERT

**BENCHMARK # 50**

ELEVATION - 577.135  
 TYPE OF MARKER: RR SPIKE  
 NORTHING : 1665600.02  
 EASTING : 1054182.96  
 LOCATION : RR SPIKE IN THE 1ST POWER POLE NE OF THE BOX CULVERT

**CP #23**

ELEV. : 580.35  
 TYPE OF MARKER : IRON ROD  
 NORTHING: 1665587.11  
 EASTING: 1053967.81  
 LOCATION: IRON ROD ON S SHOULDER OF 102, 100' WEST OF CULVERT



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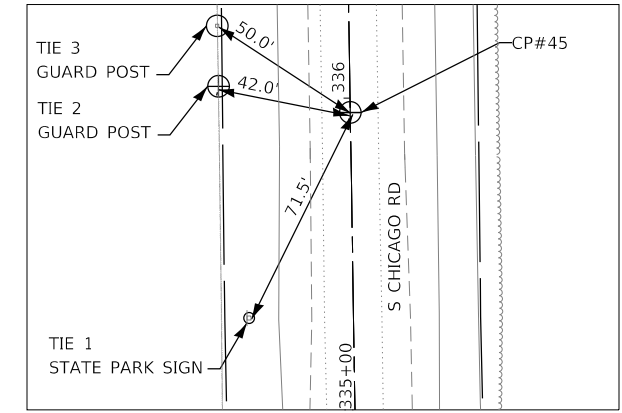
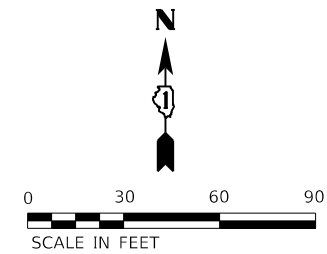
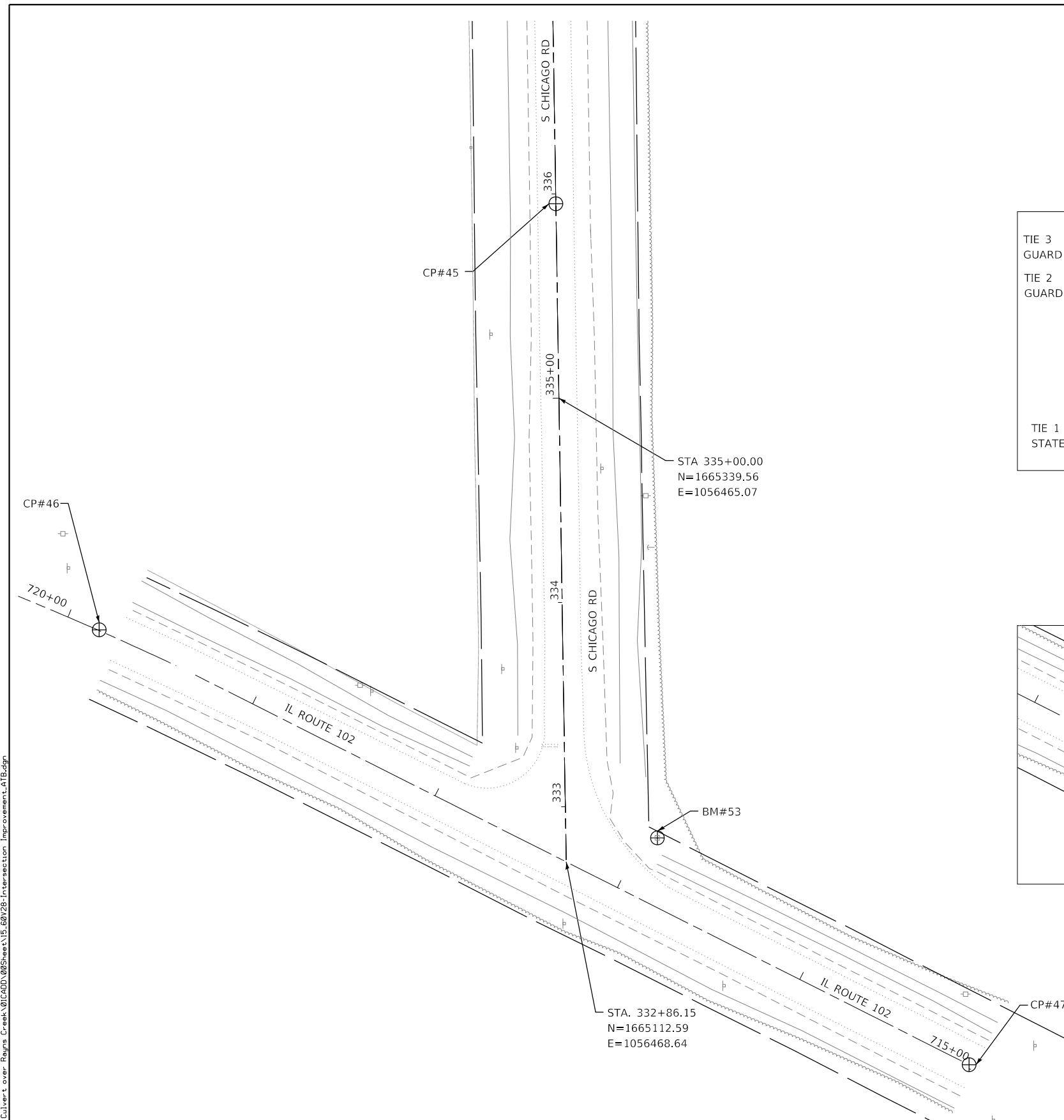


USER NAME = tmohammed	DESIGNED - TOM	REVISED -
	DRAWN - AWM	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JA	REVISED -
PLOT DATE = 5/31/2018	DATE - 05/24/2018	REVISED -

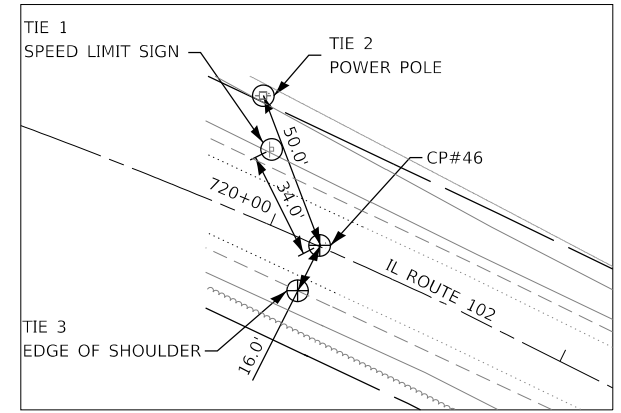
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK ALIGNMENT, TIES AND BENCHMARKS</b>		F.A.P. RTE. 631	SECTION (111N-B1B-R)	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 14
SCALE	SHEET OF SHEETS	STA. TO STA.	CONTRACT NO. 60V28			
ILLINOIS FED. AID PROJECT						

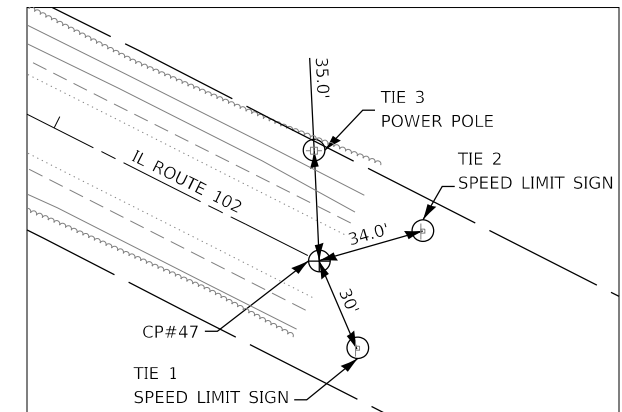
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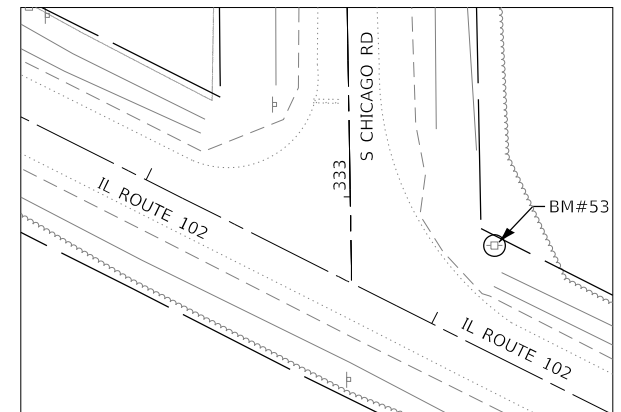
**TIE POINTS CP #45**



**TIE POINTS CP #46**



**TIE POINTS CP #47**



**TIE POINTS BM #53**

**CP #45**  
 ELEV. : 609.424  
 TYPE OF MARKER : MAG NAIL  
 NORTHING : 1665434.763  
 EASTING : 1056463.547  
 LOCATION : MAG NAIL IN CENTERLINE OF SOUTH CHICAGO ROAD.

**CP #47**  
 ELEV. : 608.581  
 TYPE OF MARKER : MAG NAIL  
 NORTHING: 1665013.266  
 EASTING: 1056665.947  
 LOCATION: MAG NAIL IN CENTERLINE OF IL ROUTE 102.

**CP #46**  
 ELEV. : 608.592  
 TYPE OF MARKER : MAG NAIL  
 NORTHING : 1665226.149  
 EASTING : 1056239.940  
 LOCATION : MAG NAIL IN CENTERLINE OF IL ROUTE 102.

**BENCHMARK # 53**  
 ELEVATION - 610.227  
 TYPE OF MARKER: RR SPIKE  
 NORTHING : 1665124.296  
 EASTING : 1056513.306  
 LOCATION : RR SPIKE IN THE POWER POLE NE CORNER OF IL ROUTE 102 AND SOUTH CHICAGO ROAD.



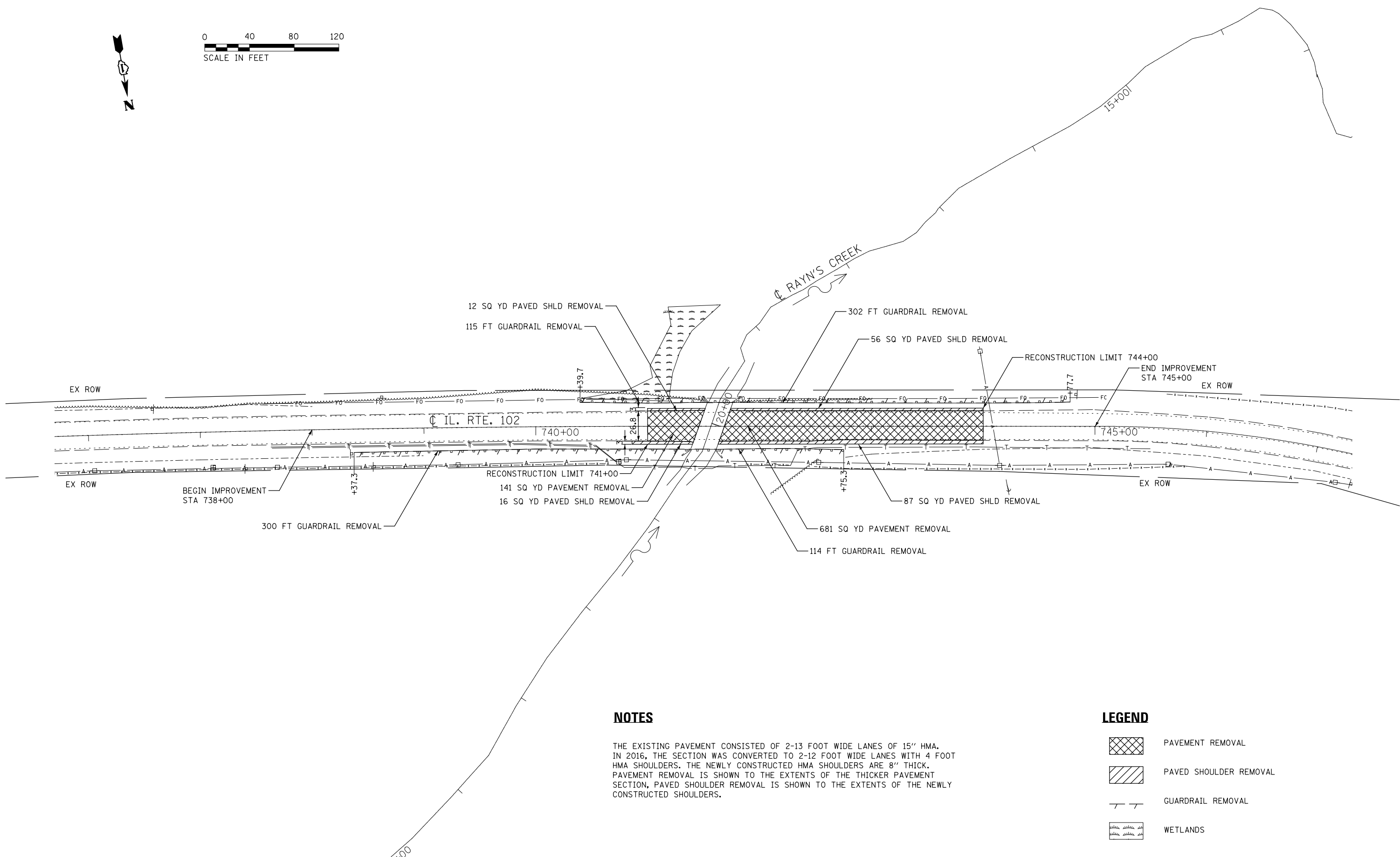
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DATE - 05/24/2018	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD  
 ALIGNMENT, TIES & BENCHMARK  
 (INTERSECTION IMPROVEMENTS)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B1B-R)	WILL	47	15
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				


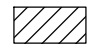
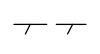

SCALE SHEET OF SHEETS STA. TO STA.



**NOTES**

THE EXISTING PAVEMENT CONSISTED OF 2-13 FOOT WIDE LANES OF 15" HMA. IN 2016, THE SECTION WAS CONVERTED TO 2-12 FOOT WIDE LANES WITH 4 FOOT HMA SHOULDERS. THE NEWLY CONSTRUCTED HMA SHOULDERS ARE 8" THICK. PAVEMENT REMOVAL IS SHOWN TO THE EXTENTS OF THE THICKER PAVEMENT SECTION, PAVED SHOULDER REMOVAL IS SHOWN TO THE EXTENTS OF THE NEWLY CONSTRUCTED SHOULDERS.

**LEGEND**

-  PAVEMENT REMOVAL
-  PAVED SHOULDER REMOVAL
-  GUARDRAIL REMOVAL
-  WETLANDS

FILE NAME = D160V28-sht-r-em.dgn



USER NAME = untitled	DESIGNED - JNH	REVISED -
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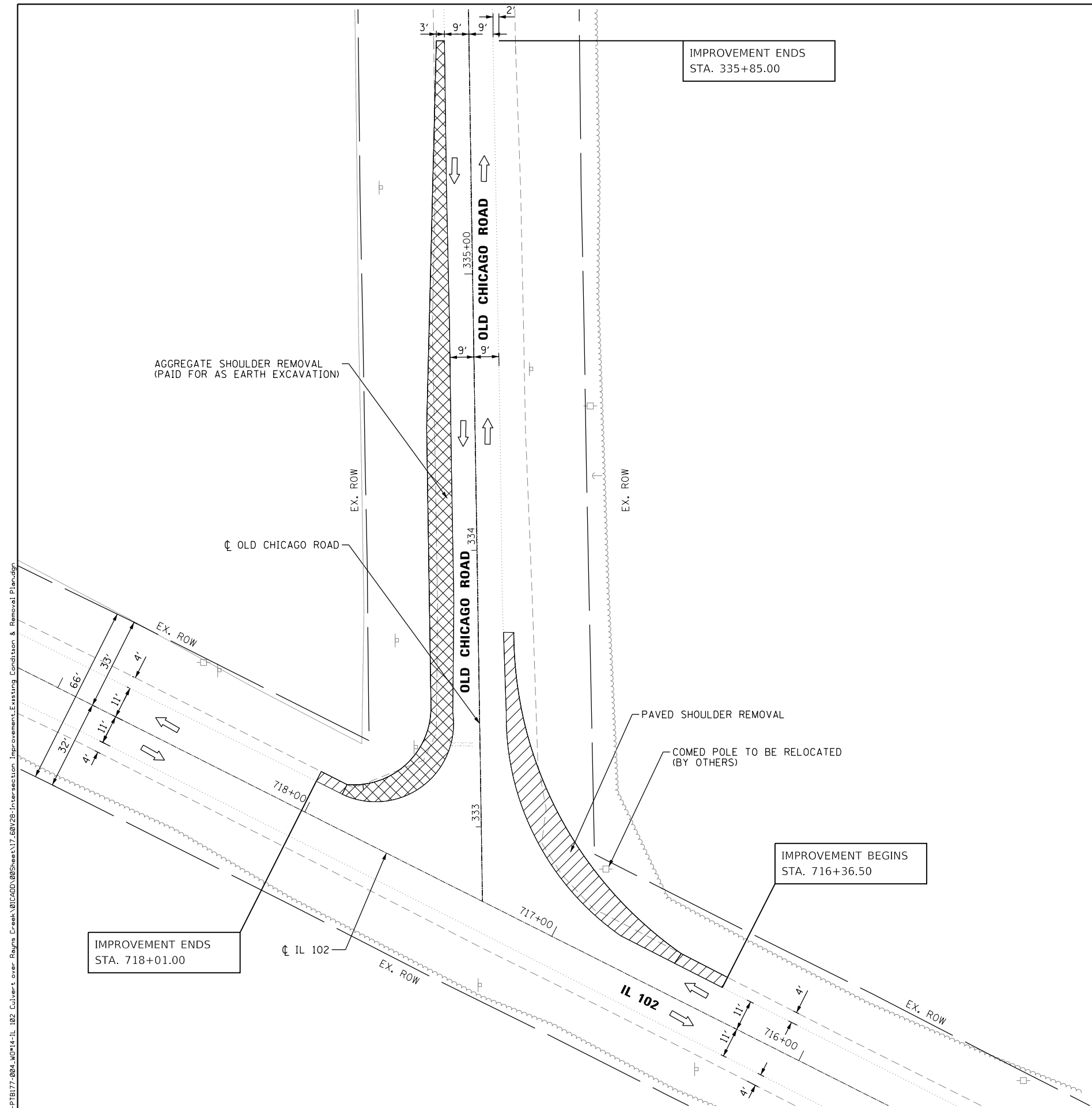
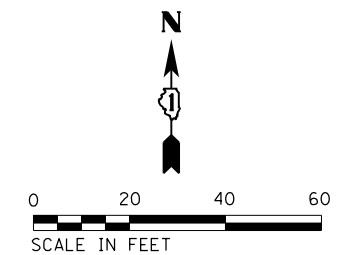
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
EXISTING CONDITIONS AND REMOVAL PLAN**

SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 734+00 TO STA. 749+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	16
CONTRACT NO. 60V28			ILLINOIS FED. AID PROJECT	





**LEGEND**

	TRAFFIC FLOW DIRECTION
	AGGREGATE SHOULDER REMOVAL (PAID FOR AS EARTH EXCAVATION)
	HOT MIX ASPHALT SHOULDER REMOVAL

P:\606160205\14-PTB177-204-WD14-IL 102 Culvert over Rays Creek\01C00D\08Sheets\17.60\28-Intersection Improvement-Existing Condition & Removal Plan.dgn



111 S. Wacker Drive,  
Suite 3910  
Chicago, IL 60606  
Ph: 312-235-6783

USER NAME = tmohammed	DESIGNED - TOM	REVISED -
	DRAWN - AWM	REVISED -
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PLOT DATE = 5/31/2018	DATE - 05/24/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD  
EXISTING CONDITIONS AND REMOVAL PLAN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	17
CONTRACT NO. 60V28				

SCALE SHEET OF SHEETS STA. TO STA.

