

SERIES BAR H440 R441 — — A445 A443 — - A446 5/2. A442 — A441 —

4:1 WINGWALL ELEVATION NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.

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

8" WIDE HEADWALL-

\* DIMENSIONS L<sub>3</sub> & L<sub>4</sub> MEASURED TO CENTER

WINGWALL MAY BE TERMINATED PRIOR

TO THE FACE OF THE

TOEWALL, DIM. L<sub>2</sub> TO BE ADJUSTED

ACCORDINGLY

ALTERNATE DETAIL "A"

— TOEWALL

- A702

— A4-3

— A4-2

— A 4 - 1

-R4-0

R4-1-

A703-

A701-

CENTER

IN HW)

A700-

|-<del>||</del>--

PARTIAL VIEW A-A

OF PIPE BLOCKOUT

BOTTOM SLAB

ISOMETRIC VIEW

3/4" CHAMFER REQUIRED ON ALL EXPOSED EDGES

SEE STD. DWG. D-PE-99 FOR STEEL PIPE GRATE DETAILS

\_\_1'-11½" \_\_4" \_\_1'-11½" \_\_6"

(6) - S4-0 BARS @ EQ. SPA.\_

ELEVATION

A702-

A701-

BOTTOM SLAB

ISOMETRIC HALF-SECTION

SHOWING REINFORCEMENT

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

HEADWALL -

SERIES BAR

A703-

NOTES: DIMENSION L4 OMITTED FOR 3:1 AND 4:1 SLOPES

SEE NOTE E

2" CLR.

— A4-3

— Д4-2

— A4-1

HEADWALL DETAILS

WINGWALL

- A400

NOTES: INSTALL BARS A700 & A701 AT 45° SEE GENERAL NOTE ©

- A4-4 (PLACED ON THE INSIDE OF STEEL MESH)

- TOEWALL

## 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:

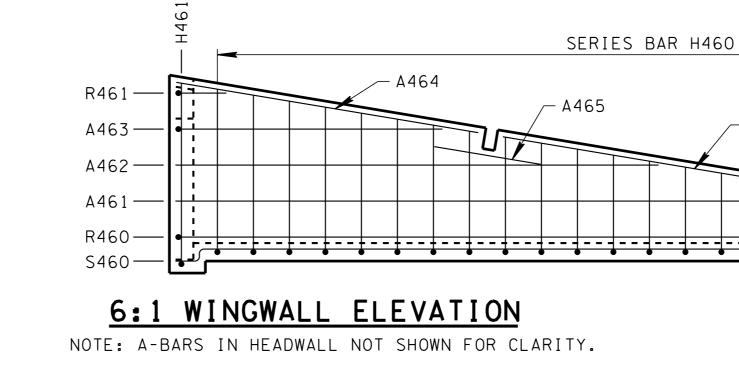
∠ A467

3" CLR.

→ A400 @ EQ. SPA.

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.



	DIMENSIONS AND QUANTITIES FOR ONE ENDWALL 42" PIPE											
	CONCRETE ENDWALL DIMENSIONS						STRUCTURAL STEEL PIPE		ESTIMATED QUANTITIES			
LOPE	CONCRETE ENDWALL DIMENSIONS					DIMENSIONS		CLASS "A"	STEEL BAR	STRUCTURAL		
	Н	$L_1$	L <sub>2</sub>	L₃	L <sub>4</sub>	W	LG	WG	CONC. CU. YD.	REINF. LB.	STEEL LB.	
3:1		13' - 8"	14' - 4 %"	7' - 4 ½"	-		14' - 3 ¾''	1@5'-3"	3.03	261	148	
4:1	5' - 6"	18' - 0"	18' - 6 %"	9' - 2 %"	_	5' - 3"	18' - 5 ¾"	1 @ 5' - 3"	3.85	327	180	
6:1		26' - 8"	27' - 0 ¾"	9' - 1"	9' - 1"		26' - 11 %"	2 @ 5' - 3"	5.50	464	284	

→ A400 @ EQ. SPA.

\_3″ CLR.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

> STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

42" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE

(FOR 3:1, 4:1 & 6:1 SLOPES)

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

D-PE-42A 3-01-12 NOT TO SCALE