HISTORIC AND DESIGN REVIEW COMMISSION

January 17, 2024

HDRC CASE NO:	**2023-494**
ADDRESS:	107 S PINE ST
LEGAL DESCRIPTION:	NCB 600 BLK 4 LOT 17 & 18
ZONING:	AE-1, H
CITY COUNCIL DIST.:	2
APPLICANT:	Abe Gonzales/LS Contracting Inc
OWNER:	Shetigho Nakpodia/REDEEMER PRAISE CHURCH
TYPE OF WORK:	Amendment to a previously approved design regarding the construction of a side addition
APPLICATION RECEIVED:	December 06, 2023
60-DAY REVIEW:	February 04, 2024
CASE MANAGER:	Edward Hall

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to amend a previously approved addition at 107 S Pine, an individual landmark. Within this request the applicant has proposed the following:

1. Install an asphalt shingle roof in place of the previously approved standing seam metal roof. The applicant has also proposed to amend both siding and window materials.
2. Modify the previously approved fenestration regarding window placement and profiles. The rear façade is now void of fenestration.
3. Modify the previously approved footprint, predominantly by removing a portion of the proposed footprint in place of a rear pedestrian entrance and ADA ramp and centering/squaring the southern mass.

All other design elements appear to be consistent with the previously approved design. The applicant has changed since the review and approval of the previous application and design.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 3, Guidelines for Additions

1. Massing and Form of Residential Additions

A. GENERAL
i. Minimize visual impact—Site residential additions at the side or rear of the building whenever possible to minimize views of the addition from the public right-of-way. An addition to the front of a building would be inappropriate.
ii. Historic context—Design new residential additions to be in keeping with the existing, historic context of the block. For example, a large, two-story addition on a block comprised of single-story homes would not be appropriate.
iii. Similar roof form—Utilize a similar roof pitch, form, overhang, and orientation as the historic structure for additions.
iv. Transitions between old and new—Utilize a setback or recessed area and a small change in detailing at the seam of the historic structure and new addition to provide a clear visual distinction between old and new building forms.

B. SCALE, MASSING, AND FORM
i. Subordinate to principal facade—Design residential additions, including porches and balconies, to be subordinate to the principal façade of the original structure in terms of their scale and mass.
ii. Rooftop additions—Limit rooftop additions to rear facades to preserve the historic scale and form of the building from the street level and minimize visibility from the public right-of-way. Full-floor second story additions that obscure the form of the original structure are not appropriate.
iii. Dormers—Ensure dormers are compatible in size, scale, proportion, placement, and detail with the style of the house. Locate dormers only on non-primary facades (those not facing the public right-of-way) if not historically found within the district.

iv. Footprint—The building footprint should respond to the size of the lot. An appropriate yard to building ratio should be maintained for consistency within historic districts. Residential additions should not be so large as to double the existing building footprint, regardless of lot size.
v. Height—Generally, the height of new additions should be consistent with the height of the existing structure. The maximum height of new additions should be determined by examining the line-of-sight or visibility from the street. Addition height should never be so contrasting as to overwhelm or distract from the existing structure.

3. Materials and Textures

A. COMPLEMENTARY MATERIALS
i. Complementary materials—Use materials that match in type, color, and texture and include an offset or reveal to distinguish the addition from the historic structure whenever possible. Any new materials introduced to the site as a result of an addition must be compatible with the architectural style and materials of the original structure.
ii. Metal roofs—Construct new metal roofs in a similar fashion as historic metal roofs. Refer to the Guidelines for Alternations and Maintenance section for additional specifications regarding metal roofs.
iii. Other roofing materials—Match original roofs in terms of form and materials. For example, when adding on to a building with a clay tile roof, the addition should have a roof that is clay tile, synthetic clay tile, or a material that appears similar in color and dimension to the existing clay tile.

B. INAPPROPRIATE MATERIALS
i. Imitation or synthetic materials—Do not use imitation or synthetic materials, such as vinyl siding, brick or simulated stone veneer, plastic, or other materials not compatible with the architectural style and materials of the original structure.

C. REUSE OF HISTORIC MATERIALS
i. Salvage—Salvage and reuse historic materials, where possible, that will be covered or removed as a result of an addition.

4. Architectural Details

A. GENERAL
i. Historic context—Design additions to reflect their time while respecting the historic context. Consider character-defining features and details of the original structure in the design of additions. These architectural details include roof form, porches, porticos, cornices, lintels, arches, quoins, chimneys, projecting bays, and the shapes of window and door openings.
ii. Architectural details—Incorporate architectural details that are in keeping with the architectural style of the original structure. Details should be simple in design and compliment the character of the original structure. Architectural details that are more ornate or elaborate than those found on the original structure should not be used to avoid drawing undue attention to the addition.
iii. Contemporary interpretations—Consider integrating contemporary interpretations of traditional designs and details for additions. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the addition is new.

Standard Specifications for Windows in Additions and New Construction

Consistent with the Historic Design Guidelines, the following recommendations are made for windows to be used in new construction:

- GENERAL: Windows used in new construction should be similar in appearance to those commonly found within the district in terms of size, profile, and configuration. While no material is expressly prohibited by the Historic Design Guidelines, a high quality wood or aluminum-clad wood window product often meets the Guidelines with the stipulations listed below.
- SIZE: Windows should feature traditional dimensions and proportions as found within the district.
- SASH: Meeting rails must be no taller than 1.25”. Stiles must be no wider than 2.25”. Top and bottom sashes must be equal in size unless otherwise approved.
- DEPTH: There should be a minimum of 2” in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the

opening or with the installation of additional window trim to add thickness. All windows should be supplied in a block frame and exclude nailing fins which limit the ability to sufficiently recess the windows.

- TRIM: Window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail.
- GLAZING: Windows should feature clear glass. Low-e or reflective coatings are not recommended for replacements. The glazing should not feature faux divided lights with an interior grille. If approved to match a historic window configuration, the window should feature true, exterior muntins.
- COLOR: Wood windows should feature a painted finish. If a clad or non-wood product is approved, white or metallic manufacturer's color is not allowed and color selection must be presented to staff.

FINDINGS:

a. The primary structure located at 107 S Pine St is a 1-story church and a locally designated individual landmark. The structure features a cross gable roof configuration, gothic-style arched wood windows, and wood lap and fish scale wood shingle siding. The structure was designated as in individual landmark in 2017 as part of the Eastside Churches designation initiative.

b. PREVIOUS APPROVAL – A Certificate of Appropriateness was issued by the Historic and Design Review Commission in 2021 for the construction of a side addition. The following stipulations were included:
   i. That the applicant installs aluminum clad wood windows that meet the following stipulations: Meeting rails must be no taller than 1.25" and stiles no wider than 2.25". White manufacturer's color is not allowed, and color selection must be presented to staff. There should be a minimum of two inches in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. Window trim must feature traditional dimensions and architecturally appropriate sill detail.
   ii. That the standing seam metal roof features panels that are 18 to 21 inches wide, seams that are 1 to 2 inches tall, a crimped ridge seam and a standard galvalume finish. Ridges are to feature a double-munch or crimped ridge configuration; no vented ridge caps or end caps are allowed. An on-site inspection must be scheduled with OHP staff prior to the start of work to verify that the roofing material matches the approved specifications.
   iii. That cement board siding features a smooth finish and no faux grain with a maximum reveal of 4 to 6 inches.
   iv. That the board and batten siding features boards that are twelve (12) inches wide with battens that are 1 – ½" wide.
   v. That the applicant meets all setback standards as required by city zoning requirements and obtains a variance from the Board of Adjustment if applicable.

c. CURRENT REQUEST – At this time, the applicant is requesting a Certificate of Appropriateness for approval to amend the previously approved deign regarding fenestration, materials, and the rear façade's design. The applicant has changed since the 2021 request.

d. MATERIALS (Roof) – The applicant has proposed to install an asphalt shingle roof in place of the previously approved standing seam metal roof. The Guidelines for Additions 3.A. notes that materials that match in type, color, and texture as the original should be used. Additionally, the Guidelines note that any new materials introduced to the site as a result of an addition must be compatible with the architectural style and materials of the original structure. Staff finds the installation of an asphalt shingle roof to be inconsistent with the Guidelines. While an existing addition feature an asphalt shingle roof, the original structure feature a standing seam metal roof. Staff finds the roofing material of the original structure should be matched. The standing seam metal roof should feature smooth panels that are 18 to 21 inches wide with no corrugation or striation, seams that are 1 to 2 inches in height, a crimped ridge seam and either a standard galvalume finish or a color to match the patina of the original roof (red).

e. MATERIALS (Siding) – The applicant has proposed composite siding materials in both a lap and board and batten profile. Staff finds that all horizontal lap siding should feature a four (4) inch exposure and a smooth finish. Board and batten siding should feature boards that are twelve (12) inches wide, battens that are 1.5 inches wide and a smooth finish.

f. MATERIALS (Windows) – The applicant has proposed to install vinyl clad windows. Generally, staff does not find windows feature vinyl materials or elements to be appropriate. Staff recommends the applicant install materials that are consistent with the adopted specifications for windows in new construction and additions.

g. FENESTRATION – The applicant has proposed to modify the previously approved fenestration regarding window placement and profiles. The rear façade is now void of fenestration. Generally, staff finds the changes in fenestration to be minimal; however, staff finds that fenestration should be added to the rear façade as that façade is currently void of fenestration or façade separation.
h. REAR FAÇADE – The applicant has proposed to modify the previously approved footprint, predominantly by removing a portion of the proposed footprint in place of a rear pedestrian entrance and ADA ramp and centering/squaring the southern mass. Generally, staff finds this scope of work to be appropriate; however, as noted in finding g, staff finds that fenestration should be added to the rear façade.

RECOMMENDATION:

1. Staff does not recommend approval of item #1, the installation of an asphalt shingle roof in place of the previously approved standing seam metal roof. Staff recommends a standing seam metal roof be installed, as noted in finding d. The standing seam metal roof should feature smooth panels that are 18 to 21 inches wide with no corrugation or striation, seams that are 1 to 2 inches in height, a crimped ridge seam and either a standard galvalume finish or a color to match the patina of the original roof (red). An on-site inspection must be scheduled with OHP staff prior to the start of work to verify that the roofing material matches the approved specifications.
2. Staff recommends approval of item #2, fenestration modifications with the following stipulations:
    i. That windows feature materials that are consistent with the adopted specifications for windows in new construction and additions; typically wood or aluminum clad wood. Staff recommends against the use of vinyl products.
    ii. That fenestration is added to the rear façade, as noted in finding g.
3. Staff recommends approval of item #3, a modification to the footprint and rear façade with the stipulation that fenestration is added to the rear façade.

In addition to the above stipulations, staff recommends the following regarding materials.

i. That all horizontal lap siding features a four (4) inch exposure and a smooth finish. Board and batten siding should feature boards that are twelve (12) inches wide, battens that are 1.5 inches wide and a smooth finish.

City of San Antonio One Stop

January 10, 2024

1:1,000

0 0.0075 0.015 0.03 mi

0 0.0125 0.025 0.05 km

City of San Antonio GIS
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LS Contracting Inc.
27280 Smithson Valley Rd.
San Antonio, TX 78261
210-416-1844

December 1, 2023

Office of Historic Preservation City of San Antonio
1901 S. Alamo Street
San Antonio, Texas 78204

RE: PROPOSED NEW CONSTRUCTION / 107 S. PINE ST.

The attached files contain materials to assist your office in our request for a Certificate of Appropriateness for the new construction of a building at 107 S. Pine Street, existing designated Historic Landmark. The church was designated in January 2017 as part of the Eastside Churches Survey.

Currently, the original sanctuary building, now Redeemer's Praise Church, provides a place for religious mission, family and individual counseling, church administrative operations, and a staging area for feeding and clothing the poor, marginalized, and homeless. The Pastor and volunteers prepare meals for off-site distribution and facilitate outdoor Food Bank distributions weekly. Many of the participants to the weekly distribution come from the immediate and adjoining neighborhoods. The proposed project will be a community center to the existing church and will house all activities with the exception of religious worship services.

EXISTING HISTORIC LANDMARK – The original church on this location appears in the 1904 Sanborn Fire Map but minimal is known about the structure's style. Contemporaneous sources document that at least one major rebuilding campaign by the members of the Pine Street Presbyterian Church occurred in 1907 after a major fire event. Currently, 107 S. Pine is a 2483 square foot, wood frame church comprised of two volumes: the original south wing built in 1907 and the smaller north wing built sometime after 1924. Stylistic elements include Gothic revival high-pitched gable roof forms, drop lap siding, wood shingle gable infill, and exposed curved rafter tails. The standing seam metal roof on the south wing was installed over the original wood shingle roof cover sometime before the north wing was constructed. The rough framing for the doorways, gothic-inspired windows, and oculi are original but the trims are not. The east-facing main entry location is historic, and the baldachin-like wood structure may be historic, but the exterior materials are not. The south facing projecting bay contains the altar and is original.

There is an existing back doorway on the west face of the North Wing that we would like to switch with the window opening to the north on the same façade to facilitate an accessible path to the new project.

PROJECT - The 2097 square foot building is single-story building located on a corner lot among mixed uses (residential, commercial, parking, and industrial. In this case, the larger north wing contains the business operations and the modest residential scale south wing designed to fit within its development context, is a meeting room with support areas. The rear West Yard off of Omaha Street behind a gate will be used for deliveries and outgoing meals for remote distribution.

The Project is a conventional wood framed structure on raised concrete foundation with access, egress, and exit components made of concrete as well. Exterior materials include cement board lap siding for the north wing and a board and batten pattern 12 inches wide with battens 1 – ½ inch wide, for the south wing to meet**,** the smooth side on all cement board products will be used, with a maximum reveal of 6 – 6 inches. Aluminum clad windows with wood casing to give the appearance of wood windows, windows will be block framed to comply with OHP's Window Policy and include 1x window and door trims. Window trim will feature traditional dimensions and architecturally appropriate sill detail. See window detail on plans A6.0-6.2. The exterior doors to be metal clad 2-panel. The New Project entry will be on the west side of the Church. The roof for the Project will be standing seam metal to match the historic church. Standing seam metal will feature panels that are 18 to 21 inches wide, seams that are 1 – 2 inches tall, a crimped ridge seam and a standard galvalume finish. Ridges are to feature a double-munch or crimped ridge configuration; no vented ridge caps or end caps will be added. The guard- and handrails throughout the project for landings, stairs, and ramps are proposed to be light galvanized steel in an effort to minimize their visual presence.

Paint selection for exterior cement board lap siding – SW2839 and trim SW2833.

Please feel free to contact me with any questions, comments, or concerns.

Thank you,

Abe Gonzales

LS Contracting Inc.

LOVE COMMUNITY CENTER

REDEEMER PRAISE CHURCH

107 S. PINE STREET, SAN ANTONIO, TEXAS 78203

NCB 600 BLK 4 LOT 17 & 18

APPROXIMATELY 2,098 SF

DRAWING INDEX

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A2.0-A2.1	GENERAL SPECIFICATIONS
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A4.0	FLOOR PLAN / WALL KEY / DOOR SCHEDULE / WINDOW SCHEDULE / WINDOW TYPES
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E1	LIGHTING FLOOR PLAN
E2	POWER FLOOR PLAN / SCHEDULES / RISER

