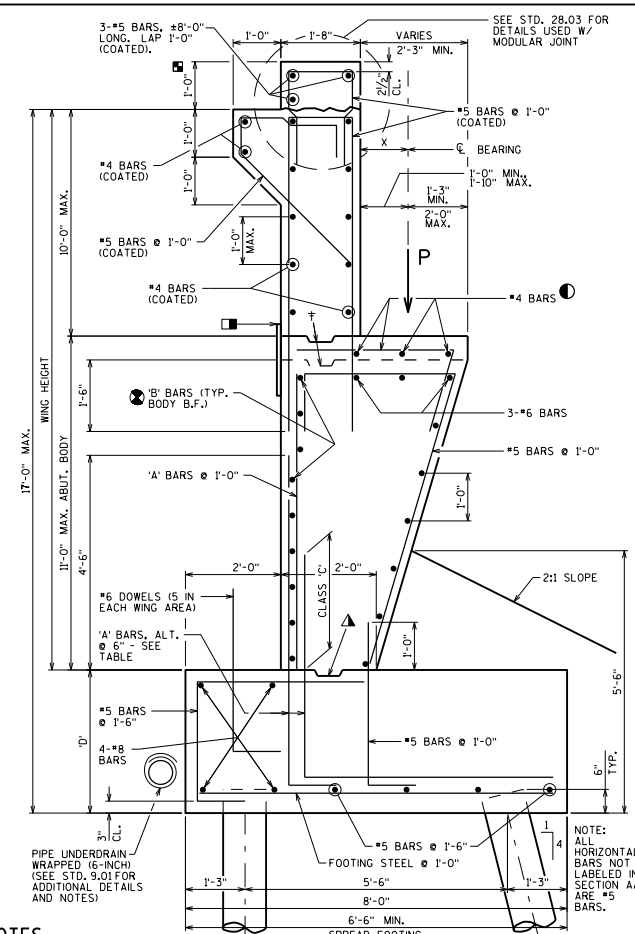
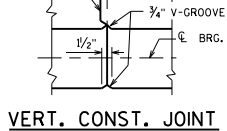


