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03-08-2019 LETTING ITEM 087

SN 008-0033

#### INDEX OF SHEETS

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- Summary of Quantitles Typical Sections
- Schedule of Quantities
- 7 Detour Sheet
- 8-13 Structure Plans Bridges (5N 008-0033)
- 14-17 Work Zone Sign Details 34.1
- Traffic Control for Road Closure (DS 40.1)
- 19:21 Typical Pavement Markings (DS 41.1)

#### **STATE STANDARDS**

000001 - 07 Standard Symbols, Abbreviations, and Patterns 001001 - 02 Areas of Reinforcement Bars

001006 Decimal of an Inch and of a Foot

701006 - 05 Off Road Operations, 2L, 2W, 15' to 24" From Pavement Edge 701011 - 04 Off-Road Moving Operations, 2L, 2W, Day Only

701201 + 05 Lane Closure, 2L. 2W, Day Only, for Speeds > 45MPH

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701311 03 Lane Closure 2L, 2w Moving Operations Day Only

701901 + 08 Traffic Control Devices

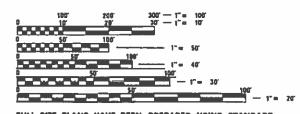
720011 01 Metal Posts for Signs, Markers and Delineators

728001 - 01 Telescoping Steel Sign Support

729001 - 01 Applications for Types A and B Metal Posts (for Signs & Markers) 780001 - 05 Typical Pavement Markings

701001 - 02 Off-Road Operations, 2L, 2W, More Than 15' Away

#### SALEM TOWNSHIP - SECTION 17



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.LI.E.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS 1-800-892-0123

OR 811

PROJECT ENGINEER: MAHMOUD ETEMADI, EXT. 393 PROJECT MANAGER: MAHMOUD ETEMADI, EXT. 393

CONTRACT NO. 64N26

#### STATE OF ILLINOIS

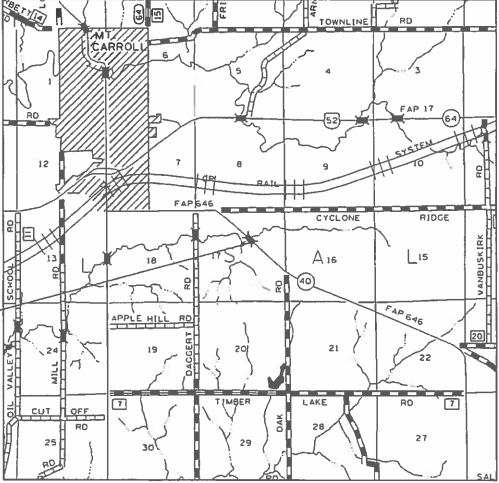
#### **DEPARTMENT OF TRANSPORTATION**

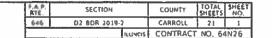
# **PROPOSED** HIGHWAY PLANS

**FAP ROUTE 646 (IL 40)** SECTION D2 BDR 2019-2 **PROJECT EXPANSION JOINT REPLACEMENT, CONCRETE OVERLAY, & BEAM END REPAIRS CARROLL COUNTY** 

C-92-003-19

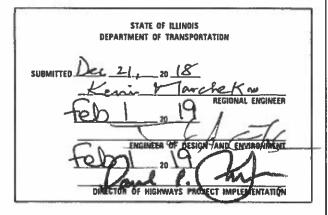
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#### D-92-072-18





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REV. - MS

## **GENERAL NOTES**

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The final top 4 inches of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils. The cost of this work shall be included in the unit prices bid and no additional compensation will be allowed.

All "Aggregate Subgrade Improvement" (Section 303), shall be completed in accordance with Articles 311.04, 311.05, 311.05(a), 311.06 and 311.07. All aggregate subgrade thicknesses equal to or less than 12 inches shall be constructed of aggregate of CA02 gradation. All aggregate subgrade thicknesses greater than 12 inches shall be constructed of CS02.

This structure will retain the same number 008-0033.

Pavement Marking shall be done according to Standard 780001, except as follows:

- 1. All words, such as ONLY, shall be 8 feet high.
- 2. All non-freeway arrows shall be the large size.
- 3. The distance between yellow no-passing lines shall be 8 inches, not 7 inches, as shown in the detail of Typical Lane and Edge Lines.
- 4. Centerline Skip Dash Pavement Marking on multi-lane divided, multi-lane undivided, and one-way roadway shall be according to District Standard 41.1.

The Contractor shall be responsible for locating and protecting utility property during construction operations as outlined in Article 107.39 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

(Type name & phone number of JULIE companies from attached utility form.)

IDOT is not a member of JULIE. If you are near any overhead lighting, intersection lighting or traffic signals, contact the IDOT Traffic Office at 815/284-5469 at least 48 hours prior to work.

The following Mixture Requirements are applicable for this project:

Location(s):	
Mixture Use(s):	Surface
PG:	PG 64-22
Design Air Voids:	4.0 @N50
Mixture Composition	
(Mixture Gradation):	IL 9.5
Friction Aggregate:	С
Mixture Weight:	112 lbs.
Quality Management Program:	QC/QA
Sublot Size:	N/A
Number of Roller Passes <sup>1)</sup> :	N/A

1) When a number of roller passes is specified, the Contractor may opt to use intelligent compaction in lieu of density testing under the Quality Control for Performance (QCP) program.

	USER NAME =	DESIGNED - Engineering Systems	REVISED -				ROUTE	SECTION	COUNTY	SHEETS NO.
FILE NAME - CANOC ON DOOY		DRAWN -	REVISED -	STATE OF ILLINOIS		GENERAL NOTES	FAP Route 646 (IL 40)	D2 BDR 2019-2	Carroll	21 2
FILE NAME = 64N26.GN.DOCX	PLOT SCALE =	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		<u> </u>			CONTRACT NO.	). #64N26
	PLOT DATE = 12/21/2018 10:24 AM	DATE - 11/30/2018 11:29 AM	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJE	ECT

## SUMMARY OF QUANTITIES

CONSTR. CODE SN 008-0033 100% STATE

	1			100% STATE BRIDGE
CODE			TOTAL	0047
NO.	ITEM	UNIT	QUANTITY	RURAL
NO.	TILM	ONTT	QUANTITI	NORAL
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	144.4	144.4
40600990	TEMPORARY RAMP	SQ YD	58	58
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	15	15
40800025	BITUMINOUS MATERIALS (PRIME COAT)	POUND	85	85
48301000	PROTECTIVE COAT	SQ YD	261	261
50102400	CONCRETE REMOVAL	CU YD	9.9	9.9
.0300355	CONCRETE CURERCTRUCTURE	CIL VD	11	11
50300255	CONCRETE SUPERSTRUCTURE	CU YD	11	11
50300260	BRIDGE DECK GROOVING	SQ YD	230	230
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1220	1220
52000110	PREFORMED JOINT STRIP SEAL	FOOT	69	69
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3
67100100	MOBILIZATION	L SUM	1	1
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	22	22
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	64	64

\* SPECIALTY ITEM

USER NAME = bartonrw	DESIGNED	REVISED
	DRAWN	REVISED
PLOT SCALE = 100.0000 ' / in.	CHECKED	REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

0117777	. OF OUADITIES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SUMMAR	OF QUANTITIES		646	D2 BDR 2019-2	CARROLL	21	3
			[		CONTRACT	NO. 64	4N26
SCALE: SHEET 1 OF 2	SHEETS STA	TO STA		ILLINOIS FED. A	ID PROJECT		

## SUMMARY OF QUANTITIES

CONSTR. CODE SN 008-0033 100% STATE

	1			100% STATE
				BRIDGE
CODE			TOTAL	0047
NO.	ITEM	UNIT	QUANTITY	RURAL
78001110	PAINT PAVEMENT MARKING - LINE4"	FOOT	1360	1360
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
Z0001905	STRUCTURAL STEEL REPAIR	POUND	4330	4330
	CONTAINMENT AND DISPOSAL OF LEAD DAINT OF SANING			
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUESNO. 1	L SUM	1	1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO.1	L SUM	1	1
Z0012130	BRIDGE DECK SCARIFICATION3/4"	SQ YD	235	235
Z0012162	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/4"	SQ YD	235	235

\* SPECIALTY ITEM

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	DRAWN	REVISED
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PLOT DATE = Dec-21-2018 10:37:37 AM	DATE	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

							F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		S	JMMARY	OF QU	ANTITIES		646	D2 BDR 2019-2	CARROLL	21	4
									CONTRACT	Γ NO. 64	4N26
SC	CALE:	SHEET 2	OF 2	SHEETS	STA	TO STA		ILLINOIS   FED.	AID PROJECT		

## **TYPICALS**

SN 008-0033 OVER THE JOHNSON CREEK

IL 40

USER NAME = bartonrw DESIGNED -DRAWN -REVISED -REVISED - \_\_\_ CHECKED -PLOT DATE = Dec-21-2018 11:20:58 AM

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SECTION STAGING TYPICALS D2 BDR 2019-2 SCALE: NTS SHEET 1 OF 1 SHEETS STA. \_\_\_ TO STA.

