

Project Name: _____

The seal of the Town of Derry, New Hampshire, is a circular emblem. It features a central shield with a landscape scene including a river, a bridge, and buildings. The shield is surrounded by a wreath of green leaves and stars. The text "TOWN OF DERRY NEW HAMPSHIRE" is inscribed in a circle around the shield, and "INCORPORATED 1842" is at the bottom.

Subdivision & Site Plan Construction Monitoring

**Town of Derry
Department of Public Works**

Procedures & Checklist

January 2011

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INTRODUCTION

The purpose of this booklet is to briefly discuss procedures for observing construction of subdivisions and related activities being performed in the Town of Derry. The procedures are based upon the Town of Derry Zoning Ordinance, Subdivision Regulations, Site Plan Regulations, Utility Construction Specifications and other pertinent Town codes.

This booklet briefly outlines the relationship between the Developer, the Developer's Contractor and Engineer and the Town of Derry.

After this booklet has been reviewed by the above parties at the pre-construction meeting, it will be signed by all parties with copies distributed to each entity.

PRE-CONSTRUCTION MEETING

Once all Planning Board Conditions are met, the Town is to schedule a pre-construction meeting. Present at this meeting will be Inspecting representatives of the Town, the Developer, the Developer's Contractor and Engineer, as well as any other affected parties. The intent of the pre-construction meeting is as follows:

1. The Developer posts a Letter of Credit or Cash Escrow to the Town.
2. The Town is to outline the respective responsibilities of the Municipality and the Developer. A project specific agenda shall be developed by the Engineering Coordinator detailing the relevant elements of the project.
3. The Developer's representative is to present the construction schedule and sequence, in addition to its coordination with affected State and Town agencies. These State and Town agencies may have jurisdiction with the project and governing utility companies. The Contractor's Superintendent for the project will also be introduced at this time.
4. The Town shall establish the chain of communication between all parties involved.
5. Emergency telephone numbers will be supplied, of which the Town will consolidate and publish.

PROFESSIONAL SERVICES – NOTIFICATION & FEES

1. The Town shall be notified by the Developer or his/her representative at least 48 hours prior to construction initiation, in addition to any subsequent times in which the Town's services will be required.
2. The Developer or his/her representative shall inform the Town of its immediate work schedule.
3. The Developer will be charged hourly for the Town's services.
4. Cancellation of the Town's services must be received at least 24 hours prior to its scheduled appearance.

In any case where the Town is not notified in advance that its services are not required, a minimum charge of (1) hour shall be assessed to the Developer.

ACCESS TO WORK

The Developer shall provide the Town of Derry with safe and full access to all the construction operations at any requested time. If access is denied or impeded in any way, no work shall be approved and no permits shall be authorized. Additional action shall be determined by the Derry Planning Board.

The Town as evidence of adequacy of proposed excavation supports may require structural calculations completed by a registered State of NH Professional Engineer.

OBSERVATION OF WORK

The Town will monitor the progress of the construction project and will observe the work relative to the approved plans, specification and related documents. The Town will prepare construction reports discussing its observations. These reports will be kept on file with the Town. Observation of the work is not partial or final acceptance of the project.

The Town shall verify that all items used in conjunction with the construction activities comply with shop drawings, mill test reports, sketches and related documents as approved by the Developer's Engineer. All such documents shall be submitted by the Developer or his/her representative to the Developer's Engineer as required by the Town of Derry.

Upon completion of construction, the Town will prepare a punch list of items requiring correction, conduct a final inspection of the work and prepare a final report regarding the project.

FIELD CHANGES

Minor changes, which do not alter the design integrity may be suggested by the Developer, drafted by the Design Engineer, and reviewed for approval by the Town. However, changes which alter the basic design as judged by the Town, must be re-submitted to the Town Planning Board through the design engineer for approval prior to construction.

TESTING

When required by the Town, at the Developer's expense, an outside source chosen by the Town shall provide any and all proof of compliance with Town requirements and specifications.

Acceptable proof shall include, but is not limited to approved independent laboratory test, approved independent field tests, shop drawings and certificates of compliance from manufacturers. All tests as required by regulations and specifications shall be performed at the Developer's expense.

LAYOUT OF WORK

1. It is the Developer's responsibility to provide layout of the work. The layout of the work shall be done by an Engineer or Land Surveyor registered in the State of NH. Line, grade and location of roadway, drainage, sewer and other utilities shall be provided with staked offsets. The layout shall be maintained during the course of the work and shall be provided as required to control the accuracy of the work. Supplemental layouts shall be provided as required by the Town.
2. A qualified superintendent shall be named, assigned and be present during the course of the construction.
3. When required by the Town, at the Developer's expense, an Engineer or Land Surveyor registered in the State of NH shall check and validate any layout work performed by the Contractor.

