

TOWN OF HOLLIS, NEW HAMPSHIRE

ROAD and DRIVEWAY SPECIFICATIONS APPENDIX



(Adopted 10/7/08)

APPENDIX A

ROAD SPECIFICATIONS

A. Road Design Standards

1. Pavement and drainage facilities, curbs and sidewalks, when required, shall be installed and constructed in accordance with the standard specifications of the Town of Hollis, and in all cases must be constructed under the supervision of the Public Works Director or designee.
2. The distance between two (2) essentially paralleling streets defining a block shall not be less than four hundred (400) feet.
3. As-built drawings and or plans may be required to be submitted, at the discretion of the Public Works Director or designee.
4. All mailboxes will be placed on the left upon entering the property to facilitate municipal snow removal. All mailboxes, wherever the location including off site structures, shall have an apron to be constructed as shown in the Regulations. The mailbox will be set so the front of the box is no closer than the back of the mailbox apron.
5. See Appendix B.

B. Drainage Design Standards

The purpose of these design standards is to provide adequate road drainage in order to protect public health, safety and welfare. All roads shall be provided with adequate drainage facilities to provide for the removal of water to prevent flooding and erosion of all areas within the right-of-way.

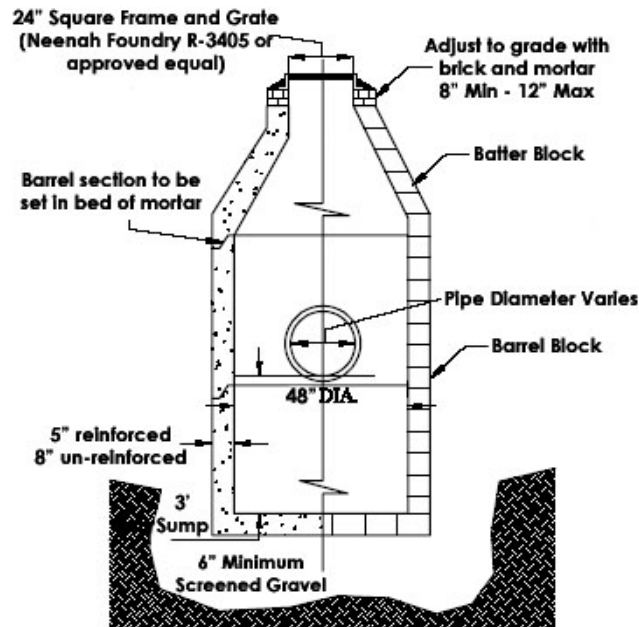
1. Drainage

- a. Open drainage is preferred in all subdivisions. In certain cases engineering data and standards may warrant a partially or fully enclosed drainage system.
- b. All cross culverts shall be sufficiently sized and have permanent masonry type headers at both ends. Cross culverts will be a minimum of forty (40) feet in length and fifteen (15) inch diameter minimum.
- c. Culverts and drainage systems, if required, shall be designed by a licensed professional engineer and shown on all plats. Drainage plans shall be prepared in detail and stormwater shall be carried to existing water courses, or connected to existing water courses or existing storm drains. Slope and drainage easements are to be provided as required prior to final approval.

2. Catch Basins

Catch basins shall be installed where required by the Public Works Director or designee using a twenty-four (24) inch square frame and grate such as the Neenah Foundry R-3405 or approved equal (see Figure 1). A minimum sump depth of three (3) feet is required for all catch basins. Each structure shall be cleaned of silt debris, or other matter of any kind, prior to acceptance of the project.