COUNTY TOTAL SHEET NO.

CARROLL 21 5

CONTRACT NO. 64N26

40600982		HOT - MIX	ASPHALT SURFACE REMOVAL - BUTT JOINT
	SQ YD	<u>TOTAL</u>	LOCATION COMMENTS
	72.2	72.2	904 + 70.00 - 904 + 95.00 MAINLINE
	72.2	72.2	905 + 90.00 - 906 + 15.00 MAINLINE
_	144 4	144.4	TOTAL
		144.4	GRAND TOTAL
40600990		<u>TEMPORA</u>	RY RAMP
	SQ YD	TOTAL	LOCATION
	28.9	29.0	904 + 95 - 905 + 5 MAINLINE
_	28.9	29.0	#REF! + #REF! - #REF! + #REF!MAINLINE
	57.8	58.0	TOTAL
		58	GRAND TOTAL
40603310		HOT - M I X	ASPHALT SURFACE COURSE, MIX "C", N50
	_TONS_	TOTAL	LOCATION COMMENTS
	8.0	8.0	904 + 70.00 - 905 + 5.00 MAINLINE
	7.8	8.0	905 + 80.00 - 906 + 15.00 MAINLINE
	15.8	16.0	TOTAL
		16	GRAND TOTAL
40800025		<u>BITUMIN</u>	OUS MATERIALS (PRIME COAT)
40800025	ILS		
40800025	<u>ILS</u> 42.9	BITUMIN TOTAL 43.0	LOCATION COMMENTS
40800025	42.9	TOTAL	LOCATION COMMENTS
40800025		<u>TOTAL</u> 43.0	<u>LOCATION</u> 904 + 70.00 - 905 + 5.00 MAINLINE
40800025 _	42.9 41.6	<u>TOTAL</u> 43.0 42.0	LOCATION COMMENTS 904 + 70.00 - 905 + 5.00 MAINLINE 905 + 80.00 - 906 + 15.00 MAINLINE
40800025 — 70300150	42.9 41.6	TOTAL 43.0 42.0 85.0 85	LOCATION COMMENTS 904 + 70.00 - 905 + 5.00 MAINLINE 905 + 80.00 - 906 + 15.00 MAINLINE TOTAL
_	42.9 41.6 84.5	TOTAL 43.0 42.0 85.0 85	LOCATION COMMENTS  904 + 70.00 - 905 + 5.00 MAINLINE  905 + 80.00 - 906 + 15.00 MAINLINE  TOTAL  GRAND TOTAL  ERM PAVEMENT MARKING REMOVAL
_	42.9 41.6	TOTAL 43.0 42.0 85.0 85	LOCATION COMMENTS  904 + 70.00 - 905 + 5.00 MAINLINE  905 + 80.00 - 906 + 15.00 MAINLINE  TOTAL  GRAND TOTAL  ERM PAVEMENT MARKING REMOVAL
_	42.9 41.6 84.5	TOTAL 43.0 42.0 85.0 85 SHORT T	LOCATION COMMENTS  904 + 70.00 - 905 + 5.00 MAINLINE  905 + 80.00 - 906 + 15.00 MAINLINE  TOTAL  GRAND TOTAL  ERM PAVEMENT MARKING REMOVAL  LOCATION COMMENTS
_	42.9 41.6 84.5 SO FT 21	TOTAL 43.0 42.0 85.0 85 SHORT T	LOCATION COMMENTS 904 + 70.00 - 905 + 5.00 MAINLINE 905 + 80.00 - 906 + 15.00 MAINLINE TOTAL GRAND TOTAL  ERM PAVEMENT MARKING REMOVAL  LOCATION COMMENTS 904 + 00 - 907 + 00 CENTER LINE
_	42.9 41.6 84.5 SO FT 21	TOTAL 43.0 42.0 85.0 85 SHORT T TOTAL 22 22 22	LOCATION
70300150	42.9 41.6 84.5 SO FT 21	TOTAL 43.0 42.0 85.0 85 SHORT T TOTAL 22 22 22	LOCATION COMMENTS 904 + 70.00 - 905 + 5.00 MAINLINE 905 + 80.00 - 906 + 15.00 MAINLINE TOTAL GRAND TOTAL  ERM PAVEMENT MARKING REMOVAL  LOCATION COMMENTS 904 + 00 - 907 + 00 CENTER LINE TOTAL GRAND TOTAL  GRAND TOTAL
70300150	42.9 41.6 84.5 SO FT 21 21.3	TOTAL 43.0 42.0 85.0 85 SHORT T TOTAL 22 22 22 22 22	LOCATION  904 + 70.00 - 905 + 5.00 MAINLINE  905 + 80.00 - 906 + 15.00 MAINLINE  TOTAL  GRAND TOTAL  ERM PAVEMENT MARKING REMOVAL  LOCATION  904 + 00 - 907 + 00 CENTER LINE  TOTAL  GRAND TOTAL  RY PAVEMENT MARKING LINE, 4"
70300150	42.9 41.6 84.5 SO FT 21 21.3	TOTAL 43.0 42.0 85.0 85  SHORT T  TOTAL 22 22 22 22 TEMPORA	LOCATION  904 + 70.00 - 905 + 5.00 MAINLINE  905 + 80.00 - 906 + 15.00 MAINLINE  TOTAL  GRAND TOTAL  ERM PAVEMENT MARKING REMOVAL  LOCATION  904 + 00 - 907 + 00 CENTER LINE  TOTAL  GRAND TOTAL  RY PAVEMENT MARKING LINE, 4"  LOCATION  COMMENTS  COMMENTS
70300150	42.9 41.6 84.5 SO FT 21 21.3	TOTAL 43.0 42.0 85.0 85 SHORT T TOTAL 22 22 22 22 TEMPORA TOTAL 64	LOCATION
70300150	42.9 41.6 84.5 SO FT 21 21.3	TOTAL 43.0 42.0 85.0 85 SHORT T TOTAL 22 22 22 22 1EMPORA TOTAL 64	LOCATION

17(11(1 17(VEITEINT 17)(ICCTIVO ETIME	<u>PAINT</u>	PAVEMENT	MARKING	-	LINE	
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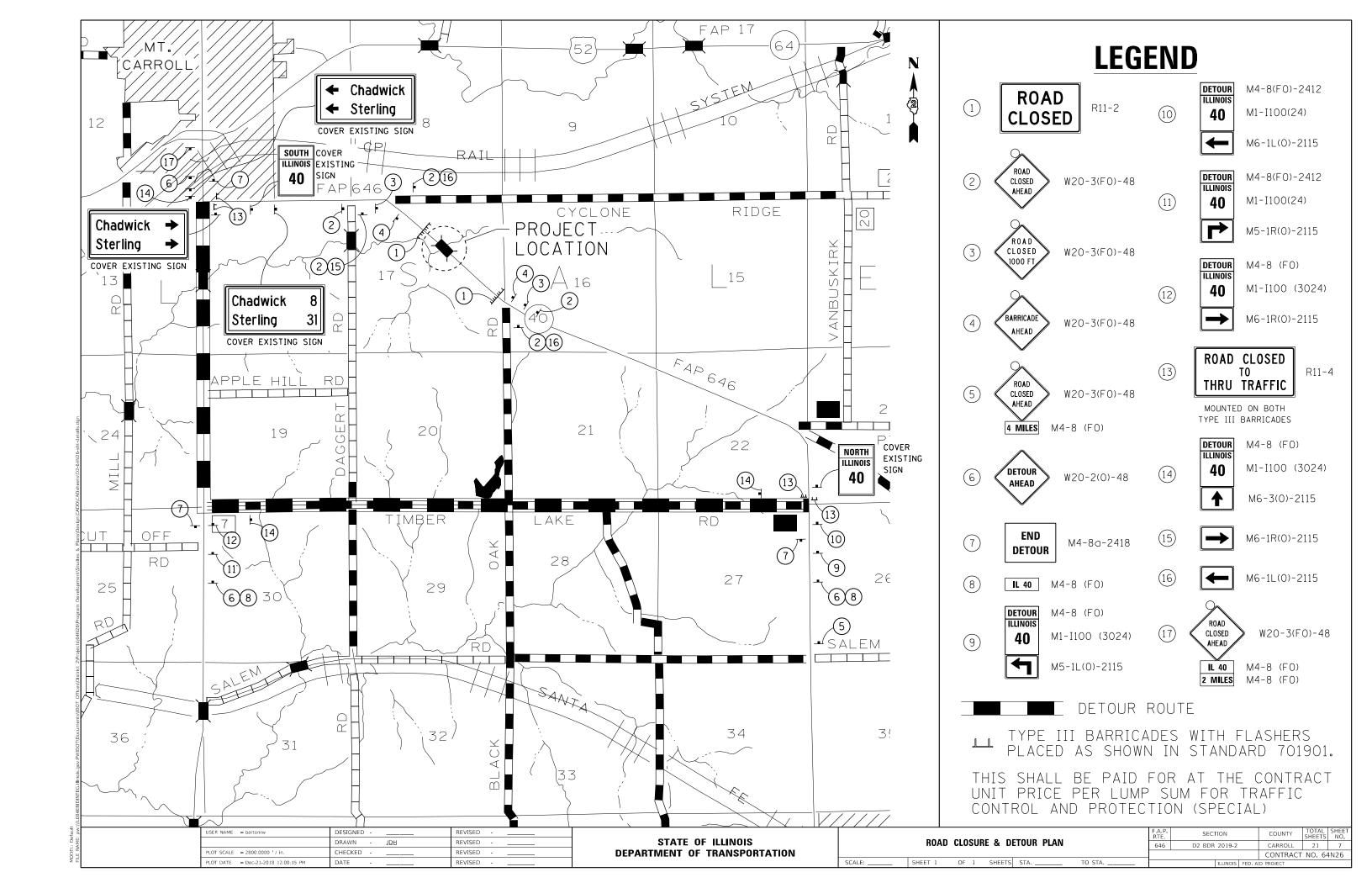
78001110

