

39" MAX DIA

4"

8"

30" DIA

SEE NOTE (F)

NOTE: SEE D-PE-99 FOR STEEL PIPE GRATE DETAILS
3/4" CHAMFER REQUIRED ON ALL EXPOSED EDGES

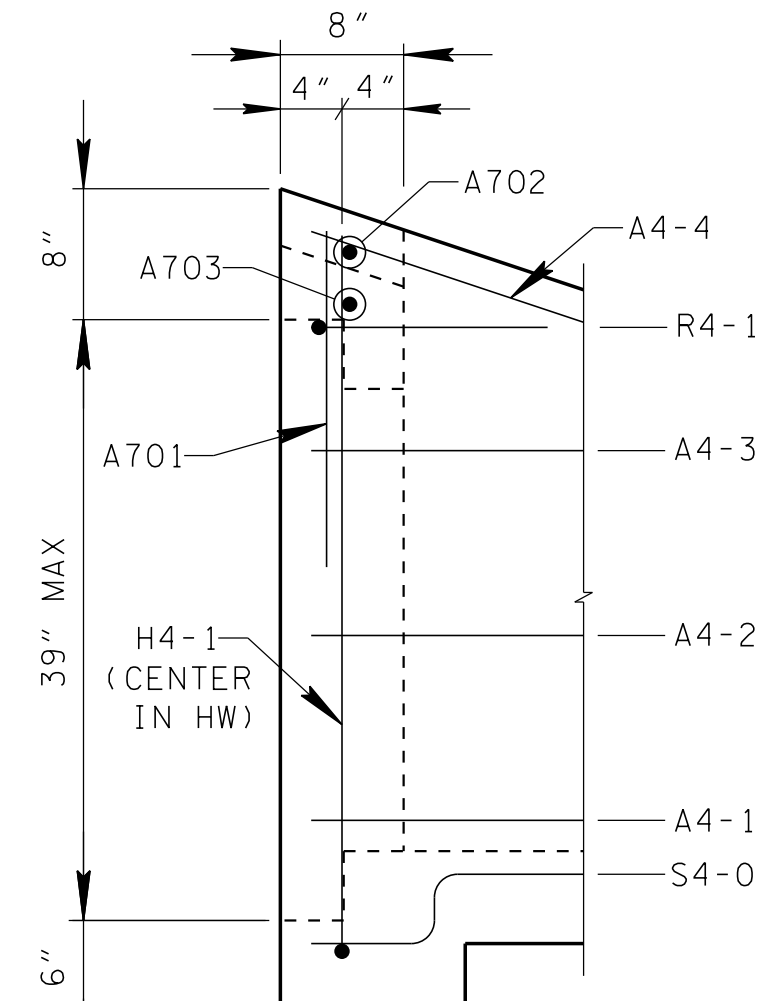
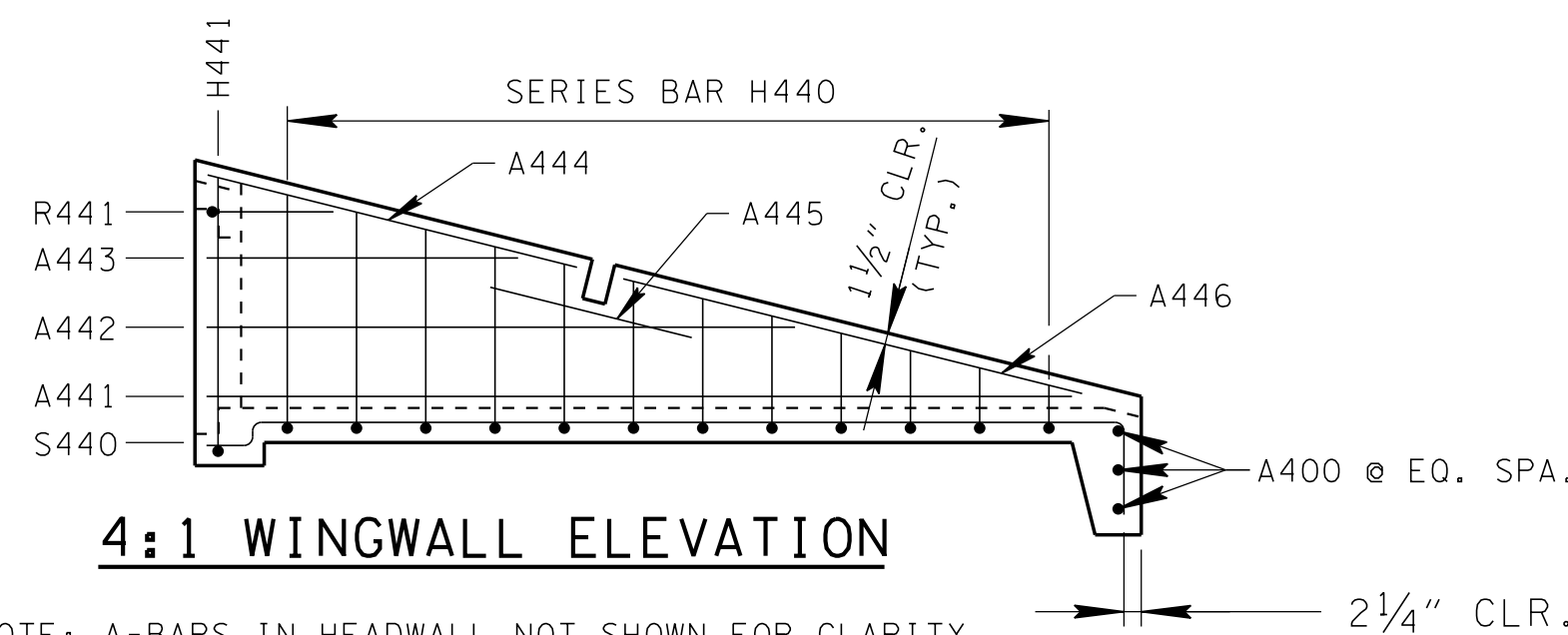


