CONSTRUCTION CODE

\* SPECIALTY ITEMS

REVISED SHEET 4/20/2022

REVISED SHEET 4/11/2022



USER NAME = jdavis	DESIGNED	-	JD	REVISED	-
	DRAWN	-	JD	REVISED	-
PLOT SCALE = 2.0000 ' / in.	CHECKED	-	JMT	REVISED	-
PLOT DATE = 2/4/2022	DATE	-	01/21/2022	REVISED	-

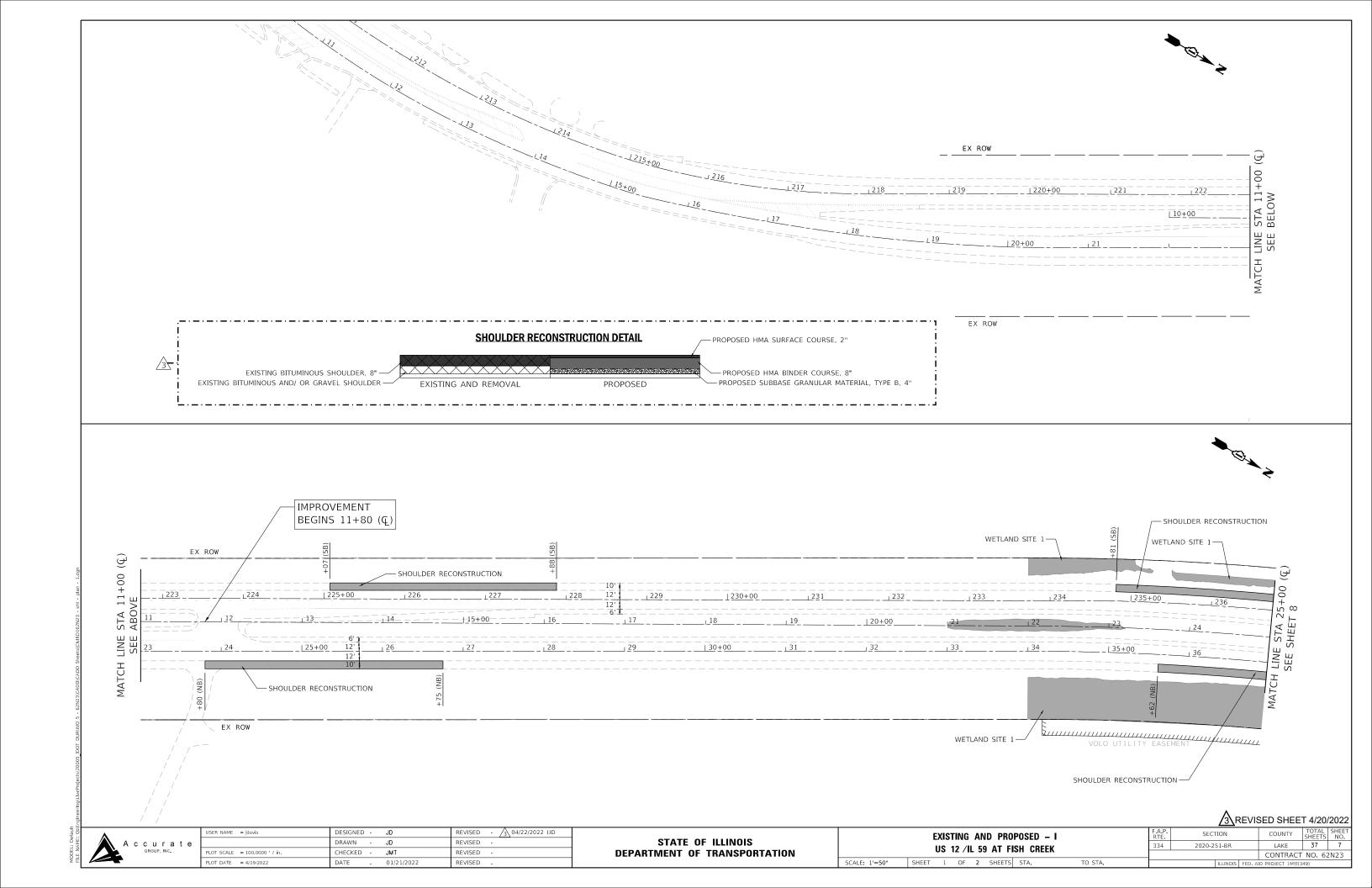
\* SPECIALTY ITEMS

REVISED SHEET 4/20/2022



USER NAME = jdavis	DESIGNED -	JD	REVISED -
	DRAWN -	JD	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	JMT	REVISED -
PLOT DATE = 2/4/2022	DATE -	01/21/2022	REVISED -
-			

