

OREGON PARKS & RECREATION DEPARTMENT 5330 Seaman Road Oregon, Ohio 43616 (419) 698-7145 FAX (419) 698-7086



March 15, 2023

ADDENDUM No. 1

Recreation Buildings - 2023

BIDS TO BE OPENED: Tuesday, March 21, 2023 at 10:00 AM

Plan holders of the Recreation Buildings - 2023 Project are hereby notified of the following amendments to the Contract Documents. The following additions, alterations, deletions and/or clarifications shall be part of the bid specifications as much as if they were originally included in the Contract Documents. This Addendum No. 1 is hereby made a part of the Contract Documents and must be receipted for on the proposal form.

NOTE: Addenda are emailed only to official plan holders who obtained plans and specifications from the Newfax Corporation, Inc., who is responsible for distribution of said plans and specifications. Each Prime Contractor is responsible for notifying subcontractors of any addenda issued.

Pre-Bid Meeting

- The following companies were represented at the voluntary pre-bid held on March 7, 2023; see also attached sign in sheet.
 - Midwest Contracting Inc.
 - o Dimech
 - Positive Trades Group
 - Sperling Heating & Ventilation
 - Miller Diversified
 - Telamon Construction
 - Comte Construction Co.
 - o A.A. Boos & Sons

CONTRACT CHANGES

1) Specification 09 21 16 Gypsum Board Assemblies

• Change section 2.8 Access Hatch Accessories, A.1. to read "24"x24" for walls, 24"x36" for ceilings, 1 latch, concealed hinge, 20 gauge galv. formed door panel, 26 gauge galv. frame, paintable."

2) Specification 10 28 13 Toilet Accessories

- Under 2.9.A. Saniflow SpeedFlow Plus is an approved manufacturer as long as they abide by all specifications and project requirements.
- Under 2.8.A Saniflow Babymedi baby changing station is an approved manufacturer as long as they abide by all specifications and project requirements.

ANSWERS TO SUBMITTED QUESTIONS

1) <u>Bidder Question</u>: Please confirm if the entire Volume 1 book needs to be submitted with the bid or just the Bid Forms section?

Architect/Engineer Response: The entirety of PROJECT MANUAL – VOLUME 1 – BID AND CONTRACT DOCUMENTS is to be submitted with the bid. If there are any addendum pages related to this book they should be inserted or stapled to the replaced pages.

- 2) <u>Bidder Question</u>: It appears that all of the electrical panels are flush mount in block walls with hard ceilings above. I have a few concerns about this.
 - This eliminates access for "future" customer needs.
 - The block walls will be full of conduits instead of insulation/grout which would cause condensation issues in the panels.
 - The panels are very close to windows and doors. This will cause conflict with masonry supports and rebar inside of the walls.
 - The top plate and sills would be almost nonexistent due to the conduits leaving the panels.
 - Is there any chance the customer may change their mind on recessed breaker panels?
 Maybe build a wooden chase around the conduits to hide them at the panel location?
 - Architect/Engineer Response: (2) electrical panels have been revised to be surface mounted (Pressbox and Concession Main panel). Electrical panel in the kitchen (panel K) shall be recessed in drywall & insultation added for condensation protection. See attached revised drawings A1.1, E2.1, & E2.2.
- 3) <u>Bidder Question</u>: Sheet E2.1 It looks like there will be a clearance issue between the Kitchen panel and the Patch panel. Please advise.

Architect/Engineer Response: Locations of panels have been adjusted. Refer to sheet E2.1

- 4) <u>Bidder Question:</u> If no conduit is allowed to be exposed. Are you planning on the 4" for data to be inside the block wall? If are you planning a big j box installed in the wall so that the fiber could enter the back of the patch panel? We would then encounter some of the same issues as stated in 1b and 1c above.
 - Architect/Engineer Response: Title sheet, note #17 revised. Exposed conduit is acceptable where required at panels and incoming communication stubs. Refer to electrical specifications for exposed conduit requirements.
- 5) <u>Bidder Question:</u> If no conduit is allowed to be exposed. Are you planning on the 4" for data to be inside the block wall? If are you planning a big j box installed in the wall so that the fiber could enter the back of the patch panel? We would then encounter some of the same issues as stated in 1b and 1c above.
 - Architect/Engineer Response: We understand some items may need to be exposed, but minimized.

6) **<u>Bidder Question</u>**: The press box does not show a patch panel. Where should the data conduits stub to?

Architect/Engineer Response: Data shall homerun to same vicinity as incoming 4" stub for future communications. Refer to sheet E2.2.

7) **<u>Bidder Question</u>**: E2.2 the EWC breaker in the panel schedule does not show GFI.

Architect/Engineer Response: Revised in panel schedule, sheet E2.2 indicates GFI breaker.

8) <u>Bidder Question</u>: E2.2 Keyed note B. will this be known before rough in? If after rough in there may need to be access provided in the bench to keep code compliance.

Architect/Engineer Response: Unknown at this time.

- 9) <u>Bidder Question</u>: E2.2 and E1.1 show the use of 2x2 and 2x4 recessed lights. Even with drywall flanges these will not work with the joists at 16" or 24" OC. Are the joists supposed to be moved to accommodate the fixtures?
 - Architect/Engineer Response: Fixture schedule revised to have lights surface mounted. Refer to sheet E1.1
- 10) <u>Bidder Question</u>: If the fixtures are to be changed to surface mount. This will ultimately add a lot of access holes for all the trades. Is there a specific access cover that is required?
 - Architect/Engineer Response: The lights will be surface mounted. Access will be in the attic.
 Provide attic access doors as shown on the attached revised drawings A7.1 and A7.2.
 The access door can be found in specification section 09 21 16. Note the section was changed in this addendum, see note above.
- 11) <u>Bidder Question</u>: Please confirm that all irrigation lines, heads, etc. are excluded from project scope. Irrigation sleeves only, as shown, are to be provided.
 - Architect/Engineer Response: The contractor shall only be responsible for installing 3" irrigation sleeves under pavement areas as shown on sheet C-8. No additional work related to irrigation is included as part of this project. Under a separate agreement, the City will have an irrigation contractor install any required conduit, heads, etc. for irrigation.
- 12) <u>Bidder Question:</u> Regarding the stairs to the Pressbox: Drawing S2.2 shows a 12x3x5/16 stringer. This is not a size that shows up within the steel books. Is there an alternate or more common size that should be provided?
 - Architect/Engineer Response: This is a common size and should be obtainable, however, 12x3x1/4" is also acceptable or C channel 12x20.7.

- 13) <u>Bidder Question:</u> Regarding the stairs to the Pressbox: Drawing S2.2 calls for Welded Bar Grating as the walking surface, A5.3 calls for traction treads. Please confirm which is correct.
 - Architect/Engineer Response: Welded bar grating is correct. Drawing A5.3 was corrected to match S2.2.
- 14) **<u>Bidder Question</u>**: Please provide additional details on the cable railing?
 - Architect/Engineer Response: New cable railing specification was added. Railing details can be found on sheer A5.3.
- 15) <u>Bidder Question</u>: Please confirm 1 layer of R30 batt insulation installed between the trusses is the design intent for the attic insulation. Details on A5.1 show R-30, Details on A6.1 show R-19, neither calls for a double layer to be run perpendicular to one another.
 - Architect/Engineer Response: Provide 1 layer of R19 batt insulation between roof trusses w/ another 1 layer of R21 unfaced batt insulation run perpendicular to the trusses for a total R value of 30. See revised drawing A6.1.
- 16) <u>Bidder Question</u>: Are the two louvers on the gable ends of the concession / restroom building functional or decorative? Is there a spec available for these or a basis of design?

Architect/Engineer Response: Gable louvers to be decorative; see drawing M1.1.

17) <u>Bidder Question</u>: At the countertops on the concession building, are countertops to be granite or quartz or both? Specs only list granite but the window sill detail calls quartz.

Architect/Engineer Response: Specifications are correct; see attached revised drawing A2.1

- 18) <u>Bidder Question</u>: The 12"W vented soffit panels are shown to be running parallel to the roof trusses that we should be attaching to. Some sort of blocking or sheathing will be required to run perpendicular to the trusses to catch both ends of these soffit panels. Will this be a means and methods determination by the contractor or is there a specific detail that should be followed?
 - Architect/Engineer Response: Where soffit panels are to be installed parallel with roof trusses provide blocking as required. coordinate with manufacturer installation requirements.
- 19) <u>Bidder Question:</u> I was told we have to become an official plan holder in order to bid the Oregon Recreation Buildings. How do I go about this?
 - Architect/Engineer Response: Per the Notice to Bidders: All bids must be made on the proposal forms, which with the contract documents, including Specifications and Bid Forms must be obtained from <u>Newfax Corporation, Inc.</u>, 333 West Woodruff Avenue, Toledo, OH 43604, P (419) 241-5157, M-F 8:30 am to 4:30 pm. Contact <u>Newfax Corporation</u> for cost of documents. Deposits are non-refundable.

Please also be aware that Bid blanks shall not be removed from the PROJECT MANUAL – VOLUME 1 – BID AND CONTRACT DOCUMENTS Book and the entire PROJECT MANUAL – VOLUME 1 – BID AND CONTRACT DOCUMENTS Book is to be turned in at the time of the bid.