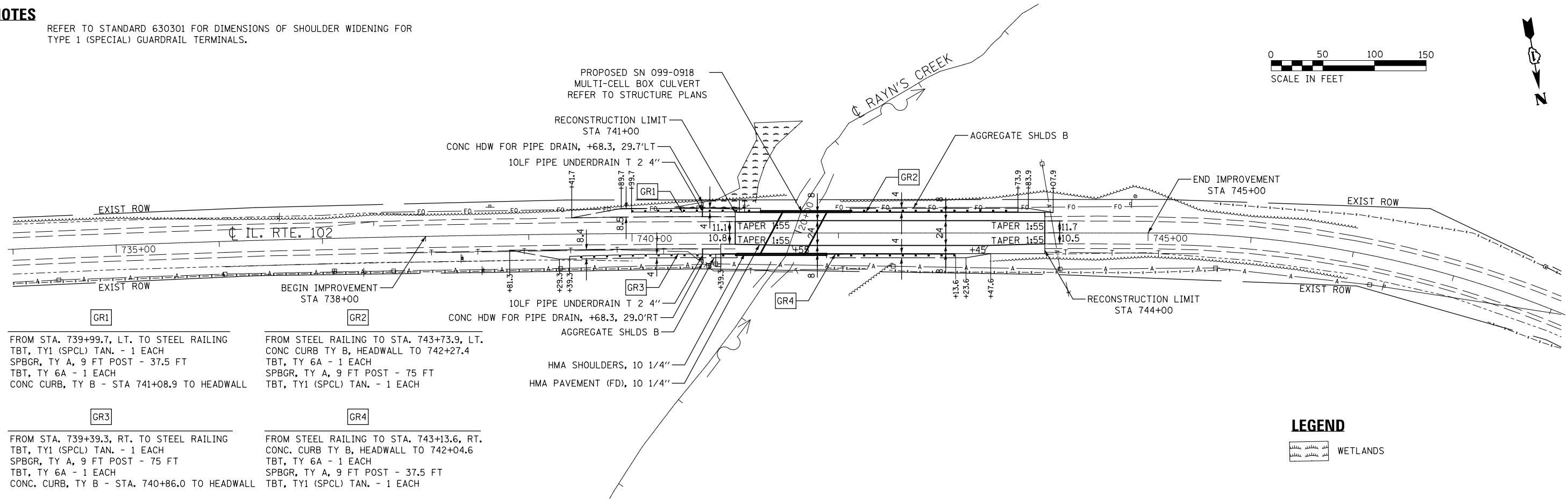
ILLINOIS FED. AID PROJECT

**NOTES**

REFER TO STANDARD 630301 FOR DIMENSIONS OF SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS.



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
NOTE BOOK NO.	CAD FILE NAME	



**GR1**  
FROM STA. 739+99.7, LT. TO STEEL RAILING  
TBT, TY1 (SPCL) TAN. - 1 EACH  
SPBGR, TY A, 9 FT POST - 37.5 FT  
TBT, TY 6A - 1 EACH  
CONC CURB, TY B - STA 741+08.9 TO HEADWALL

**GR2**  
FROM STEEL RAILING TO STA. 743+73.9, LT.  
CONC CURB TY B, HEADWALL TO 742+27.4  
TBT, TY 6A - 1 EACH  
SPBGR, TY A, 9 FT POST - 75 FT  
TBT, TY1 (SPCL) TAN. - 1 EACH

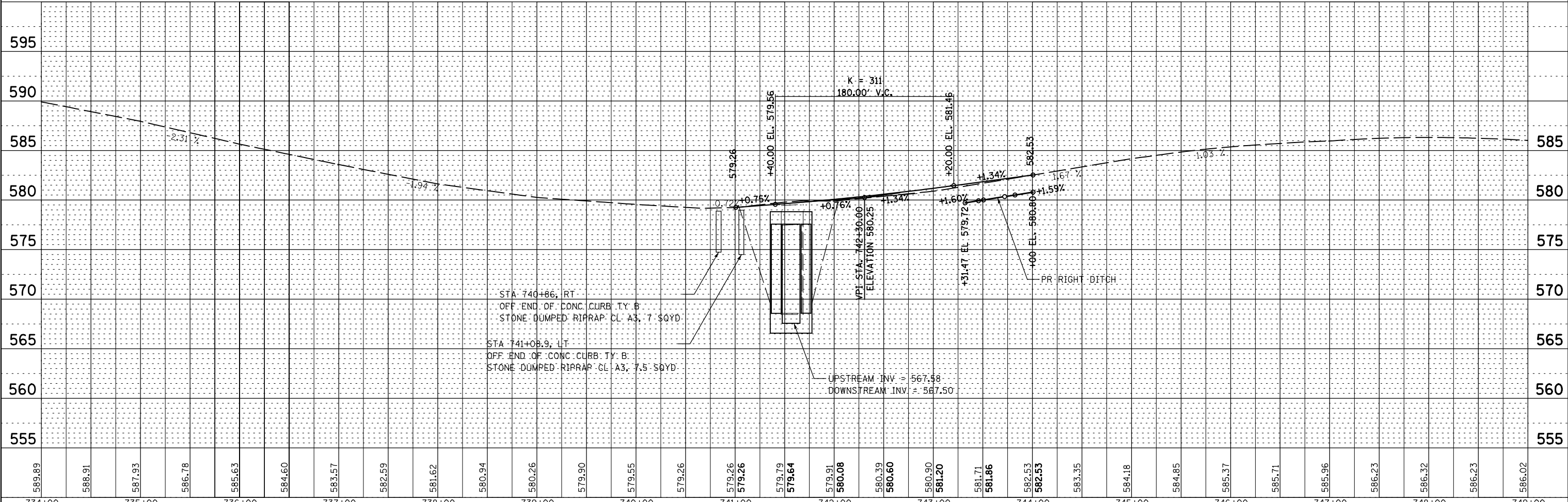
**GR3**  
FROM STA. 739+39.3, RT. TO STEEL RAILING  
TBT, TY1 (SPCL) TAN. - 1 EACH  
SPBGR, TY A, 9 FT POST - 75 FT  
TBT, TY 6A - 1 EACH  
CONC. CURB, TY B - STA. 740+86.0 TO HEADWALL

**GR4**  
FROM STEEL RAILING TO STA. 743+13.6, RT.  
CONC. CURB TY B, HEADWALL TO 742+04.6  
TBT, TY 6A - 1 EACH  
SPBGR, TY A, 9 FT POST - 37.5 FT  
TBT, TY1 (SPCL) TAN. - 1 EACH

**LEGEND**



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



STA 740+86, RT  
OFF END OF CONC CURB TY B  
STONE DUMPED RIPRAP CL A3, 7.50YD

STA 741+08.9, LT  
OFF END OF CONC CURB TY B  
STONE DUMPED RIPRAP CL A3, 7.50YD

UPSTREAM INV = 567.58  
DOWNSTREAM INV = 567.50

FILE NAME = D:\6028-sht-plnprfl.dgn



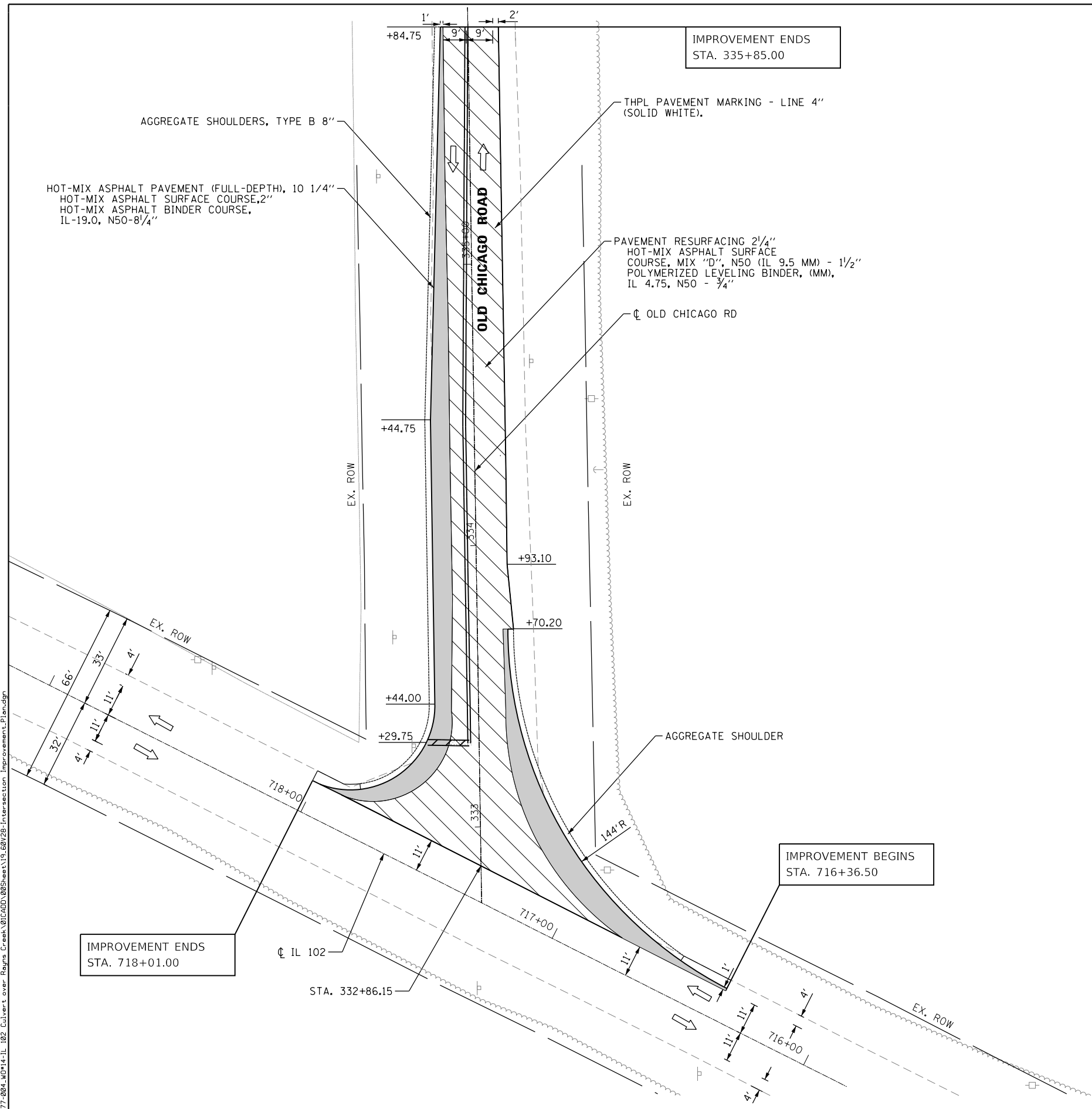
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

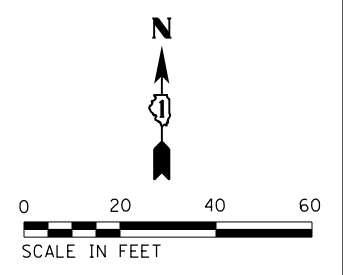
**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
PLAN AND PROFILE**

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 734+00 TO STA. 749+00

F.A.P. RTE. 631	SECTION (111N-B)B-R	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 18
CONTRACT NO. 60V28			ILLINOIS FED. AID PROJECT	



IMPROVEMENT ENDS  
STA. 335+85.00



**LEGEND**

- TRAFFIC FLOW DIRECTION
- PAVEMENT RECONSTRUCTION
- RESURFACING

P:\60616\2018\14-PTB177-2014-WD14-IL-102-Culvert over Rayns Creek\01C000\08Sheets\19\_60V28-Intersection Improvement Plan.dgn



111 S. Wacker Drive,  
Suite 3910  
Chicago, IL 60606  
Ph: 312-235-6783

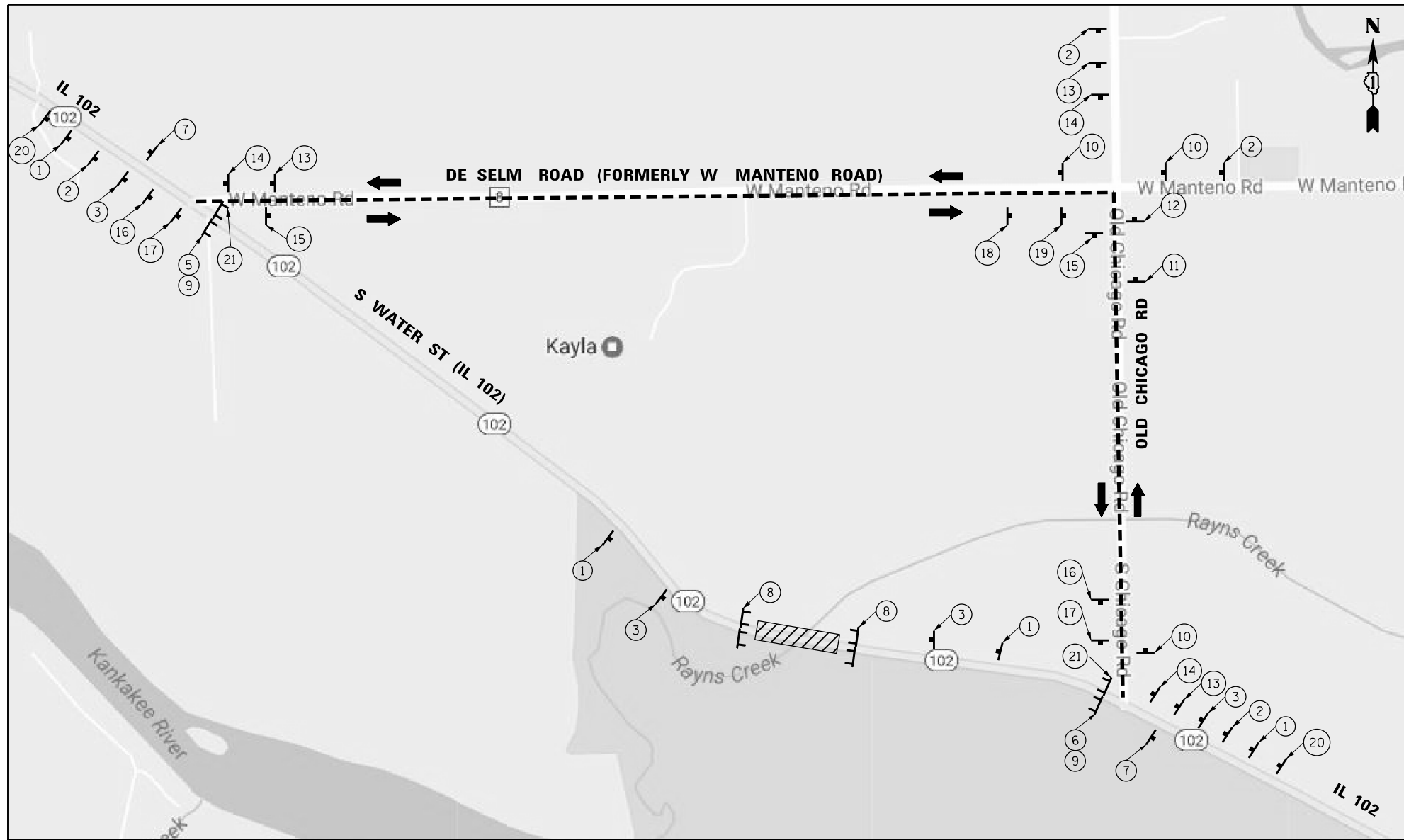
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD  
IMPROVEMENT PLAN**

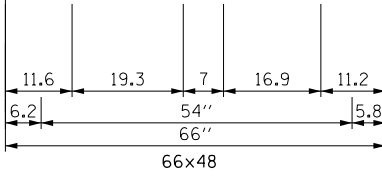
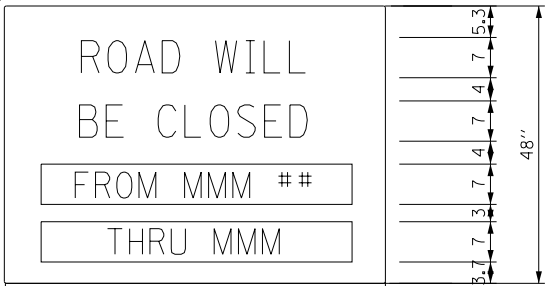
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	19
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

SCALE      SHEET      OF      SHEETS      STA.      TO      STA.



**NOTES:**

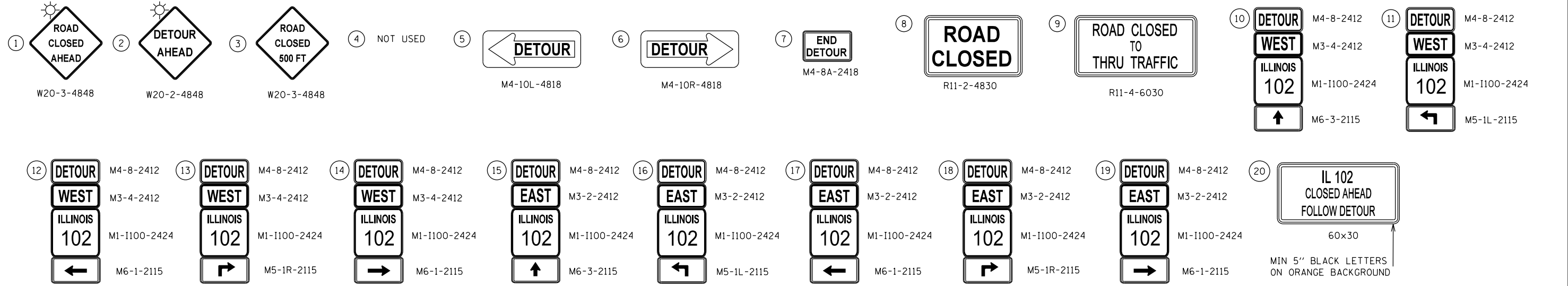
1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED, UNLESS OTHERWISE NOTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES, THE HIGHWAY STANDARDS AND SPECIAL PROVISIONS.
5. PLACEMENT AND SPACING OF SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH TC-21.
6. THE COST OF SUPPLYING, ERECTION AND MAINTAINING BARRICADES, WARNING LIGHTS AND ALL SIGNS, INCLUDING SIGN PANEL OVERLAYS SHALL BE INCLUDED IN THE CONTRACT COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL).
7. THE CONTRACTOR SHALL INFORM MR. ERIC K. WESEL OF WILL COUNTY DIVISION OF TRANSPORTATION AT 815-727-8476, TWO WEEKS IN ADVANCE OF SCHEDULE CLOSURE.
8. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL SIGNS AS REQUIRED BY THE ENGINEER, THE COST OF WHICH WILL ALSO BE INCLUDED IN "TRAFFIC CONTROL AND PROTECTION (SPECIAL)"



**NOTE:**  
ERECT SIGN ASSEMBLY (POST-MOUNTED) ON ROAD TO BE CLOSED IN EACH DIRECTION NEAR POINT OF CLOSURE OR WITHIN SECTION TO BE FULLY CLOSED TWO (2) WEEKS PRIOR TO START DATE OF FULL CLOSURE. REMOVE ASSEMBLY AFTER CLOSURE. THIS WORK IS INCLUDED IN THE COST OF TC&P (SPECIAL)

**LEGEND:**

- TT TYPE III BARRICADES CONFORMING TO STD. 701901 WITH 2 FLASHING LIGHTS PER BARRICADE
- Construction Zone symbol
- DETOUR ROUTE
- ➔ TRAFFIC FLOW
- ☀ TYPE A FLASHING LIGHT



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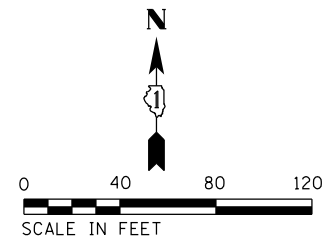


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PLOT SCALE = 2.0000' / in.	DRAWN - AWM	REVISED -
PLOT DATE = 5/31/2018	CHECKED - JA	REVISED -
	DATE - 05/24/2018	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK DETOUR USING COUNTY & STATE ROUTES			
SCALE	SHEET OF SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	20
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				