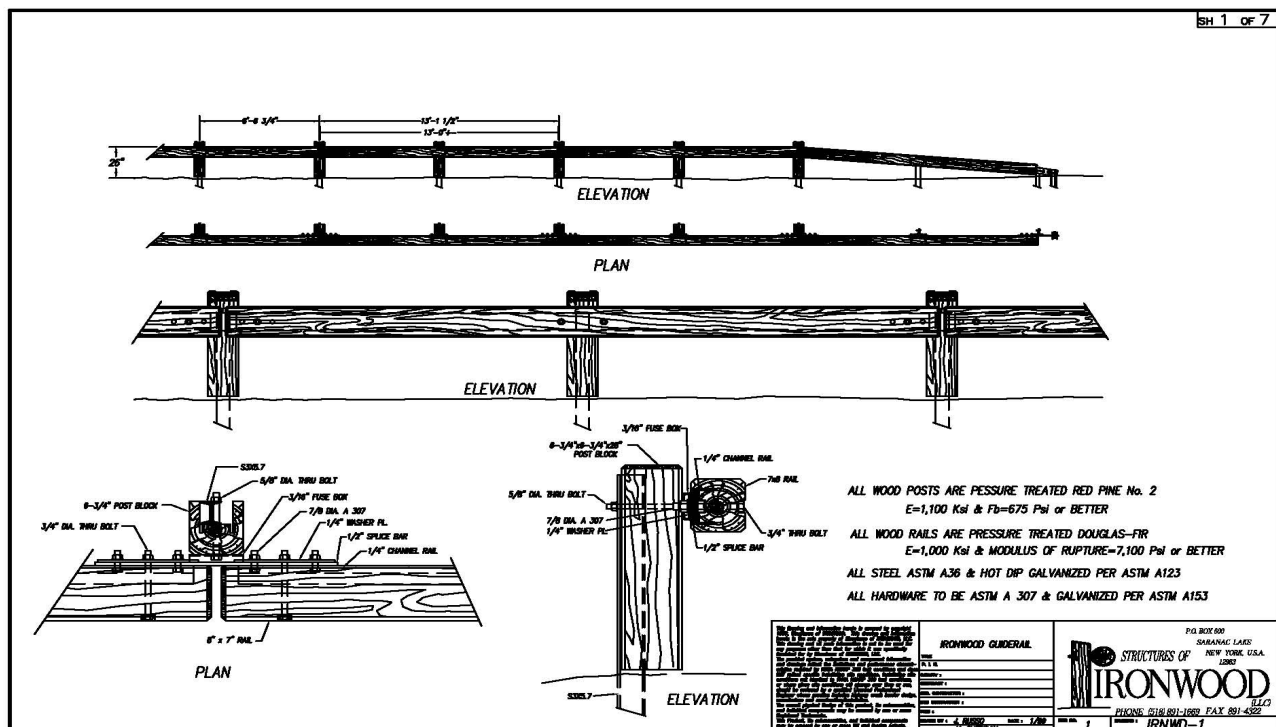
Figure 1: Ideal Catch Basin Detail



C. Guardrails

1. Guardrails must be wood clad and meet the State specification 606 as applicable. See Figure 2 for a typical drawing. End sections shall be turned away and anchored to the ground.

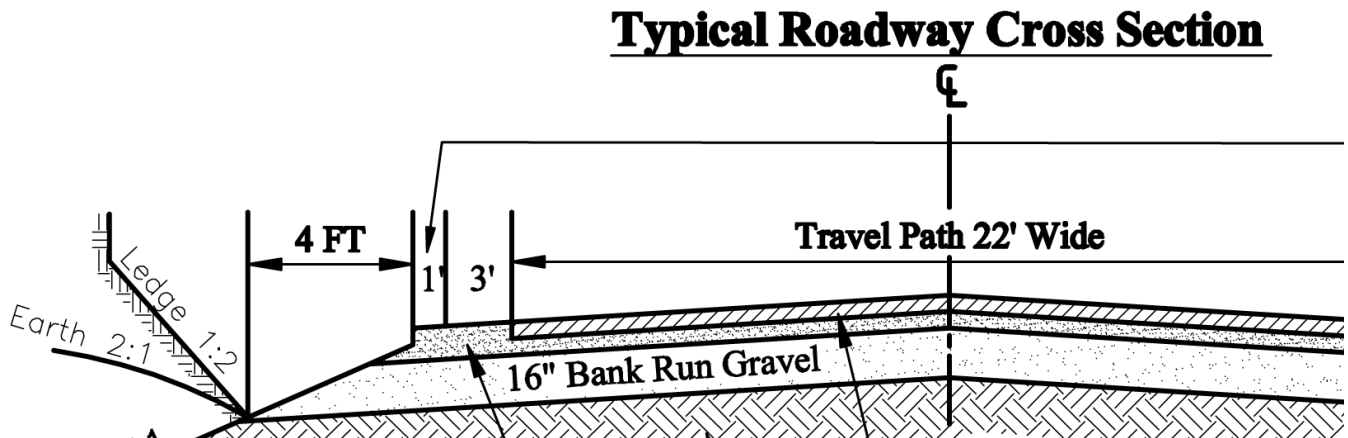
Figure 2: Typical Ironwood Guardrail Specifications



