# 07-29-2016 LETTING ITEM 004

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

# PROPOSED **HIGHWAY PLANS**

FAP ROUTE 341 (TOUHY AVENUE) SECTION (109B)BR **OVER DES PLAINES RIVER BRIDGE REPAIR COOK COUNTY** 

PROJECT: ACNHPP- 0341 (061)

C-91-534-12





NO. 081-005991 EXPIRES 11-30-2016 FOR DRAWINGS: 17-30



COLLINS ENGINEERS. INC. RYAN GALL NO. 062-064397 EXPIRES 11-30-2017 FOR DRAWINGS: 2-16, 37-45



ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

**DESIGN DESIGNATION** 

**OTHER PRINCIPAL ARTERIAL** ADT 30600 (2010) SPEED LIMIT 40 MPH

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# **IMPROVEMENT LOCATED IN** THE CITY OF PARK RIDGE

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# **HIGHWAY STANDARDS**

STANDARD NO. DESCRIPTION 000001-00 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 420001-06 PAVEMENT JOINTS NAME PLATE FOR BRIDGE 515001-03 606001-*06* CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER 643001-02 SAND MODULE IMPACT ATTENUATORS 701011-04 OFF-RD OPERATIONS, MULTILANE, 15' (4,5 m) TO 24" (600 mm) FROM PAVEMENT EDCE 701101 - 05 LANE CLOSIRE, 2L, 2W, SHORT TIME OPERATIONS LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH 701301-04 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS <= 40 MPH 101411 - 09 URBAN LANE CLOSURE MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN 701427 - 04 101601-09 SIDEWALK, CORNER OR CROSSWALK CLOSURE 701801 -06 TRAFFIC CONTROL DEVICES 701901-05 TEMPORARY CONCRETE BARRIER 704001 . OA OFF-RD MOVING OPERATIONS. 780001-05 TYPICAL PAVEMENT MARKINGSL, 2W, DAY ONLY TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS 181001-04 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS 782006

# **GENERAL NOTES**

- 10 FT (3 M) TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE ۱. CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.
- THE CONTRACTOR MUST CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 AT LEAST 72 HOURS PRIOR TO THE INSTALLATION OF THE TEMPORARY CONTROL DEVICES.
- 3. THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386 AT LEAST TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 4. ALL PAVEMENT MARKINGS AND RAISED REFLECTORS AFFECTED BY THE BRIDGE REPAIRS SHALL BE REPLACED. NOMINAL QUANTITIES HAVE BEEN INCLUDED IN THE CONTRACT FOR THIS WORK.
- 5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 6. DO NOT SCALE THESE PLANS FOR CONSTRUCTION PURPOSES.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. 7. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.
- DURING CONSTRUCTION OPERATIONS, LOOSE MATERIAL DEPOSITS THAT OBSTRUCT THE FLOW OF 8. WATER IN DRAINING THE AREA SHALL BE REMOVED BEFORE THE END OF EACH WORK DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES (NEW AND EXISTINC) SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE ITEM FOR CONCRETE REMOVAL.
- BEFORE BEGINNING ANY WORK. THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, 9. ALL EXISTING PAVEMENT MARKING LINES, SYMBOLS AND LETTERS (AND RAISED REFLECTIVE MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING, EXACT LOCATIONS OF ALL PAVEMENT MARKINGS AND RAISED REFLECTIVE MARKERS SHALL BE AS DIRECTED BY THE ENGINEER.
- 10. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC. TELEPHONE & GAS UTILITIES.
- 11. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF PARK RIDGE.
- 12. THE PLANS DO NOT REPRESENT A COMPLETE DEPICTION OF ALL UTILITIES THAT MAY BE IMPACTED BY THE PROPOSED WORK, THE CONTRACTOR SHALL CONDUCT HIS OR HER OWN INVESTIGATION TO DETERMINE THE OWNERSHIP OF IMPACTED UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNERS AND MAY BE REQUIRED TO PROVIDE TEMPORARY SUPPORT, ADJUST, RELOCATE OR REMOVE UTILITIES THAT ARE IMPACTED BY THE PROPOSED IMPROVEMENT. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- 13. THE DEPARTMENT HAS DETERMINED THAT IN STREAM WORK IS NOT REQUIRED FOR THE WORK SPECIFIED IN THIS CONTRACT. THE DEPARTMENT HAS NOT OBTAINED A 404 PERMIT. IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING AN USACE 404 PERMIT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER USACE PERMITS.
- 14. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE ILLINOIS TOLLWAY TO INSTALL TRAFFIC CONTROL DEVICES ON THEIR PROPERTY. SEE SPECIAL PROVISIONS.
- 15. PRIOR TO ADJUSTING MANHOLES, MWRD MANHOLES SHALL BE LOCATED, PROTECTED, AND/OR ADJUSTED TO GRADE, IF NECESSARY, ACCORDING TO MWRD STANDARD PROCEDURES. PRIOR AUTHORIZATION IS REQUIRED TO MAKE ANY STRUCTURAL MODIFICATIONS INCLUDING MANHOLE FRAME AND LID ADJUSTMENTS. AUTHORIZATION MAY BE OBTAINED BY CONTACTING MS. MANJU SHARMA, DIRECTOR OF MAINTENANCE AND OPERATIONS DEPARTMENT. AT (312) 751-5101.
- 16. ALL RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) SHALL BE LOW PROFILE.
- 17. OVERHEAD WIRES ARE NOT INSULATED AND EXTRA CAUTION AND VIGILANCE SHALL BE ADHERED TO WHEN WORKING NEARBY, CONTRACTORS SHALL ALWAYS USE CAUTION WHILE OPERATING CRANES AND OR OTHER EDUIPMENT NEAR OVERHEAD ELECTRICAL FACILITIES. THE OCCUPATIONAL HEALTH AND SAFETY ORGANIZATION (OSHA) RULES REQUIRE THAT WORKERS AND EQUIPMENT SHALL NOT APPROACH WITHIN TEN (10) FEET AWAY OF OVERHEAD ELECTRICAL EDUIPMENT WITHOUT APPROPRIATE SUPPLEMENTAL PROTECTION. BE CERTAIN THAT ALL WORKERS ON THIS PROJECT HAVE BEEN FULLY TRAINED AND CONFORM TO OSHA RULES AND OTHER APPLICABLE GUIDELINES REGARDING WORKING SAFELY AROUND ELECTRICAL POWER LINES.

	USER NAME = rgoli	DESIGNED -	REVISED -		-	TOUGHY AVE	NUE (	VER DES PI
		DRAWN -	REVISED -	STATE OF ILLINOIS	CENEDAL N	NOTES INDEX	OF 9	HEETS AND
f	PLOT SCALE * 100.0000 1/ 10.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	GLINLIAL I	torco, nuber		TILLIS, MITO
	PLOT DATE = 5/7/2015	DATE -	REVISED -		SCALE	SHEET NO.	OF	SHEETS STA

TOTAL SHEE SHEETS NO. 45 2 SECTION COUNTY RIE. LAINES RIVER (1098)8R COOK 341 **HIGHWAY STANDARDS** CONTRACT NO. 60V27

ILLINOIS

TO STA.