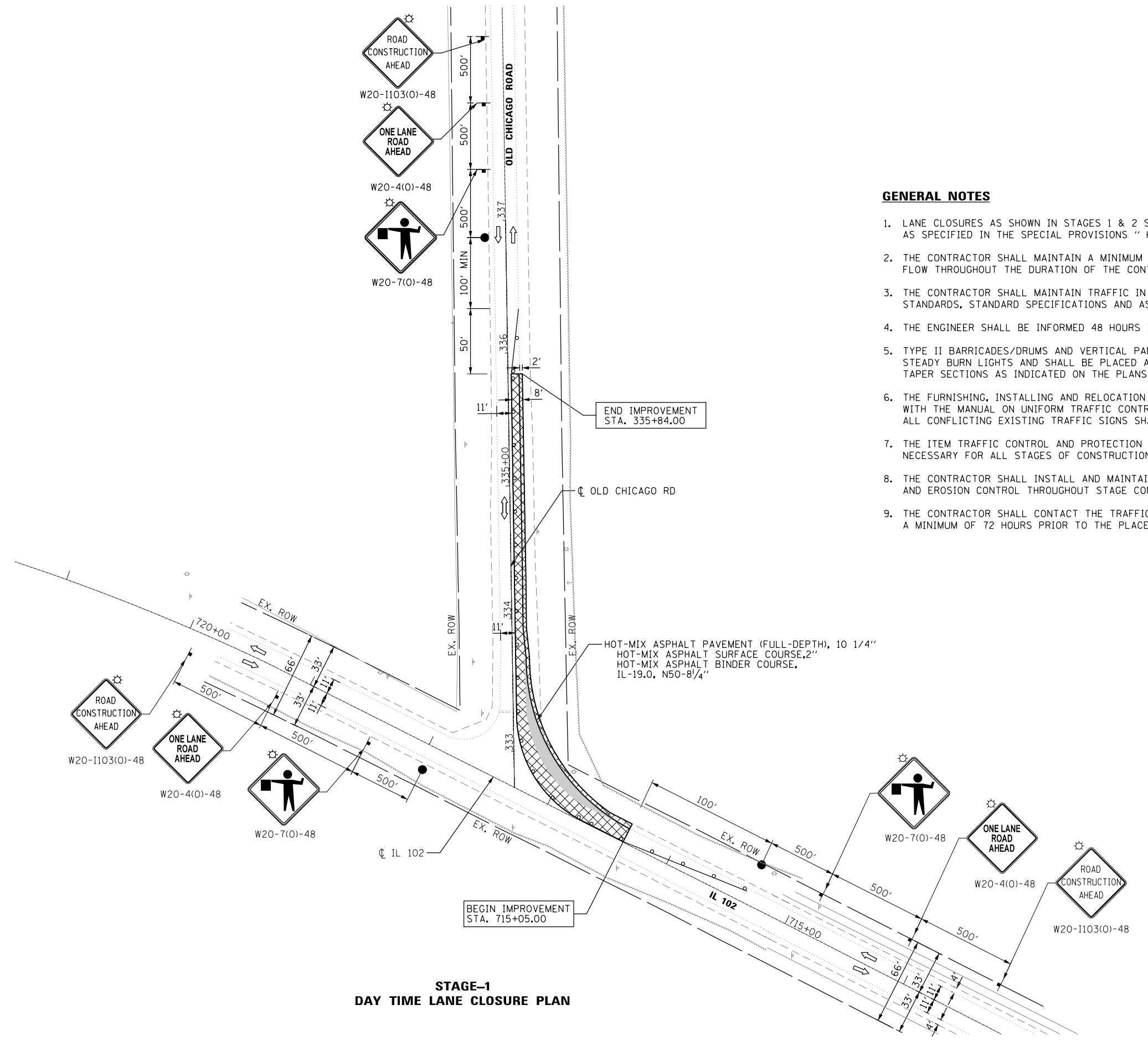
**GENERAL NOTES**

1. LANE CLOSURES AS SHOWN IN STAGES 1 & 2 SHALL BE UTILIZED DURING ALLOWABLE HOURS ONLY AS SPECIFIED IN THE SPECIAL PROVISIONS "KEEPING ARTERIAL ROADWAY OPEN TO TRAFFIC".
2. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 11' CLEAR WIDTH ROADWAY FOR ONE-WAY TRAFFIC FLOW THROUGHOUT THE DURATION OF THE CONTRACT.
3. THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE SPECIAL PROVISIONS, STATE STANDARDS, STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
4. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF BETWEEN STAGE 1 AND 2.
5. TYPE II BARRICADES/DRUMS AND VERTICAL PANELS SHALL BE EQUIPPED WITH MONO DIRECTIONAL STEADY BURN LIGHTS AND SHALL BE PLACED ALONG THE PROPOSED WORK ZONE AND WITHIN TAPER SECTIONS AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
6. THE FURNISHING, INSTALLING AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE IDOT STANDARD SPECIFICATIONS ALL CONFLICTING EXISTING TRAFFIC SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER.
7. THE ITEM TRAFFIC CONTROL AND PROTECTION (SPECIAL) SHALL INCLUDE ALL TRAFFIC CONTROL NECESSARY FOR ALL STAGES OF CONSTRUCTION.
8. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY AND PROPOSED DRAINAGE SYSTEMS AND EROSION CONTROL THROUGHOUT STAGE CONSTRUCTION DURING THE DURATION OF THE PROJECT.
9. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR VIA EMAIL AT CORY.JUCIUS@ILLINOIS.GOV A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

**LEGEND**

- DRUM OR TYPE II BARRICADE @ 50' CENTERS
- FLASHING LIGHT ABOVE SIGN
- TRAFFIC FLOW DIRECTION
- WORK ZONE
- PAVEMENT RECONSTRUCTION
- FLAGGER WITH TRAFFIC CONTROL SIGN

**STAGE-1  
DAY TIME LANE CLOSURE PLAN**



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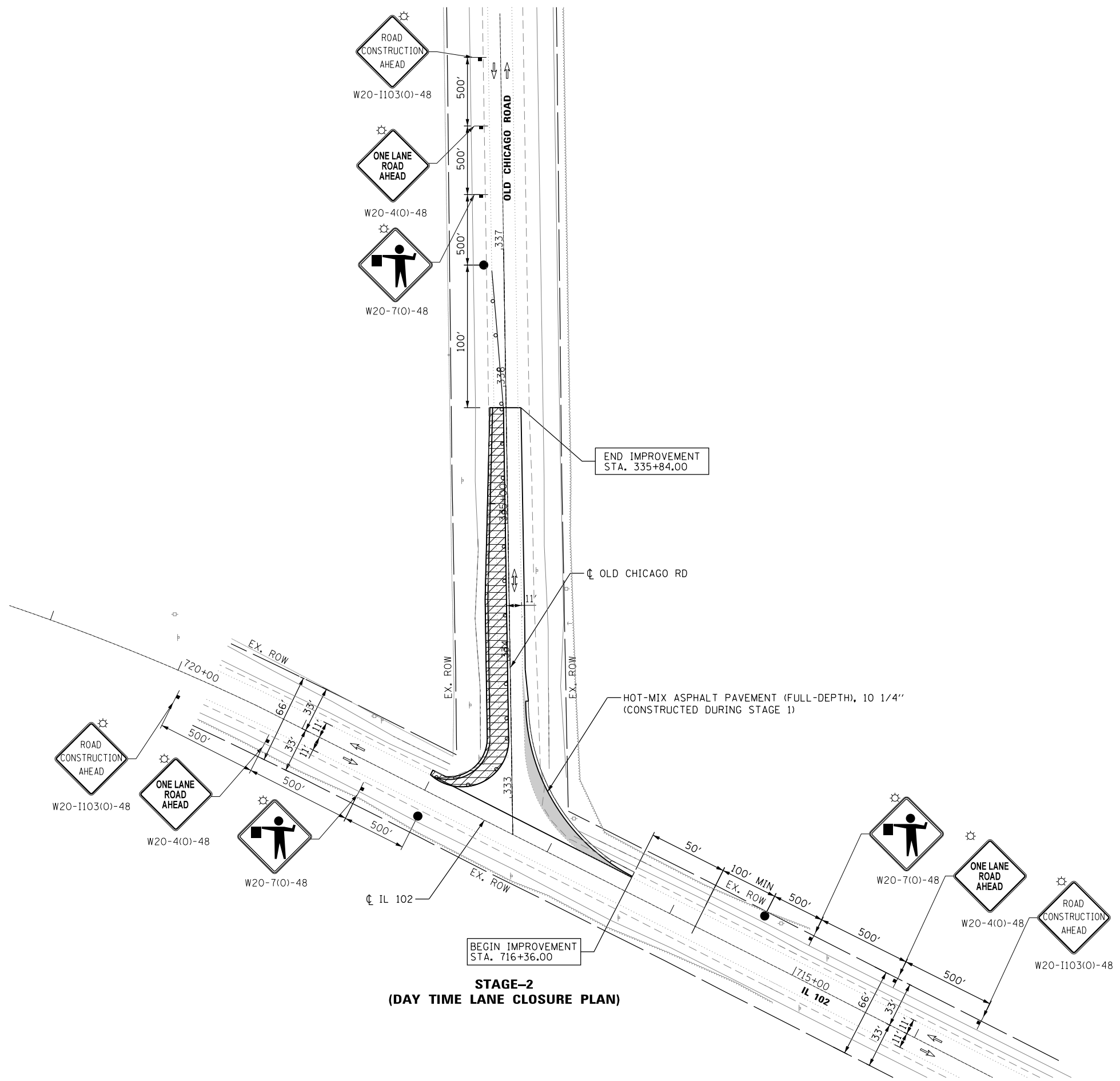
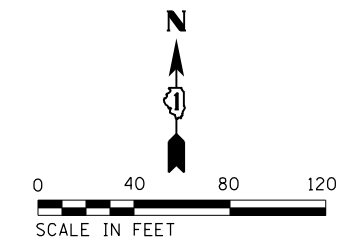
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DATE - 05/24/2018	REVISIONS -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD  
STAGE-1 DAY TIME LANE CLOSURE PLAN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	21
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

SCALE SHEET OF SHEETS STA. TO STA.



**LEGEND**

	DRUM OR TYPE II BARRICADE @ 50' CENTERS
	FLASHING LIGHT ABOVE SIGN
	TRAFFIC FLOW DIRECTION
	WORK ZONE
	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10 1/4" HOT-MIX ASPHALT SURFACE COURSE, 2" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50-81#4" (CONSTRUCTED DURING STAGE 1)
	FLAGGER WITH TRAFFIC CONTROL SIGN

**STAGE-2  
(DAY TIME LANE CLOSURE PLAN)**

P:\60616\0205\14-PTB177-204\_M014-IL 102 Culvert over Bayns Creek\01C000\08Sheets\22-60V28-Intersection Improvement\_M01\_2.dgn



USER NAME = tmohammed	DESIGNED - TOM	REVISED -
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CHECKED - JA	REVISIONS -	
DATE - 05/24/2018	REVISIONS -	
PLOT SCALE = 80.0000' / in.		
PLOT DATE = 5/31/2018		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD  
STAGE-2 DAY TIME LANE CLOSURE PLAN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	22
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

SCALE SHEET OF SHEETS STA. TO STA.

**EROSION AND SEDIMENT CONTROL NOTES**

1. EROSION AND SEDIMENT CONTROLS (ESC) SHALL BE INSTALLED TO MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION AND MINIMIZE THE DISTURBANCE OF EXPOSED SOIL, ESPECIALLY ON STEEP SLOPES OR NEAR SURFACE WATERS.
2. ALL ESC MEASURES SHALL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION AND IDOT'S BEST MANAGEMENT PRACTICES - MAINTENANCE GUIDE. THE FIELD GUIDE CAN BE FOUND HERE:  
HTTP://WWW.IDOT.ILLINOIS.GOV/TRANSPORTATION-SYSTEM/ENVIRONMENT/EROSION-AND-SEDIMENT-CONTROL
3. PRIOR TO SOIL DISTURBANCE STRUCTURAL PRACTICES, INCLUDING PERIMETER EROSION BARRIER AND TEMPORARY DITCH CHECKS, SHALL BE INSTALLED.
4. THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION.
5. SEDIMENT COLLECTED BY THE CONTROL SYSTEMS SHALL BE DISPOSED OF ON A REGULAR BASIS, IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS AND IEPA GUIDELINES, BUT IN NO CASE LESS THAN WHEN THE HEIGHT OF SEDIMENT EXCEEDS ONE-HALF THE HEIGHT OF THE CONTROL DEVICE.
6. ON AREAS WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED AND WILL RESUME AFTER SEVEN (7) DAYS, TEMPORARY STABILIZATION WILL BE REQUIRED. TEMPORARY STABILIZATION INCLUDES EROSION CONTROL BLANKET AND TEMPORARY EROSION CONTROL SEEDING.
7. TEMPORARY STOCKPILE(S) (INCLUDING TOPSOIL) LOCATIONS SHALL BE APPROVED BY THE ENGINEER. TEMPORARY STOCKPILE(S) SHALL BE SURROUNDED BY PERIMETER EROSION BARRIER AND SHALL REQUIRE TEMPORARY STABILIZATION.
8. CONTRACTOR SHALL STORE MATERIALS AND SUPPLIES, INCLUDING FUELS AND CHEMICALS, IN A MANNER AND LOCATION TO PREVENT SPILLS.
9. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES TO PREVENT RELEASE OF CONCRETE RESIDUALS FROM BOTH WASHOUT LOCATIONS AND OTHER ACTIVITIES WHICH PRODUCE CONCRETE PARTICLES, INCLUDING GRINDING, SAW CUTTING, AND DEMOLITION.
10. A MINIMUM OF SEVEN (7) DAYS PRIOR TO POURING CONCRETE, CONTRACTOR SHALL PROPOSE CONCRETE WASHOUT LOCATIONS TO THE ENGINEER FOR APPROVAL.
11. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED EVERY SEVEN (7) DAYS AND WITHIN TWENTY -FOUR (24) HOURS OF THE END OF A STORM OR RAINFALL EVENT THAT IS 0.5 INCH OR GREATER OR EQUIVALENT SNOWFALL.
12. IN THE EVENT OF A VIOLATION OF THE PROVISIONS OF THIS EROSION CONTROL PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE RESIDENT ENGINEER SHALL NOTIFY THE APPROPRIATE IEPA FIELD OPERATIONS SECTION OFFICE BY E-MAIL AT: XXX@IEPA.GOV, TELEPHONE, OR FAX WITHIN TWENTY -FOUR (24) HOURS OF THE INCIDENT. THE RESIDENT ENGINEER SHALL THEN COMPLETE AND SUBMIT AN "INCIDENCE OF NON-COMPLIANCE" (ION) REPORT FOR THE IDENTIFIED VIOLATION WITHIN FIVE (5) DAYS OF THE INCIDENT. THE RESIDENT ENGINEER SHALL USE FORMS PROVIDED BY THE IEPA AND SHALL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NON-COMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. ALL REPORTS SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI.G OF THE PERMIT ILR10.

THE INCIDENT OF NON-COMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
 DIVISION OF WATER POLLUTION CONTROL  
 ATTN: COMPLIANCE ASSURANCE SECTION  
 1021 NORTH GRAND EAST  
 POST OFFICE BOX 19276  
 SPRINGFIELD, ILLINOIS 62794-9276

**IN-STREAM /WETLAND WORK NOTES**

1. THIS PROJECT REQUIRES A U.S ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. ALL CONDITIONS OF THE 404 PERMIT MUST BE FOLLOWED. THE COST OF ALL MATERIAL AND LABOR NECESSARY TO COMPLY WITH THE 404 PERMIT 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.
2. IN ACCORDANCE WITH THE 404 PERMIT, THE PROJECT WILL REQUIRE IN STREAM WORK PLAN WITHIN RAYN'S CREEK AND INCLUDING WORK WITHIN THE WETLANDS. THE CONTRACTOR SHALL PROVIDE THIS PLAN TO THE DEPARTMENT FOR APPROVAL PRIOR TO STARTING CONSTRUCTION. GUIDELINES ON ACCEPTABLE IN-STREAM WORK PLAN TECHNIQUES (INCLUDING WORK WITHIN WETLANDS) CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIAL AND LABOR NECESSARY FOR THE PREPARATION AND IMPLEMENTATION OF THE IN-STREAM WORK PLAN (INCLUDING WORK WITHIN THE WETLANDS) 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.
3. ANY COFFERDAMS OR DIVERSIONS SHALL BE DESIGNED TO CONVEY THE 2 YEAR PEAK FLOW PAST THE WORK AREA WITHOUT OVERTOPPING. MATERIAL AND DESIGN SHALL BE PROVIDED TO THE USACE PRIOR TO STARTING CONSTRUCTION.
4. ALL TEMPORARY CONSTRUCTION ACTIVITIES WITHIN AND TRIBUTARY TO RAYN'S CREEK MUST ADHERE TO THE REQUIREMENTS OF THE REGIONAL PERMIT 7.

FILE NAME = D160V28-sht-erosNotes.dgn



USER NAME = untitled	DESIGNED - JNH	REVISED -
	DRAWN - JNH	REVISED -
PLOT SCALE = 2.0000' / in.	CHECKED - JWK	REVISED -
PLOT DATE = 5/25/2018	DATE - 5/25/18	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

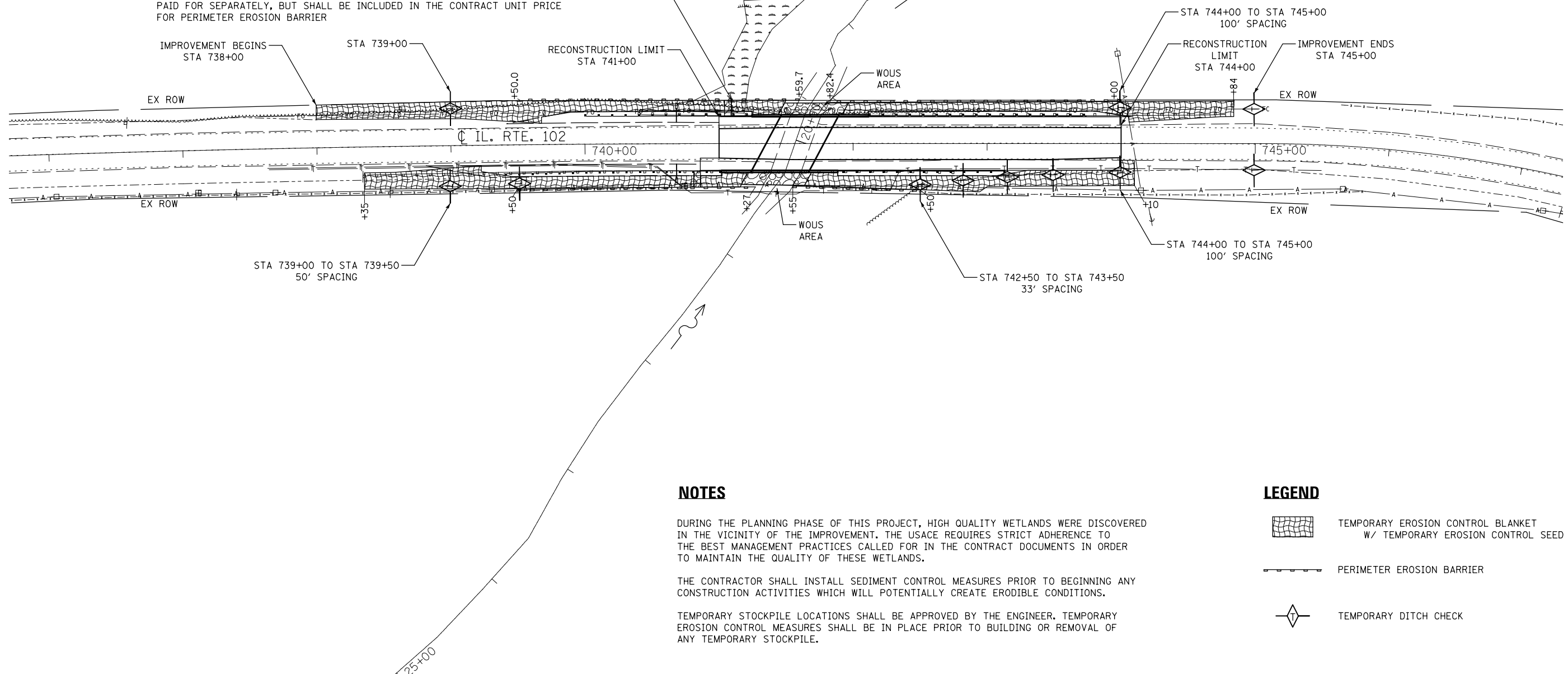
**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
 EROSION CONTROL & IN-STREAM WORK NOTES**

SCALE: N/A SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	23
			CONTRACT NO. 60V28	
ILLINOIS FED. AID PROJECT				



WETLAND AREA: NO INTRUSION BEYOND RIGHT-OF-WAY  
 THE CONTRACTOR SHALL ATTACH AN ALUMINUM SIGN WITH THE FOLLOWING TEXT:  
 "PROTECTED WETLAND - NO INTRUSION". THE SIGN(S) SHALL BE ATTACHED TO THE  
 PERIMETER EROSION BARRIER STAKES BY A METHOD APPROVED BY THE ENGINEER.  
 THE SIGN(S) WILL BE PROVIDED BY THE DEPARTMENT AND SHALL BE PICKED UP BY  
 THE CONTRACTOR FROM THE DISTRICT ONE ROADSIDE DEVELOPMENT ARCHITECT IN  
 SCHAUMBURG, ILLINOIS. SCHEDULING THE PICKUP OF THE SIGNS CAN BE ARRANGED  
 BY CONTACTING THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT AT (847) 705-4171.  
 WHEN WORK HAS BEEN COMPLETED, THE SIGN(S) SHALL BE RETURNED TO THE  
 DISTRICT ONE ROADSIDE DEVELOPMENT UNIT. THE COST OF PICKING UP, ATTACHING  
 THE SIGNS TO THE TEMPORARY STAKES AND RETURNING THE SIGNS WILL NOT BE  
 PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE  
 FOR PERIMETER EROSION BARRIER






**NOTES**

DURING THE PLANNING PHASE OF THIS PROJECT, HIGH QUALITY WETLANDS WERE DISCOVERED IN THE VICINITY OF THE IMPROVEMENT. THE USACE REQUIRES STRICT ADHERENCE TO THE BEST MANAGEMENT PRACTICES CALLED FOR IN THE CONTRACT DOCUMENTS IN ORDER TO MAINTAIN THE QUALITY OF THESE WETLANDS.

