

# estimating bid document addendum 03



project: Cobscook Bay State Park - Shower Building & Utility Improvements  
Dennysville, Washington County, Maine BGS # 3473

pages: 02

date: 27 June 2024

*The Contract Documents govern all aspects of the project. Information conveyed during pre-bid meetings, telephone or via email with the Owner and/or Architect are informational only. Official instructions, clarifications and/or changes made to the Contract Documents during the bid phase are made only by addenda. The following clarifications, changes and additional instructions are hereby made as part of the Project Manual and Construction Drawings dated March 2024.*

## items: GENERAL

1. Winter Conditions - Park access shall be provided by Parks and Lands staff during established construction work days and hours, unless deemed otherwise by the Owner.
2. Snow Removal - The Bureau of Parks and Lands shall plow access roads to the construction site locations. The Contractor will be responsible for clearing snow from the construction sites.
3. Well Water System - A new well was drilled by Shannon Well Drilling to a depth of 500 feet and produces 2 GPM. Contractor is to install pump, piping and electrical power to the new well from the water tank storage building. Contractor to install piping from existing pump house to the new water tank storage building per the drawings. The existing well was recently tested and is producing 15 GPM.

## PROJECT MANUAL

1. ADD: SECTION 012200 Unit Prices. [Ledge removal].
2. ADD: SECTION 012100 Allowances. [Gravel pit clearing and brush pile relocation].
3. DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS  
003100 Available Project Information  
SW Cole - Report of Gradation 10/25/2023. Gravel examined at existing park pit.  
SW Cole - Report 23-1649 S October 26, 2023 Explorations and Geotechnical Engineering Services at the site of the new shower building. Soil borings supplied. Full report to be provided by SW Cole.

## ARCHITECTURAL

1. Attached partial Sheet A70 shows complete demolition note.
2. Sheet A01. Wood roof framing to receive specified stained sealer. It does not need to be pressure treated.
3. DIVISION 10 SPECIALTIES  
Playground Equipment - All existing playground equipment to remain and to be protected during installation of new equipment. New features specified to be located per the attached diagram.

## STRUCTURAL

1. Drawing S0.1 – Concrete Note 17.  
OMIT: CONSTRUCT CONTROL AND CONSTRUCTION JOINTS IN WALLS AND SLABS AS INDICATED CONTROL AND CONSTRUCTION JOINTS MAY BE USED INTERCHANGEABLY.  
~~WHERE SLABS VARY IN THICKNESS, ADJUST THE DEPTH OF SAW-CUT CONTROL JOINTS TO MAINTAIN THE JOINT DEPTH AT A MINIMUM OF 1/4 OF THE MEMBER THICKNESS~~  
~~WHERE SLAB JOINTS ARE CREATED BY SAW CUTS. JOINTS SHALL BE CUT WITHIN 12 HOURS OF CONCRETE PLACEMENT.~~  
ADD: CONSTRUCT CONTROL AND CONSTRUCTION JOINTS IN WALLS AND SLABS AS INDICATED CONTROL AND CONSTRUCTION JOINTS MAY BE USED INTERCHANGEABLY.  
ALL SLAB JOINTS SHALL BE CONSTRUCTION JOINTS.

### STRUCTURAL

2. Underslab insulation specified on drawings.

### ELECTRICAL

1. The 167 KVA single phase electrical transformer to be supplied by Versant Power. Contractor to provide concrete pad. Timing of new power poles along South Edmunds Road and on-site to transformer pending Versant engineering and installation.
2. Clarification - 6 Site light bollards per sheet ES3 is correct.
3. SECTION 102800 - Supply and install a Global Industrial, Automatic Hand Dryer Stainless Steel 120V, Model: 641591. See attached cutsheets.
4. ADD: Revised ES.1 RV Park - Electrical Site Plan with scale.  
Revised ES.2 Bath House Electrical Site Plan - Part 2 with scale.

### CIVIL

1. SECTION 312000. No additional material is anticipated needing to be removed. If discovered ledge removal will be addressed through the included Unit Price specification section. No explosives are to be used at the park.
2. Replacement of existing park water system. Contractor to replace existing water pipe throughout the park as depicted on the updated C-102. Contractor is responsible for determining the precise length of piping and equipment necessary to improve the fall decommissioning of the system, spigot access, and improved pressure through looping. Trenches shall follow the existing pipe route unless improved locations are determined during replacement. Trench depths may be as shallow as 18 to 24 inches as long as the location is on the shoulder or center of the road. For additional information, see Olver Associates 2020 existing conditions and recommendations letter.
3. Contractor to salvage and protect water tower at existing dump station and reuse at new dump station. Cap hole at removed location and decommission water line.

attachments: Specifications: SECTION 012200 Unit Prices.  
SECTION 012100 Allowances  
SECTION 329200 Lawns  
Global Industries - Automatic Hand Dryer cutsheets

Reports: SW Cole Gradation Report  
SW Cole Soil Boring Report  
Olver Associates existing water system condition report.

Drawings: Partial Sheet A70  
Playground Area Diagram  
Revised Sheets ES.1 Foundation Plan and ES.2 Section and Details  
Updated C-002, C-102 and C-103

# COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

## SECTION 012200 - UNIT PRICES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Unit Prices for this project will be set by the Owner. If the Contractor or Filed Sub-Bid contractors do not agree with unit price, they shall allow for any adjustment in their respective base bids.
- C. Related Requirements:
  - 1. Section 012100 "Allowances" for procedures for using unit prices to adjust quantity allowances.

#### 1.2 DEFINITIONS

- A. Unit price is an amount incorporated into the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

#### 1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit. The Owner is tax exempt.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the Part 3 "Schedule of Unit Prices" Article contain requirements for materials described under each unit price.

COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price

1. Description: Ledge removal, if required, for excavating trenches for septic, water pipe and conduit.
2. Assigned Unit Cost: Owner will pay **\$250.00** per cubic yard of rock removed by hammering as required to establish depth of trench.

END OF SECTION 012200

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Lump-sum allowances.
  - 2. Unit-cost allowances.
- C. Related Requirements:
  - 1. Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.

1.2 DEFINITIONS

- A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.3 INFORMATIONAL SUBMITTALS

- A. Submit invoices to show actual quantities of materials removed or displaced on site for use in fulfillment of allowance.
- B. Submit time sheets and other documentation to show labor time and cost of material removal.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific work ordered by Owner or selected by Architect under allowance.
- B. Unless otherwise indicated, Contractor's costs of work at Project site, labor, equipment, overhead and profit, and similar costs related to work ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum.

## COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

### 1.5 UNIT-COST ALLOWANCES

- A. Allowance shall include cost to Contractor of specific work ordered by Owner or selected by Architect under allowance.

### 1.6 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between quantities documented during work by final measurement of work-in-place where applicable.
  - 1. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
  - 2. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
  - 3. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's labor, overhead, and profit.
  - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
  - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.
- C. Return unused Lump Sum amounts for credit to Owner in their entirety.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 SCHEDULE OF ALLOWANCES

- A. Allowance No. 01: Lump Sum for tree, shrub, and top soil removal around gravel pit and relocation of existing brush piles for construction of new pole barns. **\$5,000.**
  - 1. This allowance includes equipment, labor and Contractor overhead and profit.
  - 2. Coordinate quantity allowance adjustment with corresponding unit-price requirements in Section 012200 "Unit Prices."

END OF SECTION 012100

# COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

## SECTION 32 92 00 –LAWNS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:

1. Seeding and over-seeding.
2. Temporary protective coverings.
3. Temporary protective fencing.
4. Protecting and maintaining all lawn areas.
5. Cleaning up.

- B. Related Sections:

1. Division 01 Section 01 57 13 Temporary Erosion and Sediment Control
2. Division 31 Section 31 20 00 Earth Moving

#### 1.3 ALLOWANCES

- A. As described in Division 01 Section 01 21 00.

#### 1.4 DEFINITIONS

- A. Applicable specifications and publications, referred to herein, form a part of these Specifications:

1. Standard Specification: The State of Maine Department of Transportation, Standard Specification for Highways Bridges, latest edition.
2. ASTM: American Society of Testing Materials
3. AASHTO: American Association of State Highway and Transportation Officials
4. AAN: American Association of Nurserymen

## COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

5. AOAC: Association of Official Agricultural Chemists

### 1.5 SUBMITTALS

- A. Prior to ordering the below listed materials, submit representative samples to Owner for selection and approval as follows. Do not order material until Owner's approval has been obtained. Delivered materials shall match the approved samples.
1. Protective fencing materials: Provide three 12 inch square samples for approval.
- B. Submit material specifications and installation instructions where applicable attesting that the following materials meet the requirements specified:
1. Fertilizer
  2. Sod
  3. Seed
  4. Lime
- C. Certificates
1. A manufacturer's Certificate of Compliance to the specifications shall be submitted by the manufacturers with each shipment of each type of seed and sod. These certificates shall include the guaranteed percentages of purity, weed content and germination of the seed, and also the net weight and date of shipment. No seed may be sown until the Contractor has submitted the certificates.
  2. Contractor: Submit certification from the seed and sod supplier that all seed is true to the variety indicated on the packaging.
  3. Furnish the Owner with duplicate signed copies of a statement from the vendor certifying that the sod and seed mix is of the specified grass varieties, free of weeds, disease or other visual imperfections.
- D. Submittal Schedule
1. Before installation:
    - a. Manufacturer's Product data
    - b. Test Reports
    - c. Seed Certification

## COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

### d. Protective Fencing

#### 1.6 QUALITY ASSURANCE

- A. Work under this section will be performed by workmen experienced in meadow turf grass installation under the full time supervision of a qualified foreman.
- B. Seed during recommended planting period or as approved by the Owner.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver material to the site in original unopened packages, showing weight, manufacturer's name and guaranteed analysis.
- B. Store materials in such a manner that effectiveness and usability will not be diminished or destroyed and shall be uniform in composition, dry, unfrozen and free flowing. The Owner reserves the right to reject any material which has become caked or otherwise damaged or does not meet specified requirements.

#### 1.8 COORDINATION

- A. Contractor: Submit to the Owner for approval a progress schedule as specified herein.
- B. Contractor: Coordinate the Work with other trades so as not to interfere with the progress of the Work.

#### 1.9 WARRANTY

- A. Contractor: agrees to repair or replace any or all meadow turf grass and lawn area(s) that fail(s) in materials or workmanship within a period of one year from date of substantial completion or completion thereafter on punch-out list.

### PART 2 - PRODUCTS

#### 2.1 TOPSOIL

- A. Refer to Section 32 91 13 Lawn Soils for topsoil preparation.

#### 2.2 TOPSOIL ADDITIVES

COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

- A. Commercial Fertilizer for Lawns: CID A-A-1909, Type I, class 2, with 50 percent of the nitrogen in slowly available form, containing at least 10 percent nitrogen, 0 percent phosphoric acid, and 10 percent total available potash in conformity with the Standards of the Association of Official Agricultural Chemists. Do not apply fertilizer on lawn surfaces within 100 feet of a stream, shore land or open water body. Supply in unopened bags with the weight, contents, and guaranteed analysis shown thereon or on a securely attached tag. Contractor to confirm with Owner and all authorities having jurisdiction the type of fertilizer to be used prior to application.
  
- B. Limestone: Dolomitic limestone and contain not less than 85 percent of total carbonates and magnesium and shall be ground to such fineness that 50 percent will pass a 100 mesh sieve and 90 percent will pass through a 20 mesh sieve. Coarser material will be accepted provided the specified rates of application are increased proportionately on the basis of quantities passing the 100-mesh sieve.
  
- C. Water: The Government will furnish the Contractor upon request with an adequate source and supply of water at no charge. However, if the Government's water supply is not available or not functioning, the Contractor will be held responsible to furnish adequate supplies at his own cost. All injured or damaged plant material due to the lack of water, or the use of too much water, to be the Contractor's responsibility to correct. Water to be free from impurities injurious to vegetation. Contractor to supply their own hoses and sprinklers.

2.3 SEED

- A. Lawn Seed Mixture

To be used in lawn areas adjacent to new building, in parking islands and disturbed areas adjacent to existing facilities

<u>Species</u>	<u>Proportion of mix After purity</u>	<u>Minimum Germination</u>
Van Gogh Tall Fescue	25.00%	90%
Monet Tall Fescue	25.00%	90%
Rembrandt Tall Fescue	25.00%	90%
Picasso Tall Fescue	25.00%	90%

Seed at a rate of 10 lbs. per 1000 S.F.

- B. Meadow Seed Mixture:

## COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

To be used in disturbed areas at perimeter of project area (such as slopes behind parking area) where designated by landscape architect.

Meadow Seed mixture: Fresh, clean, new crop seed. Seed may be mixed by an approved method on the site or may be mixed by the dealer. If the seed is mixed on the site, each variety shall be delivered in the original containers bearing the dealer's guaranteed analysis. If seed is mixed by the dealer, the Seeding Contractor shall furnish to the Contracting Officer the dealer's guaranteed statement of the composition of the mixture and the percentage of purity and germination of each variety.

Meadow Seed Mixture:

<u>Species</u>	<u>Proportion of mix after purity</u>	<u>Minimum Germination</u>
Bluegrass	30%	80%
Little Bluestem	20%	80%
Timothy	20%	80%
Side oats gramma	20%	80%
Annual Rye Grass	10%	90%

Seed at a rate of 8 lbs. per 1000 S.F.

### 2.4 PROTECTIVE FENCING

- B. Sod and Seeded areas adjacent to walks shall be protected by snow fencing or other temporary fencing material as approved by the Owner.

### 2.5 TEMPORARY PROTECTIVE COVERINGS

- C. As temporary protective coverings on ground areas subject to erosion, provide one of the following protective measures, as directed by the Owner:

- 1. Mulch Materials

	<u>Rate per 1,000 SF</u>
a. Straw	50 lbs.

