



HAWTHORNE PARK SHELTER

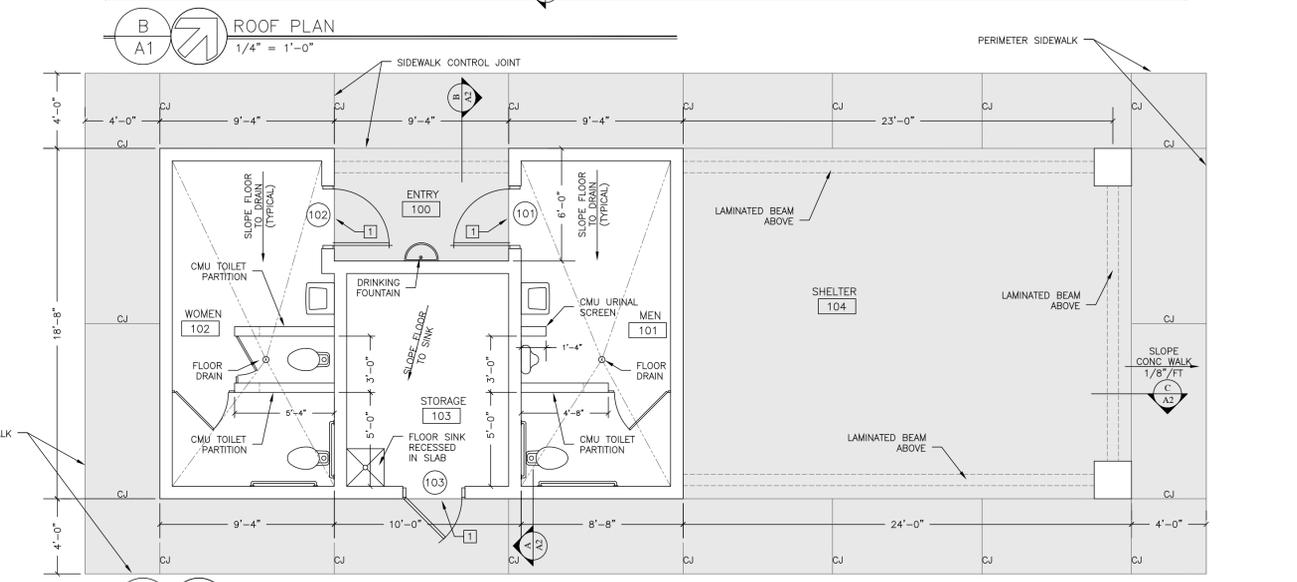
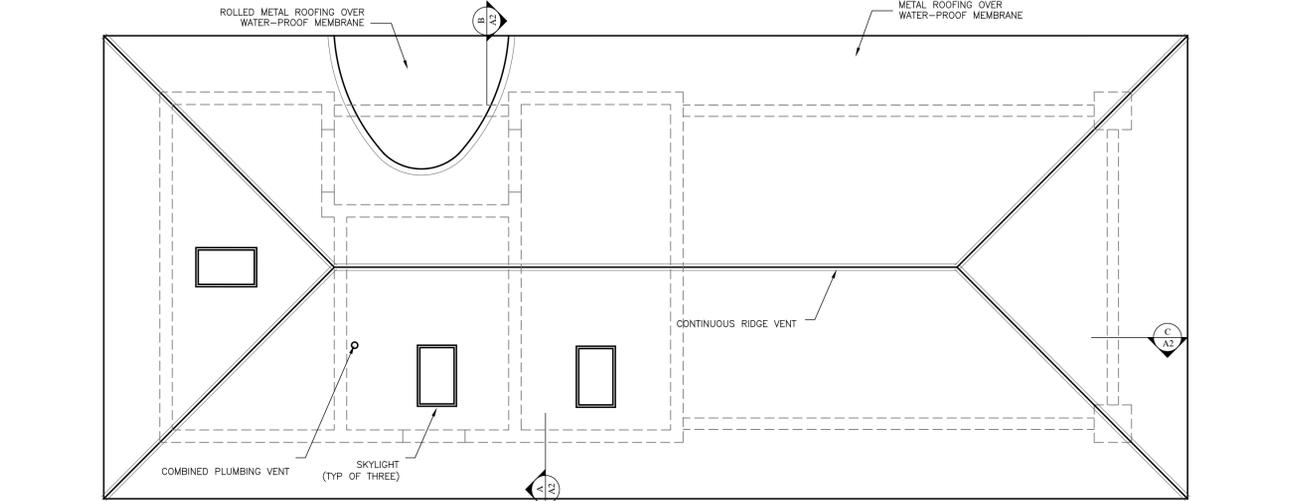
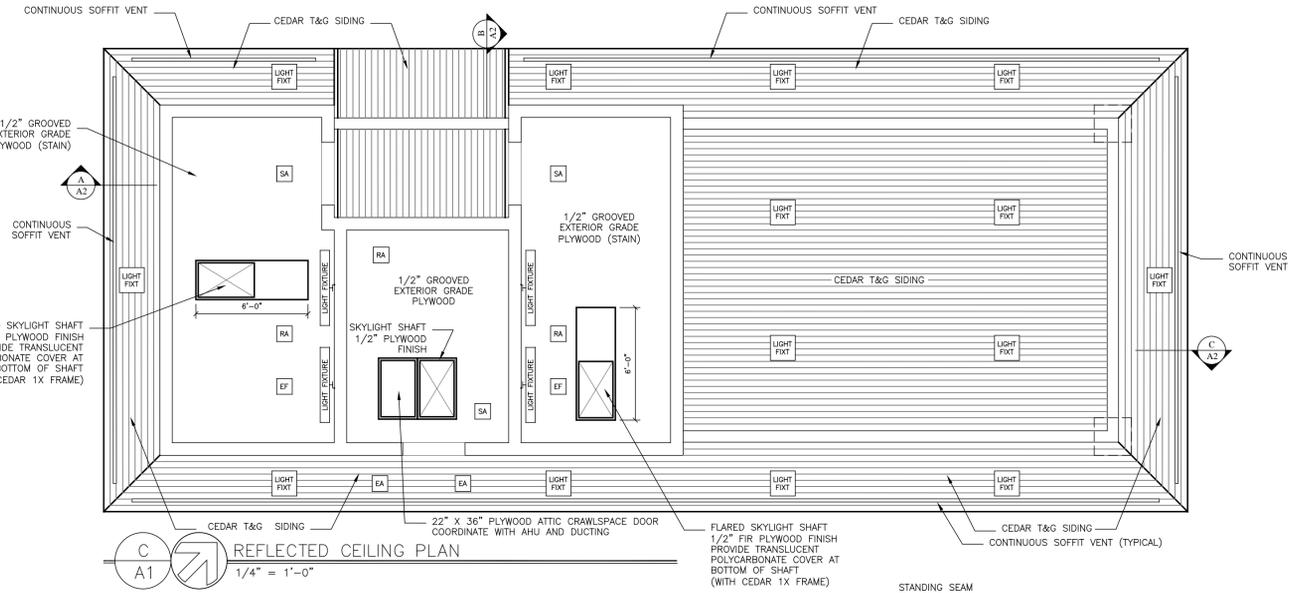
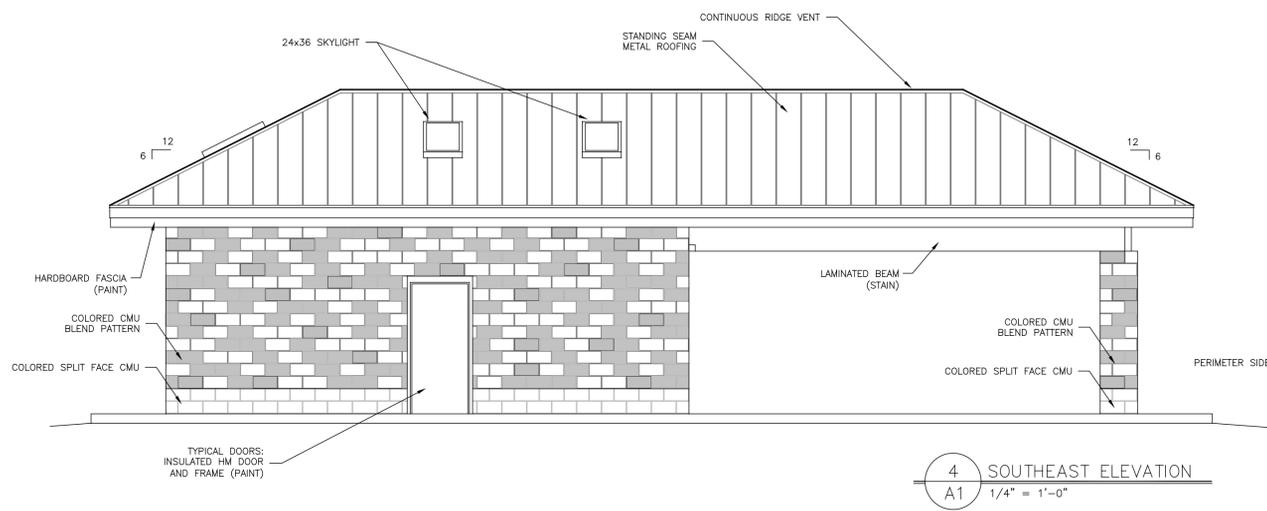
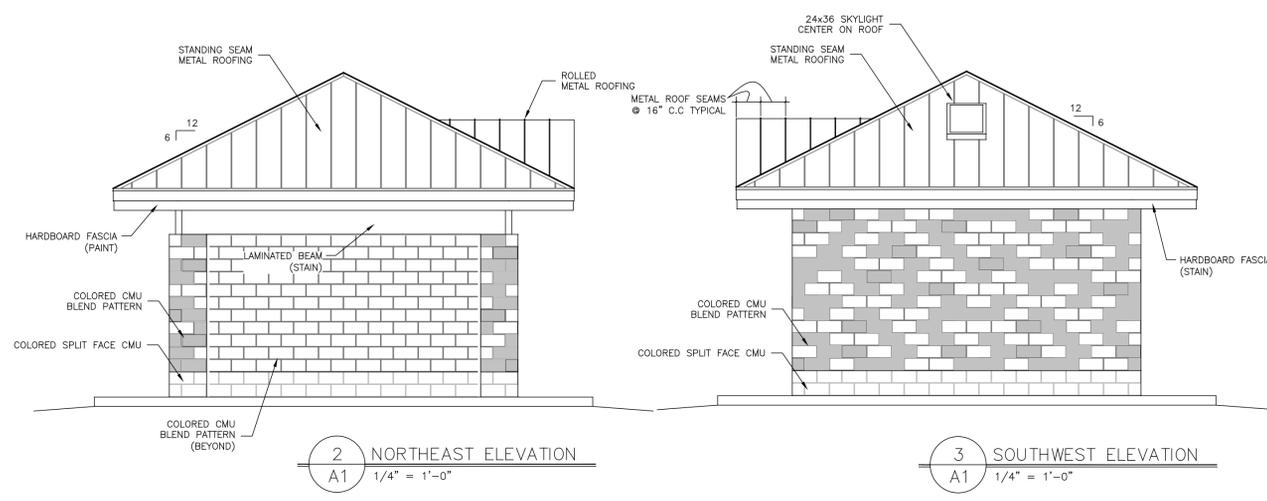
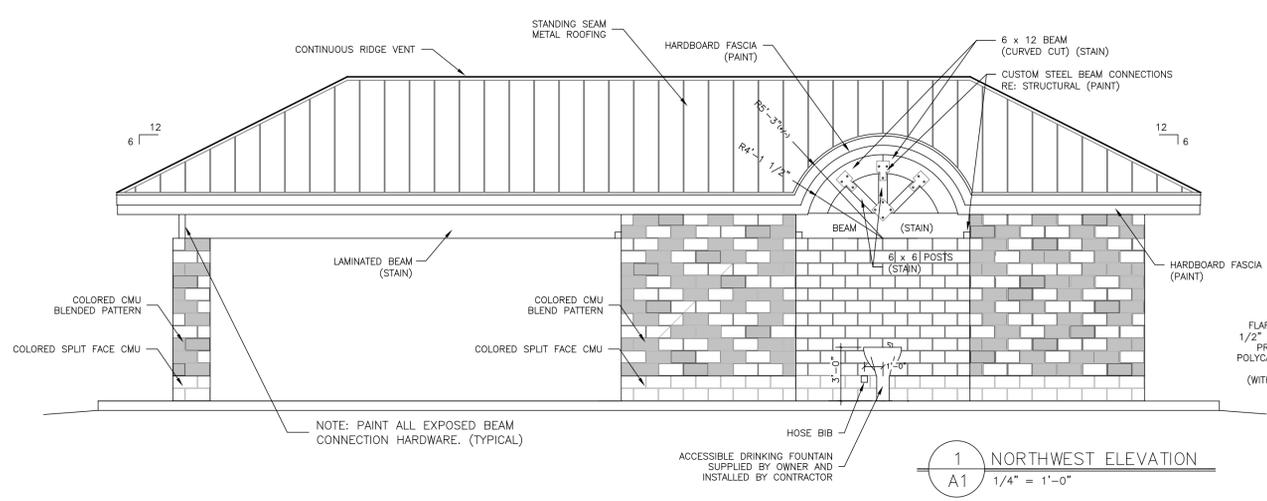
400 GUNNISON AVE
CITY OF GRAND JUNCTION, CO

OWNER:
CITY OF GRAND JUNCTION
ATTN: Mike Vendegna
1340 Gunnison Ave
Grand Junction, CO 80501
(970)254-3843

ARCHITECT:
DKO ARCHITECTURE, PC
ATTN: Kreg Obergfell
1109 Glengary Pl
Colorado Springs, CO 80921
(719)648-3011

STRUCTURAL:
LINDAUER DUNN, INC
ATTN: JEFF DUNN
802 Rood
Grand Junction, CO 81501
(970)241-0900

MECHANICAL/ELECTRICAL:
BIGHORN CONSULTING ENGINEERS
ATTN: Blaine Buck
569 S. Westgate Dr.
Grand Junction, CO 81505
(970)241-8709



