blue river ARCHITECTS
A Native American Owned Firm

Addendum 2

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

CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

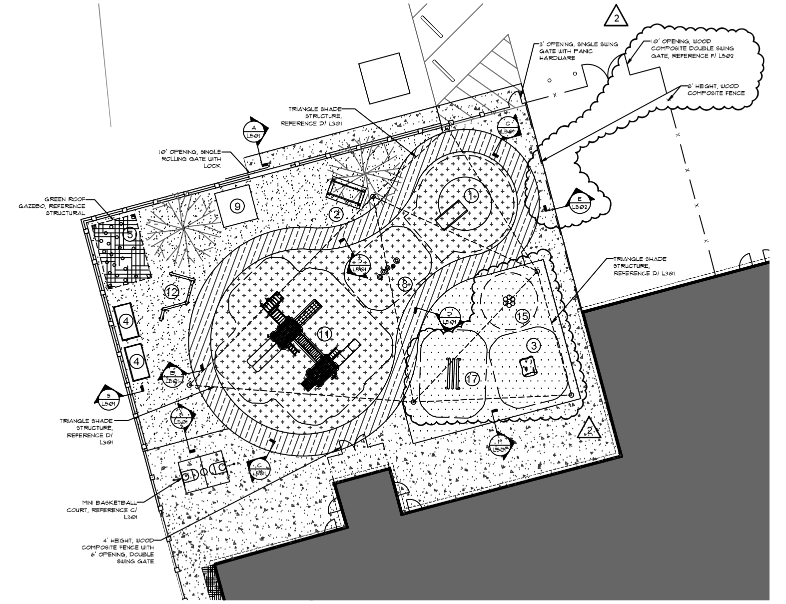
19244 COUNTRY CLUB DRIVE, CATOOSA, OK 74015

LEGEND

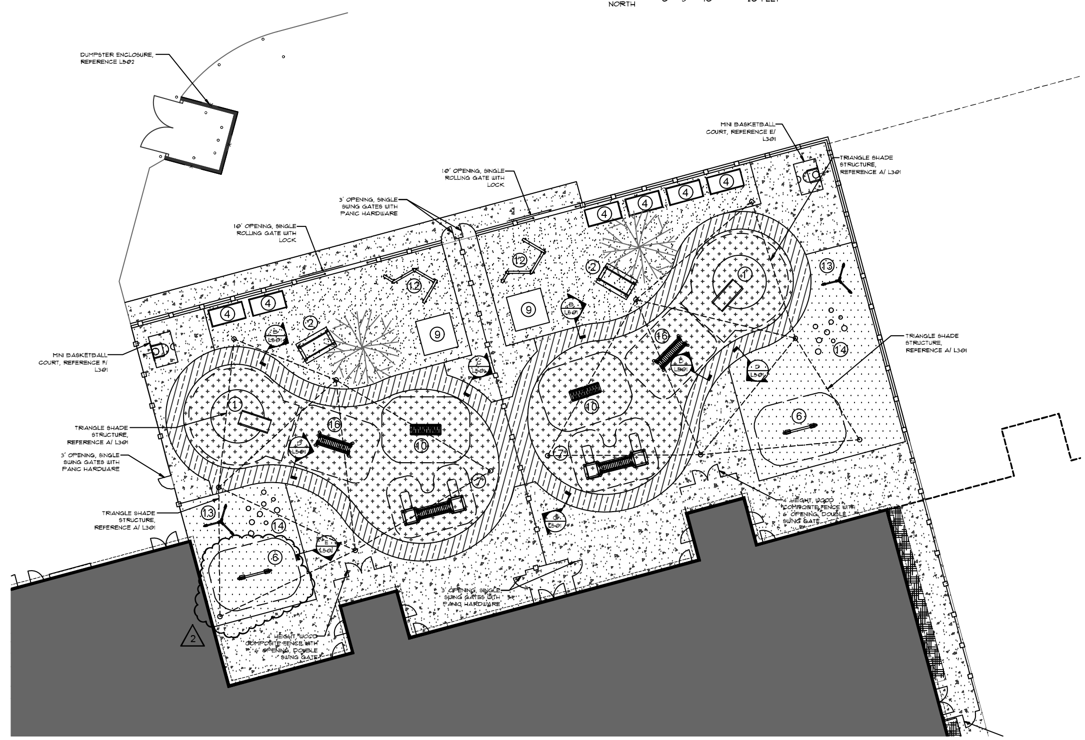
	CONCRETE PAVING, REFERENCE CIVIL		ARCHITECTURAL CONCRETE, COLOR 4
	SOD		SYNTHETIC TURF, TYPE 1
	SYNTHETIC TURF, TYPE 2		LANDSCAPE BED
	6' HEIGHT, VINYL COATED CHAIN-LINK FENCING AND GATES WITH PRIVACY SLATS, BLACK		
	WOOD COMPOSITE FENCING AND GATES, COLOR TO BE SELECTED BY ARCHITECT		

PLAYGROUND EQUIPMENT LEGEND

1. 10' PLAYMOUND SYSTEM WITH SLIDE BY FOREVER LAWN
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. (8) 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 & GROVE
13. PLAY CENTER (BALL 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



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



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

blue river ARCHITECTS
A Native American Owned Firm

STATE OF OKLAHOMA
Jeremy Brian Carlisle
No. M026
Tulsa, OK
LICENSED LANDSCAPE ARCHITECT
08.05.2024

L201
ENLARGED REFERENCE PLANS

GH2 PROJECT NUMBER
20230011

ISSUE DATE
08/16/2024

ISSUE
CONSTRUCTION DOCUMENTS

OTHER ISSUE DATES

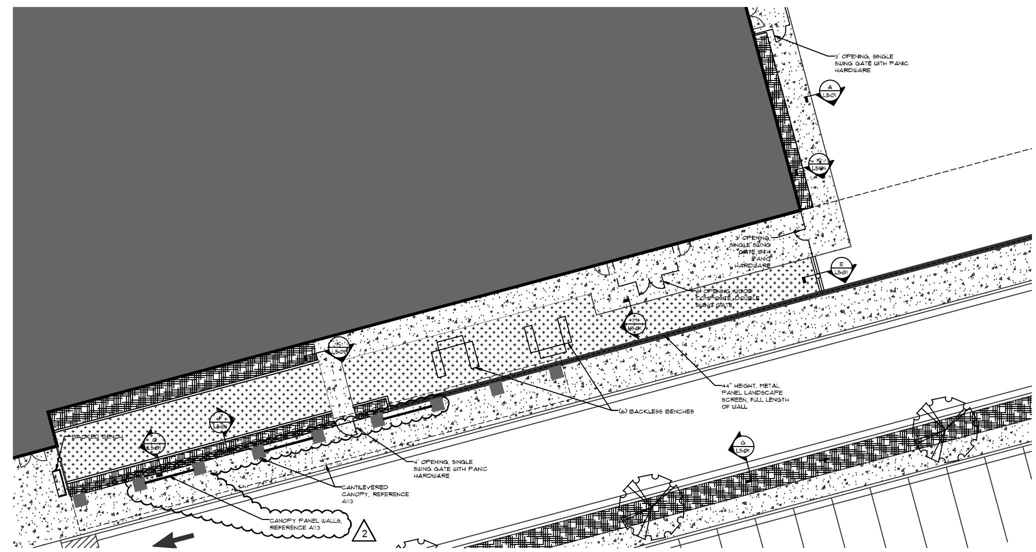
NO.	DESCRIPTION	DATE
1	ADDENDUM #1	08/29/2024
2	ADDENDUM #2	09/05/2024

SHEET NAME
ENLARGED REFERENCE PLANS

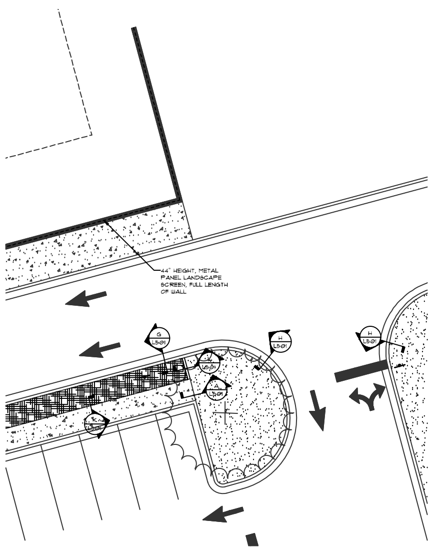
SHEET NUMBER
L201

LEGEND

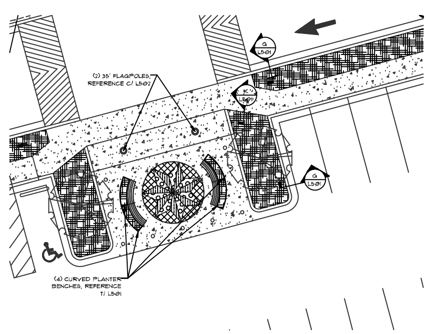
(pattern)	CONCRETE PAVING, REFERENCE CIVIL	(pattern)	LANDSCAPE BED
(pattern)	SOD	(pattern)	SYNTHETIC TURF, TYPE 2
(pattern)	ARCHITECTURAL CONCRETE, COLOR 1	(pattern)	ARCHITECTURAL CONCRETE, COLOR 2
(pattern)	ARCHITECTURAL CONCRETE, COLOR 3		
—o—o—	6' HEIGHT, ANTI-CLIMB WIRE FENCING AND GATES, BLACK		
—□—□—	6' HEIGHT, VINYL COATED CHAIN-LINK FENCING AND GATES WITH PRIVACY SLATS, BLACK		
—x—x—	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		



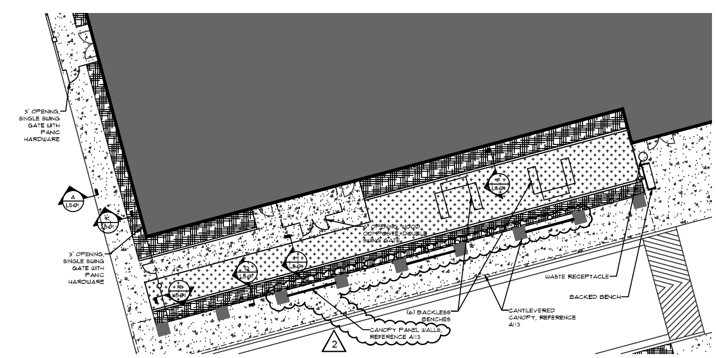
D ENLARGED REFERENCE PLAN
1" = 10'-0"
NORTH 0 5 10 20 FEET



C ENLARGED REFERENCE PLAN
1" = 10'-0"
NORTH 0 5 10 20 FEET



B ENLARGED REFERENCE PLAN
1" = 10'-0"
NORTH 0 5 10 20 FEET



A ENLARGED REFERENCE PLAN
1" = 10'-0"
NORTH 0 5 10 20 FEET

blue river ARCHITECTS
A Native American Owned Firm

STATE OF OKLAHOMA
Jeremy Brian Carlisle
No. la0329
Tulsa, OK
LICENSED LANDSCAPE ARCHITECT
09.05.2024

CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

19244 COUNTRY CLUB DRIVE, CATOOSA, OK 74015

L202
ENLARGED REFERENCE PLANS

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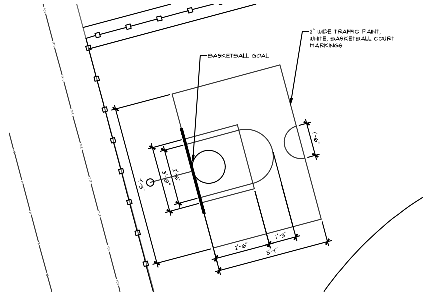
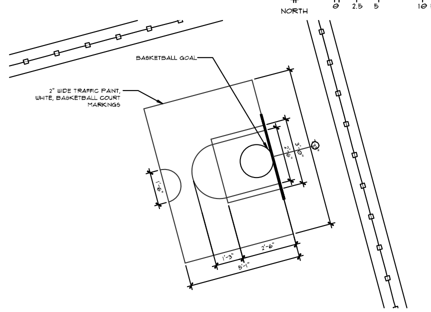
ENLARGED REFERENCE PLANS

SHEET NUMBER
L202



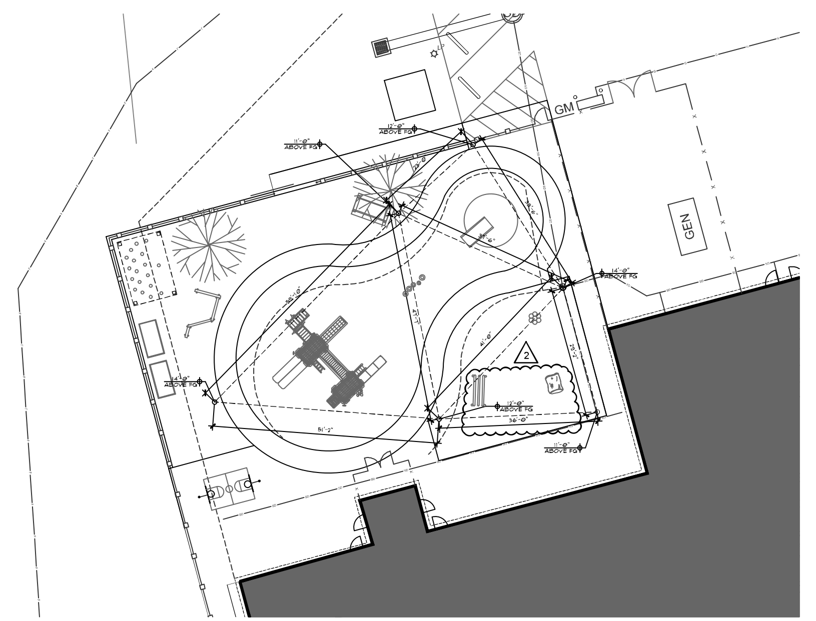
F LAYOUT AND DIMENSION PLAN
1/2" = 1'-0"

NORTH 0 2.5 5 10 FEET



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

NORTH 0 2.5 5 10 FEET

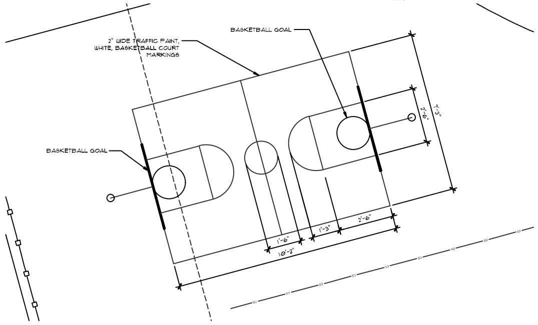


D LAYOUT AND DIMENSION PLAN
1" = 10'-0"