- 2. Mesh or Blanket Matting: Matting for erosion control on seeded or hydroseeded slopes, on planted surfaces, drainage swales and on temporary or permanently finished slopes of 3:1 or steeper shall be:

- a. Heavy jute mesh shall be of a uniform open plain weave of unbleached single jute yarn. The yarn shall be of a loosely twisted construction having an average

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twist of not less than 1.6 turns per inch and shall not vary in thickness by more than one half its normal diameter. The jute mesh shall be furnished in approximately 90 pound rolled strips and shall meet the following requirements:

1. Length – approximately 75 yards. Width – 48" plus or minus 1". .78 warp ends per width of cloth. 41 weft ends per yard. Weight of cloth to average 1.22 pounds per linear yard with a tolerance of plus or minus 5%.
  - b. Staples shall be of a #11 guage steel wire formed into a "U" shape 6" long.
  - c. Erosion control matting shall be "Soil Saver" as manufactured by Jim Walls Co., Dallas, TX or "Heavy Duty Jute Mesh" as manufactured by Lewis International Corp., Springfield, NJ, or approved equal.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine site conditions and other conditions affecting performance of the Work. Insure the sub-grade is properly graded and at correct levels prior to spreading of topsoil.
- B. Examine specified materials before installation. Reject materials that are damaged or otherwise not as specified and shown on the Drawings. Reject soil amendments that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected and approved by the Owner.
- D. The Contractor shall be responsible for maintenance work on the installed meadow turf grass until an acceptable meadow turf grass is established and accepted in writing.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Topsoil:
  1. Refer to Section 32 91 13 Topsoil for topsoil preparation
- B. The dates for seeding shall be as follows:
  1. Spring – April 15 to June 15.

## COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

### 2. Autumn – September 1 to October 15.

Seeding at any time other than within the above seasons shall be allowed only when ordered by the Owner or when the Contractor submits a written request for permission to do so and permission is granted. Newly seeded areas, if seeded out of season, must be continuously watered according to good practice if seeding is done between June 1 and September 1. Seeding done outside the dates established above shall be solely at the Contractor's risk.

### 3.4 OVERSEEDING

- A. Overseed the entire lawn area – tea ;awn and surrounding lawn areas as shown on drawings using the seed as specified under Section 2.3 herein. Seed rate: 8 lbs. per 100 Square Feet.

### 3.5 WATERING

#### C. Watering of Lawn Areas:

1. First Week: The contractor shall provide all labor and arrange for all watering necessary to establish an acceptable meadow turf grass. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of at least 2 inches. An Irrigation system is proposed and should be working. The Contractor is not excused from monitoring or furnishing water by other means if the irrigation system is not in operation for any reason.
2. Second and Subsequent Weeks: The Contractor shall water the meadow turf grass and lawn as required to maintain adequate moisture in the upper 5 inches of soil, necessary for the promotion of deep root growth.
3. Watering shall be done in a manner which will provide uniform coverage, prevent erosion due to application of excessive quantities over small areas, and prevent damage to the finished surface by the watering equipment. Contractor: Furnish sufficient watering equipment to apply one complete coverage to the seeded areas in an eight-hour period.

### 3.3 TEMPORARY PROTECTIVE FENCING

- A. Place temporary protective fencing in locations as directed by the Contract Officer.

### 3.4 MAINTENANCE

## COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

- A. Maintenance shall begin immediately after each portion of meadow turf grass and lawn areas are installed and shall continue in accordance with the following requirements:
1. Lawn area: Maintain as long as is required to establish a uniform, thick, well-developed stand of grass until final acceptance.
  2. Mowing for Turf Grasses: Mowing is not required for the first year. Mow only during the month of November or as otherwise directed by the Owner to a height of 2 inches.
  3. Mowing for Lawn Areas: Mow with sharp mower blades. Mow lawn areas so as to maintain a minimum height of 2 inches and a maximum of 4 inches.
  4. All areas which fail to show a uniform, thick, well-developed stand of grass, for any reason, shall be re-seeded repeatedly until all areas are covered with a satisfactory growth of grass as determined by the Owner.
  5. All damage from erosion, gullies, washouts, or other causes shall be repaired immediately by filling with topsoil, tamping, re-fertilizing and reseeding at no additional cost to the Government.
- B. Protection:
1. Lawn areas shall be protected against damage with the type fencing specified herein. Any protective devices remaining on the site shall be removed at Substantial Completion of the Contract or as directed by the Contract Officer.

### 3.5 STANDARDS FOR COMPLETION

- A. Conditions for Completion:
1. Completion of meadow turf grasses and lawn areas is for the entire area. No partial completion will be given unless otherwise approved by the Contract Officer.
  2. Meadow turf grasses and lawn areas: Exhibit a uniform, thick, well- developed stand of grass. Meadow turf grass areas shall have no bare spots in excess of four inches in diameter and bare spots shall comprise no more than two percent of the total area of that meadow turf grass and lawn area.
  3. No meadow turf grass or lawn areas shall exhibit signs of damage from erosion, washouts, gullies, or other causes.

## COBSCOOK BAY STATE PARK – SHOWER BUILDING & UTILITY IMPROVEMENTS

4. Pavement surfaces and site improvements adjacent to meadow turf grass and lawn areas shall be clean and free of spills or over-spray from placing or handling of topsoil and seeding operations.

### B. Inspection and Completion:

1. Upon written request of the Contractor, the Owner to inspect all meadow turf grass areas to determine completion of Contract work. This request must be submitted at least 10 days prior to the anticipated inspection date.
2. Upon written request of the Contractor, the Owner to inspect all grass areas to determine completion of Contract work. This request must be submitted at least five days prior to the anticipated inspection date.
3. If the meadow turf grass and lawn areas are deemed complete to the Owner, a meeting will be arranged with Contractor and Government to review the meadow turf grass and lawn work. A final inspection is a part of this meeting to insure completion and any punch list items.
4. Contractor: Following the completion of meadow turf grasses and lawn areas, provide the Government with access to all grass areas as required for the Government's maintenance work.

### C. Cleanup:

1. Contractor: Following the completion of meadow turf grasses and lawn areas, immediately remove from the site all materials and equipment not required for any other planting or maintenance work. Store materials and equipment remaining on site locations which do not interfere with the Government's maintenance of completed meadow turf grasses, lawn areas or other construction operations.
2. The Contractor is responsible for keeping all paving, building surfaces, signs, posts, and all site improvements clean during placement of topsoil and seeding operations. Clean up spills and over-sprays immediately. Completion shall not be granted until this condition is met.

END OF SECTION 32 92 00



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**User's manual**

**Manual del usuario**

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US: 1-800-645-2986**

**Service à la clientèle  
Canada: 888-645-2986**

# **Automatic Hand Dryer, Stainless Steel 120V**

**Models: 641591**



# Automatic Hand Dryer

## SAFETY WARNINGS

Before installing, be sure to read this installation manual and retain for future reference.

This product must be installed by qualified personnel in accordance with the instructions given in this manual and installation must comply with all applicable regulations, national security standards and laws in force in the country where the product is installed.

Turn off the power at the main switch before installing or servicing the dryer unit

The dryer must not be installed on a flammable surface. Do not damage any parts of the electrical connections.

Pre-arrange an appropriate power outlet and a system of disconnection in accordance with current local regulations. Make sure the product is properly connected to ground. If there is no ground connection, there is a risk of an electrical shock.

Do not install the dryer over a washbasin. If the power cord is damaged, it must be repaired by qualified personnel to avoid any type of risk.

During use, temperatures above 158°F [70°C] may develop in the parts near the hot air nozzle. Do not touch or cover the dryer during use or when finished using it.

### General safety information:

**⚠ WARNING** This product is intended for installation by a qualified service person. Use AWG NO.12 solid conductor for wiring.

**⚠ WARNING** Failure to properly ground unit could result in service electrical shock and/or death.

**⚠ WARNING** Disconnect power at the service breaker before installing or servicing.

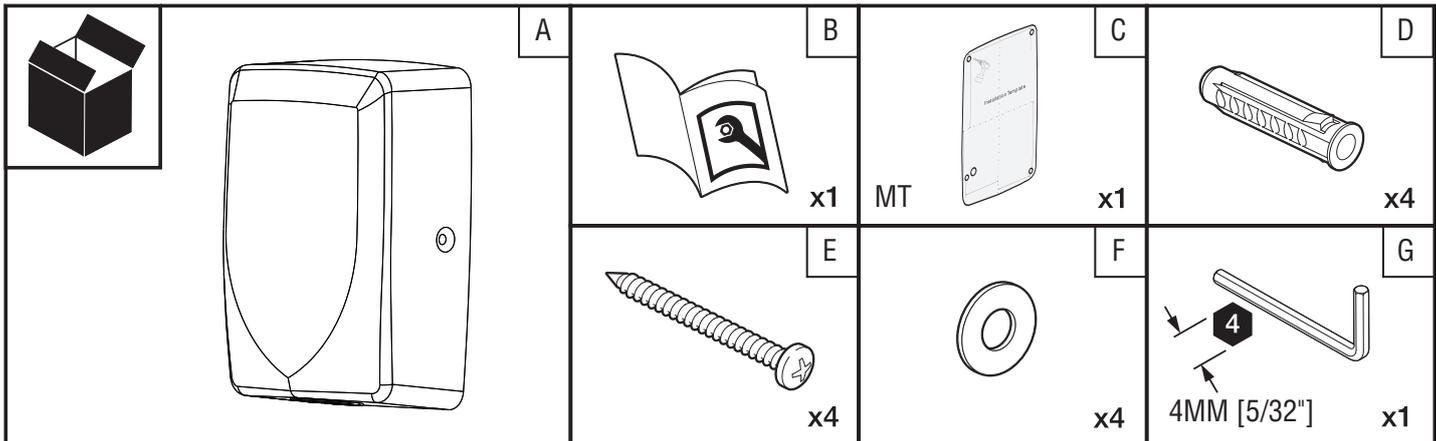
**⚠ WARNING** All units must be supplied with a 3-wire service. The ground wire must be connected to the dryer's backplate.

--**NOTE:** Do not install dryer over washbasin --

# Automatic Hand Dryer

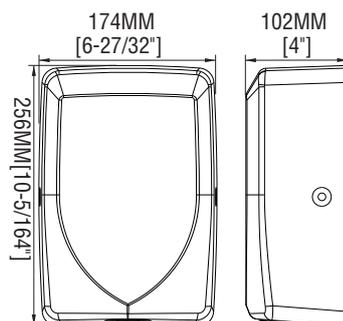
## PACKING LIST

ITEM KEY	ITEM DESCRIPTION	ITEM QTY	NOTES
A	Hand Dryer Unit Complete	1	Stainless Steel 304 Cover&Cabinet
B	Owner Manual(OM - this booklet)	1	
C	Mounting Template(MT)	1	
D	Wall Anchors, Expansion	4	Φ8x38MM [ 5/16" Dia.x 1-1/2"], for#10
E	Self-threading Phillips PH Screws	4	M5x36MM [ No.10 AB x 1-3/16"]
F	Flat Washer	4	F1 For M5[No.10 AB]Phillips PH Screws
G	Hex Key (for cover screws)	1	For 4MM [ 5/32"] hex socket FH Screws



## SPECIFICATION

<b>Voltage:</b>	120V 60Hz, 8A/1000W
<b>Stand-by Power:</b>	Less than 2.0W
<b>Air Temperature:</b>	40°C [104°F] (Distance from nozzle=100MM[4"], Room Temp.=25°C [77°F])
<b>Air Velocity:</b>	100M/S [328 FT/S] / 360KM/[224MPH]
<b>Air Flow:</b>	130M <sup>3</sup> /H [76.5CFM]
<b>Drying time:</b>	10 - 12 seconds
<b>Timing Protection:</b>	Forced Hold-On 60 Seconds auto shut-off
<b>Timing Duration:</b>	Auto Shut-Off ≤3 Seconds after last sensor read
<b>Sensor Range:</b>	5-15CM [2" ~ 5-7/8"], Owner Adjustable
<b>Fuse Protection:</b>	1kW, Main PCB, Φ5x20, 250V, 12A
<b>Protection Level:</b>	IP23
<b>Electric Isolation:</b>	CLASS I (Metal cover)/CLASS II (Plastic cover)
<b>Brush Motor:</b>	35000RPM, 600W [0.8HP]
<b>Noise [at 1M]:</b>	74 dB
<b>Weight :</b>	2.5KG [5.5lb] / Net Weight / 3.0KG [6.6lb] / Shipping Weight