ATTACHMENTS:

- New Specification Section 05 73 01 Cable Railing
- Revised Drawing A1.1
- Revised Drawing A2.1
- Revised Drawing A5.3
- Revised Drawing A6.1
- Revised Drawing A7.1
- Revised Drawing A7.2
- Revised Drawing E1.1
- Revised Drawing E2.1
- Revised Drawing E2.2

* * * END OF ADDENDUM NO. 1 * * *

City of Oregon

Recreational Complex Buildings Pre-Bid Meeting - Attendance Sheet

Those in attendance for the Pre-Bid Meeting held at the City of Oregon on Tuesday, March 7, 2023 at 10:00 AM were as follows:

Name	Representing	Phone No.	Email
UINCE SZABO	CITY OF OREGON	419-698-7161	VSZabo@oregonohio.org
ROPNEY SHULTZ	CITY OF OREGON	419-698-7015	rshultz@oreponohio.org
Tin Bara	City of Origa	616-698-7148	+ Sartan & Ovegoroh, U. OVS
Joseph Snyder	Buchier Grap	419-893-9021	Joel Buchter Grap.com
Alex Schrinul	Buchner Gray	419-393-9021	alex. schrinel @ buchvergroup.com
Rich Somund	Dimech	419-727-0111	RSouthurd C Dimach. com
Jarek Griffiths	Midwest	419 - 866- 4560	jarek, griffiths @ midwest - contracting.co
Ethan Myers	Positive Trades Group	419-200-9963	ethon. nyers @positivetrades group.com
Verek Seal	Spenling Heating & Ventillating	419-270-8169	derek. deal@thesperlingcompany. com
Nate Pearson	Miller Diversified	4 19-343-5644	nfarson e millardiversified, com
Reese Brossia	TELAMON Construction	567-201-0543	r brossing telemon construction.com
Bob Conta	Conta Const. Cc.	419-241-3254	CANiz Conte C Att- Net
Tim Brown	AA Boos and Sons	419-271-2159	timbrown@ aaboos, com
Mike Rowe (Virtual)		
- /			

Pre-Bid Meeting Miscellaneous Projects for City of Oregon Recreational Department

		Sign In Sheet	
Name <u>PLEASE PRINT CLEARLY</u>	Company	Email	Phone#
Rich Southward	D: meih	RSothward C Dinch. com	419-727-0111
Jarek Griffiths	Midwest	jarek.griffiths @ Midwest-contracting.com	419-866-4560
Ethan Myers	Positive Trules Group	ethan.mycro@positivetradesgroup.con	419-250-9963
Derek Deal	Sperling Heating & Ventillating Miller Diversified	dere k. deal@the sperling company, com	419-270-8169
Nate Pearson	Miller Diversified	n Plarson e millardiversified, com	419-343-5-644
Rease BrossiA	Telamon Construction	r brossing telamonconstruction.com	567-201-0543
Bob Conte	Course Const. Cc.	Chaig conte e Atto Net	419-241-3254

You must sign in to be recorded in the Meeting Minutes Buehrer Group Architecture & Engineering, Inc.

1. PART 1 - GENERAL

- 1.1 SECTION INCLUDES
 - A. Aluminum Railing with wire cable infill
 - B. Stair and ramp guardrails with cable infill
 - C. Wall mounted and guardrail mounted handrails

1.2 RELATED SECTIONS

A. Section 05 51 00 - Metal Stairs

1.3 REFERENCES

- A. ANSI A1264.1 Safety Requirements for Workplace Floor and Wall Openings, Stairs, and Railing Systems.
- B. ASTM A 492 Standard Specification for Stainless Steel Rope Wire
- C. ASTM B 211 Standard Specification for Aluminum and Aluminum-Alloy Bar, Rod, Wire.
- D. ASTM B 247 Standard Specification for Aluminum and Aluminum Die Forgings, Hand Forgings and rolled Ring Forgings.
- E. ASTM E 935 Standard Test Methods for Permanent Metal Railing Systems and Rails for Buildings.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Comply with requirements of building authorities having jurisdiction in Project location and the following:
 - 1) Handrail Standard: ANSI A1264.1
 - 2) Occupational Safety and Health Administration 29 CFR 1910.23 -Guarding floor and wall openings.
- B. Structural Performance: Engineer, fabricate, and install handrails, guardrails, and railing systems to withstand, when tested per ASTM E 935, loadings required by applicable building and safety codes but not less than the following:
- C. Design Loads: Design to the following requirements. Concentrated and uniform loading need not be applied simultaneously.
 - 1) Uniform load: 50 pounds per foot (74.3 kg/m) applied at the top in any direction.
 - 2) Concentrated load: 200 pounds (90.6 kg) applied at the top in any

- 1.5 SUBMITTALS
 - A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1) Preparation instructions and recommendations.
 - 2) Details of material and construction.
 - 3) Storage and handling requirements and recommendations.
 - 4) Installation methods and requirements.
 - B. Shop Drawings: Submit shop drawings for fabrication and installation of ornamental metalwork. Include plans, elevations and detail sections. Indicate materials, methods, finishes and types of joinery, fasteners, anchorages and accessory items.
 - C. Load Tests: Submit test results from ASTM E 935 conducted on the manufacturer's supplied system indicating compliance with required structural loading.
 - D. Selection Samples: For each finish product specified, two complete sets of color charts representing manufacturer's full range of available colors and patterns.
 - E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
 - F. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic cleaning and maintenance of all components.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 3 years documented experience producing systems specified in this section.
- B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1) Finish areas designated by Architect.
 - 2) Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3) Refinish mock-up area as required to produce acceptable work.
 - 4) Accepted mock-ups shall be comparison standard for remaining Work
- 1.7 DELIVERY, STORAGE, AND HANDLING
 - A. Store products in manufacturer's unopened, properly labeled, original packaging

- until ready for installation.
- B. Store components to avoid damage from moisture, abrasion, and other construction activities.

1.8 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Field Measurements: Take measurements of actual dimensions where necessary for fit without gaps. Indicate measurements on shop drawings.

2. PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Superior Aluminum Products, Series 5C Cable Railing. Provide bases of design product, or comparable approved by Architect prior to bid.
 - 1) R & B Wagner, Inc (Wagner Companies) Ultra-tec Cable Railing -Milwaukee, WI (888-243-6914).
 - Superior Aluminum Products Series 2000 Cable Railing Russia, OH (937-526-4065).
 - 3) Livers Bronze Mirage Railing with Cable Kansas City, MO (816-300-2828).
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- C. Delegated design option: contractor can custom build the railing system as long as it meets all the aesthetic, material and performance requirements outlined in these specifications.

2.2 RAIL FRAMING COMPONENTS

- A. Pipe Cable Railing Series 5C: 1-1/2-inch (3.81 cm) Schedule 40 pipe with 1.9 inch (4.83 cm) outside diameter creates a framework containing openings for cables. Horizontal pipe is connected to post via concealed fasteners. No joints shall be fastened via welding. All posts are single posts manufactured to withstand maximum tension levels.
 - 1) Horizontal Pipe Rail
 - a) Pipe: 1-1/2-inch (3.81 cm) Schedule 40 pipe with 1.9 inch (4.83 cm)

outside diameter runs between posts and utilizes concealed fasteners.

- b) Top rail shall be continuous
- 2) Guard rail posts:
 - a) 1 1/2 -inch Schedule 40 pipe (3.81 cm) with 1.9 inch (4.83 cm) outside diameter fully reinforced for tensioning of c cables.
 - b) 1 ½ inch Schedule 40 pipe (3.81 cm) with 1.9 inch (4.83 cm) outside diameter with reinforcement rebar inserts for positioning of cables and supporting handrails between tensioning posts.
 - c) Each post to have pre-drilled holes, spaced 3 inches on center, to accommodate fittings or support the cable.
 - 3) Height
 - a) 42 inches
 - 4) Base: Size to fit the posts specified.

a) heavy duty surface mounted base.

2.3 CABLES AND CABLE HARDWARE

- A. Cables:
 - 1) Material: 1 x 19 Type 316 Stainless Steel strand, left-hand lay, per dimensional properties contained in MIL-DTL-87161
 - 2) Finish: PVC coated
 - 3) Diameter: 3/16 inch (4.8mm) diameter cable with a minimum breaking strength of 4000 pounds
 - 4) Orientation: Horizontal and sloped parallel to match stair pitch.
 - 5) Spacing: 3" on center
- B. Cable Hardware Components
 - 1) Material: Stainless Steel, ASTM A276 and A479, SAE/AMS QQ-S-763, Type 316
 - 2) Type: Hardware substantially hidden inside end posts.
- 2.4 HAND RAIL: Series 5H Mounted Hand Rail
 - A. Pipe: 1-1/2-inch (3.81 cm) Schedule 40 pipe with 1.9 inch (4.83 cm) outside diameter.

- B. Handrails to run continuously throughout the whole length of handrail system.
- C. Mount to wall, railing, or other structure by utilizing mounting plates.
- D. No components shall be fastened via welding.
- E. Handrail to be installed at 36 above ramp or stair surface.
- F. Clearance of a minimum 1 1/2" shall exist between the wall or post surface and handrail
- G. Top and bottoms of handrail sections that stop at a landing, the handrail shall extend 12 in horizontally beyond the top riser and 12 in. horizontally beyond the bottom tread.
- H. Handrail shall be continuous, without interruption by newel posts or other obstructions.
- I. Handrails shall return to a wall, guard or walking surface.
- 2.5 FINISH
 - A. Duranodic Architectural hard Coated Anodized Finish, AA-M12-C22-A42.
 - 1) Black

2.6 FABRICATION

- A. Tolerances: Verify dimensions on site prior to shop fabrication for proper connection to building structure or substrate.
- B. Components or railing sections shall be fabricated to exact measurements specified through Drawings and field dimensions.
- C. Railing sections shall be fabricated at the manufacturing facility in largest practical site delivery.
 - 1) Sections that require no site assembling shall have with cable infill installed and tensioned.
 - 2) Sections requiring site assembling shall have cable infill installed loosely and ready for connection to aluminum frame with factory drilled posts, inserts and grommets.
- D. Pipe cuts shall be square and accurate for minimum joint-gap. Cuts shall be clean and free of chamfer, from deburring, nicks and burrs.
- E. Railings angled horizontally, machine castings to proper angle.
- F. Tension all gables in the guard rail system to a minimum of 250 pounds.
- G. Fabricate railing system to meet step railing requirements; riser and tread dimensions of the steps. Mount to stair stringer.

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- H. Posts grouted in concrete to have one nominal 1/4 inch (6.0 mm) nominal diameter weep hole, 1/2 inch (12.0 mm) nominal above post collar, in the plane of the rail.
- I. Provide components required for anchorage of framing. Fabricate anchors and related components of material and finish as required, or as specifically noted.

3. EXECUTION

- 3.1 EXAMINATION
 - A. Do not begin installation until substrates have been properly prepared. Fully review the supporting structure and substrate to verify a structurally sound base for anchoring railing system.
 - B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Ensure that adjacent surfaces, structures, and finishes are protected from damage by construction activities of this section.
- C. Use wood blocks and padding to prevent damage to railing members and fittings during erection.
- D. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Keep perimeter lines straight, plumb, and level.
- C. Provide grounds, clips, backing materials, adhesives, brackets, anchors, and accessories necessary for a complete installation.
 - 1) Expansion Bolt Mounting: Anchor through base plates to concrete substrate.
 - 2) Sleeve Mounting:
 - a) Arrange for casting of sleeves or core drill concrete to provide holes for railing uprights.
 - b) After setting, fill holes with hydraulic grout; brace members until grout is cured.
 - 3) Connect railing components in accordance with manufacturer's instructions applicable to the specified system. Tighten all fasteners so

that completed railing is rigid and free of play at joints and component attachments.

