

TOWN OF ALTON, NH

CONSTRUCTION OBSERVATIONS GUIDELINES



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SECTION 1.0 MUNICIPAL AUTHORITY

1.1 Authority

Under the authority vested in the Alton Planning Board by vote of the Town Meeting on March 14, 1967, and in accordance with Chapter 674, Section 36 and 43, N.H. Revised Statutes Annotated, as amended, the Alton Planning Board adopts the following guidelines governing ***Construction Observations*** in the Town of Alton.

1.2 Adoption

These guidelines shall be adopted and known as the Town of Alton Construction Observations Guidelines (COG).

1.3 Purpose

The Planning Board recognizes the inherent tensions between the Owner/Developer/Applicant who wants to build as cost effectively as possible and the Town of Alton's desire to ensure that projects are built according to approved plans and permits, ordinances and regulations to ensure that construction does not adversely impact existing infrastructure or the public health and safety, nor cause excessive expenditures to the taxpayers from the consequences of non-compliant construction practices. To this end, these Construction Observation Guidelines are designed to provide a standardized approach to construction observations as required by the Town of Alton Site Plan Review Regulations and Subdivision Regulations.

Construction observations are intended to:

- A. Confirm compliance with all applicable approved plans and municipal ordinances, regulations and permits, state and federal permits, as well as accepted municipal, state, and federal construction regulatory guidelines and specifications, and accepted industry standards.
- B. Ensure that construction is performed with the protection and preservation of human life and public safety as a top priority.
- C. Ensure that construction is performed with the protection and preservation of private and public lands, including but not limited to property values, and aesthetic, historical, natural and environmentally sensitive areas, as a top priority.

1.4 Responsibilities of Parties

A. Owner/Developer/Applicant

1. Ensure the improvements are constructed to the approved plans, permits, ordinances, and regulations.

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2. Maintain open communication with the Town Engineer, Contractor, Planning Department, Public Works Director, and Planning Board, as necessary, regarding construction schedule and questions or concerns regarding construction observations.
3. Maintain the escrow account in an amount sufficient to cover the cost of the required construction observations. See SECTION 4.3 below.

B. Contractor

1. Construct improvements according to the approved plans, permits, ordinances, and regulations.
2. Maintain open communication with the Town Engineer regarding the construction schedule.
3. Request observations at least 48 hours in advance of desired observation. See SECTION 4.4 below.
4. Maintain horizontal and vertical control sufficient to construct improvements per the approved plan and to support required observations and testing. See SECTION 6.3 below.
5. Notify the Town Engineer of any necessary field changes, material substitutions and/or the discovery of any design errors so it may be determined if further Planning Board action is required per the Town of Alton Site Plan Review Regulations and Subdivision Regulations.
6. Perform the observations required by the EPA NPDES Construction General Permit. The Contractor shall also make revisions to the Storm Water Pollution Prevention Plan (SWPPP) as site conditions warrant.

C. Town Engineer

1. Verify improvements are constructed to the approved plan, permits, ordinances, and regulations, and that industry standards are adhered to.
2. Maintain open communication with the Owner/Developer/Applicant, Contractor, Planning Department, and Planning Board regarding progress throughout construction.
3. Prepare Observation Logs documenting site visits that shall include, but not be limited to, a time log documenting arrival onsite, start of observations, completion of observations and time of departure from site. Additional required information shall include equipment and personnel onsite, weather conditions including temperature, work being performed by Contractor, comments made to the Contractor regarding work, agreements by Contractor to make repairs/undertake further work/change ongoing practices, etc. Other information may be added at the Town Engineer's discretion based on the individual project.
4. Provide timely observations of progress when given at least 48 hours' notice by the Contractor.
5. Notify the Contractor of deficiencies in materials and/or methods and document same as part of an Observation Log.
6. Provide a qualified Construction Observer familiar with roadway and drainage infrastructure construction, NHDOT specifications, and industry standards. The

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Observer shall be a NH licensed professional engineer or have a minimum of three (3) years' experience observing roadway/infrastructure construction projects.

7. Invoice the Town of Alton on a timely basis (monthly) for construction observation services performed. All invoices are to be accompanied by the corresponding Observation Logs, and shall also be copied to the Owner/Developer/Applicant and Contractor.

SECTION 2.0 DEFINITIONS

1. Approved Plans: Complete set of drawings demonstrating the overall proposed improvements design intent and layout prepared by a licensed professional and approved and signed by the Town of Alton Planning Board Chair.
2. As-Built Plan: Drawing or drawings documenting completed construction elements, confirming actual installed location, elevation, and design information, as detailed in the Town of Alton Site Plan Review Regulations and Subdivision Regulations.
3. Base Pavement: Bottom course of hot bituminous pavement, as defined by NHDOT.
4. BMP: An acronym that shall mean “Best Management Practices”. See Town of Alton Zoning Ordinance for the definition.
5. Catch Basin: Circular, precast concrete drainage structure capable of conveying stormwater from pipe to pipe within a closed drainage system, having a two (2) foot minimum sump and a cast iron casting frame and grate set at finish grade, as indicated in the Alton Highway Policies and Regulations.
6. Clearing and Grubbing: Removal of organic materials within the limit of work.
7. Construction Observer: A qualified Observer responsible for construction observations familiar with roadway and drainage infrastructure construction, NHDOT specifications, and industry standards. The Observer shall be a NH licensed professional engineer or have a minimum of three (3) years' experience observing roadway/infrastructure construction projects.
8. Construction Layout: Establishment and maintenance of all horizontal and vertical survey control points, bench marks, and structure locations to assure that all improvements will conform to the locations, lines, levels, and grades, as indicated on the approved plans.
9. Construction Observations Escrow (COE): Funds provided by the Owner/Developer/Applicant to the Town of Alton to pay for all municipal construction observation services.
10. Contractor: Company, entity, or person representing the Owner/Developer/Applicant responsible for construction of the proposed land improvements, in accordance with the approved plans and specifications.
11. Construction Standards: Document(s) or drawing(s) containing instructions, specifications, and relative information pertaining to construction directives or details.
12. Crushed Gravel: Processed sand and stone material, typically meeting the gradation criteria of NHDOT item number 304.3.

