ADDENDUM #1
City of Portsmouth, New Hampshire
Lafayette Road Pump Station Upgrade
Project No. 227872.00

WOODARD &CURRAN
41 Hutchins Drive
Portland, Me 04102
Tel. (207) 774-2112
March 6, 2017

ADDENDUM #1

City of Portsmouth, New Hampshire
Lafayette Road Pump Station Upgrade

Date: March 6, 2017

The attention of firms submitting bids for the work named in the above Invitation is called to the following modifications to the documents as were issued.

The items set forth herein, whether of clarification, omission, addition, and/or substitution, shall be included and form a part of the Contractor's submitted material and the corresponding Contract upon execution. No claim for additional compensation, due to lack of knowledge of the contents of this Addendum shall be considered.

ALL BIDDERS ARE ADVISED THAT RECEIPT OF THIS NOTICE MUST BE DULY ACKNOWLEDGED BY THE INSERTION OF THE ACKNOWLEDGEMENT OF BID ADDENDUMS FORM SIGNED AND SUBMITTED WITH THE CONTRACTOR'S BID

A mandatory Pre-Bid Meeting was conducted on February 23, 2017 at the City of Portsmouth Department of Public Works building. A copy of the meeting Attendance Sheet and Notes are included with this Addendum.

Bidders are notified that the BID OPENING DATE AND TIME HAS BEEN CHANGED to 2:30 PM, March 16th, 2017

THE FOLLOWING LISTING PROVIDES QUESTIONS RAISED BY BIDDERS AS WELL AS THE CORRESPONDING RESPONSES.

Q1: Can the contract time begin after the pumps arrive on site?

R1: Contract time is to remain as specified in the contract documents.

Q2: Are markups allowed on allowances?

R2: As specified in Section 01 20 25 Items 6 and 7 have a markup of 5% as described in the general conditions.

Q3: Is the City responsible for the cost of electricity to power the bypass pumps?

R3: As specified in Section 01 51 40, Article 3.03, Paragraph A, the contractor is responsible for providing temporary services, power and fuel for the bypass pumps.

Q4: Can the City provide their past year of electricity statements for cost estimating?

R4: The total electrical demands for the Pump Station in 2016 are provided in Appendix C (attached to this addendum).

Q5: Is the "pigging" to be performed on the force main out of the pump station? What happens with the flow during the "pigging"? Who is responsible for paying for any bypass pumping during "pigging"?

R5: The pigging is to be done on the force main leaving the pump station, until its termination point. Bypass pumping is required during the process of pigging the force main. As described in section 01 20 25 Item 7, the cost of bypass pumping during the pigging process is incidental to Item 2 Base Bid.

Q6: Who is responsible for cleaning out the wet well? Is there any allowance for debris removal from the wet well?

R6: As specified on Drawing Sheet S-101 the contractor is responsible for cleaning the wet well including removal of accumulated material, which is estimated to be less than 10 cubic yards. No additional allowance will be provided for cleaning of the wet well.

Q7: Will the resident engineer require a trailer on site?

R7: As stated in Section 01 11 05, Article 3.01, Paragraph G the Contractor is required to furnish Field Offices as needed for the Resident Engineer.

Q8: Can drawings of the upstream sewers be provided to ensure no services will back up?

R8: Record Drawings of the upstream sewers are provided in Appendix B (attached to this addendum). The first overflow point is at a manhole on the other side of Sagamore Creek (rim elevation approximately. 8.017 feet NAVD88). This manhole is denoted as a note on the Record Drawings.

Q9: Will Eversource remove guy wire early enough to not conflict with construction of the new roof?

R9: The City has corresponded with Eversource to make them aware of this issue and the anticipated construction schedule. Eversource has assigned Work Request # 2764974 to this project. Once the contract has been awarded the Contractor will be responsible for coordination with Eversource in accordance with notes on Drawings CD-101 and E-004.

Q10: Is there a person to contact for additional site visits?

R10: Yes Mike Baker the City's Pump Station Manager can be contacted to schedule additional site visits prior to the bid opening. Mike Baker can be reached Monday-Friday 7:30 AM to 3:30 PM at 603-766-1538.

Q11: Does this project require American made iron and steel (AIS) to be used.

R11: There are no American iron and steel (AIS) provision associated with this project.

Q12: Is there any laydown area provided by the City in addition to that shown on Drawing C-101 (also shown in 01 11 05A Memorandum of Understanding)?

R12: Laydown areas provided by the City are as shown.

AMEND the **SPECIFICATIONS** as follows:

Specification 00 01 10 – Table of Contents

INSERT on page 00 01 10-4, above "END OF SECTION":

"Appendix A Hazardous Materials Survey Report
Appendix B Reference Drawings
Appendix C Existing Pump Station Electricity Use for Reference"

Specification 00 01 10 Section A - BIDDING REQUIREMENTS

Advertisement For Bids

REPLACE

"Bids will be received by City of Portsmouth at the office of Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire 03801 until 2:00 PM, (Standard Time-Daylight Savings Time) March 9th, 2017 and said office publicaly opened and read aloud."

WITH

"Bids will be received by City of Portsmouth at the office of Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire 03801 until 2:30 PM, March 16th, 2017 and then at said office publically opened and read aloud."

Information For Bidders

REPLACE

"BIDS will be received by CITY OF PORTSMOUTH, NEW HAMPSHIRE (herein called the "Owner"), at Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire 03801 until 2:00 PM on March 9th, 2017 and then at said office publicly opened and read aloud."

WITH

"BIDS will be received by CITY OF PORTSMOUTH, NEW HAMPSHIRE (herein called the "Owner"), at Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire 03801 until 2:30 PM on March 16th, 2017 and then at said office publically opened and read aloud."

BID

ADD

Question 17. List your last three projects of similar nature and provide contact information for references from said projects.

Specification 00 01 10 Section C – SPECIAL CONDITIONS

SC-27 Insurance

REPLACE on page C-2.7:

"The City of Portsmouth shall be named as additional insured as follows:

City of Portsmouth
Attn: Legal Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801"

WITH

"The City of Portsmouth and approved laydown area property owners shall be named as additional insured as follows:

City of Portsmouth
Attn: Legal Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801

Baker Properties
953 Islington Street #23D
Portsmouth, NH 03801

Petzold Enterprises
20630 Harper Ave Suite 107
Harper Woods, MI 48225"

SC-27 Insurance

ADD on page C-2.8

"Delete Article 27.7 in its entirety and replace with:

A. Owner will maintain Builder's Risk Insurance for its interest in the Work. Owner's policy is available for review. Contractor and subcontractors shall be responsible for insuring their own interests in the event of loss."

Specification 01 20 25 – MEASUREMENT AND PAYMENT

Article 1.02, Item 7

REPLACE

"Bypass pumping for the duration of the pigging operation shall be incidental to Item 9 Bypass Pumping."

WITH

"Bypass pumping for the duration of the pigging operation shall be incidental to Item 2 Base Bid."

Specification 01 51 40 – TEMPORARY SEWAGE BYPASS

Article 2.02, Paragraph L

REPLACE

"Autodialers: provide autodialers with capacity to call up to 3 different phone numbers upon low fuel, power failure, zero flow and pump failure."

WITH

"Autodialers: provide autodialers with capacity to call up to 3 different phone numbers upon low fuel, power failure, zero flow and pump failure. One of the phone numbers shall be provided by the City."

Appendices

INSERT at the end of the Specifications the following Appendices which are attached to this addendum:

Appendix A Hazardous Materials Survey Report
Appendix B Reference Drawings
Appendix C Existing Pump Station Electricity Use for Reference

AMEND the **DRAWINGS** as follows:

Sheet C-101

REPLACE

"Topographic work performed by MFC and dated April 8, 2016. All elevations based upon United Sates Geological Survey (USGS) Datum."

WITH

"Topographic work performed by MFC and dated April 8, 2016. All horizontal elevations based upon North American Datum of 1983 (NAD83). All vertical elevations based upon North American Vertical Datum of 1988 (NAVD88)."

Sheet S-101

REPLACE

"Wet Well Inspection: Upon removal of existing slab, contractor shall clean wet well and provide lighting and safe access for engineer to enter the wet well and preform an inspection. All concrete defects identified by the engineer during the inspection shall be repaired by the contractor under the unit price repair items."

WITH

"Wet Well Inspection: Upon removal of existing slab, contractor shall clean wet well, including the removal and disposal of any material (total volume is estimated to be less than 10 cubic yards), and provide lighting and safe access for engineer to enter the wet well and preform an inspection. All concrete defects identified by the engineer during the inspection shall be repaired by the contractor under the unit price repair items."

Sheet M-103

REPLACE

Entire Sheet

WITH

New Attached Sheet M-103 with revisions

Sheet E-004

REPLACE

Entire Sheet

WITH

New Attached Sheet E-004 with revisions

ATTACHMENTS:

- Pre-Bid Meeting Notes
- Pre-Bid Meeting Attendance Sheet.
- Sheet E-004
- Sheet M-103
- Appendix A Hazardous Materials Survey Report
- Appendix B Reference Drawings
- Appendix C Existing Pump Station Electricity Use for Reference

*****END OF ADDENDUM*****

COMMITMENT &
INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, ME 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

PRE-BID MEETING NOTES

Date: March 3, 2017
Project No.: 227872.00
Project: Lafayette Road Pump Station Upgrades
Owner: City of Portsmouth, NH

COPY: Electronic

MINUTES BY: Max Kenney, EIT

PROJECT CONTACTS:

OWNER:
City of Portsmouth, NH
Terry Desmarais, PE, City Engineer
tldesmarais@cityofportsmouth.com
Phone: 603-766-1421

Don Song, PE, Project Manager
dsong@cityofportsmouth.com
Phone: 603-610-7305

Mike Baker, Pump Station Manager
mbaker@cityofportsmouth.com
Phone: 603-766-1538

ENGINEER:
Woodard & Curran
Maggie Connolly, PE, Project Manager
mconnolly@woodardcurran.com
Phone: 207-558-3777

Erik Osborn, PE, Technical Manager
eosborn@woodardcurran.com
Phone: 207-558-3714

Attending Personnel/Distribution: See Attached Attendance List

1. Overview of Key Personnel

Terry Desmarais, PE – City Engineer, City of Portsmouth, NH

Don Song, PE – City Project Manager, City of Portsmouth, NH

Mike Baker - City Pump Station Operations, City of Portsmouth, NH

Maggie Connolly, PE – Project Manager, Woodard & Curran

Erik Osborn, PE – Technical Manager, Woodard & Curran

2. Overview of Project

The Lafayette Road Pump Station is a municipal wastewater pumping station owned by the City of Portsmouth, NH. It is located at 630 Lafayette Road in the parking lot of a shopping plaza. This project will renovate the pump station to replace and update worn out mechanical, electrical, and control systems. It will also improve operations and maintenance, upgrade the architectural appearance of the station, bring building systems in compliance with modern code to the extent possible. Bypass pumping during construction will be required. The engineering estimate for this project is approximately $3 Million.

3. Anticipated Project Schedule

Contract award anticipated in late March or early April 2017. A pre-construction meeting will be scheduled soon after the contract has been awarded.

Substantial Completion: 240 Days

Final Completion: 270 Days

4. Safety/Security:

Contractor is required for all safety and security on site.

5. Inspection:

City will have full-time inspection on this Project though Woodard & Curran.

6. Laydown Area/Site Access:

As described during the pre-bid meeting the only project laydown area will be as described in the attached Figure #1.

7. Other Items:

- Lafayette Road is a State Route.
- Project is City funded.
- Questions on Bid Documents must be received by March 3rd, 2017 at 4:00 PM.
- Addenda will be published on March 6th, 2017 and can be located on the City's website.

MNK
227872.00

COMMITMENT & INTEGRITY
DRIVE RESULTS

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Portland, ME 01402
www.woodardcurran.com

T 800.426.4262
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CITY OF PORTSMOUTH, NH

LAFAYETTE ROAD PUMP STATION UPGRADE

PRE-BID ATTENDANCE SHEET

February 16, 2017

REPRESENTATIVE	ORGANIZATION	ADDRESS	PHONE	E-MAIL ADDRESS
Terry Desmarais	City of Portsmouth, NH	680 Peverly Hill Road Portsmouth, NH 03801	603.766.1421	tldesmarais@cityofportsmouth.com
Don Song	City of Portsmouth, NH	680 Peverly Hill Road Portsmouth, NH 03801	603.233.8426	dsong@cityofportsmouth.com
Mike Baker	City of Portsmouth, NH	680 Peverly Hill Road Portsmouth, NH 03801	603.766.1538	mbaker@cityofportsmouth.com
Erik Osborn	Woodard & Curran	41 Hutchins Drive Portland, ME 04102	207.558.3714	eosborn@woodardcurran.com
Max Kenney	Woodard & Curran	41 Hutchins Drive Portland, ME 04102	207.558.3845	mkenney@woodardcurran.com
Paul Blandford	PRB Construction	25 Country Club Road #706 Guilford, NH 03249	603.528.7703	prb@metrocast.net
Tom Roussedu	Penta Corp.	PO Box 390 Moultonborough, NH 03254	603.476.5325	pentacorp@roadrunner.com
Mark McPheters	T. Buck	302 B Auburn Road Turner, ME 04282	207.783.6223	mark@tbuckcon.net
Bob Savage	DeFelice Corp.	28 Silva Lane Dracut, MA 01826	978.452.6967	Engineering@deflicecorp.com
Eric Murphy	Methuen Constriction	144 Main Street Plaistow, NH 03865	603.327.4295	fcestimating@methuenconstruction.com
Gene Connor	Kinsmen Corporation	PO Box 16117 Hookset, NH 03106	603.625.9199	Estimating@kinsmencorp.net
Peter Goodwin	Ted Berry Co.	521 Federal Road Livermore, ME 04253	207.752.0115	Peter.goodwin@tedberrycompany.com
Brendan Kennedy	Flygt/Xylem	78 K Olympia Avenue Woburn, MA 01801	781.935.6515	Brendan.kennedy@xyleminc.com

41 Hutchins Drive
Portland, ME 01402
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

REPRESENTATIVE	ORGANIZATION	ADDRESS	PHONE	E-MAIL ADDRESS
Steve Perry	Sargent Corp.	378 Bennoch Road Stillwater, ME 04489	207.827.4435	sperry@sargent-corp.com
Mike Lagasse	Apex Construction	361 Route 108 Unit 1 Somersworth, NH 03878	603.330.3600	jeff@apex-constructioninc.com
Robert Vallance	Scherbon Consolidated	40 Haverhill Road Amesbury, Ma 01913	978.388.3132	rvallance@scherbon.com
Ben Careno	Careno Construction	270 West Road Portsmouth, NH 03801	603.436.1006	ben@carenoconstruction.com

22x34 SHEET
1:1

ELECTRICAL SITE DEMOLITION
GENERAL NOTES:

1. ALL ITEMS SHOWN WITH LIGHT DESIGNATION INDICATES EXISTING EQUIPMENT TO REMAIN. ALL ITEMS SHOWN WITH BOLD DESIGNATION INDICATES EXISTING EQUIPMENT TO BE DEMOLISHED, UNLESS SPECIFICALLY INDICATED OTHERWISE.
2. REFERENCE DEMOLITION NOTES ON SHEET E-002 FOR GENERAL DEMOLITION DETAILS AND REQUIREMENTS.
3. REFERENCE DEMOLITION ONE-LINE DIAGRAM ON SHEET E-002, ELECTRICAL DEMOLITION PLAN ON SHEET E-003 FOR FURTHER PUMP STATION DEMOLITION REQUIREMENTS.
4. REFERENCE CIVIL SITE PLANS FOR COORDINATION WITH OTHER UTILITIES.