CONSTRUCTION CODE



Benchmark: Top of NW wingwall Elev. 766.45'. Existing Structures: Concrete Slab Bridge S.N. 049-0021 was constructed in 1928 under Section 106B-1 The existing structure is a single span, 15.5" max. reinforced concrete slab supported by closed reinforced concrete abutments on reinforced concrete bents with piles. The bridge length is 22'-0" back-to-back of abutments and width is 46'-2" out-to-out of deck. Land Bridge No. 2 Northbound S.N. 049-D012 was originally constructed in 1962 under Section 106-1 and widened in 1991 under Section 106(1&2)RS-84. The existing structure is a 7 unit, 22 span, 11" reinforced concrete slab on reinforced concrete bents with piles. The land bridge length is ±565'-0" and width is 40'-0". Land Bridge No. 2 Southbound S.N. 049-D015 was originally constructed in 1962 under Section 106-1 and widened in 1991 under Section 106(1&2)RS-84. The existing structure is a 4 unit, 13 span, 11" reinforced concrete slab on reinforced concrete bents with piles. The land bridge length is ±339'-0" and width is 40'-0". Land Bridge No. 3 Northbound S.N. 049-D011 was originally constructed in 1962 under Section 106-1 and widened in 1991 under Section 106(1&2)RS-84. The existing structure is a 13 unit, 35 span, 11" reinforced concrete slab on reinforced concrete bents with piles. The land bridge length is ±887'-0" and width is 40'-0". Land Bridge No. 3 Southbound S.N. 049-D014 was originally constructed in 1962 under Section 106-1 and widened in 1991 under Section 106(1&2)RS-84. The existing structure is a 9 unit, 27 span, 11" reinforced concrete slab on reinforced concrete bents with piles. The land bridge length is ±693'-0" and width is 40'-0". The structures are to be repaired as shown, and one lane of traffic will be maintained using staged construction. Salvage: N/A. 230<del>+</del>00 Stage I Construction ₁30+0Ò 12' Lanes-Stage II Construction LAND BRIDGE NO. 3 - PLAN Northbound S.N. 049-D011

Southbound S.N. 049-D014 G SB Rdwy. Stage II 10' Shldr Construction 245+00 12' Lanes← 240+00 \_\_\_\_\_\_\_**\_\_\_\_\_\_** Stage I └ 6' Shldr Stage I Construction Construction 45+00 712' Lanes 40+00 **→** *RWB-2* - & NB Rdwy Existing S.N. 049-0021-Stage II to be adandoned. Stone Riprap Construction Class A3, typ. Existing aerial utility LAND BRIDGE NO. 2 - PLAN

& SB Rdwy.

@ NB Rdwy

-Project Location N. Fox Lake Rd Volo Village Rd. -IL Rte 60

Range 9E, 3rd P.M.

Northbound S.N. 049-D012 Southbound S.N. 049-D015

LOCATION SKETCH

.. 081-006358 LICENSED

Brandon Bossel DATE: 12/8/2021

LICENSE EXPIRES 11/30/22

/3\ REVISED SHEET 4/20/2022

Stage II

Construction

Stage I

Construction

GENERAL PLAN AND ELEVATION US ROUTE 12 / IL. ROUTE 59 AT FISH CREEK F.A.P. RT. 334 SEC. 2020-251-BR LAKE COUNTY

PROPOSED SCOPE OF WORK - LAND BRIDGES

2. Scarify additional depth as needed (see Sheet 5 of 9).

6. Remove and replace preformed joint seals. 7. Diamond grinding and longitudinal grooving of overlay

on lanes (up to  $\frac{1}{4}$ " may be ground off the overlay).

