Wicomico County, Maryland

Construction Standards
Roads, Streets, and Incidental Structures

Sixth Edition

Department of Public Works
125 N. Division St. Room 201
Salisbury, Maryland 21803

Revised: January 2011
COUNTY COUNCIL OF WICOMICO COUNTY, MARYLAND

2011 Legislative Session

Resolution No. 36-2011

Introduced by: The President of the Council at the request of the County Executive

A RESOLUTION APPROVING THE REVISED CONSTRUCTION STANDARDS AS PREPARED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS.

WHEREAS, Chapter 200 titled "Subdivision of Land" requires that roads and streets within subdivisions be constructed in accordance with Wicomico County Construction Standards (roadway construction specifications) as approved by the County Council from time to time; and

WHEREAS, the County Executive recommends that the revised Construction Standards, attached as Exhibit A, be approved.

NOW, THEREFORE, BE IT RESOLVED, by the County Council of Wicomico County, Maryland that the Construction Standards – Roads, Streets, and Incidental Structures, Sixth Edition Revised January 2011 be and the same are hereby approved.

BE IT FURTHER RESOLVED that the standards shall become effective thirty (30) days from the date of this Resolution, and shall remain in effect until changed or repealed by subsequent Resolution of the County Council.

Done at Salisbury, Maryland, this 1st day of March, 2011.

ATTEST:

Matthew E. Creamer,
County Administrator

COUNTY COUNCIL OF
WICOMICO COUNTY, MARYLAND

BY: Gail M. Bartkovich,
Council President

CERTIFICATION

This Resolution was Adopted / , Adopted with Amendments / , Failed / , Withdrawn / by the County Council on March 1, 2011.

Certified by: Matthew E. Creamer, Council Administrator
PREFACE

This Book of “Construction Standards” has been prepared by the Wicomico County Department of Public Works to provide engineering personnel, contractors, and developers with a Catalog of Standards for Roads, Streets, and Incidental Structures constructed within the jurisdiction of Wicomico County.

Any Standards previously issued by Wicomico County Department of Public Works are herewith superseded as of this date.

All Engineers, Surveyors, and Contractors involved with the Construction of Roads, Street, and Incidental Structures within this jurisdiction should become thoroughly familiar with the contents of this book. Our goal is uniform design and construction throughout Wicomico County.

These regulations may be revised periodically to reflect changing regulations and technology.

Any obvious errors found or any comments that you may have regarding these standards are welcome and will be given due consideration. These may be submitted to:

Wicomico County
Department of Public Works
Government Office Building
Room 201
125 N. Division Street
P.O. Box 968
Salisbury, Maryland 21803-0968

Telephone: 410-548-4810
Fax: 410-548-4941

Effective Date: November 2, 2004
Revised: April 2006
April 2007
January 2011
# WICOMICO COUNTY CONSTRUCTION STANDARDS INDEX

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1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.50% or more than 6.00%.

7. See standard No. WI-600.10 for curb and gutter details. Type CG-2 curb and gutter is shown on this typical section.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard No. WI-700.01 for minimum seeding and mulching specifications.

9. A deed to Wicomico County, MD, for dedication and/or easements is required.

10. 5' wide easement is for future road, drainage, pedestrian and utility purposes.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit must be obtained prior to the start of any construction.

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7. See standard no. WI-600.10 for curb and gutter details. Type CG-2 curb and gutter is shown on this typical section.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard no. WI-700.01 for minimum seeding and mulching specifications.

9. "CROSSOVERS" (minimum width of 30 feet), for access between lanes, shall be constructed at intervals not to exceed 500 feet. See standard no. WI-100.40 for typical crossover.

10. A deed to Wicomico County, MD for dedication and/or easements is required.

11. 5' wide easement is for future road, drainage, pedestrian and utility purposes.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit or waiver must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.50% or more than 6.00%.

7. See standard no. WI-600.10 for curb and gutter details. Type CG-2 curb and gutter is shown on this typical section.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard no. WI-700.01 for minimum seeding and mulching specifications.

9. "Crossovers" (minimum width of 30 feet), for access between lanes, shall be constructed at intervals not to exceed 500 feet. See standard no. WI-100.40 for typical crossover.

10. A deed to Wicomico County, MD for road dedication and/or easements is required.

11. 5' wide easement for future road, drainage, pedestrian and utility purposes.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.50% or more than 6.00%.

7. See standard no. WI-600.10 for curb and gutter details. Type CG-2 curb and gutter is shown on this typical section.

8. Center median ditch shall not be designed and constructed at a grade of less than 0.10%. If depth of median ditch exceeds 4 feet, pipe shall be installed at a size and grade approved by Wicomico County Department of Public Works.

9. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard no. WI-700.01 for minimum seeding and mulching specifications.

10. "Crossovers" (minimum width of 30 feet), for access between lanes, shall be constructed at intervals not to exceed 500 feet. See standard no. WI-100.41 for typical crossover.

11. A deed to Wicomico County, MD for road dedication and/or easements is required.

12. 5' easement for future road, drainage, pedestrian and utility purposes.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit or waiver must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Road profile shall not be designed or constructed at a grade of less than 0.50% or more than 6.00%.

7. See standard no. WI-601.10 for driveway entrance details.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard no. WI-700.01 for minimum seeding and mulching specifications.

9. A deed to Wicomico County, Md. for road dedication and/or easements is required.

10. Easement for future road, drainage, pedestrian and utility use. Maintenance of open section shall be performed by the lot owner unless otherwise noted.

11. This road section shall only be permitted in A-1 zoning.
1. THE DEVELOPER SHALL PROVIDE STREET PLAN, PROFILE, AND DRAINAGE PLAN FOR ALL STREET CONSTRUCTION. THESE PLANS MUST BE APPROVED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO START OF ANY CONSTRUCTION.

2. AN "EROSION AND SEDIMENT CONTROL" PERMIT MUST BE OBTAINED BEFORE ANY CLEARING AND/OR GRADING IS PERMITTED.

3. A "STORMWATER MANAGEMENT" PERMIT MUST BE OBTAINED PRIOR TO THE START OF ANY CONSTRUCTION.

4. CBR TESTING SHALL BE PERFORMED TO AID IN DETERMINING STABILIZATION REQUIREMENTS. WICOMICO COUNTY WILL DETERMINE THE STABILIZATION BASED ON THIS TESTING AND FIELD CONDITIONS. SHOULD UNSUITABLE MATERIAL BE FOUND DURING CONSTRUCTION, THE DESIGN MAY BE ALTERED AS DIRECTED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS.

5. SLOPES OF 4:1 REQUIRED EXCEPT WHERE STREET IS THROUGH WOODED AREAS AND SPECIFIC APPROVAL FROM THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS IS GIVEN TO USE 2:1 SLOPES.

6. CONCRETE CURB AND GUTTER SHALL NOT BE DESIGNED OR CONSTRUCTED AT A GRADE OF LESS THAN 0.50% OR MORE THAN 6.00%.

7. SEE STANDARD NO. WI-600.10 FOR CURB AND GUTTER DETAILS. TYPE CG-2 CURB AND GUTTER IS SHOWN ON THIS TYPICAL SECTION.

8. ALL AREAS DISTURBED BY GRADING, INCLUDING ALL SLOPES, SHALL BE SEEDED AND MULCHED. SEE STANDARD NO. WI-700.01 FOR MINIMUM SEEDING AND MULCHING SPECIFICATIONS.

9. A DEED TO WICOMICO COUNTY, MD. FOR ROAD DEDICATION AND/OR EASEMENTS IS REQUIRED.

10. 5' WIDE EASEMENT IS FOR FUTURE ROAD, DRAINAGE, PEDESTRIAN AND UTILITY PURPOSES.
1. THE DEVELOPER SHALL PROVIDE STREET PLAN, PROFILE, AND DRAINAGE PLAN FOR ALL STREET CONSTRUCTION. THESE PLANS MUST BE APPROVED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO START OF ANY CONSTRUCTION.

2. AN "EROSION AND SEDIMENT CONTROL" PERMIT MUST BE OBTAINED BEFORE ANY CLEARING AND/OR GRAZING IS PERMITTED.

3. A "STORMWATER MANAGEMENT" PERMIT MUST BE OBTAINED PRIOR TO THE START OF ANY CONSTRUCTION.

4. CBR TESTING SHALL BE PERFORMED TO AID IN DETERMINING STABILIZATION REQUIREMENTS. WICOMICO COUNTY WILL DETERMINE THE STABILIZATION BASED ON THIS TESTING AND FIELD CONDITIONS. SHOULD UNSUITABLE MATERIAL BE FOUND DURING CONSTRUCTION, THE DESIGN MAY BE ALTERED AS DIRECTED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS.

5. SLOPES OF 4:1 REQUIRED EXCEPT WHERE STREET IS THROUGH WOODED AREAS AND SPECIFIC APPROVAL FROM THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS IS GIVEN TO USE 2:1 SLOPES.

6. CONCRETE CURB AND GUTTER SHALL NOT BE DESIGNED OR CONSTRUCTED AT A GRADE OF LESS THAN 0.50% OR MORE THAN 6.00%.

7. SEE STANDARD NO. WI-600.10 FOR CURB AND GUTTER DETAILS. TYPE CG-2 CURB AND GUTTER IS SHOWN ON THIS TYPICAL SECTION.

8. ALL AREAS DISTURBED BY GRADING, INCLUDING ALL SLOPES, SHALL BE SEEDED AND MULCHED. SEE STANDARD NO. WI-700.01 FOR MINIMUM SEEDING AND MULCHING SPECIFICATIONS.

9. "CROSSOVERS" (MINIMUM WIDTH OF 30 FEET), FOR ACCESS BETWEEN LANES, SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 500 FEET. SEE STANDARD NO. WI-100.40 FOR TYPICAL CROSSOVER.

10. A DEED TO WICOMICO COUNTY FOR ROAD DEDICATION AND/OR EASEMENTS IS REQUIRED.

11. 5' EASEMENT IS FOR FUTURE ROAD, DRAINAGE, PEDESTRIAN, AND UTILITY PURPOSES.
1. THE DEVELOPER SHALL PROVIDE STREET PLAN, PROFILE, AND DRAINAGE PLAN FOR ALL STREET CONSTRUCTION. THESE PLANS MUST BE APPROVED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO START OF ANY CONSTRUCTION.

2. AN “EROSION AND SEDIMENT CONTROL” PERMIT MUST BE OBTAINED BEFORE ANY CLEARING AND/OR GRADING IS PERMITTED.

3. A “STORMWATER MANAGEMENT” PERMIT OR WAIVER MUST BE OBTAINED PRIOR TO THE START OF ANY CONSTRUCTION.

4. CBR TESTING SHALL BE PERFORMED TO AID IN DETERMINING STABILIZATION REQUIREMENTS. WICOMICO COUNTY WILL DETERMINE THE STABILIZATION BASED ON THIS TESTING AND FIELD CONDITIONS. SHOULD UNSUITABLE MATERIAL BE FOUND DURING CONSTRUCTION, THE DESIGN MAY BE ALTERED AS DIRECTED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS.

