

PILE BENT NOTES:

THESE PIER BENTS ARE DESIGNED FOR USE IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.

FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

PIER PILES SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

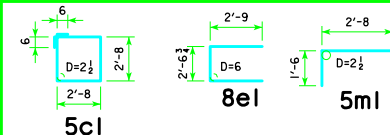
BAR	LENGTH	SHAPE	9 PILE BENT			10 PILE BENT			11 PILE BENT			12 PILE BENT			13 PILE BENT			14 PILE BENT			15 PILE BENT			16 PILE BENT					
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT			
q1	40'-8"	=====	8	9	1106	8	9	1106	6	9	830	6	9	830	6	9	830	6	9	830	6	9	830	6	9	830			
q2	40'-8"	=====	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434			
b1	40'-8"	=====	4	9	553	4	9	553	4	9	553	4	9	553	4	9	553	4	9	553	4	9	553	4	9	553			
5c1	11'-8"	=====	42	5	511	38	5	462	42	5	511	46	5	560	50	5	608	54	5	657	44	5	535	47	5	572			
8e1	8'-1"	=====	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86			
5m1	5'-8"	=====	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47			
5n1	2'-10"	=====	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24			
REINFORCING STEEL (LB.)			2761			2712			2485			2534			2582			2631			2509			2546					
STRUCTURAL CONCRETE (CY)			1, 2			14.5			14.5			14.0			14.0			13.9			13.9			13.8			13.8		
PILE TYPE			1, 2			14.5			14.5			14.5			14.5			14.5			14.5			14.5			14.5		

NOTE: THE REINFORCING STEEL QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.

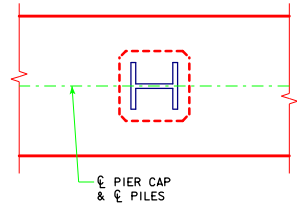
NOTE: THE CONCRETE QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.

NOTE: THE PILE TYPE IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.

BENT BAR DETAILS



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



PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES

E-E ABUTMENT BEARING	FRICITION BEARING PILING			FRICITION OR POINT BEARING PILING		
	PIOL TYPE 1 OR 2			PIOL TYPE 3		
	NUMBER OF TRESTLE PILES	② "k" (INCHES)	③ LRFD P _u , STRENGTH I, DES. LOAD (KIPS)	NUMBER OF TRESTLE PILES	PILE SIZE	③ LRFD P _u , STRENGTH I, DES. LOAD (KIPS)
160'-0"	13	14	92	9	HP10x57	133
	11	16	109	9	HP12x53	133
180'-0"	14	14	93	9	HP10x57	145
	12	16	109	10	HP12x53	131
200'-0"	--	--	--	10	HP10x57	142
	--	--	--	11	HP12x53	129
220'-0"	--	--	--	11	HP10x57	141
	--	--	--	12	HP12x53	129
240'-0"	--	--	--	12	HP10x57	141
	--	--	--	13	HP12x53	130
260'-0"	--	--	--	13	HP10x57	141
	--	--	--	14	HP12x53	131
280'-0"	--	--	--	14	HP10x57	141
	--	--	--	15	HP12x53	131
300'-0"	--	--	--	15	HP10x57	141
	--	--	--	16	HP12x53	132
320'-0"	--	--	--	16	HP10x57	141
340'-0"	--	--	--	--	--	--

① CONCRETE QUANTITIES SHOWN HAVE HAD THE VOLUME OF EMBEDDED PILES DEDUCTED FOR TYPES 1 AND 2 BASED ON 0.8 FT³ PER FOOT OF EMBEDMENT. THE CONCRETE QUANTITIES FOR TYPE 3 PILES DO NOT REQUIRE REDUCTION FOR PILE EMBEDMENT.

② SEE STANDARD PIOL FOR "k" DIMENSION.

③ NOTE: P_u, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

NOTE: FRICITION BEARING INCLUDES SIDE FRICTION AND END BEARING IN SOIL. POINT BEARING INCLUDES SIDE FRICTION AND POINT BEARING IN ROCK.

LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER <i>Thomas E. Mc Donnell</i>	IOWADOT Highway Division	
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES OCTOBER, 2014	
		PILE BENT PIERS 0° SKEW	RS40-097-14