KEYED DEMOLITION NOTES:

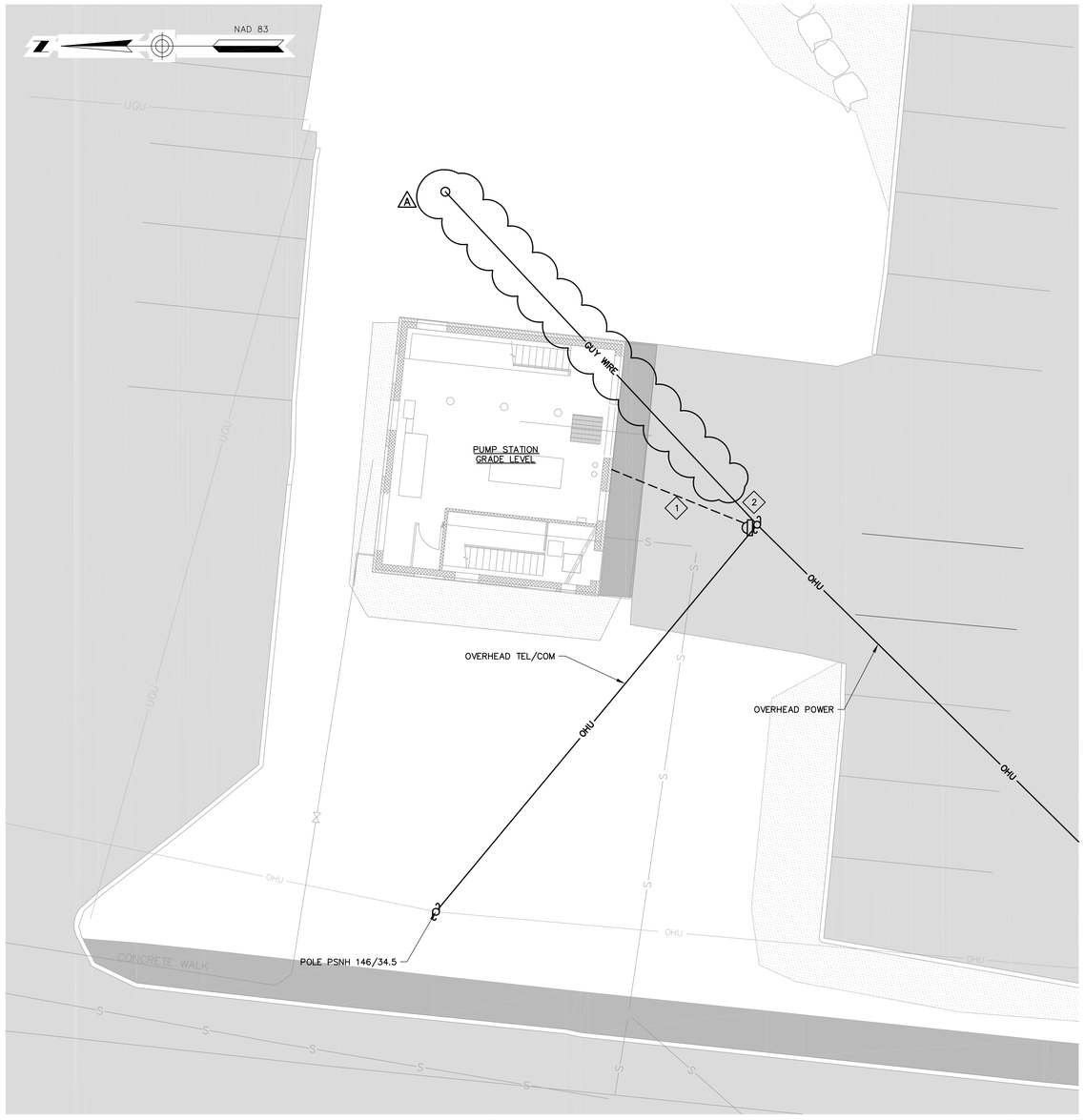
1. DEMOLISH ALL SERVICE CONDUIT AND CABLE BACK TO POLE.
2. COORDINATE DEMOLITION OF EXISTING SERVICE INCLUDING, UTILITY POLE, TRANSFORMERS, GUY WIRES, AND ALL ASSOCIATED HARDWARE, WITH EVERSOURCE.
3. 1/0 BARE COPPER GROUND BURIED MINIMUM 30" BELOW GRADE (TYP.)

GENERAL NOTES:

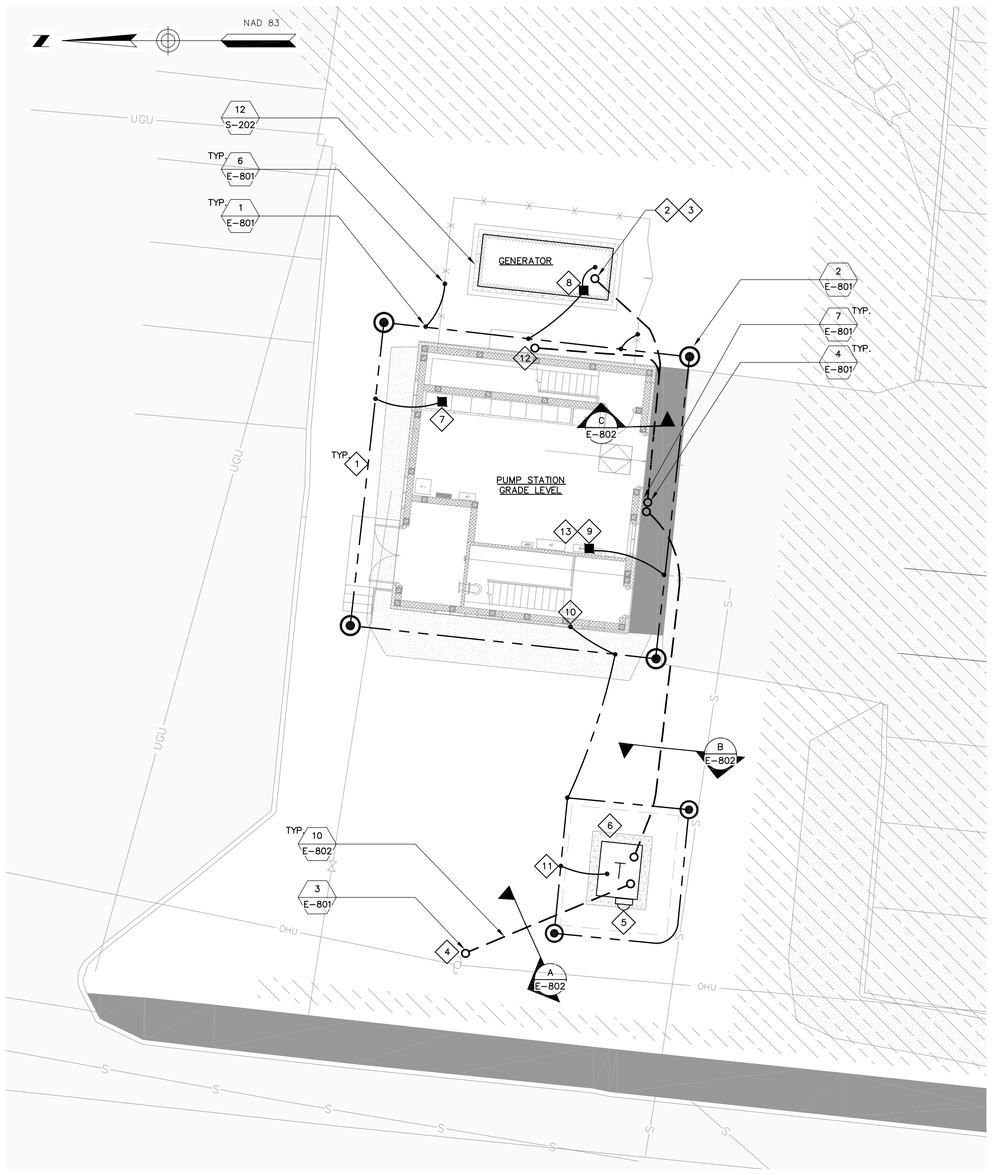
1. ALL ITEMS SHOWN WITH LIGHT DESIGNATION INDICATES EXISTING EXISTING. ALL ITEMS SHOWN WITH BOLD DESIGNATION INDICATES NEW WORK, UNLESS SPECIFICALLY INDICATED OTHERWISE.
2. REFERENCE CIVIL SITE PLANS FOR COORDINATION WITH OTHER UTILITIES.
3. ALL EQUIPMENT AND LOCATIONS ARE SHOWN DIAGRAMMATICALLY AND SHALL BE COORDINATED IN THE FIELD PRIOR TO INSTALLATION.
4. CERTAIN AREAS WITHIN THE PUMP STATION ARE CONSIDERED CLASS 1 DIVISION 1, OR CLASS 1 DIVISION 2 HAZARDOUS LOCATIONS. REFERENCE SHEET E-101, E-201, AND E-301 FOR DETAILS. CONDUITS EXTENDING INTO THE BUILDING FROM THE EXTERIOR SHALL NOT PENETRATE INTO THESE SPACES AND SHALL TRANSITION DIRECTLY INTO THE ELECTRICAL ROOM.
5. BOND EACH END OF BARE COPPER GROUND IN DUCT BANK TO NEAREST GROUNDING ELECTRODE CONDUCTOR. (NOT SHOWN)

KEYED NOTES:

1. 1/0 BARE COPPER GROUND BURIED MINIMUM 30" BELOW GRADE (TYP.)
2. PROVIDE (2)#10, (1)#10GND, 1"C FOR GENERAL BLOCK HEATER AND (2)#10, (1)#10GND, 1"C GENERATOR CONTROL/BATTERY CHARGER POWER, EACH TO PANEL P1. REFERENCE RISER DIAGRAM ON SHEET E-501 FOR GENERATOR CONTROL WIRING REQUIREMENTS.
3. COORDINATE GENERATOR CONDUIT STUB UP LOCATION(S) AND REQUIREMENTS WITH GENERATOR SHOP DRAWINGS.
4. COORDINATE FINAL SERVICE REQUIREMENTS AND RISER POLE LOCATION WITH EVERSOURCE PRIOR TO INSTALLATION. (TYP.)
5. COORDINATE FINAL UTILITY METER LOCATION AND REQUIREMENTS WITH EVERSOURCE.
6. PROVIDE CONCRETE TRANSFORMER PAD IN ACCORDANCE WITH EVERSOURCE REQUIREMENTS. FIELD COORDINATE FINAL CONDUIT STUB UP LOCATIONS PRIOR TO INSTALLATION.
7. BOND TO MCC-1 GROUND BUS.
8. BOND TO REBAR IN GENERATOR PAD AND GENERATOR CHASSIS.
9. BOND TO MCB GROUND BUS.
10. BOND GROUND RING TO BUILDING STEEL. LOCATION TO DETERMINED IN THE FIELD.
11. PROVIDE GROUNDING IN ACCORDANCE WITH EVERSOURCE REQUIREMENTS.
12. COORDINATE STUB-UP LOCATION WITH FINAL AC-1 POSITIONING.
13. BOND TO WATER PIPING, LOCATION TO BE DETERMINED IN THE FIELD.



ELECTRICAL SITE DEMOLITION PLAN
SCALE: 1" = 8'



PROPOSED ELECTRICAL SITE PLAN
SCALE: 1" = 8'

12' 8' 4' 0 8' 16'
BAR SCALE
1" = 8'
CHECK GRAPHIC SCALE BEFORE USING

BID SET

41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER
ANDREW FITZPATRICK
No. 14209
LICENSED

REV	DESCRIPTION	DATE
A	ADDENDUM #1	3/06/2017

DESIGNED BY: SEH
DRAWN BY: NTHB
CHECKED BY: SEH
227872OO-E-004DWG

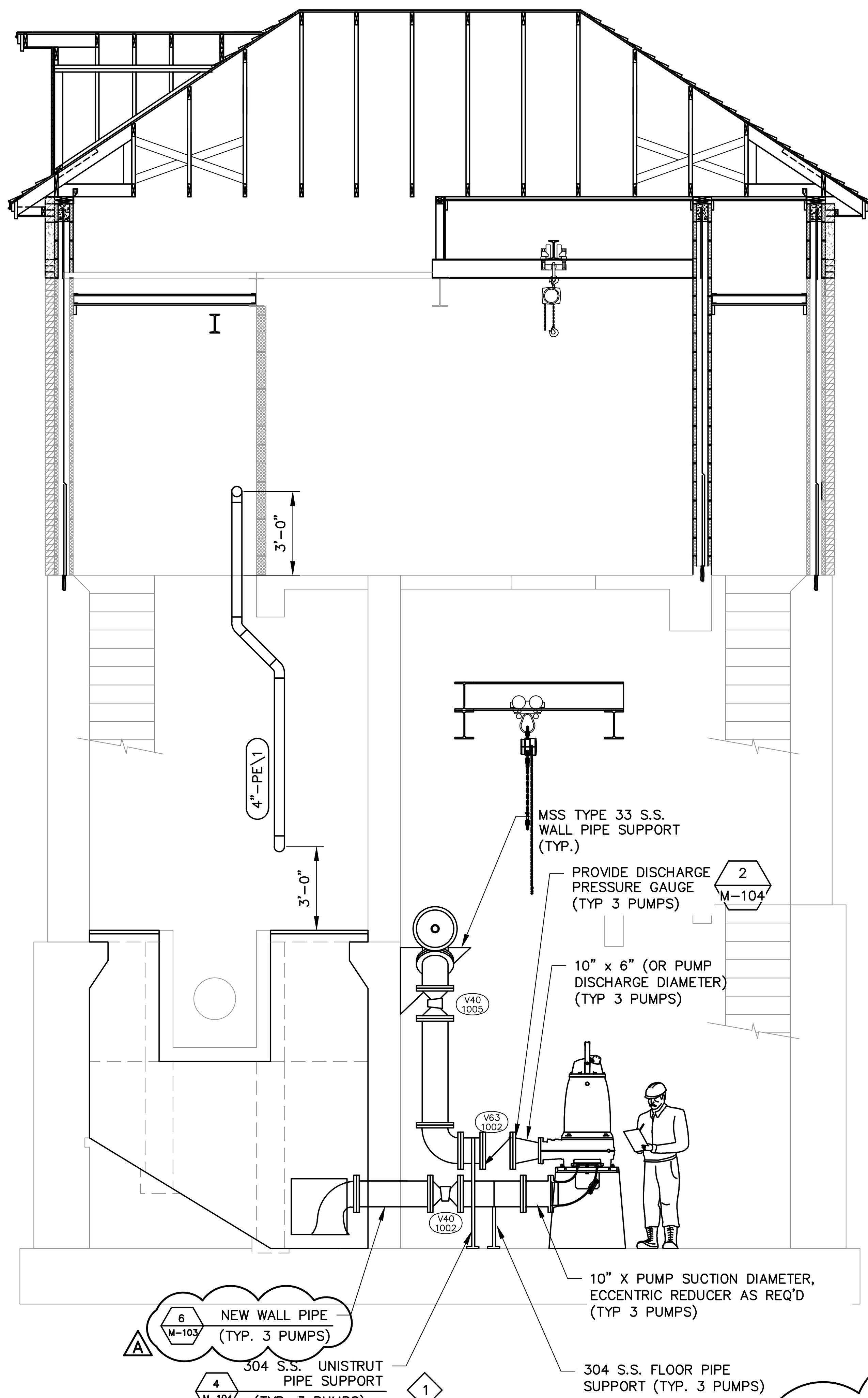
ELECTRICAL SITE PLANS

CITY OF PORTSMOUTH
DEPARTMENT OF PUBLIC WORKS
NEW HAMPSHIRE

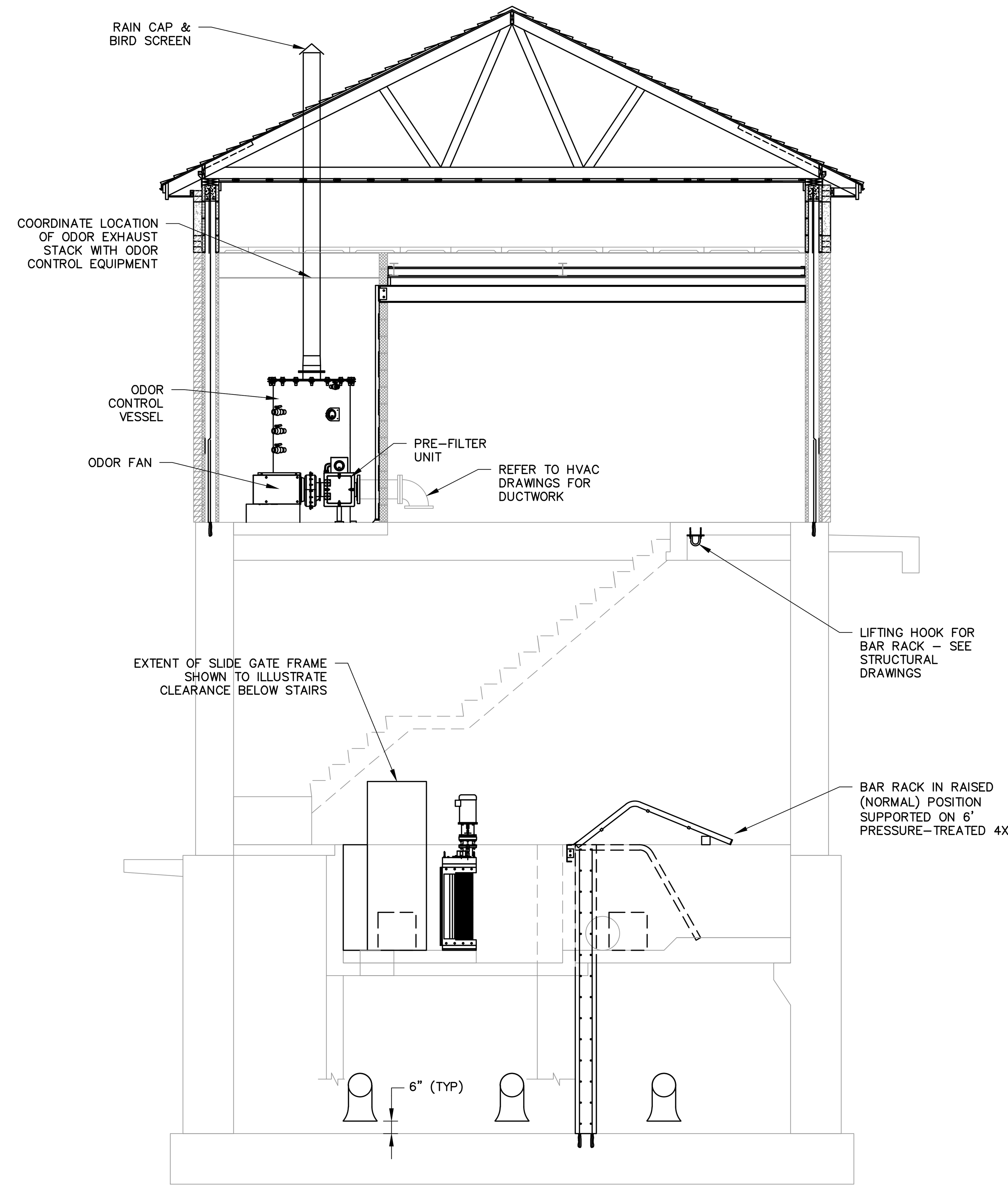
LAFAYETTE ROAD
PUMP STATION
UPGRADES

JOB NO.: 227872.00
DATE: FEBRUARY 2017
SCALE: AS SHOWN
SHEET: 42 OF 67

E-004



SECTION 1 (M-101)
SCALE: 1/4" = 1'-0"