5. SLOPES OF 4:1 REQUIRED EXCEPT WHERE STREET IS THROUGH WOODED AREAS AND SPECIFIC APPROVAL FROM THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS IS GIVEN TO USE 2:1 SLOPES.

6. CONCRETE CURB AND GUTTER SHALL NOT BE DESIGNED OR CONSTRUCTED AT A GRADE OF LESS THAN 0.50% OR MORE THAN 6.00%.

7. SEE STANDARD NO. WI-600.10 FOR CURB AND GUTTER DETAILS. TYPE CG-2 CURB AND GUTTER IS SHOWN ON THIS TYPICAL SECTION.

8. ALL AREAS DISTURBED BY GRADING, INCLUDING ALL SLOPES, SHALL BE SEEDED AND MULCHED. SEE STANDARD NO. WI-700.01 FOR MINIMUM SEEDING AND MULCHING SPECIFICATIONS.

9. “CROSSOVERS” (MINIMUM WIDTH OF 30 FEET), FOR ACCESS BETWEEN LANES, SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 500 FEET. SEE STANDARD NO. WI-100.40 FOR TYPICAL CROSSOVER.

10. A DEED TO WICOMICO COUNTY, MD. FOR ROAD DEDICATION AND/OR EASEMENTS IS REQUIRED.

11. 5’ RESERVATION IS FOR FUTURE ROAD, DRAINAGE, PEDESTRIAN AND UTILITY PURPOSES.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.50% or more than 6.00%.

7. See standard No. WI-600.10 for curb and gutter details. Type CG-2 curb and gutter is shown on this typical section.

8. Center median ditch shall not be designed and constructed at a grade of less than 0.10%. If depth of median ditch exceeds 4 feet, pipe shall be installed at a size and grade approved by Wicomico County Department of Public Works.

9. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard No. WI-700.01 for minimum seeding and mulching specifications.

10. "Crossovers" (minimum width of 30 feet), for access between lanes, shall be constructed at intervals not to exceed 500 feet. See standard No. WI-100.41 for typical crossover.

11. A deed to Wicomico County, MD. for road dedication and/or easements is required.

12. 5' easement is for future road, drainage, pedestrian and utility purposes.
1. THE DEVELOPER SHALL PROVIDE STREET PLAN, PROFILE, AND DRAINAGE PLAN FOR ALL STREET CONSTRUCTION. THESE PLANS MUST BE APPROVED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO START OF ANY CONSTRUCTION.

2. AN "EROSION AND SEDIMENT CONTROL" PERMIT MUST BE OBTAINED BEFORE ANY CLEARING AND/OR GRADING IS PERMITTED.

3. A "STORMWATER MANAGEMENT" PERMIT OR WAIVER MUST BE OBTAINED PRIOR TO THE START OF ANY CONSTRUCTION.

4. CBR TESTING SHALL BE PERFORMED TO AID IN DETERMINING STABILIZATION REQUIREMENTS. WICOMICO COUNTY WILL DETERMINE THE STABILIZATION BASED ON THIS TESTING AND FIELD CONDITIONS. SHOULD UNSUITABLE MATERIAL BE FOUND DURING CONSTRUCTION, THE DESIGN MAY BE ALTERED AS DIRECTED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS.

5. SLOPES OF 4:1 REQUIRED EXCEPT WHERE STREET IS THROUGH WOODED AREAS AND SPECIFIC APPROVAL FROM THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS IS GIVEN TO USE 2:1 SLOPES.

6. ROAD PROFILE SHALL NOT BE DESIGNED OR CONSTRUCTED AT A GRADE OF LESS THAN 0.50% OR MORE THAN 6.00%.

7. SEE STANDARD NO. WI-601.10 FOR DRIVEWAY ENTRANCE DETAILS.

8. ALL AREAS DISTURBED BY GRADING, INCLUDING ALL SLOPES, SHALL BE SEEDED AND MULCHED. SEE STANDARD NO. WI-700.01 FOR MINIMUM SEEDING AND MULCHING SPECIFICATIONS.

9. A DEED TO WICOMICO COUNTY, MD. FOR ROAD DEDICATION AND/OR EASEMENTS IS REQUIRED.

10. EASEMENT IS FOR FUTURE ROAD, DRAINAGE, PEDESTRIAN AND UTILITY PURPOSES. MAINTENANCE OF OPEN SECTION SHALL BE PERFORMED BY THE LOT OWNER UNLESS OTHERWISE NOTED.

11. THIS ROAD SECTION SHALL ONLY BE PERMITTED IN A-1 ZONING.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit must be obtained prior to the start of any construction.

4. Unsuitable material shall be removed to a point 12" below subgrade of the stabilization. If unsuitable material is encountered at or below this point, the unsuitable material shall be removed as directed by the Wicomico County Department of Public Works. The unsuitable material shall be replaced with select borrow.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.30% or more than 4.00%.

7. See standard no. WI-600.10 for curb and gutter details. Type CG-2 curb and gutter is shown on this typical section.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard no. WI-700.01 for minimum seeding and mulching specifications.

9. Horizontal curves – the centerline radius for “major collector” streets shall not be less than 572.96 (10’ curve). A tangent at least 100 feet long shall be introduced between reverse curves.

10. A deed to Wicomico County, Md. for road dedication and/or easements required.

11. Easements for future road, drainage, pedestrian and utility uses.
1. THE DEVELOPER SHALL PROVIDE STREET PLAN, PROFILE, AND DRAINAGE PLAN FOR ALL STREET CONSTRUCTION. THESE PLANS MUST BE APPROVED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO START OF ANY CONSTRUCTION.

2. AN "EROSION AND SEDIMENT CONTROL" PERMIT MUST BE OBTAINED BEFORE ANY CLEARING AND/OR GRADING IS PERMITTED.

3. A "STORMWATER MANAGEMENT" PERMIT MUST BE OBTAINED PRIOR TO THE START OF ANY CONSTRUCTION.

4. CBR TESTING SHALL BE PERFORMED TO AID IN DETERMINING STABILIZATION REQUIREMENTS. WICOMICO COUNTY WILL DETERMINE THE STABILIZATION BASED ON THIS TESTING AND FIELD CONDITIONS. SHOULD UNSUITABLE MATERIAL BE FOUND DURING CONSTRUCTION, THE DESIGN MAY BE ALTERED AS DIRECTED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS.

5. SLOPES OF 4:1 REQUIRED EXCEPT WHERE STREET IS THROUGH WOODED AREAS AND SPECIFIC APPROVAL FROM THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS IS GIVEN TO USE 2:1 SLOPES.

6. CONCRETE CURB AND GUTTER SHALL NOT BE DESIGNED OR CONSTRUCTED AT A GRADE OF LESS THAN 0.50% OR MORE THAN 4.00%.

7. SEE STANDARD NO. WI-600.10 FOR CURB AND GUTTER DETAILS. TYPE CG-2 CURB AND GUTTER IS SHOWN ON THIS TYPICAL SECTION.

8. ALL AREAS DISTURBED BY GRADING, INCLUDING ALL SLOPES, SHALL BE SEEDED AND MULCHED. SEE STANDARD NO. WI-700.01 FOR MINIMUM SEEDING AND MULCHING SPECIFICATIONS.

9. "CROSSEOS" (MINIMUM WIDTH OF 30 FEET), FOR ACCESS BETWEEN LANES, SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 500 FEET. SEE STANDARD NO. WI-100.40 FOR TYPICAL CROSSOVER.

10. HORIZONTAL CURVES – THE CENTERLINE RADIUS FOR "MAJOR COLLECTOR" STREETS SHALL NOT BE LESS THAN 572.96 FEET (10' CURVE). A TANGENT AT LEAST 100 FEET LONG SHALL BE INTRODUCED BETWEEN REVERSE CURVES.

11. A DEED TO WICOMICO COUNTY, MD. FOR ROAD DEDICATION AND /OR EASEMENTS REQUIRED.

12. EASEMENT FOR FUTURE ROAD, DRAINAGE, PEDESTRIAN AND UTILITY PURPOSES.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit or waiver must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.50% or more than 4.00%.

7. See standard no. WI-600.10 for curb and gutter details. Type CO-2 curb and gutter is shown on this typical section.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard no. WI-700.01 for minimum seeding and mulching specifications.

9. "Crossovers" (minimum width of 30 feet), for access between lanes, shall be constructed at intervals not to exceed 500 feet. See standard no. WI-100.40 for typical crossover.

10. Horizontal curves - the centerline radius for "major collector" streets shall not be less than 572.96 feet (10' curve). A tangent at least 100 feet long shall be introduced between reverse curves.

11. A deed to Wicomico County, Md. for dedication and/or easements required.

12. Easement is for future road, drainage, pedestrian and utility purposes.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit or waiver must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Road profile shall not be designed or constructed at a grade of less than 0.50% or more than 4.00%.

7. See Standard No. WI-601.10 for driveway entrance details.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See Standard No. WI-700.01 for minimum seeding and mulching specifications.

9. Horizontal curves - the centerline radius for these streets shall not be less than 572.96 feet (10' curve). A tangent of at least 100 feet shall be introduced between reverse curves.

10. A deed to Wicomico County for road dedication and/or easement is required.

11. Easement for future road, drainage, pedestrian and utility purposes.
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit must be obtained prior to the start of any construction.

4. CBR testing shall be performed to aid in determining stabilization requirements. Wicomico County will determine the stabilization based on this testing and field conditions. Should unsuitable material be found during construction, the design may be altered as directed by the Wicomico County Department of Public Works.

5. Slopes of 4:1 required except where street is through wooded areas and specific approval from the Wicomico County Department of Public Works is given to use 2:1 slopes.

6. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.50% or more than 4.00%.

7. See standard No. WI-600.10 for curb and gutter details. Type CG-1 curb and gutter is shown on this typical section.

8. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See standard No. WI-700.01 for minimum seeding and mulching specifications.

9. Horizontal curves - The centerline radius "or "major collector" streets shall not be less than 572.96 feet (10' curve). A tangent at least 100 feet long shall be introduced between reverse curves.

