In proposed subdivision roadways where other utilities are present, the design plans should illustrate all possible utility line conflicts (crossings). During design and construction, care shall be utilized to provide sufficient separations between utilities. A minimum of twenty four (24) inches is required. Where possible storm drainage pipes shall always be above sewer and water lines to preclude maintenance problems for the Highway Department.

**30-5 Restoration of disturbed Areas within the Right-of-Way.**

It is the intent of this specification that all disturbed areas within the right-of-way due to highway construction and placement of utilities shall be restored to conditions acceptable to the Town of Red Hook.

The removal of all equipment and parts, junk, rubbish, excess material, debris of all kind, trees damaged beyond repair shall be included in the restoration work.

All unpaved areas within highway rights-of-way and newly created or stripped earth slopes shall be seeded as follows:

**RESTORATION SPECIFICATION**

<table>
<thead>
<tr>
<th>AREA CLASS</th>
<th>TOPSOIL DEPTH</th>
<th>SEED TYPE</th>
<th>SEED RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulders</td>
<td>4&quot;</td>
<td>Ky Blue grass</td>
<td>12 lbs/acre</td>
</tr>
<tr>
<td>0-5% Slope</td>
<td></td>
<td>Red Fescue</td>
<td>12 lbs/acre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perennial rye grass</td>
<td>5 lbs/acre</td>
</tr>
<tr>
<td>Shoulders</td>
<td>4&quot;</td>
<td>Red Fescue</td>
<td>20 lbs/acre</td>
</tr>
<tr>
<td>5-10% Slope</td>
<td></td>
<td>White clover</td>
<td>8 lbs/acre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perennial rye grass</td>
<td>5 lbs/acre</td>
</tr>
<tr>
<td>Embankments</td>
<td>6&quot;</td>
<td>Crown vetch</td>
<td>10 lbs/acre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perennial Rye grass</td>
<td>20 lbs/acre</td>
</tr>
<tr>
<td>Drainage Swales</td>
<td>6&quot;</td>
<td>Red Fescue</td>
<td>20 lbs/acre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Red top</td>
<td>2 lbs/acre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crown vetch</td>
<td>15 lbs/acre</td>
</tr>
<tr>
<td>Detention Areas</td>
<td>6&quot;</td>
<td>Red Fescue</td>
<td>20 lbs/acre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Red top</td>
<td>2 lbs/acre</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crown vetch</td>
<td>15 lbs/acre</td>
</tr>
</tbody>
</table>

Mulch: Hay or straw 2 tons per acre
Fertilizer: 10-10-10-600 lbs. per acre

In order to control soil erosion, all erosion controls shall be checked and upgraded as necessary upon final grading, topsoiling, seeding and mulching as specified in Section 10-4 of these Specifications.
Reinforced plastic steps shall meet SECTION 725-02 of the Standard Specifications, State of New York, Department of Transportation.

40-7 Open Ditches. With the approval of the Town Superintendent of Highways and Town Engineer open ditches for back lots and side slopes may be used in lieu of storm drain pipes when the grade of the land traversed is flat or when it is desirable to drain and dry up the surrounding area.

In no case shall the grade of an open ditch exceed 6%. The following guide line shall be used in treatment of these ditches:

Up to 1%  Seed and Mulch
Up to 3.5%  Jute Mesh and Seed or other approved method
Up to 5%  Sod or hot mixed asphalt concrete
Over 5%  Rip-Rap

Rip-rap, when called for, in ditches or at pipe inlets and outlets shall consist of field stone or rough, unhewn quarry stones as nearly cubical in form as is practicable, placed upon a slope not steeper than 1:2 and so laid that the weight of the large stones is carried by the soil and not be the stone adjacent. All stones shall weigh more than 100 pounds each. No tailings or rounded cobbles shall be utilized for rip-rap. No gravel mine outwash material shall be used. The intent of the rip-rap placement is so that the rock material interlocks to prevent soil erosion. Filter fabric shall be placed under the rip-rap.

The largest stones shall be placed first, roughly arranged and in close contact. The spaces between the larger stones shall be filled with spalls of suitable size.

