SEBAGO TECHNICS

PROPOSAL DATE
November 15, 2024

REQUEST FOR PROPOSAL

Public Paddle Craft Dock Project

Prepared for:
Town of York, Maine

Prepared by:
Sebago Technics, Inc.
75 John Roberts Rd., Ste 4A
South Portland, Maine 04106
(207) 200-2100

Primary Contact:
Henry Hess, RLA
Project Manager
hhess@sebagotechnics.com
(207) 200-2086

CONTENTS

> “Speaking on behalf of my CEO, Planning Board, and pretty much everyone in Town, we all were thoroughly thrilled with your professional work and attention to the details and concerns of everyone involved and the smooth path to a remedy and solution. We couldn’t speak highly enough of you and the entire Sebago Technics team.
>
> Chris Backman, Town Manager
> Town of Orrington, Maine

November 15, 2024
240962

Dylan Smith, Planning Director
Town of York
186 York Street
York, ME 03909

Request for Proposals for Public Paddle Craft Dock

Dear Dylan:

Sebago Technics, Inc. (Sebago) is pleased to submit this proposal to the Town of York (Town) for Engineering Services for the Public Access and Paddle Craft Dock at Goodrich Park located at 200 US Route 1 in York, ME. Our team is eager to provide the Town with experienced, reliable, and responsive service. We specialize in providing survey, natural resources, site planning, design, engineering, and related services to a diverse base of Maine's municipalities, both large and small. These experiences have led to successful working relationships with numerous towns and cities across the state.

Our collective of creative professionals takes a unique hands-on approach to projects such as the York Paddle Craft Dock. We enjoy learning about project sites and evaluating options with clients in the field, and then applying our problem-solving and site analysis and design skills in the office. The goal of this collaborative approach is to find agreeable solutions that meet the functional and programmatic goals in an efficient and timely manner. The Sebago Technics team is integrated with disciplines in landscape architecture, civil engineering, transportation engineering, natural resources, and survey. We are confident that our qualified, customer-focused team will work collaboratively with Town staff to deliver excellent services for this site evaluation and feasibility.

We have assigned experienced professionals to lead our efforts for this public dock project. Henry Hess, RLA, will serve as Client Manager/Project Manager, leading the project and team design efforts. Jacob Bartlett, PLS, will serve as the survey field lead. Jake Hunnewell will be the project engineer, and Rebecca Gabrezski will serve as our lead permitting specialist. We have partnered with Great Northern Docks, who will provide dock specifications and budgeting of dock materials. They will be supported by our diverse and ample resources for continuity and overall project needs.

We value opportunities and partnerships where we can engage the collective expertise of Sebago and our passion for supporting the growth of our communities. We are excited by the opportunity to work with the Town of York to take on an important initiative to provide water access for paddle crafts to the community.

No person acting for or employed by the Town of York is directly or indirectly related to the proposer or to any agreement which may be entered into to which the Proposal relates or in any portion of the profits here from.

Sincerely,
SEBAGO TECHNICS, INC.

Henry Hess, RLA
Project Manager
hhess@sebagotechnics.com
(207) 200-2086

Kylie S. Mason, RLA, LEED-AP
Chief Operations Officer
kmason@sebagotechnics.com
(207) 200-2071

B. PROJECT DESCRIPTION AND SCOPE OF SERVICES

Sebago Technics, Inc. (Sebago) has extensive experience working on municipal projects across Maine. Our design team will coordinate closely with the York River Access Ad Hoc Committee (YRAAHC), York's Planning staff, and selected stakeholders to create a Paddle Craft Dock and improve public access to the trails and the river at Goodrich Park in the Town of York.

Sebago recently visited Goodrich Park and observed the need for better connectivity between the parking lot and the water and enhanced universal accessibility from the parking lot to the trail system. A collaborative approach to creating a new paddle dock system, in conjunction with improved park connectivity, will help the public safely engage with the Federally designated Wild and Scenic York River.

Following the contract award and negotiations, Sebago will schedule an introductory kick-off meeting with the design team, York staff, and stakeholders. This meeting will establish project goals, prioritize a working schedule, and outline the subsequent workflow. The proposed timeline below outlines potential dates for meetings, site visits, bi-weekly progress check-ins, submissions, and deadlines to meet the Town's 4-6 month design schedule.

Week 1: March 25 – April 1

- Coordinate an initial site walk with all involved parties to discuss the project program in detail.
- Discuss the anticipated future permits required (local and State).
- Encourage stakeholders to share their visions and ideas for the dock location, trail connections, parking access, and associated amenities.
- Provide meeting minutes documenting all discussions.
- Sebago's survey team will conduct field survey services to create an existing conditions plan.
- Great Northern Docks (GND) will attend the site walk for site investigations and be a resource for dock information.

Weeks 2-3: April 8 - 22

- Use preliminary data, including LiDAR, aerial imagery, and parcel line information, as well as site observations to create a conceptual site plan reflecting stakeholder ideas and RFP priorities.
- Schedule a meeting to present and review the conceptual design with stakeholders.

Weeks 4-5: April 23 - May 7

- Present the conceptual site plan and potential dock components to stakeholders.
- Gain feedback to refine and update the conceptual plan.

- Work with dock consultant (GND) to provide a preliminary budget for dock components discussed.
- Sebago can discuss climate resiliency and hear the stakeholders' concerns for future sea level rise and how they may be addressed with future development.
- The revised concept plan will form the basis for engineering work to follow.

Weeks 6-9: May 8 – May 28

- Develop a 25% engineering plan set, including the survey-based existing conditions plan.
- Communicate with the YRAAHC, Town, and stakeholders on progress and/or potential challenges that arise.
- Review applicable stormwater requirements to meet future State, Federal, and local requirements.
- Present the preliminary site plan and dock design at a bi-weekly meeting.
- Sebago will provide a color-rendered plan that can be used to raise awareness of the project among the Public.
- Sebago will provide a preliminary opinion of cost based on the 25% plans to get started with a high-level budget for the stakeholders. It is important to start thinking of the budget early on. The overall budget will aid in making decisions in programming and future phasing of the project.

Weeks 10-15: May 29 – July 2

- Incorporate feedback from the 25% design to develop a 75% design drawing plan set.
- The 75% design-engineered drawing plan set shall meet requirements for future local, State, and Federal regulatory submissions.
- These drawings will include construction details, dock components and location, landscape plans, grading, and utility plans.
- Communicate progress and any potential challenges at scheduled bi-weekly meetings determined ahead of time to provide feedback to the stakeholders.

Week 16: July 3 – July 10

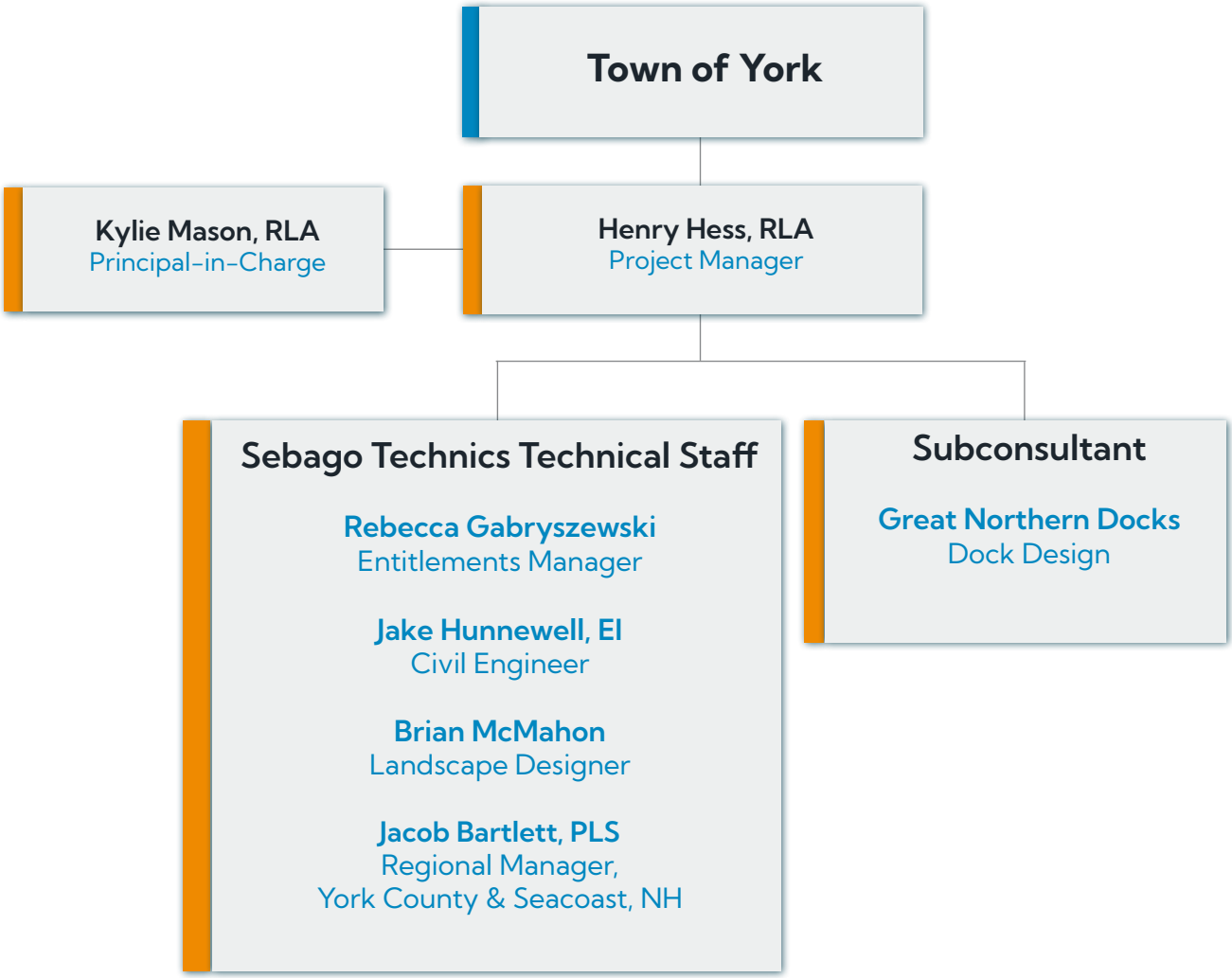
- Provide copies and present the 75% design and permitting-ready drawings to the Town Selectboard.
- Sebago will revise and update the preliminary opinion of cost to support the 75% drawings and give the Town an idea of potential construction costs.
- Sebago will provide a budget for permit application and exhibit preparation services for the local and State permit applications for planning.

- Sebago will provide digital and hard copies of all final deliverables.

C. STATEMENT OF QUALIFICATIONS (SOQ)

1. Resumes

We are proud to introduce the key personnel selected for the York Paddle Craft Dock project. Our team is composed of experienced professionals with extensive expertise in municipal feasibility studies and waterfront recreation projects. Each member brings a unique set of skills and a collaborative approach to ensure a thorough and innovative feasibility study. With a commitment to delivering practical and forward-thinking solutions, this team is well-equipped to guide the project from analysis to actionable recommendations for the Town of York.



Additional staff may be available to assist for any given assignment as-needed to support project needs and schedules.

Maine's Creative Engineering Collective

EVERYTHING WE DO IS SHAPING

Sebago Technics is a creative engineering collective comprising 110+ design professionals and technical staff, with four offices across Southern and Western Maine. Our comprehensive services encompass all aspects of projects, from initial site assessment and design to navigating permitting and overseeing construction.

THE WAY WE WORK

One of the defining features that set us apart is our structure as a 100% employee-owned company. The commitment and collaboration of our employees drive our success, and our team-based approach ensures that each client benefits from the expertise and insights of multiple specialties. Our diverse team of engineers, surveyors, landscape architects, and environmental scientists work together to deliver exceptional results on every project.

We welcome your vision and ideas. Beginning with a profound respect for people and processes, we actively listen to understand your goals. Leveraging our extensive experience and expertise, we work in tandem with you to uncover unseen opportunities and bring your vision to life.

FOUNDED

1981

TEAM MEMBERS

100+

STRUCTURE

100% EMPLOYEE-OWNED

SPECIALTIES

CIVIL ENGINEERING
SURVEY/GEOMATICS
LANDSCAPE ARCHITECTURE
TRANSPORTATION/TRAFFIC ENGINEERING
ENVIRONMENTAL SERVICES
PLANNING & PERMITTING
GIS & CAD

SECTORS

MUNICIPALITIES
INSTITUTIONS
HEALTHCARE
RESIDENTIAL
COMMERCIAL

HENRY A. HESS, RLA

Landscape Architect / Project Manager

Henry Hess joined Sebago Technics in 2018. He is a Maine and New Hampshire Registered Landscape Architect with over a decade of experience in land and master planning, site design, planting design, permitting, trail design, and construction. His leadership in landscape architecture results in creative and simple solutions to complex site challenges. Henry continues to shape communities in Maine cities and towns and build meaningful relationships with clients and regulators.