D. Pavement Design

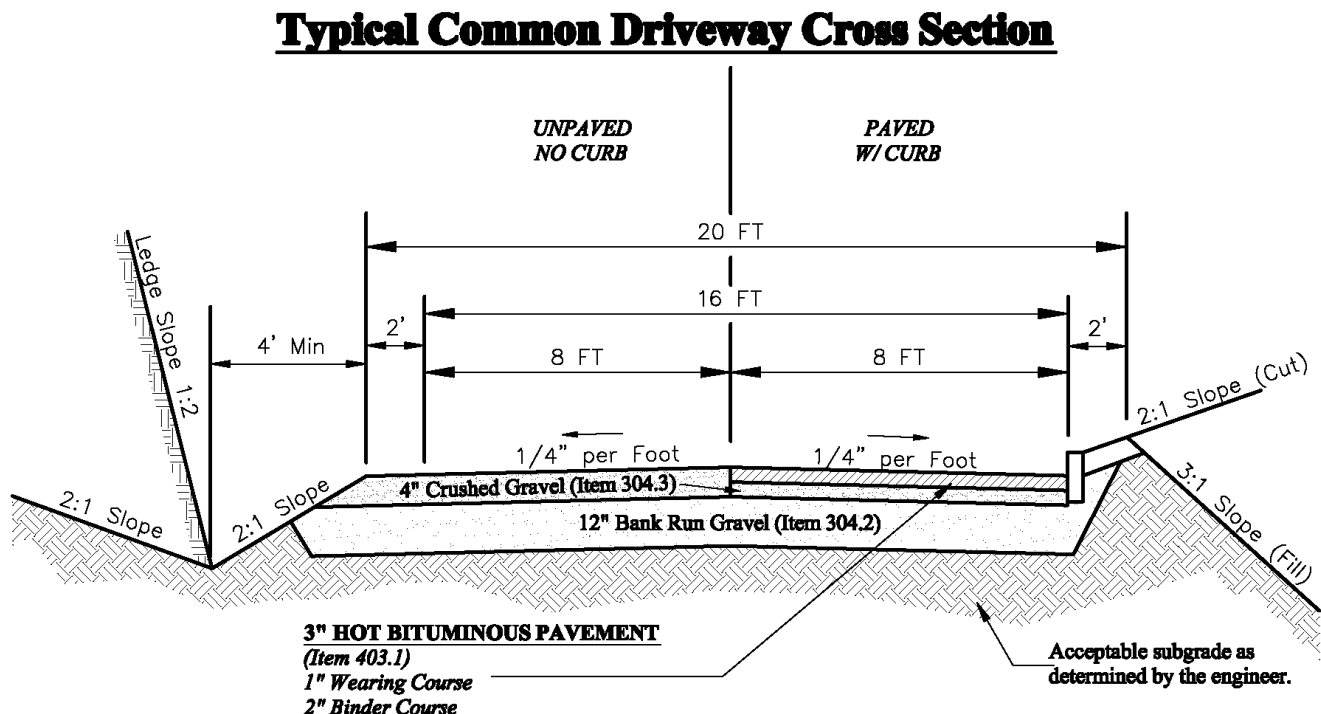
1. Fill, Gravel and Paving. Solid fill, laid in compressed layers shall be no greater than twelve (12) inches in depth, be free from organic matter and be used within twenty-six (26) inches of finish grade. The next sixteen (16) inches must be compacted gravel of proper gradation to meet State of New Hampshire specifications as indicated in Figure 3. The final six (6) inches shall be crushed gravel (NH 304.3), fine graded to receive a uniform pavement surface. The pavement surface shall be four (4) inches of compressed asphalt or bituminous concrete laid in two (2) courses. Binder course shall be two and a half (2 ½) inches thick and a wearing course one and a half (1 ½) inches thick after compression.