GENERAL NOTES

1. ALL WORK IS TO BE DONE BY THE GENERAL CONTRACTOR, EXCEPT AS NOTED OTHERWISE.
2. THE SCOPE OF THE DOCUMENTS: THESE DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF DESIGN CONCEPT, THE MAJOR ARCHITECTURAL ELEMENTS, THE TYPE OF STRUCTURE, THE DIMENSIONS OF THE WORK, MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS. ON THE BASIS OF THE GENERAL SCOPE INDICATED OR DESCRIBED, THE CONTRACTOR SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
3. THE CONTRACTOR SHALL BE REQUIRED TO ASSUME ALL RESPONSIBILITY FOR JOB SITE CONDITIONS AND JOB SITE SAFETY, INCLUDING ALL PERSONS AND PROPERTY; THIS REQUIREMENT IS CONTINUOUS AND NOT LIMITED TO NORMAL WORK HOURS. THE CONTRACTOR AGREES TO INDEMNIFY AND HOLD OWNER AND ARCHITECT HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF THE WORK ON THIS PROJECT.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AS REQUIRED FOR CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TAPS, EXTENSIONS, WATER AND ELECTRICITY FOR ALL PROJECT FUNCTIONS, INCLUDING CONTRACTOR'S ONSITE OFFICES AND STORAGE. IF REQUIRED, THE CONTRACTOR SHALL MODIFY/ADJUST/RELOCATE EXISTING UTILITY LINES AND CONTACT UTILITY COMPANY FOR COORDINATION BEFORE COMMENCING WITH SUCH WORK. THE CONTRACTOR SHALL TAKE PRECAUTION TO PROTECT THE UTILITIES AND STRUCTURES AT THE PROJECT SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF THE UTILITIES IMMEDIATELY UPON BREAK OR DAMAGE TO ANY UTILITY LINE OR APPURTENANCE, OR THE INTERRUPTION OF THEIR SERVICE. IF ANY CONFLICT/DISCREPANCY ARISES FROM EXISTING UTILITIES AND/OR REQUIREMENTS OF THE PROJECT, CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER SO THAT DISCREPANCY/CONFLICT MAY BE RESOLVED.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. SHOULD A DISCREPANCY APPEAR IN THE DRAWINGS OR SPECIFICATIONS OR IN THE WORK DONE BY OTHERS FROM THE CONTRACT DOCUMENTS THAT AFFECT ANY WORK, CONTRACTOR IS TO NOTIFY THE OWNER AT ONCE FOR INSTRUCTIONS ON HOW TO PROCEED. IF THE CONTRACTOR PROCEEDS WITH THE WORK AFFECTED WITHOUT INSTRUCTIONS FROM THE OWNER, THE CONTRACTOR SHALL MAKE GOOD/CORRECT ANY RESULTING DAMAGE OR DEFECT TO THE SATISFACTION OF THE OWNER. SHOULD A CONFLICT OCCUR IN OR BETWEEN DRAWINGS AND SPECIFICATIONS, OR WHERE DETAIL REFERENCES ON THE CONTRACT DOCUMENTS HAVE BEEN OMITTED, THE CONTRACTOR IS DEEMED TO HAVE ESTIMATED THE MORE EXPENSIVE MATERIALS AND CONSTRUCTION METHOD SHOWN, UNLESS A WRITTEN DECISION FROM THE OWNER HAS BEEN OBTAINED WHICH DESCRIBES AN ALTERNATE METHOD AND/OR MATERIALS.
6. THE CONTRACTOR SHALL CONFINE HIS OPERATION ON THE SITE TO AREAS PERMITTED BY THE OWNER. THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL ORDINANCES, PERMITS, AND ALL APPLICABLE LAWS, INCLUDING TEXAS ACCESSIBILITY STANDARDS. THE JOBSITE SHALL BE MAINTAINED IN A CLEAN, ORDERLY CONDITION FREE OF DEBRIS AND LITTER, AND SHALL NOT BE UNREASONABLY ENCUMBERED WITH ANY MATERIALS OR EQUIPMENT. EACH SUBCONTRACTOR, IMMEDIATELY UPON COMPLETION OF EACH PHASE OF HIS WORK, SHALL REMOVE ALL TRASH AND DEBRIS THAT RESULTED FROM HIS OPERATION.
7. ALL MATERIALS ON SITE SHALL BE PROPERLY STACKED AND PROTECTED TO PREVENT DAMAGE AND DETERIORATION UNTIL USE. FAILURE TO PROTECT MATERIALS MAY BE CAUSE FOR REJECTION OF WORK.
8. THE CONTRACTOR SHALL DO ALL CUTTING, FITTING, OR PATCHING OF HIS WORK THAT MAY BE REQUIRED TO MAKE ITS SEVERAL PARTS FIT TOGETHER PROPERLY, AND SHALL NOT ENDANGER ANY OTHER WORK BY CUTTING, EXCAVATING OR OTHERWISE ALTERING THE TOTAL WORK OR ANY PART OF IT. ALL PATCHING, REPAIRING AND REPLACING OF MATERIALS AND SURFACES, CUT OR DAMAGED IN EXECUTION OF WORK, SHALL BE DONE WITH APPLICABLE MATERIALS SO THAT SURFACES REPLACED WILL, UPON COMPLETION, MATCH SURROUNDING SIMILAR SURFACES.
9. NO PORTION OF THE WORK THAT REQUIRES A SHOP DRAWING OR SAMPLE SUBMISSION SHALL BE COMMENCED UNTIL SUBMISSION HAS BEEN REVIEWED BY THE GENERAL CONTRACTOR AND OWNER. ALL SUCH PORTIONS OF THE WORK SHALL BE IN STRICT ACCORDANCE WITH DRAWINGS AND SAMPLES.
10. INSTALL ALL MANUFACTURED ITEMS, MATERIALS AND EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, EXCEPT THAT SPECIFICATIONS, WHERE MORE STRINGENT, SHALL APPLY.
11. PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, FASTENERS AND ATTACHMENTS FOR LIGHT FIXTURES, ELECTRIC UNITS, FIXTURES, PLUMBING FIXTURES AND ALL OTHER ITEMS REQUIRING SUCH. FOLLOW MANUFACTURER'S RECOMMENDATIONS AT A MINIMUM.
12. WHERE LARGE STUDS OR FURRING ARE REQUIRED TO COVER PIPING AND CONDUITS, THE LARGER STUD SIZE OF FURRING SHALL EXTEND THE FULL SURFACE OF THE WALL WIDTH AND LENGTH WHERE THE FURRING OCCURS.
13. THE CONTRACTOR IS TO KEEP A FULL SET OF UP-TO-DATE PLANS AVAILABLE AT THE JOB SITE AT ALL TIMES.
14. ALL PENETRATIONS THROUGH EXTERIOR WALLS SHALL BE SEALED AIR AND WATER TIGHT, CAULKED WITH TWO PART SEALANT EACH SIDE. WHERE WALLS ARE FIRE RATED, CONTRACTOR TO USE FIRE RATED CAULKING.
15. STRUCTURAL ENGINEER WILL BE CONSULTED ON EXISTING STRUCTURE WHERE ROOFTOP UNITS ARE INSTALLED, WHERE TENANT IMPROVEMENTS AFFECT ROOF, CONTRACTOR SHALL CONTACT OWNER AND CONTRACT WITH OWNER'S ROOFING COMPANY. IF OWNER'S ROOFING COMPANY REQUIRES THAT THEY PERFORM ANY ROOF WORK TO MAINTAIN ANY TYPE OF WARRANTY ON PREVIOUSLY PERFORMED ROOF WORK.
16. DIMENSIONS:
    A. DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE.
    B. DIMENSIONS ARE TO 2 STUD UNLESS OTHER WISE NOTED.
    C. CEILING HEIGHT DIMENSIONS ARE FROM FINISH FLOOR OR SLAB TO FINISH FACE OF CEILING.
17. GENERAL CONTRACTOR TO SUBMIT PRODUCT DOCUMENTATION TO ARCHITECT 4 OWNER SHOWING WINDOWS AND GLASS MEET THE MINIMUM ENERGY CODE REQUIREMENTS (U-FACTOR AND SHGC) - REFERENCE WINDOW SCHEDULE OR REQUEST COPY OF INTERNATIONAL ENERGY CONSERVATION CODE CERTIFICATES FOR THIS PROJECT.
18. THIRD PARTY INSPECTIONS REQUIRED BY CITY ARE TO BE COORDINATED BETWEEN OWNER AND GENERAL CONTRACTOR. SEE CITY REQUIREMENTS FOR QUALIFIED INSPECTION COMPANIES AND REQUIRED INSPECTIONS, INCLUDING THIRD-PARTY ENERGY CODE SERVICES/QUALIFICATIONS/INSEPCTIONS.
19. WHERE FIGURES OR DIMENSIONS HAVE BEEN OMITTED FROM THE DRAWINGS, THE DRAWINGS SHALL NOT BE SCALED. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DESIGNER OR OWNER OF ANY OMISSIONS.
20. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR HAVING THE SUBCONTRACTORS COORDINATE THEIR WORK WITH THE WORK OF THE OTHER TRADES INCLUDING WORK NOT IN THE CONTRACT.
21. THE CONTRACTOR IS TO FILE FOR AND SECURE ALL APPROVALS, TESTS, INSPECTIONS AND CERTIFICATES OF COMPLIANCE AS REQUIRED. THE OWNER WILL SUBMIT DRAWINGS AND FEES FOR PERMITTING.
22. THE CONTRACTOR IS RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS NECESSARY FOR COMPLETION OF WORK.
23. THE OWNER, ARCHITECT, DESIGNER, OR ENGINEERS WILL NOT BE RESPONSIBLE FOR ANY VERBAL INSTRUCTIONS.
24. SPECIFIED ITEMS HAVE BEEN SELECTED BECAUSE THEY REFLECT THE STANDARDS OF QUALITY DESIRED, OR POSSESS FEATURES REQUIRED TO PRESERVE THE DESIGN CONCEPT. THE DESIGNER THEREFORE PRESERVES THE RIGHT TO REQUIRE THE USE OF THE SPECIFIED ITEMS. ANY REQUESTS FOR ALTERNATES FOR SPECIFIED ITEMS MUST BE SUBMITTED TO THE DESIGNER IN WRITING, TOGETHER WITH PROOF OF THE EQUALITY OF SUCH ITEMS. IN ALL CASES, THE BURDEN OF PROOF OF EQUALITY SHALL BE WITH THE BIDDER AND THE DECISION OF THE DESIGNER SHALL BE FINAL.
25. ALL SCRAP FROM LUMBER, CRATING, PAPER, AND SIMILAR TYPES OF TRASH ARE TO BE REMOVED FROM THE SITE ON A DAILY BASIS. TRASH IS NOT TO BE ALLOWED TO ACCUMULATE.
26. ALL MATERIALS AND LABOR TO BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL PAYMENT. CONTRACTOR TO PROVIDE (SUPPLY AND INSTALL) ALL EQUIPMENT, LABOR SERVICES, AND MATERIALS REQUIRED FOR THE COMPLETE APPROVED INSTALLATION OF THE SYSTEMS AS CALLED FOR.
27. ALL MATERIALS, CONSTRUCTION, AND FINISHES TO BE FIRE RATED, FIREPROOFED AND FIRE RETARDANT TO MEET LOCAL, STATE, AND APPLICABLE NATIONAL FIRE CODES. ALL MATERIALS TO BE NEW AND OF THE BEST QUALITY AVAILABLE AND SHALL BE UL/FM RATED AS REQUIRED. NO COMBUSTIBLE MATERIALS ARE TO BE INSTALLED ABOVE CEILING GRID.
28. TENANT'S CONTRACTOR SHALL VERIFY WITH THE OWNER ALL FIXTURES BY OTHERS.
29. THE CONTRACTOR SHALL KEEP ALL HANDBOOKS, PAPERWORK AND KEY IN A MARKED ENVELOPE. ALL KEYS TO BE TAGGED WITH PROPER LOCATIONS. THIS ENVELOPE SHOULD BE TURNED OVER TO THE STORE OPERATIONS MANAGER WITH CERTIFICATE OF OCCUPANCY.
30. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE A CAREFUL INSPECTION OVER THE CONSTRUCTION AS A WHOLE, ASSURING HIMSELF THAT THE WORK ON THAT PART OF THE PROJECT IS READY FOR FINAL ACCEPTANCE BEFORE CALLING UPON THE DESIGNER AND OWNER TO MAKE A FINAL INSPECTION.
31. THE GENERAL CONTRACTOR SHALL INSTALL GROMMETS AS NEEDED AT ALL BUILT IN COUNTERS AT LOCATIONS OF ELECTRICAL OUTLETS, TYPICAL THROUGHOUT.
32. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR HAVING THE SUBCONTRACTORS COORDINATE THEIR WORK WITH THE WORK OF THE OTHER TRADES INCLUDING WORK NOT IN THE CONTRACT.
33. THE GENERAL CONTRACTOR SHALL COORDINATE HIS ACTIVITIES DURING CONSTRUCTION WITH THE OWNER'S PROJECT MANAGER.
34. ALL MATERIALS AND LABOR TO BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL PAYMENT. CONTRACTOR TO PROVIDE (SUPPLY AND INSTALL) ALL EQUIPMENT, LABOR SERVICES, AND MATERIALS REQUIRED FOR THE COMPLETE APPROVED INSTALLATION OF THE SYSTEMS AS CALLED FOR.
35. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE A CAREFUL INSPECTION OVER THE CONSTRUCTION AS A WHOLE, ASSURING HIMSELF THAT THE WORK ON THAT PART OF THE PROJECT IS READY FOR FINAL ACCEPTANCE BEFORE CALLING UPON THE ARCHITECT AND OWNER TO MAKE A FINAL INSPECTION.
36. THE GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AS REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
37. JOINTS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED, OR OTHERWISE SEALED TO LIMIT INFILTRATION AND EXFILTRATION.
38. SUPPORT WIRES FOR THE LAY-IN CEILING GRID MUST NOT BE CONNECTED TO ANY MECHANICAL, ELECTRICAL, PLUMBING OR FIRE PROTECTION PIPING OR EQUIPMENT.
39. THE GENERAL CONTRACTOR SHALL REPAINT AND/OR REPAIR OWNER'S PROPERTY DAMAGED DURING CONSTRUCTION.
40. ACCESS PANELS IN CEILING MUST BE LOCATED TO PROVIDE ACCESS TO MECHANICAL EQUIPMENT AS REQUIRED BY CODE.
41. ALL MATERIALS USED IN THE CONSTRUCTION OF THIS SPACE MUST BE ASBESTOS FREE.
42. THE GENERAL CONTRACTOR MUST CONTRACT WITH OWNER APPROVED SPRINKLER CONTRACTOR.
43. MATERIALS AND PRODUCTS SPECIFIED FOR USE IN THIS TENANT LEASE SPACE SHALL NOT CONTAIN ASBESTOS, POLYCHLORINATED BIPHONYLS (PCB) OR OTHER HAZARDOUS MATERIALS.
44. ALL DRAINS MUST BE ACCESSIBLE AND HAVE CLEANOUTS.
45. THE TENANT SHALL SLEEVE, FIRE STOP, FLASH & CAULK ALL PENETRATIONS SO AS TO PROVIDE AND ADEQUATE SEAL.

CODE ANALYSIS

1. SCOPE OF WORK:
   NEW COMMUNITY CENTER BUILDING FOR AN EXISTING CHURCH IN A PREVIOUSLY VACANT LOCATION. INCLUDES ARCHITECTURAL, INTERIOR DESIGN, STRUCTURAL, CIVIL, ELECTRICAL, AND MECHANICAL. (2)
2. GOVERNING CODES:
   ALL WORK SHALL BE IN CONFORMANCE WITH, BUT NOT LIMITED TO, THE REQUIREMENTS OF THE FOLLOWING, AND ANY OTHER FEDERAL, STATE, AND LOCAL CODES, LAWS AND ORDINANCES THAT APPLY: (2)
   - BUILDING - 2021 INTERNATIONAL BUILDING CODE W/ AMENDMENTS
   - EXISTING BUILDING - 2021 INTERNATIONAL EXISTING BUILDING CODE W/ AMENDMENTS
   - MECHANICAL - 2021 INTERNATIONAL MECHANICAL CODE W/ AMENDMENTS
   - PLUMBING - 2021 INTERNATIONAL PLUMBING CODE W/ AMENDMENTS AND THE 2018 INTERNATIONAL FUEL GAS CODE
   - FIRE PROTECTION - 2021 INTERNATIONAL FIRE & GAS CODE W/ AMENDMENTS
   - ENERGY - 2021 INTERNATIONAL ENERGY CONSERVATION CODE W/ AMENDMENTS
   - ELECTRICAL - 2020 NATIONAL ELECTRICAL CODE W/ AMENDMENTS
   - ACCESSIBILITY - 2012 TEXAS ACCESSIBILITY STANDARDS W/ AMENDMENTS
3. DEPARTMENT OF INSPECTION:
   CITY OF SAN ANTONIO DEVELOPMENT SERVICES
   CLIFF MORTON DEVELOPMENT AND BUSINESS SERVICES CENTER
   1901 SOUTH ALAMO
   SAN ANTONIO, TEXAS 78204
   (210) 207-1111
4. CONSTRUCTION TYPE:
   ONE STORY
   TYPE V-B CONSTRUCTION - NOT SPRINKLED
5. OCCUPANCY GROUP: (2)
   BUSINESS GROUP A-3 INCLUDES ASSEMBLY USES INTENDED FOR WORSHIP, RECREATION OR AMUSEMENT AND OTHER ASSEMBLY USES NOT CLASSIFIED ELSEWHERE IN GROUP A INCLUDING, BUT NOT LIMITED TO: COMMUNITY HALLS, PLACES OF RELIGIOUS WORSHIP.
6. AREA:
   GROSS LEASABLE AREA OF APPROXIMATELY 2,098 SF.
7. OCCUPANCY LOAD:
   REFER TO SHEET A3.1 FOR OCCUPANCY LOAD BREAKDOWN.

CONTACT LIST

CLIENT:	REDEEMER PRAISE CHURCH 107 S. PINE STREET SAN ANTONIO, TEXAS 78203
PROJECT ADDRESS:	107 S. PINE STREET SAN ANTONIO, TEXAS 78203
PROJECT COORDINATOR:	FRAUSTO DESIGNS 8600 WURZBACH ROAD, SUITE 902 SAN ANTONIO, TEXAS 78240 (210) 223-3313 / (210) 223-3391 FAX CONTACT: DAVID FRAUSTO
PROJECT ENGINEERS:	GARCIA MODESTO, INC. FIRM #2556 3935 HUNTERS ROCK SAN ANTONIO, TEXAS 78230
PROJECT STRUCTURAL ENGINEERS:	HQ-ENGINEERING, LLC CONTACT: HUGO L. QUINTERO (210) 318-6000
PROJECT CIVIL ENGINEERS:	URBANE ENGINEER, LLC CONTACT: EDGAR MUNOZ, M.S., P.E. (210) 681-4180

DEFINITIONS

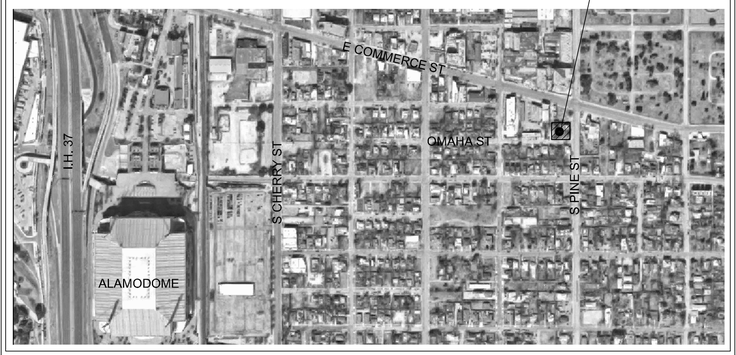
G.C.	REPRESENTS WORK TO BE PERFORMED BY THE TENANT'S GENERAL CONTRACTOR OR SUBCONTRACTORS FOR THE TENANT'S GENERAL CONTRACTOR.
OWNER	REPRESENTS WORK OR ITEMS TO BE FURNISHED OR FURNISHED AND INSTALLED BY THE OWNER OR SUBCONTRACTORS WORKING DIRECTLY FOR THE OWNER.