PROPOSED SCOPE OF WORK - S.N. 049-0021

4. Perform Partial Depth Patching (Special) as needed.

3. Perform partial depth deck slab repairs.

5. Place 21/3" Latex Concrete Overlay.

8. Bridge Deck Grooving on shoulders.

2. Remove & dispose of unsuitable material.

3. Install two 60" dia. polyethylene pipes.

6. Regrade and clean existing culvert.

4. Place Lightweight Cellular Concrete Fill.

7. Place riprap at upstream and downstream ends.

1. Repair existing wingwalls.

5. Construct concrete facing.

235+00

35+00

1. Scarify decks 21/4".

STATION 44+54.85

STRUCTURE NO. 049-D011(NB) & 049-D014(SB) STRUCTURE NO. 049-D012(NB) & 049-D015(SB) STRUCTURE NO. 049-0021 (TO BE ABANDONED)

BAXTER WOODMAN

SER NAME = 611blb DESIGNED -BAB REVISED - 3 4/19/22 BLB DRAWN BAB REVISED HECKED BLB REVISED LOT DATE = 4/19/2022 DATE 1/21/2022 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

**GENERAL PLAN** US 12 /IL 59 AT FISH CREEK SHEET 1 OF 9 SHEETS

SECTION LAKE 37 23 334 2020-251-BR CONTRACT NO. 62N23

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

for Highway Bridges

Existing aerial utility

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#### GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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.

Layout of riprap may be varied to suit ground conditions in the field as directed by the Engineer.

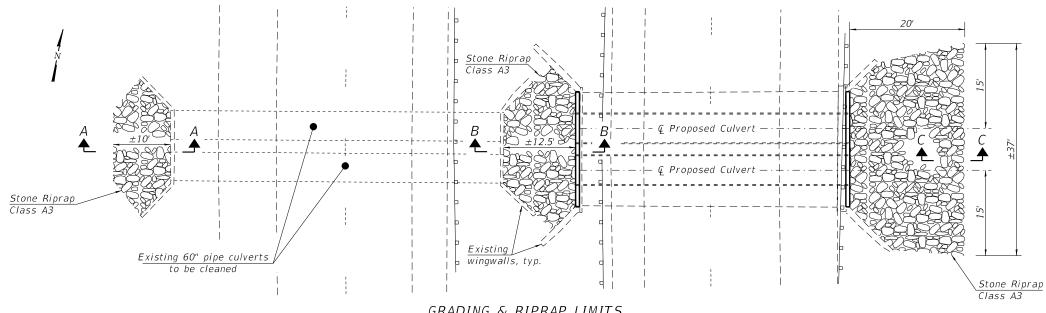
2½" Latex Concrete Overlay thickness is prior to grinding.

#### INDEX OF SHEETS

- 1. General Plan 2. General Data
- 3. Stage Construction Details
- 4. Slab Bridge Details
- 5. Latex Concrete Overlay Details
- 6. Land Bridge No. 2 Deck Slab Repairs
- 7. Land Bridge No. 3 Southbound Deck Slab Repairs 8. Land Bridge No. 3 Northbound - Deck Slab Repairs
- 9. Soil Borings

