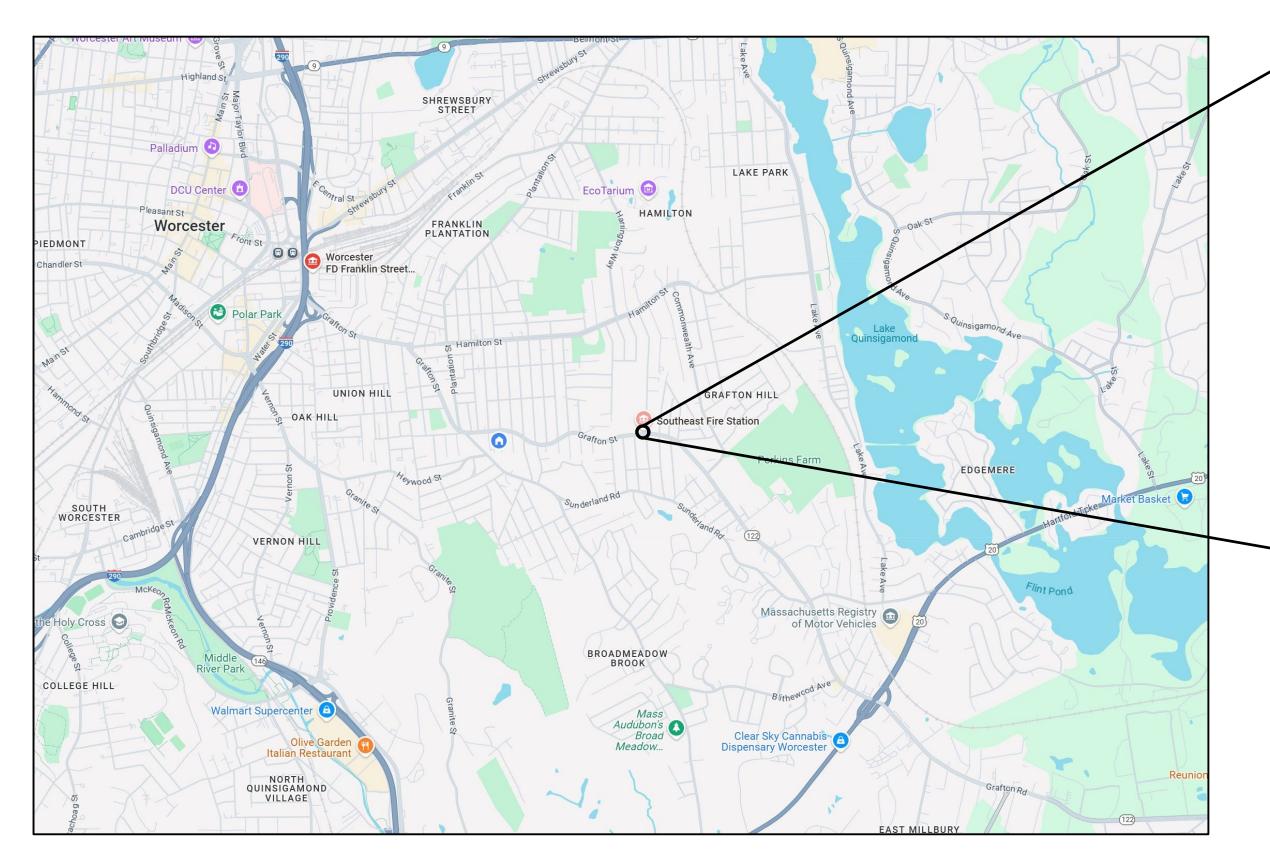
# SOUTHEAST FIRE STATION BATHROOM RENOVATION

FOR THE

# CITY OF WORCESTER

FIRE DEPARTMENT
141 GROVE STREET
WORCESTER, MA 01605

BID SET AUGUST 2025



PROJECT LOCATION: 745 GRAFTON ST. WORCESTER, MA 01604

ARCHITECT:

NAULT ARCHITECTS, INC.

71 HOPE AVENUE
WORCESTER, MA 01603

T E L: (508)755-6134 EMAIL: ADMIN@NAULTARCHITECTS.COM





COVER SHEET

LIST OF DRAWINGS

ARCHITECTURAL
A1 - DEMO WORK AND NEW ELECTRICAL WORK

PLUMBING
P1 - FIRST FLOOR DEMOLITION AND PROPOSED

MECHANICAL H1 - FIRST FLOOR DEMOLITION AND PROPOSED

ELECTRICAL
E1 - ELECTRICAL LEGEND AND DETAIL
E2 - ELECTRICAL NOTES
E3 - DEMOLITION AND PROPOSED CEILING AND FLOOR

**HEATING & VENTILATION PLANS** 

T1 - COVER SHEET

JOB NUMBER: 1842.

