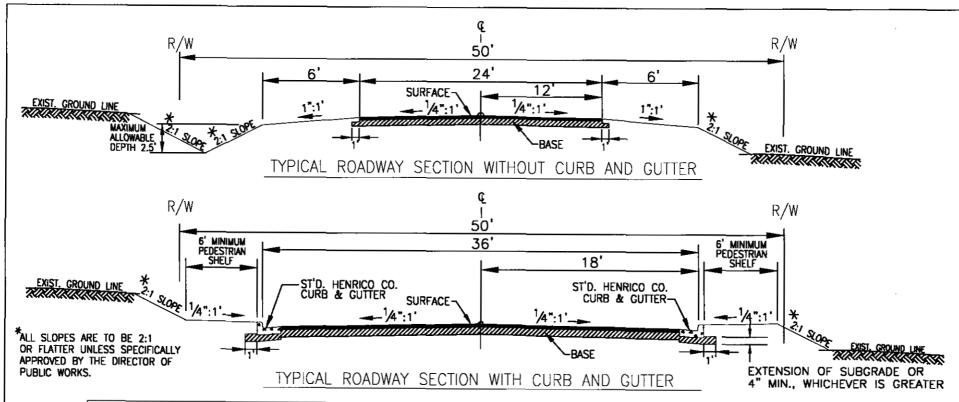
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January 1, 2002



MINIMUM	PAVEN	MENT	DESIGN	RE	QUIREMENT
SUBBASE			BASE		SURFACE
N.A.			GGREGATE MATERIAL		2" ASPHALT SURFACE COURSE

- THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

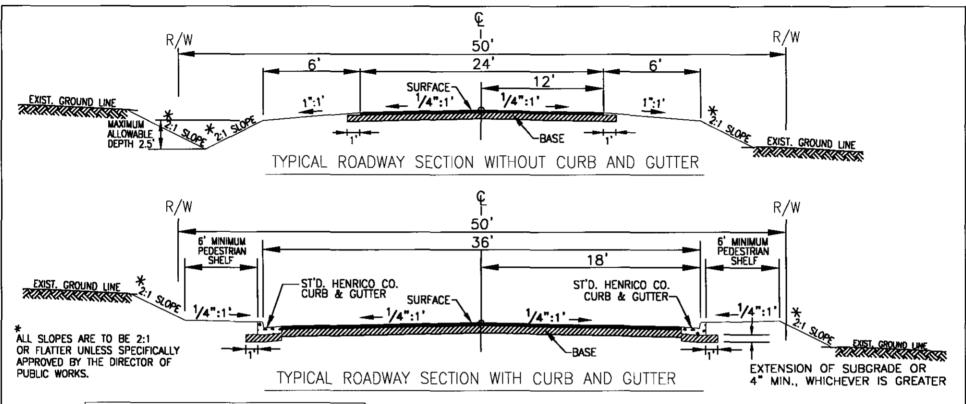
- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.



# TYPICAL SECTION - CLASSIFICATION I (0-250 VPD)

County of Henrico Department of Public Works JANUARY 1, 2002

HENTYPSEC-CL-1.DWG



MINIMUM PAVE	MENT DESIGN RE	QUIREMENT
SUBBASE	BASE	SURFACE
N.A.	7" AGGREGATE BASE MATERIAL	2" ASPHALT SURFACE COURSE

- 1. THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND CUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

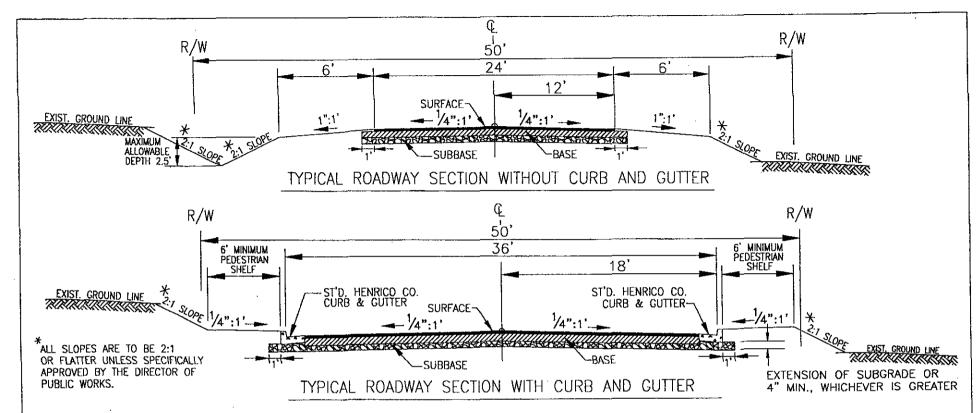
- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A UCENSED PROFESSIONAL ENGINEER.