	<u>FOOT</u>	<u>TOTAL</u>	<u>LOCATION</u>						<u>COMMENTS</u>
	300	300	904 +	00	-	907	+	00	RT SIDE
	80	80	904 +	00	-	907	+	00	CENTER LINE
	300	300	904 +	00	-	907	+	00	LT SIDE
•	680	680	TOTAL						
		1360	GRAND TOTA	AL 2 C	DATS				

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	DRAWN - <u>JDH</u>	REVISED
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DIOT DATE - D 21 2010 10 E2 02 414	DATE	DEVICED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:



## ELEVATION Outside to Outside of Decl $\langle \overline{c} \rangle$ ,9 - C Roadway 16'-0" © Brg. Bent #1 68'-0" & Brg. to & Brg. & Brg. PLAN 22'-8" 22'-8" 22'-8" $\langle B \rangle$ $\langle A \rangle$ 2 $\langle A \rangle$ $\langle A \rangle$ 7'-31/2"

#### GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 50, unless otherwise noted.

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.

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 covering removal of the existing concrete.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

Fasteners shall be high strength bolts. Bolts  $\frac{3}{4}$ "Ø, open holes  $\frac{13}{16}$ "Ø, unless otherwise

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

Existing structural steel that will be in contact with new structural steel shall be cleaned and pointed prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". Areas to be cleaned and painted shall consist of all beam ends, end diaphragms and steel components of the steel bearings at the abutments. Beam end painting shall extend 5 feet from the ends of the beams longitudinally. This surface preparation shall be accomplished according to the requirements of Near-White Metal Blast Cleaning SSPC-SP 10. The paint system shall be applied as specified for System 1 0Z/E/U. The color of the final finish coat shall be Reddish Brown, Munsell No. 2.5YR 3/4.

Containment and disposal as specified shall follow the special provision for "Containment and Disposal of Lead Point Cleaning Residue". The use of two air monitors will be required to monitor abrasive blasting operations.

The painting contractor shall be SSPC-QP 1 and SSPC-QP 2 certified for this project and shall maintain certification throughout the duration of the project.

Care shall be taken not to damage rubber bearing or joint components during the blasting and cleaning operations. Any damage to these components shall be repaired at the Contractor's expense.

Cleaning and painting of beam ends shall be performed after the concrete removal at the joints has been completed and prior to the installation of any forms for the placement of the new concrete at those locations.

Synthetic fibers shall be added to the Bridge Deck Microsilica Concrete Overlay. See Special Provisions.

All new structural steel shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel."

Traffic will be detoured.

#### (A) - Beam End Repair (Repair A)

 $\langle B \rangle$  – Beam End Repair (Repair B)

(C) - Remove & Replace existing Expansion Joint

Scarify Bridge Deck 3/4" and install 21/4" Microsilica Concrete Overlay.

#### TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	9.9
Concrete Superstructure	Cu. Yd.	11.0
Reinforcement Bars, Epoxy Coated	Pound	1220
Bridge Deck Scarification, ¾"	Sq. Yd.	235
Bridge Deck Microsilica Concrete Overlay, 21/4"	Sq. Yd.	235
Bridge Deck Grooving	Sq. Yd.	230
Preformed Joint Strip Seal	Foot	69
Protective Coat	Sq. Yd.	261
Structural Steel Repair	Pound	4330
Containment and Disposal of Lead Paint Cleaning Residues, No. 1	L.5.	1
Cleaning and Painting Steel Bridge, No. 1	L.S.	1

\* Apply to new concrete and concrete overlay surfaces only.

Expires: November 30, DESIGNED STEFFEN CHECKED - TOV

· 自由日田田田田田山

DAVID CARL

081-005470

ILLINOIS

PASSED REVISED REVISED

W33x130-

68'-0" & Brg. to & Brg.

69'-1" End to End of Beam

FRAMING PLAN

JANUARY 29, 2019

3

4

End of

& Brg.

Bent #1

Beam Spaces

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

 $\langle A \rangle$ 

 $\langle A \rangle$ 

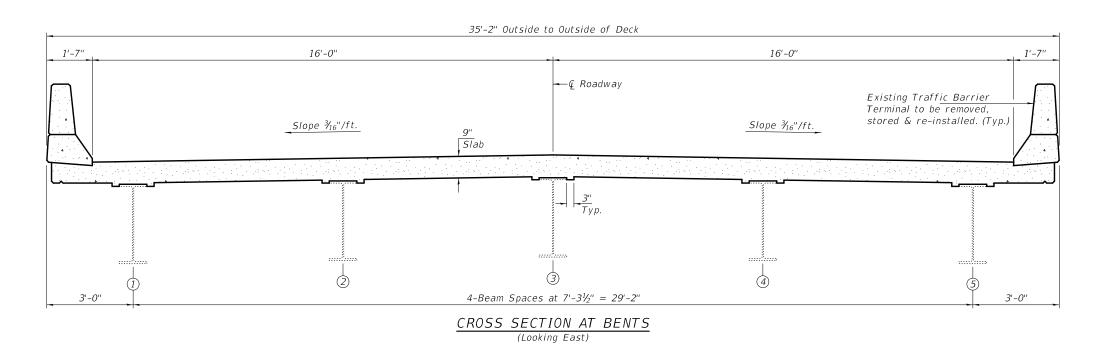
€ Brg.

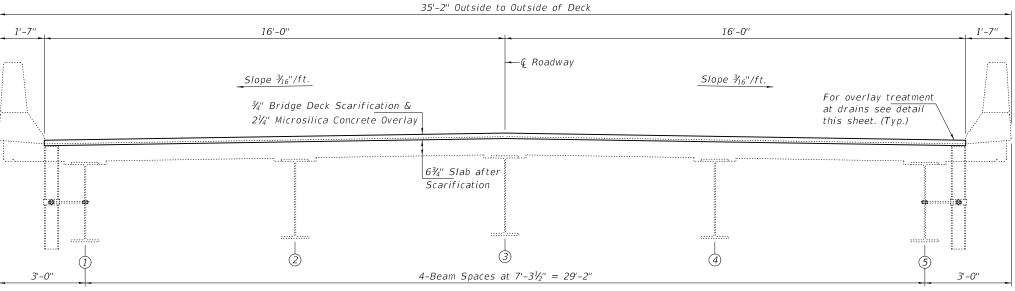
Bent #2

Fnd of Beam

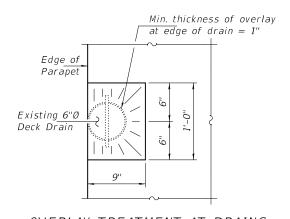
> GENERAL PLAN AND ELEVATION ILLINOIS ROUTE 40 OVER JOHNSON CREEK SN 008-0033 SHEET NO. 1 OF 6 SHEETS