BATHROOM RENOVATIONS GRAFTON ST FIRE STATION CITY OF WORCESTER

CONSULTANT

ARCHITEC

NAULT ARCHITECTS, INC

71 HOPE AVENUE
WORCESTER, MA 01603

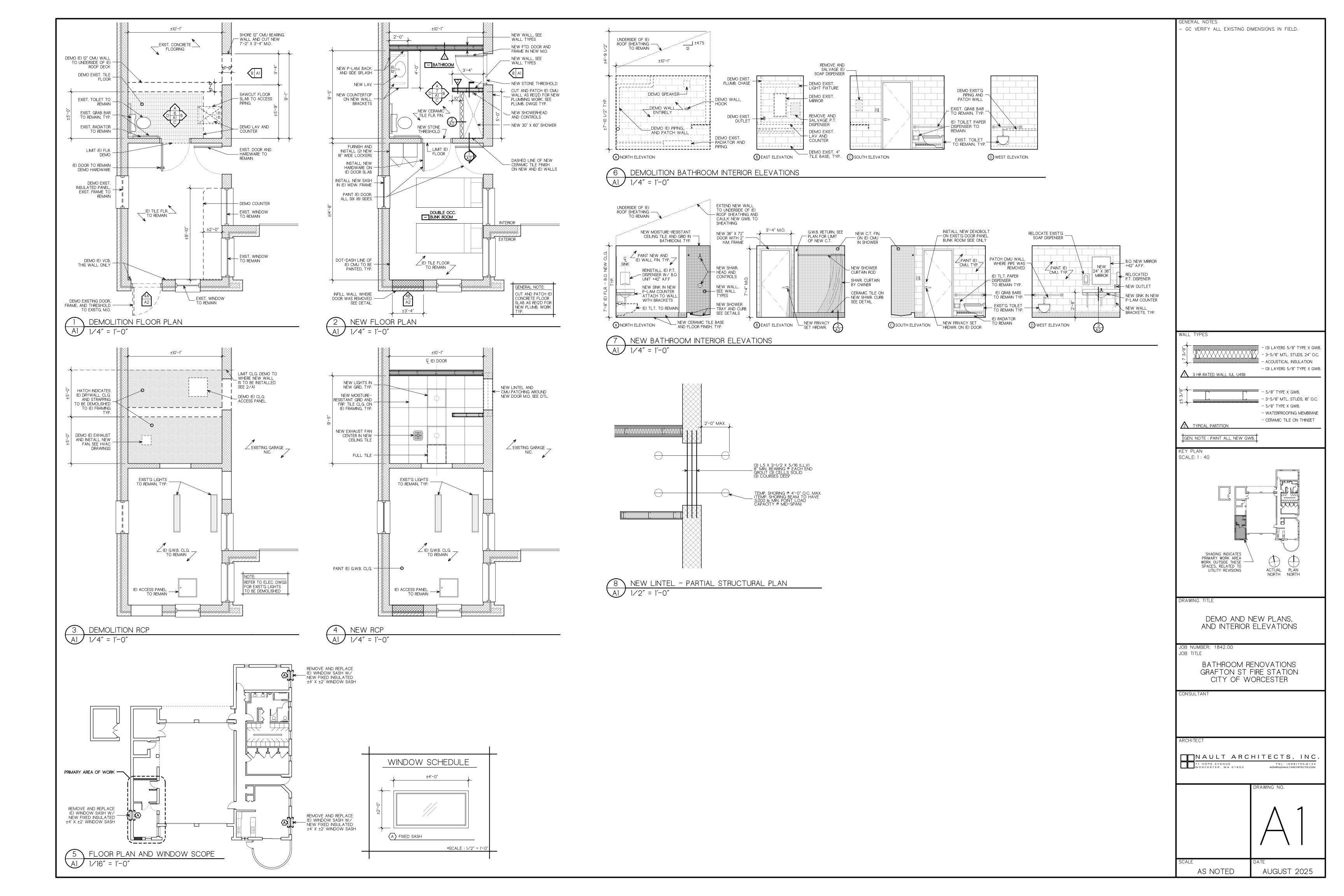
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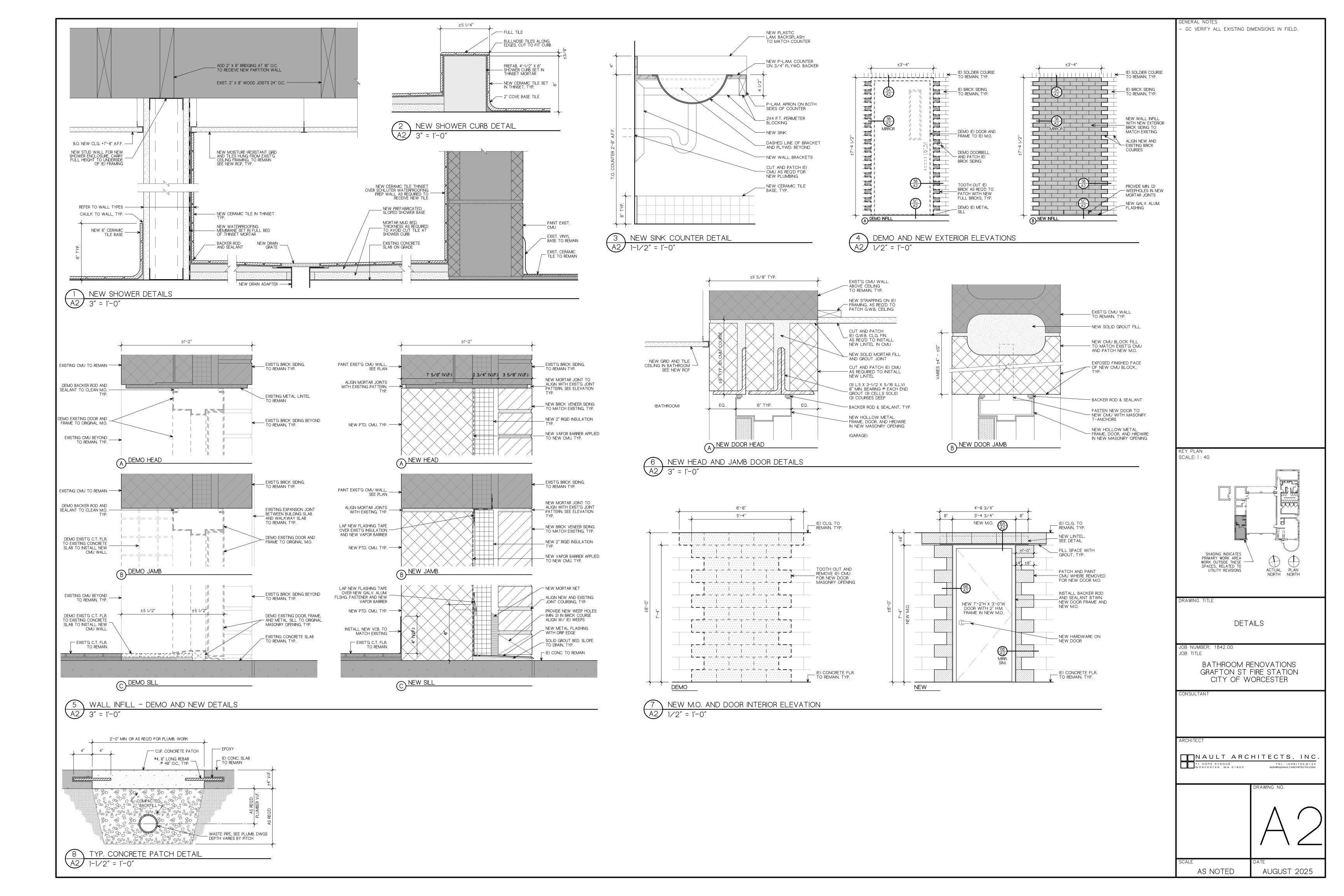
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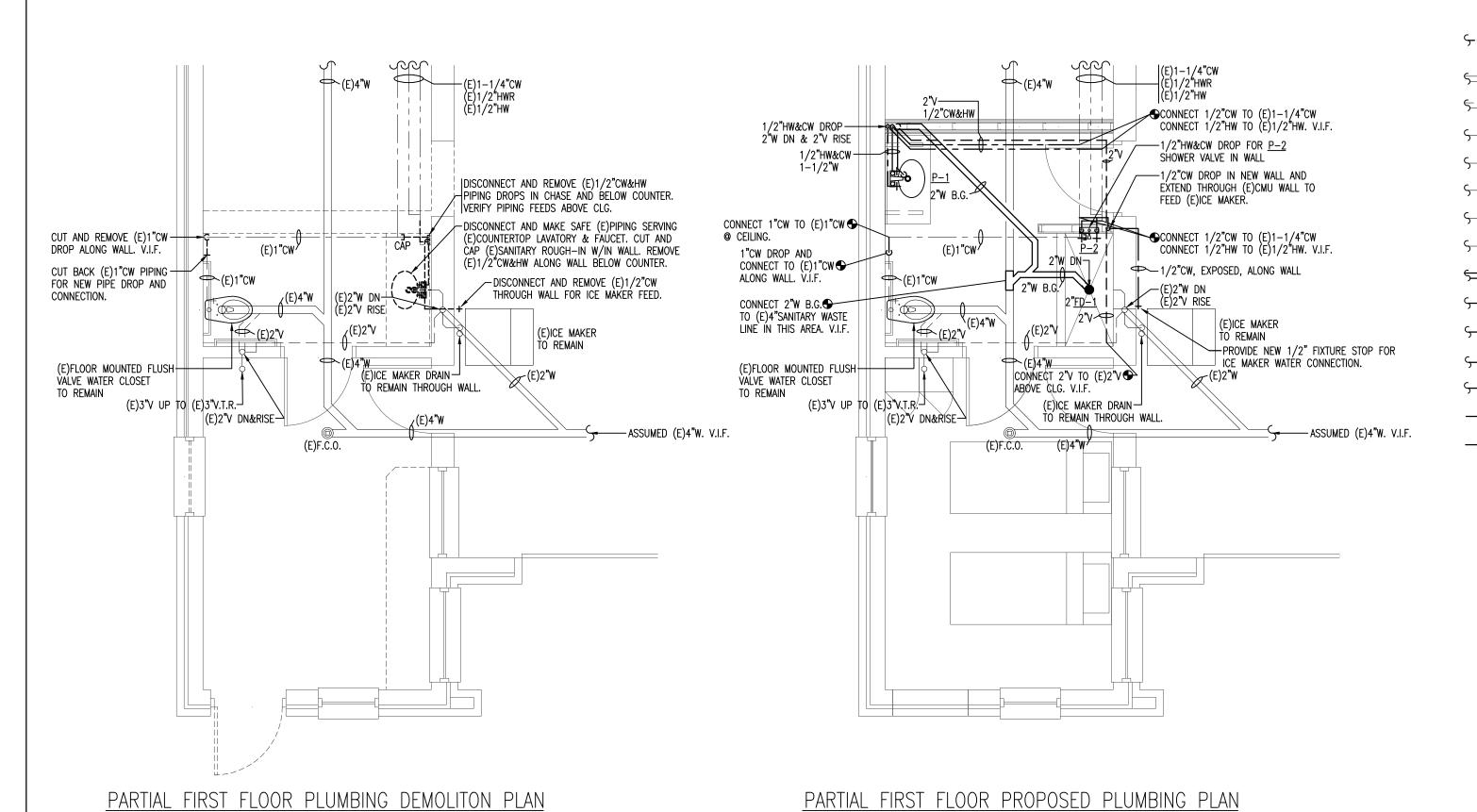
DATE

