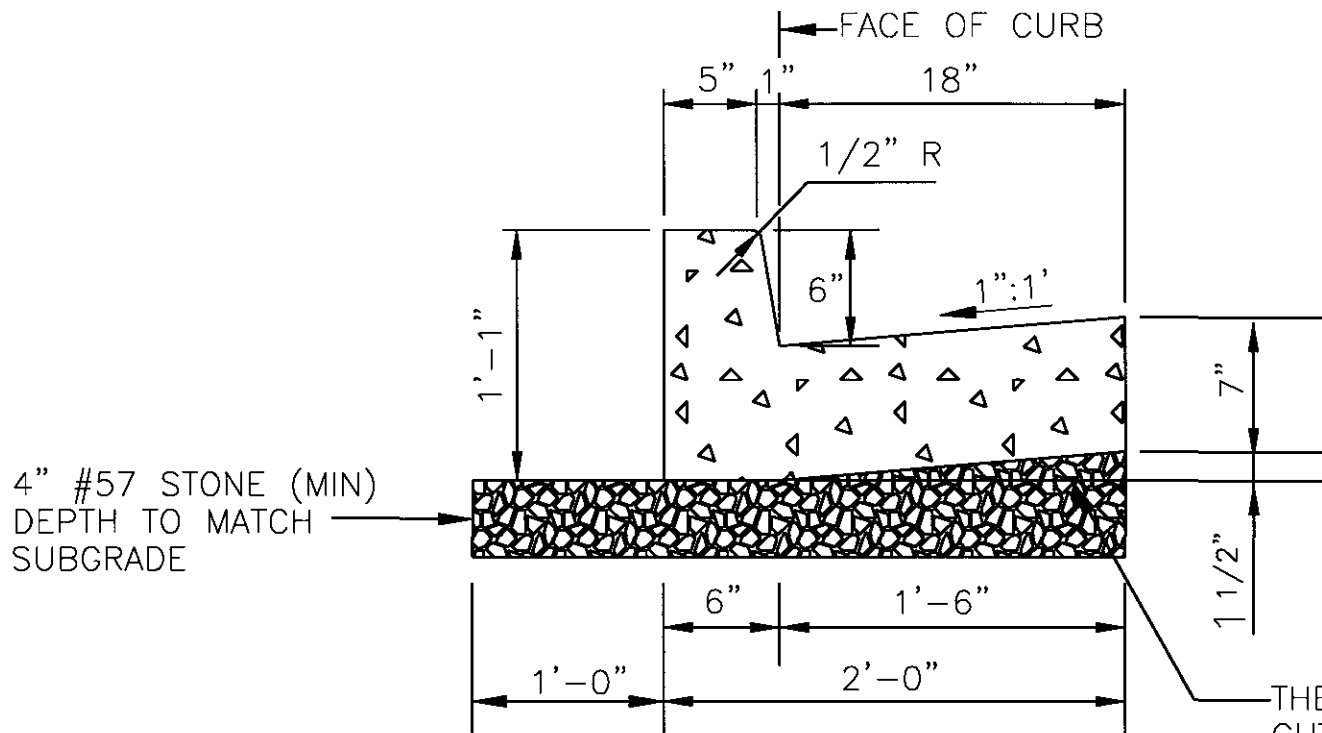


# Appendix C

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4" #57 STONE (MIN)  
DEPTH TO MATCH  
SUBGRADE

THE BOTTOM OF THE CURB AND  
GUTTER MAY BE CONSTRUCTED  
PARALLEL TO THE SLOPE OF  
SUBSURFACE COURSES PROVIDED  
A MINIMUM DEPTH OF 7" IS  
MAINTAINED.

CONCRETE SHALL BE CLASS A-3

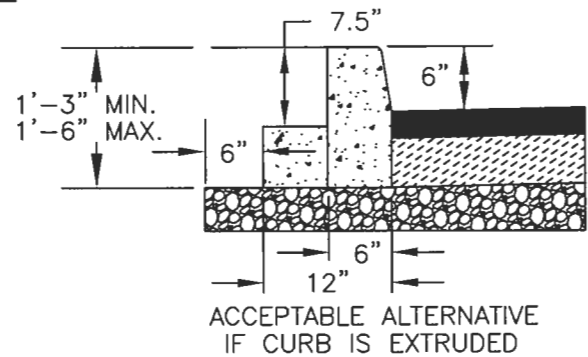
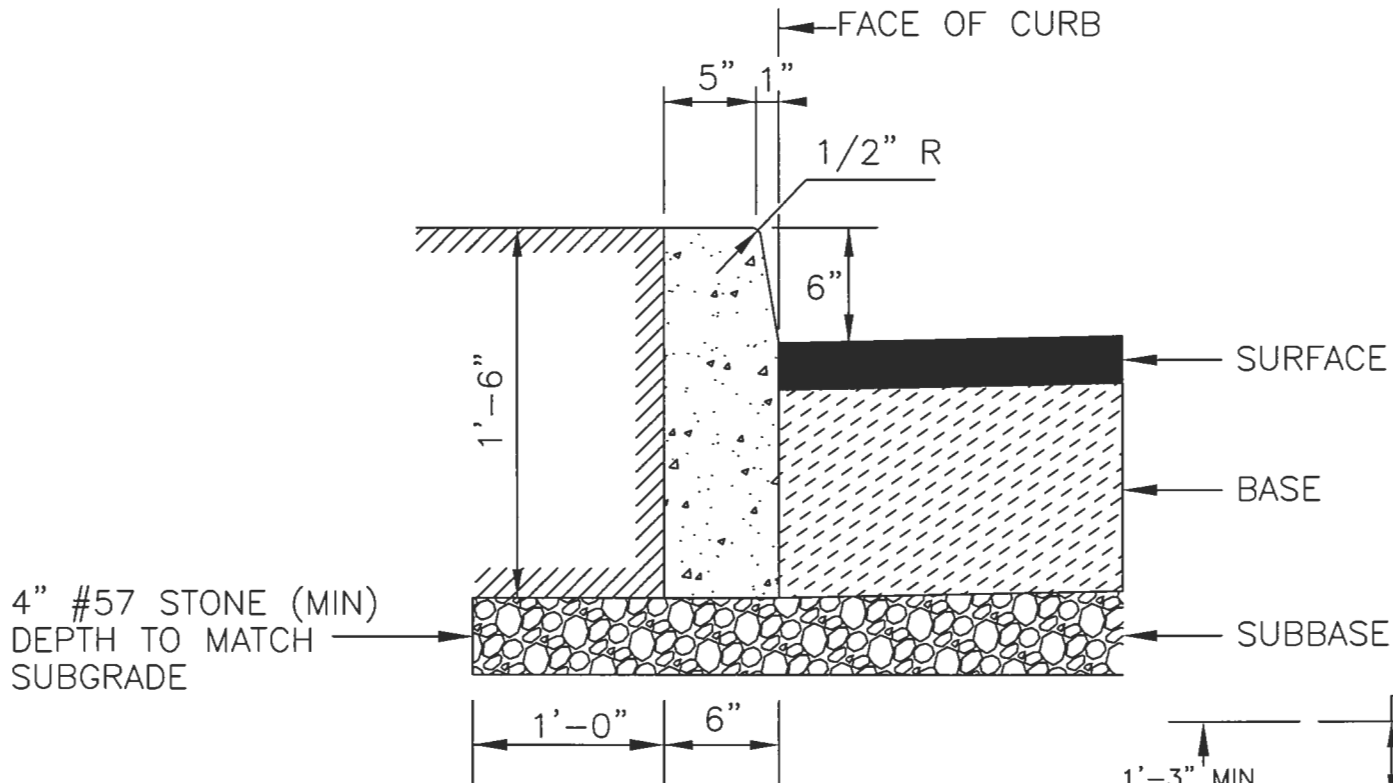


## CURB AND GUTTER

County of Henrico  
Department of Public Works

JANUARY 1, 2002

HSCG.DWG



CONCRETE SHALL BE CLASS A-3



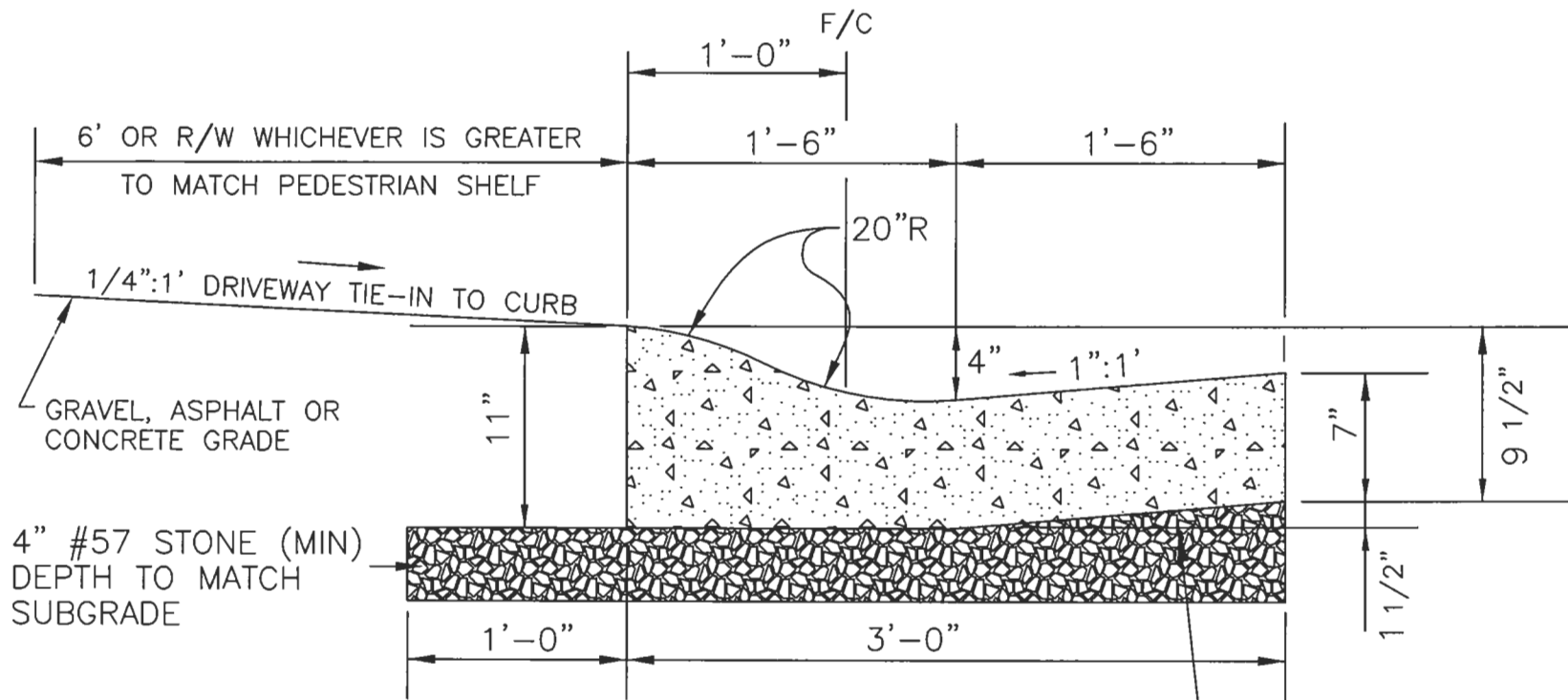
# INDEPENDENT CURB

County of Henrico  
Department of Public Works

REVISED 6/1/04

JANUARY 1, 2002

HSCG-2.DWG



NOTES:

1. CONCRETE SHALL BE CLASS A-3.
2. APRONS ARE NOT REQUIRED AT DRIVEWAYS WITH ROLL FACE CURB AND GUTTER UNLESS A CURB CUT DETAIL IS USED.
3. TYPE 'B' NOSE IS REQUIRED ON ALL INLETS INSTALLED WITH ROLL FACE CURB AND GUTTER. FOR CURB AND GUTTER TRANSITIONS SEE ROLL FACE CURB TRANSITIONS IN APPENDIX 'C' OF THIS MANUAL.