FRONT ELEVATION



SECTION A-A



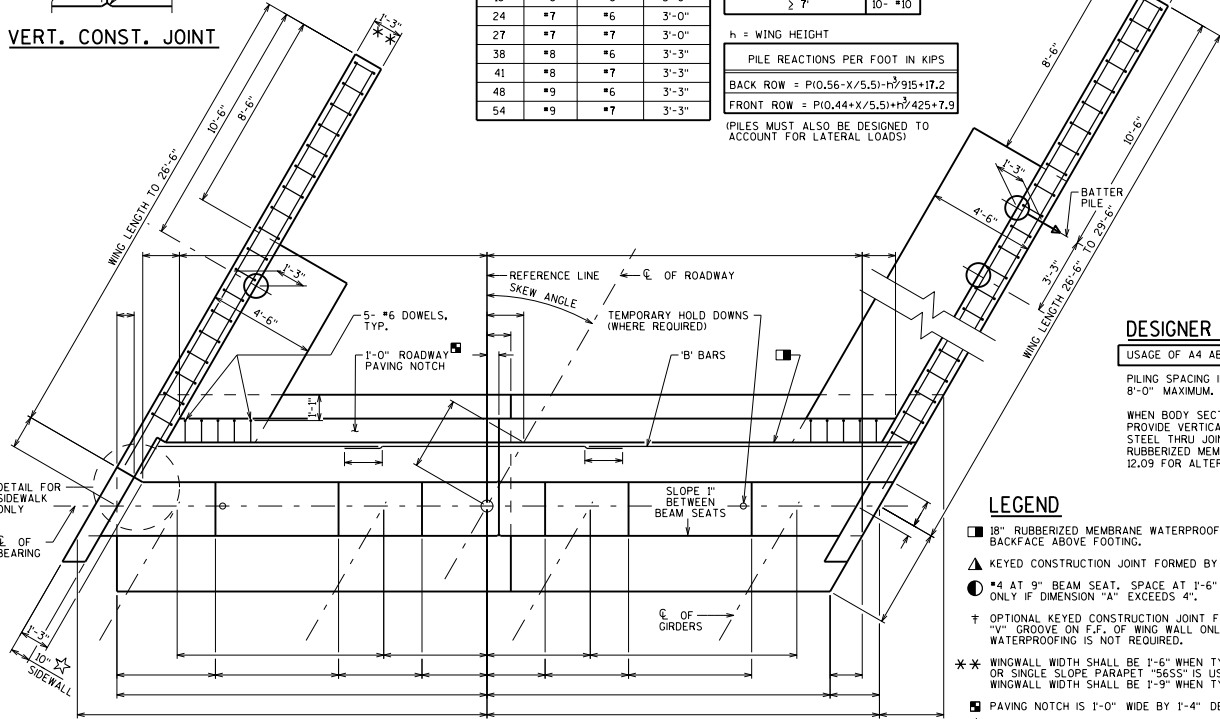
VERT. CONST. JOINT

$$P = \gamma DC (P_{DC}) + \gamma_{DW} (P_{DW}) + \gamma_{LL} (P_{LL})$$

'P' k/FT	'A' BAR SIZE	FOOTING STEEL SIZE	FOOTING DEPTH 'D'
16	#6	#6	3'-0"
24	#7	#6	3'-0"
27	#7	#7	3'-0"
38	#8	#6	3'-3"
41	#8	#7	3'-3"
48	#9	#6	3'-3"
54	#9	#7	3'-3"

ABUTMENT BODY DEPTH	'B' BARS
< 7'	9- #11
> 7'	10- #10

h = WING HEIGHT
PILE REACTIONS PER FOOT IN KIPS
 BACK ROW = $P(0.56 - X/5.5) + 7/915 + 17.2$
 FRONT ROW = $P(0.44 + X/5.5) + 7/425 + 7.9$
 (PILES MUST ALSO BE DESIGNED TO ACCOUNT FOR LATERAL LOADS)



PLAN

DESIGNER NOTES

- USAGE OF A4 ABUTMENTS IS DISCONTINUED.
- PIILING SPACING IN ABUTMENT FOOTING SHALL BE 8'-0" MAXIMUM.
- WHEN BODY SECTION IS MORE THAN 50'-0" LONG, PROVIDE VERTICAL CONSTRUCTION JOINT. RUN BAR STEEL THRU JOINT, SEAL JOINT WITH 18" RUBBERIZED MEMBRANE WATERPROOFING. SEE STD. 12.09 FOR ALTERNATE CONSTRUCTION JOINT.

LEGEND

- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. AND VERT. JOINTS ON BACKFACE ABOVE FOOTING.
- KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6".
- #4 AT 9" BEAM SEAT. SPACE AT 1'-6" BETWEEN SEATS. THIS STEEL IS REQUIRED ONLY IF DIMENSION "A" EXCEEDS 4'.
- OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6". USE 3/4" V-GROOVE ON F.F. OF WING WALL ONLY. IF JOINT IS NOT USED, WATERPROOFING IS NOT REQUIRED.
- WINGWALL WIDTH SHALL BE 1'-6" WHEN TYPE "M" RAILING, VERTICAL FACE PARAPET "TX", OR SINGLE SLOPE PARAPET "56SS" IS USED. "56SS" SHOULD NOT BE USED ON A SIDEWALK. WINGWALL WIDTH SHALL BE 1'-9" WHEN TYPE "NY3" OR "NY4" RAILING IS USED.
- PAVING NOTCH IS 1'-0" WIDE BY 1'-4" DEEP IF STRUCTURAL APPROACH SLAB (STD. 12.10) IS USED.
- SIDEWALL IS 1'-3" WIDE IF STRUCTURAL APPROACH SLAB (STD. 12.10) IS USED.
- SHOW ALL BARS FOR CLARITY.

DESIGNER NOTES CONT'D

- IN "FRONT ELEVATION" VIEW, GIVE ELEVATION OF ALL BEARING AREAS AND ELEVATION AT BOTTOM OF PARAPETS AT EACH END OF WINGS. ALL ELEVATIONS ARE TAKEN AT FRONT FACE OF BACKWALL.
- LAP LENGTHS FOR HORIZONTAL BARS SHALL BE BASED ON A "CLASS C" TOP TENSION LAP SPLICE.
- PARAPET NOT SHOWN IN PLAN VIEW FOR CLARITY.
- SEE STD. 12.03 FOR ADDITIONAL DETAILS.
- ABUTMENT DETAILED WITHOUT STRUCTURAL APPROACH SLAB, SEE STD. 12.10 THRU 12.13 FOR STRUCTURAL APPROACH DETAILS.

ABUTMENT A4 PILE FOOTING



APPROVED: *Laura Shadewald* DATE: 1-18