Addendum Transmittal

PROJECT	Downeast Correctional Facility 19176	DATE SENT	9/2/2020
SUBJECT	ADDENDUM 3-DCF Men's Reentry	ADDENDUM ID	ADD-003-DCF MRC
		TRANSMITTAL ID	00050
PURPOSE	For Bid	VIA	Info Exchange

FROM

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TO

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Owens McCullough, PE	Sebago Technics Inc.	omccullough@sebagotechnics.com	207.200.2073

The specifications and drawings are amended herein. These items replace original items previously issued or are to be added to the Bidding and Construction Documents as indicated.

Bidders are required to acknowledge receipt of this addendum on the BID FORM in the space provided. Failure to acknowledge all addenda may cause the bid to be considered not responsive to the invitation, which would require rejection of the Bid.

The Contract Documents for solicitation of Bids for the construction are hereby changed as follows:

Addendum Transmittal

DATE: 9/2/2020
ID: 00050

DESCRIPTION: Please find attached Addendum #3.

REMARKS: **Created by: Shantall Moniz-Vargas**
Description:
Please find attached Addendum #3.

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NUMBER	SCALE	SIZE	NOTES
1	9/1/2020	033000 - Cast-In-Place Concrete.pdf				
1	9/1/2020	092900 - gypsum board.pdf				
1	9/2/2020	19176-01_ADD03_200902.pdf				
1	9/2/2020	19176-01_ADD03_DWGS-200902.pdf				

COPIES:

Graham Vickers (SMRT)
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Addendum 03

SMRT Architects and Engineers
877.700.7678
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To	David Schoenherr	**Date**	September 2, 2020
For	Downeast Correctional Facility – Men's Reentry Center	**Project No.**	19176-01

This addendum forms a part of the bidding and contract documents.

Bidders are required to acknowledge receipt of this addendum on their proposal. Failure to acknowledge all addenda may cause the bid to be considered not responsive to the invitation, which may require rejection of the bid.

PART I – QUESTIONS/ANSWERS/INFORMATION RELATING THE PROJECT:

These items provide supplemental information to the Contract Drawings and Specifications without modification.

Part I-A – Attachments

None

Part I-B – Bidder Questions/Clarifications:

	BIDDER QUESTIONS
Q1.	[Food Service] I cannot seem to locate drawing # FS-1.7 RESPONSE: FS-1.7 is included with this addendum.
Q2.	[Food Service] On the schedule on drawing FS-1.1 it shows item # M1 – corner guards – it's not listed in the specs and I will need a QTY and sizes please. RESPONSE: Disregard item #M1. Corner guards are not included in the project.
Q3.	Hardware set 4a has a hold open. Is that a magnet hold open or a hold open closer arm? RESPONSE: Please provide electromagnetic hold open.
Q4.	Is the EVM monitoring system required for fire extinguishers? RESPONSE: No. EVM monitoring is not required in Maine.
Q5.	Radiant heat in slab on grade - just checking want wwf 4x4 2.9/2.9 + #4@18”o.c. RESPONSE: This detail is removed. See revised Drawing SB501.
Q6.	An earthwork company is asking if CADD files are available.

	RESPONSE: Civil CADD files are available from Sebago Technics. Please contact Owens McCullough at omccullough@sebagotechnics.com to receive the Electronic File release form.
Q7.	Coiling counter doors page 1-2 section 2.2 door assembly. Is this to be mounted on the face of wall?
	RESPONSE: Yes, coiling counter door is mounted to face of wall.
Q8.	Door 117A – Hardware Set 2 - This is a wood door, but section 087110 references this as an aluminum door. Please advise hardware set.
	RESPONSE: This is a wood door however change door type to HG2 with Hardware Set 4. See revised door schedule on AE601 attached.
Q9.	Hardware sets that call for card access have both an electric hinge and electric strike listed; Is the intent for the opening to have an electric lock or electric strike? If it's the electric strike, the hinge is not required. Please advise.
	RESPONSE: Please provide electric strike at doors with card access.
Q10.	The finish legend on ID102 does not specify what "SC" flooring is which is labeled in several rooms. Can you clarify what this means?
	RESPONSE: SC = Sealed Concrete
Q11.	[Div 1] Is there a need for an actual security service to be employed for the project?
	RESPONSE: No need for an actual security service. Refer to Specification Section 015000 for security enclosure requirements.
Q12.	[Div 1] Are full blown coordination drawings and or BIM actually required for this particular project?
	RESPONSE: Coordination drawings and/or BIM model are not required.
Q13.	[Div 1] Is there still internet available on the shutdown and abandoned campus?
	RESPONSE: There is currently no active internet service but Spectrum service is wired to the site and is available for service for use paid for by the contractor.
Q14.	[Div 3] There are discrepancies between the structural drawing notes and the specifications regarding concrete strength, aggregate and or air content.
	RESPONSE: See revised Specification Section 033000 – Cast in Place Concrete (attached).

Q15.	[Div 9] Is a non-combustible suspension system desired for the drywall ceilings at the 8', 9' and 10' aff locations?
	RESPONSE: Yes. See revised Specification Section 092900 (attached) for fire rated suspension system.
Q16.	[Div 9] Should the mechanical, electrical, tele data and fire pump rooms have two layers of 5/8" on the underside of the trusses?
	RESPONSE: Yes. This is called out on the rated wall types.
Q17.	[Div 15] Should the code compliance or floor plan drawings be used to count and locate fire extinguisher locations?
	RESPONSE: Both the code compliance and floor plan drawings should be used for count and locations.
Q18.	[Div 15] Should tamper proof access panels be provided at suspended drywall ceiling locations to reach volume dampers?
	RESPONSE: No.
Q19.	The "Dumpster Pad Detail" on CE604 refers to a 20'x12' concrete pad but the site drawings show that size to match the generator pad. Is the intent to have 4 bollards on the Generator Pad or the Dumpster Pad labeled on CE201? Do any other concrete pads require bollards not called out on drawing CE201? Please clarify.
	RESPONSE: The dumpster pad detail on sheet CE604 shall be revised to reflect the 12'x12' dimensions called out on sheet CE201. Two bollards shall be installed on the dumpster pad. Bollards are not installed on the generator pad. No other concrete pads require bollards.
Q20.	Addendum 01 lists plans PL-401, PL-501, PL-502, PL-503, PL-601 as "Revised Drawings," but those Drawings were not included in the original Plans. They are not listed in the Drawing List on GI001 either. Are these plans that were intended to be in the original project documents? Are there other plans that may not be seen unless revised in an addendum?
	RESPONSE: The sheets did not have correct numbering naming/sequence per standards. This has been reflected on the Addendum #1 issue and should be considered as original project documents. P-401 became PL-401, P-501 became PL-501 and so on. There are no other plans. Updated GI001 is attached.
Q21.	There are no fixture model numbers or BOD shown on the plumbing schedule or in the specifications. Could we get specification for the Plumbing Fixtures?
	RESPONSE: A plumbing fixture schedule was added to sheet PL-601 that was submitted with Addendum #1.

	CLARIFICATIONS TO BIDDERS
C1.	Please clarify start and end dates of this contract. RESPONSE: Project to start as soon as possible after bid date of 9/9/2020 and end no later than 9/1/2021
C2.	Can you please clarify who is listed as the Owner and what their address is? RESPONSE: Department of Corrections 111 State House Station Augusta, Maine 04333
C3.	Where is the Bid Bond Sample Form? RESPONSE: The Bid Bond Sample Form is available on the State's website as well as the fillable form that you should use for your bid. https://link.edgepilot.com/s/f77b3a99/2FeDLhglVk6UR7l82jSpRg?u=https://www.maine.gov/dafs/brem/forms

PART II - MODIFICATIONS TO DRAWINGS AND MATERIAL SPECIFICATIONS:

Part II-A – Attachments.

The following items are attached to and are part of this Addendum. These items replace original items previously issued or are to be added to the Bidding and Construction Documents as indicated.

1. Revised Specification Section **033000** – Cast in Place Concrete
2. Revised Specification Section **092900** – Gypsum Board
3. Revised Drawing **GI001** – Cover Sheet
4. Revised Drawing **CE201** – Site Plan
5. Revised Drawing **CE202** – Site Plan
6. Revised Drawing **CE301** – Grading & Utility Plan
7. Revised Drawing **CE302** – Grading & Utility Plan
8. Revised Drawing **CE604** – Civil Details
9. Revised Drawing **SB101** – Foundation Plan
10. Revised Drawing **SB501** – Foundation Details
11. Revised Drawing **AE601** – Door and Window Schedules
12. New Drawing **FS-1.17** – Walk-in Shop Drawing
13. Revised Drawing **PL-502** – Plumbing Details
14. Revised Drawing **E-001 –** Legend and General Notes
15. Revised Drawing **ES101** – Electrical Site Plan

16. Revised Drawing EP102 – Men's Reentry Center – Power Plan Area B
17. Revised Drawing EP601 – Panel Schedules
18. Revised Drawing EP651 – One-Line Diagram

Part II-B – Revisions by Reference:

The drawings and specifications are hereby revised as follows:

NEW DRAWINGS

1. Drawing FS-1.17 – Walk-in Shop Drawing

REVISIONS TO SPECIFICATIONS

1. Specification Section 033000 – Cast in Place Concrete
2. Specification Section 092900 – Gypsum Board – Added fire rated suspension system
3. Specification Section 087111 – Door Hardware: Section 3.7.B and C – Hardware Sets 4 and 4a - Doors to receive electrified strike, no electrified lockset or hinge.
4. Specification Section 105113 – Metal Lockers: Section 2.3.A – Add Scranton Products to the list of manufacturers.

REVISIONS TO DRAWINGS

1. Drawing GI001 – updated drawing list
2. Drawing CE201 – added bollards between the generator and transformer pads and the driveway and added lights poles
3. Drawing CE202 – added bollards between the generator and transformer pads and the driveway and added lights poles
4. Drawing CE301 – added light poles and underground conduit
5. Drawing CE302 – added light poles and underground conduit
6. Drawing CE604 – revised dumpster pad detail from 12'x20' to 12'x12'
7. Drawing SB101 – modified for new sewer pipe
8. Drawing SB501 – modified Detail G5 to omit non-relevant control joint detail
9. Drawing AE601 – updated Door Schedule
10. Drawing PL-502 - changes to detail 17 to add 2-gallon expansion tank to 180 deg kitchen water
11. Drawing E-001 – changed note to indicate insulation type for service entrance conductors
12. Drawing ES101 - added additional site lighting for the entrance drive to replace fixtures that have had power to them cut and revised the riser pole that the new service will be coming from. Revised conduit entrance at the storage and administration buildings
13. Drawing EP102 - added power for mechanical controls, tank controls and added a switch to shut off power for all fossil fuel equipment in the boiler room and their associated pumps
14. Drawing EP601 - changed panel schedules to reflect changes on ES101 and EP102
15. Drawing EP651 - changed admin panelboards to indicate it is being furnished & installed by owner and added wire size for primary wiring

SECTION 033000

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

B. Related Requirements:
   1. Section 321313 "Concrete Paving" for concrete pavement and walks.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash, slag cement, other pozzolans, and silica fume; materials subject to compliance with requirements.

B. W/C Ratio: The ratio by weight of water to cementitious materials.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

   1. Before submitting design mixtures, review concrete design mixture and examine procedures for ensuring quality of concrete materials. Require representatives of each entity directly concerned with cast-in-place concrete to attend, including the following:

      a. Contractor's superintendent.
      b. Independent testing agency responsible for concrete design mixtures.
      c. Ready-mix concrete manufacturer.
      d. Concrete Subcontractor.
      e. Special concrete finish Subcontractor.

2. Review special inspection and testing and inspecting agency procedures for field quality control, concrete finishes and finishing, cold- and hot-weather concreting procedures, curing procedures, construction contraction and isolation joints, and joint-filler strips, semirigid joint fillers, forms and form removal limitations, shoring and reshoring procedures, vapor-retarder installation, anchor rod and anchorage device installation tolerances, steel reinforcement installation, methods for achieving specified floor and slab flatness and levelness floor and slab flatness and levelness measurement, concrete repair procedures, and concrete protection.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1. Indicate amounts of mixing water to be withheld for later addition at Project site.

C. Steel Reinforcement Shop Drawings: Placing Drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.

D. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.

1. Location of construction joints is subject to approval of the Structural Engineer.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer manufacturer testing agency.

B. Welding certificates.

C. Material Certificates: For each of the following, signed by manufacturers:

1. Cementitious materials.
2. Admixtures.
3. Form materials and form-release agents.
4. Steel reinforcement and accessories.
5. Fiber reinforcement.
6. Waterstops.
7. Curing compounds.
8. Floor and slab treatments.
9. Bonding agents.
10. Adhesives.
11. Vapor retarders.
12. Semirigid joint filler.

13. Joint-filler strips.
14. Repair materials.

D. Material Test Reports: For the following, from a qualified testing agency:

1. Aggregates: Include service record data indicating absence of deleterious expansion of concrete due to alkali aggregate reactivity.

E. Floor surface flatness and levelness measurements indicating compliance with specified tolerances.

F. Field quality-control reports.

G. Minutes of preinstallation conference.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs on Project personnel qualified as ACI-certified Flatwork Technician and Finisher and a supervisor who is an ACI-certified Concrete Flatwork Technician.

B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

C. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C1077 and ASTM E329 for testing indicated.

1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
2. Personnel performing laboratory tests shall be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician, Grade I. Testing agency laboratory supervisor shall be an ACI-certified Concrete Laboratory Testing Technician, Grade II.

D. Welding Qualifications: Qualify procedures and personnel according to AWS D1.4/D 1.4M.

1.8 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on concrete mixtures.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

1.10 FIELD CONDITIONS

A. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

1. When average high and low temperature is expected to fall below 40 deg F (4.4 deg C) for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301 (ACI 301M).
2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

B. Hot-Weather Placement: Comply with ACI 301 (ACI 301M) and ACI 305.1 (ACI 305.1M), and as follows:

1. Maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:

1. ACI 301 (ACI 301M).
2. ACI 117 (ACI 117M).

2.2 FORM-FACING MATERIALS

A. Smooth-Formed Finished Concrete: Form-facing panels that provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.

1. Plywood, metal, or other approved panel materials.
2. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1, and as follows:

a. High-density overlay, Class 1 or better.
b. Medium-density overlay, Class 1 or better; mill-release agent treated and edge sealed.
c. Structural 1, B-B or better; mill oiled and edge sealed.
d. B-B (Concrete Form), Class 1 or better; mill oiled and edge sealed.

3. Overlaid Finnish birch plywood.

B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

C. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.

D. Form-Release Agent: Commercially formulated form-release agent that does not bond with, stain, or adversely affect concrete surfaces and does not impair subsequent treatments of concrete surfaces.

1. Formulate form-release agent with rust inhibitor for steel form-facing materials.

E. Form Ties: Factory-fabricated, removable or snap-off glass-fiber-reinforced plastic or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.

1. Furnish units that leave no corrodible metal closer than 1 inch (25 mm) to the plane of exposed concrete surface.
2. Furnish ties that, when removed, leave holes no larger than 1 inch (25 mm) in diameter in concrete surface.
3. Furnish ties with integral water-barrier plates to walls indicated to receive dampproofing or waterproofing.

2.3 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A615/A615M, Grade 60 (Grade 420), deformed.

B. Plain-Steel Welded-Wire Reinforcement: ASTM A1064/A1064M, plain, fabricated from as-drawn steel wire into flat sheets.

2.4 REINFORCEMENT ACCESSORIES

A. Joint Dowel Bars: ASTM A615/A615M, Grade 60 (Grade 420), plain-steel bars, cut true to length with ends square and free of burrs.

B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:

1. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.
2. For epoxy-coated reinforcement, use epoxy-coated or other dielectric-polymer-coated wire bar supports.

3. For zinc-coated reinforcement, use galvanized wire or dielectric-polymer-coated wire bar supports.

2.5 CONCRETE MATERIALS

A. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.

B. Cementitious Materials:

1. Portland Cement: ASTM C150/C150M, Type I/II, gray.
2. Fly Ash: ASTM C618, Class F or C.
3. Slag Cement: ASTM C989/C989M, Grade 100 or 120.
4. Blended Hydraulic Cement: ASTM C595/C595M, Type IS, portland blast-furnace slag cement.
5. Silica Fume: ASTM C1240, amorphous silica.

C. Normal-Weight Aggregates: ASTM C33/C33M, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.

1. Maximum Coarse-Aggregate Size: 1-1/2 inches (38 mm) nominal.
2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

D. Air-Entraining Admixture: ASTM C260/C260M.

E. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C494/C494M, Type A.
2. Retarding Admixture: ASTM C494/C494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C1017/C1017M, Type II.

F. Set-Accelerating Corrosion-Inhibiting Admixture: Commercially formulated, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete and complying with ASTM C494/C494M, Type C.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. BASF Corporation.
b. Euclid Chemical Company (The); an RPM company.
c. GCP Applied Technologies Inc.
d. Sika Corporation.

G. Non-Set-Accelerating Corrosion-Inhibiting Admixture: Commercially formulated, non-set-accelerating, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. BASF Corporation.
b. Cortec Corporation.
c. GCP Applied Technologies Inc.
d. Sika Corporation.

H. Water: ASTM C94/C94M and potable.

2.6 VAPOR RETARDERS

A. Sheet Vapor Retarder: ASTM E1745, Class A. Include manufacturer's recommended adhesive or pressure-sensitive tape.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Barrier-Bac; Inteplast Group, Ltd.
b. Fortifiber Building Systems Group.
c. ISI Building Products.
d. Poly-America, L.P.
e. Raven Industries, Inc.
f. Reef Industries, Inc.
g. Stego Industries, LLC.
h. Tex-Trude, LP.
i. W.R. Meadows, Inc.

B. Sheet Vapor Retarder: Polyethylene sheet, ASTM D4397, not less than 10 mils (0.25 mm) thick.

2.7 LIQUID FLOOR TREATMENTS

A. Penetrating Liquid Floor Treatment: Clear, chemically reactive, waterborne solution of inorganic silicate or siliconate materials and proprietary components; odorless; that penetrates, hardens, and densifies concrete surfaces.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. BASF Corporation.
b. ChemMasters, Inc.
c. ChemTec International.
d. Concrete Sealers USA.
e. Curecrete Distribution Inc.

f. Dayton Superior.
g. Euclid Chemical Company (The); an RPM company.
h. Kaufman Products, Inc.
i. Laticrete International, Inc.
j. NewLook International, Inc.
k. Nox-Crete Products Group.
l. PROSOCO, Inc.
m. SpecChem, LLC.
n. US SPEC, Division of US MIX Company.
o. Vexcon Chemicals Inc.
p. V-Seal Concrete Sealers & Specialty Coatings.
q. W.R. Meadows, Inc.
r.

2.8 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. BASF Corporation.
b. Bon Tool Co.
c. Brickform; a division of Solomon Colors.
d. ChemMasters, Inc.
e. Dayton Superior.
f. Euclid Chemical Company (The); an RPM company.
g. Kaufman Products, Inc.
h. Lambert Corporation.
i. Laticrete International, Inc.
j. Metalcrete Industries.
k. Nox-Crete Products Group.
l. Sika Corporation.
m. SpecChem, LLC.
n. TK Products.
o. Vexcon Chemicals Inc.
p. W.R. Meadows, Inc.

B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.

C. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.

D. Water: Potable.

E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C309, Type 1, Class B, dissipating.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

    a. Anti-Hydro International, Inc.
    b. ChemMasters, Inc.
    c. Dayton Superior.
    d. Euclid Chemical Company (The); an RPM company.
    e. Kaufman Products, Inc.
    f. Lambert Corporation.
    g. Laticrete International, Inc.
    h. Nox-Crete Products Group.
    i. SpecChem, LLC.
    j. TK Products.
    k. Vexcon Chemicals Inc.
    l. W.R. Meadows, Inc.

2.9 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber or ASTM D1752, cork or self-expanding cork.

B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A shore durometer hardness of 80 according to ASTM D2240.

C. Bonding Agent: ASTM C1059/C1059M, Type II, nonredispersible, acrylic emulsion or styrene butadiene.

D. Epoxy Bonding Adhesive: ASTM C881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:

    1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

E. Reglets: Fabricate reglets of not less than 0.022-inch- (0.55-mm-) thick, galvanized-steel sheet. Temporarily fill or cover face opening of reglet to prevent intrusion of concrete or debris.

F. Dovetail Anchor Slots: Hot-dip galvanized-steel sheet, not less than 0.034 inch (0.85 mm) thick, with bent tab anchors. Temporarily fill or cover face opening of slots to prevent intrusion of concrete or debris.

2.10 REPAIR MATERIALS

A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch (3.2 mm) and that can be feathered at edges to match adjacent floor elevations.

    1. Cement Binder: ASTM C150/C150M, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C219.

2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch (3.2 to 6 mm) or coarse sand as recommended by underlayment manufacturer.
4. Compressive Strength: Not less than 4100 psi (29 MPa) at 28 days when tested according to ASTM C109/C109M.

B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/4 inch (6.4 mm) and that can be filled in over a scarified surface to match adjacent floor elevations.

1. Cement Binder: ASTM C150/C150M, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C219.
2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch (3.2 to 6 mm) or coarse sand as recommended by topping manufacturer.
4. Compressive Strength: Not less than 5000 psi (34.5 MPa) at 28 days when tested according to ASTM C109/C109M.

2.11 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301 (ACI 301M).

1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:

1. Fly Ash: 25 percent.
2. Combined Fly Ash and Pozzolan: 25 percent.
3. Slag Cement: 50 percent.
4. Combined Fly Ash or Pozzolan and Slag Cement: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.
5. Silica Fume: 10 percent.
6. Combined Fly Ash, Pozzolans, and Silica Fume: 35 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.
7. Combined Fly Ash or Pozzolans, Slag Cement, and Silica Fume: 50 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.

C. Admixtures: Use admixtures according to manufacturer's written instructions.

1. Use water-reducing high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a w/c ratio below 0.50.
4. Use corrosion-inhibiting admixture in concrete mixtures where indicated.

2.12 CONCRETE MIXTURES FOR BUILDING ELEMENTS

A. Footings: Normal-weight concrete.

1. Minimum Compressive Strength: As indicated on drawings at 28 days.
2. Maximum W/C Ratio: 0.45.
3. Slump Limit: 5 inches (125 mm), plus or minus 1 inch (25 mm).
4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch (38-mm) nominal maximum aggregate size.

B. Foundation Walls: Normal-weight concrete.

1. Minimum Compressive Strength: As indicated on drawings at 28 days.
2. Maximum W/C Ratio: 0.45.
3. Slump Limit: 5 inches (125 mm), plus or minus 1 inch (25 mm).
4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch (38-mm) nominal maximum aggregate size.

C. Slabs-on-Grade: Normal-weight concrete.

1. Minimum Compressive Strength: As indicated on drawings at 28 days.
2. Maximum W/C Ratio: 0.45.
3. Slump Limit: 5 inches (125 mm), plus or minus 1 inch (25 mm).
4. Air Content: No added air to interior slabs-on-grade
5. Air Content: Do not allow air content of trowel-finished floors to exceed 3 percent.

2.13 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.14 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C94/C94M, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C94/C94M. Mix concrete materials in appropriate drum-type batch machine mixer.

1. For mixer capacity of 1 cu. yd. (0.76 cu. m) or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
2. For mixer capacity larger than 1 cu. yd. (0.76 cu. m), increase mixing time by 15 seconds for each additional 1 cu. yd. (0.76 cu. m).
3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixture time, quantity, and amount of water added. Record approximate location of final deposit in structure.

PART 3 - EXECUTION

3.1 FORMWORK INSTALLATION

A. Design, erect, shore, brace, and maintain formwork, according to ACI 301 (ACI 301M), to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117 (ACI 117M).

C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:
1. Class B, 1/4 inch (6 mm) for rough-formed finished surfaces.

D. Construct forms tight enough to prevent loss of concrete mortar.

E. Construct forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast-concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.

1. Install keyways, reglets, recesses, and the like, for easy removal.
2. Do not use rust-stained steel form-facing material.

F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.

G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

H. Chamfer exterior corners and edges of permanently exposed concrete.

I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.

J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEM INSTALLATION

A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC 303.
2. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.
3. Install dovetail anchor slots in concrete structures as indicated.

3.3 REMOVING AND REUSING FORMS

A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F (10 deg C) for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations, and curing and protection operations need to be maintained.

1. Leave formwork for beam soffits, joists, slabs, and other structural elements that support weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength.
2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.

B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material are not acceptable for exposed surfaces. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

3.4 SHORING AND RESHORING INSTALLATION

A. Comply with ACI 318 (ACI 318M) and ACI 301 (ACI 301M) for design, installation, and removal of shoring and reshoring.

1. Do not remove shoring or reshoring until measurement of slab tolerances is complete.

B. In multistory construction, extend shoring or reshoring over a sufficient number of stories to distribute loads in such a manner that no floor or member will be excessively loaded or will induce tensile stress in concrete members without sufficient steel reinforcement.

