blue river ARCHITECTS
A Native American Owned Firm

# Addendum 2

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|---|---|---|---|
| **To:** | Bidding Documents<br>Plan-Holders of Record<br>Project File | **Date:**<br>**Addendum Number:**<br>**Architect's Project #:**<br>**Project Name:** | September 9th, 2024<br>Two<br>20230011<br>CN Catoosa Child Development Center |
| **From:** | **BLUE RIVER ARCHITECTS, LLC**<br>320 South Boston, Suite 103<br>Tulsa, Oklahoma 74103<br>Tel 918.877.9036 | **Professional Seal:** |  |

NOTICE••••••••••••

This Addendum supplements and amends the original Bidding Documents, shall be taken into account in preparing proposals, and shall become a part of the Construction Documents. The bidder shall indicate receipt of this addendum and all previously issued addenda on the Bid/Proposal Form.

**PRIOR ADDENDA**

Addendum 1 Dated: 08/29/2024

**Changes / Clarifications:**

1. **Pre-Bid RFI 10:** HB-1 is on the plans but not on the plumbing schedule. What brand do you prefer?
   **Answer:** FPWH-1 was labeled HB-1 on plans. Labels updated per addendum 2. Refer to FPWH-1 on schedule

2. **Pre-Bid RFI 11:** Does the Ameristar wire works go all the way across south side of the building? Or is it in certain area? Civil landscape and architecture don't match up. Civil and landscape show it run the entire length of the south side but arch. Calls out a 4' guardrail.
   **Answer:** Civil:
   Ameristar is to stop where the retaining wall and railing begin.

3. **Pre-Bid RFI 12:** On page c402 at the entrance to the detention pond they are showing a double barrier gate- can we get specifics on how they want it or just standard pipe gates like normally installed for barrier? also on page L101 they are calling for a 30' double drive barrier arm gate and says " refer to manufacturer requirements. Is there a specific supplier or any details for this gate also.

**Answer:** Civil:
This gate is detailed on C804.

4. **Pre-Bid RFI 13:** Please provide a detail for the mechanical yard fencing.
   **Answer:** Refer to revied sheets per Addendum 2.

5. **Pre-Bid RFI 14:** The Pre-engineered structures specification doesn't reference any soffit materials or finish. The plans show a soffit panel, but no description. Please advise.
   **Answer:** To be addressed in addendum 3

6. **Pre-Bid RFI 15:** question on the liner. Do they want liner down the whole duct or just the 1st 10 feet?
   6.1 Exposed, Return-Air Duct and Plenum Minimum Insulation: Closed Cell Liner, 1 inch thick and 0.75-lb/cu. ft. nominal density to prevent condensation.
   6.2 Exposed, Supply-
   Air Spiral round duct insulation: Closed Cell Liner, 1 inch thick and 0.75-lb/cu. ft. nominal density to prevent condensation.
   **Answer:** Provide liner from first 10' from DOAS unit for noise acoustics. Wrap is acceptable after. Exposed duct to be closed cell insulation.

7. **Pre-Bid RFI 16:** This might already be asked but wanting clarification on the storefront system the architect is wanting to us. The basis of design is Kawneer 451T but the drawings are detailed with a 6" system. I haven't run the calculations but wouldn't think it would be necessary at all the windows for structural reasons unless it's just a design thing. If you can clarify what they are wanting/needing I would appreciate it.
   **Answer:** Basis of design is to be Kawneer 451T. A 6" system is not required.

8. **Pre-Bid RFI 17:** Hot water insulation schedule lists temperature ranges. I'm assuming I need to figure on at least 125? The thickness listed for 125 and higher are overboard (1.5 – 2.5"). We can not get these thicknesses to fit inside a wall cavity. Should we figure 1.5 on the overhead and 1" for the wall drops? (1" is more than sufficient). Specs also call for all concealed pipe to be jacketed with PVC. I am assuming that is misprint. Unnecessary cost for no benefit.
   **Answer:** For 105-140 F water, 1.5" insulation is required for pipes greater than 1-1/2", 1" insulation is required for 1-1/4". It is acceptable to reduce insulation on drops inside wall as required to fit. Do not jacket concealed pipe with PVC, this is a misprint.

9. **Pre-Bid RFI 18:** Specs show a Berridge Tee-Lock. Every time they spec this panel, they end up using Berridge Zee-lock panel. Tee-Lock panel is the most expensive Berridge panel on the market. Just want clarification of what is requested in this bid. We can always VE it later if needed. Just do not want to be the high bid and not be invited to the descope.
   **Answer:** Berridge Zee lock is acceptable. Refer to revised specifications per Addendum 2

10. **Pre-Bid RFI 19:** What is the current access control system? Brand name. What is the current CCTV system? Both say to build new into existing systems. Also is the communications items, access control, cctv, data, fiber etc. Are these going to be bid on their own or under the EC?
    **Answer:** The Owner's standard is Genetec Syngergis Enterprise.
    Owner's existing site ID will be utilized, the contractor shall be responsible for furnishing all necessary reader licenses required as well as any other licensing requirements beyond the site ID.
    Coordinate license purchasing with Owner upon bid award for site ID information.
    The Owner's standard for video management software is Genetec Omnicast Enterprise.
    This system will attach to the Owner's existing system ID and utilize the existing site license.
    The contractor will be responsible for furnishing all necessary camera licenses to make fully functional video management system.
    Coordinate license purchase with manufacturer for system ID.

11. **Pre-Bid RFI 20:** What manufacture is required for CK-1, CK-2 and CK-3? Section 10 1100 calls for Claridge Cork. Print ID101A calls for Koroseal.
    **Answer:** Koroseal

*LIST OF ATTACHMENTS*

Sections – (1)
07 4113 Metal Roof Panels

Sheets – (19) sized 36X48:
Civil:
Landscape: L201, L202, L301, L502,
Architecture:
Structural: S003, S201, S502, S602
Plumbing: P101, P102, P103, P104,
Mechanical: M101, M102
Electrical: E000, E101A, E101B, E302, ES101

END OF ADDENDUM

## SECTION 07 4113
## METAL ROOF PANELS

### PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Standing Seam Metal Roof Panels.
   1. Architectural roofing system of preformed steel panels.
   2. Flashing and trim adjacent to or part of architectural preformed steel panel roofing system.
   3. Refer to locations shown on drawings.

B. Accessories and underlayment as required for complete installation.

C. Gutters and downspouts adjacent to or part of architectural preformed steel panel roofing system.

### 1.02 RELATED REQUIREMENTS

A. Section 06 1000 - Rough Carpentry: Roof sheathing.

B. Section 07 2100 - Thermal Insulation: Rigid roof insulation.

### 1.03 REFERENCE STANDARDS

A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.

C. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process; 2021a.

D. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2018a.

E. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2021.

F. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials; 2016.

G. IAS AC472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems; 2018.

H. ICC-ES AC188 - Acceptance Criteria for Roof Underlayments; 2012, with Editorial Revision (2015).

### 1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Storage and handling requirements and recommendations.
   2. Installation methods.
      a. Include installation instructions.
   3. Specimen warranty.

C. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
   1. Include accessories.
   2. Include project-specific details.
   3. Show work to be field-fabricated or field-assembled.
   4. Show interface with other work.
   5. Show all proposed seam and joint locations.
   6. Do not use architect's drawings as shop drawings.
   7. Scale of shop drawing details not less than 1-1/2" = 1'-0".

8. Show drawings, text and dimensions in black and white at a clear legible scale and size.
   a. Color drawings that are not clearly legible will be returned without review.
9. Include structural analysis signed and sealed by qualified structural engineer, indicating compliance of roofing system to specified loading conditions.
10. Show roof panel layout on shop drawings. Include full panels and dimensions of cut panels. Comply with layout as indicated on drawings or as specified.

D. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each roofing system specified, submit samples of minimum size 12 inches (305 mm) square, representing actual roofing metal, thickness, profile, color, and texture.
1. Include typical panel joint in sample.
2. Include typical fastening detail.

F. Manufacturer Qualification Statement: Provide documentation showing metal roof panel fabricator is accredited under IAS AC472.

G. Qualification Data: For Installer.

H. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

## 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than twenty years of documented experience.

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least ten years of documented experience.
1. Contractor shall be authorized by the manufacturer to install specified materials 5 years prior to the bidding period through satisfactory project completion.
2. Applicators shall have completed projects of similar scope using same or similar materials specified for a minimum of 10 years.
3. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified roofing from beginning through satisfactory project completion.
4. Documentation stating that Project Manager, Job Site Superintendent and all other roofing applicators are employed directly by the Installer (no subcontracting of roofing installation will be permitted).
5. Evidence of compliance with Oklahoma Bill #2180 “Roofing Contractor Registration Act”, and current Commercial Endorsement with Oklahoma Construction Industries Board (CIB)
6. Applicators shall be skilled in the application methods for all materials.
7. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
8. Contractor shall maintain a copy of all submittal documents, on-site, available at all times for reference.

## 1.06 DELIVERY, STORAGE, AND HANDLING

A. Provide strippable plastic protection on prefinished roofing panels for removal after installation.

B. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

## 1.07 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Finish Warranty: Provide manufacturer's special warranty covering failure of factory-applied exterior finish on metal roof panels and agreeing to repair or replace panels that show evidence of finish degradation, including significant fading, chalking, cracking, or peeling within specified warranty period of twenty years from Date of Substantial Completion.

C. Waterproofing Warranty: Provide manufacturer's warranty for weathertightness of roofing system, including agreement to repair or replace roofing that fails to keep out water within

specified warranty period of twenty years from Date of Substantial Completion.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Basis of Design:
   1. Metal Roof Panels: Zee-Lock Panel manufactured by Berridge Manufacturing Co..
   2. Substitutions: See Section016000-Product Requirements.

### 2.02 ARCHITECTURAL METAL ROOF PANELS

A. Architectural Metal Roofing: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding anticipated movement of substrate and thermally induced movement of roofing system.

B. Metal Panels: Factory-formed or Field Formed panels with factory-applied finish.
   1. Steel Panels:
      a. Aluminum-zinc alloy-coated steel complying with ASTM A792/A792M; minimum AZ50 (AZM150) coating.
      b. Steel Thickness: Minimum 22 gage.
   2. Profile: Standing seam, with minimum 2.0 inch (51 mm) seam height; concealed fastener system for field seaming with special tool.
   3. Texture: Smooth, with intermediate ribs for added stiffness.
   4. Length: Full length of roof slope, without lapped horizontal joints.
   5. Width: Maximum panel coverage of 18 inches (457 mm).

### 2.03 ATTACHMENT SYSTEM

A. Concealed System: Provide manufacturer's standard 0.064-inc nominal thickness, aluminum-zinc alloy coated steel concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.

### 2.04 SECONDARY FRAMING

A. Miscellaneous Secondary Framing: Light gage steel framing incidental to structural supports; fabricated from steel sheet.

B. Framing Material: ASTM A 1011/A 1011M, Designation SS steel sheet.
   1. Profile: Manufacturer's standard cee, zee, asymmetrical zee, hat channel, plain channel, single slope eave strut, double slope eave strut, and angle.
   2. Thickness: 12 gage, 0.1046 inch (2.657 mm).
   3. Finish: Galvanized per ASTM A653/A653M, G90.

C. Framing Connectors: Factory-made formed steel sheet, ASTM A653/A653M SS Grade 50, with G60/Z180 hot dipped galvanized coating and factory punched holes.

### 2.05 FABRICATION

A. Panels: Provide factory or field fabricated panels with applied finish and accessory items, using manufacturer's standard processes as required to achieve specified appearance and performance requirements.

B. Joints: Provide captive gaskets, sealants, or separator strips at panel joints to ensure weathertight seals, eliminate metal-to-metal contact, and minimize noise from panel movements.

### 2.06 FINISHES

A. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat applied by panel manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.75± 0.05 mil over 0.2± 0.05 mil primer coat, to provide a total dry film thickness of 0.95± 0.10 mil. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

B. Mica Fluoropolymer: AAMA 621. Two-coat fluoropolymer finish with suspended mica flakes containing not less than 70 percent PVDF resin by weight in color coat applied by panel manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.75± 0.05

mil over 0.2± 0.05 mil primer coat, to provide a total dry film thickness of 0.95± 0.10 mil. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

C. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.35 mil.

## 2.07 ACCESSORIES

A. Miscellaneous Sheet Metal Items: Provide flashings, trim, moldings, closure strips, preformed crickets, caps, as indicated or as required for project, and similar sheet metal items of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
   1. Flashing and Trim: Provide flashing and trim, formed from same material and manufacturers run as metal roof panels, required to seal against weather and provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fascia, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.
   2. Gutters: Formed from same material and manufacturer's run as roof panels, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch- long sections, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Furnish gutter supports spaced a maximum of 36 inches on center, fabricated from same metal as gutters. Provide wire ball strainers of compatible metal at outlets. Finish gutters to match metal roof panels.
      a. Gutter Profile: Square.
      b. Provide continuous exterior-grade perforated gutter guard, concealed from view.
   3. Downspouts: Formed from same material and manufacturer's run as roof panels unless indicated otherwise on drawings. Fabricate in 10-foot- long sections, complete with formed elbows and offsets, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Finish downspouts to match gutters. Furnish gutter supports spaced a maximum of 36 inches on center, fabricated from same metal as gutters.
   4. Roof Curbs: Fabricated from same material as roof panels, 22 Ga nominal thickness; galvalume or stainless steel; supply an integral full-length cricket for curbs wider than 24 inches supported by a structural metal deck. Fabricate curb flashing from 22 Ga  On open framing, provide roof underlayment and decking at and about roof curb per roofing manufacturer's requirements.  Maintain a minimum of 1/2 of roofing panel width on each side of roof curb, and start panels a minimum of 9 inches up slope of roof curb, flashing roofing panels to roof curb per roofing manufacturer's requirements.. Fabricate curb and sub framing to withstand indicated loads of size and height of roof top equipment.  Where required insulate roof curbs with rigid insulation.

B. Panel Fasteners: Zinc-coated steel, corrosion resisting steel, zinc cast head, or nylon capped steel, type and size as approved for the applicable loading requirements.

C. Rib and Ridge Closures:  Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.

D. Weatherseal: Manufacturer's standard as required for watertight warranty.

E. Sealants:
   1. Exposed Sealant:  Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
   2. Concealed Sealant:  Non-curing butyl sealant or tape sealant.
   3. Seam Sealant:  Factory-applied, non-skinning, non-drying type.

F. Underlayment: Self-adhering rubber-modified asphalt sheet complying with ASTM D1970/D1970M; 40 mil (1 mm) total thickness; with strippable release film and woven polyolefin top surface.
   1. Minimum Requirements:  Comply with requirements of ICC-ES AC188 for non-self-adhesive sheet.
   2. Sheet Thickness: 40 mil, 0.040 inch (1.02 mm) minimum total thickness.

3. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
4. Adhesion to plywood at 40 deg F, lbf/ft: 10 lbf/ft in ASTM D1970
5. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
6. Water Vapor Permeance: 0.1 perm (5.72 ng/Pa s sq m), maximum, when tested in accordance with ASTM E96/E96M Procedure A (desiccant method).
7. Minimum Thermal Stability:
   a. Thermal Stability: Stable after testing at 240 deg F (116 deg C); ASTM D 1970.
   b. Low-Temperature Flexibility: Passes after testing at minus 20 deg F (29 deg C); ASTM D 1970.
8. Building paper or felt is not allowed.
9. Manufacturers:
   a. Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      1) Henry Company; Blueskin PE200HT: www.henry.com/#sle.
      2) Polyglass USA, Inc; Polystick MTS Self-Adhered High Temperature Roof Underlayment: www.polyglass.us/#sle.
      3) Soprema Lastobond Shield HT.
      4) Substitutions: See Section 01 6000 - Product Requirements.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.02 PREPARATION

A. Broom clean wood sheathing prior to installation of roofing system.

B. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.

C. Remove protective film from surface of roof panels immediately prior to installation. Strip film carefully, to avoid damage to prefinished surfaces.

D. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by roof panel manufacturer.

E. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

### 3.03 FABRICATION

A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using factory set, non-adjustable portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.

C. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.
   1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.

2. Sealed Joints: Form non-expansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
3. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.
    a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.

## 3.04 INSTALLATION

A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.
    1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
    2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.
        a. Install panels with alignment as indicated on drawings.
            1) If layout is not indicated, center panels in area. Provide equally cut panels along perimeter as required for a centered layout. Do not use full panels at one side and work towards the other side resulting in a randomly cut panel.

B. Accessories: Install all components required for a complete roofing assembly, including flashings, trim, moldings, closure strips, preformed crickets, caps, rib closures, ridge closures, and similar roof accessory items.

C. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.
    1. Form weathertight standing seams incorporating concealed clips, using an automatic mechanical seaming device approved by the panel manufacturer.
    2. Incorporate concealed clips at panel joints, and apply snap-on battens to provide weathertight joints.
    3. Provide sealant tape or other approved joint sealer at lapped panel joints.
    4. Install sealant or sealant tape, as recommended by panel manufacturer, at end laps and side joints.

## 3.05 CLEANING

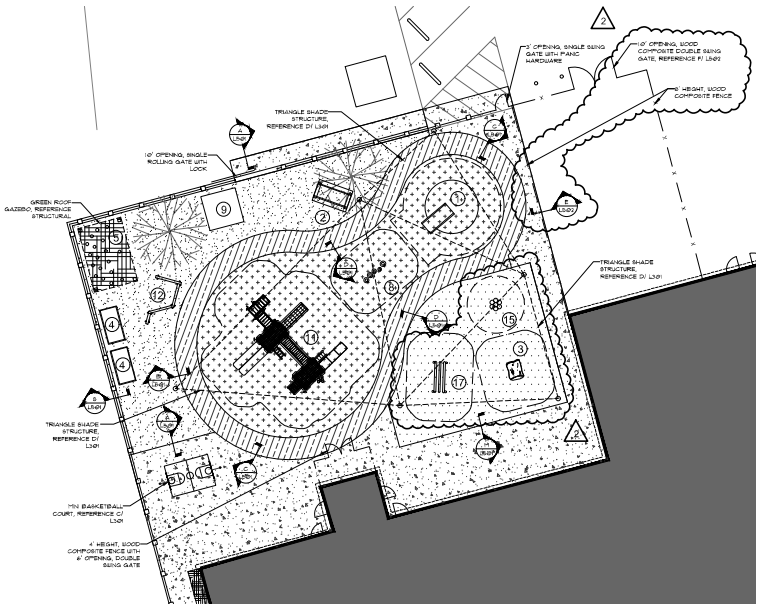
A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

## 3.06 PROTECTION

A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.

B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

**END OF SECTION**




**B** ENLARGED REFERENCE PLAN
1" = 10'-0"

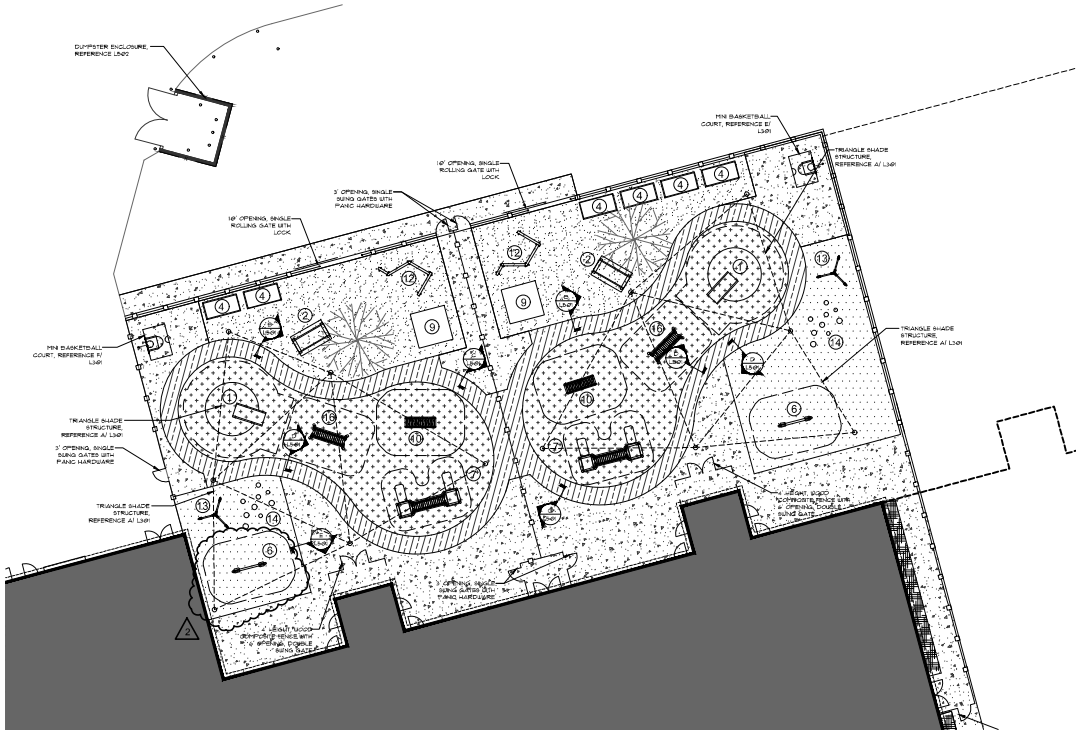
NORTH 0 5 10 20 FEET

**LEGEND**

- CONCRETE PAVING, REFERENCE CIVIL
- ARCHITECTURAL CONCRETE COLOR 4
- SOD
- SYNTHETIC TURF, TYPE 1
- SYNTHETIC TURF, TYPE 2
- LANDSCAPE BED
- 6' HEIGHT, VINYL COATED CHAIN LINK FENCING AND GATES WITH PRIVACY SLATS, BLACK
- WOOD COMPOSITE FENCING AND GATES, COLOR TO BE SELECTED BY ARCHITECT

**PLAYGROUND EQUIPMENT LEGEND**

1. 10' PLAYMOUND SYSTEM WITH SLIDE BY FOREVER LAIN
2. CEDAR LOG PICNIC TABLE BY BEARS PLAYGROUNDS
3. FAUX TREE TUNNEL BY BEARS PLAYGROUNDS
4. 4'x8' COMPOSITE RAISED GARDEN BED BY EARTHEASY
5. (6) TREE STUMPS BY PLAYGROUNDS ETC LLC
6. IN GROUND BALANCE BEAM BY BEARS PLAYGROUNDS
7. LITTLE LUMBERJACK VILLAGE BY BEARS PLAYGROUNDS
8. TREE HOPPERS BY BEARS PLAYGROUNDS
9. 8' X 8' SANDBOX WITH ROOF AND COVER BY BEARS PLAYGROUNDS
10. MINI MOUNTAIN CLIMBER BY BEARS PLAYGROUNDS
11. PROUDEST MONKEY VILLAGE BY BEARS PLAYGROUNDS
12. LOG TROUGH SYSTEM BY DUNCAN X GROVE
13. PLAY CENTER (WALL DROP PANEL, PERCUSSION PANEL, DRY ERASE PANEL) BY BEARS PLAYGROUNDS
14. TREE COOKIES BY BEARS PLAYGROUNDS
15. FREE STANDING TREE HUGGER BY BEARS PLAYGROUNDS
16. FREE STANDING FLAT BRIDGE BY BEARS PLAYGROUNDS
16. FREE STANDING FREE STANDING BURMA BRIDGE BY BEARS PLAYGROUNDS




**A** ENLARGED REFERENCE PLAN
1" = 10'-0"

NORTH 0 5 10 20 FEET

8/16/2024 9:43:42 AM

blue river ARCHITECTS
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STATE OF OKLAHOMA
Jeremy Brian Carney
No. 18339
Tulsa, OK
REGISTERED LANDSCAPE ARCHITECT
08.05.2024

**CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER**
19244 COUNTRY CLUB DRIVE, CATOOSA, OK 74015

**L201** ENLARGED REFERENCE PLANS

blue river ARCHITECTS
A Native American Owned Firm

PROJECT NUMBER
**20230011**

ISSUE DATE
**08/16/2024**

ISSUE
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES:

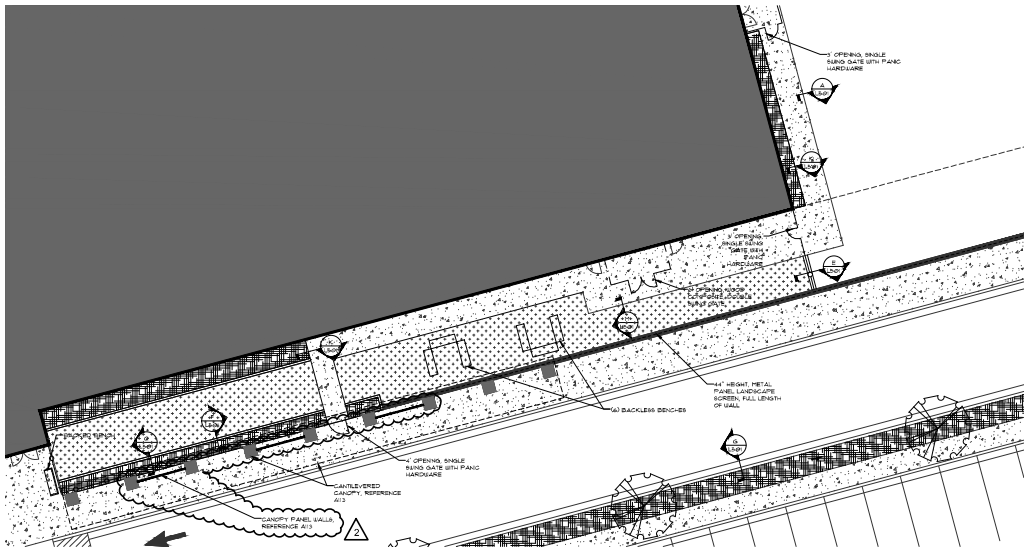
| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | ADDENDUM #1 | 05/09/2024 |
| 2 | ADDENDUM #2 | 06/03/2024 |

SHEET NAME
**ENLARGED REFERENCE PLANS**

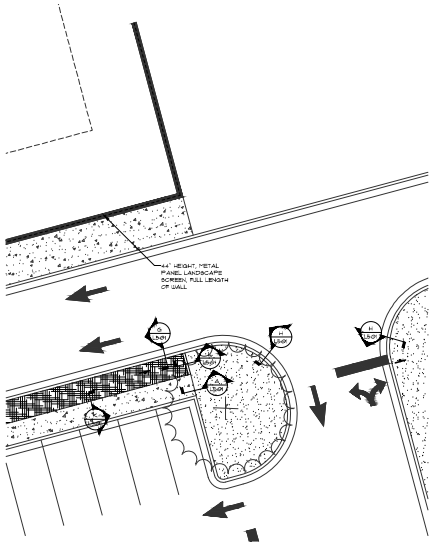
SHEET NUMBER
**L201**

**LEGEND**

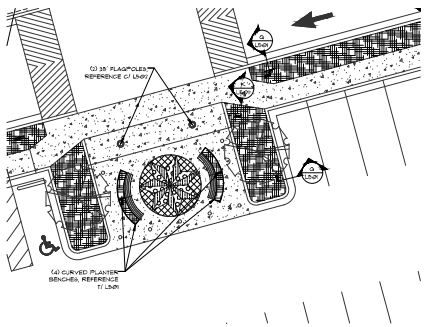
- CONCRETE PAVING, REFERENCE CIVIL
- LANDSCAPE SOD
- SOD
- SYNTHETIC TURF, TYPE 2
- ARCHITECTURAL CONCRETE, COLOR 1
- ARCHITECTURAL CONCRETE, COLOR 2
- ARCHITECTURAL CONCRETE, COLOR 3
- 8' HEIGHT, ANTI-CLIMB WIRE FENCING AND GATES, BLACK
- 6' HEIGHT, VINYL COATED CHAIN-LINK FENCING AND GATES WITH PRIVACY SLATS, BLACK
- 4' HEIGHT, WOOD COMPOSITE FENCING AND GATES, COLOR TO BE SELECTED BY ARCHITECT
- 44" HEIGHT, METAL PANEL LANDSCAPE SCREEN, PATTERN AND COLOR TO BE SELECTED BY ARCHITECT




D ENLARGED REFERENCE PLAN
1" = 10'-0"




C ENLARGED REFERENCE PLAN
1" = 10'-0"




