

DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HS20
INVENTORY RATING _____ HS-XX
OPERATIONAL RATING _____ HS-XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ XX KIPS

TRAFFIC DATA:

STH 29 _____
A.A.D.T. (2022) = 9,350
A.A.D.T. (2042) = 11,300
CARDINAL AVENUE
A.A.D.T. (2022) = 2,300
A.A.D.T. (2042) = 3,400

MATERIAL PROPERTIES:

CONCRETE MASONRY - OVERLAY DECKS _____ $f'_c = 4,000$ P.S.I.
CONCRETE MASONRY - PARAPET _____ $f'_c = 4,000$ P.S.I.
CONCRETE MASONRY - ALL OTHER _____ $f'_c = 3,500$ P.S.I.

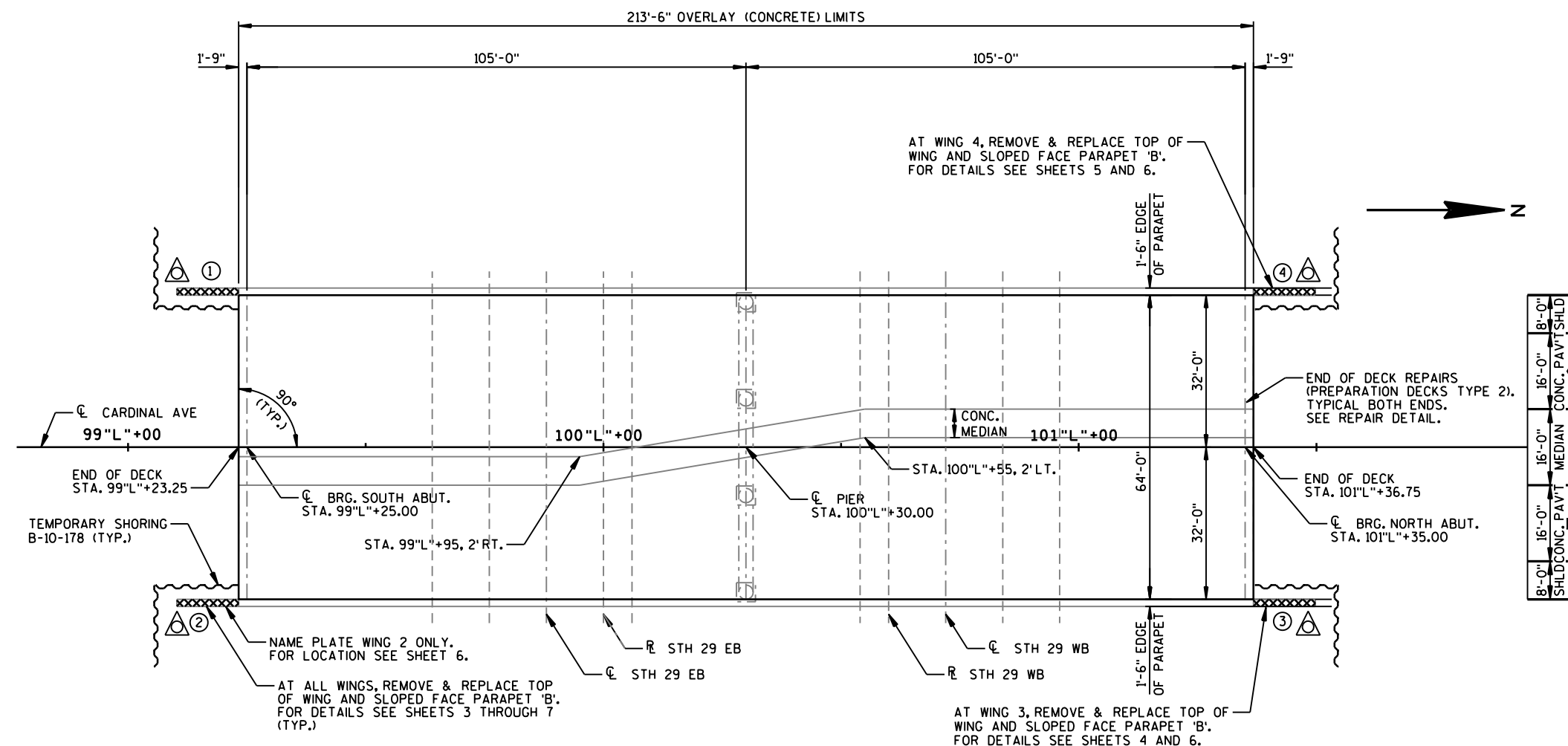
HIGH STRENGTH BAR STEEL
REINFORCEMENT GRADE 60 _____ $f_y = 60,000$ P.S.I.

