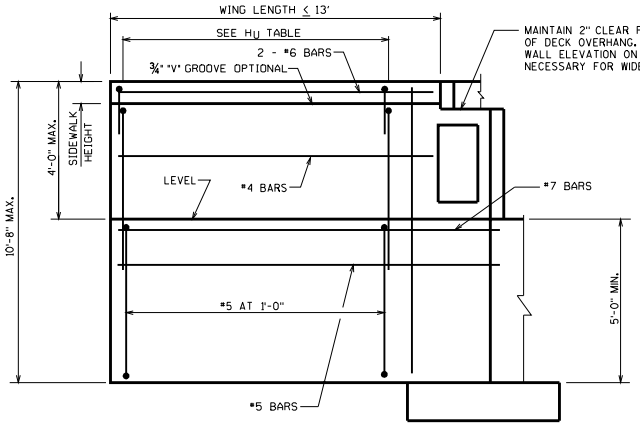
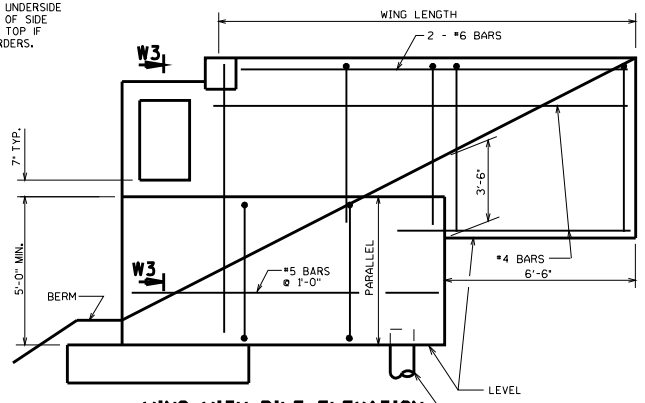


WING WITHOUT PILE ELEVATION

(FRONT FACE)



WING WITH PILE ELEVATION

(FRONT FACE)

WING PILE REQ'D. FOR WING LENGTH OVER 13'-0", HEIGHT GREATER THAN 10'-8" H_U OVER 4'-0".

DESIGNER NOTES

LENGTH OF A3 BARS SHALL BE ≥ TO WING LENGTH.

WING WITH PILE & WING WITHOUT PILE CAN BE USED FOR EITHER SIDEWALK OR SLOPED FACE PARAPETS. THE TYPE OF WING TO USE IS BASED ONLY ON THE WING HEIGHT AND WING LENGTH LIMITATIONS SHOWN.

LAP LENGTH FOR HORIZONTAL BARS SHALL BE BASED ON A "CLASS C" TOP TENSION LAP SPLICE.

ALL WING BARS SHALL BE EPOXY COATED.

WHEN TYPE "F", "W", OR "M" RAILING IS USED, LOCATE NAME PLATE ON FIRST RIGHT WING TRAVELING UP STATION.

FRONT ROW PILES ARE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE OF 40 P.S.F. WITH γ_{pEH} = 1.50, AND SUPERSTRUCTURE REACTIONS "P". BACK ROW PILE DESIGN IS BASED ON AN EQUIVALENT FLUID PRESSURE OF 40 P.S.F. WITH γ_{pEH} MIN. = 0.90, AND "P".

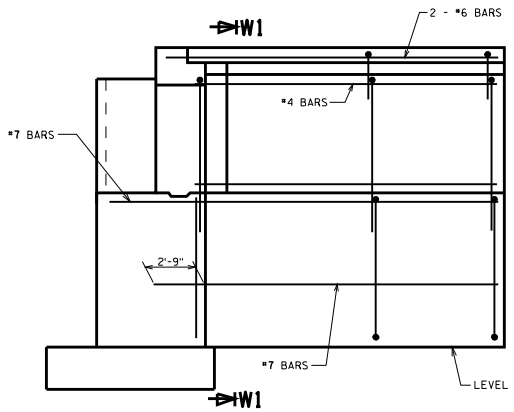
FOR MODULAR EXPANSION JOINTS W/CONC. DIAPH. RUNNING TO EDGE OF DECK: IF SIDEWALL IS USED, FORM SIDEWALL 2" BELOW CONC. DIAPH.

◪ CONSTRUCTION JOINT, LEAVE ROUGH. REQUIRED FOR PRESTRESSED CONCRETE SUPERSTRUCTURES. OPTIONAL FOR OTHERS. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE.

Ⓒ OPTIONAL CONST. JOINT FORMED BY BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.