ABBREVIATIONS

AFF.	ABOVE FINISH FLOOR	I.D.S.	INTERNAL DOWNSPOUT
BLK.	BLOCKING	K.E.S.	KITCHEN EQUIP. SUPPLIER
CKT.	CIRCUIT	LAV.	LAVATORY
℄	CENTERLINE	MANUF.	MANUFACTURER
CLG.	CEILING	MAX.	MAXIMUM
CONC.	CONCRETE	MIN.	MINIMUM
CONT.	CONTINUOUS	MR	MIRROR
CPT	CARPET	MTL.	METAL
CTRTP.	COUNTERTOP	N.I.C.	NOT IN CONTRACT
DN	DOWN	NO.	NUMBER
DIA	DIAMETER	O.C.	ON CENTER
DTL (5)	DETAIL (5)	O.D.	OUTSIDE DIMENSION
DWG (5).	DRAWING (5)	O.H.	OVERHEAD
EA.	EACH	OPN'G	OPENING
EL.	ELEVATION	PLYWD	PLYWOOD
EQ.	EQUAL	RAD	RADIUS
EQUIP.	EQUIPMENT	RE:	REFERENCE
EXIST.	EXISTING	REQ'D.	REQUIRED
EXP.	EXPANSION	S.C.	SOLID CORE
F.P.	FIREPROOF	SCHED.	SCHEDULE
FIN	FINISH (ED)	STL.	STEEL
GA.	GAUGE	S.A.T.	SUSPENDED ACOUSTICAL TILE
GYP. BD.	GYPSUM BOARD	TYP.	TYPICAL
GWB	GYPSUM WALL BOARD	U.N.O.	UNLESS NOTED OTHERWISE
G.C.	GENERAL CONTRACTOR	VAR.	VARIES
GALV.	GALVANIZED	V.C.T.	VINYL COMPOSITION TILE
GL.	GLASS	W/	WITH
HDW.	HARDWARE	WAIN.	WAINSCOT
HGT.	HEIGHT	WD.	WOOD
H.M.	HOLLOW METAL	@	AT
H.C.	HOLLOW CORE		

LOCATION MAP

REDEEMER PRAISE CHURCH
LOVE COMMUNITY CENTER



REVISIONS	BY
1 01/27/2023	EJP

REGISTERED ARCHITECT
TED R. TRAUTNER
#20209
STATE OF TEXAS
3/28/23

TDLR PROJECT REGISTRATION NUMBER:
TAB52023008703

LOVE COMMUNITY CENTER
REDEEMER PRAISE CHURCH
107 S. PINE STREET, SAN ANTONIO, TEXAS 78203

Frausto Designs
8600 WURZBACH ROAD
SUITE 902
SAN ANTONIO, TX 78240
210-262-7365

CONTENTS

- BREAKDOWN OF RESPONSIB.
- DRAWING INDEX
- CODE ANALYSIS
- GENERAL NOTES
- CONTACT LIST/ DEFINITIONS
- ABBREVIATIONS
- LOCATION MAP

Date 12/27/2022

Drawn EJP

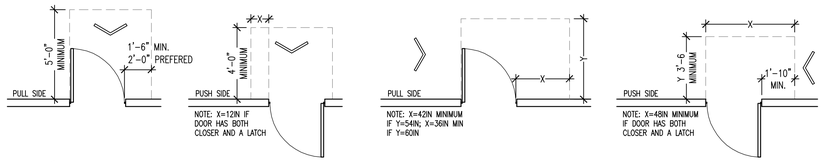
Job 22101

Sheet A1.0

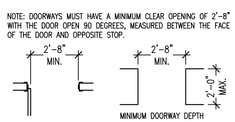
Of Sheets

MANEUVERING CLEARANCES AT DOORS

NOTE:
1. MANEUVERING SPACE AT ALL ENTRY'S AND DOORS TO HAVE 2% MAXIMUM SLOPE IN ALL DIRECTIONS.
2. ALL DOORS IN ALCOVE SHALL COMPLY WITH THE CLEARANCES FOR FRONT APPROACH.

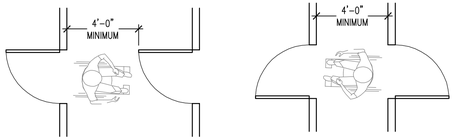


NOTE: DOORWAYS MUST HAVE A MINIMUM CLEAR OPENING OF 2'-8" WITH THE DOOR OPEN 90 DEGREES, MEASURED BETWEEN THE FACE OF THE DOOR AND OPPOSITE STOP.



ACCESSIBLE DOORS

ALL DOORS IN ALCOVE SHALL COMPLY WITH THE CLEARANCES FOR FRONT APPROACH.



TWO HINGED DOORS IN SERIES

NOTE: 4'-0" MINIMUM REQUIRED BETWEEN TWO (2) DOORS IN SERIES IN OPEN POSITION.

ENTRANCES

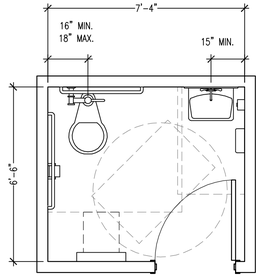
1. Such entrances shall be connected by an accessible route to public transportation stops, to accessible parking and passenger loading zones, and public streets or sidewalks if available. They shall also be connected by an accessible route to all accessible spaces or elements within the building or facility.
2. Service entrances shall not be the sole accessible entrance unless it is the only entrance to a building or facility (for example in a factory or garage).

DOORS

1. REVOLVING DOORS & TURNSTILES. Revolving doors or turnstiles shall not be the only means of passage at an accessible entrance or along and an accessible route. An accessible gate or door shall be provided adjacent to the turnstiles or revolving doors and shall be designated as to facilitate the same use pattern.
2. GATES. Gates, included ticket gates shall meet all applicable specifications on this section.
3. DOUBLE LEAF DOORWAY. If double leaf doorway have to independently operated door leaves, then at least one leaf shall meet the clear width and maneuvering clearances specifications. That leaf shall be an active leaf.
4. CLEAR WIDTH. Doorways shall have a minimum clear opening of 32 in with the door open 90 degrees, measured between the face of the door and opposite stop.

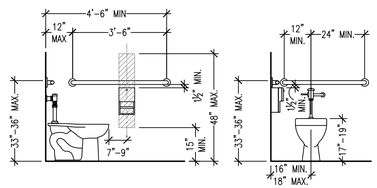
EXCEPTION: Doors not requiring full user passage, such as shallow closets, may have the clear opening reduced to 20 in minimum.

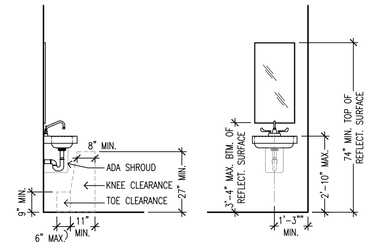
5. MANEUVERING CLEARANCES AT DOORS. Minimum maneuvering clearances at doors they are not automatic or power assisted shall be shown. The floor or ground area within the required clearances shall be level and clear.
6. TWO DOORS IN SERIES. The minimum space between two hinged or pivoted doors in series shall be 48 in plus the width of the any door swinging into the space. Doors in series shall swing either in the same direction or away from the space between the doors.
7. THRESHOLDS AT DOORWAYS. Thresholds at doorways shall not exceed ¾ in in height for exterior sliding doors or ½ in for other types of doors. Raised thresholds and floor level changes at accessible doorways shall be beveled with a slope no greater than 1:2.
8. DOOR HARDWARE. Handles, pulls, latches, locks and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching or twisting of the wrist to operate. Lever operated mechanism, push type mechanism, and u-shapes handles are acceptable designs. When sliding doors are fully open, operating hardware shall be exposed and usable from both sides. Hardware required for accessible door passage shall be mounted no higher than 48 in above finished floor.
9. DOOR CLOSER. If a door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.
10. DOOR OPENING FORCE. The maximum force for pushing or pulling open a door shall be as follows:
    a. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.
    b. Other doors:
        1. Exterior hinged doors: (reserved).
        2. Interior hinged doors: 5 LBF
        3. Sliding or folding doors: 5 LBF
        These forces do not apply to force required to retract latch bolts or disengage other devices that may hold the door open in a closed position.
11. AUTOMATIC DOORS AND POWER ASSISTED DOORS. If AN AUTOMATIC DOOR IS USED, THEN IT SHALL COMPLY WITH ANSI/BHMA A156-10-1985. Slowly opening, low powered, automatic doors shall comply with ANSI A156.19-1984. Such doors shall not open to back check faster than 3 seconds and shall require no more than 15 LBF (66.6N) to stop movement. if powered assisted door is used, its door opening force shall comply with 4.13.11 and its closing shall conform to the requirements in ANSI A156.19-1984.

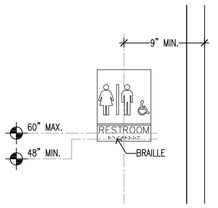


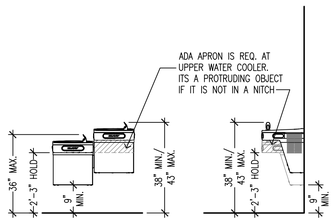
TYPICAL ACCESSIBLE TOILET ROOM

1. The nominal diameter or width of the gripping surfaces of a handrail or grab bar shall be 1½" or the shape shall provide an equivalent gripping surface. If handrails or grab bars are mounted adjacent to a wall, the space between the wall and the grab bar shall be 1½".
2. Grab bars shall be designed to withstand 250 pounds of force in all directions and shall not rotate within their fittings

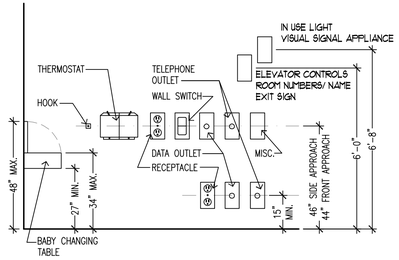








OBJECTS WITH LEADING EDGES OF MORE THAN 27" AND NOT MORE MORE THAN 80" ABOVE THE FINISH FLOOR OR GROUND SHALL PROTRUDE 4" MAXIMUM HORIZONTALLY INTO THE CIRCULATION PATH.



TEXAS ACCESSIBILITY STANDARDS ACCESSIBLE PARKING

208. PARKING SPACES

TOTAL NUMBER OF PARKING SPACES PROVIDED IN PARKING FACILITY	MINIMUM NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES
1 TO 25	1
26 TO 50	2
51 TO 75	3
76 TO 100	4
101 TO 150	5
151 TO 200	6
201 TO 300	7
301 TO 400	8
401 TO 500	9
501 TO 1000	2 PERCENT OF TOTAL 20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000

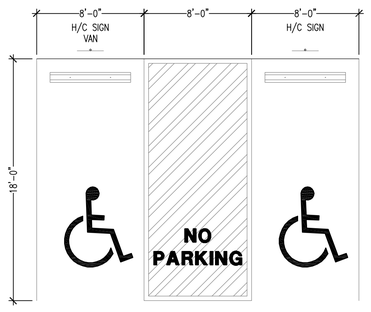
NOTE:
1. ACCESS AISLE ADJACENT TO ACCESSIBLE SPACE SHALL BE 60 INCHES WIDE MINIMUM.
2. ONE IN EVERY EIGHT ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, SHALL BE SERVED BY AN ACCESS AISLE 96 INCHES WIDE MINIMUM AND SHALL BE DESIGNATED "VAN ACCESSIBLE".
3. IF PASSENGER LOADING ZONES ARE PROVIDED, THEN AT LEAST ONE PASSENGER LOADING ZONE SHALL COMPLY.
4. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 96 INCHES IN WIDTH. PARKING ACCESS AISLE SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE. TWO ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE CLEAR WIDTH OF AN ACCESSIBLE ROUTE. PARKING SPACES AND ACCESS AISLE SHALL BE LEVEL WITH SURFACE SLOPE NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS.
5. EACH ACCESSIBLE PARKING SPACE SHALL BE DESIGNATED AS RESERVED BY A VERTICALLY MOUNTED OR SUSPENDED SIGN SHOWING THE SYMBOL OF ACCESSIBILITY (PROVIDE ADDITIONAL SIGNS FOR "VAN ACCESSIBLE". CHARACTERS AND SYMBOLS ON SUCH SIGNS SHALL BE LOCATED 60 INCHES MINIMUM ABOVE THE GROUND FLOOR OR PAVING SURFACE SO THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.
6. PROVIDE MINIMUM VERTICAL CLEARANCE OF 114 INCHES AT ACCESSIBLE PASSENGER LOADING ZONES AND ALONG ONE VEHICLE ACCESS ROUTE TO SUCH AREAS FROM SITE ENTRANCE(S) AND EXIT(S). AT PARKING SPACES COMPLYING WITH "VAN ACCESSIBILITY", PROVIDE MINIMUM CLEARANCE OF 98 INCHES AT THE PARKING SPACES AND ALONG AT LEAST ONE VEHICLE ACCESS ROUTE TO SUCH SPACES FROM SITE ENTRANCE(S) AND EXIT(S).

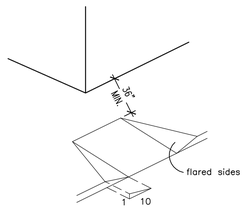
68.104. ACCESSIBLE PARKING SPACES

A. A paved accessible parking space must include:
    1. The international symbol of accessibility painted conspicuously on the surface in a color that contrasts the pavement;
    2. The words "no parking" painted on any access aisle adjacent to the parking space. the words must be painted:
        (A) In all capital letters;
        (B) With a letter height of at least twelve inches, and a stroke width of at least two inches; and
        (C) Centered within each access aisle adjacent to the parking space; and
    3. A sign identifying the consequences of parking illegally in a paved accessible parking space. the sign must:
        (A) At a minimum state 'violators subject to fine and towing'in a letter height of at least one inch;
        (B) Be mounted on a pole, post, wall or freestanding board;
        (C) Be no more than eight inches below a sign required by Texas Accessibility Standards, 502.6; and
        (D) Be installed so that the bottom edge of the sign is no lower than 48 inches and no higher than 80 inches above ground level.
B. A parking space identification sign that complies with Texas Accessibility Standards, 502.6, that includes the requirements in subsection (a)(3)(a) satisfies subsection (a)(3).

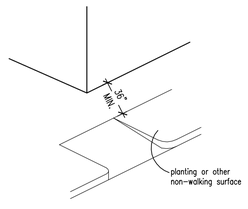
CURB RAMP

1. Slope: The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in. If it is technically infeasible because of space limitations for curb ramps and ramps to be constructed on existing sites or in existing buildings with a slope of 1:12 or less, ramps may have slopes and. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.
2. Width: The minimum width of a curb ramp shall be 36 in, exclusive of flared sides.
3. Landings shall be provided at the tops of curb ramps. The landing clear length shall be 36 inches minimum. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing. In alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.
4. Surface: (1) Textures shall consist of exposed crushed stone aggregate, roughened concrete, rubber, raised abrasive strips, or grooves extending the full width and depth of the curb ramp. Surfaces that are raised, etched, or grooved in a way that would allow water to accumulate are prohibited. (2) For purposes of warning, the full width and depth of curb ramps shall have a light reflective value and texture that significantly contrasts with that of adjoining pedestrian routes.
5. Sides of Curb Ramps: If a curb ramp is located where pedestrians must walk across the ramp, or where it is not protected by handrails or guardrails, it shall have flared sides; the maximum slope of the flare shall be 1:10. Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp.
6. Built-up Curb Ramps: Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes or into spaces that would interfere with persons entering or exiting parked or standing vehicles.
7. Obstructions: Curb ramps shall be located or protected to prevent their obstruction by parked vehicles.
8. Location at Marked Crossings: Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.
9. Diagonal Curb Ramps: If diagonal (or corner type) curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have 48 in minimum clear space. If diagonal curb ramps are provided at marked crossings, the 48 in clear space shall be within the markings. If diagonal curb ramps have flared sides, they shall also have at least a 24 in long segment of straight curb located on each side of the curb ramp and within the marked crossing.
10. Islands: Any raised islands in crossings shall be cut through level with the street or have curb ramps at both sides and a level area at least 48 in long between the curb ramps in the part of the island intersected by the crossings.

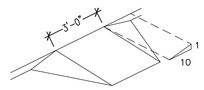




FLARED SIDES

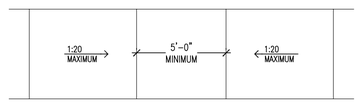


RETURNED CURBS

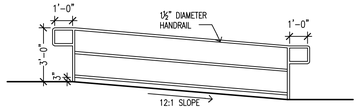


BUILT UP CURB RAMP

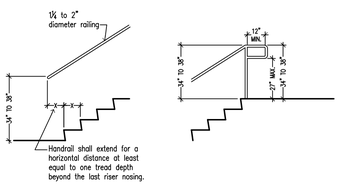
CURB RAMPS



PARALLEL PUBLIC SIDEWALK RAMP



TYPICAL RAMP



GROUND AND FLOOR SURFACES

1. GENERAL: Ground and floor surfaces along accessible routes and in accessible rooms and spaces including floors, walks, ramps, stairs and curb ramps shall be stable, firm and slip resistant. Soft and loose materials such as sand, gravel, bark, mulch or wood chips are not suitable. cobblestone and other irregular surfaces having texture that constitute an obstacle or hazard, such as improperly laid flagstone, shall not be a part of accessible routes, spaces and elements.
2. CHANGES IN LEVEL. Changes in level up to ¼ in may be vertical and without edge treatment. changes in level between ¼ in and ½ in shall be beveled with a slope no greater than 1:2. Changes in level greater than ½ in shall be accomplished by means of a ramp that complies.
3. CARPET. If carpet or carpet tile is used on a ground or surface, then it shall be securely attached, have a firm cushion, pad, or backing, or no cushion or pad, and have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. The maximum pile thickness shall be ½ in. Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge.
4. GRATING. If gratings are located in walking surfaces or along accessible routes. Then they shall have spaces no greater than ½ in wide in one direction. If gratings have elongated openings, then shall be placed so that the longer dimension is perpendicular to the dominate direction of travel.