NORTH 0 5 10 20 FEET

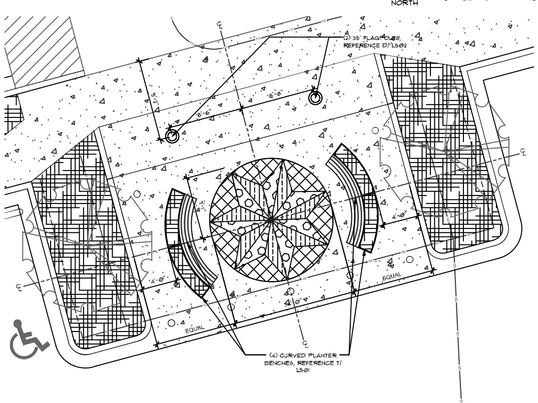
LEGEND

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



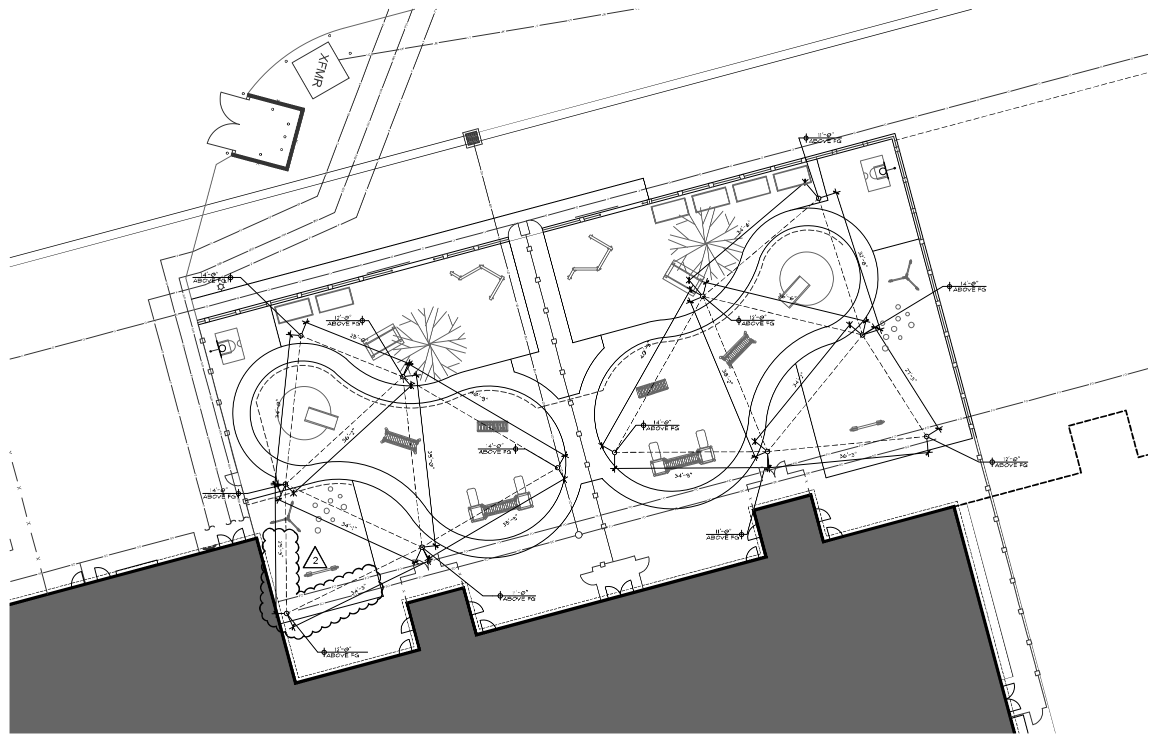
C LAYOUT AND DIMENSION PLAN
1/2" = 1'-0"

NORTH 0 2.5 5 10 FEET



B LAYOUT AND DIMENSION PLAN
1" = 5'-0"

NORTH 0 2.5 5 10 FEET



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

NORTH 0 5 10 20 FEET

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

L301
LAYOUT AND DIMENSION PLANS

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1	ADDENDUM #1	08 29/2024
2	ADDENDUM #2	09 05/2024

SHEET NAME:
LAYOUT AND DIMENSION PLANS

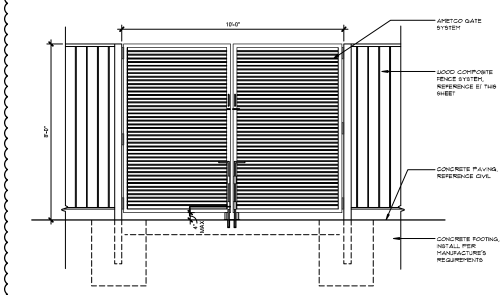
SHEET NUMBER:
L301

blue river ARCHITECTS
A Native American Owned Firm
STATE OF OKLAHOMA Jeremy Brian Carlisle No. [illegible] Tulsa, OK LICENSED ARCHITECT
09.05.2024

CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

19244 COUNTRY CLUB DRIVE, CATOOSA, OK 74015

L502 DETAILS



F MECHANICAL ENCLOSURE GATE DETAIL
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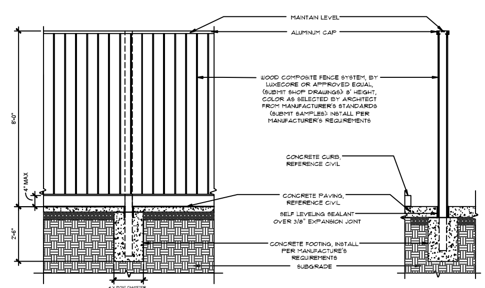
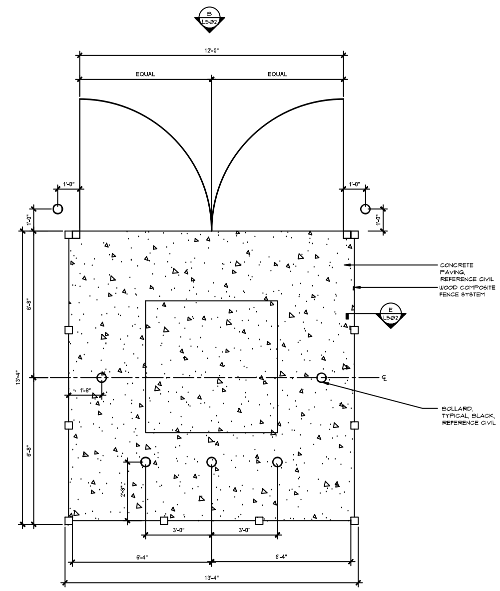


E WOOD COMPOSITE WALL SECTION DETAIL
1/2" = 1'-0"



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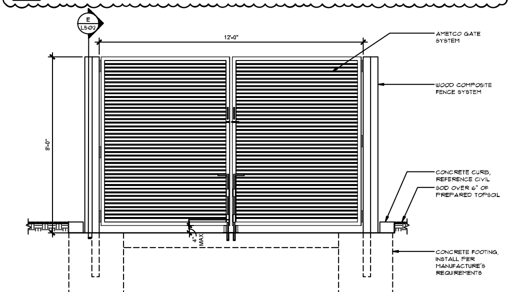

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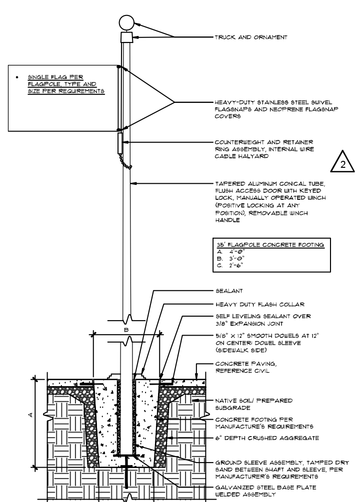

C FLAGPOLE DETAIL
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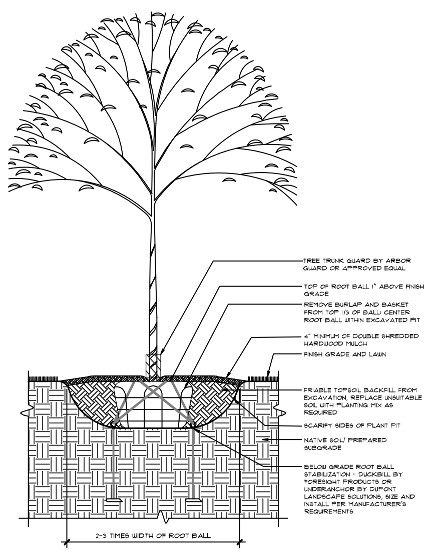

D DUMPSTER ENCLOSURE PLAN DETAIL
1/2" = 1'-0"

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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

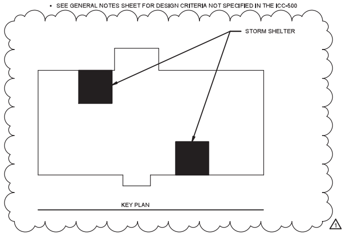
   - HAZARD 1 - MAIN BUILDING ROOF — 30 PSF
   - FALLING DEBRIS FROM MAIN BUILDING ROOF SHALL BE APPLIED UNIFORMLY OVER THE ENTIRE SHELTER ROOF.
   - SEE SHELTER PLAN FOR LOCATION AND EXTENTS OF OTHER LAYDOWN AND FALLING DEBRIS HAZARDS
   - EACH LAYDOWN AND FALLING DEBRIS HAZARD SHALL BE CONSIDERED ONE 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 MISSLE 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. E.W. 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 8 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 REQURIEMENTS 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 1/6 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 SLAB-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

PROFESSIONAL STRUCTURAL ENGINEER
ANDREW M. KERN
22250
OKLAHOMA
09/03/2024

wallace design collective
OK CA #1460, EXP 06/30/2025

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

S003
GENERAL NOTES STORM SHELTER

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
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SHEET NAME:
GENERAL NOTES STORM SHELTER

SHEET NUMBER:
S003

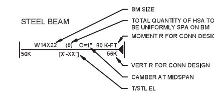
ROOF FRAMING PLAN SHEET NOTES

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 MEP DWGS FOR SIZE AND LOCATION. CONTACT ARCHITECT AND IF 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 OCCUR UP TO 1'-0" AWAY FROM LOCATION SHOWN. LOADS SHOWN ARE SERVICE LEVEL VALUES WHICH SHALL BE FACTORED PER THE INTERNATIONAL BUILDING CODE FOR USE WITH THE LRFD STRENGTH DESIGN METHOD. REF THE TYP ROOF TOP UNIT AND DECK SUPPORT DTL. 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 SYMBOLS

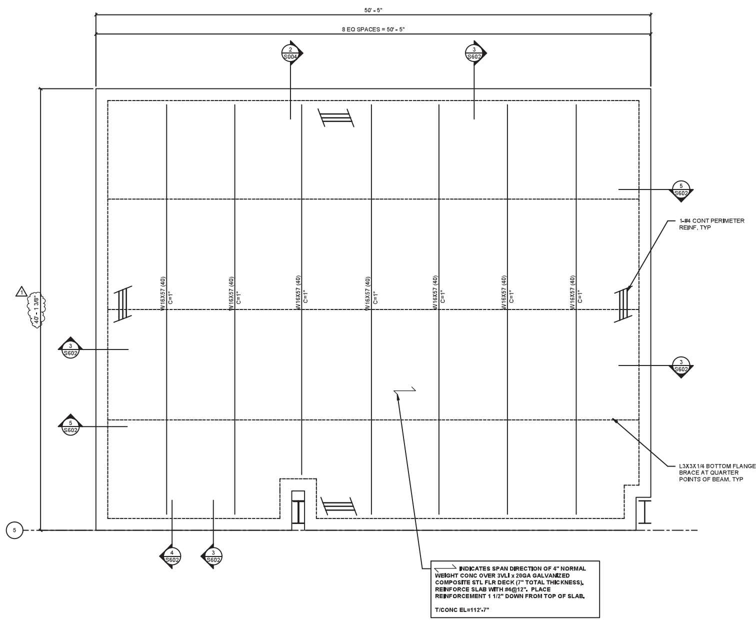


FRAMING PLAN SHEET NOTES:

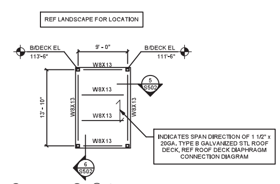
1. BEAMS ARE EQUALLY SPACED BETWEEN COL LINES UNO.
2. REF ARCH DWGS FOR DIMENSIONS NOT INDICATED. COORD SLAB ELEVATIONS, SLAB EDGES, AND SLAB SLOPES WITH ARCH PLANS.
3. CONDUIT IN SLAB IS NOT PERMITTED.
4. DO NOT CUT CONTROL JOINTS IN SLAB ON METAL DECK.

STORM SHELTER FRAMING PLAN REFERENCE NOTES:

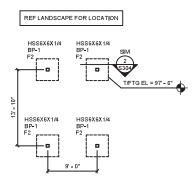
A. REF S601 AND S602 FOR STORM SHELTER DETAILS



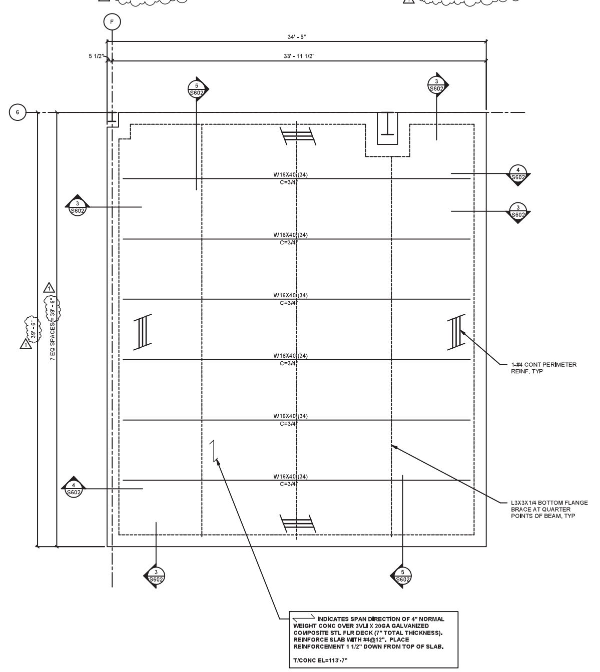
3 ROOF FRAMING PLAN - STORM SHELTER
1/4" = 1'-0"



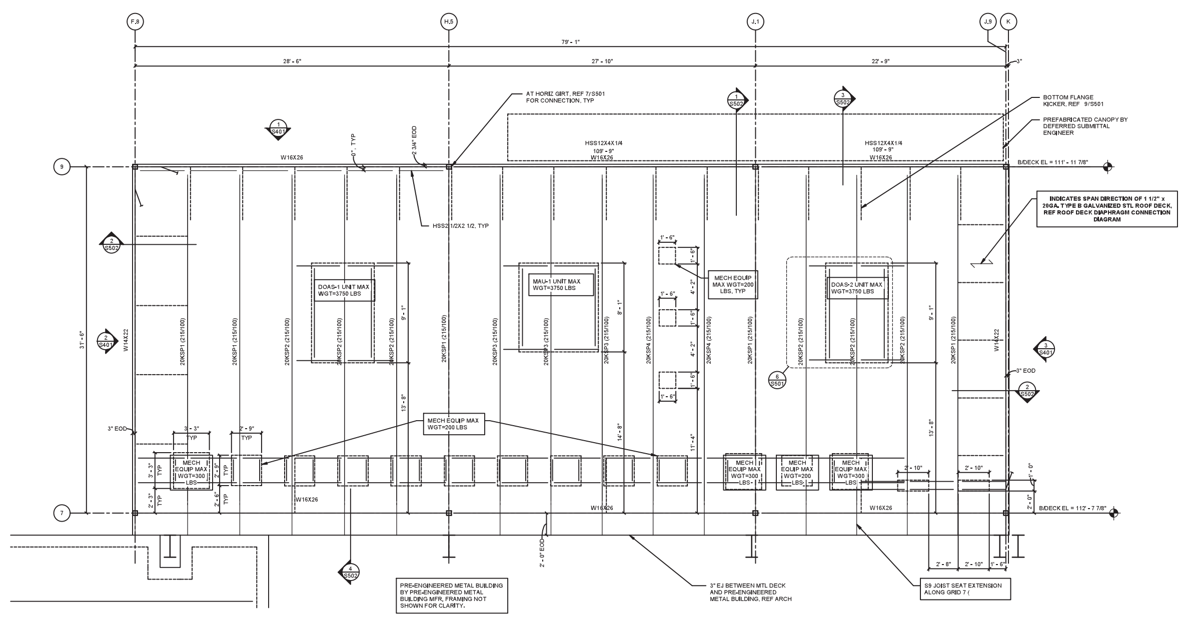
5 ROOF FRAMING PLAN
1/8" = 1'-0"



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



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



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

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ANDREW M. KERN 22250 OKLAHOMA 09/03/2024

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CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

19244 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

S201
PARTIAL PLANS

blueriver ARCHITECTS
A Native American Owned Firm

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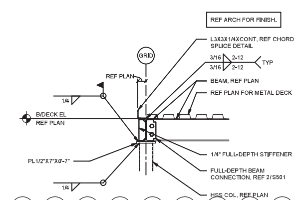
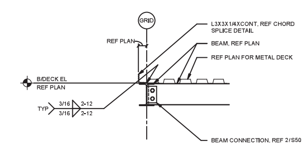
SHEET NAME: PARTIAL PLANS

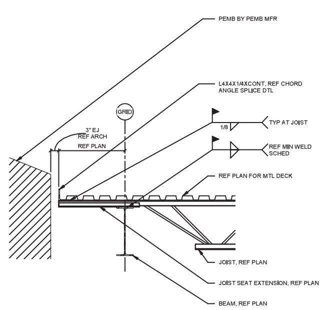
SHEET NUMBER: S201



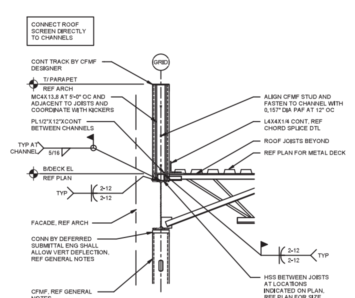
6 GREEN ROOF DETAIL
3/4" = 1'-0"