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13. Crushed Gravel Grade: Crushed gravel material placed, shaped, graded, and compacted to the specific horizontal and vertical specification, as indicated on the approved plans.
14. Curb Stop: See Town of Alton Water Department Regulations.
15. Cut: Material excavated from within the limit of work.
16. Drainage Pipe: A round horizontal cylinder, which transports stormwater from one point to another.
17. Engineer: A New Hampshire licensed professional civil engineer.
18. Environmentally Sensitive: An area of land, water body, or water course of significant natural resource importance.
19. Fill: Native earthen or processed material placed, shaped, and compacted to acceptable specifications within the limit of work.
20. Filter Fabric: Geo-textile material membrane.
21. Frame and Cover: Steel casting installed at finished grade, typically on manholes.
22. Frame and Grate: Steel casting installed at finished grade, typically on catch basins.
23. Grade Stake: Wooden stake typically used in roadway construction layout for horizontal and vertical elevation control.
24. Gravel: Processed earthen material typically meeting the requirements of NHDOT item number 304.2.
25. Gravel Grade: Area of a roadway located above subgrade shaped, graded, and compacted to the horizontal and vertical specifications, as indicated on the approved plans.
26. Guardrail: Roadside barrier device in accordance with the AASHTO “Green Book” or as approved by the Town Engineer as part of plan review.
27. Headwall: Vertical structural unit designed to secure the invert elevation of a pipe.
28. Hydrant: Mechanical device designed to provide access to an underground water source.
29. Invert: A defined or specified elevation, usually related to a pipe inlet/outlet at a control device, such as a catch basin, manhole, or headwall.
30. Limit of Clearing: Point of no disturbance as typically delineated with vinyl flagging, silt fence, or orange construction fence.

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31. Observation Log: Record of project status completed by the Town Engineer.
32. Owner/Developer/Applicant: Person or company financially responsible for the proposed development.
33. Preconstruction Meeting: Initial project meeting typically hosted by the municipality to discuss the proposed project, construction schedule, construction standards, construction observations and municipal expectations.
34. Punch List: A list of items prepared by the Town Engineer in connection with the observation of a project, which has been designated as remaining to be performed, completed, or corrected.
35. Regulations: Authoritative construction policies, procedures and details adopted by the federal, state, and local governments.
36. Security: Any assurance that may be accepted by the municipality to ensure that improvements required as part of an approval for an application for development will be satisfactorily completed.
37. Sediment Control: Any and all BMPs designed to reduce or eliminate soil migration.
38. Silt Fence: BMP device - Woven synthetic fabric mounted on grade stakes placed at the downstream limits of unstable material designed to minimize the effects of soil migration.
39. Soil Erosion: The degradation and transportation of solid material through wind, rain, or mechanical energy.
40. Stone Check Dam: BMP device – Small barriers or dams of graded stone placed in a ditch, swale or drainage channel designed to reduce soil erosion and allow sediments to settle by reducing the velocity of concentrated stormwater flows.
41. Subgrade: Area of a roadway located below the gravel grade shaped, graded and compacted to the horizontal and vertical specifications, as indicated on the approved plans.
42. Sump: Lowest section or portion of a catch basin below the pipe invert.
43. Town Engineer: A municipal engineering consultant of the Planning Board's choice.
44. Traffic Control: All devices positioned in the right of way around active construction activities such as signs, barrels, cones, and barriers designed to manage and direct safe traffic flow.
45. Treatment Swale: Defined open channel waterway having geometry capable of stormwater treatment.

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46. Underdrain: Underground perforated drainage pipe designed to collect and transport groundwater from within the roadway box materials.

47. Units: A specified amount of like characteristics describing a quantity of measurement for construction estimating purposes, whether singular or plural, such as distance, volume, area, weight, or time.

48. Wearing Course Pavement: Final course of pavement applied on top of the existing pavement, usually type E or F as defined by NHDOT.

49. Wetland: See Town of Alton Zoning Ordinance for the definition.

NOTE: In addition to the terminology provided in this section, please also refer to the definitions and terms provided in the related regulatory specifications listed in SECTION 3.5 Regulations, Specifications, and Standards (Municipal, State, and Federal).

SECTION 3.0 ADMINISTRATION

3.1 Applicability

Per the Town of Alton Site Plan Review Regulations, SECTION 1.19, the Planning Board shall require construction observations for all *Major* Site Plans, which include street and/or utility line construction or for other site plans at the Planning Board's discretion.

Per the Town of Alton Subdivision Regulations, SECTION IX, E., the Planning Board shall require construction observations for all *Major* Subdivisions, which include street and/or utility line construction or for other subdivisions at the Planning Board's discretion.

3.2 Familiarization

All project representatives and their assigned agents, including but not limited to the following individuals or entities, shall read, review, and otherwise become completely familiar with the Construction Observations Guidelines in its entirety:

- ❖ Applicant(s)
- ❖ Land Owner(s)
- ❖ Project Owner(s)
- ❖ Project Developer(s)
- ❖ Contractor, including Project Manager/Site Supervisor(s)

Any and all questions, comments or clarifications regarding the overall intent, meaning and direct project relevancy of this document shall be directed to the Planning Board and/or the Town Engineer for further discussion and clarification.

3.3 Compliance

All construction activities shall comply with all applicable approved plans and municipal ordinances, regulations and permits, in addition to associated State and Federal project permits and their respective special conditions. Construction observations shall be compliant with these guidelines in concert with approved project documents and permits.