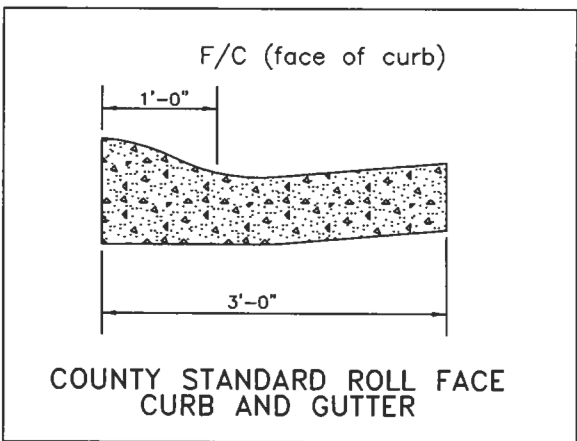
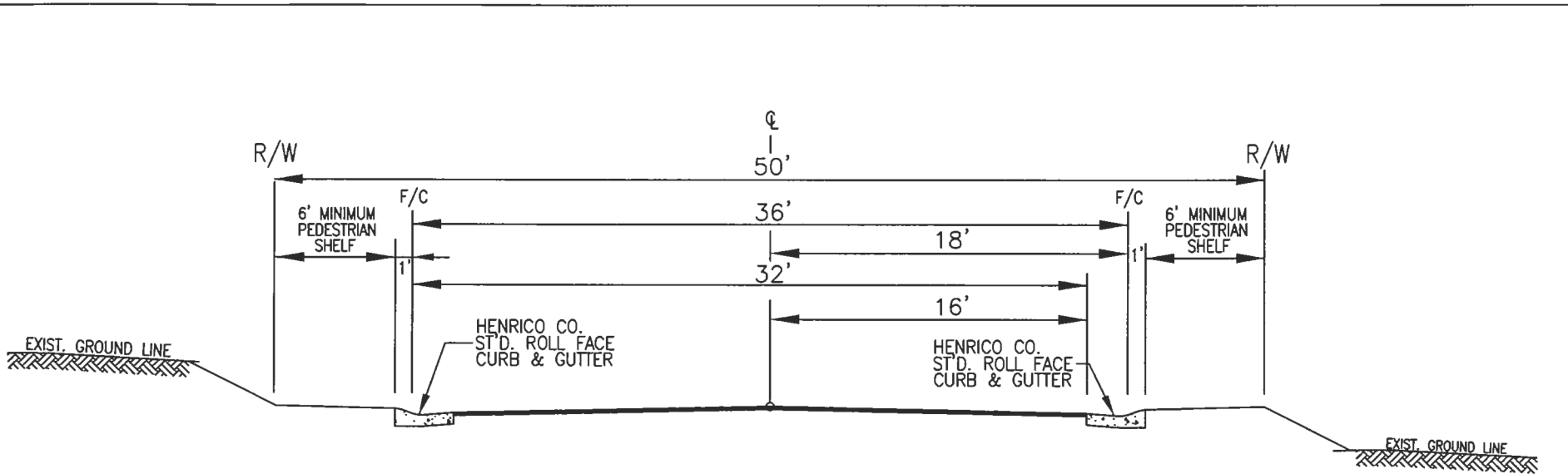
THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBSURFACE COURSES PROVIDED A MINIMUM DEPTH OF 7" IS MAINTAINED.



# ROLL FACE CURB AND GUTTER

County of Henrico  
Department of Public Works

REVISED 6/1/04
JANUARY 1, 2002
RFCG3.DWG



- NOTES:
1. FOR ADDITIONAL DETAILS ON ROLL FACE CURB AND GUTTER SEE DETAIL SHEET FOR ROLL FACE CURB AND GUTTER IN APPENDIX 'C' OF THIS MANUAL.
  2. FOR ADDITIONAL DETAILS ON TYPICAL SECTIONS SEE APPENDIX 'B' OF THIS MANUAL.
  3. INSTALLATION OF INLETS WITH ROLL FACE CURB AND GUTTER MUST UTILIZE A TYPE 'B' NOSE. FOR CURB AND GUTTER TRANSITIONS AT INLETS, SEE ROLL FACE CURB TRANSITION DETAIL IN APPENDIX 'C' OF THIS MANUAL.
  4. ROLL FACE CURB AND GUTTER PERMITTED UP TO AND INCLUDING CLASS V ROADS.

C-3.1



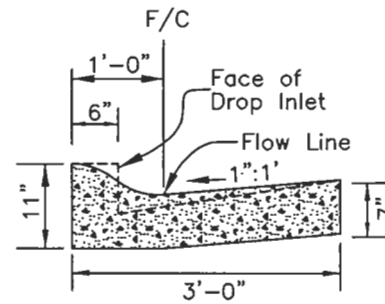
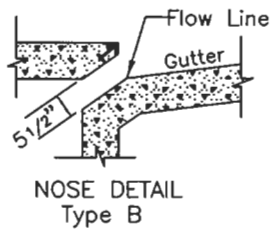
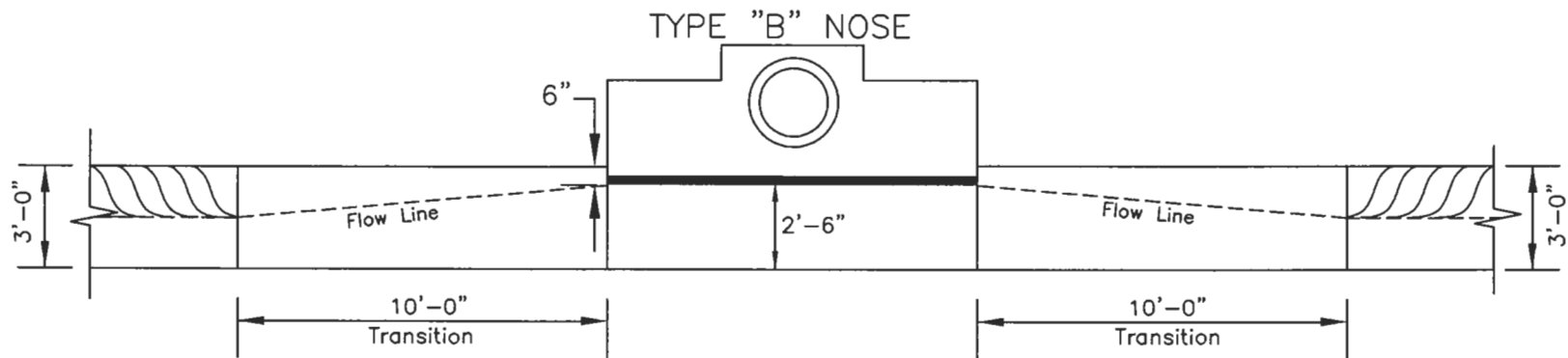
# PAVEMENT DIMENSIONS FOR ROLL FACE CURB AND GUTTER

County of Henrico  
Department of Public Works

REVISED 6/1/04

JANUARY 1, 2002

HENTYPSEC-RFCG.DWG



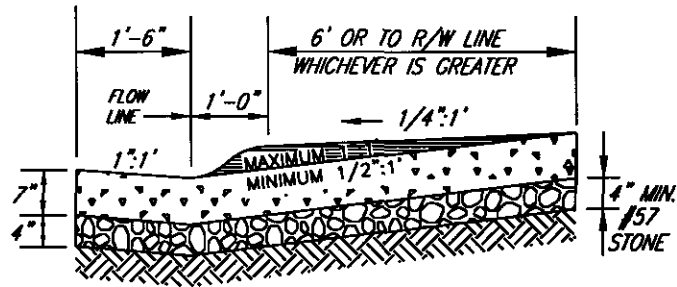
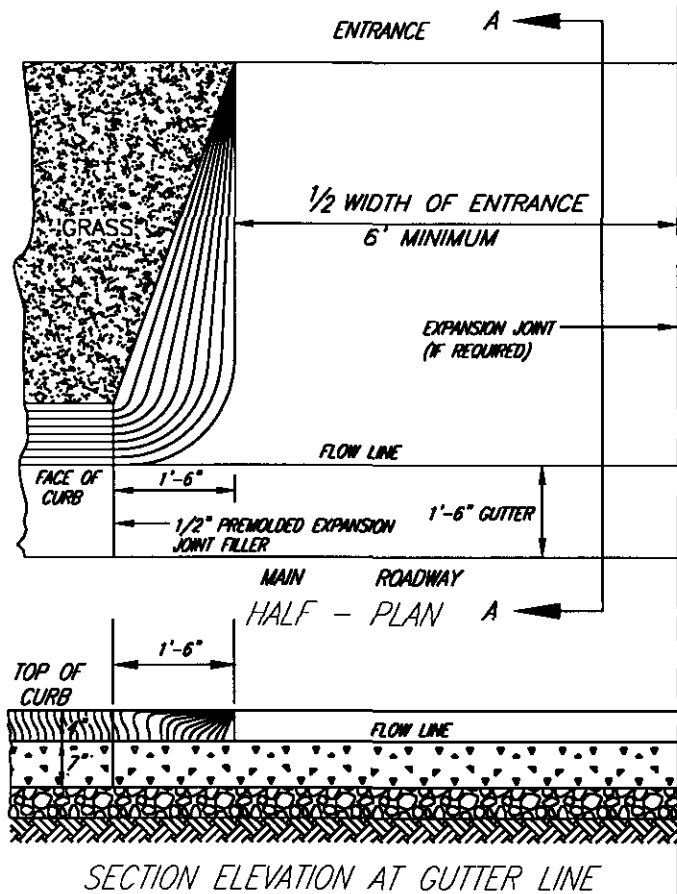
# ROLL FACE CURB TRANSITIONS

County of Henrico  
Department of Public Works

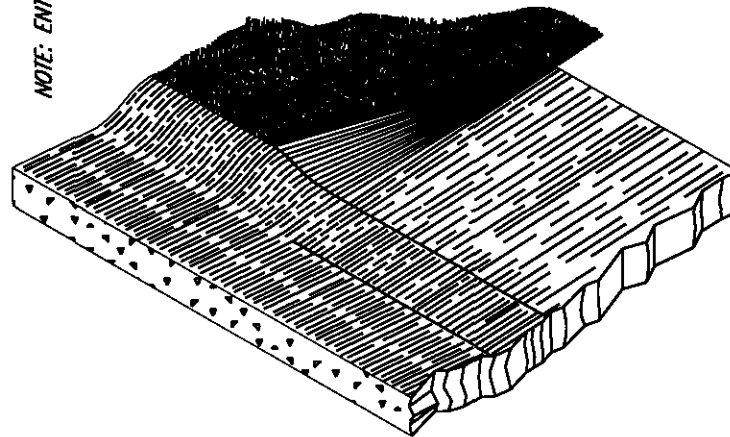
REVISED 6/1/04

JANUARY 1, 2002

RFCG3.0-TRANS.DWG



SECTION A-A



ISOMETRIC VIEW

NOTES: MODIFICATIONS TO THIS DETAIL MAY BE REQUIRED FOR SIDEWALKS AND MOBILITY IMPAIRMENT REQUIREMENTS.

CONCRETE SHALL BE CLASS A-3.

CONCRETE APRONS ARE REQUIRED IF:

1. THERE IS AN EXISTING SIDEWALK ADJACENT TO THE DRIVEWAY.
2. THERE IS A CURB INLET WITHIN 25' OF THE ENTRANCE.
3. THE LOT ADJACENT TO THE DRIVEWAY IS LOWER THAN THE CURB.

## STANDARD ENTRANCE APRON (FOR ROLL FACE CURB & GUTTER)

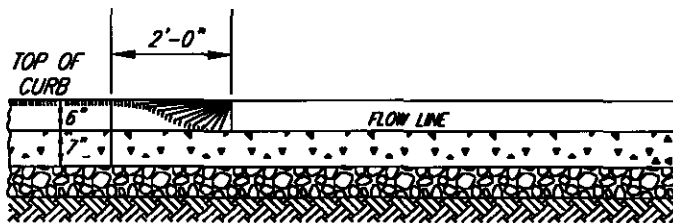
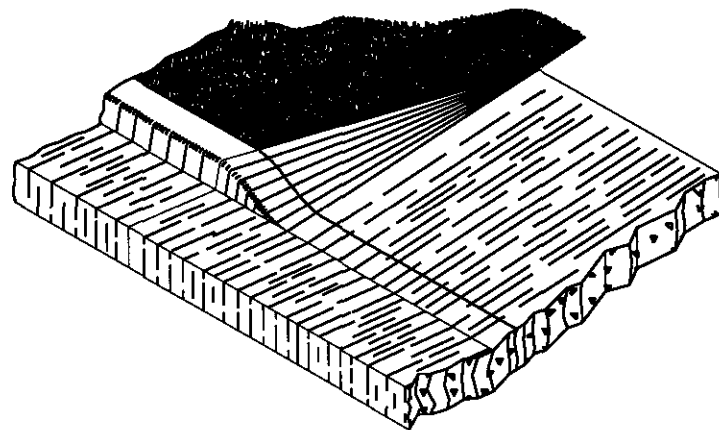
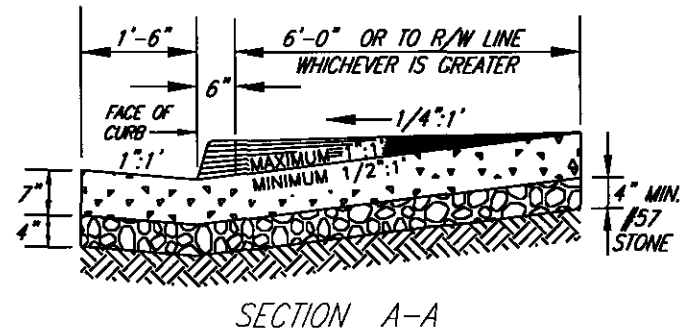
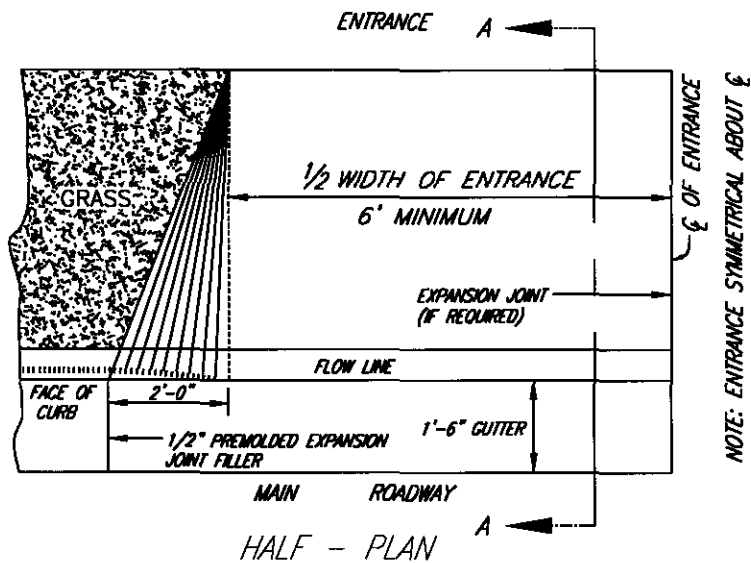
County of Henrico  
Department of Public Works