Whenever a drain pipe enters an open ditch, the bottom and sides of the ditch shall be rip-rapped for a distance of at least 30 feet beyond the end of the pipe. Where ditches are permitted for use they shall not begin until they are past the dwelling, well or sewage disposal system area. Up to this point stormwater flows shall be carried in the pipe system. Due to maintenance reasons, it is the intent of these specifications to limit the use of open ditches.

Roadside ditches from 3-5%, and over 5% grade shall be paved with asphaltic concrete in a three (3) inch thickness. The material shall be hot mix asphaltic concrete plant mix. It shall be top course mix and were possible, it shall be placed and incorporated in the finished top course of the road surface. At culvert inlets and outlets rip-rap shall be placed as shown on Figure 7A.
Ramps for the handicapped, required by Highway Law 330, shall be provided at each curbed intersection and mid-block crosswalk where curbs are constructed. Ramps at intersections shall be constructed in accordance with Figures 12a and 12b, Appendix B, and the specifications for sidewalks. Ramps at mid-block locations shall be constructed in a similar manner.

70-2 Sidewalks. Whenever required, the Developer shall construct sidewalks on both sides of streets as shown on figures 2 and 4, Appendix B. Sidewalks shall be constructed of Portland Cement concrete or asphaltic concrete.

Portland cement concrete sidewalks shall be four (4) inches thick and shall be of 1-2-3 mix with air entrainment of 6% by volume. Portland cement concrete sidewalks shall be reinforced with #6/6 x 6/6 welded wire fabric placed 2" from bottom of slab and shall be poured in one course, vibrated, properly screeded, finished to true grade, and cured.

Asphalt concrete sidewalks may be constructed only in residential areas. Bituminous material shall meet the requirement of Type 1ACF of SECTION 401 of current Standard Specifications of New York State Department of Transportation. Compacted thickness of asphalt concrete shall be a minimum of three (3) inches.

All sidewalks shall be constructed on a base of approved gravel or crushed stone of at least six inches in depth. Sidewalks shall be constructed with a transverse slope of 1/2 per foot toward the traveled way, except that the slope may be away from the traveled way if the runoff will not affect adjacent properties. The longitudinal slope of a sidewalk shall not exceed 10%.

Where vehicular traffic is anticipated to cross an area of sidewalk, the following specifications shall apply:

Hot mix asphalt concrete shall consist of a 3" binder course and a 2" wearing course to be constructed in accordance with the specifications for streets, except that the specification for size and type of roller shall not apply.

70-3 Driveways. Developer shall so design, layout, and construct all driveways both within and without the limits of the rights-of-way without difficulty.

Where a driveway is to be constructed as part of a new or recently developed subdivision, the driveway shall be constructed in full conformance with the approved subdivision plans upon obtaining a driveway permit from the Superintendent of Highways. For existing approved lots, or for improvements to any existing driveway, the driveway shall be constructed in accordance with these specifications. Any
improvements such as regrading or paving of an existing driveway within the Town R-O-W shall also require a driveway permit.

70-3.1 Sight Distances. All driveways shall be constructed with adequate sight distance as defined in Section 70-4 of these Specifications. Where adequate sight distance does not exist, it shall be incumbent upon the lot owner to clear and grade as necessary to obtain the sight distance. In cases where this must be carried out off-site, the lot owner shall obtain the necessary easements.

70-3.2 Grades. In all cases driveways shall have a grade of not less than one (1) percent, nor greater than fifteen (15) percent. Where possible all driveway shall be graded away from the roadway to preclude excess runoff and debris from entering the Town Road. In cases where this cannot be achieved sufficient grading and drainage shall be provided to minimize impact to the Town Road.

Further, all driveways and lot grading shall be performed to blend with the finished road grading to preclude ponding, and to promote overall drainage. Where lots are below road grade, all lot and driveway grading shall be performed in such a manner as to direct any road runoff away from the dwelling and appurtenant areas. Pipes, interceptor swales and the like should be utilized. The Town will not be held responsible for improper lot grading, which results in damage from road runoff.