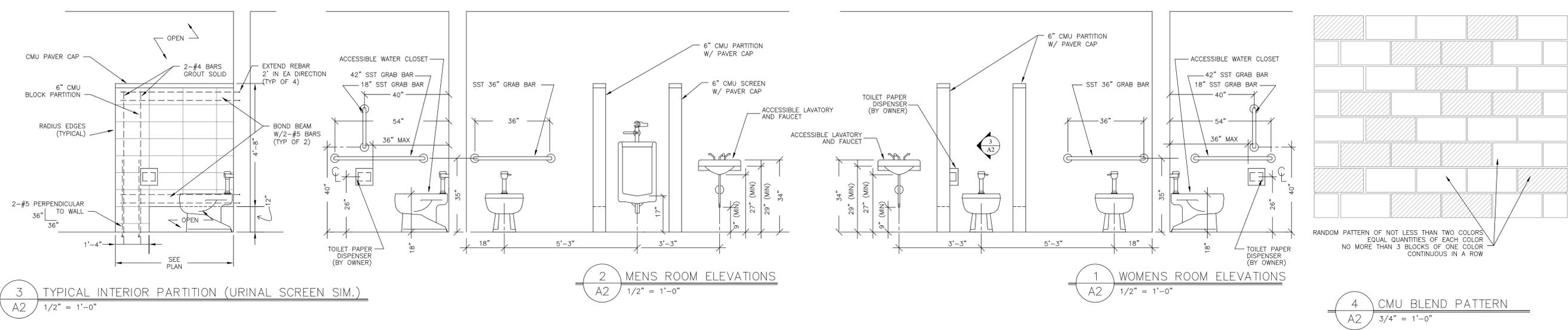
FINISH SCHEDULE						
MARK	ROOM	WALL MAT'L	WALL FINISH	CEILING MAT'L	CEILING FINISH	FLOOR FINISH
100	ENTRY	CMU	GRAFFITI GUARD	T&G CEDAR	CLEAR STAIN	CONCRETE SEALER
101	MEN	CMU	PAINT	GROOVED PLYWOOD	SOLID STAIN	CONCRETE SEALER
102	WOMEN	CMU	PAINT	GROOVED PLYWOOD	SOLID STAIN	CONCRETE SEALER
103	STORAGE	CMU	CONCRETE SEALER	GROOVED PLYWOOD	SOLID STAIN	CONCRETE SEALER
104	SHELTER	CMU	GRAFFITI GUARD	T&G CEDAR	CLEAR STAIN	CONCRETE SEALER

DOOR SCHEDULE						
MARK	SIZE	DOOR MAT'L	FRAME MAT'L	LABEL	HWDR GROUP	REMARKS
101	3'0 x 7'0	HM	HM	--	A	INSULATED WITH 4\"/>

CODE CONFORMANCE NOTES:
 COMPLY WITH ALL CURRENT FEDERAL, STATE, COUNTY, AND LOCAL BUILDING CODES, INCLUDING:
 2006 INTERNATIONAL BUILDING CODE
 2005 NATIONAL ELECTRIC CODE
 2006 INTERNATIONAL MECHANICAL CODE
 2006 INTERNATIONAL PLUMBING CODE
 IFGC 2006, IECC 1998, ANSI A117.1-2003
 GRAND JUNCTION ZONING AND DEVELOPMENT CODE
 OCCUPANCY: GROUP B
 PROPOSED CONSTRUCTION: TYPE V-B
 TOTAL FLOOR AREA: 453 GSF

DRAWING INDEX:
 ARCHITECTURAL
 A1 FLOOR PLAN, REFLECTED CEILING PLAN, ROOF PLAN, BUILDING ELEVATIONS
 A2 WALL SECTIONS, INTERIOR ELEVATIONS, CMU PATTERN SPECIFICATIONS
 STRUCTURAL
 S1 FOUNDATION PLAN, SECTIONS, NOTES
 S2 ROOF PLAN, SECTIONS AND DETAILS
 MECHANICAL
 M1 MECHANICAL PLAN, PLUMBING PLAN, SCHEDULES
 M2 SYMBOLS, WATER SERVICE DETAIL, AIR HANDLING UNIT, SPECIFICATIONS
 ELECTRICAL
 E1 ELECTRICAL FLOOR PLAN, LIGHTING PLAN, NOTES
 E2 SCHEDULES
 E3 SPECIFICATIONS

Project No: 1001
 Phase: CD
 Issue Date: 8/17/10
 Drawn by:

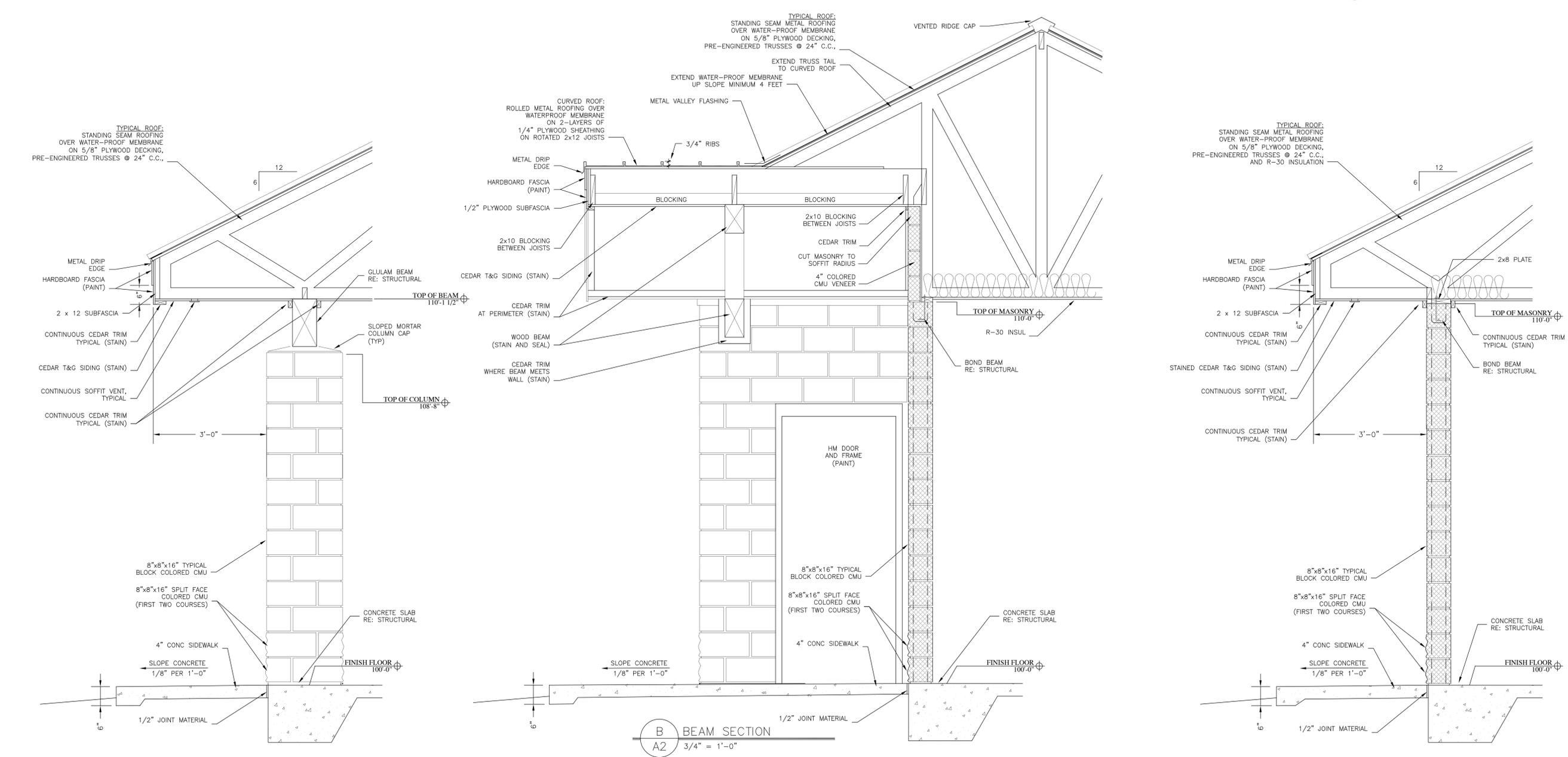


3 TYPICAL INTERIOR PARTITION (URINAL SCREEN SIM.)
 A2 1/2" = 1'-0"

2 MENS ROOM ELEVATIONS
 A2 1/2" = 1'-0"

1 WOMENS ROOM ELEVATIONS
 A2 1/2" = 1'-0"

4 CMU BLEND PATTERN
 A2 3/4" = 1'-0"



C WALL SECTION
 A2 3/4" = 1'-0"

B BEAM SECTION
 A2 3/4" = 1'-0"

A WALL SECTION
 A2 3/4" = 1'-0"

01000 – GENERAL REQUIREMENTS

SUMMARY OF WORK

Work required by the successful bidder of this project shall be conducted in a professional manner and to the satisfaction of the Architect. If the instructions and information contained in the Construction Documents is not sufficient for the Contractor to produce high quality work or if discrepancies or questions exist, the Contractor shall request interpretation, clarification or corrections prior to bidding. If the Contractor fails to take such action work must be performed in a satisfactory manner and requests for additional time or fees may be denied. By submitting a bid, the Contractor represents that he fully understands the nature and extent of the work, all factors and conditions affecting or which may be affected by it and characteristics of its various parts and elements and their fitting together and functioning.

PROJECT COORDINATION

- A. The Contractor shall be responsible for coordination of the Project. It is recognized that the Construction Drawings are diagrammatic in showing certain physical relationships of the various elements and systems and their interfacing with other elements and systems. The establishment and coordination of these relationships is the exclusive responsibility of the Contractor. Each entity involved in the performance of the Work shall cooperate in the overall coordination of the work.
B. The Owner shall designate a Project Coordinator who shall represent and be authorized to act on behalf of the Owner with respect to the Project.
C. During construction, coordinate use of site and facilities through the Project Coordinator.
D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, diagrammatic drawings, and recommendations; and resolution of ambiguities and conflicts.
E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
G. Make the following types of submittals to Architect through the Project Coordinator: Shop drawings, product data, and samples. Test and inspection reports. Closeout submittals.

RECORD DOCUMENTS

- A. Maintain at job site, one copy of the Construction Drawings. Make note of revisions and note the actual location of concealed controls, underground utilities and conduits for future use.

EXISTING UTILITIES

- A. Verify locations of all existing utilities prior to starting any work. Coordinate service and utility extensions to the Project site.

WASTE DISPOSAL

- A. Establish and enforce a daily system for collecting and disposing of waste materials. Provide dumpster on site.

COMPLETE SYSTEMS

- A. It is the intent of the Construction Drawings that all systems, including mechanical and electrical, be complete and functional to provide the intended or specified performance. The Contractor shall provide all incidental items and parts necessary to achieve this requirement. Provide power, utilities, piping, drains, services and their connections to equipment and systems requiring them.

CLEANING AND PROTECTION OF THE WORK

- A. At the time each unit of the work or element of the construction is completed (substantially) in each area of the project, clean the unit or element to a condition suitable for use and repair damage. Replace elements which in the opinion of the Architect are damaged beyond successful restoration. Protect, clean and restore the Project elements throughout the Construction period until the Owner officially takes possession.

GUARANTEES

- A. The basic warranty of the project and all of its elements shall extend for not less than one year after the Owner takes official possession.

SECTION 01400 – QUALITY REQUIREMENTS

CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
B. Comply with manufacturers' instructions, including each step in sequence. All manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.
C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
E. Have Work performed by persons qualified to produce required and specified quality.
F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and displacement.

DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not conforming to specified requirements.
B. If, in the opinion of Architect, it is not practical to remove and replace the Work, Architect will direct an appropriate remedy or adjust payment.

SECTION 01600 – PRODUCT REQUIREMENTS

SUBMITTALS

- A. Submit five (5) copies of shop drawings, product data and samples for all manufactured materials. Such submittals shall be completely reviewed by the Contractor prior to delivery to the Project Manager. The Contractor shall verify conformance with the requirements of Construction Documents and shall verify dimensions and compatibility with other elements of the Project. The Contractor shall submit with such promptness as to cause no delay in his own work allowing not less than two (2) weeks for Architect's review.
B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information specific to this Project.
C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional operation and appliances.
D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

SECTION 01600 – PRODUCT REQUIREMENTS (continued)

- B. Transport and handle products in accordance with manufacturer's instructions.
C. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturers' instructions.
B. Store with seals and labels intact and legible.
C. Prevent contact with material that may cause corrosion, discoloration, or staining.
D. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

SECTION 01700 – EXECUTION REQUIREMENTS

COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Requirements to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
B. Notify affected utility companies and comply with their requirements.
C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
D. Coordinate space requirements, supports, and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
F. Coordinate completion and clean-up of work of separate sections.
G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
B. Type and Quality of Existing Product: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
C. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
D. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or removal during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
B. Seal cracks or openings of substrate prior to applying next material or substance.
C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

LAYING OUT THE WORK

- A. Promptly notify Architect of any discrepancies discovered.

GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to unnecessary replacement.
B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
E. Make neat transitions between different surfaces, maintaining texture and appearance.

CUTTING AND PATCHING

- A. Execute cutting and patching including excavation and fill to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
C. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
E. Restore work with new products in accordance with requirements of Contract Documents.
F. Fit work or tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material to full thickness of the penetrated element.
G. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
H. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.

PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
C. Remove debris, junk, and trash from site.
D. Leave site in clean condition, ready for subsequent work.
E. Clean up spillage and wind-blown debris from public and private lands.

PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.

ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

SECTION 01700 – EXECUTION REQUIREMENTS (continued)

FINAL CLEANING

- A. Use cleaning materials that are nonhazardous.
B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent surfaces, vacuum carpeted and soft surfaces.
C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
D. Clean filters of operating equipment.

CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
B. Notify Architect when work is considered ready for Substantial Completion.
C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's review.
D. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
E. Notify Architect when work is considered finally complete.
F. Complete items of work determined by Architect's final inspection.

SECTION 02200 – EARTHWORK

TEST REPORTS—EXCAVATING, FILLING AND GRADING

- A. The Owner, at his own discretion and cost, may engage soil testing and inspection service (Soils Engineer) for quality control testing during earthwork operations.
B. The Soils Engineer shall be consulted as an Owner's representative and shall approve fill materials, method of placement, moisture contents and percent compaction. Soil materials, whether from sources on or off site must be approved by the Soils Engineer as suitable for intended use and specifically for foundation bearing, fill and backfill.
C. Location of the new structure and proposed Finish Floor Elevation shall be staked on site and approved by the Owner's Project Manager.
D. Finished Excavation shall be observed by the Soils Engineer and Structural Engineer prior to placement of any Concrete.
E. Backfill material shall be free of deleterious material and rocks having a diameter of more than 4". Fill material in areas to receive new concrete walks shall be placed in even layers not exceeding 8" of loose depth and uniformly compacted as directed by the Soils Engineer (not less than 95 percent of maximum dry density as defined by ASTM D698). Provide organic topsoil in other disturbed areas, compact and grade to match adjacent areas. Grade areas surrounding the structure to cause rapid runoff of surface water. Provide the slope required by the Soils Engineer or not less than 6" in 12 feet. Finish grade surfaces shall be free from irregular changes and within 0.10 foot of required sub or finish grade elevations. Spread stockpiled topsoil and compact to minimum six (6) inch depth at all areas not designated for walks, paving or structures.