C. Plan sequence of removal of shores and reshore to avoid damage to concrete. Locate and provide adequate reshoring to support construction without excessive stress or deflection.

3.5 VAPOR-RETARDER INSTALLATION

A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E1643 and manufacturer's written instructions.

1. Lap joints 6 inches (150 mm) and seal with manufacturer's recommended tape.

B. Bituminous Vapor Retarders: Place, protect, and repair bituminous vapor retarder according to manufacturer's written instructions.

3.6 STEEL REINFORCEMENT INSTALLATION

A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that reduce bond to concrete.

C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.

1. Weld reinforcing bars according to AWS D1.4/D 1.4M, where indicated.

D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

E. Install welded-wire reinforcement in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

F. Epoxy-Coated Reinforcement: Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D3963/D3963M. Use epoxy-coated steel wire ties to fasten epoxy-coated steel reinforcement.

G. Zinc-Coated Reinforcement: Repair cut and damaged zinc coatings with zinc repair material according to ASTM A780/A780M. Use galvanized-steel wire ties to fasten zinc-coated steel reinforcement.

3.7 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
2. Form keyed joints as indicated. Embed keys at least 1-1/2 inches (38 mm) into concrete.
3. Locate joints for beams, slabs, joists, and girders in the middle third of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
4. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
5. Space vertical joints in walls as indicated. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.
6. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
7. Use epoxy-bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- (3.2-mm-) wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated.
2. Terminate full-width joint-filler strips not less than 1/2 inch (13 mm) or more than 1 inch (25 mm) below finished concrete surface where joint sealants, specified in Section 079200 "Joint Sealants," are indicated.
3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

E. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete bonding to one side of joint.

3.8 WATERSTOP INSTALLATION

A. Flexible Waterstops: Install in construction joints and at other joints indicated to form a continuous diaphragm. Install in longest lengths practicable. Support and protect exposed

waterstops during progress of the Work. Field fabricate joints in waterstops according to manufacturer's written instructions.

B. Self-Expanding Strip Waterstops: Install in construction joints and at other locations indicated, according to manufacturer's written instructions, adhesive bonding, mechanically fastening, and firmly pressing into place. Install in longest lengths practicable.

3.9 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections are completed.

B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect.

C. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301 (ACI 301M).

1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

1. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301 (ACI 301M).
3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches (150 mm) into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.

E. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.

1. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
2. Maintain reinforcement in position on chairs during concrete placement.
3. Screed slab surfaces with a straightedge and strike off to correct elevations.
4. Slope surfaces uniformly to drains where required.
5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.

3.10 FINISHING FORMED SURFACES

A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

1. Apply to concrete surfaces not exposed to public view.

B. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

C. Scratch Finish: While still plastic, texture concrete surface that has been screeded and bull-floated or darbied. Use stiff brushes, brooms, or rakes to produce a profile amplitude of 1/4 inch (6 mm) in one direction.

1. Apply scratch finish to surfaces indicated.

D. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power-driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.

1. Apply float finish to surfaces to be covered with fluid-applied or sheet waterproofing, built-up or membrane roofing, or sand-bed terrazzo.

E. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.

1. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
2. Finish surfaces to the following tolerances, according to ASTM E1155 (ASTM E1155M), for a randomly trafficked floor surface:

    a. Specified overall values of flatness, F(F) 25; and of levelness, F(L) 20; with minimum local values of flatness, F(F) 17; and of levelness, F(L) 15.
    b. Specified overall values of flatness, F(F) 35; and of levelness, F(L) 25; with minimum local values of flatness, F(F) 24; and of levelness, F(L) 17; for slabs-on-grade.
    c. Specified overall values of flatness, F(F) 30; and of levelness, F(L) 20; with minimum local values of flatness, F(F) 24; and of levelness, F(L) 15; for suspended slabs.
    d. Specified overall values of flatness, F(F) 45; and of levelness, F(L) 35; with minimum local values of flatness, F(F) 30; and of levelness, F(L) 24.

3. Finish and measure surface, so gap at any point between concrete surface and an unleveled, freestanding, 10-ft.- (3.05-m-) long straightedge resting on two high spots and placed anywhere on the surface does not exceed 1/4 inch (6 mm).

F. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces indicated. While concrete is still plastic, slightly scarify surface with a fine broom.

1. Comply with flatness and levelness tolerances for trowel-finished floor surfaces.

G. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.

1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.11 MISCELLANEOUS CONCRETE ITEM INSTALLATION

A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

C. Equipment Bases and Foundations:

1. Coordinate sizes and locations of concrete bases with actual equipment provided.
2. Construct concrete bases 4 inches (100 mm) high unless otherwise indicated, and extend base not less than 6 inches (150 mm) in each direction beyond the maximum dimensions of supported equipment unless otherwise indicated or unless required for seismic anchor support.
3. Minimum Compressive Strength: 3000 psi (20.7 MPa) at 28 days.
4. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (450-mm) centers around the full perimeter of concrete base.
5. For supported equipment, install epoxy-coated anchor bolts that extend through concrete base and anchor into structural concrete substrate.
6. Prior to pouring concrete, place and secure anchorage devices. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
7. Cast anchor-bolt insert into bases. Install anchor bolts to elevations required for proper attachment to supported equipment.

D. Steel Pan Stairs: Provide concrete fill for steel pan stair treads, landings, and associated items. Cast-in inserts and accessories as shown on Drawings. Screed, tamp, and trowel finish concrete surfaces.

3.12 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 305.1 (ACI 305.1M) for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for remainder of curing period.

D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.

E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

    a. Water.
    b. Continuous water-fog spray.
    c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch (300-mm) lap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period, using cover material and waterproof tape.

    a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.
    b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.
    c. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer certifies does not interfere with bonding of floor covering used on Project.

3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

    a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound

manufacturer unless manufacturer certifies curing compound does not interfere with bonding of floor covering used on Project.

4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.13 LIQUID FLOOR TREATMENT APPLICATION

A. Penetrating Liquid Floor Treatment: Prepare, apply, and finish penetrating liquid floor treatment according to manufacturer's written instructions.

1. Remove curing compounds, sealers, oil, dirt, laitance, and other contaminants and complete surface repairs.
2. Do not apply to concrete that is less than manufacturer's written instructions.
3. Apply liquid until surface is saturated, scrubbing into surface until a gel forms; rewet; and repeat brooming or scrubbing. Rinse with water; remove excess material until surface is dry. Apply a second coat in a similar manner if surface is rough or porous.

B. Sealing Coat: Uniformly apply a continuous sealing coat of curing and sealing compound to hardened concrete by power spray or roller according to manufacturer's written instructions.

3.14 JOINT FILLING

A. Prepare, clean, and install joint filler according to manufacturer's written instructions.

1. Defer joint filling until concrete has aged at least one month(s). Do not fill joints until construction traffic has permanently ceased.

B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.

C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches (50 mm) deep in formed joints. Overfill joint and trim joint filler flush with top of joint after hardening.

3.15 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

B. Patching Mortar: Mix dry-pack patching mortar, consisting of 1 part portland cement to 2-1/2 parts fine aggregate passing a No. 16 (1.18-mm) sieve, using only enough water for handling and placing.

C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.

1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch (13 mm) in any dimension to solid concrete. Limit cut depth to 3/4 inch (19 mm). Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar matches surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Architect.

D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.

1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch (0.25 mm) wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
2. After concrete has cured at least 14 days, correct high areas by grinding.
3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch (6 mm) to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
6. Repair defective areas, except random cracks and single holes 1 inch (25 mm) or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch (19-mm) clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete, except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
7. Repair random cracks and single holes 1 inch (25 mm) or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.

E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.

F. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.16 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.

B. Testing Agency: Engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.

C. Inspections:

1. Steel reinforcement placement.
2. Steel reinforcement welding.
3. Headed bolts and studs.
4. Verification of use of required design mixture.
5. Concrete placement, including conveying and depositing.
6. Curing procedures and maintenance of curing temperature.
7. Verification of concrete strength before removal of shores and forms from beams and slabs.

D. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C172/C172M shall be performed according to the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd. (4 cu. m), but less than 25 cu. yd. (19 cu. m), plus one set for each additional 50 cu. yd. (38 cu. m) or fraction thereof.
2. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. (76 cu. m) or fraction thereof of each concrete mixture placed each day.

    a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

3. Slump: ASTM C143/C143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
4. Air Content: ASTM C231/C231M, pressure method, for normal-weight concrete;one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
5. Concrete Temperature: ASTM C1064/C1064M; one test hourly when air temperature is 40 deg F (4.4 deg C) and below or 80 deg F (27 deg C) and above, and one test for each composite sample.
6. Unit Weight: ASTM C567/C567M, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
7. Compression Test Specimens: ASTM C31/C31M.

a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
b. Cast and field cure two sets of two standard cylinder specimens for each composite sample.

8. Compressive-Strength Tests: ASTM C39/C39M; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.

a. Test one set of two field-cured specimens at 7 days and one set of two specimens at 28 days.
b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.

9. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
10. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi (3.4 MPa).
11. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
12. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
13. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42/C42M or by other methods as directed by Architect.
14. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
15. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

E. Measure floor and slab flatness and levelness according to ASTM E1155 (ASTM E1155M) within 24 hours of finishing.

3.17 PROTECTION OF LIQUID FLOOR TREATMENTS

A. Protect liquid floor treatment from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by liquid floor treatments installer.

END OF SECTION 033000

SECTION 092900

GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Interior gypsum board.
2. Specialty gypsum board
3. Tile backing panels.

B. Related Requirements:
1. Section 092216 "Non-Structural Metal Framing" for non-structural steel framing and suspension systems that support gypsum board panels.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.

B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.

C. Do not install panels that are wet, moisture damaged, and mold damaged.

1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.2 INTERIOR GYPSUM BOARD

A. Gypsum Board, Type X: ASTM C 1396/C 1396M.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. American Gypsum.
   b. Georgia-Pacific Building Products.
   c. National Gypsum Company.
   d. Temple-Inland Building Products by Georgia-Pacific.
   e. United States Gypsum Company.

2. Thickness: 5/8 inch (15.9 mm).

3. Long Edges: Tapered.

B. Gypsum Ceiling Board: ASTM C1396/C1396M.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. American Gypsum.
   b. CertainTeed Corporation.
   c. Continental Building Products, LLC.
   d. Georgia-Pacific Gypsum LLC.
   e. National Gypsum Company.
   f. PABCO Gypsum.
   g. USG Corporation.

2. Thickness: 1/2 inch (12.7 mm).

3. Long Edges: Tapered.

C. Abuse-Resistant Gypsum Board: ASTM C 1629/C 1629M.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. American Gypsum.
b. CertainTeed Corporation.
c. Georgia-Pacific Building Products.
d. National Gypsum Company.
e. Temple-Inland Building Products by Georgia-Pacific.
f. United States Gypsum Company.

2. Core: 5/8 inch (15.9 mm), Type X.

3. Surface Abrasion: Meets or exceeds Level 1 requirements.
4. Surface Indentation: Meets or exceeds Level 1 requirements.
5. Single-Drop Soft-Body Impact: Meets or exceeds Level 2 requirements.
6. Long Edges: Tapered.
7. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.3 SPECIALTY GYPSUM BOARD

A. Acoustically Enhanced Gypsum Board: ASTM C1396/C1396M. Multilayer products constructed of two layers of gypsum boards sandwiching a viscoelastic sound-absorbing polymer core.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. CertainTeed Corporation; Saint-Gobain North America.
b. National Gypsum Company.

2. Core: 5/8 inch (15.9 mm), Type X
3. Long Edges: Tapered.

2.4 TILE BACKING PANELS

A. Glass-Mat, Water-Resistant Backing Board: ASTM C 1178/C 1178M, with manufacturer's standard edges.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. American Gypsum.
b. Georgia-Pacific Building Products.
c. National Gypsum Company.
d. Temple-Inland Building Products by Georgia-Pacific.

2. Core: 5/8 inch (15.9 mm), Type X.

3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.5 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet.
2. Shapes:

a. Cornerbead.
b. Expansion (control) joint.

2.6 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:

1. Interior Gypsum Board: Paper.
2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.

C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.
2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.

a. Use setting-type compound for installing paper-faced metal trim accessories.

3. Fill Coat: For second coat, use setting-type, sandable topping compound.
4. Finish Coat: For third coat, use setting-type, sandable topping compound.

D. Joint Compound for Tile Backing Panels:

1. Glass-Mat, Water-Resistant Backing Panel: As recommended by backing panel manufacturer.

2.7 METAL SUSPENSION SYSTEM (Gypsum Ceilings)

A. Metal Suspension-System: Provide manufacturer's standard metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C 635/C635M.

B. Basis-of-Design Product: Subject to compliance with requirements, provide USG, Drywall Suspension System for Flat Ceilings or equal product by one of the following:

1. CertainTeed Corp.
2. Armstrong.

2.8 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.

B. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.

1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch (0.84 to 2.84 mm) thick.

C. Sound-Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.

D. Acoustical Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Hilti, Inc.
b. Pecora Corporation.
c. Specified Technologies, Inc.
d. United States Gypsum Company.

E. Thermal Insulation: As specified in Section 072100 "Thermal Insulation."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.

B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

A. Comply with ASTM C 840.

B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.

C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.

D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.

E. Form control and expansion joints with space between edges of adjoining gypsum panels.

F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.

1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. (0.7 sq. m) in area.
2. Fit gypsum panels around ducts, pipes, and conduits.
3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- (6.4- to 9.5-mm-) wide joints to install sealant.

G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch- (6.4- to 12.7-mm-) wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.

H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

I. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

A. Single-Layer Application:

1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
2. On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.

    a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
    b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

3.4 APPLYING TILE BACKING PANELS

A. Glass-Mat, Water-Resistant Backing Panels: Comply with manufacturer's written installation instructions and install at locations indicated to receive tile. Install with 1/4-inch (6.4-mm) gap where panels abut other construction or penetrations.

B. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

3.5 INSTALLING TRIM ACCESSORIES

A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.

C. Interior Trim: Install in the following locations:

1. Cornerbead: Use at outside corners.

3.6 FINISHING GYPSUM BOARD

A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.

B. Prefill open joints and damaged surface areas.

C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:

1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
2. Level 2: Panels that are substrate for tile.
3. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.

a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

E. Glass-Mat Gypsum Sheathing Board: Finish according to manufacturer's written instructions for use as exposed soffit board.

3.7 PROTECTION

A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.

B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

C. Remove and replace panels that are wet, moisture damaged, and mold damaged.

1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

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MEN'S REENTRY CENTER
MAINE DEPARTMENT OF CORRECTIONS
64 BASE ROAD, MACHIASPORT, MAINE 04655

ARCHITECTURE / ENGINEERING

SMRT ARCHITECTS & ENGINEERS
75 WASHINGTON AVE
PORTLAND, ME 04102
TEL. 1.877.700.7678

CIVIL ENGINEERING

SEBEGO TECHNICS
75 JOHN ROBERS ROAD
SOUTH PORTLAND, ME 04106
TEL. 207.200.2100

KITCHEN

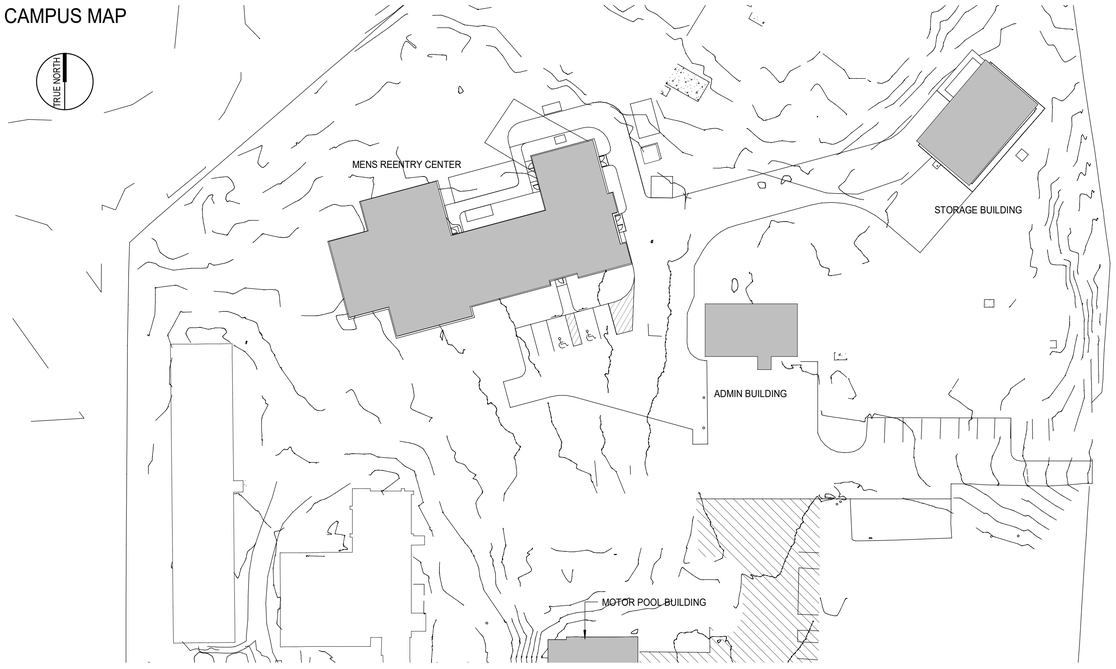
S1 FOOD SERVICE CONSULTING
231 HOMEWOOD DRIVE
BOILINGBROOK, IL 60040
TEL. (630) 783-9232

GENERAL NOTES:

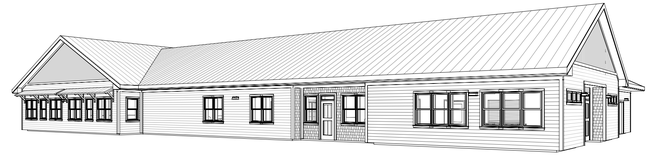
1. FIELD VERIFY ALL DIMENSIONS AND LAYOUT PRIOR TO PROCEEDING WITH WORK. NOTIFY ARCHITECT IN WRITING OF ANY DISCREPANCIES OR INCONSISTENCIES. FAILURE TO REPORT ANY DISCREPANCIES WITHIN THESE CONSTRUCTION DOCUMENTS TO THE ARCHITECT WILL NOT BE GROUNDS FOR ADDITIONAL COST OR CHANGE ORDERS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS (UNLESS NOTED OTHERWISE), AND WORKMANSHIP IN ACCORDANCE WITH FEDERAL, STATE, CITY, AND LOCAL BUILDING CODES AND THIER REQUIREMENTS.
3. CONTRACTOR AND ALL TRADES SHALL NOTE REQUIREMENTS OF "GENERAL NOTES" ON ALL SHEETS.
4. EACH TRADE TO PROVIDE SMOKE OR FIRE SEALANT AT PENETRATIONS AS REQUIRED FOR WALL TYPE (UNLESS NOTED OTHERWISE). ALL SEALANT, FIRE STOPPING AND SMOKE STOPPING ASSEMBLIES SHALL BE U.L. RATED.
5. REFER TO ALL CONSTRUCTION DOCUMENTS FOR REQUIREMENTS WHICH MAY AFFECT THE WORK IN ANOTHER AREA AND/OR DISCIPLINE AND COORDINATE.
6. PROVIDE BLOCKING IN WALLS AS NECESSARY WHERE CASEWORK, FURNITURE, SHELVES, HANDRAILS, AND/OR OTHER MISC. EQUIPMENT IS LOCATED.
7. REFER TO G-004 SHEET FOR GENERAL MOUNTING HEIGHTS.
8. DO NOT SCALE CONSTRUCTION DOCUMENTS.
9. PROVIDE MEANS "FURNISH AND INSTALL"
10. ELEVATION 100'-0" ON ARCHITECTURAL AND STRUCTURAL DRAWINGS EQUALS ELEVATION 184'-0" ON CIVIL DRAWINGS.

DRAWING LIST

CAMPUS MAP



LOCATION MAP



MEN'S REENTRY CENTER - PERSPECTIVE VIEW A1

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCITON	08-14-20

ADDENDUM #3
9-2-20

CURRENT ISSUE STATUS:

SMRT Architects and Engineers
75 Washington Ave - Suite 3A
Portland, Maine 04101
1.877.700.7678
www.smrtinc.com
Architecture • Engineering • Planning

MDOC - DCF
MEN'S REENTRY CENTER

MACHIASPORT, MAINE

COVER SHEET

SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	JGJ		
JOB CAPTAIN:	CBM	GI001	
DRAWN BY:	CAH/CBM		
SMRT FILE:	GI001-19176	SHEET No.	

24x36

GENERAL NOTES

1. DEMOLITION WORK HAS BEEN PARTIALLY COMPLETED BY OTHERS FOR BUILDING STRUCTURES AND LIMITED SITE ELEMENTS. THE CONTRACTOR UNDER THIS BID SHALL BE RESPONSIBLE FOR ANY ADDITIONAL ABOVE OR BELOW GRADE DEMOLITION TO COMPLETE PROJECT IMPROVEMENTS INCLUDING BUT NOT LIMITED TO FOUNDATIONS, UTILITIES, SLABS, FENCING, GATES, PAVEMENTS, MISC. STRUCTURES, LIGHTING, POLES, CURBING, UTILITY STRUCTURES AND ALL OTHER PHYSICAL IMPROVEMENTS ENCOUNTERED DURING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION COSTS.
2. REFER TO GENERAL NOTES ON PLAN SHEET CE001

N

GRID

TP-1
TP-2
TP-3
TP-4
TP-5
TP-6
TP-7
TP-12
TP-13
TP-14
TP-15
TP-16
TP-17
BM-1

6" PVC
INV.=173.95

CB 1005
RIM=178.91

8' X 8' UTILITY BUILDING

PORTION OF BUILDING TO BE DEMOLISHED BY OTHERS

5'X10' CONCRETE PROPANE TANK PAD
4'X6' KITCHEN MAKE-UP AIR UNIT CONCRETE PAD
PAVED ACCESS SIDEWALK
ACCESS SIDEWALK
15'X38' CONCRETE PATIO
APPROXIMATE LIMIT OF DISTURBANCE
6' WIDE STONE DRIP EDGE (1 1/2" STONE)
15'X6' ERU PAD
INSTALL BOLLARDS, TYP. SEE DETAIL
12'X20' GENERATOR PAD
9'X9' TRANSFORMER PAD
12'X12' DUMPSTER CONCRETE PAD (SEE DETAIL)
BUILDINGS DEMOLISHED BY OTHERS
CONCRETE PADS AT ALL ENTRANCES (TYP)
PROPOSED MENS REENTRY CENTER
9,592 S.F.
ADA SIGN (TYP 2)
DIAGONAL PAINT MARKINGS, TYP. (4" SYL)
4" SYL
VEHICULAR PAVEMENT SECTION
PAVEMENT SAWCUT
AREA OF 1.25" MILL AND 1.25" OVERLAY (9.5MM HMA)
ADMINISTRATION BUILDING
TO REMAIN
BUILDING DEMOLISHED BY OTHERS
STORAGE BUILDING
CONVERTED TO LAUNDRY STORAGE
BUILDING 18: DORM 1 & 2
MATCHLINE

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

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

REV	DESCRIPTION	DATE
B	ISSUED FOR ADDENDUM 3	09-02-20
A	ISSUED FOR ADDENDUM 1	08-25-20

ISSUED FOR ADDENDUM 3
09-02-20

CURRENT ISSUE STATUS:

STATE OF MAINE
OWENS A. McCULLOUGH
No. 7122
LICENSED PROFESSIONAL ENGINEER
09-02-2020

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www.smrtinc.com

MDOC - DCF
MEN'S REENTRY CENTER

MACHIASPORT, MAINE

SITE PLAN

SHEET TITLE:

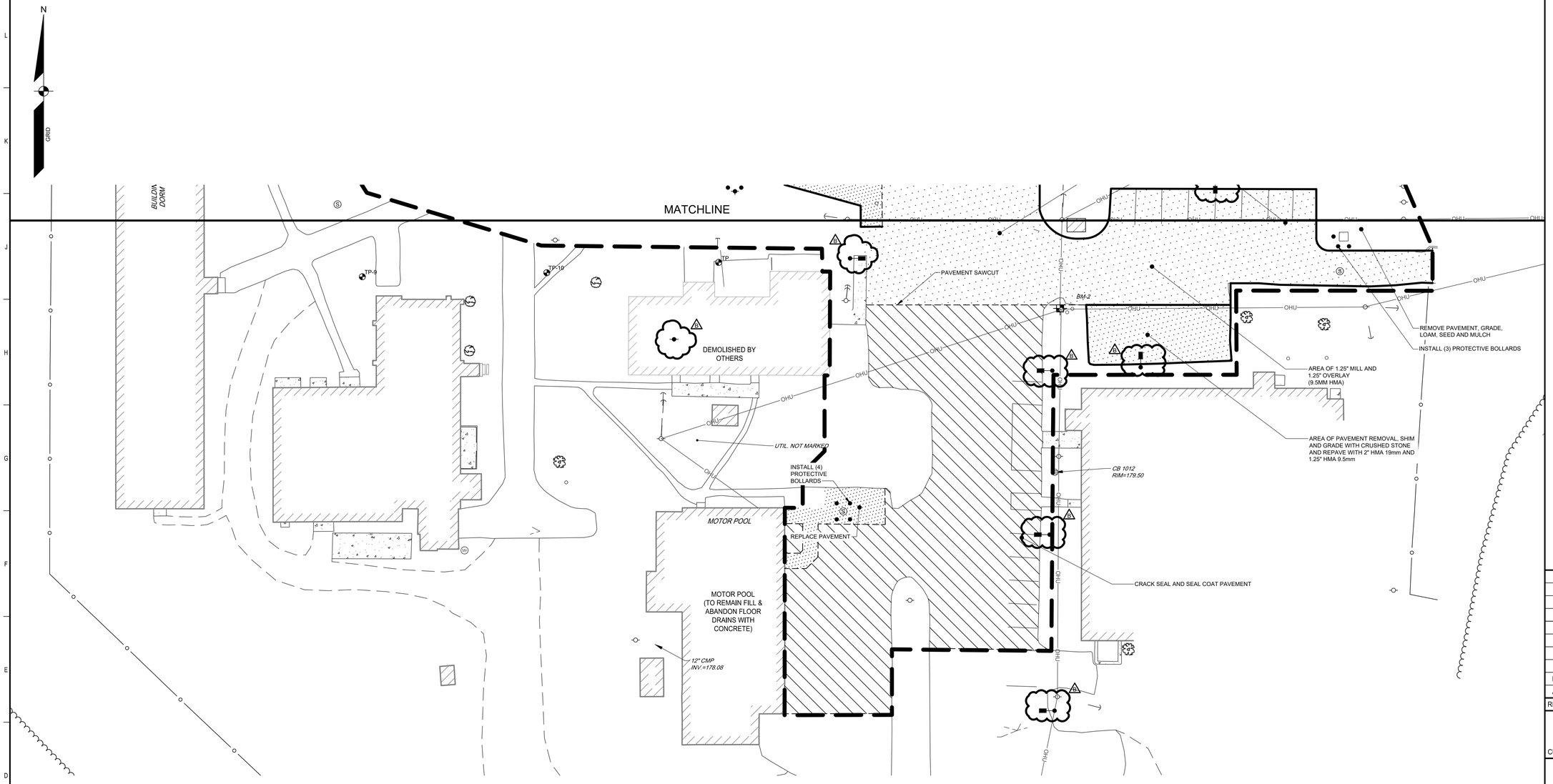
0 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	OAM	PROJECT NO:	19176
A/E OF RECORD:	OAM		
JOB CAPTAIN:	BJB		CE201
DRAWN BY:	MRS		
SMRT FILE:	CE201-17052	SHEET No.	