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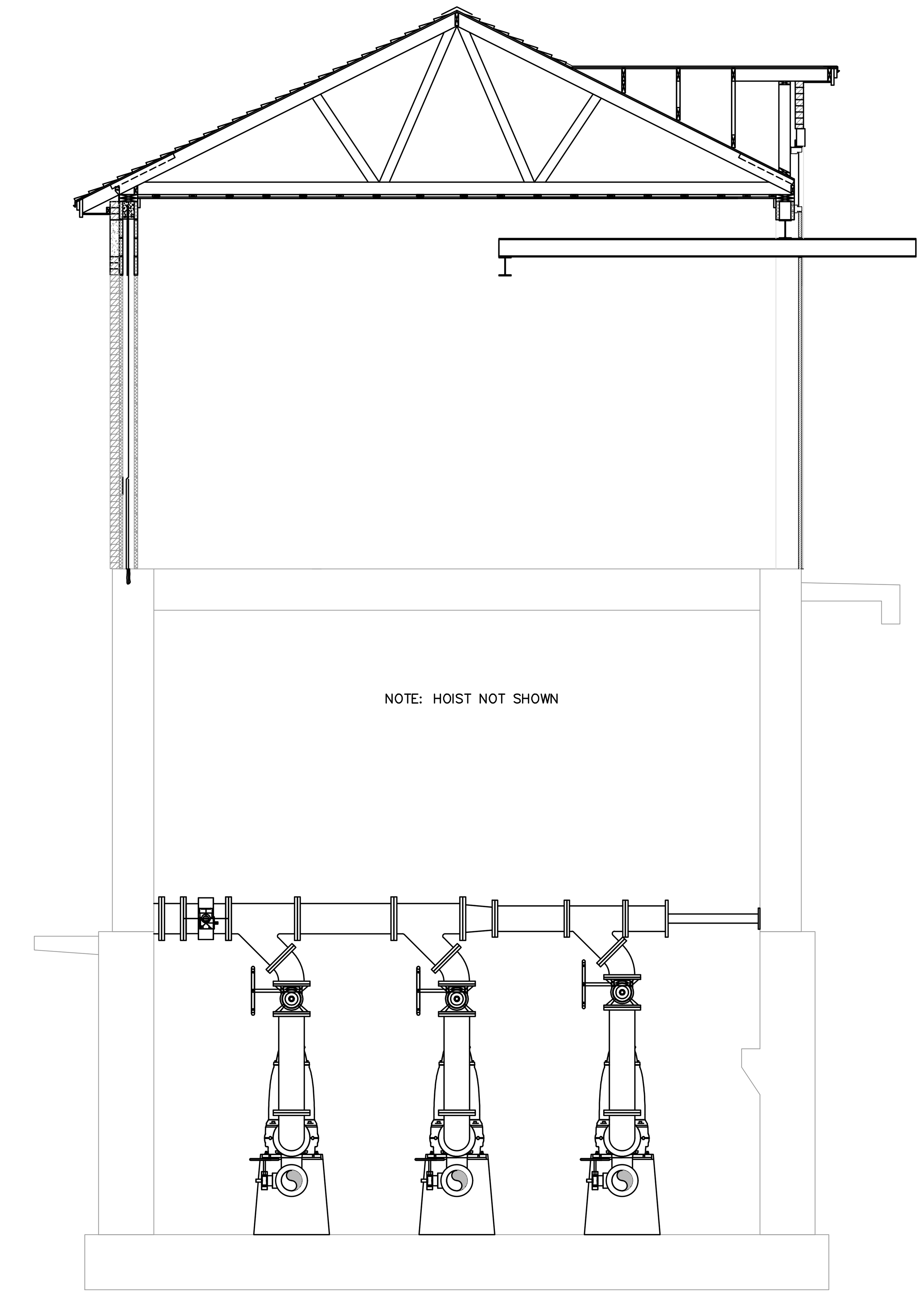

SECTION 3 (M-101)
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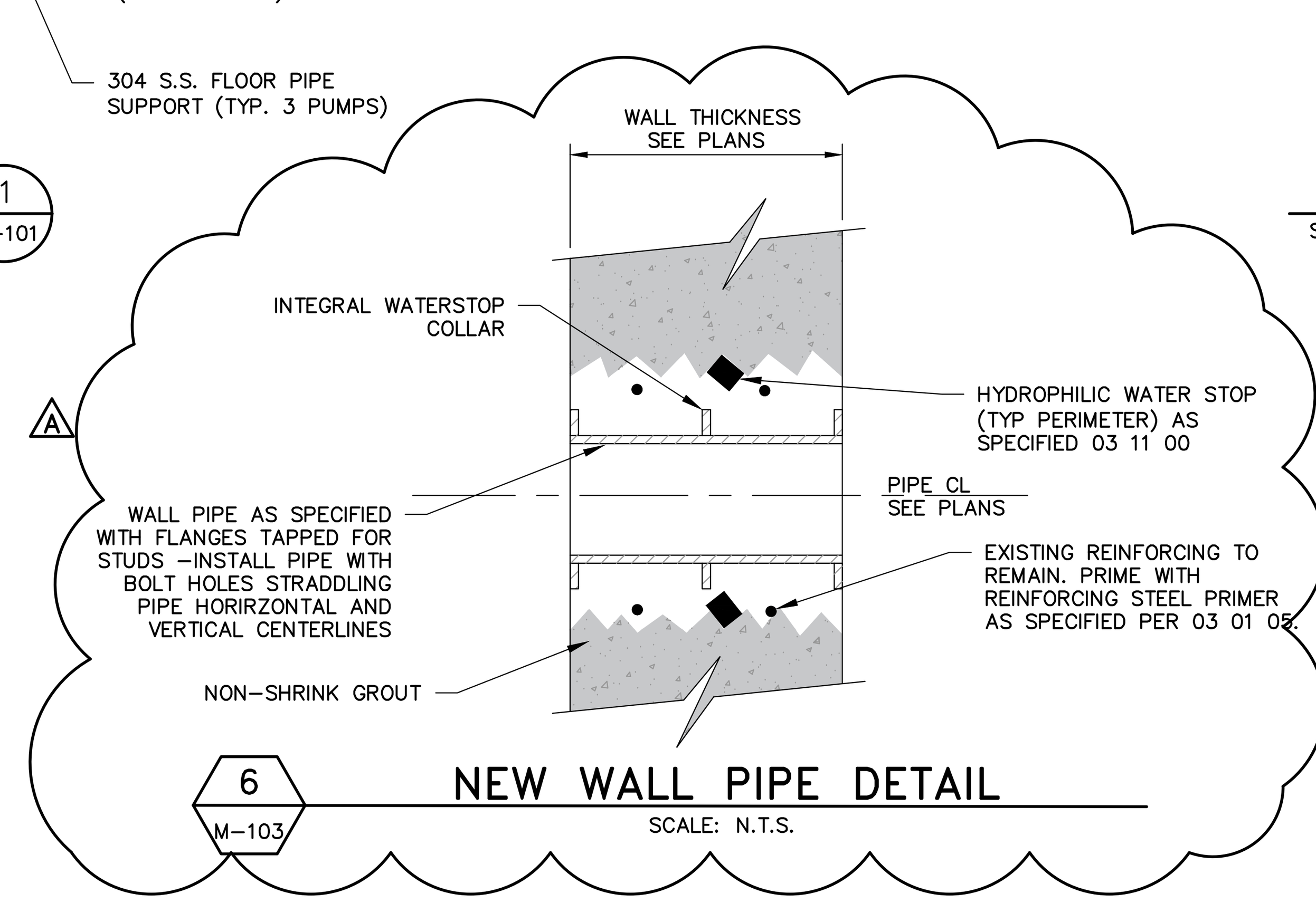

NEW WALL PIPE DETAIL (6, M-103)
SCALE: N.T.S.

GENERAL NOTES:

1. PIPE SUPPORTS ARE SHOWN FOR DESIGN INTENT ONLY. NOT ALL REQUIRED PIPE SUPPORTS ARE SHOWN. PROVIDE COMPLETE PIPE SUPPORT SYSTEM IN ACCORDANCE WITH SPECIFICATION 40 05 13.03.

KEYED NOTE:

1. CONTRACTOR TO FABRICATE FROM 304 S.S. UNISTRUT.

BAR SCALE 3/8" = 1'-0"
CHECK GRAPHIC SCALE BEFORE USING

BID SET

WOODARD & CURRAN
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Portland, Maine 04102
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STATE OF NEW HAMPSHIRE - ERIK C.J. OSBORN No. 13170 - LICENSED PROFESSIONAL ENGINEER

REV	DESCRIPTION	DATE
A	ADDENDUM #1	3/06/2017

DESIGNED BY: ECO CHECKED BY: TCS
DRAWN BY: FF/DMB 227872.00-M-103.DWG

PUMP STATION MECHANICAL SECTIONS

CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS NEW HAMPSHIRE

LAFAYETTE ROAD PUMP STATION UPGRADES

JOB NO.: 227872.00
DATE: FEBRUARY 2017
SCALE: AS NOTED
SHEET: 25 OF 67

M-103

APPENDIX A

Hazardous Materials Survey Report

Lafayette Road Wastewater Pump Station

630 Lafayette Road
Portsmouth, New Hampshire

41 Hutchins Drive
Portland, ME 04102
800-426-4262

woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

227872.01
City of Portsmouth
April 2016

TABLE OF CONTENTS

SECTION **PAGE NO.**

TABLES

FIGURES

APPENDICES

Appendix A: Optimum Analytical and Consulting LLC., Reports by Polarized Light Microscopy
Appendix B: AmeriSci Report by EPA Method 3050B/7000B
Appendix C: Contest Analytical Results

CERTIFICATION PAGE

Ms. Laura A. Stockfisch of Woodard & Curran conducted the asbestos inspection of the Lafayette Road Wastewater Pump Station located at 630 Lafayette Road in Portsmouth, New Hampshire on April 5, 2016. Ms. Stockfisch is certified as an asbestos inspector by the State of New Hampshire, Department of Environmental Services Asbestos Management & Control Program AI 000394.

Laura A. Stockfisch

Laura A. Stockfisch

April 18, 2016
Date

EXECUTIVE SUMMARY

This report presents the results of a survey for hazardous materials conducted at the Lafayette Road Wastewater Pump Station located at 630 Lafayette Road in Portsmouth, New Hampshire (the site). Woodard & Curran performed this survey on April 5, 2016 to evaluate the type, location and quantity of existing asbestos-containing building materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) as well as to evaluate waste disposal parameters for certain materials. The inspection was requested because the building is scheduled to be renovated as part of the Lafayette Road Pump Station Upgrades Project.

The Lafayette Road Wastewater Pump Station was reported to have been originally constructed in the 1960s. Reportedly, since the original date of construction, renovations have been conducted at the station in the 1980s, 1990s and 2000s. Current state and federal regulations require that the Owner/Operator remove all existing ACM from any facility prior to demolition of the facility, if the demolition process will disturb the ACM. Federal regulations also require that employers protect employees from significant exposure to airborne lead during construction activities, including building demolition activities. The United States Environmental Protection Agency (US EPA) also regulates disposal methods for certain concentrations of PCBs in building materials as well as certain concentrations of leachable metals.

The results of the survey indicated that the following materials contain regulated concentrations of asbestos, or, should be managed as ACM:

- Door and louver caulking; and
- Coatings on interior concrete surfaces.

The following materials should be presumed to contain asbestos until additional sampling is conducted to either refute or confirm this assumption:

- Cement mounting panels;
- Roofing materials on the concrete roof deck beneath the corrugated metal deck; and
- Gaskets at bolted flange connections.

The cement mounting panels are located along the railing one floor below the generator level of the Pump Station. These panels are very hard and collecting samples adequately sized for analysis was difficult without causing damage to the panels.

Inspection of the roof indicated that the membrane roofing system is applied over rigid insulation board and gypsum board. These materials are present over a corrugated metal deck. At the time of Woodard & Curran's inspection, there was no access beneath the corrugated metal decking; however, from the interior of the building, the roof deck appears to be precast concrete. Because inspection of all layers of roofing was not feasible, it is presumed that asbestos-containing roofing materials may be present between the precast concrete deck and corrugated metal deck.

Newer, rubber, gaskets were observed at exposed bolted flange connections in existing pipe systems at the time of the inspection. Although the rubber gaskets are not suspect asbestos-containing materials, older gasket materials could be present and may contain asbestos. These gaskets are not typically accessible until the bolted union is broken.

The results of sampling for lead-based paint indicated that concentrations of lead on painted surfaces tested at the facility were generally low.

Four bulk samples were submitted for total PCB analysis. Two samples were reported by the laboratory as non-detect for PCBs or with PCBs ≤ 1 ppm and are therefore not subject to PCB waste management and disposal requirements under 40 CFR 761. PCBs were detected at concentrations < 50 ppm in two other samples including one from interior door-caulking collected from the door on the "wet side" and one collected from caulking associated with a small louver

on the north side of the building. The results of these sealant samples ranged from 4 ppm to 45 ppm. Based on these results, the sealants containing PCBs < 50 ppm may fall into one of two categories:

(1) The materials may meet the definition of *Excluded PCB Products* per 40 CFR 761.3 and are not subject to the requirements of 40 CFR 761; or

(2) The PCBs may have been "released" to the material from a source containing PCBs ≥ 50 ppm and would be considered a PCB Remediation Waste subject to the requirements of 40 CFR 761.61.

In addition to the samples outlined above, Woodard & Curran inventoried other observed materials or items at the site that may require special handling, packaging and/or disposal considerations. These items may contain hazardous materials such as mercury, oils, hydraulic fluids, refrigerants, etc. These include the following items:

- Electrical switch gear
- Mercury vapor lights
- Motors
- Heater
- Batteries
- Fuel storage tank
- Gas meter
- Fire extinguisher
- Condenser/radiator
- Smoke detectors
- Generator

1. INTRODUCTION

Woodard & Curran conducted a focused survey of potential ACM, lead-based paint (LBP), polychlorinated-biphenyls (PCBs) and other materials that may require special handling, packaging and / or disposal considerations prior to the proposed renovation of the Lafayette Road Wastewater Pump Station at 630 Lafayette Road in Portsmouth, New Hampshire. Woodard & Curran conducted the hazardous building material survey on April 5, 2016.

The Lafayette Road Wastewater Pump Station was reported to have been originally constructed in the 1960's. Reportedly, since the original date of construction, renovations have been conducted at the station in the 1980s 1990s and 2000s. A Site Locus Map is provided as Figure 1-1 below.

Figure 1-1: Site Location Map

Woodard & Curran conducted the hazardous building materials survey in support of a proposed project to renovate the existing building in accordance with various federal and state regulations that require the Owner (or Operator) to identify hazardous materials prior to renovation and/or demolition activities that may disturb these materials.

These regulations are intended to ensure that existing hazardous materials are properly removed, packaged and disposed of prior to, or as part of the demolition process.

Based on the likely facility construction dates, products containing certain hazardous materials such as ACM, lead-based paint (LBP), polychlorinated biphenyls (PCBs) or other hazardous materials may have been used as part of the standard construction practices, or during repair or renovation activities throughout the lifespan of the building. In support of the renovation project, a hazardous building materials survey was conducted. As part of the survey, samples of building materials were collected and submitted for analysis. Note that Woodard & Curran was authorized to use limited destructive inspection methods for areas/materials that are buried or hidden by existing finish materials.

This report includes a description of the hazardous materials survey findings, sample results, and the regulatory implications of these findings.

2. BUILDING SURVEY

2.1 SURVEY SCOPE

The objective of the hazardous building materials survey was to visually inspect and document the different types of suspect hazardous building materials subject to potential disturbance during renovation of the building. In cooperation with the project team, Woodard & Curran conducted the survey based on the assumption that all existing building materials would be disturbed as part of the demolition process. Woodard & Curran conducted the survey in February 2016, which included a field survey / walk through of:

- Interior spaces including three levels of the building.
- Exterior areas including building façade and roofs (as accessible).
- Limited destructive testing to access areas behind walls.

2.2 VISUAL SURVEY RESULTS

A summary of the building construction features relevant to the hazardous materials survey is presented below.

Original Building and South Addition

The building is constructed of concrete masonry unit (CMU) walls, pre-cast concrete ceilings and painted concrete floors. The original roof appears to have been covered at some point in the past as the ceiling in the pump station is precast concrete while a corrugated metal deck was observed beneath the existing membrane roofing. A portion of a CMU block was removed from the "wet side" of the pump station to inspect for a damp proofing on the back side of the CMU and for vermiculite insulation within the CMU. No damp proofing or vermiculite insulation was observed at the inspected location.

3. ASBESTOS-CONTAINING MATERIALS

3.1 INSPECTION PROCEDURES AND SAMPLING METHODOLOGY

The asbestos inspection was performed using guidelines established by the EPA Guidance for Controlling Asbestos-Containing Materials in Buildings (EPA 5605-85/024) as well as EPA AHERA: 40 CFR 763 and OSHA: 1926.1101 regulations. Woodard & Curran conducted visual inspections of accessible areas to identify homogeneous areas of suspect ACM. Woodard & Curran assessed suspect materials as potential ACM, where they were observed. Locations and quantities of accessible suspect ACM were noted.

Materials are grouped into homogeneous areas for the purpose of sampling to evaluate asbestos content. Homogeneous areas are those that contain suspect ACM that is uniform in application, texture and color and which visually appear identical in every other respect. Materials installed at different times are treated as different homogeneous sampling areas (if this information is known). Bulk samples of observed suspect ACM were collected from randomly chosen locations in a manner to minimize damage to building finishes.