JANUARY 1, 2002

ENTR-WOSW-RFCG.DWG







SECTION ELEVATION AT GUTTER LINE

ISOMETRIC VIEW

NOTES: MODIFICATIONS TO THIS DETAIL MAY BE REQUIRED FOR SIDEWALKS AND MOBILITY IMPAIRMENT REQUIREMENTS.

CONCRETE SHALL BE CLASS A-3.

CONCRETE APRONS ARE REQUIRED IF:

1. THERE IS AN EXISTING SIDEWALK ADJACENT TO THE DRIVEWAY.
2. THERE IS A CURB INLET WITHIN 25' OF THE ENTRANCE.
3. THE LOT ADJACENT TO THE DRIVEWAY IS LOWER THAN THE CURB.

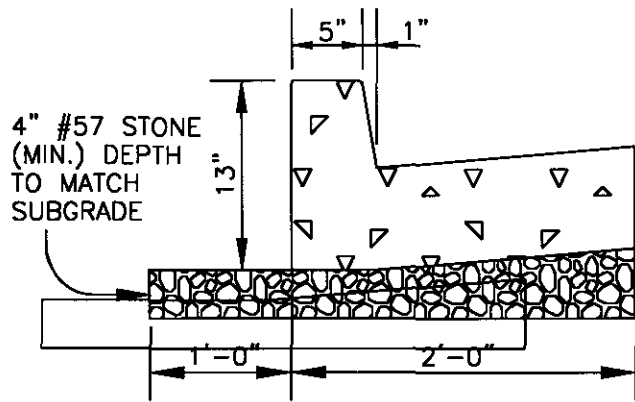
## STANDARD ENTRANCE APRON (FOR RESIDENTIAL USE ONLY)

County of Henrico  
Department of Public Works

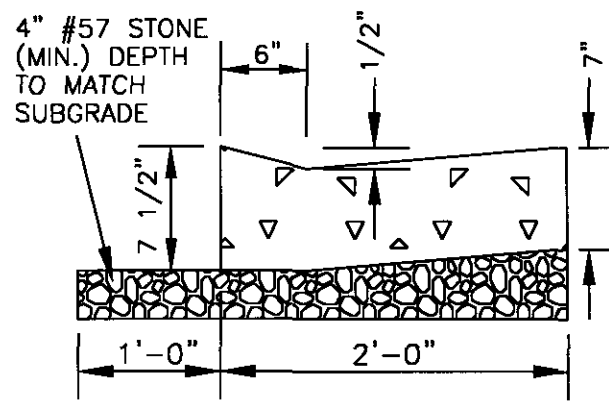
JANUARY 1, 2002

ENTR-WOSW.DWG

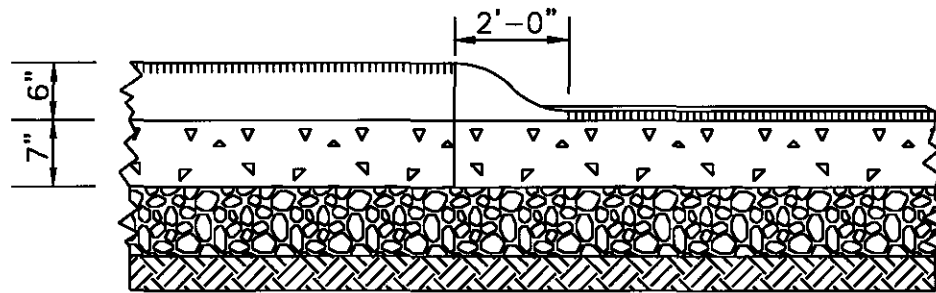




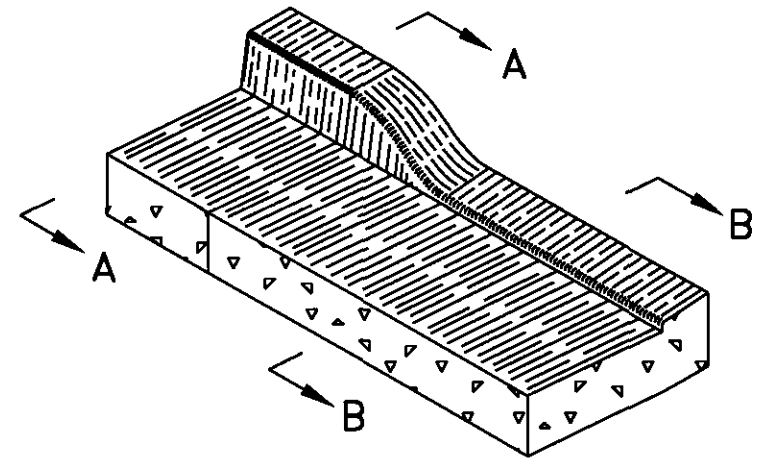
SECTION A-A



SECTION B-B



SECTION ELEVATION @ GUTTER LINE



ISOMETRIC VIEW

CONCRETE APRONS ARE REQUIRED IF:

1. THERE IS AN EXISTING SIDEWALK ADJACENT TO THE DRIVEWAY.
2. THERE IS A CURB INLET WITHIN 25' OF THE ENTRANCE.
3. THE LOT ADJACENT TO THE DRIVEWAY IS LOWER THAN THE CURB.
4. SEE APRON STANDARD

NOTE: WHEN A CURB CUT IS INSTALLED IN EXISTING CURB & GUTTER, THE EXISTING CURB & GUTTER SHALL BE COMPLETELY REMOVED (INCLUDING THE GUTTER PAN) BETWEEN EXISTING JOINTS AND A COMPLETE CURB CUT SECTION INSTALLED. IN LIEU OF REMOVING THE EXISTING CURB & GUTTER BETWEEN JOINTS, THE EXISTING CURB & GUTTER MAY BE SAWCUT PROVIDED THAT THE REMAINING SECTIONS ARE 5' OR GREATER IN LENGTH.