040	D2 BDR 2019-2	CONTRAC	T NO. 641	V26
646	D2 BDR 2019-2	CARROLL	24	0
F.A. RTE.	SECTION	COUNTY	TOTAL	SHEE NO.



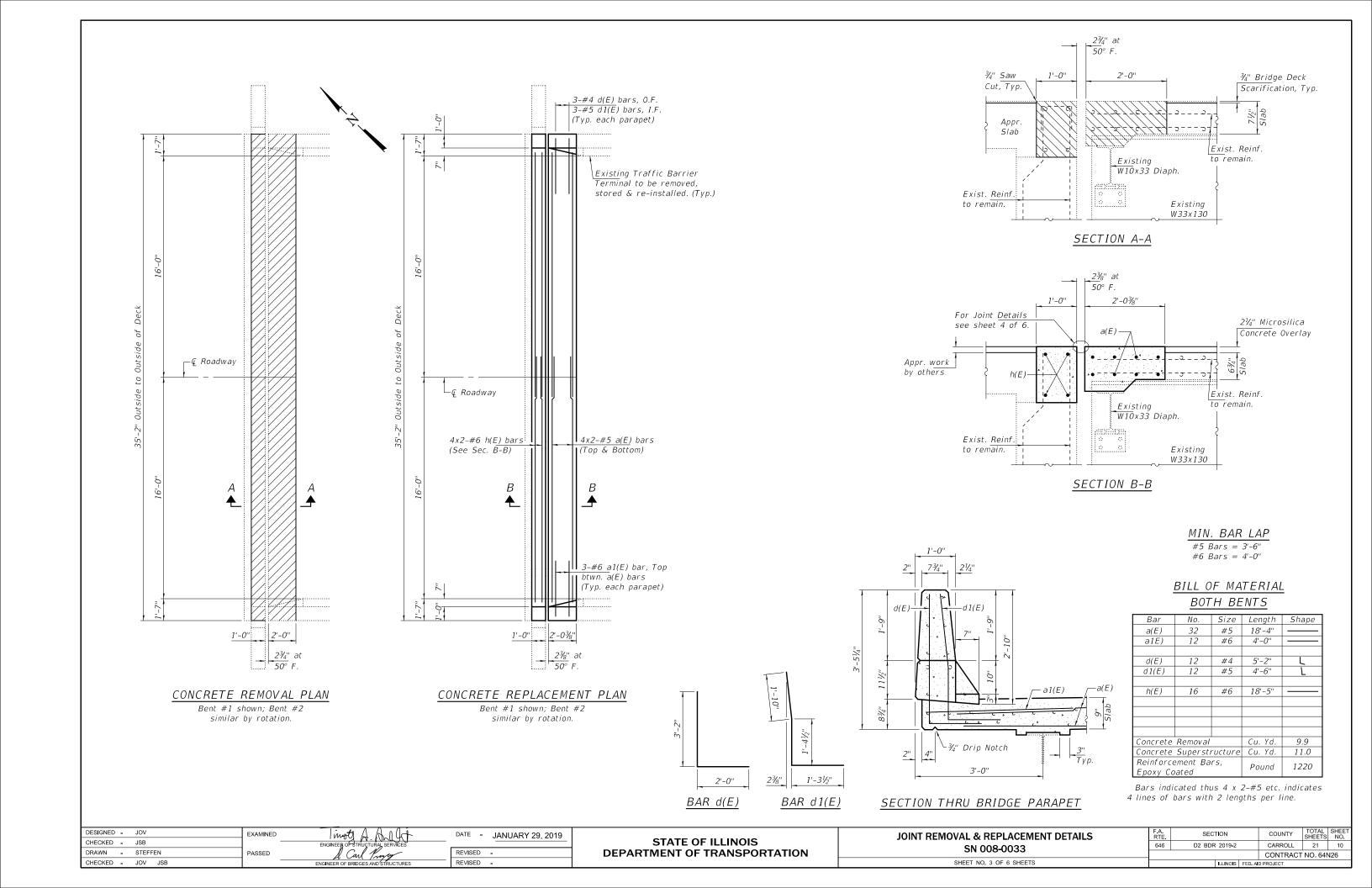


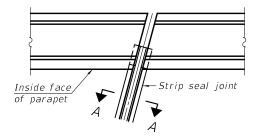
CROSS SECTION AT MID-SPAN (Looking East)



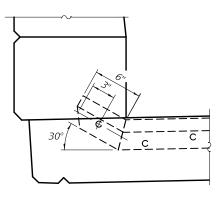
#### OVERLAY TREATMENT AT DRAINS

	EXAMINED	I mot A And let	DATE - JANUARY 29, 2019	CTATE OF ILLINOIS	CROSS SECTIONS	RTE.	SECTION	COUNTY	SHEETS NO.
CHECKED - JSB		ENGINEER OF STRUCTURAL SERVICES		STATE OF ILLINOIS	SN 008-0033	646	D2 BDR 2019-2	CARROLL	21 9
DRAWN - STEFFEN	PASSED	& Carl Prayey	REVISED -	DEPARTMENT OF TRANSPORTATION	3N 000-0033			CONTRACT	T NO. 64N26
CHECKED - JOV JSB		ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET NO. 2 OF 6 SHEETS		ILLINOIS FED. A	ND PROJECT	

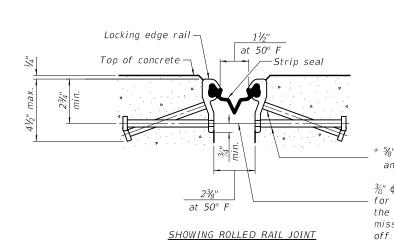


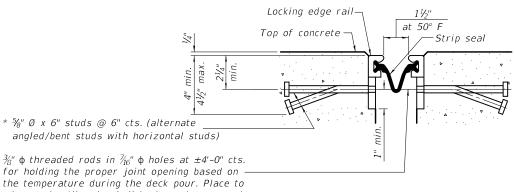


FOR SKEWS ≤ 30° PLAN AT PARAPET



ELEVATION AT PARAPET (Skews ≤ 30°)





the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

#### SECTION A-A

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

DATE - JANUARY 29, 2019

REVISED -

REVISED -

#### SHOWING WELDED RAIL JOINT

The strip seal shall be made continuous and shall have a minimum thickness of  $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

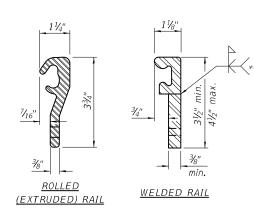
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

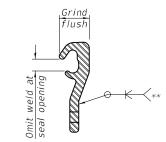
The Maximum space between locking edge rail segments shall be  $\frac{3}{6}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



#### LOCKING EDGE RAILS

\*\* Back gouge not required if complete joint penetration is verified by mock-up.



#### LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

#### BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	69

#### EJ-SS1 LT30/REPS

6-22-18

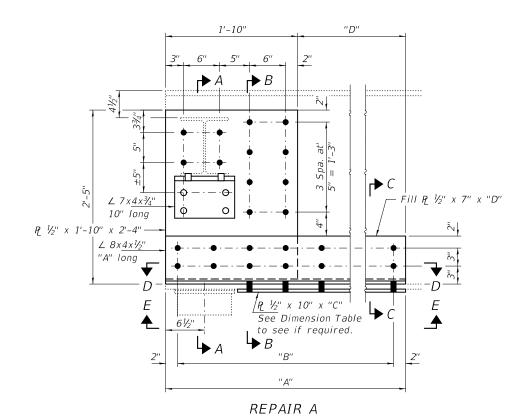
DESIGNED - JOV EXAMINED CHECKED - JSB DRAWN - STEFFEN PASSED CHECKED - JOV JSB

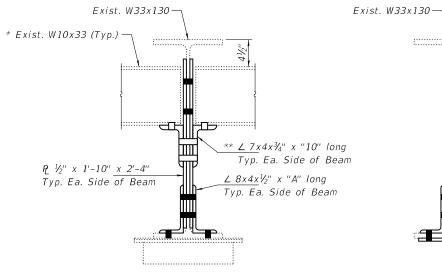
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

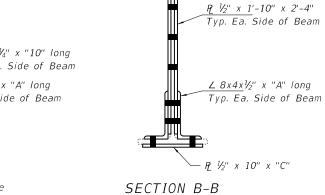
#### PREFORMED JOINT STRIP SEAL DETAILS SN 008-0033

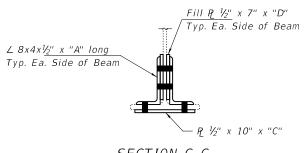
F.A. RTE	SEC.	COUNTY	TOTAL SHEETS	SHE		
646	D2 BDR	2019-2	CARROLL	21	11	
				CONTRACT	NO. 641	126
		II I INIOIO	EED M	D DDO IECT		

SHEET NO. 4 OF 6 SHEETS







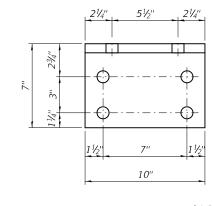


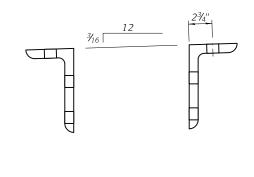
SECTION C-C

\* Diaphragm not used on outside face of exterior beams.

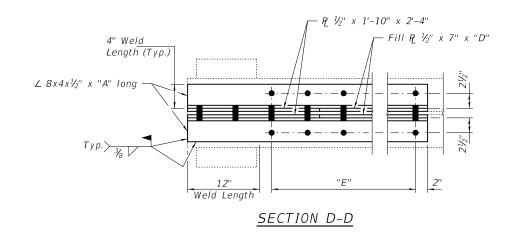
\*\* Clip Angle not required on outside face of exterior beams.

