Table Showing S2 Bar Lengths				
Int. Bei	nt No. 2	Int. Bent No. 3		
Span 1	Span 2	Span 2	Span 3	
'"	'"	'"	'"	

Required For Bar	Lap Length Splices **		
Bar Size	Splice Length		
4	2'-7"		
5	3'-3"		
6	3'-10"		
7	4 11		

** Unless otherwise shown.

General Notes:

Design Specifications: 2002 AASHTO LFD (17th Ed.) Standard Specifications Seismic Performance Category A

Design Loading:

HS(19) (Existing) HS20-44 (New Construction)	
35 lb/sf Future Wearing Surface	
Earth - 120 lb/cf, Equivalent Fluid Pressure 45 Eatique Stress - Case III	b lb/ct
Fatigue Stress - Case III	

Design Unit Stresses:

Class B-1 Concrete (Barrier)	f'c = 4,000 psi
Class B-2 Concrete (End Bents & Superstructure,	(1 000 ·
except Barrier)	f c = 4,000 ps
Reinforcing Steel (ASTM A615 Grade 60)	fy = 60,000 psi

Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Miscellaneous:

Protective coating for concrete bents and piers (Urethane or Epoxy) shall be applied as shown on the bridge plans and in accordance with Sec 711.

Bars bonded in existing concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, existing bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.

Roadway surfacing adjacent to bridge ends shall match new bridge slab surface. (Roadway item)

Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

Contractor shall verify all dimensions in field before finalizing the 5 shop drawings.

The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved qualified special mortar in accordance with Sec 704.

Rubblized concrete from the existing bridge deck that qualifies as clean fill may be placed on spill slopes at end bents above ordinary high water line (Roadway item).

For adjusted girder deflection due to the weight of the new deck and barriers, see Bridge Electronic Deliverables.

Traffic Handling:

<u>Structure to be closed during construction</u>. Traffic to be maintained on <u>uning construction</u>. See roadway plans for traffic control and Sheet No. <u>for staged construction details</u>.





DETAIL A



,			
			DATE PREPARED
			ROUTE STATE MO
			JOB NO.
			CONTRACT ID.
			PROJECT NO.
			BRIDGE NO.
			NOIL
ations			SCRIP
	Const It		DEG
(
e 45 lb/cf		Estimated Quantities	
		Item Total Removal of Existing Bridge Deck sq. foot X	DATE
f'c = 4,000 psi	€ 3/4" Drip	Partial Removal of Substructure Concrete lump sum 1 Slab on Steel sq. yard X	ON 102
fy = 60,000 psi	Groove (Typ.)	Type D Barrier linear foot X Protective Coating - Concrete Bents and Piers (Urethane) lump sum 1	TATI CAPI
n Sec 1057 for ion joint filler,	DETAIL B	Shear Connectors each X Slab Drain each X	SPOR WEST WEST
	د Boadway		N N N N N N N N N N N N N N N N N N N
be 1 1/2", unless	Cross Slope Profile Grade 3/16" per ft. Profile Grade (Match exist.±)		AND SSIO
ers	Top of Slab	Cost of any required excavation for bridge will be considered completely covered by the contract unit price for other items.	AYS
vn on the bridge			
l shall be cleanly e possible. If	Crown of Slab ! 2'-0"	Estimated Quantities for Slab on Steel Item Total	
end into new concrete at Ameters for deformed	4'-0"	Class B-2 Concrete cu. yard x Reinforcing Steel (Epoxy Coated) pound x	
all match new bridge		The table of Estimated Quantities for Slab on Steel represents the quantities	M M
ht dashed lines. Heavy	DETAIL A	used by the State in preparing the cost estimate for concrete slabs. Ine area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab	
eld before finalizing the (5)	Contractor may shift or swap	(or with the horizontal dimensions as shown on the plan of slab). Payment for stay-in-place corrugated steel forms, conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the	
and not covered with	bars as needed to tie R3 bar in barrier	contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the	
d qualified special	(4" min. bar spacing) —7	Method of forming the slab shall be in accordance with Sec 703. All hardware	
deck that qualifies as end bents above ordinary 2	Contractor may shift	for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness Class SC 4 and a finish Type I, II or III.	
ight of the new deck and	bar as needed to tie R2 bar	Slab shall be cast-in-place with conventional forming or stay-in-place corrugated steel forms. Precast prestressed papels will not be permitted	
	in barrier	For Optional Stay-In-Place Form Details, see Sheet No. 2.	
Traffic to be maintained	OPTIONAL SHIFTING	REPAIRS TO BRIDGE:	
<u>ails</u> .	TOP BARS AT BARRIER	ROUTE * FROM * TO *	
		ABOUT * MILES * OF *	