				CONSTRUC 80%	BAN TION CODE FED
				20% S	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0004	0014 S.N. 016-0
20200100	EARTH EXCAVATION	CU YD	6	6	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	8	8	-
40600275-	-BITUMINOUS MATERIALS (PRIME-COAT)	POUND	358	- <del>158-</del> -	-200
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	358	158	200
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	2	2	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	336	336	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	67	30	37
42001300	PROTECTIVE COAT	SQ YD	75	75	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	22	22	
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SQ FT	297	297	
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	37	37	
50102400	CONCRETE REMOVAL	CU YD	81.4		81.4
50157300	PROTECTIVE SHIELD	SQ YD	321		321
50300255		CU YD	76.4		76.4
50300260		SQ YD	1555		1555
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	11040		11040

USER NAME = rgall	DESIGNED -	REVISED -			TOUHY AVENUE OVER DES PLAINES RIVER	F.A.P. RTE.	SECTION	COUNTY TOTAL SHEET SHEETS NO.
	DRAWN -	REVISED -	STATE OF ILLINOIS		CURRENARY OF AUANITIES	341	(1098)8R	COOK 45 3
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			Γ	CONSTRUC	TION CODE
				80%	FED
1			1	ROADWAY	BRIDGE
CODE	·		TOTAL	0004	0014
NO.	ITEM				<u>  S.N. 016-0829</u>
50800515	BAR SPLICERS	EACH	168		168
50800530-	MECHANICAL SPLICERS-	-EACH-	-176		-176
52000110	PREFORMED JOINT STRIP SEAL	FOOT	472		472
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	50		50
52100520	ANCHOR BOLTS, 1"	EACH	100		100
59000200	EPOXY CRACK INJECTION	FOOT	62		62
				· · · · · · · · · · · · · · · · · · ·	
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	3	3	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	·
67100100	MOBILIZATION	L SUM	1	1	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	6	
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1		1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	260	260	
			4027		
70400100		FOOT	1025	1025	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1025	1025	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	3	3	
70600251	IMPACT ATTENUATORS. TEMPORARY (NON- REDIRECTIVE, NARROW), TEST	EACH	1	1	

ORAWN     REVISED     STATE OF ILLINOIS       PLOT SCALE = 2,0000 // m.     CHECKED     REVISED	 USER NAME = rgell	DESIGNED -	REVISED -		TOUH		VENUE	OVER	DES PLAINE	RIVER	F.A.P. RTF.		SECTION	COUNTY	TOTAL	SHEE	.T
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				CONSTRUC 80%	RBAN TION CODE FED
CODE			TOTAL	20% S ROADWAY	BRIDGE 0014
NO.	ITEM	UNIT	QUANTITY		S.N. 016-08
70600350	IMPACT ATTENUATORS. RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2858	2858	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	230	230	
78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1765	1765	
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	30	30	
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	40	40	
78100200		FACH	126	126	
78100300	REPLACEMENT REFLECTOR	EACH	78	78	
78200530	BARRIER WALL MARKERS, TYPE C	EACH	41	41	
		E LOUI			
78300200		EACH	23	23	
XD326766	CLEAN & RESEAL RELIEF JOINT	FOOT	104	104	
XD327980	PAVEMENT MARKING REMOVAL-WATER BLASTING	SQ FT	3645	3645	
X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	1747		1747
¥7010246		i Clika	1	1	
ALU IV2 10	TRAFTIC CONTROL AND FROTECTION. (SPECIAL)			í	<u> </u>

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ITEM	UNIT	TOTAL QUANTITY	0004	0014 S.N. 016-0829
WET REFLECTIVE TEMPORARY TAPE TYPE III. 4 INCH	FOOT	10058	10058	
WET REFLECTIVE TEMPORARY TAPE TYPE III, 6 INCH	FOOT	648	648	
			· · · · · · · · · · · · · · · · · · ·	
APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	13		13
JACK AND REMOVE EXISTING BEARINGS	EACH	50		50
STRUCTURAL STEEL REPAIR	POUND	2570		2570
HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8"	SQ YD	22	22	
COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	267	121	146
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	1492		1492
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1492		1492
			······································	
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN	SQ FT	2798		2798
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	45	····	45
DEBRIS REMOVAL	CU YD	22		22
PLUG EXISTING DECK DRAINS	EACH	14		14
	00.1/5			7
	ITEM WET REFLECTIVE TEMPORARY TAPE TYPE III. 4 INCH WET REFLECTIVE TEMPORARY TAPE TYPE III. 6 INCH APPROACH SLAB REPAIR (PARTIAL DEPTH) JACK AND REMOVE EXISTING BEARINGS STRUCTURAL STEEL REPAIR HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8" COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT GRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES BRIDGE DECK SCARIFICATION 3/4" STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN STRUCTURAL REPAIR OF CONCRETE (DEPTH REATER THAN 5 INCHES) DEBRIS REMOVAL PLUG EXISTING DECK DRAINS DECK SLAB REPAIR (FULL DEPTH, TYPE I)	ITEM UNIT UNIT UNIT UNIT UNIT UNIT UNIT UNIT	ITEM       UNIT       TOTALLY QUANTITY         WET REFLECTIVE TEMPORARY TAPE TYPE II. 4 INCH       FOOT       10056         WET REFLECTIVE TEMPORARY TAPE TYPE II. 6 INCH       FOOT       648         APPROACH SLAB REPAIR (PARTIAL DEPTH)       SQ YD       13         JACK AND REMOVE EXISTING BEARINGS       EACH       50         JACK AND REMOVE EXISTING BEARINGS       EACH       50         STRUCTURAL STEEL REPAIR       POUND       2570         HOT-MIKASPHALT DRIVEWAY PAVEMENT, 6°       SQ YD       22         COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT       FOOT       267         BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES       SQ YD       1492         STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN       SQ FT       2788         STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)       SQ FT       45         STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)       SQ FT       45         DEBRIS REMOVAL       CU YD       22       145         DEBRIS REMOVAL       CU YD       22       145         DECK SLAB REPAIR (FULL DEPTH, TYPE I)       SQ YD       7	Item     TOTAL QUANTITY     ROADWAY COUCH

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CODE	ITE 84	11517	TOTAL	0004	BRIDGE 0014
NU.		UNIT	QUANTIT		5.N. 010-0029
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	2	· · · · · · · · · · · · · · · · · · ·	2
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52	
					·····
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	62		62
X0327979	PAVEMENT MARKING REMOVAL-GRINDING	SQ FT	850	850	
	· · · · · · · · · · · · · · · · · · ·				
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		ORAWN -	REVISED -	STATE OF ILLINOIS	-	SUMMARY OF QUANTITIES					341	(109B)BR	СООК	45	7
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	PLOT DATE + 5/9/2016	DATE -	REVISED -		SCALE:	SHEET NO.	٥F	SHEETS	STA.	TO STA.		ILL INDIS			~~~~~



# LEGEND:

EXISTING HMA SURFACE COURSE +/- 3"

2 EXISTING CONCRETE PAVEMENT +/- 9"

(3) EXISTING COMBINATION CONC. CURB AND GUTTER

EXISTING GUARDRAIL

5 EXISTING GROUND

6 HMA SURFACE REMOVAL - BUTT JOINT

⑦ MEDIAN REMOVAL PARTIAL DEPTH

(B) PROP. COMBINATION CONCRETE CURB AND GUTTER, REMOVAL AND REPLACEMENT

(9) PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", NTO, 11/2"