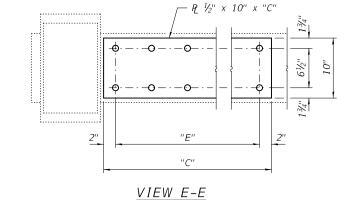
#### SECTION A-A





CLIP ANGLE DETAILS ∠ 7x4x¾" x 10" long (12 Required)





#### DIMENSION TABLE

Location	"A"	"B"	"C"	"D"	"E"
Bent 1, Beam 2	3'-4"	6 Spa. at 6" = 3'-0"	-	1'-6''	4 Spa. at 6" = 2'-0"
Bent 1, Beam 4	2'-4''	4 Spa. at 6" = 2'-0"	-	6"	2 Spa. at 6" = 1'-0"
Bent 1, Beam 5	2'-4"	4 Spa. at 6" = 2'-0"	1'-4"	6"	2 Spa. at 6" = 1'-0"
Bent 2, Beam 1	7'-4''	14 Spa. at 6" = 7'-0"	6'-4"	5'-6''	12 Spa. at 6" = 6'-0"
Bent 2, Beam 2	3'-4"	6 Spa. at 6" = 3'-0"	2'-4"	1'-6''	4 Spa. at 6" = 2'-0"
Bent 2, Beam 4	9'-4''	18 Spa. at 6" = 9'-0"	-	7'-6''	16 Spa. at 6" = 8'-0"
Bent 2, Beam 5	4'-4''	8 Spa. at 6" = 4'-0"	_	2'-6''	6 Spa. at 6" = 3'-0"

#### BOLT HOLE LEGEND

- O Field drill using new steel as template.
- Shop drill holes in new steel.

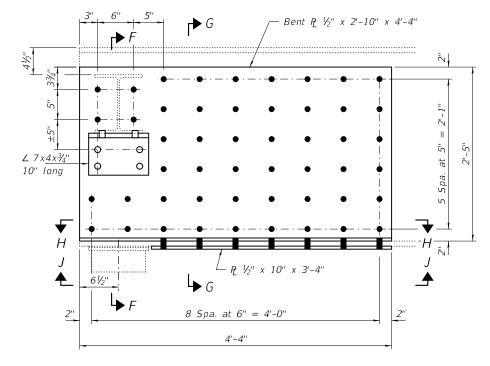
Note:

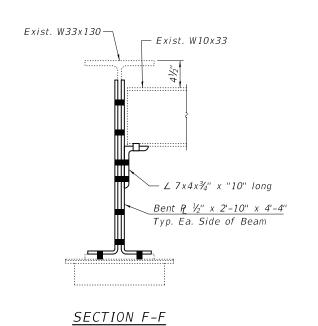
Trim diaphragms as required for reinstallation.

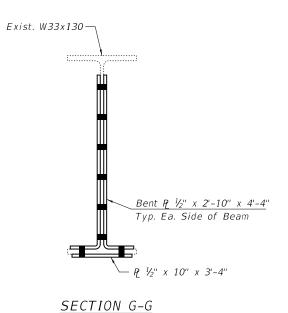
#### BILL OF MATERIAL

Item	Unit	Total
Structural Steel Repair	Pound	3690

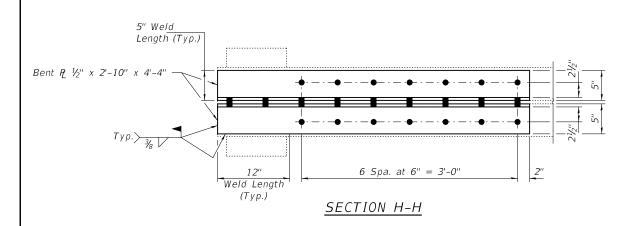
DESIGNED - JOV	EXAMINED	I mote A A 1 Ct	DATE - JANUARY 29, 2019		BEAM END REPAIR DETAILS - REPAIR A	F.A. RTE	SECTION	COUNTY	TOTAL SHE	ET.
CHECKED - JSB		ENGINEER OF STRUCTURAL SERVICES		STATE OF ILLINOIS	SN 008-0033	646	D2 BDR 2019-2	CARROLL	21 1	2
DRAWN - STEFFEN	PASSED	S. Carl Princey	REVISED -	DEPARTMENT OF TRANSPORTATION	5N 008-0033			CONTRACT	NO 64N26	
CHECKED - JOV JSB		ENGINEER OF RRINGES AND STRUCTURES	— REVISED -		SHEET NO. 5 OF 6 SHEETS		ILLINOIS EED A	ID DROJECT		_

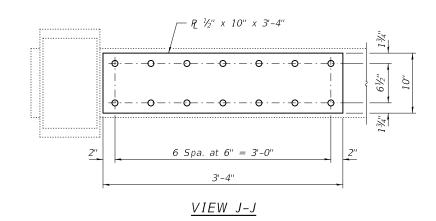






REPAIR B





Notes: For Clip Angle Details, see sheet 5 of 6. Trim diaphragms as required for reinstallation.

#### BOLT HOLE LEGEND

- O Field drill using new steel as template.
- Shop drill holes in new steel.

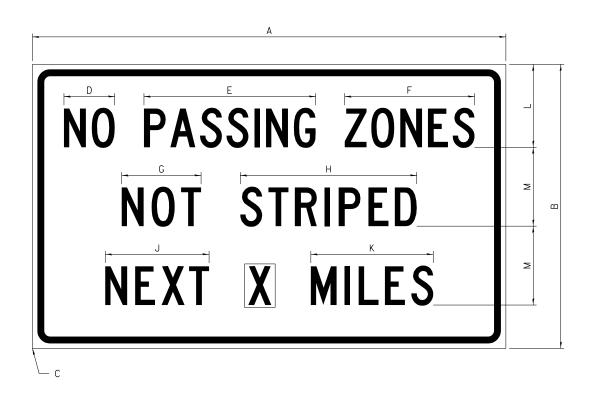
#### BILL OF MATERIAL

Item	Unit	Total	
Structural Steel Repair	Pound	640	

DESIGNED - JOV	EXAMINED	I mote A A I at	DATE - JANUARY 29, 2019		BEAM END REPAIR DETAILS - REPAIR B	F.A. RTE	SECTION	COUNTY SH	OTAL SHEET
CHECKED - JSB		ENGINEER OF STRUCTURAL SERVICES		STATE OF ILLINOIS	SN 008-0033	646	D2 BDR 2019-2	CARROLL	21 13
DRAWN - STEFFEN	PASSED	S. Carl Progrey	REVISED -	DEPARTMENT OF TRANSPORTATION	311 000-0033			CONTRACT N	IO. 64N26
CHECKED - JOV JSB	_	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET NO. 6 OF 6 SHEETS		ILLINOIS FED. A	D PROJECT	

## **WORK ZONE SIGN DETAILS**

#### **ILLINOIS STANDARD G20–I100**



COLOR LEGEND AND BORDER BACKGROUND

BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

CICA	N SIZE					[	DIMEN	SIONS	5				
316	N SIZE	Α	В	С	D	E	F	G	Н	J	K	L	М
60	× 36	60.00	36.00	2.25	6.4	21.80	16.40	10.00	22.40	13.20	15.50	10.50	10.00

SIGN SIZE	SERI	ES BY	LINE	MARGIN	BORDER	
31GN 31ZE	1	2	3	WARGIN	DURDER	
60 × 36	5C	5C	5C	0.625	0.875	

Sign not to scale

#### **GENERAL NOTES**

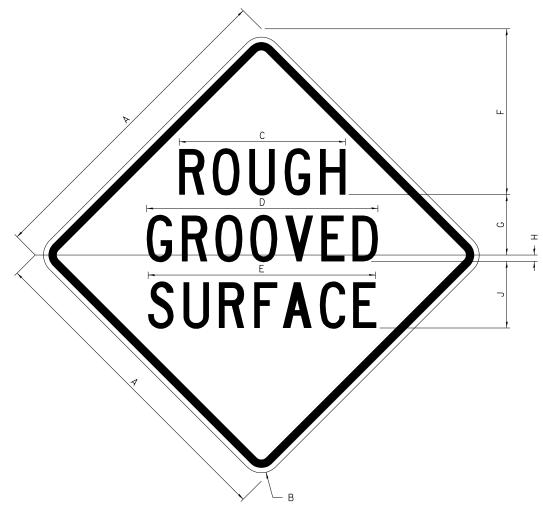
All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

#### **ILLINOIS STANDARD W8–I107**



COLOR LEGEND AND BORDER BACKGROUND

BLACK

NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE		DIMENSIONS											
SIGN SIZE	Α	В	С	D	E	F	G	Н	J				
48 × 48	48.00	3.00	25.00	34.80	34.20	24.94	9.00	1.00	10.00				

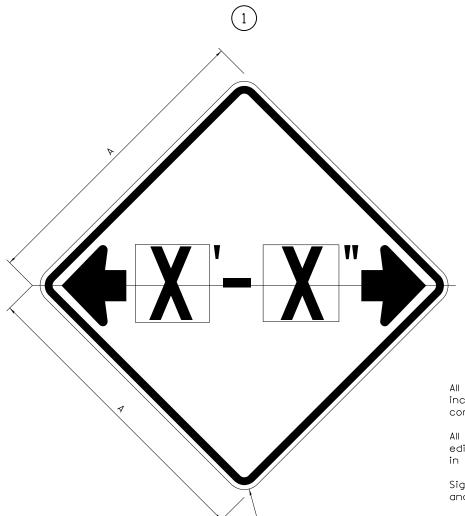
SIGN SIZE	SERI	ES BY	LINE	MARGIN	BORDER	
SIGN SIZE	1	2	3	MARGIN		
48 × 48	7C	7C	7C	1.250	0.750	