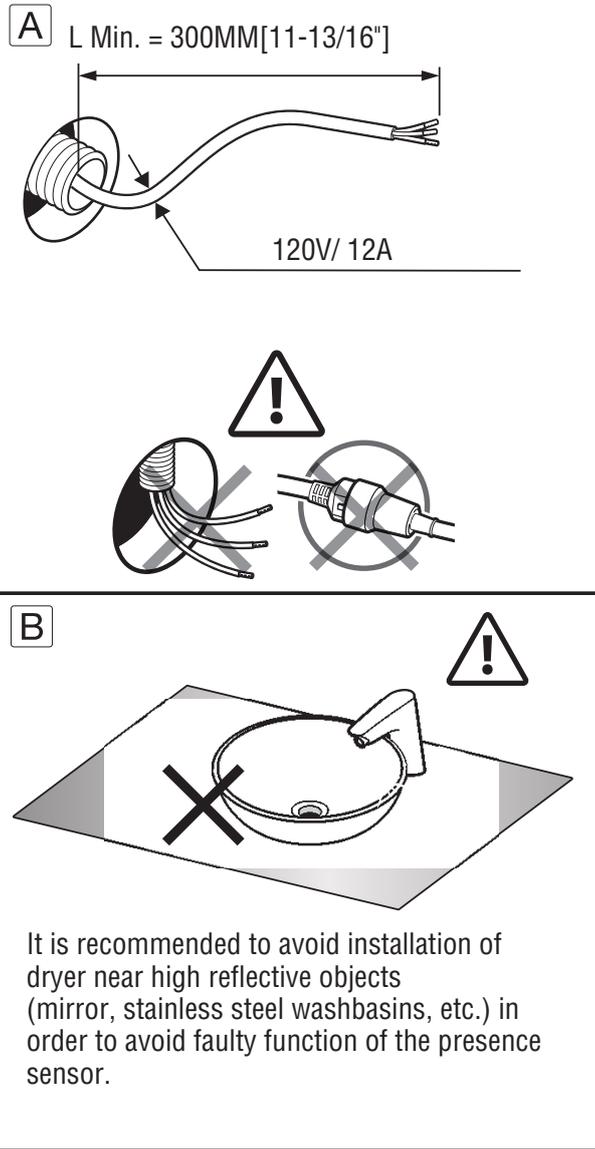
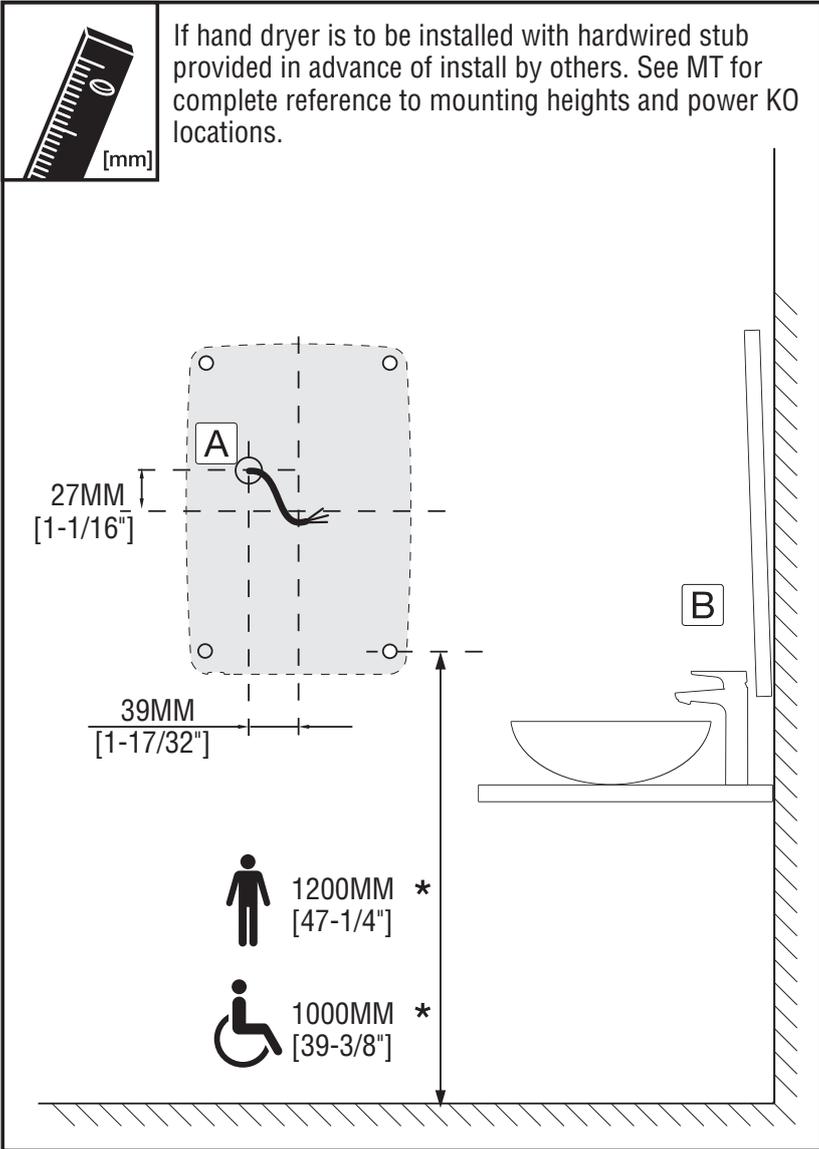


# Automatic Hand Dryer

## BEFORE INSTALLATION

Installation must be carried out in accordance with the current edition of the local wiring regulations code having jurisdiction. Installation should be performed only by a qualified electrician.

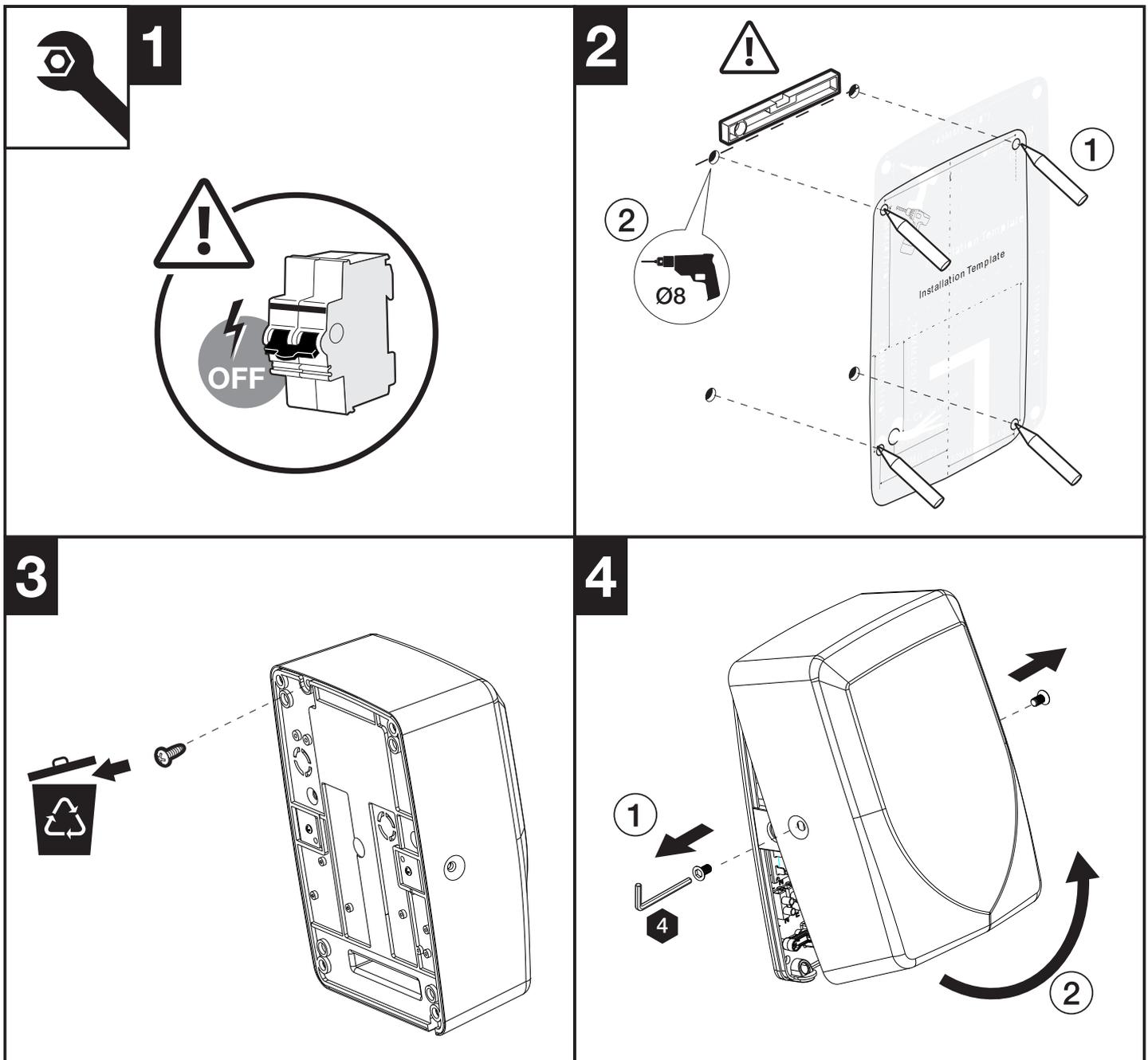
 Please check if hand dryer is supplied with convenient plug in feature.



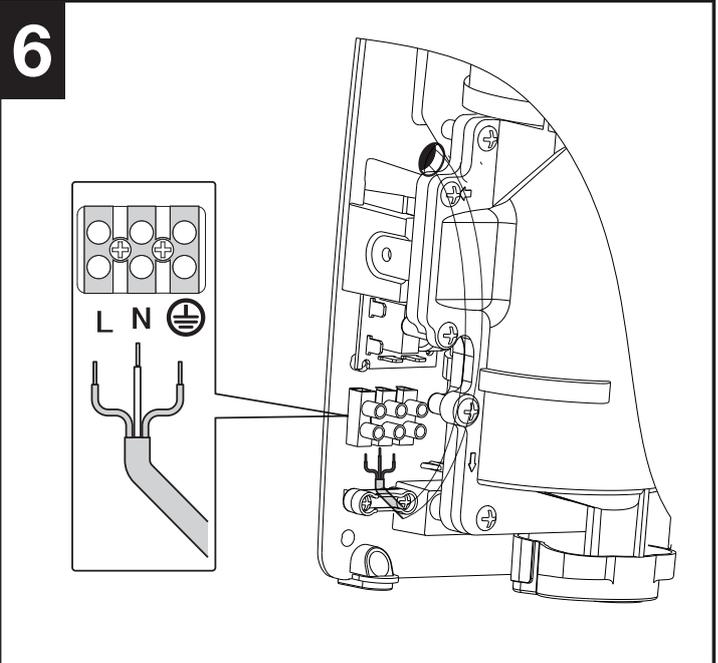
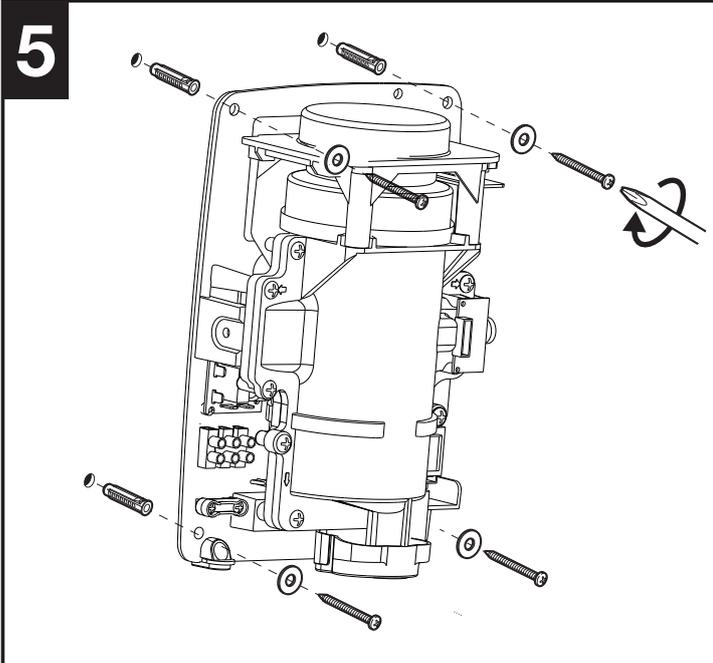
# Automatic Hand Dryer

## INSTALLATION

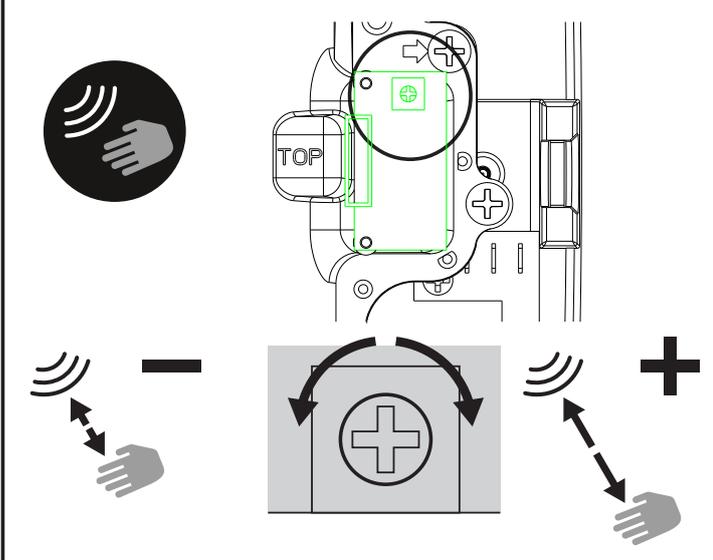
1. Disconnect the power before installing
2. Place template against wall at desired height(see mounting height recommendations) and mark locations of 4 mounting holes Dia. 8mm(5/16").
3. Remove hand dryer back transportation only purpose screw.
4. Remove and retain 2 side security hex cover screws and cover.
5. Mount the hand dryer base on the wall.
6. If the hand dryer is supplied in hardwired:
  - a. Connect the live wire(Coloured Brown, Red, or Black) to the terminal block marked "L".
  - b. Connect the neutral wire(Coloured Black, Blue) to the terminal block marked "N".
  - c. Connect the ground wire(Coloured Green or Yellow) to the terminal block marked "E".
7. Before replacing cover, there is a customized option to run the dryer heater on (1000W) or heater off(600W).The switch is clearly marked.
8. Default setting is 12-15CM from nozzle. If it needs and please adjust its range.
9. Replace cover. Do not over-tighten screws.
10. Connect the hand dryer plug to the power supply socket if needed then turn on power.