SEC/SUR

TWP * RGE *

WIDE FLANGE BEAM SPANS		
	DATE	PREPARED
	ROUTE	STATE MO
	DISTRICT	SHEET NO.
	C	OUNTY
	1	OB NO.
	CONT	RACT ID.
	PRO	JECT NO.
	BRI	DGE NO.
	DESCRIPTION	
Estimated Quantities		
oval of Existing Bridge Deck Sq. foot X	DAT	
tial Removal of Substructure Concrete lump sum 1 b on Steel sq. yard X	z	0.0 L
e D Barrier linear foot X tective Coating - Concrete Bents and Piers (Urethane) lump sum 1	ATI-	CAPIT 0 651 5-663
ar Connectors each X	PORT	EST (Υ, MC 8-27]
	ANS	05 W CIT 1-88
	I ON TR	1 BOT (
st of any required excavation for bridge will be considered completely vered by the contract unit price for other items. Estimated Quantities for Slab on Steel	HIGHWAYS AN COMMISS	1 B88 - ASK - MO
ItemTotalClass B-2 Concretecu. yardxReinforcing Steel (Epoxy Coated)poundx	SSOURI	
table of Estimated Quantities for Slab on Steel represents the quantities d by the State in preparing the cost estimate for concrete slabs. The area the concrete slab will be measured to the nearest square yard longitudinally m end of slab to end of slab and transversely from out to out of bridge slab with the horizontal dimensions as shown on the plan of slab). Payment for y-in-place corrugated steel forms, conventional forms, all concrete and xy coated reinforcing steel will be considered completely covered by the tract unit price for the slab. Variations may be encountered in the imated quantities but the variations cannot be used for an adjustment in the tract unit price.		
hod of forming the slab shall be in accordance with Sec 703. All hardware forming the slab to be left in place as a permanent part of the structure II be coated in accordance with ASTM A123 or ASTM B633 with a thickness ss SC 4 and a finish Type I, II or III.		
b shall be cast-in-place with conventional forming or stay-in-place rugated steel forms. Precast prestressed panels will not be permitted.		
Optional Stay-In-Place Form Details, see Sheet No. 2.		
REPAIRS TO BRIDGE: ROUTE * OVER *		
ROUTE * FROM * TO * ABOUT * MILES * OF *		
	-	

REDECK01 front sheet

Guidance & Alternate Details (1 of 7)

Standard Drawing Guidance (do not show on plans): (Turn off level Bridge-Constructions to hide)

(1) Remove if not required; may be incorporated into half section slab details.

(2) Use this note only when specified in Bridge Memo or Design Layout.

③ For skewed bridges, add these items to section details to call out varied transverse bars at end bent

(4) Bar spacing shown is for Type D barrier. Below spacing may be used for Type H barrier.

Roadway	22 feet	22 feet	24 feet	24 feet	26 feet	26 feet
Beam Spa.	4 @ 6'-8"	4 @ 6'-0"	4 @ 6'-10'	4 @ 6'-8"	4 @ 7'-8"	4 @ 7'-4"
Bar Spa.	7 "	7 <u>1</u> "	8"	7 <u>1</u> "	8 "	8 "
Roadway	28 feet	30 feet	32 feet	34 feet	38 feet	
Beam Spa.	4 @ 8'-0"	4 @ 8'-8"	4 @ 9'-4"	5 @ 7'-6"	5 @ 8'-6"	
Bar Spa.	8"	8 "	8"	8"	6"	

(5) Note is required only when shop drawings will be required (For example, expansion device replacement, diaphragm replacement, etc.)



