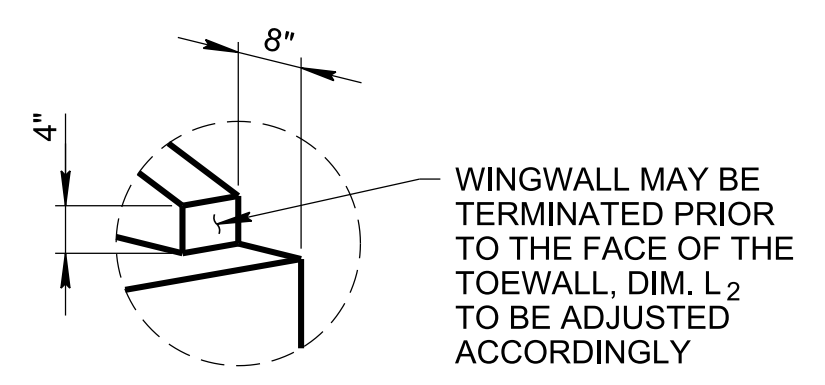
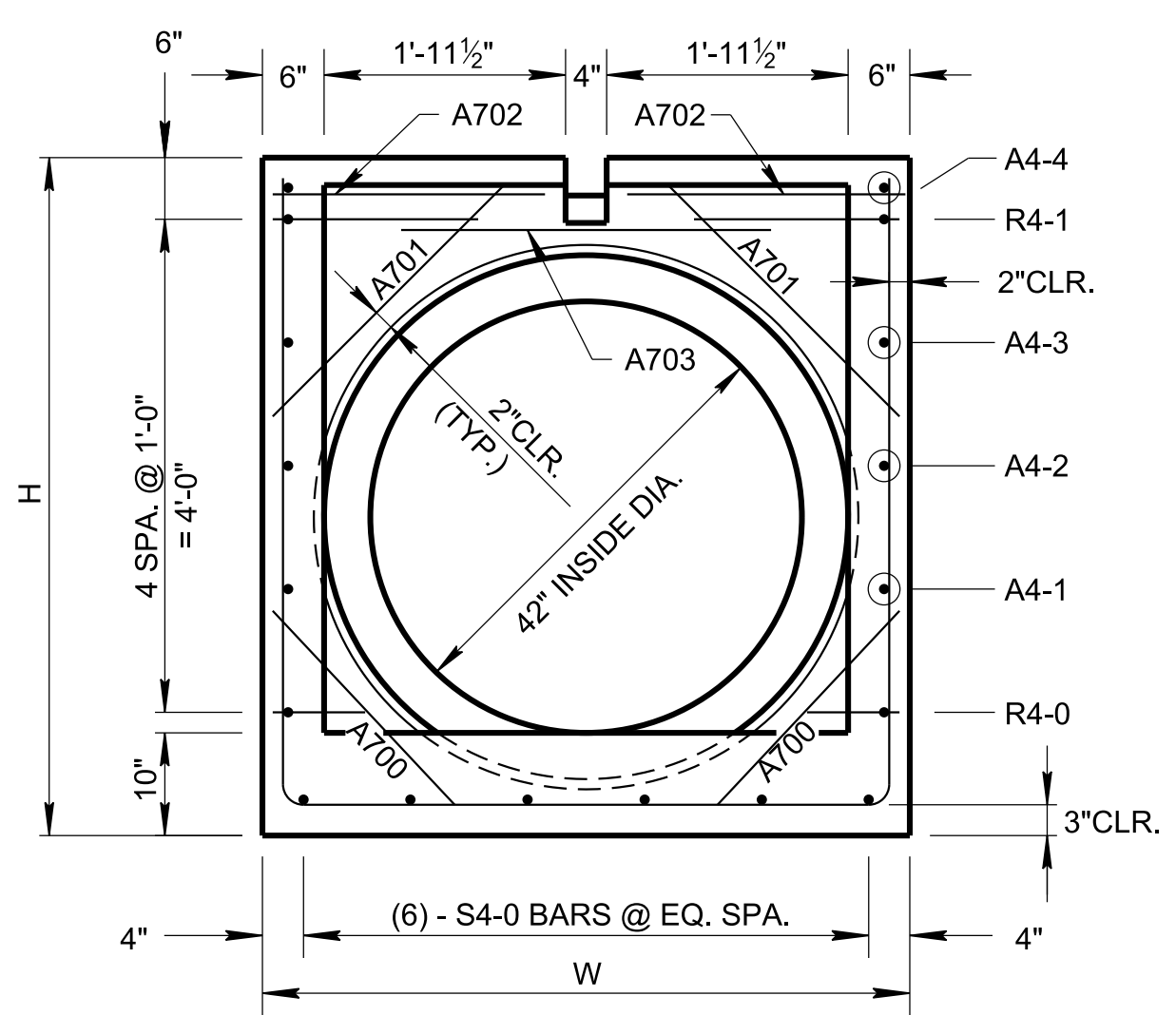