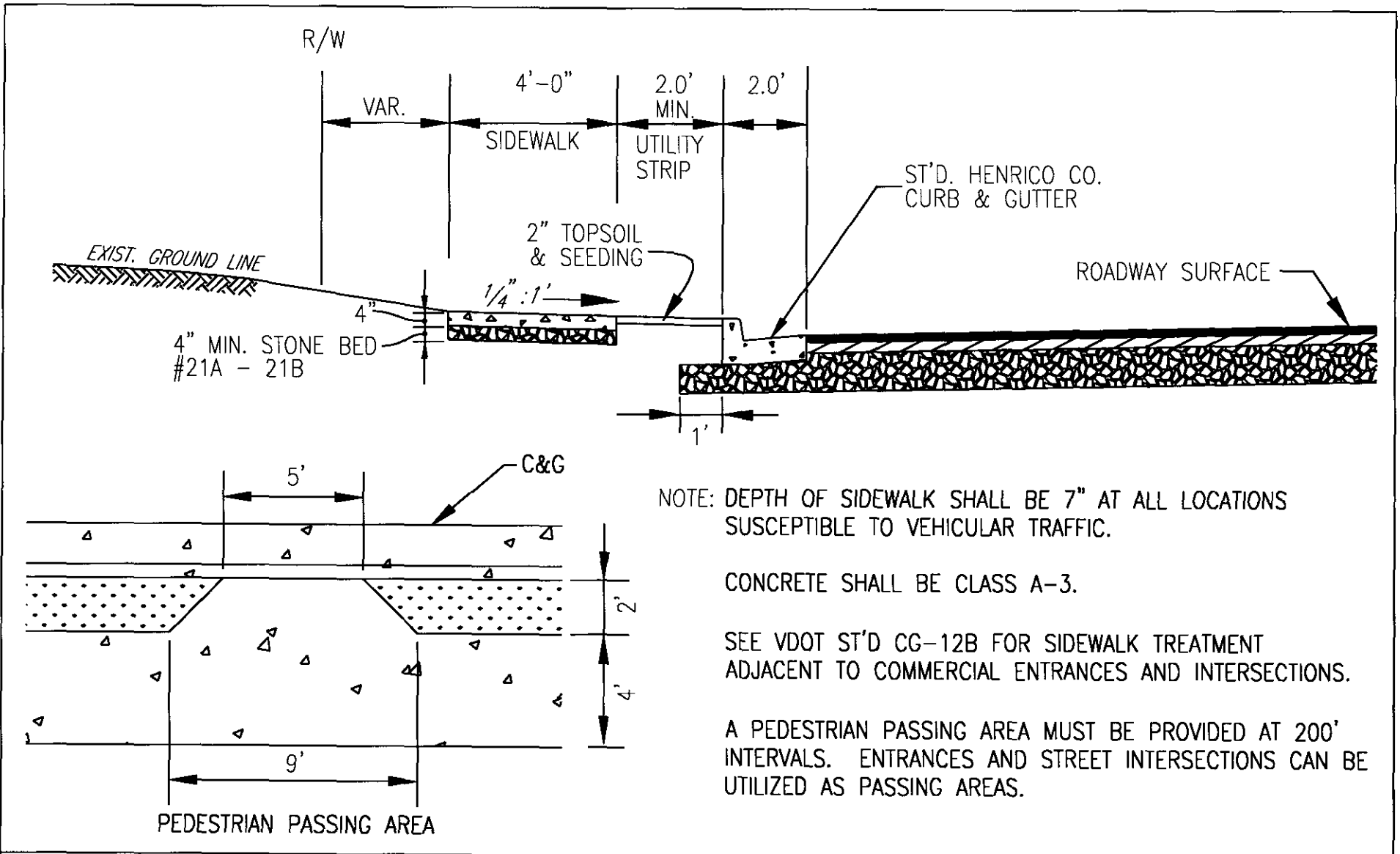


## RESIDENTIAL CURB CUT FOR DRIVEWAYS

County of Henrico  
Department of Public Works

JANUARY 1, 2002

CURB-CUT.DWG



C-8

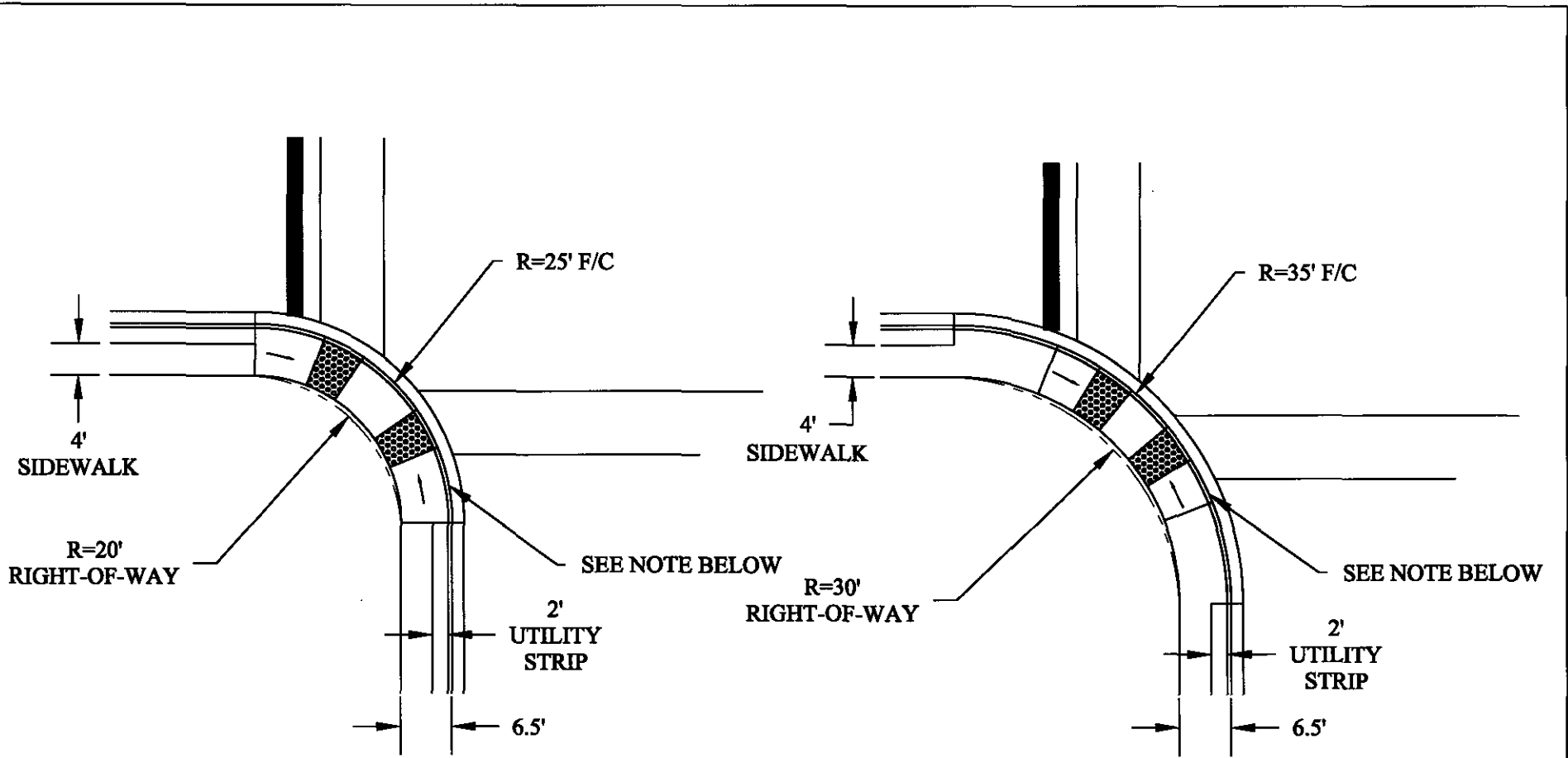


# SIDEWALK DETAIL

County of Henrico  
Department of Public Works

JANUARY 1, 2002

SIDEWALK.DWG



NOTE: CURB CUTS SHALL BE PROVIDED AT ALL INTERSECTIONS. A COMBINATION CURB CUT AND CURB RAMP SHALL BE PROVIDED WHERE SIDEWALKS EXIST OR ARE TO BE PROVIDED. SEE VDOT STANDARD CG-12B FOR DETAILS.

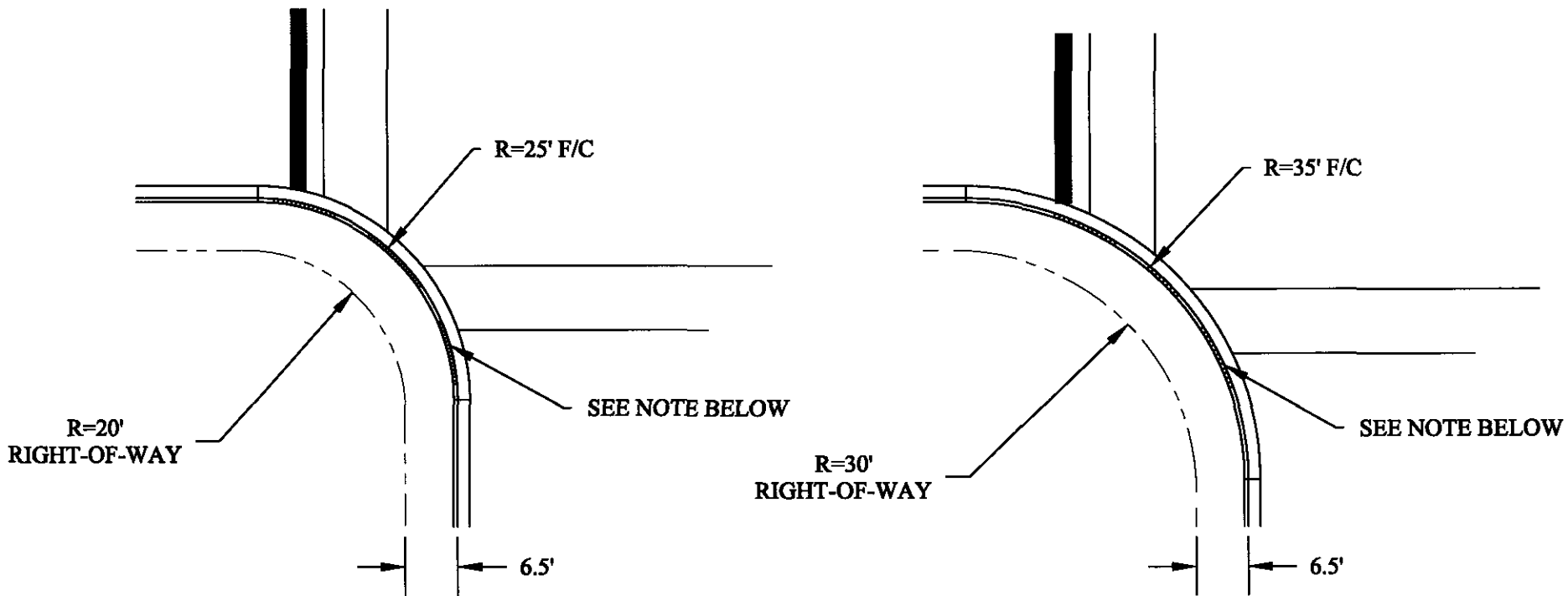
# COMBINATION CURB CUT AND RAMP

County of Henrico  
Department of Public Works

JANUARY 1, 2002

CURB\_RAMP.DWG





NOTE: CURB CUTS SHALL BE PROVIDED AT ALL INTERSECTIONS. A COMBINATION CURB CUT AND CURB RAMP SHALL BE PROVIDED WHERE SIDEWALKS EXIST OR ARE TO BE PROVIDED. SEE VDOT STANDARD CG-12B FOR DETAILS.

C-10

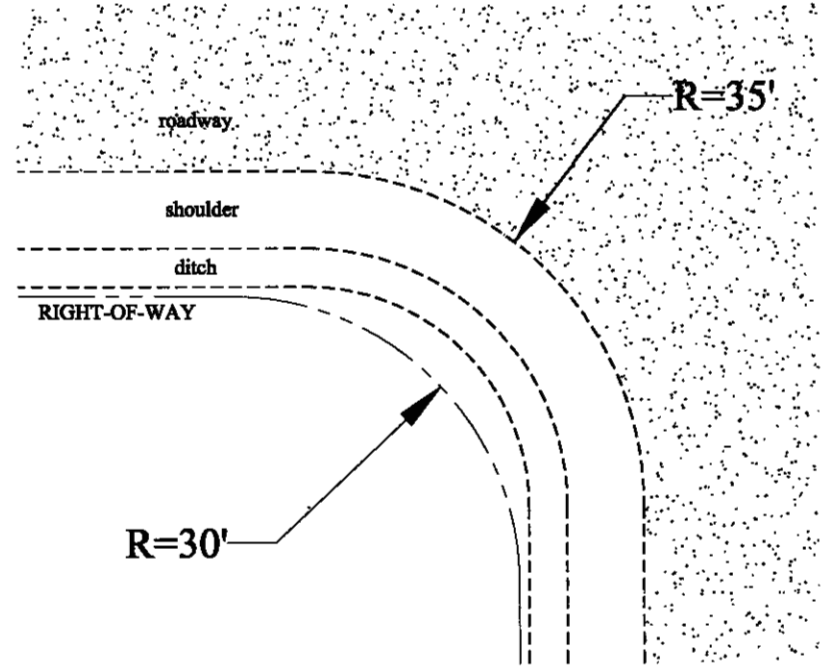
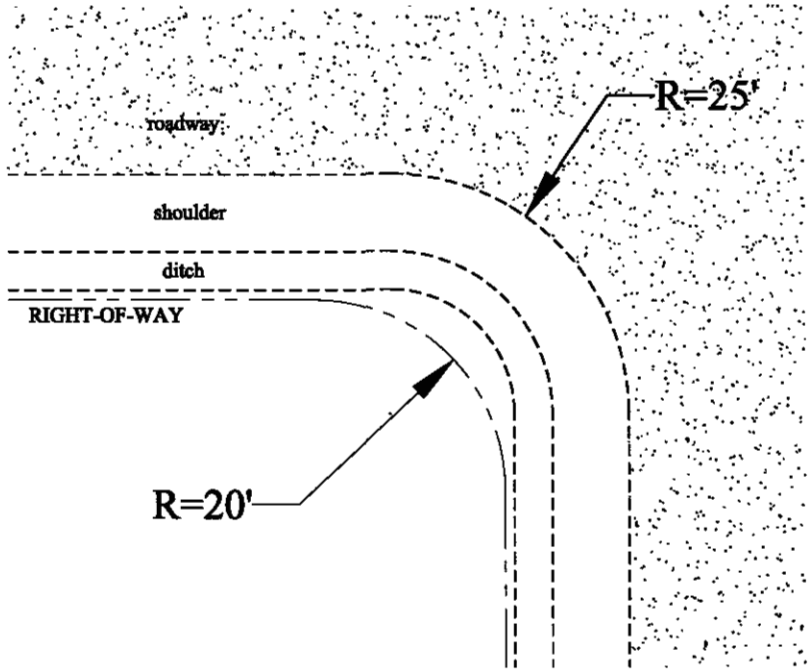


# CURB RETURNS

County of Henrico  
Department of Public Works

JANUARY 1, 2002

CURB\_RETURNS.DWG

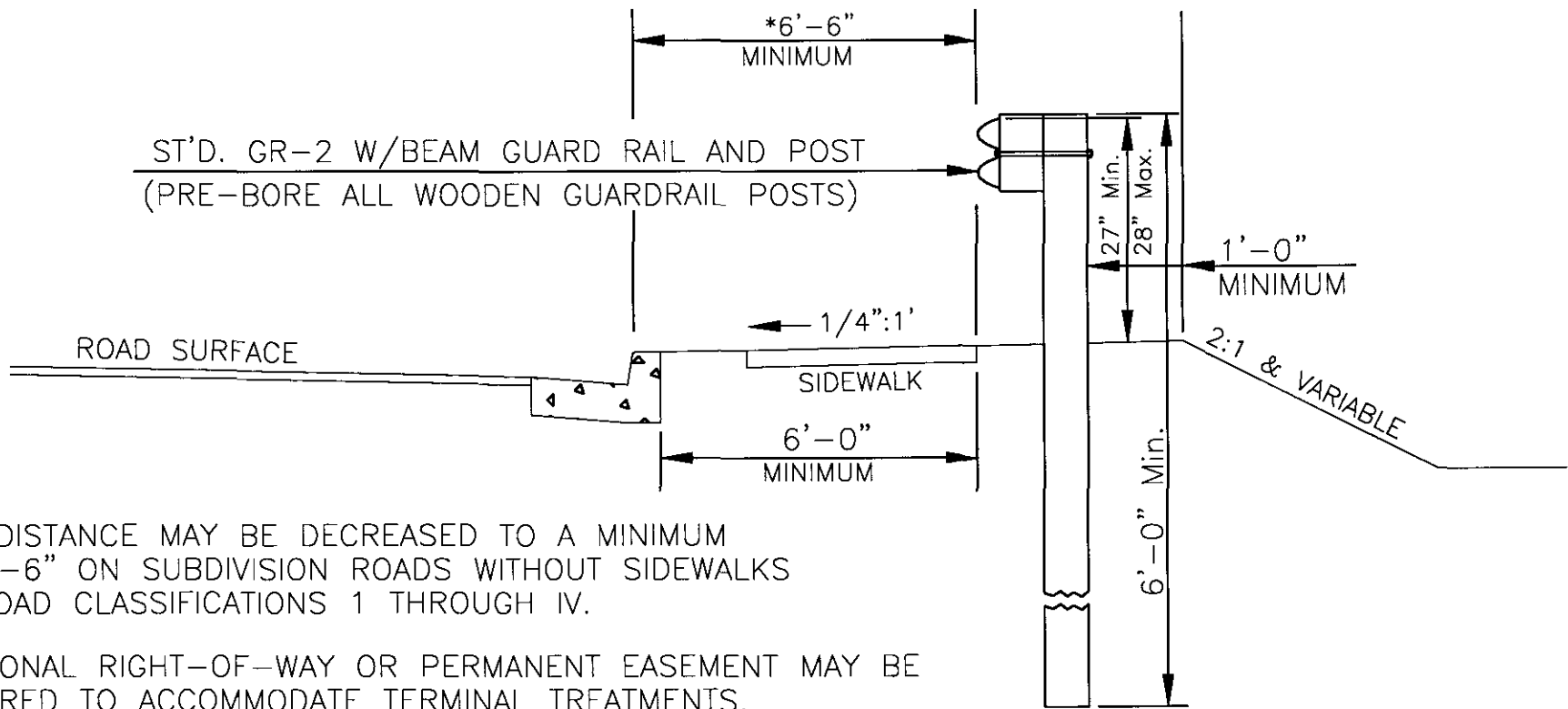


# EDGE OF PAVEMENT RETURN

County of Henrico  
Department of Public Works

JANUARY 1, 2002

EOP\_RETURN.DWG



\*THIS DISTANCE MAY BE DECREASED TO A MINIMUM OF 4'-6" ON SUBDIVISION ROADS WITHOUT SIDEWALKS ON ROAD CLASSIFICATIONS 1 THROUGH IV.