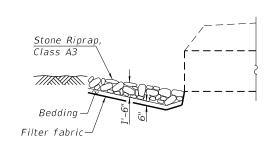
#### TOTAL BILL OF MATERIAL

				DI	RY LAND	BRIDG	ES	
ITEM	UNIT	TOTAL	SN 049-0021	#2 NB	#2 SB	#3 NB	#3 SB	
Removal and Disposal of Unsuitable Material	Cu Yd	379	379					
Stone Riprap, Class A3	Sq Yd	122	122					
Filter Fabric	Sq Yd	122	122					
Concrete Structures	Cu Yd	9.5	9. <u>5</u>					
Bridge Deck Grooving	Sq Yd	: 4,416		1,004	603	1,577	1,232	<del>/</del> .
Reinforcement Bars, Epoxy Coated	Pound	2,510	2,510	I . — . — .		I		_
Preformed Joint Seal, 2 1/2"	Foot	1,440		320	200	520	400	
Pipe Culverts, Class C, Type 1 60"	Foot	96	96					
Lightweight Cellular Concrete Fill	Cu Yd	319	319					
Pipe Culvert to be Cleaned 60"	Foot	116	116					
Bridge Deck Scarification 2 1/4 Inch	Sq Yd	11,042		2,511	1,507	3,943	3,081	
Bridge Deck Latex Concrete Overlay, 2 1/2 Inches	Sq Yd	11,042		2,511	1,507	3,943	3,081	
Structural Repair of Concrete (Depth Equal to or less than 5 Inches)	Sq Ft	40	40					
Partial Depth Patching (Special)	Sq Yd	811		377	227	103	104	
Diamond Grinding (Bridge Section)	Sq Yd	6,839		1,560	958	2,419	1,902	
Bridge Deck Grooving (Longitudinal)	Sq Yd	6,626		1,507	904	2,366	1,849	



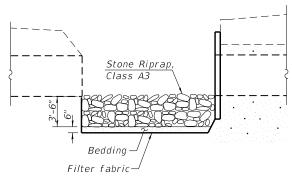
#### GRADING & RIPRAP LIMITS

Excavation for riprap to the limits shown will be measured and paid for as Removal and Disposal of Unsuitable Material.



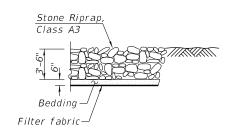
#### SECTION A-A

Match grade at existing pipe invert and existing ground



#### SECTION B-B

Match grade to existing



### SECTION C-C

Match grade at new pipe invert and existing ground

### WATERWAY INFORMATION

Drainage Area = 48.7 acres Low Grade Elev. 766.13 @ Sta. 32+06									
Flood	Freq.	Q	Opening Ft <sup>2</sup>		Nat.	Head - Ft.		Headwater El.	
F1000	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
	10	57	26.3	23.6	759.5	0.1	0.0	759.6	759.5
Design	50	109	36.3	28.4	760.0	0.2	0.0	760.2	760.0
Base	100	138	37.4	29.4	760.1	0.2	0.1	760.3	760.2
Max. Calc.	500	227	48.3	33.6	760.6	0.4	0.8	761.0	761.4

2-year peak flow = 11.3 C.F.S.