10. A deed to Wicomico County, MD. for road dedication and/or easements is required.

11. Easement is for future road, drainage, pedestrian and utility purposes.
TYPE "B"

1. CONCRETE CURB AND GUTTER
2. CONCRETE VALLEY GUTTER
3. HOT MIX ASPHALT
4. GRASSED MEDIAN

TYPE "A"

Crossovers (30' feet curb to curb) for access between lanes, shall be constructed at intervals not to exceed 500 feet. At street intersections this crossover may vary as to intersection street width.
1. CONCRETE CURB AND GUTTER
2. CONCRETE DITCH LINER
3. STORM WATER DRAIN PIPE
4. TOP OF SLOPE
5. HOT MIX ASPHALT
6. END SECTION

Crossovers (30' Feet Curb to Curb) for access between lanes, shall be constructed at intervals not to exceed 500 feet. At street intersections this crossover may vary as to intersection street width.

Maximum allowable ditch depth is 4 feet with maximum side slopes of 4:1.
1. Concrete Curb and Gutter
2. Concrete Valley Gutter
3. Hot Mix Asphalt
4. Grassed Median
5. Return (Min R20’)
6. Radius of Median
7. Max. 35’

Tie in to existing road shall maintain positive drainage patterns in all streets. An overlay of the existing road may be required to provide necessary cross section for drainage. Provide centerline and edge of pavement spot elevations for existing road at maximum 10 feet intervals at entrance and for 100 feet beyond limits of work.

Entrances shall be constructed at intervals not to exceed 125 feet on minor collector roads and 250 feet on major collector roads. Entrance width may vary due to street and median width.

Median not to extend beyond returns structures or signage within the median to be located beyond radius and be break away design.

Landscaping within radius of median and returns to be limited to (2') two feet in height at maturity to protect visibility.

Maintenance of landscaping, structures or signage in the median is the responsibility of the homeowners association.

For curb and valley gutter standards refer to Wicomico Standards Wi-600.10 and Wi-600.20.

Center Island @ Entrance shall have vertical type "CG-1" curb. Note the gutter pan shall be reversed to provide drainage away from the island.
RESERVATION LINE
R/W LINE
CURB LINE

50° R
45° R
40° R

RADIUS PT.

"E"
"F"
"D"

LIMITS OF TURNAROUND

P.R.C. P.R.C.

P.C. P.C.

RADIUS PT.

36'
26'
46'
13'

R/W LINE CURVE DATA

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NOTE: AREA OF TURNAROUND FOR STABILIZATION OR PAVING PURPOSES
5301.14 SQUARE FEET OR 589.02 SQUARE YARDS.
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**Note:** Area of turnaround for stabilization or paving purposes 6075.87 square feet or 675.10 square yards.
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NOTE: AREA OF TURNAROUND FOR STABILIZATION OR PAVING PURPOSES
5328.48 SQUARE FEET OR 592.05 SQUARE YARDS.
R/W LINE CURVE DATA

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NOTE: AREA OF TURNAROUND FOR STABILIZATION OR PAVING PURPOSES
6153.61 SQUARE FEET OR 683.73 SQUARE YARDS.
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<th>CHORD</th>
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CURB LINE CURVE DATA

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NOTE: AREA OF TURNAROUND FOR STABILIZATION OR PAVING PURPOSES 5341.77 SQUARE FEET OR 593.53 SQUARE YARDS.
DEDICATION LINE CURVE DATA

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CURB LINE CURVE DATA

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NOTE: AREA OF TURNAROUND FOR STABILIZATION OR PAVING PURPOSES 6232.30 SQUARE FEET OR 692.48 SQUARE YARDS.
DEDICATION LINE CURVE DATA

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<th>CHORD</th>
</tr>
</thead>
<tbody>
<tr>
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<td>26.909’</td>
<td>28.284’</td>
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NOTE: AREA OF TURNAROUND FOR STABILIZATION OR PAVING PURPOSES 5329.76 SQUARE FEET OR 592.20 SQUARE YARDS.
DEDICATION LINE CURVE DATA

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<th>L</th>
<th>CHORD</th>
</tr>
</thead>
<tbody>
<tr>
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<td>50'</td>
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CURB LINE CURVE DATA

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<tr>
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<td>41.888'</td>
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NOTE: AREA OF TURNAROUND FOR STABILIZATION OR PAVING PURPOSES
6255.65 SQUARE FEET OR 695.07 SQUARE YARDS.
ROADWAY CONSTRUCTION SPECIFICATIONS

I. SUBGRADE PREPARATION
A. PRIOR TO ANY WORK BEING PERFORMED ON ROADWAYS, A DETERMINATION SHALL BE MADE BY THE WICOMICO COUNTY ROADS ENGINEER AND DEVELOPER AS TO TYPE OF STABILIZATION TO BE UTILIZED AND THE TYPE AND THICKNESS OF PAVING TO BE USED.

THE TYPE OF STABILIZATION USED WITH THIS SPECIFICATION IS CR–6. FOR STABILIZATION TYPES OTHER THAN CR–6 OR RECYCLED CONCRETE, ADVANCE APPROVAL IS REQUIRED IN WRITING FROM THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY WORK BEING PERFORMED.

C. BEFORE GRADING IS STARTED, THE ENTIRE RIGHT–OF–WAY AREA SHALL BE FIRST CLEARED OF ALL STUMPS, ROOTS, BRUSH AND OTHER OBJECTIONABLE MATERIALS AND ALL TREES NOT INTENDED FOR PRESERVATION. ALL TREE STUMPS, BOULDERS AND OTHER OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF TWO (2) FEET BELOW THE SUBGRADE.

D. ALL SUITABLE MATERIAL FROM ROADWAY CUTS MAY BE USED IN THE CONSTRUCTION OF FILLS, APPROACHES OR AT OTHER PLACES AS NEEDED. UNSUITABLE MATERIAL IS ENCOUNTERED, THE UNSUITABLE MATERIAL SHALL BE REMOVED AS DIRECTED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS. THE UNSUITABLE MATERIAL SHALL BE REPLACED WITH ACCEPTABLE CUT MATERIAL FROM THE PROJECT OR OF BORROW EXCAVATION IN ACCORDANCE WITH SECTION 203–“BORROW EXCAVATION” (SELECT BORROW) OF MARYLAND S.H.A. LATEST EDITION SPECIFICATIONS INCLUDING ALL ERRATA AND ADDENDA. COMPACTION AND MOISTURE CONTROL FOR THE MATERIALS FINALLY USED SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 204–“EMBANKMENT AND SUBGRADE” OF MARYLAND S.H.A. SPECIFICATIONS INCLUDING ERRATA AND ADDENDA.

E. THE ROADWAYS AND THEIR APPURtenances SHALL BE GRADED TO THE PROPER CROSS–SECTION AS SHOWN IN THE WICOMICO COUNTY BOOK OF “CONSTRUCTION STANDARDS” AND TO THE LINES AND PROFILE GRADES SHOWN ON APPROVED PLANS. THE ACCEPTABILITY OF THE FINAL SUBGRADE SHALL BE DETERMINED BY THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS BEFORE ANY STABILIZING AGGREGATES MAY BE APPLIED.

II. ROADWAY SUBGRADE STABILIZATION FOR GOOD, MEDIUM, AND POOR SOILS
A. SUBGRADE PREPARATION ROADWAY SUBGRADE STABILIZATION FOR GOOD, MEDIUM AND POOR SOILS % OF DRY DENSITY MODIFIED PROCTOR TO ESTABLISH CALIFORNIA BEARING RATIO VALUES. THE SUBGRADE MUST BE TESTED AT 95 SUBGRADES WITH CBR ABOVE 20 WILL BE CLASSIFIED AS GOOD CLASS SUBGRADE, CBR BETWEEN 5 AND 20 WILL BE CLASSIFIED AS MEDIUM CLASS SUBGRADE AND CBR LESS THAN 5 AS POOR CLASS SUBGRADE. COMPACTION OF THE AGGREGATE SUBBASE % MODIFIED PROCTOR DENSITY. RECYCLED CONCRETE MAY BE SUBSTITUTED PER WICOMICO COUNTY SPECIFICATION W–101.02.

GOOD CLASS SUBGRADE— CBR ABOVE 20 = USE 6 INCHES OF CR–6 (ASTM D2940(h)).

MEDIUM CLASS SUBGRADE— CBR 5 TO 20 = USE 10 INCHES OF CR–6 (ASTM D2940(h)).

POOR CLASS SUBGRADE — CBR 2 TO 5 = USE 14 INCHES OF CR–6 (ASTM D2940(h)). TENSA R BX12000 OR EQUAL WITH 10–INCHES OF STONE.

B. CR–6 STABILIZATION SHALL BE APPLIED BY AN APPROVED MECHANICAL SPREADER OR APPROVED ALTERNATE AT THE RATE DESIGNATED. AFTER THE STABILIZING AGGREGATE HAS BEEN APPLIED AT THE DESIGNATED RATE, THE AGGREGATE SHALL BE CAREFULLY SHAPED SO AS TO AVOID SEGREGATION, BROUGHT TO THE PROPER GRADE AND CROSS–SECTION AND THOROUGHLY COMPACTED. WATER SHALL BE ADDED BY SPRINKLING IN SUFFICIENT QUANTITY TO ATTAIN PROPER COMPACTION. COMPACTION AND MOISTURE CONTROL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 501–“AGGREGATE BASE COURSES” OF MARYLAND S.H.A. LATEST EDITION SPECIFICATIONS INCLUDING ALL ERRATA AND ADDENDA.

C. THE WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS OR THEIR REPRESENTATIVE MUST BE PRESENT AS THE STABILIZING AGGREGATE IS BEING APPLIED. PROOF OF AGGREGATE WEIGHTS SHALL BE DETERMINED BY CERTIFIED WEIGHT SLIPS, WHICH MUST BE PRESENTED TO THE WICOMICO COUNTY REPRESENTATIVE PRIOR TO STABILIZING AGGREGATE BEING APPLIED. NOTE: HIGH GROUND WATER AND FIELD CONDITIONS SIGNIFICANTLY DIFFERENT THAN 95% DRY DENSITY WILL REQUIRE DESIGN REVIEW AT THE TIME OF SUBBASE PLACEMENT.

D. HIGH GROUND WATER AND FIELD CONDITIONS SIGNIFICANTLY DIFFERENT THAN 95% DRY DENSITY WILL REQUIRE DESIGN REVIEW AT THE TIME OF SUBBASE PLACEMENT.

III. CBR TESTING
A. SOIL SAMPLING LOCATIONS SHALL BE DETERMINED BY WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO TESTING FOR NEW SUBDIVISION STREETS. TESTS SHALL BE AT ROADWAY ENTRANCES, INTERSECTIONS, CUR–DE–SACS, AND 500 FEET ON CENTER OF ROADWAY. FAILURE TO GET DPW APPROVAL OF LOCATIONS MAY RESULT IN MORE TESTING.