Subdivision Construction Checklist Derry, New Hampshire

Inspections	Engineering Estimates	Date of Completion	Town Representative	Comments
Dig Safe Authorization				
Pre-construction Meeting				
Erosion Control				
Clearing & Grubbing				
Construction Traffic Control - Signs, flagmen, cones, etc.				
Sub-grade Construction				
Utility Construction				
a. sanitary sewer				
b. water				
c. storm drains				
d. under drains				
e. conduits-elect. Telephone, cable, etc.				
Storm Water Detention/Retention				
Storm Water Treatment				
Sub-grade				
Bank Run Gravel Sieve Analysis & Compaction Tests				
Crushed Gravel Sieve Analysis & Compaction Tests				
Hot Bituminous Asphalt				
a. binder course				
b. wearing course				
Curbing				
Drainage Ditches				

Inspections	Engineering Estimates	Date of Completion	Town Representative	Comments
Shoulders				
Sidewalks				
Public Safety				
a. guardrail				
b. traffic control				
- traffic lights				
- pavement markings				
- traffic signs				
c. fire cistern/fire ponds				
Retaining Walls				
Loaming & Seeding				
Landscaping				
Right of Way Bounds				
Miscellaneous				
a. wetland mitigation				
b. special conditions				
Site Restoration				
As-built Drawings				
Final inspection				

CONSTRUCTION MONITORING ITEMS

The following passage indicates the various construction items discussed herein and their estimated value as previously mutually agreed upon by the TOWN and the DEVELOPER.

1. EROSION CONTROL

- 1.1.1. All silt fence and hay bales must be installed at low points across the site to protect drainage infrastructure prior to start of any excavation.
- 1.1.2. If area of disturbance is greater than ONE ACRE, a SWPPP must be completed and a NOI submitted to the EPA must be activated prior to beginning work. The TOWN will check that the responsible person on site is completing inspection reports and that they are available for review somewhere on site.

2. CLEARING & GRUBBING

- 2.1.1. Only the areas as designated in the Alteration of Terrain Permit and approved by the TOWN shall be disturbed as part of the construction process.
- 2.1.2. Stumps shall be removed and grinded on site to be used as erosion control or transported to an authorized facility. (Burying stumps on site shall not be permitted.)
- 2.1.3. Loam shall be stripped and stockpiled in a manner as described in the SWPPP.

3. SUBGRADE CONSTRUCTION

- 3.1.1. All excavation sub-grades shall be checked by the TOWN for material, compaction and grade before sub-base is placed. All loam and organic material must be completely removed prior to reshaping or moving sub-grade material. Proposed roadways shall be staked every 50 feet with centerline and offset stakes identifying cuts & fills. Proposed commercial sites must also be staked in a manner that the TOWN can observe plan compliance.

3.1.2. As determined by the TOWN, in areas of ledge, an additional 2 feet shall be removed and sand placed back in 1 foot compacted lifts.

3.1.3. Fill areas must be approved by the TOWN prior to placement of fill and tests (proctor, sieve and compaction) shall be taken at 1 foot lifts. If ledge fill is proposed, it must be approved by the TOWN for proper choke and sizing prior to placement. The TOWN shall inspect all fill procedures to ensure proper materials are used and adequate compaction is completed.

4. DRAINAGE CONSTRUCTION

4.1.1. Drainage construction shall be performed under the TOWN's observation. No work shall be permanently backfilled without prior approval by the TOWN. Detention Ponds & Drainage Swales shall be constructed first and stabilized with growth prior to drain pipe installations. Drain pipe installation shall commence at lowest points and progress upwards including catch basins/drain manholes. (Random installations of catch basins/drain manholes shall not be permitted). All work shall be completed according to TOWN specifications.

4.1.2. All catch basin frames & grates shall be American Made heavy duty 24" x 24" placed with polyethylene throat liners.

4.1.3. Before final acceptance, completed storm drains will be checked. Any imperfections such as cracks, displaced joints, objectionable variations from line of grade or leaks, shall be repaired or replaced to the satisfaction of the TOWN.

5. SEWER INSTALLATION

5.1.1. Sanitary sewer work shall be performed under the TOWN's observation. No work shall be permanently backfilled without prior approval by the TOWN. A temporary water tight plug must be used at all times during installation. Sanitary sewer installation shall commence at lowest points and progress upwards including sewer manholes. (Random installations of sewer manholes shall not be permitted). All work shall be completed according to TOWN specifications.

5.1.2. Sewer lateral locations shall be verified with the TOWN and placed at minimum slopes.

5.1.3. Leakage and mandrill tests for sewer pipes and manholes shall be observed by the TOWN. Any imperfections such as cracks, displaced joints,

objectionable variations from line of grade or leaks, shall be repaired or replaced to the satisfaction of the TOWN.

6. WATER INSTALLATION

6.1.1. Water pipe installation shall be performed under the TOWN's observation. No work shall be permanently backfilled without prior approval by the TOWN. A temporary water tight plug must be used at all times during installation. Interconnections into the TOWN's water system must be scheduled at least 3 days in advance. All work shall be completed according to TOWN specifications.