10 AGGREGATE SHOULDERS TYPE B, 8"

TO BE REMOVED

REQU	REMENTS	QMP
	AIR VOIDS AT NDES	
ım), 1⁵⁄2″	4% o 70 GYR.	0C/0A
m), 2″	4% 2 50 GYR.	0C/0A
	4% o 50 GYR.	QC/QA
		· · · · · · · · · · · · · · · · · · ·
C/QA)		

LAINES RIVER	F.A.P. RTE,	SECTION	COUNTY	TOTAL	SHEET NO.
2	341	1109B)BR	COOK	45	8
			CONTRACT	NO. 6	0V27
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5	S PLAINES RIVER			SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
LAN		341	(109B)BR	СООК	45	9	
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	STA.	TO STA.		ILLINOIS			



S PLAINES RIVER		F.A.P. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
		AN 341 (109				СООК	45	10
		_			CONTRACT	NO. 6	0V27	
	STA.	TO STA.		ILLINOIS				



SCALE:

PLOT DATE = 5/7/2016

DATE

REVISED

	ROADWAY DETAILS				341 (109B)BR			COOK	45		п
							CONTRACT	NO.	60	٧2	
SHEET NO.	OF	SHEETS	STA.	TO STA.		ILLINOIS					

# MAINTENANCE OF TRAFFIC - GENERAL NOTES

- SEE SPECIAL PROVISIONS TITLED TRAFFIC CONTROL AND 1. PROTECTION (SPECIAL).
- THE CONTRACTOR SHALL REMOVE AND SAFELY STORE (FREE FROM 2. THEFT OR DAMAGE) OR COVER ALL CONFLICTING EXISTING SIGNS FOR THE DURATION OF THE CONSTRUCTION. ALL SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF CONSTRUCTION.
- 3. THE FOLLOWING APPLY TO CONSTRUCTION SIGNS:

A) THE CONTRACTOR SHALL FURNISH ALL SIGNS.

B) THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND REPLACE ANY SIGNS THAT ARE SUPPLIED BY OTHERS AND DAMAGED BY THE CONTRACTOR'S WORK FORCE OR SUBCONTRACTORS DURING RELOCATION OR CONSTRUCTION OPERATIONS.

C) ALL SIGNS AND ASSEMBLIES SHALL BE CERTIFIED BY THE CONTRACTOR AS MEETING THE APPLICABLE REQUIREMENTS OF NCHRP REPORT 350. TEST LEVEL 3.

D) ALL SIGNS SHALL BE CONSIDERED INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION (SPECIAL) PAY ITEM, EXCEPT FOR TEMPORARY INFORMATIONAL SIGNING AS NOTED ON THE PLANS.

- OPENINGS THROUGH THE BARRIER FOR CONTRACTOR'S ACCESS TO 4. THE WORK ZONE SHALL BE PROVIDED AS APPROVED BY THE ENGINEER.
- ANY RAISED REFLECTIVE PAVEMENT MARKERS THAT CONFLICT WITH THE TEMPORARY TRAFFIC LANES MUST HAVE THE REFLECTIVE 5. LENSES REMOVED AS DIRECTED BY THE ENGINEER.
- ALL TEMPORARY PAVEMENT MARKINGS ALONG TOUHY AVENUE DURING STAGED CONSTRUCTION SHALL BE WET REFLECTIVE TAPE, 6. TYPE III OF THE WIDTH AND COLOR SPECIFIED ON THE PLAN SHEETS.
- 7. THE CONTRACTOR SHALL MAINTAIN DRAINAGE AND EROSION CONTROL DURING CONSTRUCTION FOR THE DURATION OF THE CONTRACT.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO ALL COMMERCIAL 8. AND RESIDENTIAL ENTRANCES FOR THE ENTIRE DURATION OF THE PROJECT.
- SIDE ROAD, INTERSECTIONS, AND DRIVEWAY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE TYPICAL ENTRANCE SIGNING DETAIL, DISTRICT DETAILS TC-10 AND TC-26. AND AS SHOWN ON THE PLANS.
- 10. BI-DIRECTIONAL PRISMATIC BARRIER REFLECTORS WILL BE PLACED AT 25' CENTERS ON TOP AND SIDE OF TEMPORARY CONCRETE BARRIER FACING TRAFFIC.
- 11. THE TEMPORARY CONCRETE BARRIER SHALL BE SECURED TO THE PAVEMENT USING THREE (3) ANCHORING PINS ON THE TRAFFIC SIDE OF THE BARRIER AT LOCATIONS WHERE A HAZARD OR SLOPES STEEPER THAN 1V:10H EXISTS WITHIN 3 FT OF THE BARRIER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "TEMPORARY CONCRETE BARRIER" OR "RELOCATE TEMPORARY CONCRETE BARRIER" AS APPLICABLE.
- 12. PLACE MAX WITH SIGN (8'-6") FOR STAGE I AND (9'-0") FOR STAGE II AT NORTHWEST CORNER OF TOUHY AVENUE AND IL ROUTE 43 LOCATED 3 MILES EAST OF SN 016-0829 AND SOUTHEAST CORNER OF TOUHY AND US 45 LOCATED  $1^{1}/_{4}$ MILES WEST OF SN 016-0829.

## TOUHY AVENUE, STAGING NOTES: STAGE

WORK IN THIS STAGE CONSISTS OF BRIDGE REPAIRS ALONG THE INNER-MOST EASTBOUND AND WESTBOUND LANES OF TRAFFIC ON TOUHY AVENUE, AND MILLING THE EXISTING PAVEMENT LEADING UP TO THE EAST AND WEST APPROACH SLABS.

MAINTAIN TRAFFIC IN ACCORDANCE WITH STD. 701601 AND DISTRICT ONE DETAIL TC-14.

INSTALL TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS IN ACCORDANCE WITH DISTRICT ONE DETAIL TC-11.

TOUHY AVENUE. STAGING NOTES: STAGE II

WORK IN THIS STAGE CONSISTS OF BRIDGE REPAIRS ALONG THE OUTER-MOST EASTBOUND AND WESTBOUND LANES OF TRAFFIC ON TOUHY AVENUE, AND MILLING THE EXISTING PAVEMENT LEADING UP TO THE EAST AND WEST APPROACH SLABS.

MAINTAIN TRAFFIC IN ACCORDANCE WITH STD. 701411 AND DISTRICT ONE DETAIL TC-14.

INSTALL TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS IN ACCORDANCE WITH DISTRICT ONE DETAIL TC-11.

# 9.7"



W12-I103 (WIDTH IS 8D) NO BORDER, BLACK ON WHITE [MAX WIDTH] D:

NO BORDER, BLACK ON ORANGE

NO BORDER, BLACK ON WHITE [X MILES] D; [AHEAD] D;

ALL SIGN DIMENSIONS IN INCHES

DESIGNED REVISED USER NAME = rgall **TOUHY AVENUE OVER DES** STATE OF ILLINOIS DRAWN REVISED STAGING NO PLOT SCALE = 100.0000 '/ in. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** SCALE: SHEET NO. OF SHEETS PLOT DATE = 5/7/2016 DATE REVISED

# EAST TOUHY AVE. MAX WIDTH X'-X" WIDE LOADS USE **ALTERNATE ROUTE**



94.6"

DURING STAGE I PLACE MAX WIDTH SIGN (8'-6") AND DURING STAGE II PLACE (9'-O'') MAX WIDTH SIGN ON RIGHT SHOULDER 1000 FT NORTH OF I-294 TOLL BOOTH.