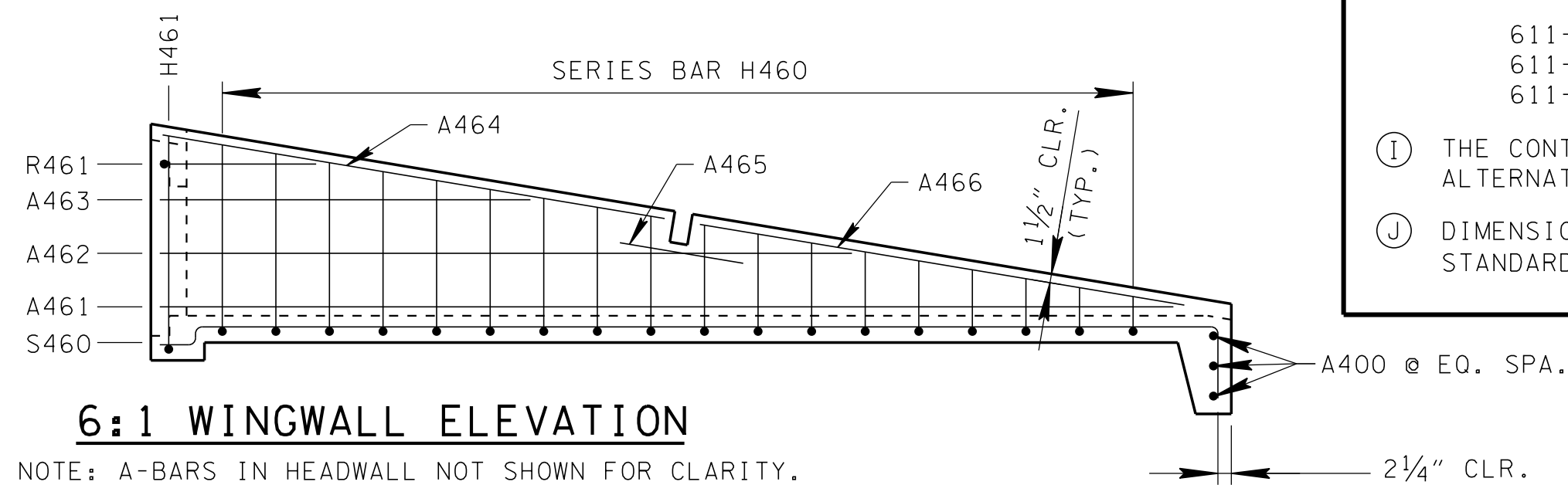
Diagram illustrating the elevation view of a roof structure, showing various components and dimensions:

