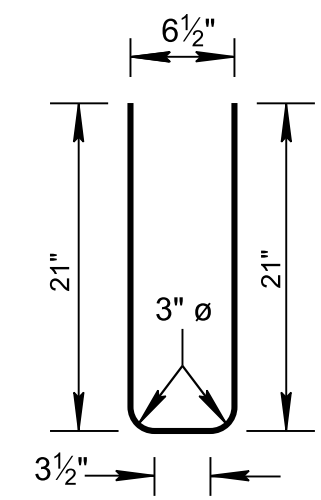
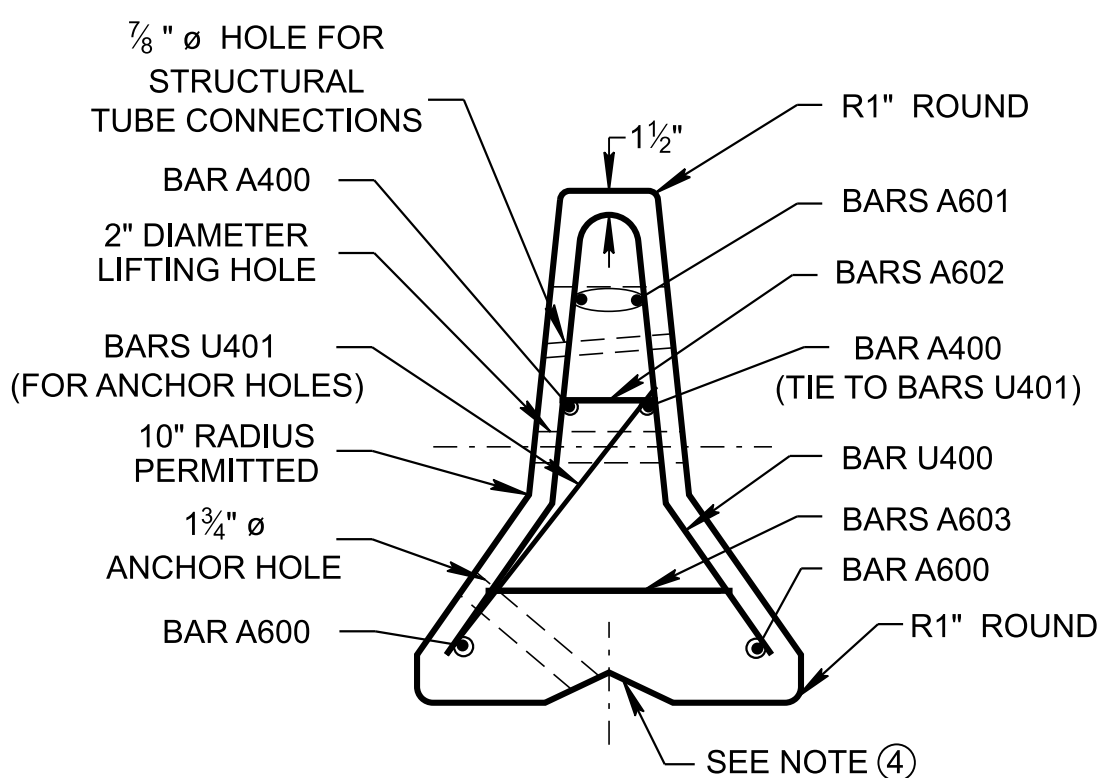
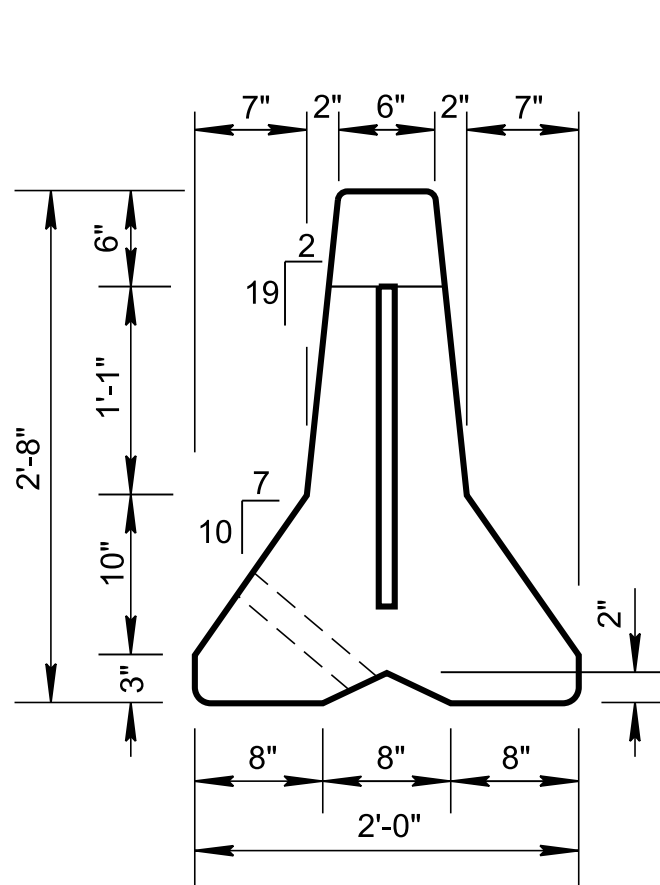


BAR U400



BAR U401
(FOR ANCHOR HOLES)

BARS A400, A600, A601, A602 AND A603
(SEE TABLE FOR LENGTH)



END VIEW

TYPICAL SECTION

APPROXIMATE WEIGHT AND QUANTITIES			
SECTION LENGTH (FT.)	WEIGHT (LB.)	REINFORCING STEEL (LB.)	CONCRETE (C. Y.)
20	8505	209	2.1