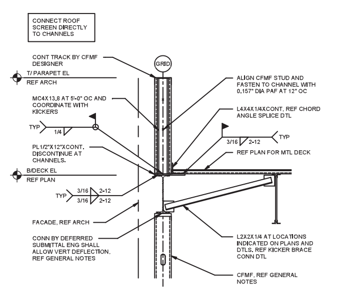
5 GREEN ROOF DETAIL
3/4" = 1'-0"



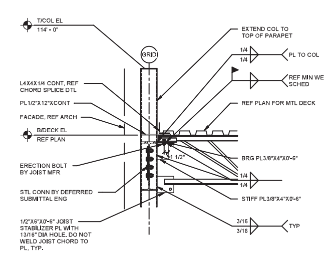
4 FRAMING DETAIL
3/4" = 1'-0"



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. KERN 22250 OKLAHOMA PROFESSIONAL STRUCTURAL ENGINEER 09/03/2024

wallace design collective

OK CA #1460, EXP 06/30/2025

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

S502
ROOF FRAMING DETAILS

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BLUE RIVER PROJECT NUMBER
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OTHER ISSUE DATES

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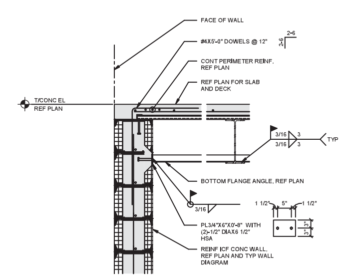
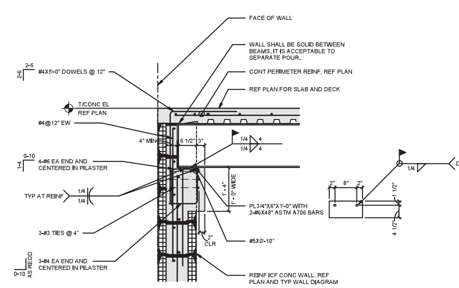
1	Addendum 2	09/05/2024

SHEET NAME
ROOF FRAMING DETAILS

SHEET NUMBER
S502

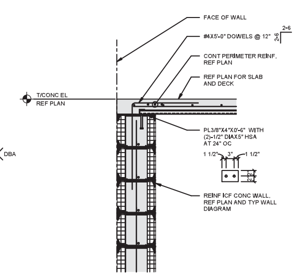


5 FRAMING DETAIL
3/4" = 1'-0"

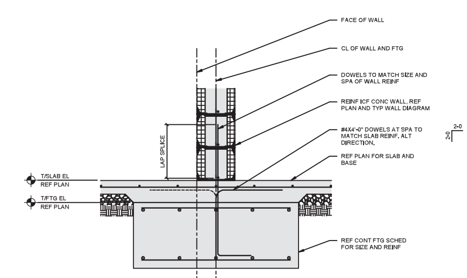


NOTES:
1. TOP FACE OF PILASTER TO BE LEFT OPEN FOR VERIFICATION OF CONSOLIDATION AFTER CONC HAS BEEN POURED, MAY BE CLOSED AFTER CONSOLIDATION IS VERIFIED.

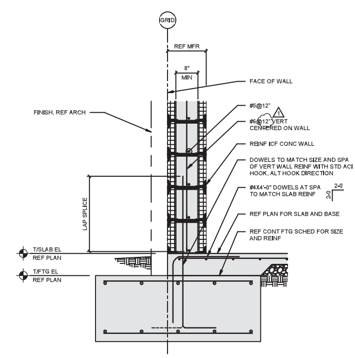
4 FRAMING DETAIL
3/4" = 1'-0"



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"

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ANDREW M. KERN 22259 OKLAHOMA — PROFESSIONAL STRUCTURAL ENGINEER
09/03/2024

wallace design collective
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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BLUE RIVER PROJECT NUMBER
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1	Addendum 2	09/05/2024

SHEET NAME
STORM SHELTER DETAILS

SHEET NUMBER
S602

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
P123A	2"	DIRECT DRAIN	DISPOSER	WALL	10"	BTC
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
P250	12" SQ.	FLOOR SINK	DISHMACHINE	FLOOR	0"	BTC
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.

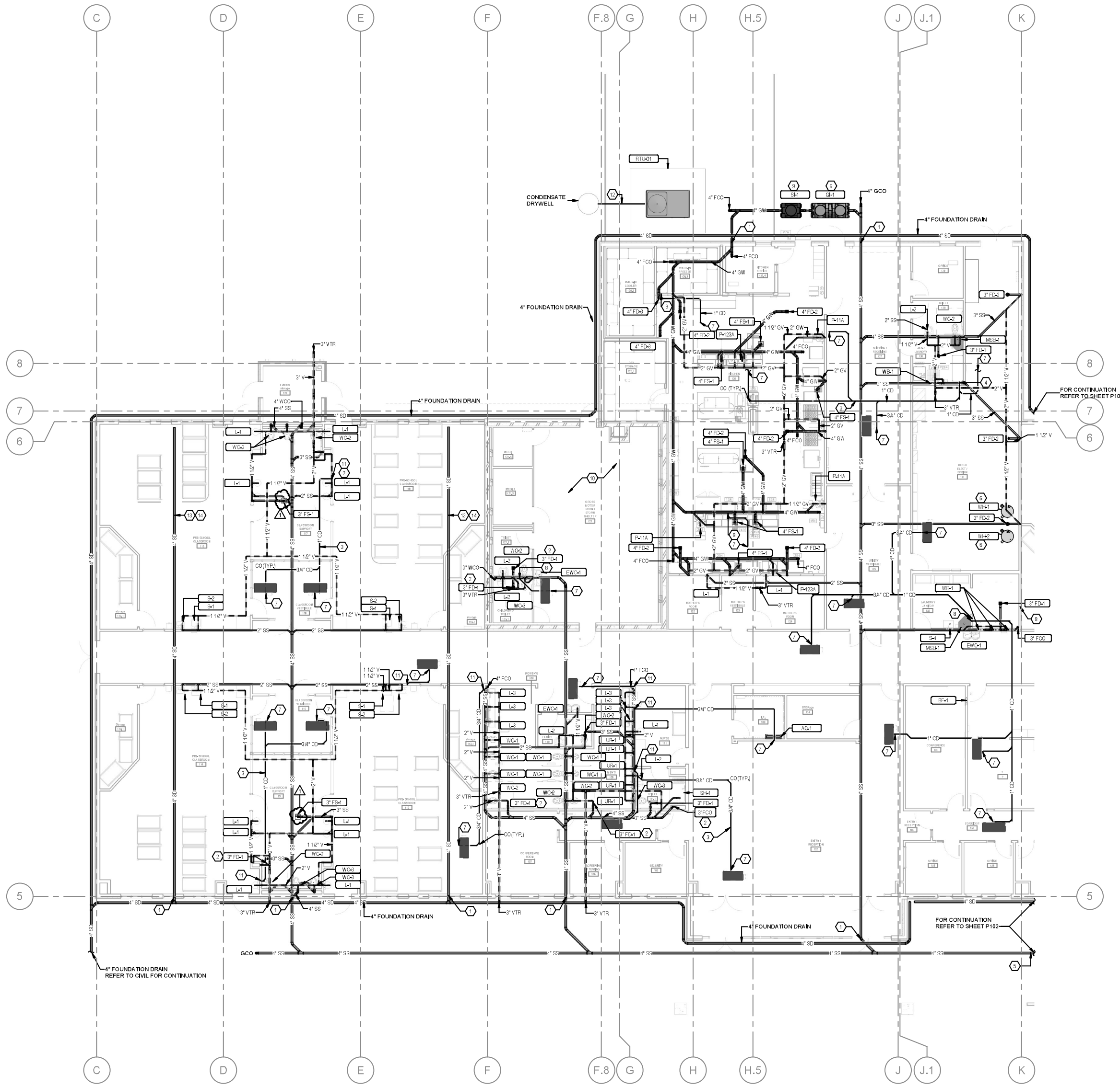
REFER TO PLUMBING RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON PLAN.

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, TOWARD 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 H20 TRAFFIC LOAD RATED COVER. PROVIDE FIELD CUT RISERS 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 306.3.
11 ROUTE 1" CONDENSATE DOWN IN WALL AND CONNECT TO LAVATORY TAILPIECE.
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 P300.
13 UNDER-SLAB DRAINS TO CONNECT TO PERIMETER FOUNDATION DRAIN, REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS, ALL RECOMMENDATIONS ARE TO BE FOLLOWED.
14 UNDERSLAB DRAIN TO BE A MAXIMUM OF 25' APART. COORDINATE WITH SANITARY PIPING, DO NOT ROUTE UNDERSLAB DRAINS NEAR RESTROOMS OR KITCHEN SANITARY MAINS.



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

NORTH

blue river ARCHITECTS
A Native American Owned Firm

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

P101
PLUMBING PLAN - WASTE & VENT - AREA A

blueriver ARCHITECTS
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BLUE RIVER PROJECT NUMBER:
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PLUMBING PLAN - WASTE & VENT - AREA A

SHEET NUMBER:
P101

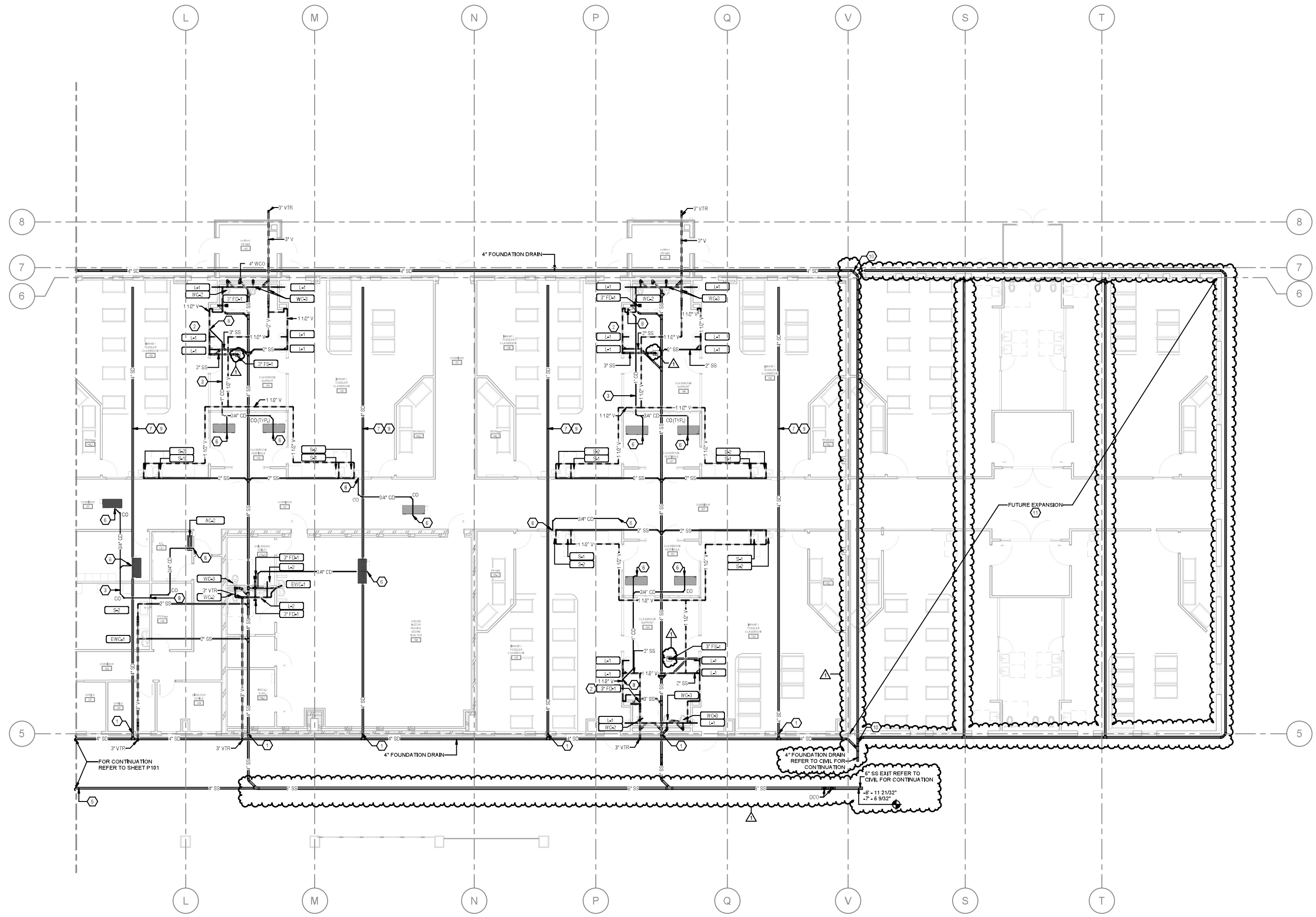
REFER TO PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL WASTE, WATER, AND VENT RUNOUTS.

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 OVERHEAD CONDENSATE DRAIN SLOPE AT 1/8" PER FOOT, TOWARD APPROVED RECEPTOR. INSULATE PIPING SIMILAR TO DOMESTIC WATER INSULATION.
5 FOR CONTINUATION REFER SHEET P101.
6 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 UNDER-SLAB 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 DRAINS 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"

NORTH

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

P102
PLUMBING PLAN - WASTE & VENT - AREA B

blueriver ARCHITECTS
A Native American Owned Firm

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1	Addendum 2	2024-09-05

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

SHEET NUMBER:
P102

FDP PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS
FOOD SERVICE PLUMBING SCHEDULE						
						<varies>
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	18"	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	FLOOR	10"	BTC: RE: NOTE #3
P161	(2)3/4"	NATURAL GAS	CONVECTION OVEN	WALL	18"/36"	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	15"/45"	BTC: RE: NOTE #3
P162C	(2) 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: 106.5 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 W.FILTER 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 - 215 MBTU/HR

LOCATE VALVES IN ACCESSIBLE AREAS OR PROVIDE ACCESS PANEL AT CEILING OR WALL. VERIFY WITH 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.

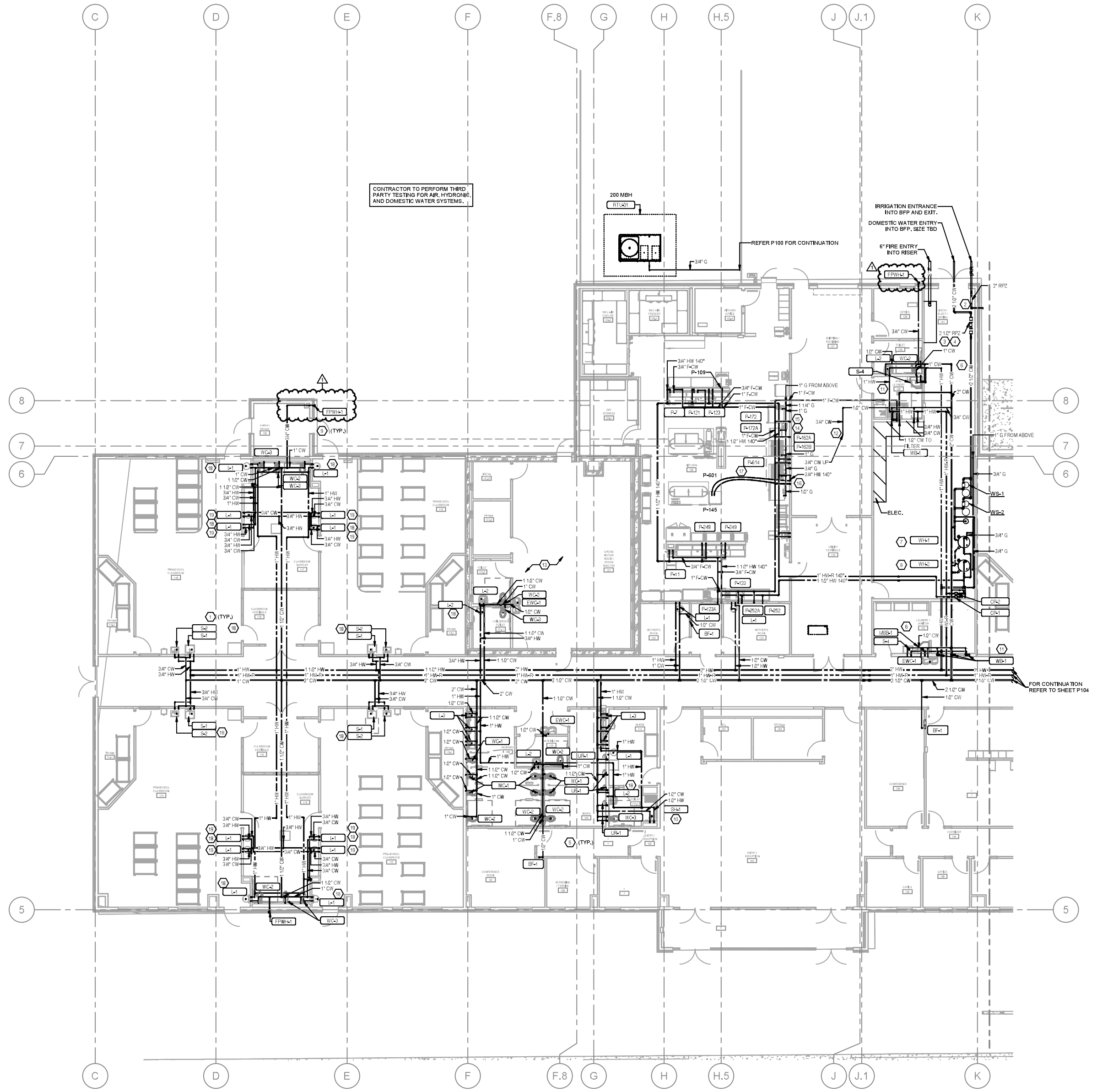
REFER TO PLUMBING RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON PLAN.

