

LISTING OF PROJECT REVISIONS						
DATE	SHEET NUMBER	DESCRIPTION OF REVISIONS	DATE	SHEET NUMBER	DESCRIPTION OF REVISIONS	
11-20-07	1A	REVISION SHEET ADDED.				
11-20-07	65-76	WALL ELEVATIONS REVISED. REASON: GRADING CHANGES TO ACCOMMODATE 3' BERM IN FRONT OF ABUTMENTS.				
11-20-07	80 & 81	SUBDRAIN ELEVATIONS REVISED. REASON: REVISED WALL ELEVATIONS.				
01-18-08	4 & 52	ADDED STEEL PEDESTRIAN HAND RAILING TO THE EAST SEPERATION BARRIER REASON: PER IADOT'S REQUEST				
01-23-08	4, 5,9 & 11	REVISED QUANTITY ITEMS NO. 4 & 7 REVISED LOW STEP ELEVATIONS AT PIER NO. 1 REVISED PIER STEP ELEVATIONS AND HEIGHTS REVISED PIER STEP REINFORCING AND QUANTITIES REASON: ACTUAL DISC BEARING HEIGHTS ARE SHALLOWER THAN ASSUMED.				
						<div>POTTAWATTAMIE COUNTY DESIGN NOS. 508 & 708 REVISION SHEET <small>IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION</small></div>
DESIGN TEAM HHK/ /ACB			POTTAWATTAMIE COUNTY		PROJECT NUMBER BRFIM-080-1(308)2--05-78	SHEET NUMBER 1A

ESTIMATED BRIDGE QUANTITIES					
ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUANTITY
1	2401-6745625	RMVL OF EXIST BRIDGE	LS	1.0	
2	2402-2720000	EXCAVATION, CL 20	CY	1031.0	
3	2403-0100010	STRUCT CONC (BRIDGE)	CY	96.2	
4	2403-7000210	HIGH PERFORMANCE STRUC CONC	CY	1088.2	1089.4
5	2403-7000220	TRIAL BATCH HIGH PERFORMANCE STRUC CONC	LS	1.0	
6	2403-7302000	COLORLED SEALER COAT - STRUCT CONC	SY	1711.0	
7	2404-7775005	REINFORC STEEL, EPOXY COATED	LB	164433	164537
8	2408-7800000	STRUCTURAL STEEL	LB	1485189	
9	2413-0698110	BRIDGE FLOOR SURF	SY	3072	
10	2413-1200000	STEEL EXTRUSION JOINT W/NEOPRENE	LF	211.5	
11	2414-6425410	CONC BARRIER, REINFORCED, SEPARATION	LF	745.0	
12	2414-6425420	CONC BARRIER, PARAPET	LF	708.5	
13	2414-6445100	STRUCTURAL STEEL PEDESTRIAN HAND RAIL	LF	372.3	744.5
14	2414-6772020	STEEL FENCE, WELDED WIRE MESH	LF	707.3	
15	2501-0201057	PILE, STEEL, HP 10x57	LF	13250.0	
16	2501-0201489	PILE, STEEL, HP 14x89	LF	8100.0	
17	2501-8400172	TEMP SHORING	LS	1.0	
18	2526-8285000	CONSTRUCTION SURVEY	LS	1.0	
19	2533-4980005	MOBILIZATION	LS	1.0	
20	2599-9999005	PRECAST POST-TENSIONED SLAB PANELS	EA	70.0	
21	2599-9999005	DISC BEARINGS	EA	12.0	
22	2599-9999014	STONE VENEER	SF	2428	
23	2601-2638610	CONC SLOPE PROTECTION	SY	572.0	