70-3.3 Aprons. All driveways shall be constructed with a blacktop apron constructed over a twelve (12) inch gravel subgrade. In no case shall the apron extend less than twenty feet (20) feet from the edge of the paved road surface. In no case shall the apron be less than fifteen (15) feet wide. The apron shall be constructed of hot mix asphalt concrete plant mix and shall have a finished compacted thickness of three (3) inches. The apron shall conform to Figure 21 of these specifications.

70-3.4 Mailbox Aprons. In addition to Section 70-3.3, all single driveways having rural type mailboxes and all common mailbox areas in new subdivisions, shall have a hot mix asphalt concrete plant mix placed over a twelve (12) inch gravel surface, in the delivery pull-off area. The apron shall have a finished thickness of not less that three (3) inches, and shall conform to the standards of Figure 21 and 22 included in these Specifications. All mailboxes shall be set in conformance with the standards of the U.S. Postal
TOWN OF RED HOOK
HIGHWAY SPECIFICATIONS

Service with regard to mounting height, location and post anchoring.

70-3.5 Driveway Paving. In cases where a driveway exceeds a grade of six (6) percent or more and drains to a Town Road, it shall be paved its entire length, unless otherwise waived by the Town Superintendent of Highways, Planning Board and Town Engineer. The driveway shall be paved with hot mix asphalt concrete plant mix having a finished thickness of not less than three (3) inches.

70-3.6 Driveway Culverts. Where required, all driveway culverts shall have a minimum diameter of not less than fifteen (15) inches, unless otherwise permitted by the Town Highway Superintendent, and shall have a minimum length of not less that forty (40) feet. These shall be installed where required as shown on an approved subdivision plan. If no such plan exists, culvert installation will be at the direction of the Town Superintendent of Highways during the driveway permit process. Pipes shall be of the type specified in Section 40-3 of these Specifications. All driveway culverts shall have end sections on inlets and outlets.

70-4 Intersections. Developer shall construct all road intersections in accordance with Figure 12, except in the case of a new road intersecting an existing road when it shall be modified as shown on figure 15, appendix B.

A minimum of 300 feet of unobstructed stop line sight distance shall be provided for both approaches along the highway at driveway entrances.

Stop line sight distances shall be measured from a point on the centerline of the approaching lane of the minor road or driveway twelve feet behind the projected edge of roadway of the major road, to a point on the centerline of the approaching lane of the major road. The height of eye and height of object shall both be assumed to be 44 inches above the road pavement. Each approach to the intersection shall be considered separately.

The minimum site distance shall be as shown in Figure 14, Figure 15 and Table 5 of these Specifications. If the proposed road is connection to the Town Road which has no posted speed limit, the limit shall be designated as 35 MPH for the purpose of determining site distance.

70-5 Road Name Signs. Developer shall furnish and install a four way road name sign at every road intersection made by the roads he constructs. This shall also include any new roads with existing roads. Signs and posts shall conform to the standards established by the Manual of Uniform Traffic Control Devices (MUTCD- Manual 5746) as published by the
All driveway entrances for approved lots must be built in conformance with the driveway permit issued by the Superintendent of Highways. To insure satisfactory completion of the driveway entrance the lot owner shall post a driveway bond to cover the cost of entrance construction, should the lot owner not carry out the improvements. The bond will be set as to the amount by the Superintendent of Highways depending on the nature of work required. In no event will the bond be less than $2,500.00. The form of the surety shall be satisfactory to the Town Attorney. The Superintendent of Highways shall be notified of the commencement of construction by the lot owner and shall be notified at the time of completion. The driveway bond shall not be refunded to the lot owner until written approval of the Superintendent of Highways has been given to the Building Inspector. This shall occur prior to the issuance of a Certificate of Occupancy by the Building Inspector.
EXISTING OR PROPOSED TOWN ROADWAY

NOTE:
COMMON DRIVEWAYS MAY REQUIRE ALTERATION OF THIS DETAIL. ADJUST AS REQUIRED FOR ALTERNATE MAILBOX LOCATION.