In addition to specific project design documents, both construction activities and observations shall comply with usual and customary local, state and federal regulations/specifications, as defined in SECTION 3.5 Regulations, Specifications, and Standards (Municipal, State, and Federal).

3.4 Waivers

Written construction observations waivers may be requested and shall be determined, discussed and approved by the Planning Board during the land use application approval process.

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3.5 Regulations, Specifications, and Standards (Municipal, State, and Federal)

In addition to the project specific permit approvals, all construction activities and subsequent observations shall comply with the most restrictive Regulations, Specifications, and Standards, indicated below: (latest editions)

- I. Town of Alton Site Plan Review Regulations
- II. Town of Alton Subdivision Regulations
- III. Alton Highway Policies and Regulations
- IV. NH Department of Transportation (NHDOT) Standard Specifications for Road and Bridge Construction
- V. NH Department of Transportation (NHDOT) Standard Plans for Road and Bridge Construction
- VI. NH Department of Environmental Services (NHDES) Stormwater Design Manual
- VII. American Association of State Highway and Transportation Officials (AASHTO) "Green Book" A Policy on Geometric Design of Highways and Streets
- VIII. Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices
- IX. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit

SECTION 4.0 CONSTRUCTION OBSERVATIONS INTRODUCTION

4.1 Construction Observations Scope of Services

Municipal construction observations scope of services varies from project to project. Not all projects will require construction observations, see SECTION 3.1 Applicability and SECTION 3.4 Waivers. Also, since each project is unique, construction observations are not identical from project to project and will require specific project observations. However, most land development projects will have several common activities requiring construction observations. The Construction Observations Guidelines identify the most common construction observations. Typically, municipal construction observations shall occur during the following construction activities or project involvement:

- ❖ Preconstruction Meeting
- ❖ Material Submittal Review – drawings, cut sheets, gradation reports, etc.
- ❖ Erosion Control – establishment, maintenance, and removal
- ❖ Clearing and Grubbing – site preparation and layout/control
- ❖ Cuts and Fills – material gradation, layout, placement, and compaction
- ❖ Utility Construction – water, sewer, drainage, and underground utilities
- ❖ Site/Road Construction – subgrade, crushed gravel and gravel placement, curbing, guardrail, fencing, paving operations, signage, and pavement markings
- ❖ Site Restoration – turf establishment, sod placement, landscaping, lighting, etc.
- ❖ Final Project Closeout and punch list generation

The scope of required construction observations for each project shall be discussed by the Owner/Developer/Applicant and the Planning Board during the application process. The observations that are agreed upon during the application process may be broadly defined, such as, "drainage infrastructure", or "road construction". This scope shall be included as part of the approval of the project. The details and methodology of the required observations shall be identified by the Town Engineer based on the requirements of these Construction Observations Guidelines, the unique requirements of the project itself as detailed in the design plans, and shall consist of the sources of data obtained. The Town Engineer shall prepare an escrow estimate based on the required observations for the individual project and this shall be required to be submitted and reviewed and approved by the Planning Board as part of the application approval, unless a different timeframe is agreed upon by the Owner/Developer/Applicant and Planning Board. The escrow account for the construction observations shall be established as a condition precedent to the approval of the application. See also SECTION 4.3 Construction Observations Escrow below.

Construction observations' definitions are contained within this document, please refer to SECTION 2 Definitions for specific terms and definitions.

Projects that commence construction activities without prior municipal notification and municipal construction observations shall be subject to potential municipal consequences including, but not limited to, the following:

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- Inability to obtain building permits and/or occupancy permits
- Withheld or withdrawn municipal approvals
- Bond Revocation
- Other remedies or penalties as set forth in RSA 676:15-17, as amended.

The breadth, depth, and severity of municipal consequence is project specific, and shall be addressed on a case by case basis.

4.2 Construction Observations Organization

Construction observations services shall be managed through the Town of Alton Planning Department with guidance and direction provided by the Planning Board. The Planning Department shall coordinate and assign each project to one of the Town Engineers on a rotational basis. In general, the construction observations for a project shall be conducted by the Town Engineer who was on rotation for the plan review for that project. Questions regarding the Town Engineer shall be addressed to the Planning Board during the application approval process, and if conflicts arise between the Owner/Developer/Applicant and the Construction Observer/Town Engineer throughout construction, this shall be brought to the Planning Department's attention immediately for review and possible action by the Planning Board.

4.3 Construction Observations Escrow

The construction observations escrow estimate shall be determined by the Town Engineer based on the milestones listed in SECTION 4.1 Construction Observations Scope of Services above and the specific project plans. The Town Engineer shall prepare an escrow estimate based on the required observations for the individual project and this shall be required to be submitted and reviewed and approved by the Planning Board as part of the application approval. The escrow account for the construction observations shall be established as a condition precedent to the approval of the application. Questions regarding the amount of the escrow shall be addressed to the Planning Board during the application approval process.

No Preconstruction Meeting shall be scheduled or conducted until the Construction Observations Escrow has been posted, in accordance with the applicable municipal regulations.

Escrow accounts shall be managed by the Planning Department. Upon receipt of invoices and construction Observation Logs from the Town Engineer, the Planning Department shall pay the invoices from the escrow account. The Owner/Developer/Applicant and Contractor shall receive the invoices and Observation Logs at the same time as the Planning Department and any discrepancies, questions, comments, or concerns with the invoices or Observation Logs shall be brought to the Planning Department's attention immediately for review and possible action by the Planning Board. All unused funds shall be returned to the individual/entity who deposited the funds, their heirs, or successors or assigns, upon Project Closeout and final Planning Board approval.

Construction observations may be suspended by the Town Planner if the escrow account falls below 20% of the posted amount and additional observations are required. If necessary, the

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Planning Department will request additional escrow funds to be posted by the Owner/Developer/Applicant, in an amount commensurate with remaining or outstanding services, as determined by the Town Engineer.