AS NOTED

AUGUST 2025







SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'-0"

	<u>KEY</u>		PLUMBING NOTES:
, <del>-</del>	EXISTING PIPING AND/OR FIXTURES TO BE REMOVED	1.	CONTRACTOR RESPONSIBLE FOR PROVIDING ALL MATERIAL, LABOR, SUPERVISION AND TRANSPORTATION REQUIRED TO COMPLETE THE WORK DESCRIBED ON THESE DRAWINGS AND IN THE SPECIFICATIONS UNLESS NOTED OTHERWISE.
,	EXISTING BELOW GRADE WASTE PIPING (ASSUMED)	2.	CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATION IN THE FIELD.
	EXISTING BELOW GRADE VENT PIPING (ASSUMED)	3.	CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
5	EXISTING WASTE PIPING (W)	4.	ALL PIPING TO BE INSTALLED PER LOCAL, STATE, AND FEDERAL CODES.
	EXISTING VENT PIPING (V)	5.	CONTRACTOR IS RESPONSIBLE FOR ALL OFFSETS AND MODIFICATIONS AS REQUIRED TO CLEAR BUILDING STRUCTURES.
<u> </u>	EXISTING COLD WATER PIPING (CW)	6.	ALL PIPING TO BE PRESSURE TESTED BEFORE INSULATION. LEAVE VALVES OPEN, READY FOR OPERATION.
	EXISTING HOT WATER PIPING (HW)	7.	INSULATE ALL COLD AND HOT LINES INSTALLED WITH 1/2" FIBERGLASS OR CLOSED CELL INSULATION
S	EXISTING HOT WATER RECIRCULATION PIPING (HWR)	8.	REPAIR OF ANY DAMAGE TO THE NEW CONSTRUCTION DURING THE EXECUTION OF THIS WORK SHALL
<del></del> \$	BELOW GRADE WASTE PIPING (W)		BE THE RESPONSIBILITY OF THIS CONTRACTOR.
5	WASTE PIPING (W)	9.	ALL EXPOSED PIPING/FITTINGS TO BE CHROME PLATED COPPER/BRASS.  ALL WATER SUPPLY PIPING TO BE RIGID TYPE L COPPER UNLESS STATED OTHERWISE.
	VENT PIPING (V)	11.	ALL WASTE AND VENT PIPING TO BE CAST IRON OR DWV COPPER AS ALLOWED
<u>-</u>	COLD WATER PIPING (CW)	10	BY THE MA PLUMBING CODE.
	110°F HOT WATER PIPING (HW)	12.	PIPING RUNS ARE SHOWN AS REPRESENTATIVE OF REQUIRED SIZES. ROUTING MAY BE CHANGED BY CONTRACTOR AS NECESSITATED BY STRUCTURAL CONSIDERATIONS.
3	) PIPE DROP	13.	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND ELEVATION OF PLUMBING FIXTURES.
S	) PIPE RISE	14.	ALL DOMESTIC AND WASTE PIPING IS DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE TO PROVIDE COMPLETE AND WORKING FIXTURES.
B.G.	BELOW GRADE		
V.I.F.	VERIFY IN FIELD		
F.C.O.	FLOOR CLEANOUT		
FD	FLOOR DRAIN		

FLOOR DRAIN SCHEDULE

ACCESSORIES

REMARKS

MARKSELECTION BASED ON<br/>MFRSIZEPIPE<br/>CONNECTIONTOP<br/>MATERIALACCESSOFD-1WATTSFD-100-M6-76"X6"2"NICKEL BRONZENONE

EXISTING

FIXTURE STOP

PLUMBING FIXTURE CALLOUT

CONNECT NEW TO EXISTING

P	PLUMBING FIXTURE SCHEDULE					
KEY		P-1	P-2			
FIXTU	JRE	COUNTERTOP LAVATORY	SHOWER VALVE			
		(HANDICAP)				
P   I   P   I	TRAP	1-1/2"				
N G	WASTE	1-1/2"				
CONNECTIO	VENT	1-1/4"				
E C T	cws	3/8"	1/2"			
Ö N S	HWS	3/8"	1/2"			
HEIG	NTING HT [o rim	34" OR PER ARCH./MAAB	10"			
MATE	RIAL	VITREOUS CHINA				
FITTII	NGS	SYMMONS SCOT METERING LAVATORY FAUCET #SLC-6000	SYMMONS DIA #3503-H321-V-CYL-B-TRM HAND SHOWER TRIM SYMMONS TEMPTROL SHOWER VALVE BODY MODEL #261XBODY			
	_	OFFSET GRID DRAIN	<u>FD-1</u> FLOOR DRAIN IN TILE FLOOR			
	MANUF.	AMERICAN STANDARD				
	MODEL	AQUALYN DROP-IN 0476.028				