B ENLARGED REFERENCE PLAN
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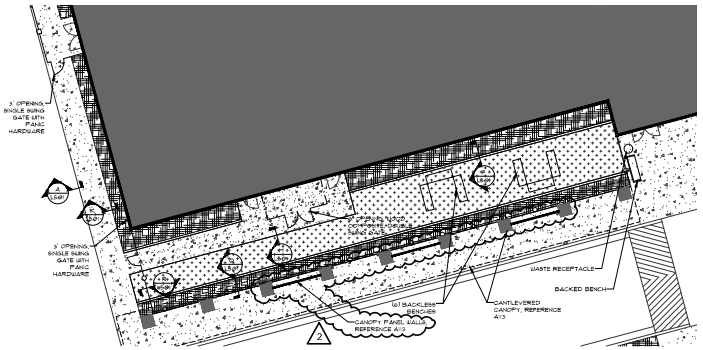


A ENLARGED REFERENCE PLAN
1" = 10'-0"

NORTH 0 5 10 20 FEET

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STATE OF OKLAHOMA — Jeremy Brian Carlisle — No. 16328 — Tulsa, OK — 08.16.2024

**CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER**
19244 COUNTRY CLUB DRIVE, CATOOSA, OK 74015

**L202** ENLARGED REFERENCE PLANS

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BRA PROJECT NUMBER
**20230011**
ISSUE DATE
**08/16/2024**
ISSUE
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES:

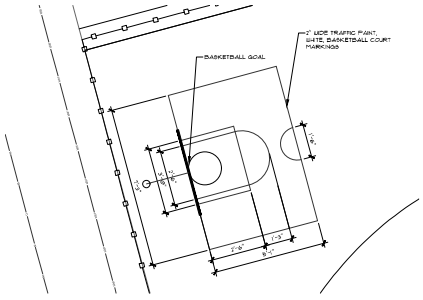
| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | ADDENDUM #1 | 09/09/2024 |
| 2 | ADDENDUM #2 | 09/23/2024 |

SHEET NAME
**ENLARGED REFERENCE PLANS**

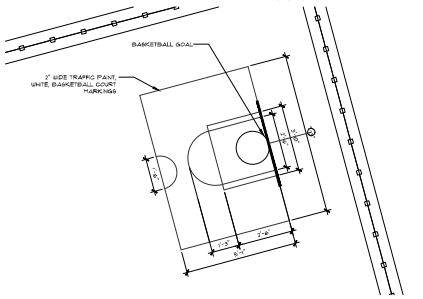
SHEET NUMBER
**L202**



8/16/2024 9:43:42 AM




F LAYOUT AND DIMENSION PLAN
1/2" = 1'-0"

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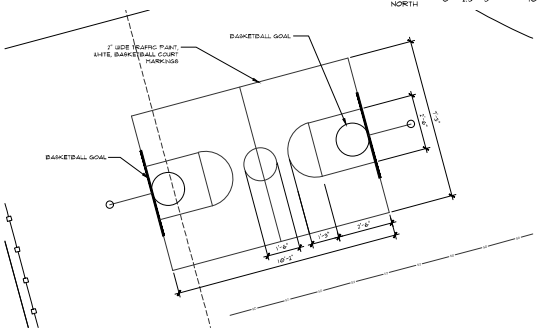
1/2" = 1'-0"

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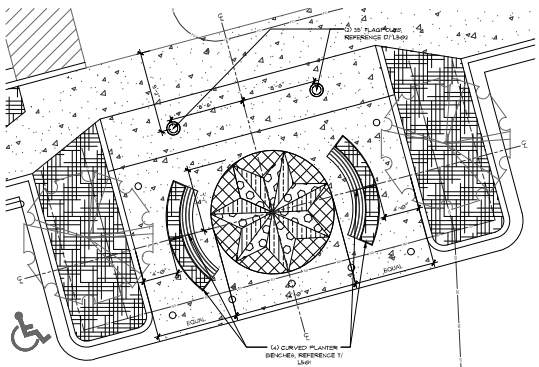
1/2" = 1'-0"

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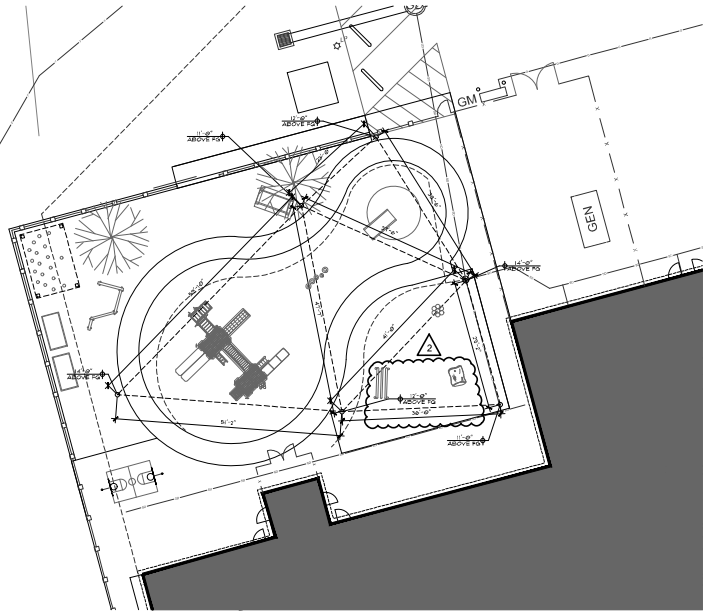
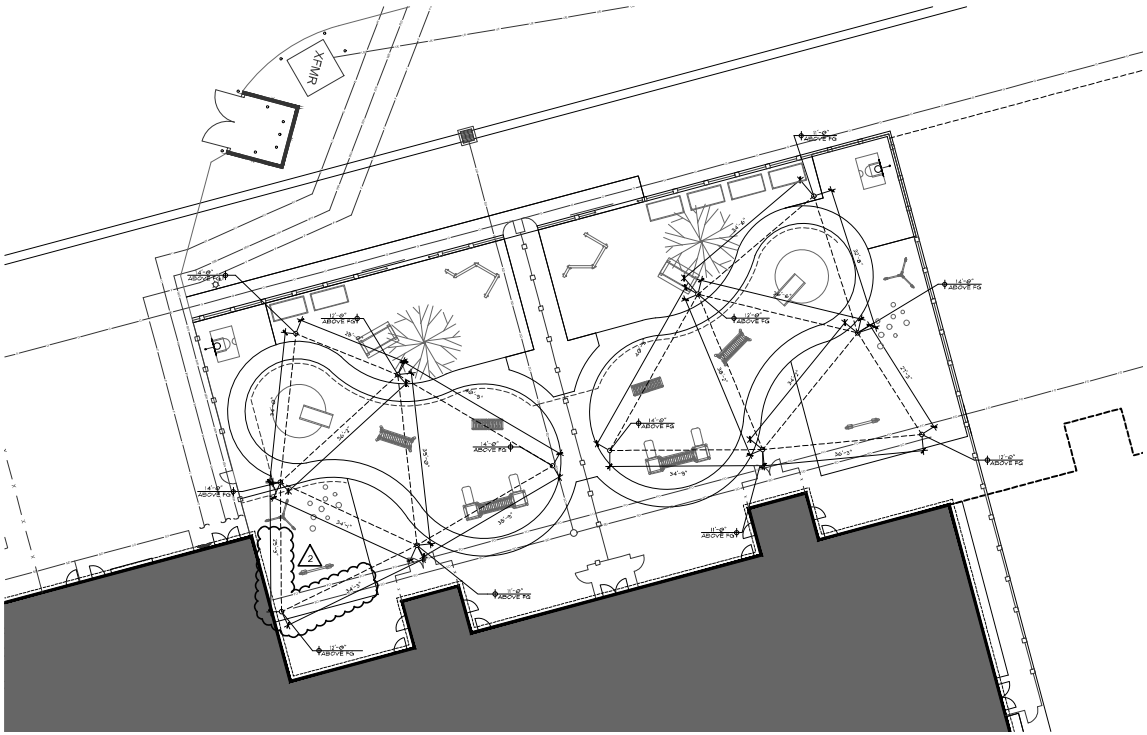
1" = 5'-0"




D LAYOUT AND DIMENSION PLAN
1" = 10'-0"




A LAYOUT AND DIMENSION PLAN
1" = 10'-0"

**LEGEND**

- CONCRETE PAVING, REFERENCE CIVIL
- LANDSCAPE BED
- ARCHITECTURAL CONCRETE, COLOR 1
- ARCHITECTURAL CONCRETE, COLOR 2
- ARCHITECTURAL CONCRETE, COLOR 3

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STATE OF OKLAHOMA
Jeremy Brian Carlisle
No. 18339
Tulsa, OK
08/16/2024

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

19244 COUNTRY CLUB DRIVE, CATOOSA, OK 74015

L301
LAYOUT AND DIMENSION PLANS

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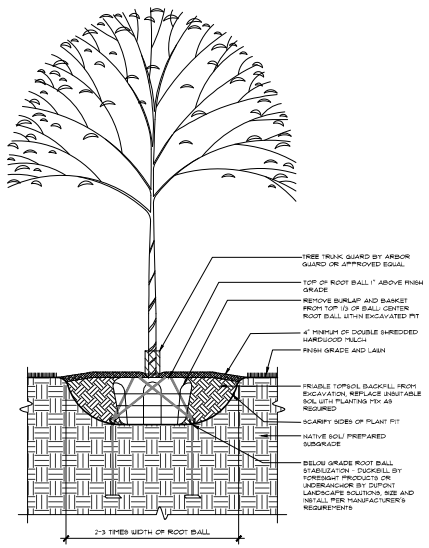
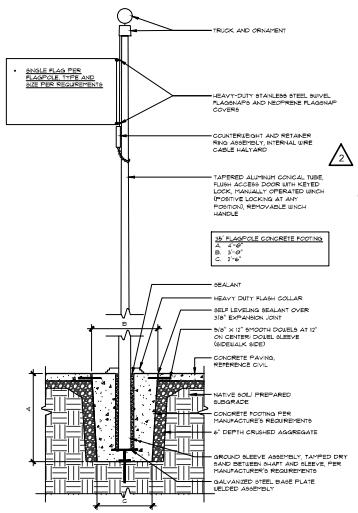
SHEET ISSUE
**LAYOUT AND DIMENSION PLANS**

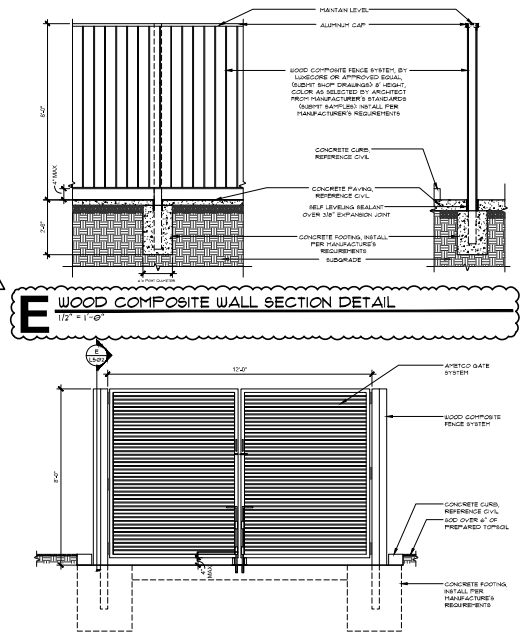
SHEET NUMBER
**L301**




**D** DUMPSTER ENCLOSURE PLAN DETAIL
1/2" = 1'-0"

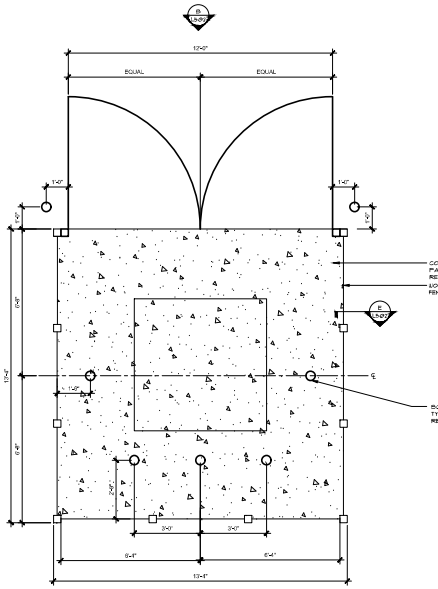



**C** FLAGPOLE DETAIL
1/2" = 1'-0"

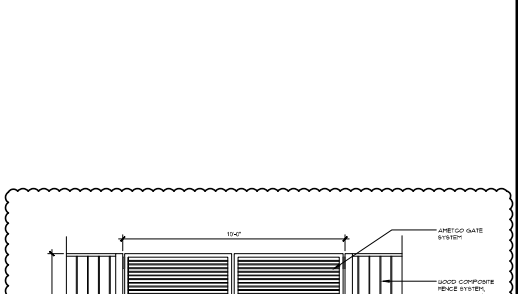



**E** WOOD COMPOSITE WALL SECTION DETAIL
1/2" = 1'-0"

**B** DUMPSTER ENCLOSURE GATE DETAIL
1/2" = 1'-0"




**A** DUMPSTER ENCLOSURE PLAN DETAIL
1/2" = 1'-0"




**F** MECHANICAL ENCLOSURE GATE DETAIL
1/2" = 1'-0"

NORTH



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A Native American Owned Firm

STATE OF OKLAHOMA
Jeremy Brian Carlisle
No. 18339
Tulsa, OK
REGISTERED ARCHITECT
08.05.2024

**CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER**
19244 COUNTRY CLUB DRIVE, CATOOSA, OK 74015

L502
DETAILS

blue river ARCHITECTS
A Native American Owned Firm

BRA PROJECT NUMBER
**20230911**
ISSUE DATE
**08/16/2024**
ISSUE
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES:

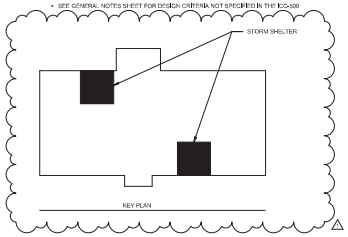
| REV. | DESCRIPTION | DATE |
|---|---|---|
| 1 | ADDENDUM #1 | 09/09/2024 |
| 2 | ADDENDUM #2 | 09/23/2024 |

SHEET NAME
**DETAILS**

SHEET NUMBER
**L502**

## DESIGN PARAMETERS — STORM SHELTER

1. TYPE OF SHELTER — COMMUNITY TORNADO SHELTER
2. USE OF COMMUNITY SHELTER — BUILDING OCCUPANTS
3. DESIGN CONFORMS TO THE PROVISIONS OF THE FOLLOWING:
   - 3.1. ICC/NSSA STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTER — ICC 500-2014
4. GRAVITY LOADS
   - 4.1. ROOF DEAD LOAD: (IN ADDITION TO STRUCTURE SELF-WEIGHT)
     - INSULATION — 5 PSF
     - MEP ALLOWANCE — 5 PSF
     - CEILING ALLOWANCE — 2 PSF
     - MISCELLANEOUS — 3 PSF
   - 4.2. UNIFORM FLOOR LIVE LOAD (TORNADO SHELTER) — 100 PSF
5. WIND DESIGN DATA
   - DESIGN WIND SPEED (TORNADO SHELTER) — $V_t$ = 250 MILES/HOUR
   - WIND EXPOSURE CATEGORY — EXPOSURE C
   - INTERNAL PRESSURE COEFFICIENT — $GC_{pi}$ = +/- 0.55
   - TOPOGRAPHIC FACTOR — $K_{zt}$ = 1.0
   - DIRECTIONALITY FACTOR — $K_d$ = 1.0
   - COMPONENTS AND CLADDING DESIGN WIND PRESSURES
     - ROOF
       - ZONE 1 — 300.5 PSF / 113.5 PSF — 8'-3" FROM ZONE 2 IN EACH DIRECTION
       - ZONE 1' — -193.7 PSF / 113.5 PSF — WHEN ZONE 1, ZONE 2, AND ZONE 3 DO NOT APPLY
       - ZONE 2 — -380.6 PSF / 113.5 PSF — 8'-3" FROM ROOF EDGE IN EACH DIRECTION
       - ZONE 3 — -500.9 PSF / 113.5 PSF — 8'-3" FROM ROOF CORNER IN EACH DIRECTION WITH 2'-9" WIDTH
     - WALLS
       - ZONE 4 — -205.7 PSF / 193.7 PSF — WHEN ZONE 5 DOES NOT APPLY.
       - ZONE 5 — -241.7 PSF / 193.7 PSF — 4'-0" FROM BUILDING CORNER IN EACH DIRECTION
     - COMPONENTS AND CLADDING WIND PRESSURES LISTED ABOVE ARE BASED UPON AN EFFECTIVE WIND AREA OF 10 SQUARE FEET FOR FIGURE 30.3-2B (ROOF) AND FIGURE 30.3-1 (WALL) OF ASCE 7-16. POSITIVE PRESSURES INDICATE WIND LOADING TOWARD THE SURFACE. NEGATIVE PRESSURES INDICATE WIND LOADING AWAY FROM THE SURFACE.
6. DEBRIS HAZARDS
   - 6.1. MISSILE CRITERIA
     - 15-LB SAWN LUMBER 2X4
     - TRAVEL SPEED = 100 MILES/HOUR (VERTICAL), 67 MILES/HOUR (HORIZONTAL)
   - 6.2. LAYDOWN AND FALLING DEBRIS HAZARD
     - HAZARD 1 - MAIN BUILDING ROOF — 30 PSF
     - FALLING DEBRIS FROM MAIN BUILDING ROOF SHALL BE APPLIED UNIFORMLY OVER THE ENTIRE SHELTER ROOF.
     - SEE SHELTER PLAN FOR LOCATION AND EXTENTS OF OTHER LAYDOWN AND FALLING DEBRIS HAZARDS
     - EACH LAYDOWN AND FALLING DEBRIS HAZARD SHALL BE CONSIDERED ONE AT A TIME, OCCURING SIMULTANEOUSLY WITH THE UNIFORM ROOF LIVE LOAD.
7. FLOOD LOAD
   - THE SHELTER HAS NOT BEEN CONSTRUCTED WITHIN AN AREA SUSCEPTIBLE TO FLOODING IN ACCORDANCE WITH CHAPTER 4 OF THE STANDARD
   - SEE CIVIL FOR DESIGN FLOOD ELEVATION AND BASE FLOOD ELEVATION.
8. LOAD COMBINATIONS
   - ELEMENTS OF THE SHELTER SHALL BE DESIGNED FOR THE LOAD COMBINATIONS IN IBC AND THE MODIFIED LOAD COMBINATIONS OF ICC-500.
   - SEE GENERAL NOTES SHEET FOR DESIGN CRITERIA NOT SPECIFIED IN THE ICC-500




## STORM SHELTER — GENERAL NOTES

1. THE FOLLOWING COMPONENTS OF THE SHELTER ENVELOPE HAVE BEEN TESTED TO MEET THE DEBRIS IMPACT MISSILE REQUIREMENTS REFERENCED IN THE DESIGN CRITERIA:
   - 1.1. ROOF SYSTEM
     - A MINIMUM OF 4" NORMAL WEIGHT CONCRETE REINFORCED WITH AT LEAST #4 BARS AT 12" O.C. EW. PER FEMA P-361 APPENDIX E
   - 1.2. WALL SYSTEM
     - A MINIMUM OF 6" NORMAL WEIGHT CONCRETE ICF
2. EXTERIOR DOORS, WINDOWS, LOUVERS OR OTHER OPENINGS IN THE BUILDING ENVELOPE SHALL MEET THE SPECIFIED DEBRIS IMPACT MISSILE CRITERIA USING THE REQUIRED TEST METHODS OF CHAPTER 3 AND CHAPTER 6 OF ICC 500.
3. EXTERIOR DOORS, WINDOWS, LOUVERS OR OTHER GLAZING ELEMENTS SHALL BE CONNECTED TO THE STRUCTURE PER THE MANUFACTURER'S LITERATURE. GENERAL CONTRACTOR SHALL COORDINATE MINIMUM WALL THICKNESS REQUIREMENTS AND EMBED REQUIREMENTS WITH MANUFACTURER'S LITERATURE PRIOR TO CONSTRUCTION.
4. STEEL COMPONENTS AND EMBEDS THAT ARE EXPOSED TO THE EXTERIOR ELEMENTS SHALL HAVE CORROSION RESISTANCE AND PROTECTION.
5. GENERAL CONTRACTOR TO COORDINATE AND VERIFY ALL OPENINGS LOCATIONS AND SIZES WITH ARCHITECTURAL AND MEP DRAWINGS WITH ACTUAL EQUIPMENT PURCHASED. NOTIFY STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION IF OPENINGS CHANGE OR DIFFER FROM THOSE IN THE STRUCTURAL DRAWINGS.
6. ALL PENETRATIONS THROUGH THE STORM SHELTER ENVELOPE LARGER THAN 3 ½ SQUARE INCHES OR 2 1 1/8 INCH IN DIAMETER SHALL BE PROTECTED BY AN ASSEMBLY MEETING THE SPECIFIED DEBRIS IMPACT MISSILE CRITERIA OR AS SHOWN IN THE CONSTRUCTION DOCUMENTS.
7. REFER TO MEP FOR PROTECTION ASSEMBLIES AT ROOF DRAINS, ROOF VENT OPENINGS, AND LOUVER OPENINGS.
8. CONTROL JOINTS IN CMU WALLS SHALL BE SEALED AS FOLLOWS:
   - 8.1. FOR JOINTS 3/8" OR LESS IN WIDTH, JOINT SHALL BE SEALED WITH JOINT MATERIAL IN ACCORDANCE WITH TMS 602.
9. REFER TO THE GENERAL NOTES SHEET FOR ADDITIONAL PROJECT NOTES.

## STORM SHELTER — QUALITY ASSURANCE PLAN

1. THE FOLLOWING QUALITY ASSURANCE PLAN IS PREPARED AND PROVIDED FOR THE MAIN WIND-FORCE RESISTING SYSTEMS AND WIND RESISTING COMPONENTS AND CLADDING IN ORDER TO ESTABLISH MINIMUM REQUIREMENTS FOR QUALITY CONTROL OF THE SHELTER CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE ARCHITECTURAL DESIGN PROFESSIONAL, STRUCTURAL DESIGN PROFESSIONAL, STRUCTURAL OBSERVER, GENERAL CONTRACTOR, RELATED CONTRACTORS, SPECIAL INSPECTOR, AND TESTING AGENCY.
3. SPECIAL INSPECTIONS SHALL BE PERFORMED FOR EACH OF THE ELEMENTS LISTED BELOW. THESE ELEMENTS ARE PART OF THE MAIN WIND-FORCE RESISTING SYSTEM AND WIND RESISTING COMPONENTS AND CLADDING FOR THE SHELTER. THE FOLLOWING REFERS TO THE RELEVANT SPECIAL INSPECTION SECTIONS APPLICABLE TO EACH ELEMENT. REFER TO THE STATEMENT OF SPECIAL INSPECTIONS FOR THE TYPE AND FREQUENCY OF INSPECTIONS REQUIRED.
   - 3.1. FOUNDATIONS:
     - SOILS
     - CONCRETE
   - 3.2. CONCRETE SLABS-ON-GRADE:
     - CONCRETE
     - STEEL
   - 3.3. ICF WALLS:
     - CONCRETE
     - STEEL
   - 3.4. WALL CONNECTIONS INCLUDING CONNECTIONS TO FOUNDATIONS AND CONNECTIONS TO ROOF FRAMING:
     - CONCRETE
     - STEEL
   - 3.5. COMPOSITE BEAM FRAMING:
     - STEEL
   - 3.6. COMPOSITE STEEL DECK, HEADED STUD ANCHORS, AND CONCRETE FLOOR SLABS:
     - CONCRETE
     - STEEL
     - STEEL DECK
   - 3.7. PROTECTION FOR MEP PENETRATIONS:
     - CONCRETE
     - STEEL
     - POST-INSTALLED ANCHORS
   - 3.8. DOORS, WINDOWS, LOUVERS, AND ROOF PROTECTION ASSEMBLIES:
     - CONCRETE
     - STEEL
     - POST-INSTALLED ANCHORS
4. THE OWNER SHALL EMPLOY A REGISTERED DESIGN PROFESSIONAL TO CONDUCT VISUAL OBSERVATIONS OF THE SHELTER FOR GENERAL CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATIONS DO NOT ELIMINATE OR REDUCE OTHER INSPECTIONS OR TESTING REQUIRED BY THIS STANDARD, THE APPLICABLE BUILDING CODE, OR THE AUTHORITY HAVING JURISDICTION.
5. THE FOLLOWING ARE THE MINIMUM SIGNIFICANT CONSTRUCTION STAGES THAT REQUIRE FIELD OBSERVATION FROM THE STRUCTURAL OBSERVER:
   - 5.1. AFTER INSTALLATION OF THE FIRST FOUNDATION REINFORCING STEEL AND BEFORE CONCRETE PLACEMENT.
   - 5.2. AFTER INSTALLATION OF WALL REINFORCING STEEL AND BEFORE CONCRETE PLACEMENT.
   - 5.3. AFTER INSTALLATION OF STEEL EMBEDDED PLATES IN CONCRETE WALLS AND PRIOR TO PLACEMENT OF CONCRETE.
   - 5.4. AFTER INSTALLATION OF STEEL EMBEDDED PLATES AND PRIOR TO WALL CONCRETE PLACEMENT.
   - 5.5. AFTER INSTALLATION OF SLAB REINFORCING STEEL AND PRIOR TO SLAB CONCRETE PLACEMENT.
   - 5.6. AFTER INSTALLATION OF STRUCTURAL STEEL FRAMING, COMPOSITE STEEL DECK, SHEAR STUDS, REINFORCING STEEL, AND BEFORE CONCRETE SLAB ON METAL DECK PLACEMENT.
   - 5.7. AFTER INSTALLATION OF FEMA LOUVERS, DOOR FRAMES, SHROUDS, OR OTHER OPENING PROTECTION SYSTEMS.
6. AT THE CONCLUSION OF THE WORK, THE REGISTERED DESIGN PROFESSIONAL WHO MADE THE STRUCTURAL OBSERVATIONS SHALL SUBMIT TO THE AUTHORITY HAVING JURISDICTION A WRITTEN STATEMENT THAT SITE VISITS WERE MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES THAT TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.
7. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND-FORCE RESISTING SYSTEM OR ANY COMPONENT LISTED IN THE QUALITY ASSURANCE PLAN SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE AUTHORITY HAVING JURISDICTION. THE RESPONSIBLE DESIGN PROFESSIONAL, AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN:
   - 7.1. ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE QUALITY ASSURANCE PLAN.
   - 7.2. ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
   - 7.3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF REPORTS.
   - 7.4. IDENTIFICATION OF QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

blue river ARCHITECTS
A Native American Owned Firm

ANDREW M. KEIM 22259 — 09/03/2024

wallace design collective
OK CA #1480, EXP 06/30/2025

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

19244 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**S003** GENERAL NOTES STORM SHELTER

blueriver ARCHITECTS

BLUE RIVER PROJECT NUMBER: **20230011**

ISSUE DATE: **08/16/2024**

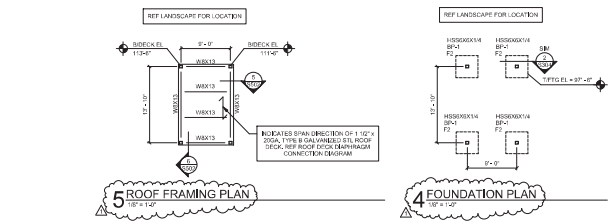
Issue: **CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 09/03/2024 |