Figure 3: Typical Roadway Cross Section



2. Common Driveway Construction Specifications – See Figure 4

Figure 4: Typical Common Driveway Cross Section



E. Construction Standards

- 1. Clearing and Grubbing.** All trees and stumps shall be removed from within the right-of-way from any excavated or filled area. All debris, stumps and foreign material shall be removed from the road bed area prior to the placement of fill or gravel. All construction debris and leftover materials shall be removed completely from the project site. Stumps may be buried onsite as shown on the subdivision plan.
- 2. Compaction.** The Town of Hollis may, at the option of the Public Works Director or designee, require compaction tests. The standards must conform to the Standard Specifications for Road and Bridge Construction, New Hampshire Department of Transportation.

F. Inspections

During the construction stage of any new road for Town acceptance, the owner or his agent, must notify the Public Works Director or designee, at least forty-eight (48) hours in advance before starting the following phases of construction:

- Inspection #1 After Planning Board approval, placement of Letter(s) of Credit, flagging of Road right-of-way, location of authorized stump disposal, submission of Solid Waste Permit Number, and prior to initial start of project.*
- Inspection #2 After clearing, stumping, grubbing, slopework and prior to placing of any fill materials or base gravel.*
- Inspection #3 After placing approved base gravel and prior to placing finish course of crushed bank run gravel.*
- Inspection #4 After placing culverts, headers and base gravel [base gravel shall have no more than twelve (12) inches lift at any one time in areas of deep fill and no rocks larger than six (6) inches in diameter in the top sixteen (16) inches of bank run gravel] and after compaction of base gravel and prior to placing of crushed gravel.*
- Inspection #5 After fine grading of crushed bank run gravel and prior to applying bituminous asphalt pavement.*
- Inspection #6 Day of application of hot bituminous base.*
- Inspection #6a Prior to application of finish coat of asphalt.*
- Inspection #7 After completion and prior to written request for Town acceptance.*

The owner or his agent will establish an escrow account with the Town of Hollis to cover the costs of inspections.

Note: Additional unscheduled inspections may be conducted at any time at the discretion of the Town.

APPENDIX B

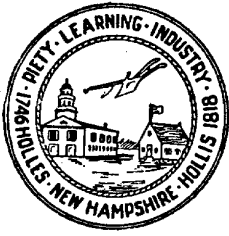
GUIDELINES FOR DRIVEWAY CONSTRUCTION

NOTE: These conditions DO NOT replace the Residential Driveway Permit requirements in the Subdivision Regulations, but are meant to instruct the Applicant on what is expected to receive a Driveway Permit.

1. All driveways shall be constructed to conform to typical driveway sections and details for the Town of Hollis, NH.
2. All mailboxes will be placed on the left upon entering the property to facilitate municipal snow removal. All mailboxes, wherever the location including off site structures, shall have an apron to be constructed as shown in the Regulations. The mailbox will be set so the front of the box is no closer than the back of the mailbox apron.
3. Driveways shall be a minimum of ten (10) feet in width. Entrances shall flare as it approaches the pavement to a maximum width of fifty (50) feet measured at the existing edge of roadway excluding the mailbox apron.
4. If wetlands are crossed or infringed upon, a dredge and fill permit shall be required from the NH Department of Environmental Services.
5. Where required, culverts shall be a minimum of fifteen (15) inches in diameter and shall be constructed of reinforced concrete, high density polyethylene pipe or approved equal. The driveway will have a minimum three (3) foot shoulder on each side where it meets the culvert.
6. Headwalls shall be constructed of stone rubble and mortar, pre-cast concrete or approved equal and installed at both ends of the culvert. All headwalls shall be constructed to the same elevation as the driveway. The depth of the culvert shall determine the width of the headwall.
7. The driveway shall slope away from the edge of the roadway at a slope of 3% for a distance of twenty (20) feet. Driveways with an asphalt berm shall require a consultation with the Public Works Director or designee.
8. All driveway bases shall be constructed of twelve (12) inches of bank run gravel and four (4) inches of crushed finish gravel.
9. On all paved roads, new driveways require an asphalt apron from the road to the property line, and shall be constructed of a minimum of two (2) inches of basecoat and one (1) inch finish coat with emulsion applied at the joint with the road.
10. The slope of all new driveways shall not exceed eight (8) percent. This standard shall not apply to driveways of non-occupancy structures.
11. Driveway side slopes (4:1 to 6:1) are required to minimize hazards to vehicles that leave the driveway for any reason.
12. All driveways shall intersect the town's roadway at a perpendicular angle to the centerline of each.
13. Driveways not completed at the time of the Issuance of the Certificate of Occupancy shall require the Owner/Agent to file a cash bond or check to cover satisfactory completion of the following items:
 - Pavement Completion, including Aprons
 - Culvert Completion
 - Headwall Completion
 - Excavation & Filling
 - Loam, Seed and Establish Growth
 - Finish Asphalt