EXPERIENCE

Berwick Memorial Community Park – Berwick Maine: The project began with master planning of the park's future programming and then moved into engineering, permitting, and design development of the park. Working closely with Town staff culminated in drawings and specifications for basketball and tennis courts. The project required communication with a playground consultant to specify and deliver a new playground structure that would meet the required age demographic of the park users.

Gray Village Area Loop Trail – Gray Maine: Project management, community engagement, permitting, and design of a new pedestrian loop trail that connects the elementary school, the municipal offices, and the downtown village together in over a mile of trail. The project involved coordinating and leading public and staff on-site walks, listening to the community's needs, and designing a trail that meets both the needs of the community and the Town of Gray's budget.

Town Center Sidewalks – Cape Elizabeth, ME: Provided landscape architectural design services for a roadway esplanade and commercial property transition areas for new pedestrian walkway improvements for the Town of Cape Elizabeth. In addition to landscape architectural services, Sebago Technics provided peer review of projects seeking Planning Board approval in the Town.

Seashore Trolley Museum Improvements – Kennebunkport, ME: Project manager and landscape architect for the permitting, design, and expansion of the Seashore Trolley Museum that included a new model railroad building, as well as a new trolley car barn. These buildings were planned simultaneously to fit into the overall Seashore Trolley Museum Campus.

L.L.Bean Campus Design – Freeport, ME: A member of the site and landscape design team throughout the permitting efforts of all three phases of the new corporate campus, including the design of pedestrian plazas, vehicular and pedestrian circulation, and planting design. During construction, provided landscape installation and site observations while working closely with contractors on site amenity installation. Also coordinated the creation and installation of customized site amenities for the project.

Penbay Medical Campus – Maine Coast: Visited and evaluated medical campuses up and down the Maine coast for ADA compliance. Created written report on ADA compliance and provided design solutions for ADA accessibility, and the potential for expansion and new programming at each site.

EDUCATION

Accredited Bachelors of Science
Landscape Architecture
University of Massachusetts - Amherst, MA
2011

Associates in Applied Science
Horticultural Technology
University of New Hampshire - Durham, NH
2008

REGISTRATIONS

Registered Landscape Architect:
Maine #4841

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KYLIE S. MASON, RLA, LEED-AP

Chief Operations Officer

Kylie Mason, RLA, LEED-AP, is a Maine licensed landscape architect and Chief Operations Officer for Sebago Technics. In this role, she is responsible for the overall operations of one of Maine's largest and most successful land development firms.

In addition, Kylie oversees large-scale, complex projects serving a range of clients from Public & Private Schools to Medical Provider Campuses to Corporate Campuses. She excels in her listening and communication skills, which form the foundation of her strong design ability and understanding of clients' goals and objectives.

EXPERIENCE

Gardiner Waterfront Park Project - Gardiner, Maine: The City's representative, project manager, and lead designer working side-by-side with numerous stakeholders to ensure timely delivery of the park. Significant collaboration with the Savings Bank of Maine, having committed $1 million to the project.

Riverwalk North, Westbrook, Maine: Evaluation of Site, Masterplanning, Design and Permitting for new Riverwalk, Park and Brown Street realignment, and streetscape along the Presumpscot River in Westbrook, between Bridge Street and Cumberland Street.

L.L.Bean Outdoor Discovery Center at Lower Flying Point - Freeport, Maine: A new waterfront facility serving thousands of visitors annually. Includes multi-purpose space, visitor orientation space, and wrap-around porch with direct access to Casco Bay. This is the flagship for the premiere Maine retailer's Outdoor Discovery Programs.

Bowdoin College - Brunswick, Maine: Project Manager for multiple projects including **Roux Center for the Environment, Whittier Athletic Complex, Pine Street Extension, Park Row Apartments, Harpswell Apartments, Brunswick Apartments, Schiller Coastal Studies Center, Schiller Boat Launch,** and multiple campus improvement projects.

Campus Master Plan and Site Development for L.L.Bean Corporate & Retail Campuses featuring innovative bioretention/rain gardens, considered the first of its kind in Maine and received a LEED Silver Certification; multiple pedestrian plazas, retail vignette opportunities, and Route One Streetscape Enhancements in Freeport, Maine.

Margaret Chase Smith School - Sanford, Maine: 39,000 s.f. expansion of the existing Margaret Chase Smith School. The new improvements created two accessible playgrounds, efficient and safe parent drop-off, expansion of the parking doubling the existing capacity, and a new multi-purpose recreational field benefiting the students and the community.

Morse High School RSU1 - Bath, Maine: Evaluation and Recommendation of entire District for Site Selection for new High School and Technical Center heading into Site Engineering, Development and Permitting

REGISTRATIONS

Registered Landscape Architect
Maine #3335

LEED Accredited Professional

CLARB Certified

LPA Certification, NHDOT

ASSOCIATIONS

American Society of Landscape Architects

Council of Landscape Architects Registration Board

USGBC (LEED)

PUBLIC SPEAKING

2013 USGBC - New Hampshire Chapter: Sustainable and Functional Aesthetics in the Landscape

2013 Maine Medical Association: Accommodating your levels of care - LEED Healthcare, Healing Spaces & Exterior considerations for your practice

2014 Maine Society of Landscape Architects: Sustainable Strategies for Stormwater in Maine

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REBECCA L. GABRYSZEWSKI

Entitlements Manager

Rebecca Gabryszewski joined Sebago Technics in May 2016 and serves as Entitlements Manager. Rebecca brings over 30 years of diverse experience to this role, having worked with many different disciplines in the various aspects of permitting, environmental assessments, and site planning. Rebecca has provided regulatory, environmental, and mapping services for projects throughout the Eastern states, Midwest, and New York. She has completed Environmental Assessments (NEPA), Phase I and Phase II Environmental Site Assessments, Monitoring Reports, and Integrated Natural Resource Management Plans for various municipal, State, and Federal clients. She is responsible for the training and development of our team members for regulatory processes, creating clear, concise permitting applications, and the advancement of our map-making and graphic communications of our site information.

EXPERIENCE

Bowdoin College - Brunswick, ME: Entitlements lead for multiple projects including Whittier Athletic Complex, Pine Street Extension, Park Row Apartments, Harpswell Apartments, Athletic Field Improvements, Schiller Boat Launch, and multiple campus improvement projects.

Portland Harbor Common Lot – Portland, ME: Entitlements lead for the redevelopment design of a parking lot on the Portland Waterfront into a working park-amenity area on Commercial Street. The project consists of grading and stormwater improvements, notably designing the project to be resilient against rising sea level and coastal storm damage.

One Diamond Residential Development – Biddeford, ME: Entitlements lead for a residential development along the Saco River in Biddeford. The project has been designed to accommodate rising water levels and storm surges and includes the extension of a municipal river walk path.

L.L.Bean Outdoor Discovery Center at Lower Flying Point – Freeport, ME: Permitting assistance on a new waterfront facility serving thousands of visitors annually. Includes multi-purpose space, visitor orientation space, and wrap-around porch with direct access to Casco Bay. This is the flagship for the premiere Maine retailer's Outdoor Discovery Programs.

The Dunes on the Waterfront – Ogunquit, ME: Entitlements lead for a rental cottage redevelopment in Ogunquit. The project is located in a Shoreland Zone due to the proximity of the Ogunquit River and followed the applicable municipal guidelines for developing in the Shoreland Zone.

Jordan Bay Marina – Raymond, ME: Entitlements lead for the expansion of the landside facilities for Jordan Bay Marina, including outdoor boat parking and display, and a boat storage building.

EDUCATION

B.A. Geography
University of Connecticut, Storrs, CT
1993

A.S. Office Management Systems
Sacred Heart University, Fairfield, CT
1988

TRAINING

U.S. Department of Transportation/ Federal Highway Administration NEPA Training

U.S. Army Corps Wetland Delineation methods course at the University of New Hampshire - Durham, NH

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JAKE S. HUNNEWELL, EI

Civil Engineer

Jake Hunnewell joined Sebago Technics, Inc. in May 2021 as a Civil Engineer within the Project Delivery Group. Jake graduated from the University of Rhode Island with a degree in Civil and Environmental Engineering. He has worked in construction, including performing inspection quality control for paving. In his current role as a Civil Engineer, he is a key member of a multi-disciplinary site development team. His responsibilities include, but are not limited to, grading design, stormwater treatment and drainage design, utility coordination and design, and permitting.

EXPERIENCE

Jordan Bay Marina – Raymond, ME: This project expanded landside facilities for Jordan Bay Marina, including outdoor boat parking and display, and a boat storage building. Jake's responsibilities as the civil engineer included pre- and post-development drainage analyses using HydroCAD, stormwater BMP sizing and design, grading design, and utility layout.

Camp Kita – Acton, ME: This project involved the construction of an overnight bereavement camp on Loon Pond in that included the construction of various types of cabins, a community center, recreational spaces, expanded parking area, and stormwater control measures. Jake's responsibilities as the civil engineer included grading and drainage design, pre- and post-development stormwater drainage analysis using HydroCAD, and utility layout.

Berwick Memorial Park – Berwick, ME: This project involved the construction of a park development including a basketball court, tennis court, playground area, and internal paved ADA walkways. Jake's responsibilities as the civil engineer included detailed grading and drainage design.

Central Maine Medical Center Entrance – Lewiston, ME: This project involved the reconstruction of the main entrance to the Hospital to bring the entrance up to ADA standards. This project was particularly challenging due to the existing steep slopes around the entrance, multiple grade constraints, and the need to consider the ideal ADA pathways. Jake's responsibilities as the civil engineer included detailed grading and drainage design, and site plan detailing.

Grand Atlantic Hotel – Boothbay Harbor, ME: This project included two hotels constructed on the waterfront in Boothbay Harbor. Jake's responsibilities as the civil engineer included detailed grading design, utility layout and drainage design, and the preparation of construction specifications.

Belfast Convenient MD – Belfast, ME: This project included the construction of a Convenient MD facility on undeveloped land with significant wetland coverage. Jake's responsibilities as the civil engineer included pre- and post-development drainage analyses using HydroCAD, stormwater BMP sizing and design, grading design, utility layout and coordination, and conducting stormwater BMP inspections during construction.

Garbage to Garden – Portland, ME: This project involved expanding parking and material storage areas for current operations to allow this business to continue to grow. This site was particularly challenging due to steep slopes, an onsite stream, and unforeseen existing drainage conditions. Jake's responsibilities as the civil engineer included pre- and post-development drainage analyses using HydroCAD, stormwater BMP sizing and design, and grading and drainage design.

EDUCATION

University of Rhode Island, Kingston, RI

B.S. Civil and Environmental Engineering, 2020

CERTIFICATIONS

Maine Engineer-Intern Certification

OSHA 10-Hour Construction Safety

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BRIAN A. MCMAHON

Landscape Designer

Brian McMahon graduated from the University of Rhode Island with a degree in Landscape Architecture and a minor in Community Planning. His curiosity and eagerness to learn have shaped him into a critical lead designer on all of his projects. Brian excels in numerous skills including due diligence research, site inventory and analysis, conceptual site planning, graphic visualizations, site design development, and planting design.

EXPERIENCE

Lakeside Norway – Norway, ME: Assisted with site design for a commercial project located along a lakefront property. Brian assisted with the design of the site's recreational amenities along the waterfront, detailed planting plans, and graphic visitations for the full master plan.

Village Area Loop Trail – Gray, ME: Collaborated directly with the Town of Gray to develop a new trail as part of a larger master plan effort. Brian designed the layout of the trail, as well as the associated amenities and planting plans.

Dunes on the Waterfront – Ogunquit, ME: Assisted with the site design for additional rental cottage units along the Ogunquit River. Brian also worked directly with the Town of Ogunquit to approve a zone change for the property, and co-managed the project throughout its entirety.

Martin's Point Health Care Veranda Campus – Portland, ME: Facilitated the site design for a 25,000-square-foot office building on an existing medical campus. Brian's design intent focused on pedestrian and vehicular connectivity throughout the existing campus, while also creating safe, accessible amenity areas for all users of the site.

Portland International Jetport Parking Expansion - Portland ME: Facilitated the site design for a long-term parking lot containing 650 spaces, adjacent to the Portland International Jetport Arrival and Departure Terminals. Brian's design concentrated around parking efficiencies, vehicular traffic flow, and pedestrian way-finding across the expansive site.

Maine Health Medical Building - Waldoboro, ME: Facilitated the site design for a 14,000-square-foot medical building on an undeveloped property. Brian also assisted in the production of construction documents.

One Diamond Residential Development – Biddeford, ME: Provided master planning efforts for a large-scale residential project along the Saco River. Brian assisted with site design, including a riverwalk trail and recreational amenities, detailing site elements, and landscape exhibits.

EDUCATION

University of Rhode Island,
Kingston, Rhode Island
Bachelor of Landscape Architecture
Minor: Community Planning
2021

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JACOB I. BARTLETT, PLS

Regional Manager, York County & Seacoast, NH

Jacob Bartlett joined Sebago Technics, Inc. (Sebago) in August 2016 as a Project Surveyor and most recently was promoted to Regional Manager, York County & Seacoast, NH in 2023. Jacob graduated with a Bachelor of Science in Surveying Engineering Technology from the University of Maine, and now holds registrations in multiple states and has over a decade of experience. He has worked for New England-based surveying firms on a wide variety of survey assignments involving private, municipal, State, and Federal clients. The bulk of his experience is with boundary retracement and resolution, from small residential lots to large scale commercial developments.

