

APPENDIX 1: STREET STANDARDS

Section 1.1. ROAD CONSTRUCTION

- A. Road right-of-way shall be a minimum of fifty (50') feet wide. Road dimensions, geometry, and materials shall conform to the requirements shown in Section 1.2 and 1.3, Figures 1 through 4.
- B. All public and private streets and roads in the subdivision shall be paved to Town standards. Pavement width shall be a minimum of twenty-two (22') feet for all public roads, and twenty (20') feet for all private roads. The road must be complete, less paving prior to the issuance of the first building permit in the subdivision.
- C. Private streets serving no more than three (3) dwelling units may be left unpaved so long as they meet the base and subbase standards for gravel, and other applicable requirements listed below. These are as follows:
 - 1. **Aggregate Base:** Base material shall be screened or crushed gravel of hard durable particle, free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a two-inch (2") square mesh sieve shall meet the following requirements:

| Sieve Designation | % By Weight Passing Square Mesh Sieves |
|-------------------|--|
| 2-inch | 100% |
| 1/2 inch | 45-70% |
| 1/4 inch | 30-55% |
| No. 40 | 0-30% |
| No. 200 | 0-7% |

*Aggregate for the base shall contain no particles of rock exceeding four (4") inches in any dimension.

- 2. **Aggregate Subbase:** Aggregate subbase shall be sand or gravel of hard durable particles free from vegetable matter, lumps or balls of clay or other deleterious matter. The gradation of the part that passes a six-inch (6") square mesh sieve shall meet the following grading requirements:

| Sieve Designation | % By Weight Passing Square Mesh Sieves |
|-------------------|--|
| 6-inch | 100% |
| 1/4 inch | 25-70% |
| No. 40 | 0-30% |
| No. 200 | 0-7% |

*Aggregate subbase shall contain no particles of rock exceeding (8") eight inches in any dimension.

3. **Surface Leveling Material:** If required shall conform to the gradation requirements of Aggregate Base above but shall not contain particles of rock which will not pass the 3/4" sieve.
 4. **Bituminous Pavement:** Pavement shall be constructed of two courses of bituminous. Pavement shall be MDOT "Superpave" as specified in Section 401 conforming to the latest revisions of the Maine Department of Transportation "Standard Specifications For Highways and Bridges":
 - a. Compacted Binder Course – 2" Grading 19.5mm Superpave
 - b. Compacted Surface Course – 1 1/2" Grading 12.5mm or 9.5mm Superpave
 - c. Pavement width shall be a minimum of twenty-two (22') feet for public roads and twenty (20') feet for private roads.
- D. **Culverts: CULVERTS.** Culverts shall be zinc coated corrugated metal pipe, or other pipe approved by the Planning Board. Culverts shall be sized and located as determined by drainage calculation, but in no case shall be smaller than twelve (12") in diameter.
- E. **Signs:** Signs required by the Board such as "SPEED LIMIT", "STOP", "CURVE", etc. shall be constructed and located so as to conform with the "Manual on Uniform Traffic Control Devices for Street and Highways", published by the United States Department of Transportation, 2001 or most recent revision.
- F. **Sidewalks:** Sidewalks if proposed shall be a minimum of five (5') feet in width and shall be constructed of two (2) one-inch (1") thick courses of bituminous pavement over a minimum eight-inch (8") thick gravel base. Base shall conform to the requirement listed for roadway aggregate base stated in paragraph C.1 above.
- G. **Curbs:** Curbs, if proposed shall as a minimum be designed in accordance with Maine Department of Transportation standard details for bituminous curb and shall be constructed as outlined in Maine Department of Transportation Standard Specifications, Section 609.04.
- H. **Construction requirements:** Gravel base shall be compacted over the full width and length of road bed including shoulders to a minimum of ninety-five (95%) percent of proctor density in accordance with American Society for Testing Materials Standard, ASTM D1556 and D1557. Bituminous pavement shall be compacted to a minimum of 92% of the theoretical maximum density as established in accordance with AASHTO Test T209, ASTM D2950 and ASTM D2726. No bituminous paving shall be placed between November 15 and April 15 or when the temperature is below thirty-five (35°) degrees or when the gravel base is frozen. Bituminous placed after September 15 shall also be rolled with a pneumatic tire roller in addition to steel rollers. The Road Commissioner and the Code Enforcement Officer shall be notified when road construction is to begin, at the completion of the gravel base, and when paving is to begin. The finished surface of the pavement shall be smooth and tightly