- 1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 2. ALL DIMENSIONS ARE AS IS UNLESS NOTED OTHERWISE ON DRAWINGS.
- 3. VERIFY ALL MOUNTING HEIGHTS WITH ARCHITECTURAL PLANS AND ALL APPLICABLE CODES BEFORE INSTALLATION.
- 4. PROVIDE WHEELCHAIR LAVATORY STRAINERS ON ALL HANDICAP LAVATORIES. INSTALL PVC COATED INSULATION ON ALL PIPING BELOW HANDICAP LAVATORIES UNLESS PIPING IS ENCLOSED.
- 5. PIPE INSULATION UNDER FIXTURE <u>P-1</u> SHALL BE TRUEBRO LAV GUARD MODEL #103

DRAWING TITLE

FIRST FLOOR DEMOLITION AND PROPOSED PLUMBING PLANS

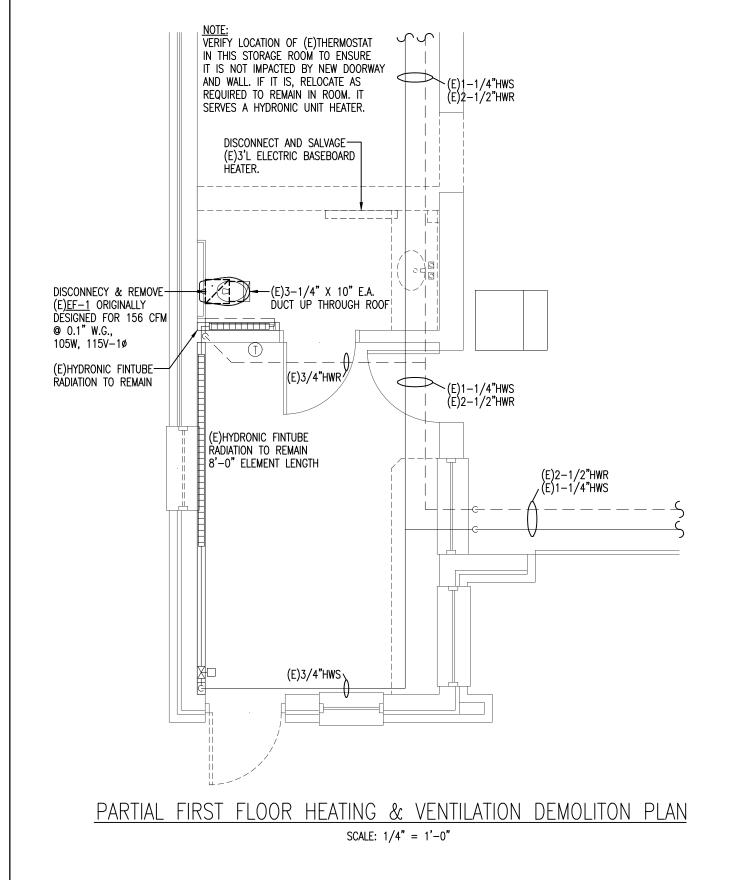
JOB NUMBER: 1842.00 JOB TITLE

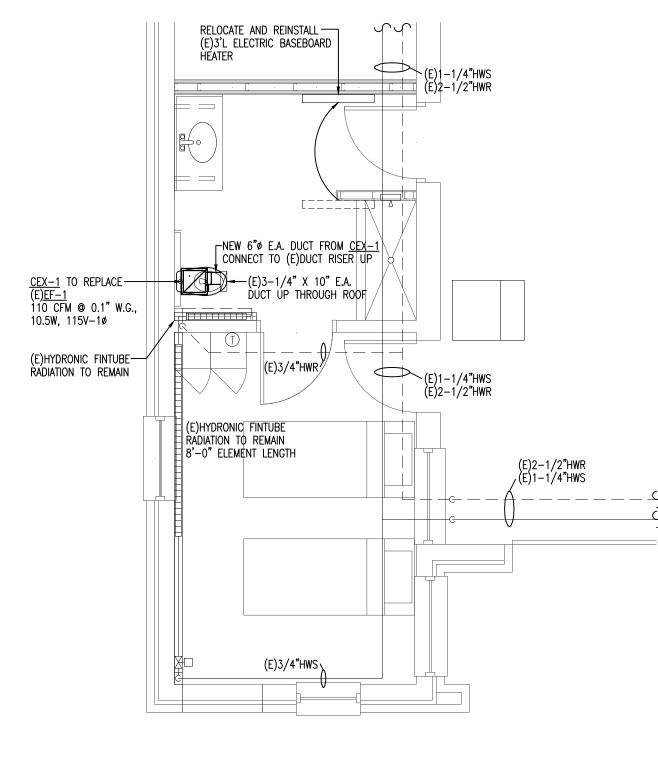
BATHROOM RENOVATIONS GRAFTON ST FIRE STATION CITY OF WORCESTER



MAULT ARCHITECTS, INC. 71 HOPE AVENUE WORCESTER, MA 01603 TEL: (508)755-6134 FAX: (508) 754-4661

DRAWING NO. 1/4"=1'-0" JULY 2025





PARTIAL	FIRST	FLOOR	PROPOSED	HEATING	&	VENTILATION	PLAN
SCALE: 1/4" = 1'-0"							

	<u>KEY</u>		CE	EILING EXH	AUST FAN	
[=====]	EXISTING ELECTRIC BASEBOARD HEATER TO		WITH LIGHT SCHEDULE			
	BE DISCONNECTED & SALVAGED FOR REINSTALLLATION		UNIT NUMBER		CEX-1	
	RELOCATED & REINSTALLED EXISTING ELECTRIC BASEBOARD HEATER		SERVICE		BATHROOM	
5	EXISTING HOT WATER SUPPLY PIPING (HWS)		MANUFACT	URER	PANASONIC	
(	EVICTING HOT WATER RETURN RIPING (HIMP)		MODEL #	①	FV-0511VKSL2	
<u> </u>	EXISTING HOT WATER RETURN PIPING (HWR)	F	C.F.M. (VA	RIABLE)	110	
G	EXISTING PIPING DROP	A	STATIC PR	ESS. (IN WG)	0.1"	
	EXISTING HYDRONIC FINTUBE RADIATION TO REMAIN	s	FAN RPM		958	
(T)	EXISTING THERMOSTAT TO REMAIN		ENERGY E	FF. (CFM/WATT)	10.5	
			NOISE (SC	NES)	0.4	
	EXISTING CEILING EXHAUST FAN TO BE REMOVED & REPLACED		DUCT CONNECTION SIZE		4"ø	
$\square$	EXISTING EXHAUST DUCT TO REMAIN	м		TYPE	DIRECT	
_		ő	MOTOR	WATTS	10.5	
(E)	EXISTING	T   0		R.P.M	958	
E.A.	EXHAUST AIR	Ř		VOLTAGE/PHASE	120V - 1ø	
OFV 4	NEW FOURDMENT ONLOUT	&		AMPERAGE	0.11	
<u>CEX-1</u>	NEW EQUIPMENT CALLOUT	s		TYPE	INTEGRAL	
		T	STARTER	NEMA SIZE	_	
		A R	SIARIER	CONTROL	GRILLE MOTION/ HUMIDITY SENSOR	