ADDITIONAL RIGHT-OF-WAY OR PERMANENT EASEMENT MAY BE REQUIRED TO ACCOMMODATE TERMINAL TREATMENTS.

FOR END TREATMENT AND OTHER DETAILS NOT SHOWN HERE, REFER TO VDOT STANDARDS FOR GUARDRAIL.

THIS DETAIL IS TO BE USED WITH CURB & GUTTER, SIDEWALK AND/OR SIDEWALK SHELF.

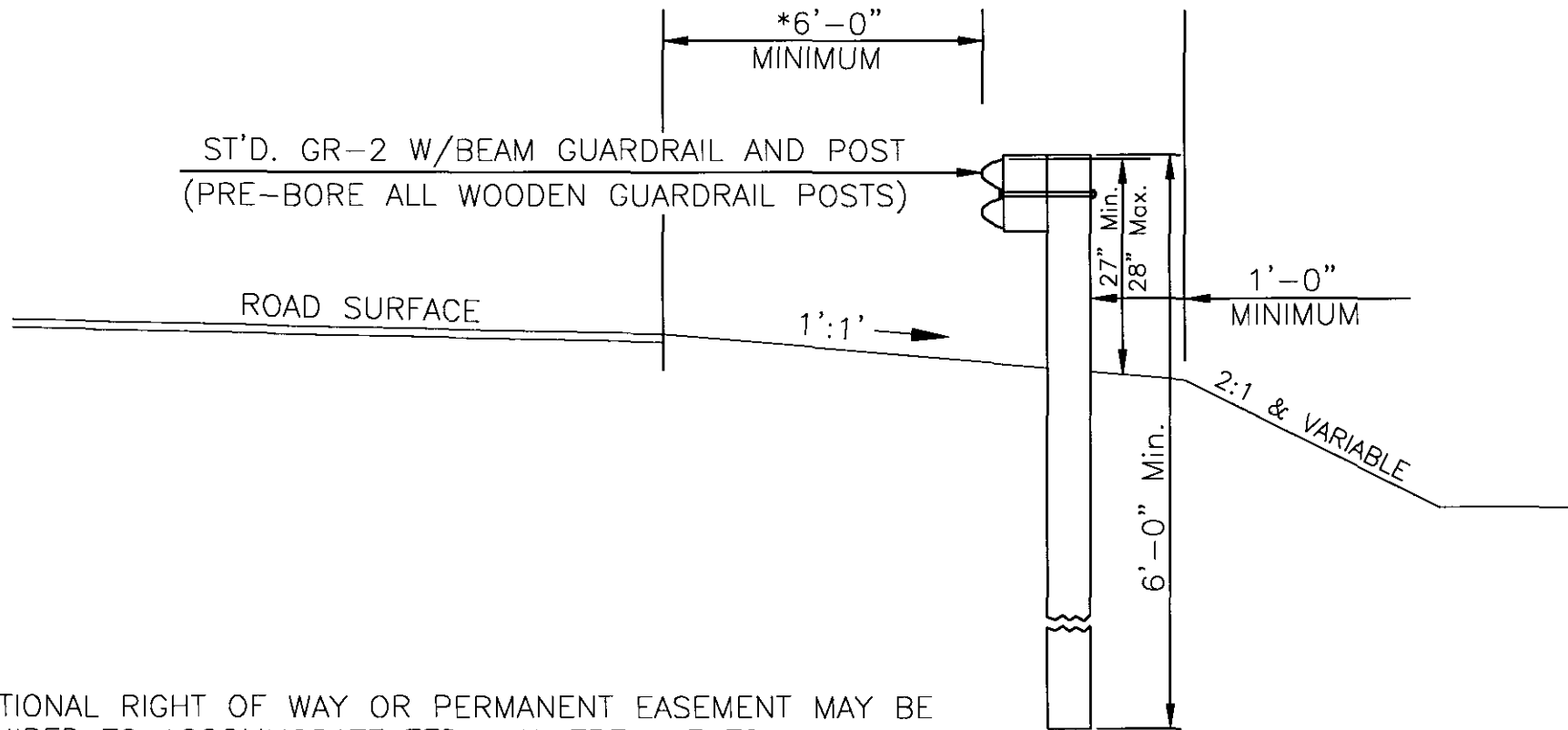


## GUARDRAIL DETAIL WITH CURB & GUTTER

County of Henrico  
Department of Public Works

JANUARY 1, 2002

GR-2-CG.DWG



ADDITIONAL RIGHT OF WAY OR PERMANENT EASEMENT MAY BE REQUIRED TO ACCOMMODATE TERMINAL TREATMENTS.



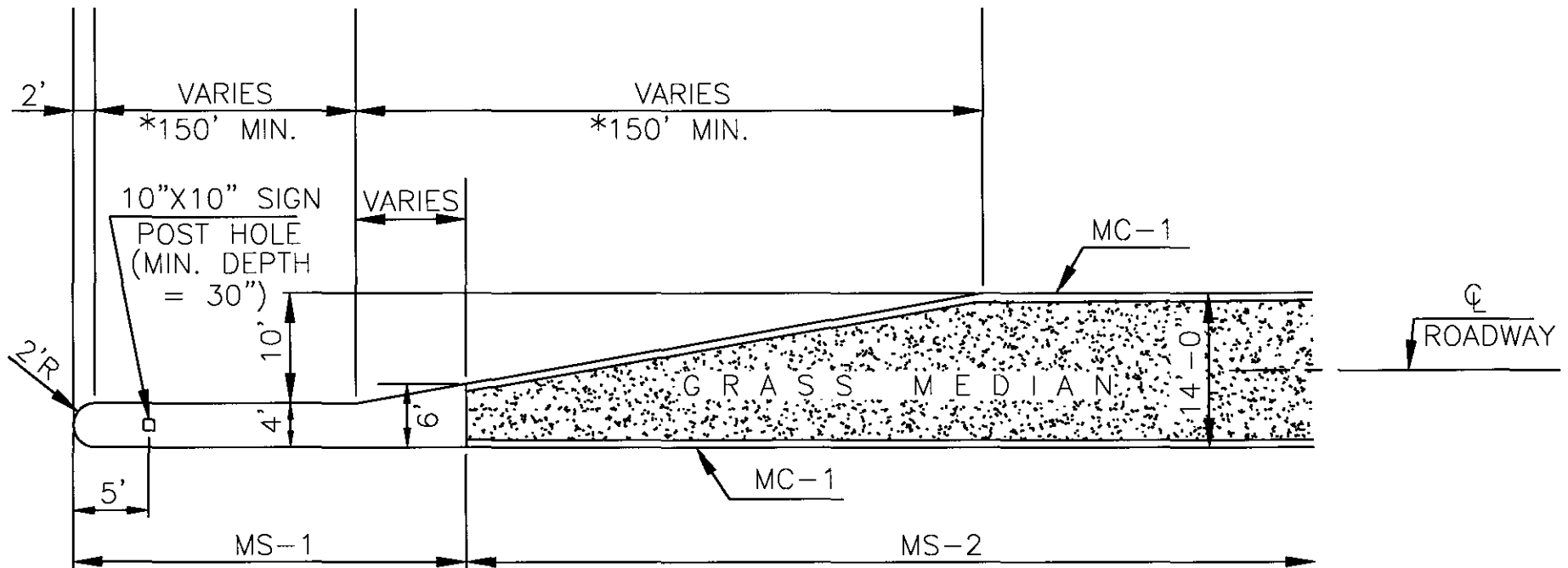
## GUARDRAIL DETAIL WITHOUT CURB & GUTTER

County of Henrico  
Department of Public Works

JANUARY 1, 2002

GR-2-WO-CG.DWG





\*TAPER AND LANE LENGTHS ARE TO BE APPROVED BY THE TRAFFIC ENGINEER.

NOTE: REFER TO VDOT STANDARDS FOR ADDITIONAL INFORMATION ON MEDIAN GRADING.  
 FACE SIDES ON MEDIAN STRIP SHALL CONFORM TO COUNTY STANDARD CURB SHAPE.  
 CONCRETE SHALL BE CLASS A-3.

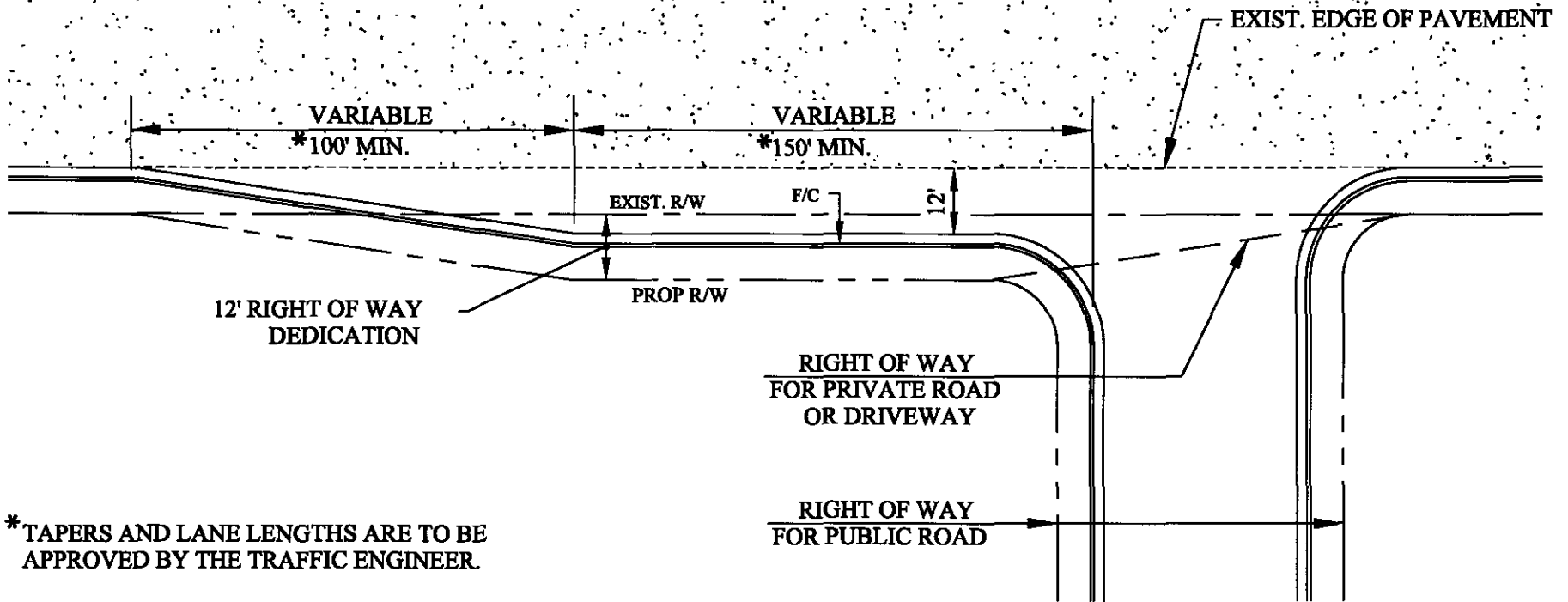


## RAISED 14' MEDIAN w/LEFT TURN LANE DETAIL

County of Henrico  
 Department of Public Works

JANUARY 1, 2002

MED-LT-14.DWG



\*TAPERS AND LANE LENGTHS ARE TO BE APPROVED BY THE TRAFFIC ENGINEER.