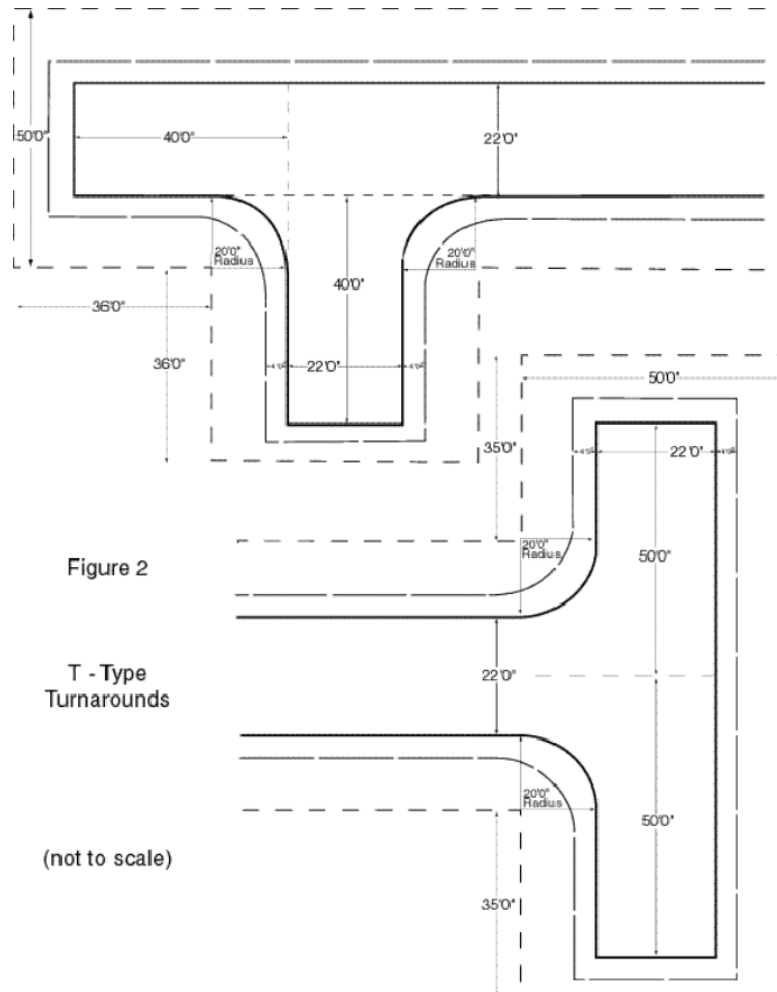
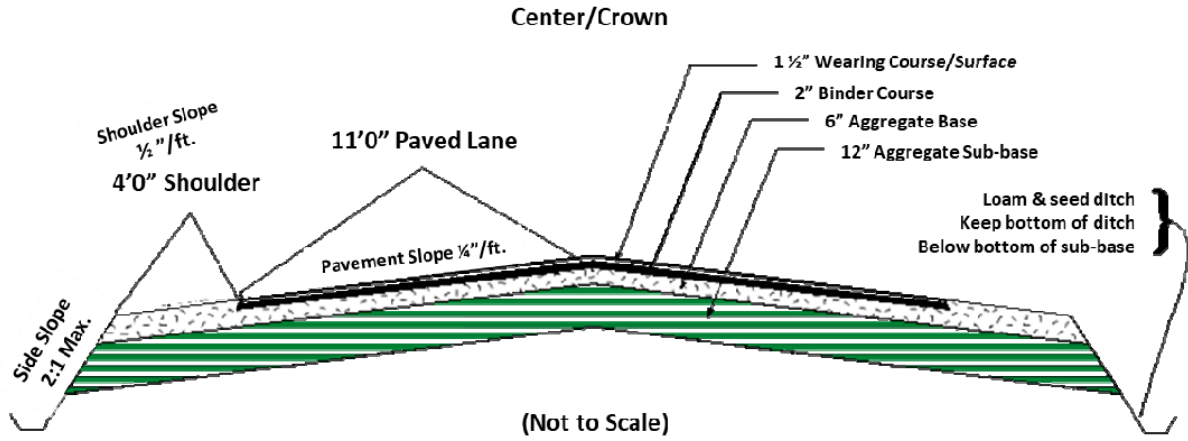
compacted with no loose or poorly embedded stone evident. A sixteen-foot (16') straight-edge or string line when placed parallel to the centerline of the pavement and a ten-foot (10') straightedge or string line when placed transverse to the centerline shall not show a variation exceeding one-quarter (1/4") inch.

