



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

Paul R. LePage  
GOVERNOR

David Bernhardt  
COMMISSIONER

August 9, 2018  
Subject: Wharf Infill & Building  
Removal  
State WIN: 021942.06  
Location: **Portland**  
**Amendment No. 3**

Dear Sir/Ms.:

The sign in sheet generated at the mandatory pre-bid meeting held August 8, 2018 is attached and available for contractor review.

Please make the following changes to the Bid Documents:

In the Bid Book:

**REMOVE** pages 17 – 23, Proposal Schedule of Items, 7 pages, dated 6/22/2018, and **REPLACE** with the attached, revised Proposal Schedule of Items, 8 pages, dated 8/8/2018.

**REMOVE** pages 24 - 31, CONTRACT AGREEMENT, OFFER & AWARD, 8 pages, and **REPLACE** with the attached, revised CONTRACT AGREEMENT, OFFER & AWARD, 8 pages.

**REMOVE** page 49, SPECIAL PROVISION – SECTION 104 – GENERAL RIGHTS AND RESPONSIBILITIES – (Staging Area), 1 page, dated May 18, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 104 – GENERAL RIGHTS AND RESPONSIBILITIES – (Staging Area), 1 page, dated August 3, 2018.

**REMOVE** page 53, SPECIAL PROVISION – SECTION 104 - GENERAL RIGHTS AND RESPONSIBILITIES – (Coordination with Terminal Manager), 1 page, dated May 18, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 104 - GENERAL RIGHTS AND RESPONSIBILITIES – (Coordination with Terminal Manager), 2 pages, dated August 3, 2018.

**REMOVE** page 58, SPECIAL PROVISION – SECTION 105 - GENERAL SCOPE OF WORK – (Summary of Project Requirements), 1 page, dated May 18, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 105 - GENERAL SCOPE OF WORK – (Summary of Project Requirements), 1 page, dated August 3, 2018.

**REMOVE** pages 59 - 61, SPECIAL PROVISION – SECTION 107 - TIME, 3 pages, dated May 18, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 107 - TIME, 3 pages, dated August 3, 2018.



PRINTED ON RECYCLED PAPER

**REMOVE** pages 78 - 79, SPECIAL PROVISION – SECTION 502 – STRUCTURAL CONCRETE – (Pile Cap and Edge Beam) – (Deck Slab) – (Approach Slab) – (Storage Pad), 2 pages, dated May 18, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 502 – STRUCTURAL CONCRETE – (Pile Cap and Edge Beam) – (Deck Slab) – (Approach Slab) – (Storage Pad), 2 pages, dated August 7, 2018.

**REMOVE** page 80, SPECIAL PROVISIONS – SECTION 502 – STRUCTURAL CONCRETE – (QC/QA Acceptance Methods), 1 page dated May 18, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISIONS – SECTION 502 – STRUCTURAL CONCRETE – (QC/QA Acceptance Methods), 1 page dated, dated August 7, 2018.

**REMOVE** pages 89 - 96, SPECIAL PROVISION – SECTION 634 – HIGHWAY LIGHTING, 8 pages, dated May 18, 2018, and **REPLACE** with the attached, revised SPECIAL PROVISION – SECTION 634 – HIGHWAY LIGHTING, 9 pages, dated August 3, 2018.

**REMOVE** pages 101 - 102, SPECIAL PROVISION – SECTION 825 – UTILITY PROVISIONS – (Gas Line Terminations) – Water Line Modifications) – (Sewer Line Modifications), 2 pages, dated May 18, 2018, and **REPLACE** with the attached, revised SECTION 825 – UTILITY PROVISIONS – (Gas Line Terminations) – Water Line Modifications) – (Sewer Line Modifications), 2 pages, dated August 3, 2018.

In the Plan Set:

The following sheets are to be REMOVED from the existing plan set and then REPLACED with the corresponding attached, revised sheets:

<b>REMOVE</b> sheet	and <b>REPLACE</b> with sheet
6	6A
12	12A
13	13A
20	20A
21	21A

The following questions have been received:

**Question:** Sheet CO 8 calls for painted yellow making line. Can you provide length of lines and dimensions of the pattern?

**Response:** There are two parallel lines on the deck, and each line shall be 2.5 feet wide and 570 feet long. There will be 49 tick marks on each line, and each tick mark shall correspond to the locations of the pile bents below the deck (typically spaced at 12 feet on-center). Tick marks shall be 2.5 feet wide by 5 feet long. At Bent No. 29, there are two bents side-by-side (Bent 29.2) which will also receive tick marks. Sheet C08 will be updated to illustrate these dimensions.

**Question:** 634.071 Fiber Optic Cable Connection Box: What type of fiber is being used? Single Mode, Multimode (62.5, 50 micron-OM3. Also, is the fiber an indoor, indoor/outdoor or outdoor fiber? or OM4

**Response:** See Specification Section 634.070 for fiber optic cable details.

**Question:** Note 2 on Drawing E02 says replace 25A/3P breaker with new 400A/3P breaker in Siemens Panel PP-2. Need panel Manufacturer part number to quote new breaker.

**Response:** We do not have the exact model series of the existing breakers. The specifications call for the Contractor to provide compatible breakers. The Contractor should be able to obtain compatible breakers through the electrical distributor.

**Question:** For the cameras can you provide the following information:

- Surface area dimensions of the camera (height, width, depth)
- Weight of the camera
- Where exactly on the pole the camera is to be located
- How the camera is to be attached to the pole

**Response:** Due to security reasons, the Maine Port Authority cannot provide the specific information requested. The cameras are traditional commercial-dome PTZ cameras. Reinstallation of the cameras will be coordinated with the Authority's security provider, Galaxy Integrated. Once a Contractor is selected, more information will be provided as needed.

**Question:** Item number 0040 Remove Existing railings – is this item for the rail and walk on the north side of the maintenance building and called out as Removing Existing Walk on Sheet C02? If not where is it located?

**Response:** Yes, the existing railings to be removed are associated with the walkway on the north side of the maintenance building.

**Question:** Can you please clarify item 0260 Seawall Repair concrete. There appears to be no specifications for this item in the Special Provisions. Additionally, the item ID 502.605 states in the Special Provisions that this item should be Structural Concrete Pad. Please clarify.

**Response:** Item 0260 is incorrectly labeled in the Schedule of Bid Items. The item is 502.607, Structural Concrete, Storage Pad (15 Cubic Yards).

**Question:** The as-built plans show a wire connecting the box beams perpendicular. It only shows one on the end. How many strands are there over the length of the beams?

**Response:** The number of perpendicular post-tensioning strands is unclear according to the as-built sketch (upper right corner of Sheet 19 of the 1993 plan set). The detail identifies one strand tensioned to 29.0k. However, the details for the East and Middle Ramps in the middle of the same drawing, identify three strands at 10k each.

**Question:** Can item 509.9106 Fusion Bonded Epoxy Coating be changed to a unit price item so that the Contractor doesn't have to take the risk in deviations in the assumed pile lengths? These quantities could be developed off an approved pile order list like the furnish pile.

**Response:** No, the standard unit of measure for Fusion Bonded Epoxy shall remain as lump sum.

**Question:** There are five allowance items in the proposal that are missing dollar values and measure of payment information, can you please clarify?

**Response:** Please see Amendment Number 1, and attached Proposal Schedule of Items.

**Question:** Suppliers are having issues quoting the 30-ft. light pole with the information that has been supplied. Is there a specific manufacturer and part number for this pole?

**Response:** Light pole dimension is changed to 20-feet. Manufacturer: Metal Pole-Lite, Inc., straight shaft steel ASTM 513, 8-inch diameter, and 0.188-inch wall thickness. Catalog # RSS20-8-188-BC. The pole is fitted with an aluminum cap, electrical handhole, base plate, and base cover.

**Question:** How shall the contractor handle the concrete slurry that is generated from the concrete cutting of the existing deck and structural elements?

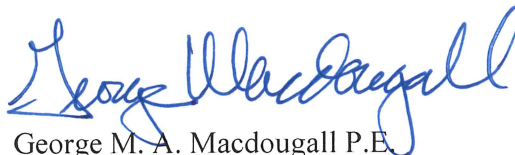
**Response:** Please see the second paragraphs of Section 202.03 of Special Provision 202.

**Question:** Will the fiber optic cable require testing?

**Response:** Yes, the fiber optic cable shall be tested upon completion of the installation.

Consider these changes and information prior to submitting your bid on **August 22, 2018**.

Sincerely,



George M. A. Macdougall P.E.  
Contracts & Specifications Engineer



# SIGN IN SHEET



PORTLAND INTERNATIONAL MARINE TERMINAL

Pre-Bid Meeting

for

## WHARF INFILL & BUILDING DEMOLITION PROJECT WIN 021942.06

PORTLAND INTERNATIONAL MARINE TERMINAL

10:00 AM, WEDNESDAY, AUGUST 8, 2018

NAME	ORGANIZATION	CONTACT (Phone/Email)
CRAIG MORIN	HNTB	207-774-5155 CMORIN@HNTB.COM
DENNIS DARU	MOOKISON HEAVY ELECTRIC	(617) 512-7086 DENNIS@MOOKISON.COM
GREG SCOTT	SCOTT CONST. CORP	632-0521 gscott207@gmail.com
MARK McPETERS	T. BUCK CONST.	783-6223 MARK@TBUCKCON.NET
MIKE THIBODEAU	SARGENT CORP	267-817-7580 MTHIBODEAU@SARGENT-CORP.COM
Neutelwigley	Cianbro	207-553-2709 nwigley@cianbro.com
Richard McLeod	HB Fleming	207-415-7930 RMcLeod@HBFloum.com
Dan Bernard	CPM constructors	207-865-0000 dbernard@cpmconstructors.com
LARRY BARTLETT	BARTLETT DESIGN	207 443-5447 bartlettdesigninc@comcast.net
ED KARPINSKI	MDOT / Keville	207-504-1916 ekarpinski@keville.com
Matt Kelly	MDOT	207-441-4086 Matthew.Kelly@maine.gov
JOSH MARCEAU	WYMAN & SIMPSON	207-319-8952 jmarceau@wymanandsimpson.com



Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project Items

Alt Set ID: Alt Mbr ID:

Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	202.01 REMOVING STRUCTURES AND OBSTRUCTIONS - Concrete Curb & Bollards	LUMP SUM	LUMP	SUM	_____	_____
0020	202.01 REMOVING STRUCTURES AND OBSTRUCTIONS - Wharf Area, Ramp #3	LUMP SUM	LUMP	SUM	_____	_____
0030	202.08 REMOVING BUILDING NO.: - #1 Maintenance Building	LUMP SUM	LUMP	SUM	_____	_____
0040	202.14 REMOVING EXISTING RAILINGS (PROPERTY OF CONTRACTOR)	30.000 LF	_____	_____	_____	_____
0050	202.15 REMOVING MANHOLE OR CATCH BASIN	1.000 EA	_____	_____	_____	_____
0060	202.203 PAVEMENT BUTT JOINTS	49.000 SY	_____	_____	_____	_____
0070	202.4011 REMOVING EMBEDDED TIMBER PILE	20.000 EA	_____	_____	_____	_____
0080	203.20 COMMON EXCAVATION	800.000 CY	_____	_____	_____	_____
0090	203.2312 HEALTH AND SAFETY PLAN	LUMP SUM	LUMP	SUM	_____	_____
0100	304.104 AGGREGATE SUBBASE COURSE (PLAN QUANTITY)	290.000 CY	_____	_____	_____	_____
0110	304.14 AGGREGATE BASE COURSE - TYPE A	180.000 CY	_____	_____	_____	_____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project Items

Alt Set ID: Alt Mbr ID:

Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0120	403.2071 19 MM POLYMER MODIFIED HOT MIX ASPHALT	129.000 T	_____	 _____	_____	 _____
0130	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	65.000 T	_____	 _____	_____	 _____
0140	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	29.000 T	_____	 _____	_____	 _____
0150	409.15 BITUMINOUS TACK COAT - APPLIED	24.000 G	_____	 _____	_____	 _____
0160	419.30 SAW CUTTING BITUMINOUS PAVEMENT	315.000 LF	_____	 _____	_____	 _____
0170	501.231 DYNAMIC LOADING TEST	4.000 EA	_____	 _____	_____	 _____
0180	501.24 STEEL PIPE PILES	7,450.000 LF	_____	 _____	_____	 _____
0190	501.241 STEEL PIPE PILES - IN-PLACE	6,950.000 LF	_____	 _____	_____	 _____
0200	501.90 PILE TIPS	68.000 EA	_____	 _____	_____	 _____
0210	501.91 PILE SPLICES	17.000 EA	_____	 _____	_____	 _____
0220	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP SUM	_____	 LUMP SUM	_____	 _____
0230	502.235 STRUCTURAL CONCRETE, PIER PILE CAP & EDGE BEAM	290.000 CY	_____	 _____	_____	 _____

Maine Department of Transportation

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Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0240	502.411 STRUCTURAL CONCRETE, PIER DECK SLAB	310.000 CY	_____	 _____	_____	 _____
0250	502.451 STRUCTURAL CONCRETE DISTRIBUTION SLAB - Approach Slab	130.000 CY	_____	 _____	_____	 _____
0260	502.607 STRUCTURAL CONCRETE, STORAGE PAD	LUMP SUM		 LUMP SUM	_____	 _____
0270	503.14 EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED	150,000.000 LB	_____	 _____	_____	 _____
0280	503.15 EPOXY-COATED REINFORCING STEEL, PLACING	150,000.000 LB	_____	 _____	_____	 _____
0290	506.9106 FUSION BONDED EPOXY COATING	LUMP SUM		 LUMP SUM	_____	 _____
0300	514.06 CURING BOX FOR CONCRETE CYLINDERS	1.000 EA	_____	 _____	_____	 _____
0310	515.201 PIGMENTED CONCRETE PROTECTIVE COATING - Curbs & Edge Beams	2,100.000 SY	_____	 _____	_____	 _____
0320	515.202 PROTECTIVE COATING FOR CONCRETE SURFACES - SILANE SEALER - Decks	7,350.000 SY	_____	 _____	_____	 _____
0330	518.50 REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 8 IN.	100.000 SF	_____	 _____	_____	 _____

Maine Department of Transportation

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Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0340	518.51 REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 8 IN.	20.000 SF	_____	 _____	_____	 _____
0350	518.60 REPAIR OF VERTICAL SURFACES < 8 IN.	20.000 SF	_____	 _____	_____	 _____
0360	520.22 EXPANSION DEVICE - COMPRESSION SEAL	1.000 EA	_____	 _____	_____	 _____
0370	535.631 PRESTRESSED STRUCTURAL CONCRETE DECK PLANKS	LUMP SUM		 LUMP SUM	_____	 _____
0380	604.158 UTILITY VAULT - 10' x 8' x 8'	1.000 EA	_____	 _____	_____	 _____
0390	607.1701 TEMPORARY CHAIN LINK FENCE - 6' MOVEABLE	400.000 LF	_____	 _____	_____	 _____
0400	627.903 PAVEMENT MARKINGS ON EXISTING CONCRETE PIER	LUMP SUM		 LUMP SUM	_____	 _____
0410	629.05 HAND LABOR, STRAIGHT TIME	60.000 HR	_____	 _____	_____	 _____
0420	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____
0430	631.13 BULLDOZER (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____
0440	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____

Maine Department of Transportation

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SECTION: 1 Project Items

Alt Set ID: Alt Mbr ID:

Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0450	631.36 FOREPERSON	60.000 HR	_____	 _____	_____	 _____
0460	634.1811 1 1/2" LIQUID TIGHT METALLIC FLEXIBLE CONDUIT	50.000 LF	_____	 _____	_____	 _____
0470	634.188 4" ELECTRICAL METALLIC TUBING CONDUIT	25.000 LF	_____	 _____	_____	 _____
0480	634.194 1 1/2" PVC CONDUIT	100.000 LF	_____	 _____	_____	 _____
0490	634.1941 1" PVC CONDUIT	150.000 LF	_____	 _____	_____	 _____
0500	634.1943 4" SCHEDULE 80 PVC CONDUIT	1,575.000 LF	_____	 _____	_____	 _____
0510	634.1944 2" SCHEDULE 40 PVC CONDUIT	350.000 LF	_____	 _____	_____	 _____
0520	634.1949 2 1/2" SCHEDULE 40 PVC CONDUIT	350.000 LF	_____	 _____	_____	 _____
0530	634.195 4" PVC CONDUIT - Schedule 40	560.000 LF	_____	 _____	_____	 _____
0540	634.2072 INSTALL REEFER OUTLET PEDESTAL	1.000 EA	_____	 _____	_____	 _____
0550	634.2073 INSTALL HIGH-MAST LIGHTING POLE	1.000 EA	_____	 _____	_____	 _____
0560	634.230 12" X 12" X 6" INTERIOR PULL BOX	1.000 EA	_____	 _____	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

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Project(s): 021942.06

SECTION: 1 Project Items

Alt Set ID: Alt Mbr ID:

Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0570	634.2311 STAINLESS STEEL EXTERIOR PULL BOX	1.000 EA	_____	 _____	_____	 _____
0580	634.312 # 2 AWG COPPER WIRING	525.000 LF	_____	 _____	_____	 _____
0590	634.313 # 4/0 AWG COPPER WIRING	1,050.000 LF	_____	 _____	_____	 _____
0600	634.314 #6 AWG COPPER WIRE	800.000 LF	_____	 _____	_____	 _____
0610	634.315 #8 AWG COPPER WIRE	400.000 LF	_____	 _____	_____	 _____
0620	634.3151 #1/0 AWG GND WIRE	1,100.000 LF	_____	 _____	_____	 _____
0630	634.317 500 MCM CU	3,300.000 LF	_____	 _____	_____	 _____
0640	634.318 250 MCM CU	575.000 LF	_____	 _____	_____	 _____
0650	634.73 REMOVE EXISTING LIGHT POLES	LUMP SUM		 LUMP SUM	_____	 _____
0660	634.74 INSTALL CRANE OUTLET STATION - #1 and #3	1.000 LS	_____	 _____	_____	 _____
0670	634.75 INSTALL COMMUNICATION AND SURVEILLANCE	LUMP SUM		 LUMP SUM	_____	 _____
0680	634.761 INSTALL FIRE ALARM SYSTEM	LUMP SUM		 LUMP SUM	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project Items

Alt Set ID: Alt Mbr ID:

Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0690	639.18 FIELD OFFICE TYPE A	1.000 EA	_____	 _____	_____	 _____
0700	655.501 CATHODIC PROTECTION BY SACRIFICIAL ANODE	34.000 EA	_____	 _____	_____	 _____
0710	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		LUMP SUM	_____	 _____
0720	659.10 MOBILIZATION	LUMP SUM		LUMP SUM	_____	 _____
0730	825.67 TERMINATE GAS LINE	LUMP SUM		LUMP SUM	_____	 _____
0740	825.68 WATER LINE MODIFICATIONS	LUMP SUM		LUMP SUM	_____	 _____
0750	825.69 SEWER LINE MODIFICATIONS	LUMP SUM		LUMP SUM	_____	 _____
0760	832.071 CONTRACTOR ALLOWANCE - CMP	LUMP SUM		LUMP SUM	_____	 _____
0770	832.071 CONTRACTOR ALLOWANCE - Fairpoint	LUMP SUM		LUMP SUM	_____	 _____
0780	832.071 CONTRACTOR ALLOWANCE - Portland Water District	LUMP SUM		LUMP SUM	_____	 _____
0790	832.071 CONTRACTOR ALLOWANCE - Unutil	LUMP SUM		LUMP SUM	_____	 _____
0800	832.071 CONTRACTOR ALLOWANCE - City Permits	LUMP SUM		LUMP SUM	_____	 _____

8/8/2018

Maine Department of Transportation

Proposal Schedule of Items

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Proposal ID: 021942.06

Project(s): 021942.06

SECTION: 1 Project Items

Alt Set ID: Alt Mbr ID:

Contractor: \_\_\_\_\_

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0810	841.4713 STEEL BOLLARD, 12 INCH	15.000 EA	_____	_____	_____	_____
		<b>Section: 1</b>	<b>Total:</b>		_____	_____
			<b>Total Bid:</b>		_____	_____

## CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

\_\_\_\_\_ a corporation or other legal entity organized under the laws of the State of \_\_\_\_\_, with its principal place of business located at \_\_\_\_\_

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

### A. **The Work.**

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, WIN. 21942.06 for Wharf infill & Building Removal in the city of Portland, County of Cumberland, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

### B. **Time.**

The Contractor agrees to complete all Work, except warranty work, on or before June 28, 2020. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, November 2014 Edition and related Special Provisions.

**C. Price.**

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is \_\_\_\_\_

\$\_\_\_\_\_ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

**D. Contract.**

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

**E. Certifications.**

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

**F. Offer.**

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

**WIN. 21942.06 - Wharf Infill & Building Removal – in the city of Portland**

State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items”.

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items”, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Standard Specifications, November 2014 Edition, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications November 2014 Edition and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_  
Witness

\_\_\_\_\_  
(Name and Title Printed)

**G. Award.**

Your offer is hereby accepted.  
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: David Bernhardt, Commissioner

\_\_\_\_\_  
Witness

## CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

\_\_\_\_\_ a corporation or other legal entity organized under the laws of the State of \_\_\_\_\_, with its principal place of business located at \_\_\_\_\_

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

### **A. The Work.**

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, WIN. 21942.06 for Wharf infill & Building Removal in the city of Portland, County of Cumberland, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

### **B. Time.**

The Contractor agrees to complete all Work, except warranty work, on or before June 28, 2020. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the State of Maine Department of Transportation Standard Specifications, November 2014 Edition and related Special Provisions.

**C. Price.**

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is \_\_\_\_\_

\$\_\_\_\_\_ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

**D. Contract.**

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

**E. Certifications.**

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

**F. Offer.**

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

**WIN. 21942.06 - Wharf Infill & Building Removal – in the city of Portland**

State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items”.

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items”, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Standard Specifications, November 2014 Edition, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications November 2014 Edition and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Signature of Legally Authorized Representative  
of the Contractor)

\_\_\_\_\_  
Witness

\_\_\_\_\_  
(Name and Title Printed)

**G. Award.**

Your offer is hereby accepted.  
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: David Bernhardt, Commissioner

\_\_\_\_\_  
Witness

SPECIAL PROVISION  
SECTION 104  
GENERAL RIGHTS AND RESPONSIBILITIES  
(Staging Area)

104.3.15 Contractor's General Authority and Responsibilities

This Subsection is added by inclusion of the following:

The Contractor's staging area is provided in two phases. Phase 1 consists of an area from Ramp 2 to the east as shown on revised plan C01. This space is available from the MaineDOT field trailer and Contractor field trailer along with lay down area for the activities that need to be completed prior to the start of demolition. Phase 2 is the area required for the demolition of the building, construction of the infill wharf, and other activities.

The Contractor's staging areas shall be located within the phased fence areas. A secondary staging area may be available during Phase 2 work at the approval of the Resident, but must not interfere or obstruct the daily operations of the Terminal. Other sites outside of the Port Operations Area (MTSA 105 regulated area) may also be designated as staging areas by the Resident and the Terminal Manager. The Resident shall coordinate with the Terminal Manager prior to approving additional staging areas.

Phase 2 fencing may not be installed until the existing Maintenance and Operations activities being performed in the existing building and area are relocated to the new Maintenance and Operations building currently being constructed by others.

Once light pole, foundation, and refer plug are installed, adjust fence line so that they are accessible from the Port Operations area.

In Phases 2 and 3, the Contractor shall provide a personnel gate as shown on revised plan C01 for Terminal access to the utility building during construction.

The MaineDOT will also have a field office trailer for this project, which shall be placed in close proximity to the Contractor's field office.

Meeting rooms, restroom facilities, and break rooms within the IMT office building will not be available to the Contractor.

**SPECIAL PROVISION**  
**SECTION 104**  
**GENERAL RIGHTS AND RESPONSIBILITIES**  
**(Coordination with Terminal Manger)**

The following Subsection is added:

104.4.11 Coordination with Terminal Manager

The Portland International Marine Terminal (IMT) is an active container terminal with various container movements anticipated to occur on a weekly basis. Successful completion of the proposed project will require coordination between the Contractor and the Terminal Manager on a weekly basis via project meetings to be held on-site. At these meetings, the Contractor will be required to provide an update on the progress of the project and will make requests to work within wharf limits. In a similar manner, the Terminal Manager will provide a weekly vessel schedule to the Contractor and will advise when the existing wharf is not available, or if the temporary fencing needs to be relocated along the northern boundary of the Primary Construction Zone. The general location of the proposed temporary fencing is positioned so that both port operations and construction activities can occur simultaneously without interruption or needing adjustments.

The Contractor is encouraged to follow the location of the two regularly scheduled Eimskip vessels to prepare and schedule its construction activities. The two vessels are the Skogafoss and the Reykjafoss and the location of these can be monitored at the following website by clicking on the "Live Map" button in the middle of the webpage:

<http://www.eimskip.com/services/liner-services/sailing-schedule/>

Container operations are typically routine: upon arrival of a vessel, the mobile harbor crane positions itself on the wharf and will offload containers non-stop until the containers have been moved to their final position within the terminal. Containers are temporarily placed on the wharf where reach-stacker vehicles pick the containers and carry them to the Container Storage Area. Within twelve hours, the vessel is underway and waterfront activity subsides.

The Contractor is also advised that while there is little available vacant space for Contractor storage within the Port Operations area, a small portion of the Terminal will be made available for storage. Within the Terminal, the Contractor will require special access through the use of TWIC cards and Terminal ID's as described in Section 105 of these Special Provisions.

Construction Schedule:

The Contractor will be required to submit a detailed written construction schedule. This schedule will be monitored closely and shall be updated weekly during construction meetings. When the Contractor is prepared to commence work on site, in addition to the construction schedule, the Contractor shall provide on a regular basis a written day by day summary of the Construction activities that will occur for the upcoming three-week period. This summary will also highlight activities that will have an impact on the use of facilities in the construction and adjacent areas.

Pollution Control:

All operations carried out by the Contractor during the life of this contract shall comply with provisions and regulations for the control of air and noise pollution. The contractor shall make all applications and notices and comply with all appropriate provisions of the rules and regulations of Federal, State, and Local Agencies. The Contractor will also closely monitor debris and trash that is generated on site and ensure that it is properly contained and maintained. Trash must be removed regularly and as a minimum, at least weekly.

Construction Management Plan:

The Contractor shall submit a Construction Management Plan to the Resident for review and approval. The Resident will forward the Plan to the City of Portland for their files. The Contractor shall anticipate modifications to the Construction Management Plan based on comments from either the Resident or the City of Portland. A copy of the Engineer's Construction Management Plan used in the site plan permit application for the City of Portland is provided in the Appendix for the Contractor's information and use.

SPECIAL PROVISION  
SECTION 105  
GENERAL SCOPE OF WORK  
(Summary of Project Requirements)

The following Subsection is added:

105.11.2 Summary of Project Requirements

The Contractor is advised that this project occurs within a secured/restricted facility as determined by Homeland Security, and contains security equipment for both the Terminal and City of Portland which must remain functional at all times. The manner by which the project requirements shall be addressed by the Contractor are presented in each special provision contained herein, but other approaches may be suggested by the Contractor, which are subject to review and approval by the Owner.

A summary of the project requirements is summarized below:

Site Security:

- Contractor must maintain as operational the existing site security equipment at all times. This will require the establishment of electrical utilities and temporary systems prior to completion of the project. Electrical provisions will be required prior to demolition of buildings.
- CCTV systems and the City of Portland's emergency operator system must remain functional at all times. Again, electrical provisions will be required to maintain CCTV and emergency operator systems.
- Galaxy Integrated Technologies of Brighton, Massachusetts is the contractor responsible for servicing and monitoring the security system for the Portland IMT and the City of Portland. The Contractor shall coordinate with Galaxy at the onset of the project.

Rubb Building

- Utilities at the Rubb Building must remain functional throughout the project, but may be permitted short lapses of functionality (no more than four hours at a time) with scheduled notice to the Port Operator. For this reason, water, sewer, gas, electric, and communication lines must be modified according to the plans prior to demolition of the Maintenance Building. Minimize impact to the personnel in the Rubb Building to the greatest extent possible.
- The existing fire alarm system and security systems for the chassis yard and concrete loading platform run through this building to the existing Maintenance building and will need to be maintained throughout the project. Temporary relocation of these services will need to be coordinate with the Resident and Terminal Manager.

Domestic/International Container Storage Areas – Port Operations Work Area

- Temporary fencing, which will define the Contractor's Work Area, must be placed within close proximity to the lines shown on the Plans, in order to provide ample working space for Port Operations. The location of the temporary fencing may be slightly shifted throughout the project as needed and on a short term scheduled basis, by either the Port Operator or the Contractor to accomplish specific task.

SPECIAL PROVISION  
SECTION 107  
TIME

107.1 Contract Time and Contract Completion Date

This Subsection is amended by the addition of the following:

Work shall commence on or before **Monday, January 14, 2019** at the discretion of the Department, and all work shall be completed on or before **Friday, June 28, 2020**.

107.3.2 Night Work

This Subsection is amended by the addition of the following:

The Contractor shall be aware of the close proximity of the local residences. The Contractor shall conduct operations so as not to generate loud noises greater than 80 dB within 500 ft of any building used for residential purposes between the hours of 10:00pm and 7:00am unless otherwise approved. Local requirements concerning noise may impose additional restrictions and must be complied with by the Contractor. See Section 17 - 18 of the City of Portland Ordinance.

107.4.2 Schedule of Work Required

This Subsection is deleted and replaced with the following:

Within 21 Days of Contract Execution and before beginning any on-site activities, the Contractor shall provide the Department with its Schedule of Work. The Contractor shall plan the Work, including the activity of Subcontractor's, vendors, and suppliers, such that all Work will be performed in Substantial Conformity with its Schedule of Work. The Schedule must include sufficient time for the Department to perform its functions as indicated in this Contract, including QA inspection and testing, approval of the Contractor's TCP, SEWPCP, and QCP, and review of design submittals, product data, and working drawings.

At a minimum, the Schedule of Work shall include a bar chart which shows the major Work activities, milestones, durations, and a timeline. Milestones to be included in the schedule include: (A) start of Work, (B) beginning and ending of planned Work suspensions, (C) Completion of Physical Work, and (D) Completion. If the Contractor Plans to Complete the Work before the specified Completion Date, the Schedule shall so indicate.

Any restrictions that affect the Schedule of Work such as paving restrictions must be charted with the related activities to demonstrate that the Schedule of Work complies with the Contract.

The Department will review the Schedule of Work and provide comments to the Contractor within 20 days of receipt of the schedule. The Contractor will make the requested changes to the schedule and issue the finalized version to the Department.

107.4.3 Project Payment Schedule

This Subsection is amended by the addition of the following:

The Contractor shall also provide the Department with a Quarterly Projected Payment Schedule that estimates the value of the Work as scheduled, including requests for payment of Delivered Materials. The Projected Payment Schedule must be in accordance with the Contractor's Schedule of Work and prices

submitted by the Contractor's Bid. The Contractor shall submit the Projected Payment Schedule as a condition of Award.

#### 107.4.6 Prosecution of Work

The following activities must be performed by the Contractor in accordance with the dates specified:

##### Project Work

- |  |  |
|--|--|
| ▪ Electrical lines alongside the inside face of the existing wharf shall be temporarily relocated to beneath Ramp #2 and the wharf. Provide new/temporary electrical conduits and feeds for Crane Station #2 and #3. Install the conduit for the final location of the electrical lines. | Prior to demolition of the Maintenance Building.   |
| ▪ Fire Alarm System relocation and Fiber Optics relocation   | Prior to demolition of the Maintenance Building.   |
| ▪ Installation of stored high-mast light pole, stored reefer outlet, and site bollards.  | Prior to demolition of the Maintenance Building.   |
| ▪ Installation of electrical crane outlet stanchion at Station #3.   | Prior to demolition of the Maintenance Building.   |
| ▪ Installation of telecommunication splice, new utility pole and conduits, and CCTV cameras. Coordinate camera installation with Galaxy Integrated Technology.   | Prior to demolition of the Maintenance Building.   |
| ▪ Removal of CCTV cameras and security equipment from the Maintenance Building   | Prior to demolition of the Maintenance Building and after installation of new CCTV cameras and equipment by Galaxy Integrated. |

#### 107.4.7 Limitations of Operations

The Contractor may install Phase 1 fencing no sooner than Monday, April 1, 2019.

Phase 2 and Phase 3 work noted on the plans may not start until the existing Maintenance & Operations activities have been relocated to the new facility currently being constructed under MaineDOT WIN: 021942.02. The anticipated Certificate of Occupancy date for the new facility is May 17, 2019. The Maine Port Authority will then require 30 days to relocate its equipment, tools, and supplies into the new facility; therefore, the Contractor should anticipate the start of Phase 2 and 3 Work to be on or about June 17, 2019.

Should the new Maintenance & Operations Building be ready sooner than noted, the MaineDOT will coordinate with the Terminal Manager to relocate operations earlier than June 17, 2019, and then allow the Wharf Infill Phase 2 and 3 Work to start earlier also. Coordination meetings will be held to keep everyone informed as to the potential early start date for the demolition and wharf infill.

Work outside of the Phase 1 Work/Staging Area will need to be coordinated with the Resident and the Terminal Manager with temporary work zones being established but in no way may these temporary work zones have an impact on the Maine Port Authority's operations.

The Contractor shall note that both the primary entrance and the secondary entrance into the IMT are active entrances 24 hours/day, 7 days/week. These entrances (shown on the Existing Conditions Plan) shall not be obstructed or altered in any way during construction.

In the event that the chassis storage yard is used by the Contractor for material storage, the Contractor shall also note that the MaineDOT Bridge Maintenance personnel require uninterrupted access to the Maintenance Building located along the waterfront and adjacent to the Casco Bay Bridge. The Contractor shall coordinate its construction activities with the bridge maintenance personnel so that their access is not hindered in any way during construction. Coordination shall consist of weekly meetings and distribution of the construction schedule. Contractor shall coordinate these needs and the location of the temporary access way with the Resident and the bridge maintenance personnel.

Placement of polymer-modified pavements shall be completed between May 1<sup>st</sup> and September 15<sup>th</sup>.

The cost of these limits of operations shall be considered incidental to the Contract and no additional compensation will be made.

#### 107.9 Project Closeout

The following is in addition to the requirements of Section 107.9:

The Contractor shall maintain at the site a set of Contract Plans and these Special Provisions, upon which shall be recorded accurately as the work progresses the actual dimensions and locations of all his work, indicating thereon all variations from the Contract Documents. The record shall include the work of all Subcontractors. Record drawings shall be reviewed by the Resident, and the Contractor shall make all necessary changes according to the Resident's review.