1 NUTONE, BROAN, GREENHECK OR APPROVED EQUAL WITH BUILT—IN SENSORS, TIMERS AND CONTROLS. SMARTACTION MOTION SENSOR, MODEL #FV—MSK1 CONDENSATION SENSOR, MODEL #FV—CSVK1 LED LIGHT IN GRILLE

AUX. CONTACTS

② DUAL MOTION & HUMIDITY SENSORS W/ VARIABLE FUNCTIONALITY: MOTION ON/ MOTION OFF MOTION ON/ HUMIDITY OFF HUMIDITY ON/ HUMIDITY OFF

1 2 3 4

- 3 ADJUSTABLE DELAY TIMER FROM 30 SEC. TO 60 MIN. VARIABLE HUMIDITY CONTROLS FROM 30 80% RH
- 4 PROVIDE VIBRATION ISOLATOR HANGERS & DISCONNECT SWITCH

# DRAWING TITLE

FIRST FLOOR DEMOLITION AND PROPOSED HEATING & VENTILATION PLANS

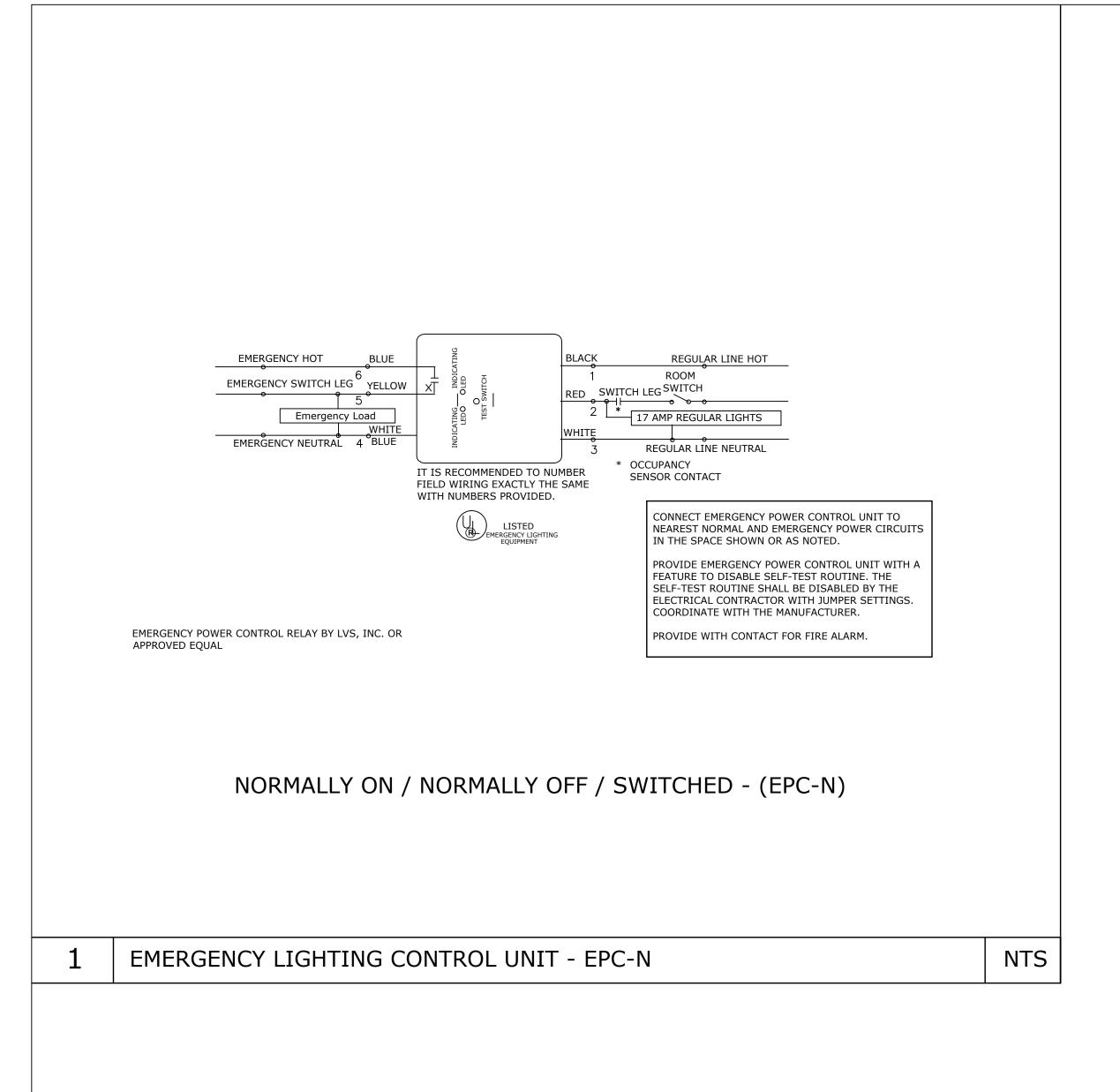
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BATHROOM RENOVATIONS GRAFTON ST FIRE STATION
CITY OF WORCESTER



NAULT ARCHITECTS, INC. 71 HOPE AVENUE WORCESTER, MA 01603 TEL: (508)755-6134 FAX: (508) 754-4661

DRAWING NO. 1/4"=1'-0" JULY 2025



### FIRE ALARM

VISUAL APPLIANCE, CEILING MOUNTED "110cd" - DENOTES CANDELA RATING

#### NOTES FOR FIRE ALARM DEVICES:

- 1. COORDINATE EXACT LOCATION OF ALL SPRINKLER SYSTEM ASSOCIATED DEVICES PRIOR TO ROUGH-IN.
- 2. ALL EXPOSED WIRING SHALL BE INSTALLED IN CONDUIT.

#### LIGHTING



LIGHT FIXTURE "A" DENOTES FIXTURE TYPE "a" DENOTES SWITCH CODE "L-1" DENOTES PANEL AND CIRCUIT NUMBER



EMERGENCY POWER CONTROL RELAY, SWITCHED PROVIDE WITH CONTACT FOR FIRE ALARM PANEL NORMALLY ON

#### NOTES FOR EMERGENCY POWER CONTROL RELAY:

- 1. WIRE EMERGENCY LIGHT FIXTURES VIA EMERGENCY POWER CONTROL RELAY (EPC) TO BYPASS LOCAL SWITCH CONTROLS DURING EMERGENCY CONDITIONS.
- 2. WIRE EPC TO EMERGENCY AND NORMAL LIGHTING CIRCUIT (SENSING) IN THE ROOM/SPACE IT SERVES, IF THE ROOM DOES NOT HAVE NORMAL LIGHTING CIRCUIT, CONNECT TO NEAREST NORMAL LIGHTING CIRCUIT IN THE AREA.
- 3. LOCATE EPC INSIDE THE BUILDING, ABOVE ACCESSIBLE CEILING, IN ELECTRICAL ROOMS, OR IN INCONSPICUOUS LOCATIONS.

#### WIRING DEVICES

GENERAL NOTE: COORDINATE EXACT LOCATION OF ALL WIRING DEVICES WITH ARCHITECTURAL ELEVATION PLANS PRIOR TO ROUGH-IN

- DUPLEX RECEPTACLE, WALL MOUNTED

GFCI DUPLEX RECEPTACLE, WALL MOUNTED

- THREE-WAY SWITCH

NOTES FOR WIRING DEVICES:

PRIOR TO ROUGH-IN.