THE CONTRACTOR SHALL INSTALL SEDIMENT CONTROL MEASURES PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE ERODIBLE CONDITIONS.

TEMPORARY STOCKPILE LOCATIONS SHALL BE APPROVED BY THE ENGINEER. TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO BUILDING OR REMOVAL OF ANY TEMPORARY STOCKPILE.

**LEGEND**

-  TEMPORARY EROSION CONTROL BLANKET W/ TEMPORARY EROSION CONTROL SEED
-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK

FILE NAME = D160V28-sh1t-eros.dgn



USER NAME = untitled	DESIGNED - JNH	REVISED -
	DRAWN - JNH	REVISED -
PLOT SCALE = 80.1311' / in.	CHECKED - JWK	REVISED -
PLOT DATE = 5/25/2018	DATE - 5/25/18	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 734+00 TO STA. 749+10

F.A.P. RTE. 631	SECTION (111N-B)B-R	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 24
				CONTRACT NO. 60V28
ILLINOIS FED. AID PROJECT				



**LEFT BLANK INTENTIONALLY**

P:\60616\0205\14-PTB177-004\_W014-IL\_102\_Culvert over Rayns Creek\01C000\00Sheet\25-60\28-Intersection\_Improvement\_Erosion\_control.dgn



111 S. Wacker Drive,  
Suite 3910  
Chicago, IL 60606  
Ph: 312-235-6783

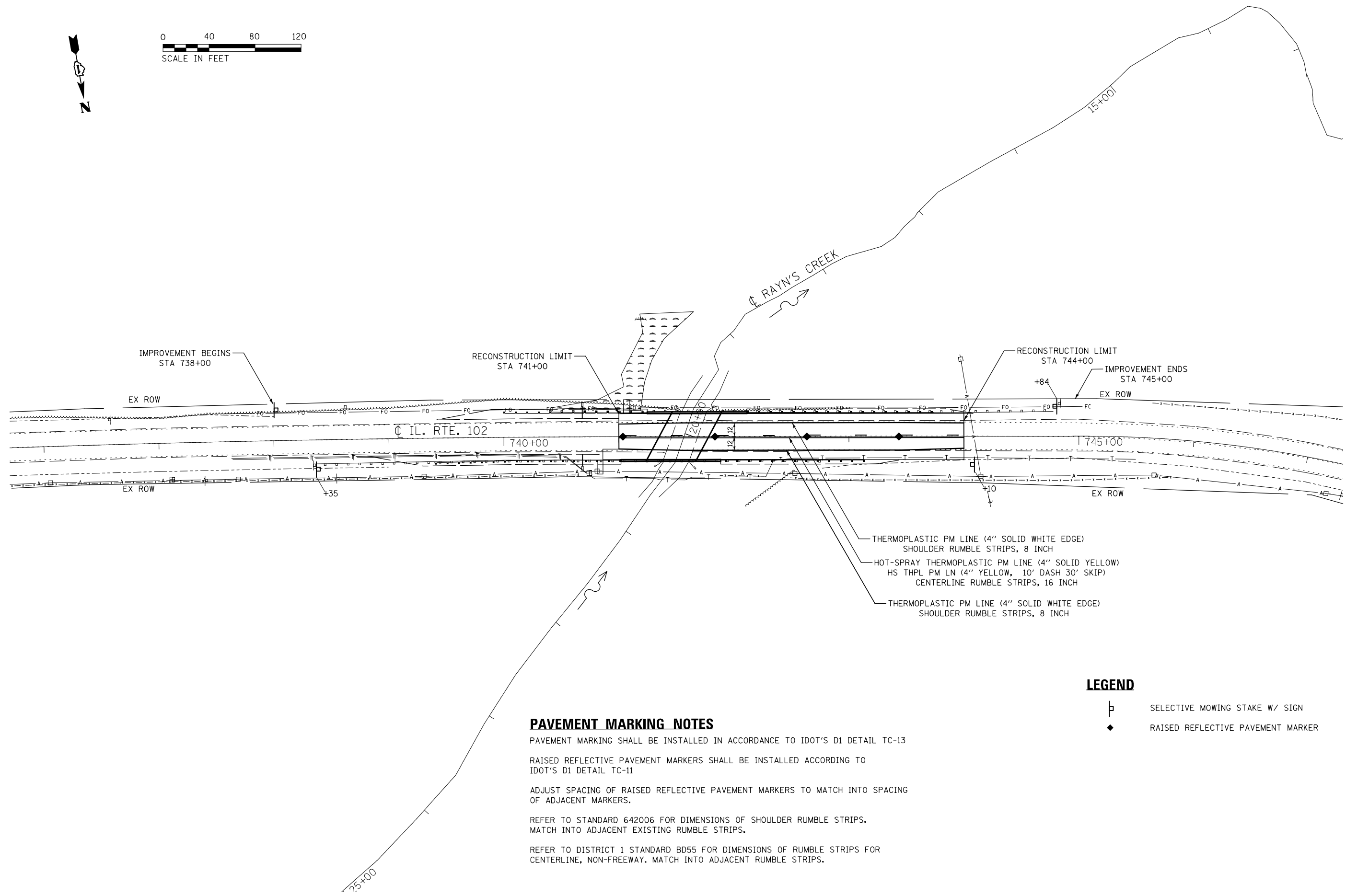
USER NAME = awmohammed	DESIGNED - TOM	REVISED -
	DRAWN - AWM	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JA	REVISED -
PLOT DATE = 8/21/2018	DATE - 08/14/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD  
EROSION CONTROL PLAN**

SCALE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	25
				<b>CONTRACT NO. 60V28</b>
ILLINOIS FED. AID PROJECT				



- THERMOPLASTIC PM LINE (4" SOLID WHITE EDGE)  
SHOULDER RUMBLE STRIPS, 8 INCH
- HOT-SPRAY THERMOPLASTIC PM LINE (4" SOLID YELLOW)  
HS THPL PM LN (4" YELLOW, 10' DASH 30' SKIP)  
CENTERLINE RUMBLE STRIPS, 16 INCH
- THERMOPLASTIC PM LINE (4" SOLID WHITE EDGE)  
SHOULDER RUMBLE STRIPS, 8 INCH

**LEGEND**

- ⊥ SELECTIVE MOWING STAKE W/ SIGN
- ◆ RAISED REFLECTIVE PAVEMENT MARKER

**PAVEMENT MARKING NOTES**

PAVEMENT MARKING SHALL BE INSTALLED IN ACCORDANCE TO IDOT'S D1 DETAIL TC-13

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED ACCORDING TO IDOT'S D1 DETAIL TC-11

ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO MATCH INTO SPACING OF ADJACENT MARKERS.

REFER TO STANDARD 642006 FOR DIMENSIONS OF SHOULDER RUMBLE STRIPS. MATCH INTO ADJACENT EXISTING RUMBLE STRIPS.

REFER TO DISTRICT 1 STANDARD BD55 FOR DIMENSIONS OF RUMBLE STRIPS FOR CENTERLINE, NON-FREEWAY. MATCH INTO ADJACENT RUMBLE STRIPS.

FILE NAME = D160V28-sht-pvmmtrk.dgn



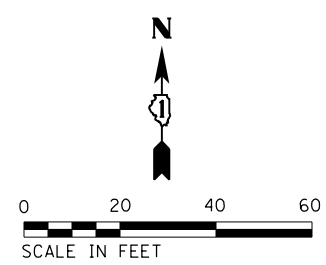
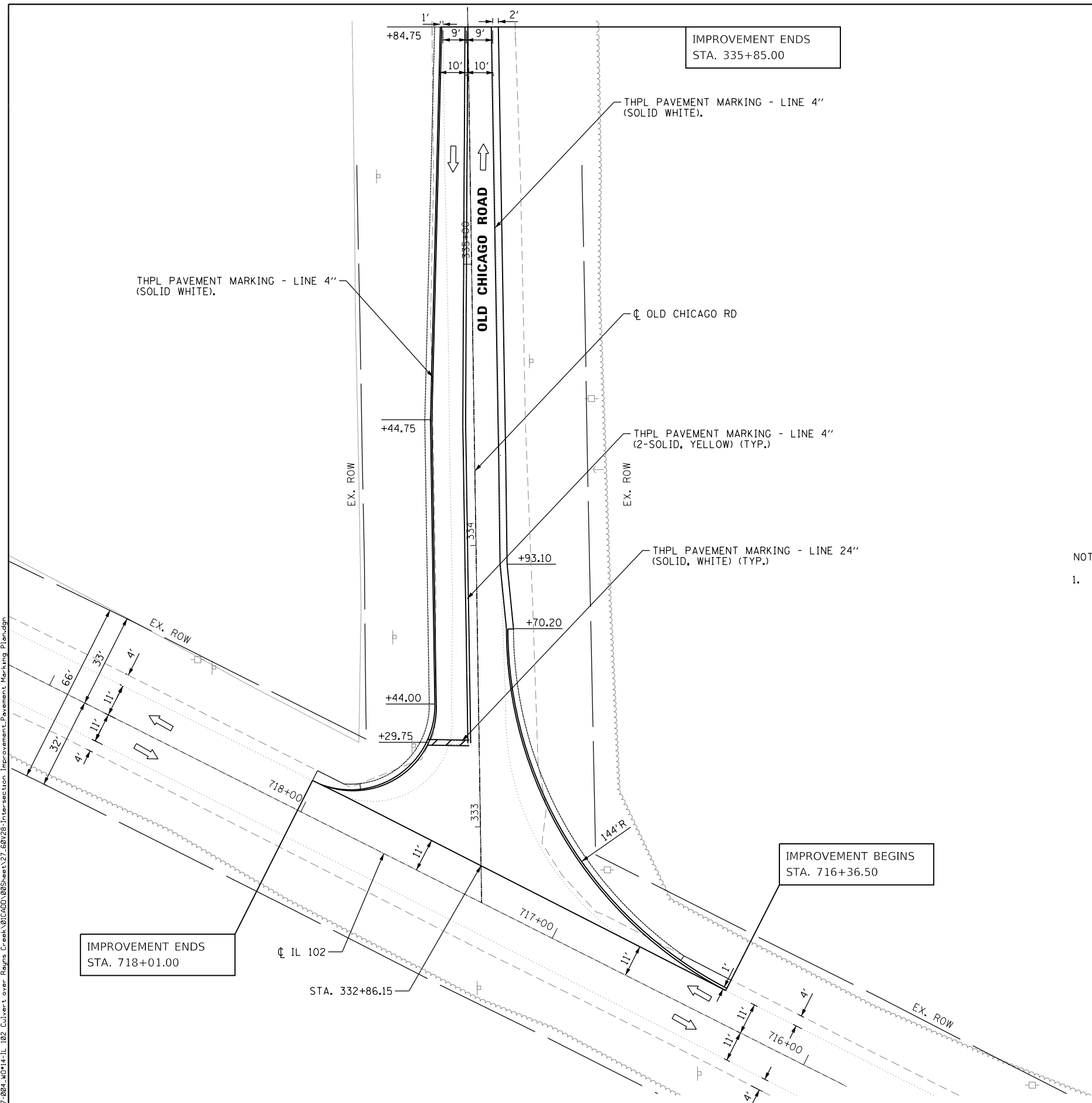
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	DRAWN - JNH	REVISED -
PLOT SCALE = 80.0000' / in.	CHECKED - JWK	REVISED -
PLOT DATE = 5/25/2018	DATE - 5/25/18	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
PAVEMENT MARKINGS PLAN (RAYN'S CREEK)**

SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 734+00 TO STA. 749+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	26
CONTRACT NO. 60V28			ILLINOIS FED. AID PROJECT	



- NOTES:
1. TYPICAL PAVEMENT MARKINGS INSTALLED ACCORDING TO IDOT'S D1 DETAIL TC-13



P:\60616\0205\14-PTB177-204-WD14-IL-102-Culvert over Bayns Creek\01C00D\08Sheets\27-60V28-Intersection-Improvement-Pavement-Markings-Plan.dgn



111 S. Wacker Drive,  
Suite 3910  
Chicago, IL 60606  
Ph: 312-235-6783

USER NAME = tmohammed	DESIGNED - TOM	REVISED -
DRAWN - AWM	REVISED -	
CHECKED - JA	REVISED -	
DATE - 05/24/2018	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>ILLINOIS ROUTE 102 (FAP 631) &amp; OLD CHICAGO RD PAVEMENT MARKING PLAN</b>				
SCALE	SHEET	OF	SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	27
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

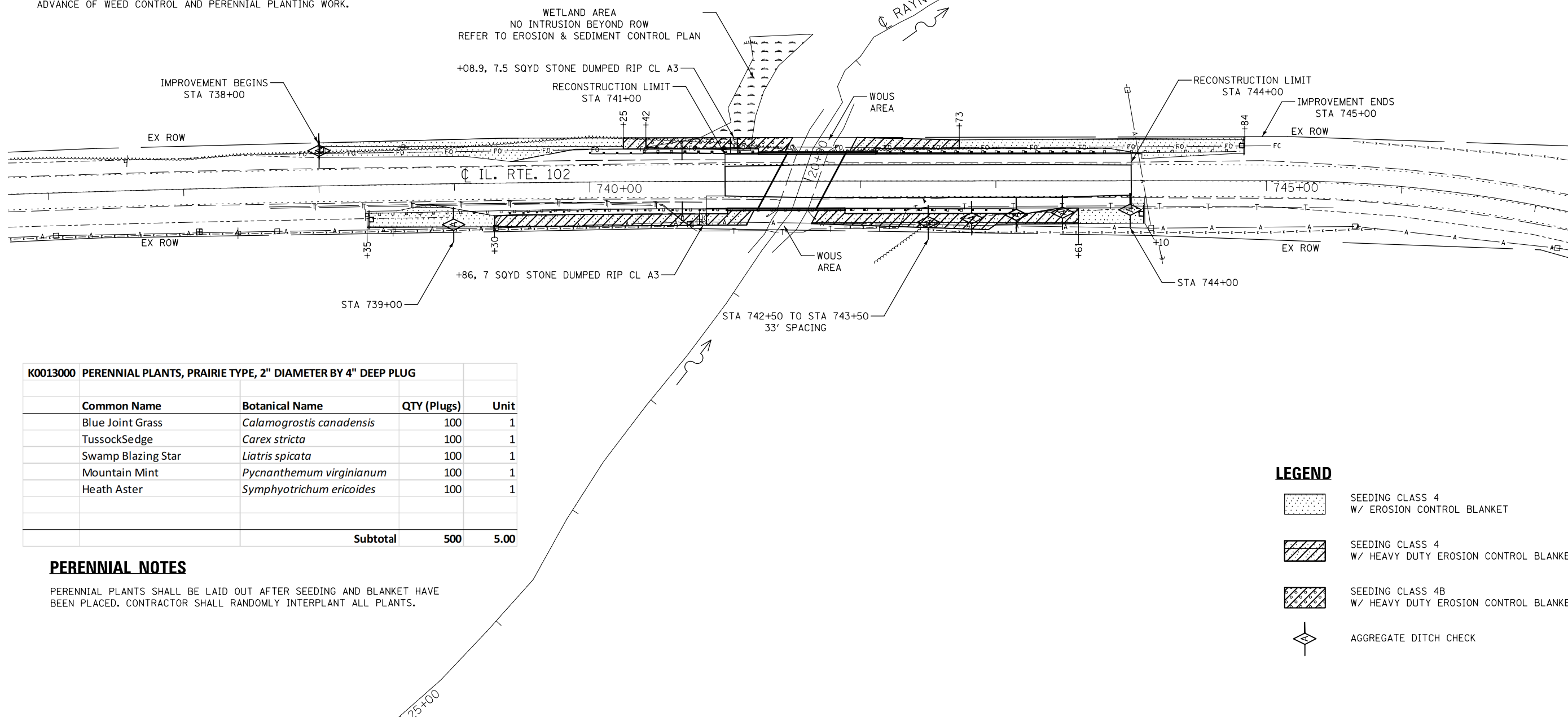


### LANDSCAPE NOTES

ANY TURF AREAS OUTSIDE THE CONSTRUCTION SEEDING LIMITS WHICH ARE DISTURBED SHALL BE REPAIRED, RESEEDED, AND COVERED WITH EROSION CONTROL BLANKET OR SODDED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

SEEDING LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. MATCH SEED AREAS INTO PROPOSED RIPRAP NEAR PROPOSED CULVERT. FIELD VERIFICATION AND ENGINEER APPROVAL AREA REQUIRED PRIOR TO SEEDING.

CONTACT ROADSIDE DEVELOPMENT UNIT AT 847-705-4171 AT LEAST 72 HOURS IN ADVANCE OF WEED CONTROL AND PERENNIAL PLANTING WORK.



K0013000 PERENNIAL PLANTS, PRAIRIE TYPE, 2" DIAMETER BY 4" DEEP PLUG				
Common Name	Botanical Name	QTY (Plugs)	Unit	
Blue Joint Grass	<i>Calamagrostis canadensis</i>	100	1	
TussockSedge	<i>Carex stricta</i>	100	1	
Swamp Blazing Star	<i>Liatris spicata</i>	100	1	
Mountain Mint	<i>Pycnanthemum virginianum</i>	100	1	
Heath Aster	<i>Symphotrichum ericoides</i>	100	1	
<b>Subtotal</b>		<b>500</b>	<b>5.00</b>	

### PERENNIAL NOTES

PERENNIAL PLANTS SHALL BE LAID OUT AFTER SEEDING AND BLANKET HAVE BEEN PLACED. CONTRACTOR SHALL RANDOMLY INTERPLANT ALL PLANTS.

### LEGEND

- SEEDING CLASS 4  
W/ EROSION CONTROL BLANKET
- SEEDING CLASS 4  
W/ HEAVY DUTY EROSION CONTROL BLANKET
- SEEDING CLASS 4B  
W/ HEAVY DUTY EROSION CONTROL BLANKET
- AGGREGATE DITCH CHECK

FILE NAME = D160V28-sht-landscape.dgn



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DRAWN - JNH	REVISIONS -	
PLOT SCALE = 80.0000' / in.	CHECKED - JWK	REVISIONS -
PLOT DATE = 5/25/2018	DATE - 5/25/18	REVISIONS -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
LANDSCAPE PLAN**

SCALE: 1"=40'      SHEET 1 OF 1 SHEETS      STA. 734+00      TO STA. 749+00

F.A.P. RTE. 631	SECTION (111N-B)B-R	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 28
CONTRACT NO. 60V28			ILLINOIS FED. AID PROJECT	

**LEFT BLANK INTENTIONALLY**

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USER NAME = awmohammed	DESIGNED - TOM	REVISED -
	DRAWN - AWM	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JA	REVISED -
PLOT DATE = 8/21/2018	DATE - 08/14/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK**

SCALE      SHEET      OF      SHEETS      STA.      TO      STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	29
<b>CONTRACT NO. 60V28</b>				
ILLINOIS FED. AID PROJECT				

**BENCH MARK:**

Set a RR Spike in the first power pole NE of the box culvert.  
 Elevation NGVD 88: 577.14  
 Northing: 1665597.386;  
 Easting: 1054179.948

**EXISTING STRUCTURE:**

Structure 099-0170 was built in 1929 as a reinforced concrete slab bridge. The superstructure is comprised of precast channel beams with a 5" reinforced concrete wearing surface. The back to back abutment length is 23'-5". The contractor shall remove and replace it with a 16-foot wide by 9-foot high cell flanked by two 9-foot wide by 9-foot high cells. Traffic will be detoured during the construction.

**SALVAGE:**

No Salvage.