Prior to final acceptance of the Work, all recorded data shall be transferred by the Contractor, to a complete set of reproducible record specifications of the Contract Drawings showing "As-Built" conditions. The As-Built drawings shall be presented using neatly color-coded markups to identify changes, modifications, or deletions to the proposed work.

The additional project closeout requirements noted in this special provision shall be considered incidental to the contract and no separate payment will be made.

**SPECIAL PROVISION**  
**SECTION 502**  
**STRUCTURAL CONCRETE**  
(Pile Cap and Edge Beam)  
(Deck Slab)  
(Approach Slab)  
(Storage Pad)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, Revision November 2014, SECTION 502 – STRUCTURAL CONCRETE, with the following modifications:

Section 502.01 Description

Add the following after the first paragraph:

This work shall consist of furnishing and placing Portland Cement Concrete for concrete waterfront structures including fill for steel pipe piles, pile caps, deck slab, approach slab, curbs, and storage pad in accordance with these Specifications and in conformity with the lines, grades, and dimensions shown on the Plans.

Section 502.05 Composition and Proportioning

Modify Table 1 in accordance with the following:

Concrete Class LP shall include Note 2: inclusion of Calcium Nitrite.

Modify Table 1, Note 2, in accordance with the following:

Calcium Nitrite shall be added at a rate of 5.0 gallons per cubic yard.

Section 502.1702 Quality Control Method C

The following paragraph is added:

Quality Control for concrete elements shall be based on Method C.

Section 502.18 Method of Measurement

Add the following before the first paragraph:

Measurement of concrete for pile caps and edge beams; deck slab; approach slab; and curb; satisfactorily placed and accepted will be measured by the cubic yard, per their respective items, in accordance with the dimensions shown on the Plans or authorized changes in the Plans.

Measurement of concrete for the storage pad shall be by the lump sum satisfactorily placed and accepted in accordance with dimensions shown on the plans.

Fill for steel pipe piles will not be measured separately but shall be incidental to the Steel Pipe Pile In Place Pay Item, 501.241.

Section 502.19 Basis of Payment

Add the following before the first paragraph:

Payment for saw cutting control joints in the deck slab and the placement of joint sealants shall be incidental to the Structural Concrete Deck Slab Pay Item.

Payment for the concrete storage pad shall include all concrete materials and epoxy-coated steel

reinforcement as shown on the plans.

Coarse-base materials shall be paid under Pay Item 304.14, Aggregate Base Coarse, Type A.

Excavation and backfilling shall be paid under Pay Item 203.20, Common Excavation.

Add the following Pay Items:

<u>Pay Item</u>		<u>Pay Unit</u>
502.235	Structural Concrete, Pile Cap and Edge Beam	Cubic Yard
502.411	Structural Concrete, Deck Slab	Cubic Yard
502.451	Structural Concrete, Approach Slab	Cubic Yard
502.607	Structural Concrete, Storage Pad	Lump Sum

END OF SECTION

SPECIAL PROVISIONS  
SECTION 502  
STRUCTURAL CONCRETE  
(QC/QA Acceptance Methods)

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
LP	502.235	Structural Concrete – Pile Cap and Edge Beams	-	C
LP	502.411	Structural Concrete – Deck Slab	-	C
LP	502.451	Structural Concrete – Approach Slab	-	C
LP	502.607	Structural Concrete – Storage Pad	-	C
A	501.241	Steel Pipe Piles (16” Dia.) In-Place		C
A	634.75	Utility Pole Foundation	-	C
A	841.4713	Steel Bollard – 12 Inch	-	C

P values listed above reflect the price per cubic yard (yd<sup>3</sup>) for all pay adjustment purposes.

END OF SECTION

SPECIAL SPECIFICATIONS  
SECTION 634  
HIGHWAY LIGHTING

The provisions of Section 634 of the Standard Specifications shall apply with the following additions and modifications.

634.01 Description

This work shall consist of furnishing and installing the following in accordance with these specifications and plans.

1. Removal of existing lighting poles and associated wiring.
2. Provision of a new crane receptacle outlet stations #1 and #3. All equipment associated with new crane receptacle outlet station #3 shall be new. As part of new crane receptacle outlet station #1, relocate of the existing crane service switch from crane receptacle outlet station #2 to station #1 Provide a new crane receptacle disconnect at new station #1.
3. Provision of new (replacement) electrical service feeders for existing 480-volt crane stations #1 and #2, and new 480-volt electrical service feeder for new crane station #3. Also, provision of new (replacement) electrical service feeder for existing 240/120-volt service switch at crane station #2.
4. Modification of existing electrical distribution equipment to serve the new crane outlet station #3.
5. Installation of relocated high-mast lighting pole, including installation of relocated foundation base.
6. Provision of new electrical wiring to serve the relocated high-mast lighting pole.
7. Installation of relocated reefer outlet pedestal, including installation of relocated foundation base.
8. Provision of new electrical wiring to serve the relocated outlet pedestal.
9. Relocation of existing security surveillance cameras, including new CAT6 cable and conduit.
10. Provision of a new 20-foot aluminum pole for installation of the relocated security surveillance cameras.
11. Re-routing of two existing 12-strand fiber optic communications cables from the existing Administration Building to the existing Utility Building, including new conduit.
12. Relocation of the existing fiber optic connection switch and wiring termination panels within the existing Maintenance Building to the existing Utility Building for the re-routed existing fiber optic communications cable. Replace fiber optic cable from Rubb Building to the Utility Building.
13. Relocation of the existing fire alarm control panel, existing municipal fire alarm radio box, and the existing radio box antenna from the existing Maintenance Building to the Rubb Building.
14. Replacement of the existing fire alarm automatic detectors and the existing fire alarm manual pull stations in the Rubb Building with addressable devices.
15. Replacement of the existing underground fire alarm cable from the Rubb Building relocated fire alarm panel to serve an existing exterior post-mounted fire alarm pull station located adjacent to the existing Maintenance Building. Provide an extension of the existing underground fire alarm conduit from the Rubb Building to the existing fire alarm pull station conduit. The existing fire alarm cable in the existing conduit is to be removed.
16. Installation of all necessary temporary and interim electrical provisions.
17. Procurement of and payment for any and all permits and fees required for the performance of the electrical work including those that may be required from local utilities for services.
18. Provision of a new fiber optic cable between the existing termination point in the existing Rubb Building and the existing relocated termination equipment in the existing Utility Building. The new fiber optic cable shall be installed within an existing underground conduit, with an extension of new underground conduit as necessary to reach the existing Utility Building. The existing fiber optic cable in the existing conduit is to be removed.

### 634.02 General

Where the Contract documents permit the selection from several product options, and where it becomes necessary to authorize a substitution, the Contractor shall not proceed with purchases until coordination of all interface requirements has been checked and satisfactorily established. Substitutions are subject to approval by the Authority or designated representative per the requirements of the Contract documents.

Refer to Supplemental Specification Section 100 for required construction sequencing.

Refer to the Structural Contract Plans for the exact routing of conduits to be installed under the pier deck. The Electrical Contract Plans show schematic arrangements only.

### 634.021 Materials

Materials shall meet the requirements specified in the following Subsection of Division 700 - Materials:

Steel Conduit	715.02
Non-Metallic Conduit	715.03
Metallic Junction and Fuse Box	715.05
Secondary Wiring	715.07
Service Equipment	715.11
Anchor Bolts	720.07

### 634.022 Equipment List and Drawings

Provide scale drawings and details for anchor bolt installation methods.

### 634.03 General

The work of this Section is defined to include whatever excavating and back-filling is necessary to install the electrical work. Coordinate the work with other excavating and back-filling in the same area, including de-watering; flood protection provisions, and other temporary facilities. Coordinate the work with other work in the same area, including other underground services (existing and new), paving, and concrete work. Coordinate with weather conditions and provide temporary facilities needed for protection and proper performance of installations, excavating and back-filling.

Coordinate excavation for new foundations, and underground conduits with existing underground utilities. Where conflicts are found with existing utilities, make all practical efforts to install new work to produce a minimum impact on existing conditions. Where relocation of existing utilities is deemed necessary, obtain approval from affected utility supplier in advance of commencing relocation work.

### 635.04 Cable Installation

Provide factory-fabricated wire of the size, rating, material and type as required for each service. Where not indicated, provide proper selection as determined by installer to comply with installation requirements and with NEC standards. Building wire in conduit shall be 600 volt class Type THWN-2 or Type XHHW-2, as manufactured by *Southwire* or approved equal. Conductors shall be rated 90° C with moisture and heat-resistant thermoset cross-linked polyethylene insulation.

Fire alarm cable shall be certified as appropriate for use with the manual pull stations being provided.

### 634.041 Conduit

Conduit within the existing Utility Building shall be Electrical Metallic Tubing. Provide high quality, hot dip galvanized, electrical metallic tubing conduit and fittings of type, size and weight (wall thickness) required for each application. Where type and grade are not indicated, provide proper selection determined to

fulfill wiring requirements, and comply with National Electrical Code. Rain-tight compression type connectors shall be used in all cases. Set-screw type conduit connections or fittings shall not be used.

Box and equipment connections at exterior locations shall be made with liquid tight flexible conduit. Provide liquid-tight flexible metal conduit comprised of single strip, continuous, flexible interlocked, double-wrapped steel, galvanized inside and outside; forming smooth internal wiring channel; with liquid-tight jacket of flexible polyvinyl chloride (PVC).

Where conduit is installed in earth, it shall be Polyvinyl Chloride (PVC) Schedule 40 conduit. Where conduit is installed exposed under, or on, the pier deck, it shall be Polyvinyl Chloride (PVC) Schedule 80 conduit. Provide nonmetallic fittings of type required for each conduit. Where conduit sizes are not indicated, provide proper selection determined to fulfill wiring requirements, and comply with National Electrical Code, and with type selected in accordance with applicable standards.

Provide corrosion-resistant stainless steel strut members as manufactured by *Unistrut*, series P1001 SS, or approved equal for conduit support where exposed under the pier deck. Provide stainless steel hardware and stainless steel conduit clamps for all exposed conduit mounting applications.

#### 634.042 Metallic Conduit Installation

Install conduit and tubing products as required, in accordance with manufacturer's written instructions, applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve intended function.

#### 634.043 Polyvinylchloride Conduit Installation

At any point where a conduit crosses an expansion joint, or where movement between adjacent sections of conduit can be expected, bronze or alloy expansion fittings shall be installed equal to Type AX as made by the O.Z. Electrical Manufacturing Co., Inc., or equivalent by Hope or Spring City unless such locations are within conduit specified as non-metallic. Such locations shall be handled with a non-metallic equivalent or as specified in Plans.

The Contractor shall submit a proposed method of attaching strut members to the underside of the pier deck to the Resident for approval.

#### 634.044 Pull Boxes:

Exterior pull boxes installed exposed at the pier shall be UL listed NEMA 4X stainless steel with stainless steel hardware. Provide box sizes as indicated on the Plans. Where box sizes are not indicated, provide size per NEC for the given number of entrance/exit conduits.

Pull boxes for locations within the Utility Building shall be as shown on the Plan drawings and detailed herein, or where used elsewhere.

- Materials: 12" x 12" x 6" steel.

#### 634.053 Re-Installation of Relocated High-Mast Light Pole:

Re-Installation of Existing High-Mast Lighting Pole: The Contractor shall install the high-mast lighting pole, foundation base, and all conduit and power wires, associated with the relocated lighting pole to make it fully operational. The Contractor will be required to:

- a. Provide excavation for the new foundation base.
- b. Install the relocated foundation base.
- c. Install the relocated lighting pole with its luminaires.
- d. Provide circuit wiring to the relocated lighting pole.

#### 634.070 Fiber Optic Cable

Provide new fiber optic cable as manufactured by one of the following approved manufacturers:

- a. *Belden*
- b. *CommScope*
- c. *Berk-Tek*
- d. *Siecor*
- e. *Optical Cable Corp.*
- f. Substitutions: Or Approved Equal.

Fiber optic cable shall be multimode cable and shall be NRTL certified to TIA/EIA 492CAAA, 492AAAA EIA/TIA 568B Series standard, TSB72 and ANSI X3T9.5 fiber optic specifications, 62.5/125 micron, 1300 nm, graded video, dual window 6 pair (12 strand) tight buffer, multimode distribution cable.

- a. Riser-rated multi-mode cable - OFNR jacket, distribution cable for Riser applications.
- b. The maximum attenuation measured at 23 degrees C. shall be 3.75 dB/km @ 850 nm and 1.5 dB/km @ 1300 nm. The minimum bandwidth shall be 160 MHZ @ 850 nm and 500 MHZ @ 1300 nm.

Modular Connectors and Couplers shall be:

- a. Fiber optic modular connectors/couplings shall be NRTL listed and TIA/EIA compliant, type "SC" terminations. Connectors and couplings shall be able to withstand at least a minimum of 2000 mating cycles without any transmission degradation. Maximum optical loss budget shall not exceed .75 dB per termination and 1.5 dB per mated pair.
- b. The connectors and couplings shall be compatible with the installed fiber optics: multi mode 62.5/125 micron optics.
- c. Fiber optic connectors shall be terminated by the following methods:
  - 1) Hot Melt
  - 2) Heat Cured Epoxy
  - 3) Ultra Violet Cured Epoxy
  - 4) Anaerobic
  - 5) Mechanical Splice with Index Matching Gel
- d. Fiber optic connectors and couplers shall be provided by a single Manufacturer.
- e. Multimode connectors shall be beige in color.

#### 634.071 Fiber Optic Cable Connection Box in the Existing Utility Building:

Fiber Optic Cable Connection Cabinet: shall be a high-density wall mount fiber optic enclosure designed to support patching and splicing in one unit as manufactured by *Fibertronics*, or approved equal. The unit shall have 9 adapter panel positions allowing for a wide range of fiber termination connector types and shall be equipped with a set of double lockable doors that are keyed differently to maintain separation and security for the Network and Distribution sides of the termination panels. The following information is provided to assist the Contractor with planning for the associated conduit and wiring work. The Fiber Optic Connection Cabinet shall have dimensions of:

Height 17"  
Width 21.2"  
Depth 5"

#### 634.072 Communications and Surveillance System

The Contractor shall provide a fiber optic connection cabinet in the Utility Building for splicing existing fire optic cable. The connection box shall be installed on a 48" square by ¾" thick plywood backboard.

The Contractor shall provide new conduit to facilitate the re-routing of existing fiber optic communications cable to a new fiber connection box to be installed in the Utility Building. As part of this work, the Contractor shall re-direct the existing underground fiber optic cable from the existing Administration Building to the existing Utility Building new backboard. This will require additional

conduit for the existing fiber conduit. Also replace the existing fiber optic cable from the existing Rubb Building to extend the replacement cable to the existing Utility Building new backboard. This will require the extension of the existing fiber conduit. The new cable shall be left with a minimum of six feet of slack cable within the Utility Building to facilitate cable splice connection by others at the fiber optic cable connection box being provided under this contract.

The Contractor shall also provide the relocation of existing surveillance cameras and associated CAT6 cable as described herein and as indicated on the Plan drawings. Provide a 20-foot aluminum pole with a concrete foundation base to allow for the installation of the relocated security surveillance cameras.

The Contractor shall provide the following in connection with the provision of new convenience receptacle outlets to be installed in the existing Utility Building at the new Communications/Surveillance Systems backboard:

- a. Provide a wiring connection to the line side terminals of the existing 120/240-volt switch (Item K shown on the Utility Building Plan on Sheet E02). The wiring shall extend to a new 20-ampere, 1-pole enclosed circuit breaker to be installed within six feet of the line-side tap at the existing switch. The wiring connection shall consist of 2 #12, 1#12 gnd, in a 3/4" conduit.
- b. Extend a 120-volt branch circuit from the output side of the new circuit breaker described in paragraph "a" above to a new quad receptacle to be installed in the existing Utility Building on the new Communications/Surveillance Systems backboard. The quad receptacle shall be as manufactured by Hubbell wiring devices (or approved equal) and shall be heavy duty, specification grade, rated 20-amperes. Provide a surface mounted outlet box for the quad receptacle. The new branch circuit shall consist of 2 #12, 1#12 gnd, in a 3/4" conduit.

#### 634.081 Grounding and Bonding:

Furnish labor and material to provide grounding facilities for the entire electrical installation as required by all inspecting and jurisdictional authorities as herein specified. The following are included, but not limited to, as items requiring grounding:

- Conduits, boxes and other conductor enclosures. Neutral or identified conductor of interior wiring system.
- Non-current - carrying parts of fixed equipment, such as transformers, motors, starters, control cabinets, disconnects, lighting fixtures, stand-by generator, etc.
- Metallic cabinets and auxiliary systems cabinets.

Conduit Grounding: All grounding bushings within all enclosures, including equipment enclosures, shall be wired together and connected internally to the enclosure grounding lug or grounding bus with bare copper conductor. Grounding conductors sized in accordance with NEC shall be used with all grounding bushings.

Equipment Grounding: All electrical equipment shall be grounded. Most other equipment will be furnished with grounding pads or grounding lugs. All ground connections shall be cleaned immediately prior to connection. The Contractor shall provide all grounding material required but not furnished with the equipment.