NOT FOR CONSTRUCTION

24x36



GENERAL NOTES

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2. REFER TO GENERAL NOTES ON PLAN SHEET CE001

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd.
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South Portland, ME 04106
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REV	DESCRIPTION	DATE
B	ISSUED FOR ADDENDUM 3	09-02-20
A	ISSUED FOR ADDENDUM 1	08-25-20

ISSUED FOR ADDENDUM 3
09-02-20

CURRENT ISSUE STATUS:

STATE OF MAINE
OWENS A. McCULLOUGH
No. 7122
LICENSED PROFESSIONAL ENGINEER
09-02-2020

SMRT Architects and Engineers
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Portland, Maine 04101
1.877.700.7678
www.smrtinc.com
Architecture • Engineering • Planning

MDOC - DCF
MEN'S REENTRY CENTER

MACHIASPORT, MAINE

SITE PLAN

SHEET TITLE:

0 1/4" 1/2" 1" 2" 3"
SCALE: AS NOTED

PROJECT MANAGER:	OAM	PROJECT NO:	19176
A/E OF RECORD:	OAM		
JOB CAPTAIN:	BJB		
DRAWN BY:	MRS		
SMRT FILE:	CE202-17052	SHEET No.	CE202

NOT FOR CONSTRUCTION

24x36

N

GRID

(12) OUTLET PRECAST "D" BOX INV. IN: 172.25 INV. OUT: 172.20

(12) OUTLET PRECAST "D" BOX INV. IN: 172.50 INV. OUT: 172.45

(12) OUTLET PRECAST "D" BOX INV. IN: 172.25 INV. OUT: 172.20

RIPRAP OUTLET INV.=170.00

INSTALL EROSION CONTROL BLANKET ACROSS SLOPES STEEPER THAN 3:1 (H:V). TYP.

RIPRAP OUTLET

15" SD INV=173.50

6" PVC INV.=173.95

PLACE 2" RIGID INSULATION 4' WIDE OVER SEWER

8' X 8' UTILITY BUILDING TO HOUSE (4) FUJIMAC 150RII BLOWERS

2 ½" Ø SCHD 40 PVC CONDUIT FOR POWER EXTEND TO ELECTRICAL ROOM @ RE-ENTRY BUILDING

5'X10' CONCRETE PROPANE TANK PAD

4'X6' GAS FIRED KITCHEN MAKE-UP AIR UNIT

1" PROPANE GAS LINE

FOUNDATION DRAIN INV.= 178.00, COORDINATE FOUNDATION DRAIN WITH STRUCTURAL DRAWINGS

15'X38' CONCRETE PATIO

LIMIT OF DISTURBANCE

6' WIDE STONE DRIP EDGE (1 1/2" STONE)

FOUNDATION DRAIN INV.= 179.00, COORDINATE FOUNDATION DRAIN WITH STRUCTURAL DRAWINGS

INSTALL CLEAN-OUT, COORDINATE INVERTS WITH STRUCTURAL DRAWINGS, TYP.

10'X10' ERU PAD

PROPOSED MENS REENTRY CENTER FFE=184.00

FOUNDATION DRAIN INV.= 178.00, COORDINATE FOUNDATION DRAIN WITH STRUCTURAL DRAWINGS

INSTALL INLET PROTECTION, TYP.

NEW HYDRANT PROTECT WITH BOLLARDS

2" BLOWOFF ASSEMBLY AND VALVE

CB-1 WITH BEEHIVE GRATE RIM: 182.60 INV. OUT: 178.45 (SD-1)

SMH 1001 RIM=187.42

BUILDING 18: DORM 1 & 2

FFE=188.99

GRAPHIC SCALE

20 0 10 20 40

(IN FEET) 1 INCH = 20 FT.

MATCHLINE

12'X20' GENERATOR PAD

9'X9' TRANSFORMER PAD

3,000 GALLON GREASE TRAP POLYLOK COMMERCIAL EFFLUENT FILTER (SEE DETAIL) RIM=181.70 INV IN=177.50 INV OUT=177.00

4" DOM

4" FIRE

4" WASTE LINE FROM KITCHEN

4" S INV=180.87

6" S INV=179.68

6" DOMESTIC SEWER

CB-3 RIM: 182.46 INV. OUT: 174.60 (SD-3)

4" WATER LINE

1" WATER LINE

2" BLOWOFF ASSEMBLY AND VALVE

CB-2 RIM: 181.50 INV. IN: 177.20 (SD-1) INV. OUT: 177.10 (SD-2)

INSTALL 8"X4" TAPPING SLEEVE AND VALVE WITH 6" GATE VALVE

MAINTAIN 5.5' OF COVER OVER FM MINIMUM. ADJUST WATER LINE AS NECESSARY TO PROVIDE 1-FOOT SEPARATION. INSTALL 4" INSULATION OVER WATER LINE

ABANDON WATER SERVICE, CUT & CAP

PROVIDE 6' OF COVER FOR ALL SITE WATERMAINS/SERVICES

PROVIDE 4" WATER LINE. REMOVE EXISTING 4" WATER LINE WHERE ENCOUNTERED

POSSIBLE LOCATION OF EXISTING SEWER SERVICE

POSSIBLE BURIED/OBSCURED SMH

SIZE & TYPE OF PIPE UNKNOWN

EXISTING WATER CONTROL PIT

66' X 82' SEPTIC FIELD (BOTTOM OF BED STONE = 171.00) 22 ROWS OF 16 PLASTIC CHAMBERS EQUAL TO ADS BIODIFFUSER (11" STANDARD)

RIPRAP OUTLET INV.=170.00

(12) OUTLET PRECAST "D" BOX INV. IN: 172.25 INV. OUT: 172.20

(12) OUTLET PRECAST "D" BOX INV. IN: 172.50 INV. OUT: 172.45

(12) OUTLET PRECAST "D" BOX INV. IN: 172.25 INV. OUT: 172.20

PLACE 2" RIGID INSULATION 4' WIDE OVER SEWER

SMH-6 FLOW SPLITTER RIM: 178.50 INV. IN: 173.60 (SD-8) INV. OUT: 173.50 (SD-9) INV. OUT: 173.50 (SD-11)

SMH-5 RIM: 178.60 INV. IN: 174.10 (SD-17) INV. OUT: 174.00 (SD-8)

(4) FUJICLEAN CEN21 NITROGEN REDUCTION TANKS INV. IN / OUT: 174.50

(12) OUTLET "D" BOX INV. IN: 174.90 INV. OUT: 174.80

6,000 GALLON FLOW EQUALIZATION TANK INV. OUT: 175.20 INV. IN: 175.70

3,000 GALLON PRIMARY SEPTIC TANK INV. OUT: 175.90 INV. IN: 176.40

5'X10' CONCRETE PROPANE TANK PAD

1" PROPANE GAS LINE

STORAGE BUILDING FFE=182.97

ERP = PAINTED BOLT ON HYDRANT, ELEVATION 182.61

WYE CONNECTION

SMH-4 RIM: 181.20 INV. IN: 176.65 (SS-2)

SMH-3 RIM: 182.30 INV. IN: 177.10 (SS-5) INV. IN: 177.10 (FM-1) INV. OUT: 177.00 (SS-1A)

2" WATER LINE

NEW YARD HYDRANT EQUAL TO "WATTS" HY-600 NON-FREEZE HYDRANT PROTECT WITH (2) BOLLARDS

PRIOR TO ORDERING MANHOLE, EXCAVATE TEST PIT TO LOCATE AND VERIFY BUILDING SEWER ELEVATION

SMH-7 RIM: 182.25 INV. IN: 177.30 (SD-13) INV. OUT: 177.20 (SS-3)

ELECTRICAL MANHOLE, TYP. COORDINATE WITH ELECTRICAL DRAWINGS

INSTALL 1" WATERLINE AND GATE VALVE

PROTECT WOOD RAMP

FFE=185.04 4" SANITARY SEWER MAIN

ADMINISTRATION BUILDING

REMOVE, RESET AND REINSTALL EXISTING WOOD RAMP

FFE=184.99

NOTE: WATER SERVICE LOCATION TO ADMINISTRATION BUILDING UNKNOWN. CONTRACTOR TO UTILIZE LOCATION SERVICE AND CONFIRM AT TIME OF CONSTRUCTION.

FFE=182.99

FFE=182.97

182.90±

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South Portland, ME 04106
Tel. 207-200-2100

REV	DESCRIPTION	DATE
B	ISSUED FOR ADDENDUM 3	09-02-20
A	ISSUED FOR ADDENDUM 1	08-25-20

ISSUED FOR ADDENDUM 3
09-02-20

CURRENT ISSUE STATUS:

STATE OF MAINE — OWENS A. McCULLOUGH No. 7122 — REGISTERED PROFESSIONAL ENGINEER — 09-02-2020

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MDOC - DCF
MEN'S REENTRY CENTER

MACHIASPORT, MAINE

GRADING & UTILITY PLAN

SHEET TITLE:

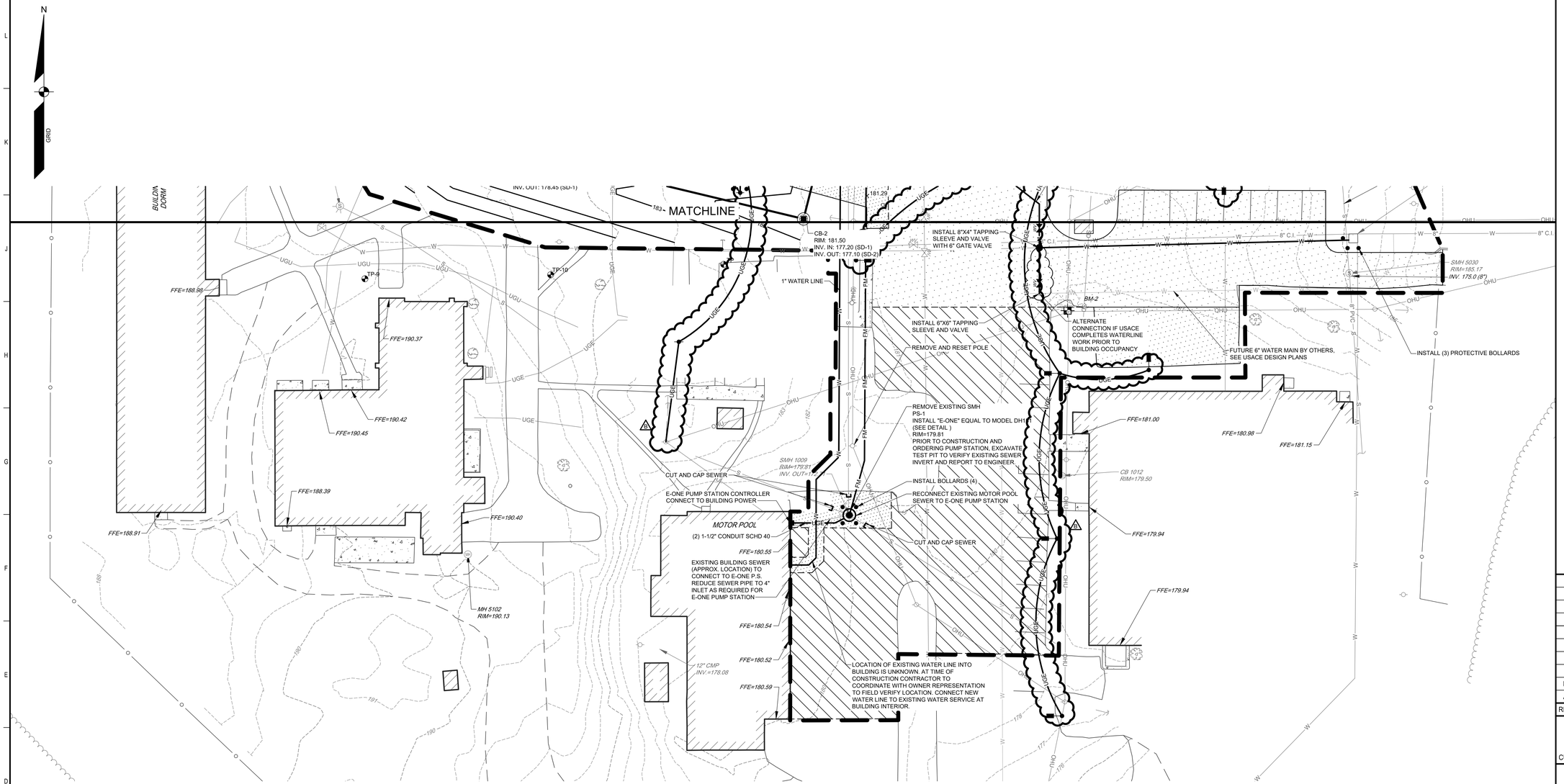
0 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	OAM	PROJECT NO:	19172
A/E OF RECORD:	OAM		
JOB CAPTAIN:	BJB		
DRAWN BY:	MRS		
SMRT FILE:	CE301-17052	SHEET No.	CE301

NOT FOR CONSTRUCTION

24x36



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REV	DESCRIPTION	DATE
B	ISSUED FOR ADDENDUM 3	09-02-20
A	ISSUED FOR ADDENDUM 1	08-25-20

ISSUED FOR ADDENDUM 3
09-02-20

CURRENT ISSUE STATUS:

STATE OF MAINE
OWENS A. MCCULLOUGH
No. 7122
REGISTERED PROFESSIONAL ENGINEER
09-02-2020

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MEN'S REENTRY CENTER

MACHIASPORT, MAINE

GRADING & UTILITY PLAN

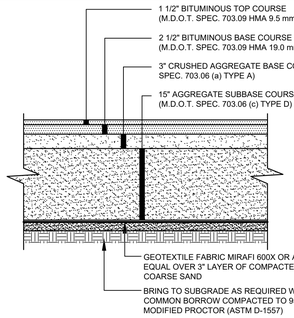
SHEET TITLE:

0 1/4" 1/2" 1" 2" 3"
SCALE: AS NOTED

PROJECT MANAGER:	OAM	PROJECT NO:	19172
A/E OF RECORD:	OAM		
JOB CAPTAIN:	BJB		
DRAWN BY:	MRS		
SMRT FILE:	CE302-17052	SHEET No.	CE302

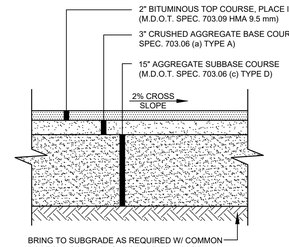
NOT FOR CONSTRUCTION

24x36



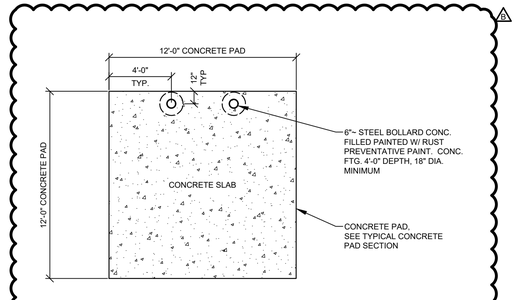
NOTES:
1. COMPACT GRAVEL SUBBASE AND BASE COURSES TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. HOT MIX ASPHALT SURFACE COARSE SHALL BE COMPACTED TO 95% OF ITS THEORETICAL MAXIMUM DENSITY (ASTM D-2041). BASE COARSE SHALL BE COMPACTED TO 95% ∉2.5% OF ITS THEORETICAL MAXIMUM DENSITY (ASTM D-2041).
3. APPLY TACK COAT BETWEEN SUCCESSIVE LIFTS OF BITUMINOUS PAVEMENT.
4. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

VEHICULAR PAVEMENT SECTION
NOT TO SCALE

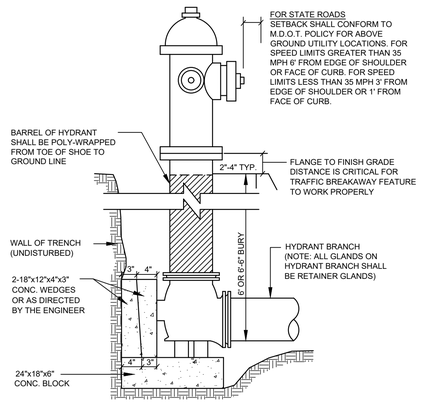


NOTES:
1. COMPACT GRAVEL SUBBASE AND BASE COURSES TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. HOT MIX ASPHALT SURFACE COARSE SHALL BE COMPACTED TO 95% OF ITS THEORETICAL MAXIMUM DENSITY (ASTM D-2041). BASE COARSE SHALL BE COMPACTED TO 95% ∉2.5% OF ITS THEORETICAL MAXIMUM DENSITY (ASTM D-2041).
3. APPLY TACK COAT BETWEEN SUCCESSIVE LIFTS OF BITUMINOUS PAVEMENT.
4. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

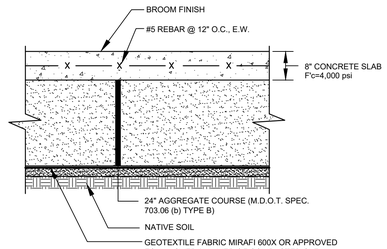
PEDESTRIAN (WALKWAY) PAVEMENT
NOT TO SCALE



DUMPSTER PAD DETAIL
NOT TO SCALE

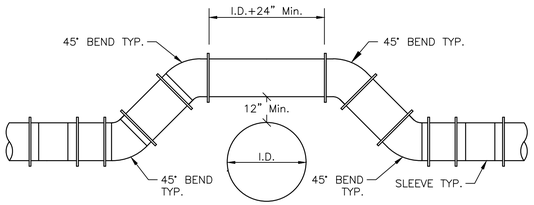


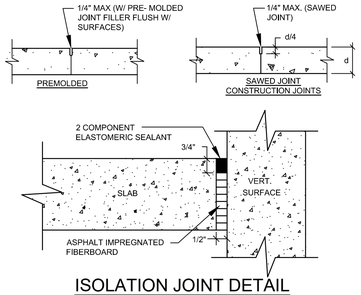
TYPICAL HYDRANT INSTALLATION
NOT TO SCALE



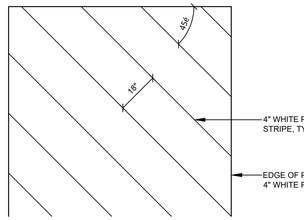
NOTE:
1. PROVIDE CONTRACTION CONTROL JOINTS EVERY 10'-0" IN EACH DIRECTION.
2. COAT CONCRETE WITH SILOXANE WATER PENETRATING SEALANT

TYPICAL CONCRETE PAD SECTION
NOT TO SCALE

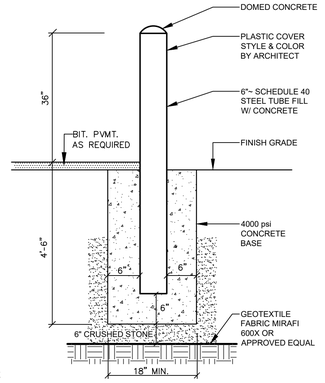




ISOLATION JOINT DETAIL
NOT TO SCALE

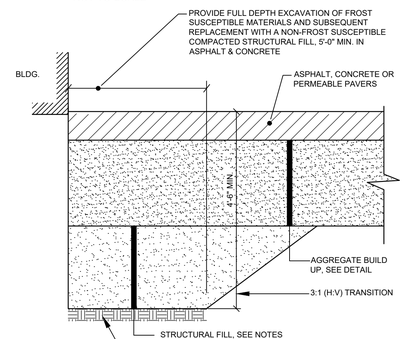


DIAGONAL PAINT MARKINGS
NOT TO SCALE



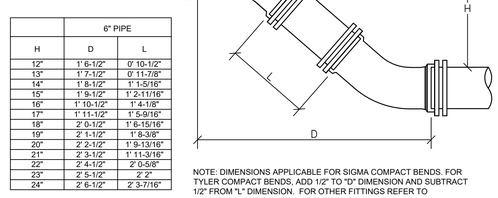
NOTES:
1. BOLLARD SHALL BE: 36, HEIGHT, STEEL WITH PLASTIC COVER WITH REFLECTIVE STRIP. STYLE AND COLOR BY ARCHITECT.

METAL BOLLARD
NOT TO SCALE



NOTE:
SEE PAVEMENT SECTION DETAILS FOR PAVEMENT AND GRAVEL DEPTHS.

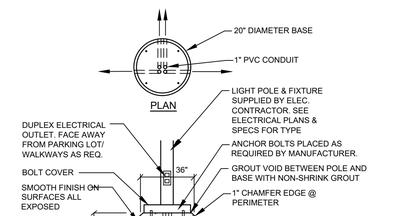
TYPICAL PAVEMENT JOINT
NOT TO SCALE



	6" PIPE	
H	D	L
12"	1' 6-1/2"	0' 10-1/2"
13"	1' 7-1/2"	0' 11-7/8"
14"	1' 8-1/2"	1' 1-5/16"
15"	1' 9-1/2"	1' 2-1/16"
16"	1' 10-1/2"	1' 4-1/8"
17"	1' 11-1/2"	1' 5-9/16"
18"	2' 0-1/2"	1' 6-15/16"
19"	2' 1-1/2"	1' 8-3/8"
20"	2' 2-1/2"	1' 9-13/16"
21"	2' 3-1/2"	1' 11-3/16"
22"	2' 4-1/2"	2' 0-5/8"
23"	2' 5-1/2"	2' 2"
24"	2' 6-1/2"	2' 3-7/16"

NOTE: DIMENSIONS APPLICABLE FOR SIGMA COMPACT BENDS. FOR TYLER COMPACT BENDS, ADD 1/2" TO "D" DIMENSION AND SUBTRACT 1/2" FROM "L" DIMENSION. FOR OTHER FITTINGS REFER TO MANUFACTURER'S RECOMMENDATIONS.