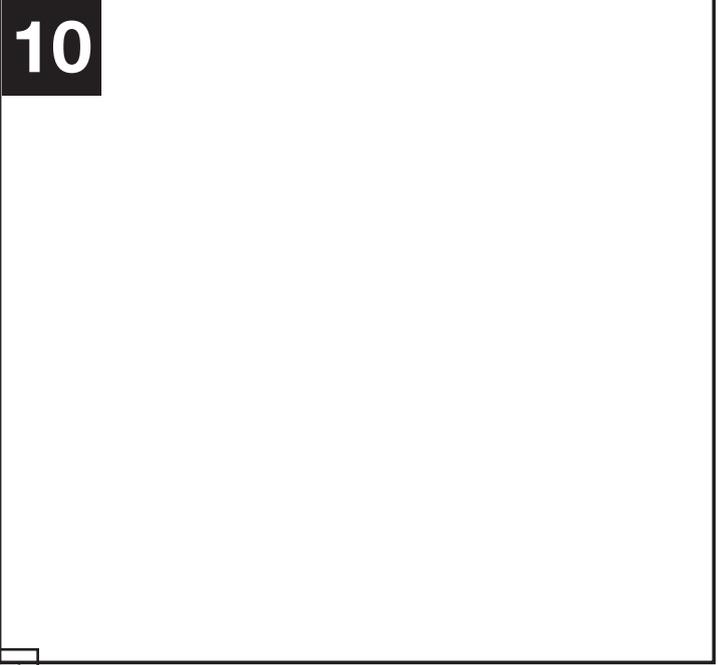
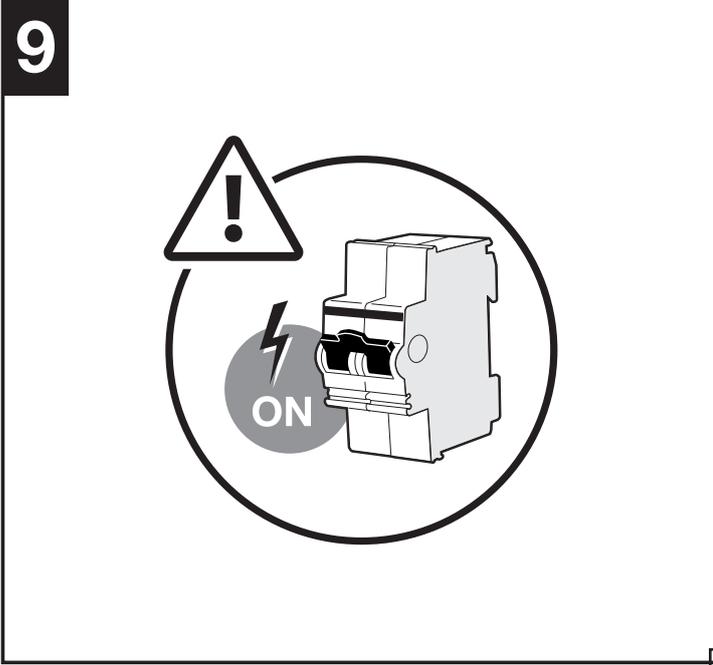
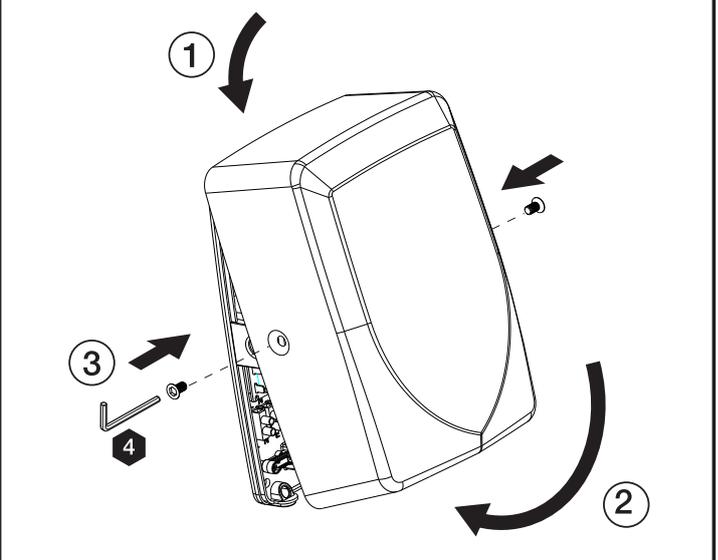
# Automatic Hand Dryer



**7** DETECTION DISTANCE SETTING



**8**



# Automatic Hand Dryer

## OPERATION

No-touch operation.

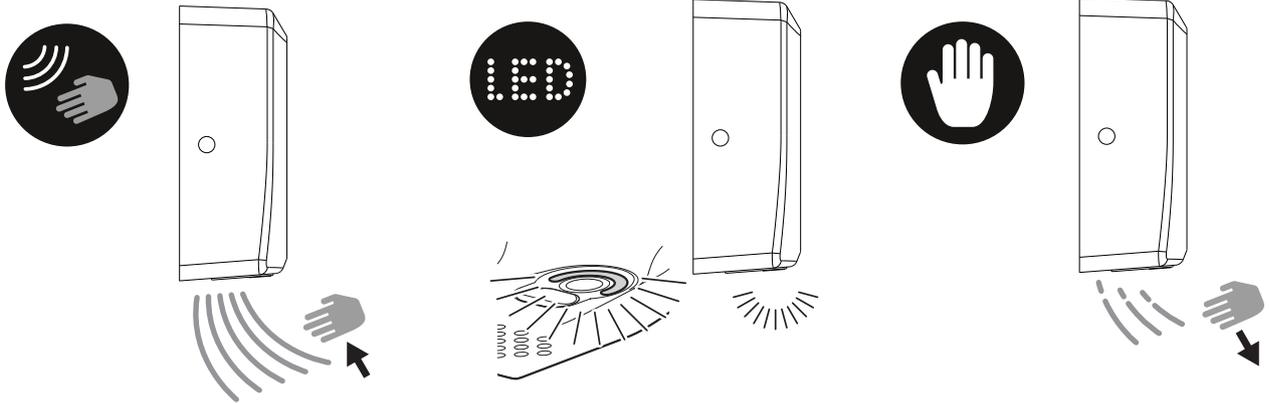
There is a blue LED light to guide user to the air flow. Shake excess water from hands.

Place hands under the outlet to start operation. Rub hands lightly and rapidly.

Stops automatically after hands are removed.

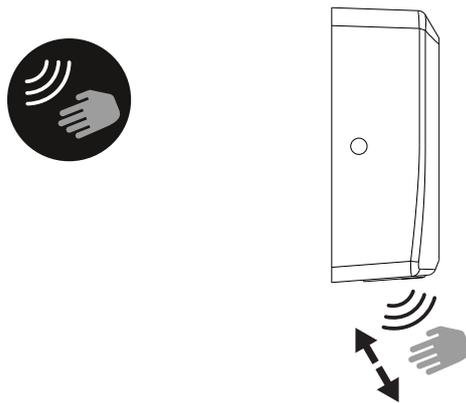


### Basic use



Place hands under the dryer. The hand dryer will automatically turn on when hands are near. The hand dryer will automatically turn off when hands are removed.

## ADJUSTMENTS



*It is possible to adjust the detection distance by means of the potentiometer located inside the unit (see section 7 in "Installation").*

# Automatic Hand Dryer

## MAINTENANCE

- Periodic cleaning of the unit is recommended.
- Remove cover and clean dryer dust lint.
- Wipe the cover with a damp cloth and mildcleaning solution. Do not soak. Never use abrasives to clean the cover.

## DIAGNOSTICS & REMEDIES

SYMPTOM	CORRECTIVE ACTION
Hand dryer fails to start	<p>Ensure the breaker supplying the dryer is operational. If it is, disconnect the power and remove the hand dryer cover. Check all the wire connection to sure they are well fixed.</p> <p>Turn on power and if it does not work then replace circuit board. Turn motor blower several times by hand to see it is blocked.</p>
Hand dryer turns on/off erratically or not sensitive enough	<p>Ensure that there is no obstruction on or in front of the infrared sensor zone. Clean any dirty off the sensor lens.</p> <p>Try adjusting the sensitivity potentiometer on program board. If not still not work, replace circuit board and sensor board.</p>
No hot air	<p>Check if the heat element switch is power on.</p> <p>Check if the heat element was broken. If yes, replace a new one.</p>
Hand dryer makes ticking noise	<p>Check the motor brush worn condition. Replace them or a new motor.</p>

# Automatic Hand Dryer

## MAINTENANCE

Periodic cleaning of the unit is recommended. Remove cover and clean dryer dust lint.

### Cleaning stainless steel

Stainless steel is highly resistant to rust, but there are some very strict cleaning and maintenance rules to be followed to prevent damage to its appearance.

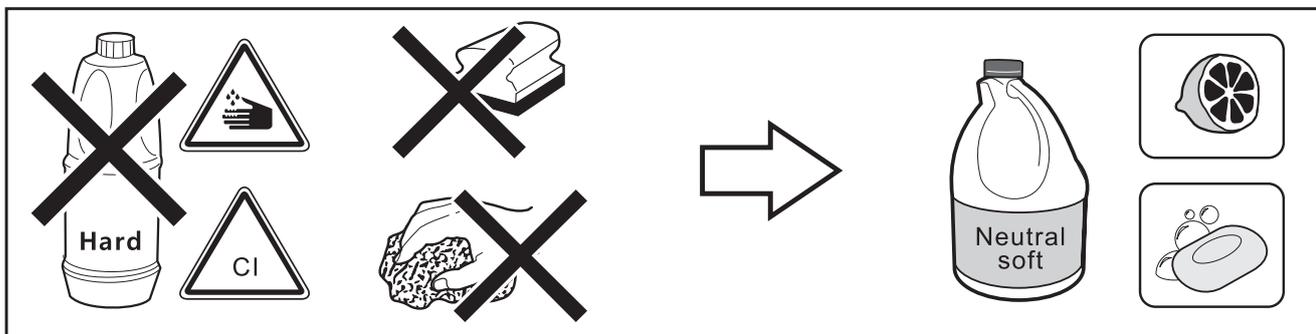
### General cleaning tips

Apply neutral detergents formulated for these purposes (non-ionic surfactants and citric acid).

Apply the detergent with soft cloth. Be careful with abrasive cloths. They may scratch the surface. Rinse with water until all the detergent has gone.

Residue from hygiene products, liquid soap, shampoos, bath gel, etc, can also damage surfaces. Rinse the surface with plenty of water after use.

Limescale stains can be prevented by drying the surface with a soft cloth after use.



### Specific cleaning tips

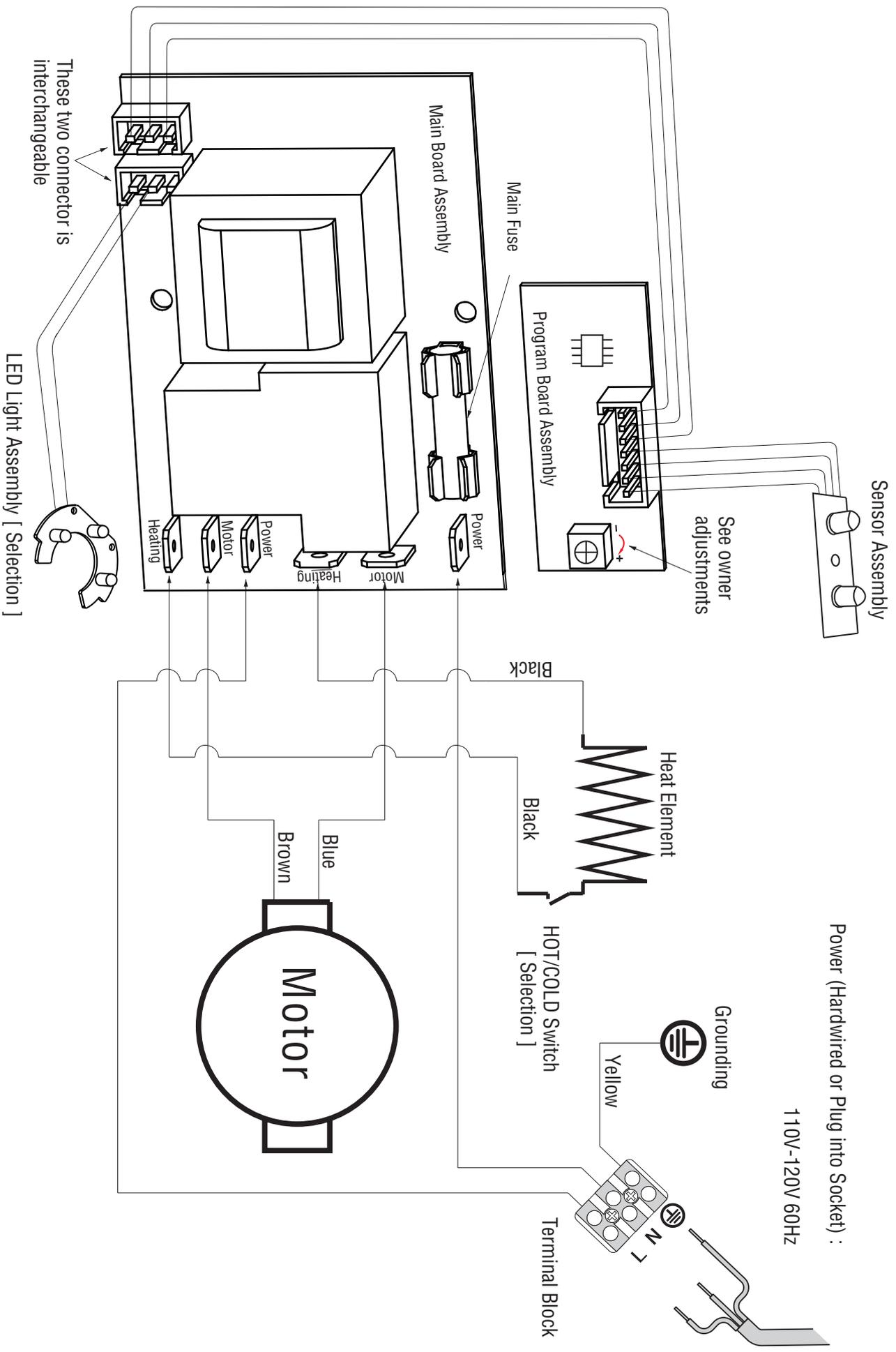
Limescale from water: Apply a solution of one part vinegar and three parts water directly to the stains and leave to work for a few minutes. Then rub with a soft cloth or damp sponge. Then give it a final wash with plenty of water and neutral soap to ensure it is thoroughly rinsed.

- Do not apply detergents with abrasive products or which contain:
  - Hydrochloric acid
  - Sodium hypochlorite (bleach)
  - Formic acid.
- Do not use abrasive utensils like metal scouring pads or abrasive sponges.
- Do not spray the detergent on the surface, because the liquid can get into the openings or cracks in them and cause damage.
- Do not use anti-limescale and descaling cleaning products. They are not suitable for cleaning satin less steel.
- Do not use silver cleaners, contain chlorides that attach stainless steel.

Bleach and descalers are often applied to bathroom equipment and left to work for a time. This leads to the release of gases that contain chloride, which together with the water in the surface cause chlorides to run down the surface of the stainless steel. This rusts both internal and external surfaces.