ISOMETRIC VIEW

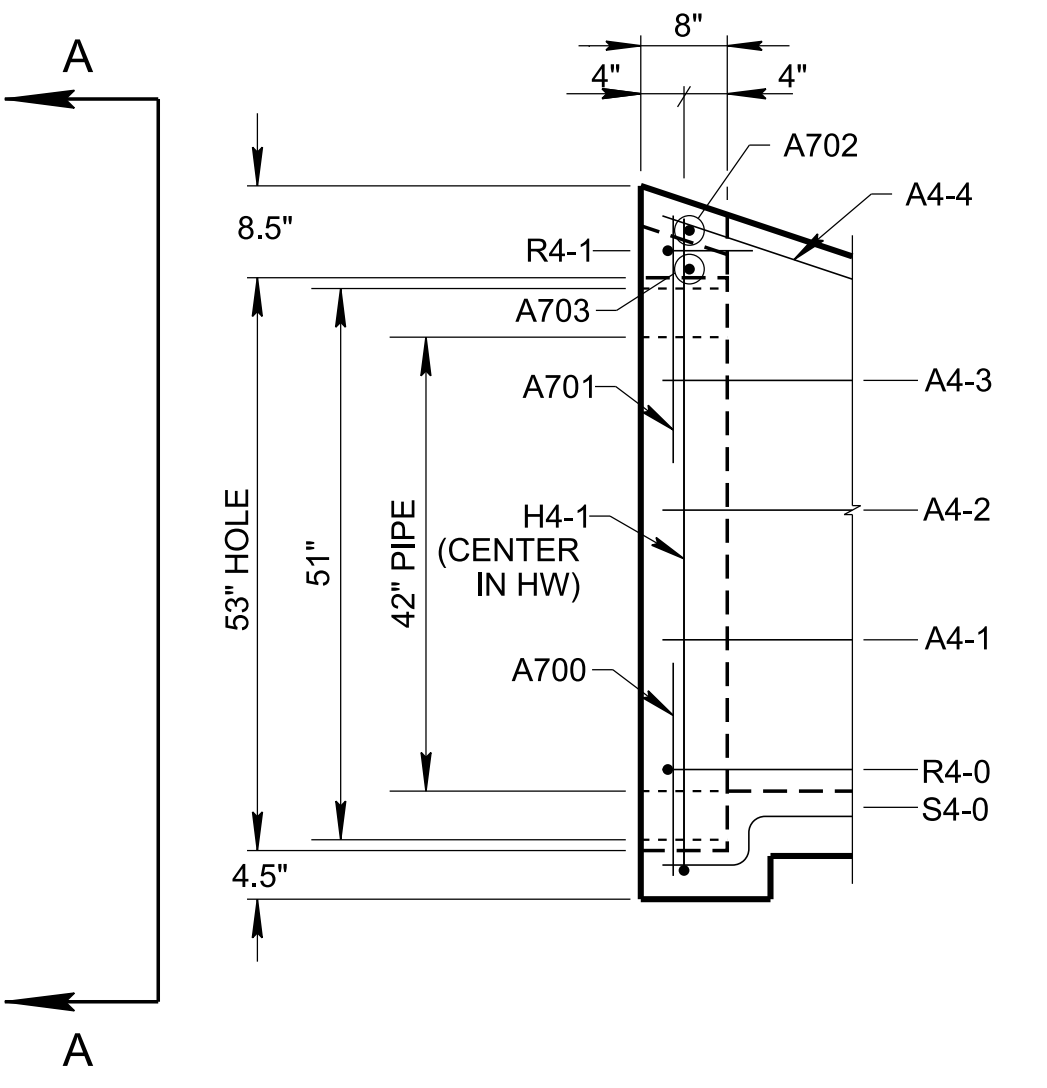
NOTES: DIMENSION L4 OMITTED FOR 3:1 AND 4:1 SLOPES
SEE STD. DWG. D-PE-99 FOR STEEL PIPE GRATE DETAILS
3/8\"/>