One of his particular interests lies with "paper streets", or dedicated, unaccepted public ways. He has performed multiple surveys that delve into the rights of the individual land owners and the municipalities those roadways reside in. These rights can vary greatly based upon certain critical dates and how exactly the roadways were originally created.

Although most of Jacob's experience is geared around boundary and roadway retracement, he has been involved in a wide variety of surveying projects, ranging from high precision layout for construction to aiding the geomatics high definition scanning team with their work. As needed, he will add input regarding the development of survey procedures and adjustment protocols to help refine Sebago's already robust standard operating procedures.

EXPERIENCE

York Town Hall Boundary Survey – 2020
Sebago was hired to perform a boundary survey in support of the reconfiguration and easement agreements on the parcel boundaries surrounding the Town Hall. This project included topography of the developed area from the cemetery to Route 1 in anticipation of an expansion of the Town Hall. Jacob served as the stamping surveyor and had to perform the records research in the Town Records as well as York County Registry of deeds to determine what the original parcel lines were. Once development moved forward, Sebago also supported the construction layout work on the addition to Town Hall and their contractor.

Mount Agamenticus – 2022-Ongoing
This work is a continuation of an older boundary survey originally performed by Titcomb Associates in the early 1990's to determine property line location on the northeasterly side of the Town-owned tract around Mount Agamenticus. David Titcomb handled the boundary survey work on the Perkins and Young abutters, and the work has currently been updated to determine the abutting line with MacIntire on the northeast corner near Second Hill. This work involves extensive historical research and diligent fieldwork to find property boundaries that were established in the early 1800s.

DD3 Caisson Seat Scan | Portsmouth Naval Shipyard: Project Surveyor for industrial construction. Multiple scans/analyses of the existing caisson seat of Dry Dock 3 for client during reconstruction of the seat. Served as stamping professional.

DD1 Refueling Complex Overhead Rails| Portsmouth Naval Shipyard: Project Surveyor for industrial construction. Aided steel erection subcontractor with alignment of 8 sets of overhead rails (crane rails and removable roof rails). Served as stamping professional.

Sarah Long Bridge Train Rail As-Builts: Project Surveyor for industrial construction. As-built of the train rail system installed on the lower level of the Sarah Long Bridge for approval by DOT. Served as stamping professional.

EDUCATION

University of Maine, Orono, ME
B.S.,Surveying Engineering Technology
Minors: Construction Management Technology, Engineering Entrepreneurship
2009

REGISTRATIONS

Professional Land Surveyor
Maine #2513
New Hampshire #1003
Vermont #109448

AFFILIATIONS

Maine Society of Land Surveyors
Vermont Society of Land Surveyors New Hampshire Land Surveying Association
National Society of Professional Surveyors

CERTIFICATIONS

OSHA 10-hour Construction Safety

CPR & First Aid

TSA TWIC

SEBAGO TECHNICS

Great Northern Docks in Maine specializes in the highest quality custom boat docks designed for the harsh conditions of the New England Waterfront.

For over 45 years, family-owned and operated Great Northern Docks has built its reputation on superior quality products and friendly, knowledgeable customer service. Located in Maine, where lakes, rivers and coastline abound, our commitment to convenient access in aquatic environments anywhere with docks, stairs, ramps and bridges, remains our focus, serving residential, commercial, camping and conservation interests.

Manufacturing in Maine for the boat-dock and trail-bridge markets, you can see decades of experience and quality craftsmanship revealed in our own brands of aluminum docks, wood docks and DIY hardware. Along with our own products, we selectively host quality lines by other domestic manufacturers such as the Guardian Bumper and the Drag-on Float.

Great Northern Docks has worked with towns such as Saco on boardwalks and dock systems.

Contact:
Gretta Sans
Sales Associate
1114 Roosevelt Trail
P.O. Box 1615
Naples, ME 04055 USA
gsens@greatnortherndocks.com
www.greatnortherndocks.com

2. Similar Projects

We are pleased to present our extensive portfolio of similar marine infrastructure and dock facility projects completed within the past five years that align with the scope of the Town of York's Paddle Craft Dock project. Our recent work on these projects has consistently demonstrated our expertise in waterfront development, detailed analysis, and stakeholder collaboration. Through our proven track record of delivering comprehensive feasibility studies and infrastructure assessments for municipalities across Maine, we have developed sustainable solutions tailored to each community's unique needs.

Our project team's experience encompasses all aspects of waterfront facility planning, design, and implementation. As requested, we have provided references from these recently completed projects of similar scope and complexity, which showcase our capability to deliver thorough and effective solutions for waterfront access facilities. These references reflect our commitment to excellence in municipal infrastructure and our ability to work collaboratively with local communities. Please feel free to contact these references for further insight into the quality of service Sebago Technics consistently provides to our clients.

GRAY TRAILS
Kristen Muszynski
Community Planner
Town of Gray
24 Main Street
Gray, ME 04039
(207) 657-3339 x114

COBSCOOK STATE PARK
Ryan Kerr
Senior Planner
Maine Department of Agriculture,
Conservation, and Forestry
Bureau of Parks and Lands
106 Hogan Road, Suite 7
Bangor, ME 04401
Ryan.Kerr@maine.gov
(207) 974-6467

PORTLAND HARBOR COMMON LOT
Alex Marshall
Parks Division Director
City of Portland
389 Congress Street
Portland, ME 04101
amarshall@portlandmaine.gov
(207) 808-5400

LAKESIDE NORWAY
Jason Shiers
Founder
Left Turn Enterprises, LLC
jason@lte.llc
(207) 739-0675

BOWDOIN COLLEGE SCHILLER BOAT LAUNCH
John Simoneau
Sr. Capital Projects Manager
Bowdoin College
Office of Facilities Management
3800 College Station
Brunswick, Maine 04011-8429
jsimonea@bowdoin.edu
(207) 725-3979

RECREATION EXPERIENCE

PARKS & TRAILS

L.L. BEAN Flying Point & Outdoor Discovery Center
Freeport, ME

Cobscook State Park
Dennysville, ME

Gray Trails
Gray, ME

Riverwalk North
Westbrook, ME

Little Falls Recreational Masterplan
Gorham, ME

Narraganset School Playground
Gorham, ME

Lake Auburn Watershelf Trail
Auburn, ME

Crafts Landing Waterfront Park
Greenville, ME

Clifford Park
Boothbay, ME

Gardiner Waterfront
Gardiner, ME

Lakeside Norway
Norway, ME

Lewiston to Lisbon Rail-to-Trail
Lewiston, ME

Mill Creek Park Improvements
South Portland, ME

Ocean Avenue Dog Park
Portland, ME

P.D. Merrill Marine Gateway
Portland, ME

Pollack Brook Pedestrian Bridge & Trail
Cape Elizabeth, ME

Scarborough Fish & Game Trail Improvements
Scarborough, ME

Seacoast Club Adventure Recreation Park
Windham, ME

Williams Court Park
Biddeford, ME

Camp Hinds Shooting Range Construction
Raymond, ME

Maine Trail Builders - Campground and Lodge
Windham, ME

ATHLETIC FIELDS

Memorial Field
Deering High School
Portland, ME

Memorial Field Masterplan
Casco, ME

University of Maine
Morse Synthetic Turf Field

Fitzpatrick Stadium
Synthetic Turf Field Replacement - Portland, ME

Sanford Vocational School
Athletic Field
Sanford, ME

Messalonskee High School
Turf Field & Track Complex
Oakland, ME

Saint Joseph's College Turf Field & Masterplanning
Standish, ME

Field Study - Village Elementary School
Gorham, ME

Chick Property Masterplan
Gorham, ME

Waynflete Academy Fields
Portland, ME

BOAT LAUNCHES & PIER REPLACEMENTS

Cliff Island Barge Landing
Portland, ME

Cushing Island Marine Landing
Portland, ME

Bug Light Ramp Reconstruction
South Portland, ME

Cape Porpoise Pier Replacement
Kennebunk, ME

Cushing Island Marine Landing
Portland, ME

Goat Island Restoration
Cape Porpoise, ME

Great Diamond Island Barge Landing
Portland, ME

Higgins Beach Shoreline Restoration
Scarborough, ME

Maine Wharf
Portland, ME

Merrill's Terminal
Portland, ME

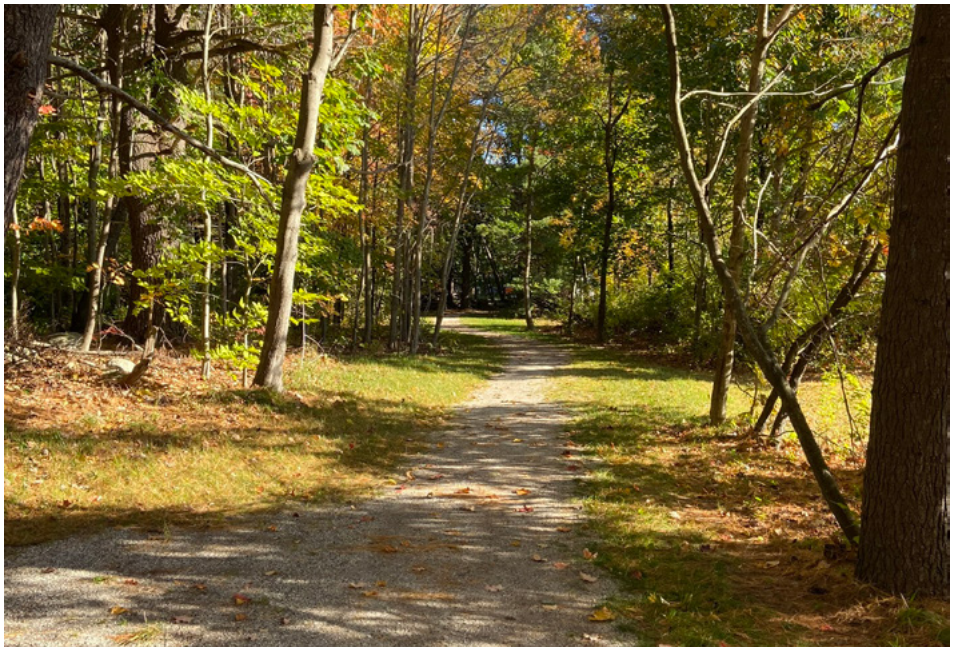
Schiller Boat Launch
Harpswell, ME

GARDINER WATERFRONT PARK
Gardiner, ME

L.L. BEAN Outdoor Discovery Center
Freeport, ME

LAKESIDE NORWAY
Norway, ME

GRAY TRAILS
Gray, Maine



Sebago Technics was engaged by the Town of Gray, Maine to lead the planning, design, and permitting for the expansion of their downtown trail network, referred to as the Gray Trails project. This initiative aimed to develop and enhance the recreational trail system for the local community.

Beginning in 2023, Sebago Technics worked closely with the Town of Gray and the local Nordic Walking club to plan and execute this trail network expansion. Sebago's services included comprehensive master planning, detailed surveying, civil engineering design, and securing the necessary permits to bring the project to fruition.

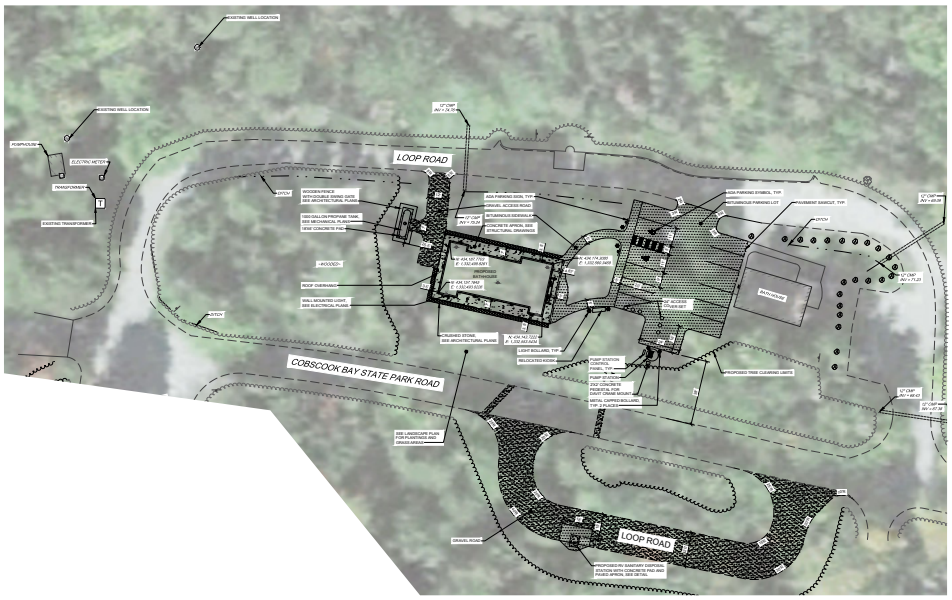
A key aspect of Sebago's approach was engaging directly with members of the public and other key stakeholders. The team reviewed the proposed trail layout with the community, soliciting feedback on desired amenities and programming for the expanded system. Sebago then worked collaboratively with the Town and stakeholders to refine the site design, ensuring the new trails met the needs and vision of the Gray residents.