B. PROVIDE SOIL CLASSIFICATIONS AT EACH LOCATION TO A DEPTH OF 6 FEET AND NOTE GROUNDWATER IF ENCOUNTERED.

C. TEST AND REPORT SHALL CONFORM TO ASTM D–1883

D. ROAD DESIGN WILL BE BASED ON CBR TESTING.

APPROVAL

DATE OF ORIGINAL DRAWING: 12 APR 04

DATE LAST REVISED: DEC 2010

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
ROADWAY CONSTRUCTION
SUBGRADE SPECIFICATIONS

STANDARD NO. WI–101.00
1. A PERMIT MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS FOR EXCAVATION OF ANY TRENCHES WITHIN THE RIGHT-OF-WAY LINES OF ANY WICOMICO COUNTY ROADS.

2. ANY TRENCHES WITHIN THE RIGHT-OF-WAY LINES OF ANY WICOMICO COUNTY ROADS SHALL BE BACKFILLED WITH SUITABLE MATERIAL. IF UNSUITABLE MATERIAL IS ENCOUNTERED, IT SHALL BE REMOVED AND REPLACED WITH BORROW EXCAVATION MATERIAL REUSED, BORROW, COMPACTION AND MOISTURE CONTROL SHALL COMPLY WITH THE LATEST MD. STATE HIGHWAY ADMINISTRATION SPECIFICATIONS.

3. ALL PIPES SHALL BE INSTALLED PER THE MANUFACTURES RECOMMENDATIONS. TRENCHES SHALL HAVE A MINIMUM WIDTH OF THE PIPE PLUS ONE (1'-0") FOOT ON EACH SIDE.

4. THE TOP ONE (1'-0") FOOT OF THE STABILIZATION IN PAVED ROADS SHALL BE FILLED AND COMPACTED WITH STONE AGGREGATE MEETING GRADATION REQUIREMENTS OF ASTM D 2040 CRUSHER RUN AGGREGATE (CR-6). MEASUREMENT REFERENCED TO BOTTOM OF PAVEMENT. PRIOR TO FINAL PAVING, TRENCH STABILIZATION LAYER MUST BE MAINTAINED FOR TRAFFIC UNTIL HOT MIX IS PLACED.

5. WHERE UTILITY TRENCHES ARE INSTALLED TRANSVERSE TO THE ROAD AND ARE MORE THAN 50 FEET APART, REPAVE BASED ON THIS DETAIL. OTHERWISE, INSTALL THE TRENCHES PER THIS DETAIL WITH BASE COURSE AND REPAY THE SURFACE COURSE FOR THE ENTIRE ROAD WIDTH THE DISTANCE BETWEEN THE TRENCHES. FOR TRENCHES THAT DO NOT CROSS THE CENTERLINE, REPAY HALF THE ROAD WIDTH FOR THE DISTANCE SPECIFIED.


7. IN AREAS WHERE TRENCHES ARE NOT IN THE PAVED AREAS, BACKFILL & COMPACTION SHALL MEET THE REQUIREMENTS IN NOTE 2 ABOVE. ALL DISTURBED AREAS SHALL THEN BE TOPSOIL, SEED AND MULCHED IN CONFORMANCE WITH MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
STANDARD FOR THE USE OF RECYCLED CONCRETE FOR ROADWAY STABILIZATION

POLICY AND PROCEDURE MEMORANDUM

The Wicomico County Department of Public Works will approve the use of Recycled Concrete as Roadway Stabilization Substitute for CR-6. Recycled Concrete shall be substituted at the rate of 1.00-inches for each 1.00-inch of CR-6 as specified in Wicomico County Standard WI-101.01.

The following testing is required for acceptance of recycled concrete (RC6) as stabilization on Wicomico County roadways:

For every 500 tons or fraction thereof:

Per the Maryland Highway Administration Standard Specifications for Construction and Materials:

One sieve analysis for aggregate grading requirements per Table 901A.

Per EPA method 9045C Soil and Waste pH

One pH test with results greater than 2 and less than 12.5 (EPA Corrosivity Limits)

In addition an analysis of aggregate physical property requirements per Table 901B will be required where reason exist that would indicate possible nonconformity.

All material furnished must be in conformance with all applicable EPA requirements and regulations. The County reserves the right under TC-6.09 and TC-6.10 of the above referenced State Highway Standard Specification to require additional testing including EPA Toxicity Characteristic Leaching Procedure (TCLP) if any furnished material is suspected to be hazardous or toxic.

All test results shall be copied to Wicomico County Department of Public Works, P.O. Box 968, Salisbury MD 21803.

RC6 Recycled Concrete to be used as roadway stabilization only, not as pipe bedding, not in contact with or within leaching distance of any metals.

Other required compaction and moisture control tests for materials required under Wicomico County Standard No. 101.01 remain unchanged.

Recycled concrete shall be uniform in quality and free from wood, steel, roots, bark, or other extraneous material.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

RECYCLED CONCRETE AS STABILIZATION

STANDARD NO. WI-101.02
STORM DRAIN PIPE SPECIFICATIONS

THE FOLLOWING SPECIFICATIONS SHALL BE REQUIRED FOR ALL STORM DRAIN DESIGNS APPROVED WITH HDPE PIPE.

1. WATER TIGHT JOINTS FOR PIPE TO PIPE CONNECTIONS.

2. RUBBER GASKETS ON PIPES AT CONNECTIONS BETWEEN PIPES AND INLETS.

3. A CAMERA TEST, AFTER INSTALLATION, TO VERIFY CORRECT INSTALLATION (ALIGNMENT, GRADE, DEFORMATION AND JOINTS.)

4. IN LIEU OF HDPE PIPE, RCP PIPE WITH A RUBBER GASKET IN THE JOINTS MAY BE USED WITHOUT THE REQUIREMENT OF A CAMERA TEST.
# Geometric Design Standards

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<th>WIC. CO. STD. NO.</th>
<th>ROAD WIDTH</th>
<th>SHOULDER WIDTH</th>
<th>MIN. R/W WIDTH</th>
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<th>MAX. ST. GRADE</th>
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**NOTES:**

1. 5' RESERVATION REQUIRED ON EACH SIDE OF R/W FOR ROAD & UTILITY PURPOSES.

2. R/W WIDTH MAY BE DECREASED BY 10' IF A 5' RESERVATION ON EACH SIDE OF STREET R/W, FOR ROAD AND UTILITY PURPOSES, IS APPROVED BY THE PLANNING COMMISSION.

3. HORIZONTAL RADIUS SHALL BE DETERMINED FROM CENTERLINE OF ROAD EXCEPT WHERE A CENTER MEDIAN IS SPECIFIED, WHICH SHALL BE MEASURED FROM THE CENTERLINE OF THE PAVING OF THE INSIDE LANE.

4. SHALL COMPLY WITH AASHTO GEOMETRIC DESIGN STANDARDS.

5. A TANGENT LENGTH OF AT LEAST 100' SHALL BE USED BETWEEN REVERSE CURVES, EXCEPT AS MAY BE APPROVED IN UNUSUAL SITUATIONS. EXCEPT ON LOCAL STREETS, A TANGENT WILL BE REQUIRED BETWEEN TWO CURVES IN THE SAME DIRECTION.

6. PROPOSED ROADWAY GRADES SHALL BE IDENTIFIED AT EVERY 50 FEET STATIONING FOR THE CENTERLINE, TOP OF CURB, AND FLOW LINE ALONG WITH EACH POINT OF CURVATURE, POINT OF TANGENCY, AND POINT OF VERTICAL INTERSECTION.

7. ROADWAY ENTRANCES, INTERSECTIONS, AND CUL-DE-SACS SHALL HAVE A 30' SCALE PLAN VIEW DRAWING OF EACH WITH ROADWAY STATIONING AND PROPOSED GRADES.

8. CUL-DE-SACS SHALL HAVE A MINIMUM 1.5% CROSS SLOPE.

---

**Approval:**

[Signature]

**Date:** 1/15/10

**Wicomico County, MD**

**Department of Public Works**

**Geometric Design Standards**

**Standard No. W1-102.00**

**Drawn by:** ELH

**Date of Original Drawing:** Oct 91

**Date Last Revised:** Dec 2010
CHART BASED ON:
HEIGHT OF OBJECT - 0.50'
HEIGHT OF EYE - 3.75'

\[ S < L \quad L = \frac{AS^2}{1398} \quad S > L \quad L = 25 - \frac{1398}{A} \]

\( A = \text{ALGEBRAIC DIFFERENCE IN GRADE (\%) } \)
\( S = \text{STOPPING DISTANCE (FEET) } \)
\( L = \text{LENGTH OF VERTICAL CURVE (FEET) } \)
1. The developer shall provide street plan, profile, and drainage plan for all street construction. These plans must be approved by the Wicomico County Department of Public Works prior to start of any construction.

2. An "erosion and sediment control" permit must be obtained before any clearing and/or grading is permitted.

3. A "stormwater management" permit must be obtained prior to the start of any construction.

4. Unsuitable material shall be removed to a point 12" below subgrade of the stabilization and curb and gutter. If unsuitable material is encountered at, or below this point, the unsuitable material shall be removed as directed by the Wicomico County Department of Public Works. The unsuitable material shall be replaced with select borrow. See Standard No. WI-101.00 for specifications.

5. Concrete curb and gutter shall not be designed or constructed at a grade of less than 0.50% or more than 6.00%.

6. See Standard No. WI-600.10 for curb and gutter details. Type CG-2 curb and gutter is shown on this typical section.

7. All areas disturbed by grading, including all slopes, shall be seeded and mulched. See Standard No. WI-700.01 for minimum seeding and mulching specifications.

8. A deed to Wicomico County, MD for dedication and/or easements is required.

9. 5' wide easement is required for future road, drainage, pedestrian and utility purposes.
Transition of curb face and cross slope at depressed inlets
LEAVE 4" X 4" OPENINGS FOR SUBGRADE DRAINAGE IF DIRECTED...

PLAN

CURB JOINT WITH 1/4" EXPANSION MATERIAL

SECTION A-A

REINFORCEMENT: NO. 4 DIA. DEFORMED BARS @ 6" C/C 2 WAYS.

NORMAL PAVEMENT SLOPE

W8 X 31 ELECT. CALV. SUPPORT BEAM 4'-6" 1/8" LONG. FOR DETAILS SEE STD. NO. WI-374.03 FOR METHOD OF ANCHORING.

SPECIAL PRECAST CURB

(SEE DETAIL B-B)

SECTION B-B

4" BRICK INVERT TO SLOPE AT LEAST 2" PER FOOT TOWARD OUTLET.

NOTES:

1. INLET MAY BE CONSTRUCTED OF REINFORCED CONCRETE (Mix NO. 2) OR BRICK.

2. SIZE, TYPE, & DIRECTION OF INLET CONNECTION WILL VARY TO SUIT CONDITIONS.

3. TOP 4" OF WALLS MAY BE BRICK MASONRY. ADDITIONAL BRICK MAY BE USED TO BRING THE GRATE TO GRADE IF REQUIRED. SEE S.H.A. SPECIFICATIONS FOR INLETS.