6.1.2. Water service locations shall be verified with the TOWN and shut-offs installed near property lines.

6.1.3. Pressure and chlorination tests for water pipes shall be observed by the TOWN. Any imperfections such as cracks, displaced joints, objectionable variations from line of grade or leaks, shall be repaired or replaced to the satisfaction of the TOWN.

7. OTHER UTILITY INSTALLATION

7.1.1. In general, all work shall conform to the requirements and specifications of the proper utility. It is the Developer's responsibility to arrange the work with the proper utility authority and the TOWN.

7.1.2. Trenching and backfilling operation shall be observed by the TOWN.

8. FINAL SUB-GRADE PREPARATION

8.1.1. Underdrains shall be installed as shown on the plans and as verified by the TOWN. Sub-grade must be reasonably close to proposed grades and all underdrain installation shall be completed according to TOWN specifications.

8.1.2. Once ALL UTILITIES are complete, the sub-grade shall be checked by the TOWN for compaction and conformance to line, grade and crown. Under NO CIRCUMSTANCES, will gravel operations be allowed until the sub-grade has been checked by the TOWN.

9. PLACEMENT OF SELECT ROAD BASE MATERIALS

- 9.1.1. The placement of select road base materials shall be performed under the TOWN's observation. After each sand or gravel sub-base layer is completely placed, shaped and compacted, the surface shall be checked for smoothness, accuracy of crown and grade, and compaction.
- 9.1.2. All official sieve test samples shall be taken following placement in the roadway. The TOWN shall determine the quantity and locations of sieve and compaction tests. (The Developer is advised to conduct preliminary sieve tests along with proctor tests from the source of the proposed select materials.) All sieve, proctor and compaction tests shall be paid for by the DEVELOPER.

10. PLACEMENT OF BITUMINOUS CONCRETE ASPHALT

- 10.1.1. No pavement is to be place until the crushed gravel base has been as-built by the DESIGN ENGINEER and approved by the TOWN. Pavement operation shall be performed under the TOWN's observation. Pavement placement shall be checked for conformance to method, crown, line, grade, compaction, smoothness and uniformity.
- 10.1.2. Placement of pavement shall not be permitted between November 15 and April 15.

11. CURBING INSTALLATION

- 11.1.1. The placement curbing shall be performed under the TOWN's observation. Patch work between the curb and the base course asphalt shall be either concrete or bituminous concrete and placed uniformly according to line and grade. Any curb or patch that is considered unacceptable to the TOWN will be corrected under the responsibility of the DEVELOPER.

12. DRIVEWAY APRONS

- 12.1.1. The construction of driveway aprons shall be performed under the TOWN's observation concurrently with the construction of the roadway. Driveway aprons shall be extended 40 feet from the edge of roadway and be completed according to TOWN specifications.

13. SIDWALK CONSTRUCTION

- 13.1.1. The placement of crushed gravel shall be performed under the TOWN's observation. After the crushed gravel is completely placed, shaped and compacted, the surface shall be checked for smoothness, accuracy of crown and grade, and compaction.
- 13.1.2. All official sieve test samples shall be taken following placement. The TOWN shall determine the quantity and locations of sieve and compaction tests. (The Developer is advised to conduct preliminary sieve tests along with proctor tests from the source of the proposed select materials.) All sieve, proctor and compaction tests shall be paid for by the DEVELOPER.
- 13.1.3. No pavement is to be place until the crushed gravel base has been approved by the TOWN. Machine paving operation shall be performed under the TOWN's observation. (NO HAND PAVING PERMITTED) Pavement placement shall be checked for conformance to method, crown, line, grade, compaction, smoothness and uniformity.
- 13.1.4. Placement of pavement shall not be permitted between November 15 and April 15.

14. PLACEMENT OF LOAM & SEED AND LANDSCAPING

- 14.1.1. Loamed areas shall be checked for material, smoothness, and conformance to shape and grade. Landscaping must conform to the plan requirements. Final acceptance by the TOWN shall be made following one winter cycle.

15. PLACEMENT OF SURVEY MARKERS

- 15.1.1. Bounds shall be checked for proper location and conformance to shape and material. The Developer's surveyor must submit a bound certification to the Town verifying that all survey markers are installed.

16. AS-BUILTS

- 16.1.1. The DESIGN ENGINEER, must furnish a stamped As-built of the entire project including all utilities to the TOWN in paper and computerized format.

Town of Derry
Department of Public Works
14 Manning Street
Derry, New Hampshire 03038

Site Inspection Report

Project Name: _____	
_____ Inspector	_____ Contractor
Date: _____ Time: _____ Miles to Site (R/T): _____ Total	
Weather Conditions: _____	
Purpose of Visit:	
On Site Contacts:	
Site Conditions:	
Follow-up Required:	

The parties below reviewed this document at a pre-construction meeting
held on _____ relating to the construction of
_____.

Town of Derry

Date

Developer

Date

Developer's Contractor

Date

Developer's Engineer

Date