**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications.  
 7th edition with 2015 & 2016 interims

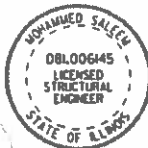
**LOADING HL-93**

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

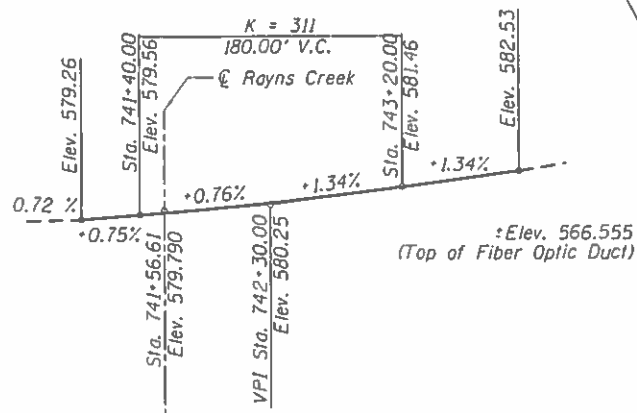
**DESIGN STRESSES**

**FIELD UNITS**

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



DATE: 08/20/2018  
 IL LICENSED PROFESSIONAL  
 LICENSE EXPIRES ON 11/30/2018



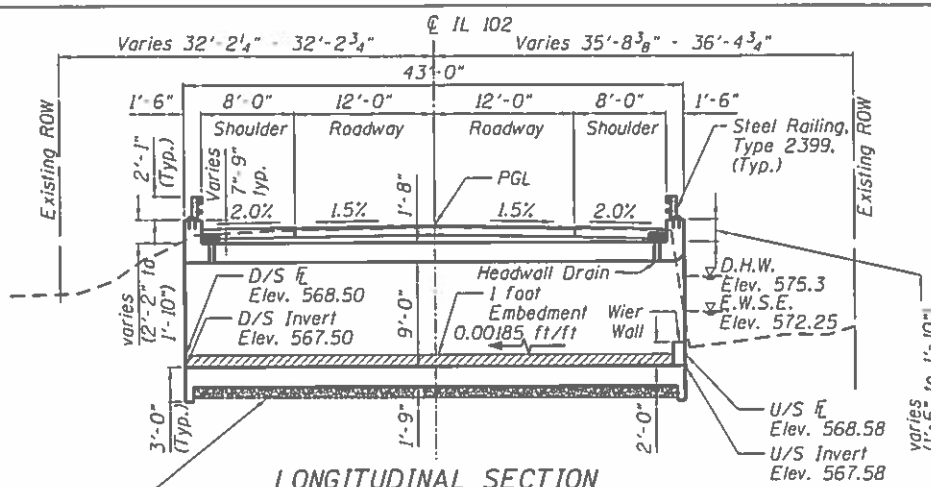
**PROFILE GRADE**

**WATERWAY INFORMATION TABLE**

Drainage Area = 6.59 sq.mi. Low Grade Elev. 579.17(E) 579.17(P) @ Sta. 740+68

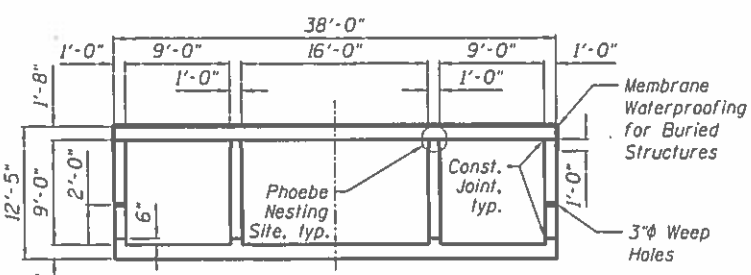
Flood	Freq. Yr.	0 C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	408	96	157	573.8	0.2	0.0	574.0	573.8
Base	50	866	126	207	575.3	0.8	0.4	576.1	575.7
Scour Design Check	100	1250	140	231	576.0	2.7	0.7	578.7	576.7
Ex. Overtop	200	1700	152	250	576.6	3.2	1.3	579.8	577.9
Pr. Overtop	130	1375	164	-	576.2	2.9	-	579.1	-
Max. Calc.	360	2100	-	250	576.2	2.9	1.9	-	578.1
	500	2375	164	250	577.4	2.9	2.5	580.3	579.9

10-yr Velocity through Existing Structure = 4 ft/s  
 10-yr Velocity through Proposed Structure = 2 ft/s  
 2-yr Flow Rate = 242 ft³/s



**LONGITUDINAL SECTION**

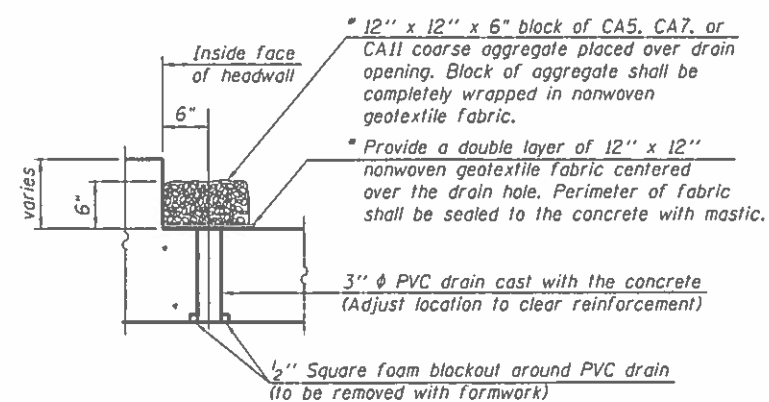
Dimensions measured perpendicular to CL Rte. 102



**SECTION THRU BARREL - LOOKING D/S**

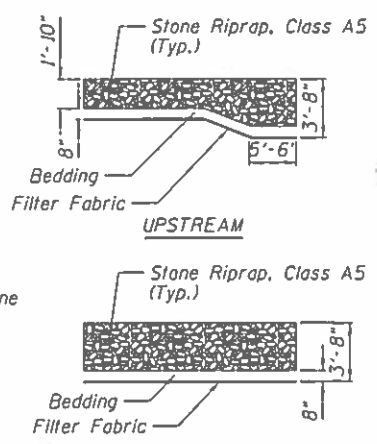
(Dimensions at Rt. L's to CL Culvert)

\* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

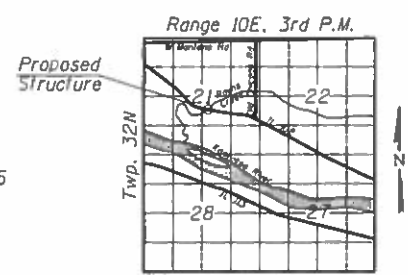


**DRAIN DETAIL**

(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.)



**RIPRAP DETAIL**



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
 US ROUTE 102 OVER RAYNS CREEK  
 F.A.P. ROUTE 631  
 SECTION (111N-B)B-R  
 WILL COUNTY  
 STATION 741+56.61  
 STRUCTURE NO. 099-0918

**APPROVED**  
 For Structural Adequacy Only  
 [Signature]  
 Engineer of Bridges & Structures



FILE NAME	111 S. Wacker Drive, Suite 2910, Chicago, IL 60606, Ph: 312-235-8783
USER NAME	
DESIGNED	AM, AWM
REVISIONS	
CHECKED	MS
REVISIONS	
DRAWN	AM, AWM
REVISIONS	
CHECKED	MS
REVISIONS	

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION  
 STRUCTURE NO.: 099-0918  
 SHEET NO. 51 OF 57 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	30
CONTRACT NO. GOV28				
ILLINOIS FED. AID PROJECT				

**INDEX OF SHEETS**

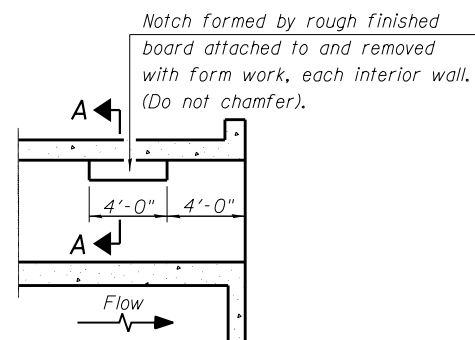
1. General Plan and Elevation
2. General Notes, Index of Sheets and Total Bill of Material
3. Culvert Details-I
4. Culvert Details-II
5. Steel Railing Type 2399 Details
6. Soil Boring Logs I
7. Soil Boring Logs II

**GENERAL NOTES**

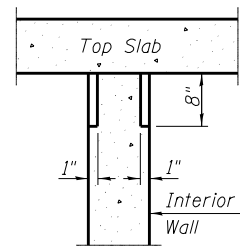
1. Precast option is not allowed.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
4. Concrete Sealer shall be applied to the designated areas of the wing walls.
5. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
6. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
7. It shall be the responsibility of the contractor to divert the stream flow during construction in order to keep the construction area free of water. The method of the water diversion shall be subjected to the approval of the Engineer and the cost shall be included with the cost of concrete box culverts.
8. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu Yd	76
Stone Rip Rap, Class A5	Sq Yd	99
Filter Fabric	Sq Yd	99
Removal of Existing Structures	Each	1
Bridge Rail Removal	Foot	45
Structure Excavation	Cu Yd	934
Removal and Disposal of Unsuitable Material for Structures	Cu Yd	76
Protective Coat	Sq Yd	43
Reinforcement Bars, Epoxy Coated	Pound	116630
Steel Railing, Type 2399	Foot	179
Name Plates	Each	1
Concrete Box Culverts	Cu Yd	425
Concrete Sealer	Sq Ft	572
Geocomposite Wall Drain	Sq Yd	13
Membrane Waterproofing for Buried Structures	Sq Yd	235
Granular Backfill for Structures	Cu Yd	90

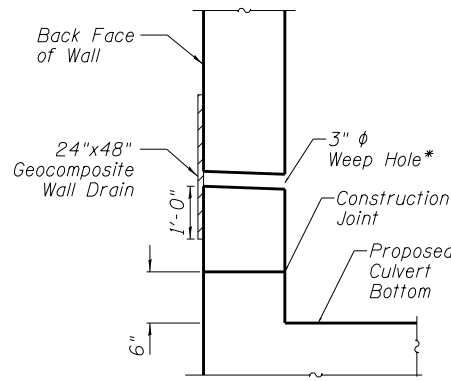


**LONGITUDINAL SECTION**



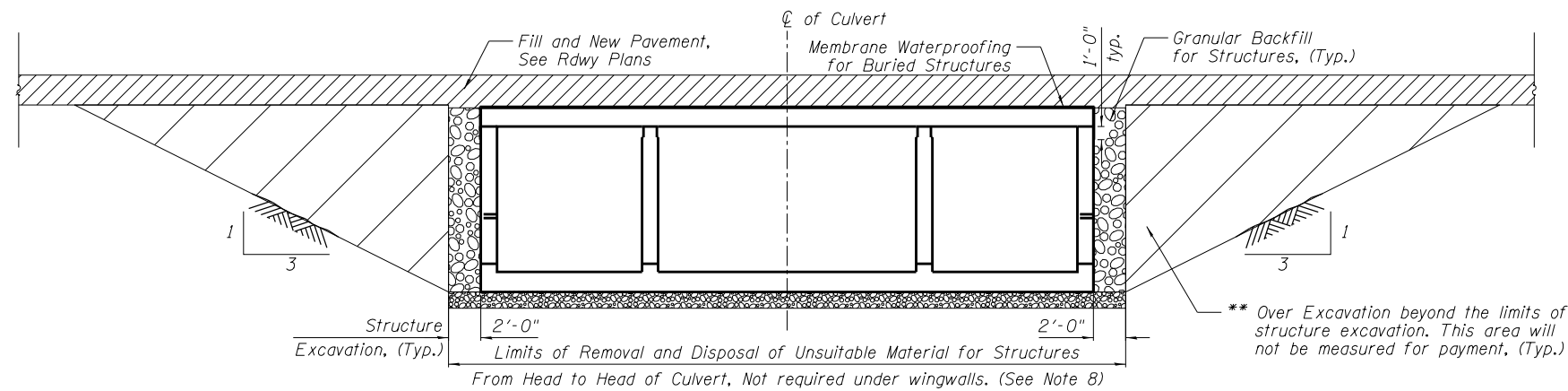
**SECTION A-A**

**PHOEBE NESTING  
SITE DETAILS  
(Downstream End Only)**



**WEEP HOLE DRAIN DETAIL**

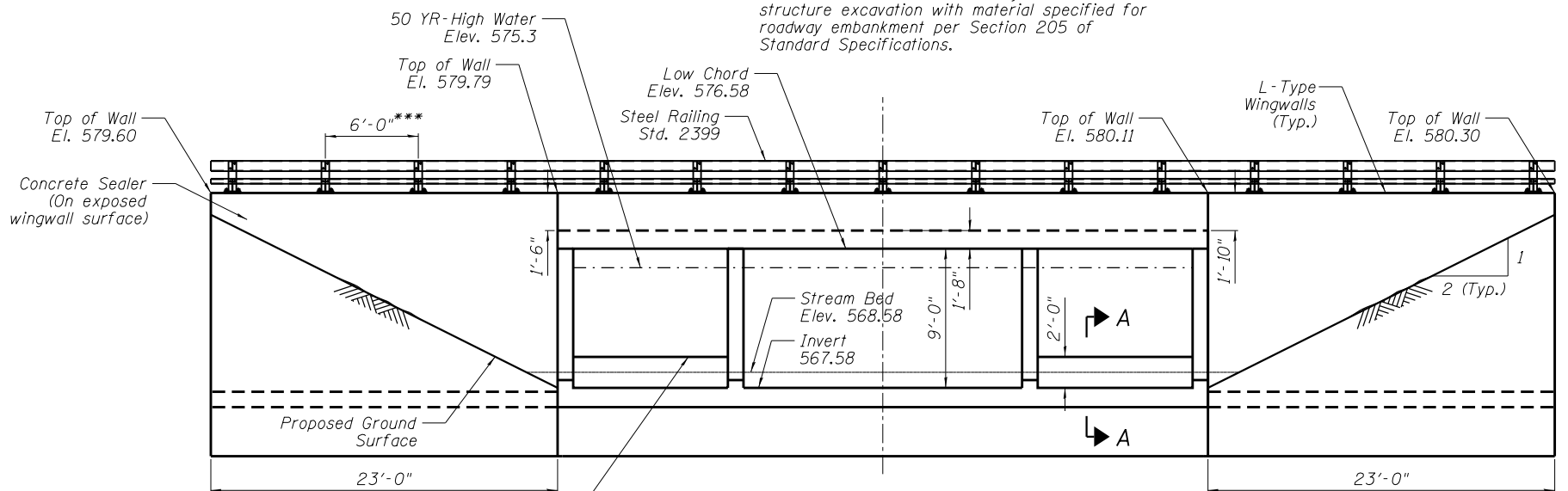
\* Cost included in Concrete Box Culvert



**CULVERT DRAINAGE DETAILS**

(Dimensions perpendicular to  $\hat{C}$  of Culvert)

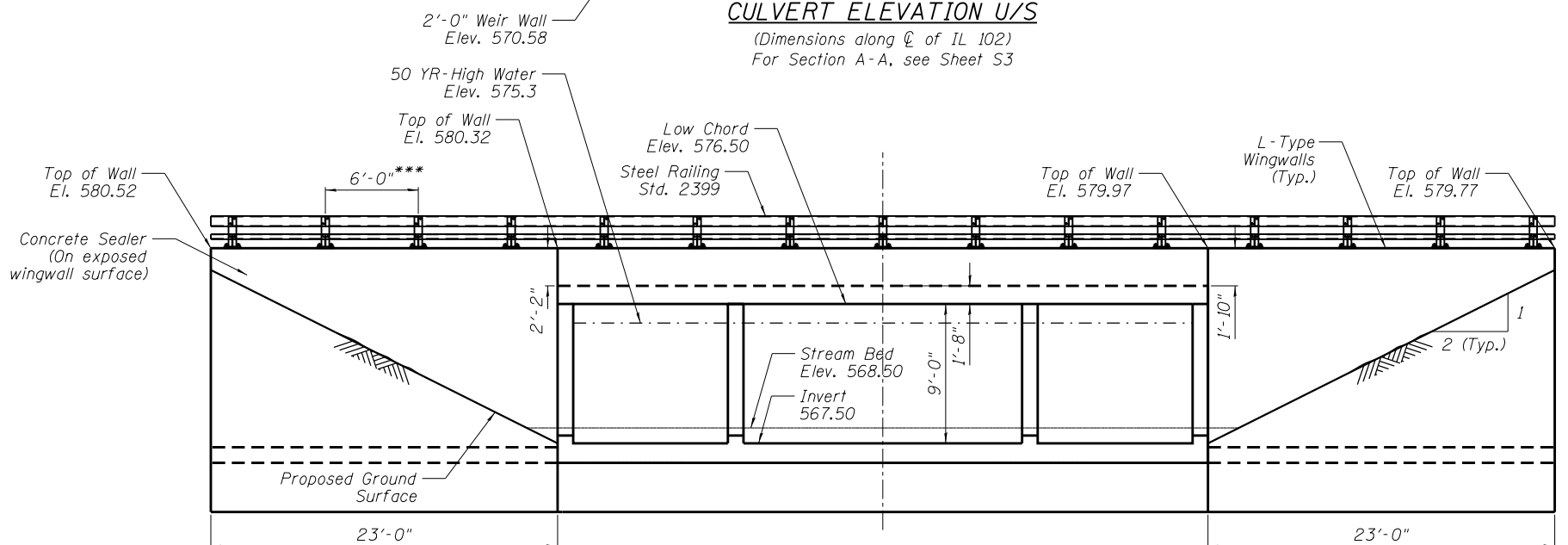
\*\* Backfill the over excavation beyond the limits of structure excavation with material specified for roadway embankment per Section 205 of Standard Specifications.



**CULVERT ELEVATION U/S**

(Dimensions along  $\hat{C}$  of IL 102)

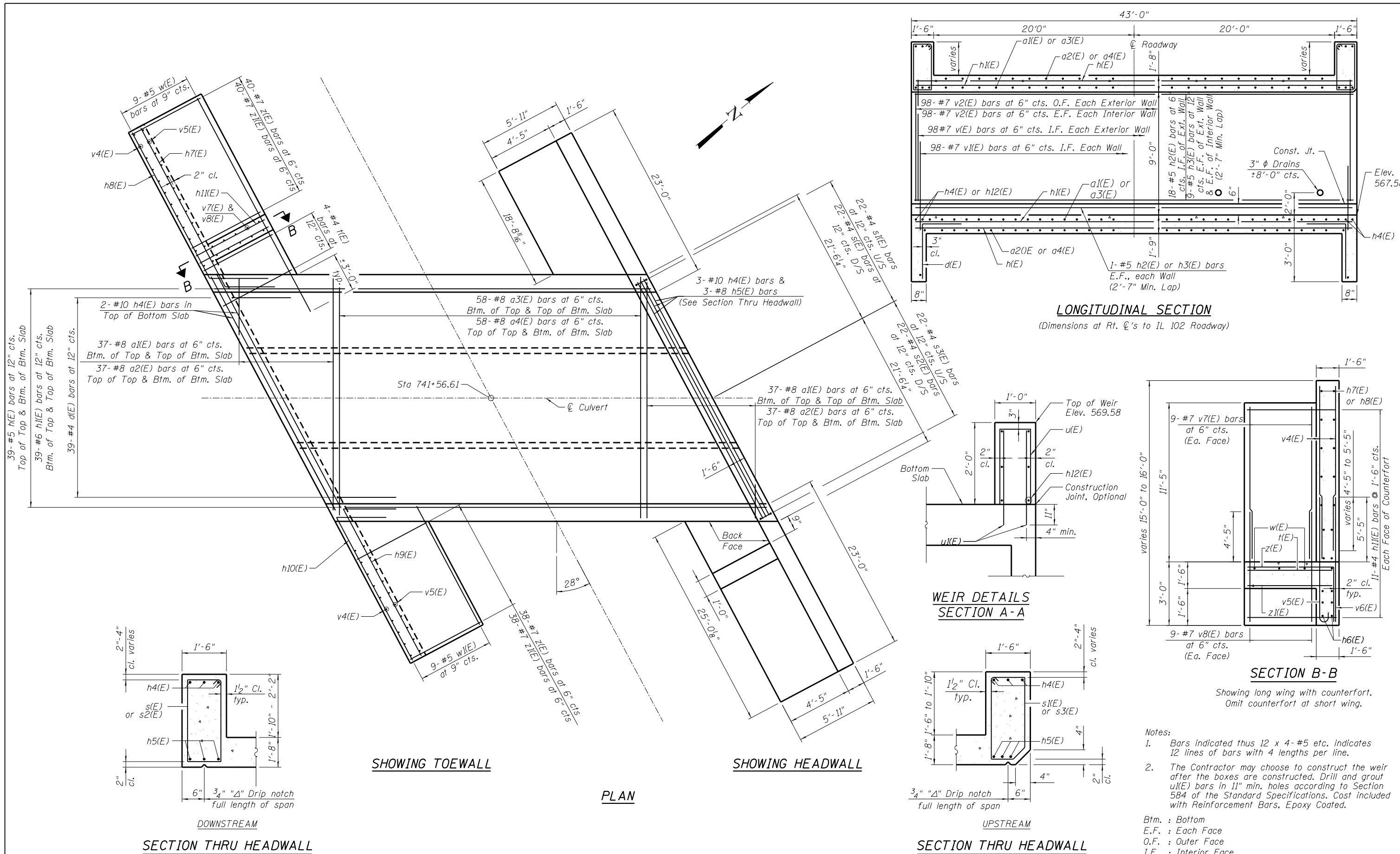
For Section A-A, see Sheet S3



**CULVERT ELEVATION D/S**

(Dimensions along  $\hat{C}$  of IL 102)

\*\*\* See Sheet S5 for Steel Railing Type 2399 Details.  
The post location shall be adjusted by not more than  $\pm 3$ " to avoid headwall reinforcement.  
The 6'-0" distance between two posts is shown only as a guidance, to obtain a symmetrical layout of the posts.