## TYPICAL SECTION - CLASSIFICATION II (251-400 VPD)

County of Henrico Department of Public Works JANUARY 1, 2002

HENTYPSEC-CL-2.DWG



MINIMUM PAVE	MENT DESIGN	REQUIREMENT
SUBBASE	BASE	SURFACE
1" AGGREGATE SUBBASE MATERIAL	8" AGGREGATE BASE MATERIAI	

- 1. THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- 4, UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

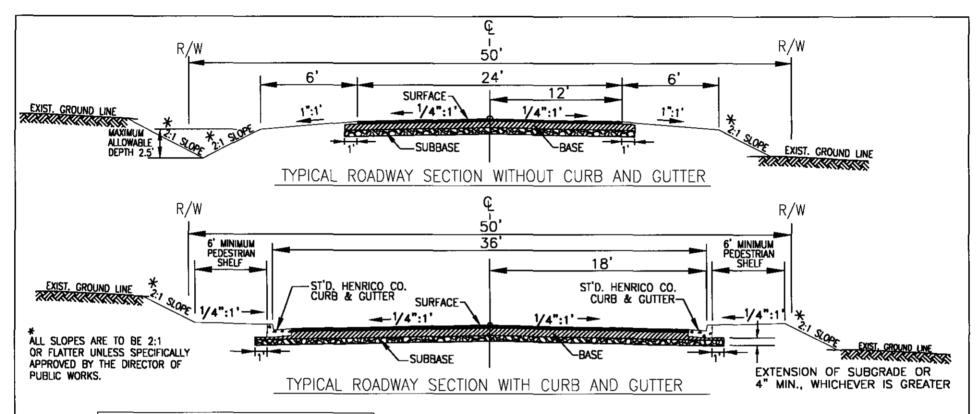
- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS <u>ARE APPLICABLE.</u>
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.



### TYPICAL SECTION - CLASSIFICATION III (401-750 VPD)

County of Henrico Department of Public Works AUGUST 1, 2001

HENTYPSEC-CL-3.DWG



MINIMUM PAVE	MENT DESIGN RE	QUIREMENT
SUBBASE	BASE	SURFACE
4" AGGREGATE SUBBASE MATERIAL	8" AGGREGATE BASE MATERIAL	2" ASPHALT SURFACE COURSE

- THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10—YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED, IF THE 10—YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.

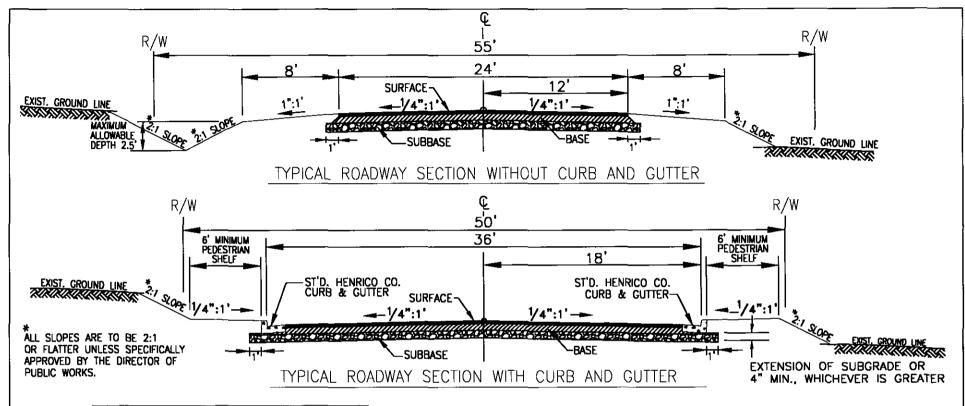


# TYPICAL SECTION - CLASSIFICATION IV (751-1000 VPD)

County of Henrico
Department of Public Works

JANUARY 1, 2002

HENTYPSEC-CL-4.DWG



MINIMUM PAVE	MENT DESIGN R	EQUIREMENT
SUBBASE	BASE	SURFACE
8" AGGREGATE BASE MATERIAL	3" ASPHALT BASE COURSE	2" ASPHALT SURFACE COURSE

- 1. THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- 4. UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS <u>ARE APPLICABLE</u>.
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND CUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF CRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.