SECTION 03300 – CONCRETE

- A. STANDARDS: Conform to applicable ACI and ASTM Standards including but not limited to:
1. ACI 301 Specifications for Structural Concrete for Buildings
2. ASTM C-94 Specifications for Ready-Mixed Concrete
3. ACI 318 Building Code Requirements for Reinforced Concrete
B. SUBMITTALS: Furnish proposed design mix for each class of concrete specified, a minimum of two (2) weeks prior to placement. Provide product data for curing and sealing compounds.
C. CONCRETE MATERIALS: Refer to the Structural drawings for concrete strength and reinforcing requirements.
D. CURING AND SEALING COMPOUNDS: Dayton Superior Cure & Seal WB, or approved equal.
E. EXECUTION:
1. Construct forms complying with ACI 347, to the exact sizes, shapes, lines and dimensions shown, and as required to obtain accurate alignment, location, grades, level and plumb work in finished structures. Plumbing and utilities which pass through floor slabs shall be isolated from the slab.
2. Comply with the specified codes and standards, and Concrete Reinforcing Steel Institute recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports, and coordinate locations of dowels with the Masonry Contractor.
3. Furnish ready-mixed concrete mixed and delivered per ASTM C94.
4. Place concrete in compliance with the practices and recommendations of ACI 304R-89, and as herein specified. Protect freshly placed concrete from premature drying and excessive cold and hot temperatures, and maintain without drying at a relatively constant temperature for the period of time necessary for hydration of the cement and proper hardening of the concrete. Cure in accordance with ACI 301 procedures.
5. After placing slabs, plane the surface to a tolerance not exceeding 1/8 inch in two feet. Slope surfaces uniformly to drain where required. After leveling, finish per the Architect.
6. Apply final finish to monolithic slab surfaces that are to receive trowel finish and other finishes as hereinafter specified. At Interior floors, apply trowel finish, unless otherwise shown. At Exterior walks, apply a non-slip broom finish. Broom finish shall be applied perpendicular to length of walk.

SECTION 04220 – MASONRY

REFERENCES

- A. ASTM C90-03. All applicable NOMA TEK publications.

SUBMITTALS

- A. Product Data on Concrete Masonry Units, reinforcing and all accessories. CMU and mortar color samples.
B. CONCRETE MASONRY UNITS
A. Provide light weight colored CMU with a compressive strength not less than 1900 psi. Obtain CMU units with an integral Water Repellent from Robinson Block or approved equal. Manufacturer must provide a minimum of 16 available colors for Architect's selection. Architect shall select colors for the "BLEND" pattern and an additional color will be selected for the base.

GENERAL PROCEDURES AND PROJECT CONDITIONS

- 1. Comply with applicable codes and National Concrete Masonry Association TEK publications.
2. Install units in a running bond pattern with concave mortar joints. Rake out mortar in preparation for application of sealants. Prevent grout, mortar or other materials from staining the face of masonry to be left exposed.
3. Provide high quality colored mortar, Type M or S in accordance with Table No. 2103.7 of the International Building Code. Submit True Tone Mortar colors for selection by the Architect.
4. Insulate exterior walls with Perlite.

SECTION 06100 – ROUGH CARPENTRY

REFERENCES

- A. Lumber shall be gradedstamped by an agency certified by the Board of Review of the American Lumber Standards Committee, Inc. and manufactured in accordance with Product Standard PS 20, as published by the U.S. Department of Commerce.

SUBMITTALS

- A. Provide product data. Provide Cedar Siding samples.

SECTION 06100 – ROUGH CARPENTRY (continued)

PRODUCTS

- A. Framing Lumber, provide Hem-Fir dress lumber, S4S, unless otherwise noted, kiln dried to maximum 19% moisture content, Stud Grade with Fb = 675 psi and E = 1,200,000 psi.
A. Plywood concealed, AIA rated sheathing grade, Exposure 1, Group 1 or 2 species for wall and roof sheathing.
B. Plywood soffits, 1/2" fir siding with grooves @ 4", T-1-11 or approved equal.
C. Cedar siding (for soffits), 1x4 tongue and groove, Select Tight Knot – STK grading.
D. Continuous soffit vents, aluminum, painted brown, provide model SV202 by Alvent or approved equal.

INSTALLATION

- A. Refer to International Building Code for maximum span tables and fastening schedules.
B. Set carpentry work accurately to required levels and lines, with members plumb and true and accurately cut and fitted.
C. Comply with recommendations of the APA for installation of plywood. Provide Simpson Strong-Tie Panel Sheathing Clips to brace unsupported sheathing edges.

SECTION 06194 – FABRICATED WOOD TRUSSES

SUBMITTALS

- A. Trusses shall be designed by a professional engineer employed by the Manufacturer and registered in the State of Colorado.
B. Shop Drawings: Indicate materials, component profiles and elevations, assembly methods, details, fastening methods, accessory listings, hardware location and design loads.

INSTALLATION

- A. Follow Manufacturer's installation instructions and recommendations.
B. Lift trusses into position, taking care to prevent out-of-plane bending. Set and secure level, plumb, and at correct location; install permanent bracing and bridging prior to application of loads.

SECTION 07210 – BUILDING INSULATION

PRODUCTS

- A. MINERAL/GLASS FIBER BATT INSULATION: Glass or other inorganic (non-asbestos) fibers formed with binders into resilient, flexible blankets or semi-rigid batts; ASTM C665, types as indicated, density not less than 0.5 pounds per cubic foot for glass and 2.5 pounds per cubic foot for mineral wool; thermal conductivity (k-value at 75°F) of 0.27; manufacturer's standard sizes, thicknesses to provide R-30 at roofs.

EXECUTION

- A. Comply with manufacturer's instructions for the particular conditions of installation in each case. If printed instructions are not available or do not apply to the project conditions, consult the manufacturer's technical representative for specific recommendations before proceeding with the work. Extend insulation full thickness as shown over entire surface to be insulated. Cut and fit tightly around obstructions, and fill voids with insulation and mastic. Apply a single layer of insulation of the required thickness, unless otherwise shown or required to make up the total thickness.

SECTION 07610 – METAL ROOFING

SUBMITTALS

- A. Product data. Color samples.

PRODUCTS

- A. Continuous length-roll formed panels with 1 3/4" tall ribs on 16 inch centers. Fastening system shall be concealed. Panel materials shall be minimum 24 gauge. Roof system shall include all flashings and fascia trims in materials and colors to match the roofing panel. Provide Snap-Clad metal panel system by PAC-CLAD Petersen Aluminum or approved equal. Panel finish selected from manufacturer's full line of colors including metallic finishes.
B. Provide all necessary items, trims, clips, nuts, and bolts necessary for a sound and secure weather-tight installation.
C. W.R. Grace Ice and Water Guard roof underlayment, or approved equal.

EXECUTION

- A. Comply with manufacturer's instructions for the particular conditions of installation. If printed instructions are not available or do not apply to the project conditions, consult the manufacturer's technical representative for specific recommendations before proceeding with the work.
B. Roll form radius roof panels as required to meet profile of arch roof.
C. Install metal roofing over a self adhesive, composite 40 mil rubberized membrane.

SECTION 07720 – ROOF ACCESSORIES

SUBMITTALS

- A. Product data.

PRODUCTS

- A. SKYLIGHTS: Provide Model #2448C by AIA industries or approved equal. Skylight shall be manufacturer's standard curb mount skylight. Provide curb extension as required for proper installation of skylight, membrane flashings, metal roofing, roofing flashings and roof insulation. Outside unit dimensions shall be approximately 24x48 (inches). Provide with heat-mirror treated, clear Glazing. Fabricate units to withstand 40 pound live loading.

EXECUTION

- A. Separate metal surfaces of roof accessories from dissimilar metals, and from wood and cementitious substrates, by a thick coating of fibrated bituminous compound or other separation as recommended by the metal manufacturer, and as required to prevent corrosive action.
B. Anchor roof accessories permanently to the substrate by methods which are adequate for the sizes and locations of units. Comply with manufacturer's instructions for the particular conditions of installation. If printed instructions are not available or do not apply to the project conditions, consult the manufacturer's technical representative for specific recommendations before proceeding with the work.

08100 – HOLLOW METAL DOORS AND FRAMES

STANDARDS

- 1. ANSI/SDI-100-98 – Recommended Specifications for Standard Steel Doors an Frames
2. SDI-105-91 – Recommended Erection Instructions for Steel Frames
3. SDI-107-78 – Hardware on Steel Doors (reinforcement application)
4. ANSI-A250.4-1994 – Steel Door and Frames Physical Endurance
5. Conform to AHMA 861 standards except where more stringent requirements are specified
6. IBC 2006 – International Building Code
7. ANSI-A117.1 – Accessible and Usable Building and Facilities

SUBMITTALS

- A. Submit shop drawings showing fabrication and installation of standard steel doors and frames, including details of each frame type, elevations of door and frame types, conditions at openings, details of construction, location and installation requirements of door and frame hardware reinforcements, and details of joints and connections. Show anchorage and accessory items.

08100 – HOLLOW METAL DOORS AND FRAMES (continued)

PRODUCTS

- A. All doors and frames shall be manufactured of commercial quality cold rolled steel per ASTM-A366 and A568 general requirements or galvanized to A60 or G60 minimum coating weight standard per ASTM-A924. Internal reinforcing may be manufactured of hot rolled pickled and oiled steel per ASTM-A569.
B. Supports and anchors shall be fabricated of not less than 18-gauge sheet steel, galvanized where galvanized frames are used.
C. Where items are to be built into exterior walls, inserts, bolts and fasteners shall be hot dipped galvanized in compliance with ASTM-A153, Class C or D as applicable.
D. Rust inhibitive enamel or paint primer shall be used, baked on, and suitable as a base for specified finish paints complying with ANSI A224.1, "Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces on Steel Doors and Frames."

DOORS

- A. Provide 1 3/4" thick doors of materials and ANSI/SDI-100 grades and models.
B. Exterior Doors: Level 3, Model 2 – Seamless. Exterior doors shall be minimum 16-gauge steel with both lock and hinge rail edge of door intermittently welded, filled and ground smooth the full height of door. Exterior doors shall be insulated with a solid slab of expanded polystyrene or polyurethane foam permanently bonded to the inside of each face skin. The top of all doors shall be closed flush by the addition of a 16-gauge screwed-in top cap to prevent water infiltration.

FRAMES

- A. Provide hollow metal frames for doors of types and styles as shown on the drawings and schedules. Conceal fastenings unless otherwise indicated. Exterior Frames: Level 2, 16-gauge
B. Fabricate frames with mitered and faces only welded corners, re-prime at the welded areas. All welds to be flush with neatly mitered or butted material cuts.
C. All frames shall have minimum 7 gauge hinge reinforcements, 14-gauge lock strike reinforcing, and 12-gauge closer reinforcing.
D. Provide temporary shipping bars to be removed before setting frames.

INSTALLATION

- A. Comply with provisions of SDI-105, "Recommended Erection Instructions for Steel Door Frames," unless otherwise indicated. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is completed, remove temporary braces and spreaders, leaving surfaces smooth and undamaged.
B. In masonry construction, install at least 3 wall anchors per jamb adjacent to hinge location on hinge jamb and at corresponding heights on strike jamb. Acceptable anchors include masonry wire anchors and masonry T-shaped anchors. Coordinate frame anchor placement with wall construction.
C. Coordinate installation of hardware.
D. Maximum Diagonal Distortion: 1/16 inch measured with straight edges, crossed corner to corner.

08700 – DOOR HARDWARE

SUBMITTALS

- A. Submit copies of finish hardware schedule in vertical format, listing each door opening, and organized into "hardware sets" indicating complete designations of every item required for each door opening to function as intended. Note any special mounting instructions or requirements with the hardware schedule.
B. Submit catalog cuts and/or product data sheets for all scheduled finish hardware.

WARRANTY

- A. All items, except as noted below, shall be warranted in writing by the manufacturer against failure due to defective materials and workmanship for a minimum period of one (1) year commencing on the date of final completion and acceptance. In the event of product failure, promptly repair or replace item with no additional cost to the owner. Cylindrical locksets – Heavy Duty: Five (5) years. Door closers: Ten (10) years.

HARDWARE GROUPS

- A. MEN AND WOMEN (doors 101 and 102) – Provide pushplate, pull, deadbolt, flushbolt, closer with adjustable stop and hold open, sign, weathering, and hinges.
B. STORAGE (door 103) – Provide storeroom type lever-lockset, latch-guard, deadbolt, overhead stop, weathering and hinges.

PRODUCTS

- A. Provide the following or approved equal:
Hinges Hager BB1279
Closers Norton Security Series parallel arm
Locksets Best 9K Series
Deadbolts Best 9K Series
Flushbolts Adams Rite Cylinder Operated Flushbolt -1870 HM Series (Restroom Doors to lock in the full open position)
Cylinders Best (verify with Owner)
Push/Pulls Trimco (4" x 16")
Latch-guard Trimco
Weathering Pemko
Wall Stops Rockwood
Signs Trimco (Men, Women, International symbol of accessibility).

FINISHES

- A. All hardware to be furnished in US320 630 Stainless Steel Satin Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.

INSTALLATION

- A. Mount hardware units at heights indicated in the following applicable publications, except as specifically indicated or required to comply with the governing regulations.
1. "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute (DHI)
2. All hardware shall be applied and installed in accordance with best trade practice by an experienced hardware installer. Care shall be exercised not to mar or damage adjacent work.
B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.

SECTION 09300 – PAINTS AND COATINGS

GENERAL

- A. The work of this Section includes prep, priming, sanding and cleaning; painting/staining and finishing of all wood walls, ceilings, soffits, beams and wood trim; painting of all hollow metal door and door frames; painting of unfinished mechanical, plumbing and electrical items; and caulking of all joints as required by these specifications and as directed by the Architect.
B. Paint and stain colors will be selected by the Architect after all samples are submitted and approved. The Architect will issue a color schedule with an Itemized list of colors to be applied. No paint or stain shall be applied until the color schedule is issued.
C. Requirements of this section are that all items, and surfaces which are normally painted and finished in a project of this type and quality be included. All toilet room walls shall have block-fill and an elastomeric paint system. Typical plywood and cedar siding finished soffits and ceilings shall be painted as indicated. Provide a two-coat system over CMU surfaces that are intended to be left without a paint system (submit a sample of each with the graffiti guard applied, prior to approval). Dayton Superior – Crystal Seal OTC (or approved equal) to cured concrete slab.