ALTERNATE DETAIL "A"



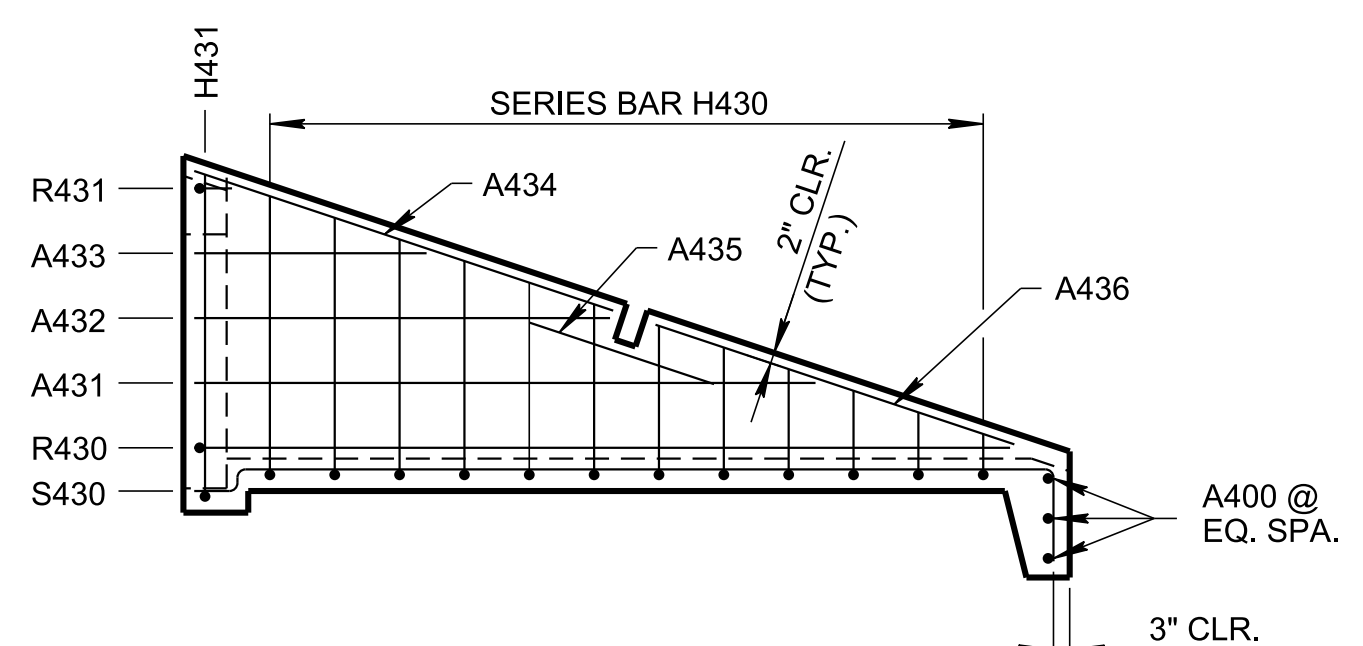
ELEVATION



PARTIAL VIEW A-A

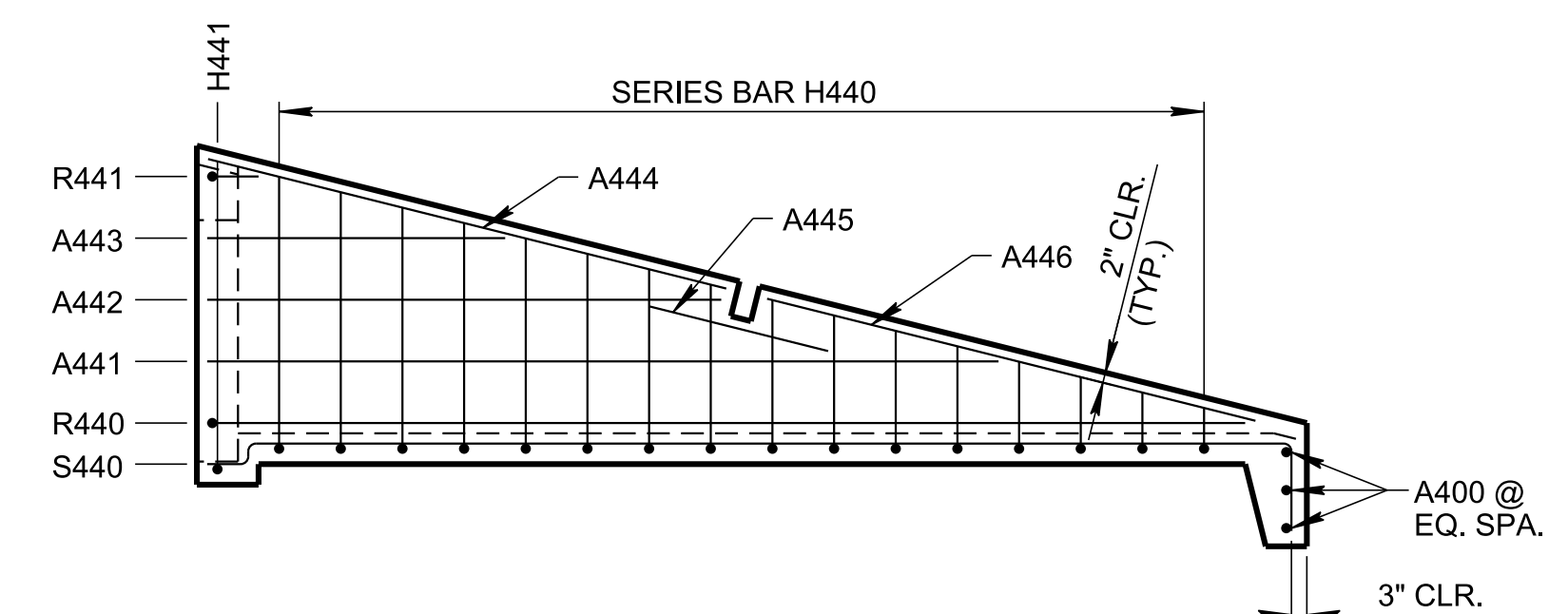
HEADWALL DETAILS

NOTES: INSTALL BARS A700 & A701 AT 45°
SEE GENERAL NOTE (C).