& proposed pipe inverts

3 REVISED SHEET 4/20/2022

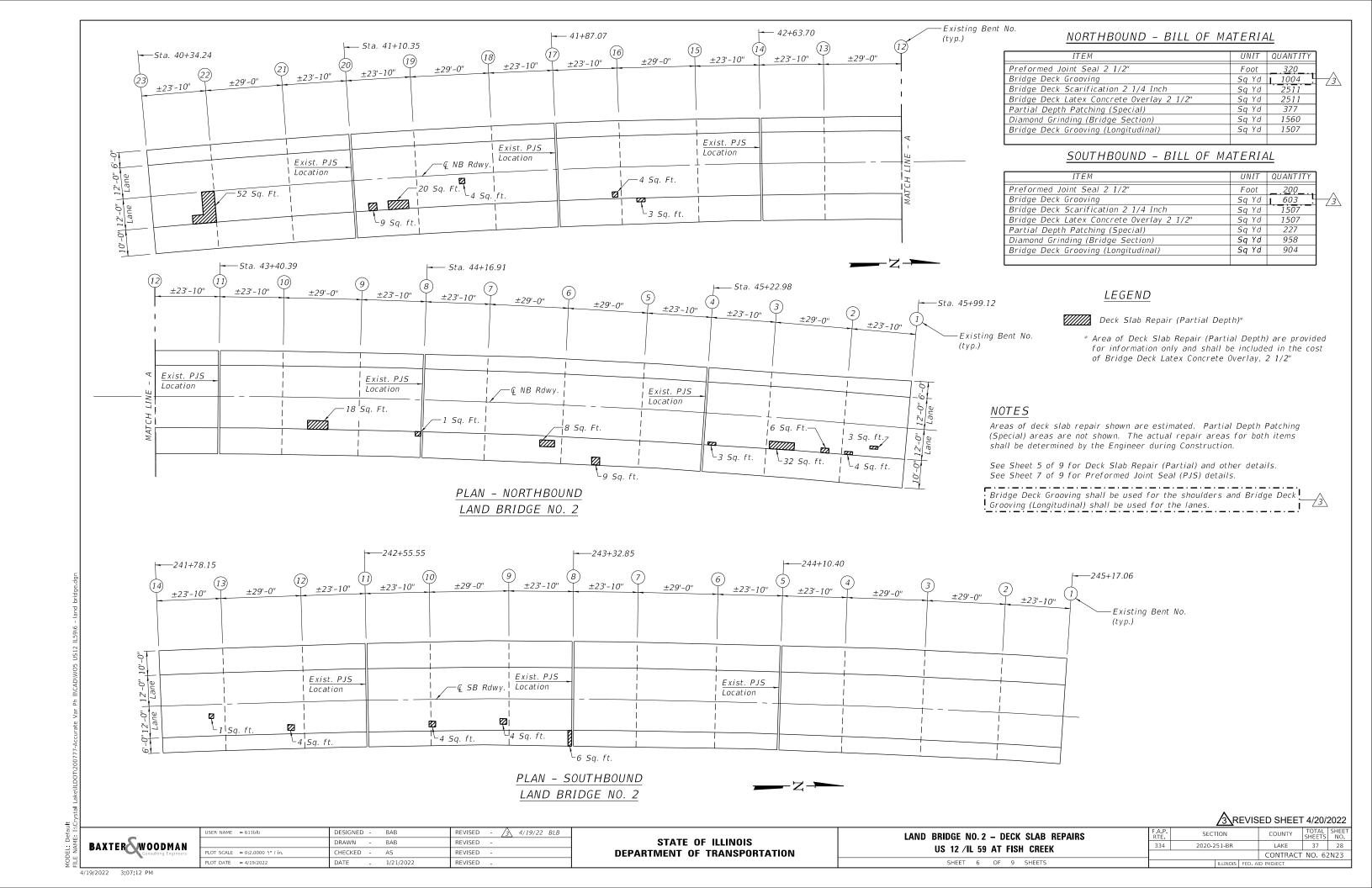
SER NAME = 611blb DESIGNED - BLB REVISED - <u>3</u> 4/19/22 BLB DRAWN -BLB REVISED HECKED -BAB REVISED PLOT DATE = 4/19/2022 DATE 1/21/2022 REVISED

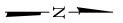
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

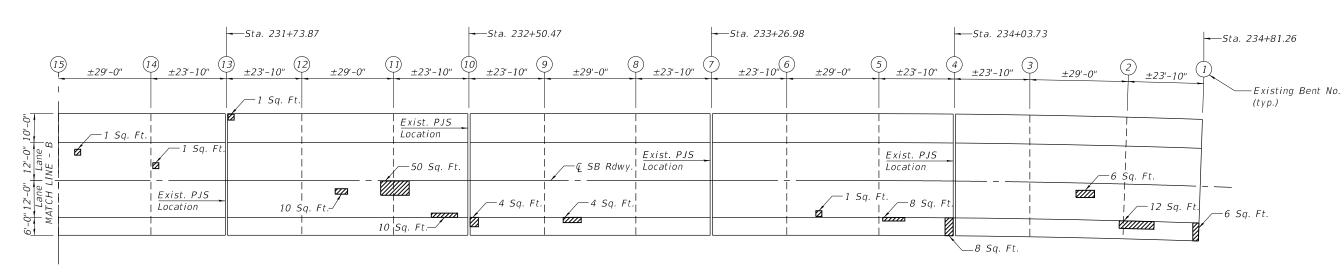
SECTION **GENERAL DATA** 334 2020-251-BR LAKE 37 24 US 12 /IL 59 AT FISH CREEK CONTRACT NO. 62N23 SHEET 2 OF 9 SHEETS

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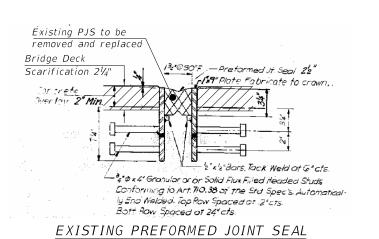
BAXTER WOODMAN