SECTION 09300 – PAINTS AND COATINGS (continued)

SUBMITTALS

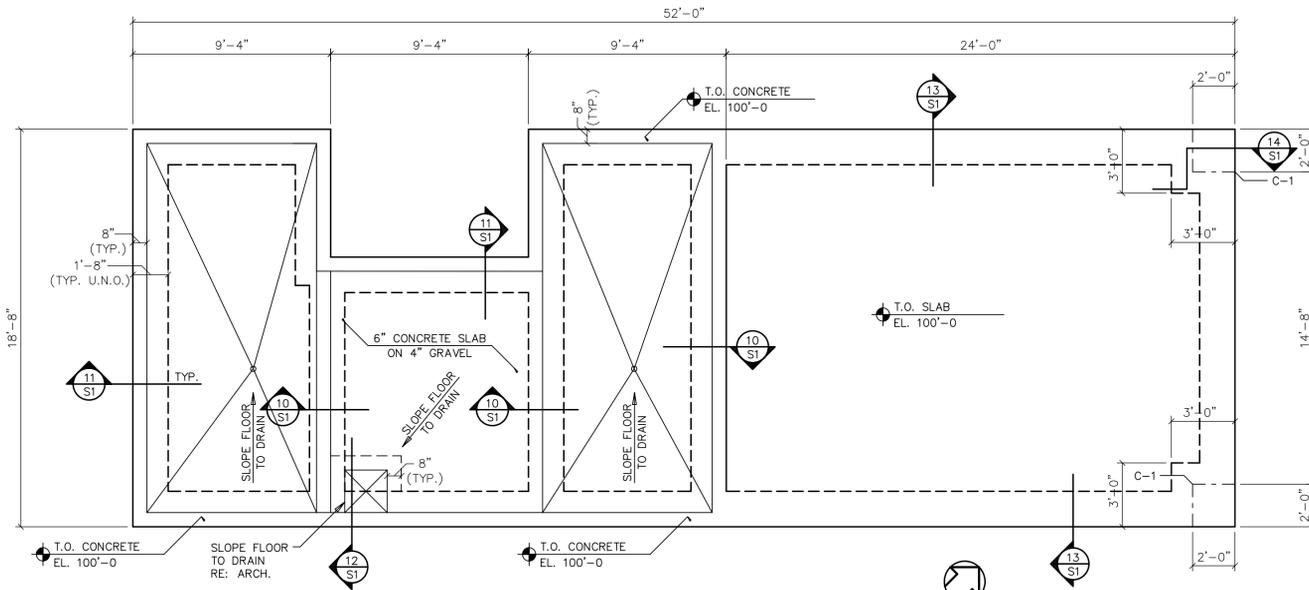
- A. Product Data: Provide data on all finishing products, including VOC content. Paint color fan deck.
B. Samples: Submit two paper chip samples, 8 x 8 inch in size illustrating range of colors and textures available for each surface finishing product scheduled.
C. Manufacturer's Instructions: Indicate special surface preparation procedures.
D. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

EXAMINATION

- A. Verify that surfaces are ready to receive Work as instructed by the product manufacturer.
B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

PREPARATION

- A. Surface Appurtenances: Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
B. Surfaces

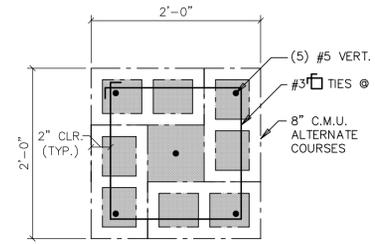


FOUNDATION PLAN 1/4"=1'-0" NORTH

1. REINFORCE CONCRETE SLAB WITH #4 @ 16 EACH WAY. PLACE IN MIDDLE OF SLAB.

LOOSE LINTEL SCHEDULE			
OPENING	LINTEL	BEARING EA. END	REMARKS
3'-6" OR LESS	L 3 1/2x3x1/4	4"	S.L.V.

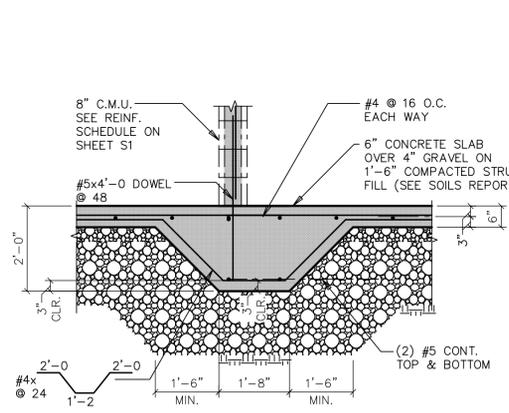
1. WHERE ANGLE LINTELS ARE REQUIRED, PROVIDE ONE ANGLE FOR EACH 4" OR LESS THICKNESS OF MASONRY.



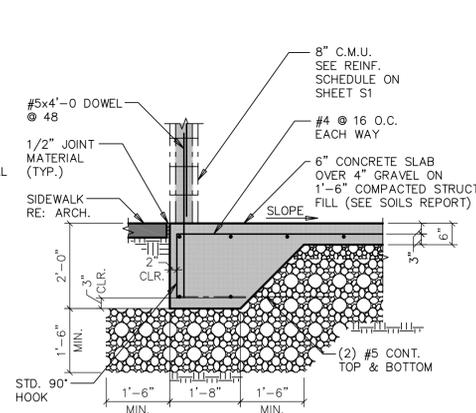
TYPICAL MASONRY COLUMN C-1 1"=1'-0"

GENERAL NOTES

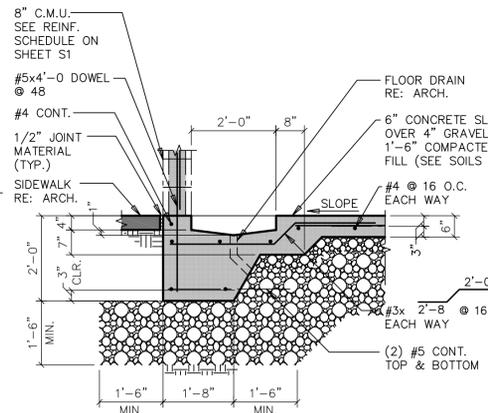
- LIVE LOADS USED IN DESIGN:
 - A. ROOF (SNOW) ----- 30 PSF
 - B. WIND -----
 - EXPOSURE ----- C
 - BUILDING CATEGORY ----- I
 - IMPORTANCE FACTOR (w) ----- 1.0
 - V_{3s} ----- 90 mph
 - V_m ----- 75 mph
- SEISMIC
 - A. SEISMIC USE GROUP ----- I
 - IMPORTANCE FACTOR (I_e) ----- 1.0
 - SPECTRAL RESPONSE COEFFICIENTS -----
 - S_{ps} ----- 0.302
 - S_{ps1} ----- 0.095
 - SITE CLASS ----- C
 - BASIC SEISMIC FORCE RESISTING SYSTEM ----- ORDINARY REINFORCED MASONRY SHEAR WALLS
 - DESIGN BASE SHEAR ----- 35k
 - ANALYSIS PROCEDURE ----- EQUIVALENT LATERAL FORCE PROCEDURE
- CONCRETE:
 - A. ALL CONCRETE SHALL DEVELOP 3,000 PSI COMPRESSIVE STRENGTH IN 28 DAYS.
 - B. ALL REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
 - C. NO SPLICES OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR AUTHORIZED BY THE STRUCTURAL ENGINEER. LAP SPLICES, WHERE PERMITTED, SHALL BE A MINIMUM OF 36 BAR DIAMETERS. MAKE ALL BARS CONTINUOUS AROUND CORNERS.
 - D. STAGGER SPLICES A MINIMUM OF 4'-0" FOR TOP AND BOTTOM CONTINUOUS BARS IN FOUNDATIONS, UNLESS OTHERWISE SHOWN OR NOTED.
- WOOD:
 - A. ALL BEAMS AND HEADERS 2 TO 4 INCHES THICK SHALL BE HEM-FIR NO. 2 AND BETTER WITH F_b = 850 PSI AND E = 1,300,000 PSI.
 - B. STUDS AND PLATES SHALL BE HEM-FIR IN STUD GRADE WITH F_b = 675 PSI AND E = 1,200,000 PSI.
 - C. GLUE LAMINATED (G.L.) BEAMS:
 - (1) ALL LAMINATED MEMBERS SHALL BE FABRICATED WITH ONE OF THE FOLLOWING SPECIES: DOUGLAS FIR, HEMLOCK, LARCH, OR SOUTHERN PINE.
 - (2) LAMINATED MEMBERS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR THE DESIGN AND FABRICATION OF STRUCTURAL GLUED LAMINATED LUMBER, PUBLISHED BY THE A.I.T.C. AND THE APPROPRIATE LUMBER PRODUCER'S ASSOCIATION.
 - (3) LAMINATED MEMBERS SHALL BE FABRICATED AS FOLLOWS:
 - a. BEAMS:
 - SIMPLE SPAN ----- 24F-V4
 - CONTINUOUS AND CANTILEVERS ----- 24F-V8
 - (4) LAMINATED MEMBERS SHALL BE BUILT UP USING 2" NOMINAL MATERIAL. LAMINATED MEMBER SIZES NOTED ARE NET.
 - (5) MEMBERS EXPOSED TO VIEW SHALL BE FURNISHED IN "ARCHITECTURAL" APPEARANCE GRADE. MEMBERS TO BE CONCEALED BY FINISH MATERIALS OR CEILINGS MAY BE "INDUSTRIAL" GRADE.
 - (6) ADHESIVES USED SHALL COMPLY WITH THE SPECIFICATIONS AS CONTAINED IN VOLUNTARY PRODUCT STANDARD PS56-73, STRUCTURAL GLUED LAMINATED TIMBER. WET-USE ADHESIVES ARE TO BE USED FOR ALL MEMBERS EXPOSED TO THE WEATHER.
- MASONRY:
 - A. ALL REINFORCING IN MASONRY WALLS SHALL BE FULLY ENCLOSED WITH GROUT. USE PEA GRAVEL MIX WITH f_c = 3,000 PSI.
 - B. CONCRETE MASONRY SHALL CONSIST OF LIGHTWEIGHT CONCRETE BLOCK WITH A COMPRESSIVE STRENGTH OF 1,900 PSI.
 - C. FILL ALL VOIDS AND BLOCK CELLS SOLID WITH MORTAR FOR A DISTANCE OF 24" BENEATH AND 12" EACH SIDE OF ALL BEAM REACTIONS OR OTHER CONCENTRATED LOADS, UNLESS OTHERWISE SHOWN OR NOTED.
 - D. MASONRY IS TO BE LAID IN TYPE "M" OR "S" MORTAR IN ACCORDANCE WITH TABLE NO. 2103.7 IN THE INTERNATIONAL BUILDING CODE. TYPE "M" MASONRY CEMENT MORTAR IS NOT ACCEPTABLE.
 - E. MASONRY WALLS MUST BE ADEQUATELY BRACED DURING CONSTRUCTION TO WITHSTAND WIND AND SEISMIC LOADS. BRACING MUST REMAIN IN PLACE UNTIL ROOF (AND FLOOR) DIAPHRAGMS ARE FULLY CAPABLE OF PROVIDING LATERAL SUPPORT.
- FOUNDATIONS:
 - FOUNDATION DESIGN IS BASED UPON RECOMMENDATIONS BY HUDDLESTON BERRY ENGINEERING & TESTING, L.L.C., JOB NO. 00208-0025. RECOMMENDATIONS IN THIS REPORT SHOULD BE FOLLOWED.
 - A. ALLOWABLE SOIL BEARING PRESSURE ----- 1,250 PSF
 - B. MODULES OF SUBGRADE REACTION ----- 150 PCI
 - C. SOILS ENGINEER OF RECORD SHALL EXAMINE EXCAVATION TO VERIFY CONDITIONS PRIOR TO CONSTRUCTION.
- VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.



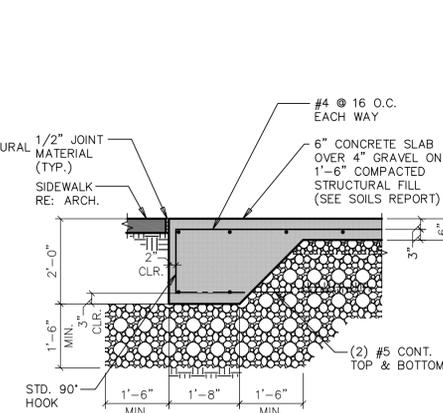
SECTION 10 1/2"=1'-0"



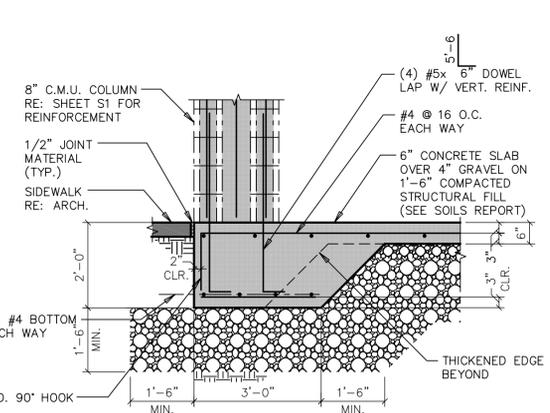
SECTION 11 1/2"=1'-0"



SECTION 12 1/2"=1'-0"



SECTION 13 1/2"=1'-0"



SECTION 14 1/2"=1'-0"

C.M.U. REINFORCING SCHEDULE

- PROVIDE #5 @ 48 VERTICAL REINFORCING AT 8" C.M.U. GROUT ALL VERTICAL REINFORCING SOLID. VERTICAL REINFORCEMENT SHALL EXTEND THROUGH BOND BEAMS TO 2" CLR. BELOW TOP OF C.M.U. USE STANDARD "DUR-O-WAL" "LADUR TYPE" @ 16" O.C. HORIZONTAL REINFORCING.
- PROVIDE #5 CONT. VERTICAL EACH SIDE OF ALL OPENINGS AND CONTROL JOINTS. EXTEND 2'-0" MINIMUM EACH SIDE OF OPENING. GROUT SOLID.
- LAP ALL VERTICAL REINFORCING MINIMUM OF 40 BAR DIAMETERS.
- PROVIDE #5 x 4'-0" @ 48 DOWELS FROM STEMWALL TO C.M.U. LAP 2'-0" WITH VERTICAL REINFORCING AND GROUT SOLID.

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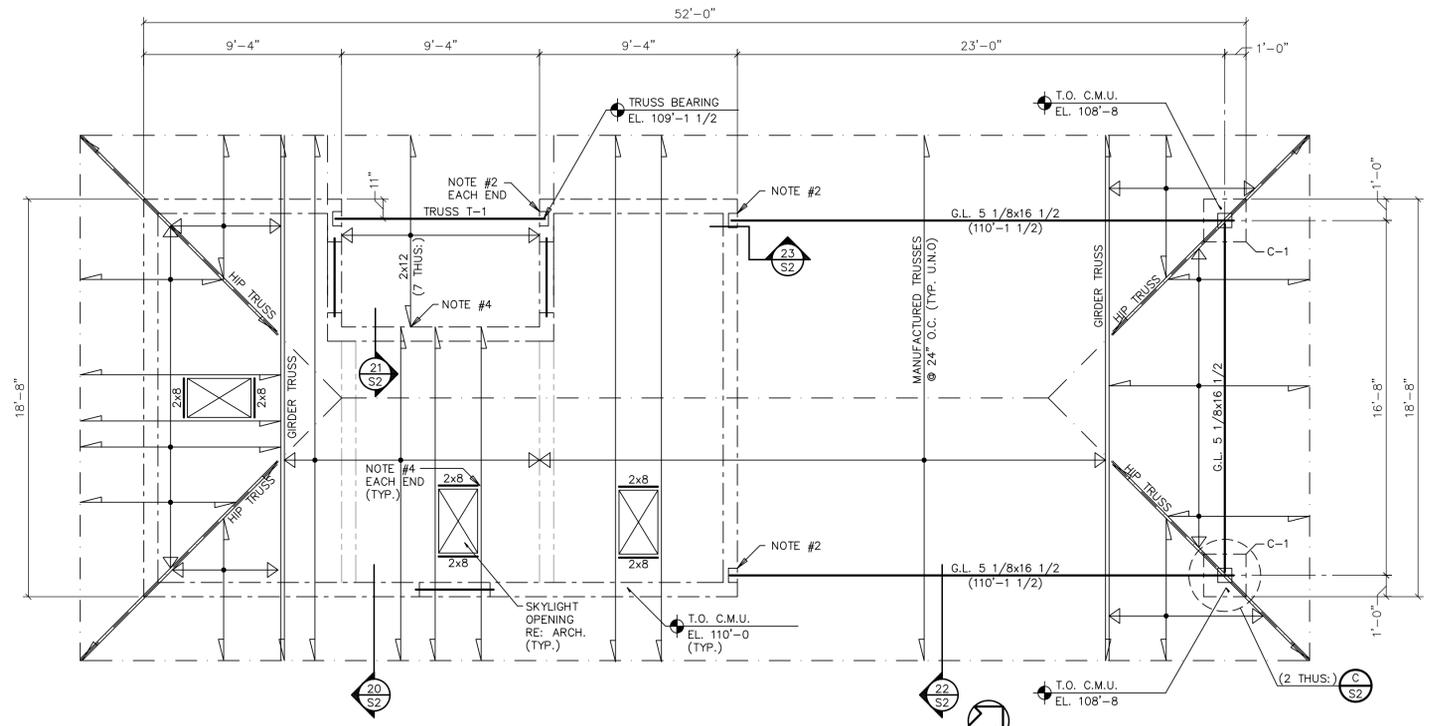
HAWTHORNE PARK SHELTER
400 GUNNISON AVE
GRAND JUNCTION, CO

Project No. 10.073
Phase CD
Drawn by: JDG
Issue Date: 08/17/10

S1

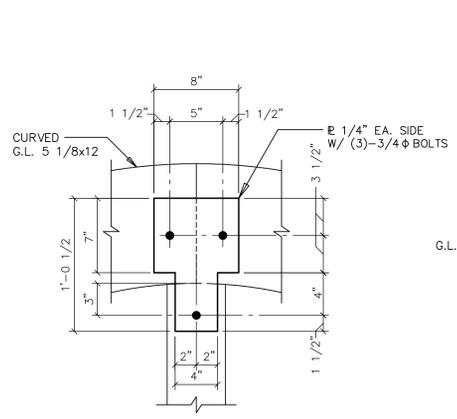
PLYWOOD NAILING SCHEDULE				
USE	THICKNESS	SPAN/INDEX RATIO	EDGE NAILING	INTER NAILING
ROOF	5/8"	32/16	8d @ 6" O.C.	8d @ 12" O.C.