No grounding conductor shall be smaller than 12 AWG wire unless it is a part of an acceptable cable assembly.

#### 634.082 Crane Wiring Devices:

The Contractor shall provide a new crane receptacle outlet station #3 consisting of a new interlocked switch, a new disconnect switch, a new stainless steel support frame, a new receptacle outlet, as well as

all associated new wiring. Also included shall be the provision of a new circuit breaker to be installed in existing panelboard PP-2 in the Utility Building to serve the new crane receptacle outlet station.

The Contractor shall provide a new crane receptacle outlet station #1 consisting of the relocation of the existing interlocked switch from crane receptacle outlet station #2, a new disconnect switch, a new stainless steel support frame, an existing crane receptacle outlet, as well as all associated wiring.

**Crane Receptacles:** Provide *Hubbell* model 5100R7W IEC pin and sleeve watertight receptacle rated 277/480 volts, 4 pole, 5 wire, 3 phase Y, 100 amperes.

Install wiring devices in accordance with manufacturer's written instructions, applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve intended function.

Test wiring devices to ensure electrical continuity of grounding connections, and after energizing circuitry, to demonstrate compliance with requirements.

#### 634.083 Crane Disconnect and Interlocked Switches:

Provide factory-fabricated switches, in type and electrical rating for the service required.

**Crane Interlocked Receptacle and Switch:** Provide *Russellstoll* model DSRS4504NA000 watertight interlocked receptacle with control contacts in a cast aluminum enclosure rated 600 volts, 4 pole, 5 wire, 3 phase Y, 400 amperes.

**Crane Disconnect Switch:** Provide *Square D* model HU463DS unfused watertight disconnect switch in a stainless steel enclosure rated 600 volts, 4 pole, 5 wire, 3 phase Y, 100 amperes.

Install disconnect and interlocked switches where required, in accordance with manufacturer's written instructions, applicable requirements of NEC and National Electrical Contractors Association's "Standard of Installation", and in accordance with recognized industry practices to ensure that products serve intended function. Install switches on a stainless steel support frame with stainless steel hardware.

Test switches to ensure electrical proper operation, and compliance with requirements

#### 634.084 Panelboard Circuit Breakers:

Breakers shall be UL listed as being compatible with existing panelboards to which they are to be installed.

#### 634.085 Re-Installation of Relocated Reefer Pedestal:

**Re-Installation of Existing Reefer Pedestal:** The Contractor shall install the reefer outlet pedestal, foundation base, and all conduit and power wires, associated with the relocated reefer pedestal to make it fully operational. The Contractor will be required to:

- a. Provide excavation for the new foundation base.
- b. Install existing stored foundation base.
- c. Install the relocated reefer outlet pedestal.
- d. Provide circuit wiring to the relocated reefer outlet pedestal.

#### 634.086 Fire Alarm System Modifications

**Fire Alarm System Modifications:** The Contractor shall relocate the existing fire alarm control panel, along with the existing fire alarm municipal radio box and antenna from the existing Maintenance Building to the existing Rubb Building. The Contractor will be required to:

- a. Provide a vented cabinet and heater with thermostat in the Rubb Building for the relocated fire alarm control panel. Provide a 120V, 20A circuit for the heater from an existing spare 20A/1P circuit breaker in an adjacent electrical panel in the Rubb Building.
- b. Provide a new fire alarm cable between the relocated fire alarm control panel being installed within the existing Rubb Building and an existing exterior post-mounted fire alarm pull station located adjacent to the existing Maintenance Building. The new fire alarm cable shall be installed within an existing underground conduit, with an extension of new underground conduit as necessary to reach the existing pull station. The existing fire alarm cable in the existing conduit shall be removed. The new fire alarm cable shall be 14/2 twisted pair.
- c. Provide the replacement of existing fire alarm automatic detectors and existing fire alarm manual pull stations in the Rubb Building with addressable devices. Provide associate connection wiring. New addressable devices shall be as manufactured by *Simplex Grinnell*.
- d. Provide reconnection of loading slab and chassis yard pull station devices to the relocated fire alarm panel.
- e. Coordinate activation of relocated fire alarm system including loading slab and chassis yard devices, and the relocated call box and radio antenna, with the Portland Fire Department.

634.092 Method of Measurement:

Measurement for work associated with the installation of the relocated high-mast lighting pole as shown on the Plan drawings and described herein will be per each item.

Measurement for work associated with the installation of the relocated reefer outlet pedestal as shown on the Plan drawings and described herein will be per each item.

Measurement for work associated with the removal of the lighting poles as shown on the Plan drawings and described herein will be per lump sum.

Measurement for work associated with the installation of the crane outlet stations #1 and #3 as shown on the Plan drawings and described herein will be per lump sum.

Measurement for work associated all work associated with the communications and surveillance system work as shown on the Plan drawings and described herein will be made as lump sum.

Measurement for the installation of the wire as described herein will be per foot, to the nearest 10 foot interval per run.

Measurement for installing PVC Conduit as shown on the Plan drawings and described herein will be per linear foot of each type of underground or exposed conduit actually furnished, installed, and accepted at the Contract price per linear foot.

Measurement for installing the Electrical Metallic Tubing (EMT) as shown on the Plan drawings and described herein will be per foot actually furnished, installed, and accepted at the Contract price per linear foot.

Measurement for installing the Liquid Tight Metallic Flexible Conduit as shown on the Plan drawings and described herein will be per foot actually furnished, installed, and accepted at the Contract price per linear foot.

Measurement for installing the pull boxes as shown on the Plan drawings and described herein will be per each item.

Measurement for work associated all work associated with modifications to the existing fire alarm system as shown on the Plan drawings and described herein will be made as lump sum.

634.093 Basis of Payment:

Payment for the accepted quantity of Liquid Tight Flexible Metallic Conduit as shown on the Plan drawings and described herein will be per linear foot actually furnished, installed, and accepted at the Contract price per linear foot. This price shall include the cost of: furnishing and installing the conduit; fittings, groundings and bonding; and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of Electrical Metallic Tubing (EMT) as shown on the Plan drawings and described herein will be per linear foot actually furnished, installed, and accepted at the Contract price per linear foot. This price shall include the cost of: furnishing and installing the conduit; pull string, fittings, groundings and bonding; test cleaning interiors of conduits and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of PVC Conduit as shown on the Plan drawings and described herein will be per linear foot of each type of underground or exposed conduit actually furnished, installed, and accepted at the Contract price per linear foot. It shall include the furnishing, installing, supporting and connection of the conduit and all various hardware necessary for the installation. This price shall include the cost of stainless steel channel support assemblies, hand digging, trenching, or plowing; furnishing and installing the conduit; furnishing special backfilling materials, pull string, fittings, groundings and bonding; test cleaning interiors of conduits and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of relocated reefer outlet pedestals will be per each item. This payment shall include installation of the foundation base, and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of relocated high-mast lighting poles will be paid per each item. This payment shall include the installation of the foundation base, and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for installing the pull boxes as shown on the Plan drawings and described herein will be per each item. It shall include the furnishing, installation, mounting of the boxes, and the drilling of holes into the box for conduits, and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for the accepted quantity of wire as described herein will be per foot, to the nearest 10 foot interval per run. It shall include the furnishing, installation, routing, termination, splices and connection of the wire per the wiring schedule, and all materials, labor, equipment and incidentals necessary to complete the work.

Payment for work associated with the removal of the lighting poles as shown on the Plan drawings and described herein will be per lump sum. Removal of the foundation bases and associated wiring, and all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payment for work associated with the installation of the new crane outlet stations #1 and #3 as shown on the Plan drawings and described herein will be per lump sum. Installation of the outlet station, the equipment support frame, relocation of the existing service switch, provision of the new circuit breaker

for existing panelboard PP-2, and all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payment for work associated with the Communications/Surveillance Systems, including the relocation of surveillance cameras, a new 20-foot aluminum pole with a concrete foundation base, CAT6 network camera cable, redirection of the existing fiber optic cables, provision of new fiber optic cable, a fiber optic cable connection box, and provision of a new quad convenience receptacle, all as shown on the plan drawings and described herein will be made as lump sum. Installation of all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payment for work associated all work associated with modification of the existing fire alarm system as shown on the Plan drawings and described herein will be made as lump sum. Installation of the relocated fire alarm control panel, municipal radio box, system antenna, new detectors and manual pull stations, connection to the existing exterior post-mounted manual pull station, connection of existing loading slab and chassis yard pull stations, fire alarm wire, and all materials, labor, equipment and incidentals necessary to complete the work shall be incidental.

Payments will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
634.1811	1-1/2" Liquid Tight Flexible Conduit	Linear Foot
634.188	4" Electrical Metallic Tubing	Linear Foot
634.194	1-1/2" PVC Conduit Schedule 40	Linear Foot
634.1941	1" PVC Conduit Schedule 40	Linear Foot
634.1943	4" Schedule 80 PVC Conduit	Linear Foot
634.1944	2" Schedule 40 PVC Conduit	Linear Foot
634.1949	2-1/2" Schedule 40 PVC Conduit	Linear Foot
634.195	4" PVC Conduit Schedule 40	Linear Foot
634.2072	Install Reefer Outlet Pedestal	Each
634.2073	Install High-Mast Lighting Pole	Each
634.230	12" x 12" x 6" Interior Pull Box	Each
634.2311	Stainless Steel Exterior Pull Box	Each
634.312	#2 AWG Copper Wiring	Linear Foot
634.313	#4/0 AWG Copper Wiring	Linear Foot
634.314	#6 AWG Copper Wiring	Linear Foot
634.315	#8 AWG Copper Wiring	Linear Foot
634.3151	#1/0 AWG Gnd Wire	Linear Foot
634.317	500 MCM CU	Linear Foot
634.318	250 MCM CU	Linear Foot
634.73	Remove Existing Light Poles	Lump Sum
634.74	Install Crane Outlet Stations #1 and #3	Lump Sum
634.75	Install Communication and Surveillance	Lump Sum
634.761	Install Fire Alarm System	Lump Sum

END OF SECTION

SPECIAL PROVISION  
SECTION 825  
UTILITY PROVISIONS  
(Gas Line Termination)  
(Water Line Modifications)  
(Sewer Line Modifications)

All work and materials shall conform to the Contract Drawings and the provisions of the State of Maine Department of Transportation Standard Specifications, November 2014, with the following additions and modifications:

825.01 Description

Add the following paragraph:

The work shall include the termination of the existing gas line branch which currently serves the maintenance building. This line shall be terminated and capped within 1 ft of its primary line on the northern side of the existing concrete foundation wall as shown on the Plans. Return the gas meter to Unutil.

The work shall also include the re-routing and connection of the 4-inch water line to the existing water line which serves the wharf. Removal and reinstallation of the gate valves and backflow preventer into the proposed utility vault shall be included in the work. Water meter(s) shall be returned to the Portland Water District.

The work shall also include the extension of the existing 6" water line and the sewer line through the seawall. The lines will extend beyond the face of the seawall a minimum distance (approximately 1 ft) to sufficiently cap each line for future use. Removal and reinstallation of the water line gate valves and backflow preventer into the proposed utility vault shall be included in the work.

The work shall also include the purchase and installation of a submeter to be installed on the 4-inch water line which serves the wharf. The submeter shall be installed within the utility vault.

825.02 Materials

Add the following paragraph:

All materials used to terminate the gas line, and to extend the water and sewer lines, shall be compatible with the existing materials:

- Blue Brute water line materials shall be used or an approved equal; and
- SAN SDR 35, 6-inch, shall be used for the sewer line.

Reinstallation of the water line gate valves and backflow preventers shall occur within the utility vault as shown on the plans.

825.05 Method of Measurement

Add the following:

Gas Line Termination, Water line Modifications, and Sewer Line Modifications will be measured by the lump sum.

825.06 Basis of Payment

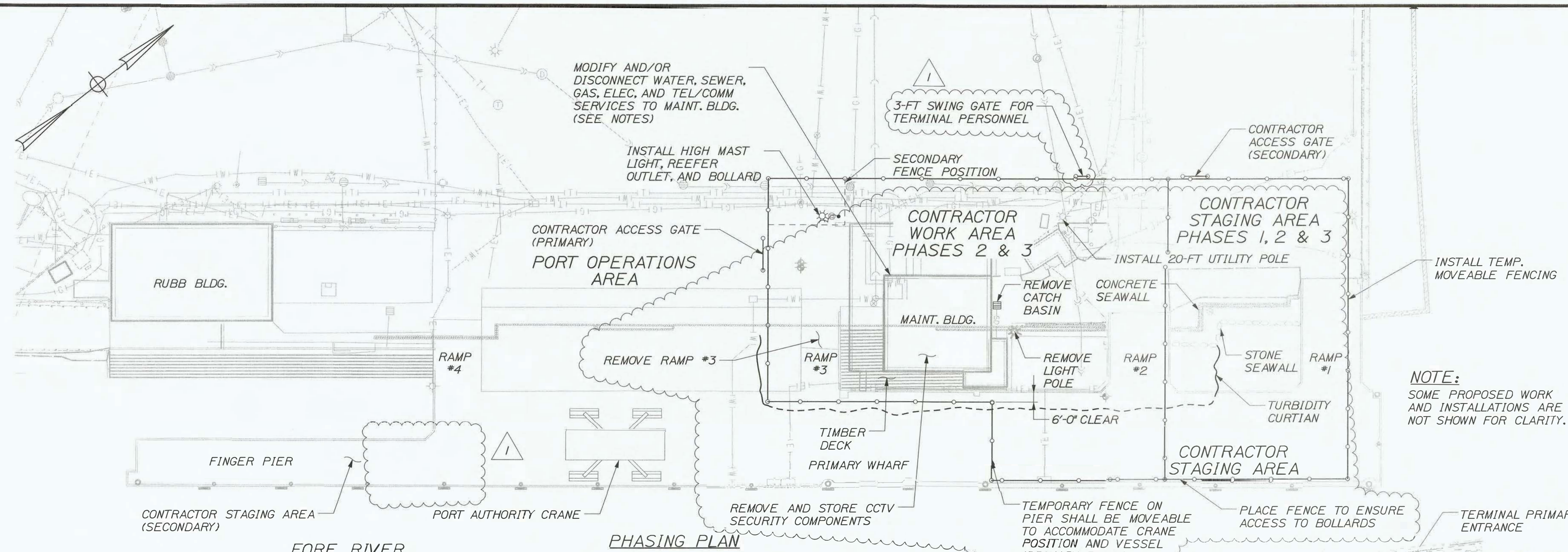
Add the following paragraphs:

Gas Line Termination shall be paid by the lump sum completed to the satisfaction of the Resident. Payment will be full compensation for excavation, removals of the existing line; capping the line; furnishing and assembling all materials; backfilling; and for all incidentals necessary to complete the work.

Water Line Modifications and Sewer Line Modifications shall be paid by the lump sum completed to the satisfaction of the Resident. Payment will be full compensation for excavation; removals of existing lines up to the point of re-routing; furnishing and assembling all materials; excavation between the existing lines and the seawall; coring through the seawall; backfilling; and installing the pipe through the seawall. The installation of new pipes, elbows, and fittings shall be included in the payment. The installation of the new submeter on the water line shall be included in the payment. Capping the water and sewer lines and installing an expandable foam filler around the annulus of the pipe is considered incidental to the work.

<u>Pay Item</u>		<u>Pay Unit</u>
825.67	Gas Line Termination	Lump Sum
825.68	Water Line Modifications	Lump Sum
825.69	Sewer Line Modifications	Lump Sum

END OF SECTION



**GENERAL PHASING NOTES:**

1. THE PHASING SEQUENCE SHOWN HEREIN ACCOMMODATES FACILITY OPERATIONS, SECURITY, AND ANTICIPATED CONSTRUCTION SEQUENCE. THE CONSTRUCTION PHASE NOTES DESCRIBE THE WORK TO BE INCLUDED IN THE DESIGNATED PHASE HOWEVER DO NOT NECESSARILY DENOTE THE ORDER IN WHICH THE WORK MUST OCCUR.
2. SCHEDULING OF ALL WORK SHALL BE COORDINATED WITH THE PORT AUTHORITY AND THE RESIDENT. COORDINATION MEETINGS WITH THE PORT AUTHORITY, RESIDENT, AND CONTRACTOR WILL IDENTIFY THE LIMITS OF PROPOSED WORK SCHEDULED TO BE COMPLETED.
3. UTILITIES REMOVED FROM SERVICE MUST BE RECONNECTED AND OPERATIONAL WITHIN A TIME FRAME ACCEPTED BY THE OWNER. CCTV AND SECURITY SYSTEMS MUST REMAIN ONLINE AT ALL TIMES.
4. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITIES TO ARRANGE FOR TERMINATION AND REMOVAL OF SALVAGEABLE EQUIPMENT AND MATERIALS.
5. THE PRIMARY CONSTRUCTION ZONE SHALL REMAIN CONFINED BY TEMPORARY FENCING AND SECURED GATES AT ALL TIMES. THE CONTRACTOR ACCESS GATE SHALL REMAIN CLOSED WHEN NOT IN USE AND SHALL BE LOCKED DAILY UPON COMPLETION OF CONSTRUCTION ACTIVITIES. DURING ACTIVITIES THAT RESULT IN GAPS IN SECURITY FENCING, THE CONTRACTOR WILL BE RESPONSIBLE FOR RESTRICTING ACCESS INTO THE PRIMARY CONSTRUCTION ZONE.
6. THE PORT AUTHORITY MAY PERMIT THE TEMPORARY USE OF PORTIONS OF THE PORT OPERATIONS AREA AND THE CHASSIS STORAGE AREA TO THE CONTRACTOR FOR SHORT PERIODS OF TIME. REQUESTS MUST BE MADE IN WRITING TO THE AUTHORITY AND MUST DESCRIBE THE SIZE OF THE AREA NEEDED, FUNCTION, AND DURATION. THE PORT AUTHORITY WILL CONSIDER WRITTEN REQUESTS ONLY.
7. THE CONTRACTOR SHALL BE LIMITED TO THE CONTRACTOR WORK AREA AND CONTRACTOR STAGING AREA EXCEPT DURING SCHEDULED CONSTRUCTION ACTIVITIES WHICH MAY OCCUR IN THE PORT OPERATIONS AREAS. CONTRACTOR PERSONNEL SHALL HAVE THE PROPER SECURITY CLEARANCE PRIOR TO ENTERING THESE AREAS.
8. THE PRIMARY WHARF AND RAMP #1 HAVE A 1,000 PSF LIVE LOAD CAPACITY. RAMP #2 HAS A 700 PSF LIVE LOAD CAPACITY. THE FINGER PIER, RAMPS #3, AND #4 HAVE A 450 PSF LIVE LOAD CAPACITY.
9. THE CONTRACTOR IS ADVISED THAT THE PRIMARY ENTRANCE AND STORAGE AREA IN THE NORTHEAST QUADRANT OF THE TERMINAL WILL BE UNDER CONSTRUCTION BY ANOTHER CONTRACTOR THROUGH JUNE 2019. COORDINATION OF ACTIVITIES AND GENERAL USE OF THE PRIMARY ENTRANCE SHALL BE RESOLVED THROUGH WEEKLY MEETINGS BETWEEN CONTRACTORS.