RAMPS

1. Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with these requirements.
2. SLOPE & RISE. The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30in.
3. CLEAR WIDTH. The minimum clear width of a ramp 30 ft or less in length shall be 36 in. Ramps more than 30 ft in length shall have a minimum clear width of 44in.
4. LANDINGS. Ramps shall have level landings at bottom and top of each ramp and each ramp run. Landings shall have the following features:
    a. The landing shall be at least as wide as the width of the ramp run leading to it.
    b. The landing length shall be a minimum of 60 in clear.
    c. If ramps change direction at landing, the minimum landing size shall be 60 in by 60 in.
    d. If a doorway is located at a landing, then the area in front of the doorway shall comply with requirements under the door section.
5. HANDRAILS. If a ramp run has a rise greater than 6 in or a horizontal projection greater than 72 in, then it shall have handrails on both sides. Handrails are not required on curb ramps or adjacent to seating in assembly areas. Handrails shall have the following features:
    a. Handrails shall be provided along both sides of ramp segments. The inside handrail or switchback or dogleg ramps shall always be continuous.
    b. If handrails are not continuous, they shall extend at least 12 in beyond the top and bottom of the ramp segment and shall be parallel with floor or ground surface.
    c. The clear space between the handrail and the wall shall be 1½ in.
    d. Gripping surface shall be continuous.
    e. Top of handrail gripping surface shall be mounted between 34 in and 38 in above ramp surface.
    f. Ends of handrails shall be either rounded or returned smoothly to floor, wall or post.
    g. Handrails shall not rotate within their fittings.
6. CROSS SLOPE & SURFACE. The cross slope of a ramp surface shall be no greater than 1:50.
7. EDGE PROTECTION. Ramps and landings with drop-offs shall have curbs, walls, railing or protection surface that prevents people from slipping off the ramp. Curbs shall be a minimum of 2 in high.

REVISIONS	BY

REGISTERED ARCHITECT
TED R. TRAUTNER
#20911
STATE OF TEXAS

LOVE COMMUNITY CENTER

REDEEMER PRAISE CHURCH
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GENERAL SPECIFICATIONS

DIVISION 1 -- GENERAL REQUIREMENTS

A. BONDS, CERTIFICATES, PERMITS, AND INSPECTIONS

1. The Contractor shall maintain and pay for all insurance as required by the landlord and Laws of the State. The Contractor shall pay all Social Security, Unemployment, Workmen's Compensation and other taxes required by Federal, State, and Local laws.
2. All permits and licenses necessary for the proper execution of the work shall be secured and paid for by the Contractor or subcontractors involved.
3. Contractors to file for and secure all approvals, inspections, and certificates of compliance as required.
4. Contractor shall purchase and maintain insurance to protect himself from loss by fire, lightning, extended coverage and vandalism in the full amount of the contract.
5. The Contractor shall indemnify and hold harmless the Tenant and Designer and their agents from all claims, damages, losses, and expenses including attorney's fees resulting from the performance of the work.
6. General Contractor shall acquire and pay for all permits, including building permit. General Contractor shall make arrangements for all inspections.

B. GENERAL

1. This project is the complete construction of a church community center next to a historical church building.
2. This project includes work by the General Contractor, Landlord and the Tenant and his suppliers. General Contractor shall coordinate all work of the Landlord and Tenant, as it relates to the General Contractor's work, to insure a completed project by the agreed upon date.
3. The General Conditions of the General Specifications, along with all applicable instructions to the contractor shall form a part of these sections of the specifications.
4. Reference is made to requisites for Contractors under other sections of these specifications, which shall be considered binding, unless otherwise noted under these sections.

C. SCOPE

1. Contractor shall thoroughly acquaint himself with the construction details before submitting his bid as no allowances will be made because of the Contractor's unfamiliarity with the details. All performance of construction shall be required by the pace of the general construction.
2. Work of the Contract can be summarized by references to the Contract, General Conditions, Supplementary Conditions, Specification Sections, Drawings, addenda and modifications to the contract documents issued subsequent to the initial printing of this project manual and including but not necessarily limited to printed material referenced by any of these. It is recognized that work of the Contract is also unavoidably affected or influenced by governing regulations, natural phenomenon, including weather conditions and other forces outside the contract documents.

D. INSPECTION OF SITE

1. All proposals shall presume that the Contractor is familiar with jobsite conditions and utility locations. The lack of specific information on the drawings shall not relieve the Contractor of any responsibility.

E. CONTRACTOR'S USE OF PREMISES

1. The Contractor shall confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed. Conform to the Landlord's rules and regulations affecting the work while engaged in project construction.
2. Keep existing walkways and entrances serving the premises clear and available to the Landlord and his employees at all times. Keep public areas such as hallways, entries, and toilet rooms free from accumulation of waste material, rubbish or construction debris. Do not use these areas for storage of materials.
3. Do not allow excessive materials or equipment to accumulate on the site. Confine stockpiling of materials and location of trash dumpsters to the areas approved by Landlord. If additional storage is necessary, General Contractor to obtain and pay for such storage off site.
4. Maintain the lease space in a safe and weather tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

F. CODE REQUIREMENTS AND REGULATIONS

1. All work under this contract shall comply with the provisions of the specifications, drawings or as directed by the Tenant, and shall satisfy all applicable codes, ordinances, or regulations of the governing bodies, whether so shown or not, and all modifications required by such authorities shall be made by the Contractor without any additional cost to the Tenant.
2. Each subcontractor shall comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn or specified. If a subcontractor observes that the drawings and specifications are at a variance, he shall promptly notify the General Contractor and the Tenant in writing. If any subcontractor performs any work knowing it to be contrary to laws, ordinances, rules and regulations and without giving such notice, the subcontractor shall bear all costs arising therefrom.

G. MATERIALS AND WORKMANSHIP

1. General Contractor shall provide the following information to the Landlord for all parties performing work on this project:
   a) Business name and address
   b) Name of contact person
   c) Regular phone number
   d) Emergency phone number
2. All manufactured articles, materials, and equipment shall be applied as recommended by the manufacturers, and unless otherwise specified, shall be new and free from any defects. All like materials used shall be of the same manufacturer and quality unless otherwise specified.
3. All work under this contract shall be performed by competent workmen and executed in a neat workmanlike manner. Work shall be properly protected during construction, and upon completion, the installation shall be thoroughly cleaned and all debris present as a result of this contract shall be removed from the premises.
4. Contractor to coordinate interruption of existing building fire protection system with building Landlord.
5. Existing plumbing, heating, ventilating, air conditioning, fire protection, and electrical work affected by construction shall be removed and, when required, relocated by applicable Subcontractor for such work.

H. PRODUCTION OF WORK AND PROPERTY

1. Each subcontractor shall continuously maintain adequate protection of all his work from damage and shall protect the Tenant's & Landlord's property from injury or loss arising from his work. He shall make good any such damages, injury or loss, except such as may be directly due to causes beyond his control and not to his fault or negligence. He shall adequately protect adjacent property as well.
2. Each subcontractor shall take all necessary precautions for the safety of their employees on the work and shall comply with the safety laws to prevent accident or injury to persons on or adjacent to the premises where the work is being performed. Each subcontractor shall maintain all insurances required to protect himself, Landlord, and Tenant for the duration of the work against property damage and public liability.
3. The Contractor and all of his Subcontractors shall maintain a policy of comprehensive general public liability and property damage insurance with the following policy limits. The interest of the Tenant shall be continued for not less than twelve months after Tenant's acceptance of the work under Contract.
4. Contractor must certify insurance coverage, as required by the Landlord in the amounts specified by Landlord.

I. CHANGES IN THE WORK

1. The Tenant, without invalidating the Contract, may order extra work or make the changes by alteration, addition or deduction from the work, the Contract sum being adjusted accordingly with the Landlord's approval.
2. Contractor shall verify all field dimensions. DO NOT scale drawings. Contractor is to notify Designer of any discrepancies between actual field conditions and the contract documents immediately upon learning of the same.

J. COOPERATION

1. All work shall be accomplished in conjunction with other contractors and trades of this project in a manner which shall allow each contractor and trade adequate time at the proper state of construction to fulfill his contracts.
2. Reference will be made to the Tenant and Designer for instructions should any questions arise between trades as to the placing of lines, ducts, conduits, fixtures, equipment, or should it appear desirable to remove any general construction which would affect the appearance or strength of the structure.

K. TENANT OCCUPANCY

1. The Tenant may occupy the lease space during periods partial of construction. Cooperate fully with the Tenant or his representative during construction operations to minimize conflicts and to facilitate Tenant usage. Perform the work so as not to interfere with the Tenant's operations.
2. The Tenant reserves the right to place and install equipment as necessary in completed areas prior to substantial completion, provided that such occupancy does not substantially interfere with completion of the work. Such placing of equipment and partial occupancy shall not constitute acceptance of the work or part of the work.

L. SUBSTITUTION OF MATERIALS

1. Manufacturer's names are listed herein to establish a standard. The products of other manufacturers will be acceptable, if in the opinion of the Tenant and Designer, the substitute material is of quality as good or better than the material specified and will serve with equal efficiency and dependability the purpose for which the items specified were intended.
2. Any variations from contract documents, beyond reasonable tolerances as determined by Tenant and Designer, must be granted by written field or change order, and only due to unusual hardship created by strict adherence to contract documents. Tenant retains sole right to grant waivers to these conditions.

M. WARRANTIES

1. Warranties are intended to protect Tenant against failure of the work to perform as required and against deficient, defective and faulty materials and workmanship, regardless of sources. Except as otherwise indicated, warranties do not include coverage of failures in the work which result from:
   a) Unforeseen and uncontrollable forces of the elements.
   b) The Tenant's misuse or lack proper upkeep & maintenance of the work.
   c) Vandalism after time of substantial completion.
2. Subject to the above provisions, Contractor shall guarantee all materials and workmanship for a period of one year after the date of final acceptance of the project by the Tenant. The Contractor shall remove and replace warranted work of the project and any other work which has been damaged as a result of the failed work.
3. The cost of replacing or restoring failed warranted work is the Contractor's obligation, regardless of whether or not the Tenant has benefited from use of the work.

N. MAINTENANCE OF DOCUMENTS

1. Maintain one copy of the following documents at job site:
   a) Contract Drawings and Specifications
   b) Addenda
   c) Reviewed and Approved Shop Drawings
   d) Change Orders
2. Upon completion of project, the General Contractor shall provide "As-Built" record drawings clearly indicating any changes, corrections, or variations to the work, including those required by addenda, supplemental instructions, or change orders. Contractor shall provide one set each to the Tenant and Designer. Drawings shall be colored pencil mark-ups of original contract documents. Changes, variations or corrections to the specifications shall also be included.

O. CONSTRUCTION SUPERVISION AND TEMPORARY FACILITIES

1. Full time supervision shall be supplied through substantial completion in the form of either the Contractor or a qualified superintendent designated specifically as the superintendent by the Contractor.
2. Contractor shall supply a work station where a phone, drawings, and submittal drawings shall be kept. Contractor is responsible for the installation and billing of the job phone, if required.
3. The Contractor is responsible for all public construction separation walls as required by all applicable county and local building codes and the Landlord's construction requirements.

DIVISION 2 -- SITE

SECTION I - SELECTIVE DEMOLITION

A. DESCRIPTION

1. The extent of demolition work is as required to fulfill the objectives of the scope of the new store requirements. See Demolition Notes on plans.
2. Work includes removal and disposal, off site, of ALL existing construction and fixtures as indicated on Demolition Plan. Burning of removed materials from demolished structures will not be permitted on site.

B. REGULATIONS AND EXECUTION

1. All work shall comply with the rules and regulations of all local, state, and federal agencies having jurisdiction, as well as the Landlord.
2. The Contractor shall realize that normal business activities may occur during demolition, and shall plan his work accordingly. All periods of high sound levels caused by demolition shall be coordinated with the Tenant and the Landlord to avoid such disturbances to business.
3. Conduct demolition operations and removal of debris to ensure minimum interference with roads, walks, and other adjacent occupied or used facilities. Ensure safe passage of persons around area of demolition.
4. Erect temporary covered passageways as required by authorities having jurisdiction and the Landlord's demolition and construction requirements.
5. Repair damages caused to adjacent facilities by demolition operations at no cost to Tenant.

DIVISION 3 -- CONCRETE

SECTION I - FLOOR SLAB

A. DESCRIPTION

1. Provide miscellaneous patching of existing concrete floor for electrical conduit and piping trenches.
2. Concrete shall be ready-mixed and meet the following design-mixes:
   a) Type I: For backfilling utility trenches: Controlled density fill similar to K-Crete or high-slump, 1,000 psi concrete with max. 3/8" aggregate.
   b) Type II: For interior floors and patching, 3,000 psi 4" slump 5-bag mix concrete.

B. MATERIALS

1. Portland Cement, Type I ASTM C 150-68
2. Fine Aggregate ASTM C33- 69
3. Coarse Aggregate (Table II,Size 57) ASTM C33-69
4. Water-Clean and potable
5. Wire Fabric Reinforcement ASTM A185-63
6. Bonding Agent: Upco #105 Bonding Adhesive.

C. REINFORCEMENT

1. Concrete shall be reinforced with 6 x 6 10/10 welded wire fabric, lapped 6" at ends and side laps.

D. BASE PREPARATION

1. Subgrade shall be brought to the specified level, compacted, and finished smooth. Gravel fill and soil poisoning treatment shall be installed if and as required by the Landlord.
2. Prior to placement of wire fabric and concrete, the entire floor area shall be covered with a 6 mil. polyethelyne vapor barrier. All laps shall be sealed with tape. All penetrations or punctures shall be

E. CONCRETE PLACEMENT

1. Place Type I concrete in trench, filling to 4" to 5" below top of existing slab.
2. Clean sides of holes in slab to be patched and brush on heavy coat of bonding agent.
3. Place interior slab of fill holes with Type II concrete. Tamp or vibrate newly placed concrete and finish level with surrounding floor. Do not add water to concrete to avoid excessive shrinkage.
4. All concrete slabs shall be screeded to the level shown. All concrete slabs shall be plane with a maximum tolerance of 1/8" in 10' and shall not vary at any point more than 1/8" above or below the plane surface.
5. Slab shall be floated, and after the water sheen has disappeared, the slab shall be given a steel trowel finish.
6. All concrete slabs shall be plane with a maximum tolerance of 1/8" in 10' and shall not vary at any point more than 1/8" above or below the plane surface.
7. Concrete slabs shall be cured by the use of chlorinated rubber liquid membrane curing/hardening compounds, "Clearbond", "Clearseal", "Masterseal", "Sealcure", or approved equal.

DIVISION 4 -- MASONRY - Not Applicable

DIVISION 5 - METALS -

DIVISION 6 -- WOOD AND PLASTIC

SECTION I - ROUGH CARPENTRY WORK

A. DESCRIPTION OF WORK

1. Provide rough carpentry required to complete the work to include the following:
   a) Wood framing
   b) Wood grounds, nailers, and blocking
   c) Bracing, supports and shoring required to support construction during formative stages.
2. All materials to remain after project completion shall be treated non-combustible wood. See Drawings for sizes and locations.

B. QUALITY ASSURANCE

1. Grading and general requirements for lumber shall conform to American Lumber Standards "Simplified Practice Recommendation R-16" and Federal Specifications MM-L-751C for Lumber and Timber, Soft Woods.

C. MATERIALS

1. Miscellaneous blocking and support: Spruce, Douglas Fir or Southern Pine, No. 2 or better.
2. All wood blocking and framing shall be non-combustible fire retardant treated.

D. FABRICATION

1. Surface lumber 4 sides to conform to Simplified Practice Recommended SR-16. Sizes stated are nominal sizes unless otherwise noted.
2. Construction lumber shall be air-dried or kiln-dried to moisture content not to exceed 19%.

E. INSTALLATION

1. Layout, cut, fit and erect blocking, nailers, and other rough carpentry. Do cutting work in connection with carpentry and finish for other trades. Brace, plumb and level member in true alignment and rigidly secure in place with sufficient nails, spikes, screws and bolts as necessary.

SECTION II - ARCHITECTURAL WOODWORK

A. DESCRIPTION OF WORK

1. Extent of architectural woodwork is indicated on drawings and includes:
   a) Wood and laminate clad cabinets
   b) Cabinet tops
   c) Exposed wood trim
   d) Plywood shelf
2. Millwork fixtures scheduled on Equipment Schedule shall be furnished and installed by Contractor, unless noted otherwise.
3. All wood shall be non-combustible fire retardant treated.

B. QUALITY ASSURANCE

1. Comply with Architectural Woodworking Institute requirements for "Premium" grade work. DO NOT use particle board.
2. Submittals: Submit shop drawings showing location of each item, dimensioned plans and elevations, large scale details, attachment devices and other components. Submit one sepia and two blueline prints to Designer.

C. PLASTIC LAMINATES

1. All plastic laminates shall be high pressure laminates as scheduled on Finish Schedule and plans.
2. Laminated Plastic shall be 1/16" hard sheet in pre-selected colors glued under pressure to a plywood core. Match adjacent panels for color and graining as closely as possible.
3. Core: 3/4" thick utility grade plywood (where not exposed to view in casework). Plastic laminate shall be glued under pressure to the backing, formed as shown on Drawings and per plastic laminate manufacturer's directions. Top units shall be manufactured with a minimum number of joints.

D. FABRICATION, GENERAL

1. Comply with requirements of applicable standards.
2. Workmanship shall be the best quality possible. Checks, splits, defects in wood, tool marks, poor joining, inconsistent joint types, off color or mismatching wood color and other imperfections will not be acceptable.
3. Furnish and install permanent grounds and nailing strips and/or adhesive to afford proper nailing of finish carpentry and millwork as shown on the Drawings.
4. Measurements: Verify all dimensions shown on Drawings by taking field measurements of proper fit and attachment of all parts is required.
5. Fire-retardant materials: Where indicated, provide materials which are pressure impregnated with fire- retardant chemicals and comply with ASTM E84 characteristics.