NO BORDER BLACK ON ORANGE

9.7"

S	S PLAINES RIVER		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TES		341	(109B)BR	СООК	45	12
				CONTRACT	NO. 6	0V27
	STA. TO STA.		ILLINOIS			





)>-3618 W4-2L(0)-48 (0) -3618	$ \begin{array}{c}  & & & & \\  & & & & \\  & & & & \\  & & & &$
3618 CONSTRUCTION AHE A0 W2O-II03(0)-48	LEFT LANE         Microscopie           CLOSED         Microscopie           ANEAD         Microscopie           W21-5L(0)-48         W21-10(0)-48           (2)         (3)
<ul> <li>MUST BE RE ARE NOT PE</li> </ul>	EMDVED WHEN FLAGGER OR WORKERS RESENT FOR MORE THAN ONE HOUR
LAINES RIVER	F.A.P. RTE.         SECTION         COUNTY         TOTAL SHEETS         SHEET NO.           341         11098)8R         COOK         45         14
- JIAUL I A. TO CTA	CONTRACT NO. 60V27
74 2U 21 Mg	1 [0.0.0015]



AINES RIVER – Stage II		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		341	(1098)8R	COOK	45	15
				CONTRACT	NO. 6	0V27
Ą.	TO STA.		ILLINOIS	· · · ·		





INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier for Stage Construction
- 5-6. Bridge Deck and Approach Slab Repairs
- 7-9. Joint Replacement Details
- 10. Structural Steel Repairs

11. Expansion Bearing Details (Beams 3A-3D)

12. Expansion Bearing Details (Beams 1-6)

- 13-17. Substructure Repair Details
- 18. Debris Removal
- 19. Preformed Joint Strip Seal 20. Bar Splicer Details

# DESIGN STRESSES FIELD UNITS

# EXISTING CONSTRUCTION (1980)

- f'c = 3,500 psi
- fy = 60,000 psi (Reinforcement)
- fs = 20,000 psi (Structural Steel) (M-183)

## EXISTING CONSTRUCTION (1955)

- f'c = 1,200 psi (Without Earth Pressure)
- f'c 800 psi (With Earth Pressure)
- fs = 20,000 psi (Reinforcement)
- fs = 18,000 psi (Structural Steel)

# DESIGN SPECIFICATIONS

(New Construction) 2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition





GENERAL PLAN AND ELEVATION TOUHY AVE. OVER DES PLAINES RIVER F.A.P. RTE. 341-SECTION (109B)BR COOK COUNTY STATION 10+16.50 STRUCTURE NO. 016-0829

ELEVATION	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6	341	(109B)BR	COOK	45	17
U-0025			CONTRACT	NO. 6	0V27
SHEETS		 ILLINOIS FED.	10 PROJECT		

# GENERAL NOTES

Fasteners shall be high strength bolts. Holes shall be  ${}^{13}_{16}$  " dia. for  ${}^{3}_{4}$ " dia. bolts, unless otherwise noted. Holes shall be  ${}^{15}_{16}$  " dia. for  ${}^{7}_{8}$ " dia. bolts, unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 36.

No field welding is permitted except as specified in the contract documents. Reinforcement bars designated (E) shall be epoxy coated,

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item Concrete Removal.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding  $\frac{1}{4}$  inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work,

Existing structural steel shall only be cleaned and painted as required by the Special Provisions for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be green, Munsell No. 7.5G 4/8.

Cleaning and field painting of existing structural steel shall be done under a separate painting contract.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Overlay shall not be placed until after the jacking procedures are complete. Existing utilities shall be supported during construction. Any utilities

that are damaged during construction shall be replaced at the Contractor's expense. This work will not be paid for separately but will be included in the pay item Structural Steel Repair.

Existing utility ductwork suspended from the underside of the structure may contain asbestos. The Contractor shall take appropriate precautions to deal with the presence of asbestos on this project.

Joint opening shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50 degrees Fahrenheit.

Steel rails and rubber gland for joints will need to be mitered. The rubber gland shall be shop vulcanized. The rubber gland shall be placed in its entirety after completion of Stage II Construction. After placement, all mitered joints shall be sealed with a high-performance low-modulus elastomeric sealant and covered with a rubber sheet adhered to the top of the strip seal with an instant adhesive (D.S. Brown Strip Seal Repair kit ar equivalent supplied by the Preformed Joint Strip Seal manufacturer). Components of strip seal repair kit shall be applied per manufacturer's recommendations.

During construction operations, loose material deposits that obstruct the flow of water in draining the area shall be removed before the end of each work day. At the conclusion of construction operations, all drainage structures (new and existing) shall be free from all dirt and debris. This work will not be paid for separately but shall be included in the pay item Concrete Superstructure.

Contractor shall take extreme caution during all phases of construction to prevent the deposition of any material into the Des Plaines River.

The Contractor is advised about overhead electric lines on the north side of the bridge,

Contractor shall take precautions to protect the stream gage on Pier 3. Any necessary relocation of the stream gage for concrete repair shall be included with Structural Repair of Concrete.

The Department has determined that in-stream work is not required for the work specified in this contract. The Department has not obtained a 404 permit, if the Contractor chooses to use activities requiring a USACE 404 permit it is the Contractor's responsibility to secure the proper USACE permits.

# TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Bituminous Materials (Tack Coat)	Pound	200	-	200
Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	37	-	37
Bridge Deck Concrete Sealer	Sq. Ft.	1,747	-	1,747
Concrete Removal	Cu. Yd.	81,4	-	81.4
Protective Shield	Sq. Yd.	321	-	321
Concrete Superstructure	Cu. Yd.	76.4	-	76.4
Bridge Deck Grooving	Sq. Yd.	1.555	-	1,555
Reinforcement Bars, Epoxy Coated	Pound	11,040	-	11.040
Bar Splicers	Each	168	-	168
Preformed Joint Strip Seal	Foot	472	-	472
Elastomeric Bearing Assembly, Type 1	Each	50	-	50
Anchor Bolts, I"	Each	100	-	100
Epoxy Crack Injection	Foot	-	62	62
Approach Slab Repair (Partial Depth)	Sq. Yd.	13	~	13
Jack and Remove Existing Bearings	Each	50	-	50
Structural Steel Repair	Pound	2,570	~	2.570
Combination Concrete Curb and Gutter	Foot	146	-	146
Removal and Replacement			-	
Bridge Deck Latex Concrete Overlay, 2 <sup>1</sup> / <sub>4</sub> "	Sq. Yd.	1,492	-	1,492
Bridge Deck Scarification 34"	Sq. Yd.	1.492	-	1,492
Structural Repair of Concrete				
(Depth Equal to or Less than 5 Inches)	Sq. Ft.	-	2,798	2,798
Structural Repair of Concrete				
(Depth Greater Than 5 Inches)	Sq. Ft.	-	45	45
Debris Removal	Cu. Yd.	-	22	22
Plug Existing Deck Drains	Each	14	-	14
Deck Slab Repair (Full Depth, Type 1)	Sq. Yd.	7	-	7
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2	-	2
Temporary Shoring and Cribbing	Each	-	62	62



OVERLAY AT DRAIN (30 Locations)

NEERING LTD.	USER NAME + Lin28_Nick	DESIGNED - PS	S R	REVISED -	OTATE OF HUMONO	GENERAL DATA	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
ting Engineers	PLOT SCALE +	DRAWN - AJF	5 R	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 016-0829	34]	(1098)8R	COOK	45	18
rigiloko, lainodi	PLOT DATE + 6/16/2016 7159-04 AM	CHECKED - MT	H R	REVISED -		SHEET NO. 2 OF 20 SHEETS		ILLINOIS FED. AL	0 PROJECT	1 110. 0	<u></u>

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# SCOPE OF WORK

- 1. Install Protective Shield.
- Repair deteriorated concrete on Deck and Approach Slabs.
- 3. Remove Center Median.
- Remove and Replace curb and gutter on Approach Slabs.
   Provide <sup>3</sup>/<sub>4</sub>" of deck scarification and apply a 2<sup>1</sup>/<sub>4</sub>" latex concrete overlay on deck and a 1<sup>1</sup>/<sub>2</sub>" HMA overlay on approaches.
- 6. Plug existing deck drains at specified locations.
- 7. Reconstruct expansion joints at Abutments and Piers.
- 8. Apply Bridge Deck Concrete Sealer to new concrete surfaces, except Latex Concrete areas.
- 9. Jack and remove existing expansion bearings and replace with elastomeric bearings.
- Remove and replace deteriorated steel diaphragms,
   Repair deteriorated concrete on Piers and Abutments.