- I. **Parking for Commercial Subdivisions:** At least one on-site parking space shall be provided for each employee or other person anticipated to be at the site of the proposed use at any one time. (i.e. six (6) employees and an average of three (3) customers per hour, equals nine (9) required spaces). Parking lots of over ten (10) spaces shall be completely screened from view of public streets or other public land by a vegetative buffer consistent with the general performance standards of the Land Use Ordinance.
- J. Provisions shall be made for vehicular access to the development and circulation upon the lot in such a manner as to safeguard against hazards to traffic congestion on any street and to provide safe and convenient circulation on public streets and within the development. More specifically, access and circulation shall also conform to the following standards and the design criteria below:
 1. The street giving access to the lot and neighboring streets which can be expected to carry traffic to and from the development shall have traffic carrying capacity and be suitably improved to accommodate the amount and types of traffic generated by the proposed use.
 2. Where necessary to safeguard against hazards to traffic and pedestrians and/or avoid traffic congestion, provision shall be made for turning lanes, traffic directional islands, frontage roads, driveways and traffic controls within public streets.
 3. Access ways shall be of a design and have sufficient capacity to avoid queuing of entering vehicles on any street.

Section 1.2. TYPICAL ROAD SECTION & TURNAROUND DESIGNS - PUBLIC ROAD

Road geometry requirements shall conform to the recommendations outlined in ("GDHS") Figure 1, Typical Road Cross Section 1984 published by American Association of State Highway and Transportation Officials (1984) ("AASHTO"), excepted that in no case shall grades be greater than eight (8%) percent, curve radii be less than one hundred (100') feet, or vertical sight distance be less than two hundred (200') feet.

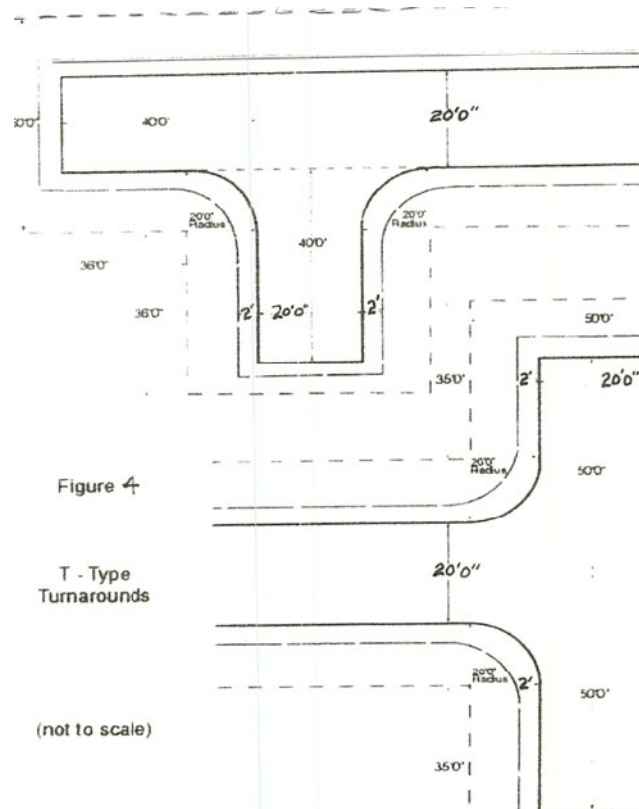
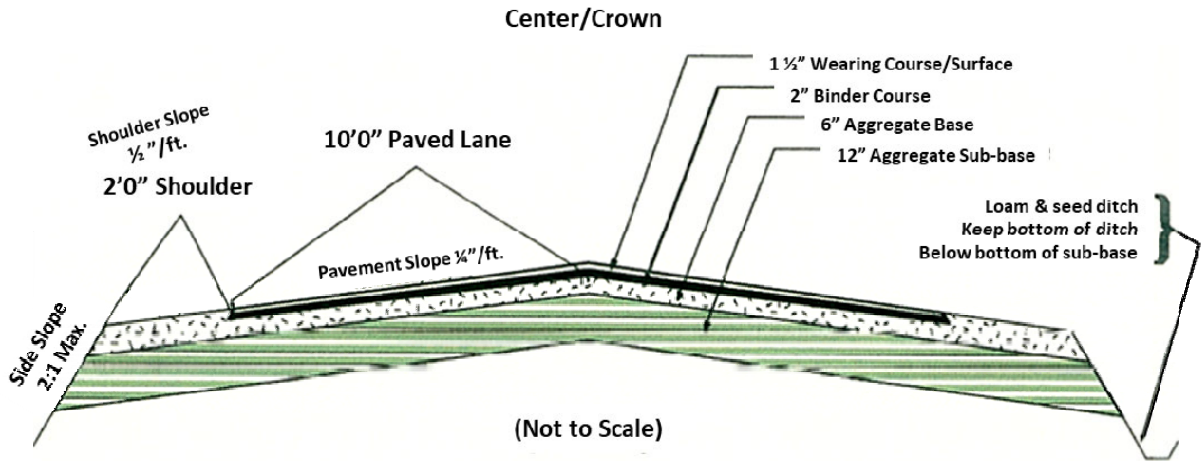
FIGURE 1