**PHASE 1 NOTES:**

- PRE-DEMOLITION:**
1. INSTALL TEMPORARY FENCING AND ACCESS GATES AROUND THE PERIMETER OF PHASE 1 CONSTRUCTION ZONE.
  2. INSTALL TURBIDITY CURTAIN AND DEBRIS BOOM BENEATH THE PRIMARY WHARF.
  3. INSTALL NEW ELECTRICAL STANCHION ON THE WHARF AND THE NECESSARY ELECTRICAL WIRING FOR ALL THREE STANCHIONS.
  4. INSTALL 20-FT UTILITY POLE FOR CCTV CAMERAS.
  5. RE-ROUTE TELECOMMUNICATION LINE TO UTILITY BUILDING AND RECONNECT.
- PHASE 2 NOTES:**
- INSTALLATION:**
1. INSTALL STORED HIGH MAST LIGHT, REEFER STANCHION, AND BOLLARD.
- DEMOLITION:**
1. REMOVE AND STORE CCTV SECURITY COMPONENTS FROM THE MAINTENANCE BUILDING. STORE COMPONENTS IN THE RUBB BUILDING. COORDINATE CCTV SECURITY WORK WITH OWNER'S SECURITY SYSTEM SUPPLIER/INSTALLER; GALAXY INTEGRATED TECHNOLOGIES. ALL CCTV SECURITY WORK MUST BE COMPLETE AND OPERATIONAL PRIOR TO DEMOLITION OF THE MAINTENANCE BUILDING.
  2. DISCONNECT UNDERGROUND ELECTRICAL SERVICE TO THE MAINTENANCE BUILDING AND ELECTRICAL PANEL AT THE MAINTENANCE BUILDING. MODIFY ELECTRICAL SERVICE TO THE RUBB BUILDING. TERMINATE POWER TO THE MAINTENANCE BUILDING.
  3. REMOVE EXISTING ELECTRICAL CONDUITS AND WIRING ASSOCIATED WITH WHARF SERVICE.
  4. TERMINATE GAS SERVICE TO THE MAINTENANCE BUILDING AND PROPERLY DRAIN AND REMOVE UNUSED PIPES. REMOVE GAS METER AND RETURN TO UTILITY.
  5. SHUT OFF AND DISCONNECT UNDERGROUND WATER SERVICES TO THE MAINTENANCE BUILDING. INSTALL NEW UTILITY VAULT AND MAKE MODIFICATIONS TO EXISTING WATER LINES TO ALLOW FOR CONTINUATION OF SERVICE TO WHARF (4-INCH LINE) AND CONTINUATION THROUGH SEAWALL (6-INCH LINE). REMOVE METERS, VALVES, AND OTHER EQUIPMENT AND RELOCATE WITHIN THE NEW UTILITY VAULT. METERS TO BE RETURNED TO PORTLAND WATER DISTRICT.
  6. DISCONNECT UNDERGROUND SANITARY SERVICE TO THE MAINTENANCE BUILDING AND MAKE MODIFICATION TO ALLOW FOR CONTINUATION OF SERVICE THROUGH SEAWALL.
  7. REMOVE MAINTENANCE BUILDING, MEETING ROOMS AND OFFICES, CANOPY, TIMBER DECK, AND RAMP #3.

**PHASE 2 NOTES (CONTINUED):**

- DEMOLITION:**
8. REMOVE SELECT AREAS OF CONCRETE CURBS, CONCRETE DECK, CONCRETE FOUNDATIONS, AND CONCRETE SEAWALL. REMOVE SELECT WHARF BOLLARDS.
  9. CUT SELECT FOUNDATION PILES AS NOTED.
  10. REMOVE TOP PORTION OF CATCH BASIN TO A MINIMUM OF 4' BELOW GRADE. FILL PIPE AND ABANDON. PLUG PIPE AT SEAWALL. FILL IN REMAINING CATCH BASIN WITH GRAVEL.

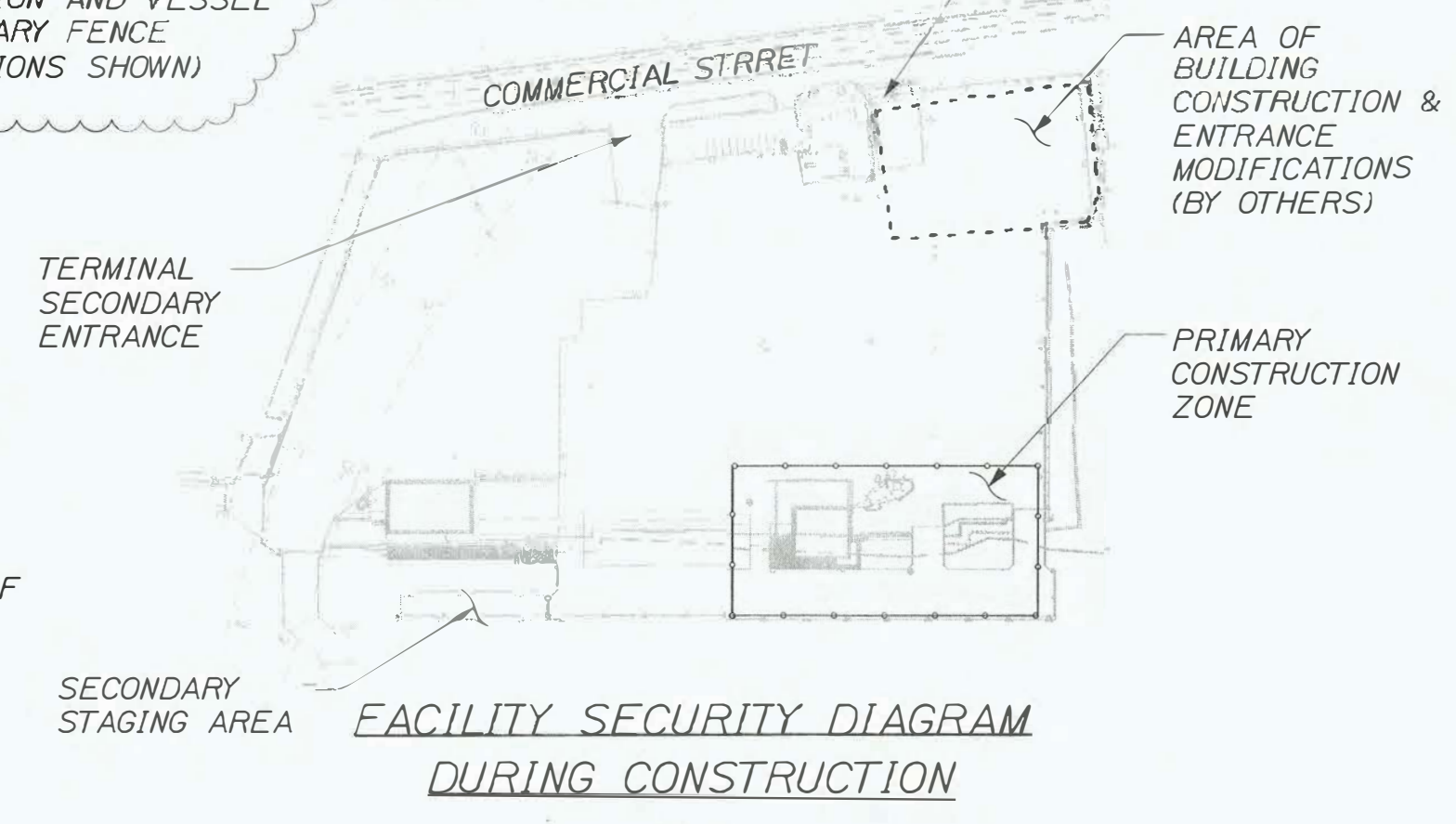
**PHASE 3 NOTES:**

- INSTALLATION:**
1. INSTALL WATER LINES, SEWER LINE, AND 4" DIA. CONDUIT (EMPTY). EXTEND THROUGH SEAWALL AND CAP.
  2. SHIFT LOCATION OF ROCKS FROM EXISTING STONE SEAWALL TO EASE GRADE DIFFERENTIAL AND AVOID CONFLICT WITH NEW PILES.
  3. INSTALL WHARF FOUNDATION ELEMENTS.
  4. INSTALL WHARF AND APPROACH SLAB.
  5. INSTALL REMAINING SITE BOLLARDS. PERFORM GRADING ALONG APPROACH SLAB AND HIGH MAST LIGHT.
  6. INSTALL PAVEMENT.
  7. REMOVE BROKEN WATERLINE IN UNDERDECK.
  8. REMOVE TEMPORARY FENCING AND ACCESS GATE(S).

**NOTE:**

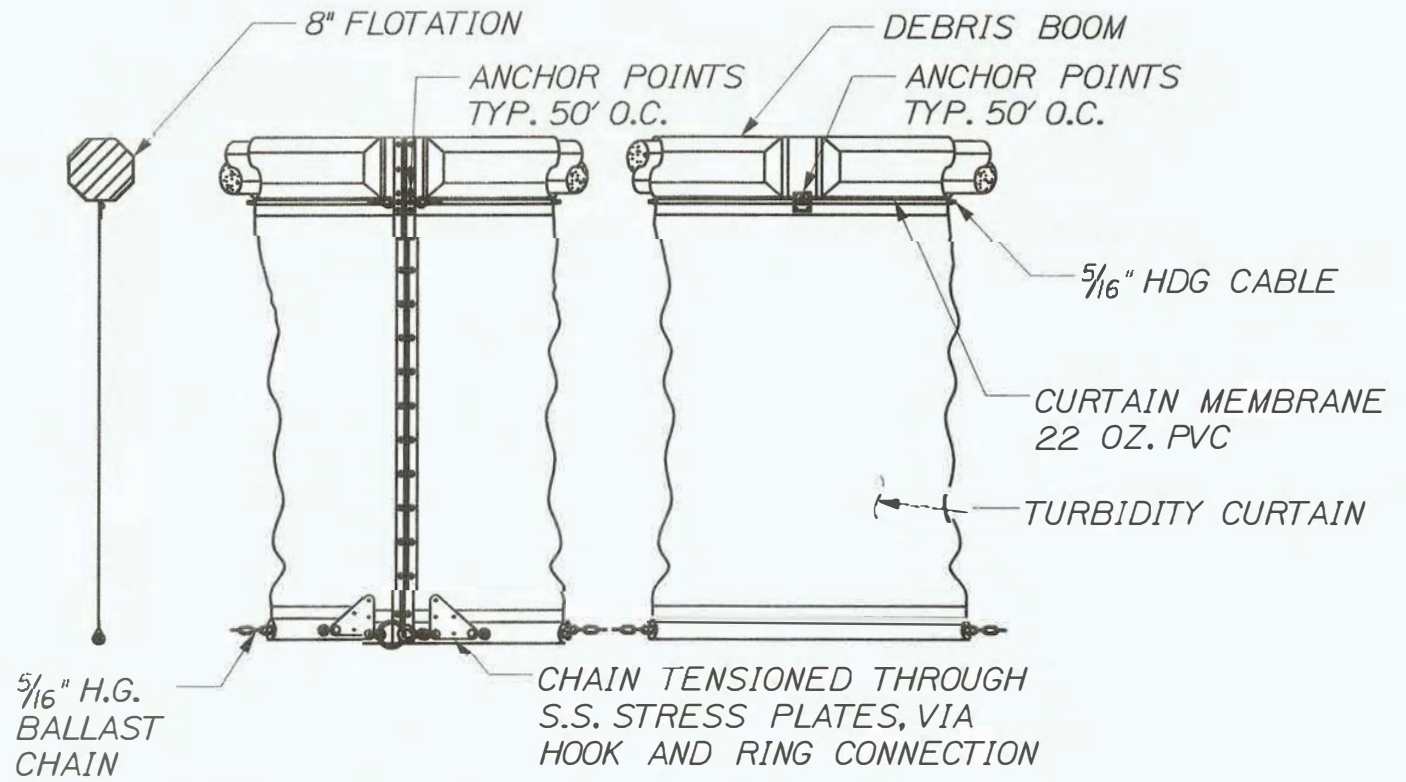
DEBRIS BOOM AND TURBIDITY CURTAIN AS MANUFACTURED BY ELATEC/AMERICAN MARINE OR APPROVED EQUAL

**NOTE:** SOME PROPOSED WORK AND INSTALLATIONS ARE NOT SHOWN FOR CLARITY.



**LEGEND**

- EXISTING FACILITY SECURITY FENCING
- TEMPORARY FENCING



**TEMPORARY DEBRIS BOOM AND TURBIDITY CURTAIN DETAIL**

PROJ. MANAGER: *[Signature]*  
DESIGNED BY: *[Signature]*  
CHECKED BY: *[Signature]*  
DATE: 07/2018  
P.E. NUMBER: 6452  
DATE: 8/18/18

PROJ. MANAGER	DESIGNED BY	CHECKED BY	DATE
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	07/2018

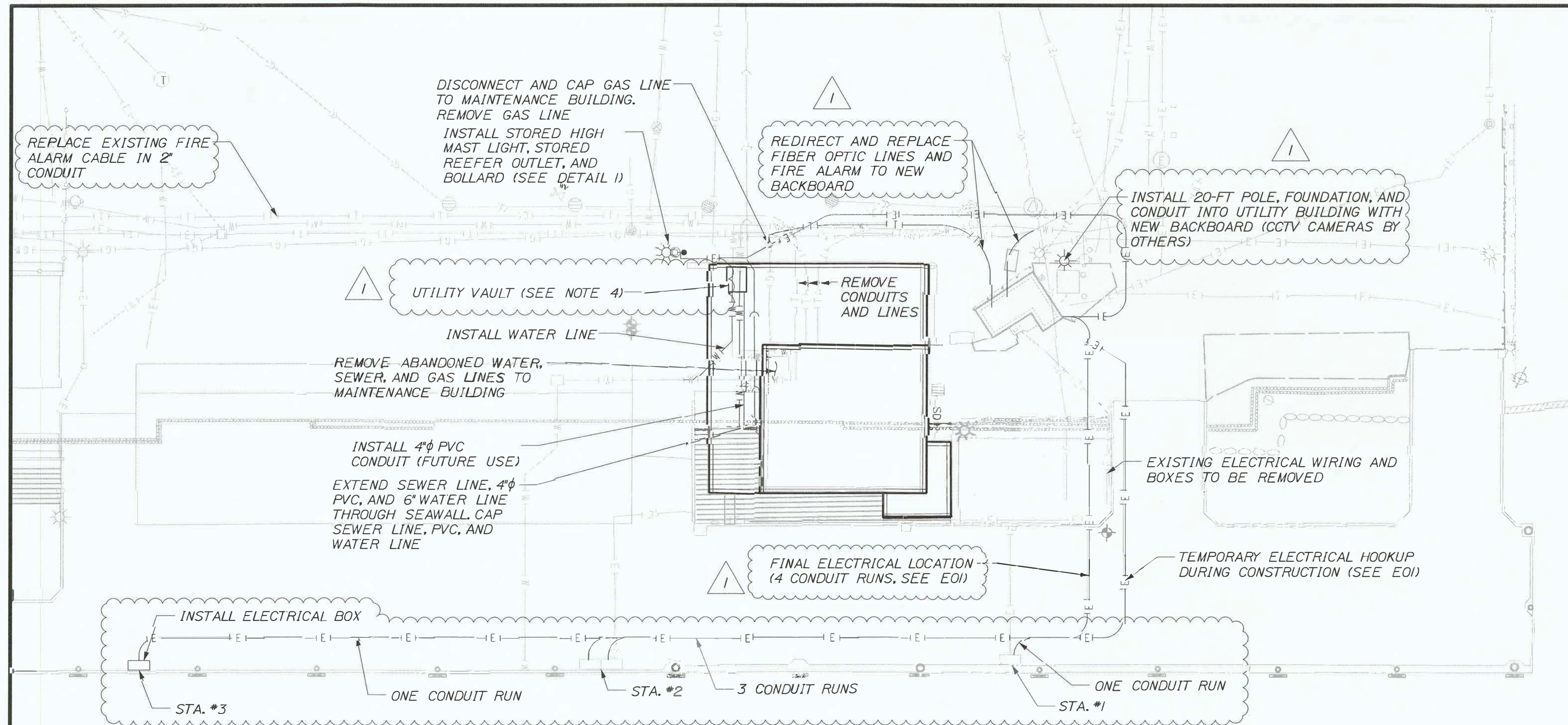
PORTLAND INTERNATIONAL MARINE TERMINAL  
MAINE INTERMODAL PORT PRODUCTIVITY PROJECT  
WHARF INFILL & BUILDING REMOVAL  
CUMBERLAND COUNTY  
PORTLAND  
**CONSTRUCTION PHASING PLAN**