- 4) Do not tension the cables completely until all the cables have been installed between the end posts.
- 5) Provide intermediate support posts between end posts and tension cables to maintain a 3 inch (7.62 cm) maximum center to center spacing between cables.

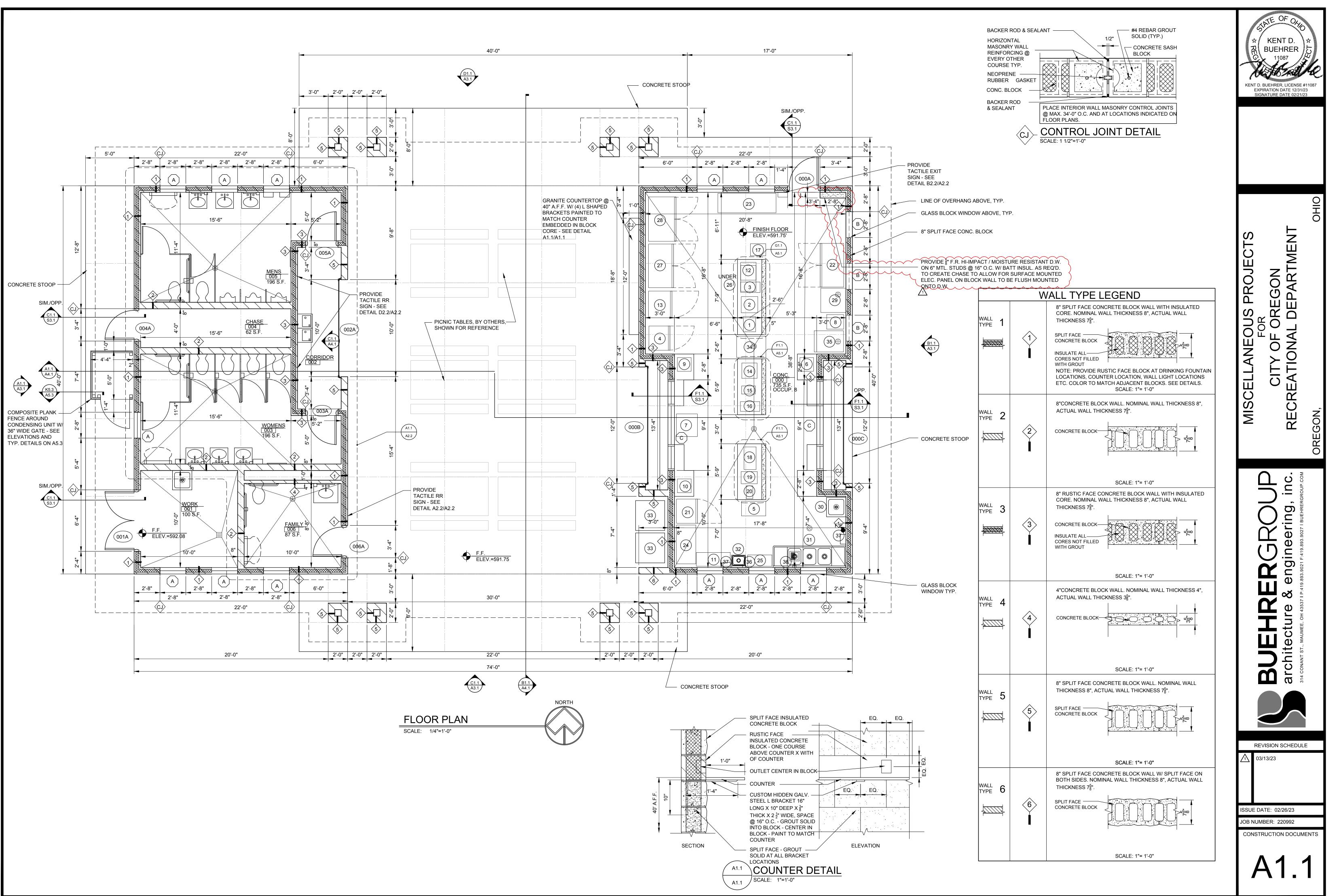
3.4 ERECTION TOLERANCES

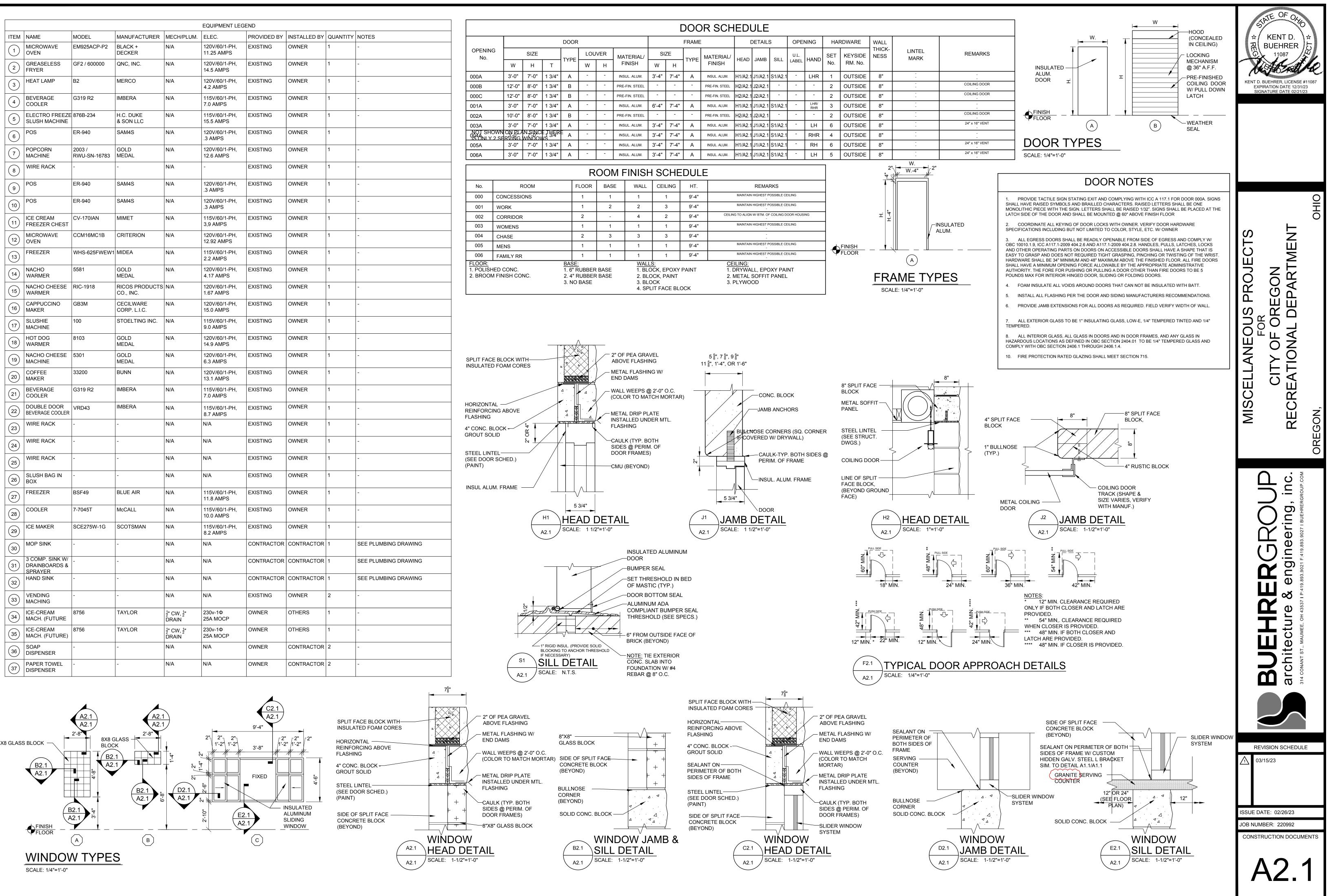
- A. Install railings plumb and level, securely fastened, with vertical members plumb.
 - 1) Maximum variation from plumb: 1/4 inch (6.0 mm).
 - 2) Maximum misalignment from true position: 1/4 inch (6.0 mm).
 - 3) Maximum misalignment between adjacent separated members: 1/8 inch (3.0 mm).