Construction observations cannot be scheduled or performed unless the escrow account is current, as reviewed and monitored by the Planning Department.

4.4 Construction Observations Notification

All initial construction observations communications shall be directed to the Town Planner. Once the project escrow has been established and posted, the Town Planner shall schedule a Preconstruction Meeting. The Planning Department shall prepare a Preconstruction Meeting outline to be distributed at the meeting. The Preconstruction Meeting outline shall specifically include a notification and communications section, which shall identify all essential interested parties/entities and their respective contact information.

- Following the Preconstruction Meeting, the project Owner/Developer/Applicant and Contractor are jointly responsible to request all construction observations in a timely manner by phone and email at least 48 hours PRIOR to requested specific construction observations.

The Town Engineer shall confirm and schedule observations, within 24 hours of requested notification. The Town Engineer is also responsible to maintain reasonable and timely project status communications with both the Planning Department and Public Works Director, as needed.

SECTION 5.0 CONSTRUCTION OBSERVATIONS PROCESS

5.1 General Guidelines

Construction observations are ordinarily onsite observations of active construction activities. However, construction observations services may also include meetings and other office project related activities such as construction Observation Logs preparation, communications, submittal and/or plan/specifications review.

In general, the following typical process shall be followed by the Town Engineer:

- ❖ Review and become familiar with all approved project documentation (The bulk of this review will have been performed as part of the plan review during the application approval process. However, there may be submittals or shop drawings or other plan changes that require review after the formal plan review has taken place but before construction begins.)
- ❖ Attend Preconstruction Meeting
- ❖ Maintain communications with Town and project representatives
- ❖ Respond to observations requests
- ❖ Perform onsite construction observations, review field changes, including plans and documents as necessary
- ❖ Accurately record and document construction activities and distribute Observation Logs in a timely manner via email (or regular mail if requested)
- ❖ Invoice on a monthly basis with attached hard copies of construction Observation Logs

All above-defined Construction Observations General Guidelines shall be performed in a timely manner, in accordance with all applicable referenced regulations and guidelines.

5.2 Communications

All construction observations communications, following the Preconstruction Meeting, shall be handled by the project Owner/Developer/Applicant or their assigned agent(s), Contractor and the Town Engineer. The project Owner/Developer/Applicant or their assigned agent(s) are encouraged to maintain consistent and frequent contact with the Town Engineer. At all times, it is the responsibility of the project Owner/Developer/Applicant or their assigned agent(s) to initiate and maintain all project construction observations communications.

The Planning Department shall be copied on all field change requests, testing reports, emails between the design engineer and Contractor regarding field changes, the Town Engineer's response to requests from the Contractor, and so on.

Please refer to the Preconstruction Meeting outline (see Appendix A-1) for specific identification and associated contact information of all interested parties/entities.

5.3 Preconstruction Meeting

Once a project is municipally approved, has signed plans by the Planning Board, has met any/all conditions of approval, has obtained all applicable permits, has posted the construction observations escrow and has provided the appropriate project security, construction observations may begin. The primary kick-off construction observations event is the scheduling and conducting of the Preconstruction Meeting. The Preconstruction Meeting shall be coordinated and scheduled by the Town Planner and take place at the Town Hall, with a site walk likely to occur immediately following the meeting.

The following materials are required to be on file with the Planning Department, prior to scheduling a Preconstruction Meeting:

- Approved, Signed and Dated Project Plans
- Approved, Signed and Dated Applicable Permits
- Project Security
- Construction Observations Escrow

The project Owner/Developer/Applicant is responsible to provide the following information to the Planning Department at least one (1) week prior to the Preconstruction Meeting. NO construction observations may be scheduled or performed without complete compliance:

- ❖ Full Size 22" x 34" (D Size) Colorless Project Plans – Two (2) sets
- ❖ Electronic (.pdf) Colorless Project Plans – Two (2) separate zip drives or by email
- ❖ Project Contact List: Owner/Developer/Applicant, Contractor, and/or Project Manager/Site Supervisor, etc.
- ❖ Project Schedule

The following personnel are required to be in attendance at the Preconstruction Meeting:

- Owner/Developer/Applicant
- Contractor
- Project Manager/Site Supervisor
- Town Engineer
- Construction Observer, if different from Town Engineer
- Town Planner

The following personnel may be in attendance at the Preconstruction Meeting, if needed:

- Public Works Director
- Code Official
- Design Engineer
- Fire Department's Representative
- Selectmen's Representative

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The Planning Department shall prepare a Preconstruction Meeting Agenda and Sign-in Sheet to be distributed at the Preconstruction Meeting (see Appendix A-1). In addition, the Town Planner shall provide one (1) copy of the Construction Observations Checklist (see Appendix A-4) to the project Owner/Developer/Applicant at the Preconstruction Meeting.

5.4 Construction Observations

Construction Observations include field operations, office activities and project management tasks. The Town Engineer and/or Construction Observer reviews project submittals, observes construction activities, prepares Observation Logs, communicates with project representatives and documents project progress, compliance or non-compliance. The Town Engineer and/or Construction Observer is working on behalf of the Town. The Town Engineer and/or Construction Observer does not have authority or jurisdiction to direct, accept, reject or stop work on any job at any time, except that the Town Engineer and/or Construction Observer may stop work that is being conducted in an unsafe or dangerous manner. If work is found to be not in compliance with the approved plans or applicable construction standards/practices, the Town Engineer and/or Construction Observer shall notify the Contractor and discuss corrective actions required to bring the construction into compliance. Should the Contractor not be responsive to the requests of the Town Engineer and/or Construction Observer, the Town Engineer and/or Construction Observer shall immediately notify the Town Planner to discuss further action.

In all Construction Observations, the Town Engineer and/or Construction Observer shall document, photograph, and record pertinent construction activity in concert with the approved plans, permits, municipal standards, and state and federal regulations.