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12. Remove debris from specified locations.

2<sup>1</sup><sub>4</sub>" overlay thickness



**DEPARTMENT OF TRANSPORTATION** 

PLOT SCALE =

PLOT DATE = 5/5/2016

Springfield, Illinois

DRAWN

3:21:08 PM CHECKED - MTH

– AJF

REVISED

REVISED -

See sheet 4 of 20 for details of Temporary Concrete Barrier. See roadway plan for quantity of Temporary Concrete Barrier.

ON DETAILS	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
016_0829	341	(109B)BR	COOK	45	19	
010-0023	CONTRACT NO. 60V2					
20 SHEETS	ILLINOIS FED. AID PROJECT					



- If hot-mix asphalt wearing surface is present, minimum embedment
- \*\* If existing deck beam is to remain in place after stage construction,

tail I - With B	ar Splicer or Couplers:
С	onnect one (1) 1'' x 7' 'x ''W'' steel 🖻 to the
to	pp layer of couplers with 2-5 <sub>8</sub> 77
S	crewed to coupler at approximate  of
e	ach barrier panel.
tail II - With E	Extended Reinforcement Bars:
С	onnect one (1) 1'' x 7'' x 'W'' steel 🖻 to the concrete
S	lab or concrete wearing surface with 2- <sup>5</sup> 8′′ ¢
E	xpansion Anchors or cast in place inserts
S	paced between the top layer of reinforcement
a	t approximate 🛿 of each barrier panel.
st of retainer	assembly is included with Temporary Concrete Barrier.
e 1'' x 7'' x ''	W'' plate shall not be removed until stage II construction
s and all reinfo	prcement bars are in place and the concrete is ready

FOR STAGE CONSTRUCTION	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
016_0820	341	(109B)BR	СООК	45	20
010-0023			CONTRACT	NO. 6	0V27
O SHEETS	ILLINOIS FED. AID PROJECT				



Deck Condition Survey performed on 10/1/13 thru

There is an estimated 0.33 sq. yards of Deck Slab Repair (Partial Depth) required. Partial depth repairs shall be included with Bridge Deck Scarification  $\frac{3}{4}$ ". See special provision for Bridge Deck Latex Concrete

Repair of the existing deck shall include, but may not be limited to, the areas shown. The actual areas to be repaired will be determined by the Engineer at the time

See sheets 3, 7-9 of 20 for details of Concrete

Cost of removal of the existing joint system is

\*Bridge Deck Concrete Sealer shall not be applied to

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
341	(109B)BR	COOK	45	21
CONTRACT NO. 60V27				
ILLINOIS FED. AID PROJECT				
	F.A.P. RTE. 341	F.A.P. RTE. SECTION 341 (109B)BR [LLINOIS]FED. A)	F.A.P. RTE.         SECTION         COUNTY           341         (109B)BR         COOK           CONTRACT           ILLINDIS         FED. AID PROJECT	F.A.P. RTE.         SECTION         COUNTY         TOTAL SHEETS           341         (109B)BR         COOK         45           CONTRACT NO. 6           ILINDIS[FED. AD PROJECT



h slab repairs	RTE.	SECTION	COUNTY	SHEETS	NO.
6_0829	341	(109B)BR	COOK	45	22
0 0023			CONTRACT	NO. 6	OV27
SHEETS		ILLINOIS FED. A	D PROJECT		



DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
60829	341	(109B)BR	COOK	45	23
HEETS		ILLINOIS FED. A	O PROJECT	NU. 6	0421



DETAILS	F.A.P. RTÉ.	SECTION	ÇOUNTY	TOTAL	SHEET NO.
6	341	(109B)BR	COOK	45	24
u0025	CONT			NO. 6	0V27
HEETS		ILLINOIS FED. A	ID PROJECT		

2\* d2(E)---Existing bars to remain, typ. 1'2" cl. typ. ò 1'2" cl. typ. d1(E) -1<sub>4</sub>"/ft - c(E) 54° Const. ---Existing bars to remain, typ. Joint 1.42 (Level) d(E) Existing bars – to remain, typ. c1(E)----

SECTION B-B

<u>3'-1"</u> 12" 6"

2'-10'2"

BAR x(E)

2'-6" 1'-8" BAR XI(E)

1'-978" 4'-0"

BAR h3(E)

4'-0" BAR h4(E)

BAR h5(E)

4'-0" BAR ho(E) 4'-0"

1'-2'8"

BAR hy (E)

(Sheet 3 of 3) EMENT NO. 010

	USER NAME *	Lin20_Nick		DESIGNED	~ P	\$5	REVISED -	· · · · · · · · · · · · · · · · · · ·		
	LIN ENGINEERING, LTD.	FILE NAME .			CHECKED	~ LÌ	MS	REVISED -	STATE OF ILLINOIS	JUNIT REFERENCIAL
	Consulting Engineers	PLOT SCALE *			DRAWN	~ A	JF	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 01
		PLOT DATE	6/16/2016	7:59:06 AM	CHECKED	- M	ITH	REVISED -		SHEET NO. 9 OF 20





5<sup>5</sup>8'

4'-0"

10"



2'-1'2"

400	utments)	
3	Length	Shape
	6'-7"	
	4'-6"	
	4'-10"	Ĺ
	3'-9"	L
	2'-1"	Ē
	27'-8"	
	25'-7"	
	21'-3"	
	6'-7"	
	7'-8"	
	4'-8"	/
	26'-4"	
	25'-11"	
	21'-11"	
	2'-0"	
	7'-0"	/
	4'-0"	
	3'-1"	
-	2'-3"	
	Each	40
•	Pound	2,840
	Cu. Yd.	18.9

BILL	OF	MATERIAL
	(Four	Piers)

		11 007 1	10101	
Bar	No.	Size	Length	Shape
c(E)	48	#5	6'~7"	
c1(E)	48	#5	4'-6"	
d(E)	48	#4	4'-10"	Ļ
dı(E)	48	#6	3'-9"	Ļ
h(E)	64	#5	27'-8"	
h3(E)	64	#5	6'-7"	
h <sub>12</sub> (E)	64	#5	22'-5"	
h <sub>13</sub> (E)	64	#5	23'-8"	
h14 (E)	64	#5	5′-8″	
x(E)	248	#5	3'-1"	1
X1(E)	280	#5	2'-3"	·
Bar Sp	licers		Each	128
Reinfor	rcement	Bars,	Pound	8 200
Epoxy	Coated		1 00/10	0,200
Concre	te		CU YA	57.5
Supers	tructure	}	00. 70.	51.5

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DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6. 0920	341	(1098)8R	COOK	45	25
0-0023			CONTRACT	NO. 6	0V27
SHEETS		ILLINOIS FED. A	D PROJECT		





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 ${}^3_4{}^{\prime\prime}$   $\phi$  Threaded Stud with flat washer &

1<sup>3</sup>4" x 10" x 1'-2"

5 Layers of 3<sub>8</sub>"

Flastomer (55 Durameter)

4 -  $\frac{3}{32}$  " Steel Plates

hex nut. (4-Reg'd.)