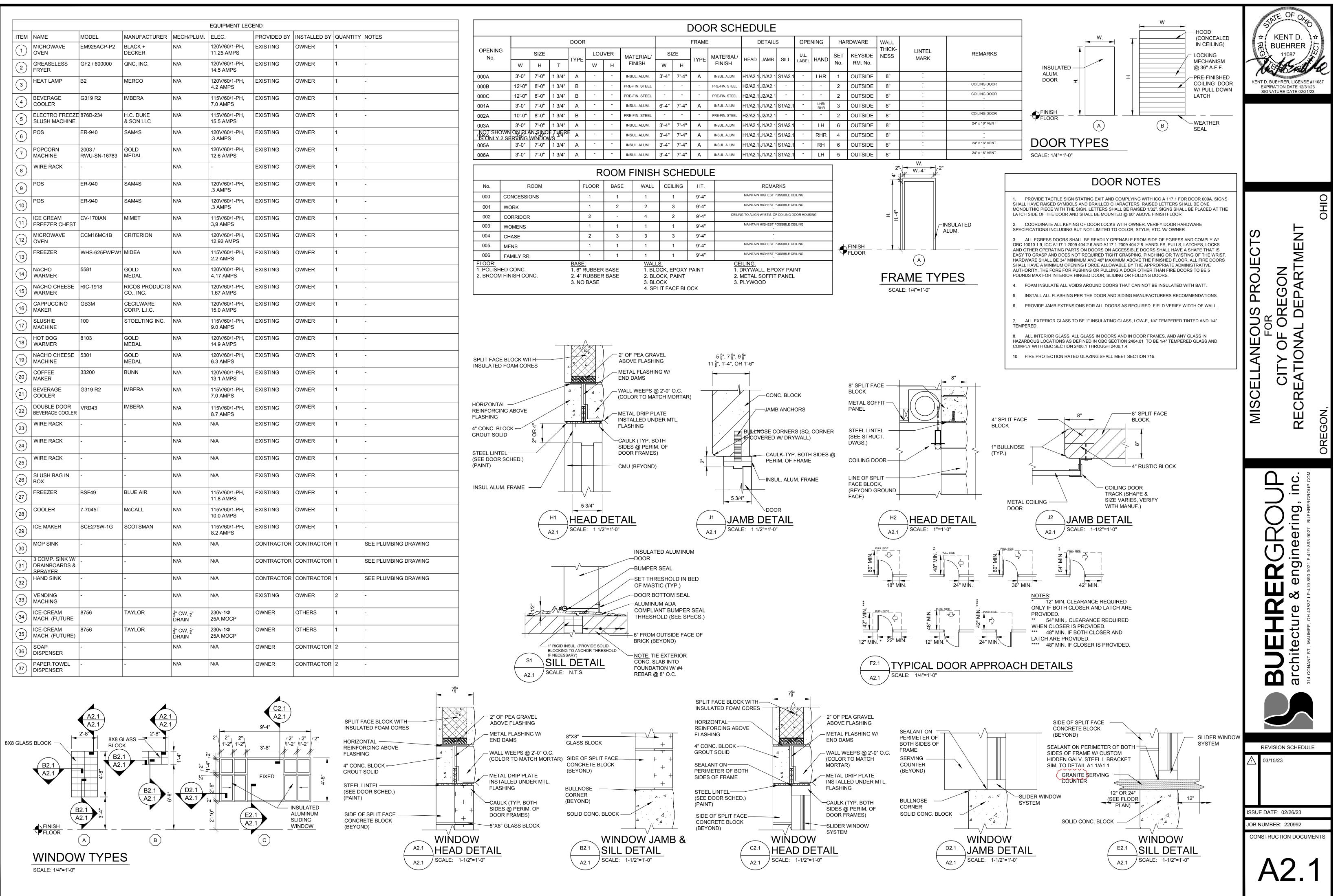
3.5 CLEANING

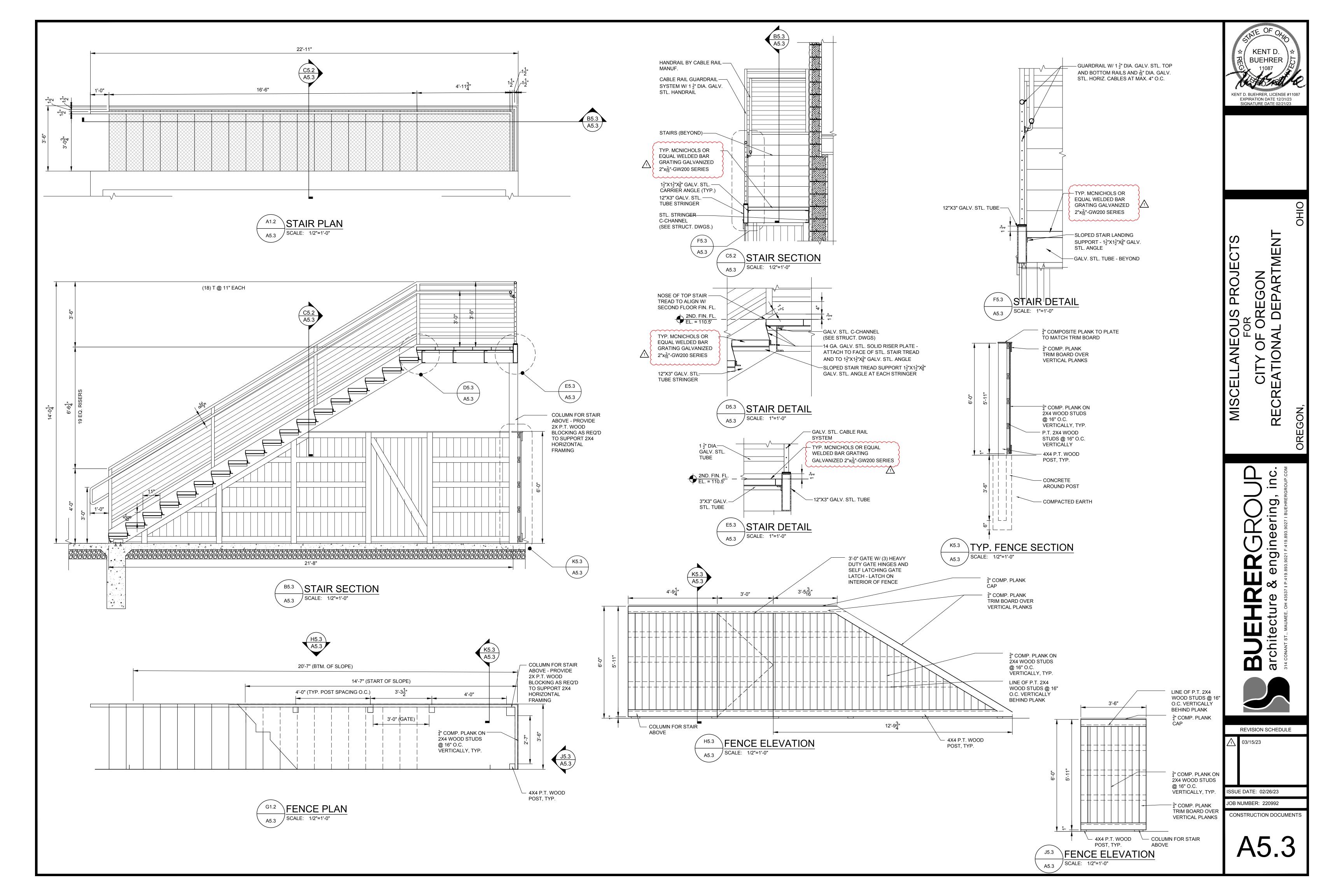
- A. Remove dust or other foreign matter from component surfaces; clean finishes in accordance with AAMA 609 and AAMA 610-02.
- 3.6 PROTECTION
 - A. Protect installed products until completion of project.
 - B. Touch-up, repair or replace damaged products before Substantial Completion.