SHEET NAME: **GENERAL NOTES STORM SHELTER**

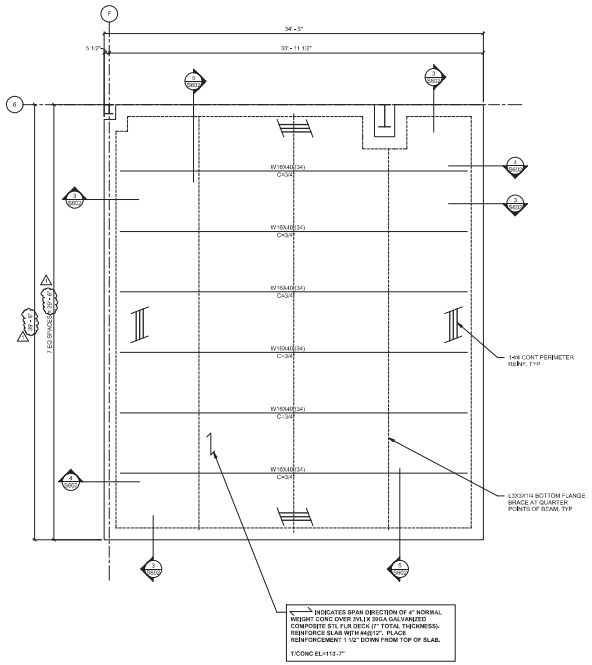
SHEET NUMBER: **S003**



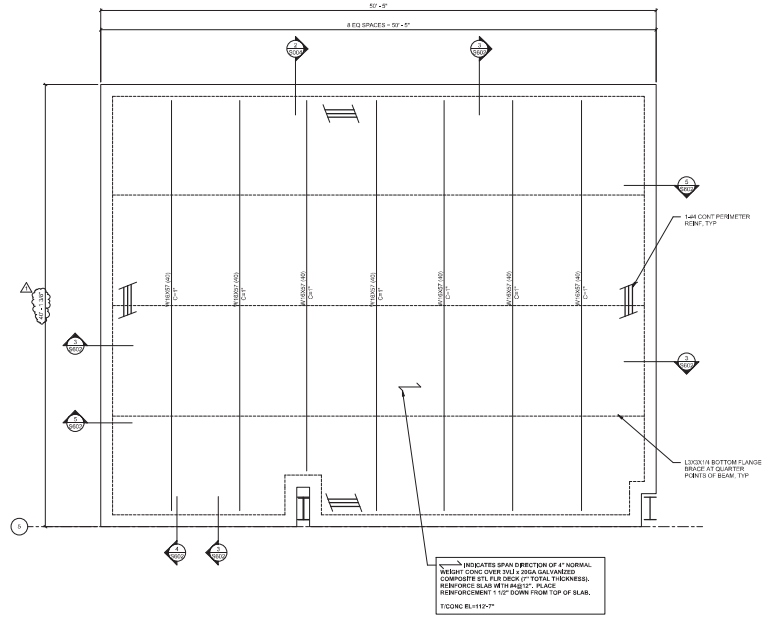

5 ROOF FRAMING PLAN
1/8" = 1'-0"



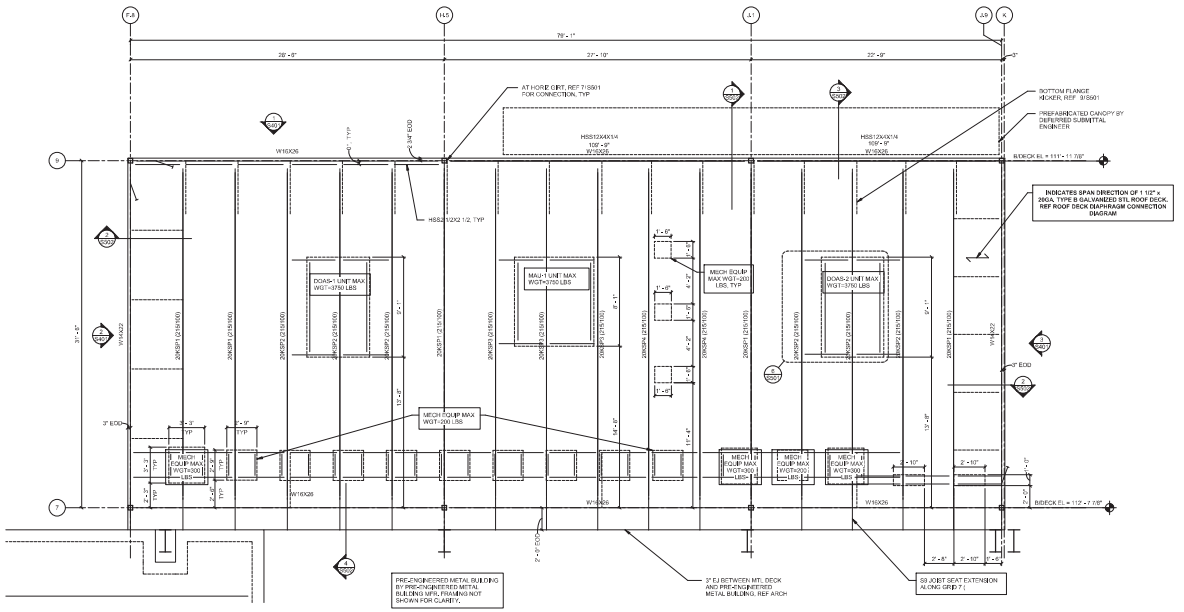

4 FOUNDATION PLAN
1/8" = 1'-0"




2 ROOF FRAMING PLAN - STORM SHELTER
1/4" = 1'-0"




3 ROOF FRAMING PLAN - STORM SHELTER
1/4" = 1'-0"




1 ROOF FRAMING PLAN
1/4" = 1'-0"

ROOF FRAMING PLAN SHEET NOTES:

1. REF12/S501 FOR JOIST REINF DTL AT ALL LOCATIONS WHERE CONCENTRATED LOADS DO NOT OCCUR AT JOIST PANEL POINTS.
2. VERIFY AND COORD ROOF TOP EQUIP WITH MCP DWGS FOR SIZE AND LOCATION. CONTACT ARCHITECT AND R DISCREPANCIES OCCUR BETWEEN ARCH AND MEP DWGS AND INFORMATION SHOWN ON STR PLANS.
3. REF 4/S501 FOR ROOF DRAIN SUPPORT FRAMING. REF ARCH AND MEP DWGS FOR ROOF DRAIN LOCATIONS.
4. JOIST CONCENTRATED LOAD AT STL JOIST BOT CHORD OR TOP CHORD MAY EXCEED 300 LBS. VERIFY WITH LOCAL JOIST MFR. JOIST MFR SHALL DESIGN SUSPENDED LOADS WITH 1.33 FACTOR. USE THE INTERNATIONAL BUILDING CODE FOR USE WITH THE LRFD STRENGTH DESIGN METHOD. REF THE TYP ROOF TOP UNIT AND DECK SUPPORT STL. REF MECH FOR UNIT LOCATIONS.
5. STL JOIST MFR SHALL COORD MECH DUCT LOCATIONS TO AVOID CONFLICT WITH BRIDGING.
6. STL FABRICATOR SHALL DESIGN BM CONNS TO COLS OR BMS FOR THE LOADS INDICATED ON THE STL BM MINIMUM CONN SCHED.
7. BEAMS / JOISTS ARE EQUALLY SPACED BETWEEN COL LINES UNO.
8. REF ARCH DWGS FOR DIMENSIONS NOT INDICATED. COORD ROOF DECK ELEVATIONS, ROOF DECK EDGES, AND ROOF SLOPES WITH ARCH PLANS.
9. REF MECH AND ARCH DWGS FOR ROOFTOP UNITS AND ROOF DECK PENETRATIONS.
10. NO HANGING LOADS SHALL BE APPLIED TO THE ROOF DECK.

ROOF FRAMING PLAN REF NOTES:

1. REF FOR TYP ROOF DECK ATTACHMENT.
2. REF 1/S501,AN FOR STL COL SIZES

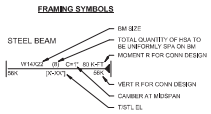
FRAMING PLAN SHEET NOTES:

1. BEAMS ARE EQUALLY SPACED BETWEEN COL LINES UNO.
2. REF ARCH DWGS FOR DIMENSIONS NOT INDICATED. COORD SLAB ELEVATIONS, SLAB EDGES, AND SLAB SLOPES WITH ARCH PLANS.
3. CONDUIT IN SLAB IS NOT PERMITTED.
4. DO NOT CUT CONTROL JOINTS IN SLAB ON METAL DECK.

STORM SHELTER FRAMING PLAN REFERENCE NOTES:

A. REF S601 AND S602 FOR STORM SHELTER DETAILS

FRAMING SYMBOLS




blue river ARCHITECTS
A Native American Owned Firm

ANDREW M. KEIM 22250 OKLAHOMA REGISTERED STRUCTURAL ENGINEER 09/03/2024

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# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

19244 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

S201 PARTIAL PLANS

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BLUE RIVER PROJECT NUMBER:
20230011

ISSUE DATE:
08/16/2024

Issue:
CONSTRUCTION DOCUMENTS

OTHER ISSUE DATES

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 09/03/2024 |

SHEET NAME:
PARTIAL PLANS

SHEET NUMBER:
S201



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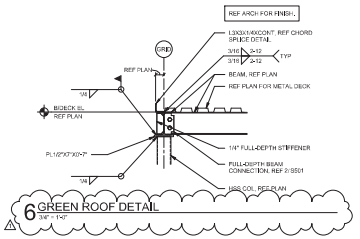
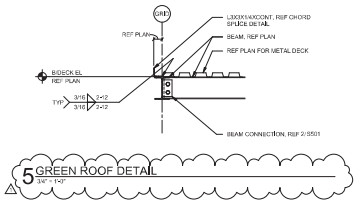
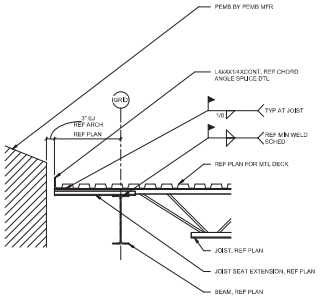


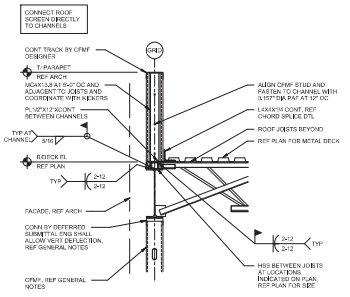

6 GREEN ROOF DETAIL
3/4" = 1'-0"



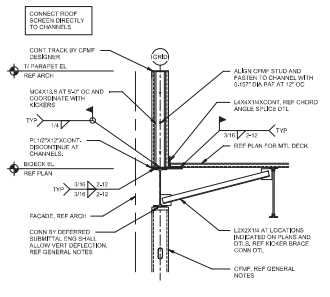

5 GREEN ROOF DETAIL
3/4" = 1'-0"



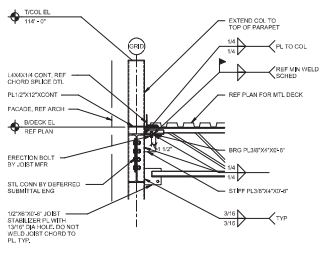

4 FRAMING DETAIL
3/4" = 1'-0"




3 FRAMING DETAIL
3/4" = 1'-0"




2 FRAMING DETAIL
3/4" = 1'-0"




1 FRAMING DETAIL
3/4" = 1'-0"

blue river ARCHITECTS
A Native American Owned Firm

ANDREW M. KEIM
22250
09/03/2024

wallace design collective
wallace design collective, pc
structural civil landscape survey
environmental planning/landscape
mechanical electrical plumbing
fire protection architecture

OK CA #1480, EXP 06/30/2025

**CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER**

19244 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**S502**
ROOF FRAMING DETAILS

blueriver ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
**20230011**

ISSUE DATE:
**08/16/2024**

Issue:
**CONSTRUCTION DOCUMENTS**

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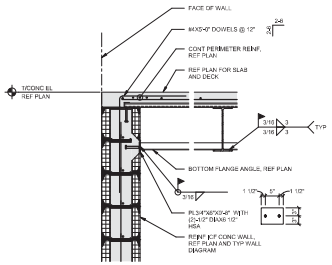
| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 09/03/2024 |

SHEET NAME:
**ROOF FRAMING DETAILS**

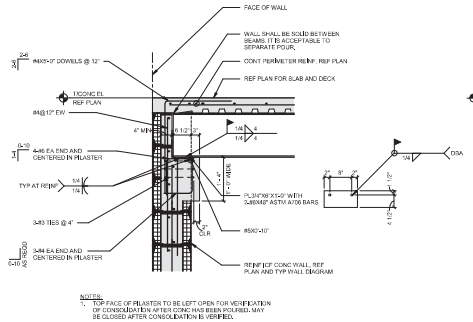
SHEET NUMBER:
**S502**



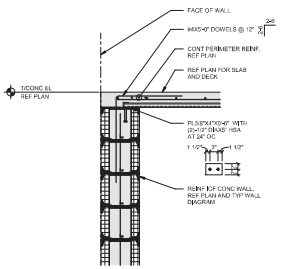
3/9/2024 10:11:05 AM



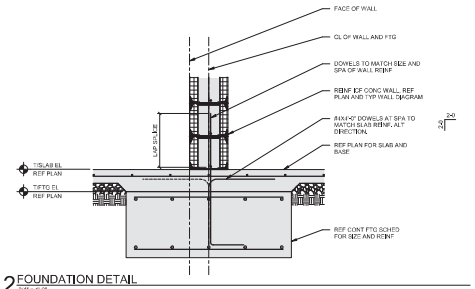

5 FRAMING DETAIL
3/4" = 1'-0"



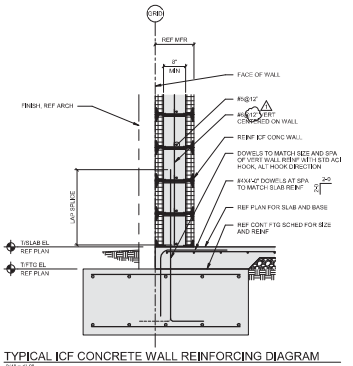

4 FRAMING DETAIL
3/4" = 1'-0"




3 FRAMING DETAIL
3/4" = 1'-0"




2 FOUNDATION DETAIL
3/4" = 1'-0"




1 TYPICAL ICF CONCRETE WALL REINFORCING DIAGRAM
3/4" = 1'-0"

blue river ARCHITECTS
A Native American Owned Firm

ANDREW M. KEHN 22250 OKLAHOMA 09/03/2024

wallace design collective
wallace design collective, pc
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101 park avenue oklahoma city, ok 73102
405 236 3434
OK CA #1460, EXP 06/30/2025

**CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER**
19244 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**S602**
STORM SHELTER DETAILS

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A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
**20230011**
ISSUE DATE:
**08/16/2024**
Issue:
**CONSTRUCTION DOCUMENTS**
OTHER ISSUE DATES

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 09/03/2024 |

SHEET NAME:
**STORM SHELTER DETAILS**

SHEET NUMBER:
**S602**



8/9/2024 10:11:06 AM

## KICTHEN EQUIPMENT PLUMBING CONNECTION SCHEDULE

| FDP PNO | FDP PSIZE | FDP PCONN | FDP PSERVICE TO | FDP PLOC | FDP PAFF | FDP PREMARKS |
|---|---|---|---|---|---|---|
| P6 | 4" | FLOOR DRAIN | JANITOR SINK | FLOOR | VERIFY | JANITOR SINK BY PLUMBER |
| P10 | VERIFY | FLOOR DRAIN | GENERAL AREA DRAIN | FLOOR | VERIFY | LOCATE PER ENGINEER'S DRAWING |
| P11A | 1 1/2" | DIRECT DRAIN | HAND SINK | WALL | 15" | FURNISHED BY SECTION 11 40 00, INSTALLED BY DIV. 22 |
| P15 | 4" | FLOOR DRAIN | FUNNEL FLOOR DRAIN | FLOOR | 0" | --- |
| P109A | 12" SQ. | FLOOR SINK | ICE MACHINE | FLOOR | 0" | 3/4 GRATE |
| P110B | 2" | INDIRECT DRAIN | CLOTHES WASHER | WALL | 48" | VALVE BOX |
| P121A | 12" SQ. | FLOOR SINK | SINK | FLOOR | 0" | 3/4 GRATE |
| P133A | 3" | DIRECT DRAIN | DISPOSER | WALL | 10" | IRTC |
| P145A | 12" SQ. | FLOOR SINK | SINK | FLOOR | 0" | 3/4 GRATE - RE: NOTE #4 |
| P162 | 12" SQ. | FLOOR SINK | CONVECTION STEAMER | FLOOR | 0" | 3/4 GRATE - RE: NOTE #4 |
| P172B | 12" SQ. | FLOOR SINK | EQUIPMENT | FLOOR | 0" | 3/4 GRATE |
| P249A | 12" SQ. | FLOOR SINK | SINK | FLOOR | 0" | THREE QUARTER GRATE |
| P350 | 12" SQ. | FLOOR SINK | DISHMACHINE | FLOOR | 0" | IRTC |
| P601A | VERIFY | FLOOR DRAIN | HOT WATER DISPENSER | FLOOR | VERIFY | LOCATE PER ENGINEER'S DRAWING |

REFER TO PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL WASTE, WATER, AND VENT RUNOUTS.

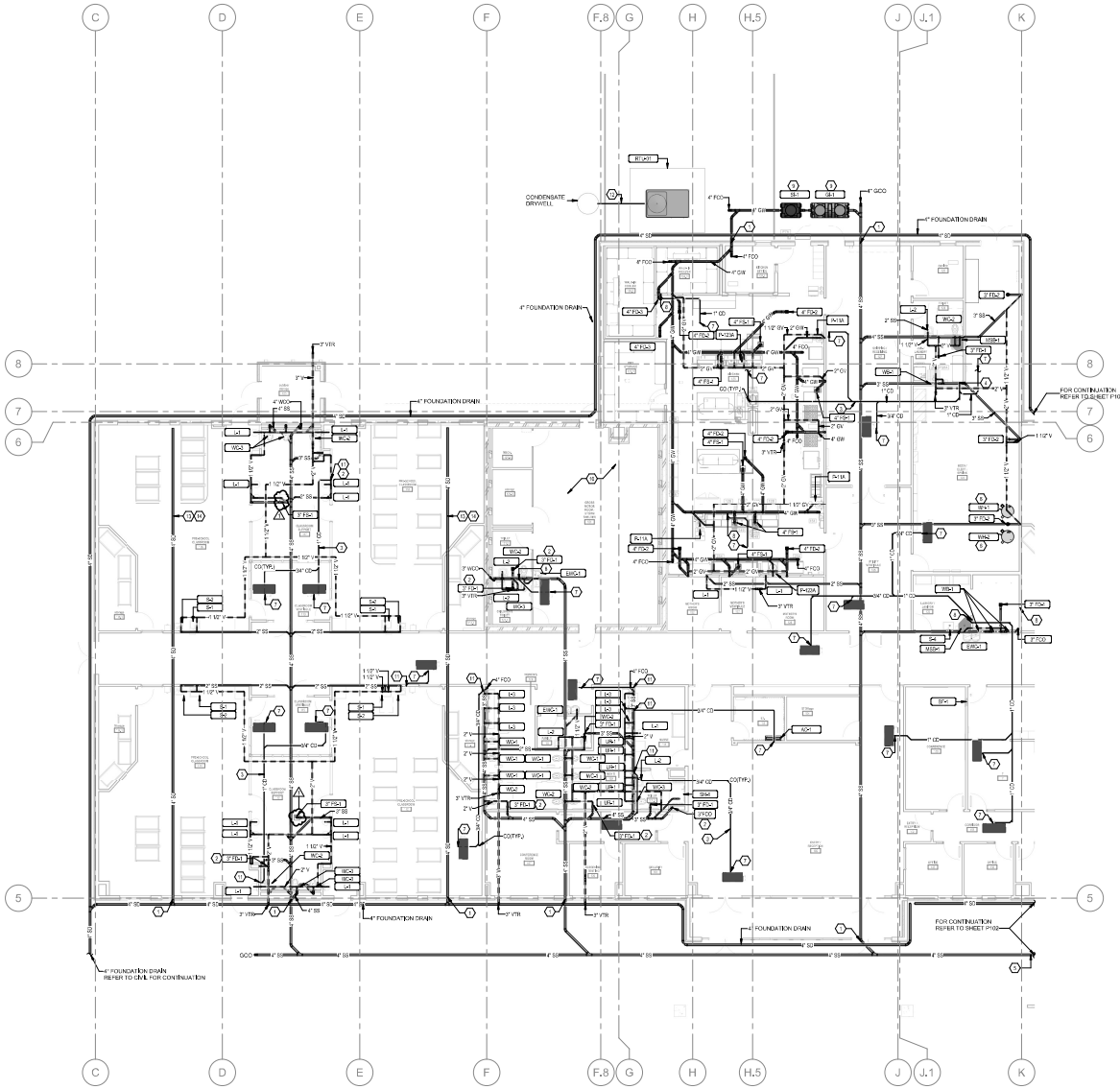
REFER TO PLUMBING RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON PLAN.

ALL UNDERGROUND PIPING TO BE ROUTED BENEATH STRUCTURAL FOOTINGS AND FOUNDATIONS.

REFER TO LANDSCAPE FOR ADDITIONAL DRAINAGE SYSTEMS NOT SHOWN HERE.

### KEYNOTES

1. COORDINATE SANITARY WITH STRUCTURAL FOOTING AT EXTERIOR WALL.
2. PROVIDE AND INSTALL FLOOR DRAIN WITH "TRAP GUARD" OR SIMILAR BARRIER-TYPE TRAP SEAL PROTECTION DEVICE.
3. OVERHEAD CONDENSATE DRAIN SLOPE AT 1/8" PER FOOT, TO NAVE APPROVED RECEPTOR. INSULATE PIPING SIMILAR TO DOMESTIC WATER INSULATION.
4. ROUTE CONDENSATE PIPE DOWN IN WALL AND TERMINATE ABOVE MOP SINK WITH AIR GAP.
5. FOR CONTINUATION REFER SHEET P102.
6. ROUTE CONDENSATE DRAINS, TEMPERATURE AND PRESSURE RELIEF, AND ANY OTHER ASSOCIATED DRAINS FROM WATER HEATER TO NEAREST FLOOR DRAIN AND TERMINATE WITH AIR GAP.
7. ROUTE 3/4" CONDENSATE FROM MECHANICAL UNIT AS SHOWN, PROVIDE WITH TRAP AS REQUIRED BY MANUFACTURER AND LOCAL JURISDICTION. PROVIDE WITH CONDENSATE PUMP IF NECESSARY AND NOT INCLUDED WITH EQUIPMENT.
8. ROUTE CONDENSATE DOWN TO MOP SINK AND DISCHARGE WITH A MINIMUM 2" AIR GAP.
9. PROVIDE WITH MANUFACTURER'S HIGH TRAFFIC LOAD RATED COVER. PROVIDE FIELD CUT HOLES AS REQUIRED.
10. ANY PIPE PENETRATION OF STORM SHELTER GREATER THAN 2" IN DIAMETER SHALL BE PROTECTED AS AN OPENING IN ACCORDANCE WITH ICC SECTION 305.5.
11. ROUTE 1" CONDENSATE DOWN IN WALL AND CONNECT TO JANITORS CLOSET.
12. ROUTE 1 1/4" CONDENSATE DRAIN FROM GROUND-MOUNTED RTU TO DRYWELL. COORDINATE DRYWELL LOCATION WITH SITE LAYOUT AND CONDITIONS. REFER TO DETAIL ON SHEET P003.
13. UNDERSLAB DRAINS TO CONNECT TO PERIMETER FOUNDATION DRAIN. REFER TO GEOTECHNICAL REPORT FOR RECOMMENDATIONS. ALL RECOMMENDATIONS ARE TO BE FOLLOWED.
14. UNDERSLAB DRAIN TO BE A MAXIMUM OF 20' APART. COORDINATE WITH SANITARY PIPING. DO NOT ROUTE UNDERSLAB DRAINS NEAR RESTROOMS OR KITCHEN EQUIPMENT.




**A** PLUMBING PLAN - WASTE & VENT
1/8" = 1'-0"

0 2 4 8 16

NORTH


blue river ARCHITECTS
A Native American Owned Firm


OKLAHOMA REGISTERED PROFESSIONAL ENGINEER
ABDOU
18905
OKLAHOMA

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

P101
PLUMBING PLAN - WASTE & VENT - AREA A

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A Native American Owned Firm

BLUE RIVER PROJECT NUMBER
**2023011**

ISSUE DATE
**08/16/24**

Issues
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES

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|---|---|---|
| 1 | Addendum 2 | 2024-04-05 |

SHEET NAME
**PLUMBING PLAN - WASTE & VENT - AREA A**

SHEET NUMBER
**P101**



3/8/2024 10:53:14 AM

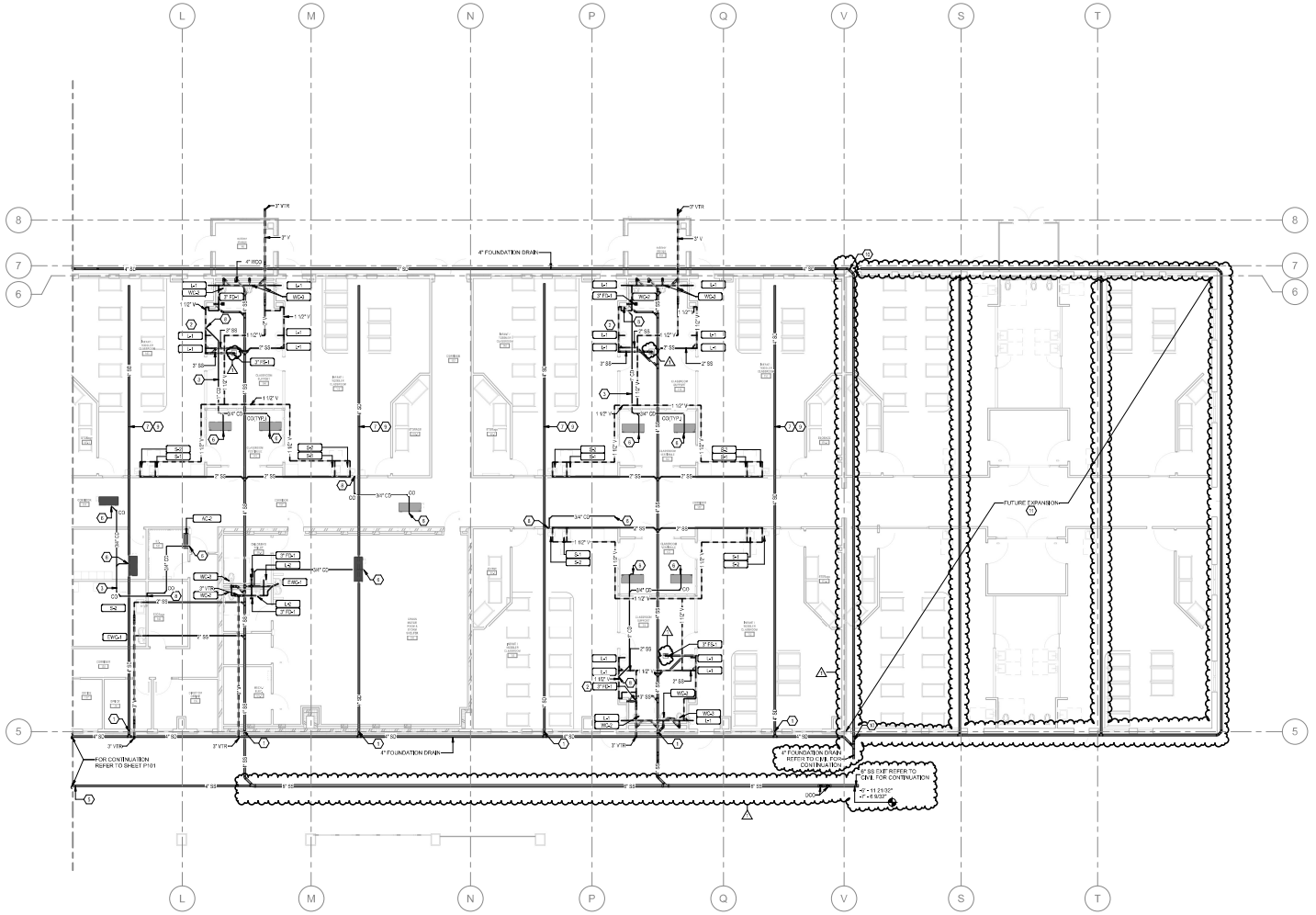
REFER TO PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL WASTE, WATER, AND VENT RUNOUTS.

REFER TO PLUMBING RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON PLAN.

ALL UNDERGROUND PIPING TO BE ROUTED BENEATH STRUCTURAL FOOTINGS AND FOUNDATIONS.