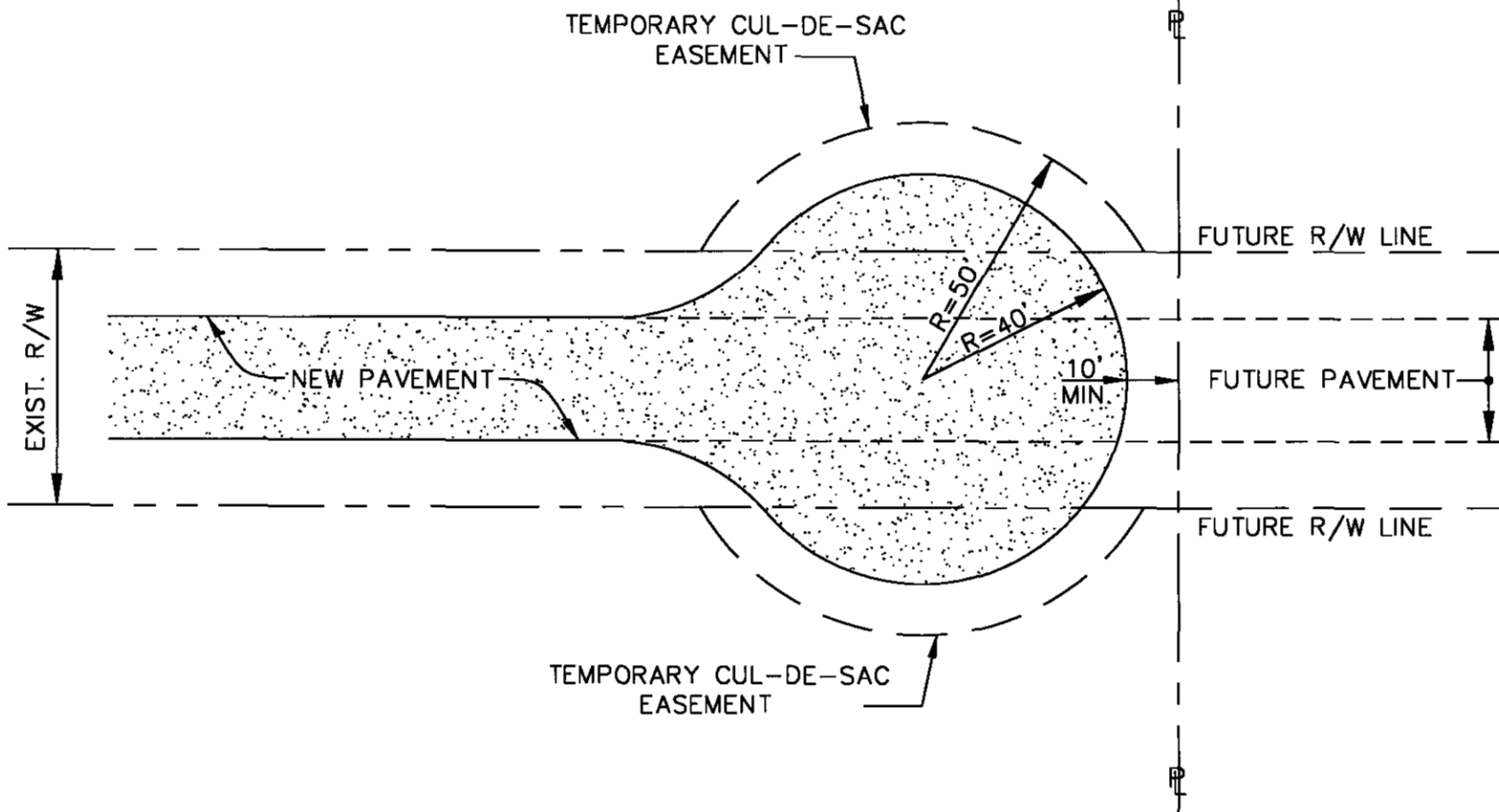


# RIGHT TURN LANE

County of Henrico  
Department of Public Works

JANUARY 1, 2002

RTL.DWG



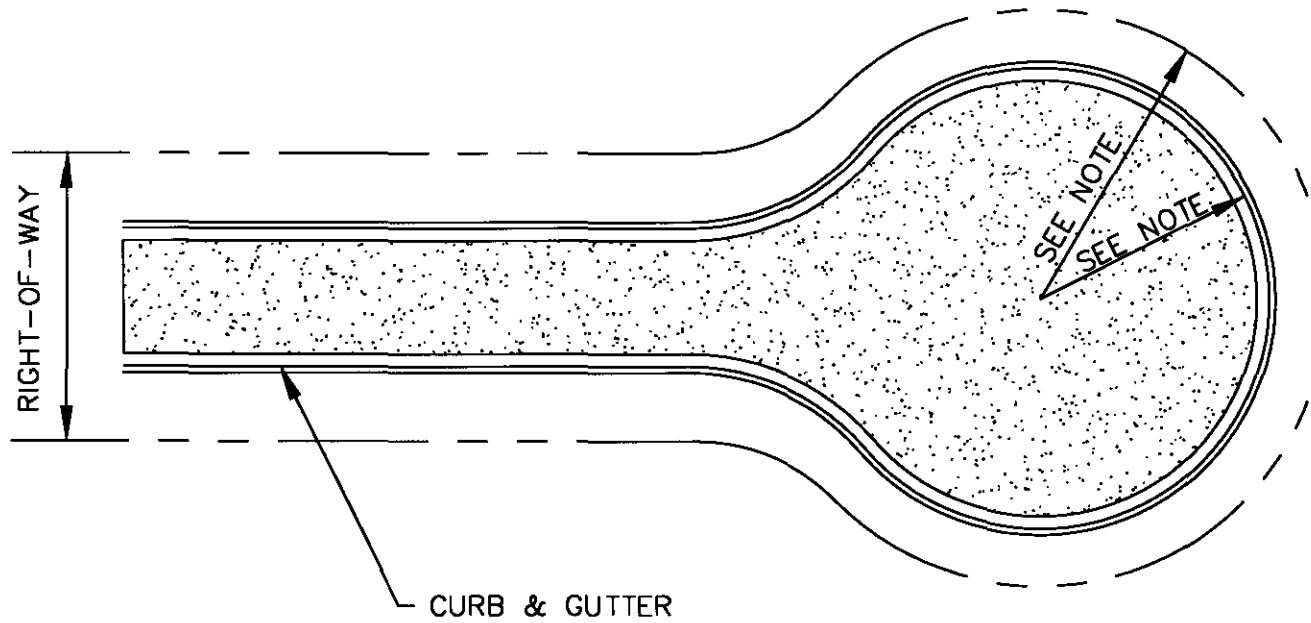
# TEMPORARY CUL-DE-SAC

County of Henrico  
 Department of Public Works

JANUARY 1, 2002

TEMP-TURN.DWG





NOTE: FOR CUL-DE-SAC DIMENSIONS SEE PERMANENT CUL-DE-SAC DESIGN CRITERIA TABLE ON THE FOLLOWING PAGE.

C-17



# PERMANENT CUL-DE-SAC

County of Henrico  
Department of Public Works

JANUARY 1, 2002

CUL-DE-SAC.DWG

ROADWAY		CURB & GUTTER?	CUL-DE-SAC DESIGN	
R/W WIDTH	PAVEMENT WIDTH (*1)		R/W RADIUS	PAVEMENT RADIUS (*1)
50'	24'	No	50'	40'
50'	36'	Yes	50'	45'
55'	24'	No	50'	40'
55'	40'	Yes	50'/60' (*2)	45'/50' (*2)
66'	49'	No	(*3)	(*3)
66'	52'	Yes	(*3)	(*3)
80'	2-24' Roads	No	(*3)	(*3)
80'	2-26.5' Roads	Yes	(*3)	(*3)
104'	2-36' Roads	No	(*3)	(*3)
104'	2-38.5' Roads	Yes	(*3)	(*3)

1. Dimensions based on "edge of pavement to edge of pavement" width or "face of curb to face of curb" width.
2. A 50 foot right-of-way radius and 45 foot pavement radius may be used for residential roadways. A 60 foot right-of-way radius and 50 foot pavement radius is to be used for non-residential roads.
3. Contact the Department of Public Works for cul-de-sac design details appropriate for the proposed development and use.

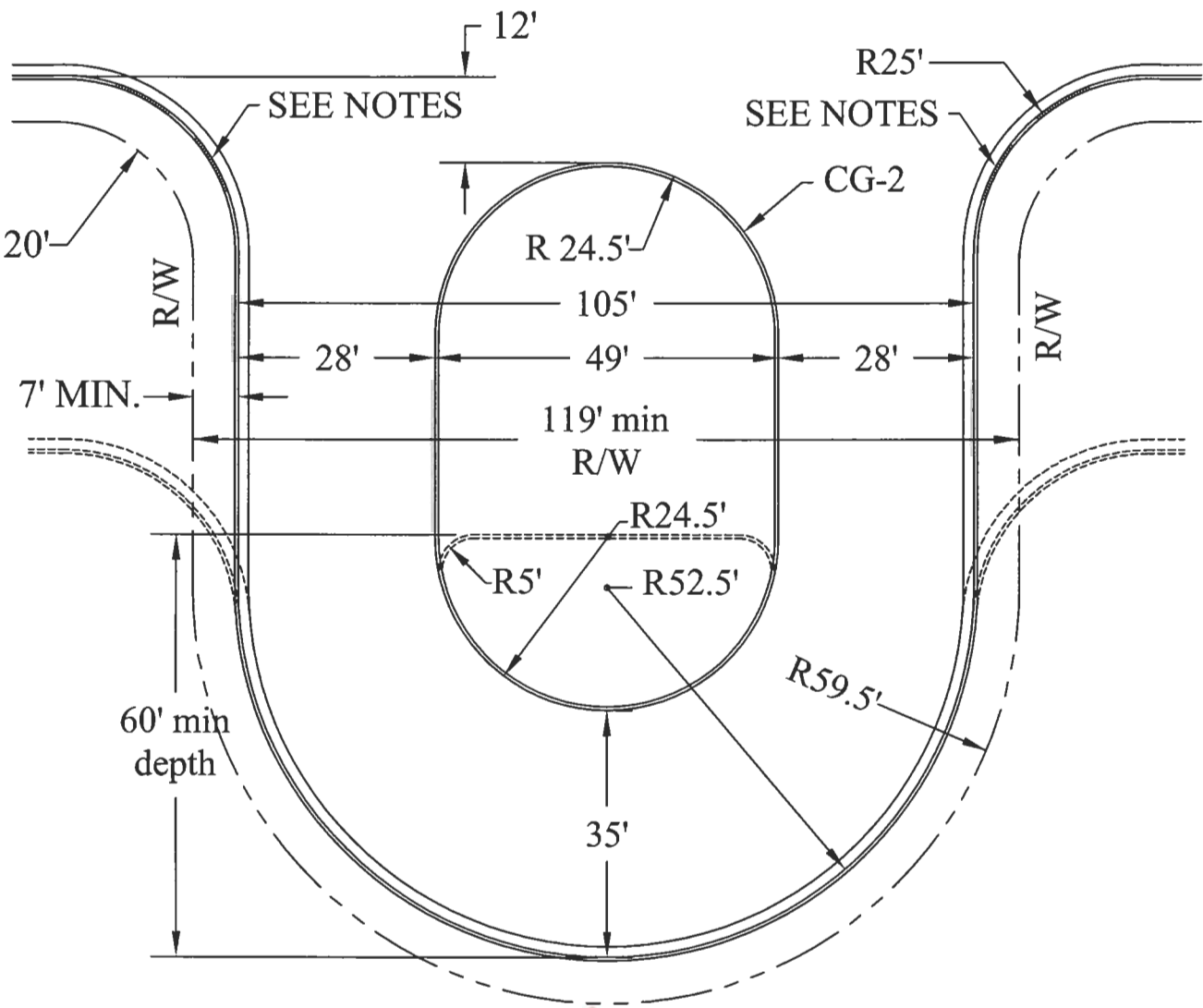


## PERMANENT CUL-DE-SAC DESIGN CRITERIA

JANUARY 1, 2002

County of Henrico  
Department of Public Works

CUL-DE-SAC\_DATA.DWG



**NOTES:**

1. Right-of-way is a minimum of 7 feet behind face of curb
2. Island is to be within right-of-way
3. If cul-de-sac depth is less than 85 feet, the curb of the island should be parallel with the curb lines of the street as shown by the dashed lines
4. A maintenance agreement must be provided between the developer/community association and the County for landscape and maintenance of island
4. Curb cuts shall be provided at all intersections. A combination curb cut and curb ramp shall be provided where sidewalks exist or are to be provided. See VDOT standard CG-12B for details.
5. All dimensions shown to the curb are to the face of curb. See curb details for location of face of curb.



