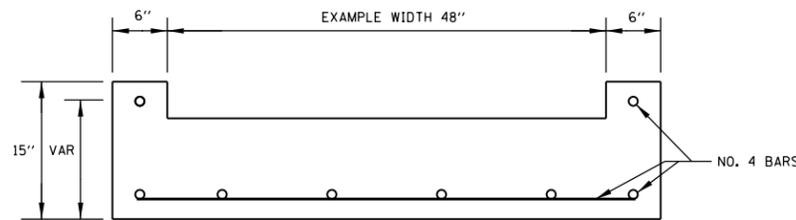
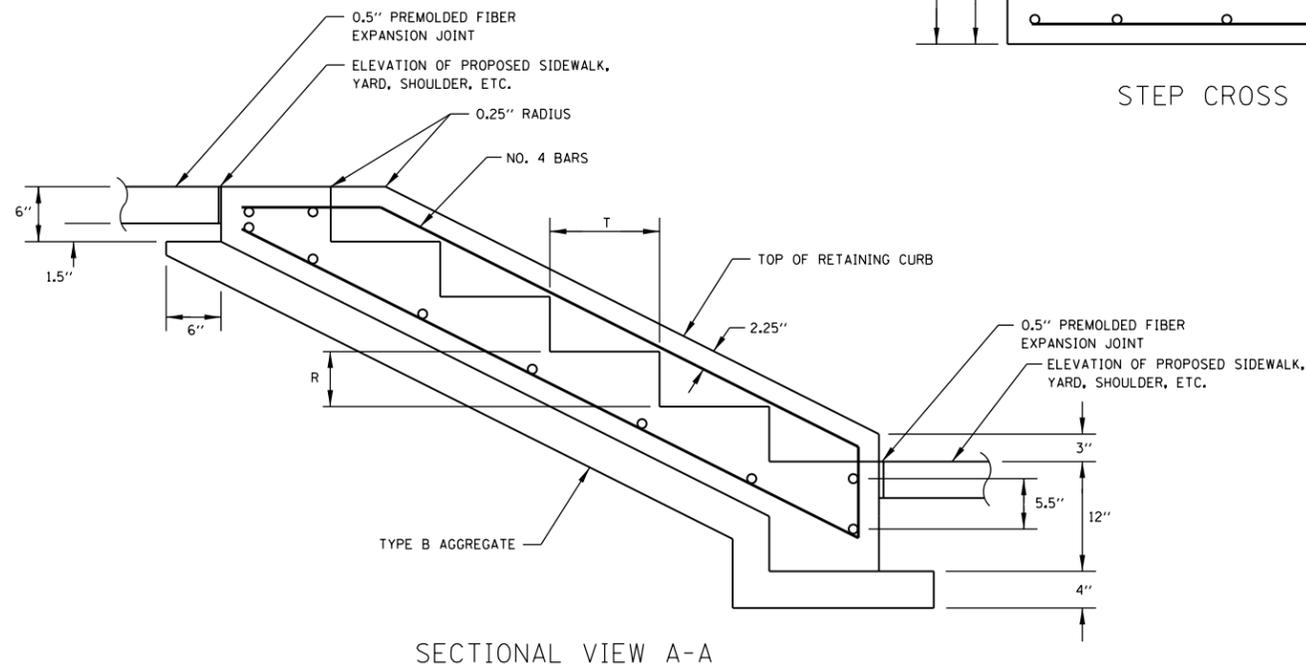


PLAN VIEW FOR
HANDRAIL INSTALLATION
ON CONCRETE STEPS



STEP CROSS SECTION



HANDRAIL GENERAL NOTES

- PIPE HANDRAIL IS TO BE PAINTED BLACK IN COLOR AND ADHERE TO FEDERAL SPECIFICATION TT-E-489H
- THIS PIPE HANDRAIL IS TO BE USED ONLY AS A PROTECTION FOR PEDESTRIANS AND SHOULD NOT BE PLACED IN ANY LOCATION WHERE IT MIGHT BE SUBJECT TO VEHICULAR IMPACT. FOR VEHICULAR PROTECTION STANDARD GUARD RAIL SHOULD BE USED.
- THE PIPE HANDRAIL SHALL BE REQUIRED WITH FOUR OR MORE STEPS AND WILL MEET THE FOLLOWING CONDITIONS:
 - ON STEPS LESS THAN 44 INCHES WIDE HAVING BOTH SIDES ENCLOSED, AT LEAST ONE HANDRAIL PREFERABLY ON THE RIGHT SIDE DESCENDING.
 - ON STEPS LESS THAN 44 INCHES WIDE HAVING ONE SIDE OPEN, ONE HANDRAIL ON EACH SIDE.
 - ON STEPS LESS THAN 44 INCHES WIDE HAVING BOTH SIDES OPEN, ONE HANDRAIL ON EACH SIDE.
 - ON STEPS MORE THAN 44 INCHES WIDE BUT LESS THAN 88 INCHES WIDE, ONE HANDRAIL ON EACH SIDE.
 - ON STEPS 99 OR MORE INCHES, ONE HANDRAIL ON EACH SIDE, AND ONE INTERMEDIATE HANDRAIL LOCATED APPROXIMATELY MIDWAY OF THE WIDTH.

CONCRETE STEP GENERAL NOTES

- FOR SPECIFICATIONS SEE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
- CONCRETE STEPS MAY BE CAST IN PLACE OR PRECAST. ALL CONCRETE CAST IN PLACE TO BE CLASS "A". ALL PRECAST TO BE 4000 POUNDS PER SQUARE INCH.
- ALL EXPOSED EDGES ARE TO BE ROUNDED USING A QUARTER INCH RADIUS.
- THE TREAD IS TO BE ELEVEN TO FIFTEEN INCHES DEEP. THE RISER HEIGHT IS TO BE VARIED SO AS TO CONFORM TO THE PROPOSED SLOPE. A MAXIMUM RISER HEIGHT OF SEVEN INCHES IS NOT TO BE EXCEEDED.
- CONCRETE JOINT MATERIAL TO BE 0.5" PREMOLDED FIBER IN ACCORDANCE WITH SECTION 905 OF THE STANDARD SPECIFICATIONS. COST OF JOINT MATERIAL WILL BE INCLUDED IN THE COST OF OTHER ITEMS.
- ALL REINFORCING STEEL TO ADHERE TO SPECIFICATION ASTM A 615. ALL REINFORCING STEEL TO BE NO. 4 BARS.
- THE COST OF EXCAVATION BELOW LEVEL ON PROPOSED SLOPE TO BE INCLUDED IN THE COST OF OTHER ITEMS.

LEGEND

H: 34" MIN, 38" MAX
R: 4" MIN, 7" MAX
T: 11" MIN, 15" MAX

FILE NAME =	USER NAME = default	DESIGNED -	REVISED -
P:\Projects\513501\CADD\DN\0876885-sht	details.dgn	DRAWN -	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/25/2013	DATE - 01/25/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STANDARD CONCRETE STEPS AND PIPE HANDRAILS DETAILS

SCALE: N/A SHEET NO. 3 OF 4 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	60-(30,31,128)-3	MADISON	529	368
CONTRACT NO. 76B85				
ILLINOIS FED. AID PROJECT				