**KEYNOTES**

1. COORDINATE SANITARY WITH STRUCTURAL FOOTING AT EXTERIOR WALL.
2. PROVIDE AND INSTALL FLOOR DRAIN WITH TRAP GUARD OR SIMILAR BARRIER-TYPE TRAP SEAL PROTECTION DEVICE.
3. OVER-HEAD CONDENSATE DRAIN SLOPE AT 1/8" PER FOOT, TO NEAREST APPROVED RECEPTOR. INSULATE PIPING SIMILAR TO DOMESTIC WATER INSULATION.
4. FOR CONTINUATION REFER SHEET P101.
5. ROUTE 3/4" CONDENSATE FROM MECHANICAL UNIT AS SHOWN, PROVIDE WITH TRAP AS REQUIRED BY MANUFACTURER AND LOCAL JURISDICTION. PROVIDE WITH CONDENSATE PUMP IF NECESSARY AND NOT INCLUDED WITH EQUIPMENT.
7. UNDERSLAB DRAINS TO CONNECT TO PERIMETER FOUNDATION DRAIN. REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS. ALL RECOMMENDATIONS ARE TO BE FOLLOWED.
8. ROUTE 1" CONDENSATE DOWN IN WALL AND CONNECT TO LAVATORY TAILPIECE.
9. UNDERSLAB DRAIN TO BE A MAXIMUM OF 25' APART. COORDINATE WITH SANITARY PIPING. DO NOT ROUTE UNDERSLAB DRAIN NEAR RESTROOMS OR KITCHEN SANITARY MAINS.
10. PROVIDE STUB FOR FUTURE CONNECTION TO FOUNDATION DRAIN DURING FUTURE BUILDING EXPANSION.
11. FUTURE FOUNDATION DRAINS SHOWN FOR REFERENCE ONLY. FOUNDATION DRAIN IN FUTURE AREA TO BE INSTALLED DURING BUILDING EXPANSION PHASE.




**A PLUMBING PLAN - WASTE & VENT**
1/8" = 1'-0"

0 2 4 8 16

NORTH

blue river ARCHITECTS
A Native American Owned Firm

REGISTERED PROFESSIONAL ENGINEER
ABDOU L. HASSEN
19926
OKLAHOMA

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**P102**
PLUMBING PLAN - WASTE & VENT - AREA B

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A Native American Owned Firm

BLUE RIVER PROJECT NUMBER
**2023/011**

ISSUE DATE
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Issues
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 2024-09-05 |

SHEET NAME
**PLUMBING PLAN - WASTE & VENT - AREA B**

SHEET NUMBER
**P102**

| FOOD SERVICE PLUMBING SCHEDULE | | | | | | |
|---|---|---|---|---|---|---|
| FDP PNO | FDP PSIZE | FDP PCONN | FDP PSERVICE TO | FDP PLOC | FDP PAFF | FDP PREMARKS |
| | | | | | | <notes> |
| P5 | 3/4" | H & C WATER | JANITOR SINK | WALL | 48" | JANITOR SINK BY PLUMBER |
| P7 | 3/4" | H & C WATER | HOSE BIBB | WALL | 18" | BTC |
| P11 | 1/2" | H & C WATER | FAUCET | WALL | 16" | FURNISHED BY SECTION 11 40 00; INSTALLED BY DIV. 22 |
| P109 | 3/4" | COLD WATER | WATER ICE | WALL | 60" | BTC |
| P110 | 3/4" | H & C WATER | CLOTHES WASHER | WALL | 48" | BTC; VALVE BOX |
| P121 | 3/4" | H & C WATER | FAUCET | WALL | 13" | BTC |
| P123 | 3/4" | H & C WATER | FAUCET / DISPOSER | WALL | 13" | BTC |
| P145 | 3/4" | H & C WATER | FAUCET | WALL | 10" | BTC; RE: NOTE #3 |
| P151 | (2)3/4" | NATURAL GAS | CONVECTION OVEN | WALL | 180360" | BTC; RE: NOTE #3 & #9 - 60 MBTU/HR EACH |
| P162A | (2) 3/4" | COLD WATER | CONVECTION STEAMER | WALL | 18"48" | BTC; RE: NOTE #3 #16 & #17 - INTERCONNECT THRU WATER FILTER |
| P162B | (2) 3/4" | COLD WATER | CONVECTION STEAMER | WALL | 18"48" | BTC; RE: NOTE #3 |
| P162C | (3) 3/4" | NATURAL GAS | CONVECTION STEAMER | WALL | 24" / 60" | BTC; 58 MBTU/HR EA. |
| P172 | (2)3/4" | COLD WATER | COMBI OVEN | WALL | 24"48" | BTC; INTERCONNECT THRU FILTERS |
| P172A | (2)3/4" | COLD WATER | COMBI OVEN | WALL | 24"48" | BTC |
| P172C | (2)3/4" | NATURAL GAS | COMBI OVEN | WALL | 18"36" | BTC; 93KS MBTU/HR EACH |
| P249 | 3/4" | H & C WATER | FAUCET | WALL | 13" | BTC; RE: NOTE #3 |
| P250A | 3/4" | COLD WATER | DRAIN TEMPERING | WALL | 18" | BTC |
| P252 | 3/4" | HOT WATER | INTERNAL BOOSTER HEATER | WALL | 18" | EXT., THRU WALL; TO BOOSTER/DISHMACHINE - 140 DEG. MIN. |
| P263 | 3/4" | INCOMING COLD WATER | REMOTE FILTER SYSTEM | WALL | 60" | BTC; RE: NOTE #3 & #17 |
| P263A | 3/4" | OUTGOING COLD WATER | REMOTE FILTER SYSTEM | WALL | 60" | BTC; RE: NOTE #3 & #17; INTERCONNECT TO ICE / STEAM |
| P614 | 1/2" | H & C WATER | FILL FAUCET | WALL | 42" | BTC; RE: NOTE #3 |
| P632 | 3/4" | NATURAL GAS | RANGE | WALL | 18" | BTC; RE: NOTE #3 & #9 - 216 MBTU/HR |

LOCATE VALVES IN ACCESSIBLE AREAS OR PROVIDE ACCESS PANEL AT CEILING OR WALL NOTIFY ARCHITECT. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE MEANS TO SHUT OFF WATER FOR EACH OR GROUP OF FIXTURES EVEN IF VALVES ARE NOT SHOWN ON PLANS.

REFER TO PLUMBING FIXTURE SCHEDULE FOR individual WASTE, WATER, AND VENT RUNOUTS.

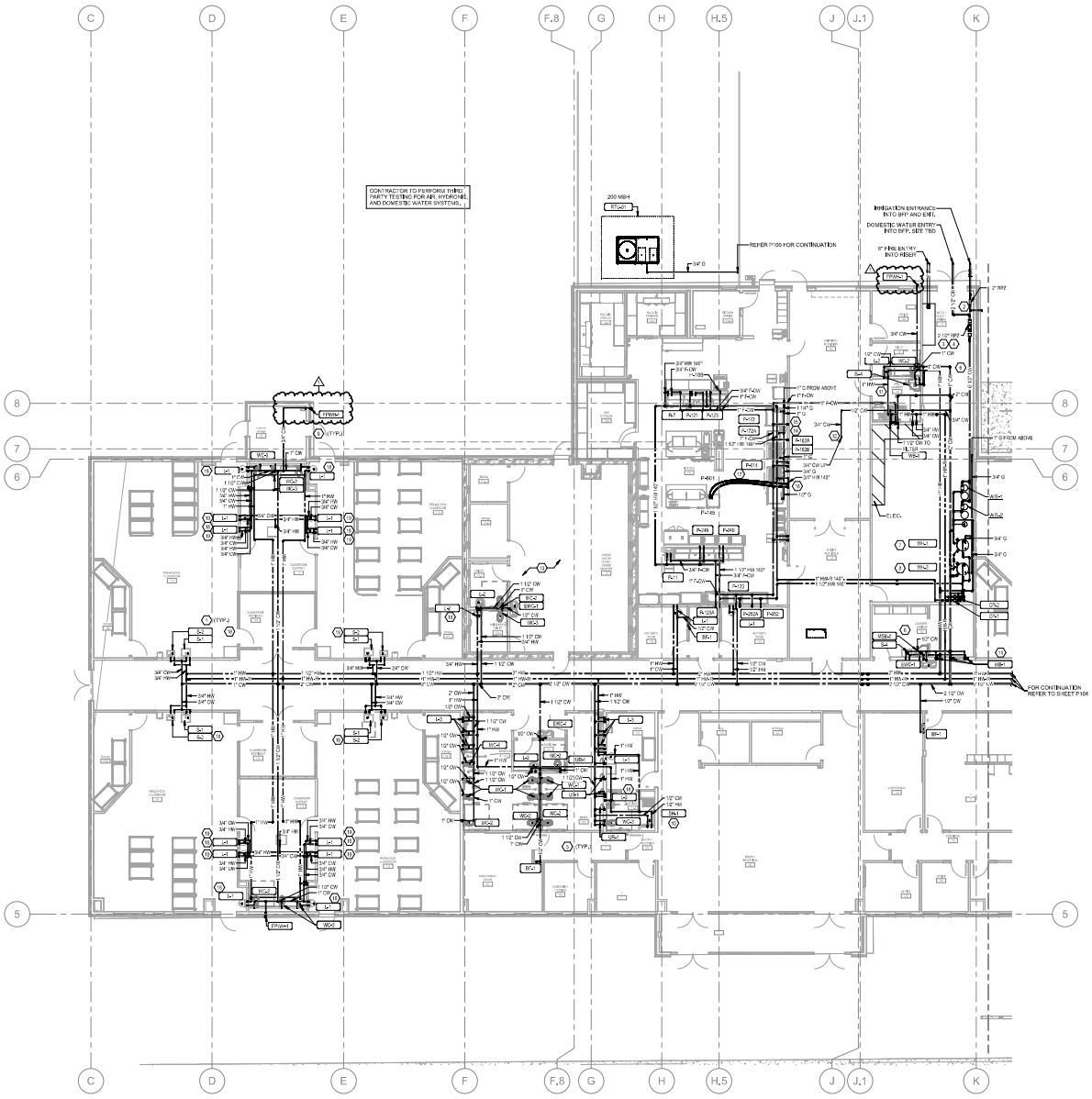
REFER TO PLUMBING RISER DIAGRAMS FOR RPZ SIZES NOT SHOWN ON PLAN.

PROVIDE ALL PRESSURE REGULATOR WITH VENT LIMITER OR ROUTE FULL SIZE VENT THRU ROOF.

ALL UNDERGROUND PIPING TO BE ROUTED BEHIND STRUCTURAL FOOTINGS AND FOUNDATIONS.

## KEYNOTES

1. PROVIDE ALL HAND SINKS AND LAVATORIES WITH THERMOSTATIC MIXING VALVE SET TO 105°F.
2. ROUTE IRRIGATION PIPING TO EXTERIOR AS REQUIRED. COORDINATE SITE ROUTING AND CONNECTION REQUIREMENTS WITH IRRIGATION DESIGNER AND EQUIPMENT SUPPLIER.
3. PROVIDE 3/4" CW, HW, AND SHOWN, PEX-B SHOT, 3M PROTECTOR AND ANY OTHER PIPING AS REQUIRED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. TEST, VERIFY PRESSURE AND PROVIDE PRESS-RE REDUCING VALVE SET TO 70 PSI IF PRESSURE EXCEEDS 75 PSI. COORDINATE LOCATION AND ROUTING WITH FIRE PROTECTION PIPING.
4. ROUTE FULL SIZE DRAIN FROM RPZ TO FLOOR DRAIN AND DISCHARGE WITH APPROVED AIR GAP.
5. PROVIDE 3/4"CW TO URINAL.
6. PROVIDE 3/4" CW AND 3/4" HW DOWN TO MOP SINK.
7. PROVIDE NEW 2 1/2" CW & 2 1/2" HW DOWN TO WATER HEATER, ROUTE WATER HEATER TAP TO FLOOR DRAIN AND TERMINATE WITH AIR GAP.
8. PROVIDE NEW 1 1/2" CW & 1 1/2" HW DOWN TO WATER HEATER, ROUTE WATER HEATER TAP TO FLOOR DRAIN AND TERMINATE WITH AIR GAP.
9. ROUTE 3/4" CW TO FREEZE PROOF WALL HYDRANT. INSTALL 10" X 2" X 2" PIPING SHUT-OFF VALVE ON WALL HYDRANT IN ACCESSIBLE LOCATION, PROVIDE ACCESS PANEL WITH CEILING OR WALL AND CONFIRM APPEARANCE AND LOCATION WITH ARCHITECT.
10. PROVIDE 1/2" CW & HR TO SHOWER VALVE.
11. PROVIDE 1/2" CW & HW TO WASHER BOX, PROVIDE WATER HAMMER ARRESTOR.
12. PROVIDE 3/4" CW TO FREEZE PROOF ROOF HYDRANT, REFER TO SHEET MP1.01 FOR CONTINUATION.
13. ANY PIPE PENETRATION OF STORM SHELTER GREATER THAN 2"IN DIAMETER SHALL BE PROTECTED AS AN OPENING IN ACCORDANCE WITH ICC-500 SECTION 306.3.
14. PROVIDE GAS COCK, DIRT LEG, AND REGULATOR ON GAS PIPING TO KITCHEN EQUIPMENT. ROUTE REGULATOR VENT THROUGH ROOF OR PROVIDE VENTLESS REGULATOR. 3/4" AUTOMATIC GAS SHUTOFF VALVE TO BE PROVIDED BY HOOD SUPPLIER, TO BE INSTALLED BY PLUMBING CONTRACTOR AGAINST WALL IN ACCESSIBLE LOCATION- COORDINATE EXACT LOCATION WITH FIRE MARSHALL. EXTEND GAS DOWN FOR COOKING APPLIANCES TO WALL GAS MANIFOLD AT 36" ABOVE FINISHED FLOOR, INSTALLED TIGHT TO WALL.
15. PROVIDE SHUTOFF VALVE AND UNION FOR GAS CONNECTION TO KITCHEN EQUIPMENT. QUICK DISCONNECT TO BE PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR AND INSTALLED BY PLUMBING CONTRACTOR.
16. ROUTE 3/4" CW AND 3/4" HW DOWN IN WALL.
17. 3/4" CW AND 3/4" HW PEX-B PIPE RUNS BELOW SLAB.
18. CHILD HEIGHT MOUNTING PER ARCHITECT. REFER TO 0000 FOR MOUNTING HEIGHTS. COORDINATE WITH MILLWORK WHERE APPLICABLE.
19. WATER SUPPLY TO THIS LAVATORY MUST BE ROUTED THROUGH FLOOR SLAB.




**A** PLUMBING PLAN - WATER & GAS
1/8" = 1'-0"

0' 2' 4' 8' 16'

NORTH


blue river ARCHITECTS
A Native American Owned Firm


REGISTERED PROFESSIONAL ENGINEER
ABDOU JAASAM
18905
9.5.24
OKLAHOMA

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

P103
PLUMBING PLAN - WATER & GAS - AREA A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BLUE RIVER PROJECT NUMBER
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OTHER ISSUE DATES

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|---|---|---|
| 1 | Addendum 2 | 2024-09-05 |

SHEET NAME
PLUMBING PLAN - WATER & GAS - AREA A

SHEET NUMBER
P103



3/8/2024 10:05:47 AM

LOCATE VALVES IN ACCESSIBLE AREAS OR PROVIDE ACCESS PANEL AT CEILING OR WALL. NOTIFY ARCHITECT. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE MEANS TO SHUT OFF WATER FOR EACH OR GROUP OF FIXTURES EVEN IF VALVES ARE NOT SHOWN ON PLANS.

REFER TO PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL WASTE, WATER, AND VENT RUNOUTS.

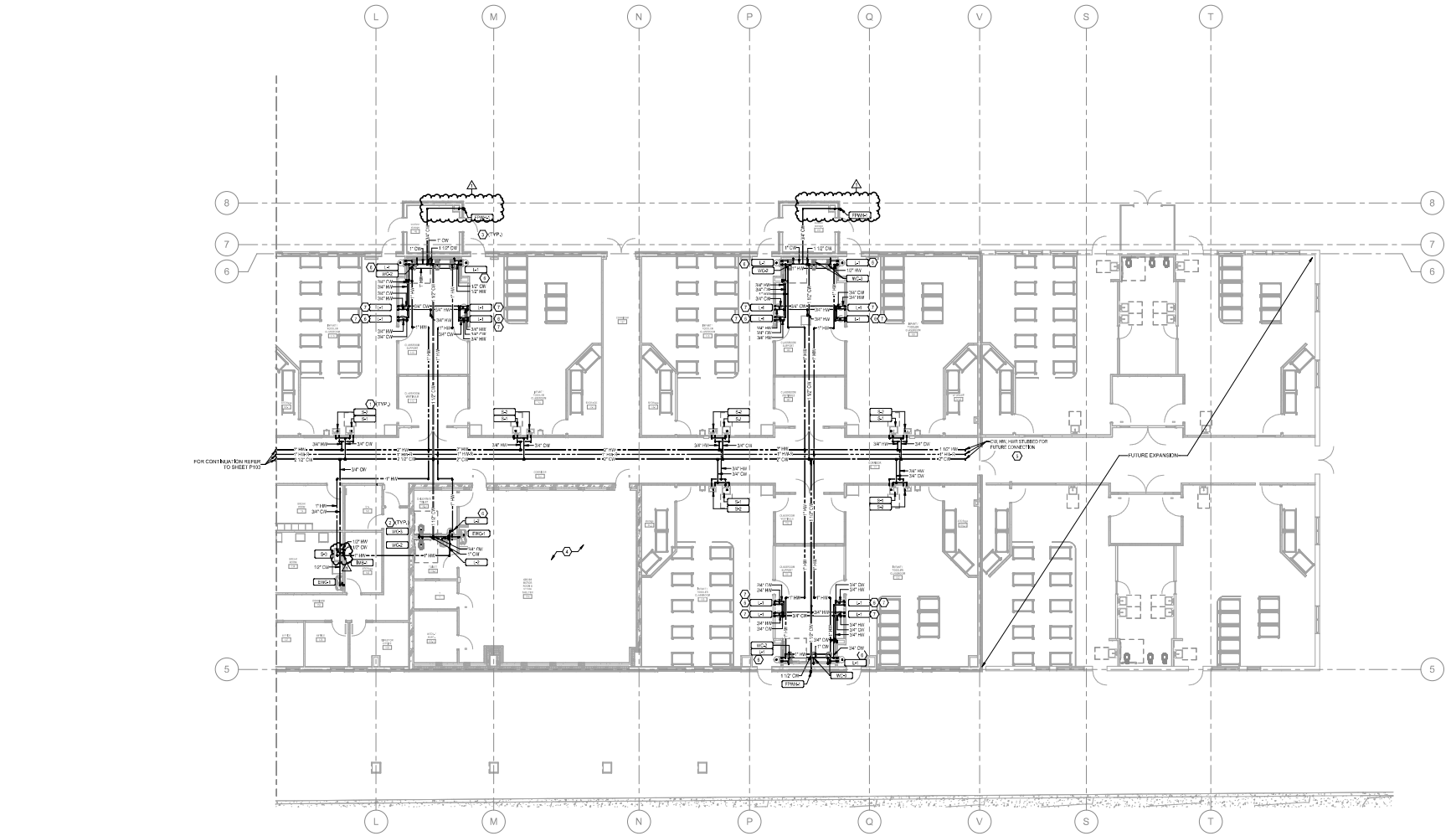
REFER TO PLUMBING RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON PLAN.

PROVIDE ALL PRESSURE REGULATOR WITH VENT LIMITER OR ROUTE FULL SIZE VENT THRU ROOF.

ALL UNDERGROUND PIPING TO BE ROUTED BENEATH STRUCTURAL FOOTINGS AND FOUNDATIONS.

**KEYNOTES**

1. PROVIDE ALL HAND SINKS AND LAVATORIES WITH THERMOSTATIC MIXING VALVE SET TO 105°F.
2. PROVIDE 1"CW TO WATER CLOSET FLUSH VALVE.
3. ROUTE 3/4" CW TO FREEZE PROOF WALL HYDRANT. INSTALL 10" ACC. PRIVATE SHUT-OFF VALVE IN WALL HYDRANT IN ACCESSIBLE LOCATION. PROVIDE ACCESS PANEL WITH CEILING OR WALL AND CONFIRM APPEARANCE AND LOCATION WITH ARCHITECT.
4. ANY PIPE PENETRATION OF STORM SHELTER GREATER THAN 2" IN DIAMETER SHALL BE PROTECTED AS AN OPENING IN ACCORDANCE WITH ICC-500 SECTION 305.3.
5. CW, HW AND HWR STUBBED FOR FUTURE CONNECTION. CAP PIPING AND PROVIDE SHUT-OFF VALVE.
6. CHILD HEIGHT MOUNTING PER ARCHITECT, REFER TO G006 FOR MOUNTING HEIGHTS. COORDINATE WITH MILLWORK WHERE APPLICABLE.
7. WATER SUPPLY TO THIS LAVATORY MUST BE ROUTED THROUGH FLOOR SLAB.




**A** PLUMBING PLAN - WATER & GAS
1/8" = 1'-0"

0' 2' 4' 8' 16'

NORTH

blue river ARCHITECTS
A Native American Owned Firm

REGISTERED PROFESSIONAL ENGINEER
ABDOU HASAN LOTFY
18906
9.5.24
OKLAHOMA

**CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER**
1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**P104**
PLUMBING PLAN - WATER & GAS - AREA B

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BLUE RIVER PROJECT NUMBER
**2023011**

ISSUE DATE:
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|---|---|---|
| 1 | Addendum 2 | 2024-09-05 |

SHEET NAME:
**PLUMBING PLAN - WATER & GAS - AREA B**

SHEET NUMBER:
**P104**



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## KITCHEN HOOD EXHAUST DUCT INSTALLATIONS

A. COMPLY WITH NFPA 96 "STANDARD FOR THE INSTALLATION OF EQUIPMENT FOR THE REMOVAL OF SMOKE AND GREASE-LADEN VAPORS FOR COMMERCIAL COOKING EQUIPMENT." CHAPTER 13, "DUCT SYSTEM," FOR KITCHEN HOOD DUCT SYSTEM, EXCEPT AS INDICATED OTHERWISE.

B. FABRICATE KITCHEN HOOD EXHAUST DUCTS WITH 16-GAGE, CARBON STEEL SHEET FOR CONCEALED DUCTS AND 18-GAGE STAINLESS STEELS FOR EXPOSED DUCTS. WELD AND FLANGE SEAMS AND JOINTS CONFORM TO NFPA STANDARD 96.

C. PROVIDE FOR THERMAL EXPANSION OF DUCT THROUGH 2,000DEG F TEMPERATURE RANGE.

D. INSTALL WITHOUT DIPS OR TRAPS THAT MAY COLLECT RESIDUES, EXCEPT WHERE TRAPS HAVE CONTINUOUS OR AUTOMATIC RESIDUE REMOVAL.

E. INSTALL ACCESS OPENINGS AT EACH CHANGE IN DIRECTION AND AT 10-0" INTERVALS. LOCATE ON SIDES OF DUCT 14-1/2" (368MM) MINIMUM FROM BOTTOM, AND AT NEW GREASE-RIGHT COVERS OF SAME MATERIAL AS DUCT.

F. DO NOT PENETRATE FIRE-RATED ASSEMBLIES.

G. KITCHEN HOOD FIRE SUPPRESSION SYSTEM SHALL BE UL, ULC AND NYS LISTED. ALL HOOD DUCT INSTALLED IN COMMON SPACE SHALL BE SPIRAL LOCK SEAM.

H. PROVIDE MANUFACTURERS RECOMMENDED CLEARANCES AND DISTANCES FOR SERVICE. PROVIDE CODE APPROVED DISTANCES OF FRESH AIR INTAKE INTO UNITS AWAY FROM ANY FLUE OF EXHAUST AIR.

I. SHOWN DUCT SIZES ON THE PLANS CAN BE ALTERED TO MEET FIELD CONDITIONS HOWEVER, OVERALL CLEAR DIMENSIONS OF DUCTS SHALL BE MAINTAINED.

J. ALL JOINTS AND CONNECTIONS OF EXHAUST DUCT MUST BE WELDED LIQUID TIGHT TO PREVENT GREASE RESIDUE LEAKAGE. ALL JOINTS SHALL BE SMOOTH. ELBOWS SHALL BE LONG RADIUS SWEEP TYPE. SLOPE HORIZONTAL PORTIONS OF DUCT TOWARDS HOOD OR APPROVED GREASE INTERCEPTOR WITH A 1/4" PER FOOT SLOPE. PROVIDE BOLTED ACCESS PANELS AT EACH CHANGE OF DIRECTION. INSTALL RESERVOIRS AS REQUIRED. PROVIDE CLEANOUTS IN DUCT SO AS ALL PORTIONS CAN BE REACHED FOR CLEANING AND INSPECTION. ALL CLEANOUT DOORS TO BE CONSTRUCTED PER CODE. INSULATE GREASE EXHAUST DUCT WITH 2 HOUR FIRE RATED DUCT WRAP LISTED AND APPROVED TO MAINTAIN CODE REQUIREMENT OF 6" CLEARANCE TO COMBUSTIBLES. GREASE EXHAUST DUCT TO BE CONSTRUCTED OF MIN. 16 GAUGE STEEL, WELDED LIQUID TIGHT, WITH JOINTS AND SEAMS GROUND SMOOTH.

## HOOD RESPONSIBILITIES

HOOD RESPONSIBILITIES

1. HOOD FURNISHED AND INSTALLED BY GC INCLUDING SS WALL COVERING, CLOSURE PANELS AND END PANELS.
2. FIRE SUPPRESSION FURNISHED, INSTALLED AND PERMITTED BY KITCHEN SUPPLIER.
3. MECHANICAL GAS VALVE FURNISHED WITH FIRE SUPPRESSION SYSTEM AND INSTALLED BY PLUMBING CONTRACTOR.
4. TYPE 1 HOOD EXHAUST DUCT SHALL BE LISTED FOR APPLICATION. FIELD COORDINATE WITH VITOSOL FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.
5. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL EXHAUST FAN, MAKE-UP AIR UNIT AND RELATED DUCTWORK, CONTROLS, MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR AIR.

CODE NOTES:
COMMERCIAL COOKING HOOD EXHAUSTING FOODS CREATING GREASE LADEN VAPORS SHALL BE OF TYPE I AND FOLLOW REQUIREMENTS OF THE INTERNATIONAL MECHANICAL CODE, (IFC 606.2)

THE AUTOMATIC FIRE EXTINGUISHING SYSTEM FOR COMMERCIAL COOKING SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH UL300. (IFC 904.11)

HORN STROBE SHALL TIE INTO THE FIRE EXTINGUISHING SYSTEM UNDER THE COMMERCIAL HOOD AND BE PLACED TO ALERT OCCUPANTS IN THE MULTI-PURPOSE ROOMS (IFC 904.3.4)

## KITCHEN BALANCING CHART

| MARK | EXHAUST | TRANSFER | MAKE-UP |
|---|---|---|---|
| EF-21 | 1200 | | |
| EF-31 | 1650 | | |
| EF-32 | 1650 | | 0 |
| MAU-3 | | | 3000 |
| RTU-1 | | | 700 |
| TOTAL | 4500 | 0 | 4300 |

REFER TO ARCHITECTURAL DRAWING FOR EXPOSED DUCTWORK THAT REQUIRED TO BE PAINTED.

NOTE
CONTRACTOR TO PERFORM THIRD PARTY TESTING FOR AIR, HYDRONIC AND DOMESTIC WATER SYSTEMS.

NOTE
DUCT SMOKE DETECTOR FURNISHED BY FIRE ALARM CONTRACTOR INSTALLED BY MECHANICAL MECHANICAL CONTRACTOR SHALL WIRE FOR FIRE ALARM SIGNAL ALARM CONTRACTOR WILL BE RESPONSIBLE FOR FIRE ALARM WIRING.

NOTE
BALANCE DAMPERS ARE REQUIRED FOR BALANCING THE HVAC SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL EVEN IF NOT SHOWN ON THE AIR OUTLET SCHEDULE OR PLANS.