These fees shall not be combined with any other payments to the Town of Hollis.

14. The Public Works Director or designee may make changes prior to issuance. Any adjustment after issuance must be in writing, prior to any action taking place.
15. Driveway Permits are valid for two (2) years. A permit will be considered void if no activity has begun within six (6) months.



Department of Public Works
P.O. Box 682, 10 Muzzey Road
Hollis, New Hampshire 03049
Tel. 465-2246 e-mail dpw@hollis.nh.us
Jeffrey Babel, Director

Driveway Location:

Proposed Driveway Location: Street _____ Tax Map # _____ Lot # _____

Applicant: _____ Date: _____

Mailing Address: _____ Daytime Phone: _____

Land owner, if different from above: _____

Mailing Address: _____ Daytime Phone: _____

Driveway to be used as: (circle one)

Residential Commercial Industrial Alteration Repair Relocation

As the landowner, or agent, I hereby agree to the following conditions:

1. To construct entrance only for the bona fide purpose of securing access to the property.
2. To construct the entrance at proposed location indicated on the approved Septic Plan, in accordance with all town statutes and all provisions of the Driveway Permit conditions and standard drawings for entrances as issued by the Hollis Public Works.
3. To hold the Town of Hollis and its duly appointed agents and employees not liable against any action for personal injury and/or property damage sustained by reason of the exercise of the Town Driveway Permit.
4. To furnish and install drainage structures that are necessary to maintain existing highway drainage and adequately handle increased run off and to maintain said structures, regardless of the location.
5. On a daily basis, to leave the highway right-of-way of the Town of Hollis free from all debris such as stones, earth and brush resulting from construction of such driveway.
6. **To post permanent street numbers, prior to start of construction, three (3") inches high, visible from either direction, as per the attached numbering ordinance to assist emergency personnel.**

Pursuant to RSA 236:13 and regulations adopted hereunder, I apply for permission to construct a driveway entrance as described in this permit. I have read and understand the conditions of this application as described above and on Page 2.