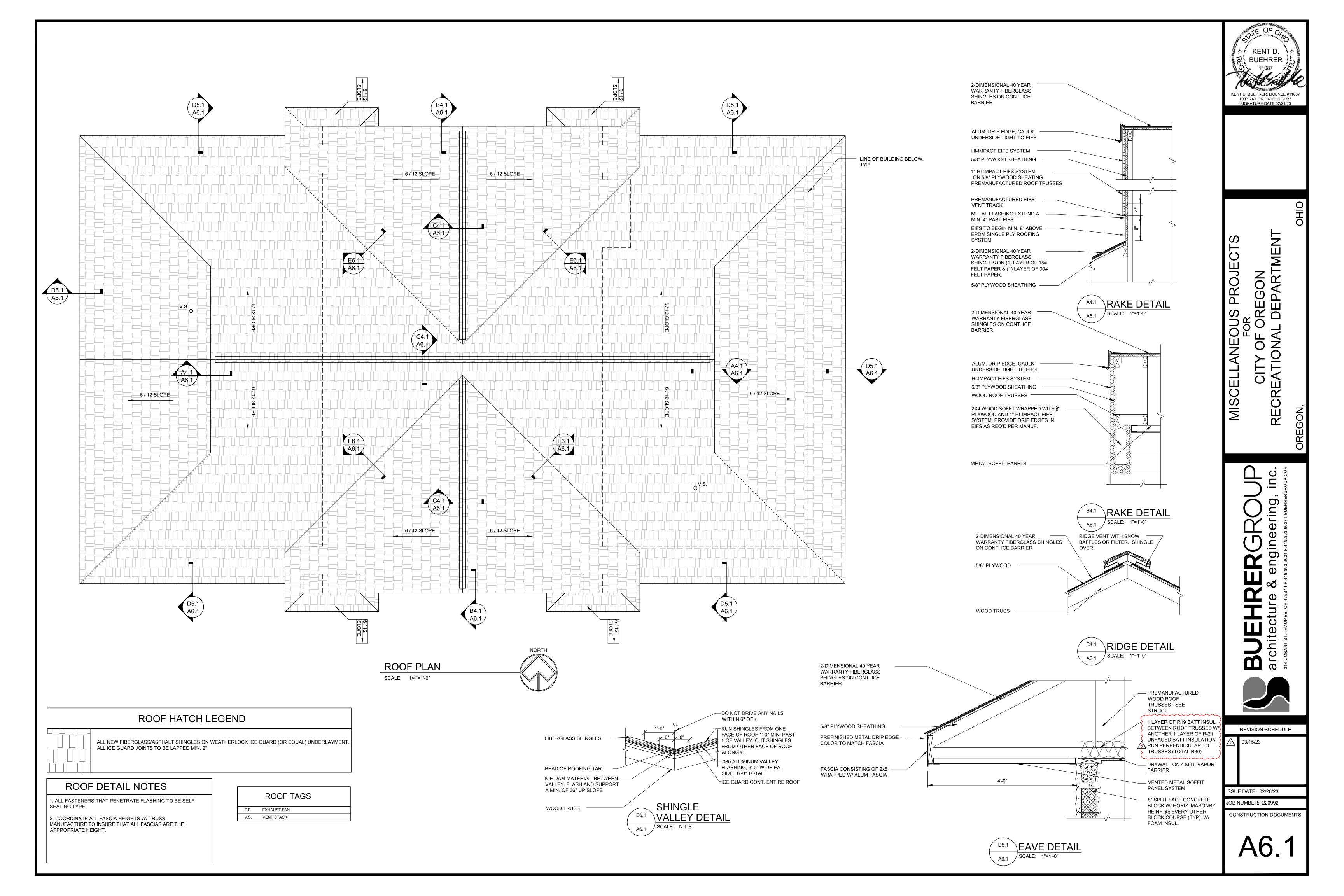
END OF SECTION

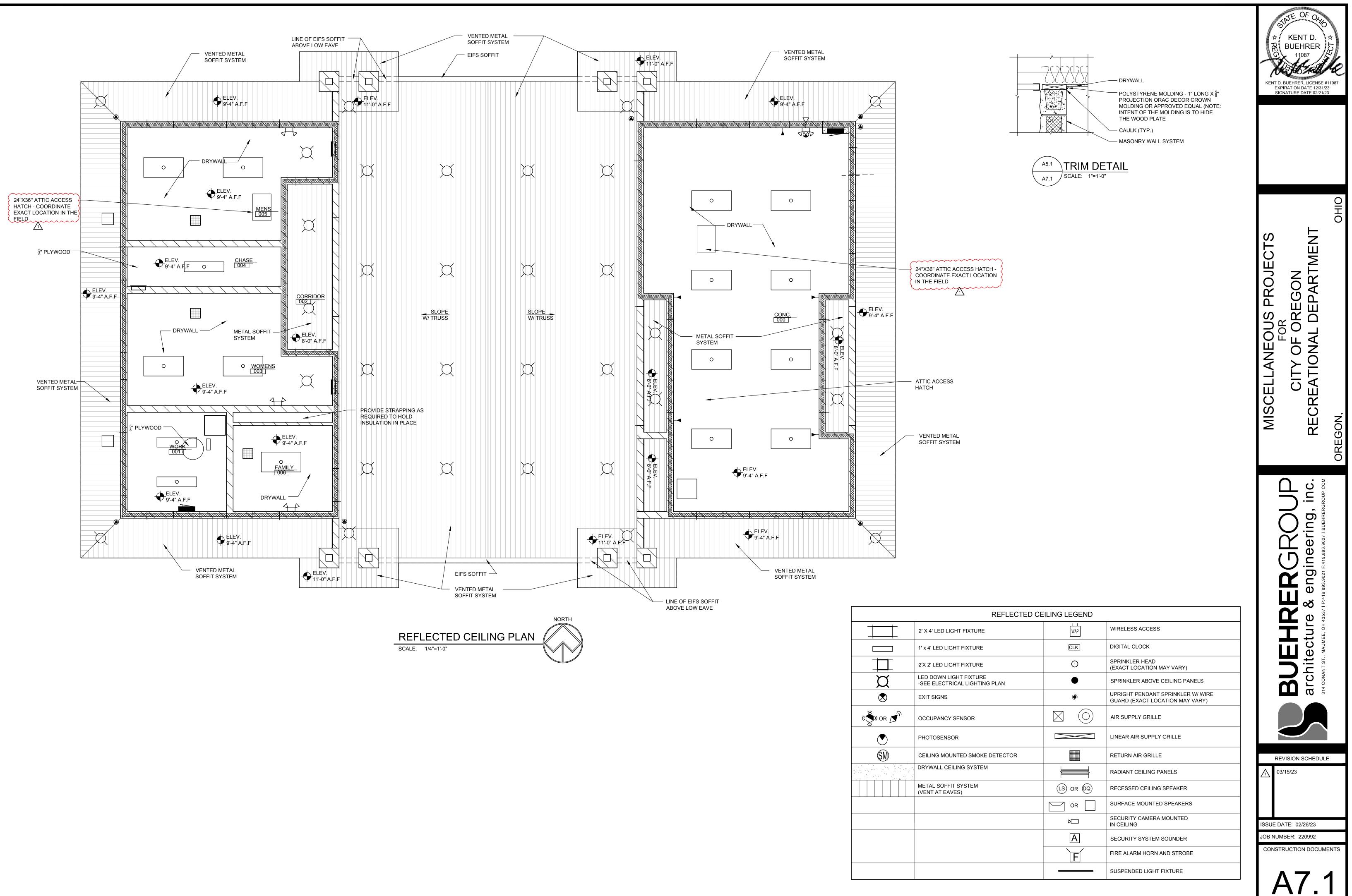


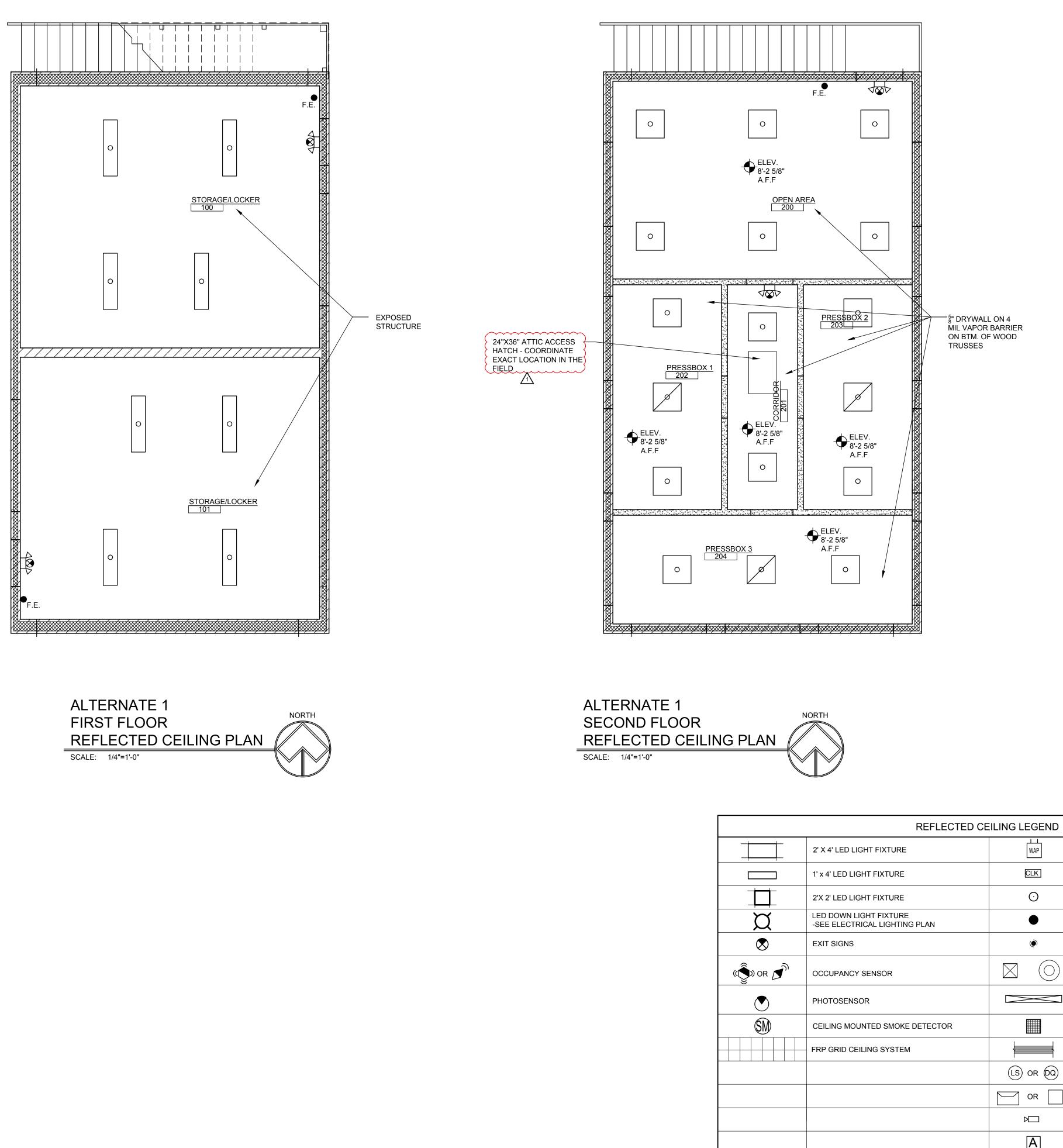






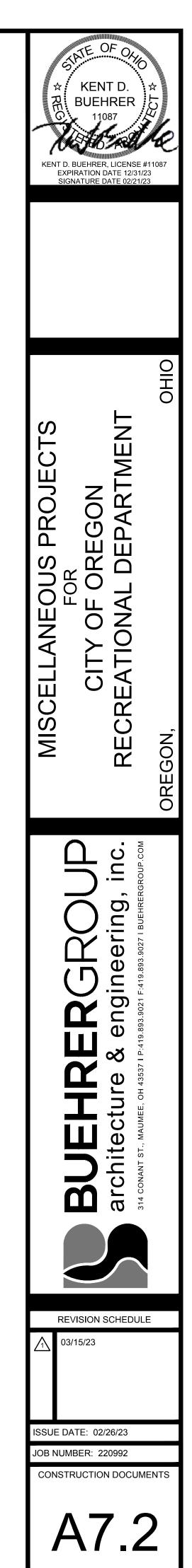


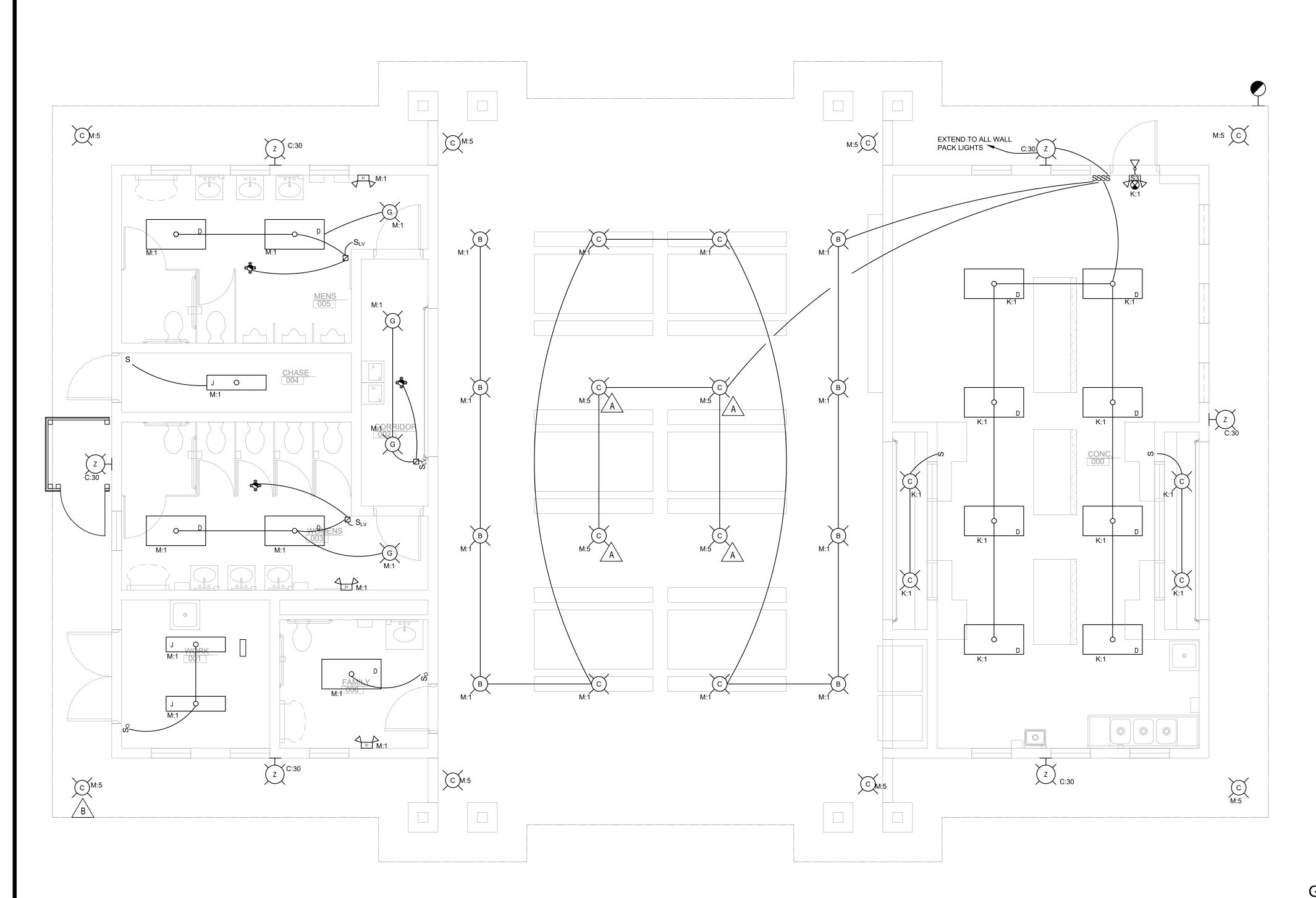






HT FIXTURE	WAP	WIRELESS ACCESS
IT FIXTURE	CLK	DIGITAL CLOCK
IT FIXTURE	O	SPRINKLER HEAD (EXACT LOCATION MAY VARY)
GHT FIXTURE CAL LIGHTING PLAN		SPRINKLER ABOVE CEILING PANELS
	Ó	UPRIGHT PENDANT SPRINKLER W/ WIRE GUARD (EXACT LOCATION MAY VARY)
SENSOR	\boxtimes	AIR SUPPLY GRILLE
R		LINEAR AIR SUPPLY GRILLE
ITED SMOKE DETECTOR		RETURN AIR GRILLE
ING SYSTEM		RADIANT CEILING PANELS
	LS OR DQ	RECESSED CEILING SPEAKER
		SURFACE MOUNTED SPEAKERS
	Þ	SECURITY CAMERA MOUNTED IN CEILING
	A	SECURITY SYSTEM SOUNDER
	F	FIRE ALARM HORN AND STROBE
		SUSPENDED LIGHT FIXTURE





LIGHTING KEYED NOTES:

C-LIGHTS INDICATED TO BE CONTROLLABLE BY SWITCH AS WELL AS BY PHOTOCELL CONTROL CIRCUIT. A

B M:5 CIRCUIT LIGHTS TYPICAL TO BE CONTROLLED VIA PHOTOCELL CONTROL CIRCUIT

LIGHTING FLOOR PLAN SCALE: 1/4"=1'-0"

NORTH

GENERAL LIGHTING NOTES 1. INTERIOR LIGHTING SHALL BE 4000K, EXTERIOR LIGHTING SHALL BE 5000K.

- WITH FLOOR.
- CONTROL SYSTEM COMPONENTS.
- 7. EMERGENCY LIGHTING TO BE PROVIDED WITH 90 MINUTE BATTERY BACK-UP.

LIGHTING LEGEND

Ø		-120V RECESSED MOUNTED LED DOWNLIGHT. PROVIDE DRIVER ON LISTED. COLOR OF TRIM AND BAFFLE TO BE DETERMINED BY
	LITHONIA OR EQUAL BY METALL	WF6-LED-40K-14W-1190L-90CRI COLOR BY ARCHITECT JX, LIGHTOLIER, OR DAYBRITE
	4000K, 4000 LUMENS. PROV	0V SURFACE MOUNTED 2' x 4' BACKLIT LED FLAT PANEL, IDE MOUNTING HARDWARE FOR DRYWALL CEILING. REFER TO CEILING STYLE PER ROOM. EQUIP WITH LED DRIVER.
D	METALUX 24C	2x4 4000LM 40K M2 + DRYWALL MOUNT KIT GT4540C 4000K 80CRI 4432 LUMENS 38W + DRYWALL MOUNT KIT PL-P4-LED-4000L-40K-85-22FK + DRYWALL MOUNT KIT
F°	4000K, 4000 LUMENS. PROV ARCHITECTURAL PLAN FOR	0V SURFACE MOUNTED 2' x 2' BACKLIT LED FLAT PANEL, 'IDE MOUNTING HARDWARE FOR DRYWALL CEILING. REFER TO R CEILING STYLE PER ROOM. EQUIP WITH LED DRIVER. D BE PROVIDED WITH 90 MINUTE BATTERY BACK-UP.