## OUTSIDE AIR (ODAS-1)

| MARK | OA (CFM) |
|---|---|
| FCU-1 | 205 |
| FCU-2 | 205 |
| FCU-3 | 205 |
| FCU-4 | 205 |
| FCU-5 | 50 |
| FCU-6 | 330 |
| FCU-7 | 50 |
| FCU-8 | 0 |
| FCU-9 | 75 |
| FCU-10 | 50 |
| FCU-11 | 120 |
| FCU-12 | 105 |
| FCU-13 | 110 |
| FCU-14 | 45 |
| FCU-15 | 150 |
| FCU-16 | 165 |
| FCU-17 | 50 |
| FCU-18 | 60 |
| FCU-19 | 55 |

## KEYNOTES

1. COORDINATE EXACT ROUTING OF DUCTWORK WITH ALL STRUCTURAL, PLUMBING AND ALL OTHER TRADES. FIELD VERIFY EXACT DUCT ROUTING PRIOR TO CONSTRUCTION. (TYPICAL)
2. DUCT DOWN TO DIFFUSER IN TUNNEL. REFER TO DETAIL ON SHEET M500
3. SUPPORT INDOOR UNIT FROM STRUCTURE, MAINTAIN ALL RECOMMENDED SERVICE CLEARANCES AND PROVIDE ACCESS PANEL AS REQUIRED FOR SERVICE. COORDINATE WITH ALL OTHER TRADES PRIOR TO CONSTRUCTION.
4. PROVIDE 24"W GALVANIZED STEEL WATERTIGHT SECONDARY DRAIN PAN UNDER ENTIRE UNIT. PIPE DRAIN TO NEAREST FLOOR DRAIN OR SINK (LIGHT) UPON LEAK DETECTION. EXTEND DRAIN LINE TO ANY APPROVED RECEPTOR.
5. MOUNT OUTDOOR UNIT ON CONCRETE HOUSEKEEPING PAD. ANCHOR UNIT PER MANUFACTURER'S INSTRUCTIONS. COORDINATE FINAL LOCATION WITH ROOF EQUIPMENT AND OWNER'S REPRESENTATIVE. FINAL LOCATION MUST COMPLY WITH CODE CLEARANCES TO ADJACENT AIR INTAKES AND EQUIPMENT LAYOUT FOR OPTIMUM AIR DISTRIBUTION.
6. EXTEND REFRIGERANT LINES TO ASSOCIATED CONDENSING UNIT ON ROOF. SIZE AND INSTALL PIPING PER MANUFACTURER'S RECOMMENDATIONS.
7. MOUNT TOP OF THERMOSTAT AT 4'-0" ABOVE FINISH FLOOR. COORDINATE FINAL LOCATION WITH ARCHITECTURAL SHEET A101.
8. CONTRACTOR TO ROUTE 4" ROUND, RIGID DRYER VENT UP IN WALL AND OVER TO EXTERIOR WALL. FIELD VERIFY EXACT ROUTING AND PROVIDE ARCHITECTURAL APPROVED DRYER WALL CAP.
9. CONNECT OUTSIDE AIR DUCT TO RETURN AIR DUCT. PROVIDE MANUAL DAMPER AND BALANCE TO LISTED CFM. REFER TO DUCTWORK AIR TABLE THIS SHEET.
10. MOUNT SIDE WALL DIFFUSERS ON DUCT AT AN ANGLE OF 30 DEGREES. REFER TO DETAIL ON SHEET M500.
11. PROVIDE VOLUME DAMPER WITH REMOTE OPERATED CABLE ACCESSIBLE FROM FACE OF LINEAR DIFFUSER.
12. PROVIDE RFHB DAMPER FOR ALL PENETRATIONS ON SAFE ROOM FIRE RATED WALLS (TYPICAL)
13. MOUNT BOTTOM OF OUTSIDE AIR INTAKE LOUVER AT 12'-4" A.F.F.
14. MOUNT BOTTOM OF EXHAUST LOUVER AT 12'-4" A.F.F.
15. SUSPEND EXHAUST FAN FROM STRUCTURE WITH MANUFACTURER'S VIBRATION ISOLATION HANGERS. PROVIDE FLEXIBLE CONNECTORS ON INLET AND OUTLET.
16. PROVIDE CYCLONE DRYER SERIES WALL SHIELD AT DUCT PENETRATION INTO STORM SHELTER
17. PROVIDE 40"x14 MOTORIZED DAMPER (120V/1/60). INTERLOCK DAMPER WITH ASSOCIATED EXHAUST FAN (L-4-3 TO BE INTERLOCKED WITH EF-3)
18. 14" EXHAUST DUCT UP TO 48"H ON ROOF
19. 16" EXHAUST DUCT UP TO 48"H ON ROOF
20. EXHAUST DUCT UP TO 24"+ ON ROOF
21. PROVIDE CAPTIVAIRE DHFSR DIFFUSER AND BALANCE TO 850 CFM. INSTALL PER MANUFACTURER'S INSTRUCTIONS. MAINTAIN A MINIMUM OF 2' FROM HOOD.
22. MAU DUCT FROM MAU-4 ON ROOF
23. EXTEND REFRIGERANT PIPING FROM CONDENSING UNIT TO INDOOR UNIT PER MANUFACTURER'S INSTALLATION RECOMMENDATIONS.
24. RTU-1 GROUND MOUNTED PACKAGED UNIT LOCATED ON ARCHITECTURAL PROVIDED CONCRETE PAD. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND ALL REQUIRED SERVICE CLEARANCES.
25. SUPPLY AND RETURN DUCTWORK TO DESCHARGE HORIZONTALLY FROM RTU-1 GOING UP, EXTERIOR OF BUILDING AND PENETRATE ABOVE KITCHEN CEILING. PAINT
26. ROUTE 8"W SOFFIT DUCT DOWN IN CHASE TO EXHAUST GRILLS. MOUNT CENTER OF EXHAUST GRILLE AT 7'-4" A.F.F.

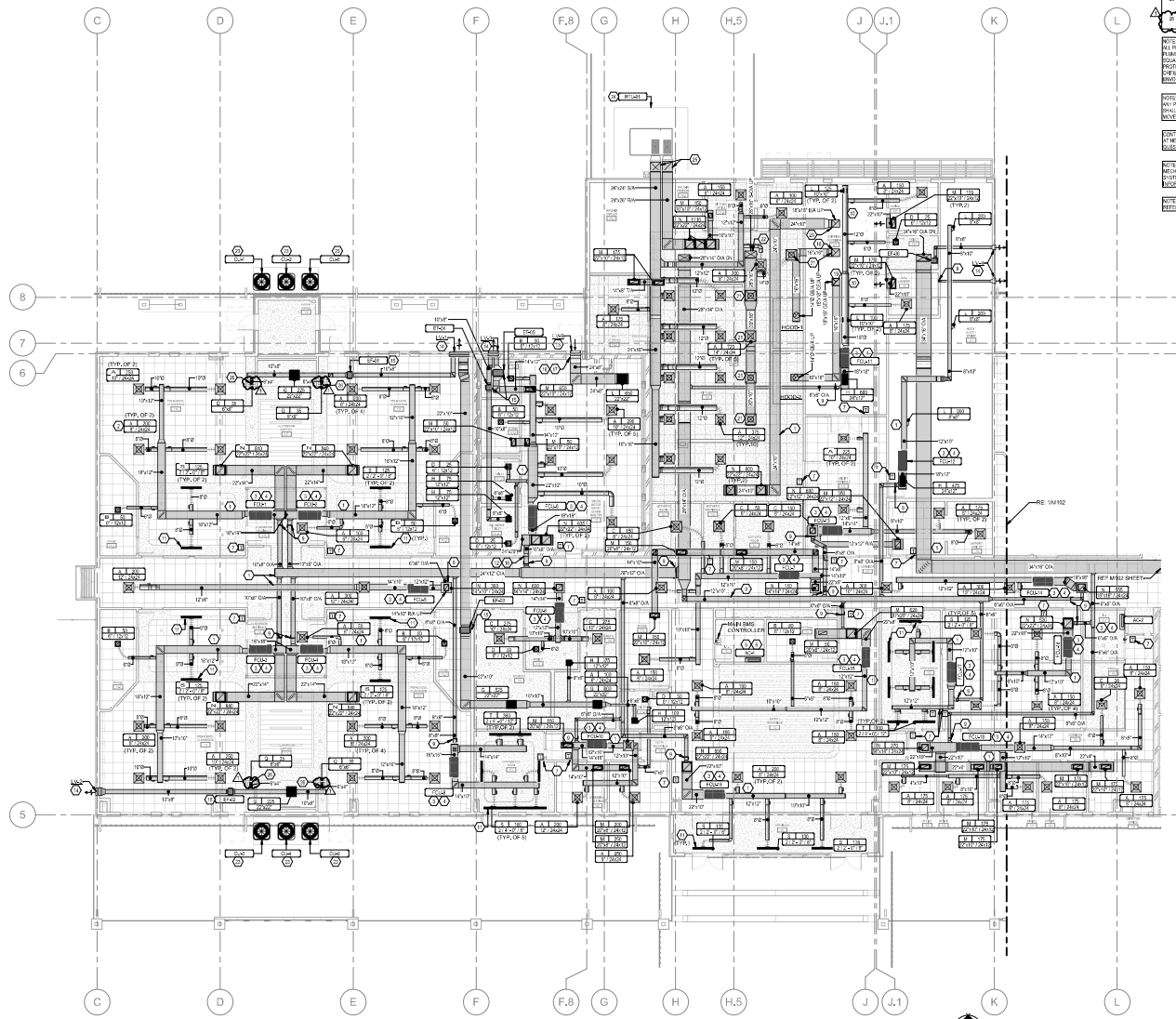
NOTE:
ALL PENETRATIONS OF STORM SHELTER ENVELOPE (OF MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS INCLUDING UTILITY LINES LARGER THAN 3-1/2" SQUARE INCHES IN AREA FOR RECTANGULAR PENETRATIONS OR 3-1/2" DIAMETER, SHALL BE PROTECTED IN ACCORDANCE WITH FEMA P361 SECTION 3.6.3.1 REFER TO TABLE 3.6.3.1 FOR MISSILE CRITERIA FOR TORNADO SHELTERS AND INSTALL PENETRATIONS SO THAT THE SHELTER ENVELOPE INTEGRITY IS MAINTAINED.

NOTE:
ANY PENETRATIONS OF STORM SHELTER ENVELOPE BY HAZARDOUS GAS OR LIQUID LINES SHALL HAVE AUTOMATIC SHUTOFF VALVES TO PROTECT AGAINST LEAKAGE DUE TO MOVEMENT OF THE UTILITY LINE AS DEFINED BY LOCAL AHJ.

CONTRACTOR BIDDING THIS PROJECT SHALL VISIT SITE DURING BIDDING TO CONFIRM SCOPE OF NEW EXPANSION AND EXISTING BUILDING. CONTACT ENGINEER FOR ADDITIONAL QUESTION AND CLARIFICATION.

NOTE:
MECHANICAL SYSTEM WILL BE CONTROLLED AND MONITORED BY BUILDING MANAGEMENT SYSTEM. UNLESS NOTED OTHERWISE, REFER TO CONTROL SHEET FOR ADDITIONAL INFORMATION.

NOTE:
REFER TO ARCHITECTURAL SHEET A101 FOR MEP SYSTEMS AND DEVICE PLACEMENTS.




A HVAC PLAN - AREA A
1/8" = 1'-0"

0' 2' 4' 8' 16'


blue river ARCHITECTS
A Native American Owned Firm


ABDOU JARRAH — REGISTERED PROFESSIONAL ENGINEER — 18906 — OKLAHOMA

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

M101
HVAC PLAN - AREA A

blueriver ARCHITECTS

BLUE RIVER PROJECT NUMBER
**20230011**

ISSUE DATE
**08/16/24**

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| 1 | Addendum 2 | 2024-09-05 |

SHEET NAME
**HVAC PLAN - AREA A**

SHEET NUMBER
**M101**

REFER TO ARCHITECTURAL DRAWING FOR EXPOSED DUCTWORK THAT REQUIRED TO BE PAINTED.

NOTE:
CONTRACTOR TO PERFORM THIRD PARTY TESTING FOR AIR, HYDRONIC, AND DOMESTIC WATER SYSTEMS.

NOTE:
DUCT SMOKE DETECTOR FURNISHED BY FIRE ALARM CONTRACTOR INSTALLED BY MECHANICAL. MECHANICAL CONTRACTOR SHALL WIRE FOR FAN SHUTDOWN. ALARM CONTRACTOR WILL BE RESPONSIBLE FOR FIRE ALARM WIRING.

NOTE:
BALANCE DAMPERS ARE REQUIRED FOR BALANCING THE HVAC SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL EVEN IF NOT SHOWN ON THE AIR OUTLET SCHEDULE OR PLANS.

**OUTSIDE AIR (DOAS-2)**

| MARK | O/A |
|---|---|
| FCU-20 | 355 |
| FCU-21 | 355 |
| FCU-22 | 120 |
| FCU-23 | 355 |
| FCU-24 | 355 |
| FCU-25 | 355 |
| FCU-26 | 355 |
| FCU-27 | 355 |

## KEYNOTES

1. COORDINATE DUCT ROUTING OF DUCTWORK WITH ALL STRUCTURAL, PLUMBING AND ALL OTHER TRADES. NOTED VERIFY EXACT ROUTING PRIOR TO CONSTRUCTION. (TYPICAL)
2. DUCT DOWN TO DIFFUSER PLENUM. REFER TO DETAIL ON SHEET M205
3. SUPPORT INDOOR UNIT FROM STRUCTURE. MAINTAIN ALL RECOMMENDED SERVICE CLEARANCES AND PROVIDE ACCESS PANEL AS REQUIRED FOR SERVICE. COORDINATE WITH ALL OTHER TRADES PRIOR TO CONSTRUCTION.
4. PROVIDE 2"-HIGH GALVANIZED STEEL RAISED/DIRT SECONDARY DRAIN PANS UNDER ENTIRE UNITS. PROVIDE IN-TRAP/IN-FLOAT SWITCH FOR FAN SHUT-OFF UPON LEAK DETECTION. SYSTEM DRAIN DUE TO ALL APPROVED RECEPTOR.
5. MOUNT TOP OF THERMOSTAT AT A.F.F., COORDINATE FINAL LOCATION WITH ARCHITECTURAL SHEET A101.
6. CONNECT OUTSIDE AIR DUCT TO RETURN AIR DUCT. PROVIDE MANUAL DAMPER AND BALANCE TO LISTED CFM. REFER TO OUTSIDE AIR TABLE THIS SHEET.
7. PROVIDE VOLUME DAMPER WITH REMOTE OPERATED CABLE ACCESSIBLE FROM FACE OF LINEAR DIFFUSER.
8. PROVIDE FIRE DAMPERS FOR ALL PENETRATIONS ON SAFE ROOM FIRE RATED WALLS/FLOORS. (TYPICAL)
9. MOUNT BOTTOM OF OUTSIDE AIR INTAKE LOUVER AT 12'-0" A.F.F.
10. MOUNT BOTTOM OF EXHAUST LOUVER AT 12'-0" A.F.F.
11. SUSPEND EXHAUST FAN FROM STRUCTURE WITH MANUFACTURER'S VIBRATION ISOLATION HANGERS. PROVIDE FLEXIBLE CONNECTORS ON INLET AND OUTLET.
12. PROVIDE CYCLONE CRV/SG SERIES WALL SHROUD AT DUCT PENETRATION INTO STORM SHELTER.
13. PROVIDE VOLUME CONTROL DAMPER (TROX/RSD) WITH DOUBLE BLADE DAMPER WITH ASSOCIATED EXHAUST FAN (L-34 TO BE INTERLOCKED WITH EF-4.)
14. EXTEND REFRIGERANT PIPING FROM CONDENSING UNIT TO INDOOR UNIT PER MANUFACTURER'S RECOMMENDATIONS.
15. PROVIDE 24"x24" EXHAUST DUCT DOWN TO BASE OF EXHAUST GRILLE. VERIFY CENTER OF EXHAUST GRILLE AT 24" A.F.F.

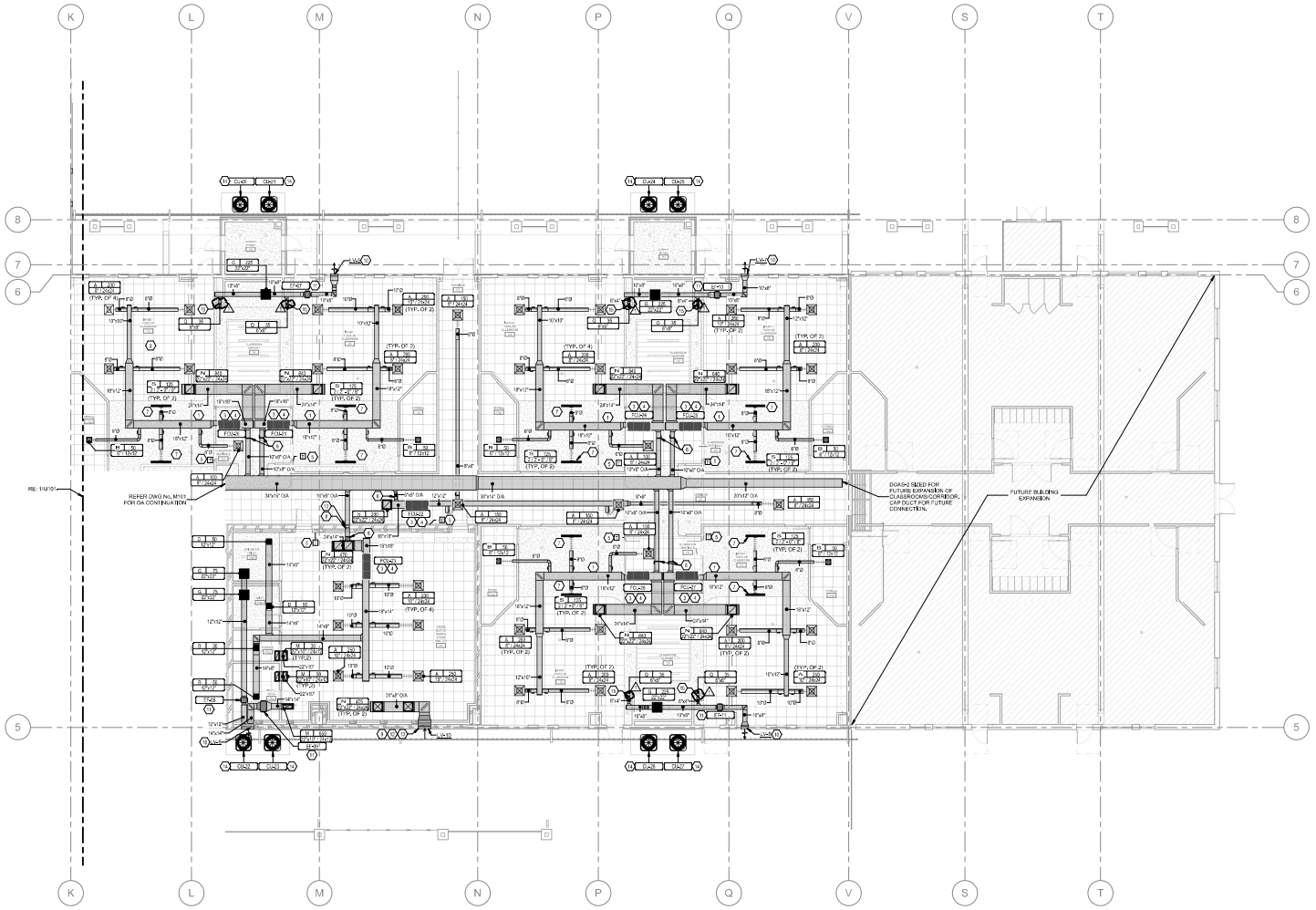
NOTE:
ALL PENETRATIONS OF STORM SHELTER ENVELOPE (BY MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS) INCLUDING UTILITY LINES LARGER THAN 24 SQUARE INCHES IN AREA OR RECTANGULAR PENETRATIONS OR 24" DIAMETER, SHALL BE PROTECTED IN ACCORDANCE WITH ICC-500. SECTION 308.3. REFER TO TABLE 308.3.1 FOR MISSILE CRITERIA FOR TORNADO SHELTERS AND INSTALL PENETRATIONS SO THAT THE SHELTER ENVELOPE INTEGRITY IS MAINTAINED.

NOTE:
ANY PENETRATIONS OF STORM SHELTER ENVELOPE BY HAZARDOUS GAS OR LIQUID LINES SHALL HAVE AUTOMATIC SHUTOFF VALVES TO PROTECT AGAINST LEAKAGE DUE TO MOVEMENT OF THE LINE/LINES AS DEFINED BY LOCAL AHJ.

CONTRACTOR BIDDING THIS PROJECT SHALL VISIT SITE DURING BIDDING TO CONFIRM SCOPE AT NEW EXPANSION AND EXISTING BUILDING. CONTACT ENGINEER FOR ADDITIONAL QUESTION AND CLARIFICATION.

NOTE:
MECHANICAL SYSTEM WILL BE CONTROLLED AND MONITORED BY BUILDING MANAGEMENT SYSTEM UNLESS NOTED OTHERWISE. REFER TO CONTROL SHEET FOR ADDITIONAL INFORMATION.

NOTE:
REFER TO ARCHITECTURAL SHEET A101 FOR MEP SYSTEMS AND DEVICE PLACEMENTS.




**A HVAC PLAN - AREA B**
1/8" = 1'-0"

0 2 4 8 16'

NORTH


blue river ARCHITECTS
A Native American Owned Firm


REGISTERED PROFESSIONAL ENGINEER
ABDOU JASSIM
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9.5.24
OKLAHOMA

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

M102
HVAC PLAN - AREA B

blueriver ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER
**20230011**

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**08/16/24**

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**CONSTRUCTION DOCUMENTS**

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|---|---|---|
| 1 | Addendum 2 | 2024-09-05 |

SHEET NAME
**HVAC PLAN - AREA B**

SHEET NUMBER
**M102**



BROOK WATER

## ELECTRICAL SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | WALL MOUNTED FLOODLIGHT (TYPE DENOTED) |
| | RECESSED LIGHT (TYPE DENOTED) |
| | POLE MOUNTED LIGHT (TYPE DENOTED) |
| | POLE MOUNTED FLOOD LIGHT (TYPE DENOTED) |
| | SURFACE LINEAR LIGHT (TYPE DENOTED) |
| | SUSPENDED OR PENDANT LIGHT (TYPE DENOTED) |
| | RECESSED LINEAR LIGHT (TYPE DENOTED) |
| | STRIP LIGHT (TYPE DENOTED) |
| | TRACK AND TRACK LIGHT (TYPE DENOTED) |
| | EMERGENCY BATTERY LIGHT (TYPE DENOTED) |
| | EXIT SIGN (TYPE DENOTED) |
| | LIGHT FIXTURE ON EMERGENCY LIFE SAFETY BRANCH |
| | LIGHT FIXTURE ON EM CRITICAL BRANCH |
| | LIGHT ON CORD REEL (TYPE DENOTED) |
| | LIGHTING CHANNEL WIRE (TYPE DENOTED) |
| | SINGLE POLE SW. |
| | 2 POLE SINGLE THROW SW. |
| | 3-WAY SW. |
| | 4-WAY SW. |
| | KEYED SW. |
| | SW.-WITHOUT |
| | DIMMER SWITCH |
| | OCCUPANCY SENSOR SWITCH |
| | OCCUPANCY SENSOR / DIMMER SWITCH |
| | MOMENTARY CONTACT SWITCH |
| | MOTOR SWITCH |
| | TIME DELAY SWITCH |
| | PUSH BUTTON |
| | SINGLE RECEPT.- |
| | DUPLEX RECEPT.- |
| | SPLIT DUPLEX RECEPT.- |
| | ISOLATED GROUND RECEPT (DUPLEX SHOWN) |
| | RECEPT ON EMERGENCY CKT (DUPLEX SHOWN) |
| | FOURPLEX RECEPT.- |
| | FOURPLEX RECEPTACLE ON EMERGENCY CIRCUIT |
| | 240 VOLT RECEPT.- |
| | FLOOR RECEPT. (DUPLEX SHOWN) |
| | RECEPT ON KNOW CORD (DUPLEX SHOWN) |
| | RECEPT ON CORD REEL (DUPLEX SHOWN) |

| SYMBOL | DESCRIPTION |
|---|---|
| | MULTIOUTLET ASSEMBLY |
| | CLOCK |
| | POWER POLE (OPEN OFFICE STYLE) |
| | SURGERY SERVICE COLUMN |
| | STATIC GROUND RECEPTACLE |
| | LIGHTNING PROTECTION AIR TERMINAL |
| | LIGHTNING PROTECTION CONDUCTOR SPLICE |
| | GROUND ROD (PLAN VIEW) |
| | UTILITY SERVICE POWER POLE (SITE) |
| | SPECIAL RECEPT.-OR CONN.- |
| | JUNCTION BOX |
| | PULL BOX |
| | CIRCUIT BREAKER PANEL |
| | POWER OR DISTRIBUTION PANEL |
| | TRANSFORMER |
| | MOTOR |
| | COMB. MOTOR STARTER (FUSED) |
| | SAFETY DISC. SW. (NONFUSED) |
| | SAFETY DISC. SW. (FUSED) |
| | BUS DUCT WITH PLUG IN DISCONNECT (FUSED) |
| | RELAY |
| | ENCLOSED CIRCUIT BREAKER |
| | PRESSURE SWITCH |
| | FLOAT SWITCH |
| | OCCUPANCY SENSOR |
| | LIGHT LEVEL SENSOR |
| | POWERPACK |
| | PHOTOCELL |
| | LINE CONTROL SWITCH (TIME SWITCH) |
| | HUMIDISTAT |
| | THERMOSTAT |
| | SOLENOID VALVE |
| | HALF TONE SYMBOL INDICATES EXISTING |
| | DASHED SYMBOL INDICATES REMOVED |

| SYMBOL | DESCRIPTION |
|---|---|
| | TELEPHONE OUTLET (TYPE DENOTED) |
| | WALL TELEPHONE OUTLET (TYPE DENOTED) |
| | INFORMATION OUTLET (TYPE DENOTED) |
| | WIRELESS ACCESS POINT |
| | TELEVISION OUTLET |
| | BELL |
| | BUZZER |
| | CHIME |
| | DOOR SIGNAL - APT. UNIT |
| | INTERCOM. SYSTEM (LISTING MFT.) |
| | HORN TYPE SPEAKER |
| | VOLUME CONTROL |
| | MICROPHONE OUTLET |
| | FIRE ALARM HORN W/STROBE (CANDELAS) |
| | FIRE ALARM BELL |
| | FIRE ALARM BELL W/STROBE (CANDELAS) |
| | FIRE ALARM CHIME W/STROBE (CANDELAS) |
| | FIRE ALARM STROBE (CANDELAS) |
| | FIRE ALARM SPEAKER W/STROBE (CANDELAS) |
| | FIRE ALARM REMOTE ANNUNCIATOR |
| | SMOKE DETECTOR |
| | SMOKE/CO DETECTOR |
| | HEAT DETECTOR |
| | LINEAR HEAT DETECTOR |
| | DUCT SMOKE DETECTOR |
| | REMOTE TEST/STATUS STATION |
| | FLAME DETECTOR |
| | GAS DETECTOR |
| | F.A. PULL STATION |
| | F.A. ZONE ADDRESSABLE MODULE |
| | F.A. INDIVIDUAL ADDRESSABLE MODULE |
| | F.A. DOOR HOLDER |
| | F.A. DOOR CLOSER |
| | FIRE ALARM SHUT DOWN RELAY |
| | SPRINKLER FLOW SWITCH |
| | SPRINKLER VALVE TAMPER SWITCH |
| | SPRINKLER LEVEL SWITCH |
| | SPRINKLER PRESSURE SWITCH |
| | SPRINKLER TEMPERATURE SWITCH |

| SYMBOL | DESCRIPTION |
|---|---|
| | ELECTRIC STRIKE |
| | MAGNETIC LOCK |
| | COMBINATION LOCK |
| | DOOR CONTACTS |
| | CARD READER |
| | KEYPAD |
| | MOTION DETECTOR |
| | NURSE CALL EMERG. STATION |
| | NURSE CALL CODE BLUE EMERG. STATION |
| | NURSE CALL DUTY STATION |
| | NURSE CALL STAFF STATION |
| | NURSE CALL SINGLE PATIENT STATION |
| | NURSE CALL DUAL PATIENT STATION |
| | NURSE CALL DOME LIGHT (CLAMP) |
| | CCTV CAMERA |
| | CCTV CAMERA WITH PAN/TILT DRIVE |
| | KEYED NOTE (SEE SCHEDULE) |
| | TWO WAY COMMUNICATION SYSTEM |

## ELECTRICAL SYMBOL NOTES

THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER, THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER, THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

EXAMPLE 1 LIGHTING FIXTURE TYPE "A" IS CONNECTED TO CIRCUIT 12 AND CONTROLLED BY SWITCH "c".