4. REINFORCEMENT REQUIRED ON THE OUTSIDE, AS WELL AS ON THE INSIDE, OF WALLS BELOW 7'-0" WHEN "A" IS GREATER THAN 7'-0". SPACING, SAME AS FOR INSIDE OF WALL.

5. PLACE = EXPANSION MATERIAL OF SAME TYPE APPROVED FOR PAVEMENT BETWEEN THE FRAME & ABUTTING RIGID PAVEMENT, & BETWEEN ENDS OF INLET CURB & NORMAL CURB.

6. "BRICK FOR MASONRY", TO COMPLY WITH S.H.A. SPECIFICATIONS.

7. FOR UNDEPRESSED INLETS, USE NORMAL PAVEMENT SLOPE. FOR DEPRESSED INLETS, SEE WICOMICO COUNTY STD. WI-300.02.

8. SEE STANDARD WI-383.91 FOR METAL LADDER RUNGS.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
STANDARD WR INLET

STANDARD NO. WI-374.04

DRAWN BY: J.D.G.
DATE: OCT. 2001
SCALE: 3/8" = 1'
OR AS NOTED
DATE LAST REVISED: NOV 2004

APPROVAL

DIRECTOR - DEPARTMENT OF PUBLIC WORKS

DATE: 9/15/00

1/2" PARING

FACE OF NORMAL CURB

STANDARD WR FRAME & GRATE. FOR DETAILS SEE STANDARD WI-374.02 & WI-374.03.

-5/8" DIA. ANCHOR BOLT, 4 PER FRAME (FOR DETAILS, SEE STD. WI-374.02)

- 4 1/4" x 4 1/4" - 4 1/4" - 4 1/4" - 4 1/4"

- 2 1/2" x 2 1/2" x 1/2" L - 6" - 11" - 6" - 11" - GALVANIZED

- 2 1/2" x 2 1/2" x 1/2" L - 5/8" DEFORMED BARS, 8" C/C STRAIGHT

NO. 4 DEFORMED BARS, 8" C/C BENT THUS L. ALL OTHER BARS, NO 4 DIA.
DEFORMED BARS, 8" C/C STRAIGHT

NO. 6 DIA. DEFORMED BAR, STRAIGHT

1/2" PARING

DETAIL B-B

PRECAST CURB
NOTES

1. INLET MAY BE CONSTRUCTED OF REINFORCED CONCRETE (MIX NO. 2) OR BRICK. SIZE, TYPE & DIRECTION OF INLET CONSTRUCTION WILL VARY TO SUIT CONDITIONS.

2. TOP 4" OF WALLS MAY BE BRICK MASONRY. ADDITIONAL BRICK MAY BE USED TO BRING THE GRATE TO GRADE IF REQUIRED. SEE S.H.A. SPECIFICATIONS FOR INLETS.

3. REINFORCEMENT REQUIRED ON OUTSIDE, AS WELL AS ON INSIDE OF WALLS BELOW 7'-0" WHEN "A" IS GREATER THAN 7'-0" SPACING, SAME AS FOR INSIDE OF WALL.

4. PLACE 1/4" EXPANSION MATERIAL OF SAME TYPE APPROVED FOR PAVEMENT BETWEEN ENDS OF INLET CURB & NORMAL CURB.

5. "BRICK FOR MASONRY" TO COMPLY WITH THE WICOMICO COUNTY SPECIFICATIONS FOR UNDERPRESSED INLETS, USE NORMAL PAVEMENT SLOPE, FOR DEPRESSED INLETS, SEE WICOMICO CO. STD. NO. WI-300.02.

6. METAL LADDER RUNGS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER (SEE STANDARD NO. WI-383.91).
STANDARD WR SINGLE FRAME & GRATE. FOR DETAILS SEE STD'S WI-374.02 & WI-374.03

5/8" ANCHOR BOLT, 4 PER FRAME
(FOR DETAILS SEE STANDARD WI-374.02)

REINFORCEMENT:
NO. 4 DEFORMED BARS
@ 6" C/C 2 WAYS
2" COVER

NOTE:
1. CONCRETE (MIX NO. 2) WILL BE SUBSTITUTED FOR BRICK WHEN DIRECTED BY THE ENGINEER.

2. SIZE, TYPE AND DIRECTION OF OUTLET PIPE WILL VARY TO SUIT EACH CASE AND THE INVERT WILL BE ALTERED ACCORDINGLY.

3. "BRICK FOR MASONRY", TO COMPLY WITH THE LATEST S.H.A. SPECIFICATIONS.

4. SEE STANDARD WI-383.91 FOR METAL LADDER RUNGS.

SECTION A-A

TOP OF PAVEMENT

SECTION B-B

TOP OF PAVEMENT

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
SINGLE WR INLET
(WITHOUT CURB)

DATE LAST REVISED: NOV 2004

STANDARD NO. WI-374.06
SEE STANDARD WI-374.075 FOR DETAILS OF CURB OVER INLET.

NORMAL CURB LINE

STANDARD WR SINGLE FRAME & GRATE WITH CUT FLANGE. SEE STANDARD WI-374.02 & WI-374.03.

LEAVE 4"X4" OPENING THRU WALL FOR SUBGRADE DRAINAGE (IF DIRECTED). USE STANDARD INLET PROTECTION AS A SEDIMENT FILTER. OPENING TO BE SEALED AFTER PAVING COMPLETED.

5/8" ANCHOR BOLT, 4 PER FRAME
(FOR DETAILS SEE STANDARD WI-374.02)

BRICK OR CONCRETE INVERT TO SLOPE AT LEAST 2" PER FOOT TOWARD OUTLET

CONCRETE - MD. S.H.A. MIX NO. 2

NOTE:
1. INLET MAY BE CONSTRUCTED OF BRICK OR SOLID CONCRETE BLOCK; (BLOCKS 4"X8"X16" ONLY).
2. SIZE, TYPE & DIRECTION OF PIPE CONNECTION WILL VARY TO SUIT CONDITIONS.
3. TOP OF WALLS MAY BE BRICK MASONRY TO BRING THE GRATE TO GRADE AS REQUIRED.
4. INLET WALL THICKNESS TO BE A MINIMUM OF 8" TO AN INLET DEPTH OF 8", OVER 8" OF DEPTH WALL THICKNESS TO BE 12".
5. SEE STANDARD NO. WI-300.02 FOR METHOD OF DEPRESSING PAVEMENT AT INLET.
6. LADDER RUNGS SHALL BE PLACED IN ACCORDANCE WITH STANDARD NO. WI-383.91.

NOTE: IF SOLID CONCRETE BLOCK USED BOTH INSIDE AND OUTSIDE TO BE PARGED.
PLAN

FRONT ELEVATION

DETAIL 'A' - 'A'

NOTE:
CONCRETE = MD. S.H.A. MIX NO. 2
FINISH = GRANLITHIC

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
SINGLE WR INLET
CURB HEAD

STANDARD NO. WI-374.075
GENERAL NOTES:
1. FRAME & GRATES TO BE SQUARE, FLAT & TRUE.
3. FRAMES & GRATES TO BE GALVANIZED AFTER
   FABRICATION IN ACCORDANCE WITH A.S.T.M. A-123.
4. SEE LATEST S.H.A. SPECIFICATIONS.

FRAME ANCHORAGE DETAIL

INSIDE INLET WALL

3 1/2" x 1/2" x 1-10 3/8" (2 PER FRAME)

BEVEL BOTH ENDS

CHAMFER BOTTOM OF BAND
BARS 5/16" X 5/16".

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

STANDARD NR INLET
FRAME & GRATES

STANDARD NO. WI-374.12

DRAWN BY: JDG
DATE OF ORIGINAL DRAWING: OCT 97
DATE LAST REVISED: NOV 2004

SCALE: 3/4" = 1'
OR AS NOTED

APPROVAL
DIRECTOR: DEPARTMENT OF PUBLIC WORKS
6/15/9

3/4" x 3" DE VERTICAL
LEG OF ANGLE (TYP.) (SQUARE
CUT ONLY)
1/4" x 1 1/2" (IA. FRAME)
4'-0 1/2" (OUTSIDE FRAME)
4'-0 1/2" (INSIDE FRAME)
4'-0 1/4" (IA. GRATE)
1/2" TYP.
3' 1/2"
5/16" TYP.

1/8" TYP.
3'-9 1/2"
2 1/2" TYP.
3 1/2" Ø 1/4" x 1/2" FLAT BAR
WHEN OPEN FACED CURB IS
USED.

SUPPORT BEAM - SEE STS. WI-374.12.
NOTE 'A'-WELD 5 1/2" X 1/2" BAR TO 4"X3"X1/2" L
BEFORE WELDING 3 1/2" X 1/2" BAR

SECTION C-C

SECTION D-D
(GRATE NOT SHOWN)

SUPPORT BEAM
W8 X 31 ELEC. GALV.

<table>
<thead>
<tr>
<th>INLET TYPE</th>
<th>A</th>
<th>B</th>
<th>C</th>
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<tr>
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<tr>
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<td>5-5</td>
<td>7/8</td>
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WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

STANDARD NR INLET FRAME & GRATE
STANDARD NO. WI-374.13
GENERAL NOTES
1. CONCRETE (MIX NO. 2) WILL BE SUBSTITUTED FOR BRICK WHEN DIRECTED BY THE ENGINEER.
2. SIZE, TYPE AND DIRECTION OF OUTLET PIPE WILL VARY TO SUIT EACH CASE AND THE INVERT WILL BE ALTERED ACCORDINGLY.
3. "BRICK FOR MASONRY" TO COMPLY WITH THE LATEST S.H.A. SPECIFICATIONS.
4. SEE STANDARD NO. WI-383.91 FOR METAL LADDER RUNGS.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
STANDARD NR INLET

STANDARD NO. WI-374.14
GENERAL NOTES

1. CONCRETE TO BE MIX NO. 6 (4,500 P.S.I.).

2. REINFORCING - 2 LAYERS OF 4 x 4 W4.0 x W4.0 86#/SQ. FT. WELDED WIRE FABRIC AS SHOWN. 1 1/2" OF COVER IS TO BE PROVIDED OVER REINFORCING WIRE.

3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.

4. GRACE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO. 6 OR BRICK AND MORTAR.

5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION, AND INVERT ELEVATIONS, REFER TO CONSTRUCTION PLANS.

6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.

7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD WI-383.91.