- 1. COORDINATE EXACT LOCATION OF ALL WIRING DEVICES WITH ARCHITECTURAL ELEVATION PLANS
- 2. FIELD COORDINATE MOUNTING HEIGHTS OF OUTLETS FOR ALL APPLIANCES.
- 3. ALL EXPOSED WIRING SHALL BE INSTALLED IN

# **EQUIPMENT**

- SAFETY DISCONNECT SNAP SWITCH HORSE POWER RATED

#### DEMOLITION LEGEND

- LIGHTING FIXTURE

SWITCH

GFCI RECEPTACLE

RECEPTACLE

SPEAKER

EXISTING DEVICES/EQUIPMENT TO BE REMOVED TOGETHER WITH ASSOCIATED WIRING, CONDUIT, ETC. UNLESS NOTED OTHRWISE.

#### **DEMOLITION ABBREVIATIONS:**

- "XR" DENOTES EXISTING DEVICE/OUTLET/FIIXTURE/EQUIPMENT TO BE REMOVED TOGETHER WITH ASSOCIATED WIRING, CONDUIT, SURFACE RACEWAY, ETC. AND CIRCUIT PULLED BACK TO NEXT ACTIVE OUTLET/BACK TO SOURCE. UNLESS NOTED OTHERWISE.
- "ETR" DENOTES EXISTING DEVICE/OUTLET/FIXTURE/EQUIPMENT TO REMAIN.
- "RP" EXISTING DEVICE/OUTLET/EQUIPMENT TO BE REMOVED AND NEW DEVICE, EQUIPMENT OR FIXTURE AS SPECIFIED INSTALLED ON EXISTING OUTLET, RECONNECT TO EXISTING CIRCUIT. UNLESS NOTED OTHERWISE.
- "XRL" EXISTING DEVICE/OUTLET/FIXTURE/EQUIPMENT TO BE DISCONNECTED, REMOVED AND RELOCATED, EXTEND CONDUIT AND WIRING AS REQUIRED.
- "XL" NEW LOCATION OF RELOCATED EXISTING DEVICE/OUTLET/EQUIPMENT. EXTEND CONDUIT AND FEEDERS TO

NEW LOCATION.

- 1. ALL DEVICES, OUTLETS, FIXTURES AND EQUIPMENT SHOWN ARE TO BE DEMOLISHED UNLESS NOTED OTHERWISE. SEE ABBREVIATIONS.
- 2. MAKE SAFE, DISCONNECT AND REMOVE EXISTING DEVICES, OUTLETS, FIXTURES AND EQUIPMENT TO BE REMOVED OR RELOCATED TOGETHER WITH ASSOCIATED WIRING, CONDUIT, BOXES, SURFACE RACEWAY, ETC. AND CIRCUIT PULLED BACK TO NEXT ACTIVE OUTLET/BACK TO SOURCE. UNLESS NOTED OTHERWISE.
- 3. FOR ALL EXISTING DEVICES AND EQUIPMENT BEING RE-INSTALLED IN NEW CEILING, RECONNECT TO EXISTING POWER SOURCE. UNLESS NOTED OTHERWISE.
- 4. PROVIDE BLANK FACEPLATES FOR ALL EXISTING DEVICES AND OUTLETS BEING REMOVED, FOR BOXES THAT ARE TO REMAIN.
- 5. FOR ALL DEVICES AND EQUIPMENT THAT ARE TO BE REMOVED, SALVAGED AND REINSTALLED. RE-USE EXISTING FEEDERS AND CABLING. COIL EXISTING CABLING WITH CARE TO PREVENT DAMAGE. EXTEND CONDUIT, FEEDERS AND CABLING TO NEW LOCATION OF EXISTING DEVICES AND EQUIPMENT. UNLESS NOTED
- 6. TRACE ALL EXISTING CIRCUITS IN THE SCOPE OF WORK AND UPDATE THE PANEL CIRCUIT DIRECTORY. MARK CIRCUIT BREAKERS AS SPARE FOR CIRCUITS NOT BEING USED.
- 7. EXISTING ELECTRICAL SERVICE WITHIN THE AREA BEING RENOVATED: MAKE SAFE, DISCONNECT, AND REMOVE SERVICE FEEDERS TO LOCAL PANELBOARDS SLATED FOR DEMOLITION, AND ASSOCIATED BRANCH WIRING AND HARDWARE IDENTIFIED FOR DEMOLITION. OBSOLETE CABLES SHALL BE REMOVED BACK TO THE SOURCE AND REMOVED FROM THE SPACE ABOVE THE CEILING AND SPACE BELOW THE RAISED FLOOR. NO WORK SHALL BEGIN WITHOUT PROPER PERMITS AND AUTHORIZATIONS. DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER AT LEAST (2) WEEKS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM.
- 8. EXISTING ELECTRICAL PANELS IN ROOMS OUTSIDE SCOPE OF WORK THAT SERVE SPACE BEING RENOVATED: THERMAL IMAGES OF THE EXISTING DISTRIBUTION PANELS SHALL BE TAKEN TO IDENTIFY RESISTIVE CONNECTIONS AND OR OVERLOADED CIRCUITS PRIOR TO RENOVATION.

#### **ABBREVIATIONS**

- GROUND FAULT CIRCUIT INTERRUPTER

MOTION SENSOR NTS

NOT TO SCALE WEATHERPROOF

# SOUND SYSTEM



- LOCAL SOUND SYSTEM SPEAKER, WALL MOUNTED

SCALE: 1: 40 SHADING INDICATES PRIMARY WORK AREA WORK OUTSIDE THESE SPACES, RELATED TO UTILITY REVISIONS ACTUAL PLAN NORTH