FILE NAME =  
**AES** ENGINEERS & SURVEYORS  
 111 S. Wacker Drive,  
 Suite 3910  
 Chicago, IL 60606  
 Ph: 312-235-6783

USER NAME =	DESIGNED - AM, AWM	REVISD -
PLOT SCALE =	CHECKED - MS	REVISD -
PLOT DATE =	DRAWN - AM, AWM	REVISD -
	CHECKED - MS	REVISD -

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

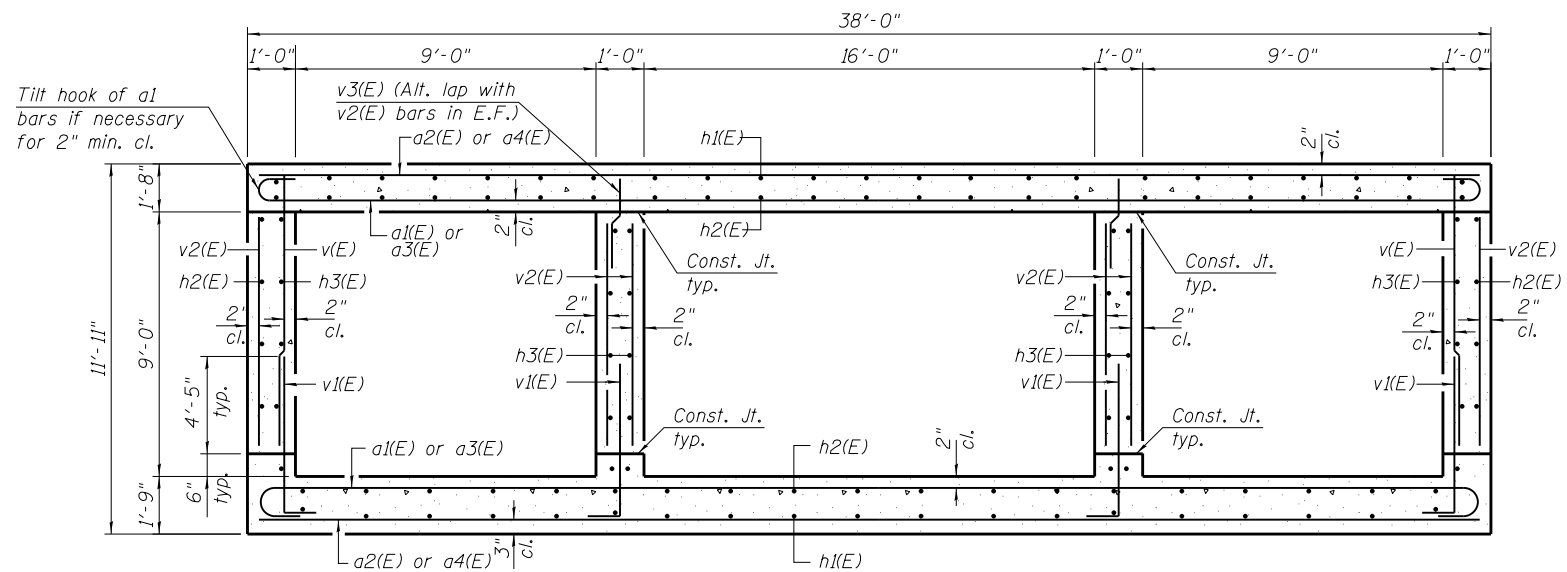
**CULVERT DETAILS I/II**  
**STRUCTURE NO.: 099-0918**  
 SHEET NO. S3 OF S7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B1B-R)	WILL	47	32
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				



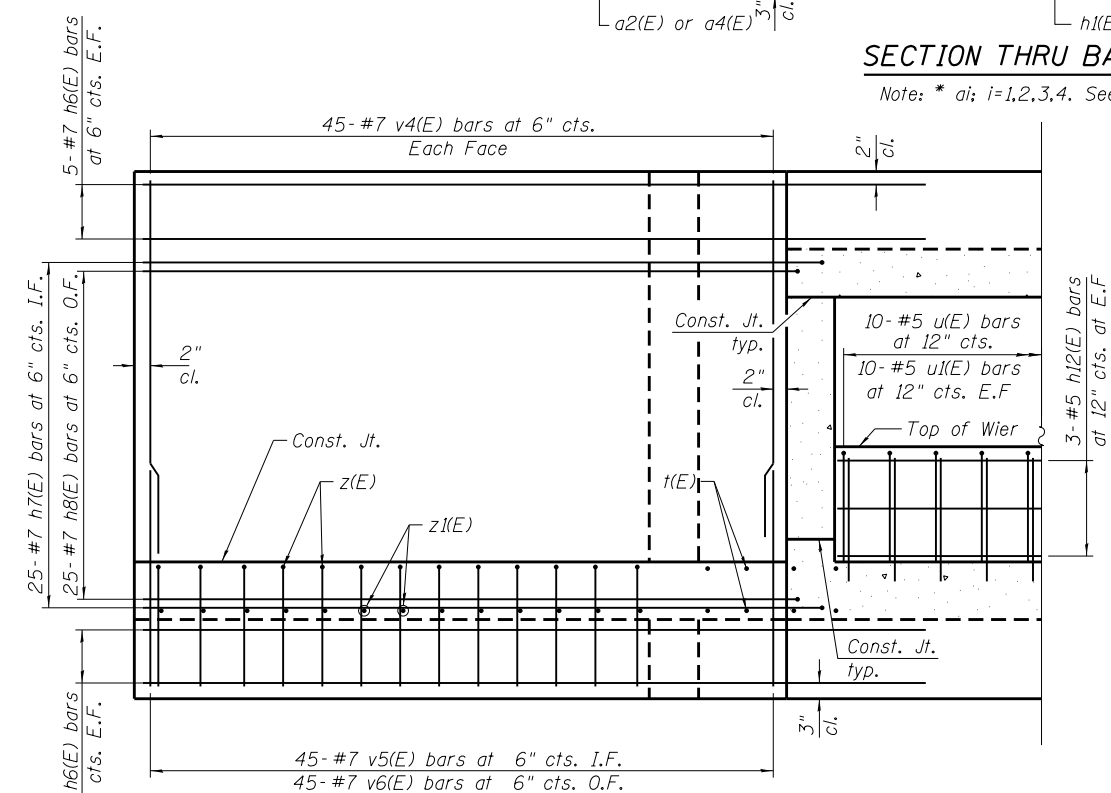
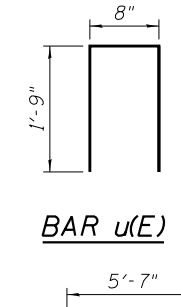
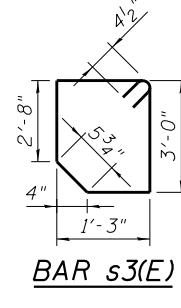
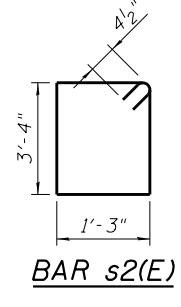
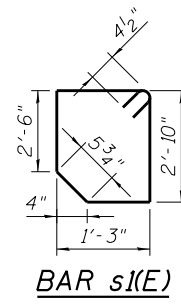
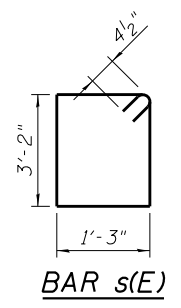
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1(E)	74	#8	41'-9"	
a2(E)	74	#8	39'-11"	
a3(E)	116	#8	39'-6"	
a4(E)	116	#8	37'-8"	
d(E)	78	#4	4'-5"	
h(E)	78	#5	48'-4"	
h1(E)	78	#6	48'-4"	
h2(E)	38	#5	48'-4"	
h3(E)	60	#5	48'-4"	
h4(E)	10	#10	42'-8"	
h5(E)	6	#8	42'-8"	
h6(E)	64	#7	26'-4"	
h7(E)	50	#7	27'-11"	
h8(E)	50	#7	26'-3"	
h9(E)	50	#7	26'-1"	
h10(E)	50	#7	26'-3"	
h11(E)	44	#4	5'-7"	
h12(E)	12	#5	9'-10"	
s(E)	22	#4	9'-7"	
s1(E)	22	#4	8'-8"	
s2(E)	22	#4	9'-11"	
s3(E)	22	#4	9'-1"	
t(E)	16	#4	5'-7"	
u(E)	20	#5	4'-2"	
u1(E)	40	#5	2'-8"	
v(E)	196	#7	10'-0"	
v1(E)	392	#7	7'-7"	
v2(E)	588	#7	8'-4"	
v3(E)	196	#7	5'-2"	
v4(E)	360	#7	11'-10"	
v5(E)	180	#7	9'-0"	
v6(E)	180	#7	8'-2"	
v7(E)	36	#7	11'-3"	
v8(E)	36	#7	7'-2"	
w(E)	18	#5	27'-10"	
w1(E)	18	#5	21'-8"	
z(E)	156	#7	8'-2"	
z1(E)	156	#7	5'-7"	
Concrete Box Culverts			Cu. Yd.	425
Reinforcement Bars,			Pound	116630
Epoxy Coated				

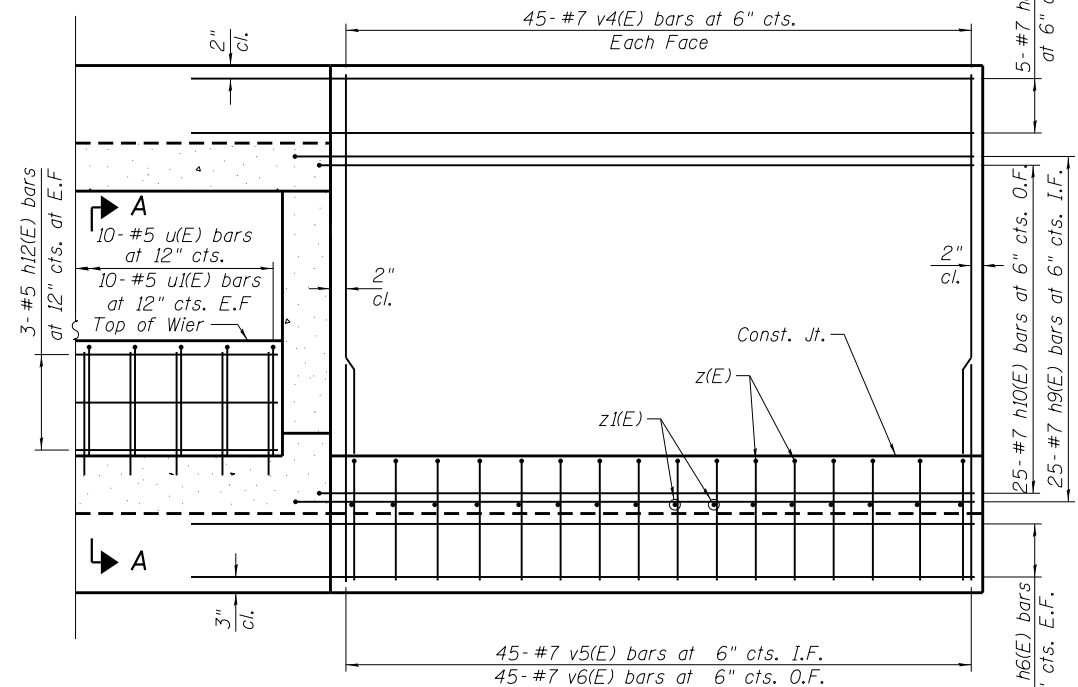


**SECTION THRU BARREL-LOOKING D/S**

Note: \* ai; i=1,2,3,4. See plan for bar locations.

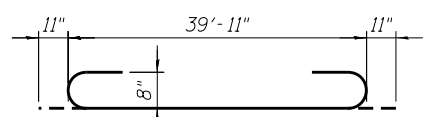


**LONG WINGWALL**

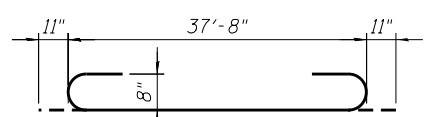


**SHORT WINGWALL**

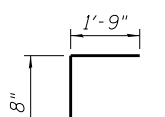
For Section A-A, see Sheet S3



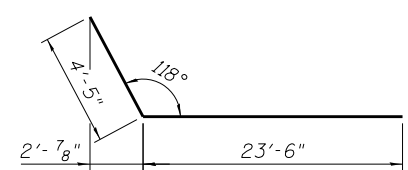
**BAR a1(E)**



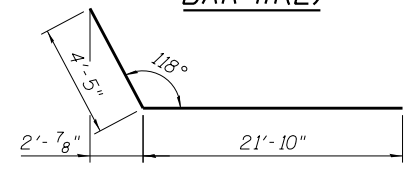
**BAR a3(E)**



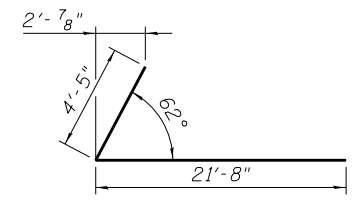
**BAR d(E)**



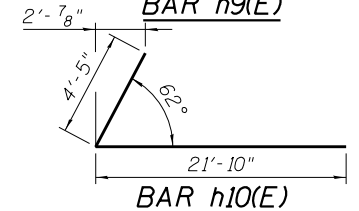
**BAR h7(E)**



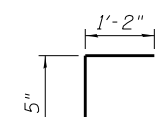
**BAR h8(E)**



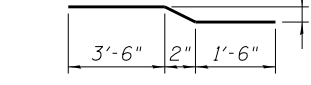
**BAR h9(E)**



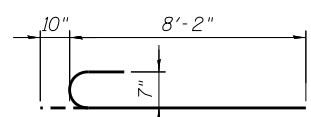
**BAR h10(E)**



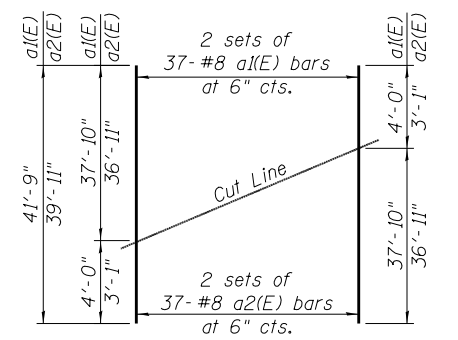
**BAR v1(E)**



**BAR v3(E)**



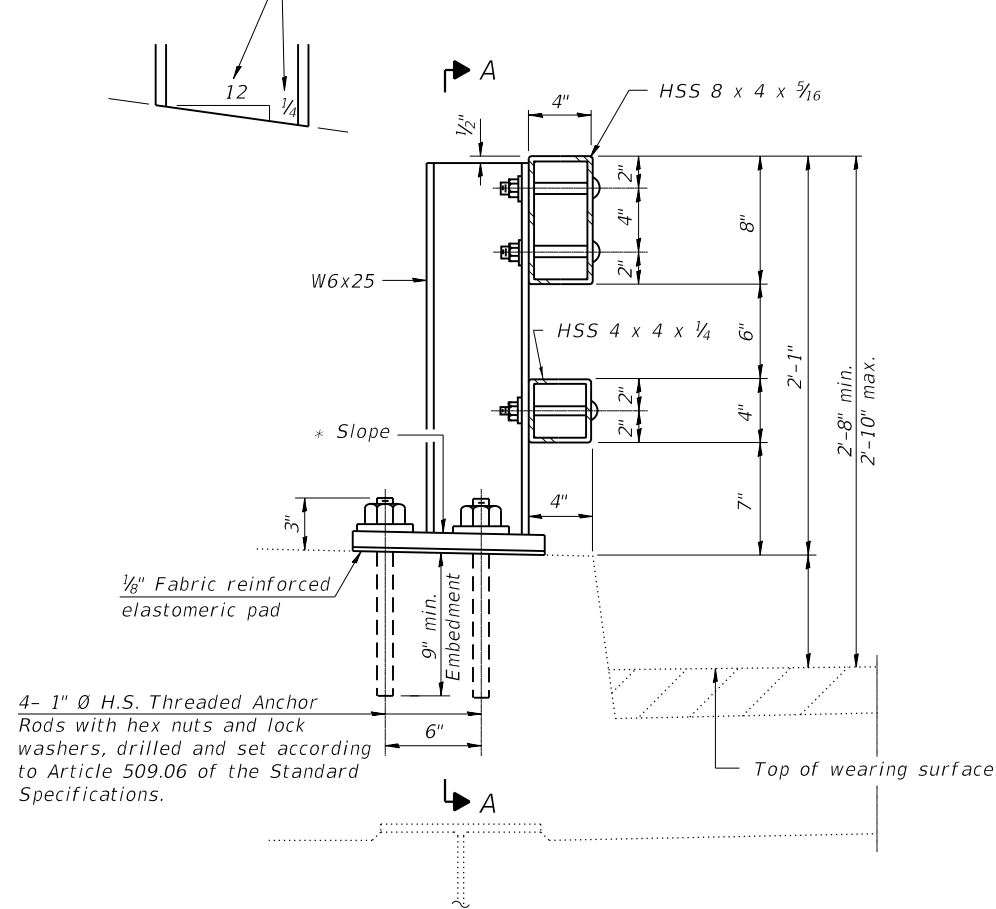
**BAR v5(E)**



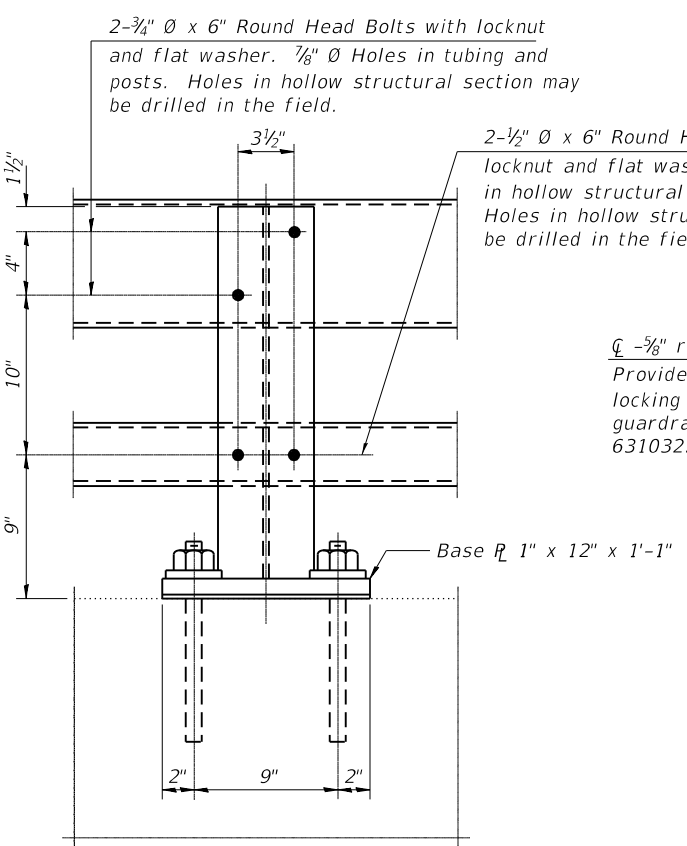
**FIELD CUTTING DIAGRAM**

Order bars shown full length. Cut as shown and use remainder of bars as shown on plan.