In all situations, the Town Engineer shall conduct themselves in a professional manner, free from slander, malice, or discrimination.

5.5 Project Shutdowns and Temporary Stoppages

If construction stops with no notice thereof provided to the Town Engineer or Planning Department, and said stoppage is not in accordance with the approved plan or the schedule discussed at the preconstruction stage, or, if construction stops due to inclement weather, for example, early snow, or mud season, or, if construction stops at the direction of the Owner/Developer/Applicant for any reason not in accordance with the approved plan or the schedule discussed at the preconstruction stage, and will be shut down for an extended period of time, a punch list of remaining work items shall be prepared by the Town Engineer to assist all parties when construction begins again. The need for this punch list shall be determined by the Town Engineer and Town Planner in consultation with the Owner/Developer/Applicant and/or Contractor. A Preconstruction Meeting may be required prior to resuming construction depending on the length of time the project was dormant. This shall be determined by the Town Engineer and Town Planner on a case by case basis. If additional erosion control measures are required to be installed during the shutdown, the Owner/Developer/Applicant and Contractor are responsible for said installation.

SECTION 6.0 CONSTRUCTION OBSERVATIONS

6.1 Permits, Approved Plans, Drawings, and Security

In order to be eligible to begin construction, all projects shall first receive final approvals, including but not limited to the following:

- ❖ Federal Permits: EPA NOI, SWPPP, Army Corps of Engineers, etc.
- ❖ State Permits: NHDOT, NHDES (Water, Sewer, AOT, Wetland), etc.
- ❖ Municipal Approvals: ZBA, Site Plan Review, Subdivision, etc.

In association with the above mentioned typical project approvals, the Owner/Developer/Applicant shall also have signed, dated, and sealed approved plans. No construction shall commence and no observations shall be performed, unless working directly from the latest approved project documents.

No project shall commence construction activities, including construction observations without the appropriate and approved project security in place, in accordance with the following regulations:

- ⇒ Town of Alton Site Plan Review Regulations, SECTION 1, 1.15 Security
- ⇒ Town of Alton Subdivision Regulations, SECTION III, J. Security

All project security shall be determined through the municipal planning process, as defined by the applicable land use regulations noted above. All project security documents shall be provided by the Owner/Developer/Applicant to the Planning Department for execution. The Owner/ Developer/Applicant is responsible to track and maintain project security to be certain the security has not lapsed or is insufficient.

6.2 Access to Work

All construction sites shall be safely accessible at all times. The Owner/Developer/Applicant and Contractor are responsible to insure safe, reasonable, and timely access to all construction activities both prior to and during construction observations. The Town Engineer and/or Construction Observer has the right to not only refuse to conduct observations, but also to notify the Planning Department and Occupational Safety and Health Administration (OSHA) of any dangerous or potentially dangerous construction practices.

All construction access shall conform to the construction standards specified on the approved plans, as well as those related construction references contained in the Town of Alton land use regulations. The Town Engineer and/or Construction Observer is not responsible to provide any specialized safety equipment or apparatus, in order to safely perform usual and customary construction observations services.

6.3 Construction Layout

All baseline horizontal and vertical construction layout control in the Town of Alton shall be laid out by the Owner/Developer/Applicant's design team or Contractor. Minimum control is defined in the applicable land use regulations, but shall include no less than the following typical items:

- Two (2) permanent benchmarks onsite having horizontal and vertical control
- Limit of Clearing
- Environmentally Sensitive areas and Buffer/Set-Back Placards
- Two (2) building corners at footing grade, if applicable
- Two (2) foundation/slab elevations at finish grade, if applicable
- All Stormwater Basin(s), Swales, and Outlet Control Devices
- At least one third (1/3) of all proposed drainage structures (catch basins)
- At least one third (1/3) of all proposed sewer structures (sewer manholes)
- All hydrants, gate valves, and service locations
- Any and all additional items as requested by the Planning Board, Public Works Director, or Town Engineer

GPS can be used if the design engineer's design drawings are obtained and the contractor takes responsibility for development of the 3D model to meet the plan intent.

In all cases, should any construction layout not appear to be in accordance with the approved plans and permits, the Town Engineer and/or Construction Observer may request independent verification. Independent verification shall be performed by a NH licensed professional surveyor or engineer, at the expense of the Owner/Developer/Applicant and/or Contractor. The As-Built Plan generated as described in SECTION 7.1 below shall be compared to the approved plan of record, and if significant and measurable differences are discovered, the Owner/Developer/Applicant and/or Contractor shall be required to remove and replace all deficient work prior to compliance certification, occupancy permit, roadway acceptance, and security release.

6.4 Submittals

The Owner/Developer/Applicant and Contractor are responsible to provide project submittals. Submittals come in many forms and typically involve the following examples: (the list below is a guide only and should be considered the absolute minimum requirement)

- Approved and Signed Project Drawings, Plans, and Permits
- Shop Drawings: Retaining Walls, Box Culverts, Guardrails, Signs, Lighting, etc.
- Structural Materials: Drainage/Sewer Structures, Pipes, Valves, Castings, etc.
- Earthen Materials: Sand, Gravel, Concrete, Steel, Curb, etc.
- Operations and Maintenance (O&M) Manuals: SWPPP, Pump Station, Control Devices, etc.
- Testing: Material Proctors, Sieves, Field Density Reports, Concrete, Steel, etc. (Includes mix design – pavement, biofilter media, etc.)

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The Town Engineer shall review all project submittals for compliance, in accordance with the approved plans, permits, and applicable land use and construction reference specifications. Construction activities shall not commence until all submittals have been submitted and reviewed by the Town Engineer. The Town Engineer may or may not request additional submittals, as warranted by the specific nature of the proposed project.

All project submittals shall be submitted to the Town Engineer, both in paper form and in electronic form (.pdf), and copied to the Owner/Developer/Applicant, Contractor, and Planning Department for the record.