Ms. Laura Stockfisch (New Hampshire Department of Environmental Services certified asbestos inspector, AI 000394) of Woodard & Curran collected samples on April 5, 2016.

3.2 ANALYTICAL METHODS

Samples collected by Woodard & Curran were analyzed via Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the United States Environmental Protection Agency (EPA) "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116. Woodard & Curran's samples were submitted to Optimum Analytical and Consulting, LLC (Optimum) located in Salem, New Hampshire for analysis. Optimum is a NVLAP accredited laboratory. The analytical results are presented in Appendix A.

3.3 INSPECTION SUMMARY

On April 5, 2016, Woodard & Curran visually inspected and sampled representative suspect ACM throughout the facility. Materials observed and considered suspect for asbestos included cement mounting panels, sealants (caulkings at various applications), gypsum board, vapor barrier on foundation, mudded fittings and sealants applied to fibrous glass insulation, generator exhaust insulation and coatings on concrete.

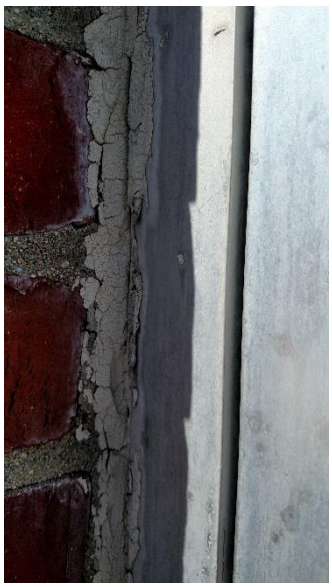
- Heating, ventilation and air conditioning (HVAC) systems were inspected for the presence of insulation, sealants and adhesives.
- Roofs were inspected for the presence of asphaltic shingles, built-up asphaltic roofing, asphaltic rolled roofing papers and sealants.
- Interior ceilings were inspected for the presence of plasters.
- Exterior walls were inspected for the presence of damp proofing/waterproofing and caulking materials.
- Window and door assemblies were inspected for the presence of caulking and window glazing compounds.

A total of 23 samples were collected for asbestos analysis during the survey.

3.4 SAMPLING RESULTS

New Hampshire Department of Environmental Services (NH DES) defines an ACM as any material that contains any type of asbestos in an amount greater than one percent.

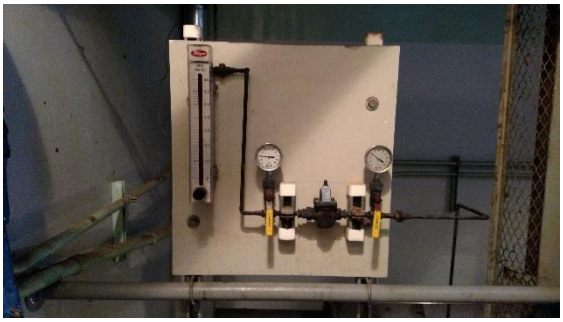
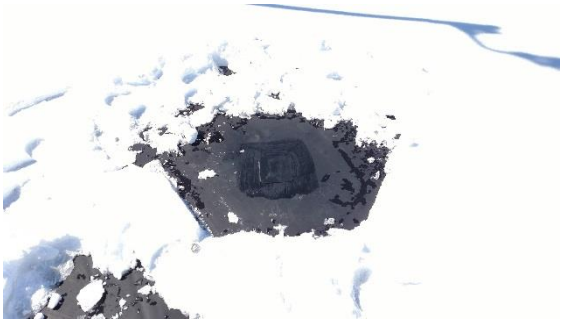
Figure 3-1: Asbestos Containing Materials

Door and louver caulking was identified as an ACM. It appears that newer sealants were installed over older sealants; therefore, the newer sealants at all door and louver openings are considered contaminated by the underlying sealants.	
Coating on interior concrete surfaces were identified as containing less than 1% asbestos; however, it is recommended that this material be handled as an ACM. OSHA has issued several letters of interpretation with regard to materials that contain trace amounts (< 1%) of asbestos. The letters indicate that certain work practices are required for materials that contain asbestos in concentrations of <1%. The work practices specified by OSHA include: • Wet handling; • Prompt clean up; and • Packaging in leak-tight containers. The letters of interpretation also identify several prohibited activities including the use of high-speed abrasive disc saws and compressed air. OSHA also prohibits the practice of employee rotation as a means of reducing employee exposure to asbestos. Note also that if the coatings on concrete were to be handled as non-asbestos materials; the employer of the persons who handle this material would be required to provide asbestos training, negative exposure assessments, medical evaluations and respiratory protection to those employees. *Note the samples were collected from the Wet Well and the same coatings are presumed present on all levels of the Dry Well.	

A complete inventory of those materials sampled by Woodard & Curran is provided in Table 3-1.

The following materials should be presumed to contain asbestos until sampling is conducted to either refute or confirm this assumption:

Figure 3-2: Presumed Asbestos Containing Materials

Cement mounting panels are located along the railing one floor below the generator level of the Pump Station. These panels are very hard and collecting samples adequately sized for analysis was difficult without causing damage to the panels.	
Roofing materials on the concrete roof deck beneath the corrugated metal deck	
Gaskets at Bolted Flange Connections of Pipes – Gaskets are typically located between bolted flanges in pipe systems. These gaskets often contain asbestos. It is assumed that 50 such gaskets are present in this building. These gaskets were not accessible for sampling at the time of our survey and are therefore presumed to be ACM.	

A summary of those materials presumed to be ACM is also provided in Table 3-1.

Table 3-1 Inventory of Suspect Asbestos-Containing Building Materials

Field ID	Sample Location	Sample Description	Analytical Result	Approximate Quantity
1615305-001-01	**Mezzanine**	**Cement mounting panel, white**	**No asbestos detected; presume to be ACM or collect additional samples**	**12 sq ft**
1615305-002-02A	**Exterior, double door**	**Door caulking located beneath new caulking, gray**	**5% Chrysotile asbestos**	**60 ln ft (doors and small louvers)**
1615305-003-02B	**Exterior, north side of building**	**Small louver caulking, gray**	**Positive stop Presumed ACM same as result for caulking sample above**	
1615305-004-03A	Roof	Gypsum board beneath rigid insulation and membrane roofing	No asbestos detected	---
1615305-005-03B	Roof	Gypsum board beneath rigid insulation board membrane roofing	No asbestos detected	---
1615305-006-04A	Exterior, west elevation	Vapor barrier on concrete foundation, black/gray	No asbestos detected	---
1615305-007-04B	Exterior, east elevation	Vapor barrier on concrete foundation, black/gray	No asbestos detected	---
1615305-008-05A	Dry Well, Ground Floor Level	Mudded fitting on fibrous glass pipe insulation, gray	No asbestos detected	---
1615305-009-05B	Mezzanine	Mudded fitting on fibrous glass pipe insulation, gray	No asbestos detected	---
1615305-010-05C	Mezzanine	Mudded fitting on fibrous glass pipe insulation, gray	No asbestos detected	---
1615305-011-06A	Dry Well, Ground Floor Level	Sealant on fibrous glass pipe insulation, white	No asbestos detected	---
1615305-012-06B	Dry Well, Ground Floor Level	Sealant on fibrous glass insulation, white	No asbestos detected	---
1615305-013-07A	Dry Well, Ground Floor Level	Generator exhaust insulation, gray	No asbestos detected	---
1615305-014-07B	Dry Well, Ground Floor Level	Generator exhaust insulation, gray	No asbestos detected	---

Field ID	Sample Location	Sample Description	Analytical Result	Approximate Quantity
1615305-015-07C	Dry Well, Ground Floor Level	Generator exhaust insulation, gray	No asbestos detected	---
1615305-016-08A	Exterior, south elevation	Caulking associated with large louvers, black	No asbestos detected	---
1615305-017-08B	Exterior, east elevation	Caulking associated with large louvers, black	No asbestos detected	---
1615305-018-09A	**Wet Well**	**Interior door caulking wet side, white**	**3% Chrysotile asbestos**	**40 ln ft; assume present at both doors**
1615370-001-10A	**Wet Well**	**Coating on concrete wall**	**<1% Chrysotile asbestos**	**3,500 sq ft (assumed present in the wet and dry wells)**
1615370-002-10B	**Wet Well**	**Coating on concrete wall**	**<1% Chrysotile asbestos**	
1615370-003-10C	**Wet Well**	**Coating on concrete wall**	**<1% Chrysotile asbestos**	
1615370-004-10D	**Wet Well**	**Coating on concrete wall**	**<1% Chrysotile asbestos**	
1615370-005-10E	**Wet Well**	**Coating on concrete wall**	**<1% Chrysotile asbestos**	
N/A	**Roof**	**Materials on the concrete roof deck beneath the corrugated metal deck**	**Presumed ACM**	**700 sq ft**
N/A	**Various interior locations**	**Gaskets at bolted flange connections**	**Presumed ACM**	**100 each**

4. LEAD-BASED PAINT

Woodard & Curran conducted a limited survey for lead-based paints at the Lafayette Street Wastewater Pump Station located at 630 Lafayette Road in Portsmouth, New Hampshire. The survey included those paints which appeared to be most prevalent, and those paints which appeared to be damaged. The results of the lead-based paint survey, including methods used, findings and a summary of regulatory requirements are provided below.

4.1 SURVEY METHODS

Woodard & Curran collected samples of readily accessible dried paint film from representative painted facility surfaces. Selected paints were tested to evaluate whether or not lead was present in existing paints and coatings. Samples of paint were collected by Woodard & Curran and submitted to Optimum Analytical and Consulting, LLC and subsequently submitted to AmeriSci for analysis to determine total lead. Samples were analyzed by AmeriSci using EPA Method 3050B/7000B. The analytical results are presented in Appendix B.

4.2 SAMPLING RESULTS

The results of sampling for lead-based paint indicated that concentrations of lead on painted surfaces tested at the facility were generally low. The results of paint samples analyzed for lead content are presented below in Table 4-1.

Table 4-1 Lead Analytical Results

Field ID	Sample Location	Sample Description	% Lead
1	Dry Well Lower Level	Gray paint on metal pipe	0.018
2	Mezzanine	Gray paint on concrete wall	0.011
3	Dry Well Ground Floor Level	Gray paint on concrete floor	0.019
4	Dry Well Lower Level	Gray paint on metal duct	0.019

5. POLYCHLORINATED BIPHENYLS

5.1 SURVEY METHODS

Woodard & Curran's survey included the sample collection and analysis of observed suspect PCB-containing sealants. For the purposes of this survey, the following types of building materials were considered to be suspect PCB source materials (i.e., materials suspected to contain PCBs above the Federal regulatory threshold of 50 parts per million [ppm]):

- "Caulking" or "Caulking Sealant" – a flexible material used to seal gaps to make door frames, masonry and other joints in buildings and other structures watertight or airtight;

Based on project team discussions, it was assumed that existing sealant materials suspected of containing non-liquid PCBs may have been installed during a time when PCBs were sometimes used in the manufacture of these types of building materials (i.e., pre-1980).

5.2 SAMPLING RESULTS

Four bulk samples were submitted for total PCB analysis. Two samples were reported by the laboratory as non-detect for PCBs or with PCBs ≤ 1 ppm and are therefore not subject to PCB waste management and disposal requirements under 40 CFR 761. PCBs were detected at concentrations < 50 ppm in two other samples including one from interior door-caulking collected from the door on the "wet side" and one collected from caulking associated with a small louver on the north side of the building. The analytical results of these sealant samples ranged from 4 ppm to 45 ppm. Based on these results, the sealants containing PCBs < 50 ppm may fall into one of two categories:

(1) The materials may meet the definition of *Excluded PCB Products* per 40 CFR 761.3 and are not subject to the requirements of 40 CFR 761; or

(2) The PCBs may have been "released" to the material from a source containing PCBs ≥ 50 ppm and would be considered a PCB Remediation Waste subject to the requirements of 40 CFR 761.61.

6. MATERIALS REQUIRING SPECIAL HANDLING, PACKAGING OR DISPOSAL CONSIDERATIONS

Woodard & Curran inventoried other observed materials or items at the site that may require special handling, packaging and/or disposal considerations. The results of this inventory are listed below in Table 6-1.

Table 6-1 Inventory of Miscellaneous Hazardous Materials

				Contaminant of Concern				
Description	**Mfg./Model**	**Quantity**	**Units/Size**	**Hg[1]**	**PCB[2]**	**CFC[3]**	**Rad.[4]**	**Misc.[5]**
Electrical switch gear	Cutler-Hamme Freedom Series	Unknown			X			X
Mercury vapor lights	Unknown	3	Each	X				
Motors	Unknown							X
Heater	Modine	1	Each	X				
Batteries	Royal	2	Each					X
Fuel storage tank	Unknown	500	Gallon					X
Gas meter	Unknown	1	Each	X				
Fire extinguisher	Unknown	1	Each					X
Condenser/radiator	Unknown	1	Each			X		X
Smoke detectors	Unknown						X	
Generator	Unknown	1	Each					X

Wastes that NH DES has determined meet universal waste criteria include antifreeze, mercury-containing lamps and devices, cathode ray tubes (CRTs), certain types of batteries, and recalled or suspended hazardous waste pesticides regulated under the Federal Insecticide, Fungicide, and Rodenticide Act. These wastes should be removed and disposed of in accordance with applicable regulations including Env-Hw 1100 – Universal Waste Rule.

Other wastes that require special handling maybe returned to the vendor who provided them (i.e. smoke detectors and fire extinguishers) for proper disposal in accordance with applicable regulations. For those wastes that cannot be returned, remove, transport and dispose in accordance with applicable regulations including but not limited to Env-Hw 503, Env-Hw 600 and Env-A 4100.

[1] Mercury
[2] Polychlorinated Biphenyls
[3] Chlorofluorocarbon
[4] Radiation
[5] Miscellaneous

7. REGULATORY CONSIDERATIONS & REMEDIAL MEASURES

7.1 ASBESTOS

Asbestos was identified as a result of this survey. Asbestos is regulated by state and federal authorities having jurisdiction including but not limited to OSHA, EPA and NH DES. Based on our survey findings, the following potential next steps are proposed for consideration:

- A Woodard & Curran NH DES certified Asbestos Project Designer will prepare technical specifications for removal of any ACM that may be disturbed by any renovation/demolition activities at the site. These specifications will be included within the Contract Documents.
- A certified asbestos contractor should remove any identified ACM and materials identified as containing asbestos at less than 1% from the facility prior to the start of renovation activities that may disturb the materials in accordance with federal, state and local regulations.
- Additional ACM may be present in previously inaccessible areas such as within mechanical and electrical components, buried/basement areas, chases, shafts, etc. If additional suspect materials are encountered during facility demolition activities, then precautions should be taken to prevent the disturbance of the suspect material(s) until appropriate bulk sampling and laboratory analysis is performed to evaluate the material's asbestos content.
- Manage any identified ACM that is not removed from the facility in accordance with a site-specific asbestos operations and maintenance plan.

7.2 LEAD-BASED PAINT

Renovation activities that disturb lead based paints must be performed in accordance with OSHA lead regulation 29 CFR 1926.62, which contains requirements for protecting workers from lead exposure. The standard does not establish a "safe" or "acceptable" concentration of lead in paint, below which an initial exposure assessment is not required. For the purposes of OSHA compliance, any measurable amount of lead could pose a health hazard to workers involved in removal of lead painted components where dust is generated. In some cases, OSHA would require personal air monitoring to evaluate the level of respiratory protection and medical monitoring required for workers involved in such work.

Waste characterization is required in accordance with the Resource Conservation and Recovery Act (RCRA) If LBP is abated, and waste materials are generated from the abatement. Waste characterization is also required if demolition wastes are generated as part of this project. All generated waste which may contain lead must be characterized for disposal including testing for toxicity characteristic of leachable lead in the waste stream.

The Woodard & Curran specification will require that the General Contractor follow all OSHA and EPA Requirements.

7.3 PCBS

As discussed above, select sealant materials were submitted for laboratory analysis of PCBs. Based on the reported results, each sampled material is categorized as either PCBs ≤ 1 ppm or below the laboratory's minimum reporting limits (i.e., non-detect), or, with PCBs > 1 and < 50 ppm. A summary of the materials in each category and the regulatory implications for each of the classifications is presented below.

PCBs ≤1 ppm or Below Laboratory Reporting Limits

Bulk sample results reported by the laboratory as non-detect for PCBs or with PCBs ≤ 1 ppm are not subject to PCB waste management and disposal requirements under 40 CFR 761. As described above, PCBs were reported either non-detect or ≤1 ppm in 2 sealant samples submitted for analysis. Based on these results, sealants associated with the large louvers, may be removed and disposed of without PCB restrictions.

PCBs > 1 ppm and < 50 ppm

PCBs were detected at concentrations < 50 ppm in one interior door-caulking sample collected from the interior side of the door on the "wet side" and one sample was collected from caulking associated with a small louver on the north side of the building. The results of these sealant samples ranged from 4 ppm to 45 ppm. Based on these results, the sealants containing PCBs < 50 ppm may fall into one of two categories:

(1) The materials may meet the definition of *Excluded PCB Products* per 40 CFR 761.3 and are not subject to the use requirements of 40 CFR 761; or

(2) The PCBs may have been "released" to the material from a source containing PCBs ≥ 50 ppm and would be considered a PCB Remediation Waste subject to the requirements of 40 CFR 761.61.

In order to meet the Excluded PCB Product definition, the Owner is responsible to demonstrate that the age of the materials date back to at least prior to 1984, were inadvertently generated or contaminated during the manufacturing process, and were not a result of a spill or release of PCBs.