- PLYWOOD SHEATHING SHALL BE APA GRADE TRADEMARKED CDX W/ EXTERIOR GLUE. LAY UP PLYWOOD W/ FACE GRAIN PERPENDICULAR TO SUPPORTS AND STAGGER JOINTS. ALL NAILING COMMON NAILS; RING SHANKED FOR ROOF AND FLOOR SHEATHING. REFER TO TABLE ABOVE FOR USE REQUIREMENTS.
- O.S.B. SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD W/ PRIOR APPROVAL OF OWNER AND ARCHITECT. O.S.B. SHEATHING SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES.

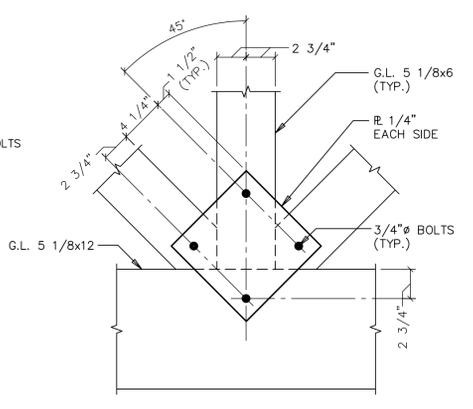


ROOF FRAMING PLAN 1/4"=1'-0" NORTH

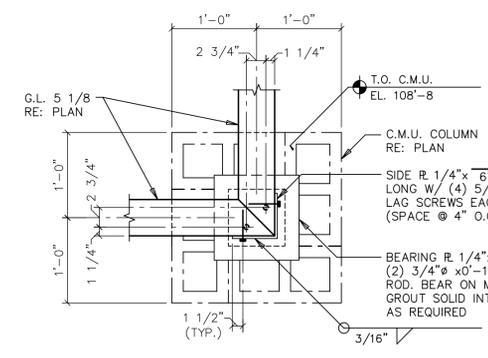
- ALL TRUSS FRAMING CONNECTORS TO BE SIZED BY TRUSS MANUFACTURER.
- PROVIDE BEAM POCKET W/ 4" MIN. BEARING. ATTACH BEAMS W/ TYPE "HGLBA" BEAM SEAT.
- DESIGN TRUSS WEB MEMBERS TO ALLOW INSTALLATION AND MAINTENANCE OF MECHANICAL EQUIPMENT (REFER TO MECHANICAL).
- PROVIDE TYPE "LU28" HANGER.



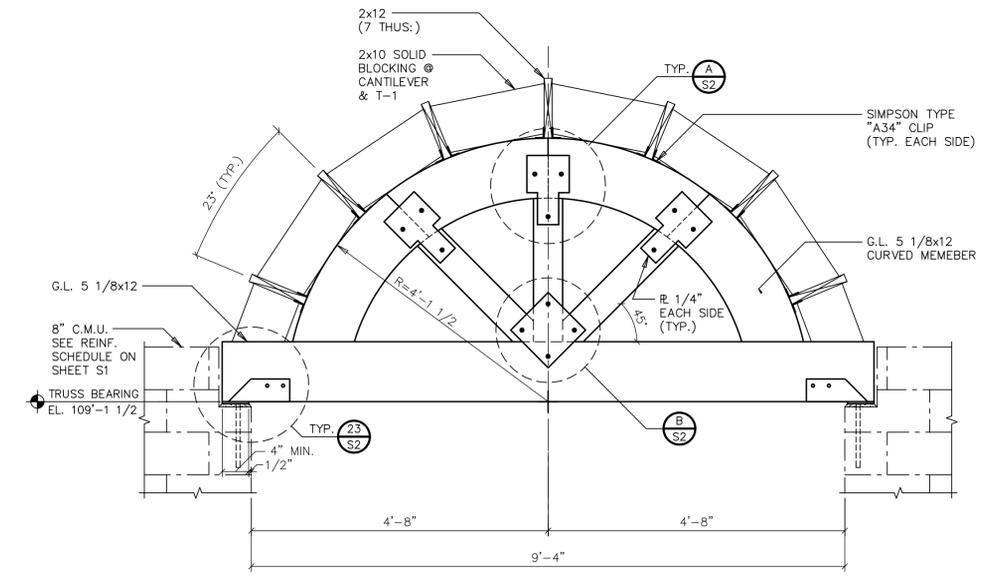
DETAIL A 1 1/2"=1'-0"



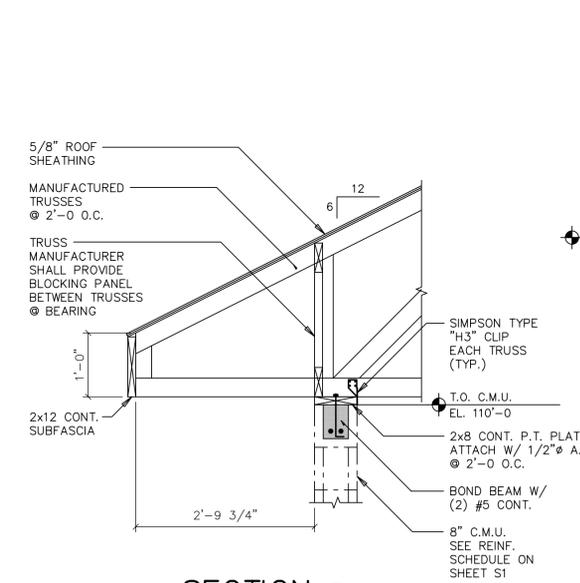
DETAIL B 1 1/2"=1'-0"



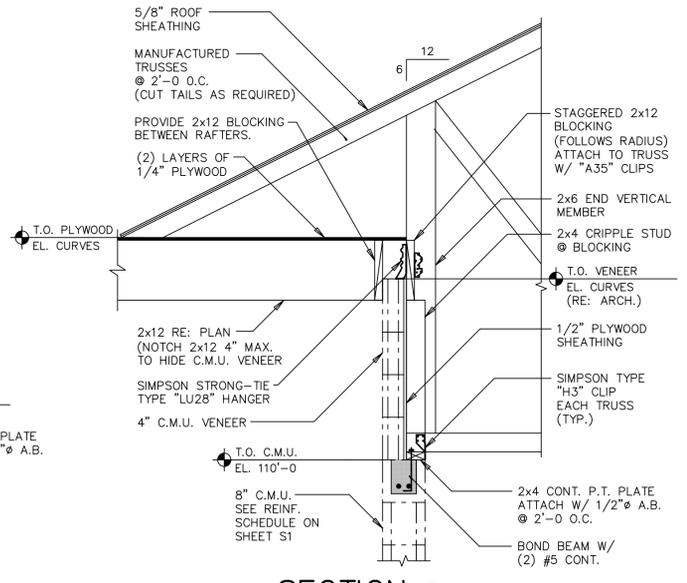
DETAIL C 1"=1'-0"



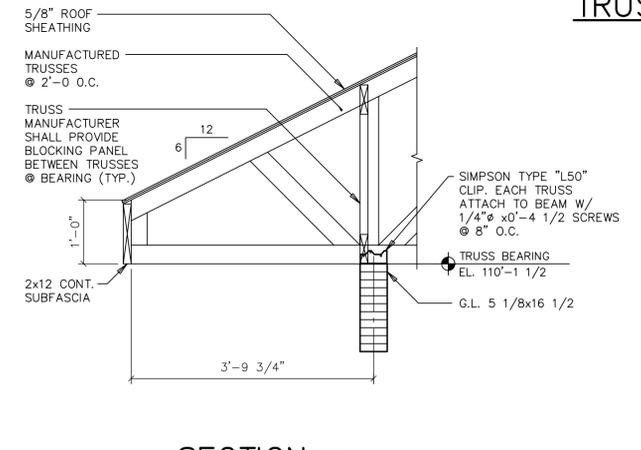
TRUSS T-1 3/4"=1'-0"



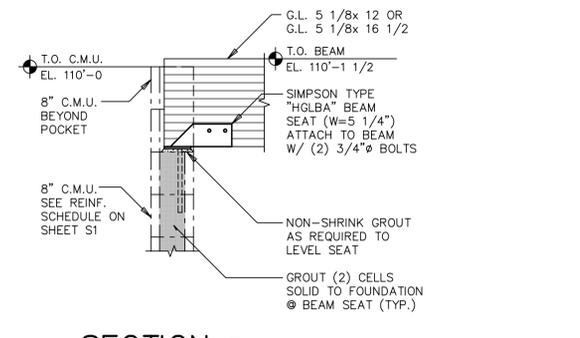
SECTION 20 3/4"=1'-0"



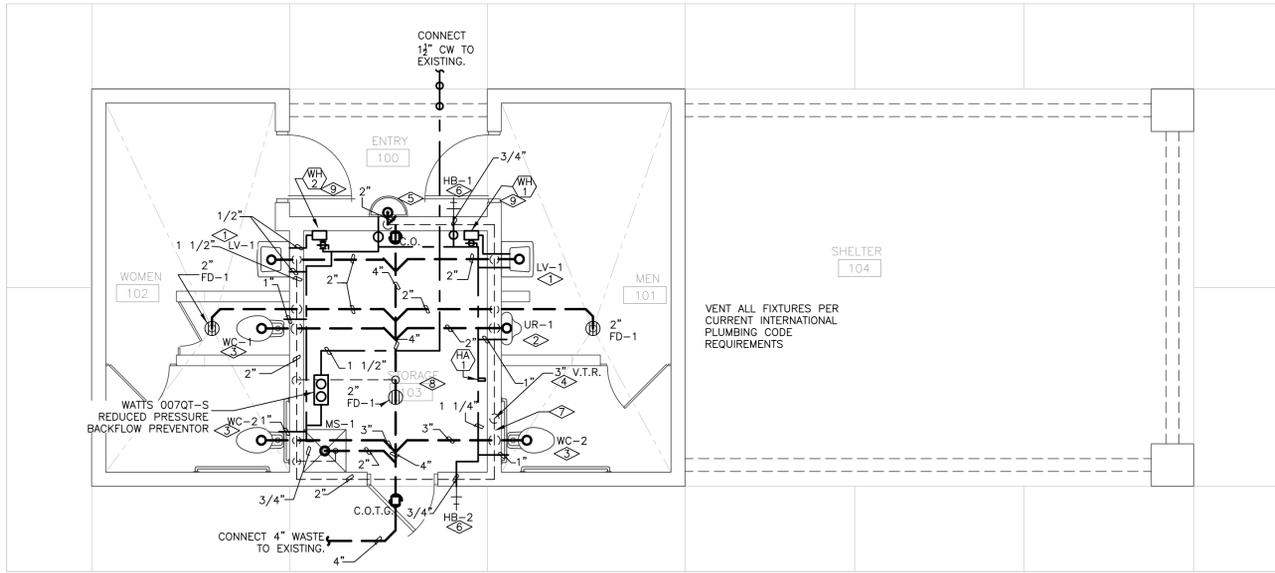
SECTION 21 3/4"=1'-0"



SECTION 22 3/4"=1'-0"



SECTION 23 3/4"=1'-0"



PLUMBING FLOOR PLAN

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



DRAWING FLAG NOTES: ◇

- 1. 1/2" CW DOWN ON WALL AND THROUGH WALL TO LAVATORY. 1/2" WASTE DOWN TO 2" WASTE BELOW FLOOR AND 1/2" VENT UP ON WALL TO ABOVE CEILING.
- 2. 1" CW DOWN ON WALL AND THROUGH WALL TO URINAL. 2" WASTE DOWN TO 2" WASTE BELOW FLOOR AND 1/2" VENT UP ON WALL TO ABOVE CEILING.
- 3. 1" CW DOWN ON WALL AND THROUGH WALL TO WATER CLOSET. 4" WASTE UNDER FLOOR AND 2" VENT UP ON WALL TO ABOVE CEILING.
- 4. COMBINE ALL VENTS TO 3" VENT THRU ROOF. LOCATE VTR ON SE SIDE OF ROOF RIDGE LINE.
- 5. 1/2" CW DOWN ON WALL AND THROUGH TO DRINKING FOUNTAIN. 1/2" WASTE DOWN ON WALL TO 2" WASTE BELOW FLOOR. 1/2" VENT UP ON WALL TO ABOVE CEILING.
- 6. 1/2" CW DOWN ON WALL AND THROUGH WALL TO HOSE BIBB.
- 7. 2" VENT UP ON WALL TO ABOVE CEILING. TYPICAL ALL
- 8. SLOPE ALL HOT AND COLD WATER LINES TO DRAIN AT LOW POINT. INSTALL VALVES TO PROVIDE FOR COMPLETE DRAIN DOWN, TO PREVENT FREEZE DAMAGE.
- 9. INSTANT HOT WATER HEATERS. SEE SCHEDULE THIS SHEET FOR FURTHER INFORMATION.
- 10. TS-1 THERMOSTAT, ROBERTSHAW MODEL 300-201 1.25 AMPS, 1@ 24 VOLTS. SLIMLINE PROGRAMMABLE HEATING THERMOSTAT WITH LCD READOUT AND MODEL 10-528 REMOTE SENSOR.

GENERAL NOTE:

- 1. CONTRACTOR TO VERIFY ALL SITE UTILITIES AND MODIFY/EXTEND AS REQUIRED - PROVIDE IN BID FOR ADJUSTMENTS - NO ADJUSTMENT TO BID SUM ALLOWED.
- 2. HORIZONTAL WATER PIPING SHALL BE LOCATED AS CLOSE TO CEILING AS POSSIBLE. ROUTE ALL VERTICAL DROPS DOWN TO FIXTURES IMMEDIATELY ADJACENT TO THE PLUMBING VENT FOR THAT FIXTURE. COORDINATE LAYOUT OUT WITH OWNER TO MAXIMIZE USABLE WALL SPACE.