PLAN - SOUTHBOUND LAND BRIDGE NO. 3



(FOR INFORMATION ONLY)

### 1¾" @ 50° F. Proposed Preformed Joint Seal, 21/2" Proposed Latex 1/2" (Prior to grinding) Concrete Overlay Existing steel plates & studs | to remain PROPOSED PREFORMED JOINT SEAL

#### NOTES

Areas of deck slab repair shown are estimated. Partial Depth Patching (Special) areas are not shown. The actual repair areas for both items shall be determined by the Engineer during

See Sheet 5 of 9 for Deck Slab Repair (Partial) and other details.

Bridge Deck Grooving shall be used for the shoulders and Bridge Deck Grooving (Longitudinal) shall be used for the lanes.

#### SOUTHBOUND - BILL OF MATERIAL

ITEM	UNIT	QUANTITY	]
Preformed Joint Seal 2 1/2"	Foot	_40 <u>0</u> .	1
Bridge Deck Grooving	Sq Yd	1232 ─	-
Bridge Deck Scarification 2 1/4 Inch	Sq Yd	3081	l ~
Bridge Deck Latex Concrete Overlay 2 1/2"	Sq Yd	3081	
Partial Depth Patching (Special)	Sq Yd	104	1
Diamond Grinding (Bridge Section)	Sq Yd	1902	
Bridge Deck Grooving (Longitudinal)	Sq Yd	1849	

#### LEGEND



Deck Slab Repair (Partial Depth)\*

\* Area of Deck Slab Repair (Partial Depth) are provided for information only and shall be included in the cost of Bridge Deck Latex Concrete Overlay, 2 1/2"

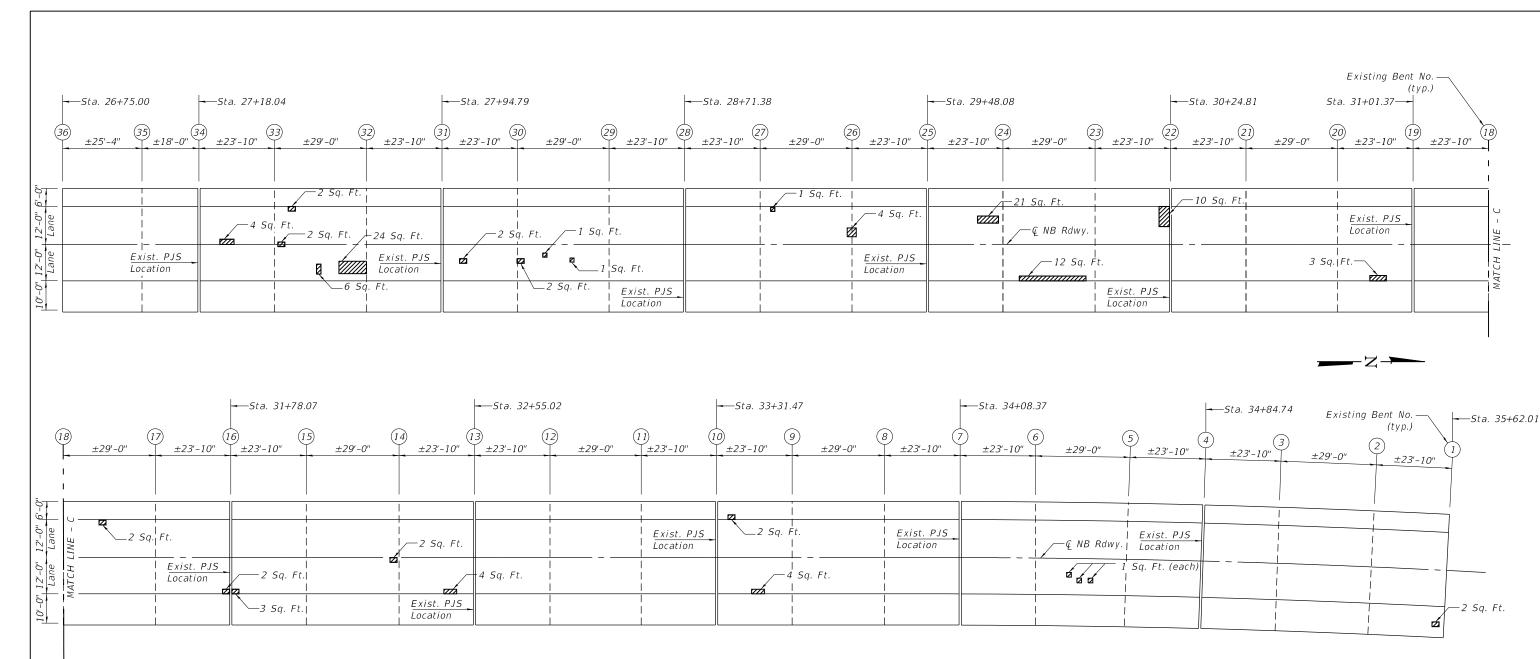
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JSER NAME = 611blb DESIGNED - BAB REVISED - /3 4/19/22 BLB DRAWN -BAB REVISED HECKED -AS REVISED PLOT DATE = 4/19/2022 DATE REVISED 1/21/2022

