APPENDIX C - SPECIFICATIONS FOR STREET DESIGN AND CONSTRUCTION

C-1 Design Speed, Sight Distance, Centerline Radius

<table>
<thead>
<tr>
<th>Street Type</th>
<th>Minor</th>
<th>Local</th>
<th>Sub-Collector</th>
<th>Collector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Speed (mph)</td>
<td>25</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Minimum Sight Distance on Vertical Curve (feet)</td>
<td>150</td>
<td>150</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Minimum Centerline Radius (feet)</td>
<td>150</td>
<td>150</td>
<td>250</td>
<td>250</td>
</tr>
</tbody>
</table>

C-2 Cut and Fill Slopes
Cut and fill slopes on any street right-of-way may not exceed 2:1.

C-3 Sight Distances at Intersections
(a) At no-stop intersections, the intersection shall be constructed so that a person standing at location on the centerline of any street 90 feet from the intersection of the street centerlines has an unobstructed view to a point located on the centerline of the intersecting street 90 feet (in either direction) from the intersection of the street centerlines. See Standard Drawing No. 1.

(b) Subject to Subsection (c), at stop intersections, the intersection shall be constructed so that a person standing 10 feet back of the intersection of right-of-way lines on the stop street has an unobstructed view to a point on the right-of-way line of the intersecting through street located 70 feet from the intersection of the right-of-way lines. See Standard Drawing No. 2.

(c) At stop intersections where a residential street intersects with a state-maintained primary road, the intersection shall be constructed so that a person standing 30 feet back of the intersection of right-of-way lines on the stop street has an unobstructed view to a point on the centerline of the through street located 150 feet from the intersection of the street right-of-way lines. See Standard Drawing No. 3.

Amended October 15, 2018

C-4 Radius at Street Intersections
At street intersections, the intersections of the paved surfaces shall be rounded with a minimum radius as shown in Standard Drawings No. 4 and No. 5. Where streets intersect at less than right angles, a greater radius may be required.

Amended October 15, 2018

C-5 Clearing and Grubbing
Clearing and grubbing shall be performed within the limits shown on the plans. All timber, brush, roots, stumps, trees, or other vegetation cut during the clearing operations shall become the contractor's responsibility to dispose of, and shall be either removed from the project by him, or satisfactorily disposed of on-site.

C-6 Grading and Compacting
Streets shall be graded in accordance with the lines and grade set by the engineer. Before placing curb and gutter of base on the graded subgrade, the subgrade shall be compacted to 100 percent AASHTO T99 for a depth of six inches and then shall be proof rolled in the presence of the engineer. Places that are found to be loose, or soft, or composed of unsuitable materials, whether in the subgrade or below it, must be dug out and refilled with suitable material. All embankments or fills shall be made in one-foot horizontal lifts of suitable material. The fill shall be rolled with a sheepfoot roller after each lift, followed by a wheel roller, each weighing not less than eight tons.
Town of Siler City - Unified Development Ordinance

C-7 Street Base
Base course for streets shall generally be eight inches thick, unless otherwise directed by the public works director, and shall be crushed stone conforming to DOT Type ABC stone. The stone base course shall be placed in four-inch layers, watered as necessary, and compacted to 100 percent AASHTO T99. The contractor shall be responsible for keeping the stone base free of contamination from clay or other foreign materials. Handling and placement of stone base shall all be in accordance with DOT specifications.

C-8 Street Surfaces
The asphalt surface course shall meet DOT specifications for Type I-2 asphalt. The asphalt shall be placed in one two-inch layer, and shall be handled and placed in accordance with DOT specifications.

C-9 Pavement Section Variations
Sections C-6, C-7, and C-8 set the standards that shall apply under normal soils conditions. However, where soils are unusually good or unusually unstable, the public works director may allow or require the developer to have soil tests run and a pavement design made by a qualified soils engineer. Under these circumstances, the public works director may allow pavement sections constructed to lesser standards than those set forth above (for good soils) or require pavement sections constructed to greater standards than those set forth above (for unstable soils).

C-10 Street Cross Sections
Streets shall be constructed and utilities located in accordance with Standard Drawing No. 6 or 7.

