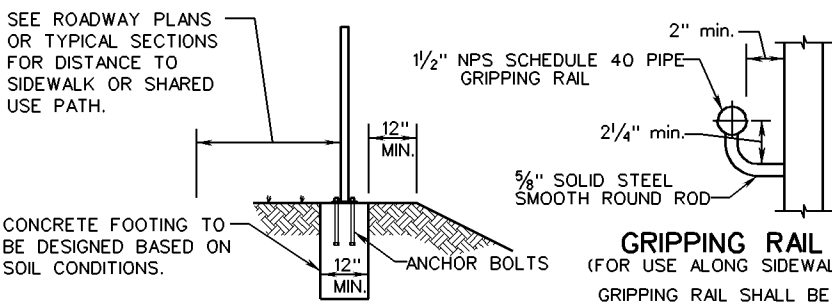


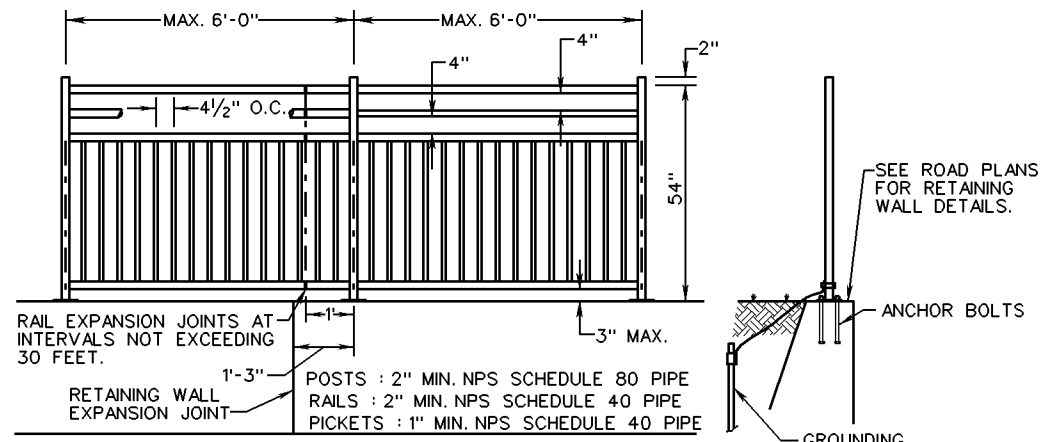
HR-1 TYPE II PEDESTRIAN RAILING
(FOR USE ALONG SIDEWALKS AND RAMPS)



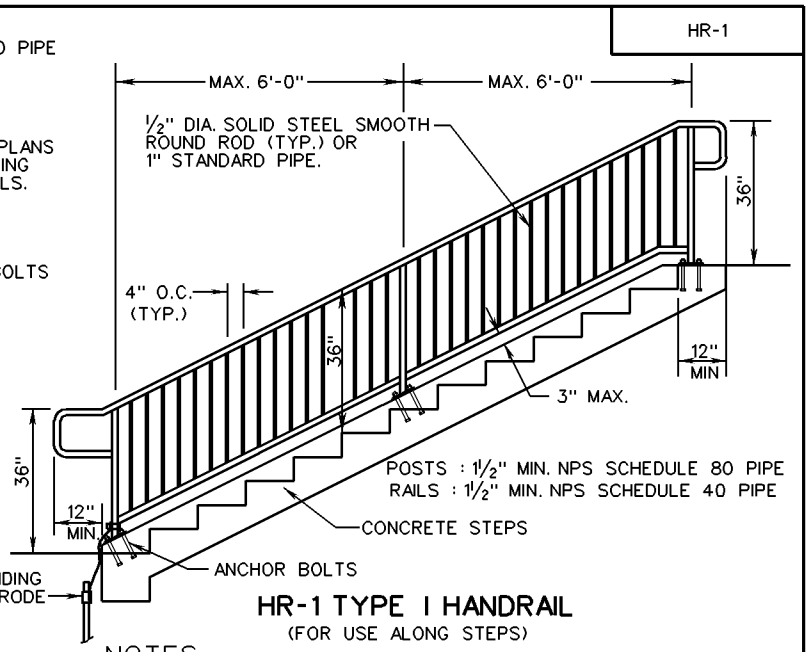
GRIPPING RAIL DETAIL
(FOR USE ALONG SIDEWALKS AND RAMPS)