The project was completed in the spring of 2024, within the initial $40,000 design budget.

SEBAGO TECHNICS

COBSCOOK BAY STATE PARK

Dennysville, Maine



Sebago Technics is proud to be retained by the Maine Department of Agriculture, Conservation, and Forestry, Bureau of Parks and Lands, as a key member of the design team tasked with the enhancement of Cobscook Bay State Park. Our role encompasses providing comprehensive surveying and site civil design services for the development of a new shower building and extensive utility upgrades within the park.

This project is part of a broader federal aid initiative aimed at renovating and modernizing facilities across all State Parks in Maine. The primary objective is to upgrade the restroom facilities at Cobscook Bay State Park to enhance the overall visitor experience. Notably, Cobscook Bay State Park is the only campground in the Maine State Park system lacking centralized flushable toilets, making this upgrade particularly significant.

Sebago Technics delivered a suite of professional services to ensure the successful completion of this project:

- **Topographic and Existing Conditions Survey:** Conducted a detailed survey of approximately five acres within the park to map current conditions accurately.
- **Site Soil and Natural Resources Investigation:** Performed thorough investigations to inform the design and ensure compliance with environmental standards.
- **Site Grading and Utility Design:** Developed plans for site grading and the installation of utilities associated with the new shower building.
- **Engineered Septic System Design:** Designed an advanced septic system and associated sanitary pump station to support the new facilities.
- **Gravel Road Design:** Created design plans for the construction of a new gravel road to improve access within the park.
- **Utility Extensions Layout:** Planned the layout for water main and electrical utility extensions throughout the park to support the upgraded infrastructure.
- **Permitting Support:** Assisted with the local permitting process by preparing and submitting necessary documentation.
- **Construction Documents and Specifications:** Prepared detailed construction documents and specifications to guide the project through to completion.

Project Timeline

Project Start: 2023

Anticipated Construction Commencement: Summer 2024

SEBAGO TECHNICS

PORTLAND HARBOR COMMON LOT

Portland, Maine

Sebago Technics was retained by the City of Portland and Parks Conservancy to shape the historical community space at the existing Portland Harbor Common Lot.

Construction of a new public green space on Portland's eastern waterfront is expected to start next year. The first phase of the Portland Harbor Common Lot will transform a City-owned parking area between the Maine State Pier and the Ocean Gateway International Marine Passenger Terminal into an open space preserved for the public. This park is part of the City's waterfront master plan to develop an interconnected linear open space resiliency system along the waterfront, expanding their storm mitigation strategies. Sebago worked collaboratively with the City's Planning, Parks, Engineering, and Waterfront Development staff and led the permitting efforts with the City and Maine Department of Environmental Protection.

Some features of the project will include an open lawn, landscaping, seating, pathways, and areas to support events, vendors, food trucks, and restrooms. A promenade and new railing will be installed along the water's edge, allowing people to safely enjoy the active waterfront and appreciate the tug boats, Casco Bay Ferries, cruise ships, and other vessels. The site plan also provides opportunities to reflect on historical references through signage and artistic interpretation. The park will be a front lawn and waterfront asset for the neighborhood and City residents, as well as a place to welcome tourists coming off cruise ships and visitors to downtown Portland/Old Port.

Engineering services provided by Sebago Technics included preparing an existing conditions survey, documenting subsurface conditions and utilities, collaborating with structural engineers on existing retaining wall and railing design, and developing grading and utility plans and stormwater management plans. Assessing potential impacts from sea level rise and wave action was incorporated into the site design through reduction in pavement, grading and infiltration considerations, and use of cost effective and durable materials.

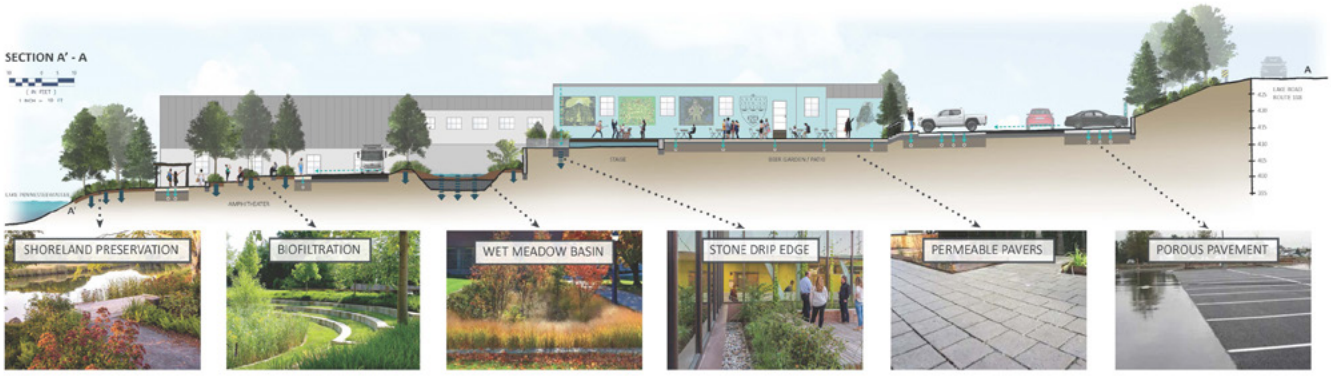
Landscape architecture services provided by Sebago Technics included leading a design charette with City staff and the Portland Parks Conservancy, developing multiple concepts, finalizing the site plan and landscape amenities, lighting design, and selection of urban and salt tolerant native plant species. Structural soil and irrigation detailing was developed to establish plant material and flush salt from soil after king tide/flooding inundation. The park design is based on green infrastructure adaptation to 'living with water'.

Project start: 2022
Anticipated construction: 2025

SEBAGO TECHNICS

LAKESIDE NORWAY

Norway, Maine



Sebago Technics was engaged by Left Turn Enterprises, LLC to transform an underutilized lakefront property on Pennesseewassee Lake in Norway, Maine into a lively year-round cultural and recreational hub.

Our team developed a comprehensive Master Plan that outlines a mixed-use vision for the site, with thoughtfully integrated spaces that complement one another both functionally and aesthetically. Key to the plan is a focus on sustainable stormwater management strategies that protect and enhance the surrounding habitat and water quality of the lake.

The centerpiece of the 'Lakeside' development will be a venue capable of hosting a diverse array of community events, from weddings and concerts to local festivals. This flexible event space will also include provisions for a hometown craft brewer to expand their operations. Importantly, the site design provides direct access to the lake and surrounding trails, allowing visitors to fully immerse themselves in the natural beauty of Pennesseewassee Lake. This includes the integration of a new dock system to facilitate water-based recreation and enjoyment of the lakefront.

Throughout the planning and design process, our team worked closely with Left Turn Enterprises and local stakeholders to ensure the 'Lakeside' vision reflects the community's values and aspirations. The result is a thoughtfully crafted master plan that transforms an underutilized asset into a vibrant, year-round destination that celebrates Norway, Maine's natural beauty and rich cultural heritage.

SEBAGO TECHNICS

BOWDOIN COLLEGE SCHILLER BOAT LAUNCH

Harpswell, Maine

Sebago Technics, Inc. is providing comprehensive professional services for the construction of a new private boat launch facility for Bowdoin College on Orr's Island in Harpswell, Maine. The project, which commenced in Summer 2022, aims to create improved water access for the seasonal removal and installation of college docks. This strategic infrastructure development requires careful coordination with regulatory agencies and thorough environmental consideration.

The project's scope encompasses complex technical challenges, including the design and construction of an access road through steep, wooded terrain and the implementation of a boat launch along the rugged shoreline. Sebago Technics is delivering a full range of services, including detailed site survey, civil engineering design, and environmental assessment. The design process has required particular attention to ledge removal, slope stability, and the management of unsuitable soils, with geotechnical investigations providing crucial data for construction planning and environmental protection.

The permitting process represents a significant component of the project, requiring approvals and modifications from the Army Corps of Engineers. The location, accessed via a gravel drive near the field studies lab, necessitates careful consideration of impervious surface impacts and environmental effects. Sebago Technics is coordinating with stakeholders and regulatory agencies leading to construction.

SEBAGO TECHNICS

3. Example of Work

Sebago Technics is proud to highlight our recent work on the Crafts Landing Waterfront Park project, which closely parallels the scope and objectives of the Town of York's Paddle Craft Dock initiative.

Located in the heart of downtown Greenville, Maine, this comprehensive waterfront access project showcased our expertise in navigating complex marine infrastructure challenges. Working with the Moosehead Lake Region Economic Development Corporation and in collaboration with the Forest Society of Maine and the Town of Greenville, our team successfully managed all aspects of the project, from initial site survey and civil engineering design to environmental assessment and multi-agency permitting coordination, including brownfield remediation requirements and VRAP compliance.

The project required innovative solutions for challenging site conditions, particularly addressing brownfield constraints through specific soil barriers and limits on soil disturbances to protect the lake from contaminant exposure. Our design successfully incorporated a central gathering space, wayfinding kiosk, boat docks, snowmobile access, and landscaping using native plant materials, while ensuring environmental protection and public safety.

The following pages provide a detailed overview of this project, along with one complete copy of our work for your reference and review.

REFERENCE
Karin R. Tilberg
President/CEO
Forest Society of Maine
115 Franklin Street, 3rd Floor
Bangor, ME 04401
karin@fsmaine.org
(207) 945-9200

CRAFTS LANDING WATERFRONT PARK

Greenville, Maine

Working with the Moosehead Lake Region Economic Development Corporation, in collaboration with Forest Society of Maine and the Town of Greenville, Sebago Technics provided site planning design and construction document services from 2019-2020 for a new public park located in the heart of downtown Greenville.

This property was made available to the Town to develop a gateway to the lake for both residents and visitors to Greenville and the Moosehead Lake Region. The significance of this acquisition allowed for the only public access to the lake downtown. A key constraint on the land was that portions of the property were a brownfield, so the site design needed to incorporate specific soil barriers and limits on soil disturbances outlined in the VRAP to limit contaminant exposure to the lake. The park plan incorporates a central gathering space, wayfinding kiosk, boat docks, snowmobile access, and landscaping using native plant materials.

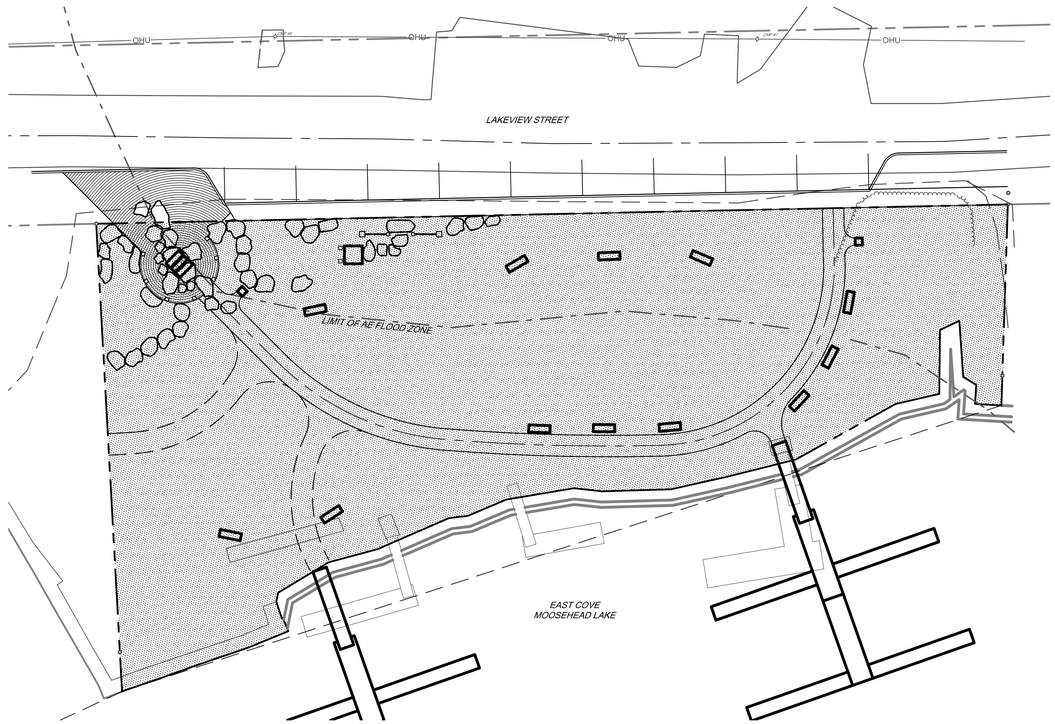
CRAFTS LANDING PARK

3 LAKEVIEW STREET
GREENVILLE, MAINE

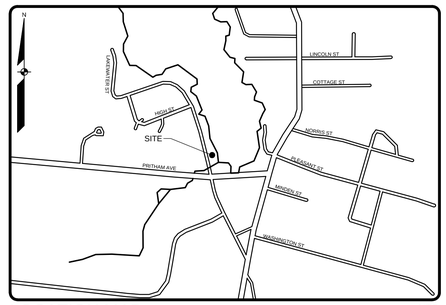
APPLICANT:
MOOSHEAD LAKE
REGION EDC
P.O. BOX 223
GREENVILLE, ME 04441