Sign not to scale

- 1	FILE NAME =	USER NAME = bartonrw	DESIGNED	REVISED - <u>3-0</u> 2-16			F.A.P.	SECTION	COUNTY	TOTAL SHEE
	pw:\\ILØ84EBIDINTEG.:ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 2\Projects\64N	<b>EDRAMM</b> am Develop <u>ment</u> \Studies & Plans\E	esR&WIS*EDD\CADshee <u>ts\D</u> 2-64N26-sht-details.	3 17112 31 122113313	REGION 2 / DISTRICT 2 STANDARD	646	D2 BDR 2019-2	CARROLL	21 14
		PLOT SCALE = 100.0000 ' / in.	CHECKED	REVISED	DEPARTMENT OF TRANSPORTATION				CONTRAC	T NO. 64N26
		PLOT DATE = Dec-21-2018 10:57:07 AM	DATE	REVISED		SCALE: SHEET NO. 1 OF 4 SHEETS STA TO STA	_ FED. RO	AD DIST. NO ILLINOIS FED.	AID PROJECT	

## **WORK ZONE SIGN DETAILS**

#### **ILLINOIS STANDARD W12–I102**



#### **GENERAL NOTES**

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

LEGEND AND BORDER COLOR BACKGROUND

BLACK FL ORANGE NON-REFLECTORIZED REFLECTORIZED

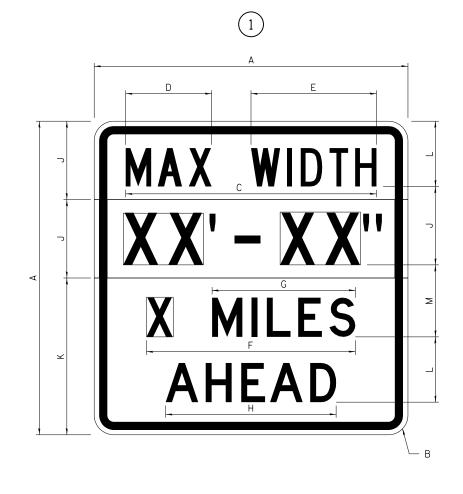
SIGN SIZE	DIMEN	SIONS
SIGN SIZE	А	В
48 × 48	48.00	3.00

 $\bigcirc{1}$  Illinois Standard signs W12-I102 and W12-I103 shall be used as described in the special provisions.

SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
SIGN SIZE	1	MARGIN	DURDER
48 × 48	12C	0.750	1.250

Sign not to scale

#### **ILLINOIS STANDARD W12–I103**



LEGEND AND BORDER BACKGROUND BACKGROUND (WIDTH)

BLACK WHITE FL ORANGE

NON-REFLECTORIZED REFLECTORIZED REFLECTORIZED

SICN SIZE					[	DIMEN	SIONS	5				
SIGN SIZE	Α	В	С	D	E	F	G	Ι	J	K	L	М
48 × 48	48.00	3.00	38.40	13.20	19.20	32.00	22.00	26.20	12.00	24.00	10.00	11.00

SIGN SIZE	S	ERIES	BY LIN	E	MARGIN	BUDDED
31GN 31ZE	1	2	3	4	MARGIN	BORDER
48 × 48	6C	8D	6D	6D	0.750	1.250

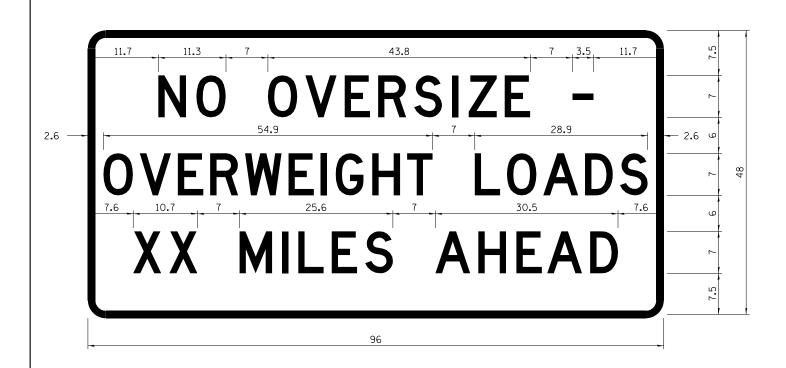
Sign not to scale

XX'-XX'' WIDTH AND X MILES ARE VARIABLE TOP AND BOTTOM OF BACKGROUND WHITE

FILE NAME =	USER NAME = bartonrw	DESIGNED	REVISED - <u>3-0</u> 2-16			
pw:\\ILØ84EBIDINTEG.1ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 2\Projects\64N	26 <b>)RAMM</b> am Develop <u>ment</u> \Studies & Plans\D	e <b>sR&amp;WISⅅ</b> \CADshee <u>ts\D</u> 2-64N26-sht-details	dgn STATE OF ILLINOIS		REGION 2
	PLOT SCALE = 100.0000 ' / in.	CHECKED	REVISED	DEPARTMENT OF TRANSPORTATION		
	PLOT DATE = Dec-21-2018 10:57:18 AM	DATE	REVISED		SCALE:	SHEET NO. 2 OF

## **WORK ZONE SIGN DETAILS**

#### **ROAD CLOSED TO OVERSIZED LOADS**



COLOR

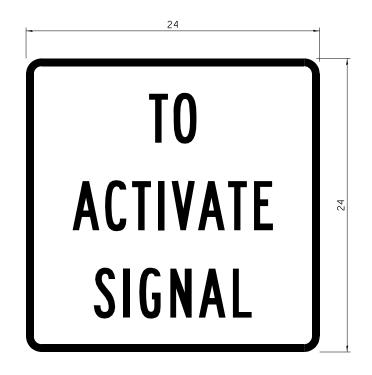
LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

Permit Loads - Loads Over 13 Feet; 3.0" Radius, 1.3" Border; [NO OVERSIZE -] D; [OVERWEIGHT LOADS] D 85% spacing; [XX MILES AHEAD] D; Table of letter and object lefts.

N 11.7	O 18.1	0 30.0	V 36.2	E 42.8	R 48.4	S 54.4	I 60.7	Z 63.5	E 69.5	- 80.8				
0 2.6	V 8.6	E 15.0	R 20.4	<b>W</b> 26.2	E 33.4	I 38.8	G 41.3	H 47.4	T 53.2	L 64.5	0 69 <b>.</b> 9	<b>A</b> 75 <b>.</b> 9	D 82.9	S 88.7
X 7.6	X 13.6	M 25.3	I 32.3	L 35.1	E 40.6	S 46.2	<b>A</b> 57.9	H 65.1	E 71.4	<b>A</b> 76.6	D 83.7			

Sign not to scale

#### STOP LINE SIGN FOR TEMPORARY SIGNALS



COLOR

LEGEND AND BORDER BACKGROUND BLACK WHITE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	SERIES BY LINE						
SIGN SIZE	1	2	3				
24 × 24	4C	4C	4C				

Sign not to scale

#### **GENERAL NOTES**

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

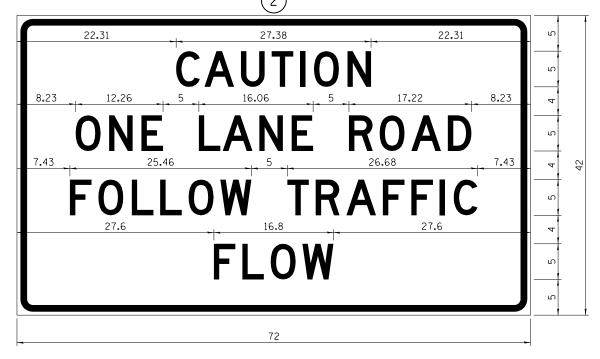
Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

Ī	FILE NAME =	USER NAME = bartonrw	DESIGNED	REVISED - <u>3-02</u> -16					F.A.P.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	pw:\\ILØ84EBIDINTEG.1ll1no1s.gov:PWIDOT\Do			DesRG/ <b>VISEDD</b> \CABshee <u>ts\D</u> 2-64N26-sht-details.	detailedge STATE OF ILLINOIS REGION 2 / DISTRICT 2 STANDARD  DEPARTMENT OF TRANSPORTATION			REGION 2 / DISTRICT 2 STANDARD			CARROLL	21 16
- 1		PLOT SCALE = 100.00000 '/ in.	CHECKED	REVISED							CONTRAC	T NO. 64N26
l		PLOT DATE = Dec-21-2018 10:57:37 AM	DATE	REVISED		SCALE:	SHEET NO. 3 OF 4 SHEETS	STA TO STA	FED. ROAD DIST. NO ILLINOIS FED. A		AID PROJECT	

### **ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS**

## **WORK ZONE SIGN DETAILS**



LEGEND AND BORDER BACKGROUND

BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

2.25" Radius, 0.88" Border, 0.50" IndenT; [CAUTION] D; [ONE LANE ROAD] D; [FOLLOW TRAFFIC] D; [FLOW] D

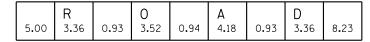
This sign shall be installed at entrances located between the temporary signals as shown in the staging plans.