FIXTURE CONNECTION SCHEDULE				
WATER CLOSET (FLUSH VALVE)	WASTE	VENT	HW	CW
WATER CLOSET (FLUSH VALVE)	3"	2"	-	1"
URINAL (FLUSH VALVE)	2"	1-1/2"	-	1"
LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"
DRINKING FOUNTAIN/E.W.C.	1-1/2"	1-1/2"	-	1/2"
FLOOR DRAIN	2"	1-1/2"	-	-
MOP SINK	2"	1-1/2"	1/2"	1/2"

SIZES SHOWN ARE MINIMUM PIPE SIZES TO A SINGLE FIXTURE. MINIMUM PIPE SIZE TO 2 OR MORE FIXTURES IS 3/4". ALL FIXTURES LISTED ARE NOT NECESSARILY USED ON THIS PROJECT.

*WASTE PIPES BELOW SLABS ON GRADE ARE A MINIMUM OF 2" DIA

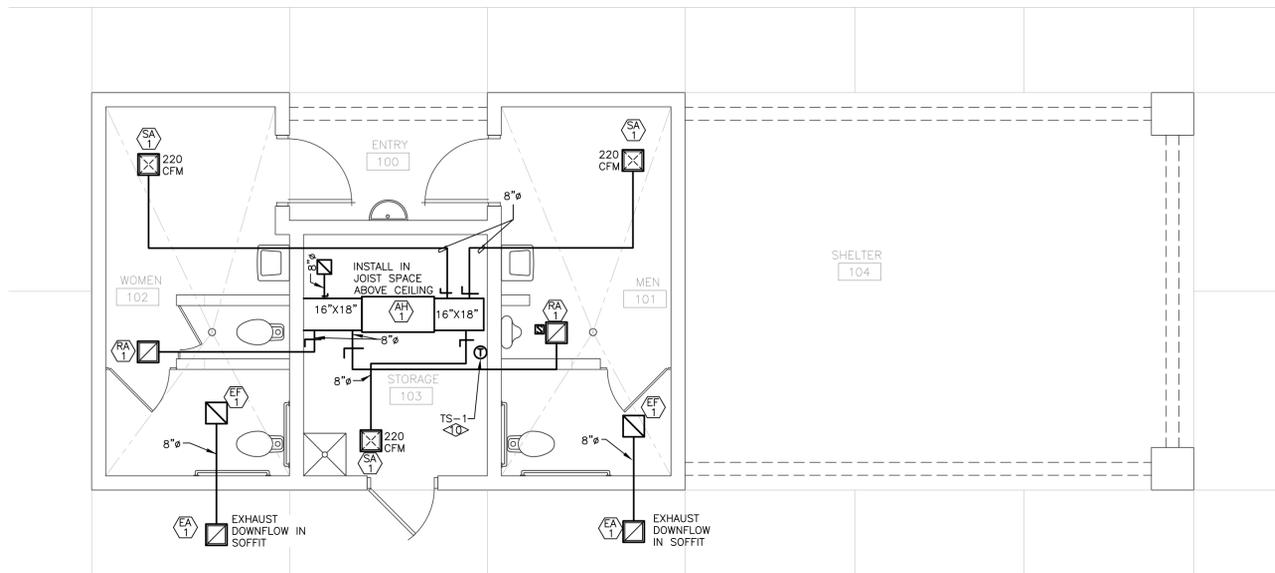
AIR DEVICE SCHEDULE						
DESIG.	TYPE OF INSTALLATION	MANUFACTURER & MODEL NUMBER	CONNECTION SIZE	ACCESSORIES	PANEL OR FACE SIZE	NOTES
SA-1	CEILING SUPPLY	KRUEGER SHE	8"	O.B.D.	12X12	1
RA-1	CEILING RETURN	KRUEGER SHE	8"	OPEN THROAT	12X12	2
EA-1	SIDEWALL	METALARE RH-1	8"	OPEN THROAT	12X6	3

1. SURFACE MOUNT, FRAME 22, STEEL GRILLE CONSTRUCTION.
 2. STEEL GRILLE CONSTRUCTION, 0 DEFLECTION.
 3. PROVIDE WITH FIELD INSTALLED INSECT SCREEN.

WATER HEATER SCHEDULE							
DESIG.	MANUFACTURE & MODEL NUMBER	GPM RISE	KW OUTPUT	Ø	VOLT	LOCATION	NOTES
WH-1	STIEBEL ELTON MINI 3	5 GPM @ 40 RISE	3 KW	1	120	ABOVE CEILING	1
WH-2	STIEBEL ELTRON MINI 3	5 GPM @ 40 RISE	3 KW	1	120	ABOVE CEILING	1

1. INSTANT HOW WATER HEATER, MOUNT ON WALL, 18" ABOVE FLOOR, PROVIDE BDT THERMOSTATIC MIXING VALVE, IN PIPING CHASE, 1/2" CONNECTIONS.

PLUMBING FIXTURE SCHEDULE					
DESIG.	UNIT DESCRIPTION	MANUFACTURER & CAT. NO.	DESCRIPTION	VOLTAGE AND PHASES	SIMILAR UNITS
DF-1	DRINKING FOUNTAIN	PROVIDED BY OWNER NONE	STERNS-WILLIAMS SINGLE BRUTE, SURFACE MOUNT DRINKING FOUNTAIN WITH FREEZE-RESISTANT VALVE SYSTEM MOUNTED ON BACK WALL	N/A	NONE
FD-1	FLOOR DRAIN	ZURN MODEL Z-415	DURA-COATED CAST IRON BODY FLOOR DRAIN WITH BOTTOM OUTLET, CLAMP, AND ADJUSTABLE TYPE B NICKEL BRONZE STRAINER. PIPE SIZE AS SHOWN ON DRAWING.	NO POWER REQUIRED	NONE
HA-1	WATER HAMMER ARRESTOR	ZURN MODEL Z-1700	SHOCKROL STAINLESS STEEL WATER HAMMER ARRESTOR WITH NESTING BELLOWS AND 1" IPS INLET	NO POWER REQUIRED	NONE
HB-1	HOSE BIBB	WOODFORD MODEL 24	WALL HYDRANT WITH 1/2" CONNECTION, VACUUM BREAKER AND WHEEL HANDLE	NO POWER REQUIRED	NONE
HB-2	HOSE BIBB	WOODFORD MODEL 65	AUTOMATIC DRAINING FREEZELESS WALL HYDRANT WITH 1/2" CONNECTION, VACUUM BREAKER AND LOOSE KEY OPERATOR	NO POWER REQUIRED	NONE
LV-1	LAVATORY	KOHLER K-2007	KINGSTON VITREOUS CHINA WALL HUNG LAVATORY WITH HEAVY DUTY CARRIER, GRID STRAINER, OFFSET DRAIN, TRAP, KEYS, TRUERO LAV GUARD AND SLOAN ELE-10-A FAUCET	24VAC	NONE
UR-1	URINAL	KOHLER MODEL K-4989-R	FRESHMAN VITREOUS CHINA WASH 1.0 GALLON URINAL WITH 1/2" REAR STUD, 2" THREADED OUTLET, WALL HUNGER AND SLOAN 198-1 ES-S FLUSH VALVE	24VAC	NONE
WC-1	WATER CLOSET	KOHLER MODEL K-4349	WELLCOME VITREOUS CHINA ELONGATED 1.6 GALLON FLOOR MOUNT SIPHON JET FLUSHING ACTION TOILET WITH 1/2" REAR SPUD. PROVIDE WITH OPEN FRONT SEAT, BOLT CAPS, AND SLOAN MODEL 140-1.6 ES-S	24VAC	NONE
WC-2	WATER CLOSET	KOHLER MODEL K-4367	HIGH CLIFF VITREOUS CHINA 17 1/2" HIGH ELONGATED 1.6 GALLON FLOOR MOUNT SIPHON JET FLUSHING ACTION TOILET WITH 1/2" REAR STUB. PROVIDE WITH OPEN FRONT SEAT, BOLT CAPS, AND SLOAN 140-1.6 ES-S FLUSH VALVE.	24VAC	NONE
MS-1	CAST IN PLACE MOP SINK	SEE DESCRIPTION	CAST IN PLACE 2'X2' MOP SINK. PROVIDE FD-1 FOR FLOOR DRAIN AND FAUCET 36"A.F.F. WILLIAMS T-10-VB	24VAC	NONE



MECHANICAL FLOOR PLAN

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



EXHAUST FAN SCHEDULE

DESIG.	CFM	S.F.	DIA.	RPM	WATTS	Ø	VOLT	MANUFACTURER & MODEL NUMBER	MOUNTING	POWERED BY	NOTES
EF-1	143	.25			80.7	1	115	COOK GC 162	CEILING	SWITCH	1
EF-1	143	.25			80.7	1	115	COOK GC 162	CEILING	SWITCH	1

1. PROVIDE WITH STEEL INTERIOR GRILLES.

AIR HANDLING UNIT SCHEDULE

DESIG.	AREA SERVED	CFM @ 6350'	EXT S.P. @ S.L.	MIN. CKT. AMPS	HEATING COIL				CONDENSER				EVAP. FAN				UNIT	MANUFACTURE & MODEL NO.	HTG. INPUT KW	COIL COOLING CAP. MBH.	NOTES	
					NO.	KW	Ø	VOLT	NO.	RLA	Ø	VOLT	NO.	Ø	VOLT	HP						Ø
AHU-1	ENTIRE BUILDING	660	.3"	27.1	1	6	1	23	---	---	---	---	---	---	---	---	1	230	FIRST CO. 18XMBX	6	---	1

NOTES:
 1. HORIZONTAL FAN COIL, WITH 1/8 HP DIRECT DRIVE THERMALLY PROTECTED MOTOR. 6 KW HEATER, FILTERS, CONTRACTOR, AND RELAY TO CYCLE FAN AND HEATING ELEMENTS.

MECHANICAL SPECIFICATIONS.

1. SCOPE OF WORK

- A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL LOCAL, CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
- C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
- D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.

2. PERMITS

- A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

- A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

3. FLEXIBLE DUCT WORK

- A. FLEXIBLE TYPE DUCT SHALL BE OF TWO ELEMENT SPIRAL CONSTRUCTION COMPOSED OF A CORROSION RESISTANT METAL SUPPORTING SPIRAL AND COATED FABRIC WITH A MINERAL BASE. FLEXIBLE DUCT CONNECTORS SHALL BE LISTED BY U.L., CLASS 1 DUCTS, AND SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50.
- B. USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO NO MORE THAN 6 LINEAR FEET PER RUN.
- C. CONTRACTOR SHALL BE CAREFUL SO AS NOT TO KINK OR COLLAPSE FLEXIBLE DUCT.

4. DUCTWORK

- A. THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SMACNA" APPLICABLE MANUALS.
- B. ALL DUCTWORK SHALL BE THE LOW VELOCITY TYPE, UNLESS SPECIFIED OTHERWISE.
- C. CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON DRAWINGS.
- D. ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS, SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.
- E. ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.
- F. ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE FACE AREA IS MAINTAINED.
- G. ALL CONCEALED DUCTWORK SHALL BE INSULATED WITH 1-1/2" FIBERGLASS INSULATING BLANKET WITH ALUMINUM FOIL FACING.

5. HVAC CONTROLS

- A. CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.

9. ELECTRICAL

- A. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR A. FOR LOCATION OF WIRING FOR EACH HVAC UNIT.

6. MISCELLANEOUS

- A. ALL EXTERIOR OPENINGS TO BE PROPERLY CAULKED AND SEALED WITH A SEALANT OF HIGH QUALITY AND LONG LIFE, TO PREVENT INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE.
- B. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS.
- C. VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.
- D. THE MECHANICAL PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURE'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT.
- E. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

7. TESTING AND BALANCING

- A. THE HVAC SYSTEM SHALL BE TESTED AND AND BALANCED BY AN INDEPENDENT AGENCY, UNDER THE SUPER-VISION OF A LICENSED PROFESSIONAL ENGINEER. A SEALED TYPE WRITTEN REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.

8. GUARANTEE

- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE(1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
- B. FOR THE SAME PERIOD, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

PLUMBING SPECIFICATION.

1. SCOPE OF WORK:

- A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION), ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
- C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
- D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.

2. PERMITS

- A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

- A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL.
- B. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. DOMESTIC WATER SUPPLY PIPING

- A. UNDERGROUND: PROVIDE TYPE "K" SOFT DRAWN COPPER TUBING WITH BRAZED CONNECTIONS.
- B. ABOVE GROUND: PROVIDE TYPE "L" HARD DRAWN COPPER TUBING WITH 125 PSI SOLDER JOINTS, COPPER OR BRASS FITTINGS SPECIFIED OR IMPLIED.
- C. ALL SOLDER TO BE "NO LEAD" TYPE.
- D. ALL HOT WATER PIPING TO BE INSULATED WITH 1" FIBERGLASS INSULATION.
- E. ALL COLD WATER PIPING TO BE INSULATED WITH 1/2" FOAM INSULATION.

5. SANITARY/STORM DRAINAGE AND VENT PIPING.

- A. ABOVE GRADE -2" BELOW: SCH-40 GALV. STL. PIPE WITH SCREWED ENDS OR SCH. 40PVC WITH SOLVENT JOINTS OR DWV COPPER WITH SOLDER JOINTS. ALL SOLDER TO BE "NO LEAD" TYPE. -3" AND ABOVE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SCH 40 PVC WITH SOLVENT JOINTS.
- B. BELOW GRADE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SCH 40 PVC WITH SOLVENT JOINTS. PVC PIPING SHALL NOT BE USED IN AIR PLENUM CEILING AND SHALL NOT CROSS FIRE RATED WALLS, CEILING, OR FLOORS.
- C. DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN FITTINGS.
- D. DRAINAGE PIPING 3" SIZE AND SMALLER SHALL RUN AT A UNIFORM GRADE OF AT LEAST 1/4" PER FOOT AND PIPING LARGER THAN 3" SHALL BE RUN AT A GRADE OF NO LESS THAN 1/8" PER FOOT.
- E. ALL VENT PIPING SHALL BE SLOPED TO DRAIN BACK TO FIXTURES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.
- F. ALL STUB-INS AND/OR SLAB OR WALL PENETRATION TO BE PER INTERNATIONAL PLUMBING CODE (LATEST EDITION). ALL PIPING PENETRATIONS OF BUILDING FOUNDATIONS OR FOOTINGS SHALL BE SLEEVED.

6. PIPE SUPPORTS

- A. ABOVE GRADE - ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE AND PERFORMED METAL TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL BE AS SPECIFIED IN INTERNATIONAL PLUMBING CODE (LATEST EDITION).
- B. BELOW GRADE - EARTH SHALL BE EXCAVATED TO A MINIMUM DEPTH WITH AN EVEN SURFACE TO INSURE SOLID BEARING OF PIPE FOR ITS ENTIRE LENGTH.
- C. INTERIOR: THE PIPE SHALL BE INSTALLED (UNLESS OTHERWISE SPECIFIED) A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE SLAB AND SHALL NOT BE IN ANY DIRECT CONTACT WITH THE CONCRETE AT ANY POINT.
- D. EXTERIOR: THE WATER PIPE SHALL HAVE A MINIMUM OF 42" OF COVER AND THE SANITARY WASTE PIPE SHALL HAVE A MINIMUM OF 24" OF COVER.