Although these sealants would be excluded from the Federal PCB regulations if the Excluded PCB Product determination is made, the presence of PCBs in the door and louver caulking sealant may warrant special management and disposal procedures (i.e., removed using methods/controls to minimize potential contaminant spread, and waste profiled accordingly to a facility that can accept this waste at the as-found PCB concentrations).

8. LIMITATIONS

The services performed were conducted in a manner consistent with standard industry practices for hazardous materials surveys, recognizing that even the most comprehensive inspection may not detect all suspect materials in the building. All observations documented in this report were made under the conditions existing at the time of the surveys. Limiting factors include accessibility, visibility, scope of work, and safety. Sampling was not performed on building components that would impact structural, mechanical, life safety, or electrical systems.

The sampled materials are considered representative of accessible suspect hazardous building materials observed at the facility. Reasonable measures were undertaken to detect the presence of suspect hazardous materials within the survey areas. The evaluations, assessments, and findings presented herein are based solely on the observations made during the surveys. While the samples collected are considered representative of the suspect hazardous building materials observed during the survey activities, undetected variations in chemical concentrations may occur in the media at un-sampled locations, and other suspect hazardous materials may be present at locations that may not become accessible until such time that additional building material removal activities are performed. In the event that any conditions differing from those described herein are identified at a later time, Woodard & Curran requests the opportunity to review such differences and modify, as appropriate, the assessments and conclusions given in this report.

APPENDIX A: OPTIMUM ANALYTICAL AND CONSULTING LLC., REPORTS BY POLARIZED LIGHT MICROSCOPY

OPTIMUM
Analytical and Consulting, LLC

85 Stiles Road, Suite 201
Salem, NH 03079
603-458-5247

Laura Stockfisch
Woodard & Curran
40 Shattuck Road, Suite 110
Andover MA 01810

Project Reference:	227872
Laboratory Batch #:	1615305
Date Samples Received:	04/06/2016
Date Samples Analyzed:	04/12/2016
Date of Final Report:	04/12/2016

SAMPLE IDENTIFICATION:

Eighteen (18) samples from 630 Lafayette Road, Portsmouth, NH project were submitted by Laura Stockfisch on 2016/04/06

This bulk sample(s) was delivered to Optimum Analytical Consulting, LLC (Optimum) located in Salem, New Hampshire for asbestos content determination.

ANALYTICAL METHOD:

Analytical procedures were performed in accordance with the U.S. Environmental Protection Agency (EPA) Recommended Method for the Determination of Asbestos in Bulk Samples by Polarized Light Microscopy and Dispersion Staining (PLM/DS)(EPA-600/M4-82-020, EPA-600/ R-93-116). This report relates only to those samples analyzed, and may not be indicative of other similar appearing materials existing at this, or other sites. Quantification of asbestos content was determined by Calibrated Visual Estimation. Optimum is not responsible for sample collection activities or analytical method limitations. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

In any given material, fibers with a small diameter (<0.25mm) may not be detected by the PLM method. Floor tile and other resinously bound material may yield a false negative if the asbestos fibers are too small to be resolved using PLM. Additional analytical methods may be required. Optimum recommends using Transmission Electron Microscopy (TEM) for a more definitive analysis.

Optimum will retain all samples for a minimum of three months. Further analysis or return of samples must be requested within this three month period to guarantee their availability. This report may not be reproduced except in full, without the written approval of Optimum Analytical and Consulting, LLC.

Use of the NVLAP and AIHA Logo in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology or the American Industrial Hygiene Association.

Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Point Count = .25%, 1000 Point Count = 0.1%; Present or Absent are observations made during a qualitative analysis.

This report is considered preliminary until signed by both the Laboratory Analyst and Laboratory Director or Supervisor. If you have any questions regarding this report, please do not hesitate to contact us.

Jamie L. Noel
Laboratory Director

Kristina Scaviola
Laboratory Supervisor

NVLAP Lab ID#: 101433-0

OPTIMUM
Analytical and Consulting, LLC
85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT
POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT: Woodard & Curran
ADDRESS: 40 Shattuck Road, Suite 110
CITY / STATE / ZIP: Andover MA 01810
CONTACT: Laura Stockfisch
DESCRIPTION: PLM Analysis
LOCATION: 630 Lafayette Road, Portsmouth, NH

ORDER #: 1615305
PROJECT #: 227872
DATE COLLECTED: 04/05/2016
COLLECTED BY: Laura Stockfisch
DATE RECEIVED: 04/06/2016
ANALYSIS DATE: 04/12/2016
REPORT DATE: 04/12/2016
ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1615305-001	Cement Mounting Panel, Middle Level					
01	White	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	1% 65% 34%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-002	Door Caulking, Located Beneath Newer Caulking, Double Door					
02A	Gray	LAYER 1 100%	Chrysotile	5%	Cellulose Fiber Binder/Filler	1% 94%
		Total % Asbestos:		5.0%	**Total % Non-Asbestos:**	95.0%
1615305-003	Lower Caulking, North Side of Building					
02B	Gray Note: Positive Stop	LAYER 1 100%				
1615305-004	Gypsum Board Beneath Rigid Ins and Membrane Roofing on Corrigated Metal Dec					
03A	White	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-005	Gypsum Board Beneath Rigid Ins and Membrane Roofing on Corrigated Metal Dec					
03B	White	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	10% 90%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-006	Vapor Barrier on Concrete Foundation, West Elevation					
04A	Black/Gray	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	2% 98%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-007	Vapor Barrier on Concrete Foundation, East Elevation					
04B	Black/Gray	LAYER 1 100%	None Detected		Cellulose Fiber Binder/Filler	2% 98%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%

OPTIMUM
Analytical and Consulting, LLC
85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT
POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT:	Woodard & Curran
ADDRESS:	40 Shattuck Road, Suite 110
CITY / STATE / ZIP:	Andover MA 01810
CONTACT:	Laura Stockfisch
DESCRIPTION:	PLM Analysis
LOCATION:	630 Lafayette Road, Portsmouth, NH

ORDER #:	1615305
PROJECT #:	227872
DATE COLLECTED:	04/05/2016
COLLECTED BY:	Laura Stockfisch
DATE RECEIVED:	04/06/2016
ANALYSIS DATE:	04/12/2016
REPORT DATE:	04/12/2016
ANALYST:	Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1615305-008	Mudded Fitting on Fibrous Glass Pipe Insulation					
05A	Gray	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Mineral Wool Binder/Filler	5% 15% 10% 70%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-009	Mudded Fitting on Fibrous Glass Pipe Insulation					
05B	Gray	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Mineral Wool Binder/Filler	5% 15% 10% 70%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-010	Mudded Fitting on Fibrous Glass Pipe Insulation					
05C	Gray	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Mineral Wool Binder/Filler	5% 15% 10% 70%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-011	Sealant on Fibrous Glass Insulation					
06A	White	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	1% 3% 96%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-012	Sealant on Fibrous Glass Insulation					
06B	White	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	1% 3% 96%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-013	Generator Exhaust Insulation					
07A	Gray	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	35% 10% 55%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%

OPTIMUM
Analytical and Consulting, LLC
85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

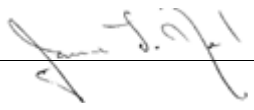
BULK SAMPLE ANALYSIS REPORT
POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT:	Woodard & Curran	**ORDER #:**	1615305
ADDRESS:	40 Shattuck Road, Suite 110	**PROJECT #:**	227872
CITY / STATE / ZIP:	Andover MA 01810	**DATE COLLECTED:**	04/05/2016
CONTACT:	Laura Stockfisch	**COLLECTED BY:**	Laura Stockfisch
DESCRIPTION:	PLM Analysis	**DATE RECEIVED:**	04/06/2016
LOCATION:	630 Lafayette Road, Portsmouth, NH	**ANALYSIS DATE:**	04/12/2016
		REPORT DATE:	04/12/2016
		ANALYST:	Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1615305-014 07B	Generator Exhaust Insulation Gray	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	35% 10% 55%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-015 07C	Generator Exhaust Insulation Gray	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	35% 10% 55%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-016 08A	Caulking Associated With large Louvers Black	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	1% 3% 96%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-017 08B	Caulking Associated With large Louvers Black	LAYER 1 100%	None Detected		Cellulose Fiber Fibrous Glass Binder/Filler	1% 3% 96%
		Total % Asbestos:	No Asbestos Detected		**Total % Non-Asbestos:**	100.0%
1615305-018 09A	Interior Door Caulking Wet Side White	LAYER 1 100%	Chrysotile	3%	Cellulose Fiber Binder/Filler	1% 96%
		Total % Asbestos:		3.0%	**Total % Non-Asbestos:**	97.0%

Analyst Signatory: 
Jamie Noel

NVLAP®
Lab Code: 101433-0

OPTIMUM
Analytical and Consulting, LLC
85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT
POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT:	Woodard & Curran
ADDRESS:	40 Shattuck Road, Suite 110
CITY / STATE / ZIP:	Andover MA 01810
CONTACT:	Laura Stockfisch
DESCRIPTION:	PLM Analysis
LOCATION:	630 Lafayette Road, Portsmouth, NH

ORDER #:	1615305
PROJECT #:	227872
DATE COLLECTED:	04/05/2016
COLLECTED BY:	Laura Stockfisch
DATE RECEIVED:	04/06/2016
ANALYSIS DATE:	04/12/2016
REPORT DATE:	04/12/2016
ANALYST:	Jamie Noel

1615305

OPTIMUM
Analytical and Consulting, LLC

85 Stiles Road, Suite 201
Salem, NH 03079
603-458-5247

CHAIN OF CUSTODY

Analysis & TAT:	4-6 Hour	24 Hour	48 Hour	Standard (3-5)	Standard (6-10)	Comments (please indicate other test-specific information here):
PLM					✓	results in 7 business days.
PCM						poss. biohazards on
Mold	N/A					samples. Collected from a
Lead	N/A					WWTP.
Other: (TEM, PCB, etc.)	N/A					

Sampler: Laura Stockfisch	Email: LStockfisch@woodardcurran.com	Positive Stop Analysis	Yes	No
Project Manager: Maggie Connolly	Sample Location: 630 Lafayette Road Portsmouth, NH	Phone Number: 978-409-9716		
Project Information: 227872		Company Name and Address: Woodard & Curran 40 Shattuck Road, Suite 110 Andover, MA 01810		

Sample Number	Description and Location	Time and Temperature at Collection:
01	cement mounting panel middle level	
02A	door caulking, located beneath newer caulking, double door	
02B	louver caulking, north side of building	
03A	gypsum board beneath rigid insulation and membrane roofing on corrugated metal deck	
03B	gypsum board beneath rigid insulation and membrane roofing on corrugated metal deck	
04A	vapor barrier on concrete foundation west elevation	
04B	vapor barrier on concrete foundation east elevation	
05A	mudded fitting on fibrous glass pipe insulation	
05B	mudded fitting on fibrous glass pipe insulation	
05C	mudded fitting on fibrous glass pipe insulation	

Relinquished by: Laura R Stockfisch Date 4/5/16 Time 15:26

Received by: [signature] Date 4-6-16 Time

OPTIMUM
Analytical and Consulting, LLC
85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT
POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT:	Woodard & Curran
ADDRESS:	40 Shattuck Road, Suite 110
CITY / STATE / ZIP:	Andover MA 01810
CONTACT:	Laura Stockfisch
DESCRIPTION:	PLM Analysis
LOCATION:	630 Lafayette Road, Portsmouth, NH

ORDER #:	1615305
PROJECT #:	227872
DATE COLLECTED:	04/05/2016
COLLECTED BY:	Laura Stockfisch
DATE RECEIVED:	04/06/2016
ANALYSIS DATE:	04/12/2016
REPORT DATE:	04/12/2016
ANALYST:	Jamie Noel

1615305

OPTIMUM
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85 Stiles Road, Suite 201
Salem, NH 03079
603-458-5247

Sample Number	Description and Location	Time and Temperature at Collection:
06A	sealant on fibrous glass insulation	
06B	sealant on fibrous glass insulation	
07A	generator exhaust insulation	
07B	generator exhaust insulation	
07C	generator exhaust insulation	
08A	caulking associated with large louvers	
08B	caulking associated with large louvers	
09A	interior door caulking wet side	

Relinquished by: Laura A Stockfisch Date 4/5/16 Time 15:42

Received by: _____ Date _____ Time _____

OPTIMUM
Analytical and Consulting, LLC

85 Stiles Road, Suite 201
Salem, NH 03079
603-458-5247

Laura Stockfisch
Woodard & Curran
40 Shattuck Road, Suite 110
Andover MA 01810

Project Reference:	227872
Laboratory Batch #:	1615370
Date Samples Received:	04/11/2016
Date Samples Analyzed:	04/12/2016
Date of Final Report:	04/12/2016

SAMPLE IDENTIFICATION:

Five (5) samples from 630 Lafayette project were submitted by Laura Stockfisch on 2016/04/11

This bulk sample(s) was delivered to Optimum Analytical Consulting, LLC (Optimum) located in Salem, New Hampshire for asbestos content determination.

ANALYTICAL METHOD:

Analytical procedures were performed in accordance with the U.S. Environmental Protection Agency (EPA) Recommended Method for the Determination of Asbestos in Bulk Samples by Polarized Light Microscopy and Dispersion Staining (PLM/DS)(EPA-600/M4-82-020, EPA-600/ R-93-116). This report relates only to those samples analyzed, and may not be indicative of other similar appearing materials existing at this, or other sites. Quantification of asbestos content was determined by Calibrated Visual Estimation. Optimum is not responsible for sample collection activities or analytical method limitations. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

In any given material, fibers with a small diameter (<0.25mm) may not be detected by the PLM method. Floor tile and other resinously bound material may yield a false negative if the asbestos fibers are too small to be resolved using PLM. Additional analytical methods may be required. Optimum recommends using Transmission Electron Microscopy (TEM) for a more definitive analysis.

Optimum will retain all samples for a minimum of three months. Further analysis or return of samples must be requested within this three month period to guarantee their availability. This report may not be reproduced except in full, without the written approval of Optimum Analytical and Consulting, LLC.

Use of the NVLAP and AIHA Logo in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology or the American Industrial Hygiene Association.

Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Point Count = .25%, 1000 Point Count = 0.1%; Present or Absent are observations made during a qualitative analysis.

This report is considered preliminary until signed by both the Laboratory Analyst and Laboratory Director or Supervisor. If you have any questions regarding this report, please do not hesitate to contact us.

Jamie L. Noel
Laboratory Director

Kristina Scaviola
Laboratory Supervisor

NVLAP Lab ID#: 101433-0

OPTIMUM
Analytical and Consulting, LLC
85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT
POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT:	Woodard & Curran	**ORDER #:**	1615370
ADDRESS:	40 Shattuck Road, Suite 110	**PROJECT #:**	227872
CITY / STATE / ZIP:	Andover MA 01810	**DATE COLLECTED:**	04/08/2016
CONTACT:	Laura Stockfisch	**COLLECTED BY:**	Laura Stockfisch
DESCRIPTION:	PLM Analysis	**DATE RECEIVED:**	04/11/2016
LOCATION:	630 Lafayette	**ANALYSIS DATE:**	04/12/2016
		REPORT DATE:	04/12/2016
		ANALYST:	Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1615370-001 10A	Coating on Concrete Wall "Wet Side" White/Green	LAYER 1 100%	Chrysotile	<1%	Cellulose Fiber Binder/Filler	1% >98%
		Total % Asbestos:		<1%	**Total % Non-Asbestos:**	100.0%
1615370-002 10B	Coating on Concrete Wall "Wet Side" White/Green	LAYER 1 100%	Chrysotile	<1%	Cellulose Fiber Binder/Filler	1% >98%
		Total % Asbestos:		<1%	**Total % Non-Asbestos:**	100.0%
1615370-003 10C	Coating on Concrete Wall "Wet Side" White/Green	LAYER 1 100%	Chrysotile	<1%	Cellulose Fiber Binder/Filler	1% >98%
		Total % Asbestos:		<1%	**Total % Non-Asbestos:**	100.0%
1615370-004 10D	Coating on Concrete Wall "Wet Side" White/Green	LAYER 1 100%	Chrysotile	<1%	Cellulose Fiber Binder/Filler	1% >98%
		Total % Asbestos:		<1%	**Total % Non-Asbestos:**	100.0%
1615370-005 10E	Coating on Concrete Wall "Wet Side" White/Green	LAYER 1 100%	Chrysotile	<1%	Cellulose Fiber Binder/Filler	1% >98%
		Total % Asbestos:		<1%	**Total % Non-Asbestos:**	100.0%

Asbestos is present in the fobrous material in bag and may be contaminating the coating on the concrete.