# Notes:

Hatch area indicates Bearing removal. See special provision for Jack and Remove Existing Bearings. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers, steel extensions and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I. Fasteners shall be AASHTO M164 Type 1, mechanically

galvanized bolts.

The Contractor is to verify the existing dimensions prior to fabricating the steel extensions and shim plates. It is intended to keep the existing beams at their current elevation. Therfore, if field measurements differ from heights shown, adjust shim plates accordingly.





# ANCHOR BOLT LOCATION

# FIELD MEASURED BEARING HEIGHTS

	Pier 1	Pier 1	Pier 3	Pier 3	East
Beam No.	Span 1	Span 2	Span 3	Span 4	Abut.
3A	14 "	14 <sup>3</sup> 8 "	14 <sup> </sup> 8 "	13 <sup>7</sup> 8 "	14 <sup>3</sup> 16 "
3B	14 <sup>1</sup> 4 "	15'ı <sub>6</sub> "	14 <sup>3</sup> 8 "	14 ¦ <sub>16</sub> "	15' <sub>16</sub> "
3C	14 <sup>5</sup> 8 "	15 <sup>3</sup> 16 "	14 <sup>3</sup> 4 "	14 <sup>3</sup> 4 "	14′4″
3D	14 <sup> </sup> 4 "	14 <sup>3</sup> 4 "	13 <sup>13</sup> 16 "	14 <sup>3</sup> 16 "	14 <sup>1</sup> 8 "



# ELEVATION STEEL EXTENSION

⊨— € Beam

£Ľ

3"

4"

4"

€ <sup>7</sup><sub>8</sub>" ¢ Holes

Top & Botom 1'-2"

PLAN STEEL EXTENSION



SIDE RETAINER Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

I-2E-1	12 - 2 - 15		
	USER NAME = Lin20_Nick	DESIGNED -	PSS

6"

Q.

BEARING ASSEMBLY

under Bearing Assembly.

Note:

目

Shim plates shall not be placed

 $\frac{l_2}{2}$ 

32."

Bonded-

۰ľ		USER NAME = Lin20_Nick	DESIGNED - PSS	REVISED -		EXPANSION BEARING DETAILS (BEAMS 3A–3D)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Ä		FILE NAME =	CHECKED - LMS	REVISED -	STATE OF ILLINOIS	STRUCTURE NO 016-0829	341	(109B)BR	СООК	45	27
z Ľ	Springfield, Illinois	PLOT SCALE =	DRAWN – AJF	REVISED -	DEPARTMENT OF TRANSPORTATION					NO. 6	0V27
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EXISTING BEARING REMOVAL DETAIL

SHIM PLATE HEIGHTS

Beam No.	Pier 1 Span 1	Pier 1 Span 2	Pier 3 Span 3	Pier 3 Span 4	East Abut.
3A	-	5 <sub>8</sub> "	-	-	-
3B	1"	1'2"	1"	1"	1"
3C	1"	1'2"	1"	1"	1"
3D	-	58"	-	-	-



# BEAM REACTION TABLE

Dead Load (K)	34
Live Load (K)	36
Impact (K)	10
Total (K)	80
Min. Jack Capacity (Tons)	43

# BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	20
Anchor Bolts, 1"	Each	40
Jack and Remove Existing Bearings	Each	20



	USER NAME = Lin20_Nick	DESIGNED - PSS	REVISED -		EXPANSION BEARING DETAILS (BEAMS 1-6)	F.A.P. SECTION	COUNTY TOTAL SHEET SHEETS NO.
	FILE NAME =	CHECKED - LMS	REVISED -	STATE OF ILLINOIS STRUCTURE NO 016-0820	STRUCTURE NO 016-0820	341 (109B)BR	СООК 45 28
Springfield, Illinois	PLOT SCALE =	DRAWN - AJF	REVISED -	DEPARTMENT OF TRANSPORTATION	31100101E NO. 010-0025		CONTRACT NO. 60V27
	PLOT DATE = 5/5/2016 3:21:12 PM	CHECKED - MTH	REVISED -		SHEET NO. 12 OF 20 SHEETS	ILLINOIS FED. A	ND PROJECT



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_			_	
	Fл	st		

2007	
Abut.	
14 <sup>5</sup> 16 "	
14 <sup>7</sup> 16 "	
14 <sup>7</sup> 16 "	
14 <sup>5</sup> 16 "	
14′ <sub>16</sub> "	
14 <sup>5</sup> 8 "	

BEAM REACTION TABLE (Per Bearing)

	2
Dead Load (K)	36
Live Load (K)	38
Impact (K)	11
Total (K)	85
Min. Jack Capacity (Tons)	46



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	30
Anchor Bolts, 1"	Each	60
Jack and Remove Existing Bearings	Each	30



(109B)BR

ILLINOIS FED. AND PROJECT



Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	312
Epoxy Crack Injection	Foot	30
Temporary Shoring and Cribbing	Eoch	12

	USER NAME > Lin20_Nick	DESIGNED - PSS	REVISED -		
LIN ENGINEERING,LID.	FILE NAME +	CHECKED - LMS	REVISED -	STATE OF ILLINOIS	SUBSTRUCTURE REPAIR VETA
Solorfeit litros	PLOT SCALE .	DRAWN - AJF	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 016–0829
	PLOT DATE + 6/16/2816 7:59:87 AM	CHECKED - MTH	REVISED -		SHEET NO. 13 OF 20 SHEETS





Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft,	476
Epoxy Crack Injection	Foot	25
Temporary Shoring and Cribbing	Each	16

(Sheet	2	of	-5

		USER NAME > LIN20_Nick	DESIGNED ~	PSS	REVISED ~		
¥	LIN ENGINEERING, LTD.	FILE NAME .	CHECKED -	LMS	REVISED -	STATE OF ILLINOIS	
S	Consulting Engineers	PLOT SCALE .	DRAWN -	ajf	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NU. UI
-		PLOT DATE = 6/16/2816 7:59:07 AM	CHECKED -	MTH	REVISED -		SHEET NO. 14 OF 20

COUNTY TOTAL SHEET SHEETS NO. COOK 45 30 CONTRACT NO. 60V27 F.A.P. RTÉ. 341 (1098)BR 16-0829 SHEETS ILLINDIS FED. AID PROJECT



L

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	900
Epoxy Crack Injection	Foot	7
Temporary Shoring and Cribbing	Each	11

	(Sheef 3 of 5)					1
 STATE OF ILLINDIC	SUBSTRUCTURE REPAIR DETAILS	F.A.P. RTE	SECTION	COUNTY	TOTAL	SHEET NO.
 STATE OF ILLINUIS	STRUCTURE NO 016_0829	341	(109B)BR	COOK	45	31
 DEPARTMENT OF TRANSPORTATION				CONTRACT	NO. E	50V27
	SHEET NO. 15 OF 20 SHEETS		ILLINGIS FED. 1	ND PROJECT		