6.5 Testing

The Owner/Developer/Applicant and Contractor are responsible to perform all project testing. The materials testing firm hired by the Owner/Developer/Applicant or Contractor to perform the materials testing required by the Town shall have a soils laboratory and qualified technicians in soil, concrete, and asphalt testing. The testing schedule shall be coordinated by the Town Engineer with a minimum of 24 hours' notice. The Town Engineer shall immediately notify the Planning Department and Contractor of any non-compliant test results. All non-compliant test results shall be the responsibility of the Owner/Developer/Applicant and Contractor to correct, prior to compliance certification, occupancy permit, roadway acceptance, and security release.

If requested, the Town Engineer shall arrange for geotechnical testing at the Owner/Developer/Applicant's expense.

The following is a list of typical construction activities testing: (the list below is a guide only and should be considered the absolute minimum requirement)

- Earthen Materials Gradation: Sand, Gravel, Concrete, Pavement, Grout, etc.
- Earthen Materials Density: Sand, Gravel, Concrete, Pavement, Grout, etc.
- Earthen Materials Quality: Loam – Organic Content, Moisture, pH, etc.
- Pipe(s): Deflection, Slope, Pressure/Leakage, etc.
- Structures: Pressure/Leakage, Inverts, Elevation, etc.

All project test results shall be submitted to the Town Engineer, both in paper form and in electronic form (.pdf) and copied to the Owner/Developer/Applicant, Contractor, and Planning Department for the record.

6.6 Frequency and Duration

The frequency and duration of construction observations shall be determined by the Town Engineer based on the complexity of the project, size of the project, and compliance with the approved plans, drawings, permits, and municipal reference specifications. Normally, construction observations are not full time and may be performed intermittently, according to the construction schedule.

Town of Alton
Construction Observations Guidelines

Compliant projects are likely to require usual and customary observations, while non-compliant projects may require more frequent observations.

Please also refer to the Construction Observations Checklist, Appendix A-4. The Construction Observations Checklist may be amended as required, depending on the specific project requirements, on a project by project basis. All Construction Observations Checklist amendments or revisions shall be discussed and identified during the Preconstruction Meeting.

6.7 Construction Observation Verification Form

Construction Observation Verification Forms shall be kept onsite in a secure, dry location (see Appendix A-6). Forms shall be provided by the Town Planner at the Preconstruction Meeting.

The purpose of the form is to document the arrival and departure times of the Town Engineer and/or Construction Observer, to have the times of the observations, and what was discussed onsite acknowledged by the Contractor and/or Project Manager/Site Supervisor, or other authorized person onsite, by requiring the signatures of both parties on the form.

The Construction Observation Verification Form shall include the date of the construction observations, the time the Town Engineer and/or Construction Observer arrived onsite, the personnel onsite, a brief description of what was observed, any comments or direction that was given to the Contractor and/or Project Manager/Site Supervisor or other authorized person onsite, any agreement by the Contractor and/or Project Manager/Site Supervisor or other authorized person onsite to make repairs, undertake further work, change ongoing practices, etc., whether any items observed needed further work or research by the Town Engineer and/or Construction Observer back at the office, and the time of departure of the Town Engineer and/or Construction Observer. The form shall be signed by the Town Engineer and/or Construction Observer and the Contractor and/or Project Manager/Site Supervisor or other authorized person onsite. The forms shall be kept onsite until the end of the construction observations for the project, at which time they shall be submitted to the Planning Department as part of the record. A photograph of the form taken at the time of signature shall be forwarded to the Planning Department for the record.

The Construction Observation Verification Form is intended to be a brief synopsis of the visit and does not replace the Town Engineer and/or Construction Observer's regular construction Observation Logs, which will contain the customary details and descriptions as required in SECTION 1.4, C., 3.

If a construction observation is to be conducted at the Contractor's request with no personnel onsite, this shall be communicated and agreed upon via email by the Contractor and the email shall be attached to the Town Engineer and/or Construction Observer's construction Observation Log for that site visit.

SECTION 7.0 PROJECT CLOSEOUT

7.1 As-Built Plan

Three (3) copies of the As-Built Plans shall be required to be prepared and submitted to be reviewed and accepted by the Town Engineer, prior to final Project Closeout, project approval, and release of project security. As-Built Plans shall be prepared by a NH licensed professional surveyor. As-Built Plans are ultimately the responsibility of the Owner/Developer/Applicant and are required for all *Major* Site Plan and *Major* Subdivision projects. As-Built Plans shall be prepared in accordance with the applicable requirements in the Site Plan Review Regulations, SECTION 1.20 Site Plan As-Built Plans; and the Subdivision Regulations, SECTION IX, H., Subdivision As-Built Plans.

The Planning Board, Public Works Director, and Town Engineer may or may not require specific As-Built Plan information to be included, based on specific and unique project circumstances.

Each professional signing and stamping the As-Built Plans shall comply with the applicable state statutes.

7.2 Final Site Walk

All *Major* Site Plans and *Major* Subdivision projects shall require a final site walk prior to final Project Closeout, project approval, and release of project security. The Owner/Developer/Applicant is responsible to provide the Planning Department with a written request to schedule and perform the final site walk. The project Owner/Developer/Applicant is responsible to provide all final project documentation (As-Built Plans, bond, Observation Logs, etc.) to the Planning Department, as specified in the applicable municipal land use regulations, prior to requesting the site walk.

The following interested parties shall be invited to attend the final site walk by the Town Planner:

Town Officials: Town Administrator, Planning Board Representatives, Conservation Commission Representatives, and Public Works Director

Town Engineer and/or Construction Observer

Owner/Developer/Applicant and Contractor and/or Project Manager/Site Supervisor

The Planning Department is not required to provide public notice or legal notification for the final site walk. All notices shall be given based on the Preconstruction Meeting Sign-in Sheet and a public posting on the bulletin boards located out front of Town Hall, the Planning Office, and the Post Office.