E. INSTALLATION

1. Install woodwork plumb, level, true and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'- 0" for plumb and level, including tops, and with no variations in flushness of adjoining surfaces.
2. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces or repair damaged finishes at cuts.
3. Anchor woodwork securely to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing.
4. Install cabinets without distortion. Adjust hardware to center doors in openings.

F. CABINET PULLS

1. Pulls : Laurey Melrose 4 in. Center-to-Center Satin Nickel Steel Modern Dual Mount Drawer Pull / Model # 81012.
2. Pulls shall me mounted at each cabinet door and drawer throughout.

SECTION III - FIRE RETARDANT TREATED WOOD

A. GENERAL - PRODUCT IDENTIFICATION

1. All lumber and plywood specified to be interior fire retardant treated wood shall be pressure impregnated with FYRO-GUARD or equal which has a flame spread rating of 25 or less when tested in accordance with ASTM E 84, "Standard Test Method for Surface Burning Characteristics of Building Materials". FYRO-GUARD fire retardant treated wood shall show no evidence of significant progressive combustion when the test is extended for an additional 20 minute period.
2. Fire retardant treated lumber and plywood shall be manufactured under the independent third party inspection of Underwriters Laboratories, Inc. (UL) Follow-Up Service and each piece shall bear the UL classified mark indicating the extended 30 minute ASTM E 84 test.
3. Each piece shall be labeled kiln fired after treatment (KDAT). Timber Products Inspection, Inc. (TP shall monitor the process and the TP mark shall appear on the label.

B. PRODUCTS - FIRE RETARDANT TREATMENT

1. Treatment shall be PYRO-GUARD manufactured by Hoover Treated Wood Products Inc..
2. Structural performance of fire retardant treated wood shall be evaluated in accordance with ASTM D 5664 for lumber and ASTM D 5516 for plywood. Evaluation of plywood data shall be in accordance with ASTM D 6305. The resulting design value and span rating adjustments shall be published in ICC Evaluation Service Report (ESR) - 1791 issued by the ICC Evaluation Service Inc. which includes evaluation of high temperature (HT) strength testing for roof applilicators.
3. "Type A" interior fire retardant treated lumber and plywood shall have equilibrium moisture content of not over 28% when tested in accordance with ASTM D 3201 at 92% relative humidity.
4. Interior fire retardant treated wood shall be kiln dried after treatment to a maximum moisture content of 19% for lumber and 15% for plywood.
5. The fire retardant formulation shall be free of halogens, sulfates, chlorides, arsenic, chromium, ammonium phosphate, formaldehyde, and urea formaldehyde.
6. Provide lumber of the appropriate grade and species as specified by the design criteria of the intended application after consideration of design value adjustments.
7. Provide plywood of appropriate size, grade and species as specified by the design criteria of the intended application after consideration of span rating adjustments.

C. EXECUTION

FIELD CUTS

1. Lumber: Do not rip or mill fire retardant treated lumber. Cross cuts, joining cuts, and drilling holes are permitted.
2. Plywood: Fire retardant treated plywood may be cut in any direction.

APPLICATION

1. FYRO-GUARD fire retardant treated lumber and plywood used in structural applications shall be installed in accordance with the condition and limitations listed in ESR-1791 as issued by the ICC Evaluation Services Inc.
2. Treated wood shall not be installed in areas where it is exposed to precipitation, direct wetting, or regular condensation.
3. Exposure to precipitation during shipping, storage and installation shall be avoided. If material does become wet, it shall be replace or permitted to dry to a maximum moisture content of 19% for lumber and 15% for plywood prior to covering or enclosure by wallboard, roffing or other construction materials.

DIVISION 7 -- THERMAL & MOISTURE CONTROL

A. DESCRIPTION OF WORK

1. Provide and apply caulking and sealing as shown on drawings and as specified herein. In general, seal all openings as shown on drawings, and at all other locations which normally require caulking to seal against infiltration from air, water, and most insects, including, but not being limited to the following:
   a) Construction and expansion joints, joints between dissimilar materials.
   b) Glass and glazing in sill and header.

B. MATERIALS

1. Caulk: butyl caulk equal to Protective Treatments, Inc. PT 61 606.
2. Silicone: equal to General Electric Silicone Construction Clear Sealant 1200.
3. Equal products by Decora, DAP or 3M are acceptable.

C. PREPARATION

1. Clean, neutralize, and prime all surfaces in accordance with manufacturer's recommendations.
2. Mask edges to protect adjoining surfaces and produce a straight finish line.

D. INSTALLATION

1. In general, install all joints with depth equal to one-half joint width. In deeper joints a non absorbent closed cell expandable polyethylene form shall be used to bring depth to limit prescribed. A diameter shall be selected that will cause compression when in place. Joints less than 1/4" will not require foam backing. Use foam or paper tape on working joints as bond breakers for back of joints.
2. Apply sealants in continuous beads, without open joints, voids or air pockets.
3. Confine sealants to joint areas with masking tapes or other precautions. Apply compounds in concealed compression joints accurately so that excess compound will not exude from joints.
4. Remove excess compound or sealant promptly as work progresses, and clean adjoining surfaces.
5. In rough surfaces or joints of uneven widths, install sealant well back into joint.
6. Use anti-stack agent where necessary to protect freshly- applied sealant from public traffic and dirt.
7. Joints shall be slightly recessed as to facilitate a painter's line. All joints throughout construction shall be hand tooled and finished.

E. CLEANING

1. Protect surfaces from damage. Clean soiled surfaces immediately. Replace with new material any damaged material which cannot be cleaned.

DIVISION 8 -- DOORS, WINDOWS AND GLASS

SECTION I - DOORS

A. DESCRIPTION

1. See Floor Plan, door schedule and door details for specificationsons on new doors.

B. INSTALLATION

1. Install door and frame in accordance with manufacturer's recommendations.
2. Install at least three anchors per jamb.
3. Adjust door and hardware to leave door in proper operating condition.

SECTION I - FINISH HARDWARE

A. DESCRIPTION OF WORK

1. Extent of finish hardware required covers all hardware, including thresholds, floor joint covers, door hardware and all other hardware required to thoroughly complete job as shown on the drawings and as specified herein in every respect. Furnish trim attachments and fastenings, specified or otherwise required, for proper and complete installation. General Contractor to furnish and install all hardware required to thoroughly complete job as shown on the drawings and as specified herein in every respect.
2. Work includes removing from existing doors, where applicable, any existing hardware not in compliance with hardware specified within, and replacing with specified hardware, unless noted otherwise on plans.
3. Furnish Phillips flat-head or machine screws for installation of finish hardware. Finish of screw to match finish of hardware item. Furnish Phillips flat-head or wood screws for installation into wood.

B. INSTALLATION

1. All butts, lock fronts, strikes, keepers, etc., shall be neatly and accurately mortised flush, properly placed and aligned to allow quiet and smooth operation without sticking, binding, or rattling.
2. All doors shall be hung with equal clearance at jambs and head.
3. All finish hardware items not requiring paint shall be fitted and removed before painting and finishing is done and replaced as directed after painting has been completed.

DIVISION 9 -- FINISHES

SECTION I - GYPSUM DRYWALL AND METAL STUDS

A. SCOPE

1. Furnish all labor and materials required for a complete installation of all gypsum board walls, furrings, ceiling coffers, etc., as shown on drawings or as called for in the finish schedule.

B. MATERIALS

1. Metal stud manufacturers: Chicago Metallic Corporations, Inryco/Milcor or as approved by Designer. All materials specified herein shall be of single manufacturer.
2. Interior Partition Framing: Shall be standard drywall steel studs, 25 gauge, galvanized, sizes as noted on the Drawings. Stud spacing 16" o.c. maximum. Top and bottom track to be continuous "U" shape, size compatible with studs, galvanized. Brace to be same as studs.
3. Gypsum board shall be U.S. Gypsum "Sheetrock" firecode 5/8", 5/8" thick. (or equal) and installed according to the manufacturer's recommendations for fire protection at fire-rated walls as scheduled or required.
4. Furnish and install USG Dur-A- Bead (or equal) on all external gypsum board corners and USG metal trim where gypsum board abuts other materials where shown on drawings.
5. In-wall blocking shall be provided at all wall-hung items.
6. Fasteners shall be self-drilling self-taping countersunk bugle head drywall screws for attachment of wallboard to metal studs. Use gypsum wallboard nails for attachment to wood studs.
7. Structural studs shall be punched or unpunched 16 gauge steel having minimum yield point of 33,000 psi. sizes as indicated.
8. Non-loadbearing studs shall be channel-type roll-formed from 25 gauge electro-galvanized steel, sizes as indicated.
9. Furring channels shall be roll- formed, 25 gauge minimum electro-galvanized steel hat section with wing flanges.

C. PRODUCT DELIVERY, STORAGE, AND HANDLING

1. Deliver materials to job site in original unopened containers or bundles, with labels intact. Handle with care to prevent damage.
2. Store materials inside, under cover. Stack flat, off floor.

D. JOB CONDITIONS

1. Maintain uniform building temperatures with 55-75 degrees F. range for 24 hours before, during and after gypsum board application and joint treatment. Provide adequate ventilation.
2. Protect adjacent surfaces against damage and stains.

E. INSTALLATION

1. Installation of "Sheetrock Firecode" shall be in accordance with manufacturer's recommendations for fire-rated partitions.
2. Installation shall comply with USG Bulletin SA 923, Metal Framed Drywall, latest edition.
3. Gypsum wallboard shall be attached to metal studs with steel screws. All joints shall be taped and finished smooth with spackling compound.
4. Gypsum wallboard shall be attached to masonry with metal furring channels and screws with all joints taped and finished.
5. Quality of workmanship throughout shall be best. Make all angles and corners clean, true, plumb, and square walls plumb, flat and straight, ceilings flat and level.

SECTION II - TILE

A. DESCRIPTION OF WORK

1. Install wall tile as shown on Finish Schedule and plans. All tile shall be furnished and installed by Contractor unless noted otherwise on plans.
2. Trim: Install required shapes such as base, bullnose, angles, stops, returns, strips, etc. Where available, and unless otherwise noted on drawings, external corners shall be bullnosed. All cut edges at corners shall be polished smooth.

B. MATERIALS

1. QUALITY: Standard Grade, NO SECONDS SHALL BE PERMITTED.
2. MANUFACTURER, COLOR, SIZES: As per Finish Schedule.
3. FIRE PACKED DRY GROUT: with re-emulsified powder as additive, forming with water only. Install as per manufacturer's instructions.
4. LATEX ADDITIVE: AS REQUIRED FOR PORCELAIN TILE(S).
5. Setting Materials: Use mortar formula for thin set, or as scheduled in plans. Thin-set shall be furnished and installed by Contractor.

C. PREPARATION

1. Apply over concrete, waterproof gypsum wallboard, sealed plywood, or other materials as indicated on Drawings using approved thinset cement formula.
2. Clean and level all surfaces as necessary to provide even surfaces level, true and plumb.
3. In the event surfaces to receive tile are not acceptable, notify the appropriate party to tile installation.

D. INSTALLATION

1. Tile shall be installed, grouted and cleaned in accordance with applicable ANSI standards for setting method specified.
2. Where possible, lay cut work so no less than half size occurs.
3. Align joints in wall tile at right angles to each other, plumb and level. Provide straight, uniform grout lines.
4. Smooth all exposed cut edges. Fit tile carefully against trim, penetrations and built-in accessories and fixtures.
5. Grout in accordance with manufacturer's instructions.

E. CLEANING AND PROTECTION

1. After tile has been set and grouted, thoroughly clean tile work with a neutral cleaner in accordance with manufacturer's recommendations.
2. Protect finished installation from damage and soiling.

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SECTION II - SUSPENDED CEILING SYSTEMS

A. DESCRIPTION OF WORK

1. Furnish all labor and materials required for a complete installation of all lay-in ceiling systems.

B. MATERIALS

1. Acoustical panels throughout lease space shall be furnished and installed by G.C. Ceiling tile shall be as specified in plans. See Finish Schedule.

2. Ceiling suspension system shall include all main tees, cross complete installation. Color to be white. Maximum dimension complete installation. Color to be white. Maximum dimension between supports shall be 48". Prelude 15/16" exposed tee-grid.

3. Where required by the Drawings or where required to conform to fire-rating regulations of the local building authority, provide hold-down clips for ceiling tile plus all other accessories for a complete fire-rated installation.

C. DELIVERY AND STORAGE

1. Deliver acoustic ceiling materials to job site in original, unopened packages, bearing manufacturer's name and label identifying each type acoustic unit.

2. Comply with manufacturer's recommendations for storage of material to be used in the work.

D. INSTALLATION

1. Installer to examine conditions under which acoustic work is to be performed. Do not proceed with work until unsatisfactory conditions have been corrected in an acceptable manner.

2. Installation of ceiling shall be the pattern indicated on the reflected ceiling plan and shall coordinate with mechanical, electrical and sprinkler system requirements.

3. All items to be supported shall be hung with wires of the size and spacing to support the ceiling system and all other work supported therefrom. System shall be square and level with no more than 1/8" variation in a 10' span.

E. CLEANING

1. Grid and all tiles shall be thoroughly clean and free of mars, cuts, indentations, spots, foreign paint or other blemishes and imperfections or shall be replaced.

F. REPLACEMENT MATERIALS

1. Contractor shall provide five (5) full tiles of replacement material at the completion of the project.

G. WARRANTY

1. Provide ceiling system guarantee in writing against defects in labor, materials, and maximum deflection of 1/180th of the span for a period of one year from date of Owner/Tenant acceptance.

SECTION IV - RESILIENT FLOORING

A. DESCRIPTION OF WORK

1. Furnish all labor and materials for a complete installation of all resilient floor covering as shown on the drawings and as called for in the Finish Schedule.

2. Bases shall be set-on type vinyl. See Finish Schedule.

3. Adhesive shall be type as recommended by tile manufacturer.

B. PREPARATION

1. Application shall not begin until the work of all other trades, including painting, is complete. Maintain all rooms and sub-floors at a minimum of 70 degree F. for at least 48 hours before, during, and 48 hours after application of tile.

C. INSTALLATION

1. Follow printed instructions of the manufacturer, especially regarding the storage and application of the base.

2. Place vinyl composition tile with adhesive cement in strict compliance with the manufacturer's recommendations. Butt tightly to vertical surfaces, thresholds, nosings, and edgings.

3. Upon completion of the installation, clean floors and base, wax with water emulsion wax and leave in satisfactory condition.

4. Lay tile with grain running in checkerboard pattern, with grain reversed in adjacent in adjacent tile.

D. GUARANTEE

1. Guarantee materials and work in writing against defects in labor and materials for a period of one year from date of acceptance.

SECTION III - PAINTING & FINISHING

A. DESCRIPTION OF WORK

1. Painting work shall cover everything usually painted or finished to make a thoroughly complete job in every respect, whether each item is hereinafter specifically mentioned or not.

2. Finish alcoves, recesses, and closets, not specified otherwise, with same treatment as specified or scheduled for the space immediately adjacent.

3. All lighting fixtures, ventilating grilles, and other mechanical or electrical devices mounted in or on ceilings or walls shall be painted to match surrounding surfaces unless items are factory- finished devices.

4. All exposed iron and steel work throughout the finished spaces of the building, including but not limited to hollow steel frames and doors, piping, conduit, pipe covering, hangers, mechanical, electrical and other equipment and installations shall be enameled over a primary coat.

5. Finish to match all adjacent returns, edges, and recesses which will be exposed in the finished work and which will be seen from any angle.

6. Paint exposed surfaces whether or not colors are designated in schedules, except where natural finish of material is specifically noted as a surface not to be painted.

7. "Paint" as used herein means all coating system materials including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.

8. Do not paint over any code-required labels, such as Underwriter's Laboratories and Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.

B. SUBMITTALS

1. Product data: Submit manufacturer's technical information including paint label analysis and application instructions for each material proposed for use.

2. Samples: Submit samples for Designer's review and approval of color, sheen and texture.

C. PRODUCT DELIVERY AND STORAGE

1. Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label.

2. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing and application of paint in a clean condition, free of foreign materials and residue.

3. Keep storage space clean and orderly. Keep all waste and paint rags in metal containers, tightly covered or safely disposed of at end of each working day. Take every precaution to avoid fire. Provide approved type of fire extinguisher immediately outside each paint storage space.

D. JOB CONDITIONS

1. Coordinate with other trades to ensure adequate illumination, ventilation and dust-free environment during application and drying paint.

2. Temperature and humidity shall be within manufacturer's recommended tolerances.

3. Examine areas and conditions under which painting work is to be applied and notify Contractor of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable.

4. Do not paint over rust, dirt, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to the final paint performance.

5. Starting of painting work will be construed as acceptance of surfaces and conditions within particular area.

E. PREPARATION

1. Remove or protect during painting all accessories, fixtures and similar items installed prior to painting and not required to be painted. If removed, carefully replace and adjust after completion of painting.

2. Seal knots, pitch streaks, and resinous sapwood with recommended sealer prior to priming.

3. Clean all metal surfaces of all dust, grease, rust, and scale, using benzene, steel wool and wire brushes if necessary. Clean damaged areas of factory-applied priming coats and repaint with metal primer.

4. All surfaces shall be dry and sanded properly. Fill small nail holes with putty and larger voids with plastic wood and sand smooth. All millwork not primed before delivery shall be primed or sealed immediately upon arrival at the jobsite.

F. GYPSUM BOARD FINISHES

1. All gypsum board for walls shall have all nailheads bedded in cement, joints closed with U.S. Gypsum Perf-A-Tape and Perf-A-Bead shall be prepared and applied in strict accordance with manufacturer's directions. All partitions shall be taped and bedded full height of construction.

2. Where gypsum board abutts dissimilar materials, cover edge of gypsum board with U.S. Gypsum Perf-A-Trim, and bed with gypsum bedding paste.

