SUMMARY OF CONCRETE QUANTITIES

LOCATION	STRUCTURAL CONCRETE (BRIDGE)	HPC STRUCTURAL CONCRETE
BRIDGE DECK	-	464.9
PIER NO. 6A	60.0	57.2
PIER NO. 7A	76.7	50.7
SOUTH ABUTMENT	-	87.8
TOTAL (CU. YDS.)	136.7	660.6

HPC CONCRETE DECK PLACEMENT QUANTITIES

LOCATION	QUANTITY
SECTION 1, DECK & PIER DIAPH.	104.2
SECTION 2, DECK	86.9
SECTION 3, DECK & ABUT. END DAM	89.9
SECTION 4, DECK	92.0
SECTION 5 DECK	91.9
TOTAL CU. YDS.	464.9

PIER 6A CONCRETE PLACEMENT QUANTITIES

LOCATION	QUANTITY
CAP, COLUMN & STEPS (HIGH PERFORMANCE)	57.2
FOOTING	60.0
TOTAL CU. YDS.	117.2

PIER 7A CONCRETE PLACEMENT QUANTITIES

LOCATION	QUANTITY
CAP, COLUMN & STEPS (HIGH PERFORMANCE)	50.7
FOOTING	76.7
TOTAL CU. YDS.	127.4

HPC CONCRETE ABUTMENT PLACEMENT QUANTITIES

LOCATION	QUANTITY
FOOTING AND STEPS	26.0
BACKWALL BELOW CONSTR. JOINT	9.3
BACKWALL ABOVE CONSTR. JOINT	7.4
WINGWALLS	30.7
MASKWALLS	5.1
WINGWALL FTGS. & COUNTERFORTS	9.3
TOTAL CU. YDS.	87.8

SUMMARY OF FOUNDATIONS

LOCATION	SUBSTRUCTURE TYPE	FOUNDATION TYPE	NUMBER	LENGTH (LIN. FT.)	TOTAL (LIN. FT.)
PIER NO. 6A	TEE PIER	HP 14 x 73	18	95	1,710
PIER NO. 7A	TEE PIER	HP 14 x 73	19	95	1,805
SOUTH ABUTMENT	STUB ABUTMENT	HP 12 x 53	21	100	2,100
				TOTAL HP 12 x 53 (LIN. FT.)	2,100
				TOTAL HP 14 x 73 (LIN. FT.)	3,515

CONCRETE BARRIER RAIL PLACEMENT SUMMARY

LOCATION	QUANTITY
STANDARD SECTION 1,137.37' AT 0.1281 CU. YDS. PER FT.	145.7
SPECIAL SECTION A 35.21' AT 0.1281 CU. YDS. PER FT.	4.5
BARRIER RAIL AESTHETIC TREATMENT	9.5
TOTAL (CU. YD.)	159.7

CONCRETE BARRIER RAIL QUANTITIES

LOCATION	QUANTITY
CONCRETE BARRIER RAILING, AESTHETIC	1,187.0
TOTAL (LIN. FT.)	1,187.0

CONCRETE BARRIER RAIL END SECTION PLACEMENT SUMMARY

LOCATION	QUANTITY
BARRIER RAIL ONE END SECTION	0.78 CU. YD.
BARRIER RAIL ONE END AESTHETIC TREATMENT	0.05 CU. YD.

SUMMARY OF EXCAVATION

LOCATION	CLASS 20 EXCAVATION
PIER NO. 6A	155
PIER NO. 7A	190
SOUTH ABUTMENT	190
TOTAL (CU. YDS.)	535

SUMMARY OF REINFORCING STEEL

LOCATION	NON-COATED REINFORCING STEEL	STAINLESS STEEL REINFORCING STEEL	EPOXY COATED REINFORCING STEEL
BRIDGE DECK	-	-	148,379
BARRIER RAIL	-	7,610	34,149
BARRIER RAIL END SECTIONS	-	384	644
PIER NO. 6A	19,872	-	-
PIER NO. 7A	23,151	-	-
SOUTH ABUTMENT	-	47	10,223
TOTAL (LBS.)	43,023	8,041	193,395

SUMMARY OF STRUCTURAL STEEL

	LOCATION	TOTAL (LBS.)
①	WELDED GIRDERS	807,487
②	MISCELLANEOUS STEEL	47,859
	TOTAL (LBS.)	855,346

① GIRDER WEIGHT INCLUDES STUDS, BEARING STIFFENERS, JACKING STIFFENERS, INTERMEDIATE STIFFENERS, CROSS FRAME STIFFENERS, SPLICE PLATES, BOLTS, WELDS AND FLANGE DEFLECTORS.

② MISCELLANEOUS STEEL INCLUDES ALL CROSS FRAME, DIAPHRAGM, INSPECTION CABLE AND ATTACHMENT MATERIAL, INCLUDING BOLTS AND WELDS.

SUMMARY OF BEARINGS

LOCATION	BEARING TYPE	NUMBER	ASSOCIATED BID ITEM
PIER NO. 5A AHEAD	DISC BEARING ASSEMBLY	4	EACH
PIER NO. 6A	DISC BEARING ASSEMBLY	4	EACH
PIER NO. 7A	DISC BEARING ASSEMBLY	4	EACH
SOUTH ABUTMENT	DISC BEARING ASSEMBLY	4	EACH
	TOTAL (EACH)	16	

DESIGN FOR 0° SKEW ON 3,300' RADIUS CURVE

566'-6 X VARIES CONTINUOUS WELDED GIRDER BRIDGE

171'-0, 226'-0, 169'-6 SPANS

SUMMARY OF ITEMIZED QUANTITIES

STA. 2543+48.27 (℄ RAMP B) APRIL 2018

JOHNSON COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 31 FILE NO. 30864 DESIGN NO. 420