TYPICAL MAIN OFFSET DETAIL
NOT TO SCALE

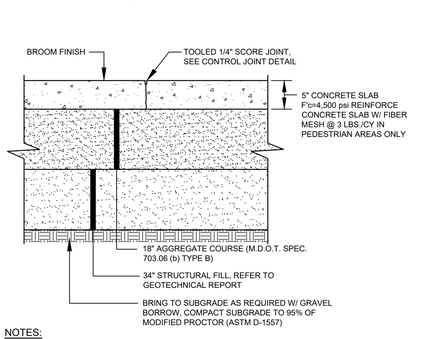


NOTES:
1. CONCRETE F'c=5000 psi. @ 28 DAYS WITH STEEL REINFORCEMENT
2. CONDUIT AND ANCHOR BOLTS PLACED AS REQUIRED PROVIDED BY ELECTRICAL CONTRACTOR
3. PROVIDE 2 COATS BITUMINOUS DAMPROOFING FOR ALL CONCRETE BELOW GRADE.
4. INSTALL BASE 3'-0" ABOVE FINISH GRADE IN LOCATIONS WHERE POLES ARE IN PARKING LOT PAVEMENT.
5. LIGHT POLE BASE AS MANUFACTURED BY SUPERIOR CONCRETE OR APPROVED EQUAL.
6. 18" HEIGHT IN LANDSCAPE AREAS WHEN LIGHT POLE BASE IS 3-FT. OR MORE FROM PAVED AREAS. (COORDINATE LOCATIONS WITH ELECTRICAL DRAWINGS.)
7. 30" IN PAVED AREAS AND LANDSCAPED AREAS WHERE LIGHT POLE BASE IS WITHIN 3-FT. OF PAVED AREAS. (COORDINATE LOCATIONS WITH ELECTRICAL DRAWINGS.)

LIGHT POLE BASE HEIGHT
NOT TO SCALE

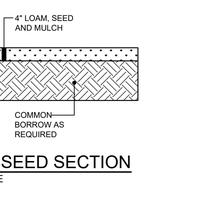
NOTES:
1. REFER TO DETAILS FOR PAVEMENT AND CONCRETE.
2. PROVIDE FULL DEPTH EXCAVATION OF FROST SUSCEPTIBLE MATERIALS AND SUBSEQUENT REPLACEMENT WITH A NON-FROST SUSCEPTIBLE COMPACTED STRUCTURAL FILL. STRUCTURAL FILL DEPTH SHALL BE MIN. 4.5' FROM FINISHED GRADE. REFER TO GEOTECHNICAL REPORT.

PAVEMENT SECTION @ BUILDING
NOT TO SCALE

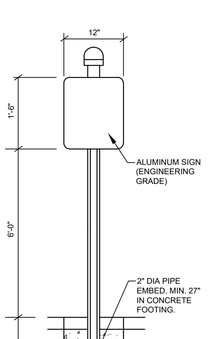


NOTES:
1. CONCRETE SHALL BE 4,500 PSI COMPRESSIVE, 500 PSI FLEXURAL, 1½" AGGREGATE, WITH 6% (±1%) AIR ENTRAINMENT.
2. PROVIDE CONTRACTION CONTROL JOINTS PER CONTROL JOINT DETAIL.
3. INSTALL SAWCUT JOINTS FOR CONTRACTION CONTROL AT 6' INTERVALS ALONG SIDEWALK. FOR OTHER AREAS, SEE SITE PLAN FOR SAWCUT JOINTS. COAT ALL CONCRETE WITH SILOXANE WATER PENETRATING SEALANT.
4. PROVIDE FULL DEPTH EXCAVATION OF FROST SUSCEPTIBLE MATERIALS AND SUBSEQUENT REPLACEMENT WITH A NON-FROST SUSCEPTIBLE COMPACTED STRUCTURAL FILL. REFER TO GEOTECHNICAL REPORT.

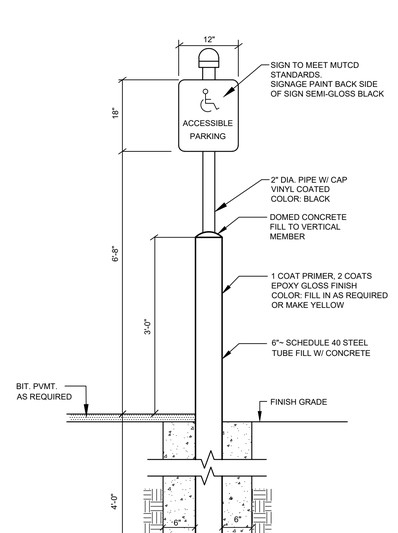
CONCRETE SECTION (PEDESTRIAN AREAS)
NOT TO SCALE



LOAM & SEED SECTION
NOT TO SCALE



TYPICAL SIGN DETAIL
NOT TO SCALE



ACCESSIBLE SIGNS IN METAL BOLLARD
NOT TO SCALE

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REV	DESCRIPTION	DATE
B	ISSUED FOR ADDENDUM 3	09-02-20
A	ISSUED FOR ADDENDUM 1	08-25-20

ISSUED FOR ADDENDUM 3
09-02-20

CURRENT ISSUE STATUS:

STATE OF MAINE
OWENS A. McCULLOUGH
No. 7122
REGISTERED LANDSCAPE ARCHITECT
09-02-2020

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MEN'S REENTRY CENTER

MACHIASPORT, MAINE

CIVIL DETAILS

SHEET TITLE:

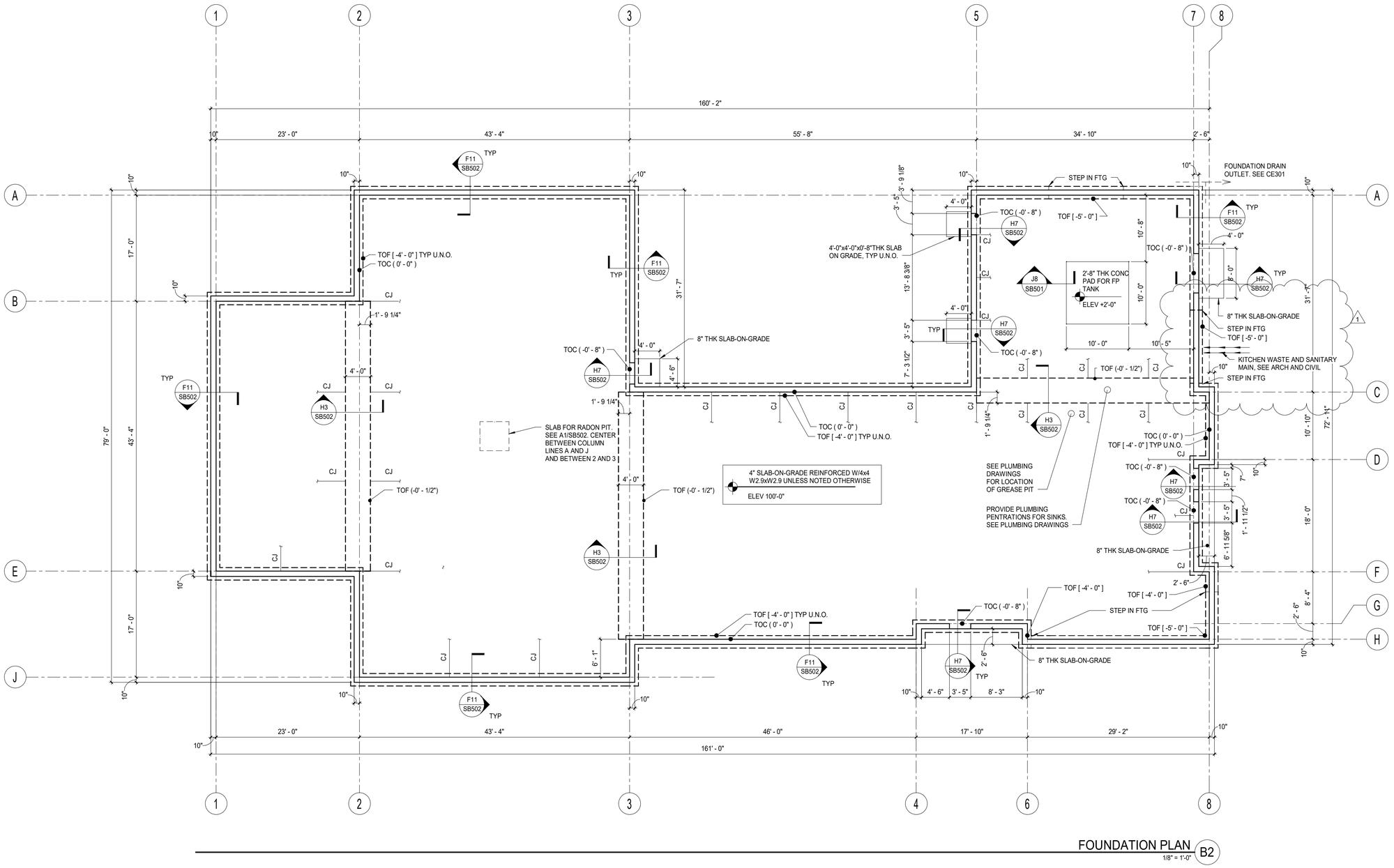
0 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	OAM	PROJECT NO:	17052
A/E OF RECORD:	OAM		
JOB CAPTAIN:	BJB		
DRAWN BY:	MRS		
SMRT FILE:	CE604-17052	SHEET No.	CE604

NOT FOR CONSTRUCTION

24x36



FOUNDATION PLAN

1/8" = 1'-0" B2

FOUNDATION NOTES:

1. TOP OF CONCRETE ELEVATION = 100' - 0" (FINISH CONCRETE SLAB ELEVATION), UNLESS NOTED (+/- 0' - 0") FROM THIS ELEVATION.
2. TOP OF FOOTING ELEVATION IS INDICATED TOF [X'-X"].
3. TOP OF CONCRETE WALL ELEVATION IS INDICATED TOC (X' - 0").
4. COORDINATE PENETRATIONS THROUGH FOUNDATION WALLS WITH PLUMBING, ELECTRICAL, AND SITE DRAWINGS.
5. REFER TO SITE DRAWINGS FOR PERIMETER FOUNDATION DRAIN INFORMATION.
6. "CJ" REFERS TO CONTROL OR CONSTRUCTION JOINTS

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM #3
9-2-20

CURRENT ISSUE STATUS:

PROJECT NORTH:

STATE OF MAINE BRIAN T STEELE 15525 REGISTERED PROFESSIONAL ENGINEER
8-14-2020

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MDOC - DCF
MEN'S REENTRY CENTER

MAINE

FOUNDATION PLAN

SHEET TITLE:

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	BTS		
JOB CAPTAIN:	CBM		
DRAWN BY:	CJD		
SMRT FILE:	SB101-19176	SHEET No.	SB101

24x36

CONCRETE REINFORCING SPLICE LENGTHS:

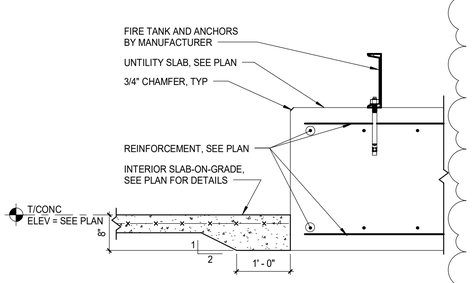
WHERE LAP SPLICE LENGTHS FOR REINFORCING STEEL ARE NOT SPECIFIED, PROVIDE SPLICE LENGTHS IN ACCORDANCE W/ THE FOLLOWING:

BAR SIZE	3000 PSI				4000 PSI				4500 PSI			
	0.75" <= CONCRETE COVER < 2.0"		CONCRETE COVER >= 2.0"		0.75" <= CONCRETE COVER < 2.0"		CONCRETE COVER >= 2.0"		0.75" <= CONCRETE COVER < 2.0"		CONCRETE COVER >= 2.0"	
	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	32"	25"	21"	16"	28"	21"	18"	14"	26"	20"	17"	16"
#4	43"	33"	29"	22"	37"	28"	25"	19"	35"	27"	23"	18"
#5	53"	41"	36"	27"	46"	36"	31"	24"	44"	34"	30"	22"
#6	64"	49"	43"	33"	55"	43"	37"	28"	52"	40"	35"	27"
#7	93"	72"	62"	48"	81"	62"	54"	42"	77"	59"	51"	39"
#8	107"	82"	71"	55"	92"	71"	62"	47"	87"	67"	58"	45"
#9	120"	93"	73"	62"	104"	80"	69"	53"	98"	75"	65"	50"
#10	135"	105"	90"	70"	116"	89"	77"	59"	111"	85"	74"	57"

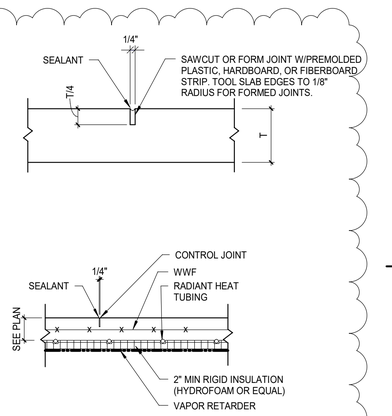
NOTES:

1. "TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
2. TABLE ASSUMPTIONS:
   A. NORMAL WEIGHT CONCRETE
   B. UNCOATED REINFORCING
   C. CLEAR SPACE BETWEEN BARS IS TWICE BAR DIAMETER OR LARGER

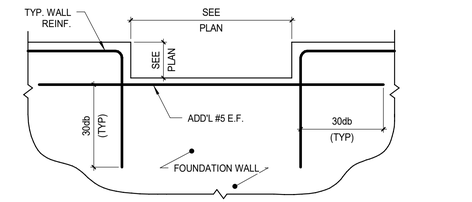
SPLICE LENGTH TABLES H11
3/4" = 1'-0"



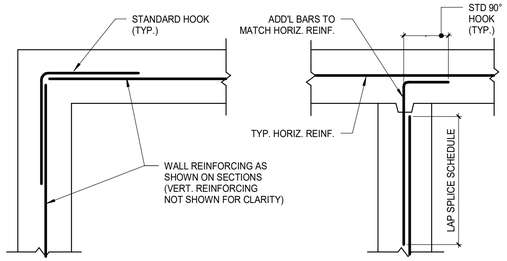
SECTION J8
3/4" = 1'-0"



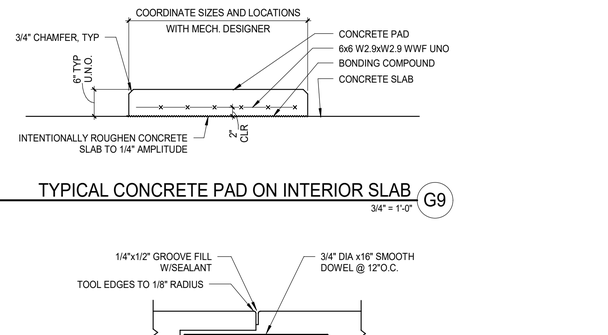
TYPICAL SLAB-ON-GRADE CONTROL JOINT G5
3/4" = 1'-0"



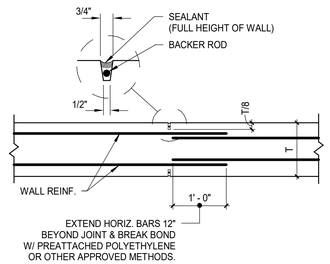
TYPICAL STEP IN TOP OF FOUNDATION WALL K1
3/4" = 1'-0"



TYPICAL WALL CORNER INTERSECTING REINFORCING G1
3/4" = 1'-0"

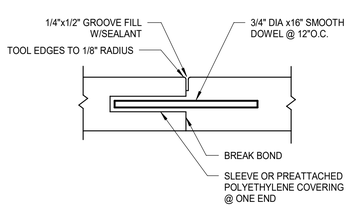


TYPICAL CONCRETE PAD ON INTERIOR SLAB G9
3/4" = 1'-0"

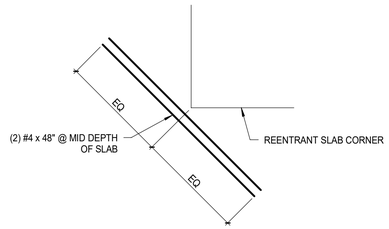


NOTES:
1. MAX SPACING BETWEEN JOINTS SHALL BE 30'-0"
2. MAX DISTANCE FROM BUILDING CORNER TO JOINT SHALL BE 15'-0"
3. CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR CONTROL JOINTS AT CONTRACTOR'S OPTION.

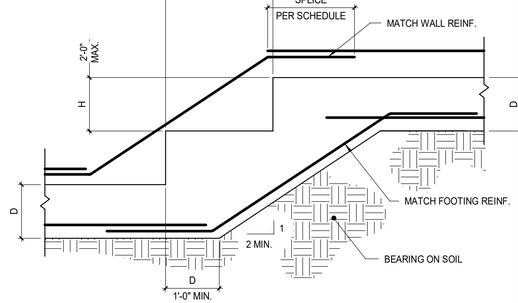
TYPICAL CONTROL JOINT IN WALL E12
3/4" = 1'-0"



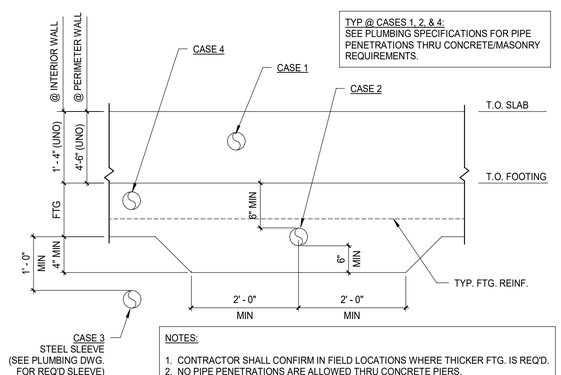
TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT E9
3/4" = 1'-0"



TYPICAL REENTRANT SLAB REINFORCEMENT DETAIL D5
3/4" = 1'-0"



TYPICAL STEPPED FOOTING D1
3/4" = 1'-0"



TYP @ CASES 1, 2, & 4:
SEE PLUMBING SPECIFICATIONS FOR PIPE PENETRATIONS THRU CONCRETE/MASONRY REQUIREMENTS.

NOTES:
1. CONTRACTOR SHALL CONFIRM IN FIELD LOCATIONS WHERE THICKER FTG. IS REQ'D.
2. NO PIPE PENETRATIONS ARE ALLOWED THRU CONCRETE PIERS.
3. REFER TO ELECTRICAL DWG FOR ELEC CONDUIT PENETRATION DETAIL

PIPE LOCATION CASES:

CASE 1 - PIPE ABOVE FOOTING:
SEE DETAIL A1/SB501 FOR TYPICAL FOUNDATION WALL REINFORCING.

CASE 1A
INDIVIDUAL PIPES W/ D < 12" SHALL BE INSTALLED W/ 8" MIN GAPS BETWEEN PIPES - HORIZONTAL AND VERTICAL.

CASE 1B
MULTIPLE PIPES GROUPED TOGETHER CAN BE INSTALLED IN SINGLE BONDOUT: 18"x18" MAX W/ A MIN OF 18" OF CONCRETE ABOVE THE BONDOUT. MULTIPLE 18"x18" BONDOUTS MAY BE INSTALLED W/ A MIN 24" OF CONCRETE BETWEEN THEM.

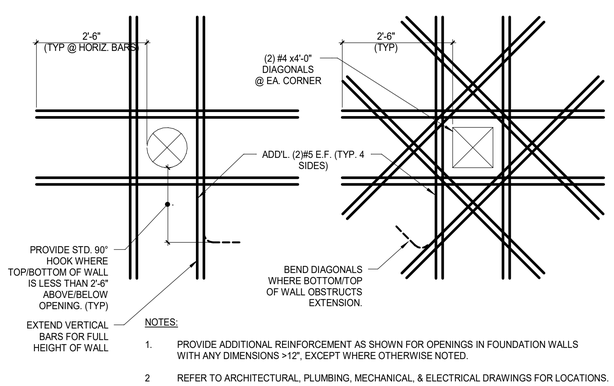
CASE 1C
IF THE REQUIRED BONDOUT DOES NOT MEET CRITERIAL IN CASE 1B ABOVE, SUBMIT THE PROPOSED BONDOUT TO SER FOR REVIEW PRIOR TO CONSTRUCTION.

CASE 2 - PIPE AT BOT OF FOOTING:
THICKEN FOOTING AS SHOWN ON DETAIL.

CASE 3 - PIPE BELOW FOOTING:
NO MODIFICATION TO FOOTING REQIRED UNLESS SHOWN OTHERWISE ON FDN PLAN.

CASE 4 - PIPE LOCATED AT, OR NEAR, FOOTING AND NOT MEETING CRITERIA FOR CASE 2 OR 3:
STEP FOOTING SO THE PIPE IS LOCATED ABOVE THE TOP OF THE FOOTING. APPROX LOCATIONS ARE SHOWN ON FDN PLAN.

CONSTRUCTION GUIDELINES - WALL FOOTING AT PIPE PENETRATION A1
3/4" = 1'-0"



NOTES:
1. PROVIDE ADDITIONAL REINFORCEMENT AS SHOWN FOR OPENINGS IN FOUNDATION WALLS WITH ANY DIMENSIONS >12", EXCEPT WHERE OTHERWISE NOTED.
2. REFER TO ARCHITECTURAL, PLUMBING, MECHANICAL, & ELECTRICAL DRAWINGS FOR LOCATIONS.
3. PROVIDE ONE LAYER OF ADDITIONAL REINFORCEMENT AT WALLS LESS THAN 10" THICK. PROVIDE 2 LAYERS AT WALLS 10" AND THICKER.

TYPICAL REINFORCED OPENING IN FOUNDATION WALL OR SLAB A11
3/4" = 1'-0"

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM #3
9-2-20

CURRENT ISSUE STATUS:

STATE OF MAINE
BRIAN T. STEELE
15525
PROFESSIONAL ENGINEER
8-14-2020

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MAINE

FOUNDATION DETAILS

SHEET TITLE:

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	BTS		
JOB CAPTAIN:	CBM	SB501	
DRAWN BY:	CJD		
SMRT FILE:	SB501-19176	SHEET No.	

DOOR SCHEDULE

DOOR NUMBER	DOOR						FRAME						NOTES			DOOR NUMBER
	WIDTH	HEIGHT	THICKNESS	LEAF TYPE	MATERIAL	GLAZING	TYPE	MATERIAL	HEAD DTL	JAMB DTL	SILL DTL	GLASS	HARDWARE	FIRE RATING	REMARKS	
100	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F3	HM	A13/AE601	A11/AE601	-	TEMP	10	-		100
101	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	8	-		101
102	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	8	-		102
103	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	8	-		103
104	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	8	-		104
105	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	8	-		105
106	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	8	-		106
110	3' - 0"	7' - 0"	1 3/4"	HG	WD	-	F1	HM	A13/AE601	A11/AE601	-	TEMP	10	45		110
111	3' - 0"	7' - 0"	1 3/4"	HG	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	6	-		111
112	3' - 0"	7' - 0"	1 3/4"	HG	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	6a	-	CARD READER	112
113	3' - 0"	7' - 0"	1 3/4"	HG2	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	7	-		113
114	3' - 0"	7' - 0"	1 3/4"	HG2	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	4	-	CARD READER	114
115	3' - 0"	7' - 0"	1 3/4"	HG2	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	7	-		115
116	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	9	-		116
117A	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	TEMP	4	-	CARD READER	117A
117B	3' - 0"	7' - 0"	1 3/4"	HG2	ALUM	INSUL/TEMP	F1	AL	H6/AE602	E6/AE602	-	-	1	-	CARD READER	117B
118	3' - 0"	7' - 0"	1 3/4"	HG	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	4	-	CARD READER	118
120	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	15	-		120
121	3' - 0"	7' - 0"	1 3/4"	HG2	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	4	-	CARD READER	121
122	3' - 0"	7' - 0"	1 3/4"	HG2	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	4	-	CARD READER	122
123	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	11	-	CARD READER	123
124	3' - 0"	7' - 0"	1 3/4"	HG2	ALUM	TEMP	F1	AL	H6/AE602	E6/AE602	-	-	3	-	CARD READER	124
130A	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	4	-	CARD READER	130A
130B	3' - 0"	7' - 0"	1 3/4"	HG2	ALUM	TEMP	F1	AL	H6/AE602	E6/AE602	-	-	3	-	CARD READER	130B
131	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	5	-		131
132	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	5	-		132
133A	3' - 0"	7' - 0"	1 3/4"	HG	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	10	-		133A
133B	3' - 0"	7' - 0"	1 3/4"	HG2	ALUM	TEMP	F1	AL	H6/AE602	E6/AE602	-	-	3	-	CARD READER	133B
134	3' - 0"	7' - 0"	1 3/4"	HG2	WD	TEMP	F1	HM	A13/AE601	A11/AE601	-	-	4	-	CARD READER	134
135	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	9	-		135
136	3' - 0"	7' - 0"	1 3/4"	HG	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	4a	-	CARD READER	136
137	3' - 0"	7' - 0"	1 3/4"	HG	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	6	-		137
140	3' - 0"	7' - 0"	1 3/4"	F	INSUL HM	-	F1	HM	H11/AE602	E11/AE602	-	-	13	45		140
141	3' - 0"	7' - 0"	1 3/4"	F	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	14	45		141
142	3' - 0"	7' - 0"	1 3/4"	F	INSUL HM	-	F1	HM	H11/AE602	E11/AE602	-	-	13	-		142
143	6' - 0"	7' - 0"	1 3/4"	F,F	INSUL HM	-	F1	HM	H11/AE602	E11/AE602	-	-	12	45		143
144	3' - 0"	7' - 0"	1 3/4"	HG	WD	-	F1	HM	A13/AE601	A11/AE601	-	-	6	-		144

DOOR NOTES:

1. ALL SWINGING DOORS TO BE 1 3/4" THICK UNLESS NOTED OTHERWISE.
2. ALL DOORS SHALL BE 3/4" UNDERCUT (TYPICAL) EXCEPT WHEN THERE IS A BOTTOM FRAME/THRESHOLD OR SPECIFICALLY NOTED OTHERWISE.
3. ALL DOORS WITH BOTTOM FRAMES OR SILL THRESHOLDS SHALL HAVE MANUFACTURERS RECOMMENDED STANDARD UNDERCUT.
4. GLAZING NOTED ON DOOR SCHEDULE IS FOR THE DOOR AND BORROWED LIGHT IN THE FRAME TYPICAL.
5. SEE SPECIFICATIONS FOR GLAZING TYPES AND INFORMATION.
6. GLAZING TO BE FREE OF STAMPS, MARKINGS, ETC. UNLESS REQUIRED BY CODE TO IDENTIFY A RATING.
7. GLAZING STOPS ON BORROWED LIGHTS SHALL BE LOCATED ON THE ROOM SIDE OF FRAME. BUTT JOINT ALL GLAZING STOP TIGHT TO FRAME FOR A CLEAN, FINISHED APPEARANCE.
8. CAULK PERIMETER OF DOOR AND WINDOW FRAMES TO THE WALL. MATCH FRAME COLOR.
9. CAULK EDGES AND VOIDS ALONG WINDOW STOPS OF HOLLOW METAL FRAMES PRIOR TO PAINTING TO PROVIDE A CLEAN FINISHED APPEARANCE.
10. ALL LABELS ON RATED DOORS TO BE FREE OF PAINT AND CLEARLY VISIBLE UPON INSPECTION.