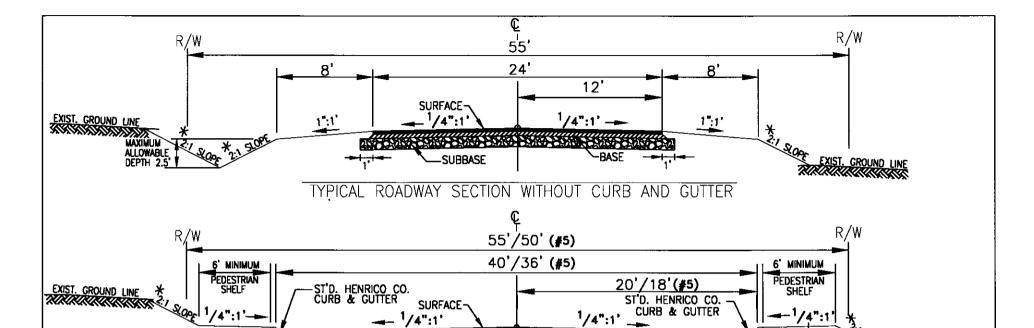


### TYPICAL SECTION - CLASSIFICATION V (1001-3000 VPD)

County of Henrico
Department of Public Works

**JANUARY 1, 2002** 

HENTYPSEC-CL-5.DWG



TYPICAL ROADWAY SECTION WITH CURB AND GUTTER

SUBBASE

BASE

MINIMUM PAVE	MENT DESIGN RE	QUIREMENT
SUBBASE	BASE	SURFACE
12" AGGREGATE SUBBASE MATERIAL	4" ASPHALT BASE COURSE	2" ASPHALT SURFACE COURSE

- THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- Underdrains shall be installed in accordance with voot specifications and the requirements of this manual. In addition, st'd. ud-4 underdrains are required.
- A MINUMUM RIGHT-OF-WAY OF 50 FEET AND 36 FOOT SECTION MAY BE CONSIDERED IF CERTAIN RESTRICTIONS ARE INCLUDED, IE., PARKING RESTRICTIONS, REVERSE FRONTAGE.

- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>YOUT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- 7. IF AN IRRICATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 8. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 9. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.



ALL SLOPES ARE TO BE 2:1

PUBLIC WORKS.

OR FLATTER UNLESS SPECIFICALLY

APPROVED BY THE DIRECTOR OF

#### TYPICAL SECTION - CLASSIFICATION VI

(3001-8000 VPD)

County of Henrico
Department of Public Works

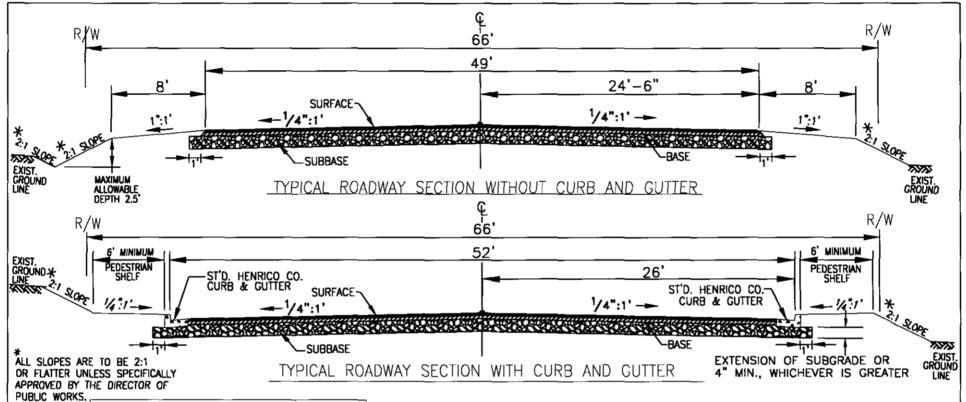
|JANUARY 1, 2002

EXIST, GROUND LINE

EXTENSION OF SUBGRADE OR

4" MIN., WHICHEVER IS GREATER

HENTYPSEC-CL-6.DWG



MINIMUM PAVE	MENT DESIGN R	REQUIREMENT
SUBBASE	BASE	SURFACE
8" AGGREGATE SUBBASE MATERIAL	5" ASPHALT BASE COURSE	2" ASPHALT SURFACE COURSE

- THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

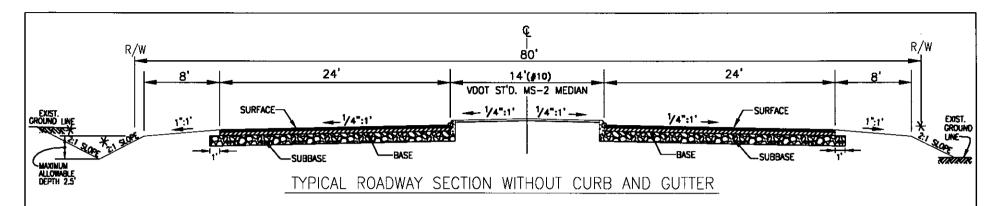
- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.

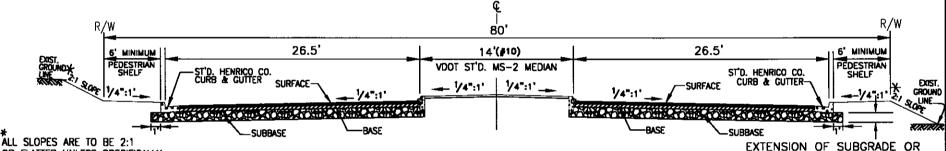


### TYPICAL SECTION - CLASSIFICATION VII (8001-10000 VPD)

County of Henrico Department of Public Works **JANUARY 1, 2002** 

HENTYPSEC-CL-7.DWG





ALL SLOPES ARE TO BE 2:1 OR FLATTER UNLESS SPECIFICALLY APPROVED BY THE DIRECTOR OF PUBLIC WORKS.

TYPICAL ROADWAY SECTION WITH CURB AND GUTTER

4" MIN., WHICHEVER IS GREATER

MINIMUM PAVE	MENT DESIGN	REQUIREMENT
SUBBASE	BASE	SURFACE
11" AGGREGATE SUBBASE MATERIAL	6" ASPHALT BASE COURSE	2" ASPHALT SURFACE COURSE

- THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH UNDER LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.
- 9. SOLID CONCRETE MEDIAN, ST'D. MS-1 REQUIRED WHERE THE MEDIAN WIDTH IS 6'-0" OR LESS,

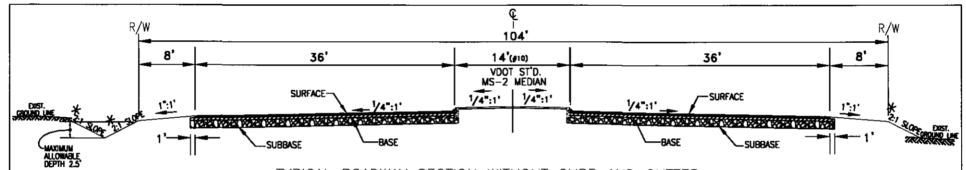


### TYPICAL SECTION - CLASSIFICATION VIII (10,001- 30,000 VPD)

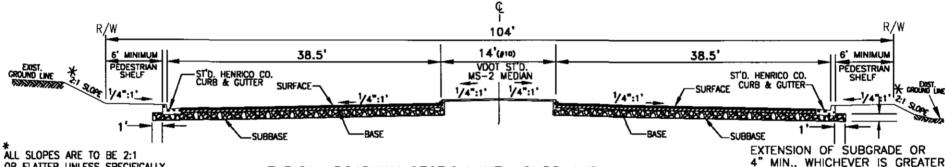
County of Henrico
Department of Public Works

JANUARY 1, 2002

HENTYPSEC-CL-8.DWG



TYPICAL ROADWAY SECTION WITHOUT CURB AND GUTTER



ALL SLOPES ARE TO BE 2:1
OR FLATTER UNLESS SPECIFICALLY
APPROVED BY THE DIRECTOR OF
PUBLIC WORKS.

TYPICAL ROADWAY SECTION WITH CURB AND GUTTER

MINIMUM PAVEMENT DESIGN REQUIREMENT			
SUBBASE	BBASE BASE SURFACE		
***SPECIAL DESIGN***	***SPECIAL DESIGN***	***SPECIAL DESIGN***	

- 1. THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAVEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAVEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- UNDERDRAINS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT SPECIFICATIONS AND THE REQUIREMENTS OF THIS MANUAL.

- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.
- 9. SOLID MEDIAN ST'D. MS-1, REQUIRED WHERE THE MEDIAN WIDTH IS 6'-0" OR LESS.