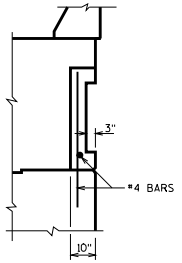
LRFD DESIGN LOADS

LIVE LOAD = 2'-0" SURCHARGE
LOAD FACTORS:
γ_{pDC} = 1.25
γ_{pDW} = 1.50
γ_{pEH} = 1.50
$\gamma_{pEH\ MIN.}$ = 0.90
γ_{pEV} = 1.35
γ_{LL} = 1.75
EXPOSURE CLASS 2, γ_E = 0.75
fy = 60,000 P.S.I.
f'c = 3,500 P.S.I.
HORIZONTAL EARTH LOAD = 35 P.S.F. EQUIV. FLUID PRESSURE

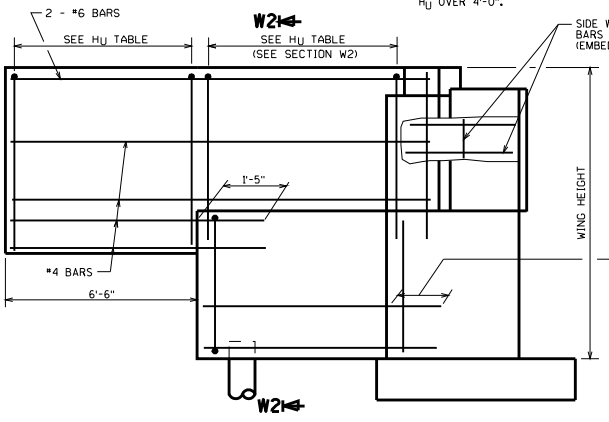


WING WITHOUT PILE ELEVATION

(BACK FACE)



SECTION W3



WING WITH PILE ELEVATION

(BACK FACE)

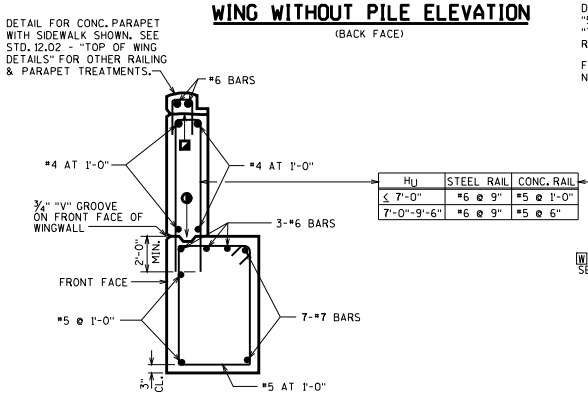
W BARS →	DISTANCE*
#5	1'-9"
#6	2'-1"
#7	2'-9"
#8	3'-8"
#9	4'-7"
#10	5'-10"

*OR EQUIVALENT STANDARD HOOK

TABLE A

WING 2 LENGTH	WING 2 HEIGHT 10'-0"	11'-6"	13'-0"	14'-6"	BARS
12'-0"		6-#6's			W
		7-#5's			A3
16'-0"	8-#6's	7-#7's	8-#7's		W
	7-#6's	5-#8's	7-#7's		A3
20'-0"	8-#7's	9-#7's	9-#8's	10-#8's	W
	5-#9's	6-#9's	7-#9's	8-#9's	A3
24'-0"	9-#8's	10-#8's	10-#9's	8-#10's +	W
	9-#8's	9-#9's	9-#10's	10-#10's	A3
26'-0"	9-#9's	10-#9's	9-#9's +	10-#9's +	W
	7-#10's	9-#10's	9-#10's++	10-#10's++	A3

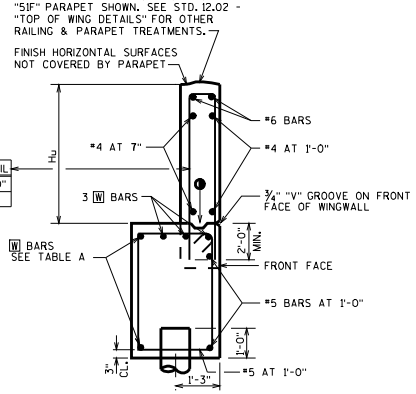
+ USE 4'-6" FOR LOWER WING POUR WIDTH
++ USE 3'-3" MIN. FOR BEARING SEAT WIDTH



Hu	STEEL RAIL	CONC. RAIL
≤ 7'-0"	#6 @ 9"	#5 @ 1'-0"
7'-0"-9'-6"	#6 @ 9"	#5 @ 6"

SECTION W1

WING WITHOUT PILE



SECTION W2

WING WITH PILE

ABUTMENT TYPE A3	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DEVELOPMENT SECTION	
APPROVED: ~~Scot Becker~~	DATE: 7-09

STANDARD 12.04