LIST OF DRAWINGS

1. REHAB GENERAL PLAN
2. TYPICAL SECTION, QUANTITIES & NOTES
3. WING 1, WING TOP REPLACEMENT
4. WING 2, WING TOP REPLACEMENT
5. WING 3, WING TOP REPLACEMENT
6. WING 4, WING TOP REPLACEMENT
7. SLOPED FACE PARAPET 'B'

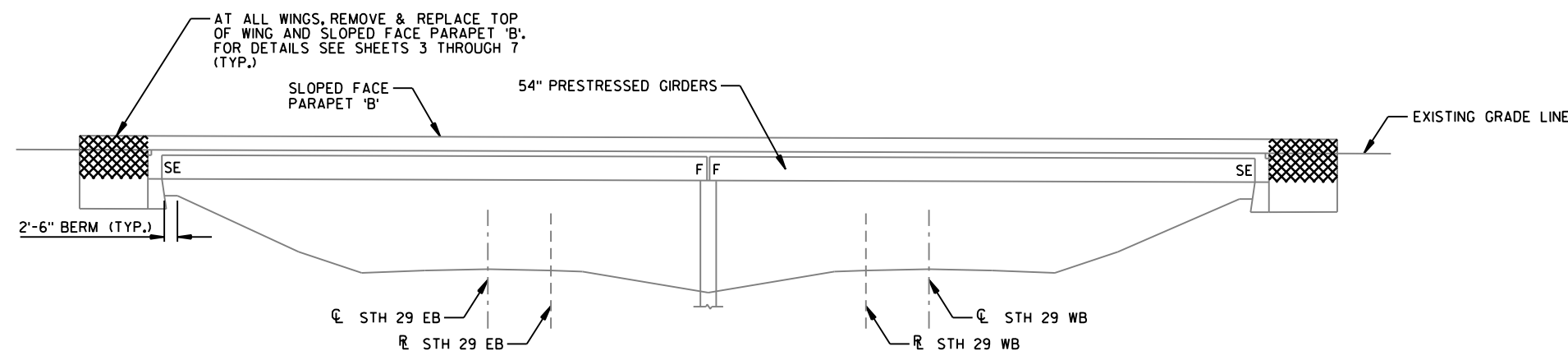
○ — INDICATES WING NUMBER

△ — INDICATES LOCATION OF PROVISION FOR THRIE BEAM GUARD ATTACHMENT
AT WINGS, THE EXISTING THRIE BEAM ATTACHMENT PIECE AT THE WING
TOP REPLACEMENTS SHALL BE SALVAGED AND REINSTALLED.



PLAN

(REHAB - CONCRETE OVERLAY AND WING REPAIRS ON
EXISTING TWO SPAN PRESTRESSED CONCRETE GIRDER)




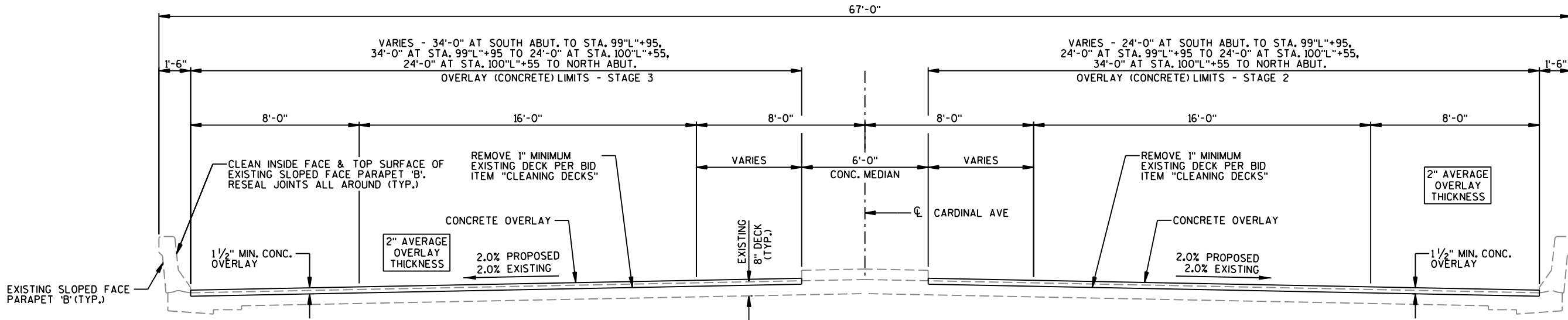
ELEVATION

(LOOKING WEST)