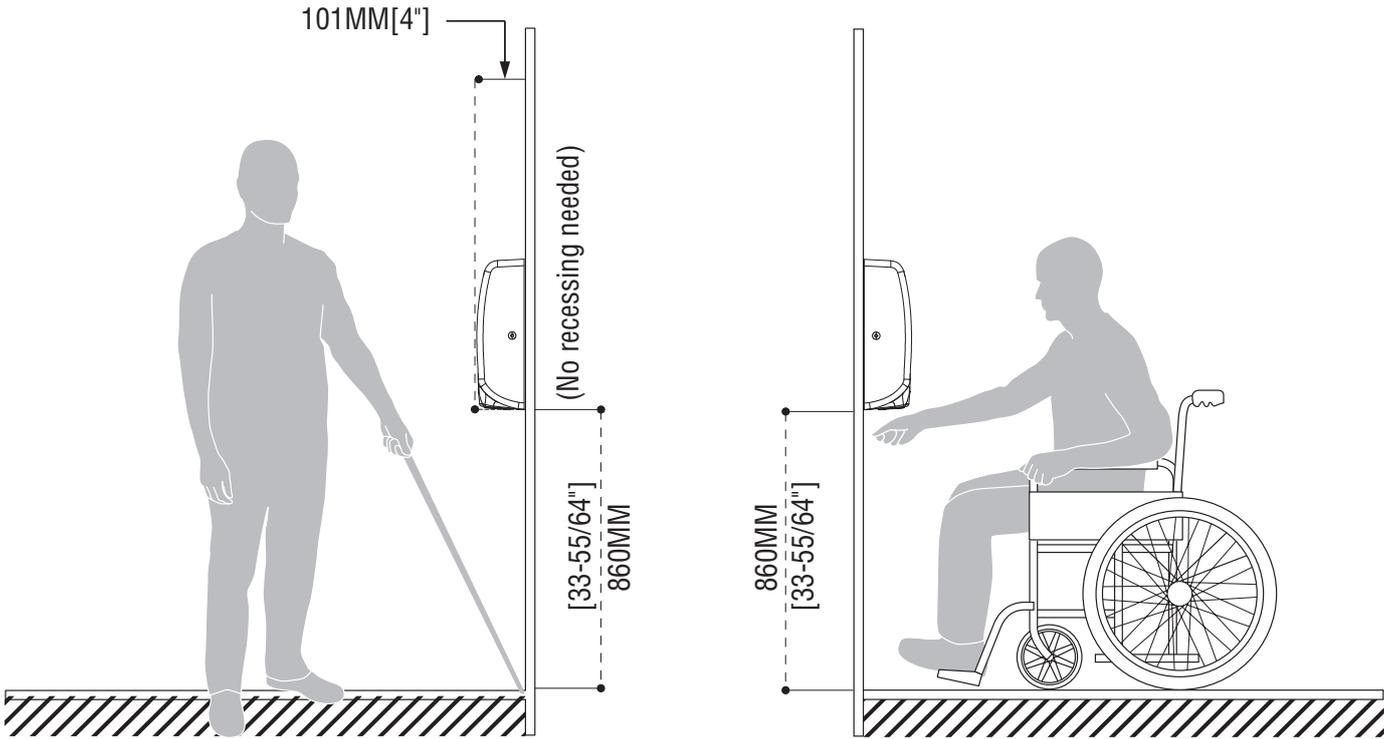
# Automatic Hand Dryer

## DIAGRAM BY STANDARD CIRCUIT BOARD



# Automatic Hand Dryer

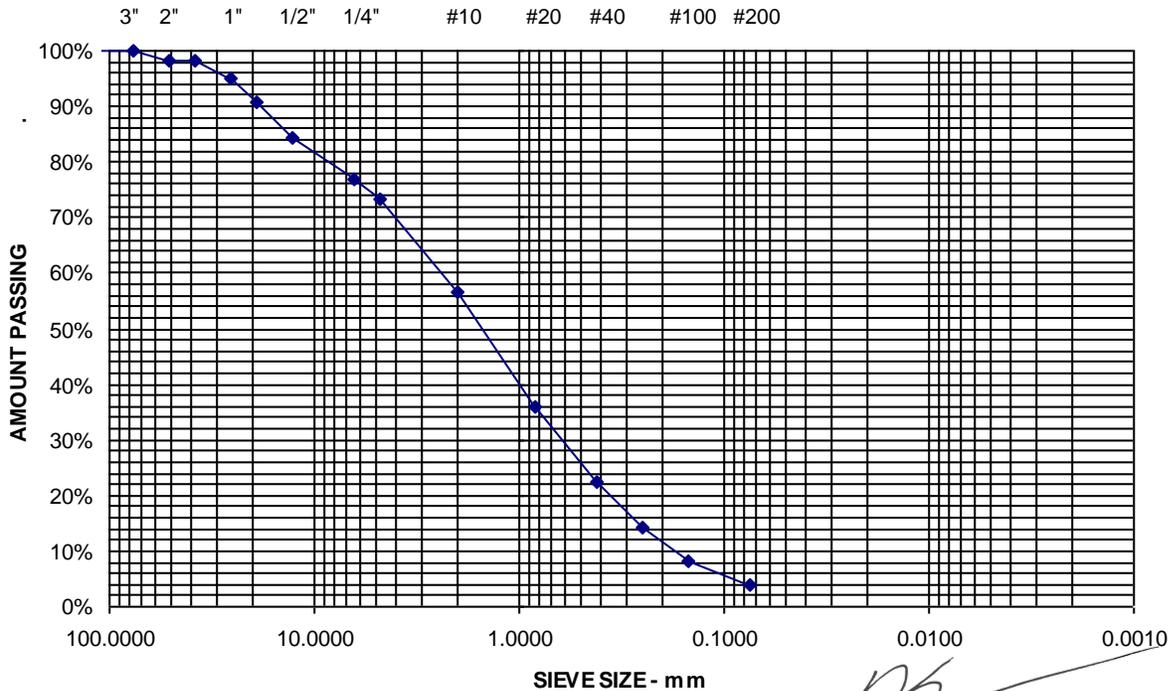
# Surface-Mounted ADA-Compliant



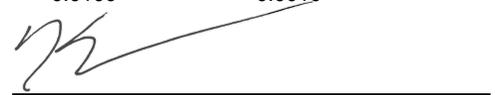
Project Name EDMUNDS TOWNSHIP ME - PROPOSED COBSCOOK STATE PARK  
BATHHOUSE - EXPLORATIONS AND GEOTECHNICAL  
Client ARCADIA DESIGNWORKS LLC  
Material Type GRAVEL  
Material Source COBSCOOK BAY STATE PARK

Project Number 23-1649  
Lab ID 31075G  
Date Received 10/19/2023  
Date Completed 10/25/2023  
Tested By OLIVIA MILLS

<u>STANDARD</u> <u>DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	<u>SPECIFICATIONS (%)</u>
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	98	
38.1 mm	1-1/2"	98	
25.0 mm	1"	95	
19.0 mm	3/4"	91	
12.5 mm	1/2"	84	
6.3 mm	1/4"	77	
4.75 mm	No. 4	73	
2.00 mm	No. 10	57	
850 μm	No. 20	36	
425 μm	No. 40	22	
250 μm	No. 60	14	
150 μm	No. 100	8	
75 μm	No. 200	3.8	



Comments





# BORING LOG

**BORING NO.:** B-1  
**SHEET:** 1 of 1  
**PROJECT NO.:** 23-1649  
**DATE START:** 10/11/2023  
**DATE FINISH:** 10/11/2023

**CLIENT:** ARCADIA designworks LLC  
**PROJECT:** Proposed Cobscook State Park Bathhouse  
**LOCATION:** 40 South Edmunds Road, Edmunds Township, Maine

## Drilling Information

**LOCATION:** See Exploration Location Plan    **ELEVATION (FT):** 79' +/-    **TOTAL DEPTH (FT):** 19.3    **LOGGED BY:** Nate Strout  
**DRILLING CO.:** S. W. Cole Explorations, LLC    **DRILLER:** Ryan Hackett    **DRILLING METHOD:** Hollow Stem Auger  
**RIG TYPE:** Track Mounted Diedrich D-50    **AUGER ID/OD:** 2 1/4 in / 5 5/8 in    **SAMPLER:** Standard Split-Spoon  
**HAMMER TYPE:** Automatic    **HAMMER WEIGHT (lbs):** 140    **CASING ID/OD:** N/A /N/A    **CORE BARREL:** N/A  
**HAMMER CORRECTION FACTOR:** 1.47    **HAMMER DROP (inch):** 30  
**WATER LEVEL DEPTHS (ft):** No free water observed

## GENERAL NOTES:

**KEY TO NOTES AND SYMBOLS:**  
 Water Level: At time of Drilling, At Completion of Drilling, After Drilling  
 D = Split Spoon Sample, U = Thin Walled Tube Sample, R = Rock Core Sample, V = Field Vane Shear  
 Pen. = Penetration Length, Rec. = Recovery Length, bpf = Blows per Foot, mpf = Minute per Foot  
 WOR = Weight of Rods, WOH = Weight of Hammer, RQD = Rock Quality Designation, PID = Photoionization Detector  
 S<sub>v</sub> = Field Vane Shear Strength, kips/sq.ft., q<sub>u</sub> = Unconfined Compressive Strength, kips/sq.ft., Ø = Friction Angle (Estimated), N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H <sub>2</sub> O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D		0-2	24/16	1-1-2-12		Forest Duff		
								1.0	Loose, brown silty fine SAND		
			2D		2-4	24/19	16-22-24-29		Very dense to dense, brown gravelly silty SAND with occasional cobbles (Glacial Till)		
								1.5			
75	5		3D		5-7	24/12	17-21-18-19				
70	10		4D		10-12	24/17	19-31-30-37				
65	15		5D		15-17	24/20	12-14-14-23				
60											

Auger Refusal at 19.3 feet  
(Probable Bedrock)

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

**BORING NO.:** B-1



# BORING LOG

**BORING NO.:** B-2  
**SHEET:** 1 of 1  
**PROJECT NO.:** 23-1649  
**DATE START:** 10/11/2023  
**DATE FINISH:** 10/11/2023

**CLIENT:** ARCADIA designworks LLC  
**PROJECT:** Proposed Cobscook State Park Bathhouse  
**LOCATION:** 40 South Edmunds Road, Edmunds Township, Maine

## Drilling Information

**LOCATION:** See Exploration Location Plan    **ELEVATION (FT):** 78' +/-    **TOTAL DEPTH (FT):** 10.0    **LOGGED BY:** Nate Strout  
**DRILLING CO.:** S. W. Cole Explorations, LLC    **DRILLER:** Ryan Hackett    **DRILLING METHOD:** Hollow Stem Auger  
**RIG TYPE:** Track Mounted Diedrich D-50    **AUGER ID/OD:** 2 1/4 in / 5 5/8 in    **SAMPLER:** Standard Split-Spoon  
**HAMMER TYPE:** Automatic    **HAMMER WEIGHT (lbs):** 140    **CASING ID/OD:** N/A /N/A    **CORE BARREL:** N/A  
**HAMMER CORRECTION FACTOR:** 1.47    **HAMMER DROP (inch):** 30  
**WATER LEVEL DEPTHS (ft):** No free water observed

## GENERAL NOTES:

**KEY TO NOTES AND SYMBOLS:**  
 Water Level: ▽ At time of Drilling, ▽ At Completion of Drilling, ▽ After Drilling  
 D = Split Spoon Sample, U = Thin Walled Tube Sample, R = Rock Core Sample, V = Field Vane Shear  
 Pen. = Penetration Length, Rec. = Recovery Length, bpf = Blows per Foot, mpf = Minute per Foot  
 WOR = Weight of Rods, WOH = Weight of Hammer, RQD = Rock Quality Designation, PID = Photoionization Detector  
 S<sub>v</sub> = Field Vane Shear Strength, kips/sq.ft., q<sub>u</sub> = Unconfined Compressive Strength, kips/sq.ft., Ø = Friction Angle (Estimated), N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H <sub>2</sub> O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D		0-2	24/20	1-1-3-4		0.9	Forest Duff	
			2D		2-4	24/24	8-10-10-13	q <sub>p</sub> =8-9+ ksf		Medium dense, brown fine sandy SILT	
	5		3D		5-7	24/22	7-11-13-12		5.0	Medium dense, brown gravelly sandy SILT with occasional cobbles (Glacial Till)	
	70										
	75										
			4D		10-10	0/0	25/0"		9.8	Possible Bedrock	

Auger Refusal at 10.0 feet  
(Probable Boulder or Bedrock)

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

**BORING NO.:** B-2



# BORING LOG

**BORING NO.:** B-3  
**SHEET:** 1 of 1  
**PROJECT NO.:** 23-1649  
**DATE START:** 10/11/2023  
**DATE FINISH:** 10/11/2023

**CLIENT:** ARCADIA designworks LLC  
**PROJECT:** Proposed Cobscook State Park Bathhouse  
**LOCATION:** 40 South Edmunds Road, Edmunds Township, Maine

## Drilling Information

**LOCATION:** See Exploration Location Plan    **ELEVATION (FT):** 79' +/-    **TOTAL DEPTH (FT):** 10.8    **LOGGED BY:** Nate Strout  
**DRILLING CO.:** S. W. Cole Explorations, LLC    **DRILLER:** Ryan Hackett    **DRILLING METHOD:** Hollow Stem Auger  
**RIG TYPE:** Track Mounted Diedrich D-50    **AUGER ID/OD:** 2 1/4 in / 5 5/8 in    **SAMPLER:** Standard Split-Spoon  
**HAMMER TYPE:** Automatic    **HAMMER WEIGHT (lbs):** 140    **CASING ID/OD:** N/A /N/A    **CORE BARREL:** N/A  
**HAMMER CORRECTION FACTOR:** 1.47    **HAMMER DROP (inch):** 30  
**WATER LEVEL DEPTHS (ft):** Soils wet below 10 feet +/-

## GENERAL NOTES:

**KEY TO NOTES AND SYMBOLS:**  
 Water Level: At time of Drilling, At Completion of Drilling, After Drilling  
 D = Split Spoon Sample, U = Thin Walled Tube Sample, R = Rock Core Sample, V = Field Vane Shear  
 Pen. = Penetration Length, Rec. = Recovery Length, bpf = Blows per Foot, mpf = Minute per Foot  
 WOR = Weight of Rods, WOH = Weight of Hammer, RQD = Rock Quality Designation, PID = Photoionization Detector  
 S<sub>v</sub> = Field Vane Shear Strength, kips/sq.ft., q<sub>u</sub> = Unconfined Compressive Strength, kips/sq.ft., Ø = Friction Angle (Estimated), N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H <sub>2</sub> O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D		0-2	24/17	1-2-3-6		Forest Duff		
								0.8	Loose, brown fine sandy SILT		
			2D		2-4	24/20	8-9-14-16				
								3.0	Dense to very dense, brown sandy SILT, some gravel with occasional cobbles (Glacial Till)		
	5		3D		5-7	24/20	30-33-34-38		... becoming gravelly		
	70										
	10		4D		10-10.8	9/7	39-50/3"				
								10.5	Possible Bedrock		