ITEM NO.	ESTIMATE REFERENCE INFORMATION
1	INCLUDES ALL COSTS ASSOCIATED WITH DECK FORMING AS SHOWN ON DETAIL "C" ON DESIGN SHEET 7.
3	ALL PIER FOOTING CONCRETE SHALL BE CLASS "C".
4	ALL CAST-IN-PLACE SLAB CONCRETE, INCLUDING CLOSURE POUR AND END SECTIONS, PRECAST SLAB PANELS, SIDEWALK, PIER CONCRETE ABOVE FOOTING AND CONCRETE FOR ABUTMENTS SHALL BE STRUCTURAL CONCRETE (HIGH PERFORMANCE). INCLUDES 722 FT. OF 3" DIA. RIGID STEEL CONDUIT IN SIDEWALK, 227 FT. OF 2" DIA. RIGID STEEL CONDUIT AND 629 FT. OF 1" DIA. RIGID STEEL CONDUIT. INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING AND PLACING CONDUITS IN THE ABUTMENTS, SIDEWALKS AND UNDER SLAB FOR BRIDGE LIGHTING. INCLUDES FURNISHING AND PLACING SUBDRAIN (INCLUDING EXCAVATION), GRANULAR BACKFILL, POROUS BACKFILL, AND SUBDRAIN OUTLET AT ABUTMENTS. INCLUDES FURNISHING AND PLACING CONCRETE SEALER. INCLUDES ALL PREFORMED EXPANSION JOINT FILLER REQUIRED. INCLUDES 36.8 CY OF INTEGRALLY COLORED CONCRETE FOR RAISED MEDIAN. INCLUDES ANCHOR BOLTS AND PLATES AT LIGHT POLE BASES. INCLUDES ALL COSTS ASSOCIATED WITH THE PIER FORM LINER.
7	INCLUDES COST OF 149 LBS. OF STAINLESS STEEL REINFORCING IN THE ABUTMENT PAVING NOTCHES. FOR DETAILS, SEE DESIGN SHEET 15.
8	INCLUDES 662,991 LBS. OF ASTM A709 GRADE HPS 70W (AASHTO M270 GRADE HPS 70W) WEATHERING STEEL. INCLUDES COST OF ABUTMENT BEARING MATERIALS.
9	PORTLAND CEMENT CONCRETE OVERLAY. INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING, PLACING AND REMOVING PLUGS OVER MECHANICAL CONNECTORS FOR MEDIAN CONSTRUCTION.
10	INCLUDES ALL NECESSARY HARDWARE AND ACCESSORIES INCLUDING THE ANCHORAGE SYSTEM, TEMPORARY ERECTION MATERIAL, AND THE COVER PLATES WITH THEIR ANCHORAGE SYSTEMS.
11, 12	IF PLACEMENT OF CONCRETE IS DONE BY THE SLIPFORMING METHOD, CLASS BR CONCRETE IS REQUIRED. CAST-IN-PLACE BARRIER RAILS SHALL USE CLASS C MIX. PRICE BID FOR THIS ITEM SHALL INCLUDE THE COST OF CAST-IN-PLACE FORMS IF REQUIRED FOR PLACEMENT OF THE CONCRETE. INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING AND PLACING CONDUITS IN BARRIERS. INCLUDES 1068 FT. OF 2" DIA. RIGID STEEL CONDUIT, 15 FT. OF 1" DIA. RIGID STEEL CONDUIT AND 133 FT. OF ¾" DIA. RIGID STEEL CONDUIT IN BARRIERS. INCLUDES MATERIAL AND LABOR ASSOCIATED WITH PROVIDING AND INSTALLING RIGID STEEL CONDUIT, JUNCTION BOXES AND FITTINGS.
14	ALL COSTS ASSOCIATED WITH THE FENCE INCLUDING THE ANCHORAGES AND PAINTING SHALL BE INCLUDED IN THE PRICE BID FOR "STEEL FENCE, WELDED WIRE MESH".
15, 16	PILING SHALL BE GRADE 50.
17	INCLUDES THE COST TO DESIGN, FURNISH AND INSTALL SHEETING & SHORING AS REQUIRED TO FACILITATE CONSTRUCTION OF THE ABUTMENTS AND THE PIER WITHOUT LOSS OF SUPPORT OF THE ADJACENT AT-GRADE PAVEMENT. TEMPORARY SHEET PILING & SHORING SHALL BE MEASURED AND PAID FOR AT THE LUMP SUM CONTRACT PRICE.
20	THIS ITEM INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING AND PLACING THE PRECAST SLAB PANELS. INCLUDING GROUT FOR TRANSVERSE JOINTS (19.8 CY), ¾" DIA. TRANSVERSE BACKING ROD (3559 LF), LEVELING DEVICES, CONCRETE FOR GIRDER HAUNCHES & SHEAR STUD POCKETS (125.8 CY), HIGH PERFORMANCE STRUCTURAL CONCRETE FOR PANELS (812.0 CY) MILD REINFORCING (124,021 LBS), 0.6" DIA. 270-LL POST TENSIONING STRANDS (78,400 LF), P.T. PRESSURE GROUT INSIDE OF DUCTS AND REQUIRED POST TENSION END ANCHORAGES, ALL EMBEDDED ITEMS SUCH AS DUCTS & DUCT SPLICES, LIFTING AND LEVELING DEVICES. TRIAL BATCH FOR CLASS 0-4 WR CONCRETE.
22	INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING AND APPLYING ANTI-GRAFFITI COATING (270.0 SY).
23	METHOD OF MEASUREMENT AND BASIS OF PAYMENT SHALL BE PER SQUARE YARD AS MEASURED IN THE FIELD.

