Section 30

Construction Management Narrative

30. Construction Management Plan

Project Address:

1700 Westbrook Street, Portland, Maine

Project Description:

The proposed project is the development of a conservation subdivision. 98 single-family house lots and a planned residential unit development (PRUD) with 25 dwelling units will be constructed with associated access roads and landscaping. Recreation trails will be incorporated into the project in conjunction with the Portland Trails. Additionally, an open space lot is to be created along the Stroudwater River to be conserved for public use. Stormwater management will be handled by a combination of tree box and detention pond BMP's as seen on the Grading & Drainage Plan, Sheet C-30. Utilities will be installed per the Utility Plan, Sheet C-20 including a sewer force main, underground electric and communication conduits, water supply lines, and natural gas. Portions of the existing wetlands are proposed to be filled in to facilitate the development per the associated NRPA permit. Owner/GC to review all reports and permits. Subcontractors to review all pertinent reports and permits prior to bidding or construction.

The project is proposed to be completed in three phases. The first phase will include the single-family development of the westerly section of the subdivision excluding the PRUD. The second phase will include the development of the PRUD. The third phase will include the development of the single-family development of the easterly section of the subdivision.

Project Team Summary:

Owner:	Stroudwater Development Partners, LLC
General Contractor (GC):	Stroudwater Development Partners, LLC
Subcontractors:	TBD
Civil/Site Engineer:	Acorn Engineering, Inc.

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The Owner/GC will remain responsible for enforcement of and compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include all OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The Owner/GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management & Erosion Control Plan for visual representation of the measures be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the Owner/GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. Owner/GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting with Phil DiPierro by the Owner/GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Guarantees and fees will be paid at the time of the respective application. Sections 14-530 and 13-532 will be complied with and all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along the Westbrook Street frontage. Additional signage necessary for communication shall be provided, but will be temporary and removed upon completion of the project. The contact information for the project personnel (Owner/GC) is:

Mike Barton, LEED AP
Stroudwater Development Partners, LLC
(207) 939-5432

Subcontractor information will be posted along the Westbrook Street frontage once contracted.

E. Construction Schedule

The Owner/GC shall submit a construction timeline at or prior to the preconstruction meeting with Phil DiPierro, City of Portland's Development Review Coordinator/Site Inspector. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit and City Code Section 25-129. Noise, dust and debris. Between September 1 and May 31 the following year, construction activities generating noise exceeding 50 decibels between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31 construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work due to the high traffic volume on Westbrook Street during the day. These requests will be subject to approval by the Public Works Authority.

The 55.3-acre site will be able to accommodate storing of construction items as well as space for delivery vehicles. Deliveries will be scheduled between the hours of 7 am to 5 pm.

The estimated timeframe of the proposed project is outlined below:

Projected Phase I Start Date:	Fall 2017
Projected Phase II Start Date:	Spring 2019
Projected Phase III Start Date:	Summer 2020
Projected Completion:	Spring 2022

F. Security

1. The Construction Management & Erosion Control Plan, Sheet C-03, depicts all proposed fencing, other barriers, and access gates (with knox locking devices) with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.
2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*
3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
    - Good Housekeeping
    - On-site security
    - Installation of new fire protection systems as construction progresses
    - Preservation of existing systems during demolition
    - Organization and training of an on-site fire brigade
    - Development of a pre-fire plan with the local fire department
    - Rapid communication
    - Consideration of special hazards resulting from previous occupancies
    - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.

5. Temporary security lighting shall be shown on the Construction Management and Erosion Control Plan and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity In Public Streets

Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicles to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City Code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Westbrook Street.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in Westbrook Street. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to and through the work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close Westbrook Street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the

activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control, bicycle, and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow vehicle travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and/or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately and its removal shall comply with all local, state, and federal regulations.
2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.
3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.
4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.
5. Rodent control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.
6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:
    a. Snow/ice removal shall commence automatically from 1" or greater of snow or ice.
    b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
    c. Clear all walks and ramps within the work zone.
    d. Sand or salt as needed.
    e. Clear all basin or drainage to help snow melt.
    f. The above steps shall be carried out Sunday–Saturday including holidays.

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the

approved Construction Management & Erosion Control Plan, C-03, and the approved erosion and sedimentation control report prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary and permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspections by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

2. The permanent detention ponds per Sheet C-30 will function as temporary sedimentation basins during construction. Refer to the details as well as the Maine DEP Erosion and Sedimentation Control Field Guide for Contractors for more information.

3. Special attention shall be paid to the protection of the Stroudwater River and the wetlands on site. Two sediment barriers are proposed along the development limit and/or the undeveloped wetlands per Sheet C-03: a silt fence as well as an erosion control mix berm, both per detail, shall be installed to prevent sediment transport. At all other down-gradient limits of development, erosion control mix berm shall be installed as depicted on C-03.

4. Flagging of the wetlands to be undisturbed shall take place prior to construction and shall not be removed until all construction is complete.

5. The Contractor shall maintain all tree and landscaping preservation measures as depicted on the landscaping and construction management plans – Sheets L-1 and C-03, respectively.

6. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the preconstruction meeting with Phil DiPierro. Any open storage areas shall be shown on the plan.

2. Delivery Truck Holding Areas On-Site: Holding areas, if necessary, will have ample area to stand-by until needed. The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of the trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.

3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided on the site or arrangements for off-street parking at an off-site location shall be provided. The parking arrangements are included on C-03. On-site parking for the contractor and subcontractors will occur within the vicinity of the current phase. Parking on either Westbrook Street or Old Westbrook Street will not be allowed.

2. Truck Routes and Volumes: The following quantities are estimated as part of all three phases:

    - Common Fill – TBD upon final surface analysis. Earthwork subcontractor(s) pit to project site.
    - Gravel & Stone – Approx. 8,250 CY. Earthwork subcontractor(s) pit to project site.
    - Hot Mix Asphalt – Approx. 3,500 Tons. Paving subcontractor(s) pit to project site.
    - Excess Site Soils (located in earthen sound berm) – TBD upon final surface analysis. Earthwork subcontractor(s) pit to project site.

The above quantities were developed excluding any pavement or structure development on the single-family lots.

L. Special Measures as Necessary

A pre-construction survey of adjacent properties interior subgrade and above grade accessible walls, ceilings, floors, and visible exterior as viewed from the grade level shall be conducted at a minimum for the abutting properties. Contractor shall coordinate and obtain permission from the owners for this survey. Photographs shall be taken at a minimum to assess any potential damage that may occur as a result of construction activities.