EXIT LIGHTS, STEM INDICATES WALL MOUNTING, NO STEM INDICATES CEILING MOUNTING, SHADED AREA INDICATES ILLUMINATED FACE(S), ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACES, THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER, EXAMPLE: THE WALL MOUNTED EXIT LIGHT TYPE "E" WITH SINGLE FACE AND DIRECTIONAL ARROW IS CONNECTED TO CIRCUIT 14.

DEVICES, THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER, THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER, EXAMPLE: SHUT DUPLEX RECEPTACLE IS CONNECTED TO CIRCUIT 18 AND ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH "c".

THE CONTROLLED DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER, EXAMPLE: SINGLE POLE SWITCH "b" TO CONTROL LIGHTING FIXTURES INDICATED BY "b".

SPECIAL NOTE, SEE THE SPECIAL NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE HEXAGON.

CONDUIT SHOWN WITHOUT SLASH MARKS SHALL CONTAIN 2 #12 CONDUCTORS IN 3/4" CONDUIT UNLESS SPECIFIC EQUIPMENT REQUIRES A DIFFERENT SIZE.

SLASH MARK INDICATORS ARE: SHORT STRAIGHT=PHASE CONDUCTOR, LONG STRAIGHT=NEUTRAL CONDUCTOR, LONG STRAIGHT WITH A DOT=GROUND CONDUCTOR.

HOME RUN TO BRANCH CIRCUIT PANELBOARD, THE PANELBOARD DESIGNATION IS SHOWN ADJACENT TO THE HOME RUN ARROW AS A NUMERATOR AND THE CIRCUIT DESIGNATION IS SHOWN AS THE DENOMINATOR. CIRCUIT BREAKER SIZES (AMPS) NUMBER OF POLES) ARE SHOWN IN THE PANELBOARD SCHEDULE WITH THE CORRESPONDING PANELBOARD AND CIRCUIT DESIGNATION, EXAMPLE: HOME RUN TO PANELBOARD "H", CIRCUITS 1, 3, 5.

## SPECIFIC CODE NOTES

FIRE PROTECTION REQUIREMENTS

A. PENETRATIONS IN WALLS REQUIRING PROTECTED OPENINGS MUST BE FIRESTOPPED WITH AN APPROVED MATERIAL.
1. CONDUITS MAY PENETRATE WALLS OR PARTITIONS PROVIDED THEY ARE FIRE-STOPPED.
2. OPENINGS FOR STEEL, ELECTRICAL BOXES NOT EXCEEDING 16 SQUARE INCHES ARE PERMITTED PROVIDED OPENINGS DO NOT AGGREGATE MORE THAN 100 SQUARE INCHES FOR ANY 100 SQUARE FEET OF WALL OR PARTITION.
3. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES.

B. LIGHT FIXTURES AND OTHER APPARATUS SUPPORTED BY THE ACOUSTICAL CEILING GRID MUST MEET THE REQUIREMENTS OF NEC SECTION 410.16, MEANS OF SUPPORT.

C. RECESSED LIGHTING FIXTURES INSTALLED IN FIRE RATED CEILING ASSEMBLIES SHALL BE TYPE RATED TO FIXTURES NAMED. THE UL FIRE RATED LABEL, FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE UL FIRE RESISTANCE DIRECTORY, AND SHALL INCLUDE A FIRE RATED ENCLOSURE INSTALLED OVER THE FIXTURE THAT MEETS THE REQUIREMENTS OF THE UL FIRE RESISTANCE DIRECTORY.

ELECTRICAL

A. ALL SINGLE-OR-RAGE RECEPTACLES THAT ARE 30 AMPERES OR LESS, RATED 150 VOLTS TO GROUND OR LESS, AND ALL 15-AMPERE RECEPTACLES THAT ARE 150 AMPERES OR LESS, RATED 150 VOLTS TO GROUND OR LESS IN BATHROOMS, KITCHENS, ROOFTOPS, OUTDOORS, WITHIN 6 FEET OF A SINK, BOILER ROOMS, AND ALL ACCESSIBLE LOCATIONS WITHIN 6'-0" OF GRADE SHALL BE GFCI AND INACCESSIBLE LOCATIONS SHALL BE GFCI PROTECTED. ACCESSIBLE LOCATION NOT AVAILABLE CIRCUIT TO BE FURNISHED WITH GFCI BREAKER.

TAMPER-RESISTANT RECEPTACLES

A. ALL 15-AND 20-AMPERE, 125- AND 250-VOLT NONLOCKING-TYPE RECEPTACLES IN THE AREAS SPECIFIED IN ARTICLE 517 REQUIRED BY 517.18(A) THROUGH (F) SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
(1) CHRISTIAN UNITS IN ALL AREAS SPECIFIED IN (FOUR) AND 550.43
(2) GUEST ROOMS AND GUEST SUITES OF HOTELS AND MOTELS
(3) CHILD CARE FACILITIES
(4) PRESCHOOLS AND ELEMENTARY EDUCATION FACILITIES
(5) BUSINESS OFFICES, CORRIDORS, WAITING ROOMS AND THE LIKE IN CLINICS, MEDICAL AND DENTAL OFFICES AND OUTPATIENT FACILITIES
(6) SUBSET OF ASSEMBLY OCCUPANCIES INTENDED TO INCLUDE PLACES OF WAITING TRANSPORTATION, GYMNASIUMS, SKATING RINKS, AND AUDITORIUMS
(7) DORMITORIES

EXCEPTION TO (1), (2), (3), (4), (5), (6), AND (7) RECEPTACLES IN THE FOLLOWING LOCATIONS SHALL NOT BE REQUIRED TO BE TAMPER RESISTANT: (1) RECEPTACLES LOCATED MORE THAN 1.7 M (5 ½ FT) ABOVE THE FLOOR. (2) RECEPTACLES THAT ARE PART OF A LUMINAIRE OR APPLIANCE.
(3) A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES LOCATED WITHIN THE DEDICATED SPACE FOR EACH APPLIANCE THAT, IN NORMAL USE, IS NOT EASILY MOVED FROM ONE PLACE TO ANOTHER AND THAT IS CORD-AND-PLUG-CONNECTED IN ACCORDANCE WITH 400.10(A)(6), (4) (7), OR (8).
(4) NONDISPLACING RECEPTACLES USED FOR REPLACEMENTS AS PERMITTED IN 406.4(D)(2)(A).

WEATHER-RESISTANT RECEPTACLES

A. ALL 15 AND 20 AMPERE RECEPTACLES FOR BOTH DAMP AND WET LOCATIONS ARE REQUIRED TO BE LISTED WEATHER RESISTANT (WR) TYPE EVEN WHEN WEATHERPROOF ENCLOSURES ARE PROVIDED, NEC 406.9

## ELECTRICAL ABBREVIATIONS LIST

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1P | 1 POLE (2P, 3P, 4P, ETC.) | CTR | CENTER | HT | HEIGHT | NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION | SWBD | SWITCHBOARD |
| A | AMPERE | CU | COPPER | HTG | HEATING | NFSS | NONABUSED SAFETY DISCONNECT SWITCH | SYM | SYMMETRICAL |
| AC | ABOVE COUNTER OR AIR CONDITIONER | DCP | DOMESTIC WATER CIRCULATING PUMP | HTR | HEATER | | | SYS | SYSTEM |
| | | DEPT | DEPARTMENT | HV | HIGH VOLTAGE | | SWITCH | TEL | TELEPHONE |
| ACLG | ABOVE CEILING | DET | DETAIL | HVAC | HEATING, VENTILATING AND AIR CONDITIONING | NIC | NOT IN CONTRACT | TELDATA | TELEPHONE/DATA |
| ADD | AUTOMATIC DOOR OPENER | DIA | DIAMETER | | | NL | NIGHT LIGHT | TERM | TERMINAL |
| AF | AMP FRAME | DISC | DISCONNECT | HWP | HYDRONIC WATER PUMP | NOL | NORMALLY OPEN | TL | TIMED LOCK |
| AFF | ABOVE FINISHED FLOOR | DIST | DISTRIBUTION | IC | INTERRUPTING CAPACITY | NPF | NORMAL POWER FACTOR | TR | TAMPER RESISTANT |
| AFG | ABOVE FINISHED GRADE | DN | DOWN | IG | ISOLATED GROUND | NTS | NOT TO SCALE | TSTAT | THERMOSTAT |
| AFI | ARC FAULT CIRCUIT INTERRUPTER | DPR | DAMPER | IMC | INTERMEDIATE METAL CONDUIT | OH | OVERHEAD | TTC | TELEPHONE TERMINAL CABINET |
| | | DS | SAFETY DISCONNECT SWITCH | INCAND | INCANDESCENT | OL | OVERLOADS | TV | TELEVISION |
| AHU | AIR HANDLING UNIT | DT | DOUBLE THROW | IR | INFRARED | PA | PUBLIC ADDRESS | TVTC | TELEVISION TERMINAL CABINET |
| AL | ALUMINUM | DWG | DRAWING | INT | INTERLOCK WITH | PB | PULL BOX OR PUSHBUTTON | TYP | TYPICAL |
| ALT | ALTERNATE | EC | ELECTRICAL CONTRACTOR | JBOX | JUNCTION BOX | PB | PNEUMATIC ELECTRIC | UC | UNDER COUNTER |
| AMP | AMPERE | ELEC | ELECTRIC, ELECTRICAL | KV | KILOVOLT | PED | PEDESTAL | UE | UNDERGROUND ELECTRICAL |
| AMPL | AMPLIFIER | ELEV | ELEVATOR | KVA | KILOVOLT-AMPERE | PF | POWER FACTOR | UG | UNDERGROUND |
| ANN/ UN | ANNUNCIATOR | EM | EMERGENCY | KVAR | KILOVOLT-AMPERE REACTIVE | PH | PHASE | UH | UNIT HEATER |
| APPROX | APPROXIMATELY | EMS | ENERGY MANAGEMENT SYSTEM | KW | KILOWATT | PH | POST INDICATING VALVE | UT | UNDERGROUND TELEPHONE |
| AQMAT | ACOUSTICAL MATERIAL | EMT | ELECTRICAL METALLIC TUBING | KWH | KILOWATT HOUR | PNL | PANEL | UTIL | UTILITY |
| ARCH | ARCHITECT, ARCHITECTURAL | EP | ELECTRO PNEUMATIC | LOC | LOCATE OR LOCATION | PP | POWER POLE | UV | UNIT VENTILATOR OR ULTRAVIOLET |
| ASSY | ASSEMBLY | EQUIP | EQUIPMENT | LT | LIGHT | PPH | PER HOUR | | |
| AT | AMP TRIP | EWC | ELECTRIC WATER COOLER | LTG | LIGHTING | PRI | PRIMARY | V | VOLTS |
| ATS | AUTOMATIC TRANSFER SWITCH | EXH | EXHAUST | LTNG | LIGHTNING | PROT | PROTECTION | VA | VOLT AMPERES |
| AUTO | AUTOMATIC | EXIT | EXIT LIGHT | LV | LOW VOLTAGE | PRV | POWER ROOF VENTILATOR | VENT | VENTILATION OR TERMINAL |
| AUX | AUXILIARY | EXP | EXPLOSION PROOF | MAX | MAXIMUM | PT | POTENTIAL TRANSFORMER | VERT | VERTICAL |
| AV | AUDIO-VISUAL | FA | FIRE ALARM | MCC | MAGNETIC STARTER | PVC | POLYVINYL CHLORIDE (CONDUIT) | VFD | VARIABLE FREQUENCY DRIVE |
| AWG | AMERICAN WIRE GAUGE | FABP | FIRE ALARM BOOSTER POWER | MC | MOMENTARY CONTACT | PWR | POWER | VOL | VOLUME |
| BATT | BATTERY | | SUPPLY PANEL | MC | MECHANICAL CONTRACTOR | QUAN | QUANTITY | W | WATT |
| BD | BOARD | FACP | FIRE ALARM CONTROL PANEL | MCB | MAIN CIRCUIT BREAKER | RCPT | RECEPTACLE | WC | WITH |
| BLDG | BUILDING | FCU | FAN COIL UNIT | MCC | MOTOR CONTROL CENTER | RECD | RECESSED | WD | WIRE GUARD |
| BMS | BUILDING MANAGEMENT SYSTEM | FIXT | FIXTURE | MDC | MAIN DISTRIBUTION CENTER | RM | ROOM | WH | WATER HEATER |
| C | CONDUIT | FLR | FLOOR | MDP | MAIN DISTRIBUTION PANEL | RSC | RIGID STEEL CONDUIT | W/O | WITHOUT |
| CAB | CABINET | FLUOR | FLUORESCENT | MFR | MANUFACTURER | RTU | ROOF TOP UNIT | WP | WEATHERPROOF |
| CAT | CATALOG | FU | FUSE | MFS | MAIN FUSED DISCONNECT SWITCH | SC | SURFACE CONDUIT | XFMR | TRANSFORMER |
| CATV | CABLE TELEVISION | FUSE | FUSED SAFETY DISCONNECT SWITCH | MH | MANHOLE | SEC | SECONDARY | XFR | TRANSFER |
| CB | CIRCUIT BREAKER | GA | GAUGE | MIC | MICROPHONE | SHT | SHEET | | |
| CCTV | CLOSED CIRCUIT TELEVISION | GAL | GALLON | MIN | MINIMUM | SIM | SIMILAR | | |
| CKT | CIRCUIT | GALV | GALVANIZED | MISC | MISCELLANEOUS | SN | SOLID NEUTRAL | | |
| CLG | CEILING | GC | GENERAL CONTRACTOR | MLO | MAINLUGS ONLY | SPEC | SPECIFICATION | | |
| COMB | COMBINATION | GEN | GENERATOR | MMS | MANUAL MOTOR STARTER | SPKR | SPEAKER | | |
| COMPR | COMPRESSOR | GFI | GROUND FAULT CIRCUIT INTERRUPTER | MOA | MULTIOUTLET ASSEMBLY | SP | SPARE | | |
| CONN | CONNECTION | GFP | GROUND FAULT PROTECTOR | MSP | MOTOR STARTER PANELBOARD | SR | SURFACE RACEWAY | | |
| CONST | CONSTRUCTION | GND | GROUND | MSBD | MAIN SWITCHBOARD | SS | STAINLESS STEEL | | |
| CONT | CONTINUATION OR CONTINUOUS | GRS | GALVANIZED RIGID STEEL (CONDUIT) | MT | MOUNT | SSW | SELECTOR SWITCH | | |
| CONTR | CONTRACTOR | GYP BD | GYPSUM BOARD | MTZ | EMPTY CONDUIT | SUS | STOP/START PUSH-BUTTONS | | |
| CONV | CONVECTOR | HOA | HAND-OFF-AUTOMATIC SWITCH | MTS | MANUAL TRANSFER SWITCH | STA | STATION | | |
| CP | CIRCULATING PUMP | HORIZ | HORIZONTAL | MTR | MOTOR, MOTORIZED | STD | STANDARD | | |
| CPT | CATHODE-RAY TUBE | HP | HORSEPOWER | N.C. | NORMALLY CLOSED | SWP | SURFACE MOUNTED | | |
| CT | CURRENT TRANSFORMER | HPF | HIGH POWER FACTOR | NEC | NATIONAL ELECTRICAL CODE | SW | SWITCH | | |

## GENERAL ELECTRICAL NOTES

A. ALL CONDUCTORS OPERATING AT 50 VOLTS OR GREATER SHALL BE IN RACEWAY. ALL RACEWAY WITHIN THE STRUCTURE ABOVE THE FLOOR SLAB SHALL BE METAL. RACEWAY BELOW THE FLOOR SLAB AND UNDERGROUND RACEWAY OUTSIDE THE STRUCTURE SHALL BE PVC.

B. ALL LOW VOLTAGE CABLES OR CONDUCTORS OPERATING AT LESS THAN 50 VOLTS SHALL BE IN METAL RACEWAY WHERE INSTALLED WITHIN WALLS OR INACCESSIBLE SPACES, LOW VOLTAGE CABLES MAY BE RUN IN CABLE TRAY WHERE NOTED. LOW VOLTAGE CABLES MAY BE RUN IN CABLE SUPPORT HOOKS ABOVE ACCESSIBLE CEILINGS WHERE NOTED.

C. COORDINATE LOCATIONS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND DETAILS. ARCHITECTURAL ELEVATIONS AND DETAILS TAKE PRECEDENCE OVER LOCATIONS SHOWN ON ELECTRICAL DRAWINGS. SEE ARCHITECTURAL ELEVATIONS FOR LOCATIONS OF ELECTRICAL DEVICES AT 'PAINTING' SIDE HEADWALLS.

D. VERIFY LOCATIONS AND ROUGH-IN REQUIREMENTS OF ALL OWNER FURNISHED EQUIPMENT PRIOR TO ROUGH-IN.

E. CONDUIT AND WIRE SHALL NOT BE INSTALLED BELOW FLOOR SLAB UNLESS INDICATED ON PLAN BY DASHED CONDUIT.

F. CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL ELECTRICAL ITEMS SHOWN ON DRAWINGS EXCEPT FOR ITEMS LISTED IN NOTE G.

G. TV OUTLETS, VOLUME CONTROLS, NURSE CALL DOME LIGHTS, NURSE CALL DEVICES, TELEPHONE OUTLETS, DATA OUTLETS, AND FIRE ALARM DEVICES SHALL CONSIST OF A BACK BOX WITH CONDUIT STUBBED ABOVE THE ACCESSIBLE CEILING. SEE STUB UP DETAIL. VERIFY SIZE OF BACK BOX REQUIRED WITH DEVICE TO BE INSTALLED. LOCATE BACK BOXES 8" FROM ADJACENT POWER RECEPTACLE INTENDED FOR COMPUTER USE.

H. FURNISH AND INSTALL CONDUIT FROM BACK BOXES FOR THE FOLLOWING DEVICES INTO THE ACCESSIBLE CEILING SPACE IN THE CORRIDOR, UNLESS NOTED OTHERWISE:

| | |
|---|---|
| 12"C | TV OUTLETS |
| 12"C | VOLUME CONTROLS |
| 12"C | NURSE CALL DOME LIGHTS |
| 3/4"C | NURSE CALL EM BUSS |
| 3/4"C | NURSE CALL DEVICES |
| 3/4"C | INFORMATION OUTLETS |
| 3/4"C | FIRE ALARM DEVICES |

## ELECTRICAL DRAWINGS

### INDEX OF ELECTRICAL DRAWINGS

| | |
|---|---|
| E000 | ELECTRICAL TITLE SHEET |
| E001A | LIGHTING PLAN - AREA A |
| E001B | LIGHTING PLAN - AREA B |
| E207A | POWER PLAN - AREA A |
| E207B | POWER PLAN - AREA B |
| E200 | ENLARGED POWER PLANS |
| E201 | HVAC POWER PLAN |
| E204 | FUTURE BUILDING EXPANSION ELECTRICAL PLANS |
| E300 | ONE-LINE DIAGRAM, SCHEDULES, & DETAILS |
| E301 | ELECTRICAL SCHEDULES |
| E302 | ELECTRICAL SCHEDULES |
| E303 | GENERATOR SPECS |
| E5101 | ELECTRICAL SITE PLAN |
| E5102 | ELECTRICAL SITE PHOTOMETRICS PLAN |
| FA1E00 | FIRE ALARM PLAN - AREA A |
| FA1E00 | FIRE ALARM PLAN - AREA B |

## LIGHTING FIXTURE SCHEDULE

| TYPE | DESCRIPTION | MOUNTING | LAMP | LUMENS DOWN | LUMENS UP | CCT | CRI | BALLAST/DRIVER | VOLT | WATTS | EMERGENCY COMPONENT | MFR | PRODUCT NUMBER | NOTE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A1 | 2x2 LED Flat Panel | LAY-IN | LED | 5060 lm | 0lm | 3500K | 85 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 39 W | – | METALUX | 2ZD2T-S-4-FL-835-ADP | – |
| A1E | 2x2 LED Flat Panel W EMERGENCY TRANSFER RELAY | LAY-IN | LED | 5060 lm | 0lm | 3500K | 85 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 39 W | GENERATOR TRANSFER RELAY | METALUX | 2ZD2T-S-4-FL-835-ADP-GENRLY | – |
| A2 | 2x2 LED Flat Panel Integrated Sensor | LAY-IN | LED | 5060 lm | 0lm | 3500K | 85 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 39 W | – | METALUX | 2ZD2T-S-4-FL-835-ADP-SCWHB | – |
| A2E | 2x2 LED Flat Panel W EMERGENCY TRANSFER RELAY Integrated Sensor | LAY-IN | LED | 5060 lm | 0lm | 3500K | 85 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 39 W | GENERATOR TRANSFER RELAY | METALUX | 2ZD2T-S-4-FL-835-ADP-SCWHB-GENRLY | – |
| B | 2x2 LED Basket | | LED | 3960 lm | 0lm | 3500K | 85 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 31 W | – | METALUX | 2BD2Z-S9 UNV LES CQI-U | – |
| C1 | RIBBON 2.0 | SURFACE | LED | 8250 lm | 0lm | 3500K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 67 W | – | ACDLITE | RB 90 ACC WRAP-L-DIR CHICAGO PSRSC | – |
| D3 | 8FT LINEAR RECESSED LED | PENDANT | LED | 4000 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 50 W | – | LUMENWERX | VPAPRO T-W-D-CH-SW-80 10000-MF-35K-4FT-SN-UNV-01-10-DTL-XX | – |
| D13 | 10FT LINEAR RECESSED LED | RECESSED | LED | 11000 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 110 W | – | ACDLITE | LINEAR CLEAN ECO 10000 LM 35K 80 CRI UNV 0-10 DIM | – |
| D13 | 10FT LINEAR RECESSED LED | RECESSED | LED | 11000 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 110 W | – | LUMENWERX | VPAPRO T-W-D-CH-SW-80 10000-MF-35K-4FT-SN-UNV-01-10-DTL-XX | – |
| EM1 | LED Emergency Sytem Light | WALL | – | 100 lm | 0lm | 4000K | 70 | LED DRIVER | 120 V | 0.9 W | – | SURELITES | ARMOR-WP | 1.2 |
| EX | EDGE LIT EXIT LED | WALL | LED | 0 lm | 0lm | 4000K | 80 | LED DRIVER | 120 V | 4 W | – | SURELITES | SLE-U-W-EL-N | 1.4 |
| P1 | 60" ROUND PENDANT | PENDANT | LED | 9035 lm | 0lm | 3000K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 130 W | – | ARCLIGHT | US SILA 165 LED 4N 30 3000K | 7 |
| Q | SINGLE LITE WINDOW LIGHT | RECESSED | LED | 2200 lm | 0lm | 3500K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 27 W | – | LIGHTPLANS | PRP-SWL-35K-90CRI-WHT | – |
| R1 | 6" Downlight 2000/3000/4000 3000K/350mA/80CRI | RECESSED | LED | 2000 lm | 0lm | 3500K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 28 W | – | HALO | PRP12D6-35K-WH | – |
| R1E | 6" Downlight 2000/3000/4000 3000K/350mA/80CRI W EMERGENCY TRANSFER RELAY | RECESSED | LED | 2000 lm | 0lm | 3500K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 28 W | GENERATOR TRANSFER RELAY | HALO | PRP12D6-35K-WH-GENRLY | – |
| R2 | 6" Downlight 2500/3000/4000 3000K/2500/4000K Integrated Sensor | RECESSED | LED | 3000 lm | 0lm | 4000K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 38 W | – | HALO | PRP12D6-40IWTK | – |
| R2E | 6" Downlight 2500/3000/4000 3000K/2500/4000K Integrated Sensor W EMERGENCY TRANSFER RELAY | RECESSED | LED | 3000 lm | 0lm | 4000K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 43 W | GENERATOR TRANSFER RELAY | HALO | PRP12D6-40IWTK-GENRLY | – |
| R4 | 4FT LINEAR RECESSED LED | RECESSED | LED | 4000 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 50 W | – | LUMENWERX | VPAPRO T-W-D-CH-SW-80 4000-MF-35K-4FT | 5 |
| S4 | 4' LED Strip | MULTI | LED | 4511 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING | 120 V | 34 W | – | METALUX | 4SNLITS4-35-HBE-4-WA-MVOLT-EBS-DIT | – |
| S4E | 4' LED Strip W/ EMERGENCY TRANSFER RELAY | MULTI | LED | 4511 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING | 120 V | 34 W | GENERATOR TRANSFER RELAY | METALUX | 4SNLITS4-35-HBE-4-WA-MVOLT-EBS-DIT-GENRLY | – |
| S8 | 8' LED Strip | MULTI | LED | 9027 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING | 120 V | 75 W | – | METALUX | 8SNLITS4-35-HBE-4-WA-MVOLT-EBS-DIT | – |
| S8E | 8' LED Strip W/ EMERGENCY TRANSFER RELAY | MULTI | LED | 9027 lm | 0lm | 3500K | 80 | LED DRIVER, 0-10V DIMMING | 120 V | 75 W | GENERATOR TRANSFER RELAY | METALUX | 8SNLITS4-35-HBE-4-WA-MVOLT-EBS-DIT-GENRLY | – |
| SA2 | DOUBLE HEAD 30 DEGREE LIGHT POLE 25-2' POLE | Pole | LED | 21000 lm | 0lm | 3500K | 70 | LED DRIVER, 0-10V DIMMING | 208 V | 330 W | | Cooper Lighting | GALMAD3-T5AD-TRANS-WA-SWR / SSSSA25SYM | 5 |
| SB1 | SINGLE HEAD LIGHT POLE 25-2' POLE | Pole | LED | 11999 lm | 0lm | 3500K | 70 | LED DRIVER, 0-10V DIMMING | 208 V | 180 W | | Cooper Lighting | GALMAD3-T5AD-TRANS-WA-SWR, SWK / SSSSA25SYM | 5 |
| SC1 | SINGLE HEAD LIGHT POLE 25-2' POLE | Pole | LED | 19117 lm | 0lm | 3500K | 70 | LED DRIVER, 0-10V DIMMING | 208 V | 180 W | | Cooper Lighting | GALMAD3-T5AD-RFT-WA-SWR, SSSSA25SYM | 5 |
| SD1 | SINGLE HEAD LIGHT POLE 25-2' POLE | Pole | LED | 17727 lm | 0lm | 3500K | 70 | LED DRIVER, 0-10V DIMMING | 208 V | 150 W | | Cooper Lighting | GALMAD3-T5AD-RFT-WA-SWR, SWK / SSSSA25SYM | 5 |
| SF1 | LED BOLLARD | GRADE ANCHOR | LED | 4412 lm | 0lm | 3000K | 70 | LED DRIVER | 120 V | 58 W | – | SOLERA | SOLERA | 5.7 |
| SG | FLAG POLE LIGHT | FLAGPOLE | LED | 9660 lm | 0lm | 3000K | 70 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 99 W | – | POLELED | TBD | 5 |
| S1 | LINEAR GRAZE LIGHT | WALL | LED | 11800 lm | 0lm | 3000K | 90 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 90 W | – | ALCON | 31X24-T-BK-C3W-10-WD | 5 |
| Y | 8FT LINEAR RECESSED LED | RECESSED | LED | 4137 lm | 0lm | 4000K | 80 | LED DRIVER, 0-10V DIMMING, 1% | 120 V | 47 W | – | LUMENWERX | VPAWE-T-W-D-CH-SW-80-4000-MF-4FT | 5 |
| W1 | Wall Area Light 60 lm | WALL | LED | 1553 lm | 0lm | 4000K | 70 | LED DRIVER | 120 V | 12 W | – | STREETWORKS | SWS-48-T-4K-C-WHW | 5 |
| W2 | Wall Area Light 60 lm | WALL | LED | 1553 lm | 0lm | 4000K | 70 | LED DRIVER | 120 V | 12 W | – | STREETWORKS | SWS-48-T-4K-T-BLK-HT | 5 |

NOTES:
1. COORDINATE W/ ARCHITECT FOR FINAL COLOR AND TRIM SELECTIONS
2. FIXTURE UTILIZES A 90 MINUTE MINIMUM EMERGENCY BATTERY BACK UP SYSTEM
3. MOUNTING HEIGHTS TO BE VERIFIED WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN
4. PROVIDE (3) ADDITIONAL EXIT LIGHTS
5. FIXTURE SHALL BE UL LISTED AND LABELED FOR WET LOCATIONS
6. CONTRACTOR TO PROVIDE

## KEYNOTES

1. CLASSROOM LIGHT FIXTURES PROVIDED WITH MOTION/OCCUPANCY WIRELESS SENSORS, LIGHTS TO TURN ON WITHIN 20 MINUTES OF THE SPACE BEING VACATED, PROVIDE AUTO-ON TO 50% AND MANUAL ON TO 100%
2. PROVIDE WIRELESS OCCUPANCY SENSOR FOR CLASSROOM SUPPORT LIGHTS., LIGHTS TO TURN OFF WITHIN 20 MINUTES OF THE SPACE BEING VACATED. PROVIDE AUTO-ON TO 50% AND MANUAL ON TO 100%
3. 1/4 EMERGENCY BY DRIVER LOCATED IN MECH 121-4
4. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND LENGTH OF CONT LIGHT.