Date: 8/2/2018

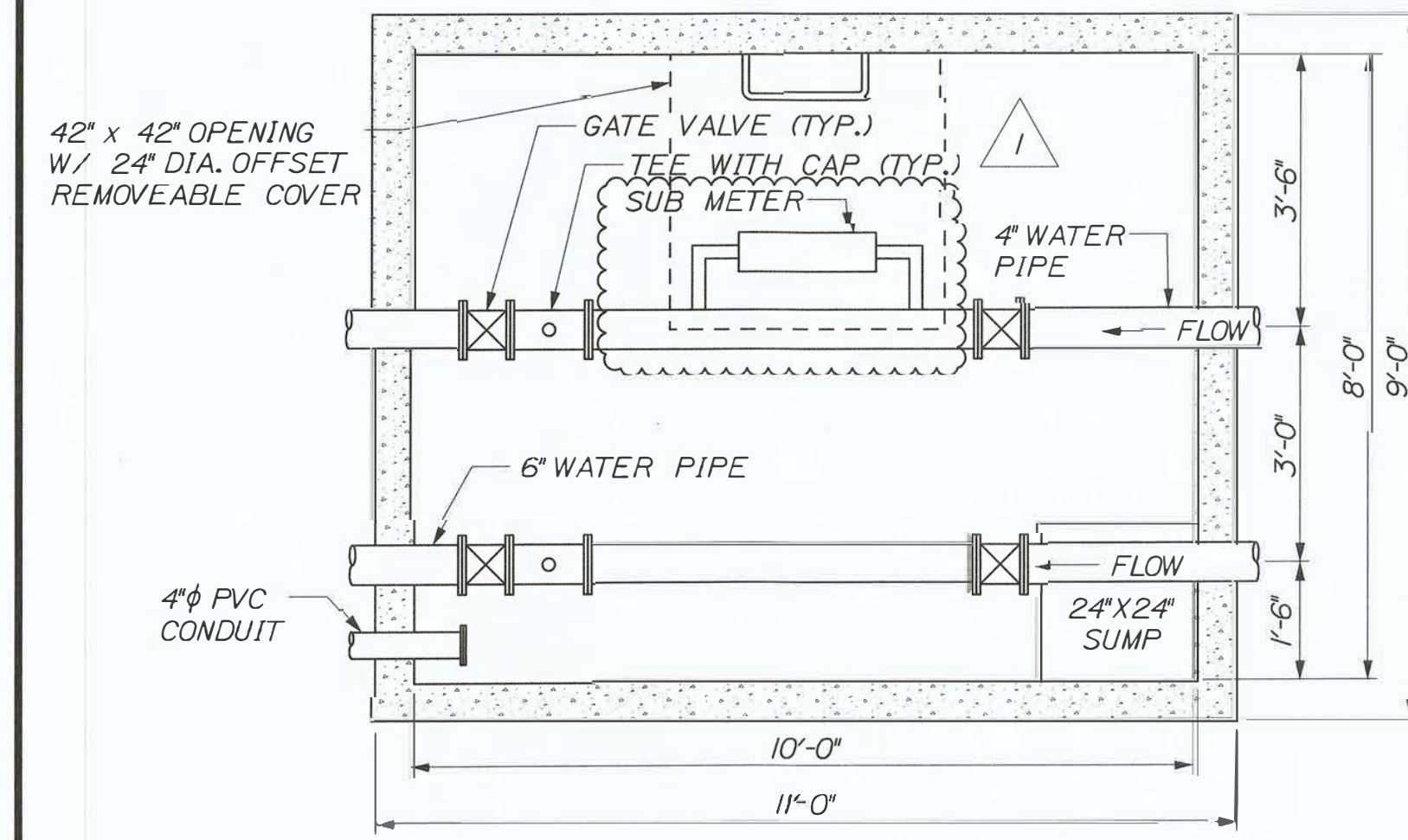
Username:

Filename: 012\_Site Utility Plan (C07) Rev. 1.dgn Division:

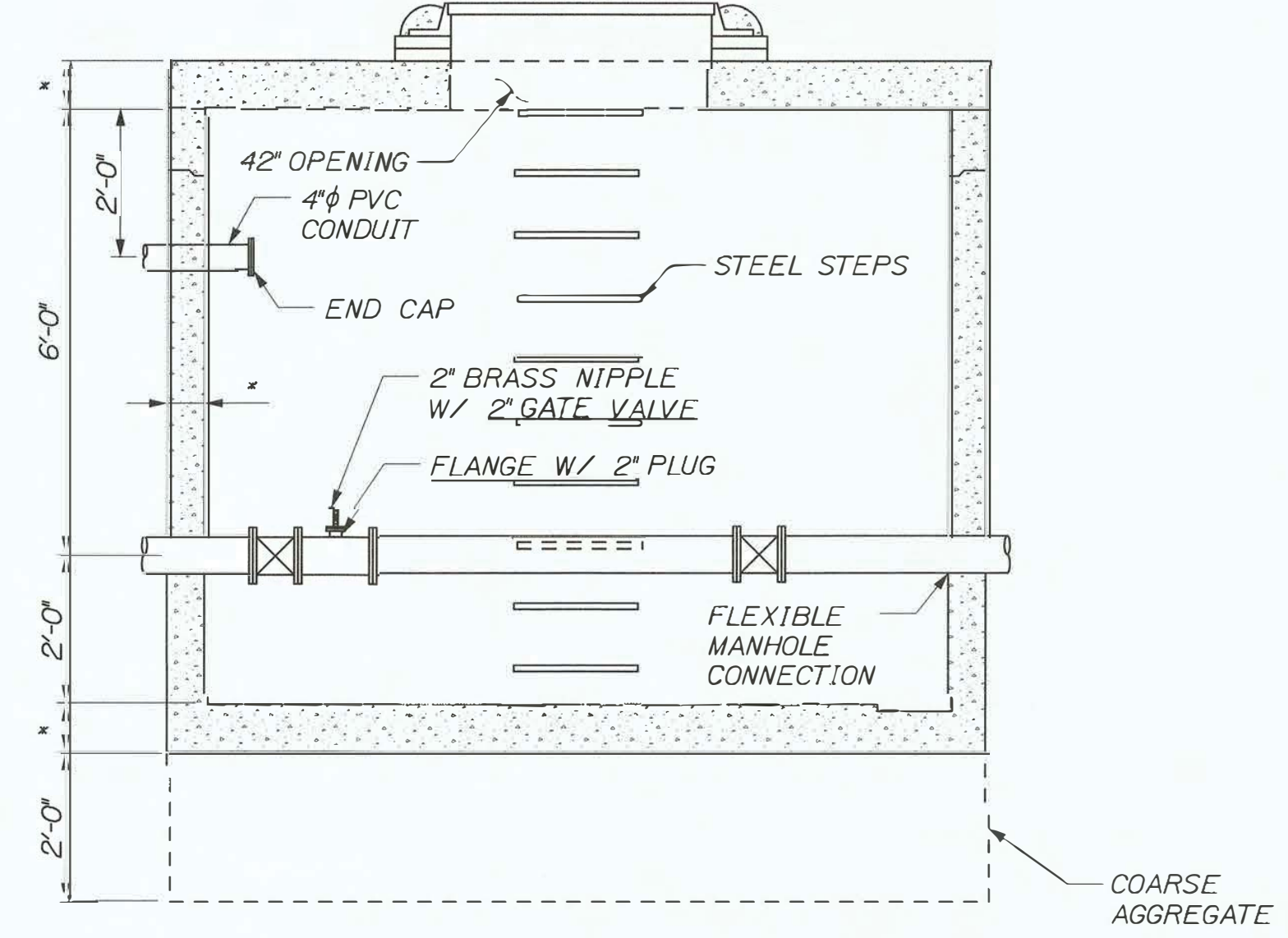


**SITE UTILITY PLAN**  
SCALE: 1" = 30'-0"  
Scale of Feet

- NOTES:**
- SEE SHEET C01 FOR ADDITIONAL INFORMATION.
  - FOR UTILITY HANGER DETAILS, SEE SHEET S06.
  - FOR ELECTRICAL PLAN, SEE SHEET E01.
  - LOCATION OF UTILITY SHALL BE COORDINATED WITH THE RESIDENT AND ENGINEER.
  - CONTRACTOR TO MAKE POSITIVE DOWEL CONNECTION BETWEEN THE CONCRETE REEFER PEDESTAL BASE AND THE CONCRETE HIGH MAST LIGHT POLE FOOTING.
  - CONTRACTOR SHALL INSTALL A SUBMETER TO THE 4-INCH WATER LINE WHICH SERVES THE PIER. SUBMETER SHALL BE INCIDENTAL TO PAY ITEM 825.68, WATERLINE MODIFICATIONS.



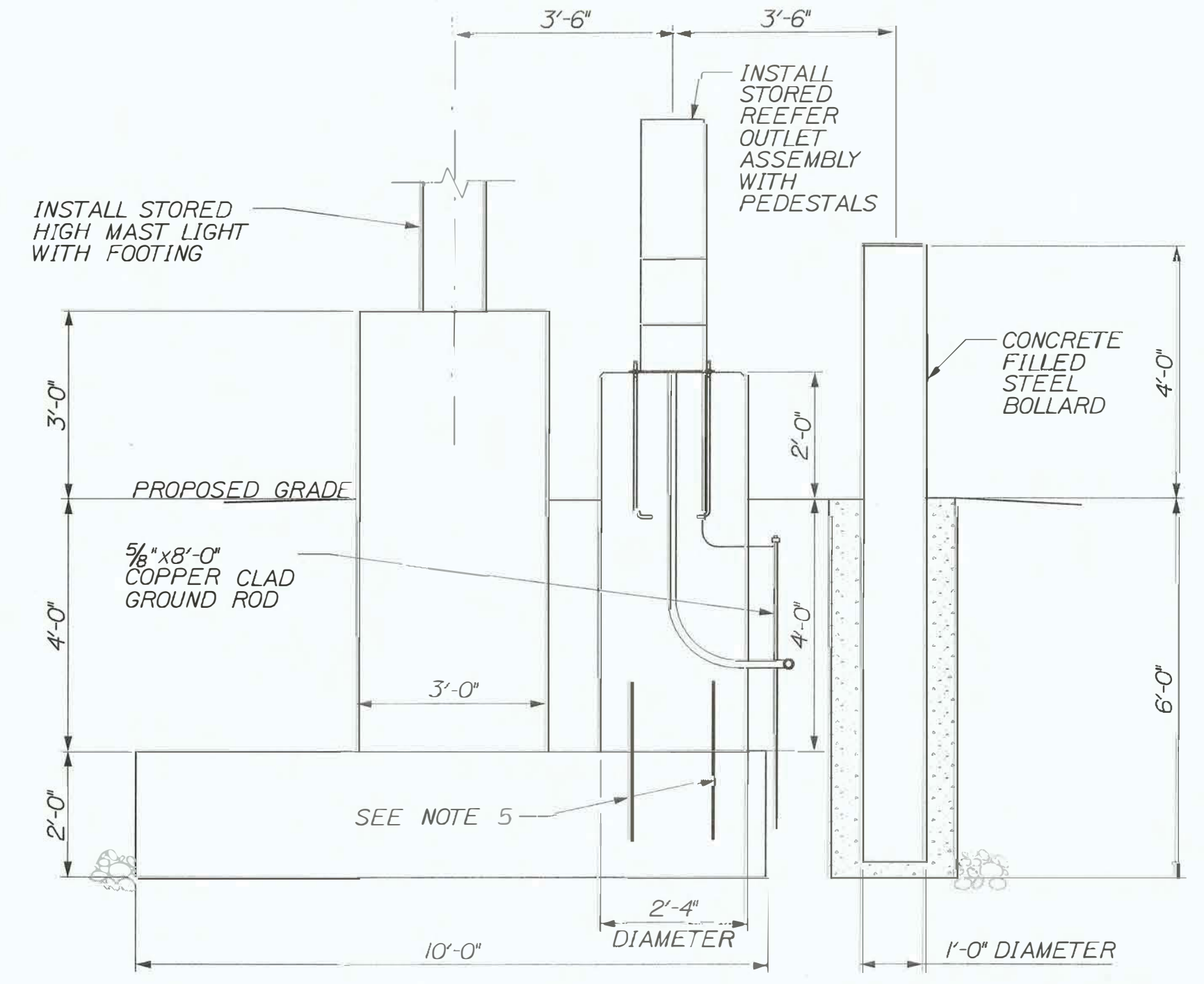
PLAN



SECTION

**UTILITY VAULT DETAIL**  
N.T.S.

\* DIMENSIONS TO BE DETERMINED BY PRECAST MANUFACTURER SO AS TO WITHSTAND STACKER LOADS IDENTIFIED ON SHEET G-02 AND IN THE SPECIAL PROVISIONS.



**DETAIL 1**  
SCALE: 1/2" = 1'-0"

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
STP 2194(206)  
WIN  
021942.06