Analyst Signatory: _____
Jamie Noel

NVLAP® Lab Code: 101433-0

OPTIMUM
Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT
POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT:	Woodard & Curran
ADDRESS:	40 Shattuck Road, Suite 110
CITY / STATE / ZIP:	Andover MA 01810
CONTACT:	Laura Stockfisch
DESCRIPTION:	PLM Analysis
LOCATION:	630 Lafayette

ORDER #:	1615370
PROJECT #:	227872
DATE COLLECTED:	04/08/2016
COLLECTED BY:	Laura Stockfisch
DATE RECEIVED:	04/11/2016
ANALYSIS DATE:	04/12/2016
REPORT DATE:	04/12/2016
ANALYST:	Jamie Noel

OPTIMUM
Analytical and Consulting, LLC

85 Stiles Road, Suite 201
Salem, NH 03079
603-458-5247

CHAIN OF CUSTODY

1615370

Analysis & TAT:	4-6 Hour	24 Hour	48 Hour	Standard (3-5)	Standard (6-10)	Comments (please indicate other test-specific information here):
PLM				✓		Samples may contain
PCM						bio hazards. Wear gloves
Mold	N/A					when handling.
Lead	N/A					
Other: (TEM, PCB, etc.)	N/A					

Sampler: Stockfisch, Laura	Email: LStockfisch@woodardcurran.com	Positive Stop Analysis	Yes / No
Project Manager: Stockfisch, Laura	Sample Location: 630 Lafayette	Phone Number: 978-409-9716	
Project Information: 227872		Company Name and Address: Woodard & Curran 40 Shattuck Road, Suite 110 Andover, MA 01810	

Sample Number	Description and Location	Time and Temperature at Collection:
10A	Coating on concrete wall "wet side"	
10B	Coating on concrete wall "wet side"	
10C	Coating on concrete wall "wet side"	
10D	Coating on concrete wall "wet side"	
10E	Coating on concrete wall "wet side"	

Relinquished by: Laura A Stockfisch Date 4/8/16 Time 10:45

Received by: _____ Date 4/11/16 Time 11:30A

APPENDIX B: AMERISCI REPORT BY EPA METHOD 3050B/7000B

Please Reply To:

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

FACSIMILE TELECOPY TRANSMISSION

To: Jamie Noel
Optimum Analytical & Consulting
Fax #:

From:
AmeriSci Job #: 416041057
Subject: Lead (paint) 5 day Results
Client Project: 1615284; 630 Lafayette Rd.

Email: jamie.noel@optimumanalytical.com,kristina.scaviola@optimumanalytical.com

Date: Thursday, April 07, 2016
Time: 10:43:19
Comments:

Number of Pages: 03 (including cover sheet)

AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

AmeriSci Job #: 416041057

Date Received: 04/06/16
Date Analyzed: 04/07/16

Lead Analysis Results

Paint

EPA Method 3050B/7000B

Optimum Analytical & Consulting

Salem, NH

Job Site: 1615284; 630 Lafayette Rd.

AmeriSci # 416041057	Client Number	Sample Location	% Lead (w/w)	Lead Content (mg/kg = ppm)
01	01	Gray Paint On Metal Pipe	0.018	180
02	02	Gray Paint On Concrete Wall	0.011	110
03	03	Gray Paint On Concrete Floor	0.019	190
04	04	Gray Paint On Metal Duct	0.019	190

AmeriSci Reporting Limit is 0.01%, or 100mg/kg prior to any dilutions due to high analyte concentrations or matrix interferences. AmeriSci does not correct sample results by the blank value. All analytical batch data met quality control criteria unless otherwise noted. CA ELAP No. 2322.

Reviewed by: _____

Analyzed by: _____
Minh Phung, Chemist

ELAP No: CA 2322

AMERISCI

www.amerisci.com

CHAIN OF CUSTODY RECORD

AMERISCI LOS ANGELES
24416 South Main Street, Suite 308
Carson, CA 90745
310.834.4868 Phone~310.834.4772 Fax

AMERISCI JOB NO: 4160410 57

PAGE _____ OF _____

DUE DATE: STD

☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☐ 7 DAY ☐ 10 DAY

TEMP UPON RECEIPT:

DATA PACKAGE:

P.O.#

COMPANY: Optimum Analytical and Consulting, LLC

ADDRESS: 85 Stiles Road Suite 201, Salem NH 03079

PHONE: 603-458-5247 FAX 1: FAX 2:

CLIENT CONTACT: Jamie Noel, Kristina Scaviola

EMAIL: Jamie.Noel@optimumanalytical.com
Kristina.Scaviola@optimumanalytical.com

PROJECT NAME: 630 Lafayette rd

PROJECT NUMBER: 16152284

PROJECT STATE: NH

MATRIX: A-WATER S-SOIL/SOLIDS SL-SLUDGE OIL-OIL CH-CHIPS WI-WIPES C-CASSETTES W-WASTE O-OTHER

CONTAINER: P-PLASTIC G-GLASS V-VOA

LAB ID	CLIENT SAMPLE IDENTIFICATION	MATRIX	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING INFORMATION DATE	SAMPLING INFORMATION TIME	SAMPLING INFORMATION TECH	GRAB (G) OR COMPOSITE (C)	PRESERVATIVES	SAMPLE PH AT LOGIN	Lead Paint Analysis							Notes:
01	Gray Paint on metal Pipe											X							
02	Gray Paint on Concrete wall											X							
03	Gray Paint on Concrete floor											X							
04	Gray Paint on Metal duct											X							

SAMPLED BY: (PRINT) DATE: RECEIVED BY: (PRINT) DATE: 4/06/16

(SIGN) TIME: (SIGN) TIME: 10:05

RELINQUISHED BY: (PRINT) Lauren Cortes DATE: 4/5/16 RECEIVED BY: (PRINT) DATE:

(SIGN) TIME: 1600 (SIGN) TIME:

RELINQUISHED BY: (PRINT) DATE: RECEIVED FOR LABORATORY BY: DATE:

(SIGN) TIME: (SIGN) TIME:

APPENDIX C: CONTEST ANALYTICAL RESULTS

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 18, 2016

Laura Stockfisch
Woodard & Curran - Andover, MA
40 Shattuck Road., Suite 110
Andover, MA 01810

Project Location: Portsmouth, NH
Client Job Number:
Project Number: 227872
Laboratory Work Order Number: 16D0472

Enclosed are results of analyses for samples received by the laboratory on April 11, 2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
40 Shattuck Road., Suite 110
Andover, MA 01810
ATTN: Laura Stockfisch

REPORT DATE: 4/18/2016

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 227872

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16D0472

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Portsmouth, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
02B	16D0472-01	Caulk		SW-846 8082A	
08A	16D0472-02	Caulk		SW-846 8082A	
08B	16D0472-03	Caulk		SW-846 8082A	
09A	16D0472-04	Caulk		SW-846 8082A	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Portsmouth, NH | Sample Description: | Work Order: 16D0472

Date Received: 4/11/2016

Field Sample #: 02B | Sampled: 4/5/2016 12:00

Sample ID: 16D0472-01

Sample Matrix: Caulk

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1221 [1]	ND	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1232 [1]	ND	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1242 [1]	ND	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1248 [1]	2.2	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1254 [1]	1.8	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1260 [1]	ND	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1262 [1]	ND	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH
Aroclor-1268 [1]	ND	0.71	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 12:51	BJH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	103	30-150		4/15/16 12:51
Decachlorobiphenyl [2]	93.8	30-150		4/15/16 12:51
Tetrachloro-m-xylene [1]	105	30-150		4/15/16 12:51
Tetrachloro-m-xylene [2]	107	30-150		4/15/16 12:51

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Portsmouth, NH | Sample Description: | Work Order: 16D0472

Date Received: 4/11/2016

Field Sample #: 08A | Sampled: 4/5/2016 12:00

Sample ID: 16D0472-02

Sample Matrix: Caulk

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1221 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1232 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1242 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1248 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1254 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1260 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1262 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL
Aroclor-1268 [1]	ND	0.73	mg/Kg	4		SW-846 8082A	4/12/16	4/14/16 23:52	KAL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	92.7	30-150		4/14/16 23:52
Decachlorobiphenyl [2]	87.7	30-150		4/14/16 23:52
Tetrachloro-m-xylene [1]	91.8	30-150		4/14/16 23:52
Tetrachloro-m-xylene [2]	92.8	30-150		4/14/16 23:52

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Portsmouth, NH | Sample Description: | Work Order: 16D0472

Date Received: 4/11/2016

Field Sample #: 08B | Sampled: 4/5/2016 12:00

Sample ID: 16D0472-03

Sample Matrix: Caulk

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1221 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1232 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1242 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1248 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1254 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1260 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1262 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH
Aroclor-1268 [1]	ND	0.68	mg/Kg	4		SW-846 8082A	4/12/16	4/15/16 13:09	BJH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	98.6	30-150		4/15/16 13:09
Decachlorobiphenyl [2]	91.4	30-150		4/15/16 13:09
Tetrachloro-m-xylene [1]	95.9	30-150		4/15/16 13:09
Tetrachloro-m-xylene [2]	97.6	30-150		4/15/16 13:09

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Project Location: Portsmouth, NH | Sample Description: | Work Order: 16D0472

Date Received: 4/11/2016

Field Sample #: 09A | Sampled: 4/5/2016 12:00

Sample ID: 16D0472-04

Sample Matrix: Caulk

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1221 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1232 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1242 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1248 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1254 [1]	45	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1260 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1262 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH
Aroclor-1268 [1]	ND	3.7	mg/Kg	20		SW-846 8082A	4/12/16	4/15/16 13:27	BJH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	90.6	30-150		4/15/16 13:27
Decachlorobiphenyl [2]	92.7	30-150		4/15/16 13:27
Tetrachloro-m-xylene [1]	94.4	30-150		4/15/16 13:27
Tetrachloro-m-xylene [2]	92.1	30-150		4/15/16 13:27

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Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16D0472-01 [02B]	B146481	0.567	10.0	04/12/16
16D0472-02 [08A]	B146481	0.546	10.0	04/12/16
16D0472-03 [08B]	B146481	0.592	10.0	04/12/16
16D0472-04 [09A]	B146481	0.539	10.0	04/12/16

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B146481 - SW-846 3540C										
Blank (B146481-BLK1)				Prepared: 04/12/16 Analyzed: 04/14/16						
Aroclor-1016	ND	0.20	mg/Kg							
Aroclor-1016 [2C]	ND	0.20	mg/Kg							
Aroclor-1221	ND	0.20	mg/Kg							
Aroclor-1221 [2C]	ND	0.20	mg/Kg							
Aroclor-1232	ND	0.20	mg/Kg							
Aroclor-1232 [2C]	ND	0.20	mg/Kg							
Aroclor-1242	ND	0.20	mg/Kg							
Aroclor-1242 [2C]	ND	0.20	mg/Kg							
Aroclor-1248	ND	0.20	mg/Kg							
Aroclor-1248 [2C]	ND	0.20	mg/Kg							
Aroclor-1254	ND	0.20	mg/Kg							
Aroclor-1254 [2C]	ND	0.20	mg/Kg							
Aroclor-1260	ND	0.20	mg/Kg							
Aroclor-1260 [2C]	ND	0.20	mg/Kg							
Aroclor-1262	ND	0.20	mg/Kg							
Aroclor-1262 [2C]	ND	0.20	mg/Kg							
Aroclor-1268	ND	0.20	mg/Kg							
Aroclor-1268 [2C]	ND	0.20	mg/Kg							
Surrogate: Decachlorobiphenyl	*4.12*		mg/Kg	4.00		103	30-150			
Surrogate: Decachlorobiphenyl [2C]	*3.99*		mg/Kg	4.00		99.7	30-150			
Surrogate: Tetrachloro-m-xylene	*3.60*		mg/Kg	4.00		90.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.68*		mg/Kg	4.00		92.0	30-150			
LCS (B146481-BS1)				Prepared: 04/12/16 Analyzed: 04/14/16						
Aroclor-1016	3.2	0.20	mg/Kg	4.00		80.7	40-140			
Aroclor-1016 [2C]	3.5	0.20	mg/Kg	4.00		86.5	40-140			
Aroclor-1260	3.3	0.20	mg/Kg	4.00		82.9	40-140			
Aroclor-1260 [2C]	3.5	0.20	mg/Kg	4.00		86.3	40-140			
Surrogate: Decachlorobiphenyl	*4.14*		mg/Kg	4.00		103	30-150			
Surrogate: Decachlorobiphenyl [2C]	*4.05*		mg/Kg	4.00		101	30-150			
Surrogate: Tetrachloro-m-xylene	*3.64*		mg/Kg	4.00		90.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.72*		mg/Kg	4.00		93.1	30-150			
LCS Dup (B146481-BSD1)				Prepared: 04/12/16 Analyzed: 04/14/16						
Aroclor-1016	3.3	0.20	mg/Kg	4.00		81.5	40-140	0.975	30	
Aroclor-1016 [2C]	3.4	0.20	mg/Kg	4.00		85.9	40-140	0.676	30	
Aroclor-1260	3.5	0.20	mg/Kg	4.00		87.6	40-140	5.51	30	
Aroclor-1260 [2C]	3.6	0.20	mg/Kg	4.00		90.0	40-140	4.19	30	
Surrogate: Decachlorobiphenyl	*4.19*		mg/Kg	4.00		105	30-150			
Surrogate: Decachlorobiphenyl [2C]	*4.13*		mg/Kg	4.00		103	30-150			
Surrogate: Tetrachloro-m-xylene	*3.61*		mg/Kg	4.00		90.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.69*		mg/Kg	4.00		92.3	30-150			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

02B

Lab Sample ID: 16D0472-01 Date(s) Analyzed: 04/15/2016 04/15/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1248	1	0.00	0.00	0.00	2.2	
	2	0.00	0.00	0.00	1.9	14.6
Aroclor-1254	1	0.00	0.00	0.00	1.8	
	2	0.00	0.00	0.00	1.7	7.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

09A

Lab Sample ID: 16D0472-04

Date(s) Analyzed: 04/15/2016 04/15/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1254	1	0.00	0.00	0.00	45	
	2	0.00	0.00	0.00	42	8.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B146481-BS1 Date(s) Analyzed: 04/14/2016 04/14/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	3.2	
	2	0.00	0.00	0.00	3.5	8
Aroclor-1260	1	0.00	0.00	0.00	3.3	
	2	0.00	0.00	0.00	3.5	5

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B146481-BSD1 Date(s) Analyzed: 04/14/2016 04/14/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	3.3	
	2	0.00	0.00	0.00	3.4	4
Aroclor-1260	1	0.00	0.00	0.00	3.5	
	2	0.00	0.00	0.00	3.6	3

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2017
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

Blue Bag

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Email: info@contestlabs.com
http://www.contestlabs.com
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East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD 16D0472

Doc # 381 Rev 0 5 8 2015

Page ____ of ____

Company Name:	Woodard & Curran
Address:	40 Shattuck Rd, Suite 110 Andover
Phone:	978-494-6537
Project Name:	
Project Location:	Portsmouth, NH
Project Number:	227872
Project Manager:	Stockfisch
Con-Test Bid:	W&C 2016
Invoice Recipient:	Stockfisch
Sampled By:	Stockfisch

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Other: X 5-DAY

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☐
Other:
Enhanced Data Package Required: ☐
Email To: Laura Stockfisch
Fax To #:

ANALYSIS REQUESTED: Soxhlet 3540C / PCB 8082

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code
01	02B	4/5/16	1200		X	solid	
02	08A	4/5/16	1200		X	solid	
03	08B	4/5/16	1200		X	solid	
04	09A	4/5/16	1200		X	solid	

\# of Containers
[2] Preservation Code
[3] Container Code

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil/Solid
SL = Sludge
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Signature	Date/Time
Relinquished by: (signature) [signature]	4/11/16 1100
Received by: (signature) Tom Marc	4/11/16 1115
Relinquished by: (signature) Tom Marc	4/11/16 1550
Received by: (signature) [signature] 5.1	4/11/16 1550
Relinquished by: (signature)	
Received by: (signature)	

Detection Limit Requirements
MA
CT
Other:

Program Information
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required
PWSID # ____

NELAC and AIHA-LAP, LLC Accredited

TURNAROUND TIME (BUSINESS DAYS) STARTS AT 9:00 AM THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON THIS CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME CANNOT START UNTIL ALL QUESTIONS HAVE BEEN ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

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East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

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Sample Receipt Checklist

CLIENT NAME: Woodard and Curran **RECEIVED BY**: JDL **DATE**: 4/11/2016

1) Was the chain(s) of custody relinquished and signed? **Yes** X **No** _____ **No COC Incl.**

2) Does the chain agree with the samples? **Yes** X **No** _____

If not, explain:

3) Are all the samples in good condition? **Yes** X **No** _____

If not, explain:

4) How were the samples received:

On Ice X Direct from Sampling _____ Ambient _____ In Cooler(s) X

Were the samples received in Temperature Compliance of (2-6℃)? **Yes** **X** **No** _____ **N/A** _____

Temperature ℃ by Temp blank _____ Temperature ℃ by Temp gun 5.1

5) Are there Dissolved samples for the lab to filter? **Yes** _____ **No** X

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? **Yes** _____ **No** X

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No

(Walk-in clients only) if not already approved

Client Signature: _____

8) Do all samples have the proper Acid pH: **Yes** ____ **No** _____ **N/A** X

9) Do all samples have the proper Base pH: **Yes** ____ **No** _____ **N/A** X

10) Was the PC notified of any discrepancies with the CoC vs the samples: **Yes** _____ **N/A** X

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		16 oz amber	
500 mL Amber		8 oz amber/clear jar	
250 mL Amber (8oz amber)		4 oz amber/clear jar	4
1 Liter Plastic		2 oz amber/clear jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic		SOC Kit	
40 mL Vial - type listed below		Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Who notified of False statements? **Date/Time:**

Doc #277 Rev. 4 August 2013 **Log-In Technician Initials:** JDL **Date/Time: 4/11/16 1550**

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

APPENDIX B

RECORD DRAWING

City Project # 4042

NOTES:

RECORD INFORMATION FOR WATER PROVIDED BY NHDOT.

(1) STA 9+67.5 TO STA 13+05, LT. SEE ROADWAY PLANS FOR ABANDONMENT OR REMOVAL OF SEWER MANHOLES AND PIPE.

(2) EXCAVATE TEST PIT TO DETERMINE EXISTING WATER LINE ELEVATION AND LOCATION, ITEM 206.19. RELOCATE WATER LINE, IF REQUIRED, TO PROVIDE 150 mm VERTICAL CLEARANCE AT DRAIN CROSSING, ITEM 611.91___ (SEE QUANTITY SUMMARY SHEET).