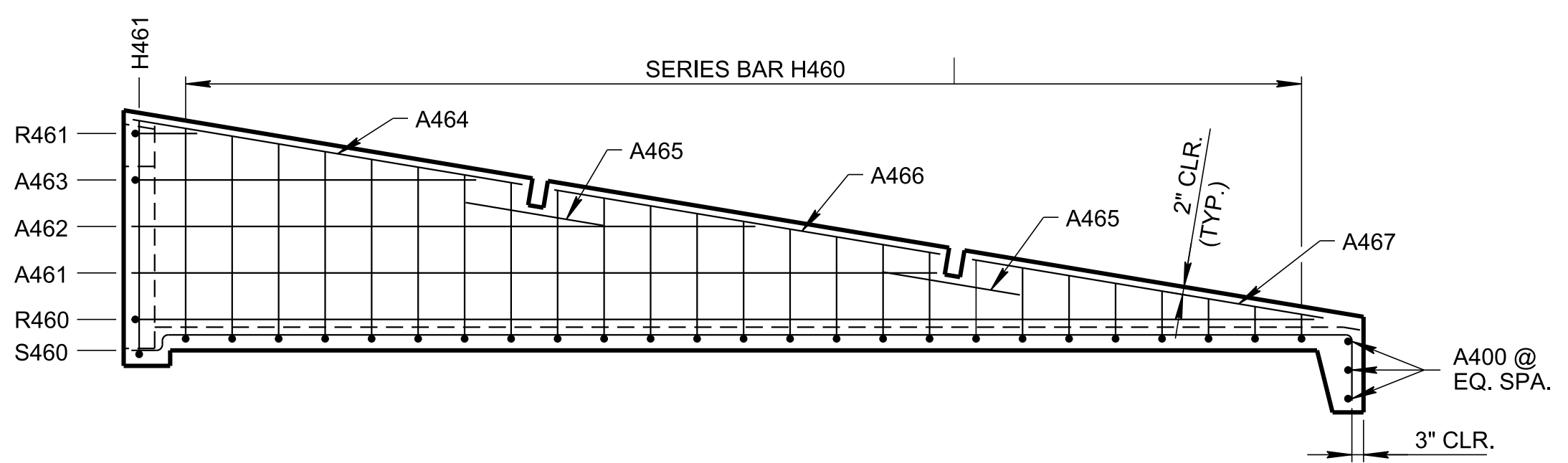
3:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