The purpose of the final site walk is to demonstrate final project completion and compliance with the approved plans, permits, and referenced municipal specifications. Upon completion of the

Town of Alton
Construction Observations Guidelines

final site walk, the Town Engineer shall generate a final punch list, documenting any project deficiencies to be corrected, if required.

Once the final site walk has been completed and all punch list items have been resolved as confirmed by the Town Engineer, the Owner/Developer/Applicant may request security release of the construction security, and the project warranty period shall commence, as defined in the applicable (Site Plan Review or Subdivision) municipal regulations.

7.3 Security and Security Release

All *Major* Site Plan and *Major* Subdivision projects shall require project financial security in accordance with the Town of Alton Site Plan Review Regulations and Subdivision Regulations. Security releases shall be made in accordance with the Town of Alton Site Plan Review Regulations and Subdivision Regulations. The Owner/Developer/Applicant is responsible to provide and maintain project security at all times.

SECTION 8.0 CERTIFICATION

The Construction Observations Guidelines dated March 20, 2015, adopted by the Planning Board on May 5, 2015, are hereby amended on February 15, 2022.

Certified to be a true copy, attest:

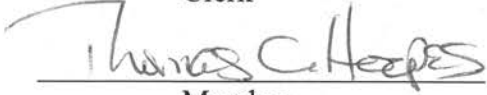


Chair

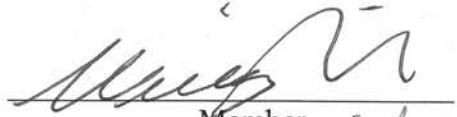


Vice-Chair

Clerk



Member



Member



Member

Member

Member



TOWN of ALTON, NH
PLANNING DEPARTMENT
1 MONUMENT SQUARE – ALTON, NH 03809

Phone: (603) 875-2162

Email: planner@alton.nh.gov

A-1 PRECONSTRUCTION MEETING AGENDA

PROJECT: _____
LOCATION: _____
CONTRACTOR: _____
TAX MAP & LOT: _____

- ⇒ Introduction of Personnel
 - Preconstruction Meeting Sign-in Sheet
- ⇒ Communications and Notifications - Contacts
- ⇒ Contractor shall have competent Superintendent onsite at all times when work is taking place.
- ⇒ Use of the Site - Contractor shall be in charge of secure and safe site within the project limits.
- ⇒ Staging Area and Job Site Use
 - Plans and Specs Requirements
 - Site Access
 - Job Signs
 - Material and/or Debris Storage and Disposal
 - Erosion Control
 - Emergency Contacts
 - Safety - Compliance
- ⇒ Construction Layout
- ⇒ Job Site Noise and Dust Control
- ⇒ Existing Utilities – DIG SAFE Notification
- ⇒ Scheduling/Coordination
 - Construction Duration
 - Contract dates

- Start date
 - Completion date
- Hours of operation
- Construction Phasing/Sequencing of work
- Blasting

- ⇒ Design Intent/Contract Documents
 - Applicant – project introduction and brief explanation of design and special features
 - Approved drawings and permits
 - Errors, inconsistencies, or omissions

- ⇒ Meetings & Observations
 - Site Observations
 - Progress/Coordination Meetings

- ⇒ Job Site Record Keeping
 - Approved Plans – Record Set
 - Maintaining As-Built Conditions
 - Daily Logs, Submittals, Shop Drawings, etc.
 - SWPPP, SWPPP Logs
 - Construction Observation Verification Forms

- ⇒ Project Submittals
 - Construction Schedule
 - List of Subcontractors and Suppliers
 - Project Estimate/Bond
 - Materials, Manuals, and Shop Drawings

- ⇒ Testing & Observations
 - Responsibilities and Requirements
 - Types of test
 - Testing consultant
 - Who gets copies of Observation Logs?

- ⇒ Substantial Completion
 - As-Built Plans
 - Bond Reduction
 - Project Closeout
 - Warranty Period
 - Road Acceptance

- ⇒ Modifications and/or Changes

- ⇒ Questions and Clarifications



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A-2 CONSTRUCTION SUBMITTAL OUTLINE

PROJECT: _____
LOCATION: _____
CONTRACTOR: _____
TAX MAP & LOT: _____

In general, all project submittals shall be accompanied with a written transmittal documenting the following minimum information:

- ❖ Project name
- ❖ Owner/Developer/Applicant name, address, and contact phone number
- ❖ Contractor name, address, and contact phone number
- ❖ Date of Submittal
- ❖ Submittal nature
- ❖ Material supplier

The following minimum project submittals shall be required on every project:

- | | | |
|---|----------------------------|------------------------|
| ▪ Approved Plans and Drawings | ▪ Approved Permits | ▪ SWPPP & NOI |
| ▪ Earthen Materials (Gradation & Proctor) | ▪ Structural Shop Drawings | ▪ Structural Materials |
| ▪ Utility Materials | ▪ O&M Manuals | ▪ Test Results |
| ▪ Pavement Mix Design | ▪ Concrete Mix Design | ▪ As-Built Plan |

NOTES:

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A-3 PROJECT SECURITY WORKSHEET

Project Name:				Date:	
Map & Lot:					

Disclaimer: The quantities, units, costs and calculations contained on this worksheet are project specific and may not be re-used, duplicated or altered. The intent of this worksheet is to provide a reasonable opinion of probable construction costs for the infrastructure improvements and site restoration activities (clearing, roadway and roadway grading and drainage).