	METALUX 22C	2x2 3200LM 40K M4 + DRYWALL MOUNT KIT GT3540C 4000K 80CRI 3582 LUMENS 32W + DRYWALL MOUNT KIT PLE-LED-400L-40K-85-22FK+ DRYWALL MOUNT KIT
Jo	LED FIXTURE 1-50W-48"-LED ACRYLIC PRISMATIC LENS.	-120V 1' X 4' LED WRAPAROUND - %" THICK CURVED SURFACE MOUNTED.
	LITHONIA LBL4	LED LD141 F UNV L835 CD1 LP835 4-35ML-EU
Q		ED-120V. WALL MOUNTED LIGHT FIXTURE. REMOTE PHOTOCELL CONTROLLED. 9 BE PROVIDED WITH 90 MINUTE BATTERY BACK-UP.
Ţ	LITHONIA *TRACE-LITE COOPER	DSXW1 LED 20C 700 50K T3M MVOLT DDBXD TLED-NFS-14-VS-5K XTOR5ARL
		TING UNIT WITH DUAL HEADS IN WHITE HOUSING - 120V A 90 MINUTE BATTERY BACKUP.
	LITHONIA SURE-LITES DUAL-LITE CHLORIDE	ELM2 SEL17 CU2 CLUNW
	HEADS - 120V SURFACE MC	GN AND EMERGENCY EGRESS LIGHTING UNIT WITH DUAL DUNTED WHITE PLASTIC HOUSING WITH A 90 MINUTE IRD WEATHER-PROOF HEAD CENTERED ABOVE EXTERIOR
	LITHONIA SURE-LITES DUAL-LITE CHLORIDE	LHQM LED R / ELA LED WP M12 LPXC25R3 / SRP25 CC / CORS CLCNRW2R / VLL1RGO
S	LOCAL SWITCH - 1 POLE - 2	DA - 125/277V WITH COVER PLATE. MH = 4'-0" .
	HUBBELL P & S COOPER	1221-x PS20AC1-x CSB120x
		L SWITCH - 1000W - 120V WITH COVER PLATE. MH=4'-0"
So	HUBBELL P & S WATT STOPPER SENSORSWITCH	AT1277x OSC 3000-I WA-100 WSD-GY
Ŷ	HD DIE-CAST ZINC HOUSING	TERIOR LIGHT CONTROL - 120V. ½" CONDUIT MOUNTING. G & GASKETED FOR WEATHER-RESISTANCE.
	TORK 2101	
S _{LV}		_ SWITCH W/ 1 BUTTON - 24VDC WITH COVER PLATE TO BE AGE ROOM CONTROLLER VIA CAT5E CABLING. MH=4'-0"
	WATTSTOPPER	LMSW-101-X
Ø	OCCUPANCY SENSOR CO CEILING IN NEMA 1 ENCLOS	NTROL UNIT / POWER PACK - 120/277V - MOUNT ABOVE SURE. SEE SPECS.
	GREENGATE SENSOR SWITCH WATTSTOPPER	SP20-MV MP20 BZ-50
٢		LTRASONIC OCCUPANCY SENSOR RECESSED IN CEILING - S UP TO 1,000 FT. ² WITH 360° FIELD OF VIEW. EQUIP WITH K.
	GREENGATE SENSOR SWITCHRM WATTSTOPPER	OAC-DT-1000 PDT 9 DT-300

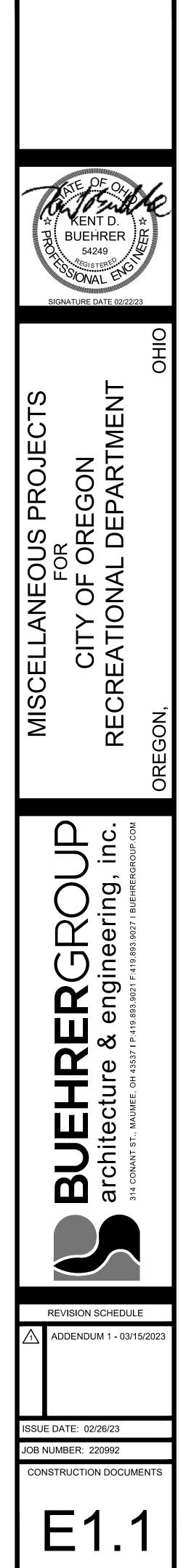
2. CANOPY DOWNLIGHTS ON CIRCUIT M:5 SHALL BE CONTROLLED VIA A BUILDING MOUNTED PHOTOCELL. MOUNT PHOTOCELL ON THE NE CORNER OF THE BUILDING. PROVIDE A MASTER OVERRIDE SWITCH IN THE KITCHEN FOR CONTROL WHEN THE BUILDING IS OCCUPIED. CLEARLY LABEL SWITCH