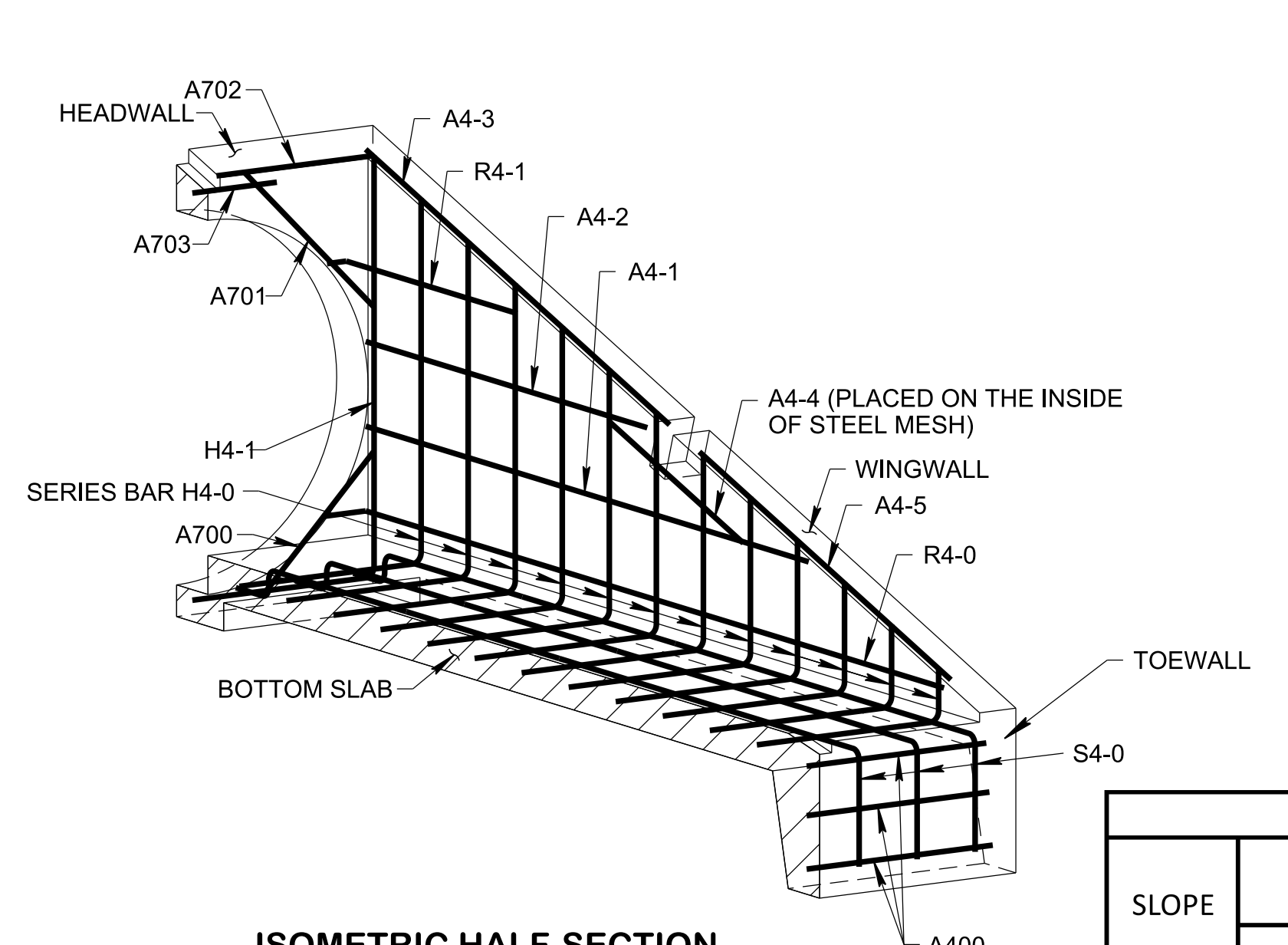
4:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