REVISED 01-23-08,
REVISED QUANTITY ITEM NO. 4
REVISED QUANTITU ITEM NO. 7

REVISED 01-18-08,
REVISED QUANTITY ITEM NO. 13



HDR Engineering, Inc.

DESIGN FOR 0° SKEW

353'-6X82' CONT. WELDED GIRDER BRIDGE

W/8'-4 SIDEWALK & 10'-4 SHARED USE PATH

24TH STREET OVER I-80

178'-6 & 175'-0 SPANS

ESTIMATED QUANTITIES

STA. 40176+95.25 (24TH STREET)

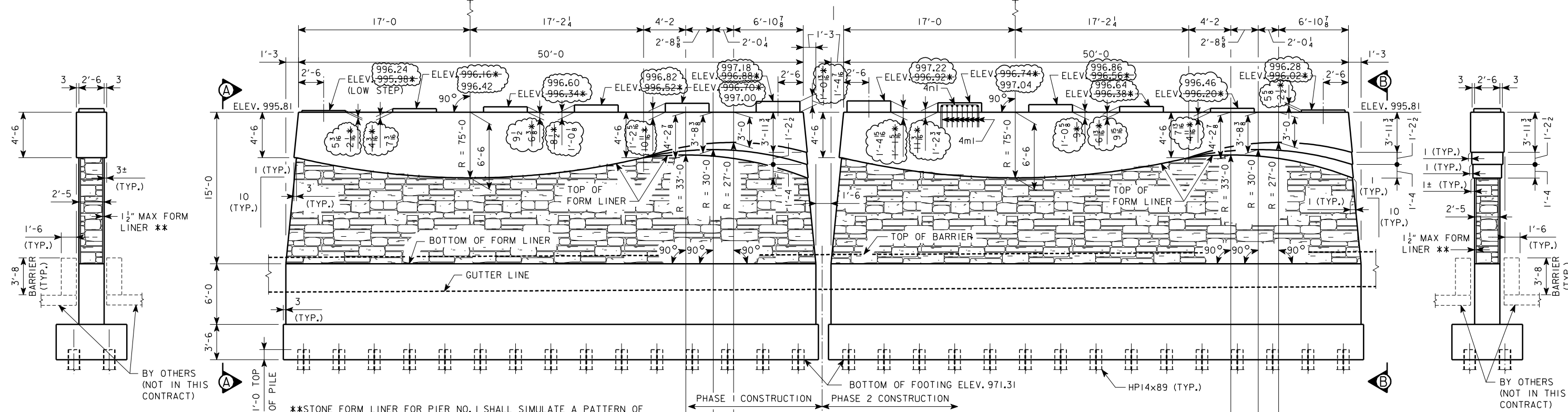
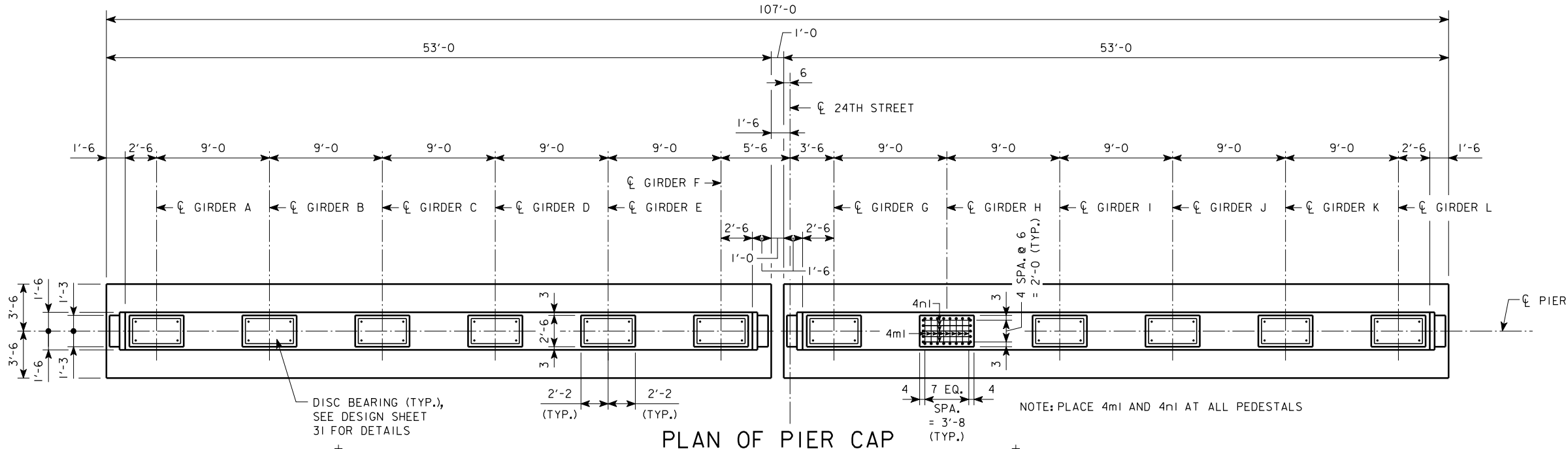
STA. 7476+95.25 (FUTURE I-80)

JUNE, 2007

POTTAWATTAMIE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 3 OF 62 FILE NO. 30169 DESIGN NO. 508



**STONE FORM LINER FOR PIER NO. 1 SHALL SIMULATE A PATTERN OF SMALL ASHLAR STONES WITH SAWED EDGES ON ALL FOUR SIDES AND A SPLIT OR SNAPPED EXPOSED FACE. STONE SIZES SHALL RANGE FROM 