ENGINEER/SURVEYOR/
LANDSCAPE ARCHITECT:

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2100



SCALE: 1" = 20'



LOCATION MAP NTS

Sheet List Table

Sheet Number	Sheet Title
1	COVER SHEET
1 OF 1	EXISTING CONDITIONS BY OTHERS
2	NOTE AND LEGEND SHEET
3	SITE PLAN
4	GRADING AND UTILITY PLAN
5	LANDSCAPE PLAN
6	DETAILS
7	DETAILS
8	COVER SYSTEM DETAILS (PLAN BY RANSOM CONSULTING, LLC)

STEVEN G. DOE, RLA NO. 131
REGISTERED LANDSCAPE ARCHITECT
STEPHEN G. DOE
No. 131
STATE OF MAINE
09/10/2020

REV.	BY	DATE	STATUS
A	SGD	09/10/20	ISSUED FOR BIDS

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

COVER SHEET
OF:
CRAFTS LANDING PARK
3 LAKEVIEW STREET
GREENVILLE, MAINE
FOR:
MOOSHEAD LAKE REGION EDC
P.O. BOX 223
GREENVILLE, ME 04441

DESIGNED	SDG
DRAWN	STI
CHECKED	SDG
DATE	04-15-20
SCALE	1" = 20'
PROJECT	19534

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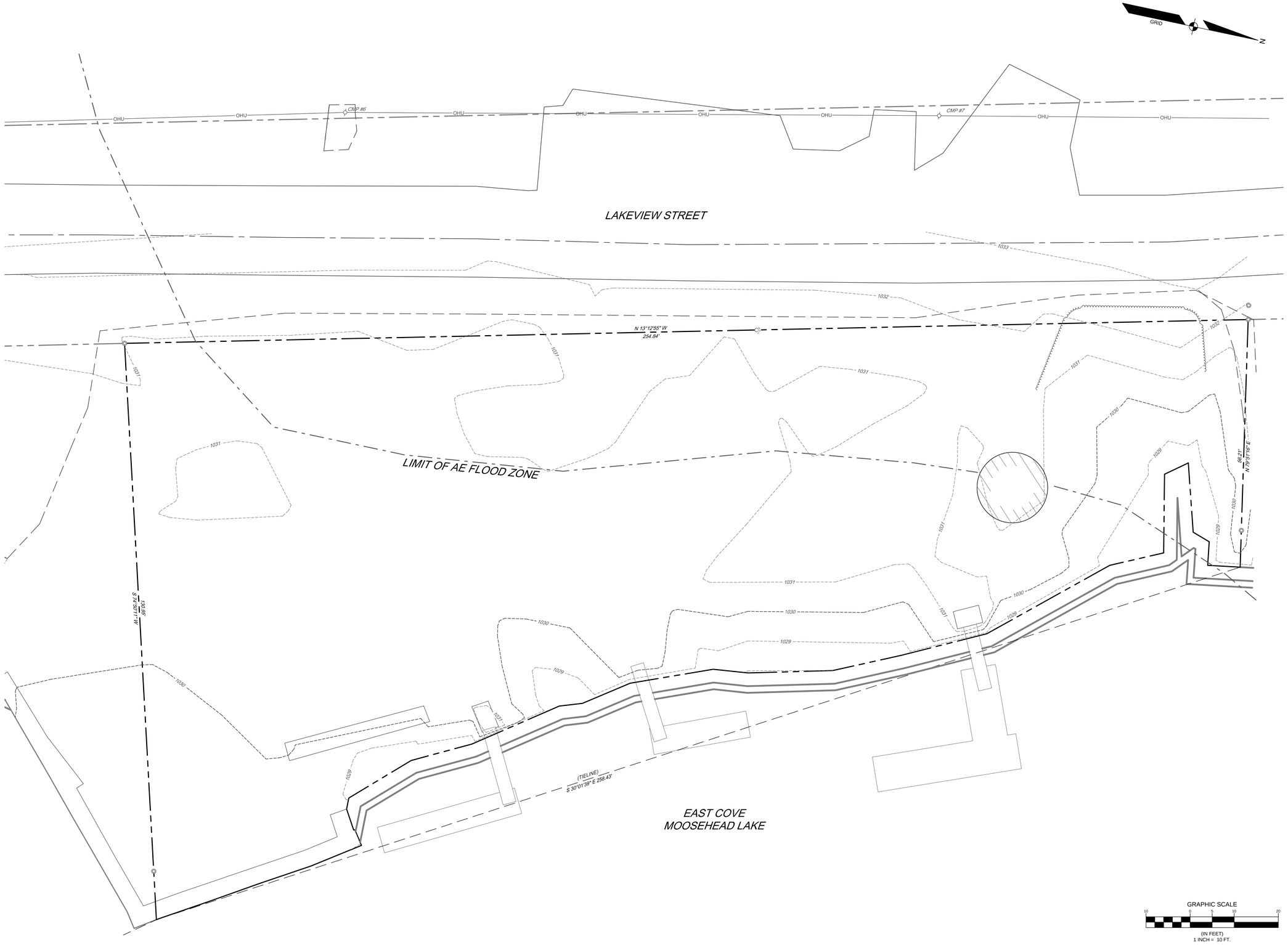
SHEET 1 OF 8



STEVEN G. DOE, RLA NO. 131

REGISTERED LANDSCAPE ARCHITECT
STEPHEN G. DOE
No. 131
STATE OF MAINE
09/10/2020

REV.	BY	DATE	STATUS
A	SGD	09/10/20	ISSUED FOR BIDS

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite A
South Portland, ME 04106
Tel. 207-200-2100

EXISTING CONDITIONS BY OTHERS

OF:
CRAFTS LANDING PARK
3 LAKEVIEW STREET
GREENVILLE, MAINE

FOR:
MOOSEHEAD LAKE REGION EDC
P.O. BOX 223
GREENVILLE, ME 04441

DESIGNED	SDG
DRAWN	MAL/SGD
CHECKED	SDG
DATE	04-15-20
SCALE	1" = 10'
PROJECT	19534

SHEET 1 OF 1

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LEGEND

EXISTING		PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	DEED LINE/R.O.W.	
	TIE LINE	
	SETBACK	
	EASEMENT	
	BUFFER	
	FLOODPLAIN	
	FLOODWAY	
	CENTERLINE	
⊡	MONUMENT	■
◎	IRON PIPE/ROD	●
◎	DRILL HOLE	◉
C1/L1	DEED CALL	
C1/L1	CURVE/LINE NO.	C1/L1
	SOILS	
	ZONE LINE	
	ZONE LINE ON PL	
BENCHMARK DESCRIPTION WITH ELEVATION	BENCHMARK	
△	SURVEY CONTROL	
TP-1	TEST PIT	
MW	MW-1 MONITORING WELL	
B-1	BORING	
	BUILDING	
	DECK/STEPS/ OVERHANG	
	EDGE WETLAND	
	WETLANDS	
	UPLANDS	
	STREAM	
	LEDGE	
	EDGE PAVEMENT	
	PAVEMENT SAWCUT	
	EDGE CONCRETE	
	PAVEMENT PAINT	
	EDGE GRAVEL	
	CURB LINE	
	EDGE OF WATER	
	TREELINE	
120 118	CONTOURS	120
×120.00	SPOT GRADE	+120.00
O	CHAIN LINK FENCE	O
X	BARB WIRE FENCE	X
⊡	STOCKADE FENCE	⊡
	GUARD RAIL	
	STONE WALL	
	RETAINING WALL	
	DECIDUOUS TREE	X
	CONIFEROUS TREE	X
	MULCH LINE	
○	BOLLARD	●
	SIGN	
	RAILROAD	
G	GAS	G
	GAS GATE VALVE	GV
GM	GAS METER	
G	GAS MANHOLE	
W	WATER	W
	WATER GATE VALVE	WV
	WATER SHUT OFF	WV
	HYDRANT	
W	WATER MANHOLE	
W	WELL	W
S	SANITARY SEWER	S
FM	FORCE MAIN	FM
S	SANITARY MANHOLE	●
SD	STORM DRAIN	SD
UD	UNDER DRAIN	UD
D	DRAINAGE MANHOLE	●
	CATCH BASIN	■
OHU	OVERHEAD UTILITY	OHU
UGU	UNDERGROUND UTILITY	UGU
T	TRANSFORMER PAD	T
E	ELECTRICAL MANHOLE	E
EM	ELECTRIC METER	
H	HVAC UNIT	
T	TELEPHONE MANHOLE	
	LIGHT POLE	
	UTILITY POLE	
	GUY WIRE	
	DRAINAGE DITCH	
	EROSION CONTROL BLANKET	
	FILTER BARRIER	FB
	RIPRAP	
	CHECK DAM	
	INLET PROTECTION	
	BOULDER	

GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON EXISTING CONDITIONS SURVEY.
7. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
8. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
9. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
10. PROVIDE ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
11. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
12. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC. STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
13. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
14. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
15. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL BMPS" PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OCTOBER 2016 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
16. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (811) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
17. CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.
18. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.
19. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
20. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
21. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.
22. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
23. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
24. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF SEBAGO TECHNICS, INC.
25. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
26. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.
27. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
28. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.
29. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.
30. SIDESLOPES SHALL NOT BE STEEPER THAN 3:1 (H:V) EXCEPT AS OTHERWISE IDENTIFIED ON THIS PLAN. ALL SIDESLOPES STEEPER THAN 3:1 (H: V) SHALL BE LINED WITH EROSION CONTROL BLANKET.

LANDSCAPE NOTES

1. PLANT QUANTITIES SHOWN ON PLANT LISTS ARE FOR CONVENIENCE TO THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL PLANT MATERIAL INSTALLATION AS SHOWN ON PLANS.
2. SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF "U.S.A. STANDARD FOR NURSERY STOCK," BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
3. ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
4. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING, STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE BY THE OWNER.
5. PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR BY THE CONTRACTOR AND A PERIOD OF TWO YEARS THEREAFTER BY THE OWNER FROM DATE OF INSTALLATION. DURING THE ONE YEAR GUARANTEE PERIOD, DEAD PLANT MATERIAL SHALL BE REPLACED AT NO COST TO THE OWNER. AT THE END OF THE ONE YEAR PERIOD, THE CONTRACTOR SHALL OBTAIN FINAL ACCEPTANCE FROM THE OWNER.
6. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
7. EXISTING TREES TO BE PRESERVED WILL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
8. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF THE UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER.
9. ALL SHRUB BEDS SHALL BE MULCHED WITH 3" CLEAN SHREDDED DARK BROWN BARK MULCH.
10. THE CONTRACTOR SHALL PROVIDE 6" LOAM FOR ALL AREAS TO BE SODDED OR SEEDED. PLANTING AREAS SHALL RECEIVE 12" ROLLED THICKNESS OF LOAM UNLESS OTHERWISE SPECIFIED ON THE PLANS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
11. ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT (AND MUNICIPAL AUTHORITY, IF APPLICABLE) PRIOR TO INSTALLATION ON SITE.
12. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR PERENNIAL AND ANNUAL FLOWER BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.