Auger Refusal at 10.8 feet (Probable Boulder or Bedrock)

BORING / WELL 10-12-2022 23-1649.GPJ SWCE TEMPLATE.GDT 10/12/23

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

**BORING NO.:** B-3



# BORING LOG

**BORING NO.:** B-4  
**SHEET:** 1 of 1  
**PROJECT NO.:** 23-1649  
**DATE START:** 10/11/2023  
**DATE FINISH:** 10/11/2023

**CLIENT:** ARCADIA designworks LLC  
**PROJECT:** Proposed Cobscook State Park Bathhouse  
**LOCATION:** 40 South Edmunds Road, Edmunds Township, Maine

## Drilling Information

**LOCATION:** See Exploration Location Plan    **ELEVATION (FT):** 78' +/-    **TOTAL DEPTH (FT):** 22.4    **LOGGED BY:** Nate Strout  
**DRILLING CO.:** S. W. Cole Explorations, LLC    **DRILLER:** Ryan Hackett    **DRILLING METHOD:** Hollow Stem Auger  
**RIG TYPE:** Track Mounted Diedrich D-50    **AUGER ID/OD:** 2 1/4 in / 5 5/8 in    **SAMPLER:** Standard Split-Spoon  
**HAMMER TYPE:** Automatic    **HAMMER WEIGHT (lbs):** 140    **CASING ID/OD:** N/A /N/A    **CORE BARREL:** N/A  
**HAMMER CORRECTION FACTOR:** 1.47    **HAMMER DROP (inch):** 30  
**WATER LEVEL DEPTHS (ft):** Soils wet below 11.5 feet +/-

## GENERAL NOTES:

**KEY TO NOTES AND SYMBOLS:**  
 Water Level: At time of Drilling, At Completion of Drilling, After Drilling  
 D = Split Spoon Sample, U = Thin Walled Tube Sample, R = Rock Core Sample, V = Field Vane Shear  
 Pen. = Penetration Length, Rec. = Recovery Length, bpf = Blows per Foot, mpf = Minute per Foot  
 WOR = Weight of Rods, WOH = Weight of Hammer, RQD = Rock Quality Designation, PID = Photoionization Detector  
 S<sub>v</sub> = Field Vane Shear Strength, kips/sq.ft., q<sub>u</sub> = Unconfined Compressive Strength, kips/sq.ft., Ø = Friction Angle (Estimated), N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H <sub>2</sub> O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D		0-2	24/16	1-2-4-17		Forest Duff		
								0.9	Loose, brown silty fine SAND		
			2D		2-4	24/20	18-24-25-36		Very dense to dense, brown gravelly silty SAND with occasional cobbles (Glacial Till)		
								1.5			
			3D		5-6.8	21/12	14-18-20-50/3"				
			4D		10-12	24/12	22-27-40-31				
			5D		15-17	24/10	9-10-9-10				
			6D		20-22	24/10	6-8-9-10		20.0	Medium dense, brown silty SAND	

Auger Refusal at 22.4 feet  
(Probable Bedrock)

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

**BORING NO.:** B-4



# BORING LOG

**BORING NO.:** B-5  
**SHEET:** 1 of 1  
**PROJECT NO.:** 23-1649  
**DATE START:** 10/11/2023  
**DATE FINISH:** 10/11/2023

**CLIENT:** ARCADIA designworks LLC  
**PROJECT:** Proposed Cobscook State Park Bathhouse  
**LOCATION:** 40 South Edmunds Road, Edmunds Township, Maine

## Drilling Information

**LOCATION:** See Exploration Location Plan    **ELEVATION (FT):** 79' +/-    **TOTAL DEPTH (FT):** 8.3    **LOGGED BY:** Nate Strout  
**DRILLING CO.:** S. W. Cole Explorations, LLC    **DRILLER:** Ryan Hackett    **DRILLING METHOD:** Hollow Stem Auger  
**RIG TYPE:** Track Mounted Diedrich D-50    **AUGER ID/OD:** 2 1/4 in / 5 5/8 in    **SAMPLER:** Standard Split-Spoon  
**HAMMER TYPE:** Automatic    **HAMMER WEIGHT (lbs):** 140    **CASING ID/OD:** N/A /N/A    **CORE BARREL:** N/A  
**HAMMER CORRECTION FACTOR:** 1.47    **HAMMER DROP (inch):** 30  
**WATER LEVEL DEPTHS (ft):** No free water observed

## GENERAL NOTES:

**KEY TO NOTES AND SYMBOLS:**   
Water Level D = Split Spoon Sample    Pen. = Penetration Length    WOR = Weight of Rods    S<sub>v</sub> = Field Vane Shear Strength, kips/sq.ft.  
▽ At time of Drilling U = Thin Walled Tube Sample    Rec. = Recovery Length    WOH = Weight of Hammer    q<sub>u</sub> = Unconfined Compressive Strength, kips/sq.ft.  
▼ At Completion of Drilling R = Rock Core Sample    bpf = Blows per Foot    RQD = Rock Quality Designation    Ø = Friction Angle (Estimated)  
▽ After Drilling V = Field Vane Shear    mpf = Minute per Foot    PID = Photoionization Detector    N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H <sub>2</sub> O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
75	5		1D		0-2	24/14	1-1-4-8		Forest Duff		
									1.0	Loose, brown fine sandy SILT	
			2D		2-4	24/24	10-13-16-21		2.5	dense, brown silty SAND, some gravel with occasional cobbles (Glacial Till)	
			3D		5-7	24/17	12-19-25-18		... becoming gravelly		

Auger Refusal at 8.3 feet  
(Probable Boulder or Bedrock)

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

**BORING NO.:** B-5

# OLVER ASSOCIATES INC.

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ENVIRONMENTAL ENGINEERS

October 21, 2020

Mr. Matthew Hamilton, EI  
Assistant Regional Park Manager  
MAINE BUREAU OF PARKS AND LANDS  
106 Hogan Road Suite 7  
Bangor, Maine 04401

Dear Matt:

We enjoyed the opportunity to meet with you and the staff of the Cobscook Bay State Park to review potential upgrades to the Park's water distribution system. We understand that the Bureau of Parks and Lands is considering an upgrade to the present system to improve its reliability, delivery and performance. You asked us to provide a planning level, budgetary cost estimate for the upgrade of the system.

We understand that the present system serves about 125 camp sites throughout the Park. Water is supplied from a single 420 VLF deep well that provides about 7 GPM of sustained output. The well feeds about 18,000 LF of small diameter HDPE pipe, some of which is buried at shallow depths and some of which is on the surface. The piping branches out into five major subsystems that supply water to campsites in the Burnt Cove, Broad Cove, Cobscook Point, Harbor Point, and Whiting Bay areas of the Park. Campers and park visitors can access the water supply through about 29 valved spigots located throughout the facility. There is a small storage tank located inside the well's Pump House as well as five remote, exterior bladder tanks located throughout the Park to maintain pressure and to prevent the well pump from having to cycle each time that a spigot is opened. We understand that the overall water system is likely 35 to 40 years old and that it has been expanded and modified over the years. The use of the Park has grown and the present water system has been increased in phases to accommodate that growth. The present piping configuration is not optimal in terms of flexibility during pipe breaks due to a lack of valves that prevents specific areas of the system from being isolated for repairs. Because of the number of campsites that the system serves, it falls under the category of a community water system that is governed by the Maine Drinking Water Program. Given the age and condition of the present system, it makes sense to plan for its upgrade to allow it to serve the public efficiently for many years to come.

Mr. Matthew Hamilton, EI

October 21, 2020

Page 2 of 6

As we reviewed the water system during our recent site visit, the following considerations came to mind:

- The present piping network appears to be constructed from small diameter HDPE pipe, perhaps with a typical size of 1"Ø to 1 ½"Ø on average. Unlike other pipe materials, HDPE pipe does not have the same inside diameter as its nominal size callout number. This means that the pipe's available internal cross-sectional area for water transmission is less than often expected. This increases the friction loss of the pipe and contributes to its delivery limitations and pressure losses, especially over long pipe lengths such as this 18,000 LF system. The exact size of the HDPE pipe that is best suited for each leg of the Cobscook Bay water system can be best determined from a water model, but for the purposes of planning, a 2"Ø typical pipe size will be assumed.
- The present piping system is constructed of individual pipe sections joined together by insert stiffeners, fittings and clamps. Each of these connections represents a point of potential leakage. A better solution for new pipe would be to install butt welded fusion joints to connect each pipe section.
- Since the water system is seasonal, it does not need to be buried below winter frost depths; however, it is convenient to keep the pipe below grade in shallow trenches for aesthetic reasons and to keep it out of the way. We discussed burying the pipe in shallow trenches, perhaps about two feet deep, on the shoulders of the Park roads. To protect the pipe, we suggest that the trench be backfilled with sand and revegetated with loam and seed.
- The current system has only six shutoff valves over its entire length which makes it difficult to isolate portions of the system for repairs or during pipe breaks. Additional valves located throughout the system would allow repairs to be made without the need to shutdown large sections of the system as is

Mr. Matthew Hamilton, EI

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currently the case. About twenty-one total valves would help to better isolate the system into discrete sections.

- The entire system consists of dead end runs that allow water to reach the spigots from only a single direction. There is an opportunity for looping sections of the system in the Broad Cove and the Whiting Bay areas with the addition of about 1600 LF of additional pipe. This would allow flow to reach spigots in these areas from two directions and would enhance flexibility during repair as well as balance delivery and pressure in these subsystems.
- The entire system is presently fed by a single well. Should that well pump fail, or have other maintenance issues, the entire park would lose its water supply. As part of a water system upgrade, it might be beneficial to consider drilling a second, redundant well given the system's size and its designation as a community water system. As part of a well expansion, it may also be beneficial to increase the size of the storage tank to provide additional volume and pressure stability at the spigots.
- There are presently five remote bladder tanks located outside at various locations throughout the system. The optimal location of these tanks can be determined from modeling based on the localized water demand, elevation of the spigots related to the well, and pressure losses based on the distance from the well. A cursory review of the campsite locations, in the absence of a model, suggests that ten local bladder tanks might be beneficial in an upgraded system. To extend the life of the tanks, it may be beneficial to house them in small fiberglass huts designed for this purpose instead of having the tanks outside exposed to the elements.
- There are presently twenty-nine spigots located throughout the Park for the delivery of water. It appears that their locations coincide with the density of campsites in each area of the Park. As part of a system upgrade, it may be

Mr. Matthew Hamilton, EI

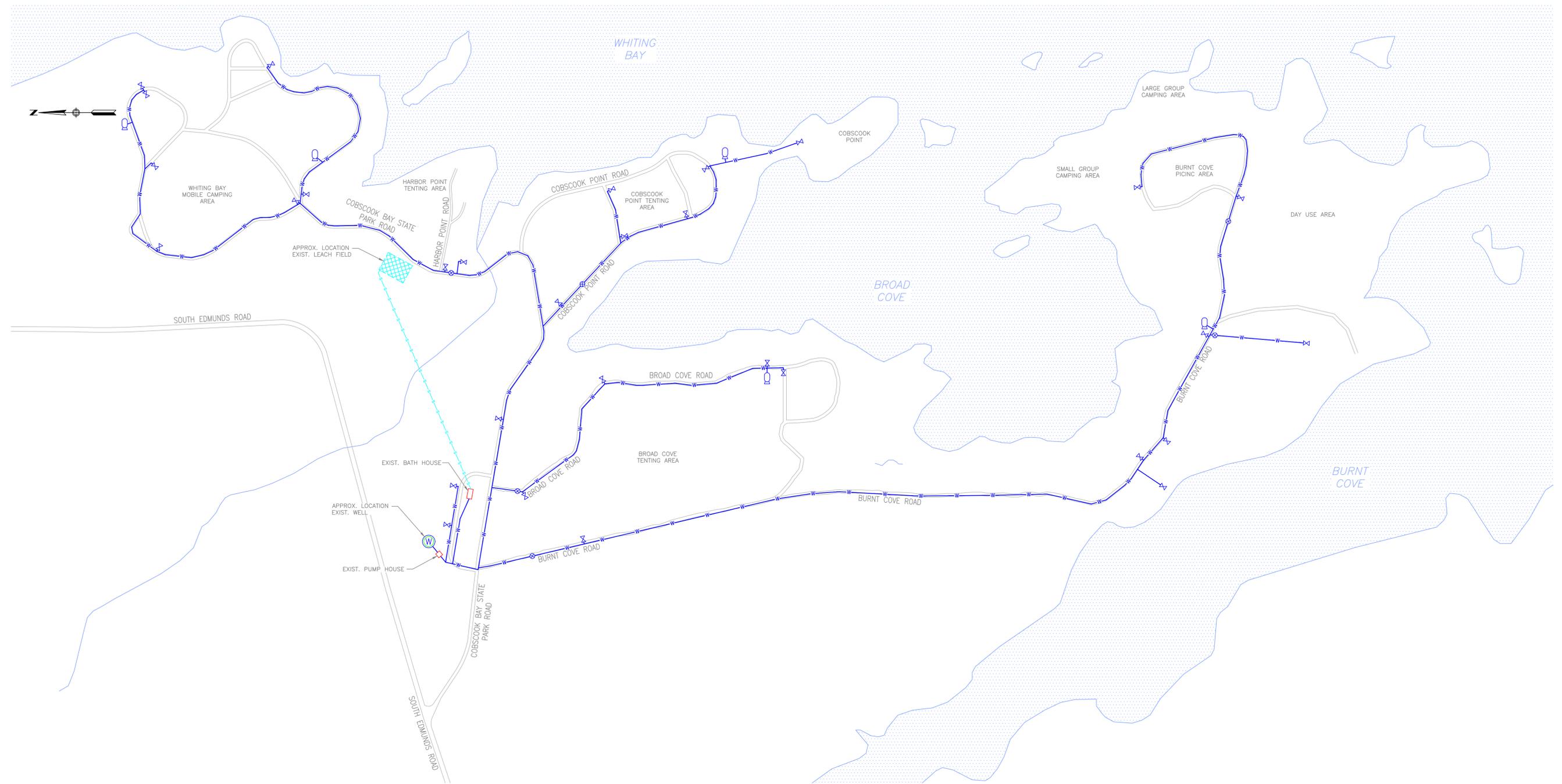
October 21, 2020

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beneficial to review these locations in order to determine if additional spigot locations should be added.