8. SEE STANDARD WI-300.02 FOR METHOD OF DEPRESSING PAVEMENT AT INLET.

9. JOINT SEALER (AASHTO M198, TYPE B) TO BE APPLIED TO THE INSIDE EDGE ONLY.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
PRECAST STANDARD WR INLET

STANDARD NO. WI-374.21
GENERAL NOTES

1. CONCRETE TO BE MIX NO. 6 (4,500 P.S.I.).
2. REINFORCING – 2 LAYERS OF 4 X 4 W4.0 X W4.0 86#/SQ. FT. WELDED WIRE FABRIC AS SHOWN.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO. 6 OR BRICK AND MORTAR.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION, AND INVERT ELEVATIONS, REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD WI-363.91.
8. SEE STANDARD WI-300.02 FOR METHOD OF DEPRESSING PAVEMENT AT INLET.
9. JOINT SEALER (ASHTO M198, TYPE B) TO BE APPLIED TO THE INSIDE EDGE ONLY.

SECTION A-A

NORMAL PAVEMENT SLOPE

SECTION B-B

THIS PORTION OF INLET SHALL BE PROVIDED IN THE FIELD AND SHALL BE CONSTRUCTED OF BRICK MASONRY OR REINFORCED CONCRETE MIX NO. 6 "BRICK FOR MASONRY", TO COMPLY WITH LATEST S.H.A. SPECIFICATIONS.
GENERAL NOTES

1. CONCRETE TO BE MIX NO. 6 (4,500 P.S.I.).
2. REINFORCING — 2 LAYERS OF 4 x 4 W4.0 x W4.0 86#/SQ. FT. WELDED WIRE FABRIC AS SHOWN. 1 1/2" COVER TO BE PROVIDED OVER REINFORCEMENT.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO. 6 OR BRICK AND MORTAR.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION, AND INVERT ELEVATIONS, REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD W-383.91.
8. SEE STANDARD WI-300.02 FOR METHOD OF DEPRESSING PAVEMENT AT INLET.
9. JOINT SEALER (ASHTO M198, TYPE B) TO BE APPLIED TO THE INSIDE EDGE ONLY.
NOTE:
CONCRETE = MD. S.H.A. MIX NO. 6 (4500 P.S.I.)
FINISH = GRANOLITHIC
SECTION A-A

INVERT TO BE CONCRETE OR BRICK, SLOPE 2" PER FOOT TOWARDS OUTLET OR AS DIRECTED (TO BE PROVIDED IN THE FIELD)
NORMAL PAVEMENT SLOPE

SECTION B-B

BASE UNIT (WALLS MAY TAPER 1/2" PER FOOT)
KEYED JOINT

PROVIDE 4" MIN. BONDING OF CR-6 ON COMPACTED SUBGRADE.

SECTION C-C

GENERAL NOTES

1. CONCRETE TO BE MIX NO. 6 (4,500 P.S.I.).
2. REINFORCING - 2 LAYERS OF 4" X 4" W4.0 X W4.0 66#/50. FT. WELDED WIRE FABRIC AS SHOWN. 1 1/2" OF COVER IS TO BE PROVIDED OVER REINFORCING WIRE.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO. 6 OR BRICK AND MORTAR.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION, AND INVERT ELEVATIONS, REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD WI-383.91.
8. SEE STANDARD WI-300.02 FOR METHOD OF DEPRESSING PAVEMENT AT INLET.
9. JOINT SEALER (AASHTO M198, TYPE B) TO BE APPLIED TO THE INSIDE EDGE ONLY.
NOTES
1. THIS MANHOLE IS FOR PIPES UP TO 36" DIAMETER.

2. MANHOLE SHALL BE CONSTRUCTED OF REINFORCED CONCRETE (MIX NO. 6). BRICK AND MORTAR MAY BE USED IN NON-TRAFFIC AREAS ONLY.

3. BENCHMARK ABOVE OUTGOING PIPE INVERT SHALL BE HALF THE DIAMETER OF THE PIPE.

4. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF THE 3'-10".

5. BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.14 SQ. IN./FT. THE BASE MAY BE CAST MONOLITHIC WITH THE BASE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.

SECTION A-A
GRADE ADJUSTMENT RING
SEE STD W-364.01

SECTION B-B
CONCRETE SLAB

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
48 IN. SQUARE PRECAST MANHOLE
FOR 12 IN. TO 36 IN. PIPES
STANDARD NO. WI-383.00

DRAWN BY: JA
DATE OF ORIGINAL DRAWING: DEC, 2010
SCALE: Scale as noted or no scale.
DATE LAST REVISED: N/A
STD. W-365.01
NOTE: FRAME AND COVER TO BE OF CAST IRON AND TO WEIGH APPROXIMATELY 250 LBS. & 190 LBS. RESPECTIVELY.

SECTION A-A

STORMWATER

PLAN

MATERIAL - CAST IRON (A.S.T.M. A 48, CLASS 30 B)

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
STANDARD STORMWATER MANHOLE FRAME AND COVER
STANDARD NO. WI-383.03
NOTE: METAL LADDER RUNGS ARE TO BE USED IN INLETS, MANHOLES, AND JUNCTION BOXES OVER THREE FEET IN DEPTH OR AS DIRECTED BY THE ENGINEER, USED EITHER WITH BRICK OR CONCRETE CONSTRUCTION. WHERE BRICK CONSTRUCTION IS EMPLOYED, THE MORTAR JOINTS SHALL BE ADJUSTED TO ACCOMODATE LADDER RUNGS. METAL LADDER RUNGS MAY BE COMPRISED OF ONE OF THE FOLLOWING:

1.) ALUMINUM ALLOY - SHALL CONFORM TO A.S.T.M. DESIGNATION B 221 ALLOY 6061-T6. THAT PORTION EMBEDDED IN THE STRUCTURE SHALL BE COATED WITH ZINC CHROMATE OR APPROVED EQUIVALENT COATING.

2.) CAST IRON - SHALL CONFORM TO A.S.T.M. A-48 CLASS 30 B.

3.) EPOXY COATED STEEL - SHALL CONFORM TO A.S.T.M. DESIGNATION A-615 GRADE 40.

4.) ALUMINUM ALLOY - SHALL CONFORM TO A.S.T.M. DESIGNATION B 221 ALLOY 6061-T6. THAT PORTION EMBEDDED IN THE STRUCTURE SHALL BE COATED WITH ZINC CHROMATE OR APPROVED EQUIVALENT COATING.
ALTERNATE ECCENTRICAL CONE UNIT

GRADE ADJUSTMENT RING REINFORCED AS PER AASHTO M 199

SECTION VIEW (SHOWN WITHOUT FRAME AND COVER)

SECTION B-B

NOTES

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M1999.
2. CONCRETE SHALL BE MIX NO. 6 (4000 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS, AND ECCENTRIC CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.12 SQ. IN./FT. FOR THE 48" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND AB2 REINFORCEMENT BARS SHALL MEET ASTM A 615, GRADE 60.
4. BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.14 SQ. IN./FT. TILTHE BASE MAY BE CAST MONOLITHIC WITH THE BASE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.
5. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT. MORTAR, RUBBER O-RING GASKETS MEETING ASTM C 361 & C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 108 TYPE B.
6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1" TO 3" C/C RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARD WI-383.91. LADDER RUNGS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6" ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. MIX NO. 2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
10. THE Drip STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STANDARD WI-384.13 FOR DETAILS.
11. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 3" TO 11" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 3" TO 11" THE COST OF THE Drip STONE LANDING, NO. 57 AGGREGATE, GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
48 IN. DIAMETER PRECAST MANHOLE
FOR 12 IN. TO 24 IN. PIPES
STANDARD NO. WI-384.01
3 1/2" DIA. HEX HEAD BOLTS
WITH THREADED INSERTS
OR
3 1/2" THREADED STUDS
WITH HEX HEAD NUTS.
STUDS TO BE GROUTED
IN PLACE OR ANCHORED
WITH A CONCRETE COMPATIBLE
CHEMICAL ADHESIVE.

3 5/8" DIA. HOES FIELD
DRILLED THROUGH FRAME.

GRADE ADJUSTMENT VARIES
4' TYPICAL

ECCENTRICAL CONE UNIT,
ALTERNATE ECCENTRICAL CONE UNIT
OR FLAT SLAB TOP
(SHOWN IS THE ECCENTRICAL CONE UNIT)

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

FRAME ANCHORAGE FOR
PRECAST MANHOLES

STANDARD NO. WI-384.02
ECCENTRICAL CONE REDUCER
(ALTERNATE FOR FLATTOP REDUCER)

SECTION VIEW
(SHOWN WITHOUT FRAME AND COVER)

NOTES
1. Manholes shall be constructed in accordance with AASHTO M 1999.
2. Concrete shall be Mix No. 6 (4500 PSI).
3. Wall reinforcement for base units, riser units, and eccentric cone units shall be reinforcement bars or welded wire fabric with a minimum area of 0.12 sq. ft./ft. for the 45° diameter manholes. Welded wire fabric shall conform to ASTM A 155 and A 52 reinforcement bars shall meet ASTM A 615, Grade 60.
4. Base reinforcement shall be reinforcement bars or welded wire fabric with a minimum area of 0.14 sq. ft./ft. The base may be cast monolithic with the base unit or jointed per manufacturer's design.
5. The manufacturer shall form male and female ends of joints using their own design. The joints shall be sealed by the contractor and made watertight. Mortar 0–ring gaskets meeting ASTM C 361 & C 443 or flexible plastic gaskets meeting AASHTO M 198 Type B.
6. Ladder rungs shall be installed in vertical alignment at 1°–3°.
7. Additional No. 3 bars are required.
8. Lift holes or lift eyes shall be provided in each section for handling.
9. Mix No. 2 concrete or brick channel shall be provided in the field and shall slope 2" per foot toward outlet or as directed by the engineer.
10. The drip stone landing shall be used only when there are pipes connected to the riser units. See standard WI-384.13 for details.
11. Minimum depth payment per each shall be 5'-1" measured from the bottom of the base unit to the top of the manhole cover. Vertical depth payment per linear ft. shall include all depths in excess of 5'-1". The cost of the drip stone landing, No. 57 aggregate, gravel, sealant, and all necessary appurtenances shall be incidental to the price bid.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
60 IN. DIAMETER PRECAST MANHOLE
FOR 27 IN. TO 36 IN. PIPES
STANDARD NO. WI-384.03
ECCENTRIC CONE REDUCER
(Alternate for Flattop Reducer)

SECTION VIEW
(Shown without frame and cover)

NOTES
1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M1999.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS, AND ECCENTRIC CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.18 SQ. IN./FT. FOR THE 72" DIAMETER MANHOLE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A62 REINFORCEMENT BARS SHALL MEET ASTM A 615, GRADE 60.
4. BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.27 SQ. IN./FT. THE BASE MAY BE CAST MONOLITHIC WITH THE BASE UNIT OR JOINTED PIPES MANUFACTURER'S DESIGN.
5. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER-TIGHT, WATERPROOF, RUBBER C-RING GASKETS MEETING ASTM C 351 & C 444 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.
6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1'-3" C/C RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARD W-383.01. LADDER RUNGS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 8", ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. MIX NO. 2 CONCRETE OR BRICK C-ANGLE SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
10. THE DRAIN STONE LANDING SHALL BE USED ONLY IF THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STANDARD W-383.13 FOR DETAILS.
11. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 6'-1" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 6'-1", THE COST OF THE DRAIN STONE LANDING, NO. 57 AGGREGATE, GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
72 IN. DIAMETER PRECAST MANHOLE
FOR 42 IN. TO 48 IN. PIPES
STANDARD NO. WI-384.05

DRAWN BY: JDG
DATE OF ORIGINAL DRAWING: SEPTEMBER, 2003
SCALE: Scale as noted on scale
DATE LAST REVISED: DEC 2010
APPROVAL
DEPARTMENT OF PUBLIC WORKS

1/15/10
1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M1990.