G. MATERIALS PREPARATION

1. Mix and prepare painting materials in accordance with manufacturer's directions.

2. Stir materials before application to produce a mixture of uniform density, and stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain material before using.

3. Turpentine shall be distilled, and oil shall be boiled and filtered linseed oil.

4. Oil-based paints and enamels shall be factory prepared and packaged materials by approved manufacturers.

H. WORKMANSHIP

1. Furnish and lay drop cloths in all areas where painter's finish work is being done, to protect floors and other adjacent work and materials from defacement. Remove and properly replace all temporary protections and coverings removed from any part of the work or finish. Any damage resulting from neglect of these requirements shall be repaired at the Contractor's expense to the complete satisfaction of the Owner.

2. Maintain the work in a neat and orderly condition, promptly removing empty containers, wrappings, waste, rubbish and like matter from the site.

3. Employ only experienced and competent workers, assume all responsibility for the work, and repair all damage to the painting work by parties involved.

4. Allow ample drying time between coats, and sand properly to give a smooth finish. Carefully cover back edges of trim, edges of doors, and touch up any marred places as a result of putting on hardware or work of other trades.

5. Seal door edges immediately after fitting.

6. Carefully protect other work and leave the job clean.

I. APPLICATION

1. Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.

2. Apply additional coats when undercoats, stains, or other conditions show through final coat of paint, until paint is of uniform finish, color and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.

3. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only before final installation of equipment, unless otherwise specified.

4. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, black paint.

5. Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.

6. Allow sufficient time between successive coating to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

J. INTERIOR WOODWORK

1. First: Enamel undercoater, one coat.

2. Second & Third: Two Coats of alkyd high-gloss enamel. See Finish Schedule for specification.

K. INTERIOR GYPSUM WALLBOARD

1. Texture: level 5 finish

2. Primer: Vinyl-pigmented primer.

3. Second Coat: Alkyd lou-lustre enamel.

4. Extent: Gypsum wallboard.

L. ADDITIONAL PAINT

1. Provide Owner, at completion of job, with one gallon of paint in each color selected. Paint to be supplied in tightly sealed containers labeled with color sample.

M. CLEANING

1. Upon completion of painting remove all surplus materials and scaffolds from the premises and leave the premises clean.

2. Remove all paint from floor, hardware, glass and other surfaces not painted.

3. Touch-up as necessary after patching and repair of other trades.

SECTION IV - SOLID SURFACE

A. DESCRIPTION OF WORK

1. The extent of solid polymer fabrications is shown on the Drawings and includes:

   A. countertops and backsplashes

2. The following sections contain requirements that relate to this Section:

   A. Finish carpentry/Architectural woodwork
   B. Casework
   C. Plumbing

B. APPLICABLE STANDARDS

1. Standards of the following, as referenced herein: American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), National Electrical Manufacturers Association (NEMA), Federal Specifications (FS).

C. SUBMITTALS

1. Shop Drawings: Indicate dimensions, component sizes, fabrication details, attachment provisions and coordination requirements with adjacent work.

2. Samples: Submit minimum 2 inch by 2 inch samples. Indicate full range of color and pattern variation. Approved samples will be retained as a standard for work.

3. Product Data: Indicate product description, fabrication information and compliance with specified performance requirements.

4. Maintenance Data: Submit manufacturer's care and maintenance data, including care, repair and cleaning instructions and maintenance video. Provide maintenance kit for matte finishes. Include in project close-out documents.

D. PRODUCT DELIVERY AND STORAGE

1. Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label.

2. Deliver no components to project site until areas are ready for installation. Store indoors.

3. Handle materials to prevent damage to finished surfaces. Provide protective coverings to prevent physical damage or staining following installation for duration of project.

E. JOB CONDITIONS

1. Coordinate with other trades to ensure adequate illumination, and proper environment during fabrication and application.

2. Temperature and humidity shall be within manufacturer's recommended tolerances.

3. Examine areas and conditions under which work is to be applied and notify Contractor of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable.

F. ALLOWABLE TOLERANCES

1. Variation in component size: +/-1/8 inch.

2. Location of openings: +1/8 inch from indicated location.

G. WARRANTY

1. Provide manufacturer's warranty against defects in materials, fabrication and installation. Warranty shall provide for replacement or repair of material and labor for a period of ten years, beginning at Date of Substantial Completion.

2. For fabrications with installed warranty coverage, identify by affixing manufacturer's fabrication/installation source plate.

3. Maintain surfaces in accordance with manufacturer's care and maintenance instructions.

H. ACCESSORY PRODUCTS

1. Joint Adhesive: Manufacturer's standard two-part adhesive kit to create inconspicuous, non-porous joints by chemical bond.

I. WORKMANSHIP

1. Maintain the work in a neat and orderly condition, promptly removing empty containers, wrappings, waste, rubbish and like matter from the site.

2. Employ only experienced and competent workers, assume all responsibility for the work, and repair all damage to the work by parties involved.

3. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.

4. Form field joints using manufacturer's recommended adhesive, with joints inconspicuous in finished work. Reinforce joints as required.

5. Adhere sinks and lavatory bowls to tops using manufacturer's recommended sealant, adhesive and mounting hardware.

6. Provide backsplashes and sidesplashes as indicated on the Drawings. Adhere to tops using manufacturer's standard color matched silicone sealant.

7. Keep components clean during installation. Remove adhesives, sealants and other stains. Keep clean until Date of Substantial Completion. Replace stained and damaged components.

8. Protect surfaces from damage until Date of Substantial Completion. Repair work or replace damaged work which cannot be repaired to Architect's satisfaction.

9. Carefully protect other work and leave the job clean.

I. APPLICATION

1. Manufacture and install in accordance with manufacturer's directions.

2. Provide surfaces with a uniform matte finish in Gloss range of 5-20.

3. Backsplases: Fabricate backsplashes using 1/2 inch solid polymer material. Create 1/2 inch radius cove at intersection of counters and backsplashes.

4. Counter Tops - General: 1/2 inch thick solid polymer material adhesively joined with inconspicuous seams, having edge details as detailed on the Drawings.

   a. Surfaces @ Hot Drop-Ins: 1/2 inch thick solid polymer material, adhesively joined with no exposed seams. Provide expansion joints in counter top as needed. Make cut-outs to templates furnished by the equipment manufacturer. Reinforce edges and cut-outs as recommended by the manufacturer. Provide insulation between solid polymer material and adjacent hot water pans and food warmers. Thermally isolate hot applications from cold.

   b. Surfaces @ Cold Drop-Ins: 1/2 inch thick solid polymer material, adhesively joined with no exposed seams, having edge details as indicated on the Drawings. Provide expansion joints in counter top as needed. Make cut-outs to templates furnished by the equipment manufacturer. Reinforce edges and cut-outs as recommended by the manufacturer. Provide insulation between solid polymer material and adjacent cold surfaces. Thermally isolate hot applications from cold.

J. CLEANING

1. Upon completion of work remove all surplus materials and tools from the premises and leave the premises clean.

SECTION V - VINYL WALLCOVERING

A. PRODUCT DELIVERY, HANDLING AND STORAGE

1. Deliver and store all wallcovering in undamaged condition as packaged by the manufacturer, with manufacturer's seals and labels intact.

B. SUBMITTALS

1. Product data - Submit manufacturer's technical data and installation instructions for each type of wall- covering and installation materials.

2. Samples - Submit full width samples of each type of wallcovering, illustrating range of color and pattern variations.

3. Maintenance Instructions - Submit manufacturer's printed instructions for maintenance of installed work, including precautions for use of cleaning materials which could damage wallcovering.

4. Replacement materials - After completion of work, deliver to project site not less than 6 linear yards of each type, color, and pattern of wallcovering installed. Furnish replacement materials from same production run as materials installed.

C. JOB CONDITIONS

1. Maintain constant minimum temperature of 60° F at areas of installation for at least 72 hours prior to and 48 hrs. after application of materials.

2. Illuminate areas of installation using permanent lighting systems.

3. Prior to installation, remove all dirt, grease, old adhesive, loose paint, and plaster from wall. Fill openings, cracks, crevices, and holes with spackling compound. Sand all rough spots smooth.

4. Prime walls using suggested primer, as per recommended manufacturer's instructions.

D. INSTALLATION

1. Place wallcovering panels consecutively in order cut from rolls, including filling of spaces above or below openings. Hang by reversing alternate strips except on match patterns.

2. Apply adhesive to back of wallcovering and place in accordance with manufacturer's instructions. Install seams plumb, and at least 1-½" away from corners. Horizontal seams are not permitted. overlap seams and double-cut to assure tight closure. Roll, brush, or use broad knife to remove air bubbles, wrinkles, blisters and other defects. cut wallcoverings evenly to edges of wall penetrations.

3. Trim selvages as required to assure color uniformity and pattern match.

4. Remove excess adhesive along finished seams while it is still wet using warm water and clean sponge, and wipe dry.

5. Place wallcovering panels in precise factory-numbered sequence, including filling of spaces above or below openings. match pattern carefully at seams. If all walls are to be covered in a space, locate start and finish sheets in most inconspicuous location.

6. Protect finished work installed by other trades prior to work under this section.

E. WARRANTY

1. Provide a guarantee in writing against manufacturer's defects for a period of one year. If defects become evident within this period, the manufacturer will replace wallcovering and assume installation costs.

DIVISION 10 -- SPECIALTIES

A. FIXTURES AND EQUIPMENT INSTALLATION

1. Contractor shall accept delivery, provide all labor and material necessary to suitably store and install all millwork, fixtures and equipment to be installed.

B. SIGNS

1. Illuminated signage shall be furnished and installed by the contractor. Contractor shall provide all electrical requirements for proper installation of signage.

C. FIRE EXTINGUISHERS

1. Kidde or equal dry chemical #10 wall-mounted Type ABC in accordance with NFPA #10. Locate as required by local codes.

D. SLATWALL

1. Furnish and install slatwall as manufactured by marlite or approved equal.

2. Slatwall shall be displaywall 2000, paint ready to accept paint as scheduled. Grooves to be at 3" O.C. horizontally.

DIVISION 11 - EQUIPMENT - NOT USED

DIVISION 12 - FURNISHING - NOT USED

DIVISION 13 - SPECIAL CONST. - NOT USED

DIVISION 14 - CONVEYING EQUIP.- NOT USED

DIVISION 15 - MECHANICAL - SEE MEP PLANS

DIVISION 16 - ELECTRICAL - SEE MEP PLANS

REVISIONS	BY

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Date 12/27/2022

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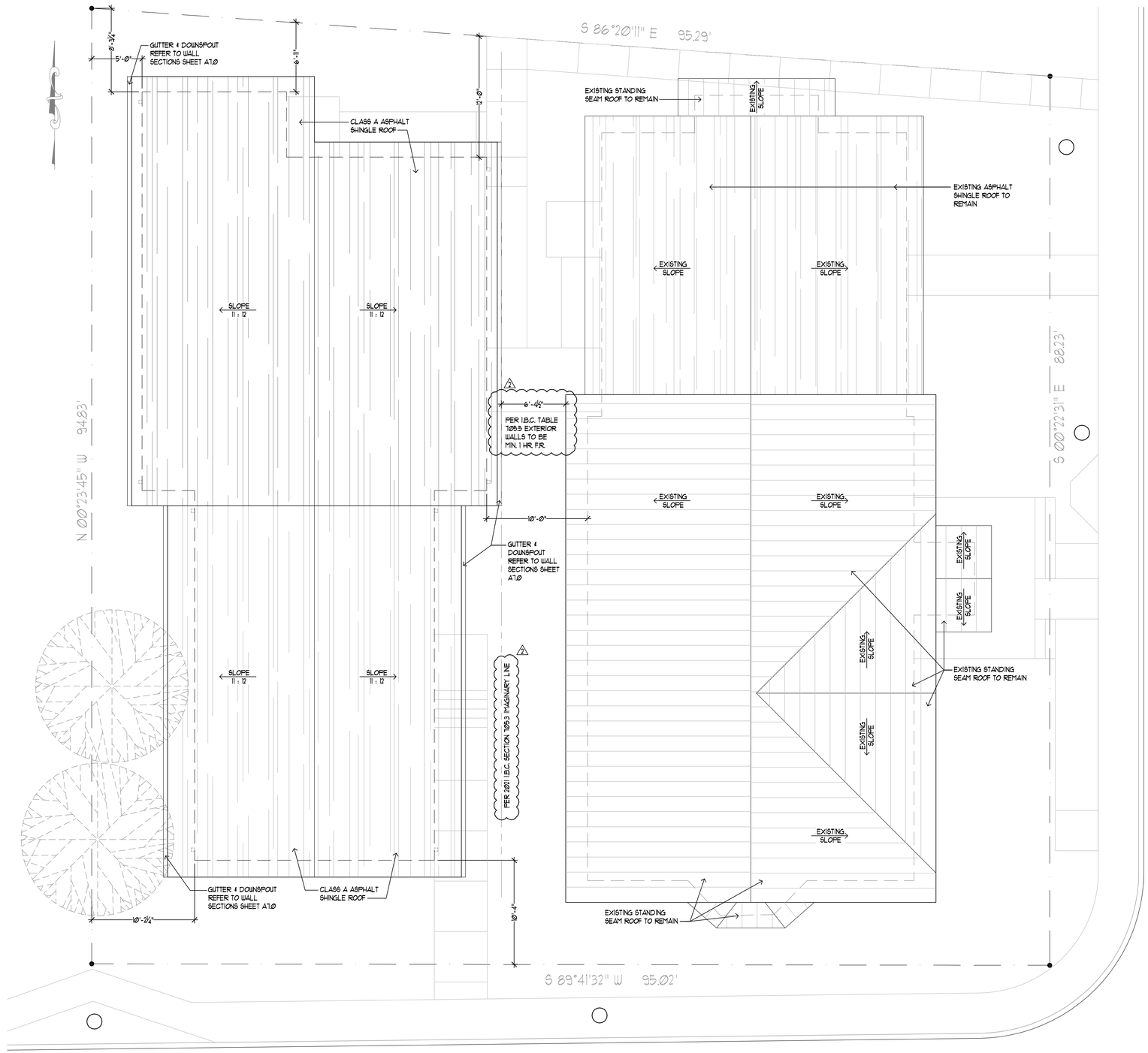

301 ROOF PLAN / SITE PLAN

SCALE: 3/16" = 1'-0"

REVISIONS	BY
1 02/22/2023	EJP

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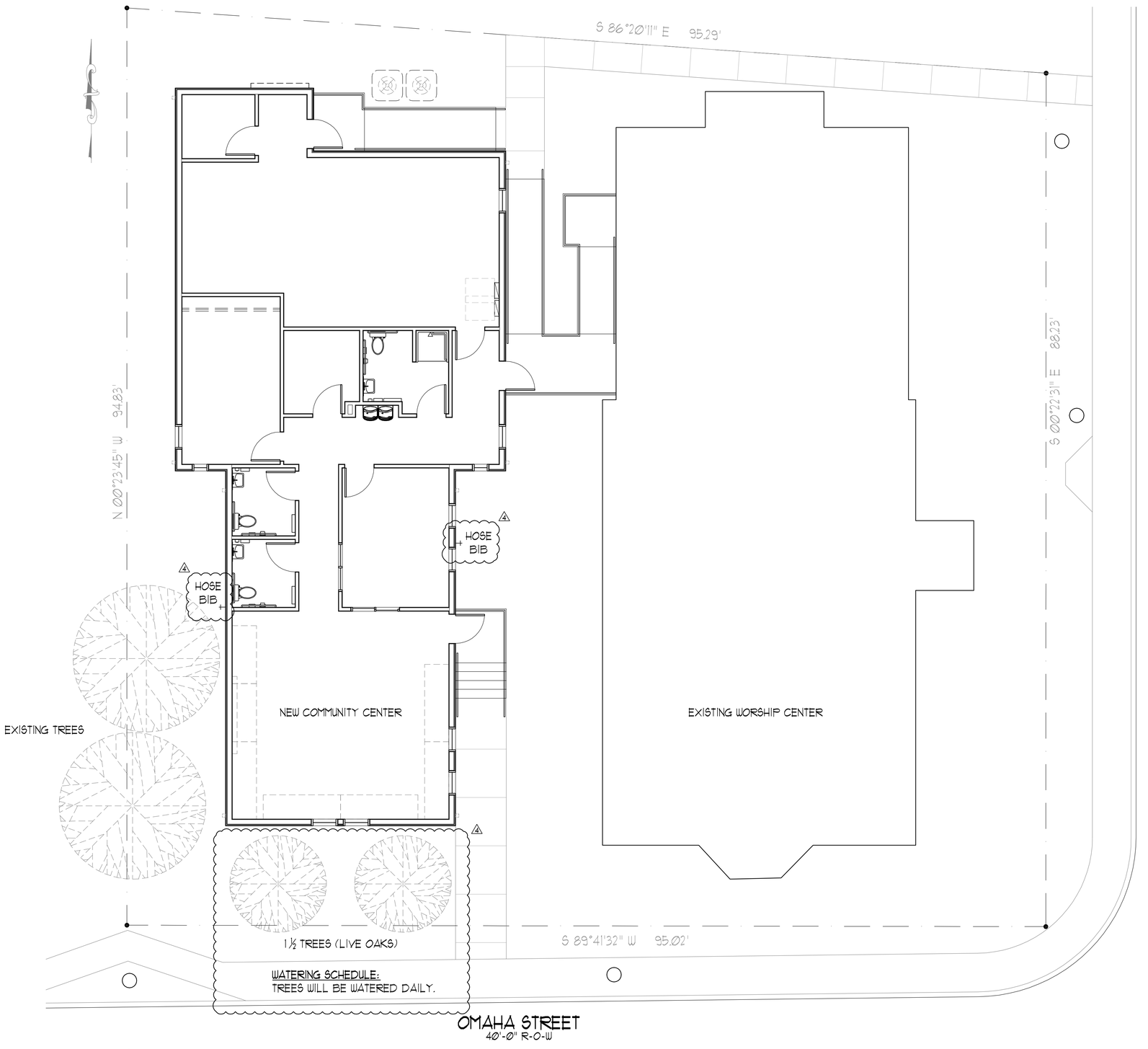