Signature of Owner or Agent _____

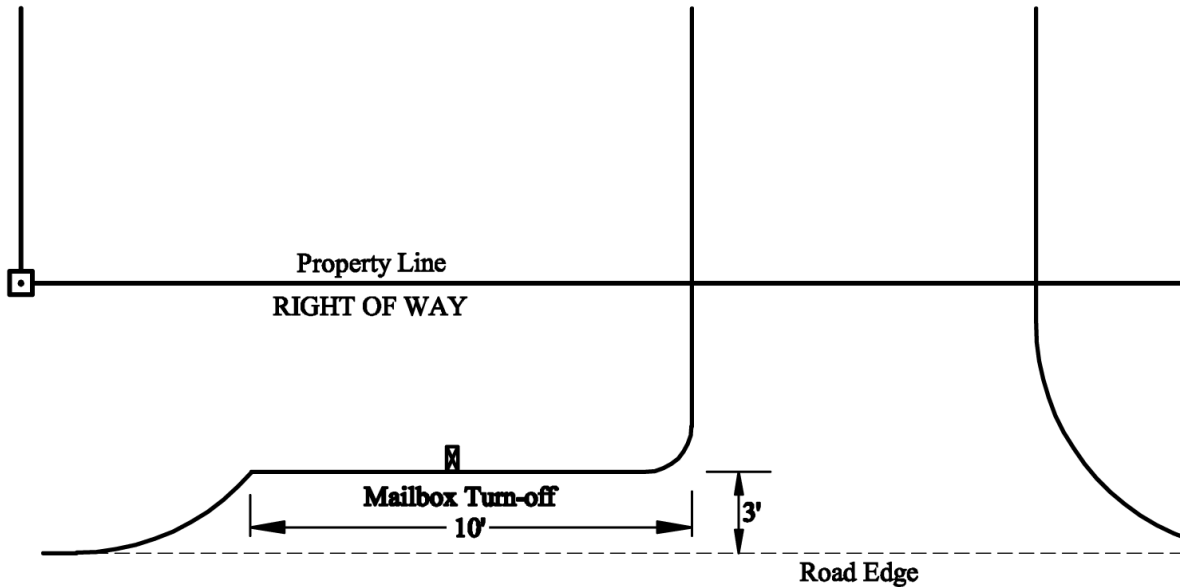
Printed Name _____

Submit this application with a \$25.00 check, made payable to the Town of Hollis to begin the process.

The completed Permit will be **Mailed** to you at the **above mailing address** showing the conditions of the Permit. If you have any questions, please call the DPW at 465-2246.

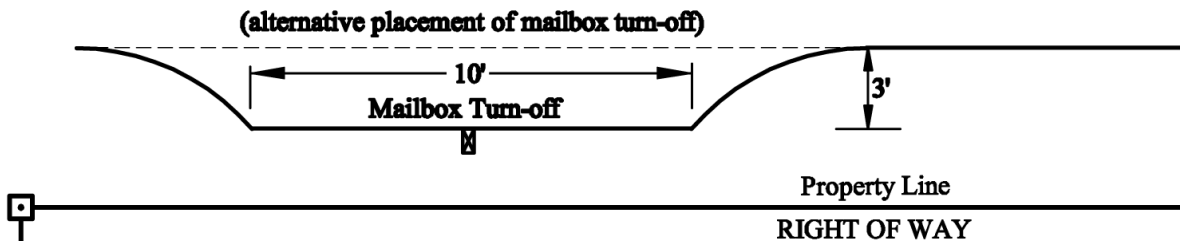
For additional information on determining site distance please refer to Sec .IV.7.H.3.k

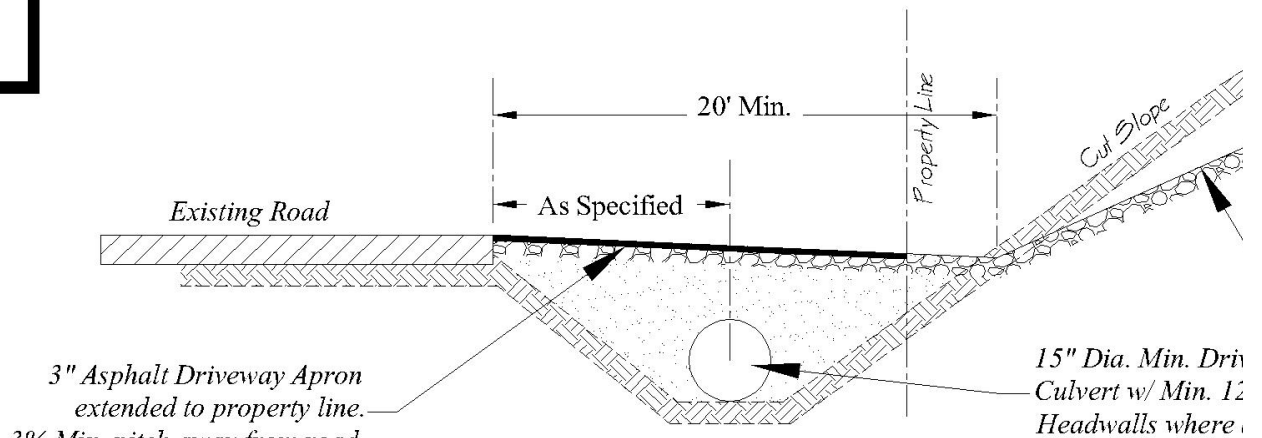
IF POSSIBLE, LOCATE YOUR FRONT BOUND
USE THIS AS YOUR GUIDELINES