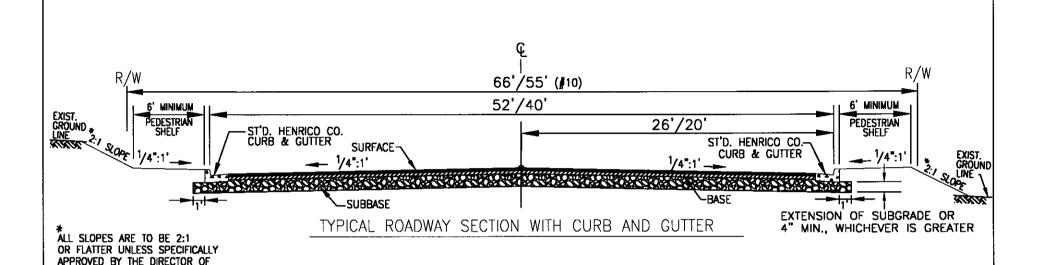


### TYPICAL SECTION - CLASSIFICATION IX

(30,001 + VPD)

County of Henrico Department of Public Works **JANUARY 1, 2002** 

HENTYPSEC-CL-9.DWG



MINIMUM PAY	'EMENT DESIGN RE	EQUIREMENT
SUBBASE	BASE	SURFACE
11" AGGREGATE SUBBASE MATERIAL	6" ASPHALT BASE COURSE	2" ASPHALT SURFACE COURSE

- THE SHOULDER WIDTH (NON CURB AND GUTTER SECTION) OR PEDESTRIAN SHELF (CURB AND GUTTER SECTION) WILL BE REQUIRED TO BE EXTENDED BEYOND THE RIGHT-OF-WAY, WITH A PERMANENT EASEMENT PROVIDED, TO ACCOMMODATE THE INSTALLATION OF GUARDRAIL, WHERE NEEDED.
- 2. THE PAVEMENT DEPTHS ARE MINIMUM COMPACTED DEPTHS.
- 3. THE PAYEMENT DESIGN REQUIRED IS BASED ON A MINIMUM CBR VALUE OF 10. INCREASES TO THE DESIGN MAY BE REQUIRED BASED ON SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FINAL PAYEMENT DESIGNS MUST BE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
- Underdrains shall be installed in accordance with voot specifications and the requirements of this manual.

- MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE <u>VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS</u>, EXCEPT WHERE COUNTY STANDARDS ARE APPLICABLE.
- 6. IF AN IRRIGATION SYSTEM IS PROPOSED WITHIN THE RIGHT-OF-WAY LIMITS, AN UNDERDRAIN SYSTEM MUST BE PROVIDED ADJACENT TO THE CURB AND GUTTER. A MAINTENANCE AGREEMENT MUST BE PROVIDED BETWEEN THE DEVELOPER AND THE COUNTY OF HENRICO.
- 7. A UNIFORM CROSS SECTION WIDTH AND PAVEMENT DESIGN ARE REQUIRED FOR ALL ROADWAYS.
- 8. ALL ROADSIDE DITCHES SHALL BE SEEDED AND HAVE A PERMANENT STAND OF GRASS AS A MINIMUM. WHERE THE 10-YEAR DESIGN VELOCITY EXCEEDS FOUR (4) FEET PER SECOND, JUTE MESH OR OTHER CHANNEL LINING MAY BE INSTALLED. IF THE 10-YEAR DESIGN VELOCITY EXCEEDS SEVEN (7) FEET PER SECOND, THE ROADSIDE DITCH MAY BE LINED WITH EITHER RIPRAP OR CONCRETE. ALTERNATE CHANNEL LININGS MAY BE ACCEPTABLE BASED UPON SOIL SAMPLES AND CERTIFIED DESIGN BY A LICENSED PROFESSIONAL ENGINEER.
- A RIGHT-OF-WAY OF SIXTY SIX FEET SHALL BE USED ON THROUGH STREETS, CONNECTORS TO ARTERIALS OR ROADS PROVIDING DIRECT PUBLIC ACCESS. A FIFTY FIVE FOOT RIGHT-OF-WAY MAYBE USED ON CUL-DE-SACS, NON-THROUGH ROADS OR INTERNAL CONNECTOR ROADWAYS.



PUBLIC WORKS.

### TYPICAL SECTION COMMERCIAL/INDUSTRIAL DEVELOPMENT

JANUARY 1, 2002

County of Henrico
Department of Public Works

HENTYPSEC-CL-COMM.DWG