DOOR ABBREVIATIONS:

AL	ALUMINUM
FG	FIBERGLASS
HM	HOLLOW METAL
IN	INSULATED
SF	STOREFRONT
SS	STAINLESS STEEL
TEMP	TEMPERED GLASS
WIRE	WIRED GLASS

DOOR HARDWARE TYPES:

1. CLASSROOM
LOCKABLE FROM OUTSIDE,
ALWAYS UNLOCKED FROM INSIDE.

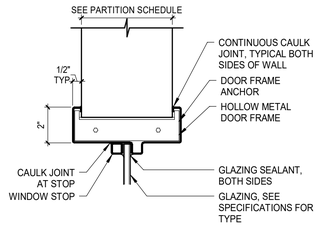
2. PASSAGE
NO LOCKS

3. PRIVACY
LOCKABLE FROM INSIDE,
EMERGENCY UNLOCKABLE FROM OUTSIDE

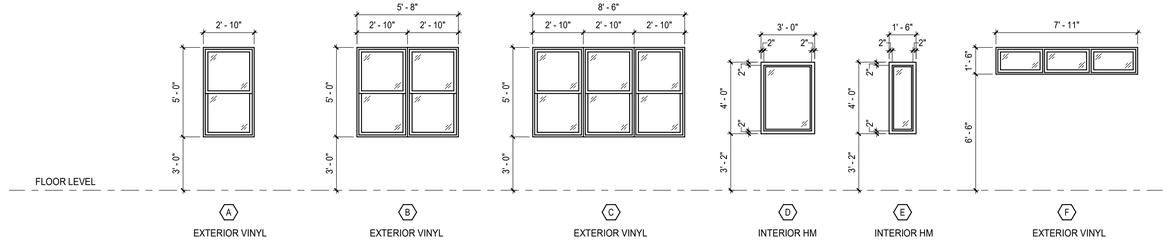
4. EGRESS
LOCKABLE FROM INSIDE LIMITING INGRESS,
NOT LOCKABLE TO EGRESS,
ALARMED.

5. OFFICE / STORAGE
ALWAYS LOCKED FROM OUTSIDE,
KEYED ACCESS,
ALWAYS UNLOCKED FROM INSIDE.

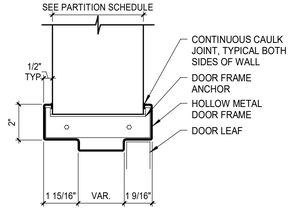
6. HOLDING
LOCKABLE FROM OUTSIDE NOT PERMITTING EGRESS FROM WITHIN.



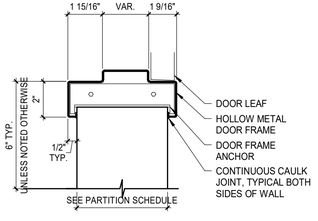
WINDOW HEAD DETAIL C11
3" = 1'-0"



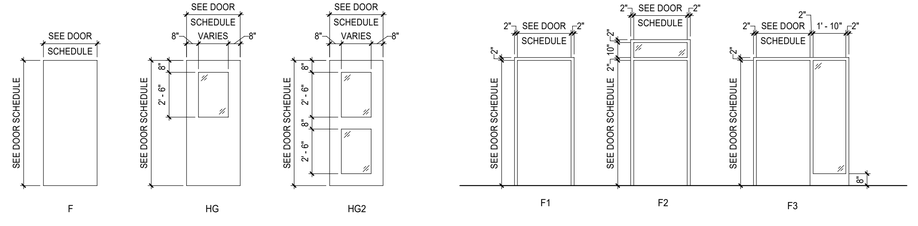
ELEV_WINDOW FRAMES C1
1/4" = 1'-0"



DOOR HEAD DETAIL A13
3" = 1'-0"



DOOR JAMB DETAIL A11
3" = 1'-0"



ELEV_DOOR LEAVES A4
1/4" = 1'-0"

ELEV_DOOR FRAMES A1
1/4" = 1'-0"

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCITON	08-14-20

ADDENDUM #3
9-2-20

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MACHIASPORT, MAINE

DOOR AND WINDOW SCHEDULES

SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	JGJ		
JOB CAPTAIN:	CBM		
DRAWN BY:	CAH/CBM		
SMRT FILE:	AE601-19176	SHEET No.	AE601

24x36

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S1 Food Service
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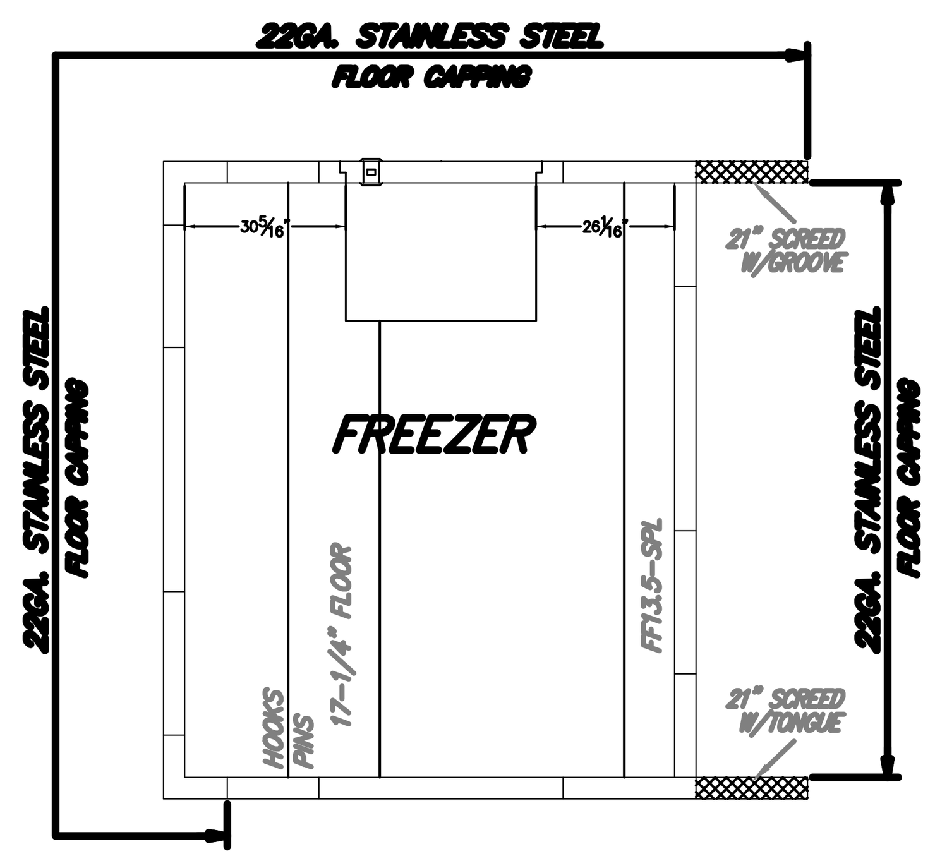
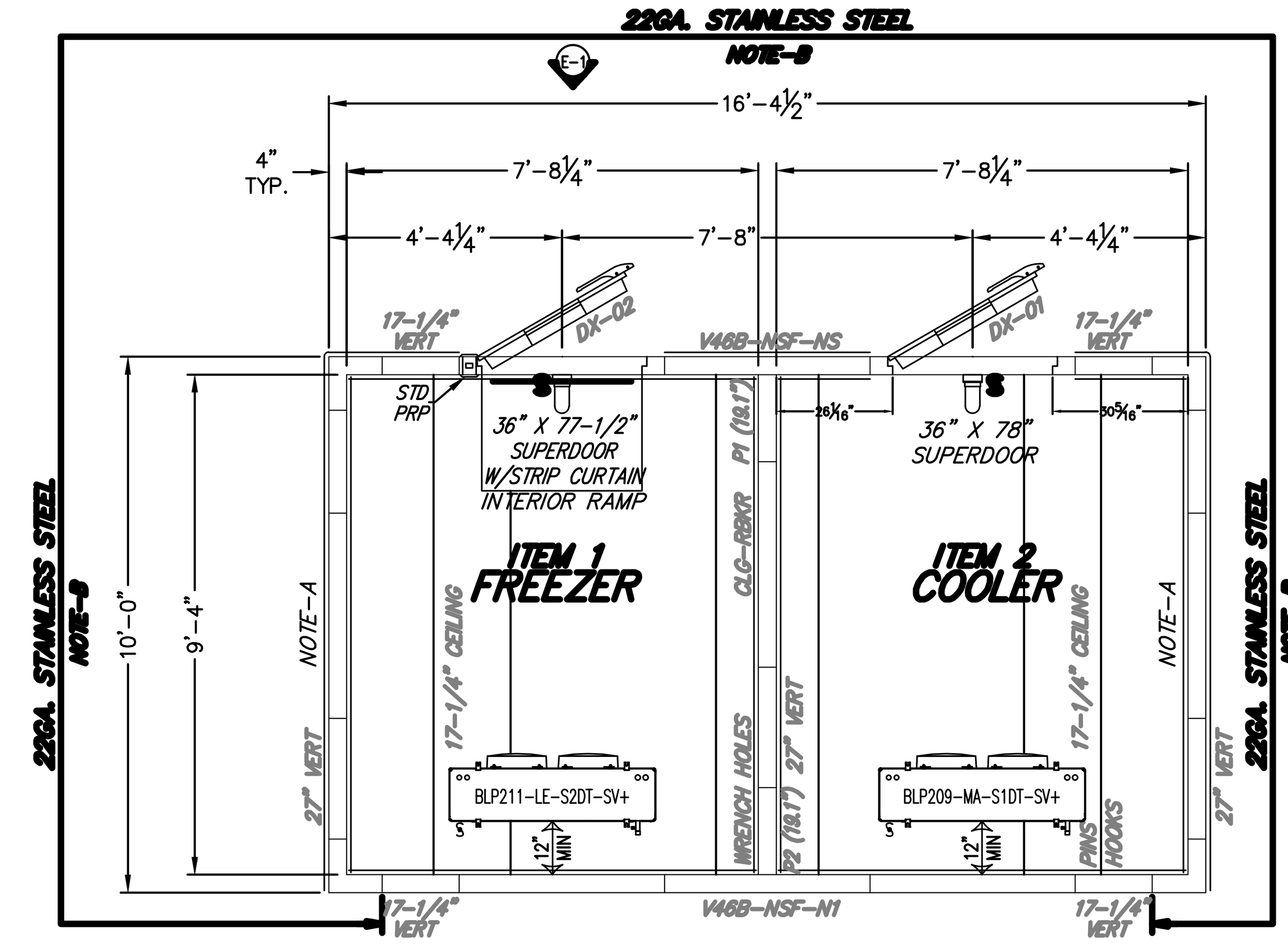


— FLOOR PANEL LAYOUT —



— VERTICAL & CEILING PANEL LAYOUT —

— PLAN VIEW A —

SCALE: 3/8" = 1' - 0"

SPECIFICATIONS

16'-4 1/2" X 10'-0" X 7'-6"
(W/FLOOR; L/FLOOR, EXTENDED HEIGHT)

INSTALLATION

- INDOOR
- LOADING HEIGHT – AT LEAST 12" OF OPEN SPACE MUST BE MAINTAINED BETWEEN TOP OF PRODUCT AND CEILING PANELS

INSULATION

- POURED IN-PLACE POLYURETHANE FOAM
- BALLY PANELS AND DOORS ARE CERTIFIED COMPLIANT WITH CURRENT FEDERAL DOE REGULATIONS FOR WALK IN COOLERS & FREEZERS
- BALLY PANELS AND DOORS EXCEED MINIMUM R-VALUES* FOR COOLERS (MINIMUM R-25, EXCLUDING FLOORS), AND FREEZERS (MIN. R-32, EXCEPT FLOORS, WHICH ARE MIN. R-28)
*WHEN TESTED PER ASTM C518 TO FEDERAL REG. 431.304

EXTERIOR FINISH

- 22GA. STAINLESS STEEL AS SHOWN
- EMBOSSED GALVALUME REMAINDER

INTERIOR FINISH

- SMOOTH WHITE ALUMINUM CEILING
- 22GA. STAINLESS STEEL

FLOOR FINISH (FREEZER)

- (INTERIOR) 1/8" ALUMINUM DIAMOND TREAD
- (EXTERIOR) EMBOSSED GALVALUME

DOORS/ACCESSORIES

- (1) 36" X 78" RIGHT SWING HINGED WALK-IN DOOR
- (1) 36" X 77-1/2" RIGHT SWING HINGED WALK-IN DOOR
  - POLISHED HARDWARE
  - LOCKING BAR
  - SUPERDOOR: 3RD HINGE, DT INT & EXT 48"H
  - PRP
  - STRIP CURTAIN (DX-01)
  - MODULARM 75LC W/ MAGNETIC CONTACTS, PANIC BUTTON
  - ADT INTERIOR RAMP
  - 14" x 14" HEATED OBSERVATION WINDOW
  - EXTERIOR CROSSOVER CORD

REFRIGERATION – BY BALLY (CONDENSING UNIT MOUNTED OUTDOORS)

QTY	H/P	RFGT TYPE	MODEL NUMBER	POWER SUPPLY	COMPRESSOR RLA	COMPRESSOR LRA	FAN MTRS QTY	FAN MTRS HP	FAN MTRS FLA	TOTAL WATTS DEFROST	AMPS	MCA	MAX FUSE	CMPT
1	.75	R448A	BEZA007-H8-HT3DB	208-230/3/60	4.8	37.8	1		0.5		5.8	7.0	15	C
1			BLP209MA-S1DT-SV+	115/1/60			2	1/15	2.0		2.0	2.3	15	C
1	2.5	R448A	BEZA025-L8-HT3DB	208-230/3/60	9.6	63	1		1.1		10.7	13.1	20	F
1			BLP211LE-S2DT-SV+	208-230/1/60			2	1/15	0.6	1890	8.2	10.3	15	F

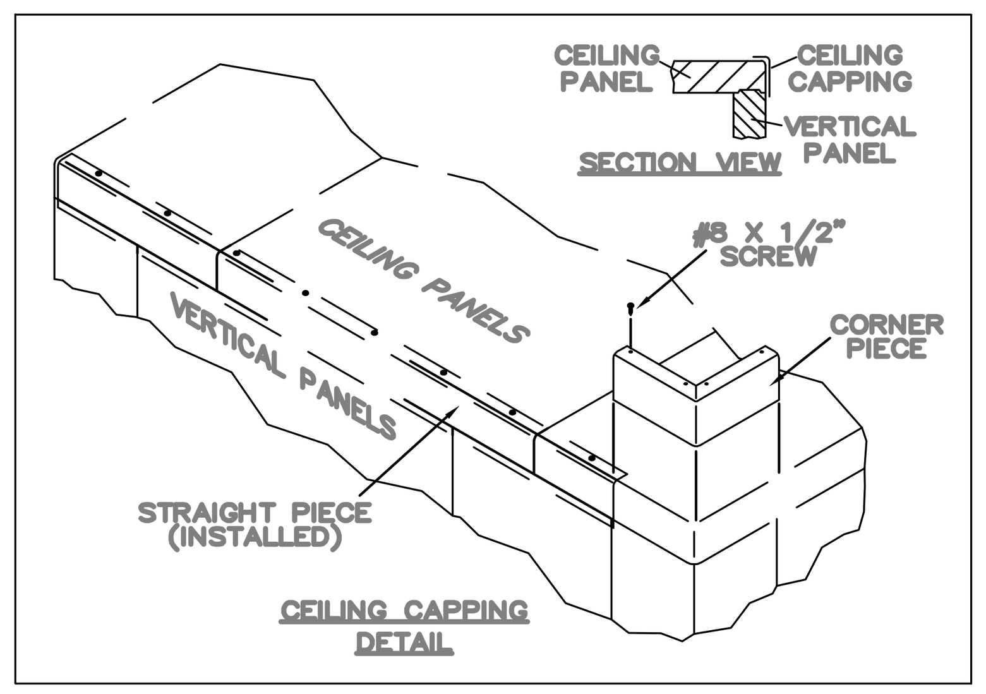
- ALL CONDENSATION DRAIN LINES MUST BE SLOPED AT LEAST 1:12. 1" 12" — INSTALLATION BY OTHERS
- FREEZER CONDENSATION DRAIN LINES MUST BE HEATED, INSULATED AND TRAPPED INDIVIDUALLY.
- ALL SPECIFICATIONS LISTED ABOVE ARE FOR INDIVIDUAL UNITS ONLY.

- (2) HEATED & INSULATED RECEIVERS FOR CONDENSING UNITS

NOTE
SMARTVAP+ REFRIGERATION REQUIRES TWO SEPARATE POWER SOURCES; ONE TO THE CONDENSING UNIT AND ONE TO THE SMARTVAP+ EVAPORATOR.

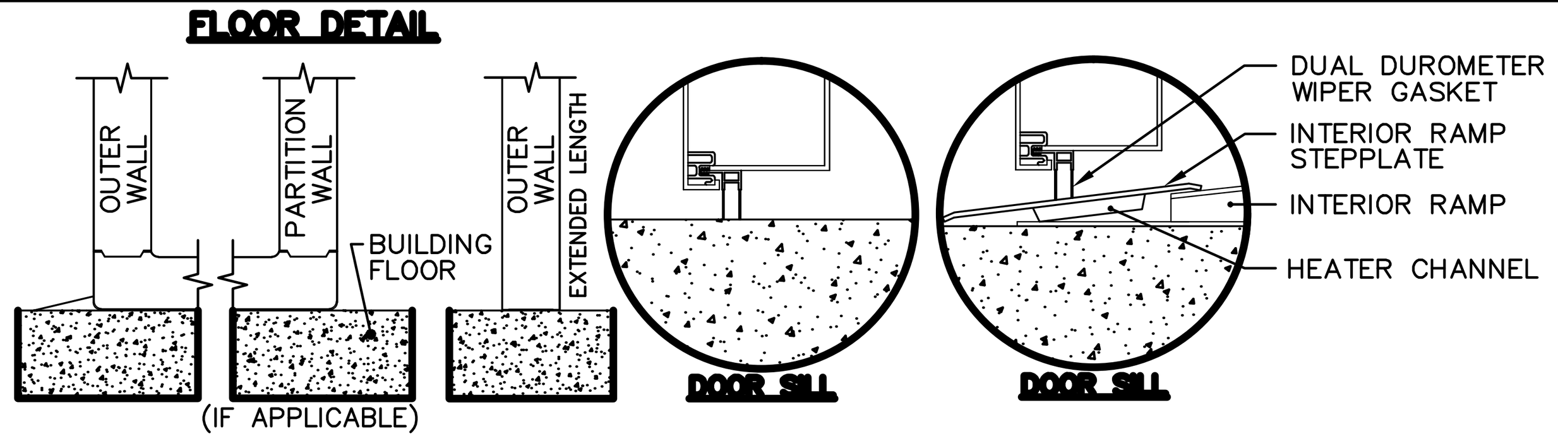
GENERAL NOTES

- NOTE: BALLY TO FURNISH NSF GRAY VINYL COVED MOLDING AROUND PERIMETER OF COOLER. GRAY VINYL COVING TO BE TRIMMED IN FIELD BY OTHERS. SEE NOTIFICATION IM-197-81 FOR DETAILS.
- NOTE A: BALLY TO FURNISH 1/8" ALUMINUM DIAMOND TREAD 48"H WAINSCOT TO COVER ALL INTERIOR AND EXPOSED EXTERIOR WALLS AS SHOWN.
- NOTE: BALLY TO FURNISH (2) KEIL 48" L.E.D. LIGHTS. LIGHTS SHIPPED LOOSE AND MOUNTED AND WIRED BY OTHERS. (LIGHT SWITCH (12) AMPS MAX).
- NOTE B: BALLY TO FURNISH CEILING CAPPING FOR EXPOSED AREA OF WALK-IN. BALLY TO FURNISH #8 X 1/2" SCREWS FOR CAPPING INSTALLATION. INSTALLATION BY OTHERS. SEE CEILING CAPPING DETAIL.



CEILING CAPPING DETAIL

FLOOR DETAIL

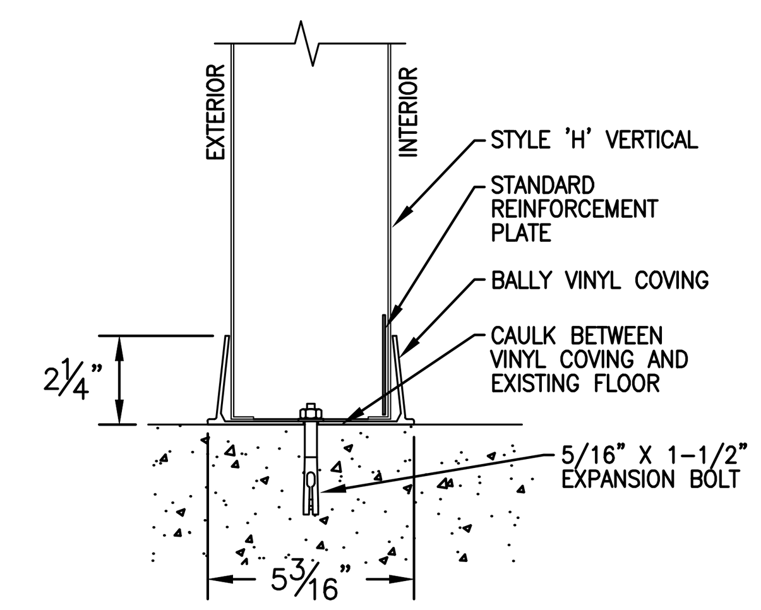


NOTE: BEARING SURFACE UNDER FLOOR PANELS MUST BE LEVEL AND DRY. BOTTOM OF PANELS MUST HAVE AT LEAST 80% CONTACT WITH FLOORS.

NOTE: IF MOISTURE IS PRESENT UNDER BUILDING FLOOR, A VAPOR BARRIER MUST BE APPLIED BETWEEN BUILDING FLOOR AND PREFAB PANELS.

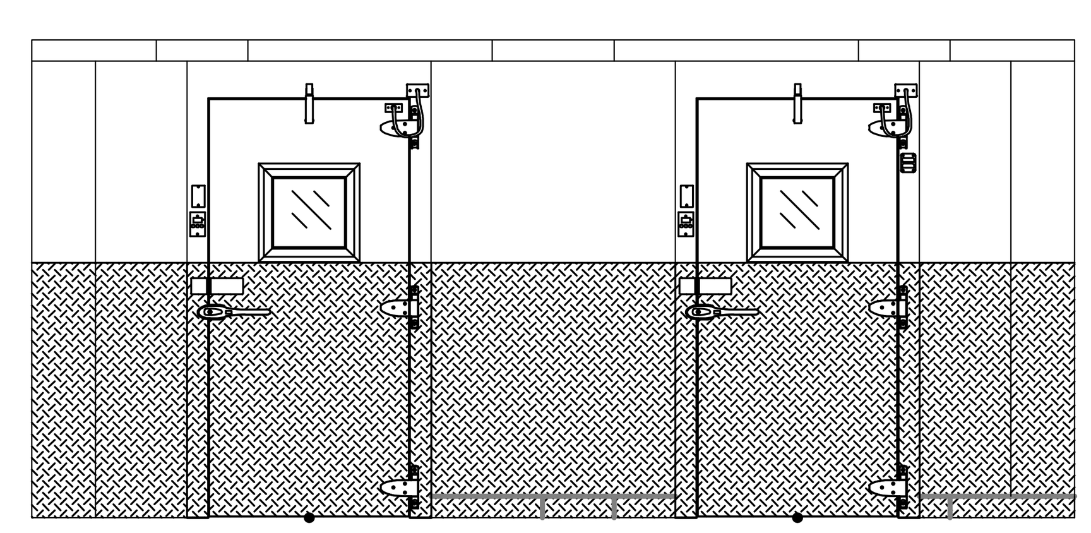
NOTE: BALLY TO FURNISH THE PREFAB SECTIONAL WALK-IN COOLER OR FREEZER ONLY (UNLESS OTHERWISE SPECIFIED). THIS INCLUDES WALLS AND CEILING PANELS.