PROVIDE ALL PRESSURE REGULATOR WITH VENT LIMETER 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. ROUTE IRRIGATION PIPING TO EXTERIOR AS REQUIRED. COORDINATE SIZE, ROUTING, AND CONNECTION REQUIREMENTS WITH IRRIGATION DESIGNER AND EQUIPMENT SUPPLIER.
3. PROVIDE 2-1/2" CW LINE AS SHOWN. PROVIDE BACKFLOW PREVENTER AND ANY OTHER REQUIRED EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. FIELD VERIFY PRESSURE AND PROVIDE PRESSURE 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 T&P 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 T&P TO FLOOR DRAIN AND TERMINATE WITH AIR GAP.
9. ROUTE 3/4" CW TO FREEZE PROOF WALL HYDRANT. INSTALL 18" A.F.F. PROVIDE SHUT-OFF VALVE ON WALL HYDRANT IN ACCESSIBLE LOCATION. PROVIDE ACCESS PANELS WITH CEILING OR WALL AND CONFIRM APPEARANCE AND LOCATION WITH ARCHITECT.
10. PROVIDE 1/2" CW & HW 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 MP101 FOR CONTINUATION.
13. ANY PIPE PENETRATION OF STORM SHELTER GREATER THAN 2" IN DIAMETER SHALL BE PROTECTED AS AN OPENING IN ACCORDANCE WITH ICC 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. 1-1/2" 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 MARSHAL. EXTEND GAS DOWN FOR COOKING APPLIANCES TO FULL SIZE MANIFOLD AT 36" ABOVE FINISHED FLOOR, INSTALLED TIGHT TO WALL.
15. PROVIDE SHUT-OFF 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 PIPE RUNS BELOW SLAB.
18. CHILD-HEIGHT MOUNTING PER ARCHITECT, REFER TO G001 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"

NORTH

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

P103
PLUMBING PLAN - WATER & GAS - AREA A

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
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PLUMBING PLAN - WATER & GAS - AREA A

SHEET NUMBER:
P103

LOCATE VALVES IN ACCESSIBLE AREAS OR PROVIDE ACCESS PANEL AT CEILING OR WALL. VERIFY WITH 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.

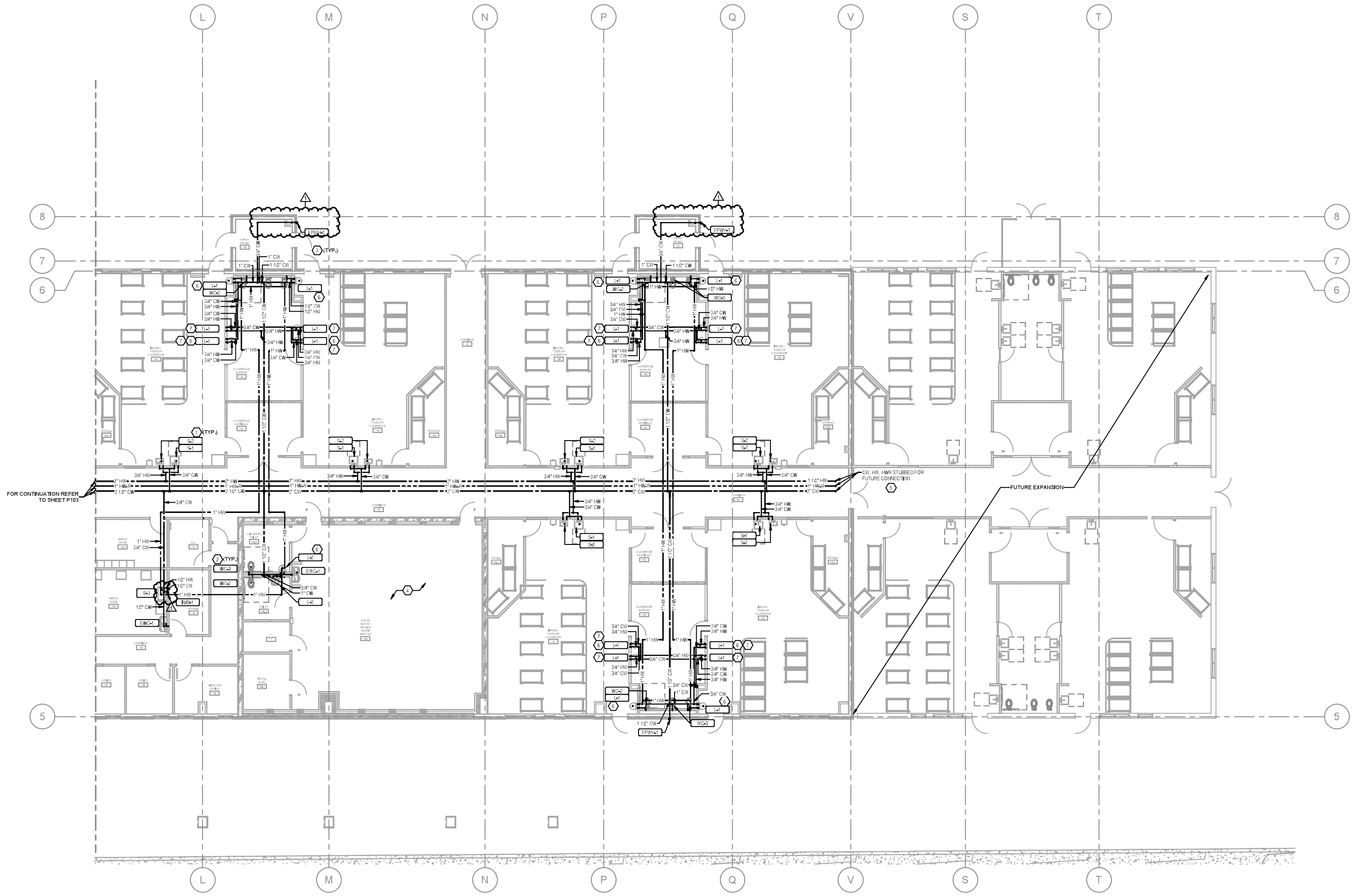
REFER TO PLUMBING RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON PLAN.

PROVIDE ALL PRESSURE REGULATOR WITH VENT LIMETER 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 18" A.F.F. PROVIDE SHUT-OFF VALVE ON WALL HYDRANT IN ACCESSIBLE LOCATION, PROVIDE ACCESS PANELS 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 SECTION 306.3.
5. CW, HW, AND HWR STUBBED FOR FUTURE CONNECTION. CAP PIPING AND PROVIDE SHUT-OFF VALVE.
6. CHILD-HEIGHT MOUNTING PER ARCHITECT, REFER TO G001 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"

NORTH

blue river ARCHITECTS
A Native American Owned Firm

REGISTERED PROFESSIONAL ENGINEER ABDOU JAAFAR 18906 OKLAHOMA

CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

P104
PLUMBING PLAN - WATER & GAS - AREA B

blueriver ARCHITECTS
A Native American Owned Firm

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SHEET NAME
PLUMBING PLAN - WATER & GAS - AREA B

SHEET NUMBER
P104

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 3, "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 12'-0" INTERVALS. LOCATE ON SIDES OF DUCT 1'-1/2" INCHES MINIMUM FROM BOTTOM, AND FIT WITH GREASE - TIGHT COVERS OF SAME MATERIAL AS DUCT.

F. DO NOT PENETRATE FIRE-RATED ASSEMBLIES.

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

H. PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES AND DISTANCES FOR SERVICE. PROVIDE CODE APPROVED DISTANCES OF FRESH AIR INTAKE INTO UNITS AWAY FROM ANY FLUE OR 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 RESERVOIR 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 0" 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 VENDOR, 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 609.2)

THE AUTOMATIC FIRE EXTINGUISHING SYSTEM FOR COMMERCIAL COOKING SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH UL300. (IFC 904.1)

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)

KIT/BLDG BALANCING CHART

MARK	EXHAUST	TRANSFER	MAKE-UP
DEF-01	1200		
KEF-01	1850		
KEF-02	1850		0
MAU-03			3600
RTU-1			700
TOTAL	4900	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 MECHANCIAL. MECHANICAL CONTRACTOR SHALL WIRE FOR FAN SHUT-DOWN. ALARM CONTRACTOR WILL BE RESPOSIBLE 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-1)

MARK	OA (CFM)
FCU-1	355
FCU-2	355
FCU-3	355
FCU-4	355
FCU-5	50
FCU-6	330
FCU-7	90
FCU-8	0
FCU-9	75
FCU-10	50
FCU-11	120
FCU-12	125
FCU-13	110
FCU-14	45
FCU-15	130
FCU-16	185
FCU-17	80
FCU-18	60
FCU-19	55

KEYNOTES

1 COORDINATE EXACT ROUTING OF DUCTWORK WITH ALL STRUCTURAL, PLUMBING AND ALL OTHER TRADES. FIELD VERIFY EXACT ROUTING PRIOR TO CONSTRUCTION. (TYPICAL)
2 DUCT DOWN TO DIFFUSER PLENUM, REFER TO DETAIL ON SHEET M300
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 WATERTIGHT SECONDARY DRAIN PANS UNDER ENTIRE UNIT. PROVIDE IN-THE-PAN FLOAT SWITCH FOR FAN SHUT-OFF UPON LEAK DETECTION. EXTEND DRAIN LINE TO AHJ APPROVED RECEPTOR.
5 MOUNT DUCTLESS WALL AC UNIT AS HIGH ASPOSSIBLE BELOW LAY-IN CEILING. COORDINATE FINAL LOCATION WITH ROOM EQUIPMENT PRIOR TO INSTALLATION. FINAL DUCTLESS UNIT LOCATION TO BE COORDINATED WITH ON IT AND EQUIPMENT LAYOUT FOR OPTIMUM AIR DISTRIBUTION.
6 EXTEND REFRIGERATION LINES TO ASSOCIATED CONDENSING UNIT ON ROOF. SIZE AND INSTALL PIPING PER MANUFACTURER'S RECOMMENDATIONS.
7 MOUNT TOP OF THERMOSTAT 48" A.F.F. 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 ARHCITECTURAL APPROVED DRYER WALL CAP.
9 CONNECT OUTSIDE AIR DUCT TO RETURN AIR DUCT. PROVIDE MANUAL DAMPER AND BALANCE TO LISTED CFM. REFER TO OUTSIDE AIR TABLE THIS SHEET.
10 MOUNT SIDE WALL DIFFUSERS ON DUCT AT AN ANGLE OF 30 DEGREES. REFER TO DETAIL ON SHEET M400.
11 PROVIDE VOLUME DAMPER WITH REMOTE OPERATED CABLE ACCESSIBLE FROM FACE OF LINEAR DIFFUSER.
12 PROVIDE FIRE DAMPERS FOR ALL PENETRATIONS ON SAFE ROOM FIRE RATED WALLS/FLOORS. (TYPICAL)
13 MOUNT BOTTOM OF OUTSIDE AIR INTAKE LOUVER AT 12'-4" A.F.F.
14 MOUNT BOTTOM OF EXHAUST LOUVER AT 12'-10" 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 CWVSO SERIES WALL SHROUD AT DUCT PENETRATION INTO STORM SHELTER
17 PROVIDE VCD-40 MOTORIZED DAMPER (120V/1/60). INTERLOCK DAMPER WITH ASSOCIATED EXHAUST FAN. (LV-9 TO BE INTERLOCKED WITH EF-5)
18 14" EXHAUST DUCT UP TO KEF-1 ON ROOF
19 14" EXHAUST DUCT UP TO KEF-2 ON ROOF
20 EXHAUST DUCT UP TO DEF-1 ON ROOF
21 PROVIDE CAPTIVEAIRE DI-PSP DIFFUSER AND BALANCE TO 600 CFM. INSTALL PER MANUFACTURER'S INSTRUCTIONS, MAINTAIN A MINIMUM OF 2' FROM HOOD.
22 MAU DUCT FROM MAU-1 ON ROOF
23 EXTEND REFRIGERANT PIPING FROM CONDENSING UNIT TO INDOOR UNIT PER MANUFACTURER INSTALLATION RECOMENDATION.
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 DISCHARGE HORIZONTALLY FROM RTU-1 GOING UP EXTERIOR OF BUILDING AND PENETRATE ABOVE KITCHEN CEILING. PAINT DUCTWORK TO MATCH COLOR OF EXTERIOR OF BUILDING.
26 ROUTE 6"X4" EXHAUST DUCT DOWN IN CHASE TO EXHAUST GRILLE. MOUNT CENTER OF EXHAUST GRILLE AT 2'-4" A.F.F.

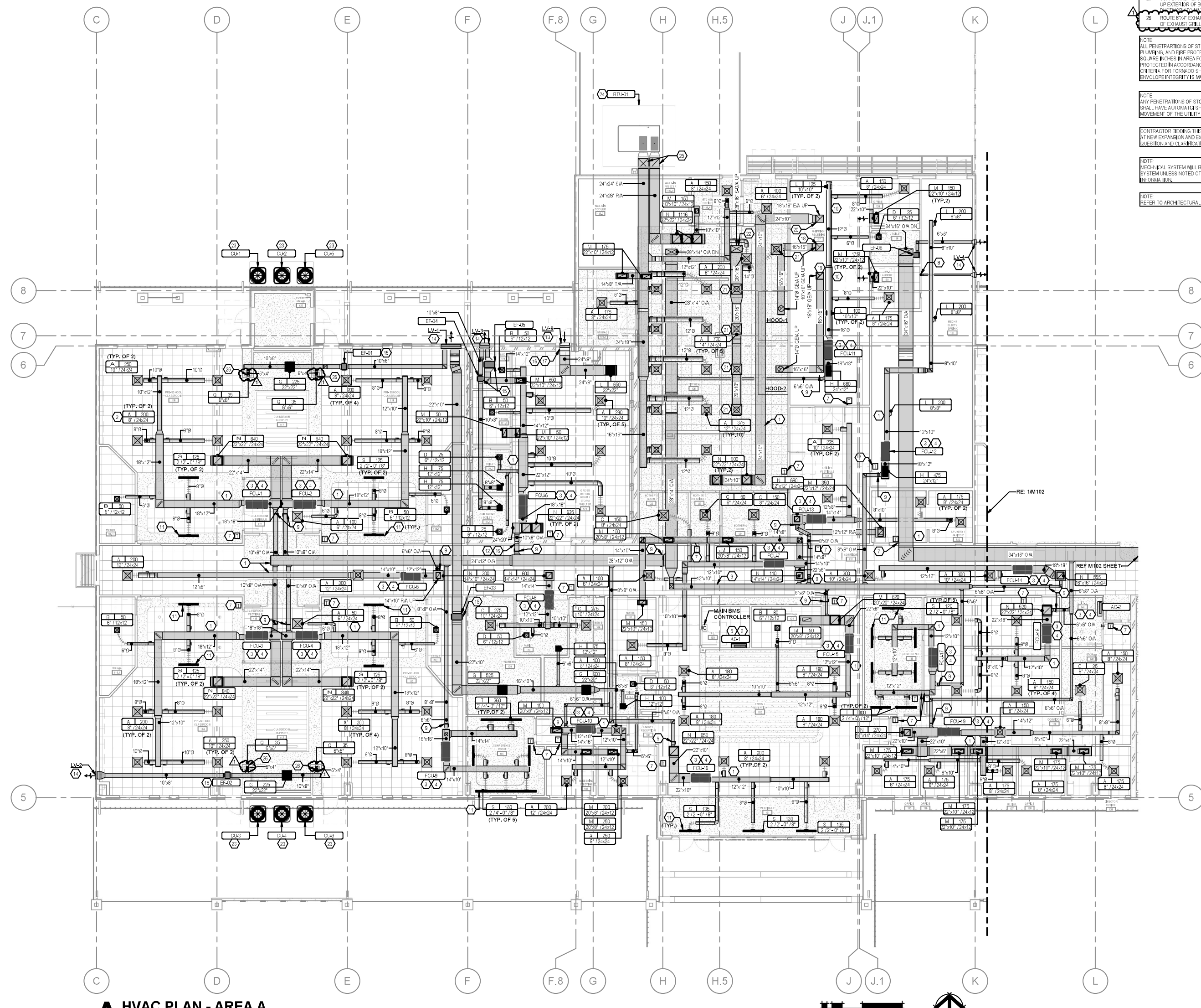
NOTE:
ALL PENETRARTIONS OF STORM SHELTER ENVELOPE (OF MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS) INCLUDING UTILITY LINES LARGER THAN 3-1/2" SQUARE INCHES IN AREA FOR RECTANGULAR PENETRATIONS OR 2-1/16" DIAMETER, SHALL BE PROTECTED IN ACCORDANCE WITH ICC SECTION 306.3. REFER TO TABLE 305.1.1 FOR MISSILE CRITERIA FOR TORNADO SHELTERS AND INSTALL PENETRATIONS SO THAT THE SHELTER ENVOLOPE INTEGRITY IS MAINTAINED.