					(Sheet 3 of 5)					
	USER NAME = LIN28.Nick	DESIGNED - PSS	REVISED -			F.A.P. SEC	TION	COUNTY	TOTALS	HEET
LIN ENGINEERING,LTD.	FILE NAME *	CHECKED - LMS	REVISED -	STATE OF ILLINOIS	SUBSTRUCTURE REPAIN DETAILS	RIE.			SHEETS	<u>NO.</u>
Consulting Engineers	PLOT SCALE .	DRAWN - AJF	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 016–0829	<u></u> (109	-B/BK	COOK	45	11
spragoes, saises	PLOT DATE + 6/16/2816 715988 AM	CHECKED - MTH	REVISED -		SHEET NO. 15 OF 20 SHEETS		THE INDISIFED. ATO	PROJECT	NU. 601	121
	***************************************			······································		£	Treated by the Min			<u> </u>



Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	596
Temporary Shoring and Cribbing	Each	15

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO,
341	(109B)BR	СООК	45	32
		CONTRACT	T NO, 6	0V27
	ILLINOIS FED.	ALO PROJECT		
	F.A.P. RIE. 341	F.A.P.         SECTION           341         (1098)BR           ILLINOIS/FED.	F.A.P. RTE.         SECTION         COUNTY           341         (1098)BR         COOK           CONTRACT         ILLINDIS FED. AID PROJECT	F.A.P. RTE.         SECTION         COUNTY         TOTAL SHEETS           341         (109B)BR         COOX         45           CONTRACT NO. 6           ILLINDIS FEO. AID PROJECT

 					(Sheet 4 of 5)					
IN ENGRIECONO I TO	USER NAME > LIN28.Nick	DESIGNED - PSS	REVISED -		SURSTRUCTURE REPAIR DETAILS	F.A.P.	SECTION	COUNTY	TOTAL	HEET
LIN CNOINCERING, LID.	FILE NAME .	CHECKED - LMS	REVISED -	STATE OF ILLINOIS		3.61	(1098)89	COOK	45	32
Consularig Engineers	PLOT SCALE .	DRAWN - AJF	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE ND. 016–0829	<u> </u>		CONTRACT	NO 60	1127
 	PLOT DATE 6/16/2016 7/59/08 AM	CHECKED - MTH	REVISED -		SHEET NO. 16 OF 20 SHEETS	1	ILLINOIS FED. A	NO PROJECT	110, 00	
						<u> </u>			·····	





Square Feet

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	514
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	45
Temporary Shoring and Cribbing	Each	8

					(Sheet 5 of 5)				
	USER NAME + LID20,Nick	DESIGNED - PSS	REVISED ~			F.A.P. SECTION	COUNTY	TOTAL	SHEET
LIN ENGINEERING, LTO	FILE NAME .	CHECKED - LMS	REVISED -	STATE OF ILLINOIS	SUBSTRUCTORE REFAIN DETAILS	81E. (1000)00	COOX	AR	110.
Consulting Engineers	PLOT SCALE .	DRAWN – AJF	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 016-0829	341 (1035)35	CONTRACT		11/27
opergasso, useoa	PLOT DATE . 6/16/2816 71	59488 AM CHECKED - MTH	REVISED ~		SHEET NO. 17 OF 20 SHEETS	ILL INDIS FED. A	ID PROJECT		***



<u>LOCATION 1</u> Debris in span 1.



<u>LOCATION 2</u> Debris at nose of Pier 3.

<u>BILL OF</u>	MATER	RIAL
Item	Unit	Total
Debris Removal	Cu. Yd.	22

Notes: The Contracter is responsible for cleaning debris located within structural limits after repairs are completed. Debris quantity shown is subject to routine variations. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the quantity actually removed based upon the unit price bid for the work.

	USER NAME = Lin20_Nick	DESIGNED - PSS	REVISED -		DEBRIS REMOVAL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHE SHEETS N	,EET √0.
	FILE NAME =	CHECKED – LMS	REVISED -	STATE OF ILLINOIS	STRUCTURE NO 016 0920	341	(109B)BR	СООК	45 3	34
Springfield, Illinois	PLOT SCALE =	DRAWN – AJF	REVISED -	DEPARTMENT OF TRANSPORTATION	31100101E NO.010-0023		CONTRACT NO			27
	PLOT DATE = 5/5/2016 3:21:15 PM	CHECKED - MTH	REVISED -		SHEET NO. 18 OF 20 SHEETS		ILLINOIS FED. AID PROJECT			



<u>LOCATION 2</u> Debris along west side of Pier 3.



I SHOWERSHOLD	USER NAME * LIN20.Nick	DESIGNED - PSS	REVISED -		<b></b>
N ENGINEERING, LTD.	FILE NAME .	CHECKED - LMS	REVISED -	STATE OF ILLINOIS	1
Consulting Engineers	PLOT SCALE .	DRAWN - AJF	REVISED -	DEPARTMENT OF TRANSPORTATION	
all a clinear resident	PLOT DATE + 6/16/2016 7:59:10 AM	CHECKED - MTH	REVISED -		

PREFORMED JOINT ST STRUCTURE NO. 016 SHEET NO. 19 OF 20 S

	• •
34" \$ x 8" Stud         Top of sidewalk         or median         View         TYPICAL END T         AT SIDEWALK of         Shorter plates with a s         at 12" cts. may be neces         which are shallower than         manufacturer's recommen	s Top of locking edge rail REATMENT OR MEDIAN soary on medians 9". See dotion.
nional acturer S recommen	aanon,
ous and shall have a minimum thickness seal shall match the configuration of	
king Edge Rails shown are minimum f the Locking Edge Rails and matching to manufacturer. Flanged edge rails	
groove shall be free of weld residue. ' slope discontinuities and stage	
tallation methods shall be followed. Ted after fabrication according to cations. 5 at stage lines shall be 3r'' sealed	
for skews $> 30^{\circ}$ included in the cost	
is detailed on the superstructure are If the contractor elects to use the and deck dimensions shall be modified in this sheet. Required modifications the State.	
	:

# BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	472

KIP SEAL -0829 EETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
5_0829		(109B)BR	COOK	45	35
			CONTRACT	NO. 6	0V27
HEETS		ILLINOIS FED. A	ID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length +  $l_2''$  + thread length

\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar	No. assemblies	Minimum	
20001.011	size	required	lap length	
W. Abut.	#5	16	3'-4"	
W. Abut.	#6	4	4'-9"	
Pler 1	#5	32	3'-4"	
Pier 2	#5	32	3'-4"	
Pier 3	#5	32	3'-4"	~~~~
Pier 4	#5	32	3'-4"	
E. Abut.	#5	16	3'-4"	
E. Abut.	#6	4	4'-9"	



# INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt. "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms. (E) : Indicates epoxy coating.