ROLAND A. LAVALLEE  
No. 6422  
P.E. NUMBER  
8/9/18  
DATE

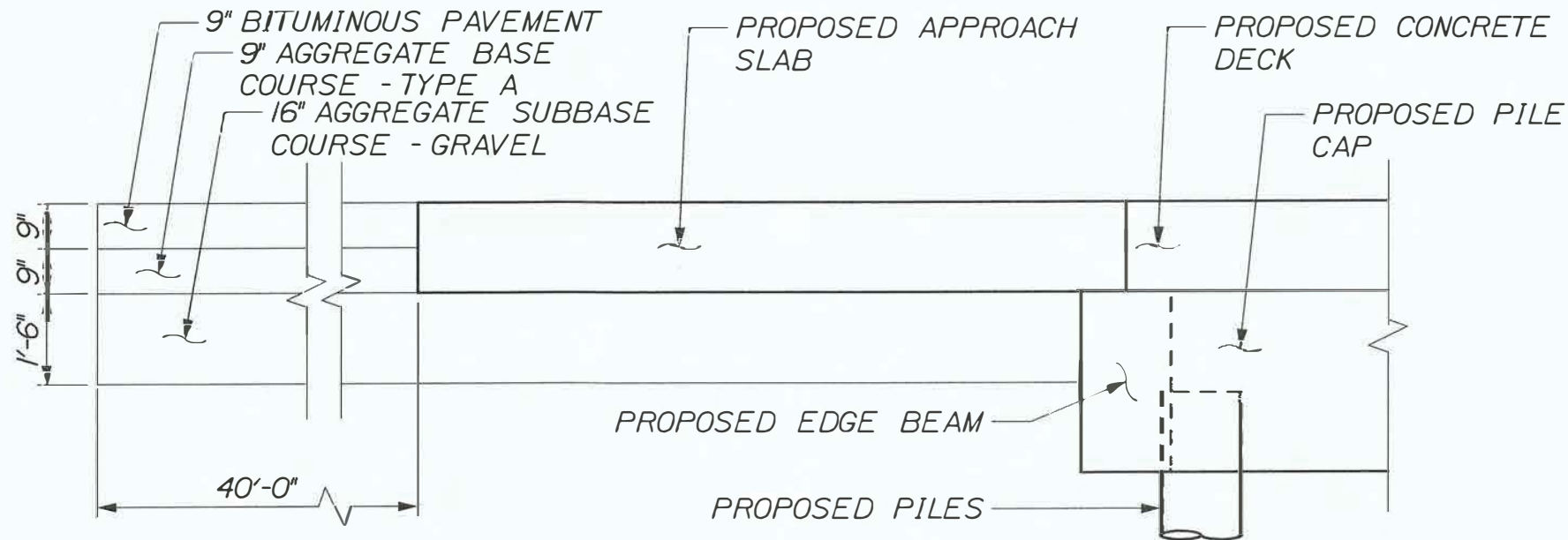
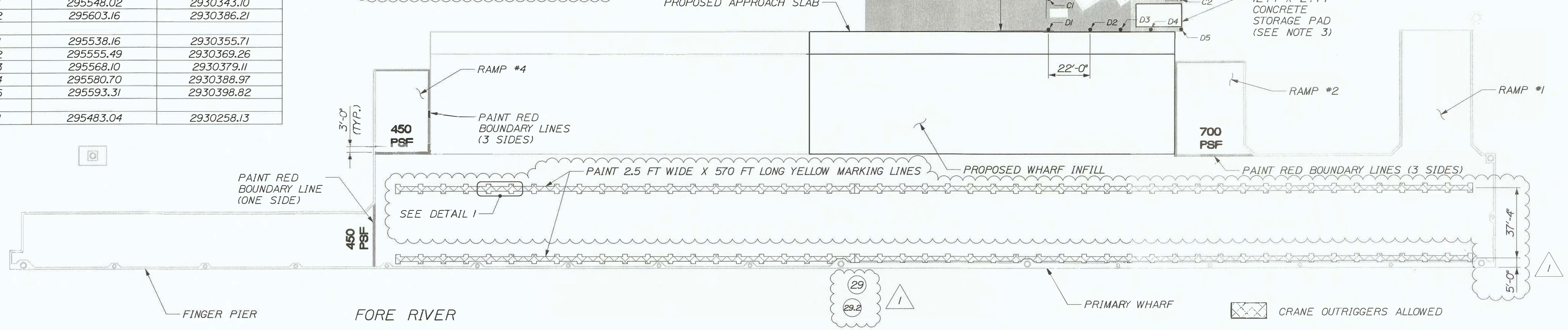
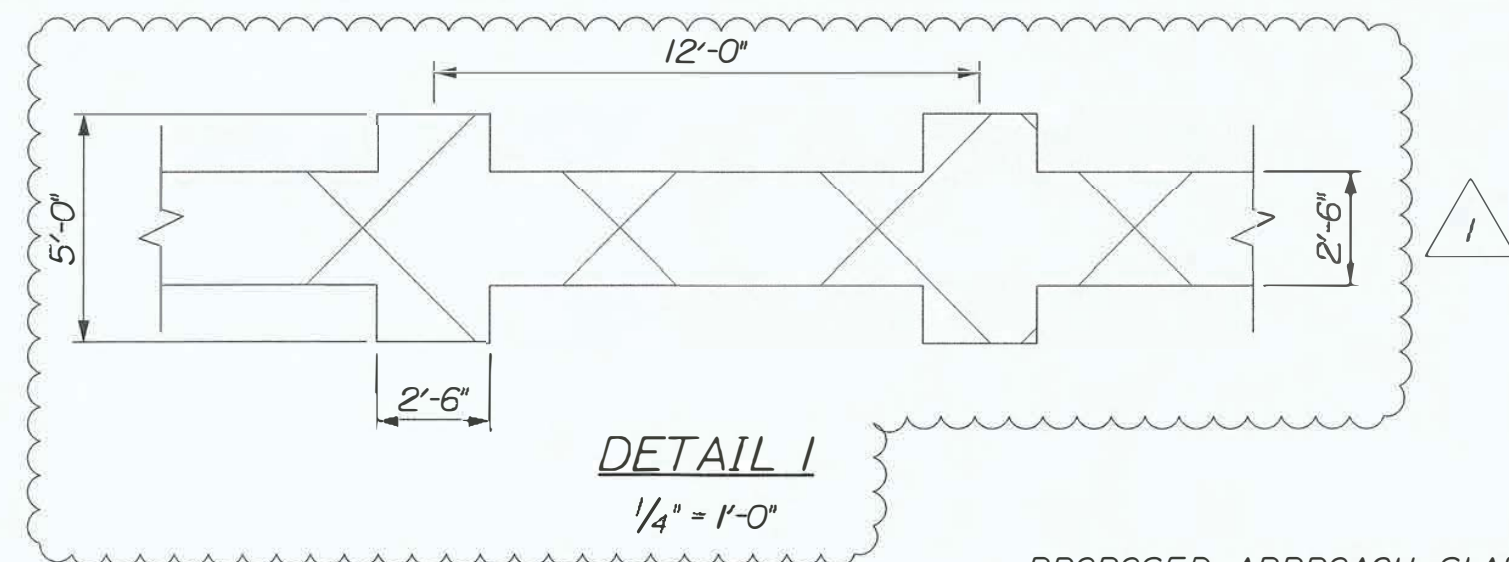
PROJ. MANAGER*	DATE	BY	CHK'D	REVISIONS
J. Bibb	07/2018	P. Bibb	C. Mearns	1
J. Bibb		P. Bibb	C. Mearns	2
J. Bibb		P. Bibb	C. Mearns	3
J. Bibb		P. Bibb	C. Mearns	4

PORTLAND INTERNATIONAL MARINE TERMINAL  
MAINE INTERMODAL PORT PRODUCTIVITY PROJECT  
WHARF INFILL & BUILDING REMOVAL  
PORTLAND CUMBERLAND COUNTY  
**SITE UTILITY PLAN AND DETAILS**

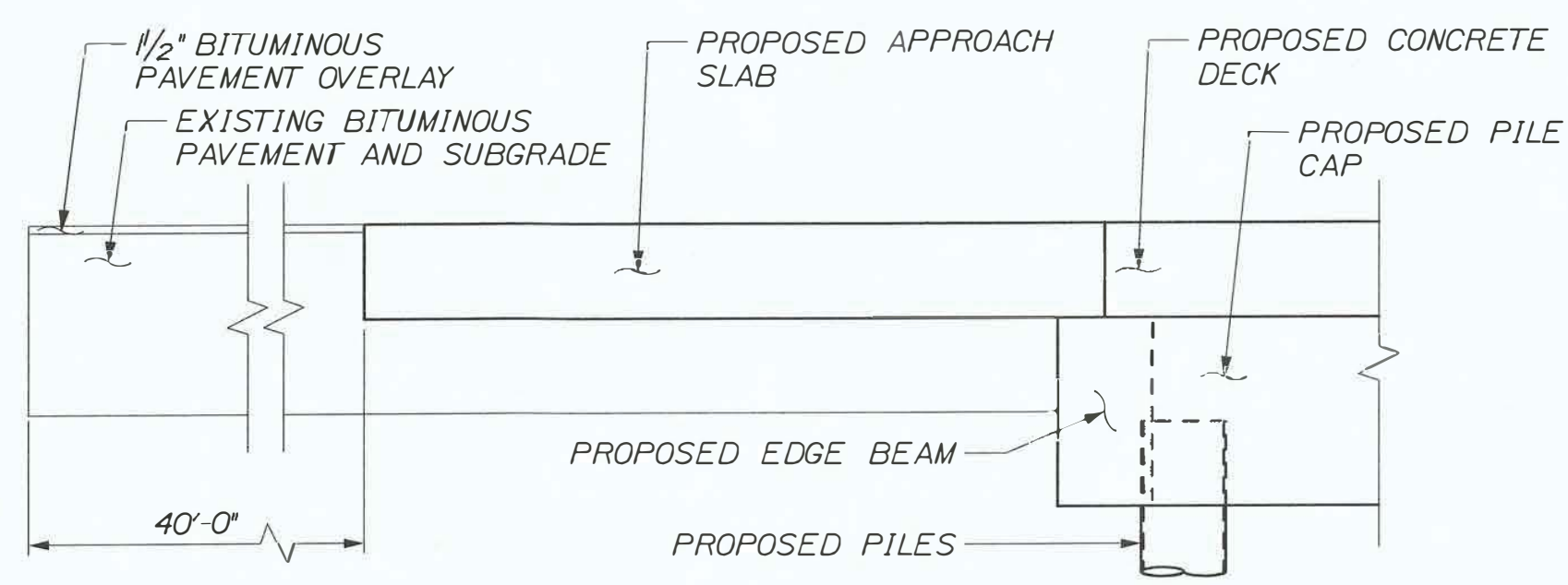
SHEET NUMBER  
**C07**  
12A OF 21



BOLLARD LOCATIONS		
	NORTHING	EASTING
A1	295572.45	2930321.58
A2	295585.06	2930331.44
A3	295597.66	2930341.30
A4	295610.27	2930351.15
A5	295622.87	2930361.00
B1	295562.60	2930334.19
B2	295613.02	2930373.61
C1	295548.02	2930343.10
C2	295603.16	2930386.21
D1	295538.16	2930355.71
D2	295555.49	2930369.26
D3	295568.10	2930379.11
D4	295580.70	2930388.97
D5	295593.31	2930398.82
E1	295483.04	2930258.13

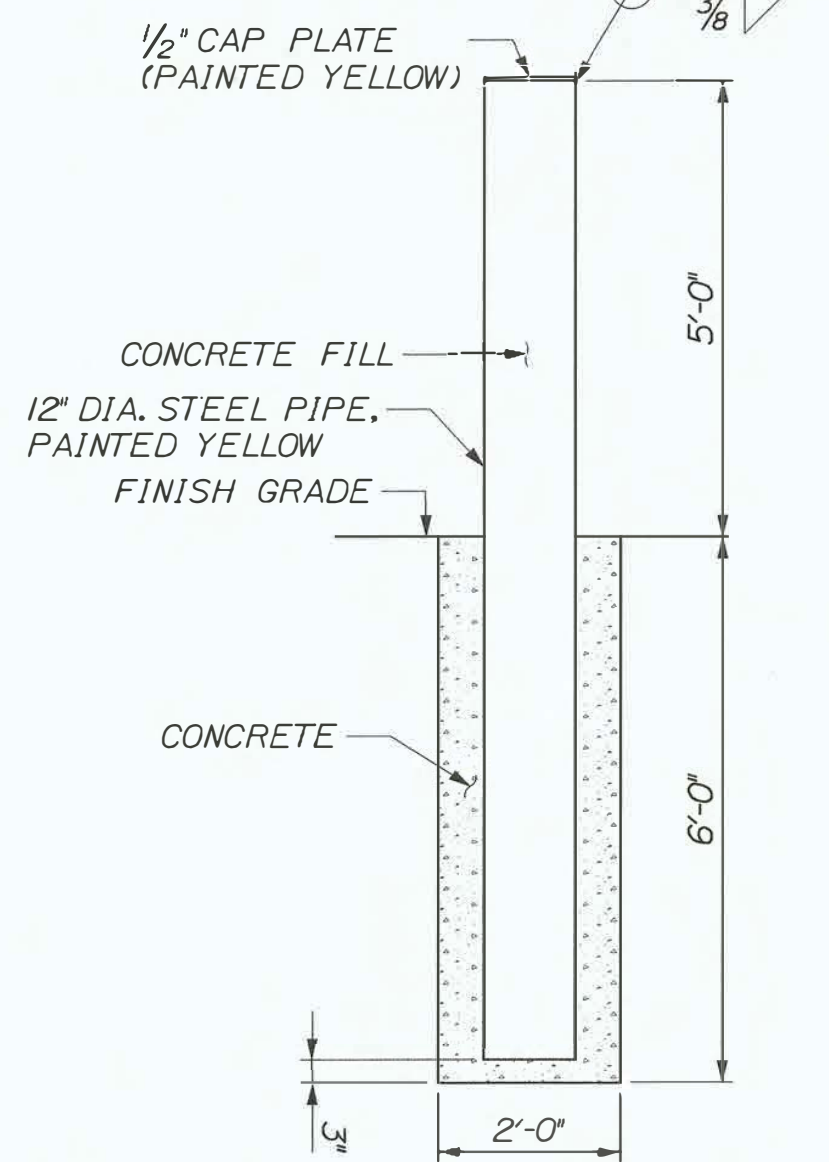
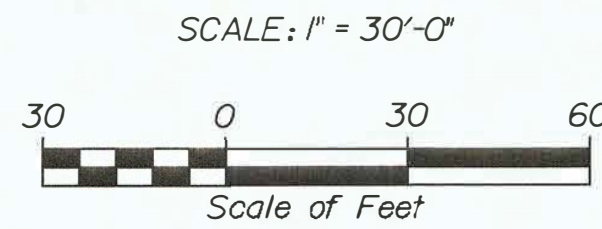


PROPOSED PAVEMENT SECTION - AREA 1  
SCALE: 3/8" = 1'-0"



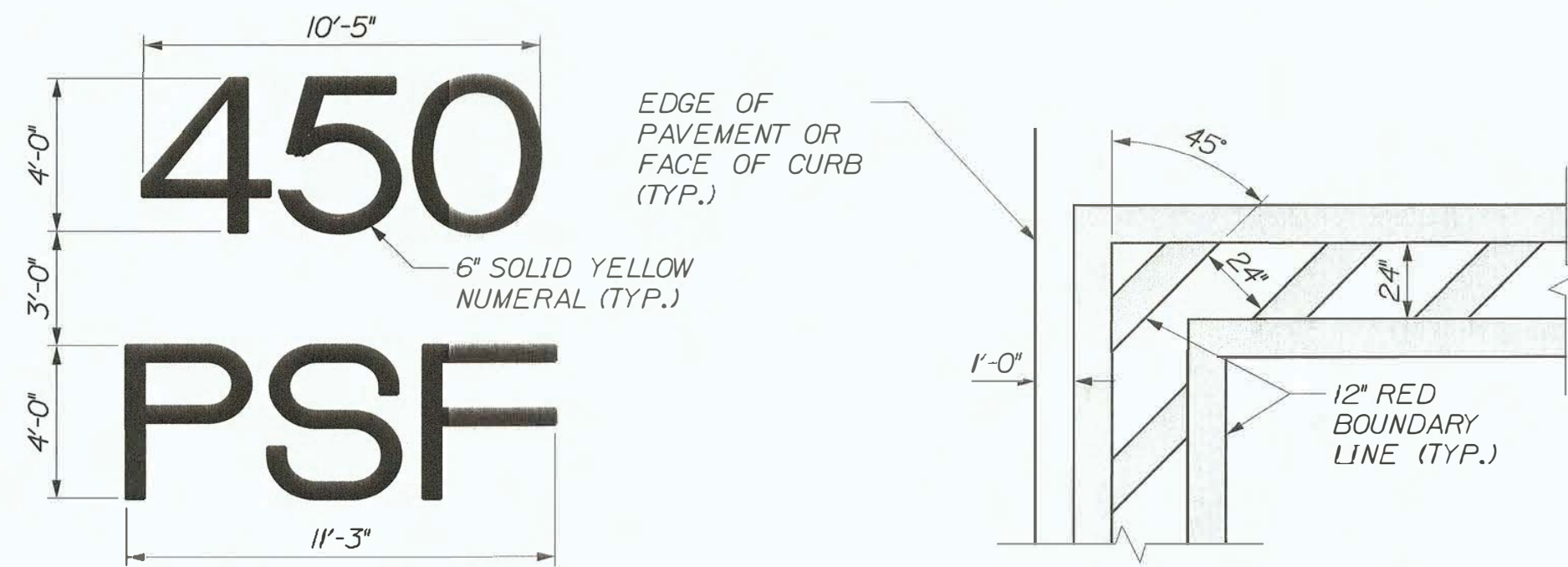
PROPOSED PAVEMENT SECTION - AREA 2  
SCALE: 3/8" = 1'-0"

WHARF INFILL DETAIL



NOTE:  
REFER TO SPECIAL PROVISION 841,  
BOLLARDS FOR ADDITIONAL INFORMATION.

12" STEEL BOLLARD DETAIL  
SCALE: 1/2" = 1'-0"



PAVEMENT BOUNDARY MARKINGS AT RAMPS  
SCALE: N.T.S.

- NOTES:
- LETTERS AND NUMERALS SHALL BE APPLIED WITH USE OF STENCILS. STENCILS SHALL BE APPROVED BY THE RESIDENT PRIOR TO USE.
  - 700 PSF PAINT MARKING SHALL BE OF SIMILAR DIMENSION.
  - REFER TO SPECIAL PROVISION 627, PAVEMENT MARKINGS FOR ADDITIONAL INFORMATION.

- NOTES:
- BOLLARDS SHALL BE SHIFTED AS NEEDED TO AVOID UTILITY LINES.
  - RELOCATING DUMPSTERS SHALL BE COORDINATED WITH THE PORT AUTHORITY TO DETERMINE THEIR NEW LOCATION.
  - EXACT LOCATION OF CONCRETE STORAGE PAD TO BE DETERMINED BY THE PORT AUTHORITY AND THE RESIDENT. FOR STORAGE PAD DETAIL SEE SHEET S-06.
  - AREA ENCIRCLED BY BOLLARDS SHALL BE CLEARED OF VEGETATION, LEVELED WITH GRAVEL, AND COMPACTED PRIOR TO PAVEMENT PLACEMENT.

Date: 8/2/2018

Username:

Division:

Filename: 013\_Site Details (C08) Rev. 1.dgn

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
STP 2194(206)  
WIN  
021942.06

Professional Engineer Seal for Roland A. Lavallee, No. 6462, State of Maine. Includes signature and date 8/2/18.