3" X 6" MINIMUM TO 14" X 28" MAXIMUM. MAXIMUM DEPTH OF RELIEF IN THE FORM LINER SHALL BE 1 1/2" AND JOINT WIDTH SHALL BE 3/4". THE FORM LINER PATTERN AND MANUFACTURER USED FOR PIER NO. 1 SHALL MATCH THE FORM LINER USED FOR THE DESIGN 708 TERRACE WALLS ASSOCIATED WITH THIS CONTRACT. ACCEPTABLE PATTERNS AND MANUFACTURERS ARE:

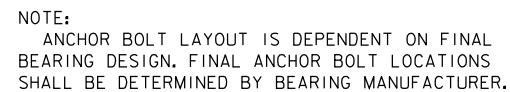
- | | |
|--|---|
| PATTERN #12020 - TOLLWAY ASHLAR
CUSTOM ROCK
2020 W. 7th STREET
ST. PAUL, MN 55116 | PATTERN #905 - SMALL AGED ASHLAR STONE
ARCHITECTURAL POLYMERS
1220 LITTLE GAP ROAD
PALMERTON, PA 18071 |
| PATTERN #17000 - FLORIDA ASHLAR
FITZGERALD FORM LINER
1341 EAST PAMONA STREET
SANTA ANA, CA 92705 | PATTERN #1515 - SC ASHLAR
SPEC FORM LINERS, INC.
530 EAST DYER ROAD
SANTA ANA, CA 92707 |