STEVEN G. DOE, RLA NO. 131

REGISTERED LANDSCAPE ARCHITECT
STEPHEN G. DOE
No. 131
STATE OF MAINE
09/10/2020

REV	BY	DATE	STATUS
A	SGD	09/10/20	ISSUED FOR BIDS

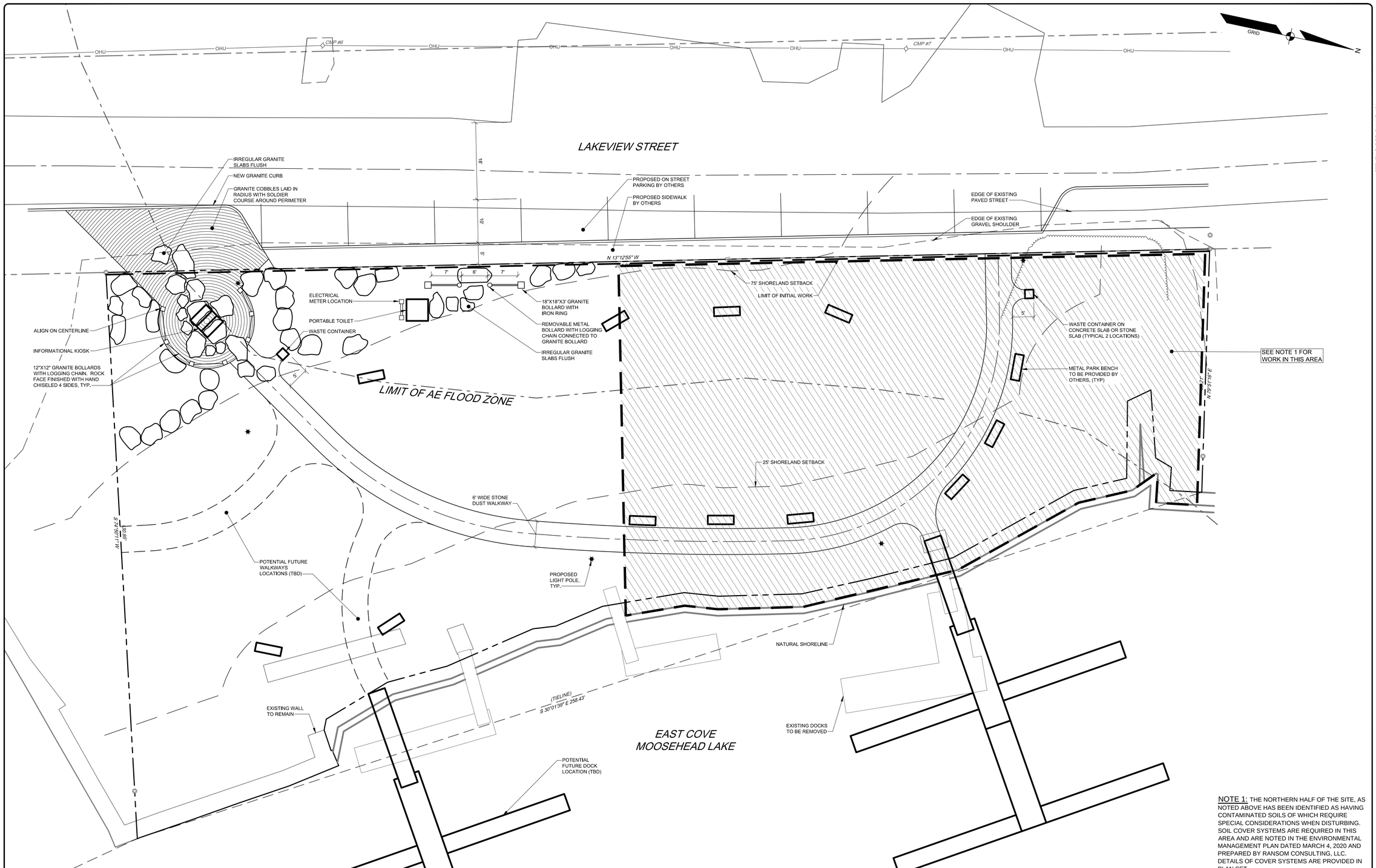
SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite A
South Portland, ME 04106
Tel. 207-200-2100

NOTE AND LEGEND SHEET
OF:
CRAFTS LANDING PARK
3 LAKEVIEW STREET
GREENVILLE, MAINE
FOR:
MOOSHEAD LAKE REGION EDC
P.O. BOX 223
GREENVILLE, ME 04441

DESIGNED	SDG
DRAWN	STI
CHECKED	SDG
DATE	04-15-20
SCALE	NTS
PROJECT	19534

SHEET 2 OF 8

19534-NL.dwg, T.AB.24x36



NOTE 1: THE NORTHERN HALF OF THE SITE, AS NOTED ABOVE HAS BEEN IDENTIFIED AS HAVING CONTAMINATED SOILS OF WHICH REQUIRE SPECIAL CONSIDERATIONS WHEN DISTURBING. SOIL COVER SYSTEMS ARE REQUIRED IN THIS AREA AND ARE NOTED IN THE ENVIRONMENTAL MANAGEMENT PLAN DATED MARCH 4, 2020 AND PREPARED BY RANSOM CONSULTING, LLC. DETAILS OF COVER SYSTEMS ARE PROVIDED IN PLAN SET.

NOTE 2: LIGHT FIXTURE TO BE: 26" HARBOR LITE 150W/240V HPS W/12'-6" - 4 1/2" X 3" OD ALUMINUM POLE AS MANUFACTURED BY STERNER LIGHTING SYSTEMS INC. (612.906.7300)

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 INCH = 10 FT.

STEVEN G. DOE, RLA NO. 131

REGISTERED LANDSCAPE ARCHITECT
STEPHEN G. DOE
No. 131
STATE OF MAINE
09/10/2020

REV	BY	DATE	STATUS
A	SGD	09/10/20	ISSUED FOR BIDS

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite A
South Portland, ME 04106
Tel. 207-200-2100

SITE PLAN
OF:
CRAFTS LANDING PARK
3 LAKEVIEW STREET
GREENVILLE, MAINE
FOR:
MOOSEHEAD LAKE REGION EDC
P.O. BOX 223
GREENVILLE, ME 04441

DESIGNED	SDG
DRAWN	STI
CHECKED	SDG
DATE	04-15-20
SCALE	1" = 10'
PROJECT	19534

SHEET 3 OF 8

19534-S.dwg, TAB-24x36

PROPOSED UNDERGROUND ELECTRIC LINE. UNDERGROUND LINE INSTALLATION TO BE COORDINATEED WITH CMP AND INSTALLED DURING LAKEVIEW STREET RECONSTRUCTION

LAKEVIEW STREET

LAKEVIEW STREET TO BE RECONSTRUCTED SPRING 2021. EXISTING GRADES IN THIS AREA WILL BE CHANGED. COORDINATE SITE WORK IN THIS AREA WITH TOWN OF GREENVILLE AND ROADWAY SITE CONTRACTOR

EXCAVATED NATIVE SOILS FROM SITE WORK AND PLANTING INSTALLATION FROM AREAS WITH CONTAMINATED SOILS SHALL BE PLACED IN PROPOSED MOUNDED AREAS WITH TYPE 2 COVER SYSTEM

GRADING OF ENTIRE PLAZA TO BE DETERMINED UPON FINAL ENGINEERING OF LAKEVIEW STREET

1032.0 ± ASSUMED TC
1031.5 ± ASSUMED BC

PEDESTRAL MOUNTED ELECTRICAL METER

EXISTING WATER SHUT-OFF

NEW WATER METER PIT

FROST FREE WATER SPICKET

LIMIT OF AE FLOOD ZONE

SITE WORK IN THIS AREA TO PROVIDE LANDSCAPE COVER SYSTEM TYPE 2 WITH MARKER LAYER (SEE DETAIL) PROVIDE MIN. 6" LOAM

EXISTING WOODLAND TO REMAIN UNDISTURBED WITH EXCEPTION OF LANDSCAPE PLANTINGS. PLANTINGS IN THIS AREA TO UTILIZE COVER SYSTEM TYPE 6

FILTER BARRIER

EAST COVE
MOOSEHEAD LAKE

CMP #6

CMP #7

OHU

UGU

FB

GRID N

NOTE 1:
THE NORTHERN HALF OF THE SITE, AS NOTED ABOVE HAS BEEN IDENTIFIED AS HAVING CONTAMINATED SOILS OF WHICH REQUIRE SPECIAL CONSIDERATIONS WHEN DISTURBING. SOIL COVER SYSTEMS ARE REQUIRED IN THIS AREA AND ARE NOTED IN THE ENVIRONMENTAL MANAGEMENT PLAN DATED MARCH 4, 2020 AND PREPARED BY RANSOM CONSULTING, LLC. DETAILS OF COVER SYSTEMS ARE PROVIDED IN PLAN SET.

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A	SGD	09/10/20	ISSUED FOR BIDS

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GRADING AND UTILITY PLAN
OF:
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3 LAKEVIEW STREET
GREENVILLE, MAINE
FOR:
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P.O. BOX 223
GREENVILLE, ME 04441

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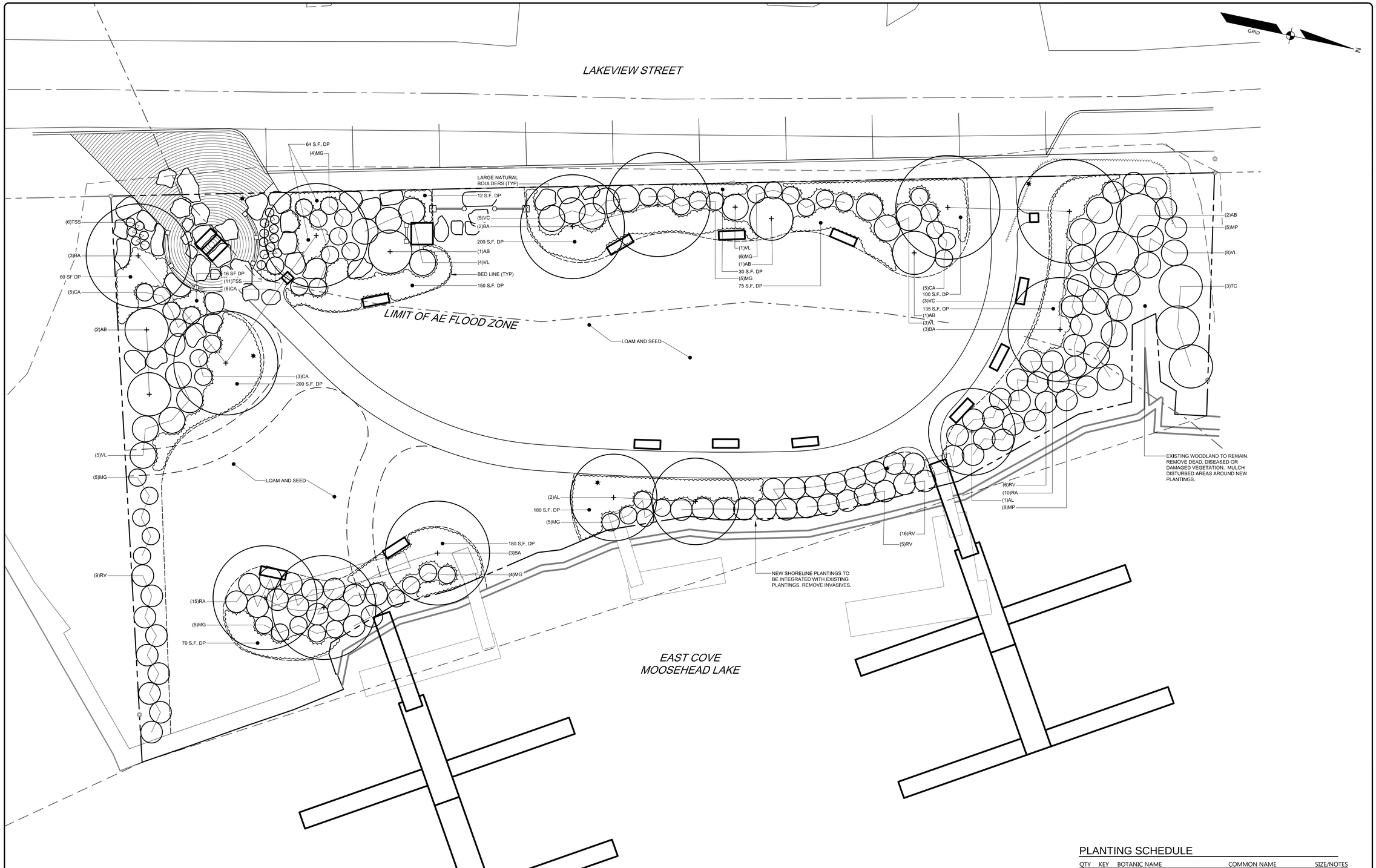
SHEET 4 OF 8

19534-GU.dwg - TAB:24x36



GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 INCH = 10 FT.

PLANTING SCHEDULE

QTY	KEY	BOTANIC NAME	COMMON NAME	SIZE/NOTES
3	AL	AMELANCHIER LAEVIS	ALLEGHANY SERVICEBERRY	2'-2 1/2' HGT
11	BA	BETULA ALLEGHANIENSIS	YELLOW BIRCH	2 1/2" CALIPER/CLUMP
7	AB	ABIES BALSAMEA	BALSAM FIR	5'-6' HGT
3	TC	TSUGA CANADENSIS	CANADIAN HEMLOCK	6-7' HGT
19	CA	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	#2 CONT.
25	RA	RAUS AROMATICA 'LOW GROW'	LOW GROW SUMAC	#1 CONT.
8	VC	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	18"-24"
34	MG	MYRICA GALE	SWEET GALE	18"-24" HGT
13	MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	#5 CONT.
1472 SF	DP	DENNSTAEDTIA PUNCTILOBA	HAYSCENTED FERN	SOD
21	VL	VIBURNUM LENTAGO	NANNYBERRY VIBURNUM	#3 CONT
17	TSS	TIARELLA CORDIFOLIA 'SURGAR AND SPICE'	SUGAR AND SPICE FOAM FLOWER	
36	RV	ROSA VIRGINIANA	VIRGINIA ROSE	#1 CONT

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SHEET 5 OF 8

19534-LS.dwg, TAB:24x36

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF. THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD, SUCH AS ACTIVE EXCAVATION AND ACTIVE GRADING. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS ACTIVELY OCCURRING OR CAN BE MULCHED IN THE SAME DAY. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN SEVEN (7) DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100 FEET OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. DISTURBED AREAS ADJACENT TO NATURAL RESOURCES THAT ARE NOT GRADED WITHIN SEVEN (7) DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 33%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).
TYPES OF MULCH:

HAY OR STRAW: SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).