(3) STA 10+11.5, 11.0 m LT. RELOCATE CURB STOP 1.5 m WEST TO ISLAND. PAY AS ITEM 611.5.

(26) SURVEY CONTROL INFORMATION FOR THIS PROJECT IS SHOWN ON THE GENERAL PLANS.

GRAPHIC SCALE (HORIZONTAL)
(IN METERS)
1:000

SEWER AND WATER UTILITIES PLAN

Underwood Engineers, Inc.
25 Vaughan Mall, Portsmouth, N.H. 03801

METRIC

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	11855	59	141

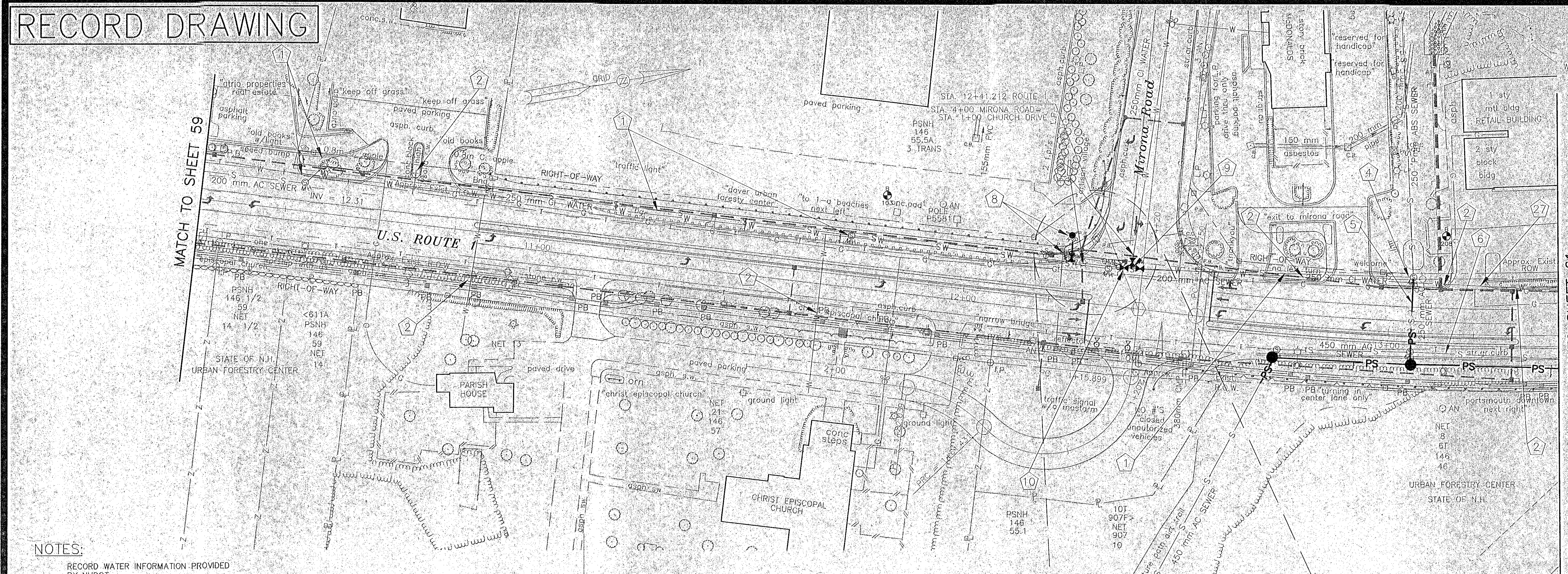
NUMBER	DATE	STATION	STATION	REVISIONS AFTER PROPOSAL DESCRIPTION

NOTEBOOKS	
BOOK	PAGE
BOOK	PAGE
BOOK	PAGE

EXISTING DETAIL	NHDOT	DATE
PROPOSED DESIGN	U.E.I. P. MACDONALD	DATE 2/24/99
SHEET CHECKED	U.E.I. T. PLANTE	DATE 2/24/99
AS BUILT DETAILS		DATE 5/09/01

783PUR.DWG

RECORD DRAWING



NOTES:

RECORD WATER INFORMATION PROVIDED BY NHDOT

4. STA 13+05.0 13.0 m LT. PLUG SEWER INVERT EXISTING 200 mm AC SEWER (SOUTH). SUBSIDIARY TO ITEM 612.63503

5. STA 13+05, 7 m RT. TO 13.05 12 m LT. REPLACE EXISTING 250 mm A.C. SEWER WITH 19 m OF 300 mm SDR35 PVC. MATCH EXISTING INVERT. ITEM 612.63503.

6. STA 12+74 RT – STA 17+92 RT. REMOVE EXISTING SEWER MANHOLES TO 1.1 m MIN. BELOW FINISHED GRADE AND ABANDON EXISTING 450 mm A.C. SEWER. MH REMOVAL AND CLEAN BACKFILL PAY AS ITEM 202.5. FILL ABANDONED PIPE WITH FLOWABLE FILL, ITEM 202.31

7. REFER TO PROPOSED AND EXISTING GRADES SHOWN ON SHEET "U.S. ROUTE 1 PROFILE"

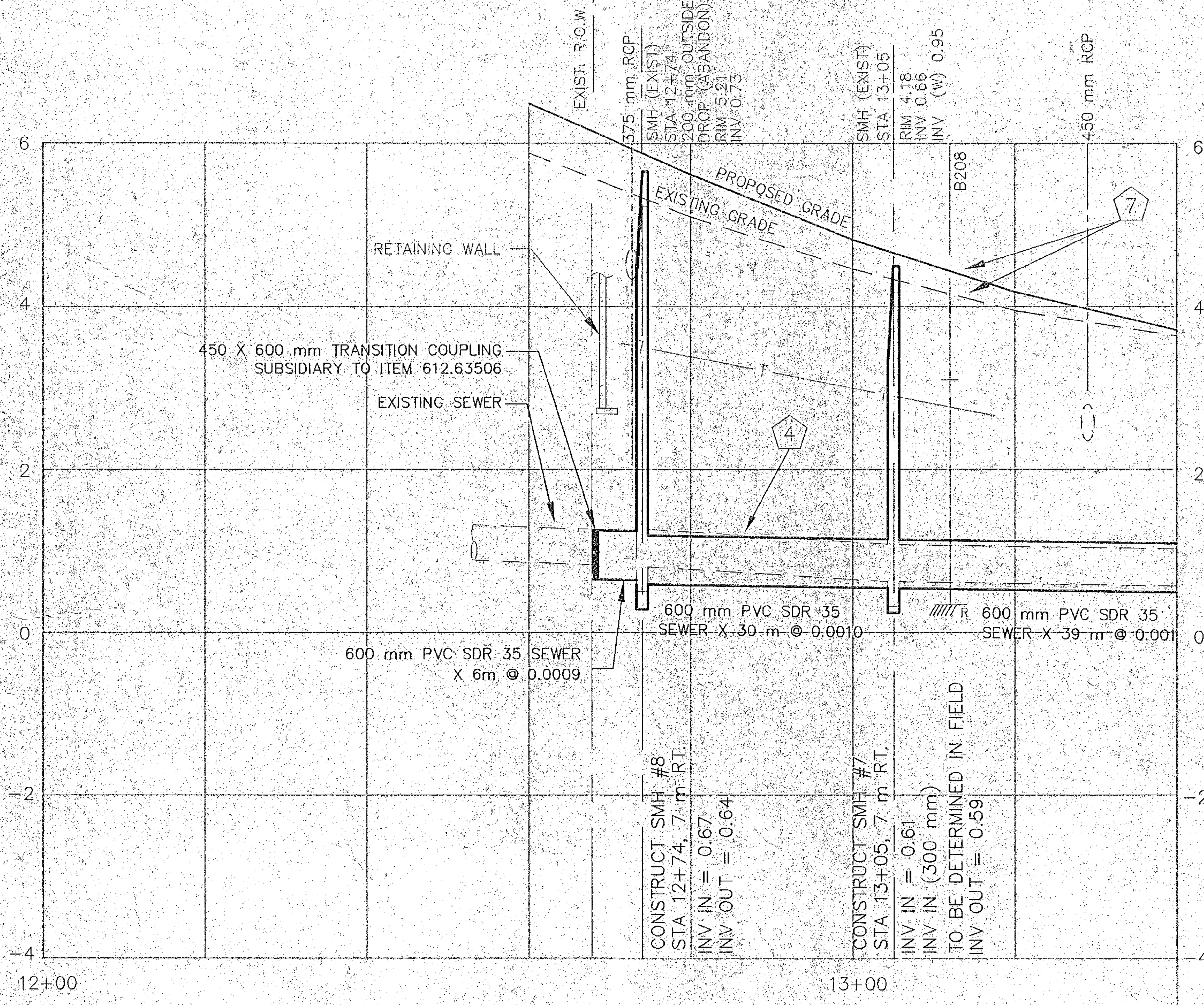
8. NEW HYDRANT ASSEMBLY, ITEM 611.81, 150 mm WATER LINE EXTENSION AND GATE VALVE SUBSIDIARY TO THIS ITEM. SALVAGE EXISTING HYDRANT TO CITY OF PORTSMOUTH.

9. STA 12+31, 9 m LT. CONSTRUCT 250 X 200 mm DUCTILE IRON TEE AND 5 m OF 200 mm DI WATER MAIN TO COMPLETE CONNECTION TO THE EXISTING MAIN ON MIRONA ROAD. PAY AS ITEM 611.91200.

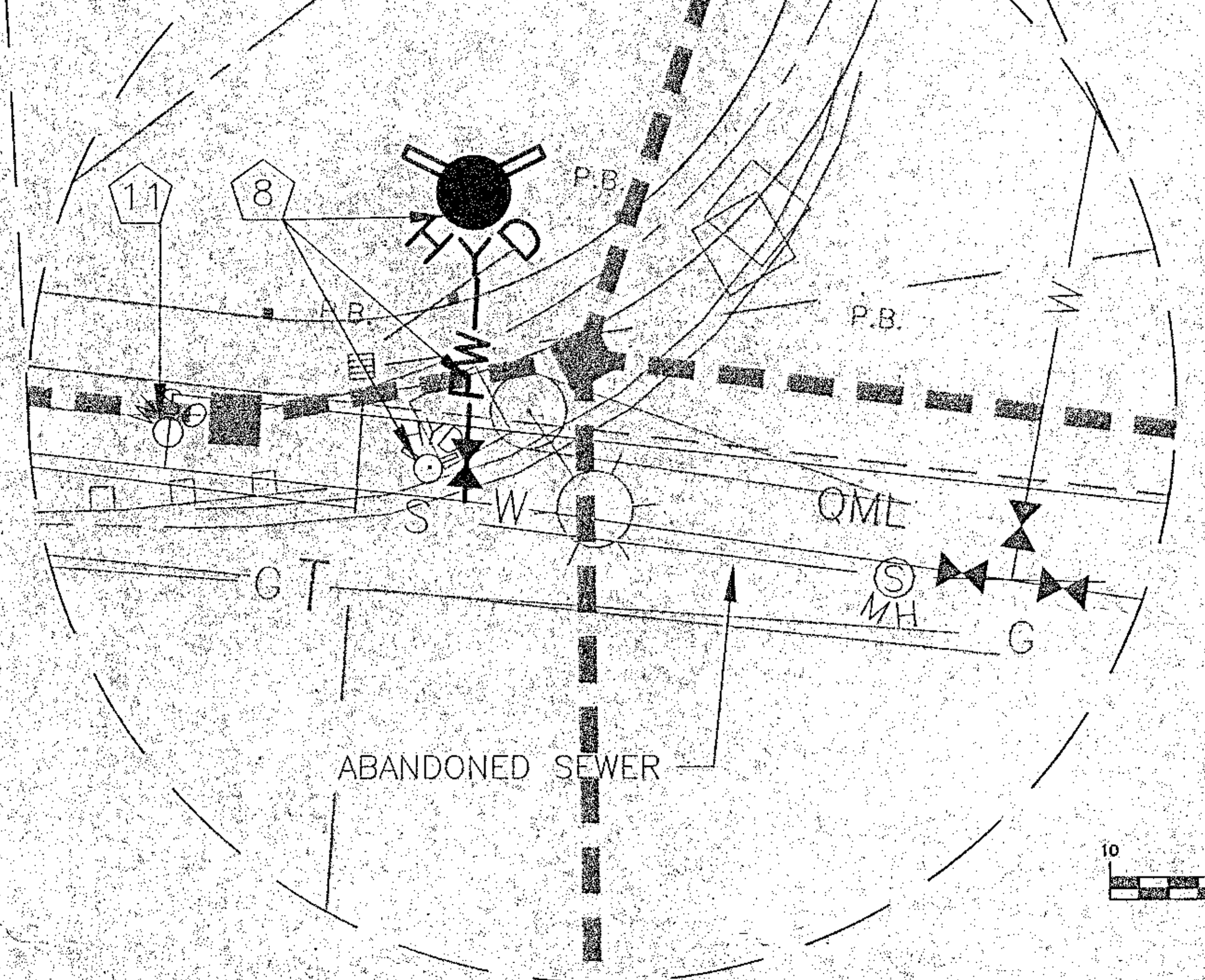
10. CONSTRUCT 250 mm GATE VALVE, ITEM 611.61025 AND 200 mm GATE VALVE, ITEM 611.61020.

11. STA 12+18, 9 m LT. WATER LINE ON WEST SIDE OF EXISTING GATE VALVE TO BE ABANDONED. INSTALL BLIND FLANGE AND THRUST BLOCK ON WEST SIDE OF GATE VALVE. SUBSIDIARY TO ITEM 611.91200.

27. STA 12+60 LT TO STA 13+45 LT. RELOCATE 250 mm WATER LINE IF IN CONFLICT WITH PROPOSED DRAIN RUNNING PARALLEL TO EXISTING WATER LINE, ITEM 611.05225.



Lowest RIM upstream of Lafayette Road PS. RIM on record is 8.017 feet NAVD88.



GRAPHIC SCALE (HORIZONTAL) (IN METERS) 1 : 500

GRAPHIC SCALE (VERTICAL) (IN METERS) 1 : 50

Underwood Engineers, Inc.

METRIC

SEWER AND WATER UTILITIES PLAN

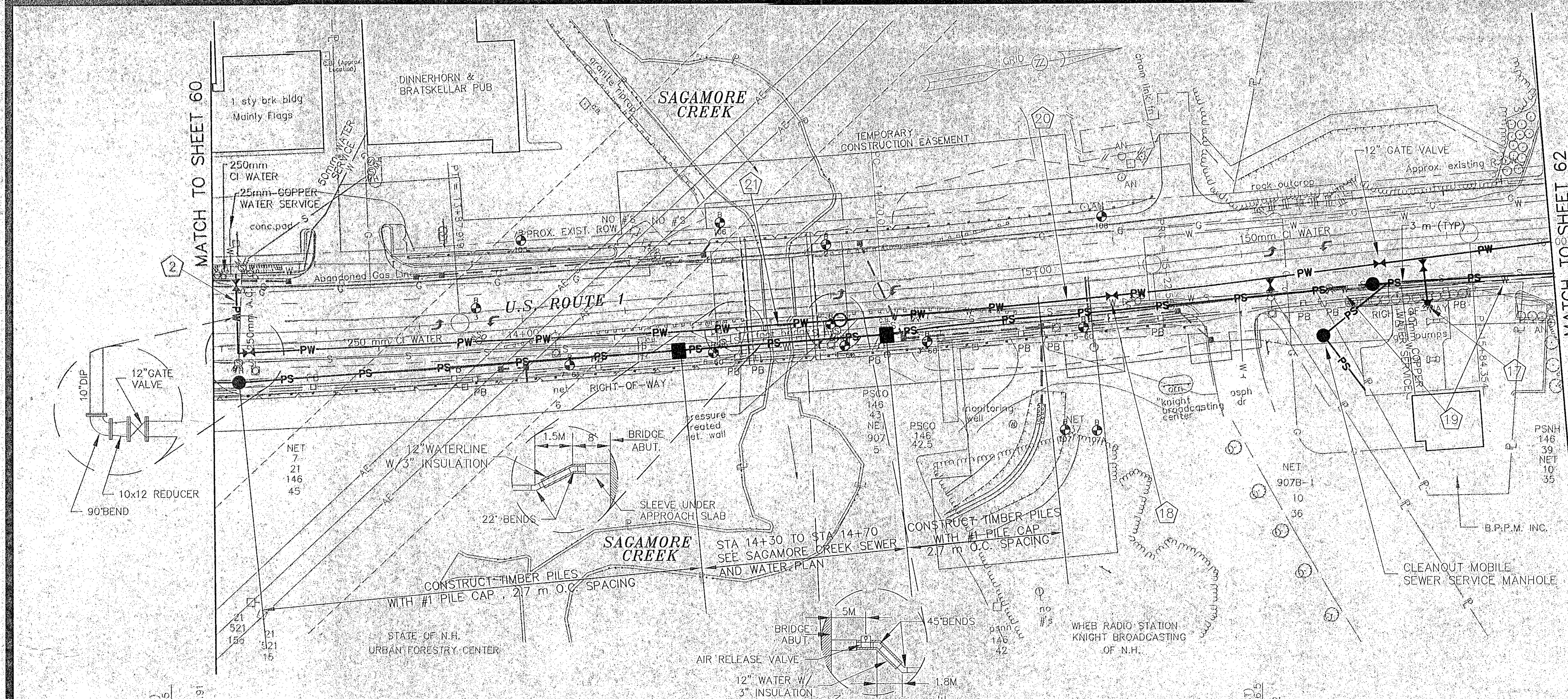
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	11855	60	141