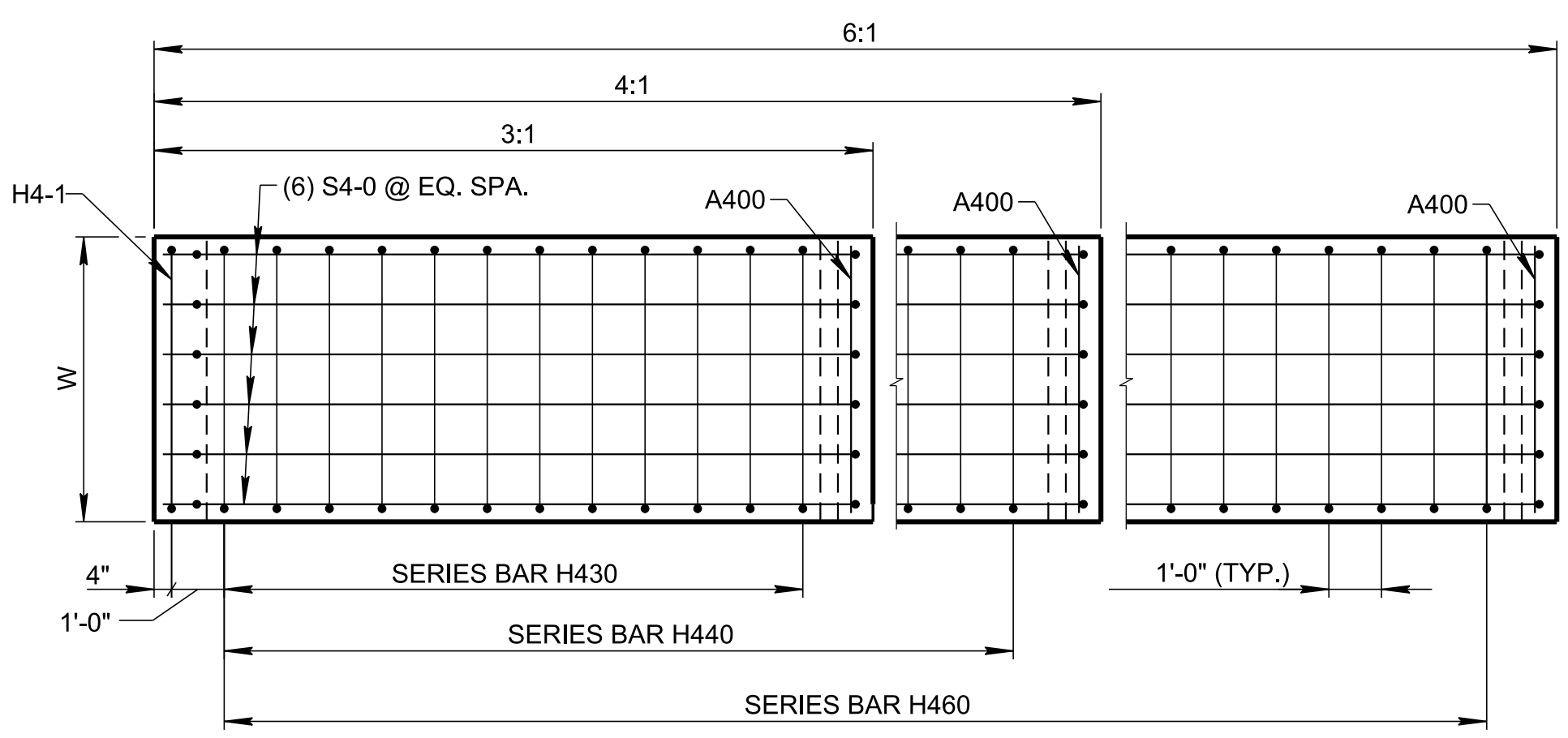
6:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