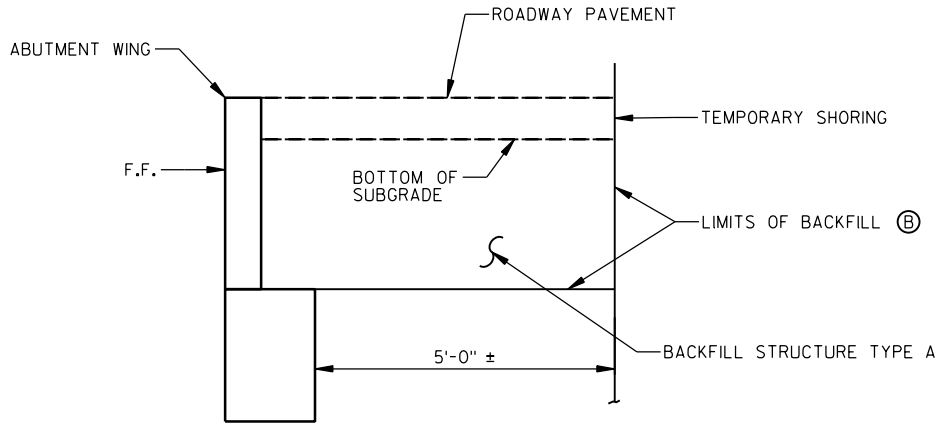
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(608) 216-2063

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WILLIAM DREHER
(608) 266-8489

NO.	DATE	REVISION	BY
 ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL 1702 Parkside St. Madison, WI 53704 (608) 242-7779 www.msa-ps.com © MSA Professional Services, Inc.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE _____			
STRUCTURE B-10-178			
CARDINAL AVENUE OVER STH 29 WB & EB			
COUNTY	CLARK	TOWN/CITY/VILLAGE	GREEN GROVE
DESIGN SPEC. REHABILITATION - N/A			
DESIGNED BY	XXX	DESIGN CK'D. XXX	DRAWN BY SSD PLANS CK'D. KHB
REHAB GENERAL PLAN			SHEET 1 OF 7



CROSS SECTION THRU ROADWAY
(LOOKING NORTH)



STRUCTURE BACKFILL DETAIL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.

IMPROVEMENTS INCLUDE DECK REPAIRS, ABUTMENT SURFACE REPAIRS, REPLACEMENT OF THE WING TOP AND PARAPET AT ALL WINGS, CLEANING PARAPETS, AND CONCRETE DECK OVERLAY.

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-10-178, A TWO SPAN, 213.50' PRESTRESSED CONCRETE GIRDER BRIDGE SET ON CONCRETE SILL ABUTMENTS AND A CONCRETE COLUMN BENT PIER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2 AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.

SEAL OVERLAY CONSTRUCTION JOINTS ACCORDING TO SECTION 502.3.13.1 OF THE STANDARD SPECIFICATIONS. COST INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS 1/2-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1 1/2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES BAR SIZE.

(B) BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

AT THE BACK FACE OF WING, ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR OF 1995. SUPPLYING AND INSTALLING NAME PLATE IS INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

CLEAN PARAPETS AND APPLY PIGMENTED SURFACE SEALER TO THE TOP AND ROADWAY FACE OF THE PARAPET.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS.

F.F. - FRONT FACE B.F. - BACK FACE

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER	TOTAL
206.1000.02	EXCAVATION FOR STRUCTURES BRIDGES B-10-178	LS	-	-	-	1
(B) 210.1500	BACKFILL STRUCTURE TYPE A	TON	24	24	-	48
502.0100	CONCRETE MASONRY BRIDGES	CY	6	6	6	18
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	1376	1376
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	193	193
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	76	76	-	152
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	870	870	1160	2900
* 509.0301	PREPARATION DECKS TYPE 1	SY	-	-	69	69
* 509.0302	PREPARATION DECKS TYPE 2	SY	-	-	28	28
509.0500	CLEANING DECKS	SY	-	-	1376	1376
* 509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	-	83	83
509.9050.S	CLEANING PARAPETS	LF	-	-	485	485
511.1200.02	TEMPORARY SHORING B-10-178	SF	280	280	-	560
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	-	20
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	60	60	-	120
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	4	4
NON-BID ITEMS						
	FILLER	SIZE				1/2"

* QUANTITY LISTED IS AN ESTIMATE. CONTRACTOR SHALL COORDINATE THE FIELD IDENTIFICATION OF ALL DECK REPAIR LOCATIONS WITH THE ENGINEER.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-178			
DRAWN BY SSD		PLANS CK'D. KHB	
TYPICAL SECTION, QUANTITIES & NOTES			SHEET 2 OF 7