2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).

3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS, AND ECCENTRICAL CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.21 SQ. IN./FT. FOR THE 84" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A82 REINFORCEMENT BARS SHALL MEET ASTM A 615, GRADE 60.

4. BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.27 SQ. IN./FT. THE BASE MAY BE CAST MONOLITHIC WITH THE BASE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.

5. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERPROOF, MOISTAR, RUBBER O-RING GASKETS MEETING ASTM C 361 & C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.

6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT WITH A 1' - 2" C/C RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARD WI-383.91. LADDER RUNG LASERS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.

7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6", ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.

8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.

9. MIX NO. 2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.

10. THE DRAIN STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STANDARD WI-384.13 FOR DETAILS.

11. MINIMUM DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 10'-1". THE COST OF THE DRAIN STONE LANDING, NO. 57 AGGREGATE, GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.
NOTES

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M1999.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS, AND ECCENTRIC CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.24 SQ. IN./FT. FOR THE 96" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A82 REINFORCEMENT BARS SHALL MEET ASTM A 615, GRADE 60.
4. BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.28 SQ. IN./FT. THE BASE MAY BE CAST MONOLITHIC WITH THE BASE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.
5. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT. MORTAR, RUBBER O-RING GASKETS MEETING ASTM C 361 & C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.
6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1'-3". C/C RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARD WI-383.01.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6", ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. MIX NO. 2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT "Toward outlet or as directed by the engineer.
10. THE Drip stone landing SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS, SEE STANDARD WI-384.13 FOR DETAILS.
11. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 10'-3" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 10'-3". THE COST OF THE Drip STONE LANDING, NO. 57 AGGREGATE, GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.
NOTES

1. MANHOLEs SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M1999.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS, AND ECCENTRICAL CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.30 SQ. IN./FT. FOR THE 120" DIAMETER MANHOLE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 82 REINFORCEMENT BARS SHALL MEET ASTM A 615, GRADE 60.
4. BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.39 SQ. IN./FT. THE BASE MAY BE CAST MONOLITHIC WITH THE BASE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.
5. THE MANUFACTURER SHALL FURNISH WEELED AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT. MORTAR, RUBBER O-RING GASKETS MEETING ASTM C 361 & C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.
6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1'-3" C/C RING TYPES SHALL BE IN ACCORDANCE WITH STANDARD W-383.91.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6", ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. MIX NO. 2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
10. THE DRIP STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STANDARD W-384.13 FOR DETAILS.
11. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 10'-7" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 10'-7" THE COST OF THE DRIP STONE LANDING, NO. 57 AGGREGATE, GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.
TOP - NO. 4 BARS
6" C/C 2 WAYS
BOTTOM - NO. 5 BARS
6" C/C 2 WAYS

4 ADDITIONAL
NO. 5 BARS DIAGONALLY
AROUND OPENING

PLAN
(FRAME AND COVER NOT SHOWN)

SECTION A-A

NOTES
1. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
2. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN.
3. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
4. THE COST OF THE PRECAST FLAT SLAB TOP IS INCIDENTAL TO THE COST OF THE 120" PRECAST MANHOLE.
5. FOR USE WITH THE 120" DIAMETER PRECAST MANHOLE. SEE STD. WI-384.11.
METHOD OF PLACING Drip STONE LANDINGS

NOTES
1. THE Drip STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. REINFORCEMENT SHALL MEET ASTM A 615 GRADE 60.
4. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN.
5. LIFT EYES SHALL BE PROVIDED FOR HANDLING.
6. COST FOR THE Drip STONE LANDING IS INCIDENTAL TO THE COST FOR THE MANHOLE.
### Notes

1. The combination flattop reducer drip stone landing shall be used only when there are pipes connected to the riser units. See standard W-384.13 for placement.
2. Concrete shall be mix No. 6 (4500 PSI)
3. Reinforcement shall meet ASTM A 615 Grade 60.
4. The manufacturer shall form male and female ends of joints using their own design.
5. Lift eyes shall be provided for handling.
6. Cost for the drip stone landing is incidental to the cost of the manhole.

### Table: Precast Manhole Dimensions

<table>
<thead>
<tr>
<th>Precast Manhole Diameter</th>
<th>D</th>
<th>T</th>
<th>W</th>
<th>X</th>
<th>Top Layer</th>
<th>Bottom Layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>60&quot;</td>
<td>6&quot;</td>
<td>5&quot;</td>
<td>6&quot;</td>
<td>3&quot;-6&quot;</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>72&quot;</td>
<td>7&quot;</td>
<td>7&quot;</td>
<td>6&quot;</td>
<td>7&quot;-2&quot;</td>
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<td>N/A</td>
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<tr>
<td>84&quot;</td>
<td>8&quot;</td>
<td>8&quot;</td>
<td>7&quot;</td>
<td>8&quot;-4&quot;</td>
<td>N/A</td>
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<tr>
<td>96&quot;</td>
<td>9&quot;</td>
<td>9&quot;</td>
<td>8&quot;</td>
<td>9&quot;-6&quot;</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>120&quot;</td>
<td>11&quot;</td>
<td>10&quot;</td>
<td>9&quot;</td>
<td>11&quot;-8&quot;</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
NOTES
1. THE COMBINATION ECCENTRICAL CONE UNIT AND Drip STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STANDARD WI-384.13 FOR PLACEMENT.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PS)
3. REINFORCEMENT SHALL MEET ASTM A 615 GRADE 60.
4. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN.
5. LIFT EYES SHALL BE PROVIDED FOR HANDLING.
6. COST FOR THE Drip STONE LANDING IS INCIDENTAL TO THE COST TO THE MANHOLE.

<table>
<thead>
<tr>
<th>PRECAST MANHOLE DIAMETER</th>
<th>DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>D1</td>
</tr>
<tr>
<td>60&quot;</td>
<td>6-0&quot;</td>
</tr>
<tr>
<td>72&quot;</td>
<td>7-0&quot;</td>
</tr>
</tbody>
</table>
NOTE: COST OF TOE WALL TO BE INCIDENTAL TO SQUARE YARDS OF 5'' CONCRETE GUTTER.

REINFORCEMENT DATA
ALL BARS TO BE NO. 3

1. BENT BARS
2. STRAIGHT BAR.
3. COVER TO BE 1/2" THICKNESS OF CONC. MIN. COVER ON ENDS.
E. EXPANSION MATERIAL.

FORM CHAMFER OR ROUNding ON EARTH FORM.
NOTE: ROW OF STONES (AS SHOWN BELOW) OR PRECAST CONCRETE BLOCKS (4"X8"X8") SHALL BE 18" APART, STAGGER ALTERNATE ROWS.

STONES OR BLOCKS TO BE EMBEDDED 3" MIN.

DITCH ELEVATIONS AS NOTED ON PLANS

SECTION A-A

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
5" CONCRETE ENERGY DISSIPATING GUTTER

STANDARD NO. WI-389.11
UP TO 2/3 DIAMETER OF PIPE

UP TO 1/2 DIAMETER OF PIPE

CONCRETE - MD S.H.A. MIX NO. 2

### CONCRETE CRADLE

<table>
<thead>
<tr>
<th>PIPE DIAMETER</th>
<th>DIMENSIONS</th>
<th>C.F. CONC. PER L.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot;</td>
<td>18&quot; 4&quot;</td>
<td>1.00</td>
</tr>
<tr>
<td>10&quot;</td>
<td>21&quot; 4 1/2&quot;</td>
<td>1.25</td>
</tr>
<tr>
<td>12&quot;</td>
<td>24&quot; 5&quot;</td>
<td>1.60</td>
</tr>
<tr>
<td>15&quot;</td>
<td>28&quot; 5 1/2&quot;</td>
<td>2.00</td>
</tr>
<tr>
<td>18&quot;</td>
<td>32&quot; 6&quot;</td>
<td>2.60</td>
</tr>
</tbody>
</table>

### CONCRETE JACKET

<table>
<thead>
<tr>
<th>PIPE DIAMETER</th>
<th>DIMENSIONS</th>
<th>C.F. CONC. PER L.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot;</td>
<td>18&quot; 4&quot;</td>
<td>1.75</td>
</tr>
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<tr>
<td>12&quot;</td>
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<td>3.00</td>
</tr>
<tr>
<td>15&quot;</td>
<td>28&quot; 5 1/2&quot;</td>
<td>3.75</td>
</tr>
<tr>
<td>18&quot;</td>
<td>32&quot; 6&quot;</td>
<td>4.75</td>
</tr>
</tbody>
</table>
NOTE: DASHED LINES INDICATE REVERSE GUTTER FLOW. (USE ONLY AS DIRECTED)

TYPE "CG-2"

NOTES
1. CONCRETE - MD. S.H.A. MIX NO. 2
2. FINISH - GRANOLITHIC
3. JOINTS SHALL BE CONSTRUCTED AT 10'-0"
   INTERVALS EXCEPT WHERE SHORTER SECTIONS ARE NECESSARY FOR CLOSURES. NO SECTION SHALL BE SHORTER THAN 4'-0"
4. THICKNESS OF CURB AND GUTTER SHALL BE INCREASED TO 3" FOR COMMERCIAL AND INDUSTRIAL DRIVES.
5. PLACE ½" THICK PREMOLDED EXPANSION JOINTS AT 40'-0" INTERVALS (MAX) OR CONTRACTION JOINTS POUR WITH ASPHALT JOINT SEALING COMPOUND.
6. CURING - LIQUID MEMBRANE COMPUND OR APPROVED METHOD.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

COMBINATION CONCRETE CURB & GUTTER

STANDARD NO. WI-600.10
STANDARD SIDEWALK

SIDEWALK IN DRIVEWAY

STANDARD SIDEWALK

SIDEWALK IN DRIVEWAY

NOTES
CONCRETE - MD. S.H.A. MIX NO. 2
FINISH - BROomed
EXPANSION JOINTS - SEE STD. WI-600.40
SEE STD. NO. WI-600.10 FOR DETAILS OF
COMBINATION CURB & GUTTER

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

CONCRETE SIDEWALKS
(WITH GRASSPLOT)

STANDARD NO. WI-600.30
STANDARD SIDEWALK

SIDEWALK IN DRIVEWAY

NOTE: THICKNESS OF CURB & GUTTER AND SIDEWALK SHALL BE INCREASED TO 6" FOR COMMERCIAL OR INDUSTRIAL DRIVEWAYS.