GRIPPING RAIL SHALL BE INSTALLED WHEN THE SIDEWALK OR RAMP GRADES ARE EQUAL TO OR GREATER THAN 5 PERCENT. GRIPPING RAIL WILL BE INCIDENTAL TO THE COST OF THE RAILING.

EARTH FOUNDATION DETAIL
(FOR USE WITH TYPE II & III RAILINGS)



HR-1 TYPE III BICYCLE RAILING
(FOR USE ALONG SHARED USE PATHS)



HR-1 TYPE I HANDRAIL
(FOR USE ALONG STEPS)

NOTES

1. SHOP DRAWINGS DETAILING ALL ASPECTS OF FABRICATION AND INSTALLATION OF RAILING, INCLUDING CONCRETE FOUNDATIONS SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. SHOP DRAWINGS SHALL BE SIGNED AND SEALED IN ACCORDANCE WITH SECTION 105.10 OF THE CURRENT ROAD AND BRIDGE SPECIFICATIONS.
2. ALL RAILING COMPONENTS AND FASTENERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE CURRENT ROAD AND BRIDGE SPECIFICATIONS. TO ACHIEVE A UNIFORM COATING ON ALL SURFACES VENTING AND DRAINAGE HOLES FOR GALVANIZING SHALL BE INCLUDED IN THE SHOP DRAWINGS.
3. ALL FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A307, ASTM A563, AND ASTM F844. ALL ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH AASHTO M314, GRADE 36.
4. A CHEMICAL ANCHOR SYSTEM FROM VDOT'S APPROVED MATERIAL LIST MAY BE USED IN LIEU OF CAST IN PLACE ANCHORS AND SHALL BE INCLUDED IN THE SHOP DRAWINGS.
5. POSTS SHALL BE MITERED TO MATCH GRADE OF RAMPS, SIDEWALKS, AND STEPS.
6. HANDRAILS SHALL MATCH GRADE OF RAMPS SIDEWALKS AND STEPS.
7. ALL POSTS AND PICKETS SHALL BE SET PLUMB.
8. RAILINGS SHALL BE GROUNDED AND EFFECTIVELY BONDED. GROUNDING MATERIALS INSTALLATION TO BE IN ACCORDANCE WITH S'D. FE-6.
9. COMMERCIALY AVAILABLE RAILING SYSTEMS MAY BE USED IN LIEU OF DESIGNING AND FABRICATING THE RAILING. DOCUMENTATION FROM THE MANUFACTURER VERIFYING THAT PROJECT REQUIREMENTS ARE MET WITH THE RAILING SYSTEM SHALL BE SUBMITTED WITH THE INSTALLATION DRAWINGS AND APPROVED BY THE ENGINEER IN ACCORDANCE WITH NOTE 1.
10. HANDRAIL TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE.
11. THIS 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 ANY VEHICULAR IMPACT. FOR VEHICULAR PROTECTION STANDARD GUARDRAIL SHOULD BE USED.

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|-------------------------|
| SPECIFICATION REFERENCE |
| 105 |
| 238 |
| 504 |

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

STANDARD HANDRAIL
METHOD OF LOCATING AND ERECTING
VIRGINIA DEPARTMENT OF TRANSPORTATION

| | |
|---------------------------|--------------|
| VDOT | |
| ROAD AND BRIDGE STANDARDS | |
| REVISION DATE | SHEET 1 OF 1 |
| 08/10 | 601.05 |