PORTLAND INTERNATIONAL MARINE TERMINAL  
MAINE INTERMODAL PORT PRODUCTIVITY PROJECT  
WHARF INFILL & BUILDING REMOVAL  
CUMBERLAND COUNTY  
PORTLAND  
SITE DETAILS

SHEET NUMBER  
C08  
13A OF 21



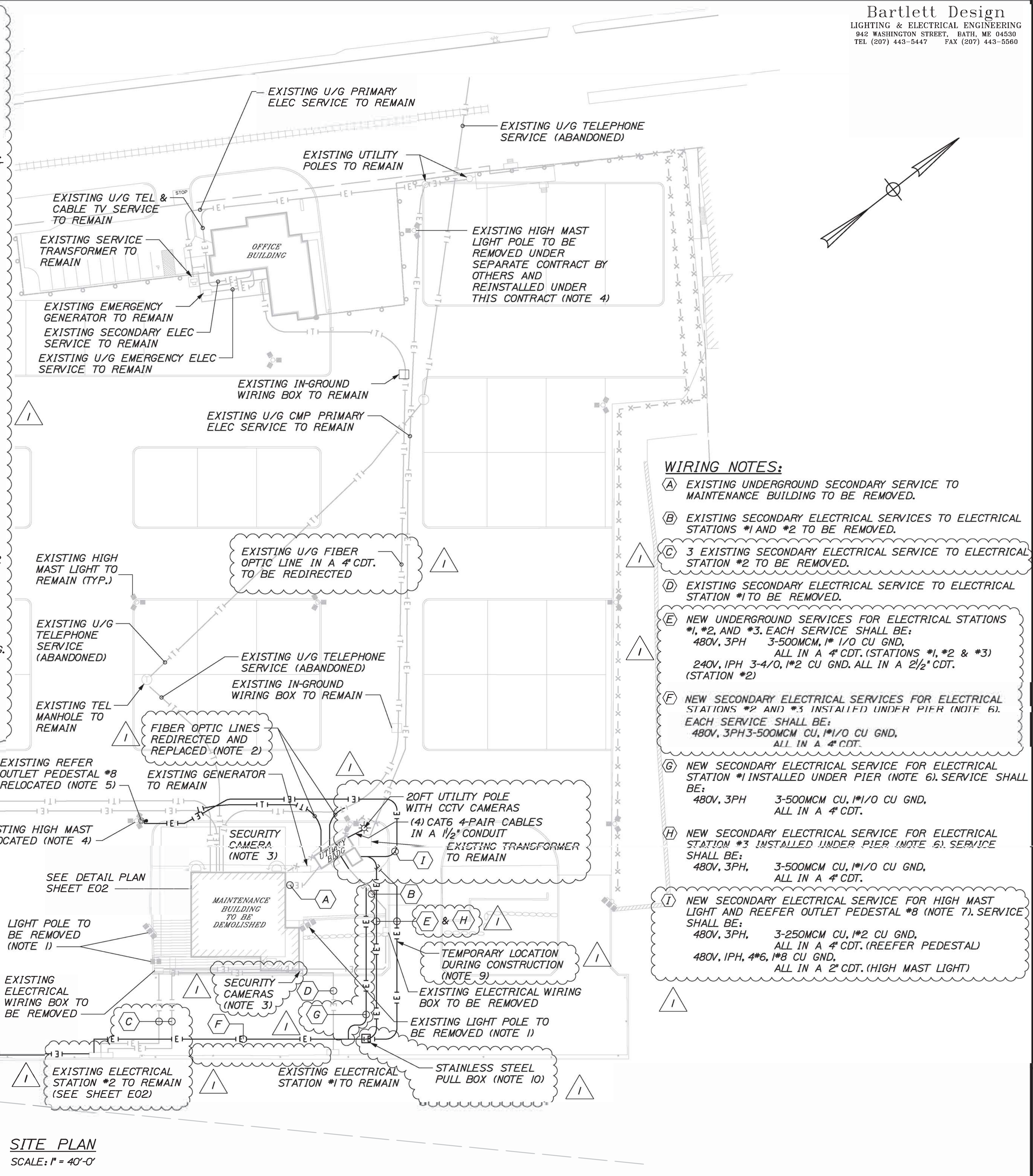
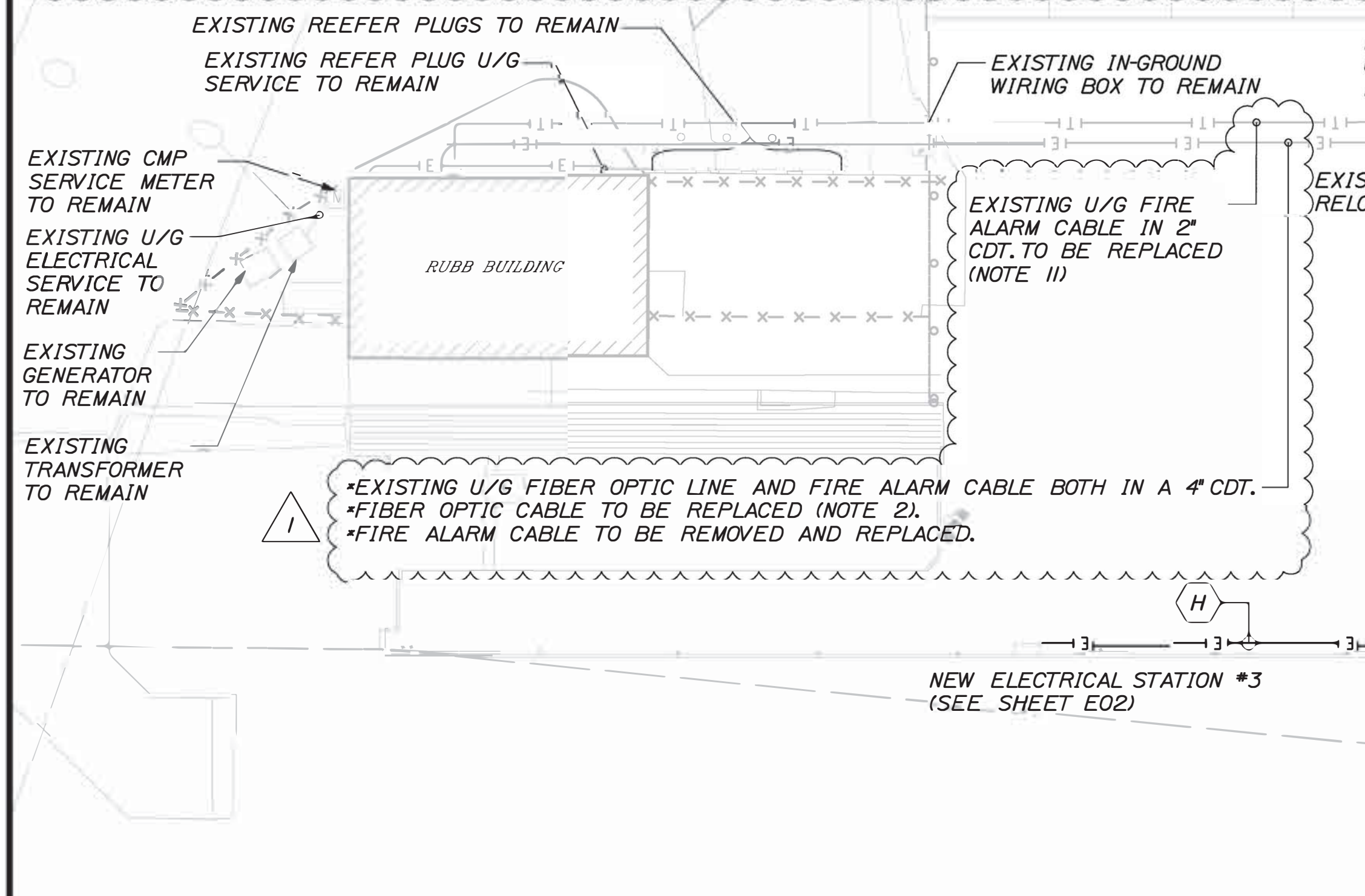
DATE	BY	PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGNED-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
5/18	JLC	L. Bartlett	L. Bartlett	L. Bartlett						
5/18	L. Bartlett									
07/2018										
05/21/2018										

PORTLAND INTERNATIONAL MARINE TERMINAL  
 MAINE INTERMODAL PORT PRODUCTIVITY PROJECT  
 WHARF INFILL & BUILDING REMOVAL  
 CUMBERLAND COUNTY  
 PORTLAND  
**ELECTRICAL SITE PLAN**

SHEET NUMBER  
**E01**  
 20A OF 21

**NOTES:**

- WHERE INDICATED, EXISTING LIGHTING POLE SHALL BE REMOVED AND DELIVERED TO THE OWNER IN WORKING CONDITION. THE REMOVAL SHALL INCLUDE THE LUMINAIRES, LIGHTING POLES, LIGHTING POLE CONCRETE FOUNDATION BASES, AND ALL ASSOCIATED WIRING.
- TWO EXISTING 12-STRAND MULTI-MODE FIBER OPTIC CABLES PRESENTLY EXTEND UNDERGROUND FROM THE PORT OFFICE BUILDING TO SWITCHING EQUIPMENT LOCATED IN THE EXISTING MAINTENANCE BUILDING. THE EXISTING FIBER OPTIC CABLES ARE THEN EXTENDED FROM THE EXISTING MAINTENANCE BUILDING UNDERGROUND TO TERMINATION EQUIPMENT IN THE RUBB BUILDING. UNDER THIS CONTRACT, PRIOR TO DEMOLITION OF THE MAINTENANCE BUILDING, DISCONNECT THE FIBER CABLES AT THE MAINTENANCE BUILDING AND RELOCATE THE EXISTING SWITCHING EQUIPMENT FROM THE MAINTENANCE BUILDING TO THE EXISTING UTILITY BUILDING. REDIRECT THE EXISTING FIBER OPTIC CABLES UNDERGROUND TO THE RELOCATED SWITCHING EQUIPMENT IN THE EXISTING UTILITY BUILDING. ROUTE THE REDIRECTED EXISTING FIBER OPTIC CABLES IN NEW 4-INCH CONDUIT AS NECESSARY. ALSO REMOVE THE EXISTING FIBER OPTIC CABLE THAT EXTENDS BETWEEN THE EXISTING TERMINATION EQUIPMENT IN THE RUBB BUILDING AND THE EXISTING MAINTENANCE BUILDING. PROVIDE A NEW 12-STRAND FIBER OPTIC CABLE TO REPLACE THE EXISTING CABLE THAT IS REMOVED AND EXTEND IT FROM THE EXISTING TERMINATION EQUIPMENT IN THE RUBB BUILDING TO THE RELOCATED SWITCHING EQUIPMENT IN THE EXISTING UTILITY BUILDING. USE THE EXISTING UNDERGROUND CONDUIT WHERE PRACTICAL AND PROVIDE NEW 4-INCH CONDUIT AS NECESSARY. ALL CABLE TERMINATIONS WILL BE PROVIDED UNDER SEPARATE CONTRACT BY OTHERS. LEAVE 6-FEET OF SLACK CABLE AT ALL CABLE ENDS FOR TERMINATIONS.
- WHERE INDICATED, RELOCATE EXISTING SECURITY SURVEILLANCE CAMERAS TO LOCATIONS AS DIRECTED BY THE OWNER. PROVIDE 4PR CAT6 CABLE FROM EACH CAMERA TO A NEW 48-PORT WIRING PATCH PANEL TO BE LOCATED INSIDE THE EXISTING UTILITY BUILDING TO WHICH THE CAMERA IS MOUNTED. PROVIDE SIX FEET OF SLACK CABLE AT EACH END FOR TERMINATION BY OTHERS.
- WHERE INDICATED, AN EXISTING HIGH MAST LIGHT POLE, AND THE EXISTING CONCRETE FOUNDATION BASE, WILL BE REMOVED UNDER A SEPARATE CONTRACT WITH THE OWNER AND WILL BE STORED ON SITE. UNDER THIS CONTRACT, PROVIDE THE REINSTALLATION OF THE HIGH MAST LIGHTING POLE WITH ITS FOUNDATION BASE AT THE LOCATION INDICATED ON THE PLAN. COORDINATE THE EXACT LOCATION WITH THE ON-SITE RESIDENT PRIOR TO INSTALLATION. PROVIDE NEW CIRCUIT CONDUCTORS IN AN UNDERGROUND CONDUIT TO THE EXISTING SITE LIGHTING PANEL LOCATED IN THE EXISTING UTILITY BUILDING. CIRCUIT THE TWO METAL HALIDE LUMINAIRES TO CIRCUIT #1, 3. CIRCUIT THE SINGLE HIGH PRESSURE SODIUM LUMINAIRE TO CIRCUIT #10, 12.
- WHERE INDICATED, AN EXISTING REFER OUTLET PEDESTAL STATION WILL BE REMOVED UNDER A SEPARATE CONTRACT WITH THE OWNER AND WILL BE STORED ON SITE. UNDER THIS CONTRACT, PROVIDE THE REINSTALLATION OF THE REFER OUTLET PEDESTAL STATION WITH A REUSED FOUNDATION BASE AT THE LOCATION INDICATED ON THE PLAN.
- WHERE INDICATED, PROVIDE A STAINLESS STEEL TRAPEZE HANGER SYSTEM FOR CONDUITS TO BE INSTALLED BELOW THE PIER. HANGER SYSTEM SHALL CONSIST OF STAINLESS STEEL CHANNEL WITH STAINLESS STEEL HANGER RODS AND STAINLESS STEEL FITTINGS.
- CONNECT THE NEW ELECTRICAL SERVICE FOR THE RELOCATED REEFER OUTLET PEDESTAL #8 TO THE EXISTING 150A/3P CIRCUIT BREAKER IN EXISTING PANEL MDP-2 IN THE UTILITY BUILDING.
- COORDINATE THE ACTUAL ROUTES OF ALL CONDUIT RUNS WITH THE ON-SITE RESIDENT PRIOR TO INSTALLATION.
- WHERE INDICATED, THE TEMPORARY UNDERGROUND SERVICE SHALL INCLUDE SERVICE FEEDERS FOR STATIONS 2 AND 3 ONLY.
- WHERE INDICATED, PROVIDE A NEMA 4X STAINLESS STEEL PULL BOX TO BE MOUNTED ON THE UNDERSIDE OF THE PIER FOR SERVICE FEEDERS TO STATIONS #1, #2, AND #3. PULL BOX SHALL BE 36" HIGH BY 36" WIDE BY 12" DEEP (DIMENSIONS FOR STRAIGHT PULL). SEE SHEET S02 FOR EXACT LOCATION OF BOX.
- WHERE INDICATED, REMOVE THE EXISTING FIRE ALARM CABLE THAT PRESENTLY EXTENDS BETWEEN THE EXISTING FIRE ALARM CONTROL PANEL LOCATED IN THE EXISTING MAINTENANCE BUILDING AND THE RUBB BUILDING. UNDER THIS CONTRACT DISCONNECT THE FIRE ALARM CONTROL PANEL AT THE MAINTENANCE BUILDING AND RELOCATE THE EXISTING CONTROL PANEL FROM THE MAINTENANCE BUILDING TO THE EXISTING RUBB BUILDING. PROVIDE A NEW FIRE ALARM CABLE TO BE CONNECTED TO THE RELOCATED FIRE ALARM PANEL IN THE RUBB BUILDING AND EXTEND IT UNDERGROUND TO THE EXISTING EXTERIOR POST-MOUNTED FIRE ALARM MANUAL PULL STATION LOCATED OUTSIDE THE EXISTING MAINTENANCE BUILDING. THE NEW FIRE ALARM CABLE SHALL BE 14/2 TWISTED PAIR. USE THE EXISTING UNDERGROUND CONDUIT WHERE PRACTICAL AND PROVIDE NEW 2-INCH CONDUIT AS NECESSARY.



- WIRING NOTES:**
- (A) EXISTING UNDERGROUND SECONDARY SERVICE TO MAINTENANCE BUILDING TO BE REMOVED.
  - (B) EXISTING SECONDARY ELECTRICAL SERVICES TO ELECTRICAL STATIONS #1 AND #2 TO BE REMOVED.
  - (C) 3 EXISTING SECONDARY ELECTRICAL SERVICE TO ELECTRICAL STATION #2 TO BE REMOVED.
  - (D) EXISTING SECONDARY ELECTRICAL SERVICE TO ELECTRICAL STATION #1 TO BE REMOVED.
  - (E) NEW UNDERGROUND SERVICES FOR ELECTRICAL STATIONS #1, #2, AND #3. EACH SERVICE SHALL BE:  
 480V, 3PH 3-500MCM, #1/0 CU GND,  
 240V, 1PH 3-4/0, #2 CU GND. ALL IN A 4" CDT. (STATIONS #1, #2 & #3)  
 (STATION #2)
  - (F) NEW SECONDARY ELECTRICAL SERVICES FOR ELECTRICAL STATIONS #2 AND #3 INSTALLED UNDER PIER (NOTE 6). EACH SERVICE SHALL BE:  
 480V, 3PH 3-500MCM CU, #1/0 CU GND,  
 ALL IN A 4" CDT.
  - (G) NEW SECONDARY ELECTRICAL SERVICE FOR ELECTRICAL STATION #1 INSTALLED UNDER PIER (NOTE 6). SERVICE SHALL BE:  
 480V, 3PH 3-500MCM CU, #1/0 CU GND,  
 ALL IN A 4" CDT.
  - (H) NEW SECONDARY ELECTRICAL SERVICE FOR ELECTRICAL STATION #3 INSTALLED UNDER PIER (NOTE 6). SERVICE SHALL BE:  
 480V, 3PH, 3-500MCM CU, #1/0 CU GND,  
 ALL IN A 4" CDT.
  - (I) NEW SECONDARY ELECTRICAL SERVICE FOR HIGH MAST LIGHT AND REEFER OUTLET PEDESTAL #8 (NOTE 7). SERVICE SHALL BE:  
 480V, 3PH, 3-250MCM CU, #2 CU GND,  
 ALL IN A 4" CDT. (REEFER PEDESTAL)  
 480V, 1PH, 4#6, #8 CU GND,  
 ALL IN A 2" CDT. (HIGH MAST LIGHT)

**SITE PLAN**  
 SCALE: 1" = 40'-0"

Date: 8/27/2018  
 User name:  
 Division:  
 Filename: 020\_ElectricalPlan (E01) Rev. 1.dgn