yield strength. All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

		BSD-	1
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6-8-15

	USER NAME = Lin20.Nick	DESIGNED - PS	SS	REVISED -		DAD CHICED ACCEMPTLY AND MECHANICAL CHICED DETAILS	F.A.P.	SECTION	COUNTY	TOTAL	SHEET
LIN ENGINEERING, LIU. Consulting Engineers	FILE NAME .	CHECKED - LN	MS	REVISED -	STATE OF ILLINOIS	STRUCH ASSEMBLY AND INCOMINGAL SPEICER DETAILS	341	(1098)BR	COOK	45	36
SpringReké, Išancia	PLOT DATE = 6/16/2816 7:59:11 AM	DRAWN ~ A. CHECKED ~ M	JF ITH	REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET NO. 20 OF 20 SHEETS		hu marelern a	CONTRACT	[ NO. 6	)V27
 	·····	• · · · · · · · · · · · · · · · · · · ·					1	(15,1401,37,752) M	10 11100601		

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# STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
		-

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi





н Ц	FILE NAME =	USER NAME = drivøkosgn 24.dan	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96 REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS		CURB OR CURB A
Ψ		PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		REMOVAL AND REP
-		PLOT DATE = 12/15/2009	DATE - 03-11-94	REVISED - R. BORO 12-15-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS

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

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

SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100)

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

ND GUTTER PLACEMENT		SECTION	COUNTY	SHEETS	SHEET NO.
		(109B)BR	СООК	45	38
		BD600-06 (BD-24)	CONTRACT	NO. 6	0V27
STA. TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT		



AND ETAILS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
		341	(109B)BR		COOK	45	39	
			BD400-05 BD32		CONTRACT	NO. 6	0V27	
	STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS	FED. A	D PROJECT		

	TYPE III BARRICA WITH TWO FLASHI LIGHTS ON EACH. 15 (380) 15 (380) 16 (380) 17 (380) 17 (380) 17 (380) 18 (380) 19 (380) 19 (380) 19 (380) 19 (380) 10 (
	SPEED LIMITY 40 MPH (60 Km/h) TOULDECTOR SPEED LIMITY 40 MPH (60 Km/h)
-	TRAFFIC CONTROL AND PROTECTION FO
	NOTES: A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER: a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 × 36 (900×900) WITH A FLASHEF AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN DUTE
	OF THE MAIN ROUTE.
	b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
	<ul> <li>b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.</li> <li>2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:</li> <li>c) ONE BOAD CONSTRUCTION AMEAD SICN 48 × 48 (12 m × 12 m) WITH A</li> </ul>
	<ul> <li>b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.</li> <li>2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:</li> <li>a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 × 48 (1.2 m × 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.</li> <li>b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY</li> </ul>
	<ul> <li>b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.</li> <li>2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:</li> <li>d) ONE ROAD CONSTRUCTION AHEAD SIGN 48 × 48 (1.2 m × 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.</li> <li>b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.</li> <li>3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).</li> </ul>

I:\8274							All dimensions are in unless otherwise sh	n millimeters (inc own.	;hes)	
	FILE NAME =	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95		TRAFFIC CONTROL AND PROTECTION FOR	F.A.P. SECTION	COUNTY	TOTAL	SHEET
IAME	W:\diststd\22x34\tc10.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96	STATE OF ILLINOIS		341 (109B)BR	СООК	45	40
щ.		PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96	DEPARTMENT OF TRANSPORTATION	SIDE RUADS, INTERSECTIONS, AND DRIVEWAYS	TC-10	CONTRACT	INO. E	0V27
Ē		PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FE	ED. AID PROJECT		



# SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

в.	FOR	A LA	ANE (	CLOS	URE	ON /	A SID	E RO	AD OF	r di	RIVEW	AY:					
	USE	APPL	ICAE	BLE F	ORT	IONS	OF	INE 1	YPIC	AL	APPL	ICAT	ION O	ΕT	RAFFI	с	
	CONT	ROL	DEV	ICES	(STE	, 70	01501.	STD	701	606	OR	THE	APPR	OPRI	ATE	STANE	ARD).
	THE	SPAC	CING	OF S	SIGNS	S AN	D BAF	RICA	DES	SHA	LL BI	E AD	JUSTE	DF	OR F	IELD	
	CON	ΟΙΤΙΟ	NS A	S DI	RECT	ED	BY TH	IE EN	GINE	R.	THE	DIR	ECTIO	NAL	ARR	WC	
	SHAL	LBE	C0\	/EREI	D OR	REM	<b>IOVED</b>	WHE	N NO	L0	NGER	CON	SISTE	NT	WITH	THE	
	SIDE	ROA	DLA	NE (	CLOSI	URE.											

- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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



PLOT DATE = 3/2/2011

DATE

REVISED - C. JUCIUS 09-09-0

SCALE: NONE SHEET NO. 1 OF 1 SHEETS

# 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

341 (109B)BR COOK 45	41
TC-11 CONTRACT NO. 6	)V27
STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	





# LANE REDUCTION TRANSITION

# Lane reduction arrows required at speeds of 45 MPH or greater or when specified in plans.

LINE	PATTERN	COLOR	SPACING /REMARKS
	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
	SOLID	YELLOW	11 (280) C-C
	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
EWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
BEING	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
'ULL & _4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
N ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10'(3 m) LINE WITH 30'(9 m) SPACE FOR SKIP-DASH 5½ (140)-C- DETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1,8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
	SOLID	WHITE	PLACE 4' (12 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESINED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
TH NALS USED FOR MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
2 (300) 5°	SOLID	WHITE	DIACONALS: 15'(4,5 m) C-C (LESS THAN 30MPH (50 km/h)) 20'(6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30'(9 m) C-C (OVER 45MPH (70 km/h))
VERSE 6′(1.8 m) 00)	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF1 "X"=3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SO. FT. (5.0 m <sup>2</sup> )
	SOLID	WHITE - RIGHT Yellow - Left	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) T0 45MPH (70 km/h)) 150' (45 m) C-C (0VER 45MPH (70 km/h))
	SOLID	WHITE	16.3 SF
	SOLID	WHITE	30.4 SF

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

ONE T MARKINGS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
		341	(109B)BR	COOK	45	42				
•	MAIIMIGG	,		TC–13	CONTRACT	NO. 6	0V27			
S	STA.	TO STA.		ILLINOIS FED. AID PROJECT						



FILE NAME =

PLOT DATE = 9/14/2009

REVISED -T. RAMMACHER 01-06-00 REVISED



# GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).

2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.

3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.

4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.

5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.

6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

7.FORM OPER 725 IS REQUIRED.

8. IF A DRUM OR TYPE II 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 NCHR 350 PREQUIREMENTS.

9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR

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

SHEET NO. 1 OF 1 SHEETS

SCALE: NONE

CTION AT TURN BAYS		F.A.P. RTE.	SEC		COUNTY	TOTAL	SHEET	
		341 (109B)BR				СООК	45	43
			TC-14			CONTRACT	NO.	60v27
	STA. TO STA.	FFD, R	DAD DIST. NO. 1	TH I INOTS	EED AI	) PROJECT		



USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	HEET
	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS				341	(109B)BR	СООК	45	44
PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFORMATION SIGN			TC-22	CONTRACT	NO. 61	JV27
PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD DIS	ST. NO. 1 ILLINOIS FED. 4	D PROJECT		

FILE NAME =



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" × 5.0"

# NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

3													
" FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07			DRIVEWAY ENTRANC			F.A.P.	SECTION	COUNTY	TOTAL	SHEET
c:\pw_work\pwidot\gaglianobt\d0108315\tc	26.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRIVEWAT ENTRANCE STORING					(109B)BR	соок	45	45
کے س	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED -							TC-26	CONTRACT	NO. 6	0V27
	PLOT DATE = 12/13/2012	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS F		ID PROJECT		

