# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

... EXPANSION JOINT TREATMENT

South Abut.

630'

130'

15'-3"

**€** Eastbound Lane

South Abut.

sta. 409+18.70

sta. 409+18.70

—⊈ Westbound Lane

<u>NEW</u> ELASTOMERIC BEARINGS

Floor Drain Extension (Typ.)

Sta.\_408+61.70 (FAI 24) =

Sta. 10+00.00 (T.R. 102)

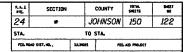
sta. 408+85.45

€ F.A.I. 24

Floor Drain Extension (Typ.)

sta. 408+85.45

© Pier #2



\* BSMART FY04-3 98836

#### **GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the 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 shall conform to the requirements of AASHTO M-31, or M-322 Grade 60.

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.

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 painted prior to erection as required by the Special Provision "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 Acrylic finish coat shall be Interstate Green, Munsell # 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50 F.

All structural steel shall conform to AASHTO M270 Grade 36.

## Sequence of Construction

- 1. Scarify and Resurface existing shoulders
- 2. Remove Stage I Areas

Bituminous Surface Removal 1" &

-Bituminous Shoulder, Superpave, 2" See

Roadway Plans for quantities (Typ.)

- 3. Perform Stage I Repairs and Overlay
- 4. Remove Stage II Areas
- 5. Perform Stage II Repairs and Overlay

#### Design Stresses

Field Units

New Construction

f'<sub>c</sub> = 3,500 psi

 $f_v = 60,000 \text{ psi (reinforcement)}$ 

### Existing Structure

 $f_{C} = 1,200 \text{ psi (hatchblock)}$ 

 $f_s = 20,000 \text{ psi (reinforcement)}$ 

## TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL	0041	0042
Concrete Bridge Deck Scarification (1/2 inch)	Sq. Yd.	933	466.5	466.5
Deck Slab Repair (Partial Depth)	Sq. Yd.	20	10	10
Plug Existing Deck Drains	Each	24	12	12
Bridge Deck Microsilica Concrete Overlay 24"	Sq. Yd.	933	466.5	466.5
Jack and Remove Existing Bearings	Each	36	18	18
Furnishing and Erecting Structural Steel	Pound	6370	3185	3185
Elastomeric Bearing Assembly, Type I	Each	36	18	18
Concrete Removal	Cu. Yd.	8.3	4.15	4.15
Reinforcement Bars, Epoxy Coated	Pound	950	475	475
Bar Splicers	Each	16	8	8
Concrete Superstructure	Cu. Yd.	9.2	4.6	4.6
Polymer Concrete	Cu. Ft.	<i>1</i> 5.5	7.75	7.75
Silicone Joint Sealer 1 <sup>1</sup> 2"	Foot	160	80	80
Bridge Deck Grooving	Sa. Yd.	884	442	442
Floor Drain Extension	Each	16	8	8

## Scope of Work

Scarify existing ±9" thick bituminous shoulders and resurface with bituminous shoulder.

Scarify existing bare deck Partial depth deck patching Eliminate drains within 10' of abutments and piers

Microsilica Concrete Overlay Expansion Joint Treatment

Replace bearings at abutments and Pier 2
Extend drains

DESIGNED	TWH MAS
CHECKED	MAS
DRAWN	JH TEB
CHECKED	MAS

10'

EXPANSION JOINT /

Plug Existing Deck Drains (Typ.)

Plug Existing Deck Drains (Typ.)

660'

5'-3"

North Abut.

/sta. 408+05.70

North Abut.

sta. 408+05.70

sta. 408+38.95

€ Pier #1

**€** Pier #1

sta. 408+38.95

PLAN

ELEVATION

113'-0" Bk. to Bk. Abuts

GENERAL PLAN AND ELEVATION
FAI 24 OVER T.R. 102
JOHNSON COUNTY
STA. 408+61.70
S.N. 044-0041 (EB)
S.N. 044-0042 (WB)