7. MISCELLANEOUS

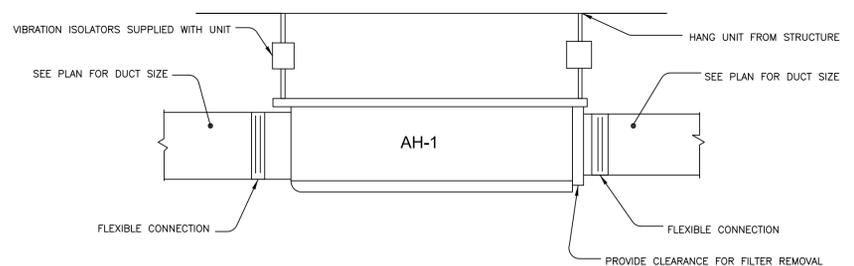
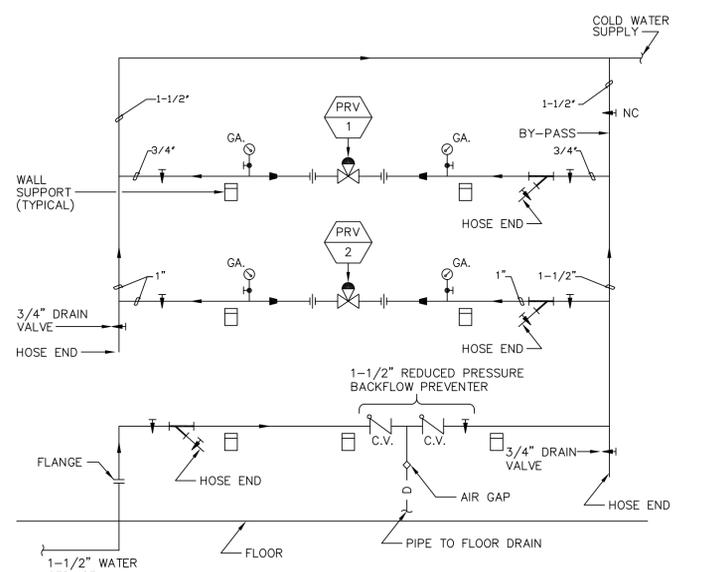
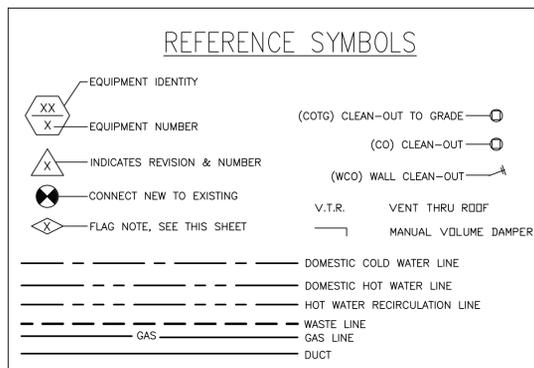
- A. COORDINATE INSTALLATION OF ALL ROOFS FLASHING AT ROOF PENETRATION. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS AND DIMENSIONS AT THE JOB SITE.
- B. THE PLUMBING PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURE'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT THE AVAILABLE SPACE.

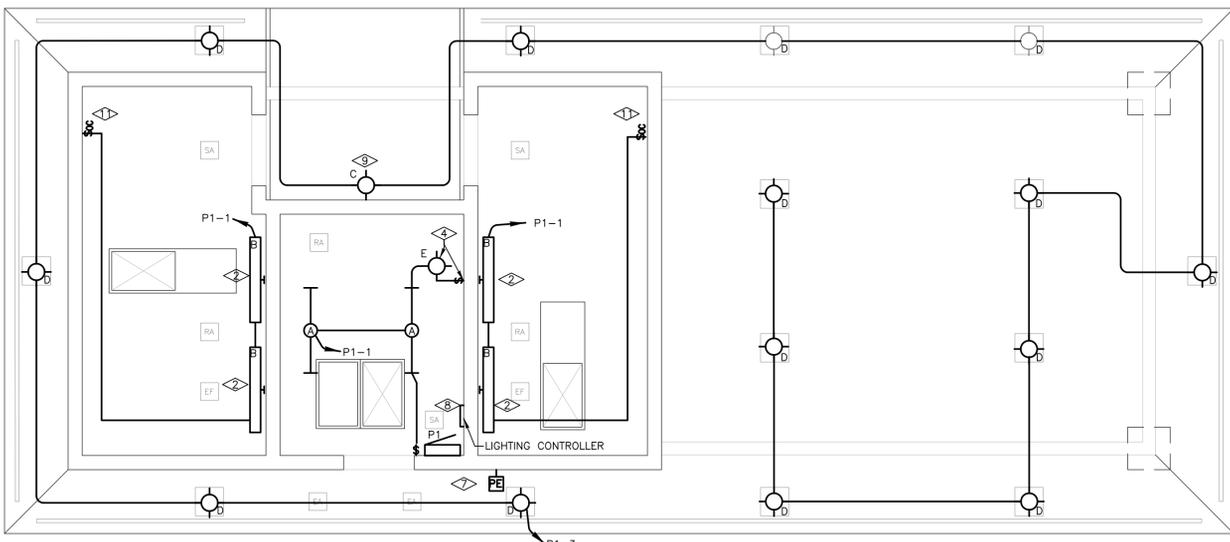
8. TESTING

- A. PLUMBING SYSTEM SHALL BE FLOW AND PRESSURE TESTED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION).

9. GUARANTEE

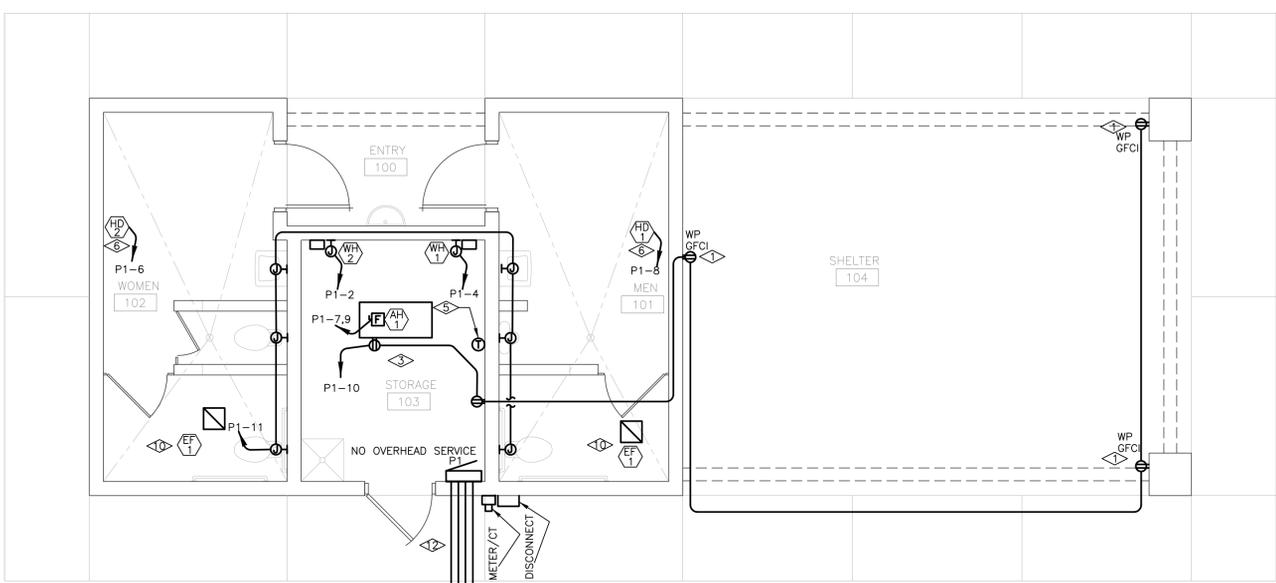
- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE AND BE GUARANTEED FOR THE SAME PERIOD.
- B. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.





LIGHTING FLOOR PLAN

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



ELECTRICAL FLOOR PLAN

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



- DRAWING FLAG NOTES:**
- ① EXTERIOR RECEPTACLE AND LUG COVERS SHALL BE WEATHERPROOF TO COMPLY WITH NEC 406.8(A) AND 406.8(B)(2). THEY SHALL BE MORTARED-IN TYPE, FLUSH MOUNTED AND LOCKABLE. ALL EXTERIOR RECEPTACLE AND PLUG COVERS SHALL BE OPENED BY A SINGLE KEY. EXTERIOR RECEPTACLE AND PLUG COVERS SHALL BE MADE OF HEAVY CAST ALUMINUM OR IRON. COORDINATE COLOR WITH THE OWNER. INSTALL CONDUITS FEEDING THE SHELTER AREA RECEPTACLES UNDER SLAB.
 - ② TYPE "B" WALL MOUNTED LIGHT FIXTURES ARE TO BE INSTALLED SO THAT THE TOP OF THE FIXTURE RESTS FLUSH AGAINST THE CEILING.
 - ③ RECEPTACLE IS TO BE SURFACE MOUNTED IN THE ATTIC IN AN EASILY ACCESSIBLE LOCATION.
 - ④ LIGHT FIXTURE "E" AND SWITCH ARE MOUNTED IN ATTIC SPACE. PLACE SWITCH IN LOCATION EASILY REACHED FROM THE ATTIC ACCESS DOOR.
 - ⑤ SEE MECHANICAL PLAN FOR DETAILS OF THERMOSTAT. CIRCUIT THERMOSTAT WITH AH-1 TO P1-7.3.
 - ⑥ COORDINATE EXACT LOCATION WITH ARCHITECTURAL PLANS PRIOR TO INSTALLATION.
 - ⑦ PHOTOCELL TO BE PRECISION CATALOG #T-168 OR EQUAL.
 - ⑧ CIRCUIT LIGHTING CONTROLLER TO P1-13
 - ⑨ MOUNT LIGHT FIXTURE IN THIS AREA AT 10'-4"
 - ⑩ CIRCUIT EXHAUST FAN IN THIS AREA TO P1-5 VIA LIGHTING CONTROLLER. PROGRAM LIGHTING CONTROL TO ENERGIZE FANS WHEN INTERIOR LIGHTS COME ON.
 - ⑪ MOUNT OCCUPANCY SENSOR IN THIS LOCATION AS HIGH AS POSSIBLE TO AVOID VANDALISM. PROVIDE OCCUPANCY SENSOR WITH A ADD-A-RELAY.
 - ⑫ STUB (4) 1" PVC FROM P1 TO CLEAR OF CONCRETE FOR FUTURE USE.

ELECTRICAL LEGEND	
NOTE: SYMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATION MAY BE USED ON THE PLANS SUCH AS § ₂ (b: SWITCHING DESIGNATION), Ⓢ ⁴ (4: CIRCUIT NO.), Ⓛ _{30A-2P} (30A-2P: 30 AMPERE-TWO POLE), ETC. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS; HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS OCCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED.	
	BRANCH CIRCUIT PANELBOARD
	TELEPHONE TERMINAL BOARD
	MOTOR
	FUSED SAFETY SWITCH / DISCONNECT
	COMBINATION MOTOR STARTER
	CONTACTOR
	CIRCUITRY HOMERUN: PANEL LA - CIR. #7
	CONDUIT OR WIRE CONCEALED IN WALL/CLG.
	CONDUIT OR WIRE UNDERFLOOR/UNDERGND.
	CEILING JUNCTION BOX - SURFACE/FLUSH
	WALL JUNCTION BOX - SURFACE/FLUSH
	DUPLEX RECEPTACLE
	SPLIT WIRED DUPLEX RECEPTACLE
	FOURPLEX RECEPTACLE
	APPLIANCE RECEPTACLE - 3 WIRE
	THERMOSTAT
	TELEPHONE OUTLET
	COMPUTER-DATA
	COMBINATION DATA/TELEPHONE
	TELEVISION OUTLET
	SINGLE POLE SWITCH
	TWO POLE SWITCH
	THREE-WAY SWITCH
	FOUR-WAY SWITCH
	DIMMER SWITCH
	MANUAL MOTOR STARTER
	FLUORESCENT FIXTURE TYPE A
	WALL BRACKET FLUORESCENT FIXTURE
	OPEN STRIP FLUORESCENT FIXTURE
	SURFACE CEILING INCANDESCENT OR H.I.D. FIXTURE
	WALL MOUNTED INCANDESCENT OR H.I.D. FIXTURE
	RECESSED CEILING DOWN LIGHT
	DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
	SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
	WALL MOUNTED EMERGENCY LIGHT
	REMOTE MOUNTED EMERGENCY HEAD
	MECHANICAL CONTRACTOR FURNISHED EQUIPMENT
	OWNER FURNISHED EQUIPMENT
	DRAWING FLAG NOTE
	ROOM DESIGNATION
	NL EXISTING NIGHT/SECURITY LIGHT - DO NOT SWITCH
	WP WEATHERPROOF
	A.F.F. ABOVE FINISHED FLOOR
	A.F.G. ABOVE FINISHED GRADE
	GFCI GROUND FAULT CIRCUIT INTERRUPTER
	GP RECEPTACLE IS GFCI PROTECTED FROM AN UP STREAM GFCI RECEPTACLE
	EM EMERGENCY FUNCTION
	42" MOUNTING HEIGHT - A.F.F. OR A.F.G. TO C.L. HIGH
	HID CB INTENSITY DISCHARGE LIGHTING TYPE CIRCUIT BREAKER
	SWD CB U.L. LISTED AS SWITCHING DUTY CIRCUIT BREAKER