NOTE:
ANY PENETRATIONS OF STORM SHELTER ENVOLOPE BY HAZARDOUS GAS OR LIQUID LINES SHALL HAVE AUTOMATCI 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 AT NEW EXPANSION AND EXISTING BUILDING. CONTACT ENGINEER FOR ADDITIONAL QUESTION AND CLARIFICATION.

NOTE:
MECHNICAL SYSTEM WILL BE CONTROLLED AND MONITORED BY BUILDING MANAGMENT 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"

blue river ARCHITECTS
A Native American Owned Firm

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

M101
HVAC PLAN - AREA A

blueriver ARCHITECTS
A Native American Owned Firm

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.

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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

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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.
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13 PROVIDE VCD-40 MOTORIZED DAMPER (120V/1/60). INTERLOCK DAMPER WITH ASSOCIATED EXHAUST FAN. (LV-8 TO BE INTERLOCKED WITH EF-8,)
14 EXTEND REFRIGERANT PIPING FROM CONDENSING UNIT TO INDOOR UNIT PER MANUFACTURER INSTALLATION RECOMENDATION.
15 ROUTE 6"X4" EXHAUST DUCT DOWN IN CHASE TO EXHAUST GRILLE. MOUNT CENTER OF EXHAUST GRILLE AT 2'-4" A.F.F.

NOTE:
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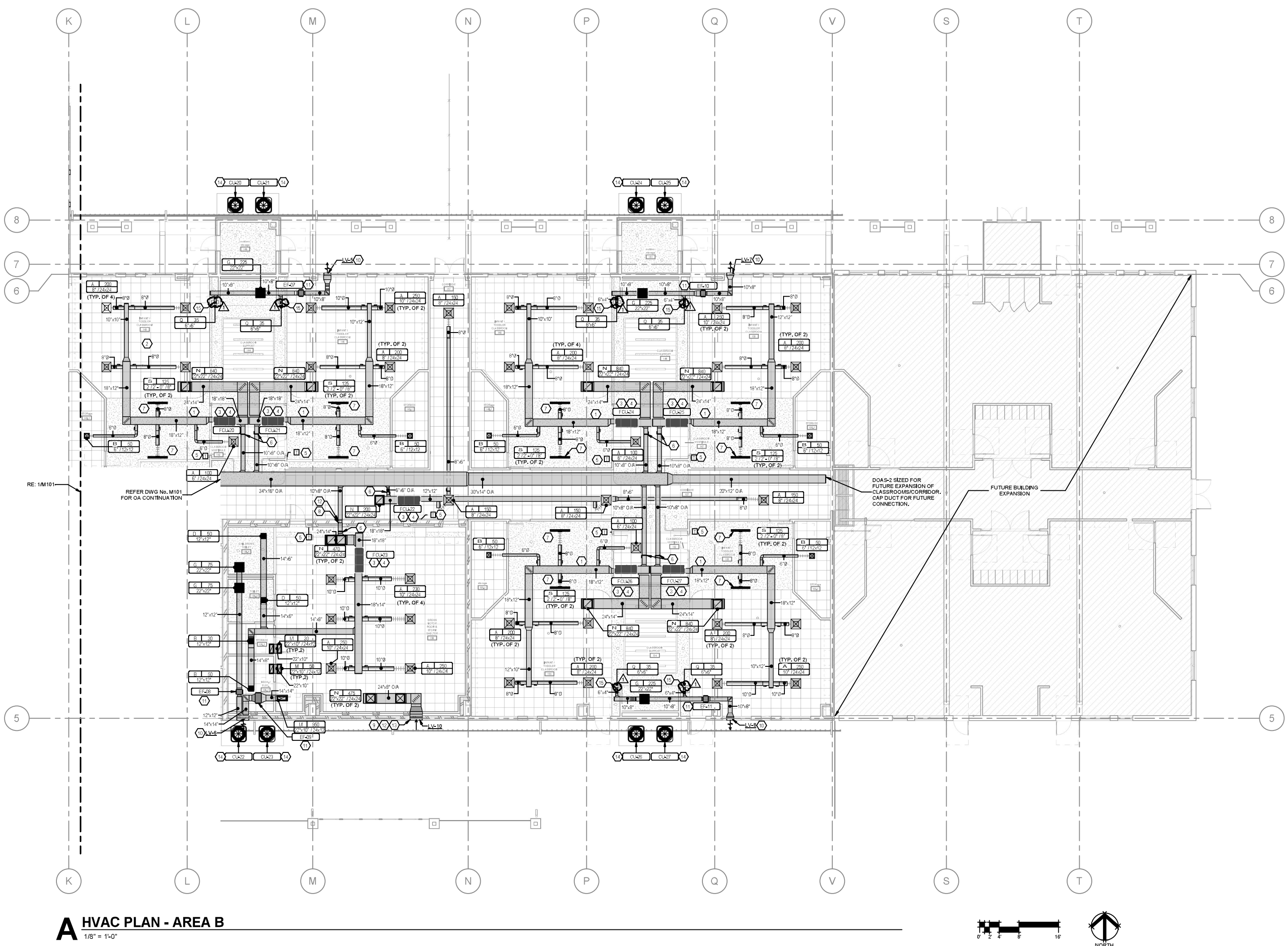

A HVAC PLAN - AREA B
1/8" = 1'-0"

NORTH

CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

M102
HVAC PLAN - AREA B

blue river ARCHITECTS
A Native American Owned Firm

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HVAC PLAN - AREA B

SHEET NUMBER:
M102

CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

E000 ELECTRICAL TITLE SHEET

ELECTRICAL SYMBOL LEGEND

DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION
WALL MOUNTED FLOODLIGHT (TYPE DENOTED)	MULTIOUTLET ASSEMBLY	TELEPHONE OUTLET (TYPE DENOTED)	ELECTRIC STRIKE
RECESSED LIGHT (TYPE DENOTED)	CLOCK	WALL TELEPHONE OUTLET (TYPE DENOTED)	MAGNETIC LOCK
POLE MOUNTED LIGHT (TYPE DENOTED)	POWER POLE (OPEN OFFICE STYLE)	INFORMATION OUTLET (TYPE DENOTED)	COMBINATION LOCK
POLE MOUNTED FLOODLIGHT (TYPE DENOTED)	SURGERY SERVICE COLUMN	WIRELESS ACCESS POINT	DOOR CONTACTS
SURFACE LINEAR LIGHT (TYPE DENOTED)	STATIC GROUND RECEPTACLE	TELEVISION OUTLET	CARD READER
SUSPENDED OR PENDANT LIGHT (TYPE DENOTED)	LIGHTNING PROTECTION AIR TERMINAL	BELL	KEYPAD
RECESSED LINEAR LIGHT (TYPE DENOTED)	LIGHTNING PROTECTION CONDUCTOR SPLICE	BUZZER	MOTION DETECTOR
STRIP LIGHT (TYPE DENOTED)	GROUND ROD (PLAN VIEW)	CHIME	NURSE CALL EMERG. STATION
TRACK AND TRACK LIGHT (TYPES DENOTED)	UTILITY SERVICE POWER POLE (SITE)	DOOR SIGNAL - APT. UNIT	NURSE CALL CODE BLUE EMERG. STATION
EMERGENCY BATTERY LIGHT (TYPE DENOTED)	SPECIAL RECEPT. OR CONN.	SPEAKER (WALL OR CEILING MT.)	NURSE CALL DUTY STATION
EXIT SIGN (TYPE DENOTED)	JUNCTION BOX	HORN TYPE SPEAKER	NURSE CALL STAFF STATION
LIGHT FIXTURE ON (EM) LIFE SAFETY BRANCH	PULL BOX	VOLUME CONTROL	NURSE CALL SINGLE PATIENT STATION
LIGHT FIXTURE ON (EM) CRITICAL BRANCH	CIRCUIT BREAKER PANEL	MICROPHONE OUTLET	NURSE CALL DUAL PATIENT STATION
LIGHT ON CORD REEL (TYPE DENOTED)	POWER OR DISTRIBUTION PANEL	FIRE ALARM HORN W/STROBE (CANDELAS)	NURSE CALL DOME LIGHT (2 LAMP)
LIGHTING CHANNEL WIRE (TYPE DENOTED)	TRANSFORMER	FIRE ALARM BELL	CCTV CAMERA
SINGLE POLE SW.	MOTOR	FIRE ALARM BELL W/STROBE (CANDELAS)	CCTV CAMERA WITH PAN/TILT DRIVE
2 POLE SINGLE THROW SW.	COMB. MOTOR STARTER (FUSED)	FIRE ALARM CHIME W/STROBE (CANDELAS)	KEYED NOTE (SEE SCHEDULE)
3-WAY SW.	SAFETY DISC. SW. (NON-FUSED)	FIRE ALARM STROBE (CANDELAS)	TWO WAY COMMUNICATION SYSTEM
4-WAY SW.	SAFETY DISC. SW. (FUSED)	FIRE ALARM SPEAKER W/STROBE (CANDELAS)	
KEYED SW.	BUS DUCT WITH PLUG IN DISCONNECT (FUSED)	FIRE ALARM REMOTE ANNUNCIATOR	
SW. W/PILOT	RELAY	SMOKE DETECTOR	
DIMMER SWITCH	ENCLOSED CIRCUIT BREAKER	SMOKE/CO DETECTOR	
OCCUPANCY SENSOR SWITCH	PRESSURE SWITCH	HEAT DETECTOR	
OCCUPANCY SENSOR /DIMMER SWITCH	FLOAT SWITCH	LINEAR HEAT DETECTOR	
MOMENTARY CONTACT SWITCH	OCCUPANCY SENSOR	DUCT SMOKE DETECTOR	
MOTOR SWITCH	LIGHT LEVEL SENSOR	REMOTE TEST/STATUS STATION	
TIME DELAY SWITCH	POWERPACK	FLAME DETECTOR	
PUSH BUTTON	PHOTOCELL	GAS DETECTOR	
SINGLE RECEPT.	TIME CONTROL SWITCH (TIME SWITCH)	F.A. PULLSTATION	
DUPLEX RECEPT.	HUMIDISTAT	F.A. ZONE ADDRESSABLE MODULE	
SPLIT DUPLEX RECEPT.	THERMOSTAT	F.A. INDIVIDUAL ADDRESSABLE MODULE	
ISOLATED GROUND RECEPT (DUPLEX SHOWN)	SOLENOID VALVE	F.A. DOOR HOLDER	
RECEPT ON EMERGENCY CKT (DUPLEX SHOWN)	HALFTONE SYMBOL INDICATES EXISTING	F.A. DOOR CLOSER	
FOURPLEX RECEPT.	DASHED SYMBOL INDICATES REMOVED	FIRE ALARM SHUT DOWN RELAY	
FOURPLEX RECEPTACLE ON EMERGENCY CIRCUIT		SPRINKLER FLOW SWITCH	
240 VOLT RECEPT.		SPRINKLER VALVE TAMPER SWITCH	
FLOOR RECEPT. (DUPLEX SHOWN)		SPRINKLER LEVEL SWITCH	
RECEPT ON DROP CORD (DUPLEX SHOWN)		SPRINKLER PRESSURE SWITCH	
RECEPT ON CORD REEL (DUPLEX SHOWN)		SPRINKLER TEMPERATURE SWITCH	

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 "b".

EXIT LIGHTS. STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S). 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: SPLIT DUPLEX RECEPTACLE IS CONNECTED TO CIRCUIT 16 AND ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH "c".

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

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 FIRE RATED FIXTURES BEARING 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.

GFCI PROTECTION

A. ALL SINGLE-PHASE RECEPTACLES THAT ARE 50 AMPERES OR LESS, RATED 150 VOLTS TO GROUND OR LESS, AND ALL THREE-PHASE RECEPTACLES THAT ARE 100 AMPERES OR LESS, RATED 150 VOLTS TO GROUND OR LESS IN BATHROOMS, KITCHENS, ROOFTOPS, OUTDOORS, WET LOCATIONS, LOCKER ROOMS, GARAGES, UNFINISHED BASEMENTS, AND WITHIN 6FT OF SINKS TO BE GFCI AND IN READILY ACCESSIBLE LOCATION. IF READILY 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 406.12(1) THROUGH (7) SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
(1) DWELLING UNITS IN ALL AREAS SPECIFIED IN 210.52 AND 550.13
(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 DESCRIBED IN 518.2 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 (5½ 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), (A)(7), OR (A)(8)
(4) NONGROUNDING RECEPTACLES USED FOR REPLACEMENTS AS PERMITTED IN 406.4(D)(2)(A)

WEATHER-RESISTAN 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
A	AMPERE	CU	COPPER
AC	ABOVE COUNTER OR AIR CONDITIONER	DCP	DOMESTIC WATER CIRCULATING PUMP
ACLG	ABOVE CEILING	DEPT	DEPARTMENT
ADO	AUTOMATIC DOOR OPENER	DET	DETAIL
AF	AMP FRAME	DIA	DIAMETER
AFF	ABOVE FINISHED FLOOR	DISC	DISCONNECT
AFG	ABOVE FINISHED GRADE	DIST	DISTRIBUTION
AFI	ARC FAULT CIRCUIT INTERRUPTER	DN	DOWN
AHU	AIR HANDLING UNIT	DPR	DAMPER
AL	ALUMINUM	DS	SAFETY DISCONNECT SWITCH
ALT	ALTERNATE	DT	DOUBLE THROW
AMP	AMPERE	DWG	DRAWING
AMPL	AMPLIFIER	EC	ELECTRICAL CONTRACTOR
ANNUN	ANNUNCIATOR	ELEC	ELECTRIC, ELECTRICAL
APPROX	APPROXIMATELY	ELEV	ELEVATOR
AQ-STAT	AQUASTAT	EM	EMERGENCY
ARCH	ARCHITECT, ARCHITECTURAL	EMS	ENERGY MANAGEMENT SYSTEM
AS	AMP SWITCH	EMT	ELECTRICAL METALLIC TUBING
AT	AMP TRIP	EP	ELECTRIC PNEUMATIC
ATS	AUTOMATIC TRANSFER SWITCH	EQUIP	EQUIPMENT
AUTO	AUTOMATIC	EWC	ELECTRIC WATER COOLER
AUX	AUXILIARY	EXIST	EXISTING
AV	AUDIO VISUAL	EXH	EXHAUST
AWG	AMERICAN WIRE GAUGE	EXP	EXPLOSION PROOF
BATT	BATTERY	FA	FIRE ALARM
BD	BOARD	FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL
BLDG	BUILDING	FACP	FIRE ALARM CONTROL PANEL
BMS	BUILDING MANAGEMENT SYSTEM	FCU	FAN COIL UNIT
C	CONDUIT	FIXT	FIXTURE
CAB	CABINET	FLR	FLOOR
CAT	CATALOG	FLUOR	FLUORESCENT
CATV	CABLE TELEVISION	FU	FUSE
CB	CIRCUIT BREAKER	FUDS	FUSED SAFETY DISCONNECT SWITCH
CCTV	CLOSED CIRCUIT TELEVISION	GA	GAUGE
CKT	CIRCUIT	GAL	GALLON
CLG	CEILING	GALV	GALVANIZED
COMB	COMBINATION	GC	GENERAL CONTRACTOR
CMPR	COMPRESSOR	GEN	GENERATOR
CONN	CONNECTION	GFI	GROUND FAULT CIRCUIT INTERRUPTER
CONST	CONSTRUCTION	GFP	GROUND FAULT PROTECTOR
COIT	CONTINUATION OR CONTINUOUS	GND	GROUND
CONTR	CONTRACTOR	GRS	GALVANIZED RIGID STEEL (CONDUIT)
CONV	CONVECTOR	GYP BD	GYPSUM BOARD
CP	CIRCULATING PUMP	HOA	HANDS-OFF-AUTOMATIC SWITCH
CRT	CATHODE-RAY TUBE	HORIZ	HORIZONTAL
CT	CURRENT TRANSFORMER	HP	HORSEPOWER
		HPF	HIGH POWER FACTOR