- There is presently no designated dish washing station at the Park. We understand that visitors often use the RV dumping station, the shower building, or individual water spigots to rinse off their dishware. As part of a water system upgrade, the addition of one or more strategically located dishware washing stations should be considered. This may require the addition of holding tanks to collect the greywater if multiple remote stations are added. If a central station is added, it can be connected into the present greywater leach field.
- We understand that the Park is considering modernizing the central shower facilities, but that the scope of that work is separate from the water system upgrade that we were asked to consider.

In order to assist you with the planning of this project, we have developed the following preliminary, order-of-magnitude planning level cost estimate for the proposed scope of work as we currently understand it to be. In doing so, it is important to note that this is a conceptual estimate based upon our current understanding of the elements needed for the project and in the absence of detailed survey and design. A more accurate cost estimate can be prepared after design and upon the completion of a detailed takeoff from final plans and specifications. We would also note that the remote location of the Park and the limited number of general contractors in that area may tend to increase potential bid prices. The scope of the project is somewhat unique which may limit the number of bidders interested in this work, especially in the current bidding climate. Small projects of this size also lack the economy of scale found in larger projects which may elevate the bid prices. While it is assumed that the project will be bid to a bonded general contractor, there may be opportunities to utilize smaller local contractors to expand the number of potential bidders for this work.



**LEGEND:**

- WELL (ESTIMATED LOCATION)
- WATER MAIN (ESTIMATED LOCATION)
- EXIST. WATER SERVICE
- EXIST. WATER SHUT-OFF VALVE
- EXIST. BLADDER TANK
- EXIST. SANITARY LINE

250' 0 250'

COBSCOOK BAY STATE PARK  
EDMUNDS TOWNSHIP, MAINE  
EXISTING WATER DISTRIBUTION SYSTEM

**FIGURE 1**

**OLVER ASSOCIATES INC.**  
ENVIRONMENTAL ENGINEERS  
390 MAIN STREET WINTERPORT, MAINE

**SOURCES:**  
MAINE OFFICE OF GIS  
"COBSCOOK BAY STATE PARK BUILDINGS AND GROUNDS"  
BY LOUIS STANLEY.  
"COBSCOOK BAY STATE PARK" BY MAINE DEPARTMENT OF  
AGRICULTURE, CONSERVATION AND FORESTRY - PARKS  
AND LANDS, DATED 09-10-2019

K:\Users\Project\Projects\Cobscocook Bay State Park\State Park Water System Map.dwg, Layer: 11, 10/20/2020, 10:27:24 AM, 11, 11WD

**DEMOLITION NOTES:**

SHEET A70

- |     |   |
|-----|---|
| D01 | INTERIOR 8' x 8'-0" HIGH CMU PARTITIONS TO BE REMOVED, REMOVE RESIDUAL MORTAR FLUSH WITH EXISTING SLAB, PATCH FLOOR AS REQUIRED.                                    |
| D02 | REMOVE 4" HIGH CONC. WALL PLINTH UNDER REMOVED MASONRY PARTITIONS, REMOVE FLUSH TO ADJACENT CONC. FLOOR.  |
| D03 | MASONRY SHOWER BASES TO BE REMOVED, PATCH FLOOR AS REQUIRED.  |
| D04 | FIBERGLASS SHOWER BASES AND WALL PANELS TO BE REMOVED, PATCH FLOOR AS REQUIRED.   |
| D05 | REMOVE WOOD STALL GATE-STYLE DOOR AND JAMBS.  |
| D06 | LAVATORY FIXTURES AND CONTROLS TO BE REMOVED.   |
| D07 | LAVATORY COUNTERS AND SUPPORTS TO BE REMOVED AND WALLS PATCHED.   |
| D08 | WALL MIRRORS TO BE REMOVED AND WALLS PATCHED.   |
| D09 | SHOWER WALL CONTROLS AND SUPPLY LINES WITHIN WALLS TO BE REMOVED BACK TO HOT WATER TANK.  |
| D10 | PLUMBING SUPPLY AND DRAIN LINES WITHIN CMU TO BE CAPPED AT WALL OR TOP OF WALL IN A MANNER TO ALLOW A FLUSH PATCHING OF THE WALL(S).                                |
| D11 | PLUMBING FLOOR DRAIN LINES TO BE CAPPED AT FLOOR W/ CONCRETE IN A MANNER TO ALLOW FLUSH PATCHING OF CONCRETE FLOOR.   |
| D12 | EXISTING OVERHEAD STRIP LIGHTS AND SWITCHING TO REMAIN.   |
| D13 | EXISTING WOOD DOOR AND FRAME TO BE REMOVED. REMOVE PORTION OF CONCRETE FOUNDATION TO ACCOMODATE NEW DOOR OPENING. APPLY HIGH STRENGTH CONC PATCH TO FORM THRESHOLD. |
| D14 | REMOVE PORTION OF EXISTING WALL, 4" CMU AND 2x4 STUDWALL PLYWD. SIDING AND 4" H. CONC. FOUNDATION STUB, TO BE REMOVED TO ACCOMODATE NEW DOUBLE DOOR AND FRAME.      |
| D15 | REMOVE COLUMN BRACKET BRACE, RELOCATE TO OPPOSITE SIDE OF COLUMN.   |
| D16 | BOILER AND FEED & SUPPLY PIPING TO BE REMOVED. BOILER TO BE SALVAGED AND TURN OVER TO OWNER.  |
| D17 | EXISTING PRESSURE TANKS TO REMAIN, CAP AT SUPPLY OUTLET.  |
| D18 | EXISTING FUEL TANK & FILL/VENT FITTINGS TO BE REMOVED.  |
| D19 | EXISTING WATER HEATER TO BE REMOVED AND LINES GAPPED. WATER HEATER TO BE SALVAGED AND TURNED OVER TO OWNER.   |
| D20 | EXISTING WATER FILTER TO REMAIN.  |
| D21 | EXISTING MISC. EQUIPMENT AND ELECTRICAL PANELS TO REMAIN.   |
| D22 | EXISTING ASPHALT SHINGLES TO BE REMOVED.  |
| D23 | REMOVE ALL EXISTING MECH, PLUMBING PIPE & ROOF WINDOWS. CAP AND/OR INFILL HOLE FOR NEW ROOF UNDERLAYMENT MEMBRANE AND MTL ROOF.                                     |



### Swing, 8 ft H, 1 Rope Seat

KSW92008

Item no. KSW92008-0910

#### General Product Information

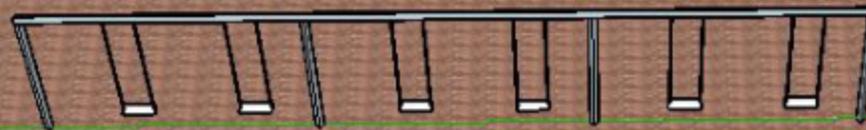
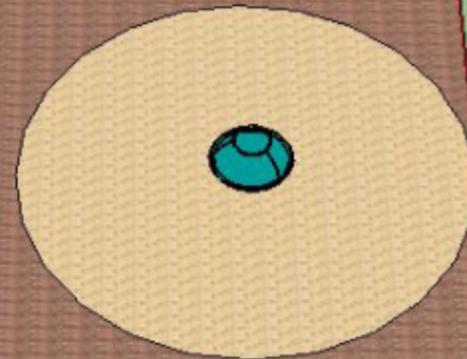
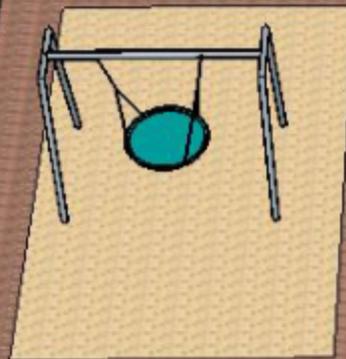
Dimensions LxWxH	10'6" x 6'0" x 8'4"
Age group	2 - 12
Play capacity (users)	6
Color options	6



76'



EXISTING JUNGLE GYM



EXISTING SWING SET

45'



### Tipi Carousel w/ Top Brace

ELE400065

Item no. ELE400065-3717DT

#### General Product Information

Dimensions LxWxH	3'11" x 3'11" x 4'0"
Age group	5 - 12
Play capacity (users)	8
Color options	6

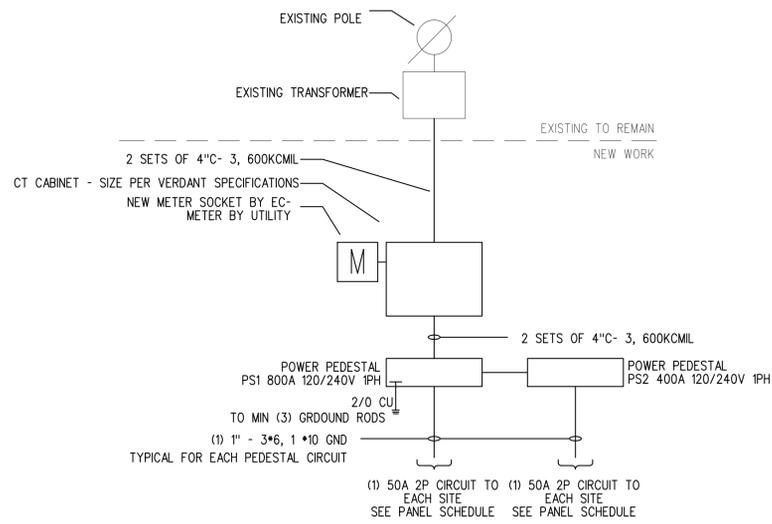


CONTRACTOR TO FOLLOW MANUFACTURERS INSTILLATION INSTRUCTIONS INCLUDING FOUNDATION REQUIREMENTS.

REPLENISH AND RESTORE WOOD CHIPS AROUND NEW EQUIPMENT AND EXISTING.

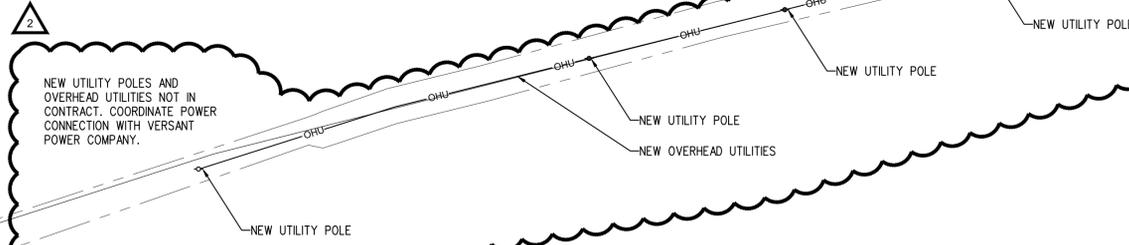
ARCHITECT TO SELECT COLOR

COBSCOOK BAY STATE PARK - PLAYGROUND EQUIPMENT DIAGRAM



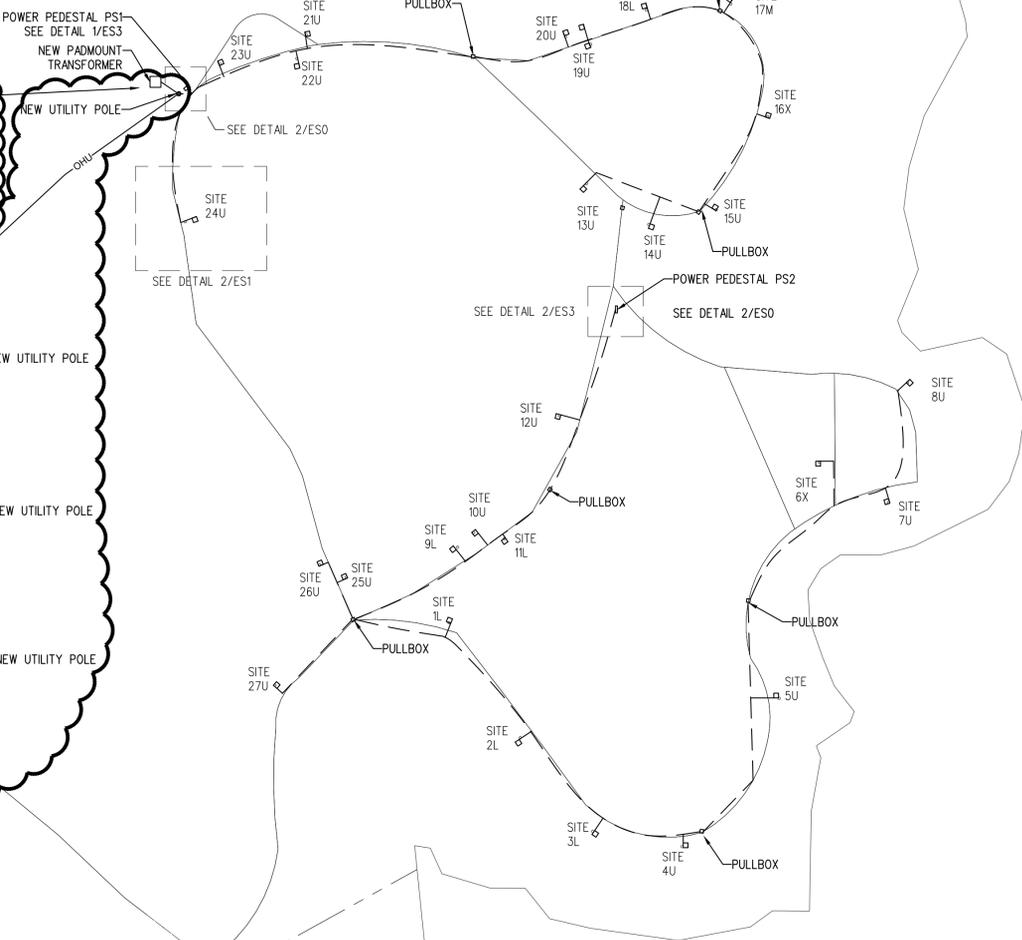
**01 RV SITES ONE LINE DIAGRAM**  
SCALE: 1/2" = 1'-0"