3-01 SITE PLAN

SCALE: 3/16" = 1'-0"

REVISIONS	BY
1 03/09/2023	EJP
2 06/19/2023	EJP

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EXISTING SITE PLAN

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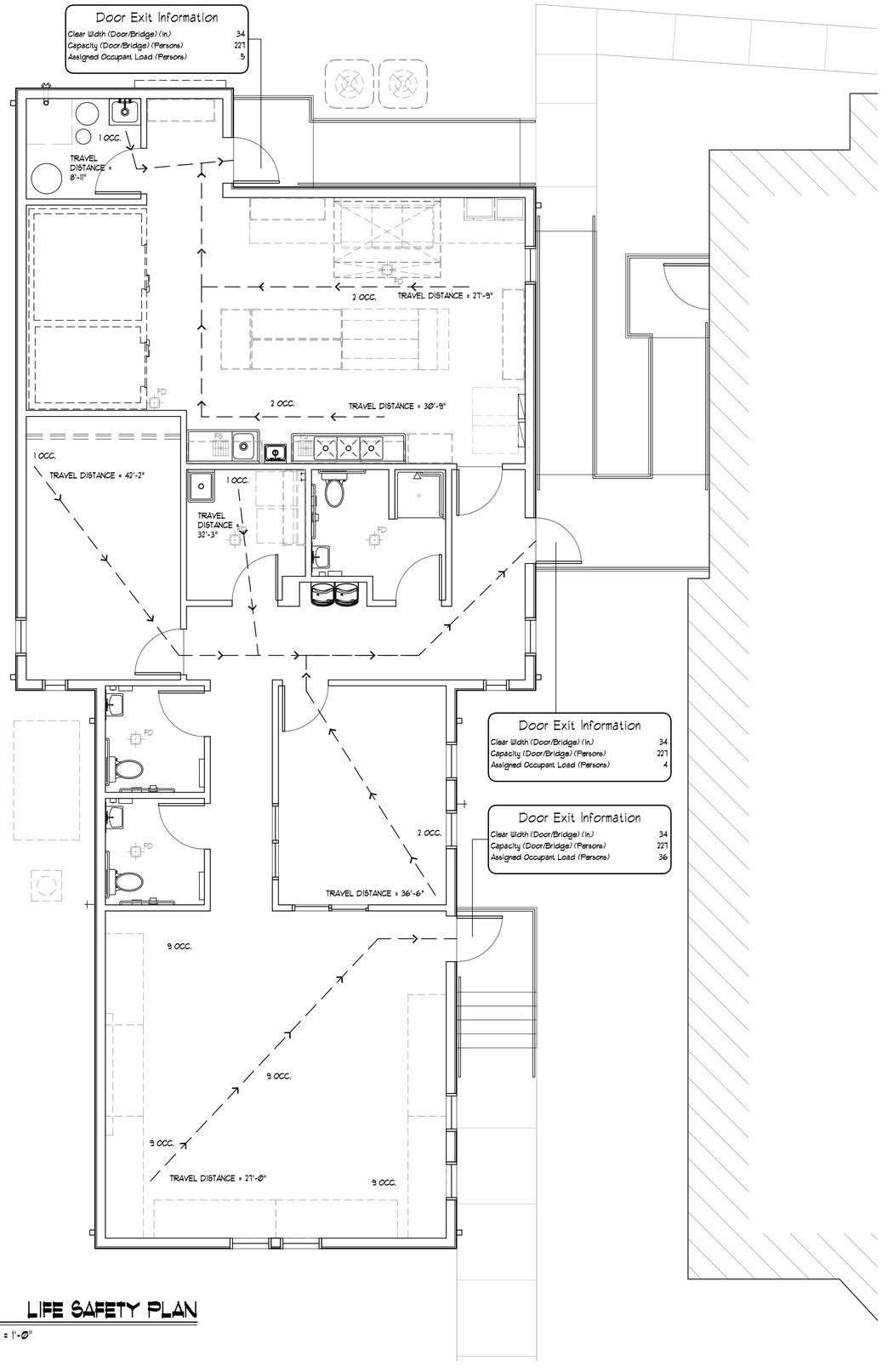

3.1-01 LIFE SAFETY PLAN

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

OCCUPANCY LOAD

ROOM NAME	OCCUPANCY	SQUARE FOOTAGE	OCCUPANCY LOAD FACTOR	OCCUPANCY LOAD
CONFERENCE ROOM	ASSEMBLY, STANDING SPACE	534 SF	15 GROSS	36
KITCHEN	COMMERCIAL	620 SF	200 GROSS	4
UTILITY ROOM	ACCESSORY STORAGE AREAS MECHANICAL EQUIPMENT ROOM	63 SF	300 GROSS	1
OFFICE	BUSINESS AREA	176 SF	150 GROSS	2
STORAGE ROOM	ACCESSORY STORAGE AREAS MECHANICAL EQUIPMENT ROOM	198 SF	300 GROSS	1
LAUNDRY ROOM	ACCESSORY STORAGE AREAS MECHANICAL EQUIPMENT ROOM	72 SF	300 GROSS	1
SHOWER ROOM	-	76 SF	0 GROSS	0
RESTROOMS	-	109 SF	0 GROSS	0
CORRIDOR	-	250 SF	0 GROSS	0
	TOTAL: BUILDING	2038 SF		45

OCCUPANCY CLASSIFICATION: A3 (RELIGIOUS SERVICES)
AT OCCUPANCY LOAD: 45
SPLIT MEN / WOMEN: 22.5

PLUMBING COUNT

WATER CLOSETS / URINALS *		LAVATORIES	DRINKING FOUNTAINS	OTHERS
MALE	FEMALE			
1 PER 150	1 PER 75	1 PER 200	1/1000	1 SERVICE SINK
0.15	0.30	0.23	0.05	
1	1	1	1	1

1. 2018 IPC 410.2: SMALL OCCUPANCIES, DRINKING FOUNTAINS SHALL NOT BE REQUIRED FOR AN OCCUPANT LOAD OF 15 OR FEWER.
2. 2018 IPC TABLE 403.1: FOR BUSINESS AND MERCANTILE CLASSIFICATIONS WITH AN OCCUPANT LOAD OF 15 OR FEWER, A SERVICE SINK SHALL NOT BE REQUIRED.
3. 403.2 SEPARATE FACILITIES. WHERE PLUMBING FIXTURES ARE REQUIRED, SEPARATE FACILITIES SHALL BE PROVIDED FOR EACH SEX.
   EXCEPTIONS:
   1. SEPARATE FACILITIES SHALL NOT BE REQUIRED FOR DWELLING UNITS AND SLEEPING UNITS.
   2. SEPARATE FACILITIES SHALL NOT BE REQUIRED IN STRUCTURES OR TENANT SPACES WITH A TOTAL OCCUPANT LOAD, INCLUDING BOTH EMPLOYEES AND CUSTOMERS, OF 15 OR FEWER.
4. SEPARATE FACILITIES SHALL NOT BE REQUIRED IN MERCANTILE OCCUPANCIES IN WHICH THE MAXIMUM OCCUPANT LOAD IS 100 OR FEWER.
5. SEPARATE FACILITIES SHALL NOT BE REQUIRED IN BUSINESS OCCUPANCIES IN WHICH THE MAXIMUM OCCUPANT LOAD IS 25 OR FEWER.

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- LIFE SAFETY PLAN
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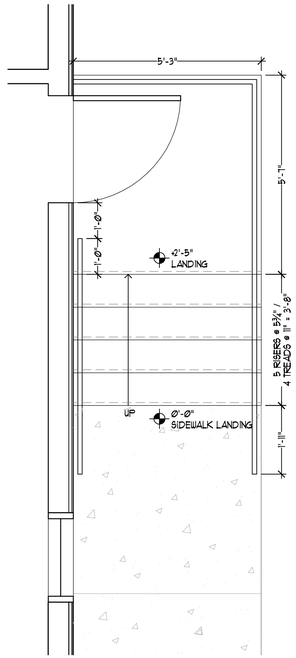
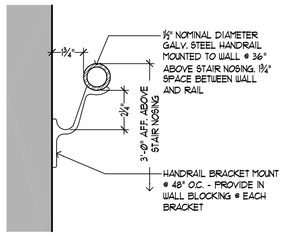


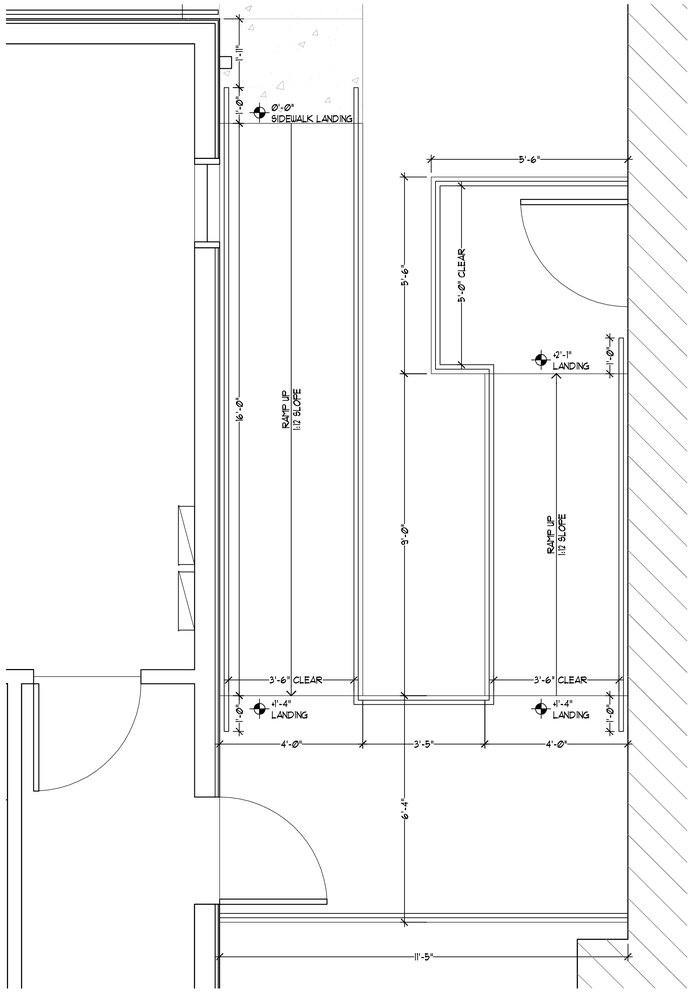
3.2-01 ENLARGED STAIRS PLAN

SCALE: 1/2" = 1'-Ø"



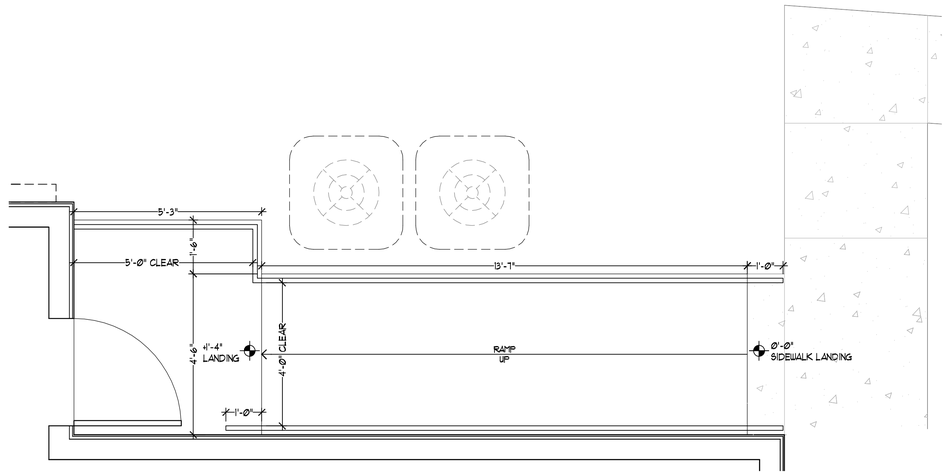
WALL MOUNTED 3.2-04 RAILING DETAIL

SCALE: 3" = 1'-Ø"



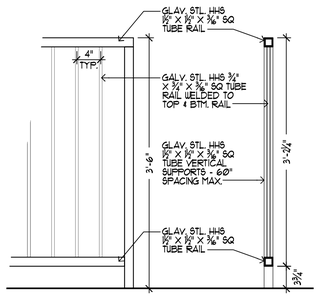
3.2-02 ENLARGED H/C RAMP PLAN

SCALE: 1/2" = 1'-Ø"



3.2-03 ENLARGED DELIVERY RAMP PLAN

SCALE: 1/2" = 1'-Ø"



METAL RAILING 3.2-04 ELEV. & SECTION

SCALE: 1" = 1'-Ø"

REVISIONS	BY

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#209
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ENLARGED RAMP PLAN
ENLARGED STAIRS PLAN
RAILING DETAILS

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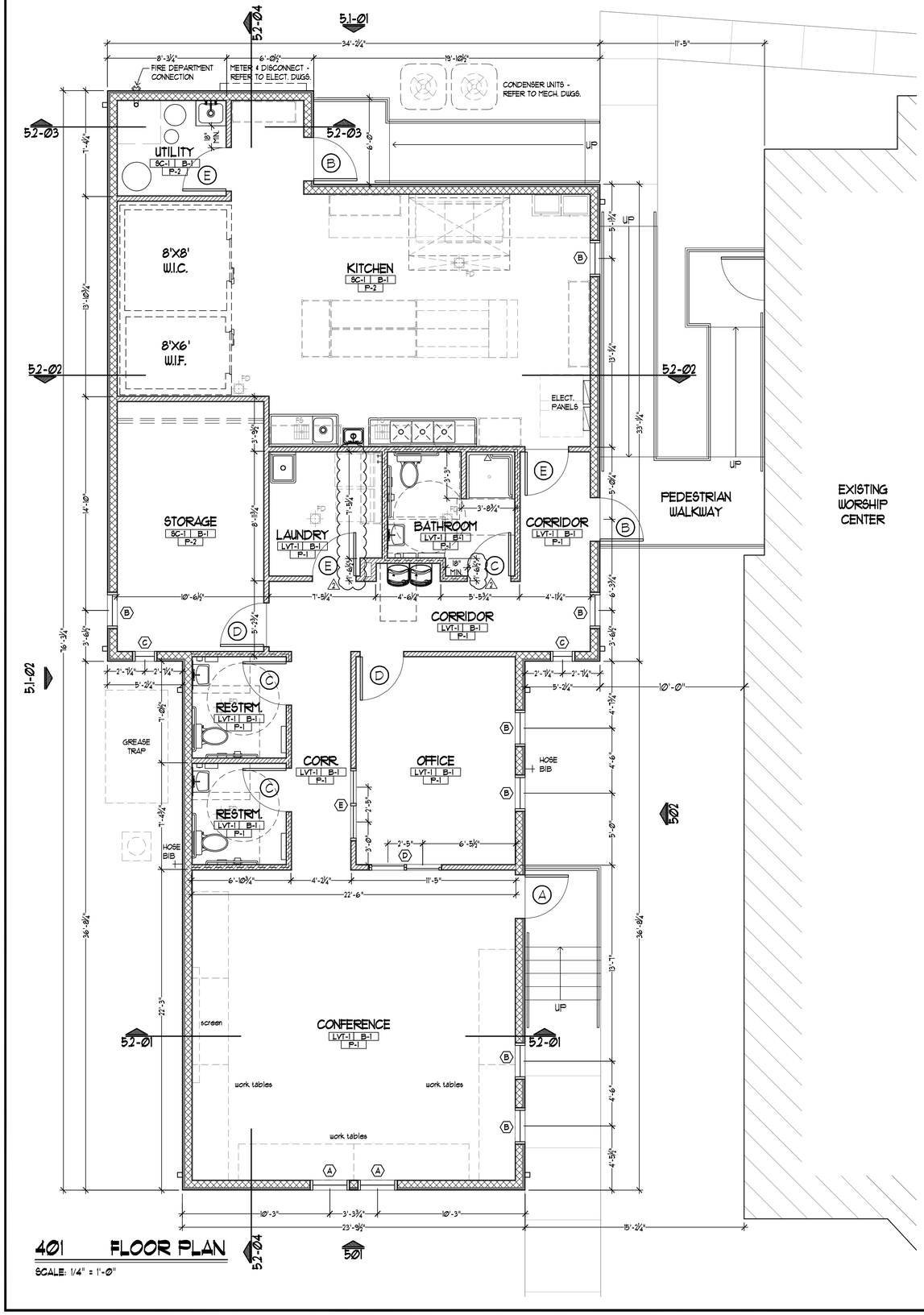


401 FLOOR PLAN

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

WALL KEY

	NEW 1 HOUR FIRE RATED EXTERIOR PARTITIONS: 2X6 F.T. WOOD STUDS @ 16" O.C. WITH MOISTURE BARRIER (TYP.) ON ½" EXTERIOR SHEATHING. R-19 BATT INSULATION. ⅝" FIRE-RESISTANT TYPE "X" GYPSUM BOARD TO UNDERSIDE OF STRUCTURAL DECK. ALL VOIDS AND PENETRATIONS SHALL BE FILLED WITH FIRE STOPS. TAPE, FLOAT, AND FINISH AS PER DRAWINGS. FULL HEIGHT CEDAR BOARD BATTEN & BOARD EXTERIOR FINISH.
	NEW INTERIOR PARTITIONS: 2X4 F.T. WOOD STUDS @ 16" O.C. TO A MIN. OF 8" ABOVE CEILING HEIGHT. ⅝" GYP. BD. FULL HEIGHT OF WALL. TAPE, FLOAT, AND FINISH AS PER PLANS.
	WINDOWS AS PER SCHEDULE.