EROSION CONTROL MIX: SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.

EROSION CONTROL BLANKET: SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES. SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES, AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO THE STOCKPILE.

3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1 OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4 OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES: SHALL NOT BE INSTALLED ADJACENT TO WETLAND. INSTALL PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETERIORATION OF THE BINDINGS. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

EROSION CONTROL MIX: SHALL NOT BE USED ADJACENT TO WETLANDS. INSTALL PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER. EROSION CONTROL MIX BERMS SHALL NOT BE USED SOLELY AT THE BOTTOM OF STEEP SLOPES (>8%) OR SLOPES WITH FLOWING WATER.

CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: STONE DAMS SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

HAY BALE CHECK DAMS: BALES SHALL BE WIRE-BOUND OR STRING-TIED. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER. HAY BALES SHALL BE PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.

6. STORMDRAIN INLET PROTECTION:

INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

HAY BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEPT TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. THE TERM "SWEEP" IS UNDERSTOOD TO MEAN REMOVAL AND RECOVERY OF TRACKED SEDIMENT WITH A STREET SWEEPER, NOT BRUSHING THE MATERIAL INTO SWALES OR STRUCTURES WITH A MECHANICAL BROOM. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

8. DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE. IF OFFSITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NOT LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS.

9. TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDBED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUALS FOR CONTRACTORS AND ENGINEERS, 2016 OR LATEST REVISION. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

10. PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR, PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDBED PREPARATION:

A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)	18.4 LBS./1,000 S.F.
GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE)	138 LBS./1,000 S.F.

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDBED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.

APPLICATION OF SEED:

A. SEEDING: SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (MDEP SEED MIX 2 IS DISPLAYED)

SEED TYPE	APPLICATION RATE
CREEPING RED FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
REDTOP	0.05 LBS/1,000 S.F. (2 LBS/ACRE)
TALL FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
TOTAL:	0.97 LBS/1,000 S.F. (42 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 2016 OR LATEST REVISION.

B. HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

SODDING:
FOLLOWING SEEDBED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOD SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT THE JOINTS ONCE LAID DOWN. WHERE FLOW IS PREVALENT THE SOD MUST BE PROPERLY ANCHORED DOWN. IRRIGATE THE SOD IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, AND AT LEAST EVERY SEVEN (7) DAYS. A WET WEATHER EVENT IS ONE THAT PRODUCES MORE THAN 0.5 INCH OF RAINFALL IN A CONSECUTIVE 24-HOUR PERIOD. THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE DISTURBED AND IMPERVIOUS AREAS, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS IN ADDITION TO ESC MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS AS NEEDED TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. IF CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN (7) DAYS, OR BEFORE THE NEXT STORM EVENT. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN. THE INSPECTION FORMS AND DOCUMENTATION OF CORRECTIVE ACTIONS TAKEN DURING CONSTRUCTION SHALL BE MAINTAINED FOR AT LEAST THREE YEARS.
FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

D. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C.) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D.) OF THIS STANDARD.
E. STABILIZE THE SLOPE WITH SOD -- THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
F. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST -- THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
G. STABILIZE THE SLOPE WITH STONE RIPRAP -- THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C.) OF THIS STANDARD.
B. STABILIZE THE SOIL WITH SOD -- THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
C. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

HOUSEKEEPING:

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

4. DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

5. EXCAVATION DE-WATERING. EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

6. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
   A. DISCHARGES FROM FIREFIGHTING ACTIVITY;
   B. FIRE HYDRANT FLUSHINGS;
   C. VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
   D. DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS;
   E. ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
   F. PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
   G. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
   H. UNCONTAMINATED GROUNDWATER OR SPRING WATER;
   I. FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
   J. UNCONTAMINATED EXCAVATION DEWATERING;
   K. POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
   L. LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES. THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
   A. WASTEWATER FROM THE WASHOUT OR CLEAN OUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
   B. FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
   C. SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
   D. TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

WINTER EROSION CONTROL MEASURES

THE WINTER CONSTRUCTION PERIOD IS FROM OCTOBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.

PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1.000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1.000 SQUARE FEET (3TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 5%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4' OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING. SEED TYPE SHALL BE WINTER RYE.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS -- THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 15. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

INSTALL A SOD LINING IN THE DITCH -- THE APPLICANT WILL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.
INSTALL A STONE LINING IN THE DITCH --THE APPLICANT WILL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE APPLICANT WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

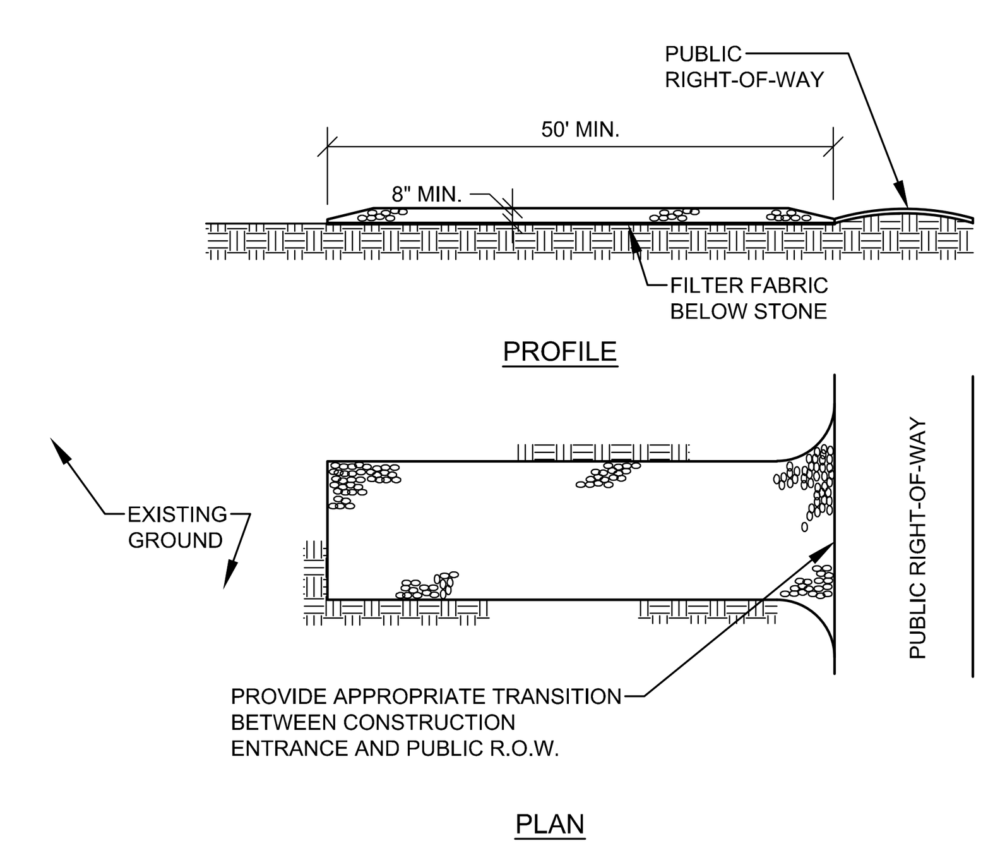
STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY OCTOBER 1 THE APPLICANT WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM III OF THIS CONDITION OR WITH STONE RIPRAP AS DESCRIBED IN ITEM IV OF THIS CONDITION.

STABILIZE THE SLOPE WITH SOD -- THE APPLICANT WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

STABILIZE THE SLOPE WITH WOOD WASTE COMPOST -- THE APPLICANT WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SLOPE WITH STONE RIPRAP -- THE APPLICANT WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

3. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE APPLICANT WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE APPLICANT FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE APPLICANT WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM III OF THIS STANDARD.
STABILIZE THE SOIL WITH SOD -- THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.



NOTES:
1. STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

STEVEN G. DOE, RLA NO. 131

REGISTERED LANDSCAPE ARCHITECT — STEPHEN G. DOE No. 131 — STATE OF MAINE — 09-10-2020

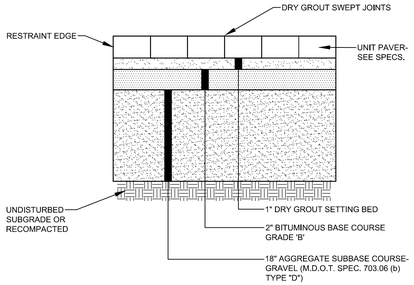
REV:	BY:	DATE:	STATUS:
A	SGD	09/10/20	ISSUED FOR BIDS

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

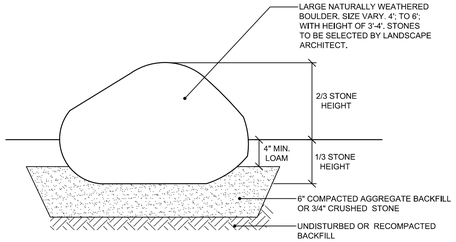
DETAILS
OF:
CRAFTS LANDING PARK
3 LAKEVIEW STREET
GREENVILLE, MAINE
FOR:
MOOSHEAD LAKE REGION EDC
P.O. BOX 223
GREENVILLE, ME 04441

DESIGNED	SDG
DRAWN	STI
CHECKED	SDG
DATE	04-15-20
SCALE	NTS
PROJECT	19534

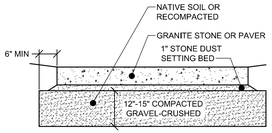
19534-D.dwg, TAB:D1



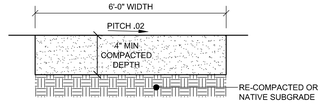
UNIT PAVER
NOT TO SCALE



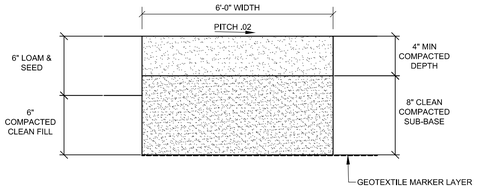
BOULDER INSTALLATION
NOT TO SCALE



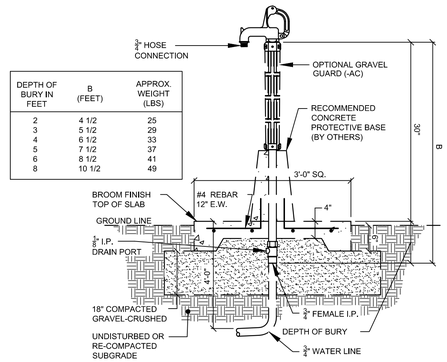
GRANITE PAVER
NOT TO SCALE



STONE DUST WALKWAY
NOT TO SCALE

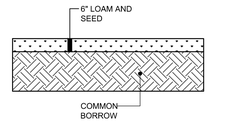


STONE DUST WALKWAY IN HAZARD AREA
NOT TO SCALE

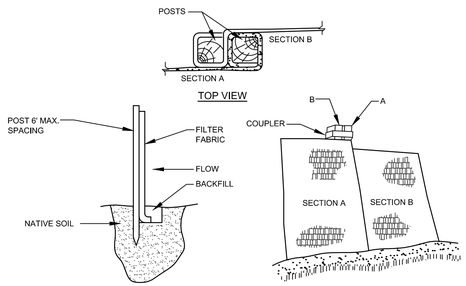


DEPTH OF BURY IN FEET	B (FEET)	APPROX. WEIGHT (LBS)
2	4 1/2	25
3	5 1/2	29
4	6 1/2	33
5	7 1/2	37
6	8 1/2	41
8	10 1/2	49

ZURN YARD HYDRANT
NOT TO SCALE



LOAM AND SEED DETAIL
NOT TO SCALE



INSTALLATION:

1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH. BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
5. JOIN SECTION AS SHOWN ABOVE.
6. BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

FILTER BARRIER
NOT TO SCALE

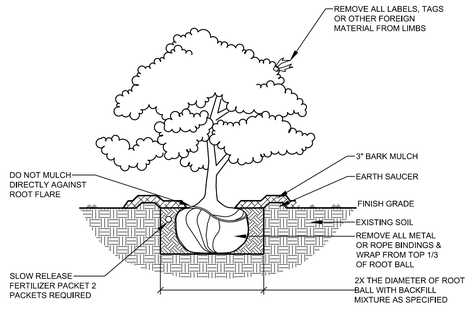
COMPOSITION

EROSION CONTROL MIX SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE LATEST VERSION OF THE MDEP MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

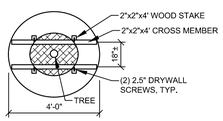
INSTALLATION:

1. THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.
2. EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER MAY LIE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH OUTS UNDER THE BARRIER.
3. THE BARRIER SHALL BE A MINIMUM OF 1 FOOT HIGH (AS MEASURED ON THE UPHILL SIDE) AND 2 FEET WIDE FOR SLOPES LESS THAN 5% IN GRADE AND SHALL BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.
4. EROSION CONTROL MIX CAN BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED ON THE DESIGN PLANS IN AREAS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.
5. BERMS COMPOSED OF EROSION CONTROL MIX CAN BE RESHAPED WHEN NECESSARY.