Section 1.3. TYPICAL ROAD SECTION & TURNAROUND DESIGNS - PRIVATE ROAD

Road geometry requirements shall conform to the recommendations outlined in ("GDHS") Figure 3, Typical Road Cross Section 1984 published by American Association of State Highway and Transportation Officials (1984) ("AASHTO"), excepted that in no case shall grades be greater than eight (8%) percent, curve radii be less than one hundred (100') feet, or vertical sight distance be less than two hundred (200') feet.

FIGURE 3



Section 1.4. SAFE ENTRANCE SIGHT DISTANCES

- A. **Sight Distances:** Driveways shall be designed in profile and grading and located to provide the required sight distance measured in each direction. Sight distances shall be measured from the driver's seat of a vehicle standing on that portion of the exit driveway with the front of the vehicle a minimum of ten (10') feet behind the curb line or edge of shoulder, with the height of the eye three and one half (3 ½') feet, to the top of an object four and one-half (4 ½') feet above the pavement. The required sight distances are listed below for various posted speed limits:

| Posted Speed (MPH) | Sight Distance (Feet) |
|---------------------------|------------------------------|
| 20 | 155 |
| 25 | 200 |
| 30 | 250 |
| 35 | 305 |
| 40 | 360 |
| 45 & higher | 425 |

The minimum allowable sight distances listed above for all accesses, may require up to fifty (50%) percent greater sight distances when at least thirty (30%) percent of the traffic using the driveway will be larger vehicles

- B. All commercial entrances regardless of traffic volume may be required by the Planning Board to be paved with bituminous concrete pavement within thirty (30') feet of the street right-of-way if anticipated traffic volume requires an assured smooth surface to facilitate exit and entry without risk of sudden stop due to rutting.
- C. No development shall increase the volume capacity ratio of any street above 0.8 nor reduce the street's Level of Service to "D" or below as determined by using the capacity analysis procedures set forth in the 1985 Highway Capacity Manual, Special Report 290 as published by the Transportation Research Board.

Section 1.5. ROAD MAINTENANCE

In determining whether this standard has been met, the Board must find that the maintenance agreement for any private road meets the following criteria:

- A. The maintenance agreement or escrow agreement executed by the owners of the lots containing the dwelling units or structures which shall be using the private road or way, in registry recordable form, which agreement provides for the obligations of each owner of the lots on which such dwelling units or structures are located with respect to the maintenance, repair and snow plowing of such road or way. The applicant shall prepare and submit for approval of the Planning Board a maintenance agreement which shall specify the rights and responsibilities of the owners of the lots

on the road or way in question among themselves with respect to responsibility for the costs of construction, maintenance, repair and plowing.

- B. The maintenance agreement shall also include and the Planning Board will consider in granting approval the following factors:
1. A detailed statement of how the ownership interests in the private way will be structured (i.e., whether ownership will be single or joint, whether lot owners will own the fee or have easements, etc.).
 2. A statement that in the event any of the lots shown on the plan are divided or in the event any remaining land of the declarant is subsequently divided into lots which are served by the private way, then such resulting lot or lots shall become subject to the maintenance agreement and to any modifications to the maintenance agreement advisable to adjust the duties and responsibilities equitably among the owners of all the lots served by the private way.
 3. An acknowledgment by the declarant and any other persons signing the maintenance agreement that the Town of Durham is not responsible for the construction, maintenance, repair or plowing of the private way.
 4. A statement that the duties and obligations imposed by the maintenance agreement run with the land and shall be transferred to donees, purchasers or other transferees of any portion of the real estate subject to the maintenance agreement and that, upon such transfer, the Planning Board shall be notified in writing and provided with a copy of any changes or amendments to the maintenance agreement.
 5. A requirement that the maintenance agreement be referenced in all deeds to any lots served by the private way.
 6. If the private way subject to the maintenance agreement is an extension of an existing private way which served lots created prior to March 6, 2004, a statement that the applicant for private way approval has contacted the owners of such lots, has offered them the opportunity to make their properties subject to the maintenance agreement and that they have either accepted or declined that offer; and that the Declarant has submitted to the Planning Department a notarized affidavit confirming the Declarant's compliance with this paragraph.
 7. An agreement which permits the other signatories of the maintenance agreement to place a lien on the property of any signatory who has not paid the share of expenses allocated to them in the amount of the unpaid assessment for costs for the private way.