HT	HEIGHT	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
HTG	HEATING	NFDS	NON-FUSED SAFETY DISCONNECT SWITCH
HTR	HEATER	NIC	NOT IN CONTRACT
HV	HIGH VOLTAGE	NL	NIGHT LIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	N.O.	NORMALLY OPEN
HWP	HYDRONIC WATER PUMP	NPF	NORMAL POWER FACTOR
IC	INTERRUPTING CAPACITY	NTS	NOT TO SCALE
IG	ISOLATED GROUND	OH	OVERHEAD
IMC	INTERMEDIATE METAL CONDUIT	OL	OVERLOADS
INCAND	INCANDESCENT	PA	PUBLIC ADDRESS
IR	INFRARED	PB	PULL BOX OR PUSHBUTTON
IW	INTERLOCK WITH	PE	PNEUMATIC ELECTRIC
J-BOX	JUNCTION BOX	PED	PEDESTAL
KV	KILOVOLT	PF	POWER FACTOR
KVA	KILOVOLT-AMPERE	PH	PHASE
KVAR	KILOVOLT-AMPERE REACTIVE	PIV	POST INDICATING VALVE
KW	KILOWATT	PNL	PANEL
KWH	KILOWATT HOUR	PP	POWER POLE
LOC	LOCATE OR LOCATION	PR	PAIR
LT	LIGHT	PRI	PRIMARY
LTG	LIGHTING	PROJ	PROJECTION
LTNG	LIGHTNING	PRV	POWER ROOF VENTILATOR
LV	LOW VOLTAGE	PT	POTENTIAL TRANSFORMER
MAX	MAXIMUM	PVC	POLYVINYL CHLORIDE (CONDUIT)
MAG.S	MAGNETIC STARTER	PWR	POWER
MC	MOMENTARY CONTACT	QUAN	QUANTITY
MC	MECHANICAL CONTRACTOR	RCPT	RECEPTACLE
MCB	MAIN CIRCUIT BREAKER	REQD	REQUIRED
MCC	MOTOR CONTROL CENTER	RM	ROOM
MDC	MAIN DISTRIBUTION CENTER	RSC	RIGID STEEL CONDUIT
MDP	MAIN DISTRIBUTION PANEL	RTU	ROOF TOP UNIT
MFR	MANUFACTURER	SC	SURFACE CONDUIT
MFS	MAIN FUSED DISCONNECT SWITCH	SEC	SECONDARY
MH	MANHOLE	SHT	SHEET
MIC	MICROPHONE	SIM	SIMILAR
MIN	MINIMUM	S/N	SOLID NEUTRAL
MISC	MISCELLANEOUS	SPEC	SPECIFICATION
MLO	MAIN LUGS ONLY	SPKR	SPEAKER
MMS	MANUAL MOTOR STARTER	SP	SPARE
MOA	MULTIOUTLET ASSEMBLY	SR	SURFACE RACEWAY
MSP	MOTOR STARTER PANELBOARD	SS	STAINLESS STEEL
MSBD	MAIN SWITCHBOARD	SSW	SELECTOR SWITCH
MT	MOUNT	S/S	STOP/START PUSHBUTTONS
MT.C	EMPTY CONDUIT	STA	STATION
MTS	MANUAL TRANSFER SWITCH	STD	STANDARD
MTR	MOTOR, MOTORIZED	SURF	SURFACE MOUNTED
N.C.	NORMALLY CLOSED	SW	SWITCH
NEC	NATIONAL ELECTRICAL CODE		

SWBD	SWITCHBOARD
SYM	SYMMETRICAL
SYS	SYSTEM
TEL	TELEPHONE
TEL/DATA	TELEPHONE/DATA
TERM	TERMINAL
TL	TWIST LOCK
TR	TAMPER RESISTANT
T-STAT	THERMOSTAT
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TVTC	TELEVISION TERMINAL CABINET
TYP	TYPICAL
UC	UNDER COUNTER
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UH	UNIT HEATER
UT	UNDERGROUND TELEPHONE
UTIL	UTILITY
UV	UNIT VENTILATOR OR ULTRAVIOLET
V	VOLT
VA	VOLT-AMPERES
VDT	VIDEO DISPLAY TERMINAL
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WATT
W/	WITH
WG	WIRE GUARD
WH	WATER HEATER
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER
∠	ANGLE
@	AT
Δ	DELTA
'	FEET
"	INCHES
#	NUMBER
Ø	PHASE
℄	CENTER LINE
P	PLATE

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 PATIENT BED 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 6" 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:

1/2"C	TV OUTLETS
1/2"C	VOLUME CONTROLS
1/2"C	NURSE CALL DOME LIGHTS
3/4"C	NURSE CALL DEVICES
3/4"C	TELEPHONE OUTLETS
1"C	INFORMATION OUTLETS
3/4"C	FIRE ALARM DEVICES

ELECTRICAL DRAWINGS

INDEX OF ELECTRICAL DRAWINGS

LIGHTING FIXTURE SCHEDULE

TYPE	CONSTRUCTION: DESCRIPTION	MOUNTING	LIGHT SOURCE: LAMP	LUMENS DOWN	LUMENS UP	CCT	CRI	ELECTRICAL: BALLAST/DRIVER	VOLT	WATTS	EMERGENCY COMPONENT	PRODUCT: MFR	CATALOG NUMBER	NOTE
A1	2x2 LED Flat Panel	LAY-IN	LED	5063 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	39 W	–	METALUX	22CGTX-45-L835-HCD	–
A1E	2x2 LED Flat Panel W/EMERGENCY TRANSFER RELAY	LAY-IN	LED	5063 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	39 W	GENERATOR TRANSFER RELAY	METALUX	22CGTX-45-GTRD-L835-HCD	–
A2	2x2 LED Flat Panel Integrated Sensor	LAY-IN	LED	5063 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	39 W	–	METALUX	22CGTX-45-L835-HCD-WAB	–
A2E	2x2 LED Flat Panel W/EMERGENCY TRANSFER RELAY Integrated Sensor	LAY-IN	LED	5063 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	39 W	GENERATOR TRANSFER RELAY	METALUX	22CGTX-45-GTRD-L35-HCD-WAB	–
B	2x2 LED Basket	LAY-IN	LED	3900 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	31 W	–	METALUX	22CZ2 39 UNV L835 CD1 U	–
C1	RIBBON LED	SURFACE	LED	6220 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	80 W	-	ACOLYTE	RB 90 AC12065 4.035 CHDACPSWSC	6
D6	6FT LINEAR RECESSED LED	PENDANT	LED	4000 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	60 W	–	LUMENWERX	VIA4PPAT D HLO FH SW 80 1000LMF 35K 4FT0IN UNV D1 1C DTL XX	–
D10	10FT LINEAR RECESSED LED	RECESSED	LED	10000 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	60 W	–	ACOLYTE	RB-0-AC12065-3.0RGB/DMXINF120RGB/	–
D13	13FT LINEAR RECESSED LED	RECESSED	LED	13000 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	113 W	–	LUMENWERX	VIA4PPAT D HLO FH SW 80 1000LMF 35K 13FT0IN UNV D1 1C DTR XX	–
EM1	LED Emergency Egress Light	WALL	–	100 lm	0 lm	4000 K	0	LED DRIVER	120 V	30 W	-	SURE-LITES	ASWPLED1S	1,5
EX	EDGE LIT EXIT SIGN	UNIVERSAL	LED	0 lm	0 lm	[illegible]	0	LED DRIVER	120 V	4 W		SURE-LITES	[illegible]	1,4
P1	63" ROUND PENDANT	PENDANT	LED	9025 lm	0 lm	3000 K	80	LED DRIVER, 0-10V DIMMABLE, 1%	120 V	126 W		AXO LIGHT	US ULA 160 LED AN XX 3000K	7
Q	SIMULATED WINDOW LIGHT	RECESSED		2230 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMABLE, 1%	120 V	27 W		LIGHTGLASS	S-18X48-C-2-35K-1-WX	
R1	6" Downlight 2000/3000/4000 3000K/3500K/4000K	RECESSED	LED	2000 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	35 W	–	HALO	PR6FS12D010	–
R1E	6" Downlight 2000/3000/4000 3000K/3500K/4000K W/EMERGENCY TRANSFER RELAY	RECESSED	LED	2000 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	35 W	GENERATOR TRANSFER RELAY	HALO	PR6FS12D010 GTDU	–
R2	6" Downlight 2000/3000/4000 3000K/3500K/4000K Integrated Sensor	RECESSED	LED	2000 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	35 W	–	HALO	PR6FS12D010WTK	–
R2E	6" Downlight 2000/3000/4000 3000K/3500K/4000K Integrated Sensor W/EMERGENCY TRANSFER RELAY	RECESSED	LED	2000 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	40 W	GENERATOR TRANSFER RELAY	HALO	PR6FS12D010WTK GTDU	–
R4	4FT LINEAR RECESSED LED	RECESSED	LED	4000 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	47 W	–	LUMENWERX	VIAWET-TMG+HLO-LED-80-1000-35K-4FT	5
S4	4' LED Strip	MULTI	LED	4511 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING	120 V	38 W	–	METALUX	4SNLED-LD5-44SL-LW-UNV-L835-CD1	–
S4E	4' LED Strip W/W/EMERGENCY TRANSFER RELAY	MULTI	LED	4511 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING	120 V	38 W	GENERATOR TRANSFER RELAY	METALUX	4SNLED-LD5-44SL-LW-UNV-GTR2-L835-CD1	–
S8	8' LED Strip	MULTI	LED	9022 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING	120 V	75 W	–	METALUX	8SNLED-LD5-88SL-LW-UNV-L835-CD1	–
S8E	8' LED Strip W/W/EMERGENCY TRANSFER RELAY	MULTI	LED	9022 lm	0 lm	3500 K	80	LED DRIVER, 0-10V DIMMING	120 V	75 W	GENERATOR TRANSFER RELAY	METALUX	8SNLED-LD5-88SL-LW-UNV-GTR2-L835-CD1	–
SA2	DOUBLE HEAD 90 DEGREE LIGHT POLE 25'-0" POLE	Pole	LED	21003 lm	0 lm	3500 K	70	LED DRIVER, 0-10V DIMMING	208 V	320 W		Cooper Lighting	GALN-SA3C-735-U-T4W-BK-WLS4BK / SSS5A25SYN5	5
SB1	SINGLE HEAD LIGHT POLE 25'-0" POLE	Pole	LED	21966 lm	0 lm	3500 K	70	LED DRIVER, 0-10V DIMMING	208 V	160 W		Cooper Lighting	GALN-SA3C-735-U-5WQ-BK-WLS4BK / SSS5A25SYN1	5
SC1	SINGLE HEAD LIGHT POLE 25'-0" POLE	Pole	LED	15113 lm	0 lm	3500 K	70	LED DRIVER, 0-10V DIMMING	208 V	160 W		Cooper Lighting	GALN-SA3C-735-U-T4FT-HSS-BK-WLS4BK / SSS5A25SYN1	5
SD1	SINGLE HEAD LIGHT POLE 25'-0" POLE	Pole	LED	17177 lm	0 lm	3500 K	70	LED DRIVER, 0-10V DIMMING	208 V	160 W		Cooper Lighting	GALN-SA3C-735-U-SL2-HSS-BK-WLS4BK / SSS5A25SYN1	5
SF1	LED BOLLARD	GRADE ANCHOR	LED	4672 lm	0 lm	4000 K	70	LED DRIVER	120 V	36 W		SOLERA	SRB6D-36LED-4672-4000K-UNV-ABT-LVR-TY5-BL	5,7
SG	FLAG POLE LIGHT	FLAGPOLE	LED	9500 lm	0 lm	3000 K	70	LED DRIVER, 0-10V DIMMING, 1%	120 V	90 W	–	POLELED	O2	5
SH	LINEAR SIGNAGE LIGHT	WALL	LED	11800 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	208 V	98 W	–	ALCON	31029 8 96 8 35K XX 010	5
V	4FT LINEAR RECESSED LED	RECESSED	LED	4137 lm	0 lm	4000 K	80	LED DRIVER, 0-10V DIMMING, 1%	120 V	47 W	–	LUMENWERX	VIAWET-TMG+HLO-LED-80-1000-40-4FT	5
W1	Wall Area Light 8353lm	WALL	LED	8353 lm	0 lm	4000 K	70	LED DRIVER	120 V	67 W		STREETWORKS	GWS-SA1F-740-U-T4W-W	5
W2	Wall Area Light 8353lm	WALL	LED	8353 lm	0 lm	4000 K	70	LED DRIVER	120 V	67 W		STREETWORKS	GWS-SA1F-740-U-T4FT-W	5

NOTES:
1. COORDINATE WITH ARCHITECTECT 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 (5) ADDITIONAL EXIT LIGHTS
5. FIXTURE SHALL BE U.L. LISTED AND LABELED FOR WET LOCATIONS
6. CONTRACTOR TO PROVIDE AND INSTALL ALL REQUIRED COMPONENTS FOR A COMPLETE AND WORKING SYSTEM
7. VERIFY WITH ARCHITECT FOR DECORATIVE FIXTURES

blue river ARCHITECTS A Native American Owned Firm

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

BLUE RIVER PROJECT NUMBER: 20230011
ISSUE DATE: 08/16/24
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OTHER ISSUE DATES:
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1 Addendum 2 2024-09-05

SHEET NAME: ELECTRICAL TITLE SHEET
SHEET NUMBER: E000

KEYNOTES

1. CLASSROOM LIGHT FIXTURES PROVIDED WITH MOTION/DAYLIGHT WIRELESS SENSORS. LIGHTS TO TURN OFF 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. VIA EMERGENCY INVERTER LOCATED IN MECH 121.4
4. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND LENGTH OF COVE 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 MOUNTINGbHEIGHTS 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 CONDUIT SIZES SHALL BE DETERMINED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
9. WIRING DEVICES:
   A. SWITCHES +46"
   B. RECEPTACLES +18"
   C. VOICE/DATA +18"
10. EXIT SIGN MOUNTING:

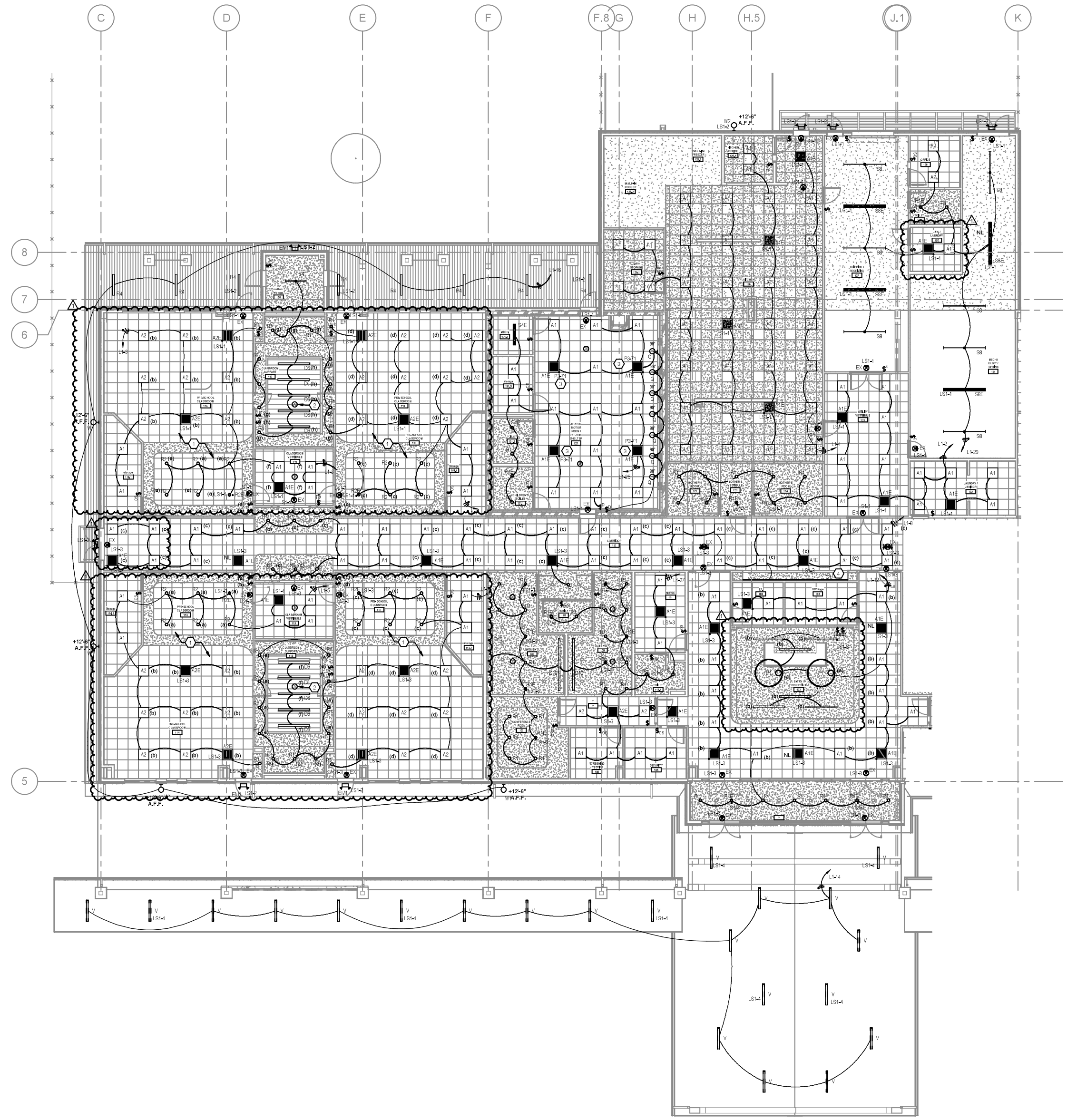
    A. WALL FIXTURE: CENTER 12" ABOVE DOOR OPENIG

    B. CEILING/PENDANT FIXTURE: ON CEILING OR AT HEIGHT SPECIFIED ON DRAWINGS
11. EXIT SIGNS, 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 SIZE 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 +10'-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 +9'-0", UNLESS NOTED OTHERWISE AND BATTERY PACK MOUNTED ON INTERIOR SIDE OF WALL 12" BELOW FINISHED CEILING OR AT BAR JOIST IN AREAS OF EXPOSED STRUCTURE.



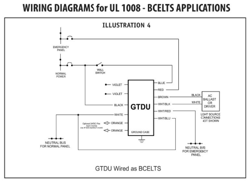
A FIRST FLOOR LIGHTING PLAN (AREA A)
1/8" = 1'-0"

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.**

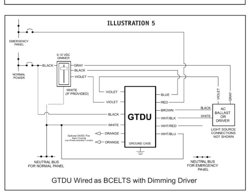
WIRING DIAGRAMS for UL 1008 - BCELTS APPLICATIONS

ILLUSTRATION 4



GTDU Wired as BCELTS

ILLUSTRATION 5



GTDU Wired as BCELTS with Dimming Driver

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

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

E101A
LIGHTING PLAN - AREA A

blue river ARCHITECTS
A Native American Owned Firm

BLUE RIVER PROJECT NUMBER:
20230011

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

SHEET NAME:
LIGHTING PLAN - AREA A

SHEET NUMBER:
E101A

blue river
ARCHITECTS
A Native American Owned Firm

KEYNOTES

1 CLASSROOM LIGHT FIXTURES PROVIDED WITH MOTION/DAYLIGHT WIRELESS SENSORS. LIGHTS TO TURN OFF 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 ~~VIA EMERGENCY INVERTER LOCATED IN MECH [illegible]~~
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 MOUNTINGbHEIGHTS 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 CONDUIT SIZES SHALL BE DETERMINED BY ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.
9 WIRING DEVICES:
A. SWITCHES +46"
B. RECEPTACLES +18"
C. VOICE/DATA +18"
10 EXIT SIGN MOUNTING:

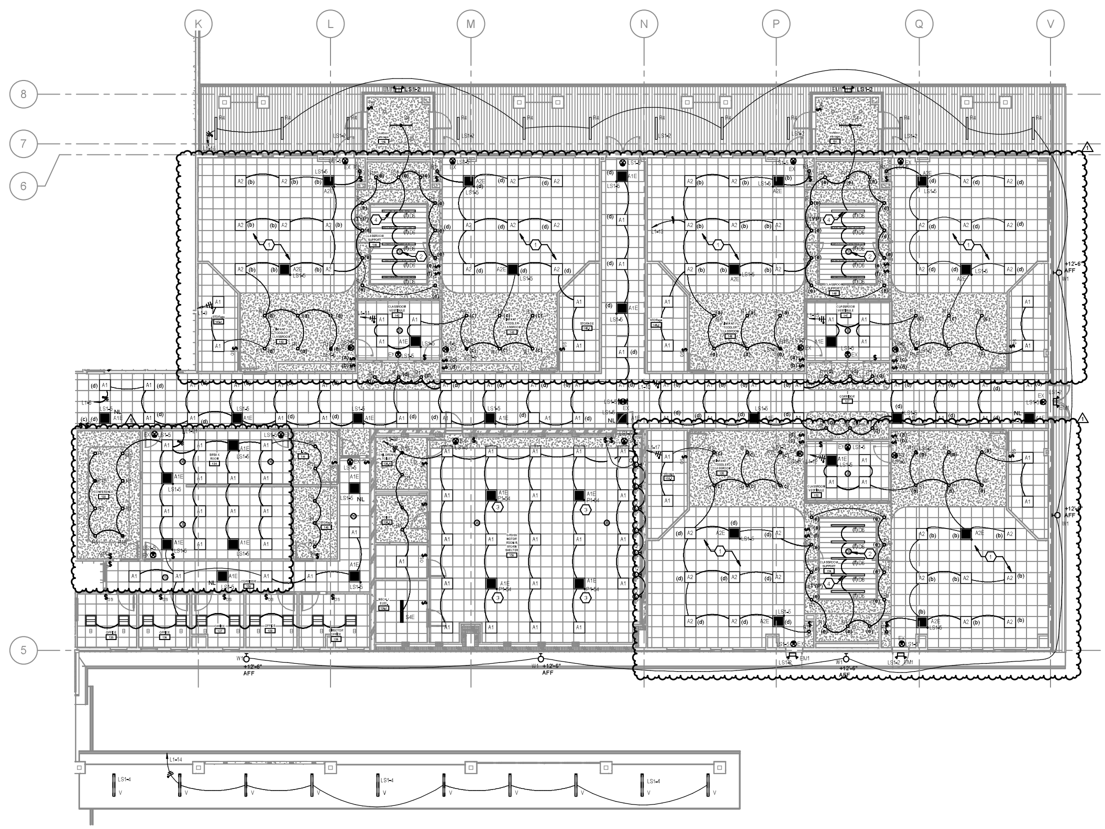
A. WALL FIXTURE: CENTER 12" ABOVE DOOR OPENIG

B. CEILING/PENDANT FIXTURE: ON CEILING OR AT HEIGHT SPECIFIED ON DRAWINGS
11 EXIT SIGNS, 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 SIZE 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 +10'-0" IN AREAS OF EXPOSED STRUCTURE, UNLESS NOTED OTHERWISE.

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

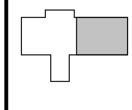
C. REMOTE HEAD FIXTURE: HEADS CENTERED ABOVE DOOR OPENING +9'-0", UNLESS NOTED OTHERWISE AND BATTERY PACK MOUNTED ON INTERIOR SIDE OF WALL 12" BELOW FINISHED CEILING OR AT BAR JOIST IN AREAS OF EXPOSED STRUCTURE.



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

0' 2' 4' 8' 16'

NORTH



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 | Phases: 3 | Wires: 4
A.I.C. Rating: 22K | Mains Type: MLO | Mains Rating: 400.0 A

Notes:

CKT	Circuit Description	# of Poles	Trip Rating	Load
1	PANELBOARD "KCP"	3	125.0 A	31209 VA
2	PANELBOARD "L1"	3	200.0 A	35583 VA
3	PANELBOARD "P1"	3	125.0 A	50362 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	–	–
				122294 VA
				339.5 A

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	5784 VA	100.00%	5784 VA		
RCPT	30074 VA	66.63%	20037 VA	Total Conn. Load:	122294 VA
LITES	406 VA	125.00%	508 VA	Total Est. Demand:	115751 VA
SPEC	10060 VA	100.00%	10060 VA	Total Conn.:	339.5 A
Lighting	38318 VA	125.00%	47897 VA	Total Est. Demand:	321.3 A
Lighting - Exterior	180 VA	125.00%	225 VA		
Kitchen Equipment - Non-Dwelling Unit	17825 VA	65.00%	11586 VA		
Refrigeration	**20409 VA**	**100.00%**	**20409 VA**		

Notes:

PANELBOARD: KCP

BUS AMPS: 225.0 A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: CP
AIC RATING: 10,000 AMPS SYMMETRICAL
SERVES:
MOUNTING: SURFACE
LOCATION: SHIPPING / RECEIVING 2205

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A	A	B	B	C	C	P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	WALK IN CLR LTG/HEATER (E102A)	GFEP	12	12	20	1	1920	4804					3	50	10	6		CONDENSING UNIT (E103)	2
3	WALK IN FZR LTG/HEATER (E102A)	GFEP	12	12	20	1			1920	4804									4
5	WALK IN CLR TEMP ALARM (E102B)		12	12	20	1					600	4804							6
7	WALK IN FRZR TEMP ALARM...		12	12	20	1	600	1200					1	20	12	12		WALK-IN CLR EVAP (E103D)	8
9	WALK IN CLR PRESS RELIEF...		12	12	20	1			600	1664			2	20	12	12		WALK-IN FRZR EVAP (E103C)	10
11	WALK IN FRZR PRESS RELIEF...		12	12	20	1					600	1664							12
13	WALK IN CLR PANIC ALARM (E102E)		12	12	20	1	1200	1920					1	20	12	12	GFEP	WALK-IN FRZR HEAT TRACE...	14
15	WALK IN FRZR PANIC ALARM...		12	12	20	1			1200	1440			1	20	12	12	GFI	ICE MACHINE (E109)	16
17	RCPT - KITCHEN OFFICE		12	12	20	1					540	540	1	20	12	12		RCPT - OFFICE 128	18
19	SPARE	–	–	–	20	1	0	0					1	20	–	–	–	SPARE	20
21	SPARE	–	–	–	20	1			0	0			1	20	–	–	–	SPARE	22
23	SPARE	–	–	–	20	1					0	0	1	20	–	–	–	SPARE	24
25	SPARE	–	–	–	20	1	0	0					1	20	–	–	–	SPARE	26
27	SPARE	–	–	–	20	1			0	0			1	20	–	–	–	SPARE	28
29	SPARE	–	–	–	20	1					0	0	1	20	–	–	–	SPARE	30
31	SPARE	–	–	–	20	1	0	0					1	20	–	–	–	SPARE	32
33	SPARE	–	–	–	20	1			0	0			1	20	–	–	–	SPARE	34
35	SPARE	–	–	–	20	1					0	0	1	20	–	–	–	SPARE	36
37	SPACE	–	–	–	–	1	–	–					1	–	–	–	–	SPACE	38
39	SPACE	–	–	–	–	1			–	–			1	–	–	–	–	SPACE	40
41	SPACE	–	–	–	–	1					–	–	1	–	–	–	–	SPACE	42
			TOTAL LOAD (VA):				11358 VA		11342 VA		8553 VA								
			TOTAL AMPS:				98.2 A		98.1 A		71.3 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Kitchen Equipme...	6240 VA	65.00%	4056 VA
Lighting	3840 VA	125.00%	4800 VA
Other	0 VA	0.00%	0 VA
RCPT	1080 VA	100.00%	1080 VA
Refrigeration	20409 VA	100.00%	20409 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
C# - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED/HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION
BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD:	31.2 kVA
TOTAL ESTIMATED DEMAND:	30.0 kVA
TOTAL CONNECTED CURRENT:	86.6 A
TOTAL ESTIMATED DEMAND CURRENT:	83.3 A

PANELBOARD: L1

BUS AMPS: 225.0 A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: CP
AIC RATING: 10,000 AMPS SYMMETRICAL
SERVES:
MOUNTING: SURFACE
LOCATION: MECH / ELECT / SPRINK 2136

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A	A	B	B	C	C	P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	LTG - CLASSRM 118/SUPPORT 117		10	10	20	1	1480	861					1	20	12	12	C1	LTG - UTILITY...	2
3	LTG - CLASSRM 116/VESTIBULE 119		10	10	20	1			835	1365			1	20	12	12	C1	LTG - KITCHEN	4
5	LTG - CLASSRM 114/VESTIBULE 115		10	10	20	1					835	1158	1	20	10	10	C1	LTG - CORRIDOR	6
7	LTG - CLASSRM 112/SUPPORT 113		10	10	20	1	1329	1690					1	20	10	10	C1	LTG - CORRIDOR	8
9	LTG - CLASSRM 143/SUPPORT 144		12	12	20	1			1397	795			1	20	10	10	C1	LTG - CORRIDOR	10
11	LTG - CLASSRM 142/VESTIBULE 145		12	12	20	1					830	1559	1	20	12	12	C1	LTG - VESTIBULE/ENTRY	12
13	LTG - CLASSRM 148/SUPPORT 149		10	10	20	1	1397	1034					1	20	10	10	C2	LTG - EXTERIOR CANOPIES	14
15	LTG - CLASSRM 142/VESTIBULE 145		10	10	20	1			830	1236			1	20	10	10	C2	LTG - EXTERIOR	16
17	LTG - CLASSRM 155/SUPPORT 154		10	10	20	1					1359	1475	1	20	10	10		LTG - CLASSRM 2151/SUPPORT...	18
19	LTG - CLASSRM 156/VESTIBULE 152		10	10	20	1	830	908					1	20	10	10		LTG - CLSSRM 2147/VESTIBULE...	20
21	LTG - BRK/CONF/OFFICES/IT 141		10	10	20	1			1623	795			1	20	10	10	C1	LTG - CORRIDOR	22
23	LTG - GROSS MOTOR RM 156		10	10	20	1					1339	1437	1	20	10	10		LTG - CLASSRM 2244/SUPPORT...	24
25	LTG - GROSS MOTOR		12	12	20	1	1028	908					1	20	10	10		LTG - CLSSRM 2241/VESTIBULE...	26
27	LTG - RR/NURSE/CONF/SEC/TEST		10	10	20	1			1568	604			2	20	8	8	C2	SITE LIGHTING	28
29	LTG - SHIP/MECH/ELEC/LAUNDRY		12	12	20	1					1051	604							30
31	SPARE	–	–	–	20	1	0	640					2	20	8	8	C2	SITE LIGHTING	32
33	SPARE	–	–	–	20	1			0	640									34
35	SPARE	–	–	–	20	1					0	360	1	20	8	8	C2	SITE BOLLARDS/FLAG POLES	36
37	SPACE	–	–	–	–	1	–	–					1	–	–	–	–	SPACE	38
39	SPACE	–	–	–	–	1			–	–			1	–	–	–	–	SPACE	40
41	SPACE	–	–	–	–	1					–	–	1	–	–	–	–	SPACE	42
			TOTAL LOAD (VA):				12042 VA		11585 VA		11957 VA								
			TOTAL AMPS:				100.8 A		96.5 A		100.1 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
LITES	406 VA	125.00%	508 VA
Lighting	34781 VA	125.00%	43476 VA
Lighting - Exterior	180 VA	125.00%	225 VA
Other	252 VA	100.00%	252 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
C# - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED/HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION
BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD:	35.6 kVA
TOTAL ESTIMATED DEMAND:	44.4 kVA
TOTAL CONNECTED CURRENT:	98.8 A
TOTAL ESTIMATED DEMAND CURRENT:	123.3 A