NOTE: THESE DRAWINGS ARE INTENDED TO SERVE AS GUIDE LINE DRAWINGS ONLY. THEY ARE NOT INTENDED TO BE CONSTRUCTION DRAWINGS AS CONDITIONS MAY VARY WIDELY. DIMENSIONAL AND MATERIAL DESIGN TO BE DETERMINED BY PROJECT CONSTRUCTION ENGINEER.

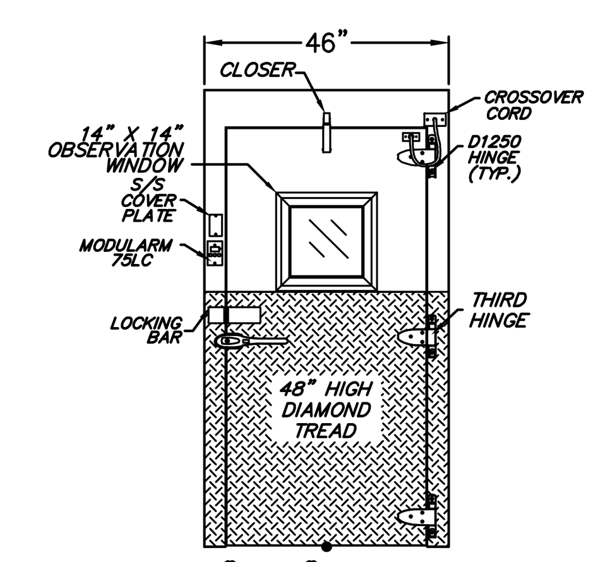


SECTION THRU VERTICAL PANEL FOR ATTACHMENT TO FLOOR (INDOOR. NON-FREEZER APPLICATIONS ONLY)

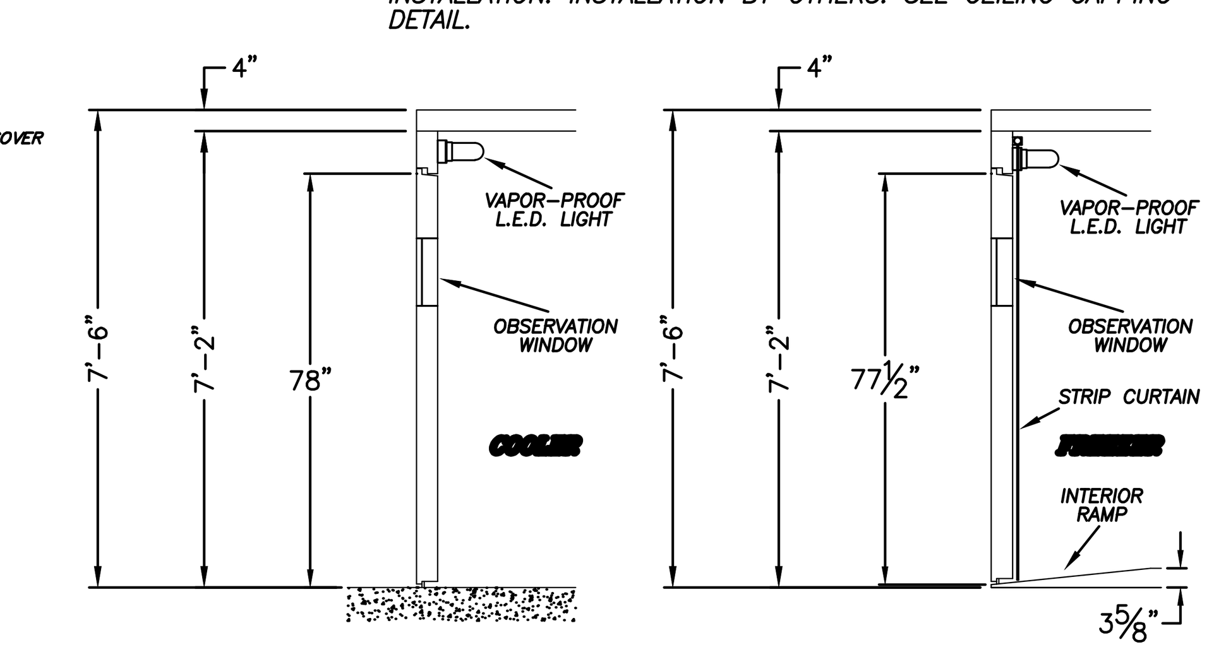
BALLY TO FURNISH NSF GRAY VINYL COVED MOLDING AROUND PERIMETER OF COOLER (TO BE CUT IN FIELD BY OTHERS). (SEE NOTIFICATION: IM-197-81)



ELEVATION: E-1

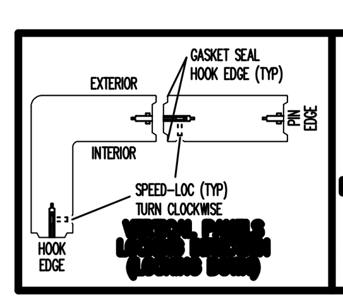


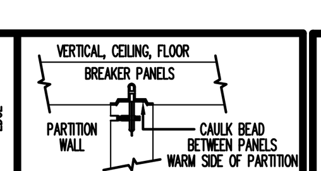
DX-01



— SECTION VIEW —
THRU ENTRANCE DOOR

SCALE: 3/8" = 1' - 0" SHEET 1 OF 1





PARTITION WALL CAULKING DETAIL

ADDED PRECAUTION AGAINST VAPOR LEAKS, BALLY RECOMMENDS THAT ALL PARTITION WALL PANELS TO (VERTICAL, CEILING, FLOOR) BREAKER PANELS: "JOINTS BE CAULKED DURING ASSEMBLY".

BALLY FLOOR PANEL GUIDELINES

STATIONARY LOAD: LIMIT 700 LBS. SQ. FT. (UNIFORMLY DISTRIBUTED)

MOBILE EQUIPMENT (DOLLIES OR CARTS): BALLY FLOOR PANELS MUST BE REINFORCED WITH FOAMED PLYWOOD UNDER INTERIOR FLOOR SKIN. (ALUMINUM DIAMOND TREAD OVERLAY IS ALSO AN OPTION).

FORK-LIFT USE: A MINIMUM OF 4" REINFORCED CONCRETE MUST BE POURED OVER BALLY FLOOR PANELS.

AIR GAP/CIRCULATION RECOMMENDATION

BALLY RECOMMENDS A 2" GAP BETWEEN WALK-IN VERTICAL PANELS AND EXISTING BUILDING WALLS FOR PROPER AIR CIRCULATION. IT IS ALSO RECOMMENDED THAT AIR EXCHANGE/CIRCULATION BE PROVIDED FOR WALK-INS THAT ARE WITHIN AN ENCLOSED AREA.

S – ELECTRICAL CONNECTION

THIS DRAWING IS TO BE USED FOR "APPROVAL ONLY".

→ DO NOT USE THIS DRAWING FOR INSTALLATION!

EVERY SHIPPED ORDER WILL HAVE A FINALIZED "AS-BUILT" DRAWING.

SIGNED APPROVAL

SIGNED ____________

DATE ____________

PLEASE READ

THIS DRAWING HAS BEEN CAREFULLY CHECKED BY OUR DRAFTING DEPARTMENT. HOWEVER, ERRORS OF INTERPRETATION CAN OCCUR. THEREFORE, BEFORE YOU RETURN DRAWING MARKED "APPROVED", BE CERTAIN THAT YOU CHECK THEM CAREFULLY.

NOTE – THIS ORDER WILL NOT BE SCHEDULED FOR PRODUCTION UNTIL RECEIPT OF APPROVED DRAWINGS BY BALLY.

IMPORTANT – PLEASE READ

THESE DRAWINGS ARE NOT TO BE CONSIDERED AS APPROVED BY LOCAL OR STATE BUILDING AUTHORITIES.

THEY HAVE BEEN PREPARED SOLELY FOR THE GUIDANCE OF REGISTERED ARCHITECTS AND ENGINEERS AND FOR THE ASSISTANCE OF LOCAL INSTALLERS. IT IS THE RESPONSIBILITY OF THE PROJECT ARCHITECT OR ENGINEER TO ASSURE THE BUILDING DESIGN MEETS LOCAL CODE REQUIREMENTS. THIS INCLUDES STRUCTURAL DESIGN AS WELL AS ANY WORK PERFORMED BY THE GENERAL CONTRACTOR. BALLY REFRIGERATED BOXES INC., IN PREPARING THESE DRAWINGS AND SPECIFICATIONS, DOES NOT ASSUME ANY RESPONSIBILITY FOR THE SUCCESSFUL COMPLETION OR USAGE OF THE STRUCTURE DESCRIBED.

THE DRAWINGS AND SPECIFICATIONS DESCRIBE A BUILDING ASSEMBLED FROM BALLY PANELS INSULATED WITH URETHANE "FOAMED-IN-PLACE". THE SIZE AND SHAPE IS THAT WHICH MOST CLEARLY MEETS DIMENSIONS SUBMITTED BY THE USER.

BALLY REFRIGERATED BOXES INC., PROVIDES PANELS FREQUENTLY SPECIFIED BY OTHERS, AND IS NOT RESPONSIBLE FOR THE SELECTION OR RECOMMENDATION BY OTHERS OF THE PANEL FINISH FOR ANY BUILDING OR WALK-IN APPLICATION.

REV	DESCRIPTION	BY	DATE

BALLY (NC OFFICE)
135 LITTLE NINE DRIVE
MOREHEAD CITY, NC 28557
PHONE: (252) 240-2829
FAX: (252) 240-0384

BALLY (PA OFFICE)
20 NORTH FRONT ST. (SUITE 8)
BALLY, PA 19503
PHONE: (610) 702-2210
FAX: (610) 702-2211

FOR SMALL PROJECT–MAINE

DRAWING NUMBER 203286AD — DATE 07/07/20
DRAWN BY RCB — ORDER NUMBER 203286
LBL'D BY — DATE LBL'D — CHK'D BY

1 WALK-IN SHOP DRAWING — N.T.S.

REV	DESCRIPTION	DATE
1	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM 03
09-02-20

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MEN'S REENTRY BUILDING

MACHIASPORT, MAINE

MEN'S REENTRY CENTER -
WALK-IN SHOP DRAWING

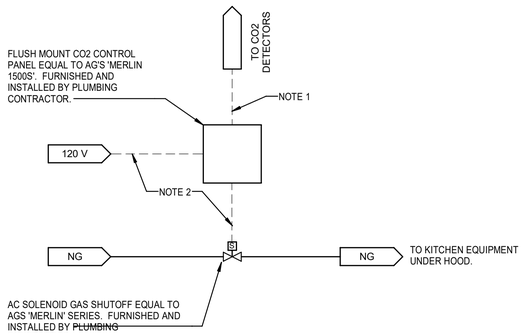
SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER: JGJ — PROJECT NO: 19176
A/E OF RECORD: JGJ
JOB CAPTAIN: CBM
DRAWN BY: LS
SMRT FILE: FS-1.7-19176

FS-1.7
SHEET No.

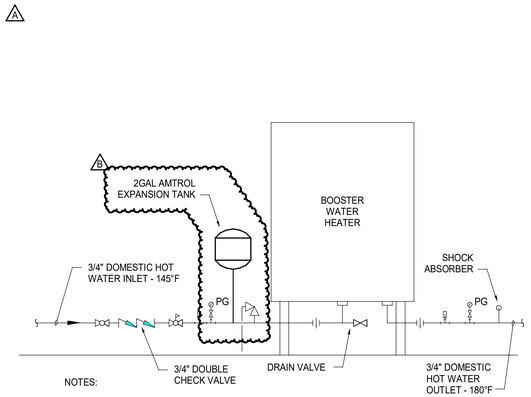


NOTE:

1. ALL GAS PIPING, CO2 COMPONENTS, 24V WIRING AND VALVES SHALL BE BY THE PLUMBING CONTRACTOR.
2. 120V POWER BY ELECTRICAL CONTRACTOR.

KITCHEN GAS SHUT-OFF SCHEMATIC 16

NOT TO SCALE

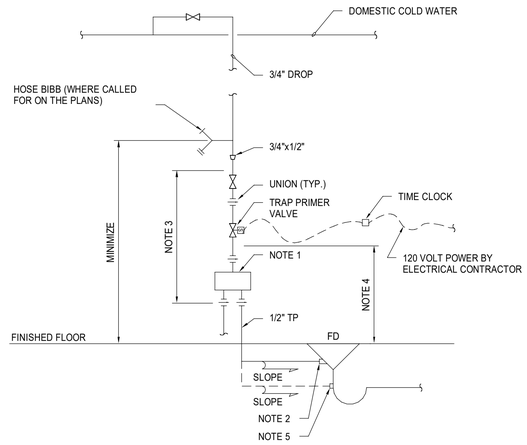


NOTES:

1. BOOSTER HEATER PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR.
2. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL PIPE LINE ITEMS INDICATED.

BOOSTER HEATER CONNECTION DETAIL 15

NOT TO SCALE

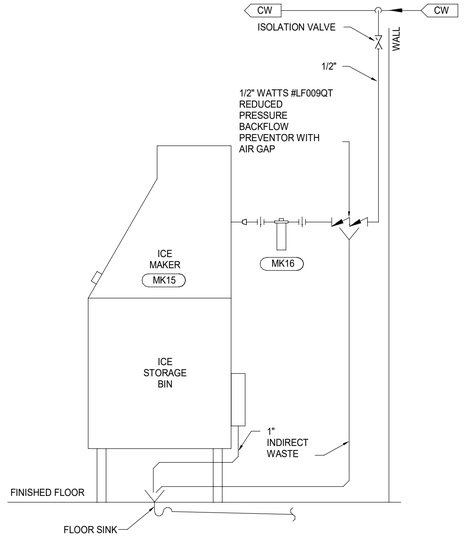


NOTES:

1. FOR MULTIPLE TRAP PRIMER APPLICATION. GROUP PRIMERS TOGETHER WHEREVER POSSIBLE.
2. PROVIDE 3/4"x1/2" THREAD AND SWEAT FITTING WHERE DRAIN BODY REQUIRES.
3. WHERE PIPING DROP IS NOT EXPOSED, PROVIDE ACCESS PANEL.
4. INSTALL VALVE AT A MINIMUM DISTANCE ABOVE THE FLOOR AS REQUIRED BY TRAP PRIMER MANUFACTURER, BUT NO LOWER THAN 1 FOOT AFF FOR EACH 20 FEET OF TRAP PRIMER PIPING.
5. TRAP PRIMER PIPING TO BE INSTALLED BELOW SLAB SLOPED TO DRAIN. PROVIDE A P-TRAP WITH 1/2" PRIMER TAP WHEN FLOOR DRAIN PRIMER PORT IS BURIED WITHIN THE SLAB.

ELECTRIC TRAP PRIMER DETAIL 14

NOT TO SCALE



NOTES:

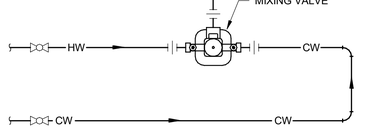
1. ICE MAKER/BIN/FILTER SYSTEM PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR.
2. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL PIPE LINE ITEMS INDICATED.

ICE MAKER DETAIL 13

NOT TO SCALE

NOTES:

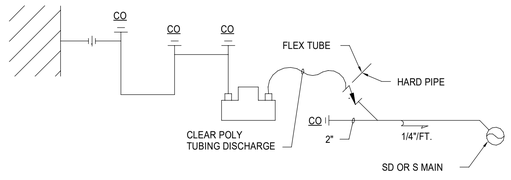
1. SEE SHEET PL001 FOR LEGEND AND ABBREVIATIONS.



NOTE: PIPE SIZES AS INDICATED ON DRAWINGS.

SHOWER MIXING VALVE PIPING DETAIL 20

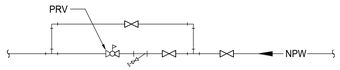
NOT TO SCALE



CONDENSATE PUMP DETAIL 19

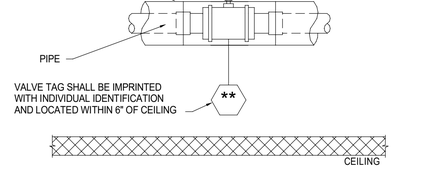
NOT TO SCALE

MAKE-UP SIZE (d)		
TOTAL SYSTEM PUMP FLOW (GPM)	d (INCHES)	PRV. MIN. FLOW (GPM)
UP TO 200	1/2	3
201-500	3/4	5
501-1200	1	10
1201-3000	1-1/4	20
3001-5000	1-1/2	30
5001-12000	2	60



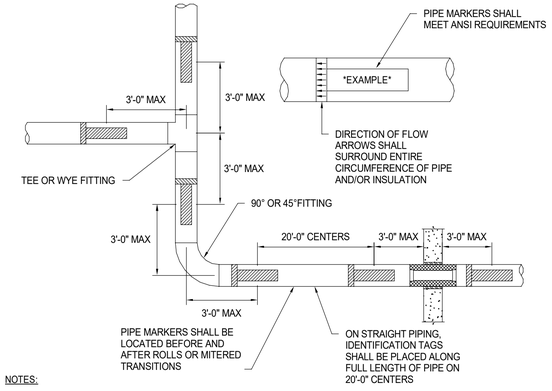
MAKE UP WATER DETAIL 18

NOT TO SCALE



VALVE TAG DETAIL 17

NOT TO SCALE

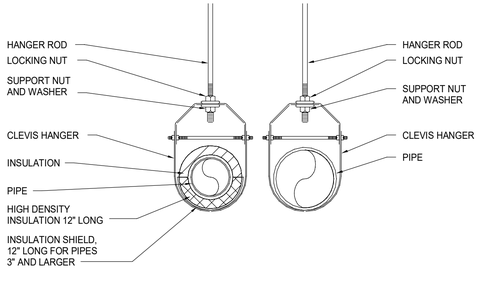


NOTES:

1. IDENTIFICATION PARAMETERS FOR USE IN BOTH PLUMBING AND MECHANICAL PIPING SYSTEMS.
2. CONTRACTOR SHALL PLACE MINIMUM OF ONE TAG PER ROOM OR HALLWAY.
3. SEE DRAWINGS FOR PIPE TYPES.
4. SEE LEGEND AND ABBREVIATIONS FOR MORE INFORMATION.

PIPE IDENTIFICATION DETAIL 23

NOT TO SCALE

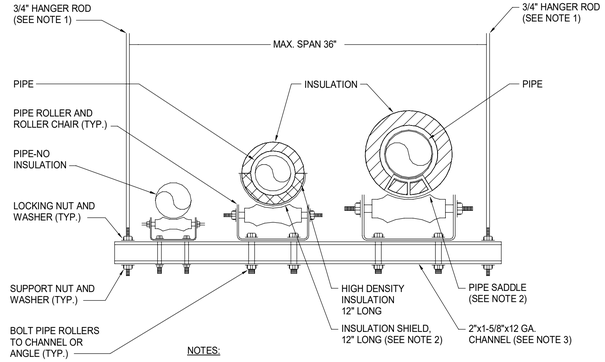


HANGER ROD SCHEDULE			
PIPE SIZE	ROD SIZE		
	COPPER	STEEL	PP-RCT
UP TO 2"	3/8" DIA.	3/8" DIA.	3/8" DIA.
2 1/2" THRU 3"	1/2" DIA.	1/2" DIA.	1/2" DIA.

HANGER ROD SPACING			
PIPE SIZE	MAX. ALLOWABLE SPACING		
	COPPER	STEEL	PP-RCT
3/4"	5'	7'	2'-8"
1"	6'	7'	2'-8"
1 1/4"	7'	7'	4'
1 1/2"	8'	9'	4'
2"	8'	10'	4'
2 1/2"	9'	11'	4'
3"	10'	12'	4'

CLEVIS PIPE HANGER DETAIL 22

NOT TO SCALE



NOTES:

1. REFER TO "TYPICAL METHOD OF SECURING HANGER RODS DETAIL" FOR ATTACHING HANGERS TO THE STRUCTURE.
2. PROVIDE INSULATION SHIELD OR PIPE SADDLE BASED ON THE PIPING SYSTEM AND PIPE SIZE AS INDICATED IN THE SPECIFICATIONS.
3. TRAPEZE TYPE HANGER SHALL BE USED FOR A MAXIMUM 1000 LB. UNIFORM LOAD.

TRAPEZE HANGER DETAIL 21

NOT TO SCALE

REV	DESCRIPTION	DATE
B	ADDENDUM #3	9-02-2020
A	ADDENDUM #1	8-25-2020
0	ISSUED FOR CONSTRUCTION	08-14-20

ISSUED FOR CONSTRUCTION
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MACHIASPORT, MAINE

PLUMBING DETAILS

SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	DRV		
JOB CAPTAIN:	CBM		
DRAWN BY:	JMW		
SMRT FILE:	PL-502-19176	SHEET No.	PL-502

24x36

LIGHTING

- Ab — 2x4 FIXTURE; ASSOCIATED CONTROL DEVICE; FIXTURE TYPE (SEE LIGHT FIXTURE SCHEDULE)
- 1x4 FIXTURE
- 2x2 FIXTURE
- FIXTURE WIRED TO UNSWITCHED NORMAL CIRCUIT
- FIXTURE WIRED TO UNSWITCHED EMERGENCY CIRCUIT
- FIXTURE WIRED TO SWITCHED EMERGENCY CIRCUIT
- DOWN LIGHT
- INDUSTRIAL STRIP
- WALL MOUNTED FIXTURES
- TRACK LIGHTING
- ab — POLE MOUNTED SITE LIGHTING FIXTURE; FIXTURE TYPE (SEE LIGHT FIXTURE SCHEDULE)
- FLOOD LIGHT
- WALL WASH LIGHT FIXTURE
- EXIT SIGN, CEILING MOUNTED; ARROW INDICATES EGRESS DIRECTION; SHADING INDICATES SIGN FACE
- EXIT SIGN, WALL MOUNTED; SHADING INDICATES SIGN FACE
- TD — DUAL HEAD EMERGENCY LIGHT BATTERY PACK; TD - TIME DELAY RESET
- REMOTE EMERGENCY LIGHTING HEAD
- WP — WALL PACK
- S_3 — 3-WAY TOGGLE SWITCH
- S_a — SINGLE POLE TOGGLE SWITCH; INDICATES CONTROLLED FIXTURE
- S_4 — 4-WAY TOGGLE SWITCH
- S_{II} — DUAL LEVEL SWITCHING
- S_D — DIMMER SWITCH, INCANDESCENT OR FLUORESCENT AS REQUIRED.
- S_P — TOGGLE SWITCH WITH PILOT LIGHT
- S_T — TIMER SWITCH, SPRING WOUND
- S_{DT} — SINGLE POLE DOUBLE THROW TOGGLE SWITCH, CENTER POSITION OFF
- S_{WP} — WEATHER PROOF
- S_{XP} — EXPLOSION PROOF
- S_{OS} — OCCUPANCY SENSOR SWITCH
- a — OCCUPANCY SENSOR; a. INDICATES CONTROLLED FIXTURE; INDICATES AIMING DIRECTION
- OSR — OCCUPANCY SENSOR RELAY
- DS, x — DAYLIGHT SENSOR; LIGHTS CONTROLLED BY SENSOR

COMMUNICATION & DATA SYSTEMS

- TELEPHONE SYSTEM WALL JACK; W-INDICATES WALL MOUNTED AT 60" AFF; P-INDICATES PAYPHONE; (2)-INDICATES 2 OUTLETS, SINGLE BOX
- DATA SYSTEM OUTLET
- COMBINATION VOICE/DATA SYSTEM OUTLET; D-DATA LINE V-VOICE LINE I-ITV VIDEO LINE
- UNDERFLOOR TELEPHONE SYSTEM OUTLET
- UNDERFLOOR DATA SYSTEM OUTLET
- UNDERFLOOR VOICE & DATA OUTLET
- CATV — CABLE TELEVISION SYSTEM OUTLET. MOUNT 18"AFF UNLESS OTHERWISE NOTED
- CCTV — CLOSED CIRCUIT TELEVISION OUTLET. MOUNT 18" AFF UNLESS OTHERWISE NOTED
- PA — PAGING SYSTEM CONTROL PANEL AND PAGING AMPLIFIER
- S — PAGING SYSTEM SPEAKER. CEILING MOUNTED
- S, 1 — PAGING SYSTEM SPEAKER. WALL MOUNT AT 7'-6" AFF; 1. FLUSH, 2. SURFACE, 3. HORN, 4. DUAL HORN
- VC — VOLUME CONTROL
- HC — INTERCOM SYSTEM HAND KEY
- CS — CLOCK SPEAKER
- HS — INTERCOM SYSTEM HAND SET
- C — WALL MOUNTED CLOCK
- CEILING MOUNTED DATA SYSTEM OUTLET

