ESTIMATED QUANTITIES (WITH CAST-IN-PLACE ABUTMENTS)

		REINFORCED CONCRETE BOX BEAMS			PRETENSIONED PRESTRESSED CONCRETE BOX BEAMS				
SPAN		30'-0	40'-0	50'-0	30'-0	40'-0	50'-0	60'-0	70'-0
UHPC JOINT FOR CONCRETE BOX BEAM BRIDGE	L.F.	157	207	257	157	207	257	307	357
STRUCTURAL CONCRETE *	C.Y.	33.9	33.9	35.5	32.0	32.0	33.9	33.9	35.5
EPOXY COATED REINFORCING STEEL *	LBS.	5,385	5,385	5,500	5,224	5,224	5,385	5,385	5,569
STRUCTURAL STEEL **	LBS.	1,726	2,222	3,112	1,478	1,900	2,718	3,215	4,442
REINFORCED CONCRETE BOX BEAM	NO.	6-27"x48"x30'-0 RCBB	6-27"x48"x40'-0 RCBB	6-33"x48"x50'-0 RCBB	-	-	-	-	-
PRETENSIONED PRESTRESSED CONCRETE BOX BEAM	NO.	-	-	-	6-21"x48"x30'-0 PPCBB	6-21"x48"x40'-0 PPCBB	6-27"x48"x50'-0 PPCBB	6-27"x48"x60'-0 PPCBB	6-33"x48"x70'-0 PPCBB
NO. OF STEEL H-PILES (HP 10x57) FOR TWO ABUTMENTS	NO.	10	10	10	10	10	10	10	12

NOTES:
* INCLUDES TWO ABUTMENT FOOTINGS AND TWO ABUTMENT BACKWALLS. SEE SHEET B24-16-16 FOR ADDITIONAL CONCRETE REQUIRED IN ABUTMENT FOOTINGS.
** INCLUDES FOUR RETAINER ANGLE ASSEMBLIES AND BRIDGE RAIL POSTS.

ESTIMATED QUANTITIES (WITH PRECAST ABUTMENTS)

		REINFORCED CONCRETE BOX BEAMS			PRETENSIONED PRESTRESSED CONCRETE BOX BEAMS				
SPAN		30'-0	40'-0	50'-0	30'-0	40'-0	50'-0	60'-0	70'-0
UHPC JOINT FOR CONCRETE BOX BEAM BRIDGE	L.F.	157	207	257	157	207	257	307	357
STRUCTURAL STEEL **	LBS.	1,726	2,222	3,112	1,478	1,900	2,718	3,215	4,442
PRECAST ABUTMENT BACKWALL	NO.	4	4	4	4	4	4	4	4
PRECAST FOOTING (CONCRETE WINGS) ***	NO.	2	2	2	2	2	2	2	2
REINFORCED CONCRETE BOX BEAM	NO.	6-27"x48"x30'-0 RCBB	6-27"x48"x40'-0 RCBB	6-33"x48"x50'-0 RCBB	-	-	-	-	-
PRETENSIONED PRESTRESSED CONCRETE BOX BEAM	NO.	-	-	-	6-21"x48"x30'-0 PPCBB	6-21"x48"x40'-0 PPCBB	6-27"x48"x50'-0 PPCBB	6-27"x48"x60'-0 PPCBB	6-33"x48"x70'-0 PPCBB
NO. OF STEEL H-PILES (HP 10x57) FOR TWO ABUTMENTS	NO.	10	10	10	10	10	10	10	12

NOTES:
** INCLUDES FOUR RETAINER ANGLE ASSEMBLIES AND BRIDGE RAIL POSTS.
*** INCLUDES HIGH EARLY STRENGTH SELF-CONSOLIDATING CONCRETE FOR CMP PILE POCKETS. SEE SHEET B24-23-16 FOR VOLUME OF HIGH EARLY STRENGTH SELF-CONSOLIDATING CONCRETE REQUIRED FOR EACH BOX BEAM TYPE AND SPAN LENGTH.

NOTES:
QUANTITIES SHOWN ONLY INCLUDE QUANTITIES COVERED BY THESE STANDARDS. OTHER QUANTITIES, AS REQUIRED, MAY ALSO NEED TO BE COMPUTED BY THE USER OF THESE STANDARDS SUCH AS UHPC JOINT WATER INTEGRITY TEST, EXCAVATION CLASS 20 OR 21, REMOVAL OF STRUCTURE, BRIDGE WING ARMORING, ETC.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

IOWADOT Highway Division

STANDARD DESIGN - 24'-0 ROADWAY, SINGLE SPAN

CONCRETE BOX BEAM BRIDGES

DECEMBER, 2016

QUANTITY SUMMARIES
CONCRETE WINGS
30° SKEW

B24-31-16