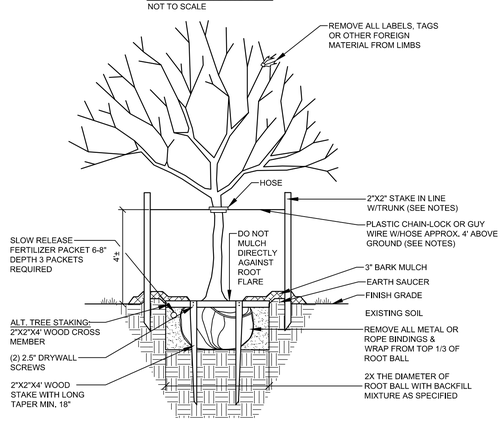
EROSION CONTROL MIX BERM
NOT TO SCALE



DECIDUOUS & EVERGREEN SHRUB
NOT TO SCALE



ALT. TREE STAKING PLAN
NOT TO SCALE

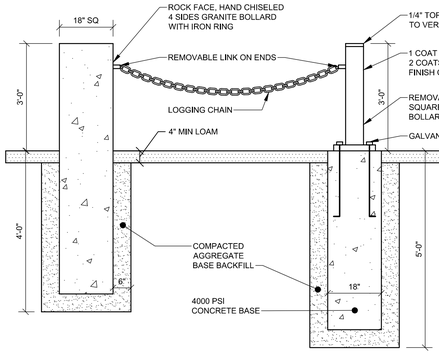


NOTES:

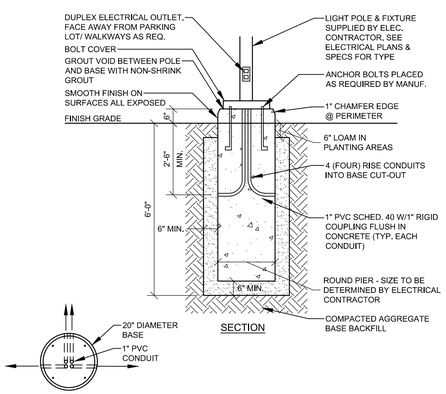
INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:

1. THE TREE IS OF SUBSTANTIAL SIZE.
2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES
NOT TO SCALE



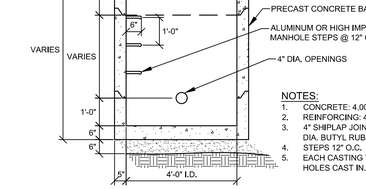
GRANITE BOLLARD
NOT TO SCALE



NOTES:

1. CONCRETE f'c=5000 psi. @ 28 DAYS WITH STEEL REINFORCEMENT
2. CONDUIT AND ANCHOR BOLTS PLACED AS REQUIRED PROVIDED BY ELECTRICAL CONSTRACTOR
3. PROVIDE 2 COATS BITUMINOUS DAMPROOFING FOR ALL CONCRETE BELOW GRADE.
4. INSTALL BASE 3'-0" ABOVE FINISH GRADE IN LOCATIONS WHERE POLES ARE IN PARKING LOT PAVEMENT.
5. LIGHT POLE BASE AS MANUFACTURED BY SUPERIOR CONCRETE OR APPROVED EQUAL

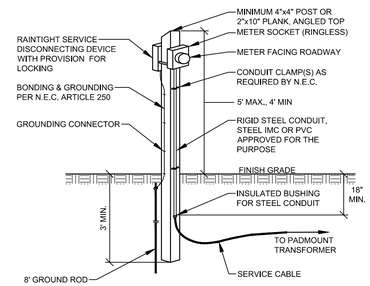
20" ROUND LIGHT POLE BASE
NOT TO SCALE



NOTES:

1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
2. REINFORCING: 4x4/4x4 W.W.M.
3. 4" SHIPLAP JOINTS SEALED WITH 1" DIA. BUTYL RUBBER SEALANT.
4. STEPS 12" O.C.
5. EACH CASTING TO HAVE LIFTING HOLES CAST IN.

PRECAST CONCRETE 2" WATER METER PIT
(S.C. MODEL #6821-MH)
NOT TO SCALE



NOTES:

1. SERVICE LOCATION AND TYPE OF CONSTRUCTION MUST BE APPROVED BY A CMP REPRESENTATIVE. SEE GRADING AND UTILITY PLAN FOR LOCATION.
2. THE CONTRACTOR SHALL PROVIDE THE TRENCH (AND BACKFILL) TO THE TRANSFORMER PER CMP SPECIFICATIONS.

METER POST
NOT TO SCALE

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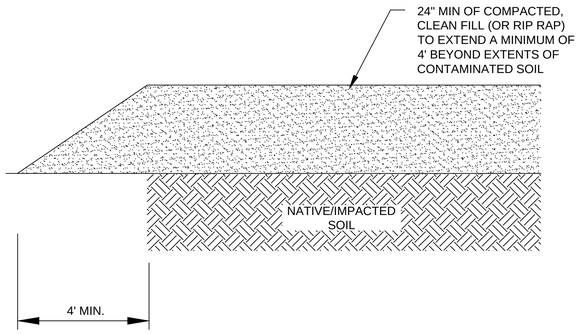
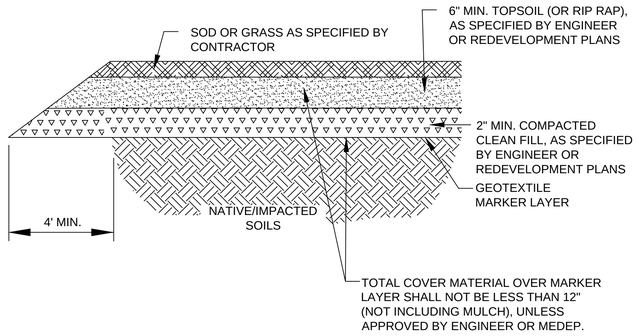
19534-D.dwg, TAB:D2

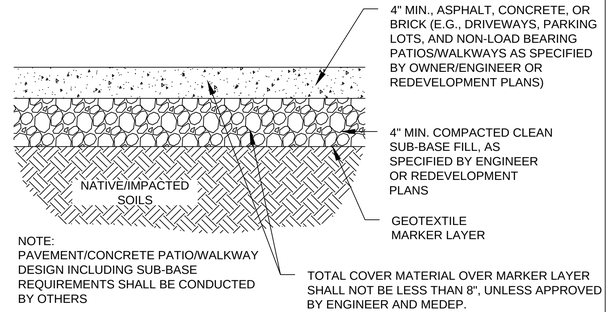
SHEET 7 OF 8



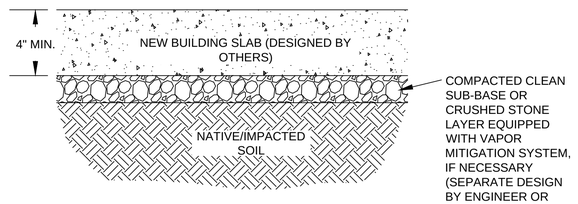
COVER SYSTEM TYPE 1:
LANDSCAPE COVER WITHOUT MARKER LAYER
NOT TO SCALE



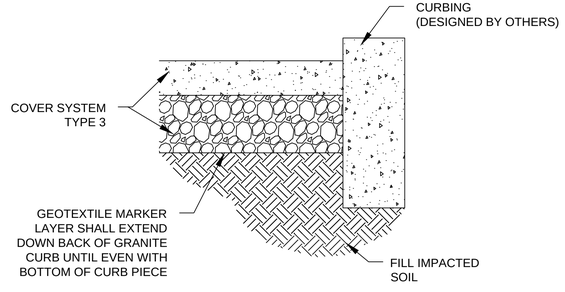
COVER SYSTEM TYPE 2:
LANDSCAPE COVER PLUS MARKER LAYER
NOT TO SCALE



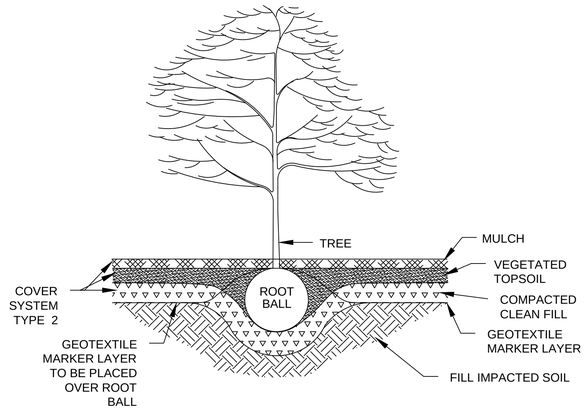
COVER SYSTEM TYPE 3: HARDSCAPE ASPHALT/
CONCRETE/BRICK COVER PLUS MARKER LAYER
NOT TO SCALE



COVER SYSTEM TYPE 4:
STRUCTURE/BUILDING FOUNDATION COVER
NOT TO SCALE



COVER SYSTEM TYPE 5:
SIDEWALK ABUTTING GRANITE CURBING
NOT TO SCALE



COVER SYSTEM TYPE 6:
TREE PITS
NOT TO SCALE

RANSOM Consulting, LLC

Legend & Notes

Notes:

1. The quantities identified are minimum requirements for covering of the identified contaminated soils. Additional sub-base materials may be required in areas proposed for asphalt paving, buildings and/or concrete sidewalks/patios, as necessary, to maintain structural integrity of these materials. The site design engineer is required to make the determination of structural suitability.
2. Geotextile marker layer shall be US65HVO demarcation fabric or approved equal.

Prepared For

Piscataquis County Economic Development Council
50 Mayo Street
Dover-Foxcroft, Maine

Site Address

3 Lakeview St
Greenville, Maine

091.06060 | *Sept. 2020*

Figure 3
Cover System Details

File: 3Lakeview_110-F3_Details.dwg Date: 09/10/2020

4. Availability

Our project team at Sebago Technics is fully prepared and available to commence work immediately upon selection for the Town of York's Paddle Craft Dock project. Under the leadership of Henry Hess as Project Manager, we have strategically structured our resources and current workload to ensure dedicated attention to this project. Operating primarily from our South Portland headquarters, with additional support available through our Sanford regional office, we are ideally positioned to serve the Town of York's needs. Our robust project management framework, supported by industry-leading software tools, enables us to maintain precise schedule control while managing multiple projects efficiently. Through our flexible resource allocation system, we can guarantee consistent availability of our technical experts throughout all project phases. We have established internal protocols that emphasize responsive communication and regular client engagement, ensuring seamless project coordination and timely deliverables. Sebago Technics stands ready to provide the sustained level of service and commitment the Town of York's Paddle Craft Dock project demands.

D. PROJECT TASK AND SCHEDULE MATRIX

Project Tasks/Milestones	Completion Date	Personnel Hours	Approximate Cost	Description/Notes
Initial Site Walk	Apr 2025	16	$2,400	Two attendees from Sebago Technics (Landscape Architect and PM) and representatives from Great Northern Docks (GND). Includes minimal prep time, drive time, and finalization of meeting minutes. Assumes 1.5-hour site walk and programming meeting.
Prelim Conceptual Site Plan	22 Apr 2025	16	$2,400	Includes time from one GIS team member, a Landscape Architect, and the Project Manager.
Concept Review/Presentation Meeting	30 Apr 2025	12	$1,800	Two attendees from Sebago Technics for an in-person review meeting. Personnel hours include prep time, drive time, finalization of meeting minutes, and assumes a two-hour meeting.
Finalize Conceptual Plan	7 May 2025	5	$675	Includes time from one Landscape Architect, a CAD designer, and review by the Project Manager.
Survey Fieldwork & Existing Conditions Plan	7 May 2025	48	$5,600	Includes time from Field Crew (2 members), Survey CAD Technician, and Professional Land Surveyor for review and finalization of the Existing Conditions Plan.
Preliminary 25% Engineering Design Plan Set	28 May 2025	76	$11,400	Includes time from CAD Designer, Landscape Architect, Civil Engineering, Project Manager, and GND consultant.
75% Permit-Ready Drawing Set	2 Jul 2025	115	$17,250	Includes time from CAD Designer, Landscape Architect, Civil Engineering, Project Manager, and GND consultant.
Final Design Presentation	July Selectboard Meeting	6	$900	One attendee from Sebago Technics. Includes prep time and drive time. Assumes a two-hour Selectboard meeting.
Meeting Allowance	Bi-Weekly	32	$5,600	Bi-weekly meetings with Town and/or stakeholders (does not include the initial site walk, concept review meeting/presentation, or final design presentation to Selectboard) with two representatives from the consultant team. Assumes 10-12, one-hour meetings and minimal prep time.
TOTAL			**$48,025**	
Future Additional Services				
MDEP Shoreland NRPA Permit-by-Rule		*40*	*$5,400*	
USACE Permit		*34*	*$4,590*	
Harbor Board Commission Application		*8*	*$1,080*	
Town Site Plan Permit		*35*	*$4,725*	
TOTAL			***$15,795***	

We appreciate the dedication demonstrated by the **Town of York** and its citizens to building a better future.

Sebago Technics thanks you for your consideration to **shape this future, together**.