C-11 Curb and Gutter
(a) The concrete curb and gutter shall be constructed according to the lines and grades established by the engineer. The concrete shall meet the state highway requirements. The curb and gutter shall be 30 inches wide, and shall have a vertical cub face. The forms shall be of metal, free of marks or kinks, and shall be rigidly held in position. The engineer shall approve the positioning of the forms before concrete is poured. The concrete shall be placed in the forms in a manner to prevent segregation, and tampered or vibrated sufficiently to prevent honeycombs. The concrete shall be finished smooth and even by means of rollers or floats. Expansion joints shall be provided every 30 feet, and false joints every 10 feet.

(b) Curb and gutter shall be constructed in accordance with Standard Drawing No. 8.
Amended October 15, 2018

C-12 Sidewalks
Sidewalk construction shall be similar to street construction, with subgrade compacted to 100 percent AAASHTO T99. Concrete sidewalks shall be four inches thick (increasing to six inches thick at driveway entrances), and shall be at least five feet wide. Sidewalk widths maybe four (4) feet wide if the clear width at the turn (turnaround, landing) is sixty (60) inches or greater every two hundred (200) feet per 403.5.2 of the Department of Justice ADA Standards. Expansion joints shall be provided every 30 feet; false joints at 10 feet.
Amended March 15, 2010

C-13 Wheel Chair Ramps
Where required, wheel chair ramps shall be constructed in accordance with Standard Drawing No. 9.
Amended October 15, 2018

C-14 Storm Water Runoff Control
(a) The minimum design frequency for storm runoff shall be 10 years for storm sewer collection and 25 years for cross drainage (i.e., drainage facilities crossing street).

(b) All storm drainage pipe shall be reinforced concrete and no pipe may be smaller than 15 inches in diameter.

(c) Culvert outlet protection and swale erosion protection shall be designed based on a 10-year storm.

Appendix C-2
(d) All storm drainage structures and pipes shall be designed and constructed in accordance with Department of Transportation specifications and Standard Drawings No. 10 through No. 14. However, in case of conflict, the standard drawings shall prevail.

C-15 Sedimentation Control
Road shoulders, swales, back-of-curbs, and cut and fill banks shall be completely dressed up by the contractor and seeded as soon as possible.

C-16 Standard Drawings
See following pages for Standard Drawing No. 1 – 14.
Amended October 15, 2018
Standard Drawing No. 3
Recommended Street Connection
Sight Distance for Stop Condition

Standard Drawing No. 4
Recommended Street Connection
Curb & Gutter
Town of Siler City - Unified Development Ordinance

Standard Drawing No. 7
Residential Street
Curb & Gutter

RIGHT-OF-WAY AS REQUIRED

<table>
<thead>
<tr>
<th>SIDEWALK AREA</th>
<th>AS REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5'</td>
<td>8.5'</td>
</tr>
</tbody>
</table>

SLOPE

POWER

WATERLINE NORTH OR WEST
2'-6" MIN. COVER

SLOPE

POWER

TELEPHONE UTILITY
(ONE SIDE ONLY)

GEWER LINE
SOUTH OR EAST
3' MIN COVER

TERRAIN
MAX. SLOPE
LEVEL       2:1
ROLLING    2:1
HILLY    1½:1

Standard Drawing No. 8
Standard Curb & Gutter

Concrete Driveway & Gutter

NOTE: TOP OF ENTRANCE 3' LOWER THAN TOP OF CURB AT STREET WHERE WALK IS OVER 9'; WHERE LESS THAN 3' EVEN WITH TOP OF CURB.

Plan of Driveway Entrance

12'-36'

EXPANSION JOINT

3000 PSI CONC.
NON-REINFORCED AIR ENTRAINED

3000 PSI CONC.
NON-REINFORCED AIR ENTRAINED

NOTE: INSTALL EXPANSION JOINTS EVERY 30' AND AT EACH SIDE OF DRIVEWAYS

Appendix C-7
Standard Drawing No. 14
Sedimentation Control

Silt Fence

Pit
Bury 6' Min.

10' Dia.
90 CU. FT./ACRE
3 MOS. CLEANOUT

Fence and Sediment Pit for Points of Concentrated Drainage

2 Times Pipe Dia.

Typical Energy Dissipater W/Rip-Rap

Note:
Flared End Pipes greater than 36" will require conc slab and/or rip-rap to protect both ends of pipe.

Class I Rip-Rap 12" deep
Form channel thus
4" Filter Stone Bed

Rip-Rap Protection at outlets for pipes on mild slopes