# MODIFIED CUL-DE-SAC

County of Henrico  
Department of Public Works

REVISED 6/1/04

JANUARY 1, 2002

MODIFIEDBUBBLE.DWG



- Notes: 1. All fonts are green FHWA HWYB  
 2. Green Border is 5/8" thickness  
 3. Sign face must be reflectorized to a minimum of engineering grade white sheeting  
 sign must be made of a minimum 0.08 thickness aluminum



## ROAD EXTENSION SIGN

County of Henrico  
 Department of Public Works

REVISED 6/1/04

JANUARY 1, 2002

ROAD\_EXTEND\_SIGN.DWG



- Notes: 1. All fonts are Black FHWA HWYB  
 2. Black Border is 5/8" thickness  
 3. Sign face must be reflectorized to a minimum of engineering grade yellow sheeting sign must be made of a minimum 0.80 thickness aluminum



## UNMAINTAINED ROAD SIGN

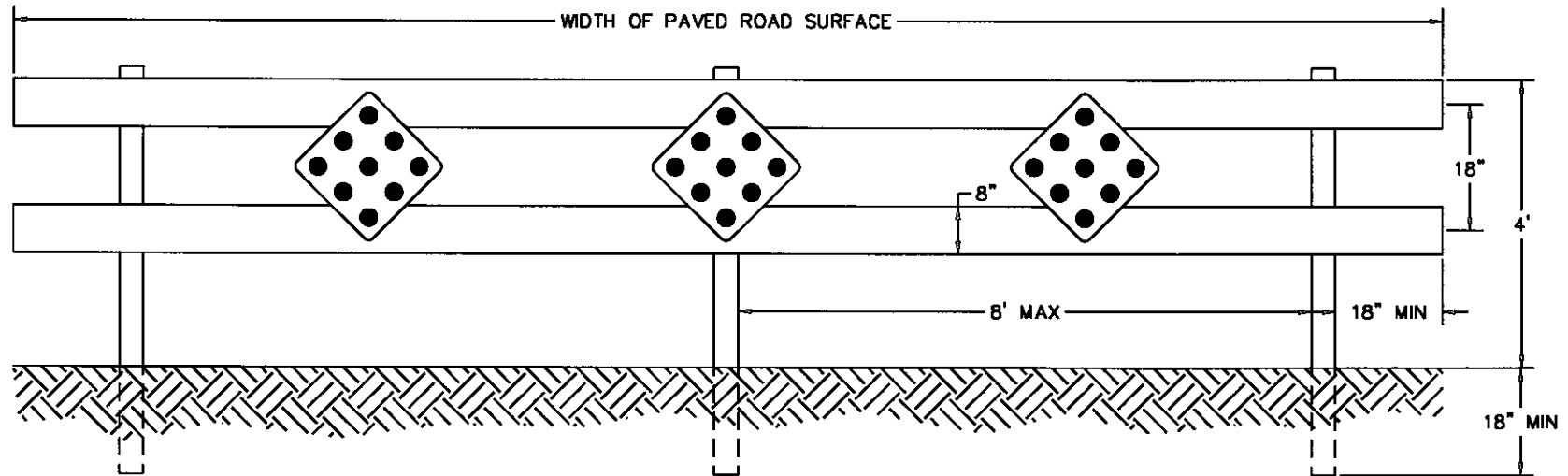
County of Henrico  
 Department of Public Works

REVISED 6/1/04

FEBRUARY 3, 2004

NOT MAINTAINED SIGN.DWG





NOTES: ALL LUMBER TO BE PRESSURE TREATED, 4"X4" FOR POST SET IN CONCRETE, 1"X8" FOR THE HORIZONTAL BOARDS. REFLECTORIZED SIGNS TO BE INSTALLED BY THE COUNTY.

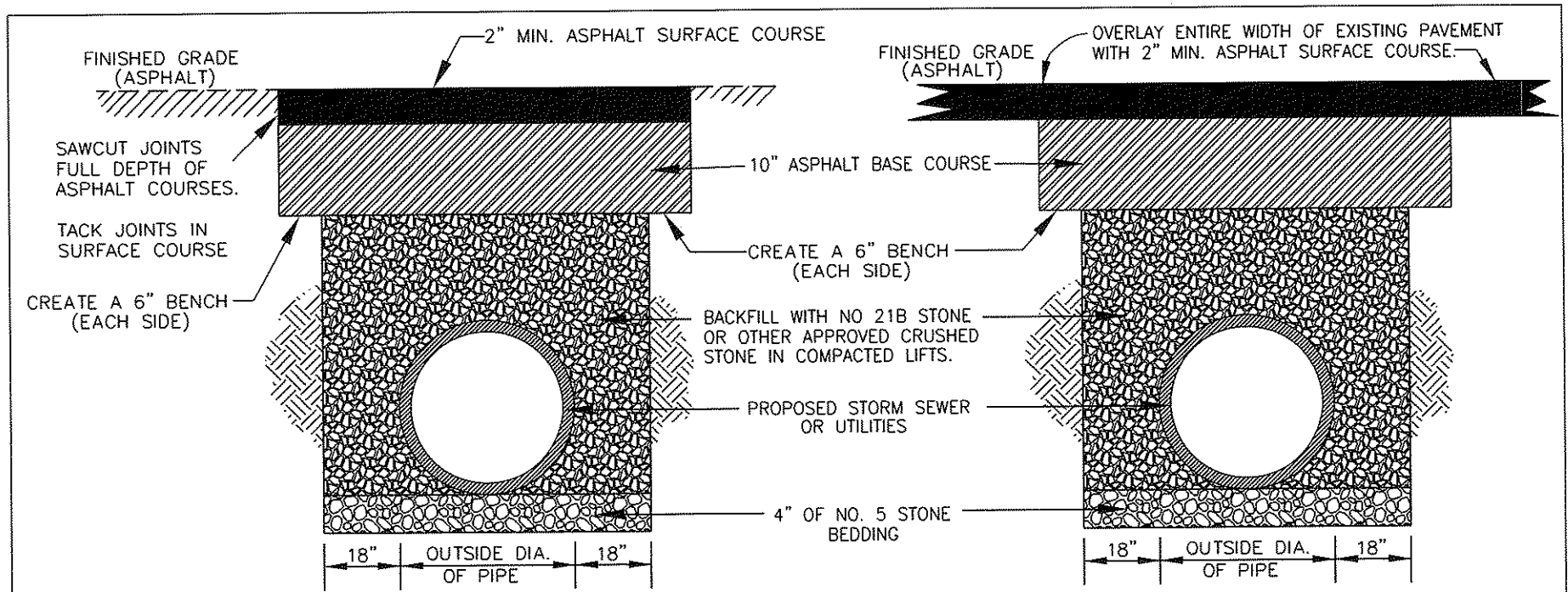


## END OF ROAD BARRICADE

County of Henrico  
Department of Public Works

JANUARY 1, 2002

BARRICADE2.DWG



SKETCH SHOWING PAVEMENT PATCH FOR SINGLE ISOLATED CUTS

SKETCH SHOWING PAVEMENT OVERLAY FOR LONGITUDINAL OR MULTIPLE CUTS

NOTES:

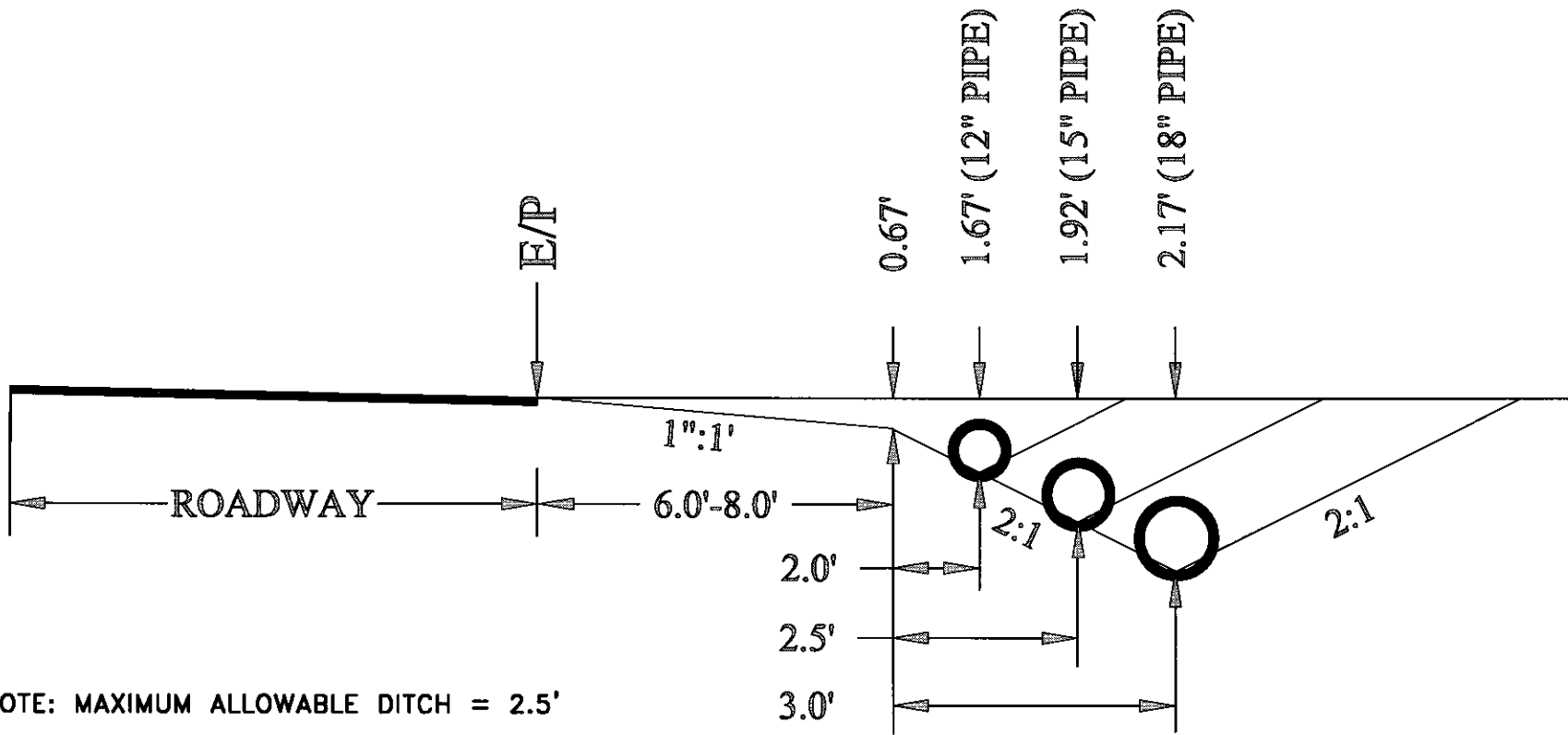
1. THIS DETAIL IS TO BE USED IN ALL LOCATIONS WHERE PROPOSED STORM SEWER OR UTILITY CROSSES EXISTING PAVEMENT.
2. OVERLAYS IN SHOULDER SECTIONS MUST BE WEDGED DOWN TO EXISTING SHOULDERS AT A 1":1' GRADE WITH MATERIAL MATCHING EXISTING CONDITIONS.
3. IN CURB AND GUTTER SECTIONS, MILLING IS REQUIRED PRIOR TO PLACEMENT OF THE OVERLAY.
4. TEMPORARY OR PERMANENT ASPHALT MUST BE PLACED IN ROADWAY TRENCHES BY THE CLOSE OF EACH WORKDAY.



# PAVEMENT REPLACEMENT FOR PIPE TRENCH

County of Henrico  
Department of Public Works

rev. 5-16-2011
JANUARY 1, 2002
PVTREPLA.DWG



NOTE: MAXIMUM ALLOWABLE DITCH = 2.5'

THE ABOVE CUT ELEVATIONS, AS REFERENCED FROM THE EDGE OF PAVEMENT, ARE MINIMUM AND DO NOT REFLECT THE THICKNESS OF THE PIPE OR THE PIPE COVER.