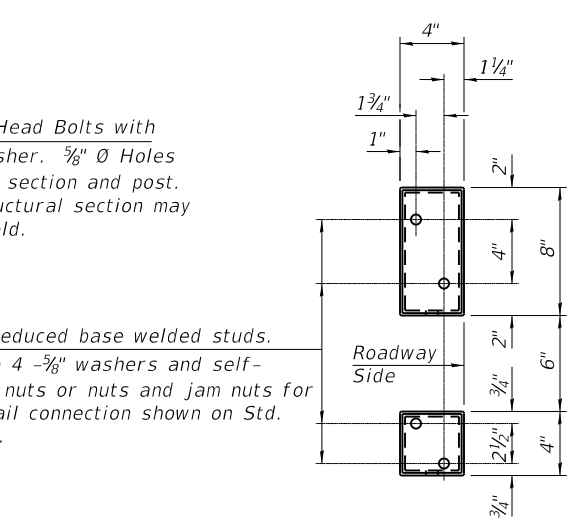
\* Cut bottom end of post to curb slope.



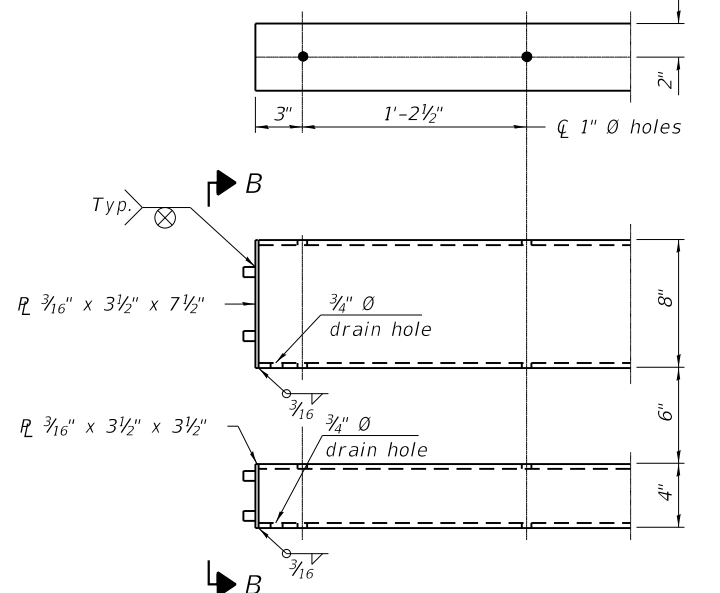
**SECTION AT RAIL POST**



**SECTION A-A**



**VIEW B-B**



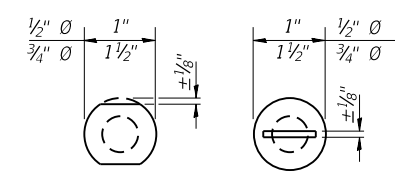
**END OF RAIL DETAILS**

4- 1" Ø H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.

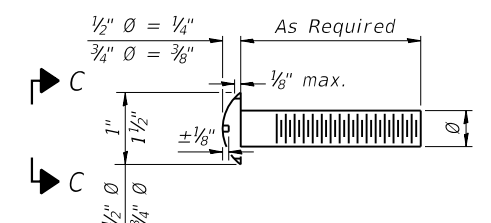
2-3/4" Ø x 6" Round Head Bolts with locknut and flat washer. 7/8" Ø Holes in tubing and posts. Holes in hollow structural section may be drilled in the field.

2-1/2" Ø x 6" Round Head Bolts with locknut and flat washer. 5/8" Ø Holes in hollow structural section and post. Holes in hollow structural section may be drilled in the field.

4 - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.

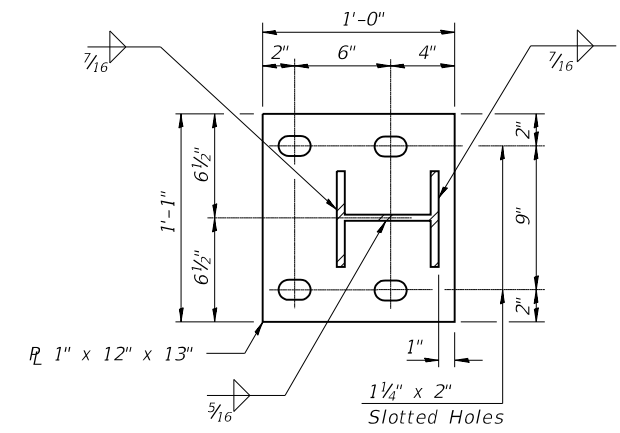


**VIEW C-C**

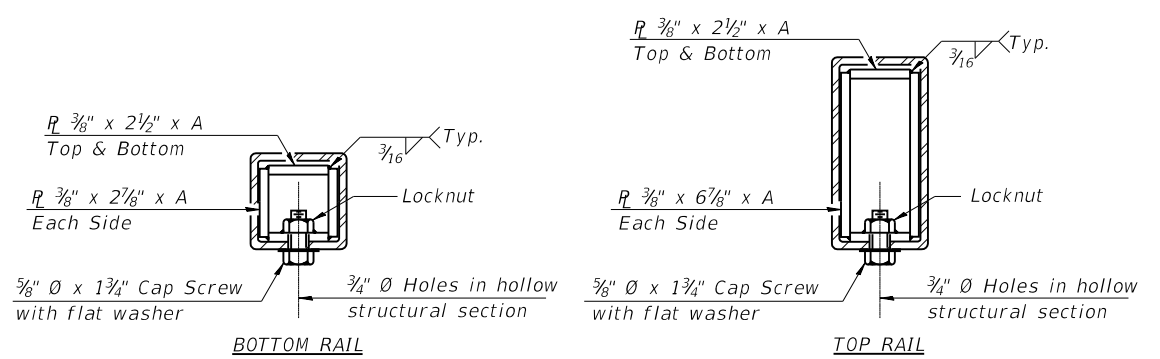


**DETAIL OF 1/2" \* & 3/4" \* ROUND HEAD BOLTS**

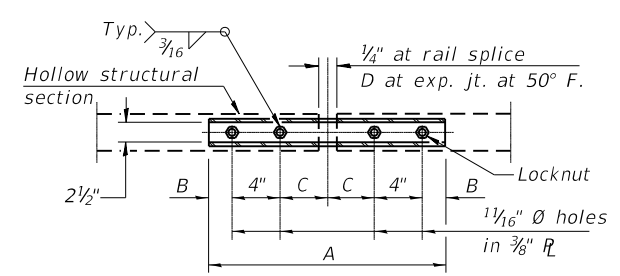
Notes:  
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.  
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.  
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.  
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



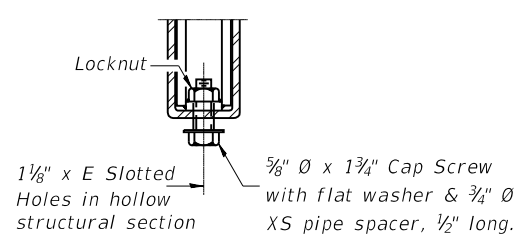
**BASE PLATE DETAIL**



**SECTIONS AT RAIL SPLICE**



**PLAN-BOTT. SPLICE \* TYPICAL**



**RAIL SPLICE CONNECTION AT EXPANSION JT.**

**SPLICE DIMENSIONS**

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	179

R-31 8-11-2017 (6'-3" Maximum Post Spacing)



111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783

DESIGNED -	AM, AWM	REVISED -
CHECKED -	MS	REVISED -
DRAWN -	AM, AWM	REVISED -
CHECKED -	MS	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

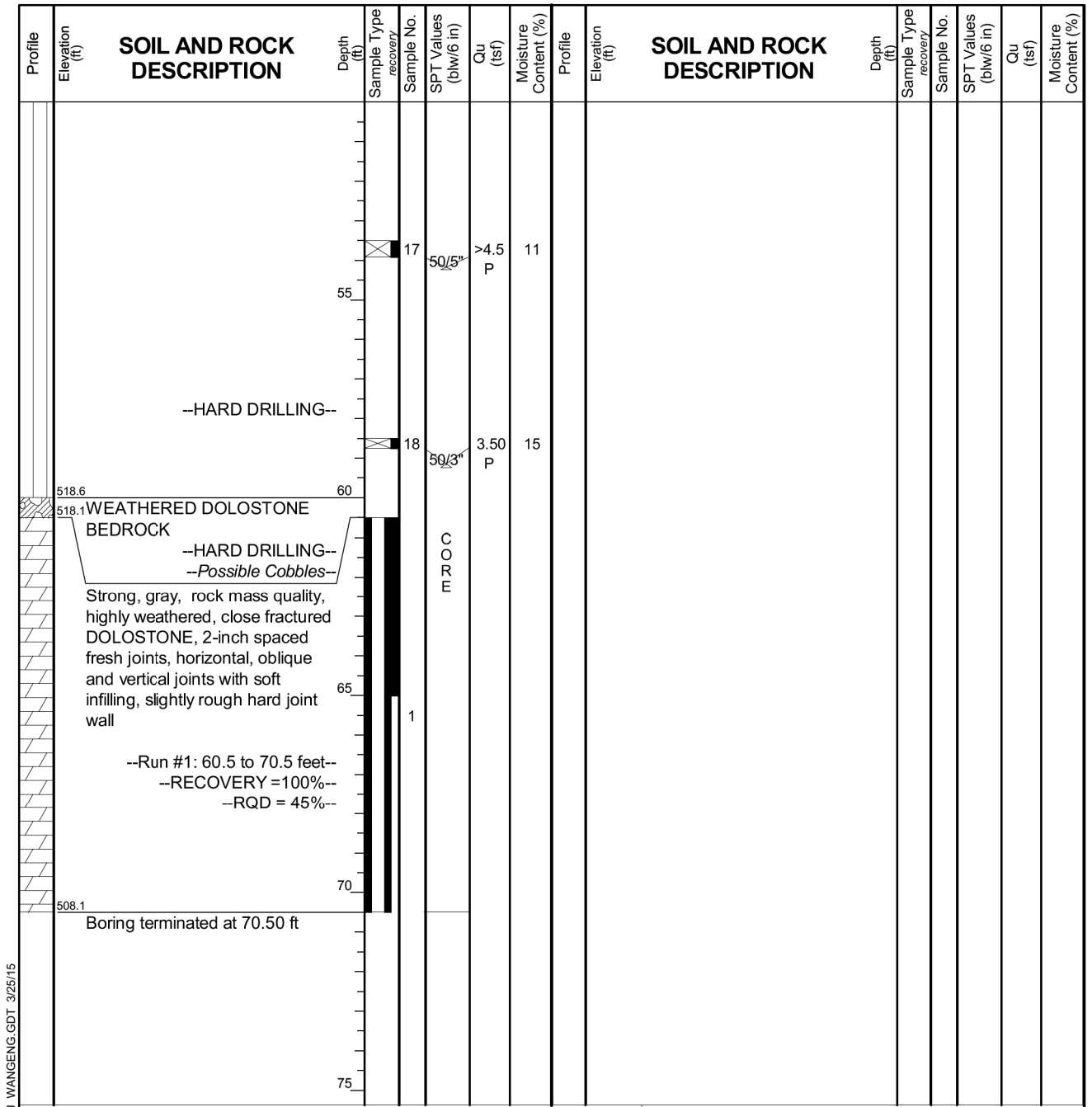
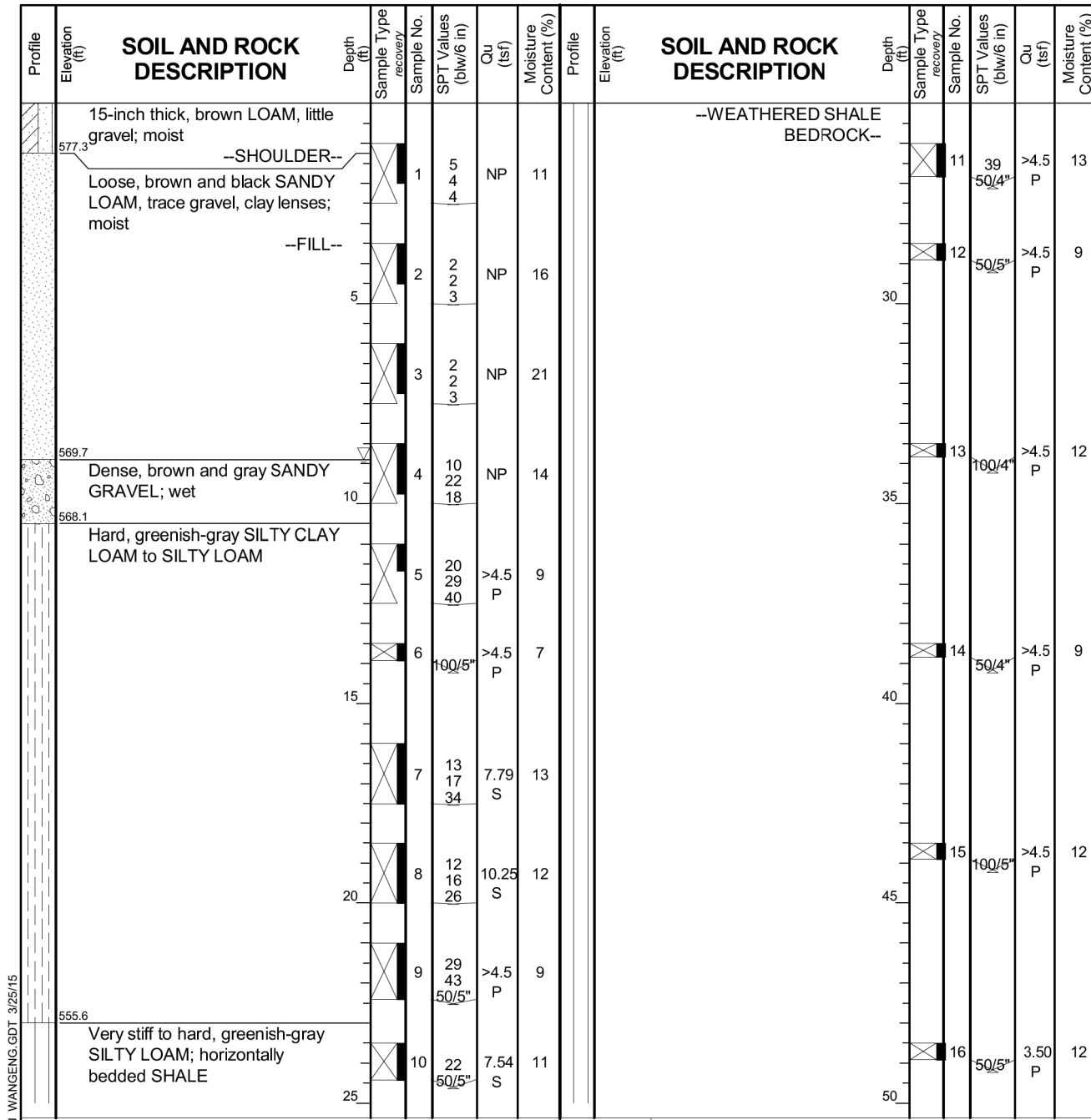
STEEL RAILING, TYPE 2399 STRUCTURE NO.: 099-0918

SHEET NO. 55 OF 57 SHEETS

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B1B-R	WILL	47	34

CONTRACT NO. 60V28 ILLINOIS FED. AID PROJECT

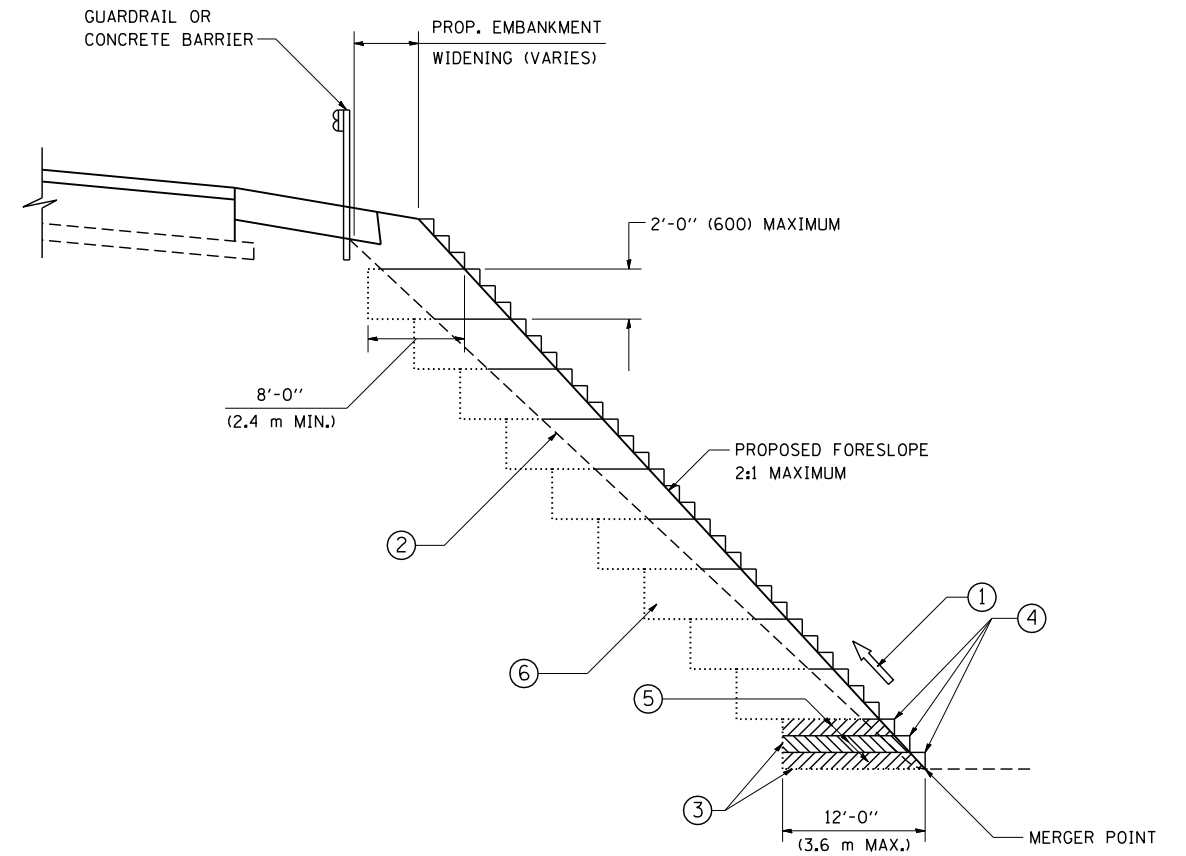




GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-13-2015	Complete Drilling	03-13-2015	While Drilling	▽	8.90 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55	At Completion of Drilling	▽	NA	
Driller	R & J	Logger	A. Tomaras	Time After Drilling		NA	
Checked by	C. Marin	Drilling Method	4.0" OD CFA to 10'; Mud rotary to bedrock;	Depth to Water	▽	NA	
			backfilled upon completion	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

GENERAL NOTES				WATER LEVEL DATA			
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Drilling Contractor	Wang Testing Services	Drill Rig	CME-55	At Completion of Drilling	▽	NA	
Driller	R & J	Logger	A. Tomaras	Time After Drilling		NA	
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			backfilled upon completion	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

SOIL BORING BSB-02  
 STA 741+05, 12' RT



TYPICAL BENCHING DETAIL  
FOR EMBANKMENT

**NOTES:**

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

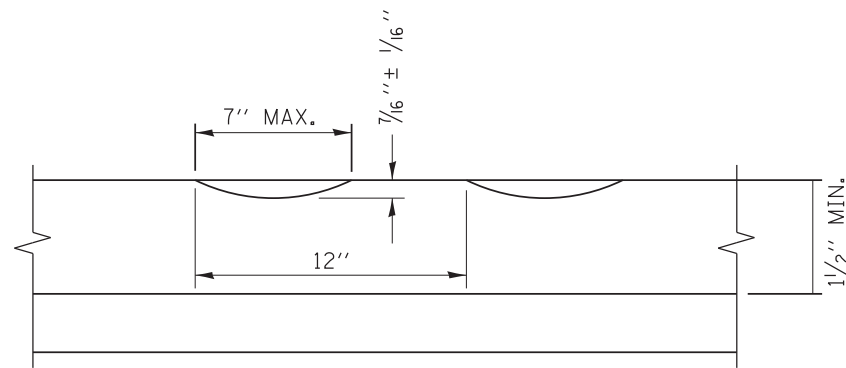
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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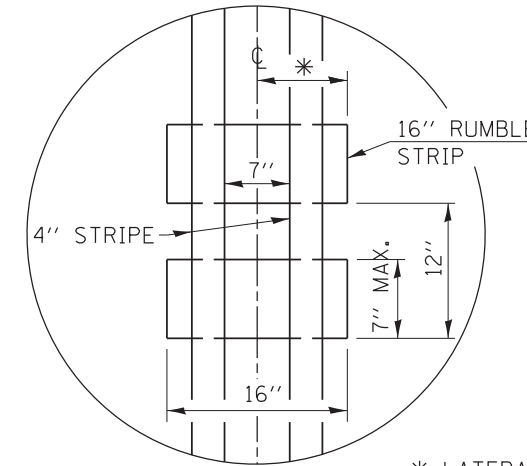
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BENCHING DETAIL FOR EMBANKMENT WIDENING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	17
<b>BD-51</b>		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A



\* LATERAL DEVIATION SHALL NOT EXCEED ONE INCH IN 100 FEET.