ROCK BLANKET ON SPILL SLOPES

A4a1.9 (Modified)

Use when Rock Blanket is specified on BR Memo

Structural Steel Protective Coating:

Protective Coating: System G in accordance with Sec 1081 except thinners are not permitted.

Surface Preparation: Surface preparation of the existing steel shall be in accordance with Sec 1081 for Overcoating of Structural Steel. The cost of surface preparation will be considered completely covered by the contract <u>lump sum unit</u> price <u>per sq. foot</u> for Surface Preparation for Overcoating Structural Steel (System G). <u>A4a1.22</u>

Field Coat(s): The color of the field overcoat shall be <u>Gray (Federal</u> <u>Standard #26373)</u> Brown (Federal Standard #30045) <u>Black (Federal</u> <u>Standard #17038)</u> <u>Dark Blue (Federal Standard #25052)</u> <u>Bright Blue</u> (Federal Standard #25095) and shall be applied in accordance with Sec 1081.10.3.4, <u>except that all structural steel shall have the</u> <u>intermediate field coat applied in accordance with Sec</u> <u>1081.10.3.4.1.1</u>. The cost of the intermediate field coat will be <u>considered completely covered by the contract lump sum unit price</u> <u>per sq. foot</u> for Intermediate Field Coat (Sytem G). The cost of the finish field coat will be considered completely covered by the contract lump sum unit price per sq. foot for Finish Field Coat A4a1.23 contract <u>lump sum</u> <u>unit</u> price <u>per sq. foot</u> for Finish Field Coat (System G).

(Existing Bearings at End Bents and Int Bents)

Structural Steel Protective Coating:

Protective Coating: System G in accordance with Sec 1081. All existing bearings shall be recoated with System G.

Surface Preparation: Surface preparation of the existing steel shall be in accordance with Sec 1081 for Recoating of A4a1.10 Structural Steel (System G, H or I) with <u>organic inorganic</u> (Modified) zinc primer. The cost of surface preparation will be considered completely covered by the contract unit price for Recoating Existing Bearings

Prime Coat: The cost of the prime coat will be considered completely covered by the contract unit price for Recoating Existing Bearings. Tint of the prime coat for System G shall be similar to the color of the field coat to be used. A4a1.11 (Modified)

Field Coat: The color of the finish field coat shall be Gray (Federal Standard #26373). The cost of the intermediate field A4a1.12 coat will be considered completely covered by the contract unit (Modified) price for Recoating Existing Bearings. The cost of the finish field coat will be considered completely covered by the contract unit price for Recoating Existing Bearings.

Sec 1081.10.4.6 shall be modified such that the word "RECOATED" is replaced by the word "RECOATED - SYSTEM G - BEARINGS ONLY".

Epoxy-Mastic Primer.



A4a1.21



Type H Barrier

(Structures with Exposed Piling)

Structural Steel Protective Coating: A4a3.2 All exposed surfaces of the existing structural steel piles shall be coated with one 6-mil thickness of aluminum gray epoxy-mastic primerapplied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The bituminous coating shall be applied one foot above and one foot below the existing ground line and in accordance with Sec 702. These protective coatings will not be required below the normal low water line. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the aluminum gray epoxy-mastic primer and bituminous coating will be considered completely covered by the contract lump sum price for Aluminum Gray

24' RDWY-4 BEAMS @ 6'-8"



REDECK01_front_sheet Alternate Details (2 of 7)















REDECK01_front_sheet Alternate Details (5 of 7)







REDECK01_front_sheet Alter

Alternate Details (7 of 7)