PANELBOARD: P1

BUS AMPS: 225.0 A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120, 3PH, 4W
SUPPLIED BY: CP
AIC RATING: 10,000 AMPS SYMMETRICAL
SERVES:
MOUNTING: SURFACE
LOCATION: MECH / ELECT / SPRINK 2136

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GND SIZE	BKR AMP	P	A	A	B	B	C	C	P	BKR AMP	GND SIZE	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	RCPT - CORRIDOR		12	12	20	1	720	180					1	20	12	12		RCPT - PLOTTER WRK RM 134	2
3	RCPT - RECEPTION		12	12	20	1			360	180			1	20	12	12		RCPT - WRK RM 134	4
5	RCPT - RECEPTION		12	12	20	1					360	180	1	20	12	12		RCPT - PRINTER WRK RM 134	6
7	RCPT - RECEPTION		12	12	20	1	360	1080					1	20	12	12		RCPT - WRK RM 134	8
9	RCPT - RECEPTION		12	12	20	1			360	360			1	20	12	12		RCPT - WRK RM 134	10
11	RCPT - ENTRY/VESTIBULE		12	12	20	1					706	720	1	20	12	12		RCPT - BRK/WRK RM 134	12
13	RCPT - ENTRY/VESTIBULE		12	12	20	1	540	706					1	20	12	12		RCPT - BRK RM 134	14
15	BUILDING SIGNAGE	C1	12	12	20	1			1200	1200			1	20	12	12		RCPT - BRK RM 134	16
17	RCPT - CONF 133		12	12	20	1					180	1200	1	20	12	12		RCPT - BRK RM 134	18
19	RCPT - CONF 133		12	12	20	1	180	1200					1	20	12	12		RCPT - BRK RM 134	20
21	RCPT - CONF 133		12	12	20	1			540	1200			1	20	12	12		RCPT - BRK RM 134	22
23	RCPT - CONF 133		12	12	20	1					900	1500	1	20	12	12	GF	RCPT - BRK RM 134 FRIDGE	24
25	RCPT - EWC 133		12	12	20	1	180	360					1	20	12	12	GF	RCPT - EWC BRK RM 134	26
27	RCPT - OFFICE 135/136		12	12	20	1			1260	360			1	20	12	12		RCPT - STORAGE 140	28
29	RCPT - OFFICE 136		12	12	20	1					360	1080	1	20	12	12		RCPT - OFFICES 137/138	30
31	RCPT - OFFICE 135		12	12	20	1	360	360					1	20	12	12		RCPT - OFFICE 138	32
33	RCPT - OFFICE 139		12	12	20	1			360	360			1	20	12	12		RCPT - OFFICE 137	34
35	RCPT - LAUNDRY		12	12	20	1					540	540	1	20	12	12		RCPT - DIRECTOR OFFICE 139	36
37	RCPT - LAUNDRY		12	12	20	1	1500	2769					1	20	12	12	GF	RCPT - CHILD TLT 156.4/TLT 121.5	38
39	RCPT - WASHER	GF	12	12	20	1			1500	360			1	20	12	12	GF	RCPT - CROSS MTR RM 156 EWC	40
41	RCPT - WASHER	GF	12	12	20	1					1500	706	1	20	12	12		RCPT - STRG/MECH/ELEC /GROSS...	42
43	RCPT - WASHER	GF	12	12	20	1	1500	360					1	20	12	12		RCPT - CROSS MTR RM 156	44
45	RCPT - DRYER	GF	12	12	20	1			1500	540			1	20	12	12		RCPT - CROSS MTR RM 156	46
47	RCPT - DRYER	GF	12	12	20	1					1500	540	1	20	12	12		RCPT - MECH/ELEC	48
49	RCPT - DRYER	GF	12	12	20	1	1500	540					1	20	12	12		RCPT - MECH/ELEC	50
51	RCPT - DRYER	GF	10	10	30	2			1250	100			1	15	12	12		EF-06	52
53											1250	1825	1	20	12	12	EM	EMERGENCY INVERTER	54
55	RCPT - DRYER	GF	10	10	20	2	1250	100					1	15	12	12		EF-08	56
57									1250	0			1	20	–	–	–	SPARE	58
59	RCPT - DRYER	GF	10	10	20	2					1250	0	1	20	–	–	–	SPARE	60
61							1250	0					1	20	–	–	–	SPARE	62
63	RCPT - EWC	GF	12	12	20	1			360	0			1	20	–	–	–	SPARE	64
65	WH-1		12	12	20	1					180	1200	1	20	10	10		GEN BATTERY CHARGER	66
67	WH-2		12	12	20	1	180	1200					1	20	10	10		GEN BLOCK HEATER	68
69	GARBAGE DISPOSAL	GF	12	12	20	1			180	0			1	20	–	–	–	SPARE	70
71	SPARE	–	–	–	20	1					0	0	1	20	–	–	–	SPARE	72
73	SPARE	–	–	–	20	1	0	0					1	20	–	–	–	SPARE	74
75	SPARE	–	–	–	20	1			0	0			1	20	–	–	–	SPARE	76
77	SPARE	–	–	–	20	1					0	0	1	20	–	–	–	SPARE	78
79	SPACE	–	–	–	–	1	–	–					1	–	–	–	–	SPACE	80
81	SPACE	–	–	–	–	1			–	–			1	–	–	–	–	SPACE	82
83	SPACE	–	–	–	–	1					–	–	1	–	–	–	–	SPACE	84
			TOTAL LOAD (VA):				18032 VA		14467 VA		17865 VA								
			TOTAL AMPS:				154.6 A		120.6 A		153.2 A								

1 (revision cloud, ckts 56–64)

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Kitchen Equipme...	12000 VA	65.00%	7800 VA
Other	5543 VA	100.00%	5543 VA
RCPT	25801 VA	69.38%	17901 VA
SPEC	7660 VA	100.00%	7660 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
C# - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED/HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT PROTECTION
BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD:	50.4 kVA
TOTAL ESTIMATED DEMAND:	38.3 kVA
TOTAL CONNECTED CURRENT:	139.8 A
TOTAL ESTIMATED DEMAND CURRENT:	106.4 A

PANELBOA... D1

BUS AMPS: 225.0 A
MAIN...: MLO
VOLTS/PHASE: 120/208, 1PH, 3W
SUPPLIED BY: CP
AIC RATING: 10,000 AMPS SYMMETRICAL
SERVES:
MOUNTING: SURFACE
LOCATION: I.T. 2196

VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GRD	BKR AMP	P	A	A	B	B	P	BKR AMP	GRD	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	RCPT - IT 103		12	12	20	1	360	1200			2	30	10	10		RCPT - IT 103	2
3	RCPT - IT 103		12	12	20	1			360	1200							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	1	20	12	12		RCPT - ACCESS CONTROL PANEL	8
9	SPARE	–	–	–	20	1	0	0			1	20	12	12		BADGE READERS	10
11	SPARE	–	–	–	20	1			0	0	1	20	–	–	–	SPARE	12
13	SPARE	–	–	–	20	1	0	0			1	20	–	–	–	SPARE	14
15	TVSS	–	–	–	30	2			0	–	1	–	–	–	–	SPACE	16
17							0	–			1	–	–	–	–	SPACE	18
			TOTAL LOAD (VA):				2222 VA		2230 VA								
			TOTAL AMPS:				21.4 A		21.4 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Other	0 VA	0.00%	0 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
C# - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED/HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT...
BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD:	4450 VA
TOTAL ESTIMATED DEMAND:	4450 VA
TOTAL CONNECTED CURRENT:	21.4 A
TOTAL ESTIMATED DEMAND CURRENT:	21.4 A

PANELBOA... D2

BUS AMPS: 225.0 A
MAIN...: MLO
VOLTS/PHASE: 120/208, 1PH, 3W
SUPPLIED BY: CP
AIC RATING: 10,000 AMPS SYMMETRICAL
SERVES:
MOUNTING: SURFACE
LOCATION: I.T. 2260

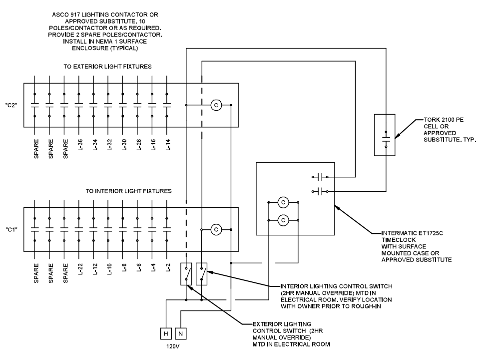
VOLT AMPS / PHASE

CKT NO.	DESCRIPTION	NOTES	WIRE SIZE	GRD	BKR AMP	P	A	A	B	B	P	BKR AMP	GRD	WIRE SIZE	NOTES	DESCRIPTION	CKT NO.
1	RCPT - I.T. 141		12	12	20	1	180	0			2	30	10	10		RCPT - I.T. 141	2
3	RCPT - I.T. 141		12	12	20	1			180	0							4
5	RCPT - I.T. 141		12	12	20	1	180	180			1	20	12	12		RCPT - I.T. 141	6
7	RCPT - I.T. 141		12	12	20	1			180	180	1	20	12	12		RCPT - ACCESS CONTROL PANEL	8
9	SPARE	–	–	–	20	1	0	0			1	20	12	12		BADGE READERS	10
11	SPARE	–	–	–	20	1			0	0	1	20	–	–	–	SPARE	12
13	SPARE	–	–	–	20	1	0	–			1	–	–	–	–	SPACE	14
15	TVSS	–	–	–	30	2			0	–	1	–	–	–	–	SPACE	16
17							0	–			1	–	–	–	–	SPACE	18
			TOTAL LOAD (VA):				540 VA		528 VA								
			TOTAL AMPS:				5.2 A		5.1 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Other	0 VA	0.00%	0 VA

PANELBOARD NOTES:
AF - ARC FAULT CKT INTERRUPT
C# - VIA LTG CONTACTOR #
EM - EMERG LTG HANDLE-ON CLAMP
EX - EXISTING
FA - RED/HANDLE-ON CLAMP
GF - GFCI TYPE CIRCUIT BREAKER
GFEP - GND FAULT EQUIPMENT...
BREAKER RATED FOR 30mA
HT - PROVIDE HANDLE TIES TO COMPLY WITH NEC 210.4(B)
IG - ISOLATED GROUND CIRCUIT
LCK - HANDLE PADLOCKABLE-OFF DEVICE
LO - HANDLE-ON CLAMP
OL - REFER TO ONE-LINE DIAGRAM
PS - POWER SWITCHING BREAKER
ST - SHUNT TRIP
SW - SWITCH RATED

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD:	1065 VA
TOTAL ESTIMATED DEMAND:	1065 VA
TOTAL CONNECTED CURRENT:	5.1 A
TOTAL ESTIMATED DEMAND CURRENT:	5.1 A



A LIGHTING CONTROL DIAGRAM
N.T.S

blue river ARCHITECTS
A Native American Owned Firm

PETER A. HILGER 19698 OKLAHOMA
9-3-24

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

E302
ELECTRICAL SCHEDULES

blue river ARCHITECTS
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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:
ELECTRICAL SCHEDULES

SHEET NUMBER:
E302

CHEROKEE NATION CATOOSA CHILD DEVELOPMENT CENTER

1924 COUNTRY CLUB DRIVE, CATOOSA, OKLAHOMA 74015

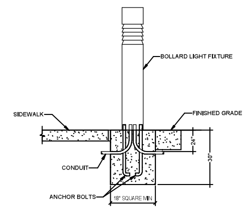
ES101
ELECTRICAL SITE PLAN

SITE PLAN GENERAL NOTES

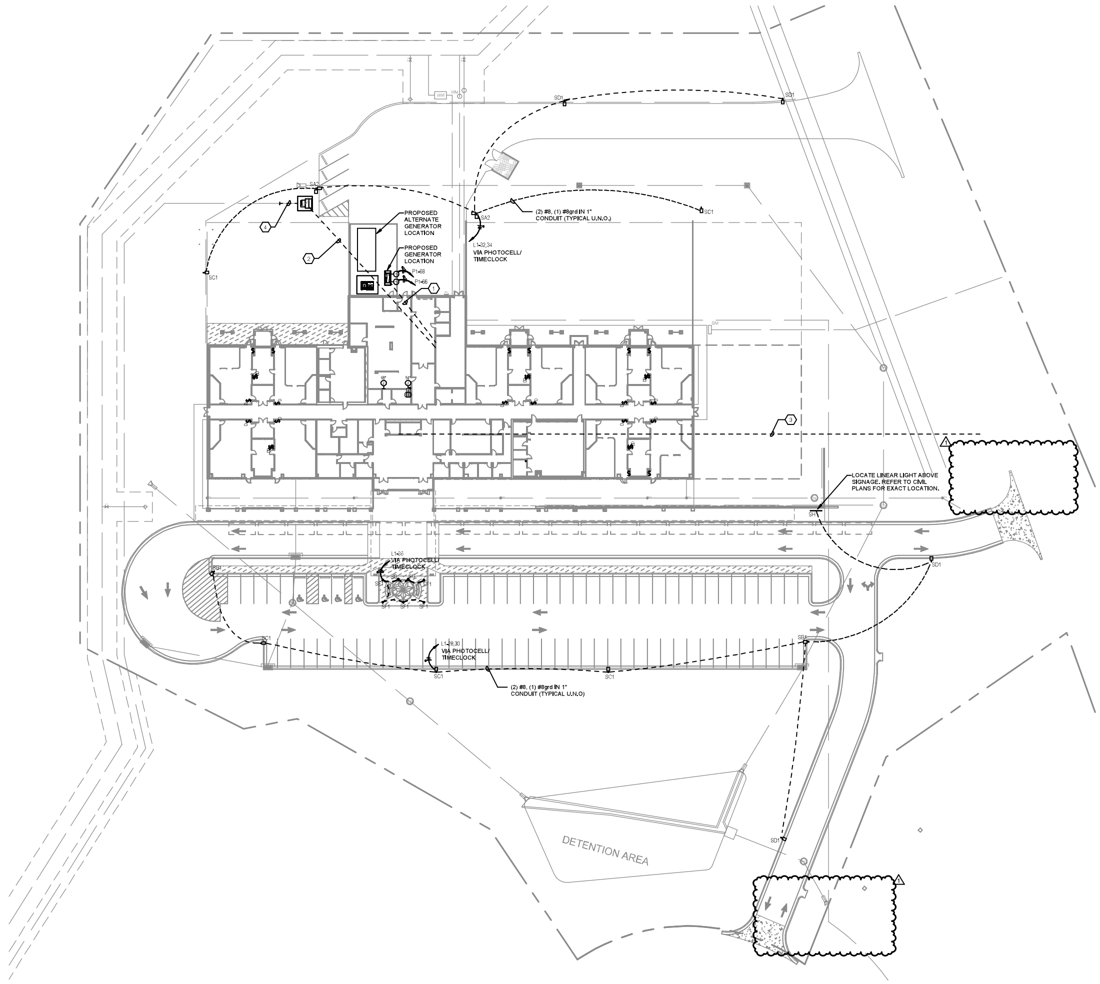
1. PROVIDE ELECTRICAL SERVICE PER POWER COMPANY REQUIREMENTS.POWER CO.
2. ALL COMMUNICATIONS CONDUIT AND CABLES SHALL BE INSTALLED 36" (MINIMUM) BELOW FINISHED GRADE.
3. ALL CONDUCTORS FOR EXTERIOR LIGHTING AND POWER CIRCUITS SHALL BE #10 AWG MINIMUM.
4. ALL LIGHTING AND POWER CONDUCTORS SHALL BE INSTALLED 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 ON THIS 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 AND INSTALLED 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 (5) 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 (2) 4" SCHEDULE 40 PVC UNDERGROUND CONDUITS FROM I.T. ROOM 103 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.



B BOLLARD MOUNTING DETAIL
N.T.S.



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

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SHEET NAME:
ELECTRICAL SITE PLAN

SHEET NUMBER:
ES101