- Series Bar H430:** Dimensioned across the top of the structure.
- Roof Slope:** Indicated by a line labeled $1\frac{1}{2}''$ CLR. (TYP.)
- Components:**
 - A431:** Vertical dimension on the left side.
 - A433:** Vertical dimension on the left side.
 - A432:** Vertical dimension on the left side.
 - A434:** Component labeled on the upper slope.
 - A435:** Component labeled on the upper slope.
 - A436:** Component labeled on the lower slope.
 - A400 @ EQ. SPA.:** Component labeled on the right side, indicating equal spacing.
- Dimensions:**
 - 2 1/4" CLR.:** Dimensioned at the bottom right corner.

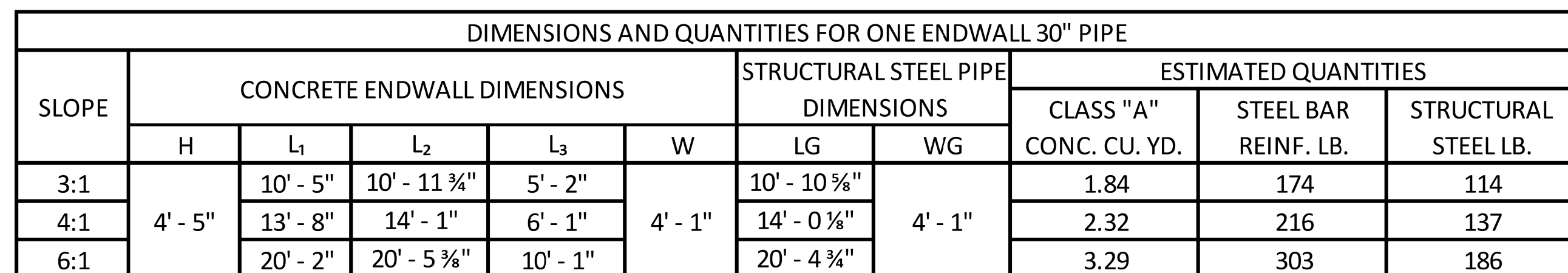
NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



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



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

- (A) DRAWING TO BE USED FOR ALL CAST-IN-PLACE AND ALL PRECAST 30" CONCRETE ENDWALLS (TYPE "U") FOR CROSS DRAINS ONLY. "U" ENDWALL TO BE PLACED AT 90° SKEW TO CENTERLINE. SEE 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 D-PE-30B 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) 90° STEPS ARE SHOWN ON THE STEPPED HOLE DETAIL; HOWEVER MINOR VARIATIONS OF THE TAPER ARE ACCEPTABLE.
- (G) OPTIONAL STEPPED HOLE OR HOLE FORMERS ARE ALLOWED, PROVIDED THE AMOUNT OF COVER BETWEEN THE PIPE OPENING AND BARS A701 AND A702 IS THE SAME OR GREATER THAN SHOWN ON THIS DRAWING.
- (H) PAYMENT WILL BE MADE UNDER:
 - 611-07.60 30IN ENDWALL (CROSS DRAIN) 3:1 PER EACH
 - 611-07.61 30IN ENDWALL (CROSS DRAIN) 4:1 PER EACH
 - 611-07.62 30IN ENDWALL (CROSS DRAIN) 6:1 PER EACH
- (I) THE CONTRACTOR MAY ELECT TO SUBSTITUTE AN APPROVED ALTERNATIVE DESIGN.
- (J) DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE 5-3.

☒ MINOR REVISION -- FHWA
APPROVAL NOT REQUIRED.

30" CONCRETE ENDWALL
CROSS DRAIN WITH
STEEL PIPE GRATE
(FOR 3:1, 4:1 & 6:1 SLOPES)

NOT TO SCALE	3-1-12	D-PE-30A
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