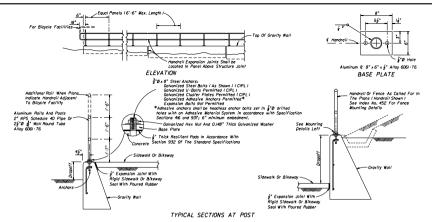
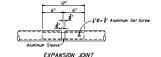


GRAVITY WALL

ALU	MINL	JM	PIPE	HAND	RAILS,
GRAV	/ITY	W.	ALLS	AND	STEPS
-	Names	Dates	Approve	- D.	
Designed By	Names	Dates		-Ba	J. La
Designed By Drawn By	CIR	02/68		-Ba	Index No.
				- Ka	





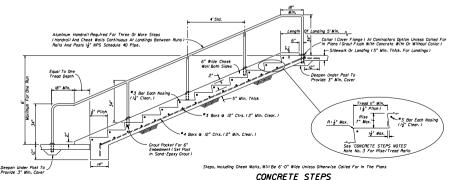
ALUMINUM PIPE HANDRAIL NOTES

- This handrail is applicable to mountings on walls and other roadway structures subject to pedestrian use where dropoffs do not exceed thirty Inches (30°); and, applicable to select uses on sidewalk, within service areas and similar locations where foundation support and probagons are advanted or on the provided.
- 2. All fixed Joints to be either webled all around and ground smooth or, comercially designed fixed joint systems isoderest, brazel, fuset, bonded or shrink fitted; specified on the plans or approved by the Engineer, Mechanical joints other than exponsion joints are not permitted unless specified on the plans or approved in writing by the Engineer. Posts shall be connected to base by weld only. Weld filter to be oblight PERSSE, ERSSES or ERSSES.
- 3. Anchor bolls shall be in accordance with ASTM A36 or A307, Nuts, washers, and bolls to be had dip golvanized in conformance with ASTM A33. After the nuts have been tightened, the anchor boll thread at the top of the nut shall be punch distorted and coated with Zinc compound.
- Aluminum handrall shall be constructed in accordance with Section 5/5 of the Standard Specifications. Payment shall be full compensation for furnishing and installing handrall, including mounting hardware, and shall be paid for under the contract unit price for Pipe Handrall (Aluminum), LF.

DESIGN NOTES

 For dropoffs that exceed thirty inches (30"), handrails for customary applications are provided in Structures Standard Index No. 850. For unusal site conditions where handrails are needed, the handrail is to be designed site specific by the responsible engineer.

ALUMINUM PIPE HANDRAIL ON GRAVITY WALLS FOR DROPOFFS >10" AND ≤2'-6"



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CONCRETE STEPS NOTES

- Step and handrail design shown is for soil supported steps without adjacent drapoffs; do not use for suspended (structural) steps or stairway.
- 2. 12 risers maximum between landings.
- 3. Ratio of riser height to tread depth; 2R"+T" = 26".
- For steps parallel to and adjoining walls, delete adjoining cheek wall and mount handrail to wall at height and length shown.
- Aluminum handrail shall be constructed in accordance with Section 515 of the Standard Specifications. Payment shall be full compensation for furnishing and installing handrail, including mounting hardware, and shall be paid for under the contract unit price for Pipe Handrail (Aluminum), LF.
- Cost of concrete steps, landings and cheek walls shall be paid for under the contract unit price for Class I Concrete (Miscellaneous), CY. Cost of reinforcing steel shall be paid for under the contract unit price for Reinforcing Steel (Miscellaneous), LB.