STANDARD SIDEWALK

SIDEWALK IN DRIVEWAY

NOTES
CONCRETE - MD. S.H.A. MIX NO. 2
FINISH - BROOMED
EXPANSION JOINTS - SEE STD. WI-600.40
SEE STD NO. WI-600.10 FOR DETAILS OF COMBINATION CURB & GUTTER

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

CONCRETE SIDEWALKS
(WITHOUT GRASSPLOT)

APPROVAL

DRAWN BY: JDC
DATE OF ORIGINAL DRAWING: JAN. 2004

NTS
DATE LAST REVISED: MAR 2006

STANDARD NO. WI-600.31
STANDARD COMBINATION CURB AND SIDEWALK

STANDARD COMBINATION CURB AND SIDEWALK
IN DRIVEWAY

NOTES:
1. Concrete – MD. S.H.A. Mix No. 2
2. Finish: Sidewalk – Broomed
   Curb – Granolithic
3. Expansion Joints – See Std. Wi–600.40

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
COMBINATION Concrete CURB & SIDEWALK

STANDARD NO. WI–600.32
NOTES

ALL EXPANSION MATERIAL SHALL BE 1/2" PREFORMED JOINT FILLER CONFORMING TO:
A.A.S.H.T.O. M153 FOR CORK TYPE.
A.A.S.H.T.O. M213 FOR BITUMINOUS FIBER TYPE.

ALL EXPANSION JOINTS TO BE 1/2" WIDE X FULL THICKNESS OF CONCRETE.

EXPANSION JOINTS SHALL BE PROVIDED THROUGH SIDEWALKS AT INTERVALS NOT GREATER THAN 15'-0".

ALL JOINTS TO BE NEATLY TRIMMED AND PLACED SO AS TO BE 1/8" BELOW FINISHED SURFACE.

EXPANSION JOINTS SHALL BE PLACED IN ALL LOCATIONS SHOWN IN SKETCH AND AS DIRECTED BY THE ENGINEER.

WHERE SIDEWALK IS Poured ADJACENT TO CURB & GUTTER,
1/2" EXPANSION MATERIAL SHALL BE PLACED BETWEEN BACK OF CURB AND SIDEWALK.

NO ADDITIONAL PAYMENT FOR EXPANSION JOINTS SHALL BE MADE. THIS MUST BE INCLUDED IN PRICE BID FOR CURB, GUTTER AND SIDEWALK.
ISOMETRIC VIEW

NOTE:
DRIVEWAY CULVERTS SHALL
BE INSTALLED WITH END
SECTIONS.

SECTION A-A
NOTE:
ALL SLOPES SHALL BE
SEEDED AND MULCHED. SEE
STD. NO. WI-700.01 FOR
MINIMUM SPECIFICATIONS.

SECTION B-B
NOTE:
DRIVEWAY CULVERTS SHALL
BE PLACED IN ACCORDANCE
WITH WICOMICO COUNTY
D.P.W. PIPE POLICY. SEE
WICOMICO COUNTY
STANDARD NO. WI-601.15.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
TYPICAL DRIVEWAY ENTRANCE
(ACROSS SIDE ROAD DITCH)

DRAWN BY: JDG
DATE OF ORIGINAL DRAWING: JAN. 2004
DATE LAST REVISED: DEC 2010
SCALE: 3/4" = 1'
STANDARD NO. WI-601.10
ROAD AND PIPE POLICY

PIPE INSTALLATION POLICY
REFER TO CHAPTER 196 OF THE WICOMICO COUNTY CODE
ENTITLED "STORMWATER MANAGEMENT" ARTICLE VIII
SECTION 196-26.1. PIPE INSTALLATION
CURRENT POLICY ON FILE WITH THE DEPARTMENT
OF PUBLIC WORKS AS ESTABLISHED AND APPROVED BY THE
WICOMICO COUNTY COUNCIL.

ROADS AND STREETS POLICY
REFER TO CHAPTER 197 OF THE WICOMICO COUNTY CODE
ENTITLED "STREETS AND ADDRESSING SYSTEM" ARTICLE III
CURRENT POLICY ON FILE WITH THE DEPARTMENT OF PUBLIC WORKS
AS ESTABLISHED AND APPROVED BY THE WICOMICO COUNTY COUNCIL.

MAILBOX POLICY
REFER TO CHAPTER 197 OF THE WICOMICO COUNTY CODE
ENTITLED "STREETS AND ADDRESSING SYSTEM" ARTICLE I
CURRENT POLICY ON FILE WITH THE DEPARTMENT OF PUBLIC WORKS
AS ESTABLISHED AND APPROVED BY THE WICOMICO COUNTY COUNCIL.
NOTE:

1. CONCRETE — MD. S.H.A. MIX NO. 2

2. FINISH — BROOMED

3. PREFORMED EXPANSION JOINT (FULL DEPTH OF JOINTS)
   a. CORK TYPE — A.A.S.H.T.O. M153
   b. BITUMINOUS FIBER TYPE — A.A.S.H.T.O. M213

4. SEE STD. NO. WI—600.10 FOR COMBINATION
   CONCRETE CURB & GUTTER.

5. SEE STD. NO. WI—600.30 AND STD. NO. WI—600.31
   FOR CONCRETE SIDEWALK DETAILS.

SECTION A-A

NOT TO SCALE

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

TYPICAL DRIVEWAY ENTRANCE
(USING TYPE CG—2 CURB & GUTTER)

APPROVED: [Signature] 12/15/19

DRAWN BY: JDG  SCALE: 3/4" = 1'
DATE OF ORIGINAL DRAWING: JAN. 2004  DATE LAST REVISED: DEC 2010

STANDARD NO. WI—601.20
DON'T ALLOW EQUIPMENT AND SUPPLY TRUCKS TO RUN OVER NEW GUTTER WITHOUT PROTECTION TO GUTTER. REPLACING SECTIONS IS COSTLY.

AFTER CONCRETE HAS SET, BACKFILL IMMEDIATELY, TAMP BACKFILL IN 4" LAYERS.

SLOPES – SEEDED AND MULCHED.

FLOATED SMOOTH AND EDGES ROUNDED WITH APPROVED EDGING TOOL (GRANOLITHIC FINISH)

CONTRACTION JOINT FORMED BY 1/8" STEEL PLATE.

NO SECTION SHALL BE LESS THAN 4'-0".

PLASTERING NOT PERMITTED ON FACE, REMOVE.

CRACKED AND DEFECTIVE SECTIONS SHALL BE REMOVED AND REPAIRED.

STABILIZATION – SEE STD. WI-101.00 FOR SPECIFICATIONS.

SUBGRADE – SELECT MATERIAL AS REQUIRED. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH SELECT BORROW.

ALL PAVEMENT MATERIALS AND SUBGRADE TO BE COMPACTED IN CONFORMITY WITH MD. S.H.A. Specs.

NOTES

1. FORMS SHALL BE SET TRUE TO LINE AND GRADES.

2. ALL MATERIALS SHALL CONFORM TO MD. S.H.A. SPECS.
   a. CONCRETE MIX NO. 2
   b. HOT MIX ASPHALT – BASE COURSE – BAND BC
   c. SURFACE COURSE – BAND SC

3. SURFACE OF CURB & GUTTER SHALL BE CHECKED WITH 10' STRAIGHT EDGE; IRREGULARITIES MORE THAN 1/4" IN 10' SHALL BE CORRECTED.

4. JOINT TEMPLATES SHALL BE HELD AT 90 DEG. TO FORM, AND SHALL BE REMOVED AFTER CONCRETE HAS SET TO HOLD IT'S SHAPE SUFFICIENTLY.

5. EXPOSED SURFACES SHALL BE FINISHED WHEN GREEN.

6. CURE IN CONFORMITY TO MD. S.H.A. SPECS.
NO SLOPE SHALL EXCEED 12:1 ON THE RAMP OR SIDEWALK.

PLAN VIEW

SURFACE TEXTURE OF RAMP SHALL BE COARSE BROOMING OR NON-SKID TYPE SURFACE

ISOMETRIC VIEW

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

SIDEWALK RAMPS
FOR THE HANDICAPPED
TYPE "A"

标准号 WI-650.10

√/15/07
NO SLOPE SHALL EXCEED 12:1 ON THE RAMP OR SIDEWALK.

PLAN VIEW

SURFACE TEXTURE OF RAMP SHALL BE COARSE BROOMING OR NON-SKID TYPE SURFACE

ISOMETRIC VIEW

1/2" +/- 1/8" LIP

DETECTABLE WEARING SURFACE STANDARD MD-655.40

SEE STANDARD WI-600.01 FOR DETAILS OF STANDARD COMB. CONCRETE CURB & GUTTER.

SEE STANDARD WI-600.31 FOR DETAILS OF STANDARD SIDEWALK AND GRASSLOT.

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS
SIDEWALK RAMPS FOR THE HANDICAPPED TYPE "B"

APPROVAL

DEPARTMENT OF PUBLIC WORKS

DRAWN BY: JDG
NTS

DATE OF ORIGINAL DRAWING: JAN. 2004
DATE LAST REVISED: APR 2007

STANDARD NO. WI-650.11
PLAN VIEW
(WITH DIMENSIONS)

HEIGHT OF THE CURB \( h \)

\( h \times 12 \)

60"

\( h \times 12 \)

SLOPE MAX. 12:1

SLOPE MAX. 48:1

A-A

SEE STANDARD WI-600.01 FOR DETAILS OF STANDARD COMBS. CONCRETE CURB & GUTTER.

ELAVATION

BACK OF CURB
FACE OF CURB

SLOPE MAX. 48:1
GRADE

CG-1

CG-2

SECTION A-A

SURFACE TEXTURE OF RAMP
SHALL BE COARSE BROMOING
OR NON-SKID TYPE SURFACE

DETECTABLE WEARING SURFACE
STANDARD MD-655.40

NOTE:
DETAIL TO BE USED WHERE SIDEWALK IS ADJACENT TO CURB.

PLAN VIEW
(WITH FINISH NOTES)

WICOMICO COUNTY, MD
DEPARTMENT OF PUBLIC WORKS

SIDEWALK RAMP
FOR THE HANDICAPPED

APPROVAL

DATE OF ORIGINAL
DRAWING: DEC 2010
DATE LAST REVISED:
N/A

STANDARD NO. WI-655.12