BILL OF STEEL			
BAR TYPE	BAR SIZE	NUMBER REQUIRED	LENGTH
A600	6	2	19'-6"
A601	6	2	19'-0"
A602	6	2	0'-6"
A603	6	2	1'-2"
A400	4	2	19'-0"
U400	4	8	5'-1 1/2"
U401	4	6	4'-2"

LIFTING HOLE AND SLOT FOOTNOTES	
①	2" DIAMETER LIFTING HOLE - 2 REQUIRED FOR EACH UNIT AND TO BE PLACED 4'-6" FROM EACH END OF THE 20 FOOT BARRIER WALL. ADDITIONAL HOLES MAY BE ADDED AT THE DISCRETION OF THE FABRICATOR. LIFTING HOLES ARE TO BE FORMED WITH 2" PVC PIPE OR EQUAL.
②	LIFTING BARS SHALL BE REQUIRED WHEN MOVING THE BARRIER WALLS TO PREVENT SPALLING OF CONCRETE AROUND HOLES.
③	SIX INCH LIFT SLOTS PROVIDES DRAINAGE FOR THE PAVEMENT, THE OPENINGS SHALL NOT BE BLOCKED.
④	AT THE DISCRETION OF THE FABRICATOR LIFTING DEVICES MAY BE USED AT THE BOTTOM OF BARRIER. THE LIFTING DEVICES SHALL NOT INTERFERE WITH THE PIN HOLE LOCATIONS.

GENERAL NOTES	
Ⓐ	PRECAST PORTABLE CONCRETE BARRIER RAIL SHALL BE CONSTRUCTED WITH CLASS 'X' CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI, AND MANUFACTURED IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.
Ⓑ	REINFORCING STEEL: TO BE ASTM A615. PLACE ALL STEEL REINFORCEMENT 1 1/2" MINIMUM FROM OUTSIDE FACE OF WALL, EXCEPT AS OTHERWISE SHOWN. ALL REINFORCEMENT SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
Ⓒ	SEE STANDARD DRAWING T-WZ-PCB3 FOR CONNECTION KEY DETAILS.
Ⓓ	THE PERFORMANCE OF THE 32 INCH TALL 20 FOOT LONG PORTABLE CONCRETE BARRIER RAIL HAS BEEN EVALUATED BY THE MIDWEST ROADSIDE SAFETY FACILITY AND MEETS MASH TL-3 STANDARDS. THE EVALUATION OF THE PCB HAS BEEN DOCUMENTED IN REPORT NUMBER TRP-03-355-18.
Ⓔ	LOCATIONS WHERE PERMANENT DEFLECTION BETWEEN THE BARRIER AND WORK SPACE IS NOT AVAILABLE, BOX BEAM STIFFENER TUBE OR DROP ANCHOR PINS SHALL BE USED TO REDUCE DEFLECTION.
Ⓕ	BASED ON SEGMENT LENGTH AND MAXIMUM JOINT ROTATION, THE 20 FEET PORTABLE CONCRETE BARRIER CANNOT BE INSTALLED ON RADIUS TIGHTER THAN 230 FEET.
Ⓖ	FOR BARRIER TO PERFORM BOTH ENDS MUST BE ANCHORED. ANCHORING THE ENDS MAY BE ACCOMPLISHED BY ATTACHING A CRASH CUSHION OR USING ANCHOR PINS SEE STANDARD DRAWING T-WZ-PCB4. THE COST OF ANCHOR PINS WILL BE INCLUDED IN THE UNIT PRICE OF THE PORTABLE BARRIER RAIL.
Ⓕ	A 3" x 4" DELINEATOR SHALL BE INSTALLED ON EACH BARRIER WALL. SEE STANDARD DRAWING T-WZ-PBR2.
Ⓘ	AFTER A BARRIER UNIT HAS BEEN PLACED AND ALL THE CONNECTION KEYS HAVE BEEN INSERTED, REMOVE ANY SLACK IN THE JOINT BY PULLING THE UNIT IN A DIRECTION PARALLEL TO ITS LONGITUDINAL AXIS.
Ⓙ	ANY PORTABLE BARRIER RAIL DAMAGED AFTER IMPACT SHALL BE REMOVED FROM THE CONSTRUCTION SITE, AND REPLACED IMMEDIATELY.
Ⓚ	PAYMENT: PAYMENT FOR CONNECTION KEY, JOINT ASSEMBLY STEEL TUBE, PLATES, ANCHOR PINS AND OTHER HARDWARE MATERIALS WILL BE INCLUDED IN THE UNIT PRICE OF PORTABLE BARRIER RAIL ITEM NUMBER: 712-02.10, PORTABLE BARRIER RAIL (MASH TL-3), PER L.F.

REV. 01-28-2022: REVISED REINFORCEMENT BAR CLEAR COVER FROM 2" TO 1 1/2" ON GENERAL NOTE ⑦ AND TYPICAL SECTION, AND REVISED BAR DIMENSIONS AND BILL OF STEEL.

REV. 12-09-2022: GENERAL NOTES ⑦, ⑧, ⑨ AND ⑩ WERE REVISED.

REV. 10-01-24: GENERAL NOTES ⑧, AND ⑩ WERE REVISED.

REV. 03-26-25: UPDATED TO CONFORM TO MUTCD 11TH EDITION.

STATE OF TENNESSEE
STANDARD
DRAWING
DEPARTMENT OF TRANSPORTATION

20 FOOT
PORTABLE
CONCRETE
BARRIER RAIL

10-16-2020T-WZ-PCB2