**02 UTILITY PYLON - TYPICAL EACH SITE (TOTAL 27)**  
SCALE: 3/4" = 1'-0"

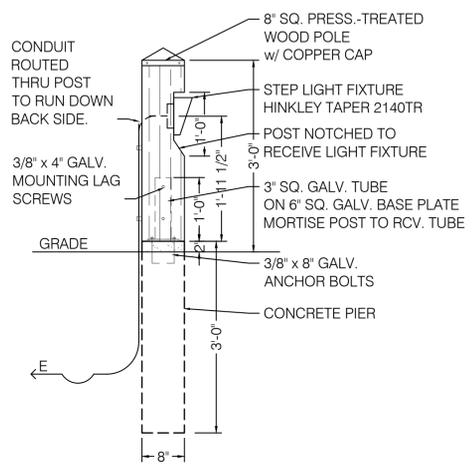
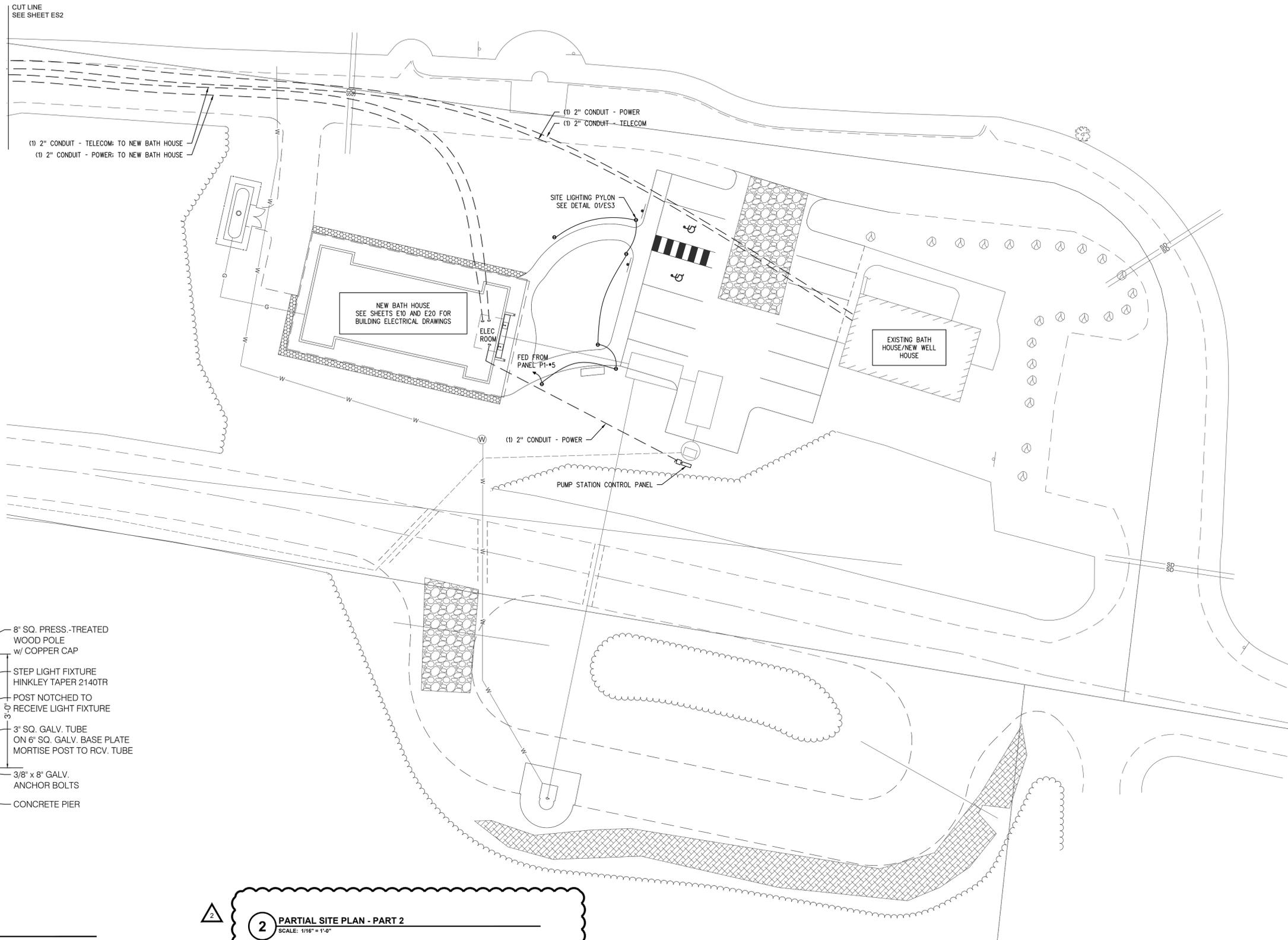


**03 RV SITE ELECTRICAL PLAN**  
SCALE: 1" = 120'

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE CONCRETE PAD, CONDUIT, WIRE AND METER ENCLOSURE TO AND UP THE LAST POLE ONSITE AT A DISTANCE THAT VERSANT CAN THEN CONNECT THEIR POWER LINE



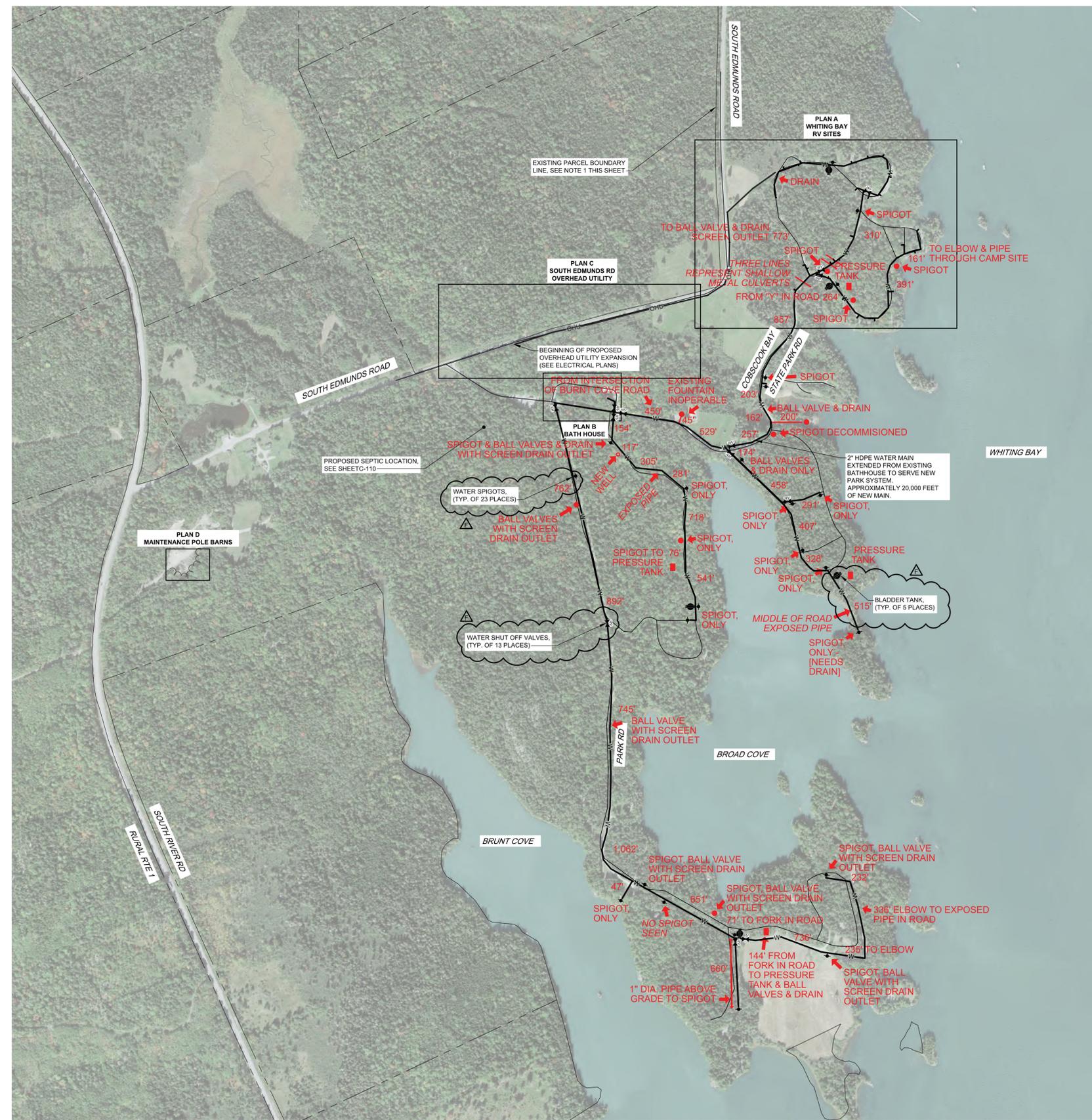
NEW BATHHOUSE SITE  
SEE SHEETS ES2 AND ES3



**1** PATHWAY LIGHT PYLON  
SCALE: 3/4" = 1'-0"

**2** PARTIAL SITE PLAN - PART 2  
SCALE: 1/16" = 1'-0"





- GENERAL NOTES:**
1. PARCEL INFORMATION WAS GATHERED FROM THE MAINE PARCELS UNORGANIZED TERRITORY GIS LAYER, AN AUTHORITATIVE GIS WEB SERVICE PROVIDED BY THE STATE OF MAINE. OWNERSHIP INFORMATION WAS GATHERED FROM THE MAINE REVENUE SERVICES VALUATION BOOKS FOR THE UNORGANIZED TERRITORY.
  2. WATER SPIGOT AND BLADDER TANK LOCATIONS ARE SHOWN BASED ON EXISTING LOCATIONS AS IDENTIFIED ON AN EXISTING WATER DISTRIBUTION SYSTEM DIAGRAM DEVELOPED BY OLVER ASSOCIATES INC.

F	MKO	06/25/2024	REVISED FOR ADDENDUM 3
E	MKO	03/14/2024	ISSUED FOR BID
D	MKO	02/13/2024	ISSUED FOR CONSTRUCTION DOCUMENT REVIEW
C	MKO	02/08/2024	ISSUED FOR LUPC REVIEW
B	MKO	01/15/2024	ISSUED SITE PLAN FOR SFMO REVIEW
A	MKO	11/28/2023	ISSUED FOR DD REVIEW

REV. BY: DATE: STATUS:

THIS PLAN SHALL NOT BE COPIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNIQS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNIQS, INC.

**SEBAGO**  
TECHNICALS  
WWW.SEBAGOTECHNIQS.COM  
75 Old Richards Rd.  
Suite 4A  
South Portland, ME 04106  
Tel. 207-200-2100

**OVERALL SITE PLAN**  
OF:  
COBSCOOK BAY STATE PARK SHOWER & UTILITY UPGRADES  
40 SOUTH EDMUNDS ROAD  
EDMUNDS TWP. MAINE 04628  
FOR:  
**ARCADIA DESIGNWORKS**  
199 PROSPECT STREET, SUITE A  
PORTLAND, MAINE 04103

DESIGNED	MKO
DRAWN	MKO
CHECKED	ACH
DATE	10/03/2023
SCALE	1" = 400'
PROJECT	230141

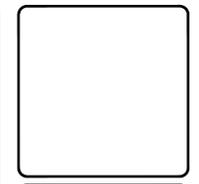
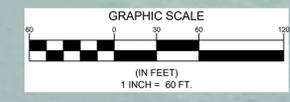
F:\Projects\2300141\DWG\Design\230141 S.dwg - 6/26/2024 7:31 AM - MATHEW ORR

230141 S.dwg - TAB OVERALL SITE PLAN

MATCHLINE SHEET C-105



- GENERAL NOTES:**
- APPROXIMATE LOCATION OF CAMPGROUND ROADS BASED ON PUBLICLY AVAILABLE DATA FROM THE MAINE OFFICE OF GIS, "COBSCOOK BAY STATE PARK BUILDINGS AND GROUNDS" BY LOUIS STANLEY, AND "COBSCOOK BAY STATE PARK" BY MAINE DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY - PARKS AND LANDS, DATED 09-10-2019. THE LINWORK WAS DERIVED FROM A PLAN ENTITLED "EXISTING WATER DISTRIBUTION SYSTEM" BY OLVER ASSOCIATES INC.
  - CAMP SITE DRIVEWAY LOCATIONS WERE GATHERED BY SEBAGO TECHNICS, INC. ON OCTOBER 18, 2023 USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF SUB-METER ACCURACY.
  - UNDERGROUND AND OVERHEAD ELECTRICAL UTILITIES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR TO DETERMINE LOCATION IN FIELD AND COORDINATE WITH WITH UTILITY SERVICE PROVIDER AND ELECTRICAL ENGINEER FOR NUMBER AND SIZE OF CONDUITS AND ASSOCIATED INFRASTRUCTURE FOR ELECTRICAL SERVICES. SEE ELECTRICAL PLANS.
  - PARCEL INFORMATION WAS GATHERED FROM THE MAINE PARCELS UNORGANIZED TERRITORY GIS LAYER, AN AUTHORITATIVE GIS WEB SERVICE PROVIDED BY THE STATE OF MAINE. OWNERSHIP INFORMATION WAS GATHERED FROM THE MAINE REVENUE SERVICES VALUATION BOOKS FOR THE UNORGANIZED TERRITORY.
  - WATER SPIGOT AND BLADDER TANK LOCATIONS ARE SHOWN BASED ON EXISTING LOCATIONS AS IDENTIFIED ON AN EXISTING WATER DISTRIBUTION SYSTEM DIAGRAM DEVELOPED BY OLVER ASSOCIATES INC.



F	MKO	06/25/2024	REVISED FOR ADDENDUM 3
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REVISION	DATE	STATUS
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 WWW.SEBAGOTECHNICS.COM  
 75 John Roberts Rd.  
 Suite 1A  
 South Portland, ME 04106  
 Tel. 207-260-2100

**SITE IMPROVEMENT PLAN A**  
 OF:  
 COBSCOOK BAY STATE PARK SHOWER & UTILITY UPGRADES  
 40 SOUTH EDMUNDS ROAD  
 EDMUNDS TWP. MAINE 04628  
 FOR:  
**ARCADIA DESIGNWORKS**  
 199 PROSPECT STREET, SUITE A  
 PORTLAND, MAINE 04103

DESIGNED	MKO
DRAWN	MKO
CHECKED	ACH
DATE	10/03/2023
SCALE	1" = 60'
PROJECT	230141