DRAWING TITLE

ELECTRICAL LEGEND AND DETAIL

JOB NUMBER: 1842.00 JOB TITLE

BATHROOM RENOVATIONS GRAFTON ST FIRE STATION CITY OF WORCESTER

CONSULTANT

Engineering 38 Front Street, FL 3, Worcester, MA 01608 www.artengineering.us

NAULT ARCHITECTS, INC. 71 HOPE AVENUE WORCESTER, MA 01603

DRAWING NO. AS NOTED JULY 2025

## FIRE ALARM NOTES

- 1. ALL WORK SHALL BE INSTALLED IN FULL ACCORDANCE WITH LOCAL, STATE & FEDERAL CODES, STATE AND LOCAL AUTHORITIES IRRESPECTIVE OF THE FIRE ALARM DEVICES SHOWN ON THE DRAWINGS. FILE ALL PLANS, OBTAIN ALL PERMITS, PAY ALL FEES, SCHEDULE ALL INSPECTIONS, MAKE ALL TESTS AND OBTAIN ALL APPROVALS REQUIRED. THE FIRE ALARM WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE ADOPTED EDITIONS OF NFPA-72, NATIONAL ELECTRIC CODE AND LOCAL AUTHORITIES HAVING JURISDICTION. ALL COMPONENTS SHALL BE UL LISTED.
- 2. THE ELECTRICAL SUBCONTRACTOR SHALL USE THE FIRE ALARM RISER PROVIDED BY THE MANUFACTURER.
- 3. THE ELECTRICAL SUBCONTRACTOR SHALL DETERMINE DEVICE COUNTS FROM THE FIRE ALARM DRAWINGS.
- 4. ALL VISUAL DEVICES SHALL BE SYNCHRONIZED AS PER NFPA 72.
- 5. ALL EQUIPMENT AND DEVICES LOCATED IN THE SHOWER ROOM, COLD ROOM, ICE RINK, GARAGES, BUILDING EXTERIOR AND SIMILAR AREAS SHALL BE OF WEATHER PROOF TYPE.
- 6. CIRCUIT BREAKER FOR FIRE ALARM CONTROL UNIT SHALL HAVE RED MARKING WITH A CIRCUIT BREAKER LOCK LISTED FOR USE WITH THE CIRCUIT BREAKER.
- 7. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
- 8. THE ROOM CONTAINING THE FIRE ALARM CONTROL UNIT MUST BE PROVIDED WITH A SIGN IDENTIFYING THE FIRE PROTECTION EQUIPMENT AND EQUIPMENT LOCATION.

# MEP COORDINATION

- 1. ALL ELECTRICALLY POWERED HVAC EQUIPMENT TO BE PROVIDED WITH LOCAL DISCONNECT SWITCHES. THE SWITCHES SHALL BE PROVIDED BY THE ELECTRICAL SUBCONTRACTOR UNLESS NOTED OTHERWISE.
- 2. LINE VOLTAGE THERMOSTATS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR, INSTALLED AND WIRED BY THE ELECTRICAL SUBCONTRACTOR.
- 3. THE ELECTRICAL SUBCONTRACTOR SHALL COORDINATE THE EXACT LOCATIONS OF THE HVAC SYSTEM DEVICES AND EQUIPMENT IN THE FIELD PRIOR TO ROUGH-IN.
- 4. PROVIDE MEP/FP COORDINATION DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION OF WORK.
- 5. COORDINATE THE EXACT LOCATION OF ALL ELECTRICAL DEVICES WITH THE ARCHITECT PRIOR TO ROUGH-IN.
- 6. ALL EQUIPMENT, DEVICES AND INSTALLATION MATERIALS LOCATED IN THE SHOWER ROOM, COLD ROOM, ICE RINK, GARAGES, BUILDING EXTERIOR AND SIMILAR AREAS SHALL BE OF WEATHER PROOF TYPE.

# BRANCH CIRCUITS SCHEDULE

120V OR 277V - 1Ø, 2W CIRCUITS

	,
CIRCUIT BREAKER	CONDUCTOR
20A-1P	2-12 AWG & 1-12 AWG EGC IN 3/4"C
30A-1P	2-10 AWG & 1-10 AWG EGC IN 3/4"C
40A-1P	2-8 AWG & 1-10 AWG EGC IN 3/4"C
50A-1P	2-6 AWG & 1-10 AWG EGC IN 3/4"C
60A-1P	2-4 AWG & 1-10 AWG EGC IN 1"C

#### 208V OR 480V - 1Ø, 2W CIRCUITS

20A-2P	2-12 AWG & 1-12 AWG EGC IN 3/4"C
30A-2P	2-10 AWG & 1-10 AWG EGC IN 3/4"C
40A-2P	2-8 AWG & 1-10 AWG EGC IN 3/4"C
50A-2P	2-6 AWG & 1-10 AWG EGC IN 3/4"C
60A-2P	2-4 AWG & 1-10 AWG EGC IN 1"C

#### 208/120V OR 480/277V - 1Ø, 3W CIRCUITS

20A-2P	3-12 AWG & 1-12 AWG EGC IN 3/4"C
30A-2P	3-10 AWG & 1-10 AWG EGC IN 3/4"C
40A-2P	3-8 AWG & 1-10 AWG EGC IN 3/4"C
50A-2P	3-6 AWG & 1-10 AWG EGC IN 1"C
60A-2P	3-4 AWG & 1-10 AWG EGC IN 1"C

#### 208V OR 480V - 3Ø, 3W CIRCUITS

20A-3P	3-12 AWG & 1-12 AWG EGC IN 3/4"C
30A-3P	3-10 AWG & 1-10 AWG EGC IN 3/4"C
40A-3P	3-8 AWG & 1-10 AWG EGC IN 3/4"C
50A-3P	3-6 AWG & 1-10 AWG EGC IN 1"C
60A-3P	3-4 AWG & 1-10 AWG EGC IN 1"C

#### 208V OR 480V - 3Ø, 4W CIRCUITS

20A-3P	4-12 AWG & 1-12 AWG EGC IN 3/4"C
30A-3P	4-10 AWG & 1-10 AWG EGC IN 3/4"C
40A-3P	4-8 AWG & 1-10 AWG EGC IN 3/4"C
50A-3P	4-6 AWG & 1-10 AWG EGC IN 1"C
60A-3P	4-4 AWG & 1-10 AWG EGC IN 1"C

#### NOTES:

- 1. TYPE MC CABLE SHALL INCLUDE FULL SIZE INSULATED GROUND CONDUCTOR. SIZES AS INDICATED IN SCHEDULE.
- 2. UPGRADE WIRE SIZE ACCORDING TO VOLTAGE DROP CHART.
- UPGRADE FEEDER SIZES NOT INCLUDED IN VOLTAGE DROP CHART TO REQUIREMENTS IN ACCORDANCE WITH THE NEC.

#### VOLTAGE DROP CHART

120V CKTS. / MAX. LENGTH							
LOAD UP TO	CONDUCTOR SIZE #12	CONDUCTOR SIZE #10	CONDUCTOR SIZE #8				
800 VA	155 FT	245 FT	390 FT				
1000 VA	125 FT	195 FT	310 FT				
1200 VA	105 FT	165 FT	260 FT				
1400 VA	90 FT	140 FT	220 FT				
1600 VA	80 FT	125 FT	195 FT				
1800 VA	70 FT	110 FT	175 FT				
	277V CK	TS. / MAX. LENGTH					
2000 VA	330 FT	525 FT	830 FT				
2500 VA	265 FT	420 FT	665 FT				
3000 VA	220 FT	350 FT	555 FT				

### BRANCH CIRCUIT WIRING

300 FT

260 FT

475 FT

415 FT

. WIRING SHOWN ON DRAWINGS IS FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.

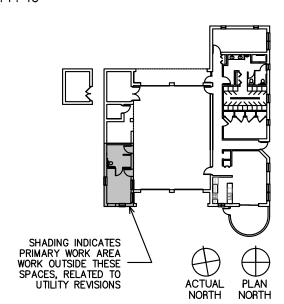
190 FT

165 FT

3500 VA 4000 VA

- . NEW WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL OUTLETS INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS.
- ALL SWITCH CONTROLS SHALL BE PROVIDED WITH NEW WIRING AND CONDUIT AS REQUIRED.
- 4. ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DRAWINGS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
- 5. ALL 120V SINGLE PHASE CIRCUITS SHALL HAVE DEDICATED NEUTRALS. NO SHARED NEUTRALS WILL BE ALLOWED.