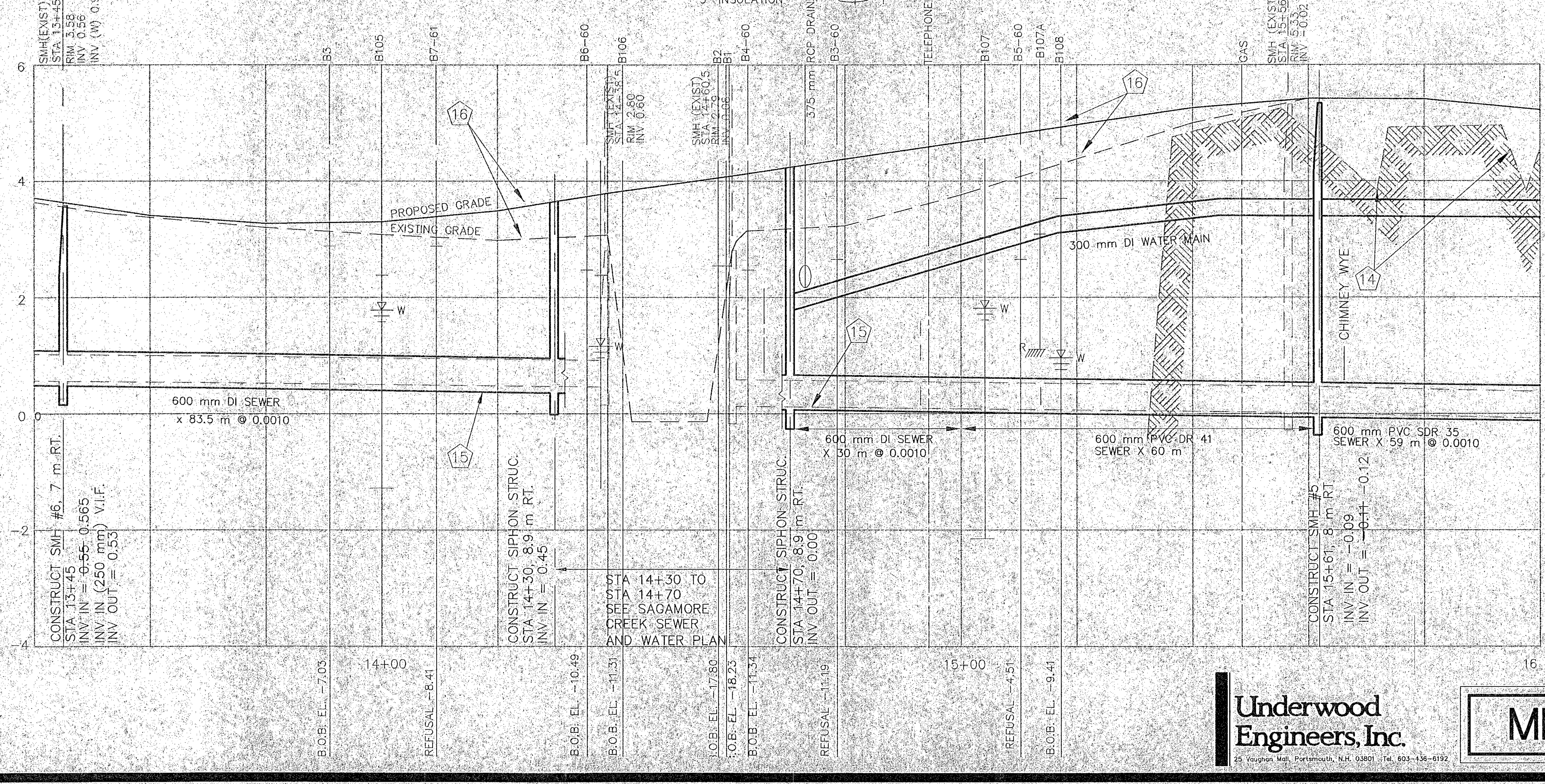
		DATE
EXISTING DETAIL	NHDOT	
PROPOSED DESIGN	U.E.I. P. MACDONALD	DATE 2/24/99
SHEET CHECKED	U.E.I. T. PLANTE	DATE 2/24/99
AS BUILT DETAILS		DATE 5/09/01

REVISIONS AFTER PROPOSAL

783PLPR2R.DWG

RECORD DRAWING





NOTES:

RECORD WATER INFORMATION PROVIDED BY NHDOT.

(13) STA 13+45.00, 8.00 m RT. PROVIDE 4.5 m X 9 m AREA, SEWER BY-PASS PUMPING SYSTEMS, ITEM 613.1.

(14) STA 15+33 TO STA 16+18 LEDGE PROFILE SHOWN IS BASED ON A PLAN ENTITLED "CITY OF PORTSMOUTH SEWERS LAFAYETTE ROAD STA 4+50 TO STA 12.50" DATED 6/28/62 AND STAMPED "RECORD DRAWING" BY METCALF AND EDDY ENGINEERS. THE ELEVATION SHOWN REPRESENTS THE UPPER LIMIT OF ROCK EXCAVATION COMPLETED IN 1962. THE SEWER IS INTENDED TO BE CONSTRUCTED WITHIN THE TRENCH WHERE ROCK WAS PREVIOUSLY EXCAVATED. THE ACTUAL ROCK EXCAVATION FOR THIS PROJECT WILL BE LIMITED TO AREAS WHERE NEW PIPE CORRIDORS ARE PROPOSED. LEDGE REMOVAL FOR WATER AND SEWER UTILITIES SHALL BE PAID AS ITEM 203.2.

(15) STA 13+45 TO STA 15+00 POLYETHYLENE SLEEVE ENCASEMENT OVER ALL DI SEWER PIPE. ITEM 612.71.

(16) PROPOSED AND EXISTING GRADES AS SHOWN IN THE PROFILE REFLECT ROADWAY CENTER LINE PROFILES AS SHOWN ON THE "PROFILE U.S. ROUTE 1" DRAWINGS.

(17) NEW HYDRANT ASSEMBLY INSTALLED, ITEM 611.81.

(18) 300 mm GATE VALVE, ITEM 611.61030

(19) STA 14+70 TO 17+50, EXCAVATE TEST PITS EVERY 50 m, OR AT LOCATIONS DESIGNATED BY THE CITY, TO DETERMINE EXISTING WATER LINE ELEVATION AND LOCATION, ITEM 206.19.

(20) STA 14+70 TO STA 18+30±. NEW 300 mm DI WATER LINE. EXISTING WATER LINE IS ABANDONED IN PLACE, ITEM 611.05230. ALL SERVICE CONNECTIONS RELOCATED, ITEM 611.5.

(21) STA 14+30 TO 14+70 CONSTRUCT 300 mm RESTRAINED JOINT DI WATER LINE, ITEM 611.15230.

(24) INSTALL 150 mm GATE VALVE, ITEM 611.61015. 300 x 150 mm TEE SUBSIDIARY TO ITEM 611.05230.

GRAPHIC SCALE (HORIZONTAL) (IN METERS) 1 : 500

GRAPHIC SCALE (VERTICAL) (IN METERS) 1 : 50

Underwood Engineers, Inc.
25 Vaughan Mall, Portsmouth, N.H. 03801 Tel. 603-436-6192

METRIC

SEWER AND WATER UTILITIES PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	11855	61	141

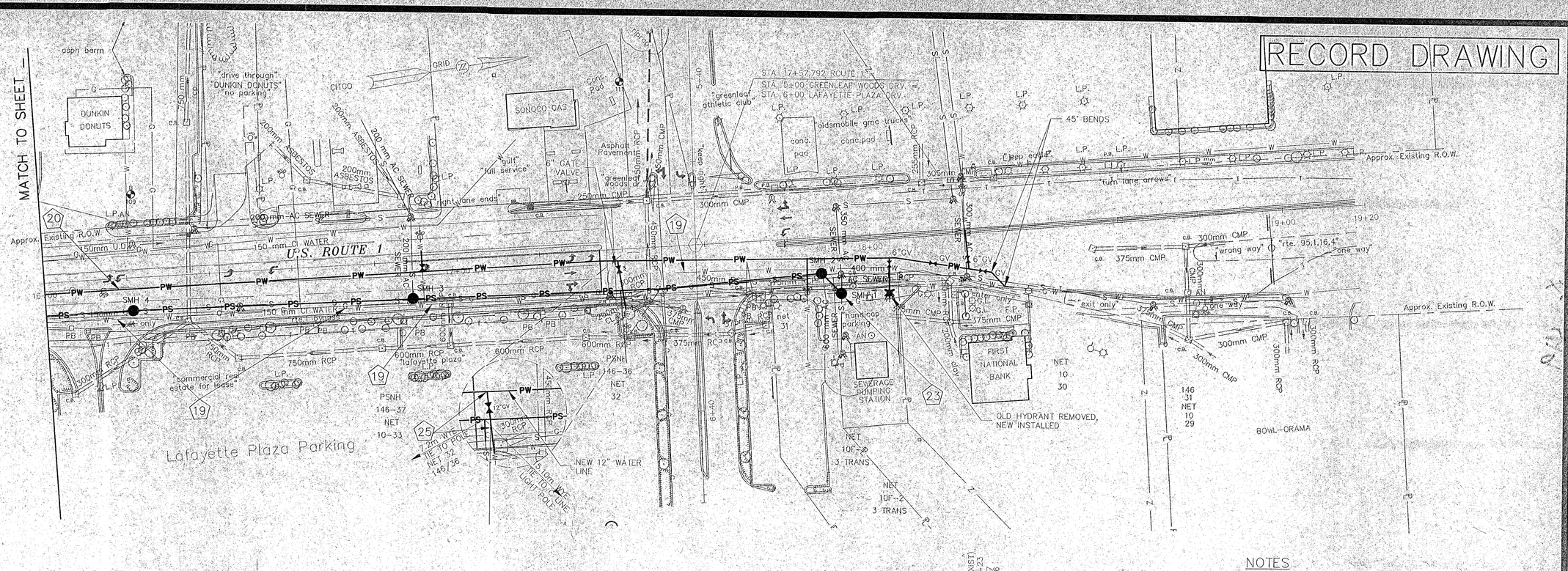
EXISTING DETAIL	NHDOT		DATE
PROPOSED DESIGN	U.E.I.	P. MACDONALD	DATE 2/24/99
SHEET CHECKED	U.E.I.	T. PLANTE	DATE 2/24/99
AS BUILT DETAILS			DATE 5/09/01

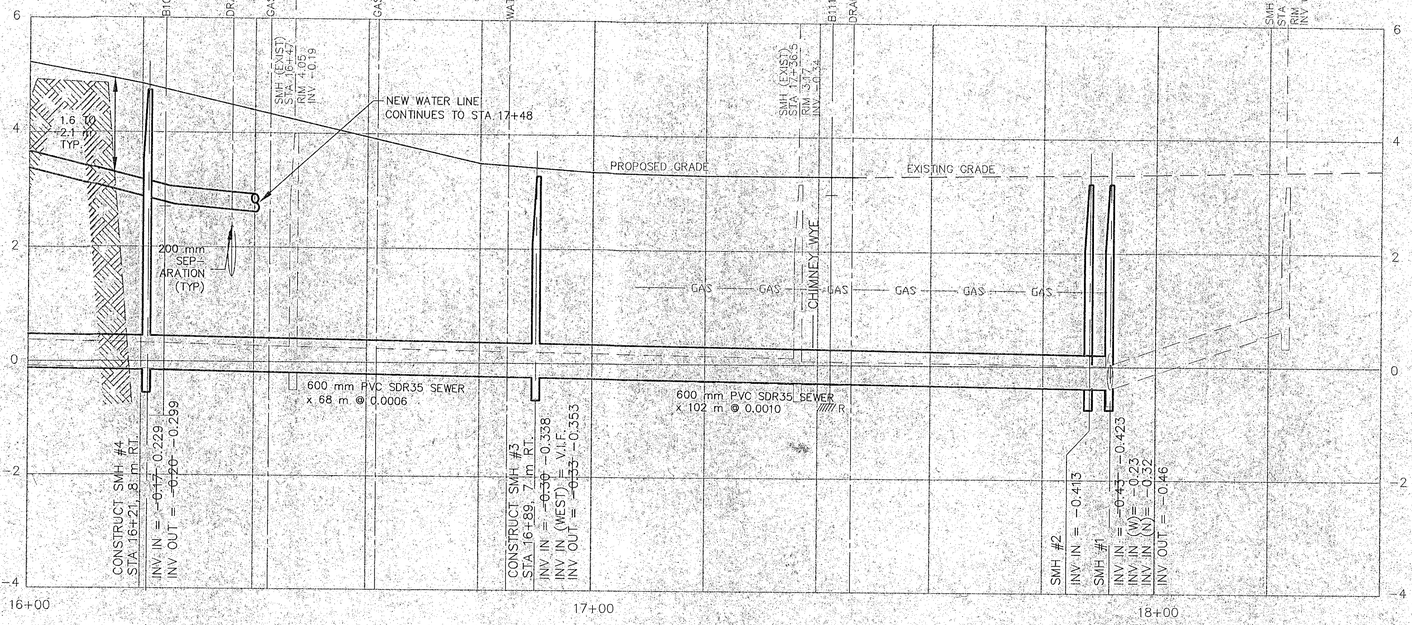
NOTEBOOKS: BOOK / BOOK / BOOK

REVISIONS AFTER PROPOSAL: NUMBER | DATE | STATION | STATION | DESCRIPTION

783PLPR3R.DWG

RECORD DRAWING





NOTES

RECORD WATER INFORMATION PROVIDED BY NHDOT

(23) DOGHOUSE MANHOLE INSTALLED.

(25) 300 x 300 mm TEE, 12" GATEVALVE AND NEW 200m DI WATER LINE.

(28) STA 17+45 RT. INSTALL 300 X 150 mm REDUCER. INCIDENTAL TO ITEM 611.05230.

GRAPHIC SCALE (HORIZONTAL)
(IN METERS)
1 : 500

GRAPHIC SCALE (VERTICAL)
(IN METERS)
1 : 50

SEWER AND WATER UTILITIES PLAN

Underwood Engineers, Inc.
25 Vaughan Mall, Portsmouth, N.H. 03801 Tel. 603-436-0192

METRIC

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	11855	62	141

REVISIONS AFTER PROPOSAL			
NUMBER	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK		PAGE
BOOK		PAGE
BOOK		PAGE

EXISTING DETAIL	NHDOT DATE
PROPOSED DESIGN	U.E.I. P. MACDONALD DATE 2/24/99
SHEET CHECKED	U.E.I. T. PLANTE DATE 2/24/99
AS-BUILT DETAILS	DATE 5/09/01

783PLN42.DWG

APPENDIX C

EVERSOURCE

Eversource Customer Service
PO Box 330
Manchester NH 03105
Eversource.com

March 6, 2017

PORTSMOUTH
680 PEVERLY HILL RD
PORTSMOUTH NH 03801 5356

RE: Statement History
Billing Account: 56002631083

Dear Valued Customer:

We are pleased to provide a summary of your recent billing history. This summary provides detailed information about your monthly usage, payments and adjustments to your account as well as your account balance.

If you have any questions, please call our Customer Service Department at 1-800-662-7764. For your convenience, our representatives are available to assist you Monday through Friday from 8:00 a.m. - 6:00 p.m.

Sincerely,

Jennifer A. Turner
Manager, Call Center
Eversource

Service Account #: 319970001 **Address:** 630 LAFAYETTE RD PORTSMOUTH NH 03801

Service Type: ELECTRIC **Meter #:** S72922496 **Rate:** RATE G GENERAL SVC 3 PHS

From Date	To Date	# of Days	RD1 Usage	RD2 Usage	Bill Demand	Bill Amount
01-04-2017	02-01-2017	28	17600.0	45.7	45.7	$2,516.36
12-31-2016	01-04-2017	4	2254.4	44.4	44.4	$315.12
12-02-2016	12-31-2016	29	16345.6	44.4	44.4	$2,289.61
11-02-2016	12-02-2016	30	15600.0	50.7	50.7	$2,390.90
10-04-2016	11-02-2016	29	13800.0	51.3	51.3	$2,214.03
09-02-2016	10-04-2016	32	14500.0	29.3	29.3	$1,953.05
08-03-2016	09-02-2016	30	14000.0	37.6	37.6	$2,027.13
07-05-2016	08-03-2016	29	14200.0	32.0	32.0	$1,962.94
06-30-2016	07-05-2016	5	2706.7	33.9	33.9	$356.83
06-01-2016	06-30-2016	29	15693.3	33.9	33.9	$2,006.38
05-03-2016	06-01-2016	29	15300.0	28.1	28.1	$1,957.22
04-04-2016	05-03-2016	29	16800.0	47.7	47.7	$2,382.55
03-17-2016	04-04-2016	18	12600.0	58.4	58.4	$1,774.59
02-16-2016	03-17-2016	30	19900.0	58.0	58.0	$2,840.51

Payments/Adjustments

Date	Amount		Date	Amount		Date	Amount	
01-27-2017	-$6,294.56	PAY	01-10-2017	-$5,067.68	PAY	01-04-2017	$25.42	DPC
12-13-2016	-$3,467.04	PAY	12-02-2016	$17.98	DPC	11-02-2016	-$3,099.50	PAY
09-29-2016	-$3,062.13	PAY	08-30-2016	-$3,437.29	PAY	07-25-2016	-$4,286.64	PAY
06-21-2016	-$4,631.19	PAY	06-07-2016	-$4,851.42	PAY	04-28-2016	-$9,714.76	PAY
03-23-2016	-$6,983.35	PAY						

Legend: PAY = Payment, TRF = Transfer, DPC = Late Payment Charge, MCC = Adjustment, TTX = Tax

Current Balance: $9,391.09