POWER

- (4), 30A — NON-FUSED SAFETY SWITCH; AMPERE RATING; NEMA ENCLOSURE RATING
- (4), F, 60AS/40AF — FUSED SAFETY SWITCH. TOP NUMBER INDICATES SWITCH AMPERE RATING. LOWER NUMBER INDICATES FUSE RATING; NEMA ENCLOSURE
- 1, (4) — MAGNETIC MOTOR STARTER. FVNR UNLESS INDICATED OTHERWISE; NEMA ENCLOSURE RATING; NEMA SIZE (TYPICAL)
- CB, 30/1 — COMBINATION CIRCUIT BREAKER/MAGNETIC MOTOR STARTER FIRST NUMBER INDICATES CIRCUIT BREAKER AMPERE RATING SECOND NUMBER INDICATES NEMA STARTER SIZE
- F, 60/40/1 — COMBINATION FUSED DISCONNECT/MAGNETIC MOTOR STARTER NUMBERS INDICATE DISCONNECT AMPERE RATING/FUSE RATING/NEMA STARTER SIZE
- 30/1 — NON-FUSED DISCONNECT/MAGNETIC MOTOR STARTER FIRST NUMBER INDICATES CIRCUIT BREAKER AMPERE RATING SECOND NUMBER INDICATES NEMA STARTER SIZE
- M, OL — MANUAL MOTOR STARTER. TOGGLE OPERATED, 1,2 OR 3 POLE AS REQUIRED. OVERLOAD PROTECTION
- M — MANUAL MOTOR SWITCH, TOGGLE OPERATED, SINGLE PHASE. 1 OR 2 POLE AS REQUIRED (NO OVERLOAD PROTECTION)
- CB, 100A — ENCLOSED CIRCUIT BREAKER; AMPERE RATING
- 5 — ELECTRIC MOTOR, NUMBER INDICATES HORSEPOWER RATING
- 5 — EXPLOSION PROOF MOTOR
- VAV — VARIABLE AIR VOLUME CONTROL ACTUATORS
- HS — LOCAL SELECTOR SWITCH; H/O/A - HAND/OFF/AUTO
- EMO — EMERGENCY OFF BREAK GLASS STATION
- PB — PUSHBUTTON STATION
- J — JUNCTION BOX
- T — TRANSFORMER
- P — POWER POLE
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- EY CONDUIT SEAL
- E — DUPLEX RECEPTACLE, NEMA 5-20R. INSTALLED ON EMERGENCY CIRCUIT (TYPICAL)
- WP — GFI DUPLEX RECEPTACLE, NEMA 5-20R; PROVIDE WEATHER RESISTANT RECEPTACLE WITH WEATHERPROOF IN-USE COVER
- HOSPITAL GRADE DUPLEX RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE GFCI DUPLEX RECEPTACLE, NEMA 5-20R
- IG — HOSPITAL GRADE ISOLATED GROUND DUPLEX RECEPTACLE, NEMA 5-20R
- SINGLE RECEPTACLE, NEMA 5-20R
- DOUBLE DUPLEX (QUADRUPLEX) RECEPTACLE, NEMA 5-20R
- HOSPITAL GRADE DOUBLE DUPLEX RECEPTACLE NEMA 5-20R
- S — SWITCHED RECEPTACLE
- FLOOR OUTLET, DUPLEX RECEPTACLE, NEMA 5-20R
- POWER RECEPTACLE, 480 VOLT NEMA CONFIGURATION AS NOTED.
- POWER RECEPTACLE, 240 VOLT NEMA CONFIGURATION AS NOTED.
- PANELBOARD, NORMAL POWER
- PANELBOARD, EMERGENCY POWER
- MULTI OUTLET ASSEMBLY
- CP — GRAPHIC CONTROL PANEL
- PPA-XX — BRANCH; CIRCUIT NUMBER; INDICATES PANEL NAME
- XXX — EQUIPMENT TAG
- HOME RUN TO INDICATED PANEL
- 1, E — EMERGENCY OFF SWITCH

FIRE ALARM

- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR
- M — FIRE ALARM MASTER BOX
- F — FIRE ALARM MANUAL PULL STATION
- F — FIRE ALARM SPEAKER/STROBE UNIT
- F — FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE (GENERAL EVACUATION)
- FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE CLEAN ROOM NOTIFICATION (LOCAL)
- F, (110), C — FIRE ALARM VISIBLE ONLY NOTIFICATION APPLIANCE; CANDELA INTENSITY-15/75 UNLESS OTHERWISE NOTED; CEILING MOUNTED
- P, A — PHOTOELECTRIC SMOKE DETECTOR. CEILING MOUNTED; INDICATES AUXILIARY CONTACT.
- H, <TPP-1> — FIXED TEMPERATURE HEAT DETECTOR. CEILING MOUNTED.; INDICATES EQUIPMENT INTERLOCKED WITH THE DETECTOR
- P1, <RC-1> — CLEAN ROOM SMOKE DETECTOR; INDICATES EQUIPMENT INTERLOCKED WITH THE SMOKE DETECTOR
- H, R — HEAT DETECTOR, CEILING MOUNTED; COMBINATION RATE-OF-RISE/FIXED TEMPERATURE
- D — DUCT SMOKE DETECTOR, PHOTOELECTRIC WITH AUXILIARY CONTACT.
- FS — SPRINKLER SYSTEM FLOW SWITCH
- TS — SPRINKLER SYSTEM TAMPER SWITCH
- DH — FIRE ALARM SYSTEM MAGNETIC DOOR HOLDER
- INTERLOCK RELAY
- SD — SMOKE DAMPER
- RTI — DUCT SMOKE DETECTOR REMOTE TEST INDICATOR
- K — KNOX BOX
- C — CARBON MONOXIDE DETECTOR
- CS — COMBINATION SMOKE/CARBON MONOXIDE DETECTOR

SECURITY SYSTEMS

- D — DOOR CONTACT
- CR — CARD READER
- KP — KEY PAD
- CCTV — CLOSED CIRCUIT TELEVISION CAMERA
- ES — ELECTRIC STRIKE
- ML — MAG LOCK

GROUNDING

- GROUND ROD
- EXOTHERMIC WELD CONNECTION
- BOLTED CONNECTION
- G — BARE COPPER CONDUCTOR RUN EXPOSED
- G — BARE COPPER CONDUCTOR EMBEDDED IN CONCRETE OR BURIED

LINE TYPES

- EXISTING
- NEW
- DEMOLITION

ONE LINE DIAGRAM

- 52 — MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER
- AF, AT, EO — LOW VOLTAGE DRAWOUT CIRCUIT BREAKER; AF - AMP FRAME; AT - AMP TRIP; EO - ELECTRICALLY OPERATED
- MOLDED CASE CIRCUIT BREAKER
- ST — ST - SHUNT TRIP; GF - GROUND FAULT; EO - ELECTRICALLY OPERATED
- DISCONNECT, ISOLATION OR SAFETY SWITCH
- FUSED CUTOUT
- FUSED LOAD BREAK SWITCH
- MEDIUM VOLTAGE MOTOR STARTER
- 1 — MAGNETIC MOTOR STARTER. NUMERAL INDICATES NEMA SIZE FVNR UNLESS OTHERWISE NOTED. FVR - FULL VOLTAGE REVERSING; RVAT - REDUCING VOLTAGE AUTO TRANSFORMER 2S - TWO SPEED
- CAPACITOR
- VFD — VARIABLE FREQUENCY DRIVE
- OA — POWER TRANSFORMER; OA - LIQUID TYPE SELF COOLED; AA - DRY TYPE SELF COOLED; FA - FAN COOLED
- CONNECTION
- SHIELDED ISOLATION TRANSFORMER
- 2, 480/120 — POTENTIAL TRANSFORMER; RATIO; NUMBER REQUIRED
- 3, 600/5 — CURRENT TRANSFORMER; RATIO; NUMBER REQUIRED
- GROUND FAULT CURRENT TRANSFORMER
- 5 — MOTOR, NUMBER INDICATES HORSEPOWER
- GENERATOR
- ATS — ATS - AUTOMATIC TRANSFER SWITCH; MTS - MANUAL TRANSFER SWITCH
- A — METER; A - AMMETER; V - VOLTMETER; W - WATTMETER; WH - WATT HOURMETER; KWH - KILOWATT HOUR; KVAR - KILOVAR METER; VAR - VAR METER; HZ - FREQUENCY METER; PF - POWER FACTOR METER
- DPM — DIGITAL POWER METER
- AS — METER TRANSFER SWITCH; AS - AMMETER SWITCH; VS - VOLTMETER SWITCH
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR
- LA — LIGHTNING ARRESTOR
- K — KEY INTERLOCK
- FUSE
- E, F — ELECTRONIC POWER FUSE
- DRAWOUT DEVICE
- GROUND

ABBREVIATIONS

A,AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAUGE
BFG	BELOW FINISHED GRADE
BOS	BOTTOM OF STEEL
C	CONDUIT, CONDUCTOR
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
DB	DIRECT BURIED
DISC	DISCONNECT
DN	DOWN
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FU	FUSE
FWE	FURNISHED WITH EQUIPMENT
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT BREAKER
GND	GROUND
HP	HORSEPOWER
HTR	HEATER
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
K	KILO
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KVAR	KILOVOLT-AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT-HOUR
LA	LIGHTNING ARRESTER
LTG	LIGHTING
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MFR	MANUFACTURER
MI	MINERAL INSULATED
MLO	MAIN LUG ONLY
MTD	MOUNTED
MV	MEDIUM VOLTAGE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEUT	NEUTRAL
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
PF	POWER FACTOR
PH	PHASE
PVC	POLYVINYL CHLORIDE
RGS	RIGID STEEL CONDUIT
RSC	RIGID STEEL CONDUIT
RTD	RESISTANCE TEMPERATURE DETECTOR
SN	SOLID NEUTRAL
STP	SHIELDED TWISTED PAIR
STT	SHIELDED TWISTED TRIPLET
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TOS	TOP OF STEEL
TRANSF	TRANSFORMER
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
V	VOLT
VA	VOLT-AMPERE
VAR	VOLT-AMPERE REACTIVE
WM	WATT METER
WP	WEATHER PROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

GENERAL NOTES:

1. WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-70, NATIONAL ELECTRICAL CODE (NEC).
2. ALL MOTOR SAFETY SWITCHES, DISCONNECTS AND MOTOR STARTERS ARE PROVIDED BY DIVISION 260000 UNLESS NOTED AS FURNISHED WITH EQUIPMENT (FWE).
3. UNLESS OTHERWISE NOTED CONVENIENCE RECEPTACLES SHALL BE MOUNTED 18-INCHES AFF, LIGHTING TOGGLE SWITCHES 48-INCHES AFF, DATA SYSTEM OUTLETS 18-INCHES AFF, FIRE ALARM NOTIFICATION DEVICES 80-INCHES AFF OR 6-INCHES BELOW CEILING, WHICHEVER IS LOWER, AND FIRE ALARM MANUAL PULL STATIONS 48-INCHES TO TOP OF DEVICE.
4. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN THE RATING OF SEPARATION.
5. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
6. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH EVERY FEEDER AND BRANCH CIRCUIT.
7. UNLESS OTHERWISE NOTED WIRING SHALL BE 2#12 AWG CONDUCTORS AND #12 GND. HOME RUNS FED FROM 20A-1P CIRCUITS IN EXCESS OF 100 FEET SHALL BE #10 AWG.
8. FLEXIBLE CONNECTIONS TO MOTORS SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, UNLESS OTHERWISE NOTED.
9. LIGHTING TOGGLE SWITCHES SHALL BE COMMERCIAL SPECIFICATION GRADE 120/277 VOLT, SIDE WIRED AND PROVIDED WITH GROUNDING SCREW. LEVITON, HUBBELL, PASS AND SEYMOUR OR APPROVED EQUAL. COORDINATE COLOR WITH ARCHITECT.
10. CONVENIENCE RECEPTACLES SHALL BE COMMERCIAL SPECIFICATION GRADE TAMPER RESISTANT GROUNDING TYPE NEMA 5-20R, SIDE WIRED. LEVITON, HUBBELL, PASS AND SEYMOUR OR APPROVED EQUAL. COORDINATE COLOR WITH ARCHITECT.
11. PROVIDE WALL PLATES FOR ALL WIRING DEVICES, NYLON SMOOTH TYPE IN FINISHED AREAS AND GALVANIZED IN UNFINISHED AREAS. ALL WIRING DEVICES PLATES TO BE PROVIDED WITH TAMPER PROOF SCREWS IN FINISHED SPACES.
12. ALL WIRING SHALL BE 600V, COPPER WITH THHN/THWN INSULATION.

GENERAL NOTE

ALL GENERAL NOTES, SYMBOL LISTS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM #3
9-2-20

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MACHIASPORT, MAINE

LEGEND AND GENERAL NOTES

SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

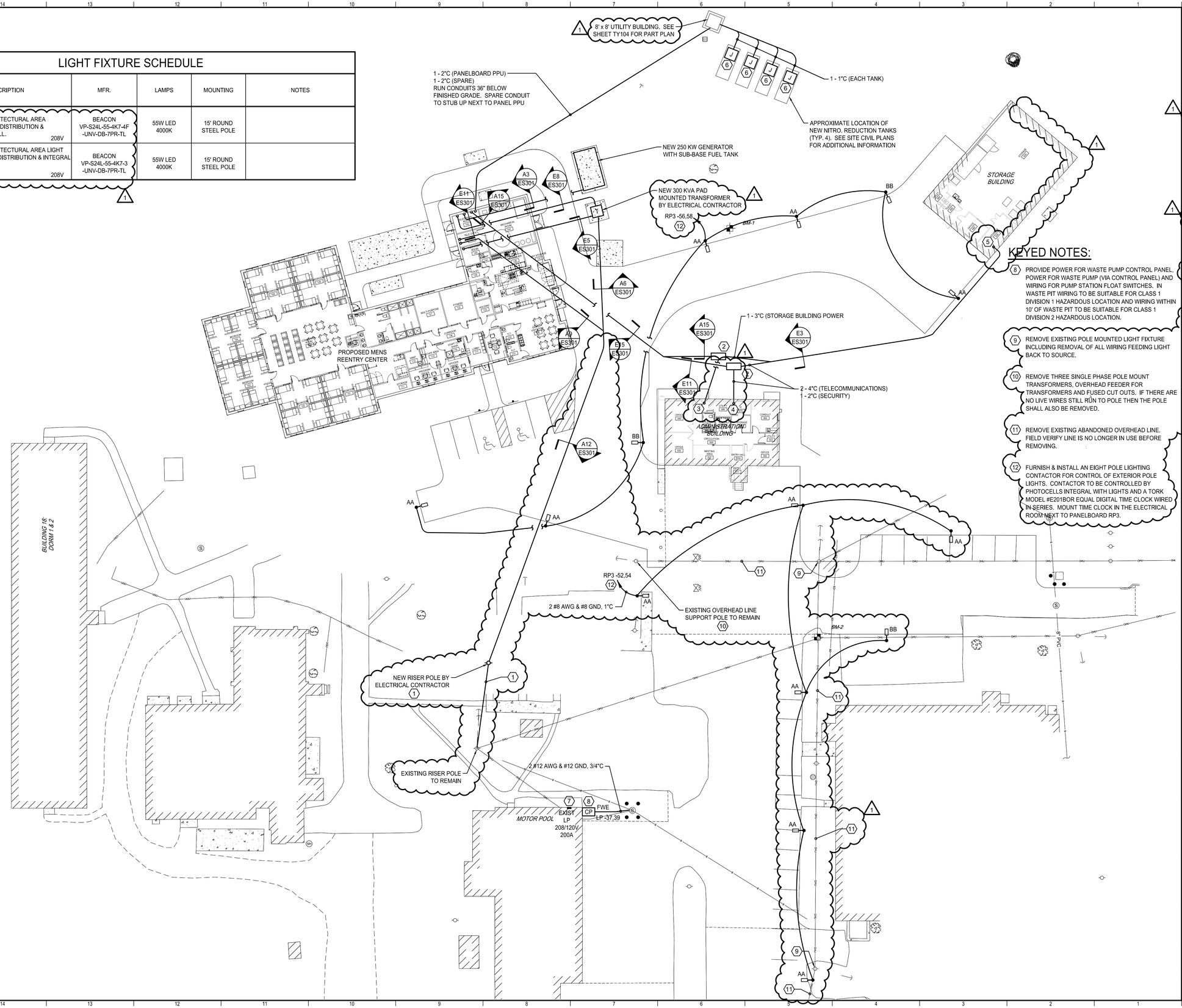
PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	DJT		
JOB CAPTAIN:	CBM		
DRAWN BY:	TAR		
SMRT FILE:	E-001-19176	SHEET No.	E-001

24x36

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MFR.	LAMPS	MOUNTING	NOTES
AA	FULL CUT-OFF ARCHITECTURAL AREA LIGHT W/ES TYPE IV DISTRIBUTION & INTEGRAL PHOTOCELL. 208V	BEACON VP-S24L-55-4K7-4F -UNV-DB-7PR-TL	55W LED 4000K	15' ROUND STEEL POLE	
BB	FULL CUT-OFF ARCHITECTURAL AREA LIGHT W/ES TYPE III WIDE DISTRIBUTION & INTEGRAL PHOTOCELL. 208V	BEACON VP-S24L-55-4K7-3 -UNV-DB-7PR-TL	55W LED 4000K	15' ROUND STEEL POLE	

1



NOTE:

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.
2. ALL SITE LIGHTING WIRING TO BE 2 #10 AWG & #10 GND RUN IN A 1" CONDUIT 36" BELOW FINISHED GRADE.

KEYED NOTES:

1 FURNISH & INSTALL NEW RISER POLE AND EXTEND EXISTING OVERHEAD PRIMARY WIRING TO NEW POLE. FROM RISER POLE RUN NEW PRIMARY WIRING DOWN RISER POLE IN RIGID STEEL CONDUIT AND RUN UNDERGROUND TO NEW PAD MOUNT TRANSFORMER. NEW OVERHEAD WIRING TO MATCH WHAT IS CURRENTLY INSTALLED ON RISER POLE.

2 FURNISH & INSTALL AND 18"x 24" x 48" DEEP HAND HOLE FOR ELECTRICAL AND COMMUNICATIONS WIRING TO THE ADMINISTRATION BUILDING.

3 CONDUIT TO BE RUN IN CRAWL SPACE BELOW THE ADMINISTRATION BUILDING AND STUB UP INTO NEW PANELBOARD PPA. NEW PANELBOARD PPA TO BE FURNISHED & INSTALLED BY OWNER. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE ONLY FOR CONNECTION OF NEW PANELBOARD FEEDER.

4 SECURITY AND TELECOMMUNICATIONS CONDUITS TO BE RUN IN CRAWL SPACE BELOW THE BUILDING AND STUB UP INTO THE EXISTING IT ROOM. COORDINATE WITH OWNER FOR EXACT SUB-UP LOCATION WITHIN THE IT ROOM.

5 CONDUIT FOR NEW FEEDER FOR EXISTING PANELBOARD TO STUB UP INTO EXISTING PANELBOARD AND SECURITY/ TELECOMMUNICATIONS CONDUITS TO BE STUBBED UP NEXT TO EXISTING PANELBOARD. EXISTING NORMAL AND GENERATOR PANELBOARD FEEDERS TO BE REMOVED BACK TO SOURCE.

6 RUN A 1" CONDUIT OUT FROM EACH NITROGEN REDUCTION SYSTEM CONTROL PANEL OUT EACH NITROGEN TANK FOR FLOAT SWITCH WIRING FURNISHED WITH EQUIPMENT. SEE SHEET TY104 FOR LOCATION OF CONTROL PANELS. COORDINATE ALL WORK WITH EQUIPMENT INSTALLER.

7 IN EXISTING MOTOR POOL BUILDING FEDERAL PACIFIC PANELBOARD LP FURNISH & INSTALL TWO NEW 20 AMP, SINGLE POLE CIRCUIT BREAKERS TO FEED WASTE PUMP AND WASTE PUMP CONTROLLER.

KEYED NOTES:

8 PROVIDE POWER FOR WASTE PUMP CONTROL PANEL, POWER FOR WASTE PUMP (VIA CONTROL PANEL) AND WIRING FOR PUMP STATION FLOAT SWITCHES. IN WASTE PIT WIRING TO BE SUITABLE FOR CLASS 1 DIVISION 1 HAZARDOUS LOCATION AND WIRING WITHIN 10' OF WASTE PIT TO BE SUITABLE FOR CLASS 1 DIVISION 2 HAZARDOUS LOCATION.

9 REMOVE EXISTING POLE MOUNTED LIGHT FIXTURE INCLUDING REMOVAL OF ALL WIRING FEEDING LIGHT BACK TO SOURCE.

10 REMOVE THREE SINGLE PHASE POLE MOUNT TRANSFORMERS, OVERHEAD FEEDER FOR TRANSFORMERS AND FUSED CUT OUTS. IF THERE ARE NO LIVE WIRES STILL RUN TO POLE THEN THE POLE SHALL ALSO BE REMOVED.

11 REMOVE EXISTING ABANDONED OVERHEAD LINE. FIELD VERIFY LINE IS NO LONGER IN USE BEFORE REMOVING.

12 FURNISH & INSTALL AN EIGHT POLE LIGHTING CONTACTOR FOR CONTROL OF EXTERIOR POLE LIGHTS. CONTACTOR TO BE CONTROLLED BY PHOTOCELLS INTEGRAL WITH LIGHTS AND A TORK MODEL #E201BOR EQUAL DIGITAL TIME CLOCK WIRED IN SERIES. MOUNT TIME CLOCK IN THE ELECTRICAL ROOM NEXT TO PANELBOARD RP3.