## LIGHTING GENERAL NOTES

1. ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6' LONG FLEXIBLE METAL CONDUIT.
2. ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES UNLESS INDICATED OTHERWISE.
3. SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF EXTERIOR LIGHTING FIXTURES.
4. ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH GOOD INSTALLATION PRACTICES, SPECIFICATIONS, AND THE LATEST EDITIONS OF ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. ALL COMPONENTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
5. PLANS SHOWN ARE DIAGRAMMATICAL IN NATURE AND DO NOT INDICATE EVERY FITTING, TRANSITION, BOX, ETC. REQUIRED. THEREFORE, CONTRACTOR IS TO COORDINATE ALL ELECTRICAL REQUIREMENTS WITH OTHER TRADES PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE AND OPERATIONAL SYSTEMS SHOWN ON PLAN.
7. ALL CONDUIT, POWER WIRES, RECEPTACLE BOXES, RECEPTACLES, AND OVERLOAD PROTECTION DEVICES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
8. ALL CONTACTS SHALL BE SET/FINISHED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
9. WIRING DEVICES:
   A. SWITCHES +40"
   B. RECEPTACLES +18"
   C. VOICE/DATA +18"
10. FIXTURE MOUNTING:

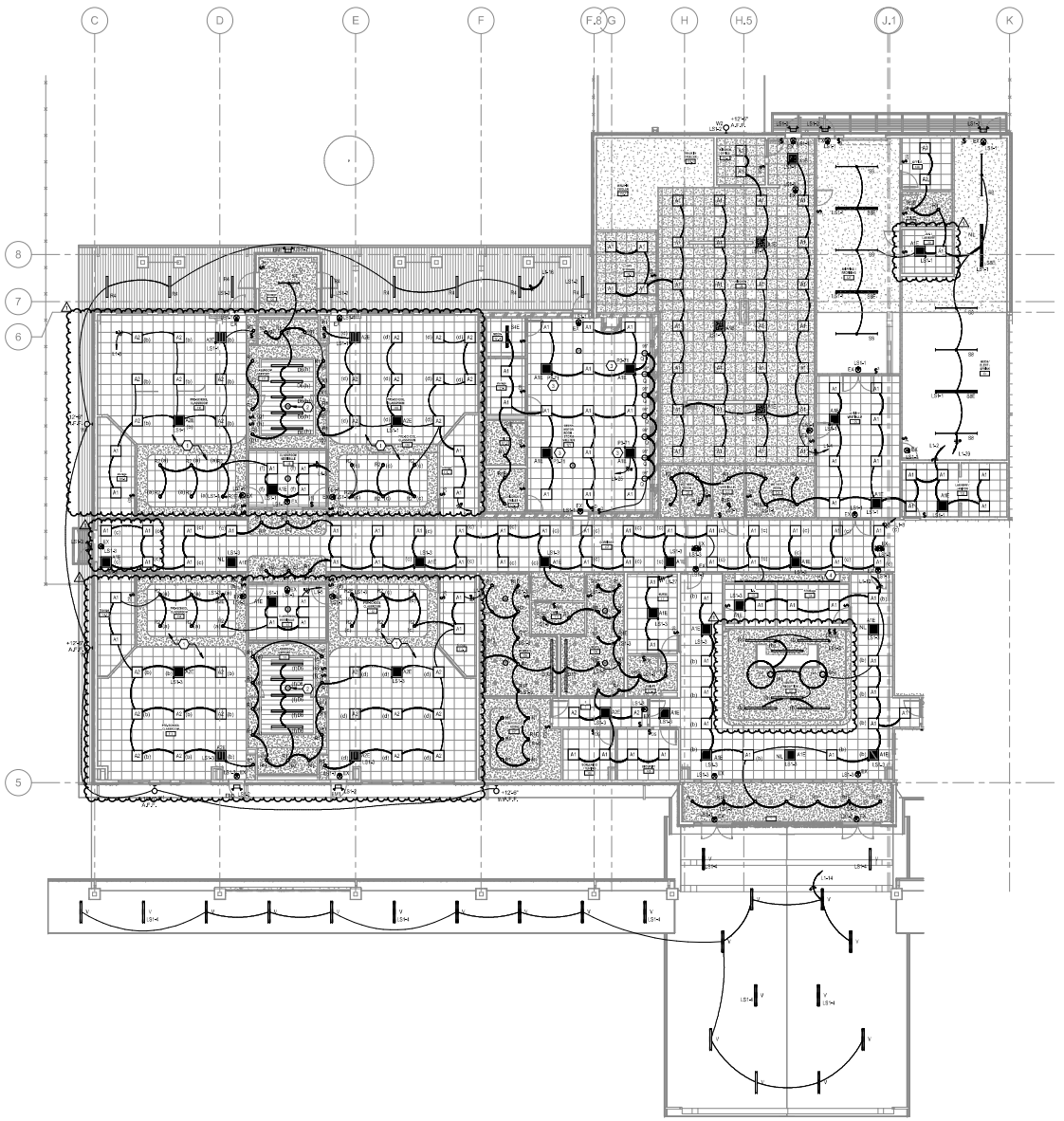
    A. WALL FIXTURE: CENTER 12" ABOVE DOOR OPENING

    B. CABLE/PENDANT FIXTURE: ON CEILING OR AT HEIGHT SPECIFIED ON DRAWINGS
11. WITH LOCAL EMERGENCY BATTERY PACKS, AND NIGHT LIGHTS SHALL NOT BE SWITCHED.
12. ELECTRICAL CONTRACTOR WILL PROVIDE A ROOF MOUNTED PHOTOCELL IN A NEUTRAL POSITION THAT IS NOT FACING EAST OR WEST, TO CONTROL ALL EXTERIOR LIGHTING AND SIGNS.
13. PROVIDE SEPARATE ZONES FOR GANGED SWITCHES ON SEPARATE BRANCH CIRCUITS.
14. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND DETAILS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED IN THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH ARCHITECT PRIOR TO ROUGH-IN.
15. ADDITIONAL EXIT AND EMERGENCY LIGHTS MAY BE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. ADDITIONAL FIXTURES SHALL BE ADDED AS DIRECTED BY THE LOCAL AUTHORITY.
16. MAXIMUM COMBINED FEEDER AND BRANCH CIRCUITS SHALL NOT EXCEED 5% VOLTAGE DROP, AND THE MAXIMUM ON THE FEEDER OR BRANCH CIRCUIT SHALL NOT EXCEED 3% VOLTAGE DROP. ELECTRICAL CONTRACTOR TO INCREASE WIRE/CONDUIT SIZES AS NECESSARY TO MAINTAIN VOLTAGE DROP RECOMMENDATIONS.
17. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR GROUNDING OF ALL ELECTRICAL EQUIPMENT.
18. EMERGENCY LIGHT MOUNTING

    A. WALL FIXTURE: 12" BELOW FINISHED CEILING OR +12'-0" IN AREAS OF EXPOSED STRUCTURE, UNLESS NOTED OTHERWISE.

    B. PENDANT FIXTURE: BOTTOM OF FIXTURE AT HEIGHT SPECIFIED ON DRAWINGS.

    C. REMOTE HEAD FIXTURE: HEADS CENTERED ABOVE DOOR OPENING HEAD, UNLESS NOTED OTHERWISE AND BATTERY PACK MOUNTED ON INTERIOR SIDE OF WALL 12" BELOW FINISHED CEILING OR AT SAME LEVEL IN AREAS OF EXPOSED STRUCTURE.

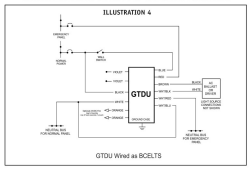



## MAINTENANCE

No routine maintenance is required to keep the GTDU functional. However, it should be checked periodically to ensure it is working properly. The entire generator (or central inverter) system, including all designated emergency lighting loads, should be exercised every 30 days per Code to ensure proper operation. To do this: 1) power up the generator, 2) place the main automatic transfer switch in the generator position, 3) turn off the local, unswitched normal power circuit breaker, and 4) verify the designated emergency lighting loads are operating properly from the generator/central inverter supply. **Circuit Breaker (Test Switch) must be located local to the load being controlled.**

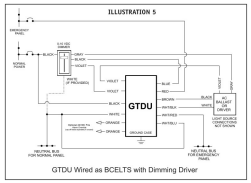
## WIRING DIAGRAMS for UL 1008 - BCELTS APPLICATIONS

ILLUSTRATION 4




GTDU Wired as BCELTS

ILLUSTRATION 5




GTDU Wired as BCELTS with Dimming Driver

3

**B** EMERGENCY GENERATOR TRANSFER DEVICE DIAGRAM
12" = 1'-0"

**A** FIRST FLOOR LIGHTING PLAN (AREA A)
1/8" = 1'-0"

0 2 4 8 16

NORTH

3/6/2024 4:30:47 PM

blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGEN — 19695 — OKLAHOMA — PROFESSIONAL ENGINEER
5-3-24

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**E101A**
LIGHTING PLAN - AREA A

blueriver ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
**20230011**

ISSUE DATE:
**08/16/24**

Issue:
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES:

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 2024-04-05 |

SHEET NAME:
**LIGHTING PLAN - AREA A**

SHEET NUMBER:
**E101A**

**KEYNOTES**

1 CLASSROOM LIGHT FIXTURES PROVIDED WITH MOTION/DAYLIGHT WIRELESS SENSORS, LIGHTS TO TURN OFF WITHIN 20 MINUTES OF THE SPACE BEING VACATED, WITH DIMMING CAPABILITY TO 50% AND MANUAL ON TO 100%

2 PROVIDE WIRELESS OCCUPANCY SENSOR FOR CLASSROOM SUPPORT, LIGHTS TO TURN OFF WITHIN 30 MINUTES OF THE SPACE BEING VACATED, WITH DIMMING CAPABILITY TO 50% AND MANUAL ON TO 100%

4 SUSPEND BOTTOM OF FIXTURE AT BOTTOM OF BAFFLES

**LIGHTING GENERAL NOTES**

1 ALL RECESSED LIGHTING FIXTURES IN LAY-IN CEILINGS SHALL BE INSTALLED WITH 6' LONG FLEXIBLE METAL CONDUIT.

2 ALL MOUNTING HEIGHTS FOR LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURES, UNLESS INDICATED OTHERWISE.

3 SEE ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF EXTERIOR LIGHTING FIXTURES.

4 ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH GOOD INSTALLATION PRACTICES, SPECIFICATIONS, AND THE LATEST EDITIONS OF ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. ALL COMPONENTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

5 PLANS SHOWN ARE DIAGRAMMATICAL IN NATURE AND DO NOT INDICATE EVERY FITTING, TRANSITION, BOX, ETC. REQUIRED. THEREFORE, CONTRACTOR IS TO COORDINATE ALL ELECTRICAL REQUIREMENTS WITH OTHER TRADES PRIOR TO INSTALLATION.

6 CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE AND OPERATIONAL SYSTEMS SHOWN ON PLAN.

7 ALL CONDUIT, POWER WIRES, RECEPTACLE BOXES, RECEPTACLES, AND GROUNDING PROTECTION DEVICES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.

8 ALL CONTRACTS SHALL BE DETERMINED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.

9 WIRING DEVICES:
A. SWITCHES =45"
B. RECEPTACLES =18"
C. VOICE/DATA =18"

10 FIXTURE MOUNTING:

A. WALL FIXTURE: CENTER 12" ABOVE DOOR OPENING

B. CEILING PENDANT FIXTURE: BY CEILING OR AT HEIGHT SPECIFIED ON DRAWINGS

11 WITH NORMAL EMERGENCY BATTERY PACKS, AND NIGHT LIGHTS SHALL NOT BE SWITCHED.

12 ELECTRICAL CONTRACTOR WILL PROVIDE A ROOF MOUNTED PHOTOCELL IN A NEUTRAL POSITION THAT IS NOT FACING EAST OR WEST, TO CONTROL ALL EXTERIOR LIGHTS AND SIGNS.

13 PROVIDE SEPARATE BOXES FOR GANGED SWITCHES ON SEPARATE BRANCH CIRCUITS.

14 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND DETAILS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED IN THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH ARCHITECT PRIOR TO ROUGH-IN.

15 ADDITIONAL EXIT AND EMERGENCY LIGHTS MAY BE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. ADDITIONAL FIXTURES SHALL BE ADDED AS DIRECTED BY THE LOCAL AUTHORITY.

16 MAXIMUM COMBINED FEEDER AND BRANCH CIRCUITS SHALL NOT EXCEED 5% VOLTAGE DROP, AND THE MAXIMUM ON THE FEEDER OR BRANCH CIRCUIT SHALL NOT EXCEED 3% VOLTAGE DROP. ELECTRICAL CONTRACTOR TO INCREASE WIRE/CONDUIT SIZES AS NECESSARY TO MAINTAIN VOLTAGE DROP RECOMMENDATIONS.

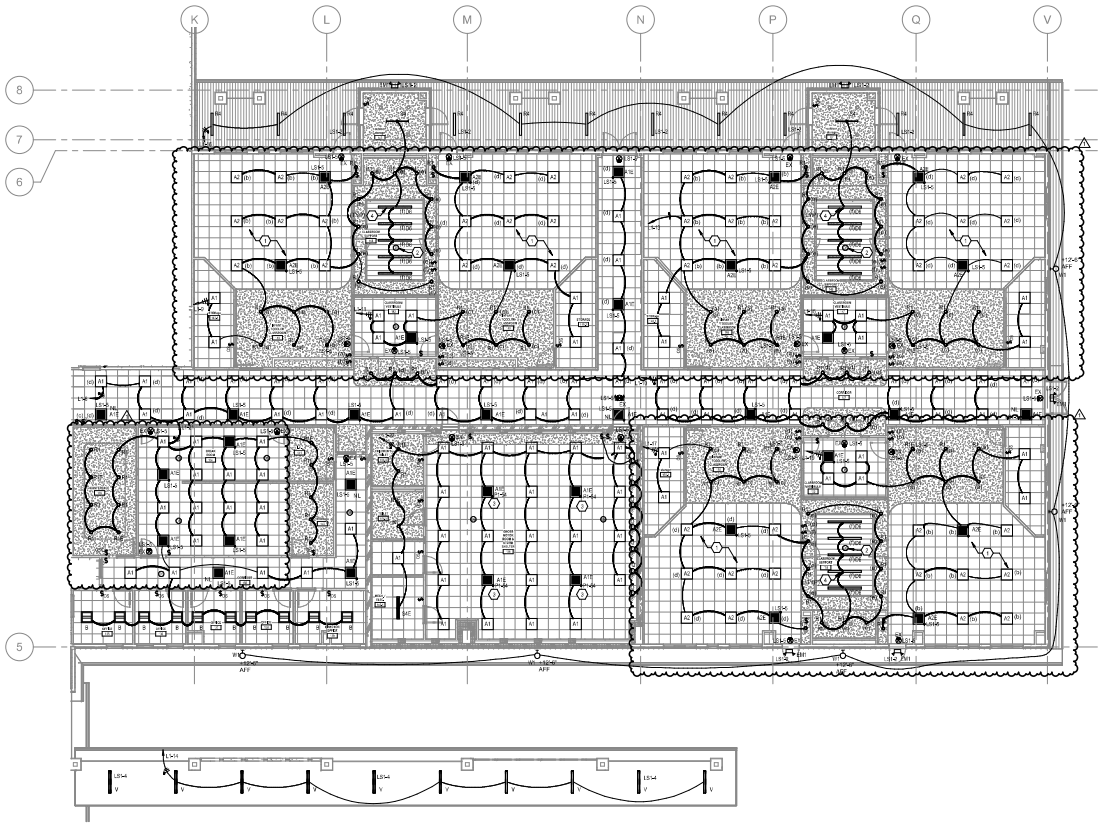
17 THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR GROUNDING OF ALL ELECTRICAL EQUIPMENT.

18 EMERGENCY LIGHT MOUNTING

A. WALL FIXTURE: 12" BELOW FINISHED CEILING OR +12'-0" IN AREAS OF EXPOSED STRUCTURE, UNLESS NOTED OTHERWISE.

B. PENDANT FIXTURE: BOTTOM OF FIXTURE AT HEIGHT SPECIFIED ON DRAWINGS.

C. REMOTE HEAD FIXTURE: HIGHER CENTERED ABOVE DOOR OPENING HEAD, UNLESS NOTED OTHERWISE AND BATTERY PACK MOUNTED ON INTERIOR SIDE OF WALL 12" BELOW FINISHED CEILING OR AT SAME LEVEL IN AREAS OF EXPOSED STRUCTURE.




**A FIRST FLOOR LIGHTING PLAN (AREAB)**
1/8" = 1'-0"

0' 2' 4' 8' 16'

NORTH

3/8/2024 4:53:20 PM

blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGER 19695 OKLAHOMA PROFESSIONAL ENGINEER
9-3-24

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**E101B**
LIGHTING PLAN - AREA B

blueriver ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
**20230011**

ISSUE DATE:
**08/16/24**

Issue:
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES:

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 2024-09-05 |

SHEET NAME:
**LIGHTING PLAN - AREA B**

SHEET NUMBER:
**E101B**

## Switchboard: CP

Location: MECH / ELECT / SPRINK 2136
Supply From: MDP
Mounting: HOUSE KEEPING PAD
Enclosure: Type 1

Volts: 208Y/120
Phase: 3
Wires: 4

A.I.C. Rating: 22K
Mains Type: MLO
Mains Rating: 400 A

Notes:

| CKT | Circuit Description | # of Pole s | Trip Rating | Load |
|---|---|---|---|---|
| 1 | PANELBOARD "KCP" | 3 | 125.0 A | 31269 VA |
| 2 | PANELBOARD "L1" | 3 | 200.0 A | 35560 VA |
| 3 | PANELBOARD "P1" | 3 | 125.0 A | 50360 VA |
| 4 | PANELBOARD "D1" | 2 | 60.0 A | 4450 VA |
| 5 | PANELBOARD "D2" | 2 | 60.0 A | 1065 VA |
| 6 | SPARE | 3 | 100.0 A | 0 VA |
| 7 | SPACE | 1 | -- | -- |
| 8 | SPACE | 1 | -- | -- |
| | | | | 122284 VA |
| | | | | 339.5 A |

Legend:

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|
| Other | 5184 VA | 100.00% | 5184 VA | | |
| RCPT | 33077 VA | 66.43% | 21982 VA | Total Conn. Load | 122284 VA |
| LTRS | 408 VA | 125.00% | 509 VA | Total Est. Demand | 117751 VA |
| SPEC | 10080 VA | 100.00% | 10080 VA | Total Conn. | 339.5 A |
| Lighting | 39719 VA | 125.00% | 47897 VA | Total Est. Demand | 327.3 A |
| Lighting - Exterior | 180 VA | 125.00% | 225 VA | | |
| Kitchen Equipment - Non-Dwelling Unit | 17923 VA | 65.00% | 11396 VA | | |
| Refrigeration | 20439 VA | 100.00% | 20439 VA | | |

Notes:

## PANELBOARD: KCP

BUS AMPS: 225 A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: CP

A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SERIES:
MOUNTING: SURFACE
LOCATION: SHIPPING / RECEIVING 2205

VOLT AMPS / PHASE

| CKT NO. | DESCRIPTION | NOTES | WIRE SET | GND SET | BKR AMP | P | A | B | C | P | BKR AMP | GND SET | WIRE SET | NOTES | DESCRIPTION | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | WALK PLAN 1 HIGH REMOTE ROOM | RCPT | 12 | 12 | 20 | 1 | 1800 | 4864 | | 1 | 60 | 10 | 8 | | CONDENSING UNIT ER90 | 2 |
| 3 | WALK PLAN 1 REMOTE ROOM | RCPT | 12 | 12 | 20 | 1 | | | 1920 | 4864 | | 1 | 60 | 10 | | 4 |
| 5 | WALK FLOOR TRAP & VALVE HEAT | | 12 | 12 | 20 | 1 | 600 | 1200 | | | 600 | 1 | 12 | 12 | WALK-IN CUT OUT SWITCH | 6 |
| 7 | WALK FLOOR TRAP ALARM | | 12 | 12 | 20 | 1 | | | 600 | 1200 | | 1 | 12 | 12 | WALK-IN FROST SNAP (FS1&2) | 8 |
| 9 | WALK FLOOR FREEZE RELIEF | | 12 | 12 | 20 | 1 | | 600 | | | 600 | 1 | 12 | 12 | | 10 |
| 11 | WALK-IN FROST PRESS RELIEF | | 12 | 12 | 20 | 1 | | | 600 | 1800 | | 1 | 25 | 12 | 12 | |
| 13 | WALK FLOOR PANEL ALARM (FS1&2) | | 12 | 12 | 20 | 1 | 1200 | 1800 | | | | 1 | 25 | 12 | 12 | GFEF WALK-IN FRZR HEAT TRACE |
| 15 | WALK-IN HIGH PRESS ALARM | | 12 | 12 | 20 | 1 | | 1200 | 1440 | | | 1 | 20 | 12 | 12 | GFI ICE MACHINE (ER90) |
| 17 | RCPT - KITCHEN OFFICE | | 12 | 12 | 20 | 1 | | | | 540 | 540 | 1 | 20 | 12 | 12 | RCPT - OFFICE 128 |
| 19 | SPARE | -- | -- | -- | 20 | 1 | | 0 | | | | 1 | 20 | -- | -- | SPARE |
| 21 | SPARE | -- | -- | -- | 20 | 1 | | | 0 | 0 | | 1 | 20 | -- | -- | SPARE |
| 23 | SPARE | -- | -- | -- | 20 | 1 | 0 | | | | 0 | 1 | 20 | -- | -- | SPARE |
| 25 | SPARE | -- | -- | -- | 20 | 1 | | 0 | | | | 1 | 20 | -- | -- | SPARE |
| 27 | SPARE | -- | -- | -- | 20 | 1 | | | 0 | 0 | | 1 | 20 | -- | -- | SPARE |
| 29 | SPARE | -- | -- | -- | 20 | 1 | 0 | | | | 0 | 1 | 20 | -- | -- | SPARE |
| 31 | SPARE | -- | -- | -- | 20 | 1 | | 0 | | | | 1 | 20 | -- | -- | SPARE |
| 33 | SPARE | -- | -- | -- | 20 | 1 | | | 0 | 0 | | 1 | 20 | -- | -- | SPARE |
| 35 | SPACE | -- | -- | -- | 1 | | -- | -- | | | -- | 1 | -- | -- | -- | SPACE |
| 37 | SPACE | -- | -- | -- | 1 | | | | -- | -- | | 1 | -- | -- | -- | SPACE |
| 39 | SPACE | -- | -- | -- | 1 | | -- | -- | | | -- | 1 | -- | -- | -- | SPACE |
| 41 | SPACE | -- | -- | -- | 1 | | | | -- | -- | | 1 | -- | -- | -- | SPACE |
| | | | | | | | TOTAL LOAD (VA): | 11300 VA | 11342 VA | 8363 VA | | | | | | |
| | | | | | | | TOTAL AMPS: | 98.2 A | 98.1 A | 71.3 A | | | | | | |

| LOAD TYPE | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANELBOARD NOTES: | | | PANELBOARD TOTALS | |
|---|---|---|---|---|---|---|---|---|
| Kitchen Equipm... | 6243 VA | 65.00% | 4058 VA | HF - HIGH FAULT CKT INTERRUPT | HT - PROVIDE HANDLE TIES TO COMPLY | | TOTAL CONNECTED LOAD: | 31,269 VA |
| Lighting | 6963 VA | 125.00% | 8703 VA | GA - GALTO CONTACTOR # | WITH NEC 210.4(B) | | TOTAL ESTIMATED DEMAND: | 26,516 VA |
| Other | 0 VA | 0.00% | 0 VA | HA - HEMOSTAT/HANDLE-ON CLAMP | IG - ISOLATED GROUND CIRCUIT | | TOTAL CONNECTED CURRENT: | 86.4 A |
| RCPT | 1080 VA | 100.00% | 1080 VA | IG - ISOLATING | LCK - HANDLE PADLOCKABLE OFF DEVICE | | TOTAL ESTIMATED DEMAND CURRENT: | 73.3 A |
| Refrigeration | 20439 VA | 100.00% | 20439 VA | RA - RED HANDLE-ON CLAMP | LO - HANDLE-ON CLAMP | | | |
| | | | | SF - GFCI TYPE CIRCUIT BREAKER | OL - REFER TO ONE-LINE DIAGRAM | | | |
| | | | | GFEP - GND FAULT EQUIPMENT PROTECTION | PE - POWER DISTRIBUTION BREAKER | | | |
| | | | | BREAKER RATED FOR 30mA | SH - SHUNT TRIP | | | |
| | | | | | SW - SWITCH RATED | | | |