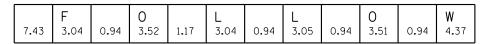
#### **Table Of Widths And Spaces**

22.31	C 3.36	0.62	A 4.18	0.94	U 3.36	0.94	T 3.04	0.94	I 0.78	1.17	0 3 <b>.</b> 52	1.17	N 3.36	22.31	
-------	-----------	------	-----------	------	-----------	------	-----------	------	-----------	------	--------------------	------	-----------	-------	--

	0		Ν		Е
8.23	3 <b>.</b> 51	1.17	3.36	1.18	3.04

5.00 3.05 0.31	<b>A</b> 4.18	0.94	N 3.36	1.17	E 3.05
----------------	------------------	------	-----------	------	-----------



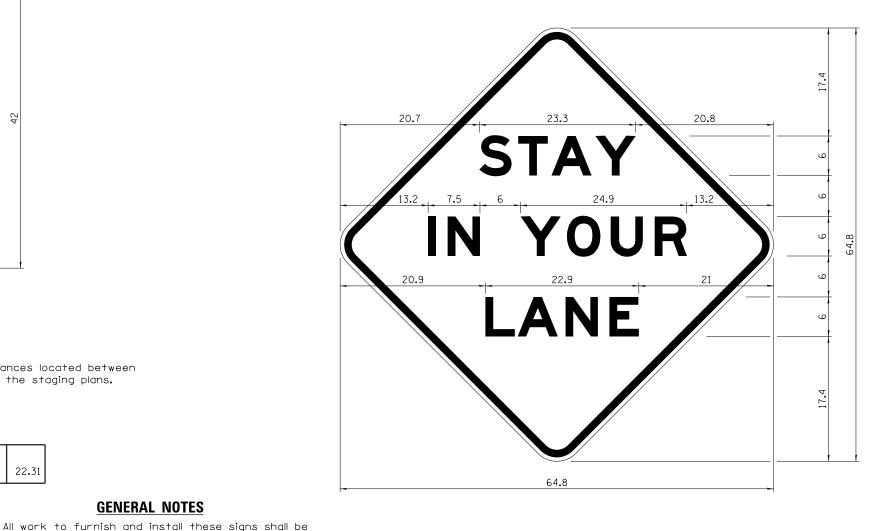


5.00	T 3.05 0.94	R 3.36	0.94	<b>A</b> 4 <b>.</b> 18	0.93	F 3.05	0.94	F 3.04	0.94	I 0.78	1.18	C 3.35	7.43
------	----------------	-----------	------	---------------------------	------	-----------	------	-----------	------	-----------	------	-----------	------

	F		L		0		W	
27.60	3.05	0.94	3.04	0.94	3 <b>.</b> 52	0.93	4.38	27.60

Sign not to scale

## STAY IN YOUR LANE



LEGEND AND BORDER BACKGROUND

BL ACK ORANGE NON-REFLECTORIZED REFLECTORIZED

48.0" across sides 3.8" Radius, 1.0" Border, 0.6" Indent; "STAY" E Mod; "IN YOUR" E Mod; "LANE" E Mod;

#### **Table of Letter and Object Lefts**

S	Т	Α	Υ
20.7	26.8	31.6	38.0

I	N	Υ	0	U	R
13.2	15 <b>.</b> 9	26.7	33.9	40.5	46.8

Ν Ε Α 20.9 25.8 33.1 39.4

Sign not to scale

FILE NAME =	USER NAME = bartonrw	DESIGNED	REVISED - <u>3-02</u> -16		REGION 2 / DISTRICT 2 STANDARD    F.A.P.   SECTION   COUNTY		F.A.P.	SECTION	COUNTY	TOTAL SHEE SHEETS NO.		
pw:\\IL084EBIDINTEG.ıllınoıs.gov:PWIDOT\Do	cuments\IDOT Offices\District 2\Projects\64N	· · · · · · · · · · · · · · · · · · ·	DesRGWISED\CABshee <u>ts\D</u> 2-64N26-sht-details.				CARROLL	21 17				
	PLOT SCALE = 100.00000 '/ in.	CHECKED	REVISED	DEPARTMENT OF TRANSPORTATION			CONTRAC <sup>7</sup>	T NO. 64N26				
	PLOT DATE = Dec-21-2018 10:57:51 AM	DATE	REVISED		SCALE:	SHEET NO. 4 OF 4 SHEETS	STA.	TO STA	FED. ROAD	D DIST. NO ILLINOIS FED. A	D PROJECT	

**GENERAL NOTES** 

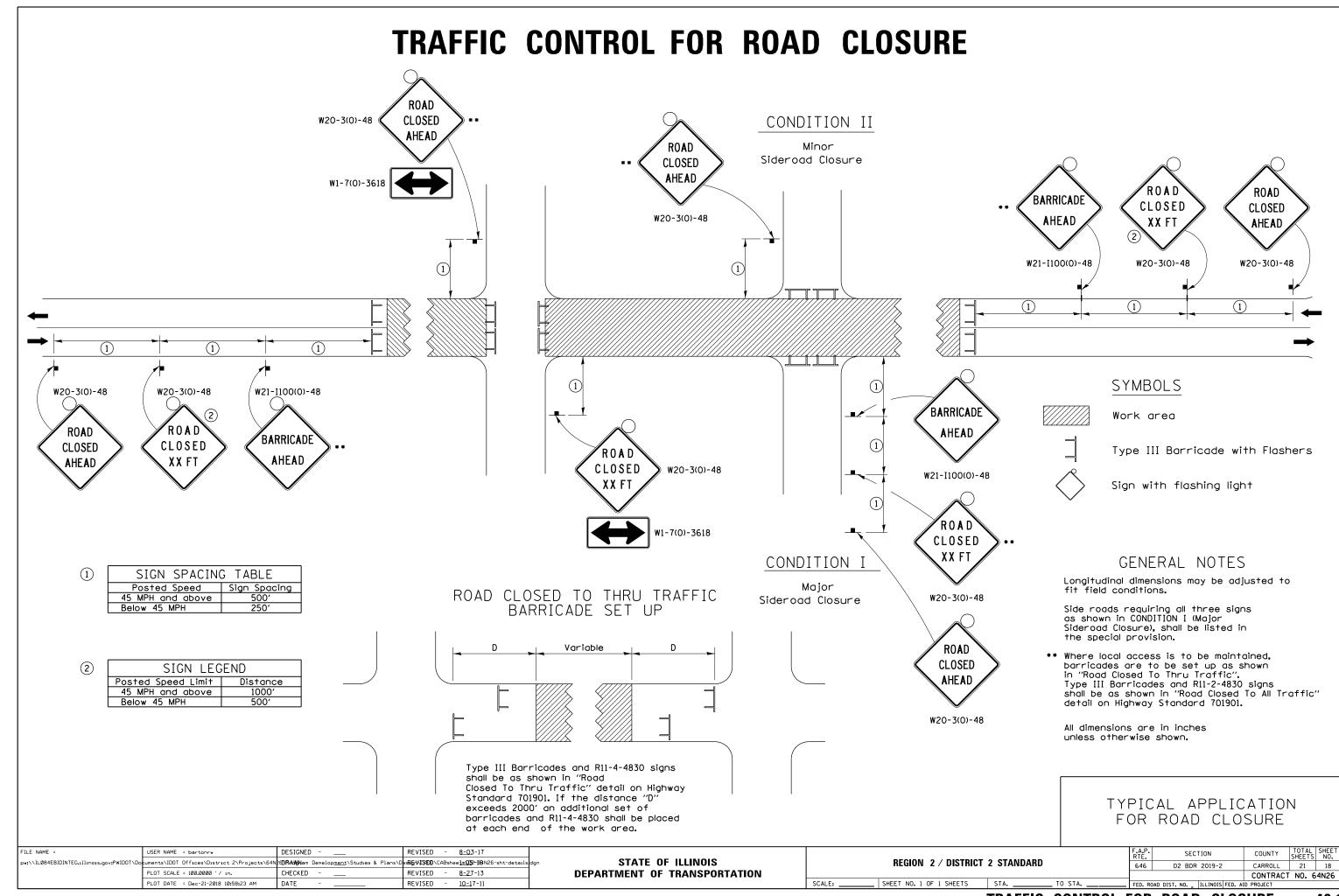
included in the cost of the specified traffic control standards and shall not be paid separately.

and 720 of the Standard Specifications.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701

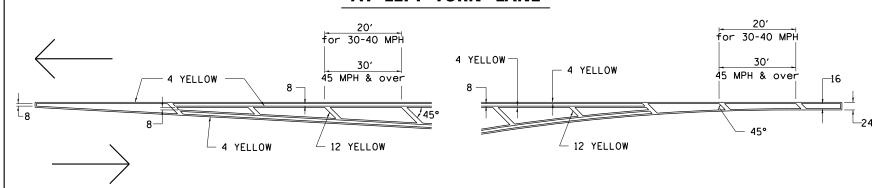
All dimensions are in inches unless otherwise noted.