- GENERAL NOTES:**
1. ALL CONDUITS AND CONVEYANCES SHALL BE CONCEALED IN THE EVENT THAT A NEW DEVICE IS BEING INSTALLED IN AN EXISTING DRYWALL PARTITION. PROVIDE A CUT IN TYPE BOX AND FISH FLEXIBLE CONDUIT DOWN INSIDE THE WALL FROM ABOVE THE CEILING AND REPAIR THE DRYWALL AROUND THE CONDUIT. TRANSITION TO EMT ONCE ABOVE THE CEILING.
 2. SIZES OF WIRE AND CABLES ARE BASED UPON COPPER CONDUCTORS, UNLESS OTHERWISE INDICATED. ALL CIRCUITS SHALL CONTAIN (2) #12 AWG WITH (1) #12 GND IN 1/2" CONDUIT UNLESS NOTED OTHERWISE.
 3. ALL PENETRATIONS IN OR THROUGH FIRE RATED PARTITIONS SHALL BE FIRE STOPPED IN SUCH A WAY THAT THE PENETRATION MATCHES THE FIRE RATING OF THE WALL.
 4. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN THE APPROPRIATE DISCIPLINES AND CONTRACTORS.
 5. COORDINATE ALL DEVICE, FIXTURE AND HARDWARE COLOR SELECTIONS WITH THE ARCHITECT PRIOR TO MAKING SHOP DRAWING SUBMITTALS.
 6. BRANCH CIRCUIT AND SPECIAL SYSTEMS WIRING FOR DEVICES ON WALLS IN FINISHED AREAS WHICH CANNOT BE CONCEALED SHALL BE INSTALLED IN SURFACE MOUNTED RACEWAY.
 7. ALL EXPOSED CONDUITS, BOXES, ETC. IN ROOMS TO BE PAINTED SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE. EXPOSED CONDUITS, BOXES, ETC. IN ROOMS WHICH ARE NOT PAINTED MAY BE LEFT UN-PAINTED. EXPOSED CONDUIT, BOXES, ETC. ON THE EXTERIOR OF BUILDINGS SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE AS CLOSELY AS POSSIBLE.
 8. THE CONTRACTOR IS RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING OR REPLACEMENT OF ALL WALLS, CEILING OR OTHER BUILDING ELEMENTS WHICH ARE DISTURBED AS PART OF THE DEMOLITION AND/OR INSTALLATION OF ELECTRICAL WORK.
 9. PROVIDE ELECTRICAL CONNECTION TO ALL FIRE SMOKE DAMPERS INCLUDING POWER AND FIRE ALARM. VERIFY EXACT SIZE AND FINAL LOCATION OF ALL DAMPERS WITH THE MECHANICAL CONTRACTOR. ALL ROOFTOP UNITS RATED AT MORE THAN 2000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN THE RETURN DUCT. ALL ROOFTOP UNITS RATED AT MORE THAN 15000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT AT ROOFTOP LEVEL AND IN THE RETURN DUCT AT EVERY LEVEL THAT IS SERVED. ELECTRICAL CONTRACTOR WILL PROVIDE A REMOTE TEST STATION AND ALL WIRING NECESSARY TO COMPLETE INSTALLATION.
 10. REFER TO THE ELECTRICAL CONNECTIONS SCHEDULE FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH PLUMBING AND HVAC EQUIPMENT AND OWNER/GENERAL CONTRACTOR FURNISHED EQUIPMENT.
 11. NOTES FROM ARCHITECT: ALL LIGHT FIXTURES SHALL BE SPACED ACCORDING TO THE ARCHITECTURAL PLANS, AT REGULAR AND REPETITIVE DIMENSIONS, CENTERED IF INDICATED. PROVIDE ALL REQUIRED WIRING TO POWER AND SWITCH LIGHT FIXTURES. CONCEAL WIRING FROM VIEW IN THE ENTRY, MEN, WOMEN AND SHELTER SPACES. WIRING IN ATTIC MAY BE WITHOUT CONDUIT IF ALLOWED BY CODE. WIRING IN STORAGE SHALL BE IN CONDUIT IF EXPOSED. COORDINATE EXACT LOCATION OF ELECTRICAL DEVICES SUCH AS RECEPTACLE SWITCHES AND CONVENIENCE OUTLETS WITH MASONRY DIMENSIONS, REQUEST CLARIFICATION IF NECESSARY. ALL RECEPTACLES TO HAVE GFI PROTECTION. PRIOR TO BID DATE, COORDINATE WITH THE OWNER'S REPRESENTATIVE THE ELECTRICAL REQUIREMENTS FOR IRRIGATION CONTROLS, TELEPHONE, SECURITY AND DATA SYSTEMS.

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 DKO Architecture, PC.

DKO ARCHITECTURE, PC
 1109 GLENDALE PLACE
 SPRINGFIELD, CO 81152
 970.448.3011
 K@DKOARCHITECTURE.COM

HAWTHORNE PARK SHELTER
 400 GUNNISON AVE
 GRAND JUNCTION, CO

Project No. 10-124	Drawn by: BB/RC
Phase	Issue Date 08/17/10

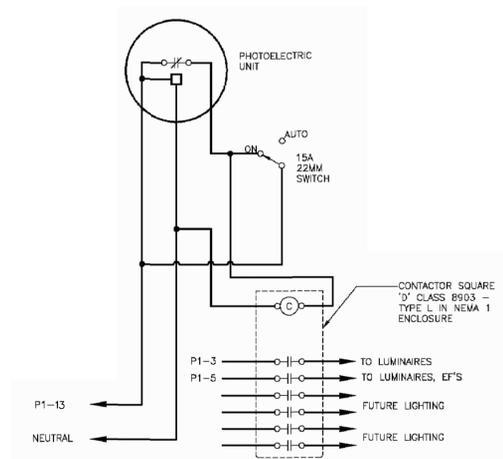
E1

LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER CATALOG NO.	MANUFACTURER CATALOG NO.	VOLTAGE MOUNTING # OF LAMPS	BALLAST LAMP TYPE LAMP CAT. #	DESCRIPTION
A	LITHONIA C 2 32 120 GEB10IS	ENGINEER APPROVED EQUIVALENT	120 CEILING SURFACE 2	ELECTRICAL F032/835/ECO 32W T8	4-3/16"Wx2-15/16"Dx48"L GENERAL PURPOSE STEEL CHANNEL WITH HIGH-GLOSS ENAMEL FINISH. INSTANT START BALLAST.
B	FAIL-SAFE FCC-D 332 120 80/85 EBB1 SF3	ENGINEER APPROVED EQUIVALENT	120 WALL SURFACE 3	ELECTRICAL F032/835/ECO 32W T8	8-1/2"W X 48"L X 8-1/2" H VANDAL PROOF FIXTURE WITH .187" POLYCARBONATE LENS & 125" PRISMATIC OVERLAY. ELECT. BALLAST.
C	RUUD LIGHTING SE5503-1-J	ENGINEER APPROVED EQUIVALENT	120 WALL SURFACE 1	ELECTRICAL C335S76/D/M 35W HPS	8" SQ X 7-1/2" DEEP UP/DOWN CUTOFF. ALUMINUM HOUSING, POLYCARBONATE LENS, WET LOCATION LISTED. TAMPER PROOF LENS.
D	FAIL-SAFE HDR-70MH-120-81	ENGINEER APPROVED EQUIVALENT	120 CEILING RECESSED 1	ELECTRICAL C335S76/D/M 70W HPS	15-3/8" SQUARE RECESSED FIXTURE W/.156" PRISMATIC POLYCARBONATE LENS AND ELECTRONIC BALLAST, DAMP LOCATION LISTED.
E	STONCO LIGHTING VK1GC	ENGINEER APPROVED EQUIVALENT	120 SURFACE 1	N/A 100A19 100W INCANDESCENT	4" X 4" X 8" CEILING SURFACE VAPORTIGHT JAR WITH CAST GUARD.
Q	LITHONIA 6ELM2NH	APPROVED EQUIVALENT	120/277 SURFACE WALL 2	NONE REQUIRED HALOGEN WITH UNIT	16.25"Wx5-3/8"Dx5"H IMPACT RESISTANT POLYCARBONATE HOUSING 8W HALOGEN LAMPS NICKEL CADMIUM BATTERY
X	LITHONIA LQMSW1G120/277ELN REFER TO NOTE 4	APPROVED EQUIVALENT	120/277 WALL/CEILING N/A	NONE REQUIRED LED WITH UNIT	12-1/4"Wx7-1/2"Hx2"D, WHITE POLYCARBONATE HOUSING WITH GREEN LETTERING. NICAD BATTERY
X	LITHONIA LHQMSW1G120/277 RO/ELN. *	APPROVED EQUIVALENT	120/277 WALL/CEILING N/A	NONE REQUIRED LED WITH UNIT	12-1/4"Wx7-1/2"Hx2"D, WHITE POLYCARBONATE HOUSING WITH GREEN LETTERING. NICAD BATTERY WITH IND REMOTE HEAD.
□	LITHONIA ELA-W-H0806	APPROVED EQUIVALENT	120/277 WALL/CEILING 1	NONE REQUIRED INCANDESCENT WITH UNIT	4.75"Wx7.75"Hx4.5"D WHITE SEALED REMOTE MOUNTED FIXTURE, 6 VOLT, 8 WATT LAMP. VERIFY COMPATIBILITY WITH EMERGENCY FIXTURE

- NOTES:
- THE ELECTRONIC FLUORESCENT BALLAST SHALL HAVE A TOTAL HARMONIC DISTORTION OF PLUS/MINUS 20% AND A BALLAST FACTOR EQUAL TO OR GREATER THAN 80%.
 - ALL LIGHTING FIXTURES DENOTED WITH "EM" OR HALF SHADED SHALL BE PROVIDED WITH AN ENGINEER APPROVED EMERGENCY BALLAST FOR OPERATION OF TWO LAMPS IN A 4 LAMP FIXTURE AND 1 LAMP IN A 2 OR 3 LAMP FIXTURE. BALLAST SHALL BE CONNECT TO THE UNSWITCHED SIDE OF THE LIGHTING CIRCUIT.
 - GRID TROFFER TYPE LIGHTING FIXTURES SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID.
 - THE SYMBOL USED IN THIS SCHEDULE IS A GENERIC SYMBOL TO INDICATE AN EXIT LIGHT FIXTURE. REFER TO THE PLANS FOR THE NUMBER OF FACES REQUIRED AT EACH EXIT. INSTALL THE NUMBER OF FACES REQUIRED AT EACH EXIT. FIELD ADJUST THE LOCATION OF THE EXIT SIGNS FOR THE BEST VISIBILITY POSSIBLE.
 - THIS EXIT SIGN REQUIRES THE EXTRA BATTERY CAPACITY TO OPERATE THE REMOTELY LOCATED EMERGENCY HEAD FOR EGRESS AWAY FROM THE BUILDING.
 - FLUORESCENT LUMINAIRE DISCONNECTING MEANS: INDOOR LOCATIONS, OTHER THAN DWELLINGS AND ASSOCIATED ACCESSORY STRUCTURES, FLUORESCENT LUMINAIRES (FIXTURES) THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE OR BALLASTED LUMINAIRES THAT ARE SUPPLIED FROM MULTI-WIRE BRANCH CIRCUITS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OR EXTERNAL TO EACH LUMINAIRE (FIXTURE), TO DISCONNECT SIMULTANEOUSLY FROM THE SOURCE OF SUPPLY ALL CONDUCTORS OF THE BALLAST, INCLUDING THE GROUNDING CONDUCTOR IF ANY. THE LINE SIDE TERMINALS OF THE DISCONNECTING MEANS SHALL BE GUARDED. THE DISCONNECTING MEANS SHALL BE LOCATED SO AS TO BE ACCESSIBLE TO QUALIFIED PERSONS BEFORE SERVICING OR MAINTAINING THE BALLAST. THIS REQUIREMENT SHALL BECOME EFFECTIVE JANUARY 1, 2008.

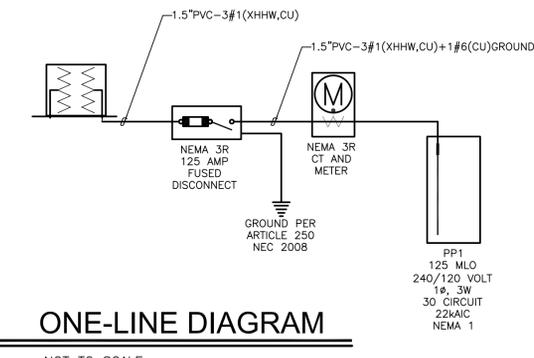
PANEL SCHEDULE -- PP1		TYPE: VOLTAGE: ENCLOSURE:	PANELBOARD NEMA1	BUS SIZE: MAIN BRKR: MOUNTING:	125 NONE SURFACE	PHASES: 1 WIRES: 3 SC. RATING: 22000	NEUTRAL BUS: YES GROUND BUS: YES
LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# LOAD	Ø	CKT# LOAD	AMPS POLES	LOAD DESCRIPTION
LIGHTING	AREA LIGHTING	20A 1P	1 900	A	2 3000	30A 1P	MECH HEATING WATER HEATER #1
LIGHTING	VIA LIGHTING CONTROLLER	20A 1P	3 800	B	4 3000	30A 1P	MECH HEATING WATER HEATER #2
MOTOR	EXHAUST FANS	15A 1P	5 200	A	6 2300	25A 1P	MECH HEATING HAND DRYER #1
MECH YEAR ROUND	AIR HANDLER	35A 2P	7 3252	B	8 2300	25A 1P	MECH HEATING HAND DRYER #2
MECH YEAR ROUND			9 3252	A	10 800	20A 1P	RECEPTACLE AREA SERVICE
PROCESS	FLUSH VALVE	20A 1P	11 400	B	12 0	20A 1P	SPARE UNALLOCATED FUTURE
LIGHTING	LIGHTING CONTROLLER	20A 1P	13 120	A	14 0	20A 1P	SPARE UNALLOCATED FUTURE
SPARE	UNALLOCATED FUTURE	20A 1P	15 0	B	16 0		SPACE
SPACE			17 0	A	18 0		SPACE
SPACE			19 0	B	20 0		SPACE
SPACE			21 0	A	22 0		SPACE
SPACE			23 0	B	24 0		SPACE
SPACE			25 0	A	26 0		SPACE
SPACE			27 0	B	28 0		SPACE
SPACE			29 0	A	30 0		SPACE
LOADS BY TYPE:		CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)	LOADS BY PHASE:		
LIGHTING	1820.00	1.25	2275.00	PHASE	CONNECTED LOAD (VA)	CONNECTED LOAD (AMPS)	BALANCE (PERCENT)
KITCHEN	400.00	1.00	400.00	A	10572.00	88.10	A-B: 92.2
RECEPTACLES	800.00	1.00	800.00	B	9752.00	81.27	B-A: 92.2
MECH HEATING	10600.00	1.00	10600.00	C			
MECH COOLING	0.00	1.00	0.00	TOTAL/AVERAGE	20324.00	84.68	92.2
MECH YEAR ROUND	6504.00	1.00	6504.00	NOTES:			
APPLIANCE	0.00	1.00	0.00	1. THE LARGEST CONNECTED MOTOR LOAD IS INCLUDED IN MECHANICAL, PROCESS, OR MOTOR LOADS.			
MISCELLANEOUS	0.00	1.00	0.00				
MOTOR	200.00	1.00	300.00				
SPARE	0.00	1.00	0.00				
LARGEST MOTOR 1	ABOVE	0.25	1626.00				
TOTAL	20324.00		22405.00				

MECHANICAL EQUIPMENT SCHEDULE												
UNIT NO	FUNCTION (NOTES)	LOAD	VOLTS	Ø	FULL LOAD AMPS	BRANCH CONDUIT SIZE	CIRCUIT NO.	WIRE SIZE	GRND WIRE SIZE	BRKR SIZE	START	DISC FUSE
EF 1	EXHAUST FAN #1 (TYPICAL OF 2)	99.6W	120	1	.83	1/2	2	#12		15		
WH 1	WATER HEATER #1	3KW	120	1	25.0	1/2	2	#10		30	W/U	30
WH 2	WATER HEATER #2	3KW	120	1	25.0	1/2	2	#10		30	W/U	30
AH 1	AIR HANDLER #1	---	240	1	27.1	1/2	3	#8		35	W/U	60
HD 1	HAND DRYER #1	2300K	120	1	20.0	1/2	2	#10		25		
HD 2	HAND DRYER #2	2300K	120	1	20.0	1/2	2	#10		25		



LIGHTING CONTROL

NOT TO SCALE



ONE-LINE DIAGRAM

NOT TO SCALE