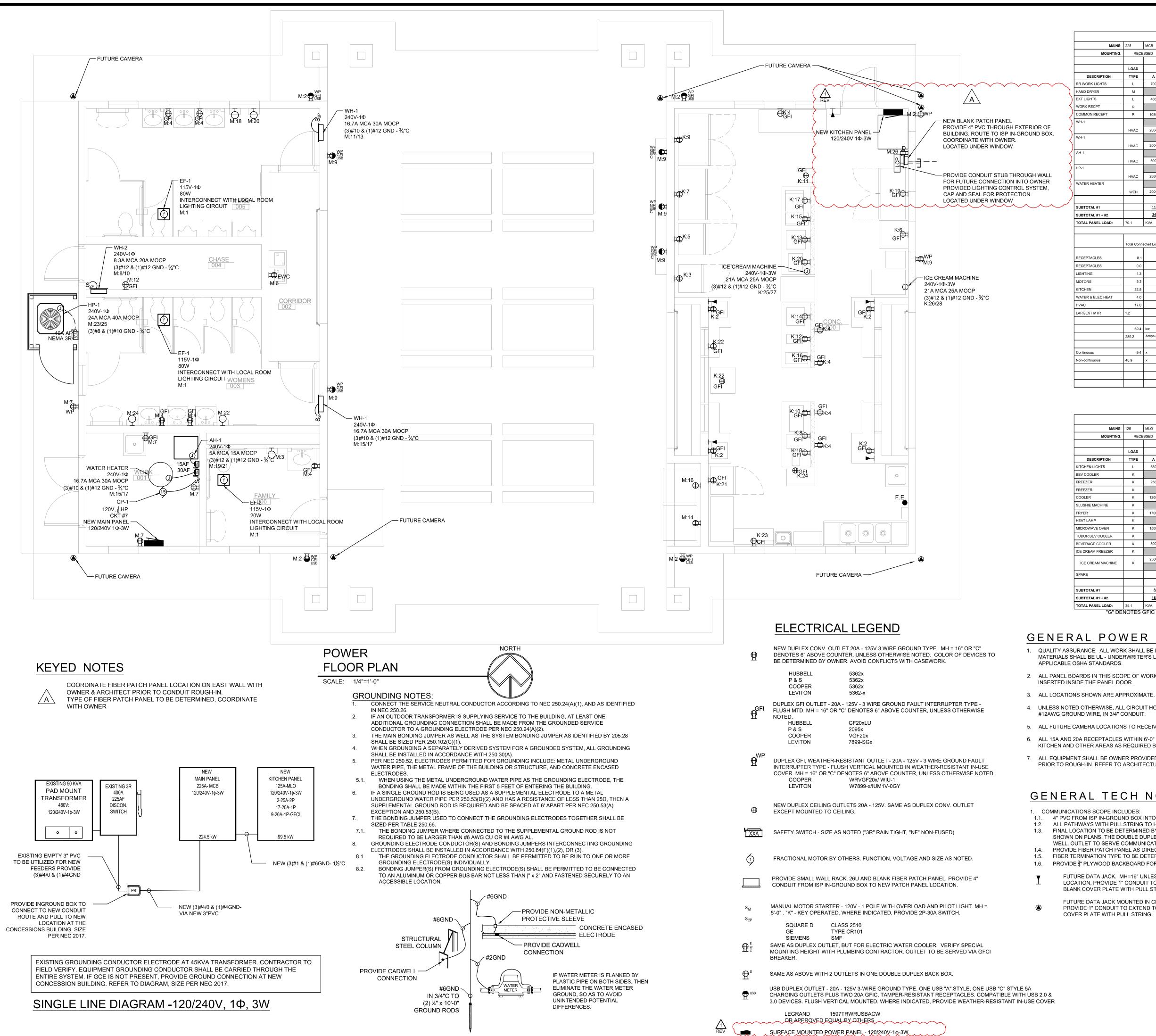
3. WALL PACK FIXTURES, TYPE Z, SHALL PROVIDED FOR ADDITIONAL LIGHTING THAT EXTENDS PAST THE BUILDING. MOUNT AT 8'-6", OR AT A HEIGHT OPTIMAL FOR THE FORWARD THROW OPTICS OF THE FIXTURE TO NOT BE IMPEDED BY THE CANOPY EDGE. CONTROL VIA SWITCH IN THE KITCHEN, CLEARLY LABEL.

4. MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE AS SHOWN ON PLANS (REFER TO ARCHITECTURAL DWGS). 4.1. FOR DRYWALL TYPE CEILINGS, LIGHT FIXTURES ARE TO BE MOUNTED IN DRYWALL PROVIDE FLANGE KIT AS REQUIRED. 4.2. FOR OPEN CEILINGS, LIGHT FIXTURES SHALL BE MOUNTED VIA AIRCRAFT CABLE LEVEL AND PARALLEL

5. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LOW-VOLTAGE CABLES FOR ALL LIGHTING

6. ALL POWER PACKS FOR LOW VOLTAGE SWITCHING SHALL BE ACCESSIBLE: ABOVE ACCESSIBLE CEILING, IN IN JUNCTION BOX WITH COVER PLATE, OR ACCESS PANEL SHALL BE PROVIDED.





					Ν		NEL "N	"					
MAINS:	225	МСВ	v :	120/240V		1	PH.	3	WIRE				
MOUNTING:	RECE	SSED	LOCATION	l:					FED FROM	l:			
	LOAD				AMPS	скт	скт	AMPS				LOAD	
DESCRIPTION	TYPE	Α		в	POLE	#	#	POLE	Α		в	TYPE	DESCRIPTION
R WORK LIGHTS	L	700			20	1	2	20G	1000			R	COMMON RECEPT
AND DRYER	м			1200	20	3	4	20			1000	R	BATH RECEPTACLES
KT LIGHTS	L	400			20	5	6	20G	500			R	EWC
ORK RECPT	R			1248	20	7	8	20			996		
OMMON RECEPT	R	1080			20G	9	10	20	996			HVAC	WH-2
'H-1				2004	30	11	12	20G			180	R	CHASE RECEPT
	HVAC	2004			30	13	14	20G	750			R	VENDING MACHINE
'H-1				2004	30	15	16	20G			750	R	VENDING MACHINE
	HVAC	2004			- 30	17	18	20G	1200			м	HAND DRYER
H-1				600	15	19	20	20G			1200	м	HAND DRYER
	HVAC	600			15	21	22	20G	1200			м	HAND DRYER
P-1				2880	40	23	24	20G			1200	м	HAND DRYER
	HVAC	2880				25	26	20G	400				OUTLET FOR DATA
ATER HEATER				2004	30	27	28	125			18372		KITCHEN PANEL
	WEH	2004				29	30	120	16703				Intronent / Inter
UBTOTAL #1		<u>11672</u>	<u>0</u>	<u>11940</u>					<u>22749</u>	<u>0</u>	<u>23698</u>		SUBTOTAL #2
UBTOTAL #1 + #2		<u>34421</u>	<u>0</u>	<u>35638</u>									
OTAL PANEL LOAD:	70.1	KVA		291.9	AMPS						TOTAL:	252.8	A MINIMUM FEEDER
													1
	Total Conne	ected Load		Demand %		D	emand Load			SUMMER:		224.5	A MINIMUM FEEDER
													A MINIMUM
ECEPTACLES	8.1			100%			8.1			WINTER		219.9	FEEDER
ECEPTACLES	0.0			50%			0						
GHTING	1.3			100%			1.3						
OTORS	5.3			100%			5.3						
TCHEN	32.5			65%			21.13						
ATER & ELEC HEAT	4.0			100%			4						
/AC	17.0			100%			17						
ARGEST MTR	1.2			125%			1.5						
	69.4	kw						kw					
	289.2	Amps @ 24	40V			243.02			Amps @ 240	V			
ontinuous	9.4	x	125%				11.75	kw					
ontinuous	9.4 48.9	x x	125% 100%				11.75 48.93	kw kw					
								kw					

					KIT	CHEN	PANEL	"K"					
MAINS:	125	MLO	V :	120/240V		1	PH.	3	WIRE				
MOUNTING:	RECI	ESSED	LOCATION	:				•	FED FROM:	:			
	LOAD				AMPS	скт	скт	AMPS				LOAD	
DESCRIPTION	TYPE	A		в	POLE	#	#	POLE	Α		в	TYPE	DESCRIPTION
CHEN LIGHTS	L	550			20	1	2	20	800			R	CASH REGISTER
V COOLER	к			840	20G	3	4	20			900	R	KITCHEN OUTLETS
EEZER	к	250			20G	5	6	20	984			к	ICE MACHINE
EEZER	к			1400	20G	7	8	20			750	к	NACHO CHEESE MACH
OLER	к	1200			20G	9	10	20	1788			к	HOT DOG MACHINE
USHIE MACHINE	к			1080	20G	11	12	20			200	к	NACHO CHS WARMER
YER	к	1700			20	13	14	20	500			к	NACHO WARMER
AT LAMP	к			500	20	15	16	20			1800	к	CAPPUCINO MACHINE
CROWAVE OVEN	к	1500			20	17	18	20	1500			к	COFFEE MACHINE
DOR BEV COOLER	к			1000	20G	19	20	20			1300	к	MICROWAVE
VERAGE COOLER	к	800			20G	21	22	20	1500			к	POPCORN MACHINE
CREAM FREEZER	к			150	20G	23	24	20			1783	к	SLUSH MACHINE
	K	2500			05	25	26		2500			К	ICE CREAM MACHINE
ICE CREAM MACHINE	к			2500	25	27	28	25			2500	К	
ARE					20	29	30	20	300				WALL PACKS
BTOTAL #1		8500	<u>0</u>	<u>7470</u>					<u>9872</u>	<u>0</u>	<u>9233</u>		SUBTOTAL #2
BTOTAL #1 + #2		<u>18372</u>	<u>0</u>	<u>16703</u>									
TAL PANEL LOAD:	35.1	KVA		146.1	AMPS					DI	MANDED:	99.48	A MINIMUM FEEDER

GENERAL POWER NOTES

1. QUALITY ASSURANCE: ALL WORK SHALL BE IN ACCORDANCE WITH THE NFPA 70 - NATIONAL ELECTRICAL CODE 2017. ALL NEW AND UTILIZED MATERIALS SHALL BE UL - UNDERWRITER'S LABORATORY LISTED. OCCUPATIONAL HEALTH AND SAFETY ASSOCIATION SHALL COMPLY WITH ALL

2. ALL PANEL BOARDS IN THIS SCOPE OF WORK SHALL ALL HAVE LABELED TYPED DIRECTORIES PROVIDED, INDICATING ALL CIRCUITS, AND A COPY

4. UNLESS NOTED OTHERWISE, ALL CIRCUIT HOMERUNS ON THIS SHEET SHALL BE #12AWG WITH DEDICATED #12AWG NEUTRAL AND SHARED #12AWG GROUND WIRE, IN 3/4" CONDUIT.

5. ALL FUTURE CAMERA LOCATIONS TO RECEIVE PATHWAY AND PULL STRING FOR COMMUNICATIONS, POE POWER.

6. ALL 15A AND 20A RECEPTACLES WITHIN 6'-0" OF A SINK SHALL BE GFIC TYPICAL. IN ADDITION, PROVIDE GFIC PROTECTION FOR RECEPTACLES IN KITCHEN AND OTHER AREAS AS REQUIRED BY NEC.

7. ALL EQUIPMENT SHALL BE OWNER PROVIDED & INSTALLED. COORDINATE EQUIPMENT CONNECTIONS (TYPE AND LOCATIONS) WITH OWNER PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL PLANS FOR EQUIPMENT SCHEDULE AND LAYOUT.

GENERAL TECH NOTES:

1.1. 4" PVC FROM ISP IN-GROUND BOX INTO BUILDING HEADEND.