SCALE: 1: 40



DRAWING TITLE

ELECTRICAL NOTES

JOB NUMBER: 1842.00 JOB TITLE

> BATHROOM RENOVATIONS GRAFTON ST FIRE STATION CITY OF WORCESTER

CONSULTANT



ARCHITECT

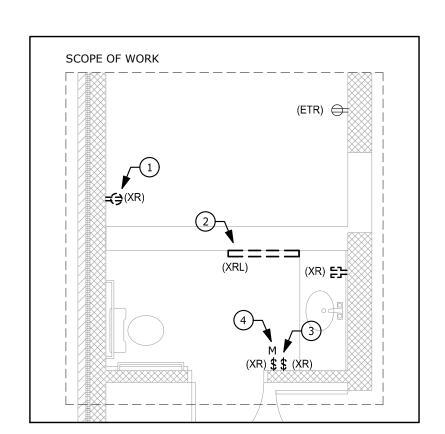
NAULT ARCHITECTS, INC.

DRAWING NO.

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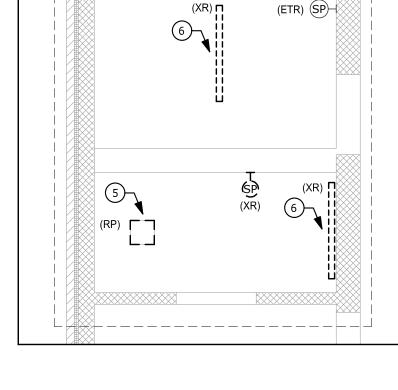
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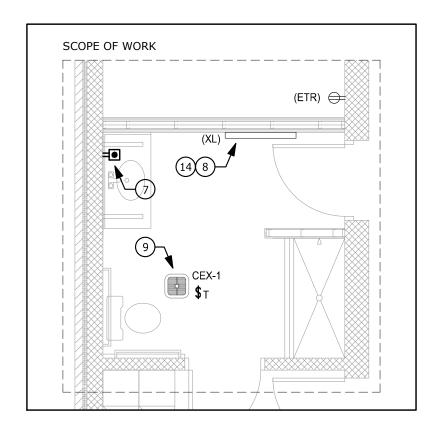
DEMOLITION FLOOR PLAN

1/4" = 1'-0"



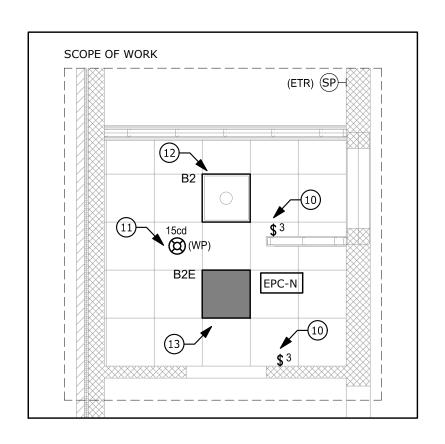
SCOPE OF WORK

DEMOLITION CEILING PLAN



3 NEW POWER PLAN

1/4" = 1'-0"



NEW LIGHTING AND FIRE ALARM PLAN

1/4" = 1'-0"

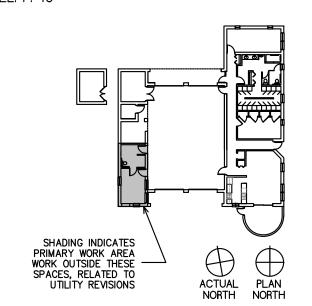
	LIGHTING FIXTURE SCHEDULE						
TAG	MANUF.	MODEL	DESCRIPTION				
B2	METALUX	22CGTX-20-L835	2X2 LED FLAT PANEL				
B2E	METALUX	22CGTX-20-L835	2X2 LED FLAT PANEL				

ELECTRICAL EQUIPMENT SCHEDULE							
TAG	DESCRIPTION	FLA	MCA	MOCP	VOLTAGE	POLES	TAG
CEX-1	EXHAUST FAN	0.11	0.14 A	20 A	120 V	1	CEX-1

KEYED NOTES FOR E3

- MAKE SAFE, DISCONNECT, AND REMOVE EXISTING RECEPTACLE. PROTECT AND MAINTAIN EXISTING CIRCUIT FOR FUTURE CONNECTION.
  - 2 MAKE SAFE AND DISCONNECT TO FACILITATE THE REMOVAL OF EXISTING ELECTRIC BASEBOARD. PROTECT AND MAINTAIN EXISTING CIRCUIT FOR RECONNECTION. MECHANICAL CONTRACTOR TO REMOVE AND SALVAGE UNIT.
  - 3 MAKE SAFE, DISCONNECT, AND REMOVE EXISTING LIGHT SWITCH.
- 4 MAKE SAFE, DISCONNECT, AND REMOVE EXISTING MOTION SENSOR SWITCH.
- MAKE SAFE AND DISCONNECT TO FACILITATE THE REMOVAL OF EXISTING CEILING EXHAUST FAN. PROTECT AND MAINTAIN EXISTING CIRCUIT FOR FUTURE CONNECTION. MECHANICAL CONTRACTOR TO REMOVE
- 6 MAKE SAFE, DISCONNECT, AND REMOVE EXISTING LIGHTING FIXTURES. PROTECT AND MAINTAIN EXISTING CIRCUIT FOR FUTURE CONNECTION.
- 7 FURNISH AND INSTALL NEW GFCI RECEPTACLE. NEW GFCI RECPETACLE TO BE CONNECTED TO EXISTING CIRCUIT. EXTEND WIRING AS REQUIRED.
- 8 REINSTALL EXISTING ELECTRIC BASEBOARD. CONNECT TO EXISTING CIRCUITRY. EXTEND WIRING AND CONDUIT AS REQUIRED.
- 9 CONNECT NEW CEILING EXHAUST FAN TO EXISTING CIRCUITRY. EXTEND WIRING AND CONDUIT AS REQUIRED.
- furnish and install new light switch. New light switch to be connected to new light fixtures.
- (11) CONNECT NEW SIGNALING DEVICE TO EXISTING SIGNALING CIRCUIT IN THE AREA.
- (12) CONNECT NEW LIGHT FIXTURE TO EXISTING NORMAL LIGHTING CIRCUIT IN THE AREA.
- (13) CONNECT NEW LIGHT FIXTURE TO EXISTING NORMAL AND EMERGENCY LIGHTING CIRCUITS IN THE AREA VIA EPC-N.
- VERIFY THAT THE RELOCATED BASEBOARD IS GFCI PROTECTED. IF NOT, PROVIDE A GFCI CIRCUIT BREAKER IN THE EXISTING PANEL TO PROTECT THE CIRCUIT PER MEC 210.8(B)(7).

SCALE: 1: 40



DRAWING TITLE

DEMOLITION AND PROPOSED CEILING AND FLOOR PLANS

JOB NUMBER: 1842.00 JOB TITLE

BATHROOM RENOVATIONS GRAFTON ST FIRE STATION CITY OF WORCESTER

CONSULTANT



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