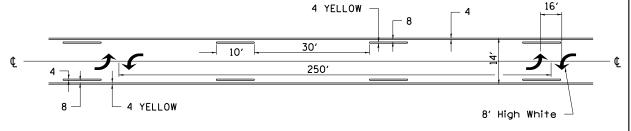


## **TYPICAL PAVEMENT MARKINGS**

#### **MEDIAN PAVEMENT MARKING**

## TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE



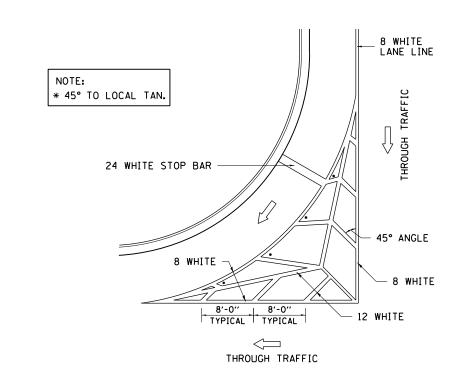


# TYPICAL ISLAND OFFSET SHOULDER WIDTH

# TYPICAL MARKING FOR PAINTED ISLANDS

# 24 WHITE 8 WHITE 5 Diagonals Minimum

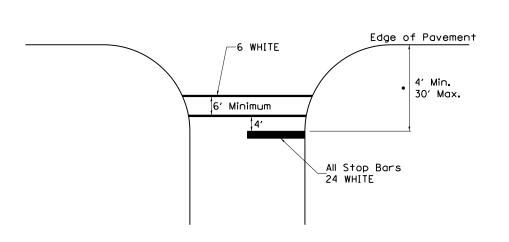
-12 WHITE



#### STANDARD CROSSWALK MARKING

•• ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

See Schedules for Locations



 Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

- 1	FILE NAME =	USER NAME = bartonrw	DESIGNED	REVISED - 6-27-14
-	pw:\\ILØ84EBIDINTEG.:ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 2\Projects\64N	26 <b>).R.A.W.N</b> am Develop <u>ment</u> \Studies & Plans\D	esR&WISADD\CADshee <u>&amp;VD</u> \$-&2N26-sht-details
-		PLOT SCALE = 100.0000 ' / in.	CHECKED	REVISED
		PLOT DATE = Dec-21-2018 10:58:36 AM	DATE	REVISED

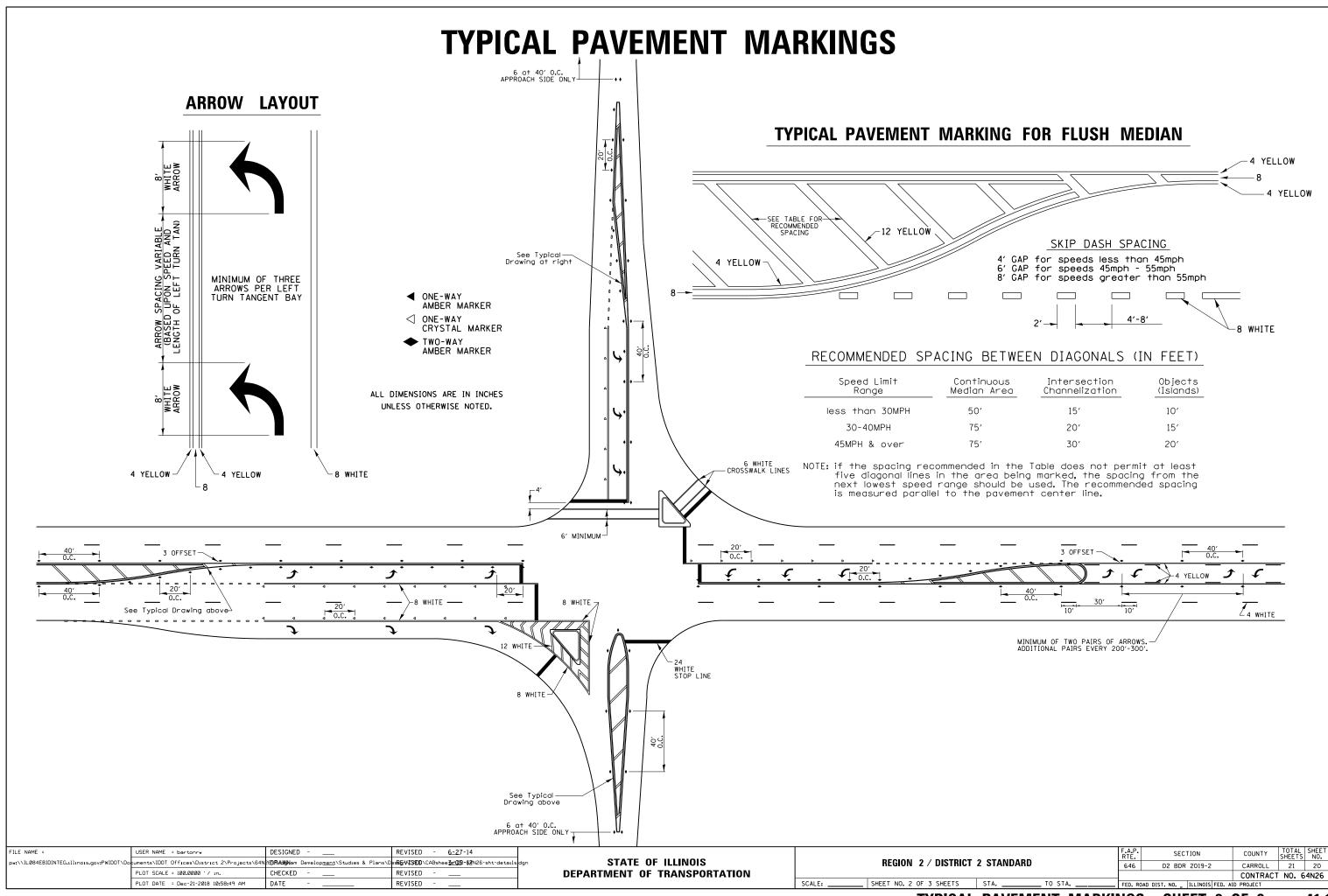
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

 REGION 2 / DISTRICT 2 STANDARD

 CALE: \_\_\_\_\_\_ SHEET NO. 1 OF 3 SHEETS
 STA. \_\_\_\_\_\_ TO STA.

| F.A.P. | SECTION | COUNTY | TOTAL | SHEET |

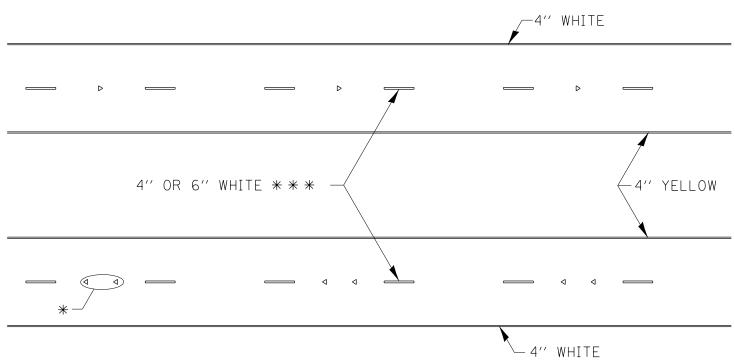
DAD DIST. NO. \_ | ILLINOIS FED. AID PROJEC



## **TYPICAL PAVEMENT MARKINGS**

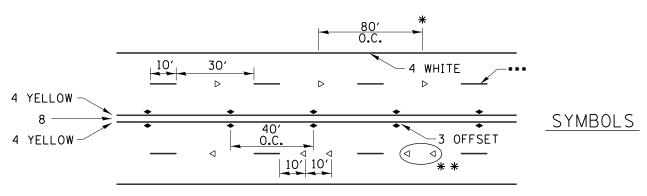
#### TYPICAL PARKING SPACING

22'-25'



\* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS. USE DOUBLE MARKERS WHEN ADT > 20,000.

#### **MULTI-LANE / DIVIDED**



- REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.
- \*\* USE DOUBLE MARKERS WHEN ADT > 20,000
- \*\*\* CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE. SPEED LIMIT 40 MPH AND OVER USE 6" LINE.

#### MULTI-LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

FILE NAME =	USER NAME = bartonrw	DESIGNED	REVISED - <u>6-2</u> 7-14	i
pw:\\ILØ84EBIDINTEG.:1ll:nois.gov:PWIDOT\Do	cuments\IDOT Offices\District 2\Projects\64N	26 <b>)RAMM</b> am Develop <u>ment</u> \Studies & Plans\D	esRGWISADD\CADshee <u>&amp;s\2D</u> 2-63N26-sht-details	dgn
	PLOT SCALE = 100.0000 ' / in.	CHECKED	REVISED - <u>11-2</u> 8-12	l
	PLOT DATE = Dec-21-2018 10:59:06 AM	DATE	REVISED	1

## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:

REGION	2 / DISTRICT	2 STANDARD	
SHEET NO 3	OE 3 CHEETS	STA	TΛ

A WHITE  -20'  -20
22'-25'  WHITE  12
20' Min.————————————————————————————————————

#### TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES

No Parking Zone