1.2. ALL PATHWAYS WITH PULLSTRING TO HOME RUN TO PATCH PANEL LOCATION. FINAL LOCATION TO BE DETERMINED BY OWNER. IF FINAL LOCATION IS DIFFERENT THAN WHAT IS SHOWN ON PLANS, THE DOUBLE DUPLEX OUTLET AT DATA HEAD END, M:26 SHALL BE RELOCATED AS

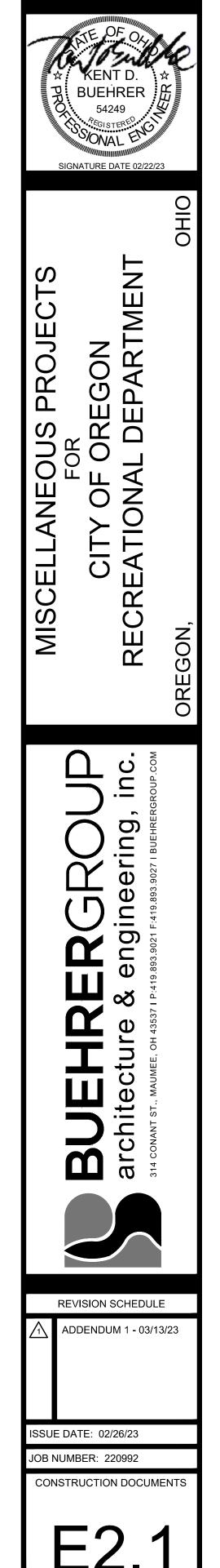
WELL. OUTLET TO SERVE COMMUNICATIONS EQUIPMENT.

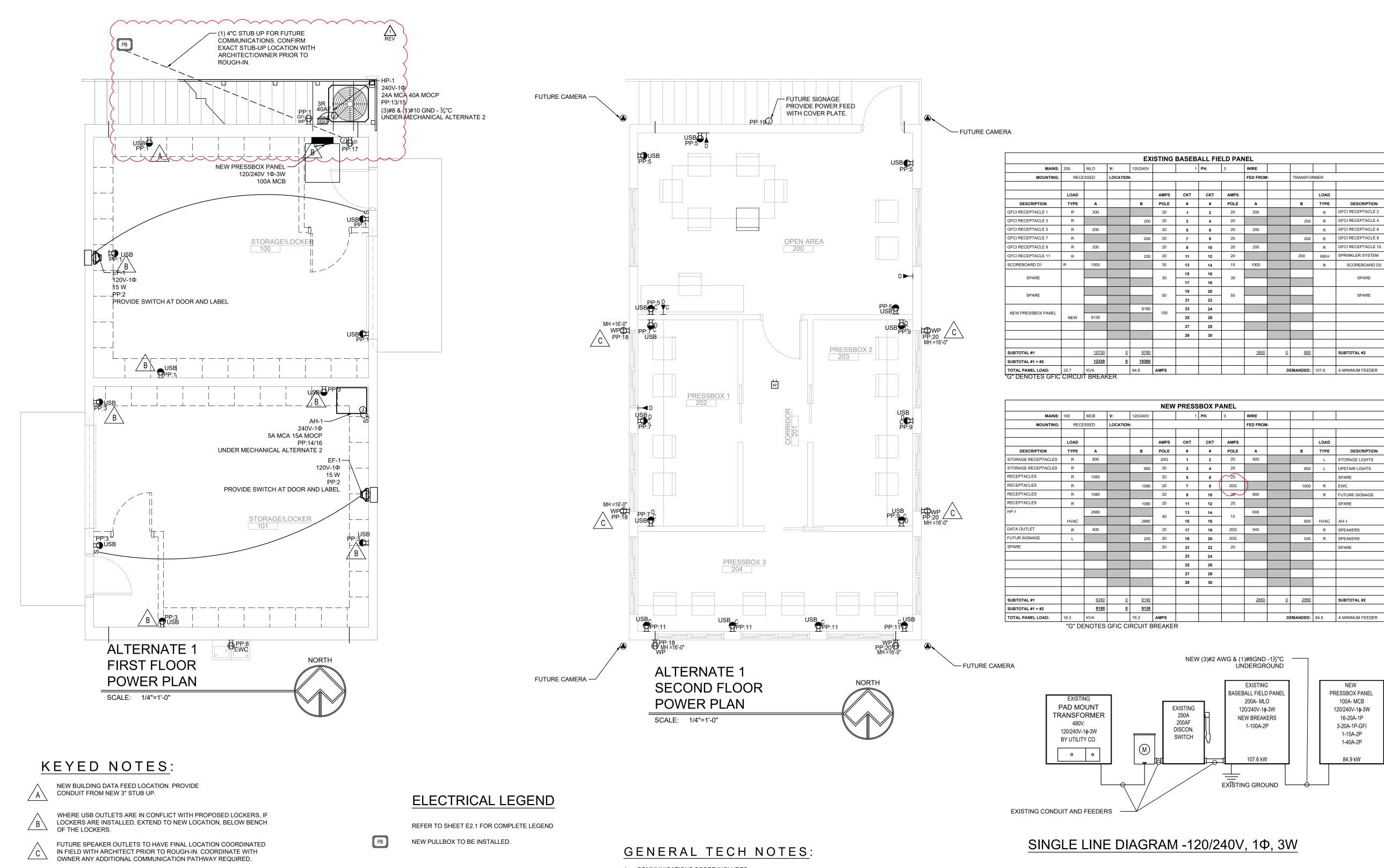
1.4. PROVIDE FIBER PATCH PANEL AS DIRECTED BY OWNER 1.5. FIBER TERMINATION TYPE TO BE DETERMINED BY OWNER.

1.6. PROVIDE $\frac{3}{4}$ " PLYWOOD BACKBOARD FOR COMM RACK AND EQUIPMENT.

FUTURE DATA JACK. MH=16" UNLESS NOTED OTHERWISE. FROM EACH JACK LOCATION, PROVIDE 1" CONDUIT TO EXTEND TO PATCH PANEL LOCATION. PROVIDE BLANK COVER PLATE WITH PULL STRING.

FUTURE DATA JACK MOUNTED IN CEILING OR SOFFIT. FROM EACH JACK LOCATION, PROVIDE 1" CONDUIT TO EXTEND TO PATCH PANEL LOCATION. PROVIDE BLANK COVER PLATE WITH PULL STRING.





- 1. COMMUNICATIONS SCOPE INCLUDES:
- 1.1. PROVIDE IN-GROUND BOX FOR FUTURE COMMUNICAITON 1.1. 4" PVC FROM IN-GROUND BOX INTO BUILDING HEADEND.
- 1.2. ALL FUTURE JACK TO BE PROVIDED WITH 1"C AND PULLSTRINGS, HOME RUN TO HEADEND LOCATION. 1.3. FINAL LOCATION TO BE DETERMINED BY OWNER. IF FINAL LOCATION IS DIFFERENT THAN WHAT IS SHOWN ON PLANS, THE DOUBLE DUPLEX OUTLET AT DATA HEAD END, PP:17 SHALL BE RELOCATED AS WELL. OUTLET TO SERVE COMMUNICATIONS EQUIPMENT.
- 1.4. PROVIDE ³/₄" PLYWOOD BACKBOARD FOR COMM RACK AND EQUIPMENT.
- FUTURE DATA JACK. MH=16" UNLESS NOTED OTHERWISE. FROM EACH JACK LOCATION, PROVIDE 1" CONDUIT TO EXTEND TO PATCH PANEL LOCATION. PROVIDE BLANK COVER PLATE WITH PULL STRING.
- FUTURE WAP. PROVIDE PATHWAY WITH PULL STRING WAP BACK TO COMMUNICATIONS HEADEND LOCATION.

- GENERAL POWER NOTES QUALITY ASSURANCE: ALL WORK SHALL BE IN ACCORDANCE WITH THE NFPA 70 - NATIONAL ELECTRICAL CODE 2017. ALL NEW AND UTILIZED APPLICABLE OSHA STANDARDS.
- INSERTED INSIDE THE PANEL DOOR.
- 3. ALL LOCATIONS SHOWN ARE APPROXIMATE.
- #12AWG GROUND WIRE, IN 3/4" CONDUIT.
- 5. ALL FUTURE CAMERA LOCATIONS TO RECEIVE PATHWAY AND PULL STRING FOR COMMUNICATIONS, POE POWER.
- 6. ALL FUTURE SPEAKER RECEPTACLES SHALL HAVE GFI PROTECTION AT BREAKER IN PANEL.
- OTHER AREAS AS REQUIRED BY NEC 2017.

EP	ALL FIE						
CD/							1
1	PH.	3	WIRE				
			FED FROM	:	TRANSFOR	RMER	
ст	скт	AMPS				LOAD	
	#	POLE	Α		в	TYPE	DESCRIPTION
	2	20	200			R	GFCI RECEPTACLE 2
	4	20			200	R	GFCI RECEPTACLE 4
	6	20	200			R	GFCI RECEPTACLE 6
	8	20			200	R	GFCI RECEPTACLE 8
	10	20	200			R	GFCI RECEPTACLE 10
1	12	20			200	WEH	SPRINKLER SYSTEM
3	14	15	1000			R	SCOREBOARD D2
5	16						00105
7	18	30					SPARE
)	20						00105
1	22	50					SPARE
3	24						
5	26						
7	28						
Ð	30						
			<u>1600</u>	<u>0</u>	<u>600</u>		SUBTOTAL #2
				D	EMANDED:	107.6	A MINIMUM FEEDER

1	PH.	3	WIRE				
			FED FROM	:			1
ст	скт	AMPS				LOAD	
ŧ	#	POLE	А		в	TYPE	DESCRIPTION
	2	20	900			L	STORAGE LIGHTS
5	4	20			850	L	UPSTAIR LIGHTS
5	6	20	/				SPARE
,	8	20G)		1000	R	EWC
)	10	20	800			R	FUTURE SIGNAGE
1	12	20					SPARE
3	14	45	600				
5	16	15			600	HVAC	AH-1
7	18	20G	540			R	SPEAKERS
9	20	20G			540	R	SPEAKERS
1	22	20					SPARE
3	24						
5	26						
7	28						
9	30						
			<u>2840</u>	<u>0</u>	<u>2990</u>		SUBTOTAL #2

MATERIALS SHALL BE UL - UNDERWRITER'S LABORATORY LISTED. OCCUPATIONAL HEALTH AND SAFETY ASSOCIATION SHALL COMPLY WITH ALL

2. ALL PANEL BOARDS IN THIS SCOPE OF WORK SHALL ALL HAVE LABELED TYPED DIRECTORIES PROVIDED, INDICATING ALL CIRCUITS, AND A COPY

4. UNLESS NOTED OTHERWISE, ALL CIRCUIT HOMERUNS ON THIS SHEET SHALL BE #12AWG WITH DEDICATED #12AWG NEUTRAL AND SHARED

7. ALL 15A AND 20A RECEPTACLES WITHIN 6'-0" OF A SINK SHALL BE GFIC TYPICAL. IN ADDITION, PROVIDE GFIC PROTECTION FOR RECEPTACLES IN