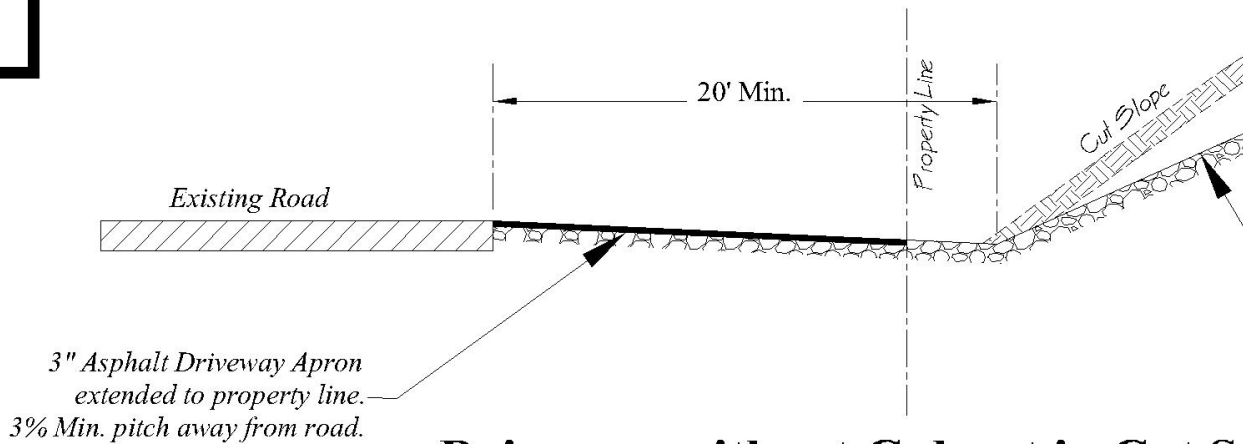
Exiting drive, sight distance to left _____
Exiting drive, sight distance to right _____

Show any structures (stone walls, telephone poles, bushes, trees)
Post street numbers 3 inches high, visable from either direction
Mailbox post must be a minimum of 5 feet from roads edge
with face of mailbox to be atleast 3 feet from roads edge.

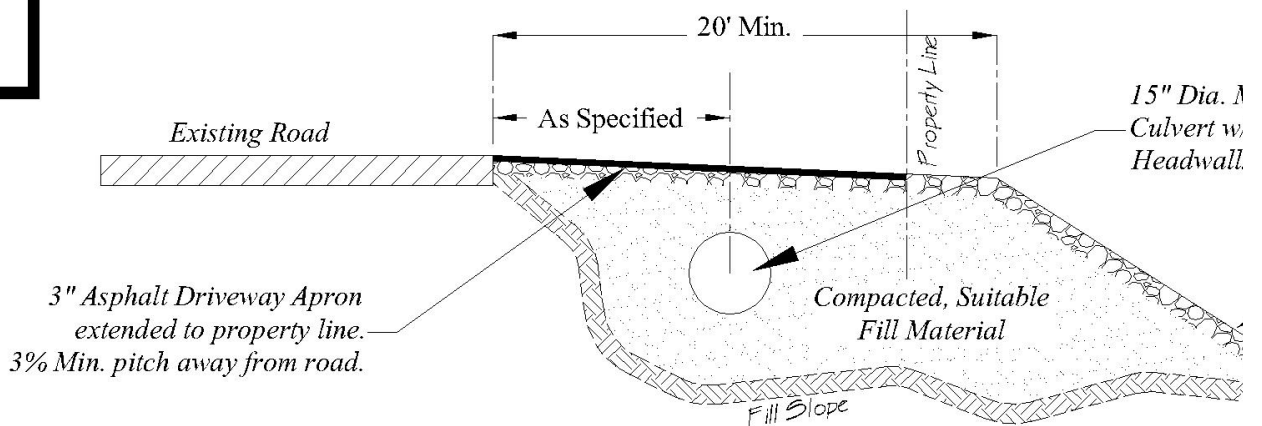




Driveway with Culvert in Cut Sec



Driveway without Culvert in Cut S



Driveway with Culvert in Fill Sec