ISOMETRIC HALF-SECTION SHOWING REINFORCEMENT

(3:1 SHOWN, 4:1 & 6:1 SIMILAR)
SEE GENERAL NOTE (C)



BOTTOM SLAB PLAN

SLOPE	CONCRETE ENDWALL DIMENSIONS						STRUCTURAL STEEL PIPE DIMENSIONS			ESTIMATED QUANTITIES		
	H	L ₁	L ₂	L ₃	L ₄	W	LG	WG	CLASS "A"			
									CONC. CU. YD.	STEEL BAR REINF. LB.	STRUCTURAL STEEL LB.	
3:1	5' - 6"	13' - 8"	14' - 4 7/8"	7' - 4 1/2"	-	5' - 3"	14' - 3 3/4"	1 @ 5' - 3"	3.03	261	148	
4:1	5' - 6"	18' - 0"	18' - 6 3/8"	9' - 2 3/8"	-	5' - 3"	18' - 5 3/4"	1 @ 5' - 3"	3.85	327	180	
6:1	5' - 6"	26' - 8"	27' - 0 3/8"	9' - 1"	9' - 1"	5' - 3"	26' - 11 7/8"	2 @ 5' - 3"	5.50	464	284	

NOTE: SEE STD. DWG. D-PE-99 FOR STRUCTURAL STEEL PIPE DIMENSIONS LG & WG.

GENERAL NOTES

- (A) DRAWING TO BE USED FOR ALL CAST-IN-PLACE AND ALL PRECAST 42" CONCRETE ENDWALLS (TYPE "U") FOR CROSS DRAINS ONLY. "U" ENDWALL TO BE PLACED AT 90° SKEW TO CENTERLINE. SEE STD. DWG. D-PE-99 FOR SKEWED CONNECTION DETAIL WHEN CROSS DRAIN IS NOT PERPENDICULAR TO CENTERLINE. CAST-IN-PLACE CONCRETE ENDWALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.
- (B) SEE STD. DWG. D-PE-42B FOR BILL OF STEEL & PRECAST NOTES.
- (C) "-" IN BAR DESIGNATION REPRESENTS 3, 4 OR 6 FOR 3:1, 4:1 OR 6:1 SLOPES, RESPECTIVELY.
- (D) SPLICING OF REINFORCEMENT IS ACCEPTABLE PROVIDED THAT A MINIMUM 21" SPLICE LENGTH IS USED.
- (E) TOEWALL BACK SLOPE MAY BE CONSTRUCTED VARIABLE FROM VERTICAL UP TO 15°.
- (F) PAYMENT WILL BE MADE UNDER:
 - 611-07.66 42IN ENDWALL (CROSS DRAIN) 3:1 EACH
 - 611-07.67 42IN ENDWALL (CROSS DRAIN) 4:1 EACH
 - 611-07.68 42IN ENDWALL (CROSS DRAIN) 6:1 EACH
- (G) THE CONTRACTOR MAY ELECT TO SUBSTITUTE AN APPROVED ALTERNATIVE DESIGN.
- (H) DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE (SOP) 5-3.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

TYPE "U"
CROSS DRAIN ENDWALL
FOR 42" PIPE
WITH STEEL PIPE GRATE
(FOR 3:1, 4:1 & 6:1 SLOPES)