DETAIL B

GENERAL NOTES

CENTERLINE RUMBLE STRIPS SHALL BE CONSTRUCTED ACCORDING TO SECTION 642 ALONG THE CENTERLINE OF PAVEMENT.

SEE STANDARD 780001 FOR OTHER STRIPING LAYOUTS. RUMBLE STRIPS SHALL NOT BE PLACED ON BRIDGES. ALL RUMBLE STRIPS SHALL BE MILLED.

CENTERLINE RUMBLE STRIPS SHALL BE CONTINUOUS THROUGH CONNECTIONS OF SIDEROADS WITH NO LEFT TURN LANES.

DISCONTINUE CENTERLINE RUMBLE STRIPS THROUGH THE LIMITS OF ALL LEFT TURN LANES, INCLUDING ANY LANE TAPER SECTIONS.

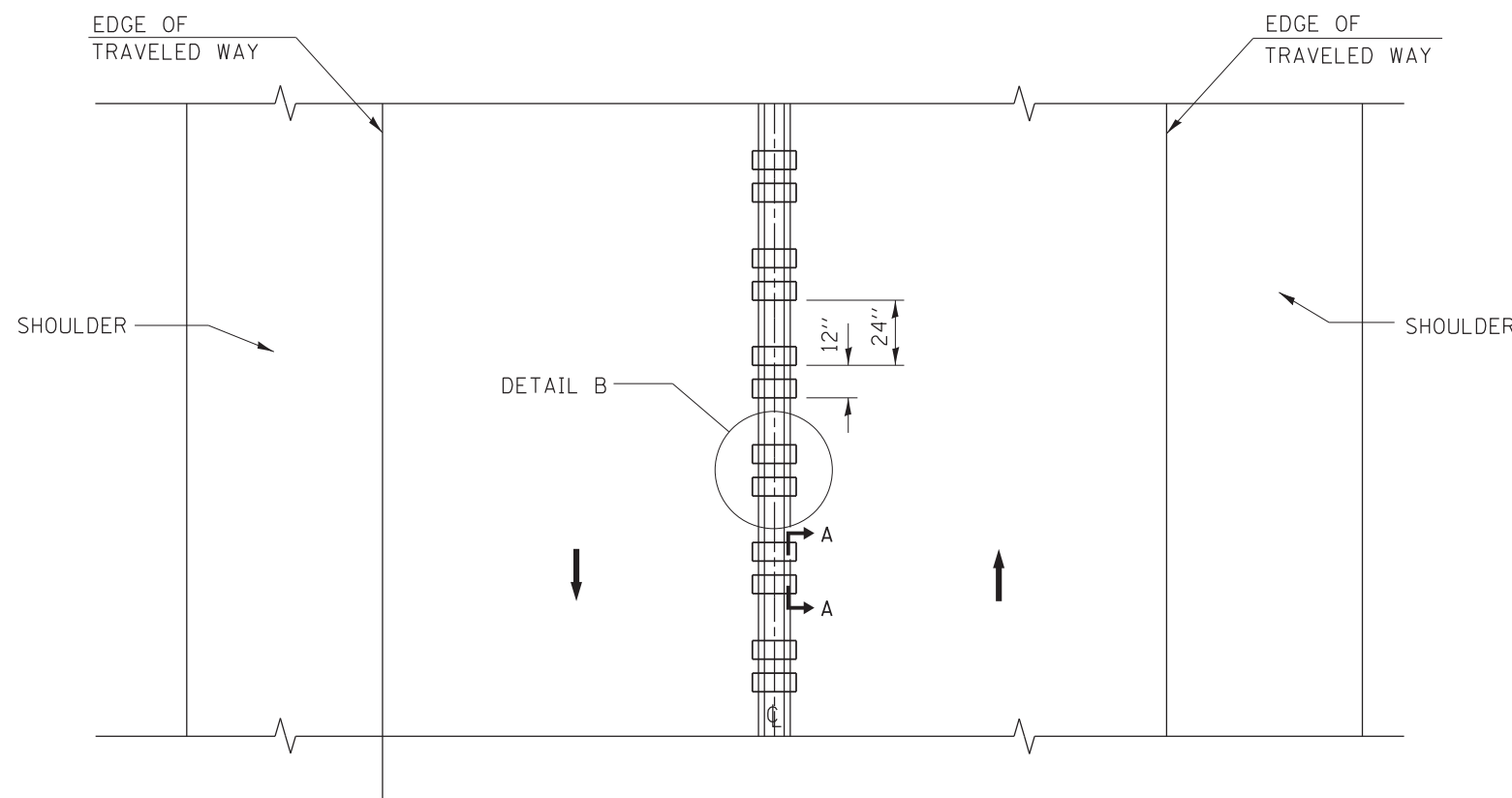
AFTER RUMBLE STRIPS ARE INSTALLED, THE PAVEMENT SURFACE SHALL BE SWEEP CLEAN PRIOR TO THE PLACEMENT OF THE NEW PAVEMENT MARKINGS.

WHERE USED, ADJUST SPACING OF RAISED REFLECTIVE PAVEMENT MARKERS TO FALL IN WIDER GAP BETWEEN RUMBLE STRIPS.

BASIS OF PAYMENT

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR CENTERLINE-RUMBLE STRIP OF THE WIDTH SPECIFIED.

HOT-SPRAY THERMOPLASTIC PAVEMENT MARKING WILL BE USED OVER THE RUMBLE STRIPS, AND WILL BE PAID FOR SEPARATELY.



TWO-WAY ROAD

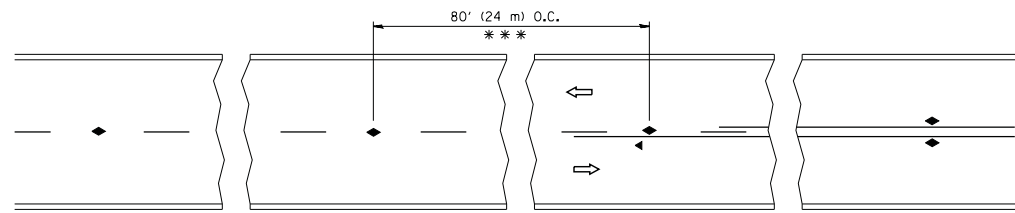
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PLOT DATE = 8/28/2014	DATE - 08-06-2012	REVISED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

RUMBLE STRIPES FOR CENTERLINE, NON-FREEWAY

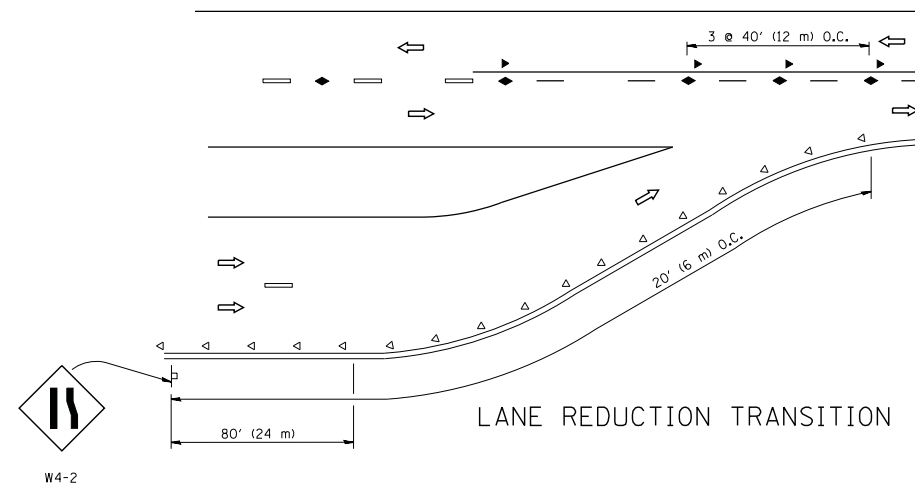
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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BD 55		CONTRACT NO. 60V28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

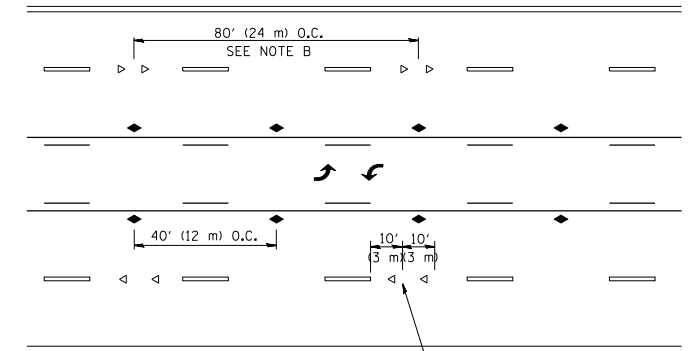


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

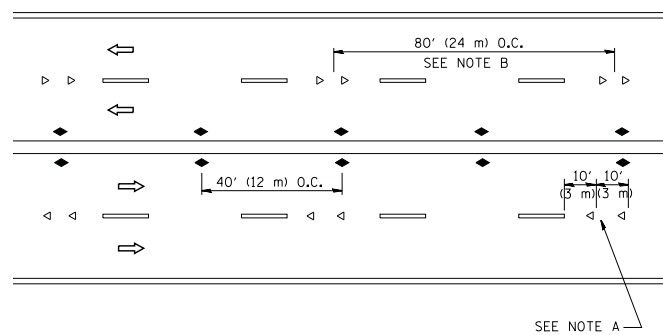
TWO-LANE/TWO-WAY



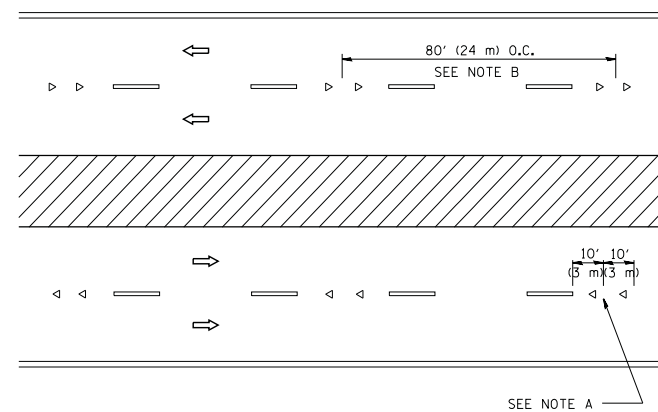
LANE REDUCTION TRANSITION



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

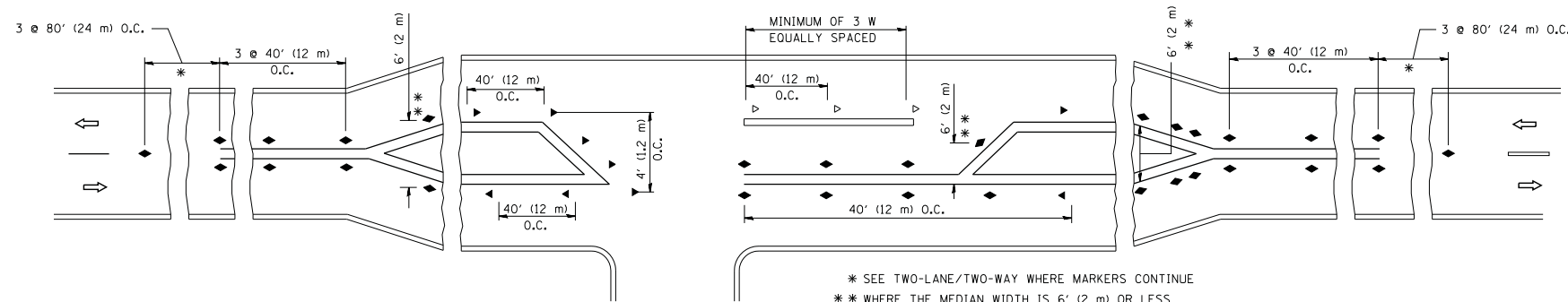
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

FILE NAME =	USER NAME = lryso	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
ct:\pw\work\p\dot\lryso\d0108315\l1.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99
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	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09

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.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	39
TC-11		CONTRACT NO.	60V28	
FED. ROAD DIST. NO. 1 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

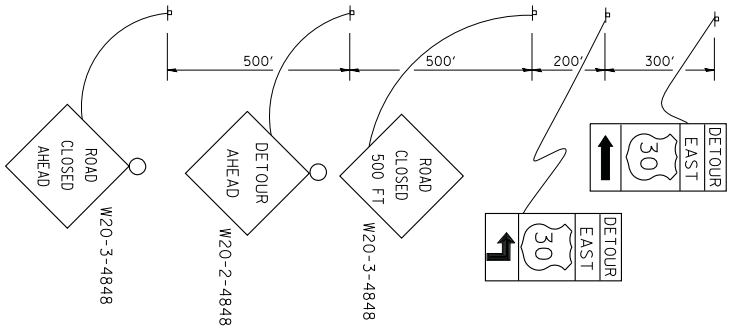
**ARROWS SIGNS**

-  M5-1L-2115
-  M5-1R-2115
-  M6-1-2115
-  M6-1-2115
-  M6-3-2115

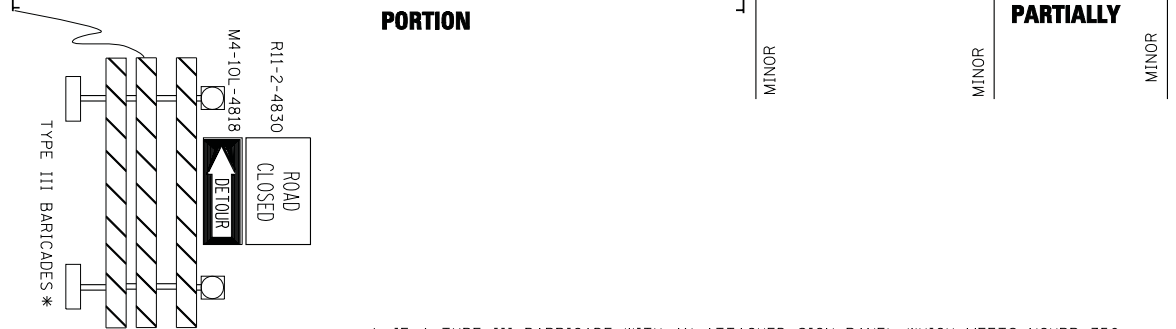
**CARDINAL DIRECTION & DETOUR SIGNS**

-  NORTH M3-1-2412
-  EAST M3-2-2412
-  SOUTH M3-3-2412
-  WEST M3-4-2412
-  DETOUR M4-8-2412

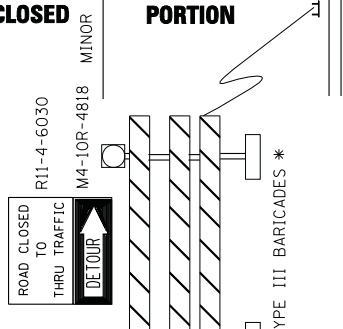
**STATE ROUTE**



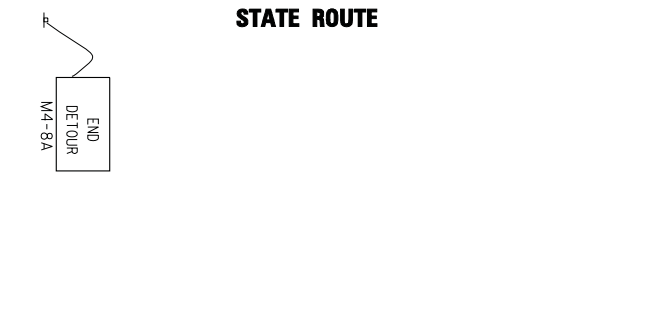
**COMPLETELY CLOSED PORTION**



**PARTIALLY CLOSED PORTION**



**STATE ROUTE**



\* 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.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
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		PLOT SCALE = 49.9999' / IN.	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETOUR SIGNING  
FOR CLOSING STATE HIGHWAYS**

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

F.A.P. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	41
<b>TC-21</b>		CONTRACT NO. 60V28		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





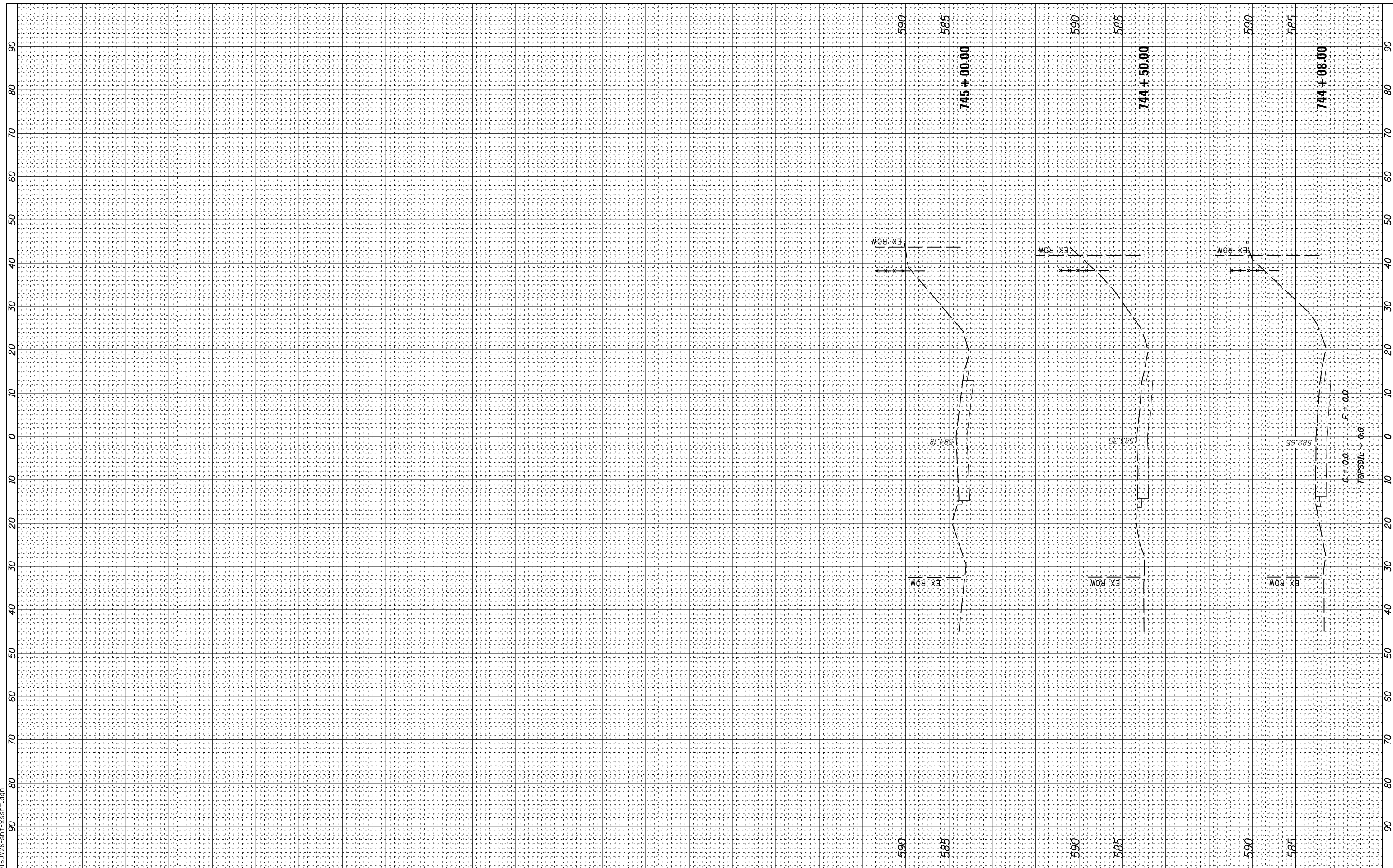




BY	DATE
FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED

BY	DATE
ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED

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PLOT SCALE = 20.0000' / in.	DRAWN - KMB	REVISED -
PLOT DATE = 5/25/2018	CHECKED - JWK	REVISED -
	DATE - 5/25/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 102 OVER RAYN'S CREEK  
CROSS SECTIONS**

SCALE: H 1"=10' V 1"=5' SHEET 5 OF 5 SHEETS STA. 744+08.00 TO STA. 745+00.00

F.A.P. RTE. 631	SECTION (111N-B)B-R	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 46
			CONTRACT NO. 60V28	
ILLINOIS FED. AID PROJECT				