## PANELBOARD: L1

BUS AMPS: 225 A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: CP

A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SERIES:
MOUNTING: SURFACE
LOCATION: MECH / ELECT / SPRINK 2136

VOLT AMPS / PHASE

| CKT NO. | DESCRIPTION | NOTES | WIRE SET | GND SET | BKR AMP | P | A | B | C | P | BKR AMP | GND SET | WIRE SET | NOTES | DESCRIPTION | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LTG - CLASSRM 1 RECEPT CTR | | 12 | 12 | 20 | 1 | 1800 | 360 | | 1 | 20 | 10 | 12 | C1 | LTG - CORRIDOR | 2 |
| 3 | LTG - CLASSRM 1 RECEPTACLES CTR | | 12 | 12 | 20 | 1 | | | 900 | 1080 | | 1 | 20 | 10 | C1 | LTG - CORRIDOR | 4 |
| 5 | LTG - CLASSRM 1 LOUDSPEAKER CTR | | 12 | 12 | 20 | 1 | | 900 | | | 900 | 1 | 20 | 10 | C1 | LTG - CORRIDOR | 6 |
| 7 | LTG - CLASSRM 1 DOOR RECEPT CTR | | 12 | 12 | 20 | 1 | 1800 | | 1800 | | | 1 | 20 | 10 | C1 | LTG - CORRIDOR | 8 |
| 9 | LTG - CLASSRM 1 RECEPT CTR | | 12 | 12 | 20 | 1 | | 1267 | | 1800 | | 1 | 20 | 10 | C1 | LTG - CORRIDOR | 10 |
| 11 | LTG - CLASSRM 1 RECEPTACLES CTR | | 12 | 12 | 20 | 1 | | | 1800 | | 1800 | 1 | 20 | 10 | C1 | LTG - CORRIDOR | 12 |
| 13 | LTG - CLASSRM 1 RECEPT CTR | | 12 | 12 | 20 | 1 | 1200 | 1534 | | | | 1 | 20 | 10 | C1 | LTG - ENTRY/VESTIBULE | 14 |
| 15 | LTG - CLASSRM 1 RECEPTACLES CTR | | 12 | 12 | 20 | 1 | | | 1200 | 1534 | | 1 | 20 | 10 | C1 | LTG - ENTRY/VESTIBULE | 16 |
| 17 | LTG - CLASSRM 1 RECEPT CTR | | 12 | 12 | 20 | 1 | | 1200 | | | 1200 | 1 | 20 | 10 | C2 | MTG - CLASSRM 2 SYS SUPPORT | 18 |
| 19 | LTG - CLASSRM 1 RECEPTACLES CTR | | 12 | 12 | 20 | 1 | 900 | 908 | | | | 1 | 20 | 10 | C2 | LTG - CLASSRM 2 INTERACTIVE LC | 20 |
| 21 | LTG - SERVICE CORRIDOR CTR | | 12 | 12 | 20 | 1 | | | 1800 | 1800 | | 1 | 20 | 10 | C2 | LTG - CORRIDOR | 22 |
| 23 | LTG - GIRLS'S WOMP RM CTR | | 12 | 12 | 20 | 1 | 1800 | 908 | | | 1200 | 1 | 20 | 10 | C2 | LTG - CLASSRM 2 SYS INTERFACE | 24 |
| 25 | LTG - GIRLS'S WOMP | | 12 | 12 | 20 | 1 | | | 1908 | 908 | | 1 | 20 | 10 | C2 | LTG - CLASSRM 2 SYS INTERFACE | 26 |
| 27 | LTG - PANELBOARD COMPUTER TEST | | 12 | 12 | 20 | 1 | 1908 | 908 | | | | 1 | 20 | 10 | C2 | LTG - CLASSRM 2 SYS INTERFACE | 28 |
| 29 | LTG - SHIPWRIGHT'S CLASSROOM | | 12 | 12 | 20 | 1 | | | 1908 | 854 | | 1 | 20 | 8 | 8 | C2 | SITE LIGHTING | 30 |
| 31 | SPARE | -- | -- | -- | 20 | 1 | | 540 | | | 1051 | 807 | | | | | 32 |
| 33 | SPARE | -- | -- | -- | 20 | 1 | | | 0 | 540 | | | | | | | 34 |
| 35 | SPARE | -- | -- | -- | 20 | 1 | | 0 | | | 0 | 0 | | | | | 36 |
| 37 | SPARE | -- | -- | -- | 1 | | -- | -- | | | -- | 1 | -- | -- | -- | SPACE | 38 |
| 39 | SPACE | -- | -- | -- | 1 | | | | -- | -- | | 1 | -- | -- | -- | SPACE | 40 |
| 41 | SPACE | -- | -- | -- | 1 | | | | -- | -- | | 1 | -- | -- | -- | SPACE | 42 |
| | | | | | | | TOTAL LOAD (VA): | 12142 VA | 11350 VA | 11780 VA | | | | | | |
| | | | | | | | TOTAL AMPS: | 100.8 A | 96.6 A | 100.4 A | | | | | | |

| LOAD TYPE | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANELBOARD NOTES: | | | PANELBOARD TOTALS | |
|---|---|---|---|---|---|---|---|---|
| LTRS | 408 VA | 125.00% | 509 VA | HF - HIGH FAULT CKT INTERRUPT | HT - PROVIDE HANDLE TIES TO COMPLY | | TOTAL CONNECTED LOAD: | 35,560 VA |
| Lighting | 34761 VA | 125.00% | 43476 VA | GA - GALTO CONTACTOR # | WITH NEC 210.4(B) | | TOTAL ESTIMATED DEMAND: | 44,414 VA |
| Lighting - Exterior | 180 VA | 125.00% | 225 VA | HA - HEMOSTAT/HANDLE-ON CLAMP | IG - ISOLATED GROUND CIRCUIT | | TOTAL CONNECTED CURRENT: | 98.8 A |
| Other | 252 VA | 100.00% | 252 VA | IG - ISOLATING | LCK - HANDLE PADLOCKABLE OFF DEVICE | | TOTAL ESTIMATED DEMAND CURRENT: | 123.3 A |
| | | | | RA - RED HANDLE-ON CLAMP | LO - HANDLE-ON CLAMP | | | |
| | | | | SF - GFCI TYPE CIRCUIT BREAKER | OL - REFER TO ONE-LINE DIAGRAM | | | |
| | | | | GFEP - GND FAULT EQUIPMENT PROTECTION | PE - POWER DISTRIBUTION BREAKER | | | |
| | | | | BREAKER RATED FOR 30mA | SH - SHUNT TRIP | | | |
| | | | | | SW - SWITCH RATED | | | |

## PANELBOARD: P1

BUS AMPS: 225 A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: CP

A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SERIES:
MOUNTING: SURFACE
LOCATION: MECH / ELECT / SPRINK 2136

VOLT AMPS / PHASE

| CKT NO. | DESCRIPTION | NOTES | WIRE SET | GND SET | BKR AMP | P | A | B | C | P | BKR AMP | GND SET | WIRE SET | NOTES | DESCRIPTION | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RCPT - CORRIDOR | | 12 | 12 | 20 | 1 | 720 | 180 | | 1 | 20 | 10 | 12 | | RCPT - ELEVATOR MTR RM 134 | 2 |
| 3 | RCPT - MTG RM 134 | | 12 | 12 | 20 | 1 | | | 360 | 180 | | 1 | 20 | 10 | 12 | RCPT - MTG RM 134 | 4 |
| 5 | RCPT - PRINTER MTG RM 134 | | 12 | 12 | 20 | 1 | 360 | 180 | | | | 1 | 20 | 10 | 12 | RCPT - PRINTER MTG RM 134 | 6 |
| 7 | RCPT - MTG RM 134 | | 12 | 12 | 20 | 1 | | | 360 | 180 | | 1 | 20 | 10 | 12 | RCPT - MTG RM 134 | 8 |
| 9 | RCPT - MTG RM 134 | | 12 | 12 | 20 | 1 | 360 | 360 | | | | 1 | 20 | 10 | 12 | RCPT - MTG RM 134 | 10 |
| 11 | RCPT - ELEVATOR MTR RM 134 | | 12 | 12 | 20 | 1 | | | 708 | 720 | | 1 | 20 | 10 | 12 | RCPT - ELEVATOR MTR RM 134 | 12 |
| 13 | RCPT - EWC RM 134 | | 12 | 12 | 20 | 1 | 540 | 720 | | | | 1 | 20 | 10 | 12 | RCPT - EWC RM 134 | 14 |
| 15 | RCPT - EWC RM 134 | | 12 | 12 | 20 | 1 | | | 1200 | | | 1 | 20 | 10 | 12 | RCPT - EWC RM 134 | 16 |
| 17 | RCPT - EWC 133 | | 12 | 12 | 20 | 1 | | 900 | | 1200 | | 1 | 20 | 10 | 12 | RCPT - EWC RM 134 | 18 |
| 19 | RCPT - EWC RM 134 | | 12 | 12 | 20 | 1 | | | 900 | | | 1 | 20 | 10 | 12 | RCPT - EWC RM 134 | 20 |
| 21 | RCPT - EWC RM 134 | | 12 | 12 | 20 | 1 | 900 | 1200 | | | | 1 | 20 | 10 | 12 | RCPT - EWC RM 134 | 22 |
| 23 | RCPT - EWC RM 134 | | 12 | 12 | 20 | 1 | | | 900 | 1200 | | 1 | 20 | 10 | 12 | RCPT - EWC RM 134 | 24 |
| 25 | RCPT - EWC RM 134 | | 12 | 12 | 20 | 1 | 180 | 360 | | | | 1 | 20 | 10 | 12 | RCPT - EWC RM 134 | 26 |
| 27 | RCPT - OFFICE 130/136 | | 12 | 12 | 20 | 1 | | | 1260 | 360 | | 1 | 20 | 10 | 12 | RCPT - STORAGE 140 | 28 |
| 29 | RCPT - OFFICE 138 | | 12 | 12 | 20 | 1 | | | | | 360 | 1080 | 20 | 10 | 12 | RCPT - OFFICES 130/138 | 30 |
| 31 | RCPT - OFFICE 138 | | 12 | 12 | 20 | 1 | 360 | 360 | | | | | 20 | 10 | 12 | RCPT - OFFICE 138 | 32 |
| 33 | RCPT - OFFICE 139 | | 12 | 12 | 20 | 1 | | | 360 | 360 | | 1 | 20 | 10 | 12 | RCPT - OFFICE 137 | 34 |
| 35 | RCPT - LAUNDRY | | 12 | 12 | 20 | 1 | | | | | 540 | 540 | 20 | 10 | 12 | RCPT - ELEVATOR OFFICE 139 | 36 |
| 37 | RCPT - LAUNDRY | | 12 | 12 | 20 | 1 | 1000 | 1708 | | | | | 20 | 10 | 12 | RCPT - CHILD'S TYKE CTR 171 | 38 |
| 39 | RCPT - WASHER | GF | 12 | 12 | 20 | 1 | | | 1000 | 360 | | 1 | 20 | 10 | GF | RCPT - CLASS MTR 184 181 WC | 40 |
| 41 | RCPT - WASHER | GF | 12 | 12 | 20 | 1 | | | | | 1500 | 708 | 20 | 10 | 12 | RCPT - STR/CSMR HALLCC ACROSS | 42 |
| 43 | RCPT - WASHER | GF | 12 | 12 | 20 | 1 | 1500 | 360 | | | | | 20 | 10 | 12 | RCPT - CLASS MTR 184 186 | 44 |
| 45 | RCPT - DRYER | GF | 12 | 12 | 20 | 1 | | | 1500 | 540 | | | 20 | 10 | 12 | RCPT - CLASS MTR 184 186 | 46 |
| 47 | RCPT - DRYER | GF | 12 | 12 | 20 | 1 | | | | | 1500 | 540 | 20 | 10 | 12 | RCPT - MED / ISLEC | 48 |
| 49 | RCPT - DRYER | GF | 12 | 12 | 20 | 1 | 1500 | 540 | | | | | 20 | 10 | 12 | RCPT - MED / ISLEC | 50 |
| 51 | RCPT - DRYER | GF | 10 | 10 | 30 | 2 | | | 1500 | 1500 | | | 20 | 10 | 12 | RCPT - STR/CSMR HALLCC ACROSS | 52 |
| 53 | | | | | | | 1200 | 1200 | | | | | | | | | 54 |
| 55 | RCPT - DRYER | GF | 10 | 10 | 30 | 2 | | | 1500 | 1500 | | | 20 | 10 | 12 | RCPT - CLASSRM 1 ECOSYSTEM | 56 |
| 57 | | | | | | | | 0 | | | | | 20 | -- | -- | SPARE | 58 |
| 59 | RCPT - DRYER | GF | 10 | 10 | 30 | 2 | 1500 | 1500 | | | | | 20 | -- | -- | SPARE | 60 |
| 61 | | | | | | | | | 1500 | 0 | | | 20 | -- | -- | SPARE | 62 |
| 63 | RCPT - DWC | GF | 12 | 12 | 20 | 1 | | 540 | | | | | 20 | -- | -- | SPARE | 64 |
| 65 | SPACE | | | | | | | | | | | | | | | | 66 |
| 67 | SPACE | | | | | | | | | | | | | | | | 68 |
| 69 | SPACE | | | | | | | | | | | | | | | | 70 |
| 71 | SPACE | | | | | | | | | | | | | | | | 72 |
| 73 | SPACE | | | | | | | | | | | | | | | | 74 |
| 75 | SPACE | | | | | | | | | | | | | | | | 76 |
| 77 | SPACE | | | | | | | | | | | | | | | | 78 |
| 79 | SPACE | | | | | | | | | | | | | | | | 80 |
| 81 | SPACE | | | | | | | | | | | | | | | | 82 |
| 83 | SPACE | | | | | | | | | | | | | | | | 84 |
| | | | | | | | TOTAL LOAD (VA): | 16812 VA | 14487 VA | 17965 VA | | | | | | |
| | | | | | | | TOTAL AMPS: | 154.8 A | 125.8 A | 153.2 A | | | | | | |

| LOAD TYPE | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANELBOARD NOTES: | | | PANELBOARD TOTALS | |
|---|---|---|---|---|---|---|---|---|
| Kitchen Equipme... | 12780 VA | 65.00% | 8307 VA | HF - HIGH FAULT CKT INTERRUPT | HT - PROVIDE HANDLE TIES TO COMPLY | | TOTAL CONNECTED LOAD: | 50,360 VA |
| Other | 3543 VA | 100.00% | 3543 VA | GA - GALTO CONTACTOR # | WITH NEC 210.4(B) | | TOTAL ESTIMATED DEMAND: | 39,313 VA |
| RCPT | 23691 VA | 65.28% | 17261 VA | HA - HEMOSTAT/HANDLE-ON CLAMP | IG - ISOLATED GROUND CIRCUIT | | TOTAL CONNECTED CURRENT: | 139.2 A |
| SPEC | 7680 VA | 100.00% | 7680 VA | IG - ISOLATING | LCK - HANDLE PADLOCKABLE OFF DEVICE | | TOTAL ESTIMATED DEMAND CURRENT: | 108.4 A |
| | | | | RA - RED HANDLE-ON CLAMP | LO - HANDLE-ON CLAMP | | | |
| | | | | SF - GFCI TYPE CIRCUIT BREAKER | OL - REFER TO ONE-LINE DIAGRAM | | | |
| | | | | GFEP - GND FAULT EQUIPMENT PROTECTION | PE - POWER DISTRIBUTION BREAKER | | | |
| | | | | BREAKER RATED FOR 30mA | SH - SHUNT TRIP | | | |
| | | | | | SW - SWITCH RATED | | | |

## PANELBOA... D1

BUS AMPS: 225 A
MAIN...
VOLTS/PHASE: 120/208, 1PH, 3W
SUPPLIED BY: CP

A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SERVES:
MOUNTING: SURFACE
LOCATION: ET...7196

VOLT AMPS / PHASE

| CKT NO. | DESCRIPTION | NOTES | WIRE SET | GND SET | BKR AMP | P | A | B | P | BKR AMP | GND SET | WIRE SET | NOTES | DESCRIPTION | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RCPT - IT 103 | | 12 | 12 | 20 | 1 | 300 | 1080 | | 2 | 30 | 10 | 10 | RCPT - IT 103 | 2 |
| 3 | RCPT - IT 103 | | 12 | 12 | 20 | 1 | | | 360 | 1200 | | 1 | 20 | 12 | 12 | | 4 |
| 5 | RCPT - IT 103 | | | | 20 | 1 | 360 | | 360 | | | 1 | 20 | 12 | 12 | RCPT - IT 103 | 6 |
| 7 | RCPT - IT 103 | | | | 20 | 1 | | 360 | 360 | 360 | 1 | 20 | 12 | 12 | RCPT - ACCESS CONTROL PANEL | 8 |
| 9 | SPARE | -- | -- | -- | 20 | 1 | 0 | | | | 0 | 1 | 20 | -- | -- | MUSIC READERS | 10 |
| 11 | SPARE | -- | -- | -- | 20 | 1 | | 0 | 0 | 0 | | 1 | 20 | -- | -- | SPARE | 12 |
| 13 | SPARE | -- | -- | -- | 20 | 1 | 0 | | | | 0 | 1 | 20 | -- | -- | SPARE | 14 |
| 15 | TVSS | -- | -- | -- | 30 | 2 | 0 | -- | -- | 1 | -- | -- | -- | -- | SPACE | 16 |
| | | | | | | | TOTAL LOAD (VA): | 2222 VA | 2220 VA | | | | | | | |
| | | | | | | | TOTAL AMPS: | 21.4 A | 21.4 A | | | | | | | |

| LOAD TYPE | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANELBOARD NOTES: | | | PANELBOARD TOTALS | |
|---|---|---|---|---|---|---|---|---|
| Other | 0 VA | 0.00% | 0 VA | HF - HIGH FAULT CKT INTERRUPT | HT - PROVIDE HANDLE TIES TO COMPLY | | TOTAL CONNECTED LOAD: | 4440 VA |
| | | | | GA - GALTO CONTACTOR # | WITH NEC 210.4(B) | | TOTAL ESTIMATED DEMAND: | 4440 VA |
| | | | | HA - HEMOSTAT/HANDLE-ON CLAMP | IG - ISOLATED GROUND CIRCUIT | | TOTAL CONNECTED CURRENT: | 21.4 A |
| | | | | IG - ISOLATING | LCK - HANDLE PADLOCKABLE OFF DEVICE | | TOTAL ESTIMATED DEMAND CURRENT: | 21.4 A |
| | | | | RA - RED HANDLE-ON CLAMP | LO - HANDLE-ON CLAMP | | | |
| | | | | SF - GFCI TYPE CIRCUIT BREAKER | OL - REFER TO ONE-LINE DIAGRAM | | | |
| | | | | GFEP - GND FAULT EQUIPMENT PROTECTION | PE - POWER DISTRIBUTION BREAKER | | | |
| | | | | BREAKER RATED FOR 30mA | SH - SHUNT TRIP | | | |
| | | | | | SW - SWITCH RATED | | | |

## PANELBOA... D2

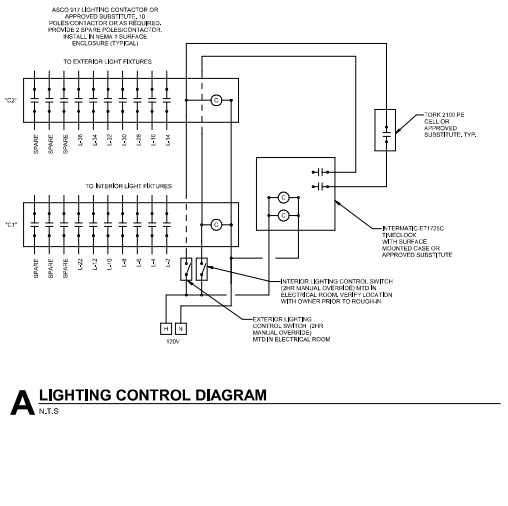
BUS AMPS: 225 A
MAIN...
VOLTS/PHASE: 120/208, 1PH, 3W
SUPPLIED BY: CP

A.I.C. RATING: 10,000 AMPS SYMMETRICAL
SERVES:
MOUNTING: SURFACE
LOCATION: ET...2280

VOLT AMPS / PHASE

| CKT NO. | DESCRIPTION | NOTES | WIRE SET | GND SET | BKR AMP | P | A | B | P | BKR AMP | GND SET | WIRE SET | NOTES | DESCRIPTION | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RCPT - LT1, 141 | | 12 | 12 | 20 | 1 | 180 | 0 | | | | | | | 2 |
| 3 | RCPT - LT1, 141 | | 12 | 12 | 20 | 1 | | | 2 | 30 | 10 | 10 | | RCPT - LT1, 141 | 4 |
| 5 | RCPT - LT1, 141 | | 12 | 12 | 20 | 1 | 180 | 180 | 1 | 20 | 12 | 12 | | RCPT - LT1, 141 | 6 |
| 7 | RCPT - LT1, 141 | | 12 | 12 | 20 | 1 | | | 1 | 20 | 12 | 12 | | RCPT - ACCESS CONTROL PANEL | 8 |
| 9 | SPARE | -- | -- | -- | 20 | 1 | 0 | | 1 | 20 | 12 | 12 | | MUSIC READERS | 10 |
| 11 | SPARE | -- | -- | -- | 20 | 1 | | 0 | 1 | 20 | -- | -- | -- | SPARE | 12 |
| 13 | SPARE | -- | -- | -- | 20 | 1 | 0 | | 1 | -- | -- | -- | -- | SPACE | 14 |
| 15 | TVSS | -- | -- | -- | 30 | 2 | 0 | -- | 1 | -- | -- | -- | -- | SPACE | 16 |
| | | | | | | | TOTAL LOAD (VA): | 540 VA | 540 VA | | | | | | |
| | | | | | | | TOTAL AMPS: | 5.2 A | 5.1 A | | | | | | |

| LOAD TYPE | CONNECTED LOAD | DEMAND FACTOR | ESTIMATED DEMAND | PANELBOARD NOTES: | | | PANELBOARD TOTALS | |
|---|---|---|---|---|---|---|---|---|
| Other | 0 VA | 0.00% | 0 VA | HF - HIGH FAULT CKT INTERRUPT | HT - PROVIDE HANDLE TIES TO COMPLY | | TOTAL CONNECTED LOAD: | 1080 VA |
| | | | | GA - GALTO CONTACTOR # | WITH NEC 210.4(B) | | TOTAL ESTIMATED DEMAND: | 1080 VA |
| | | | | HA - HEMOSTAT/HANDLE-ON CLAMP | IG - ISOLATED GROUND CIRCUIT | | TOTAL CONNECTED CURRENT: | 5.1 A |
| | | | | IG - ISOLATING | LCK - HANDLE PADLOCKABLE OFF DEVICE | | TOTAL ESTIMATED DEMAND CURRENT: | 5.1 A |
| | | | | RA - RED HANDLE-ON CLAMP | LO - HANDLE-ON CLAMP | | | |
| | | | | SF - GFCI TYPE CIRCUIT BREAKER | OL - REFER TO ONE-LINE DIAGRAM | | | |
| | | | | GFEP - GND FAULT EQUIPMENT PROTECTION | PE - POWER DISTRIBUTION BREAKER | | | |
| | | | | BREAKER RATED FOR 30mA | SH - SHUNT TRIP | | | |
| | | | | | SW - SWITCH RATED | | | |




**A** LIGHTING CONTROL DIAGRAM
N.T.S


blue river ARCHITECTS
A Native American Owned Firm


PETER A. HILGEN — 19695 — OKLAHOMA — 5-3-24

# CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

E302 ELECTRICAL SCHEDULES


blue river ARCHITECTS
A Native American Owned Firm


BLUE RIVER PROJECT NUMBER:
**20230011**

ISSUE DATE:
**08/16/24**

Issues:
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES

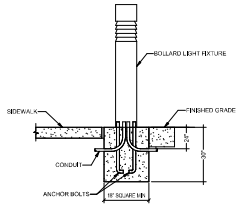
| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 2024-04-05 |

SHEET NAME:
**ELECTRICAL SCHEDULES**

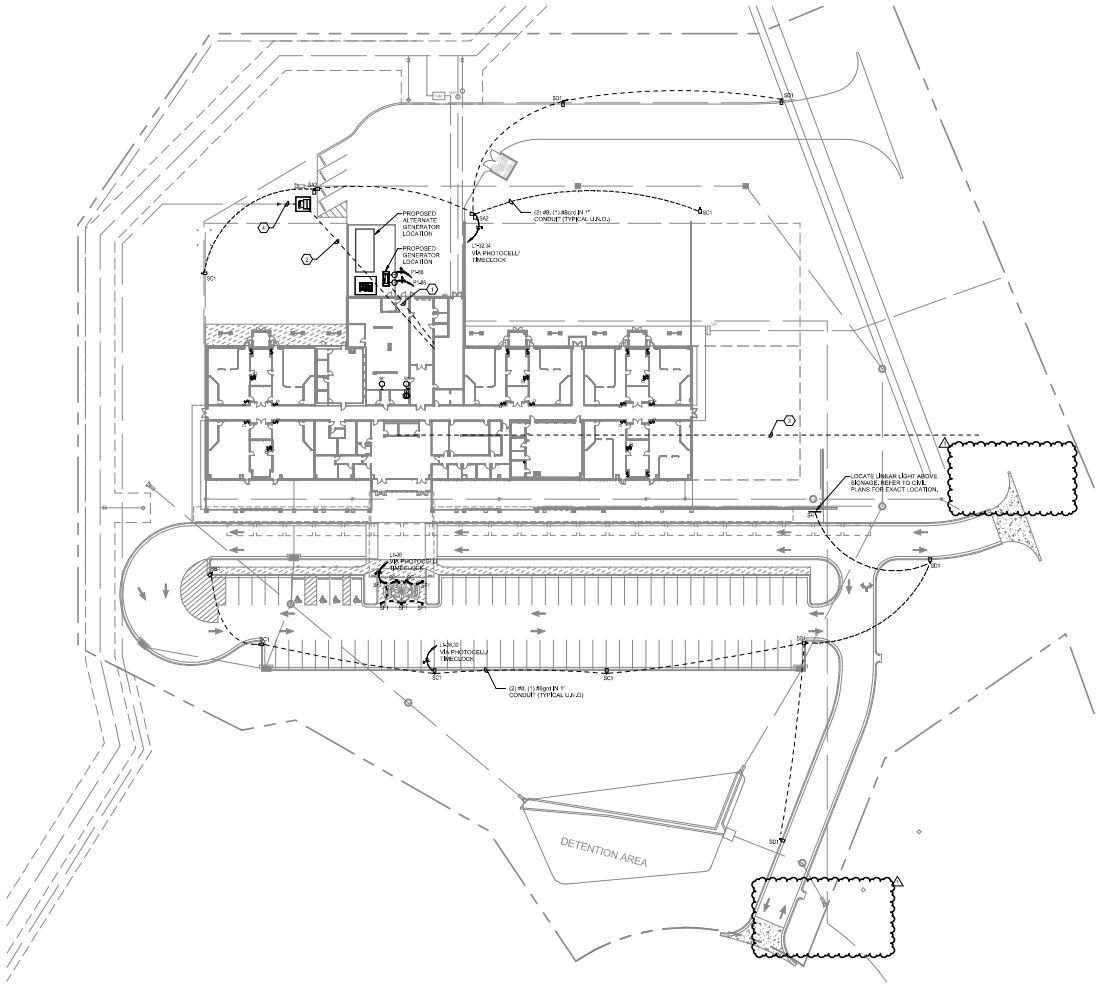
SHEET NUMBER:
**E302**



8/6/2024 4:43:20 PM




**B** BOLLARD MOUNTING DETAIL
N.T.S.




**A** ELECRTICAL SITE PLAN
1" = 30'-0"

NORTH

## SITE PLAN GENERAL NOTES

1. PROVIDE ELECTRICAL SERVICE PER POWER COMPANY REQUIREMENTS (POWER CO.).
2. ALL COMMUNICATIONS CONDUIT AND CABLES SHALL BE INSTALLED 36" MINIMUM BELOW FINISHED GRADE.
3. ALL CONDUCTORS FOR EXTERIOR LIGHTING AND POWER CIRCUITS SHALL BE #10 AWG MINIMUM.
4. ALL LIGHTING AND POWER CONDUCTORS SHALL BE INSTALLED BETWEEN 24" MINIMUM AND 36" MAXIMUM BELOW FINISHED GRADE.
5. PROPOSED UTILITIES ARE SHOWN IN SCHEMATIC ONLY. EXACT LOCATIONS SHALL BE DETERMINED BY GENERAL CONTRACTOR FOR THE MOST ECONOMICAL INSTALLATION.
6. ELECTRICAL CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING BY THE SITE TO AVOID EXISTING CONDUITS, PIPING AND DUCTS, ETC. AND TO PREVENT HAZARD TO PERSONNEL AND DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES. THE ENGINEER IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED INCIDENTAL TO BY THIS OR ANY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

## KEYNOTES

1. PROVIDE (3) 2" SCHEDULE 40 PVC UNDERGROUND CONDUITS FROM GENERATOR TO ELECTRICAL ROOM
2. PROVIDE (6) 4" SCHEDULE 40 PVC UNDERGROUND CONDUITS FROM UTILITY TRANSFORMER TO MAIN DISTRIBUTION BOARD IN ELECTRICAL ROOM. COORDINATE REQUIREMENTS WITH POWER UTILITY COMPANY PRIOR TO BID.
3. PROVIDE (3) 4" SCHEDULE 40 PVC UNDERGROUND CONDUITS FROM LT. ANNOUNCIATOR TO COMMUNICATIONS DEMARK LOCATION, REFER TO CIVIL PLANS FOR DEMARK TERMINATION POINT.
4. PROVIDE (1) 4" SCHEDULE 40 PVC UNDERGROUND CONDUITS FROM UTILITY TRANSFORMER TO UTILITY TERMINATION POINT, REFER TO CIVIL PLANS FOR UTILITY TERMINATION POINT. COORDINATE UTILITY REQUIREMENTS PRIOR TO BID.

blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGER 19695 OKLAHOMA REGISTERED PROFESSIONAL ENGINEER
9-3-24

**CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER**
1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

**ES101** ELECTRICAL SITE PLAN

blueriver ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
**2023/0011**
ISSUE DATE:
**08/16/24**
Issue:
**CONSTRUCTION DOCUMENTS**

OTHER ISSUE DATES:

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | Addendum 2 | 2024-09-03 |

SHEET NAME:
**ELECTRICAL SITE PLAN**

SHEET NUMBER:
**ES101**