Item	Item #	Unit	Quantity	Unit Price	Price
Subdivision - Erosion Control					
Stormwater Pollution Prevention Plan	645.7	LS			\$0.00
Monitor SWPPP	645.71	HR			\$0.00
Temporary Silt Fence	645.531	LF			\$0.00
Temporary Stone Check Dam	--	EA			\$0.00
Temporary Stabilized Entrance	--	EA			\$0.00
Treatment Swale	--	EA			\$0.00
Level Spreader	--	LF			\$0.00
Subdivision - Roadway					
Clearing & Grubbing	201.1	AC			\$0.00
Strip/Stockpile Loam	203.65	CY			\$0.00
Common Excavation	203.1	CY			\$0.00
Common Fill	203.6	CY			\$0.00
Bank Run Gravel	304.2	CY			\$0.00
Crushed Gravel	304.3	CY			\$0.00
Paving, Binder Course - 2"	403.11	TON			\$0.00
Tack Coat	410.21	SY			\$0.00
Paving Prep Work & Cleaning	214	LF			\$0.00
Paving, Wearing Course - 1"	403.11	TON			\$0.00
Guardrail	606.12	LF			\$0.00
Traffic Signage	615	LS			\$0.00
Pavement Marking	632	LF			\$0.00
Turf Establishment w/Mulch	646.11	SY			\$0.00
Loam (Screen/Spread Stockpile)	641	CY			\$0.00

Subdivision - Storm Drain					
15" HDPE	603.83215	LF			\$0.00
6" underdrain	605.506	LF			\$0.00
Crushed Stone - Underdrain	304.4	CY			\$0.00
Filter Fabric - Underdrain	593.121	SY			\$0.00
Catch Basin/Inlets (4' dia.)	604.12	EA			\$0.00
Frame & Grate	604.72	EA			\$0.00
Rip-Rap (d50 = 4") - Inlet/Outlet	584.3	CY			\$0.00
Rip-Rap (d50 = 4") - Ditch	585.3	CY			\$0.00
Filter Fabric - Ditch/inlet/outlet	593.221	SY			\$0.00
HDPE Flared End Section	603.33	EA			\$0.00
Subdivision - Sanitary Sewer					
Existing MH Removal	202.5	EA			\$0.00
Existing Curb Removal	202.6	LF			\$0.00
Existing Guardrail Removal	202.7	LF			\$0.00
8" Sewer Main	--	LF			\$0.00
Sewer Manhole	--	EA			\$0.00
Casting - Frame & Cover	--	EA			\$0.00
Subdivision - Water					
6" Water Main	611.05206	LF			\$0.00
8" Water Main	611.05208	LF			\$0.00
8" Gate Valve	611.71008	EA			\$0.00
8" Fittings	611.70008	EA			\$0.00
Hydrant	611.81	EA			\$0.00
Subdivision - Utilities (Electric, Phone, Cable, Data, Gas)					
Not Included - Installed by Others	--	n/a			\$0.00
Miscellaneous Items					
As-Built Plans (three (3) 22" x 34" and a .pdf) (D Size)	--	LS	1.0		\$0.00
Monumentation - Bounds/Pins	--	LS	1.0		\$0.00
General Clean Up	1008.7	LS	1.0		\$0.00
Mobilization/Demobilization (4% max.)	--	LS	1.0		\$0.00
				Subtotal	\$0.00
				Contingencies (10%)	\$0.00
				Total (rounded)	\$0.00

General Notes:					
1. Plan reference: (approved plan)					
2. All construction methods and materials shall conform to the Town of Alton Highway Policies and Procedures and NHDOT Standard Specifications for Road and Bridge Construction, latest edition.					
3. Whenever possible, all construction activities should align with NHDOT descriptions, item numbers, and units to the extent possible and practical, depending on the type and size of associated project.					



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A-4 CONSTRUCTION OBSERVATIONS CHECKLIST

PROJECT: _____
LOCATION: _____
CONTRACTOR: _____
TAX MAP & LOT: _____

In general, all *Major* Site Plan and *Major* Subdivision projects will require the following minimum construction observations:

- Preconstruction Meeting
- Material Submittal Review – drawings, cut sheets, gradation reports, etc.
- Erosion Control – establishment, maintenance, and removal
- Clearing and Grubbing – site preparation and layout/control
- Cuts and Fills – material gradation, layout, placement, and compaction
- Utility Construction – water, sewer, drainage, and underground utilities
- Site/Road Construction – subgrade, crushed gravel and gravel placement, curbing, guardrail, fencing, paving operations, signage, and pavement markings
- Site Restoration – turf establishment, sod placement, landscaping, lighting, etc.
- Final Project Closeout and punch list generation

SPECIAL NOTE: *Frequency and duration of onsite observations shall be field determined based on the complexity of the project, nature of work performed, number and size of crews operating, quality and/or compliant work activities, and weather.*

NOTES:



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A-5 PROJECT CLOSEOUT CHECKLIST

PROJECT: _____
LOCATION: _____
CONTRACTOR: _____
TAX MAP & LOT: _____

In general, all *Major* Site Plan and *Major* Subdivision projects shall require the following minimum Project Closeout items to be reviewed, observed and/or confirmed by the Town Engineer:

- Compliance with approved project plans/permits, as documented through the construction observations process
- Project security (as applicable)
- Certificate of Occupancy (as applicable)
- As-Built Plans
- Final Project Closeout observations and punch list completion
- Roadway Acceptance (as applicable)

SPECIAL NOTE: *Depending on the complexity of the project, additional project specific items may be added or removed from the above Checklist. The above items serve only as a guide and should not be considered absolute.*

NOTES:



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A-6 CONSTRUCTION OBSERVATION VERIFICATION FORM

PROJECT: _____
LOCATION: _____
CONTRACTOR: _____
TAX MAP & LOT: _____

Date of Construction Observation:	
Name of Town Engineer and/or Construction Observer:	
Time of arrival:	
Personnel onsite:	
Brief description of work observed:	
Brief description of comments or directions given to Contractor:	
Brief description of agreements by Contractor:	
Time of Departure:	
Signature of Town Engineer and/or Construction Observer	
Signature of Contractor and/or Project Manager/Site Supervisor or other authorized person onsite	