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  LAND BRIDGE NO. 3 SOUTHBOUND - DECK SLAB REPAIRS US 12 /IL 59 AT FISH CREEK SHEET 7 OF 9 SHEETS

SECTION COUNTY 334 2020-251-BR LAKE 37 29 CONTRACT NO. 62N23



### PLAN - NORTHBOUND LAND BRIDGE NO. 3

### Existing PJS to be removed and replaced Bridge Deck Scarification 21/4" 13. @50°F .—Preformed Jt. Seal 22" 1.9" Plate Fabricate to crown. "x'z'Bars,Tack Weld at G"cts. -3, 0 x 4" Granular or or Solid Flux Filled Headed Studs Conforming to Art 710.38 of the Std Spec's Automatical ly End Nelded. Top Pow Spaced at 2'crs. Bott Row Spaced at 24"cts.

# EXISTING PREFORMED JOINT SEAL (FOR INFORMATION ONLY)

## 1¾" @ 50° F. Proposed Preformed Joint Seal, 21/2" Proposed Latex Concrete Overlay 1/2" (Prior to grinding) Existing steel plates & studs to remain

PROPOSED PREFORMED JOINT SEAL

#### NOTES

Areas of deck slab repair shown are estimated. Partial Depth Patching (Special) areas are not shown. The actual repair areas for both items shall be determined by the Engineer during Construction.

See Sheet 5 of 9 for Deck Slab Repair (Partial) and other details.

Bridge Deck Grooving shall be used for the shoulders for the lanes.

#### NORTHBOUND - BILL OF MATERIAL

ITEM	UNIT	QUANTITY	
Preformed Joint Seal 2 1/2"	Foot	<u>520</u>	
Bridge Deck Grooving	Sq Yd	. 1577	<del>-/</del> 3\
Bridge Deck Scarification 2 1/4 Inch	Sq Yd	3943	
Bridge Deck Latex Concrete Overlay 2 1/2"	Sq Yd	3943	
Partial Depth Patching (Special)	Sq Yd	103	
Diamond Grinding (Bridge Section)	Sq Yd	2419	
Bridge Deck Grooving (Longitudinal)	Sq Yd	2366	

### LEGEND

Deck Slab Repair (Partial Depth)\*

\* Area of Deck Slab Repair (Partial Depth) are provided for information only and shall be included in the cost of Bridge Deck Latex Concrete Overlay, 2 1/2"

3 REVISED SHEET 4/20/2022



DESIGNED - BAB REVISED - 3 4/19/22 BLB DRAWN -BAB REVISED HECKED -AS REVISED PLOT DATE = 4/19/2022 DATE 1/21/2022 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  LAND BRIDGE NO. 3 NORTHBOUND - DECK SLAB REPAIRS US 12 /IL 59 AT FISH CREEK SHEET 8 OF 9 SHEETS

SECTION 334 2020-251-BR LAKE 37 30 CONTRACT NO. 62N23