NOTES:
*ELEVATIONS AND PEDESTAL HEIGHTS ARE DEPENDENT ON FINAL BEARING HEIGHT. FINAL BEARING HEIGHT AND PEDESTAL ELEVATIONS SHALL BE DETERMINED BY BEARING MANUFACTURER.
FOR ANCHOR BOLT LAYOUT, SEE DESIGN SHEET 10.

REVISED 01-23-08
REVISED STEP ELEVATIONS
AND STEP HEIGHTS

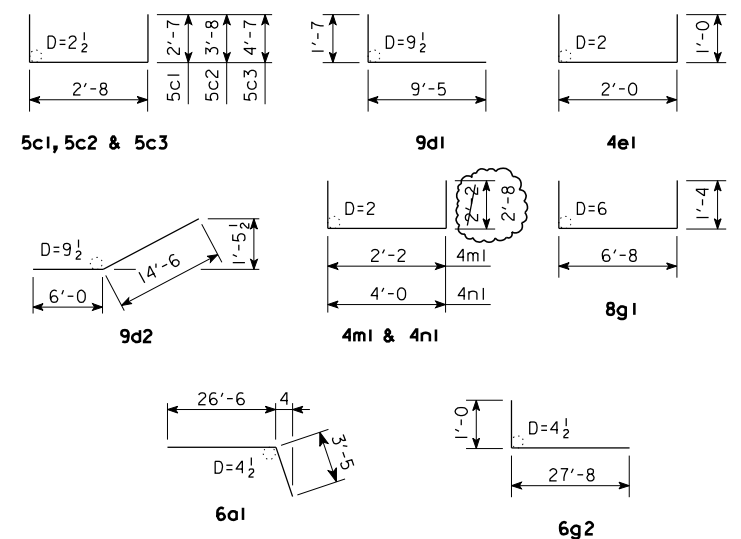
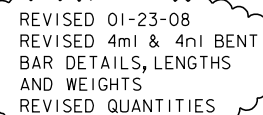
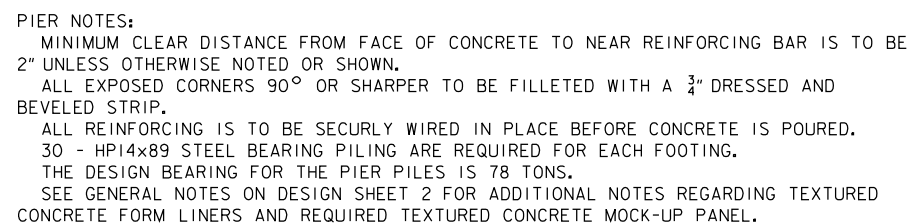
DESIGN FOR 0° SKEW
353'-6X82' CONT. WELDED GIRDER BRIDGE
W/8'-4 SIDEWALK & 10'-4 SHARED USE PATH
24TH STREET OVER I-80
178'-6 & 175'-0 SPANS
PIER NO. 1 DETAILS
STA. 40176+95.25 (24TH STREET)
STA. 7476+95.25 (FUTURE I-80)
POTTAWATTAMIE COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 8 OF 62 FILE NO. 30169 DESIGN NO. 508

HDR
HDR Engineering, Inc.



* QUANTITY IS CALCULATED ASSUMING THE WALL THICKNESS IS 2'-6 AND IGNORES THE DEDUCTION OF CONCRETE VOLUME DUE TO THE FORM LINER.

NOTE: ALL DIMENSIONS ARE OUT TO OUT.
D = PIN DIAMETER.



HDR Engineering, Inc.

DESIGN FOR 0° SKEW
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178'-6 & 175'-0 SPANS
PIER NO. 1 DETAILS
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POTTAWATTAMIE COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 10 OF 62 FILE NO. 30169 DESIGN NO. 508