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM #3
9-2-20

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MACHIASPORT, MAINE

ELECTRICAL SITE PLAN

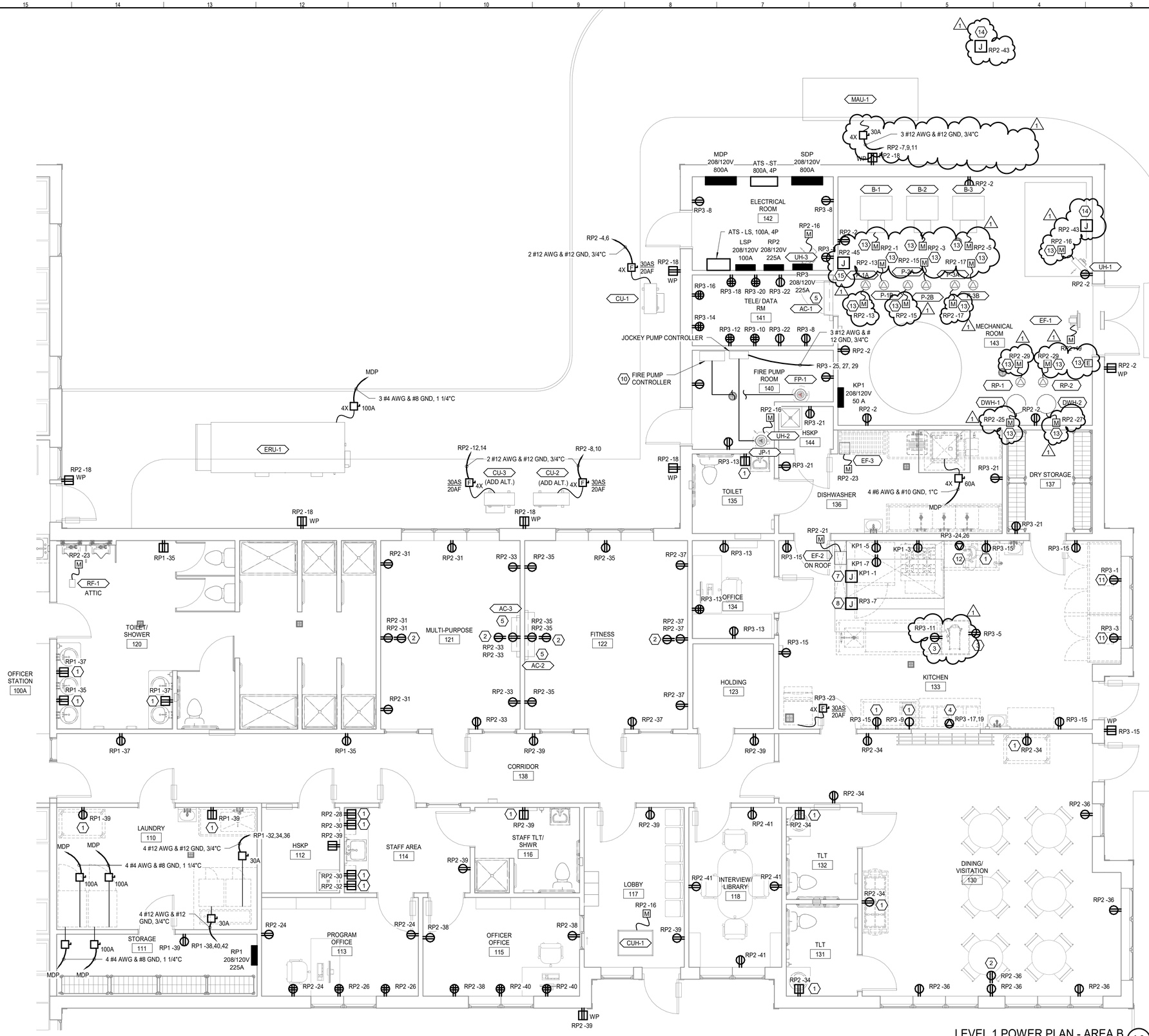
SHEET TITLE:

0 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	DJT		
JOB CAPTAIN:	CBM		
DRAWN BY:	TAR		
SMRT FILE:	19176-ES101	SHEET No.	ES101

24x36



LEVEL 1 POWER PLAN - AREA B A3

1/4" = 1'-0"

KEYED NOTES:

8. PROVIDE POWER FOR HOOD FIRE SUPPRESSION SYSTEM. PROVIDE EMPTY OUTLET BOX FOR HOOD MANUAL RELEASE LEVEL AND CONDUIT FROM BOX TO SUPPRESSION SYSTEM CONTROL PANEL. COORDINATE LOCATION OF FIRE SUPPRESSION CONTROL PANEL AND MANUAL RELEASE LEVER WITH EQUIPMENT INSTALLER.
9. PROVIDE TWO HEAVY DUTY CORDS WITH NEMA 5-20P CORD CAPS FOR CONNECTIONS TO STACKED COMBI-OVEN. FIELD COORDINATE WITH EQUIPMENT SUPPLIER FOR MOUNTING HEIGHT OF RECEPTACLES AND CONNECTIONS ON EQUIPMENT.
10. FIRE PUMP CONTROLLER WITH INTEGRAL AUTOMATIC TRANSFER SWITCH. SEE ONE-LINE DIAGRAM ON EP651 FOR WIRING REQUIREMENTS FOR FIRE PUMP CONTROLLER.
11. MOUNT RECEPTACLES 80" AFF TO BOTTOM OF DEVICE.
12. FURNISH AND INSTALL A NEMA 6-30R RECEPTACLE MOUNTED 48" AFF. WIRING TO BE 2#10AWG & # 10GND, 3/4"C.
13. FURNISH AND INSTALL EMERGENCY OFF SWITCH TO DISCONNECT POWER FOR ALL THREE BOILERS, WATER HEATERS, UNIT HEATERS AND ALL ASSOCIATED PUMPS. ELECTRICAL CONTRACTOR TO ALSO WIRE THERMAL SWITCHES SUPPLIED BY OTHERS FOR EACH BOILER TO DISCONNECT POWER FOR BOILERS. PROVIDE A 16 POLE CONTACTOR TO FEED EQUIPMENT SO THAT A SINGLE SWITCH WITH RED PLATE DISCONNECTS POWER FOR ALL PUMPS AND BOILERS.
14. PROVIDE POWER FOR EXTERNAL ALARM BOXES AT OIL AND PROPANE TANK FILL STATIONS. COORDINATE WITH TANK INSTALLER FOR EXACT LOCATIONS OF ELECTRICAL CONNECTIONS.
15. PROVIDE POWER FOR HVAC SYSTEM CONTROL PANELS. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT QUANTITY AND LOCATIONS OF CONTROL PANELS.

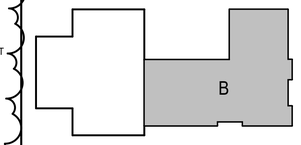
NOTES:

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.
2. SEE FOOD SERVICE DRAWINGS FOR ADDITIONAL NOTES, DETAILS AND INFORMATION FOR INSTALLATION OF KITCHEN EQUIPMENT.

KEYED NOTES:

1. MOUNT RECEPTACLE 42" AFF TO BOTTOM OF DEVICE.
2. MOUNT RECEPTACLE 60" AFF TO CENTER OF DEVICE.
3. MOUNT RECEPTACLE BELOW MIXER AND SLICER STANDS ON A 4" HIGH RIGID STEEL STUB UP.
4. FURNISH AND INSTALL A NEMA 6-20R RECEPTACLE FOR HOT FOOD WELL.
5. INDOOR SECTION OF SPLIT SYSTEM TO BE FED VIA CONDENSING UNIT MOUNTED ON ROOF. COORDINATE WITH MECHANICAL CONTRACTOR AND EQUIPMENT SUPPLIER FOR ALL WIRING REQUIRED BETWEEN INDOOR AND OUTDOOR UNITS.
6. MOUNT RECEPTACLE 80" AFF TO CENTER OF DEVICE.
7. PROVIDE WIRING TO PREWIRED HOOD LIGHTING CONTROL SWITCH. COORDINATE EXACT ELECTRICAL CONNECTION LOCATION WITH EQUIPMENT SUPPLIER.

MENS RE-ENTRY BUILDING



KEY PLAN F0

N.T.S.

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM #3
9-2-20

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MEN'S REENTRY CENTER - POWER PLAN - AREA B

SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	DJT		
JOB CAPTAIN:	CBM		
DRAWN BY:	TAR		
SMRT FILE:	EP102-19176		

EP102

SHEET No.

24x36

DIRECTORY	kVA LOAD A	kVA LOAD B	kVA LOAD C	CKT NO.	BKR AMPS	A B C (ST)	BKR AMPS	CKT NO.	kVA LOAD A	kVA LOAD B	kVA LOAD C	DIRECTORY
HOOD LIGHTS / CONTROLS	0.5			1	20		20	2				SPARE
(1) 4 BURNER CONVECTION OVEN		0.5		3	20		20	4				SPARE
(1) COMBI OVER			1.5	5	20		20	6				SPARE
(1) COMBI OVER	1.5			7	20		20	8				SPARE
SPARE				9	20		20	10				SPARE
SPARE				11	20		20	12				SPARE
SPACE				13				14				SPACE
SPACE				15				16				SPACE
SPACE				17				18				SPACE
SUB-TOTAL	2.0	0.5	1.5			NEUTRAL BUS / GROUND BUS			0.0	0.0	0.0	SUB-TOTAL

VOLTAGE: 208Y/120V 3 PHASE 4 WIRE 100 AMP BUS	TOTAL kVA A	2.0	PANEL NO. KP1
MAIN SHUNT TRIP BREAKER: 50 AMP TRIP	TOTAL kVA B	0.5	
MOUNTING: SURFACE	TOTAL kVA C	1.5	LOCATION MECHANICAL 143
SC RATING: 42,000 AIC	TOTAL kVA	4.0	

NOTES: (1) PROVIDE GFCI BREAKER WITH 5mA SENSITIVITY

DIRECTORY	kVA LOAD A	kVA LOAD B	kVA LOAD C	CKT NO.	BKR AMPS	A B C	BKR AMPS	CKT NO.	kVA LOAD A	kVA LOAD B	kVA LOAD C	DIRECTORY
FIRST FLOOR EMERGENCY LTG	1.2			1	20			2	3.0			
EXTERIOR LIGHTING		1.1		3	20		50	4		3.0		FIRE PUMP FP-1
LTG ELECT / TELE / SECURITY / ME			0.8	5	20			6			3.0	
FIRE ALARM CONTROL PANEL	1.0			7	20		20	8				SPARE
SPARE				9	20		20	10				SPARE
SPARE				11	20		20	12				SPARE
SPACE				13				14				SPACE
SPACE				15				16				SPACE
SPACE				17				18				SPACE
SUB-TOTAL	2.2	1.1	0.8			NEUTRAL BUS / GROUND BUS			3.0	3.0	3.0	SUB-TOTAL

VOLTAGE: 208Y/120V 3 PHASE 4 WIRE 100 AMP BUS	TOTAL kVA A	5.2	PANEL NO. LSP
MAIN SHUNT TRIP BREAKER: 100 AMP TRIP	TOTAL kVA B	4.1	
MOUNTING: SURFACE	TOTAL kVA C	3.8	LOCATION ELECTRICAL ROOM 142
SC RATING: 42,000 AIC	TOTAL kVA	13.1	

NOTES:

DIRECTORY	kVA LOAD A	kVA LOAD B	kVA LOAD C	CKT NO.	BKR AMPS	A B C	BKR AMPS	CKT NO.	kVA LOAD A	kVA LOAD B	kVA LOAD C	DIRECTORY
REACH IN REFRIGERATOR	1.8			1	20			2	1.4			
REACH IN FREEZER		1.8		3	20		50	4		1.4		PANELBOARD KP1
(1) SLICER TABLE RECEPTS			1.0	5	20			6			1.4	
HOOD LIGHTING / CONTROLS	0.5			7	20		20	8	0.8			RECEPTS ELECT / TEL DATA
TOASTER RECEPT		1.6		9	20		20	10		0.4		TEL / DATA RECEPT
(1) 20 QT. MIXER			1.4	11	20		20	12			0.4	TEL / DATA RECEPT
RECEPTS OFFICE / TOILET	0.9			13	20		20	14	0.4			TEL / DATA RECEPT
(1) KITCHEN RECEPTS		0.9		15	20		20	16		0.4		TEL / DATA RECEPT
HOT FOOD TABLE			1.5	17	20		20	18			0.4	TEL / DATA RECEPT
	1.5			19			20	20	0.4			TEL / DATA RECEPT
(1) RECEPTS RMS 136, 137, 144		0.8		21	20		20	22		0.4		TEL / DATA RECEPT
ICE MAKER WITH BIN			1.3	23	20		30	24			2.0	TABLE TOP KETTLE
JOCKEY PUMP CONTROLLER	0.5			25	15			26	2.0			
		0.5		27			20	28				SPARE
			0.5	29			20	30				SPARE
SPARE				31	15		20	32				SPARE
				33			20	34				SPARE
				35			20	36				SPARE
SPARE				37	20		20	38				SPARE
SPARE				39	20		20	40				SPARE
SPARE				41	20		20	42				SPARE
SPARE				43	20		20	44				SPARE
SPARE				45	20		20	46				SPARE
SPARE				47	20		20	48				SPARE
SPARE				49	20		20	50				SPARE
SPARE				51	20		20	52		0.8		SITE LIGHTING (1)
SPARE				53	20			54			0.8	
SPACE				55			20	56	0.5			SITE LIGHTING
SPACE				57				58		0.5		
SPACE				59				60				SPACE
SPACE				61				62	1.3			
SPACE				63			50	64		1.3		PANELBOARD KP1
SPACE				65				66			1.3	
SUB-TOTAL	5.2	5.6	5.7			NEUTRAL BUS / GROUND BUS			6.8	5.2 (1)	6.3	SUB-TOTAL

VOLTAGE: 208Y/120V 3 PHASE 4 WIRE 225A AMP BUS	TOTAL kVA A	11.0 (1)	PANEL NO. RP3
MAIN LUGS ONLY: 225A AMP LUGS	TOTAL kVA B	10.8	
MOUNTING: RECESSED	TOTAL kVA C	12.0	LOCATION ELECTRICAL ROOM 142
SC RATING: 42,000 AIC	TOTAL kVA	(1) 34.8	

NOTES: (1) PROVIDE GFCI BREAKER WITH 5mA SENSITIVITY

DIRECTORY	kVA LOAD A	kVA LOAD B	kVA LOAD C	CKT NO.	BKR AMPS	A B C	BKR AMPS	CKT NO.	kVA LOAD A	kVA LOAD B	kVA LOAD C	DIRECTORY
BOILER B-1	1.2			1	20		20	2	1.3			RECEPTS MECHANICAL ROOM
BOILER B-2		1.2		3	20		20	4		1.4		TELE / DATA SPLIT SYSTEM
BOILER B-3			1.2	5	20			6			1.4	
KITCHEN HOOD MAKE-UP PWR	0.3			7	15		20	8	1.4			FITNESS SPLIT SYSTEM
		0.3		9				10		1.4		
			0.3	11				12			1.4	MULTI - PURPOSE SPLIT SYSTEM
PUMPS P-1A / P-1B	1.6			13	20		20	14	1.4			
PUMPS P-2A / P-2B		0.5		15	20		20	16		1.0		UNIT HEATER CUH-1, UH - 1,2,3
PUMPS P-3A / P-3B			1.6	17	20		20	18			0.9	EXTERIOR RECEPTS
EXHAUST FAN EF-1	0.7			19	20		20	20	1.3			LTG RMS 118, 122, 123, 130 - 137, 144
EXHAUST FAN EF-2		0.9		21	20		20	22		0.4		LTG MECHANICAL ROOM
EXHAUST FAN EF-3, RADON RF-1			0.6	23	20		20	24			0.8	RECEPTS PROGRAM OFFICE
DOMESTIC WATER HEATER DWH-1	1.2			25	20		20	26	0.8			RECEPTS PROGRAM OFFICE
DOMESTIC WATER HEATER DWH-2		1.2		27	20		20	28		0.2		STAFF AREA COUNTER RECEPT
RECIRC PUMP RP-1, RP-2			0.6	29	20		20	30			0.4	STAFF AREA COUNTER RECEPT
RECEPTS MULTI - PURPOSE	0.9			31	20		20	32	0.2			STAFF AREA COUNTER RECEPT
RECEPTS MULTI - PURPOSE		0.9		33	20		20	34		1.1		RECEPTS DINING / VISITATION / TOILET
RECEPTS FITNESS			0.9	35	20		20	36			1.1	RECEPTS DINING / VISITATION / EXT
RECEPTS FITNESS	0.9			37	20		20	38	0.8			RECEPTS OFFICER OFFICE
RECEPTS RM 114, 116, 117, 138 EXT		1.3		39	20		20	40		0.8		RECEPTS OFFICER OFFICE
RECEPTS INTERVIEW			0.8	41	20		20	42				SPARE
TANK ALARM BOXES	1.0			43	20		20	44				SPARE
(1) HVAC CONTROL PANEL		1.0		45	20		20	46				SPARE
SPARE				47	20		20	48				SPARE
SPARE				49	20		20	50				SPARE
SPARE				51	20		20	52				SPARE
SPARE				53	20		20	54				SPARE
SPARE				55	20		20	56				SPARE
SPARE				57	20		20	58				SPARE
SPARE				59	20		20	60				SPARE
SPACE				61				62				SPACE
SPACE				63				64				SPACE
SPACE				65				66				SPACE
(1) SUB-TOTAL	7.8	7.3	6.0			NEUTRAL BUS / GROUND BUS			7.2	6.3	6.0	SUB-TOTAL

VOLTAGE: 208Y/120V 3 PHASE 4 WIRE 225A AMP BUS	TOTAL kVA A	15.0	PANEL NO. RP2
MAIN LUGS ONLY: 225A AMP LUGS	TOTAL kVA B	(1) 13.6	
MOUNTING: RECESSED	TOTAL kVA C	12.0	LOCATION ELECTRICAL ROOM 142
SC RATING: 42,000 AIC	TOTAL kVA	(1) 40.6	

NOTES:

DIRECTORY	kVA LOAD A	kVA LOAD B	kVA LOAD C	CKT NO.	BKR AMPS	A B C	BKR AMPS	CKT NO.	kVA LOAD A	kVA LOAD B	kVA LOAD C	DIRECTORY
RECEPTS BEDROOM 103	0.9			1	20		20	2	0.9			RECEPTS BEDROOM 104
RECEPTS BEDROOM 103		0.8		3	20		20	4		0.8		RECEPTS BEDROOM 104
RECEPTS BEDROOM 103			0.9	5	20		20	6			0.8	RECEPTS BEDROOM 104
RECEPTS BEDROOM 103	0.9			7	20		20	8	0.9			RECEPTS BEDROOM 104
RECEPTS BEDROOM 102		0.9		9	20		20	10		0.9		RECEPTS BEDROOM 105
RECEPTS BEDROOM 102			0.9	11	20		20	12			0.8	RECEPTS BEDROOM 105
RECEPTS BEDROOM 102	0.8			13	20		20	14	0.8			RECEPTS BEDROOM 105
RECEPTS BEDROOM 102		0.8		15	20		20	16		0.9		RECEPTS BEDROOM 105
RECEPTS BEDROOM 101			0.8	17	20		20	18			0.9	RECEPTS BEDROOM 106
RECEPTS BEDROOM 101	0.9			19	20		20	20	0.8			RECEPTS BEDROOM 106
RECEPTS BEDROOM 101		0.9		21	20		20	22		0.8		RECEPTS BEDROOM 106
RECEPTS BEDROOM 101			0.8	23	20		20	24			0.9	RECEPTS BEDROOM 106
RECEPTS COMMUNITY RM 100	0.8			25	20		20	26	1.3			LTG BEDROOMS 101, 102, 103
RECEPTS COMMUNITY RM 100		0.8		27	20		20	28		1.3		LTG BEDROOMS 104, 105, 106
RECEPTS COMMUNITY RM 100			0.8	29	20		20	30			1.1	LTG COMMUNITY ROOM / SHOWERS
RECEPTS COMMUNITY OFFICER	0.8			31	20			32	0.3			
SPARE		-		33	20		20	34		0.3		ELECTRIC 50LB WASHER
RECEPTS TOILET / SHOWER / CORRIDOR			0.6	35	20			36			0.3	
RECEPTS TOILET / SHOWER / CORRIDOR	0.6			37	20			38	0.3			
RECEPTS LAUNDRY		0.6		39	20		20	40		0.3		ELECTRIC 50LB WASHER
LTG RMS 110-117, 121, 138			1.2	41	20			42			0.3	
SPARE				43	20		20	44				SPARE
SPARE				45	20		20	46				SPARE
SPARE				47	20		20	48				SPARE
SPARE				49	20		20	50				SPARE
SPARE				51	20		20	52				SPARE
SPARE				53	20		20	54				SPARE
SPARE				55	20		20	56				SPARE
SPARE				57	20		20	58				SPARE
SPARE				59	20		20	60				SPARE
SPACE				61				62				SPACE
SPACE				63				64				SPACE
SPACE				65				66				SPACE
SUB-TOTAL	5.7	4.8	6.0			NEUTRAL BUS / GROUND BUS			5.5	5.5	5.1	SUB-TOTAL

VOLTAGE: 208Y/120V 3 PHASE 4 WIRE 225A AMP BUS	TOTAL kVA A	11.2	PANEL NO. RP1
MAIN LUGS ONLY: 225A AMP LUGS	TOTAL kVA B	10.3	
MOUNTING: RECESSED	TOTAL kVA C	11.1	LOCATION STORAGE 111
SC RATING: 22,000 AIC	TOTAL kVA	32.6	

NOTES:

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM #3
9-2-20

CURRENT ISSUE STATUS:

SMRT Architects and Engineers
75 Washington Ave - Suite 3A
Portland, Maine 04101
1.877.700.7678
www.smrtinc.com

MDOC DCF
MEN'S RE-ENTRY CENTER

MACHIASPORT, MAINE

PANEL SCHEDULES

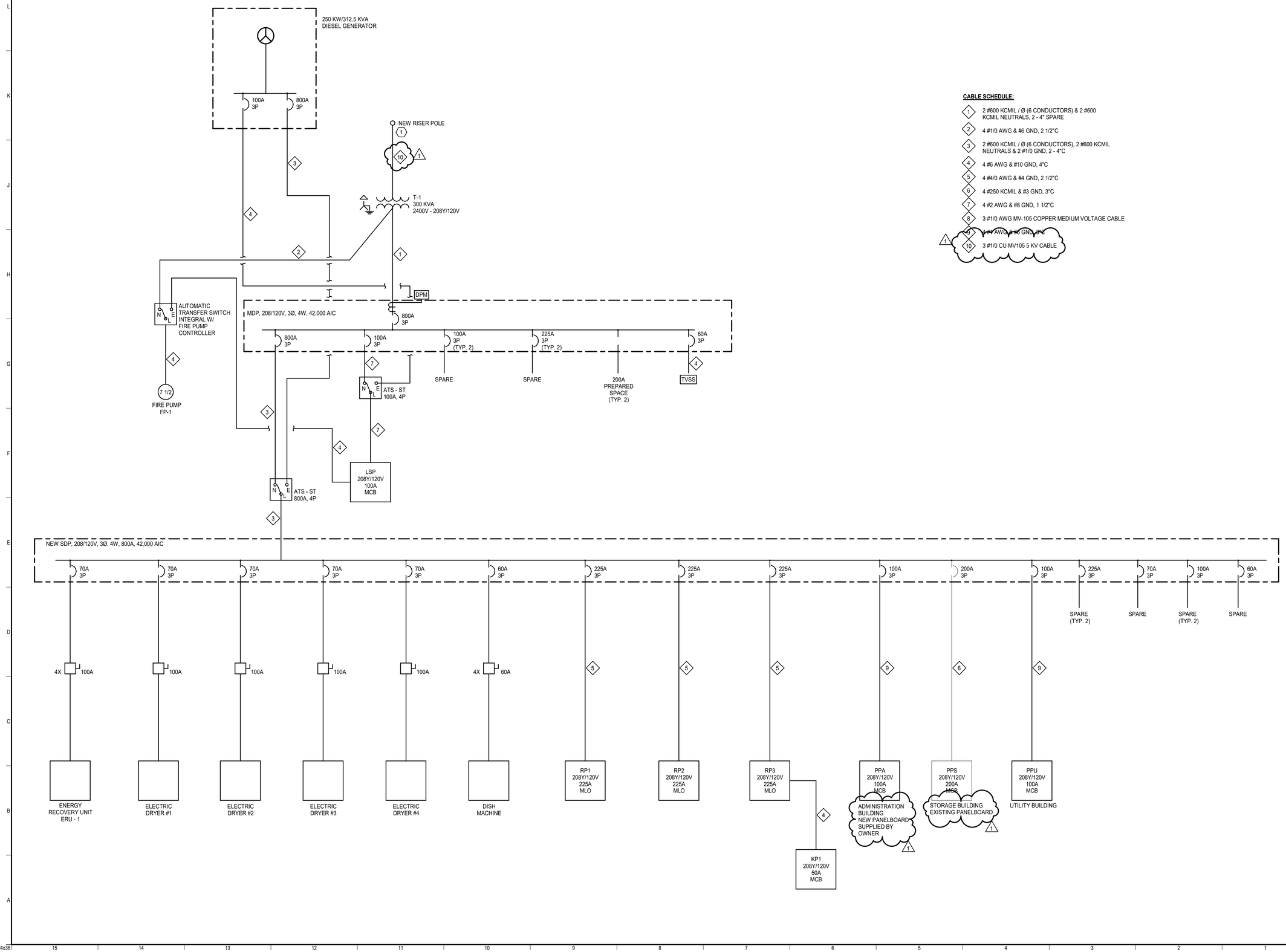
SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	DJT		
JOB CAPTAIN:	CBM	EP601	
DRAWN BY:	TAR		
SMRT FILE:	EP601-19176	SHEET No.	

24x36



CABLE SCHEDULE:

1. 2 #600 KCMIL / Ø (6 CONDUCTORS) & 2 #600 KCMIL NEUTRALS, 2 - 4" SPARE
2. 4 #1/0 AWG & #6 GND, 2 1/2"C
3. 2 #600 KCMIL / Ø (6 CONDUCTORS), 2 #600 KCMIL NEUTRALS & 2 #1/0 GND, 2 - 4"C
4. 4 #6 AWG & #10 GND, 4"C
5. 4 #4/0 AWG & #4 GND, 2 1/2"C
6. 4 #250 KCMIL & #3 GND, 3"C
7. 4 #2 AWG & #8 GND, 1 1/2"C
8. 3 #1/0 AWG MV-105 COPPER MEDIUM VOLTAGE CABLE
9. 4 #4 AWG & #6 GND, 2"C
10. 3 #1/0 CU MV105 5 KV CABLE

NOTES:

1. SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.

KEYED NOTES:

1. ELECTRICAL CONTRACTOR TO SUPPLY NEW 100 AMP FUSED CUT-OUTS ON NEW RISER POLE.

REV	DESCRIPTION	DATE
1	ADDENDUM #3	9-2-20
0	ISSUED FOR CONSTRUCTION	08-14-20

ADDENDUM #3
9-2-20

CURRENT ISSUE STATUS:

PROJECT NORTH:

SMRT Architects and Engineers
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Architecture • Engineering • Planning

MDOC DCF
MEN'S RE-ENTRY CENTER

MACHIASPORT, MAINE

ONE-LINE DIAGRAM

SHEET TITLE:

0" 1/4" 1/2" 1" 2" 3"

SCALE: AS NOTED

PROJECT MANAGER:	JGJ	PROJECT NO:	19176
A/E OF RECORD:	DJT		
JOB CAPTAIN:	CBM		EP651
DRAWN BY:	TAR		
SMRT FILE:	EP651-19176	SHEET No.	

24x36