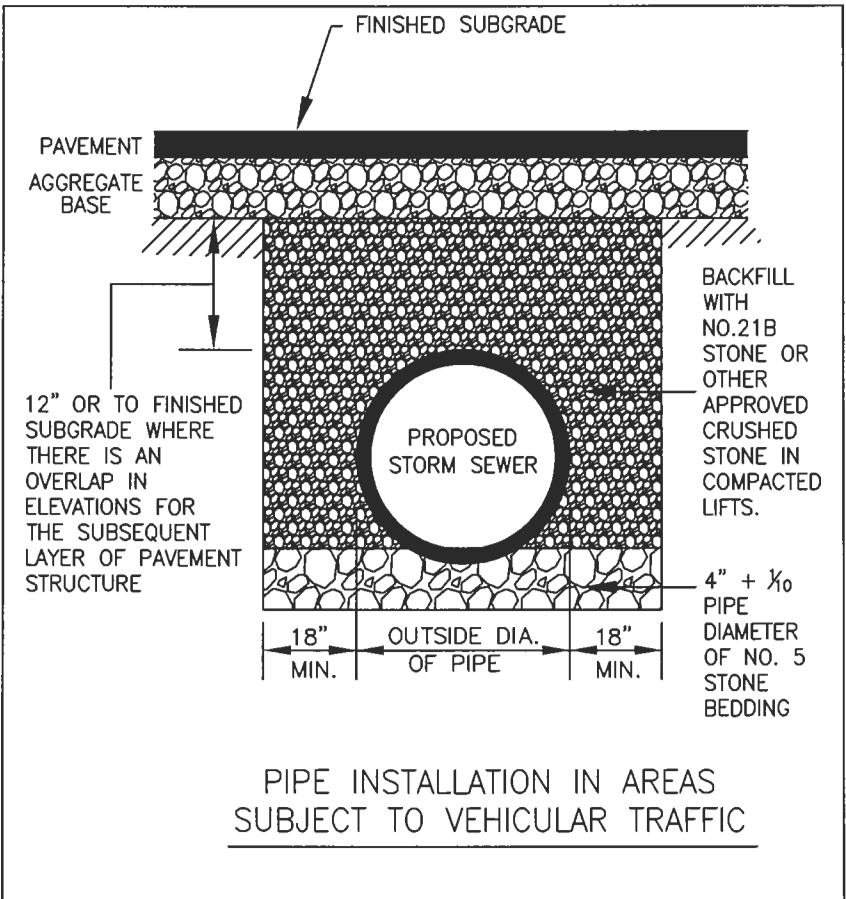
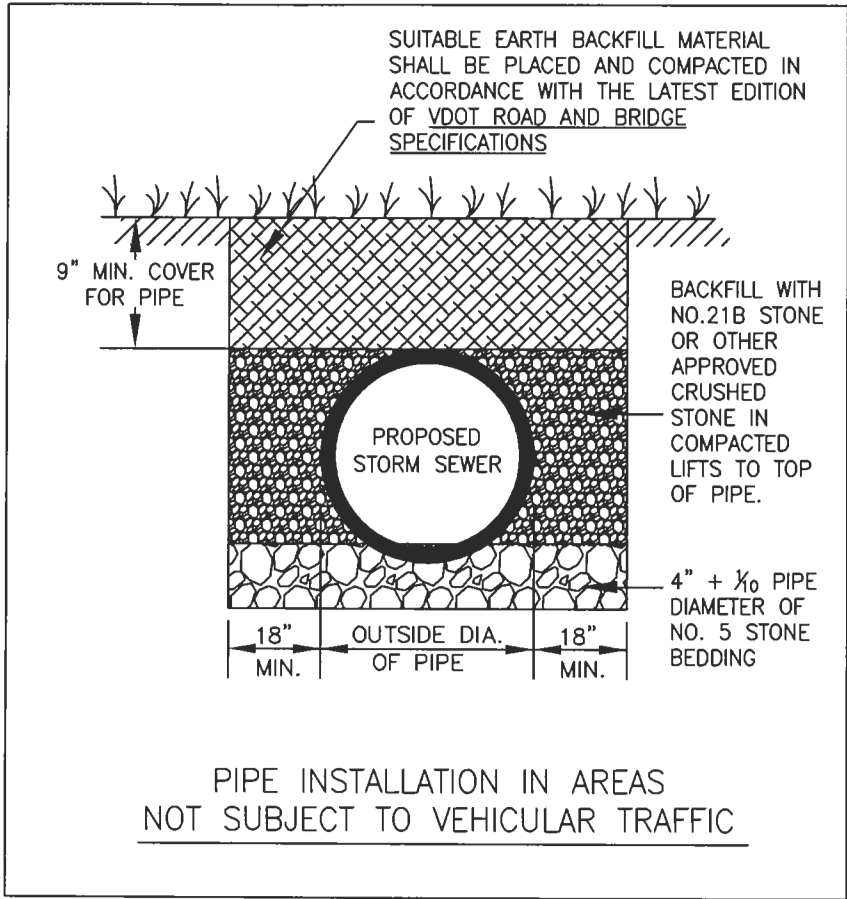


## INSTALLATION OF ENTRANCE PIPE

County of Henrico  
Department of Public Works

JANUARY 1, 2002

ENTR\_PIPE.DWG



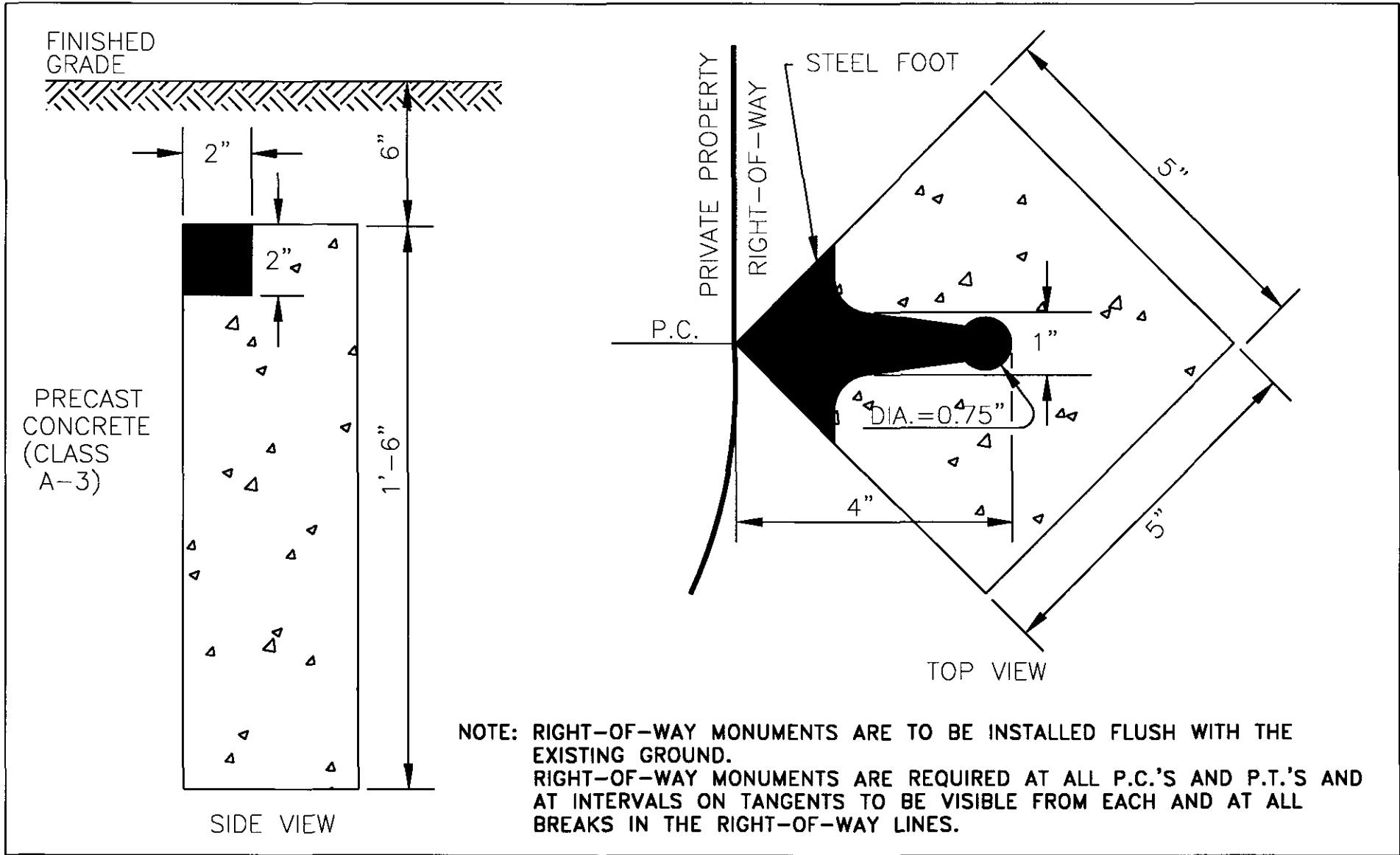
NOTES:

SEE APPENDIX C FOR BEDDING AND BACKFILL DETAILS FOR PIPES IN EXISTING ROADWAYS.

**PIPE BEDDING & BACKFILL**  
 (For New Development & New Road Construction)  
 County of Henrico  
 Department of Public Works

REVISED 6/1/04  
 JANUARY 1, 2002  
 PIPE-INSTALL.DWG



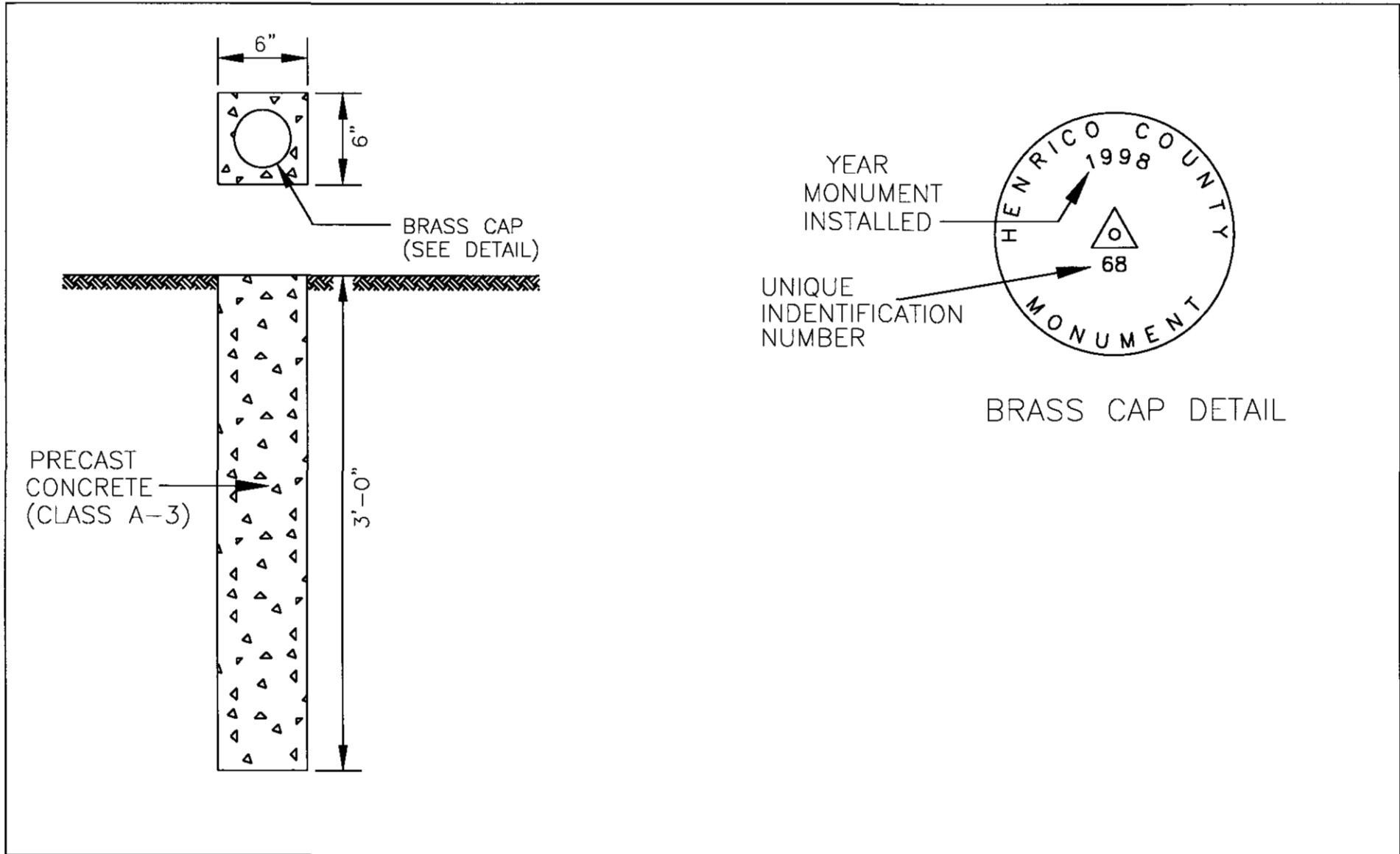


# RIGHT-OF-WAY MONUMENT

County of Henrico  
Department of Public Works

JANUARY 1, 2002

RW\_MONUMENT.DWG



PRECAST  
CONCRETE  
(CLASS A-3)

BRASS CAP  
(SEE DETAIL)

YEAR  
MONUMENT  
INSTALLED

UNIQUE  
IDENTIFICATION  
NUMBER

BRASS CAP DETAIL

# GPS CONTROL NETWORK MONUMENT

County of Henrico  
Department of Public Works

JANUARY 1, 2002

GPS-CONT.DWG



C-25