NOTES:
1. ALL DIMENSIONS ARE TO STUD, UNLESS NOTED OTHERWISE ON PLAN.
2. ALL DIMENSIONS FROM EXISTING CONSTRUCTION ARE TO EXISTING WALL FINISH, UNLESS NOTED OTHERWISE.
3. PROVIDE SOUND ATTENUATION TO WALLS WITH — — — — — — — —
4. REFER TO SHEET A6.1 FOR DOOR DETAILS.

DOOR SCHEDULE

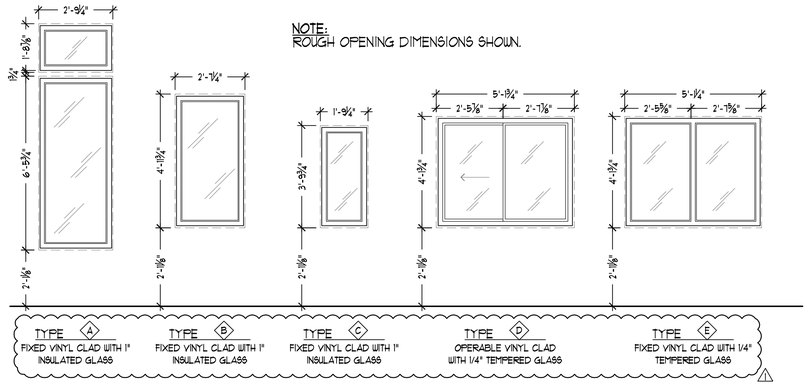
MARK	SIZE	DESCRIPTION
A	3'-0"	NEW ONE HOUR RATED HOLLOW METAL EXTERIOR TWO PANEL ENTRY DOOR W/ H.M. FRAME. PROVIDE KEYED CYLINDRICAL LEVER LOCK TYPE W/ DEADBOLT. PROVIDE 10"X10" SAFETY GLASS. PROVIDE DOOR CLOSER, WALL STOP, THRESHOLD, DOOR SWEEP & WEATHERSTRIP. PAINT ALL SIDES DOOR AND FRAME P-3 SEMI-GLOSS. G.C. TO PROVIDE VINYL DIE-CUT LETTER SIGN (2" HIGH LETTERS) TO READ "THIS DOOR TO REMAIN UNLOCKED DURING OPERATING HOURS". VERIFY THAT ALL HARDWARE IS COMPLETE. DOORS SHALL COMPLY WITH 2018 I.B.C. 1010.1.9.4. REFER TO DETAIL 6.1-03, 6.1-04 & 6.1-05.
B	3'-0"	NEW ONE HOUR RATED HOLLOW METAL EXTERIOR TWO PANEL ENTRY DOOR W/ H.M. FRAME. PROVIDE KEYED CYLINDRICAL LEVER LOCK TYPE. PROVIDE 10"X10" SAFETY GLASS. PROVIDE PANIC HARDWARE, DOOR CLOSER, KICKPLATE, THRESHOLD, DOOR SWEEP & WEATHERSTRIP. PAINT ALL SIDES DOOR AND FRAME P-3 SEMI-GLOSS. REFER TO DETAIL 6.1-06, 6.1-07 & 6.1-05.
C	3'-0"	NEW SOLID CORE WOOD TWO PANEL DOOR W/ H.M. FRAME. PROVIDE CLOSER AND LEVER TYPE PRIVACY LOCKSET. PAINT ALL SIDES DOOR AND FRAME P-3 SEMI-GLOSS. REFER TO DETAIL 6.1-08, 6.1-09 & 6.1-10.
D	3'-0"	NEW SOLID CORE WOOD TWO PANEL DOOR W/ H.M. FRAME. PROVIDE LEVER TYPE KEYED LOCKSET. PAINT ALL SIDES DOOR AND FRAME P-3 SEMI-GLOSS. REFER TO DETAIL 6.1-08, 6.1-09 & 6.1-10.
E	3'-0"	NEW SOLID CORE WOOD TWO PANEL DOOR W/ H.M. FRAME. PROVIDE LEVER TYPE PASSAGE LOCKSET. PAINT ALL SIDES DOOR AND FRAME P-3 SEMI-GLOSS. REFER TO DETAIL 6.1-08, 6.1-09 & 6.1-10.

1. ALL HARDWARE TO BE SATIN NICKEL FINISH
2. ALL EXIT DOORS WILL BE OPERABLE FROM INSIDE WITHOUT USE OF A SPECIAL KEY OR SPECIAL KNOWLEDGE.
3. ALL DOORS WITH GLAZING SHALL HAVE SAFETY GLAZING COMPLY WITH SECTIONS 2406.1.1 THROUGH 2406.1.4 OF 2018 I.B.C. HUMAN IMPACT LOADS.
4. REFER TO ADA REQUIREMENTS SHEET A1.1.

WINDOW SCHEDULE

MARK	UNIT SIZE WIDTH	UNIT SIZE HEIGHT	FRAME SIZE	FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
A	2'-8"	6'-4"	2" X 4½"	VINYL CLAD	6.2-04	6.2-05	6.2-06	CLEAR GLASS WITH THERMAL BREAK.
	2'-8"	1'-8"	2" X 4½"	VINYL CLAD	6.2-04	6.2-05	6.2-05 SIM	CLEAR GLASS WITH THERMAL BREAK.
B	2'-6"	4'-10"	2" X 4½"	VINYL CLAD	6.2-01 & 6.2-04	6.2-02 & 6.2-05	6.2-03 & 6.2-06	CLEAR GLASS WITH THERMAL BREAK.
C	1'-8"	3'-8"	2" X 4½"	VINYL CLAD	6.2-01	6.2-02	6.2-03	CLEAR GLASS WITH THERMAL BREAK.
D	5'-0"	4'-0"	2" X 4½"	VINYL CLAD	6.2-07	6.2-08	6.2-09	OPERABLE SLIDING WINDOW
E	5'-0"	4'-0"	2" X 4½"	VINYL CLAD	6.2-10	6.2-11 SIM	6.2-11	-

NOTES:
1. REFER TO SHEET A6.2 FOR WINDOW DETAILS.



402 WINDOW TYPES

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

REVISIONS	BY
1 01/30/2023	EJP
2 02/12/2023	EJP

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CONTENTS
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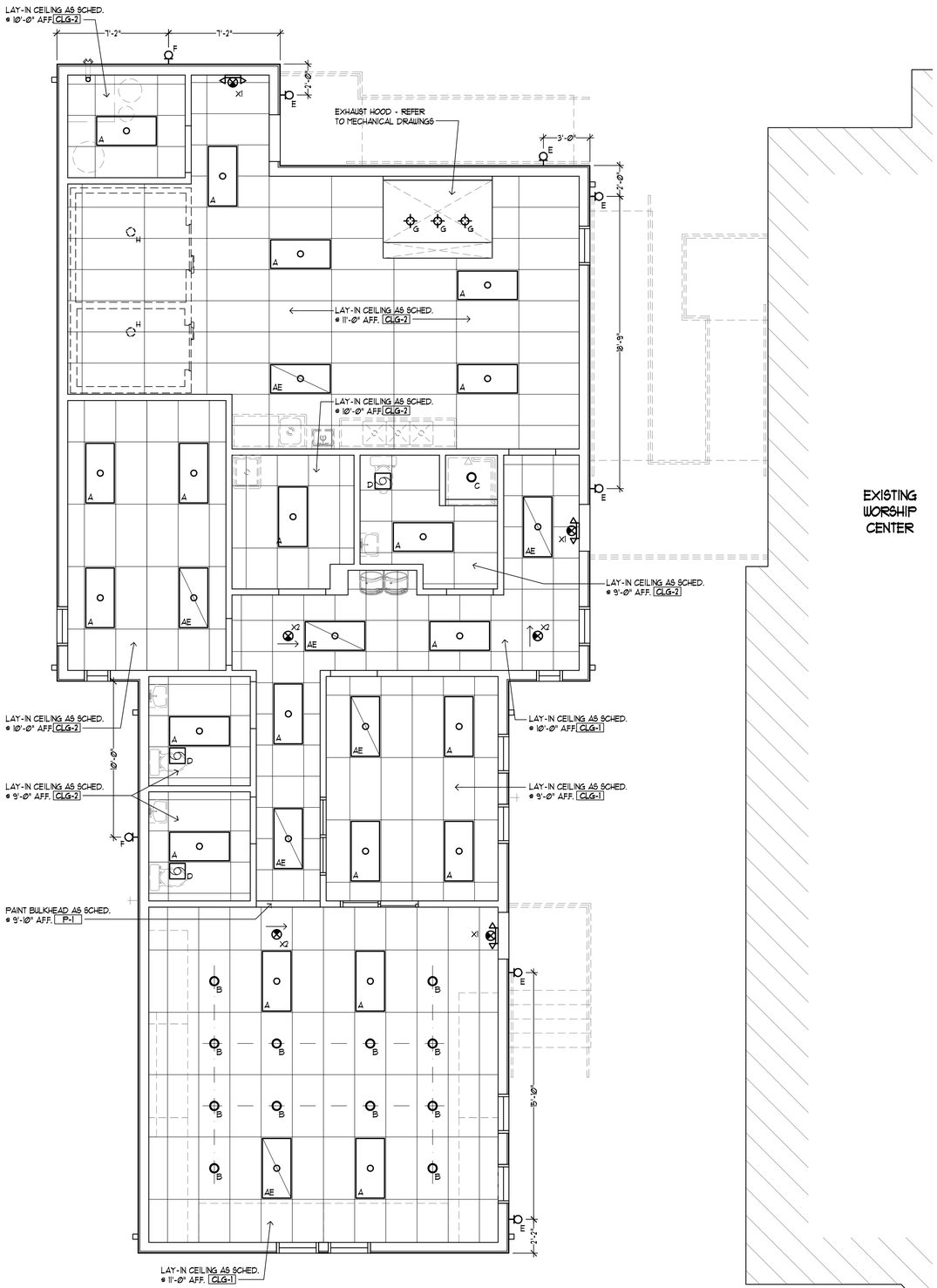

EXISTING WORSHIP CENTER

4.1-01 REFLECTED CEILING PLAN

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

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER / MODEL	CONTACT	MOUNTING	LAMPS
A	INDUSTRIAL LIGHTING PRODUCTS LED 2X4 FLAT PANEL / VPAN24-35L/UNV-35	VENESSA BABCOCK 210-782-4234	LAY-IN	LED 47W / 80 CRI / 3500K
AE	INDUSTRIAL LIGHTING PRODUCTS LED 2X4 FLAT PANEL WITH EMERGENCY BATTERY PACK VPAN24-35L/UNV-35-EM10	VENESSA BABCOCK 210-782-4234	LAY-IN	LED 57W / 80 CRI / 3500K
B	HE WILLIAMS 6" LED DOWNLOAD / 6DR-TL-L10-9-35-DIM-UNV-O-W-OF-CS	VENESSA BABCOCK 210-782-4234	RECESSED	LED 8.7W / 3500K / 90 CRI
C	HE WILLIAMS 6" LED DOWNLOAD / 6DR-TL-L10-9-35-DIM-UNV-S-W-OF-CS	VENESSA BABCOCK 210-782-4234	RECESSED	LED 8.7W / 3500K / 90 CRI
D	NUTONE RESTROOM VENT FAN / LFN80	LOCAL HARDWARE STORE	RECESSED	N/A
E	EXTERIOR DECORATIVE WALL SCONCE	-	SURFACE	-
F	ATLAS AMERICAN LIGHTING LED WALL PACK / WSFL-60LED-4K-BK-EB	VENESSA BABCOCK 210-782-4234	SURFACE	LED 58W / 83 CRI / 4000K
G	LED EXHAUST HOOD LIGHT	KITCHEN EQUIPMENT INSTALLER	EQUIPMENT SURFACE	LED 1W 120V
H	LED WALK-IN UNIT LIGHT	KITCHEN EQUIPMENT INSTALLER	EQUIPMENT SURFACE	LED 1W 120V
X1	LIGHT ALARMS COMBINATION EXIT SIGN/ EMERGENCY LIGHT / UCLXNB0DR-2LEDR	VENESSA BABCOCK 210-782-4234	SURFACE	LED 2.6W
X2	LIGHT ALARMS LED DOUBLE FACE EXIT SIGN / 6WEARM	VENESSA BABCOCK 210-782-4234	SURFACE	LED 2.6W

NOTE:
SEE ELECTRICAL PLANS FOR LIGHTING SPECIFICATIONS. THIS REFLECTED CEILING PLAN SHALL BE REFERENCED FOR LIGHTING PLACEMENT AND QUANTITY OF FIXTURES.

ADDITIONAL NOTES:
1. PROVIDE LENSED LAMPS FOR LIGHTING FIXTURES INSTALLED ABOVE FOOD SERVICE OR FOOD PREPARATION AREAS OR, WHERE SPECIFIED, TEFLON COATED LAMPS.
2. ALL FIXTURES SHALL BE AS SPECIFIED HEREIN. NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT THE DESIGNER'S AND ENGINEER'S EXPRESS WRITTEN CONSENT-NO EXCEPTIONS.
3. ALL FLUORESCENT LIGHT FIXTURES ARE EQUIPPED W/ ENERGY SAVING BALLAST & REDUCED WATTAGE LAMPS.
4. PROVIDE EMERGENCY POWERED BATTERY PACK BATTERY BALLAST FOR ALL 24 HOUR LAMPS.
5. GENERAL CONTRACTOR SHALL FURNISH ALL REQUIRED MATERIALS FOR THE PROPER INSTALLATION OF ALL LIGHT FIXTURES.
6. ELECTRICAL CONTRACTOR TO CROSS REFERENCE FIXTURE SCHEDULE WITH ELECTRICAL PANEL SCHEDULE BEFORE PLACING ORDER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
7. GENERAL CONTRACTOR TO INSTALL ALL SPEAKERS AT HEIGHTS AND WITH MOUNTING TYPES AS PER OWNER'S INSTRUCTIONS.
8. EMERGENCY LIGHTING SHALL BE INSTALLED 6" BELOW CEILING HEIGHTS.

FINISH SCHEDULE

KEY	PRODUCT	MANUFACTURER	CONTACT	DESCRIPTION	LOCATION	FLAME SPREAD CLASS.
P-1	PAINT	SHERWIN WILLIAMS	LOCAL STORE	SATIN FINISH	WALLS	GYPSUM BOARD FLAME SPREAD: 15 / CLASS A
P-2	PAINT	SHERWIN WILLIAMS	LOCAL STORE	SEMI GLOSS FINISH	STORAGE, KITCHEN & UTILITY WALLS	GYPSUM BOARD FLAME SPREAD: 15 / CLASS A
P-3	PAINT	SHERWIN WILLIAMS	LOCAL STORE	SEMI GLOSS FINISH	DOORS / RAILING	CLASS A
P-4	PAINT	SHERWIN WILLIAMS	LOCAL STORE	-	OUTDOOR SIDING & BB WALLS	CLASS A
P-5	PAINT	SHERWIN WILLIAMS	LOCAL STORE	-	OUTDOOR TRIM	CLASS C
LVT-1	LUXURY VINYL TILE	-	-	-	-	FLAME SPREAD: 25 / CLASS A
SC-1	SEALED CONCRETE	-	-	-	-	N/A CONCRETE NOT COMBUSTIBLE
B-1	VINYL BASE	-	-	-	-	FLAME SPREAD: 25 / CLASS A
CLG-1	LAY-IN CEILING TILE	USG INTERIORS, INC.	(800) 950-3839	ASTRO ACOUSTICAL PANELS - 2'X4'X5/8" (SLT) - NO. 8243 - COLOR: WHITE - GRID PROFILE: DXL	CONFERENCE, OFFICE, CORRIDORS	FLAME SPREAD: 25 / CLASS A
CLG-2	LAY-IN CEILING TILE	USG INTERIORS, INC.	(800) 950-3839	SHEETROCK BRAND CLIMAPLUS VINYL - 2'X4'X1/2" (SQ) - NO. 3210 - COLOR: WHITE - GRID PROFILE: DXL	RESTROOMS, BATHROOM, LAUNDRY, STOR, KIT. & UTILITY	FLAME SPREAD: 25 / CLASS A

NOTE: UNDER "LOCATION" GENERAL LOCATIONS ONLY ARE INDICATED TO AID THE G.C. IN DETERMINING FINISH APPLICATIONS. G.C. IS RESPONSIBLE FOR DETERMINING EXACT LOCATIONS OF FINISHES BY REFERRING TO PLAN, ELEVATIONS, SECTIONS AND DETAILS. DISCREPANCIES AND QUESTIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGNER.

NOTES:
1. ALL REMAINING MATERIAL SHALL BE THE PROPERTY OF THE OWNER AND SHALL REMAIN STORED ON SITE AS PER OWNER'S INSTRUCTIONS.
2. PAINTING CONTRACTOR SHALL RETURN AFTER STORE SET-UP TO TOUCH-UP DOORWAYS, ETC. AS NEEDED.
3. PAINTING CONTRACTOR SHALL SUBMIT SAMPLES TO DESIGNER OF ALL PAINTS AND STAINS TO BE USED THROUGHOUT. REFER TO GENERAL SPECIFICATIONS.
4. ALL FINISHES SHALL BE AS SPECIFIED - NO SUBSTITUTIONS WILL BE PERMITTED, NO EXCEPTIONS (THIS INCLUDES MANUFACTURER, STYLE, AND COLOR).
5. MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE FOLLOWED.
6. ALLOW SIX WEEK LEAD TIME FOR ALL SPECIALTY ITEMS. VERIFY LEAD TIMES FOR ALL FINISHES.
7. ALL QUARRY TILE SHALL BE SEALED.
8. USE DOUBLE GLAZED EDGE TILE OR BULLNOSE TILE AT ALL EXPOSED CORNERS.
9. PAINT ALL MECHANICAL GRILLS SAME AS THE ADJACENT SOFFIT (TYP.)

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REFLECTED CEILING PLAN
LIGHT FIXTURE SCHEDULE
FINISH SCHEDULE

Date 12/27/2022
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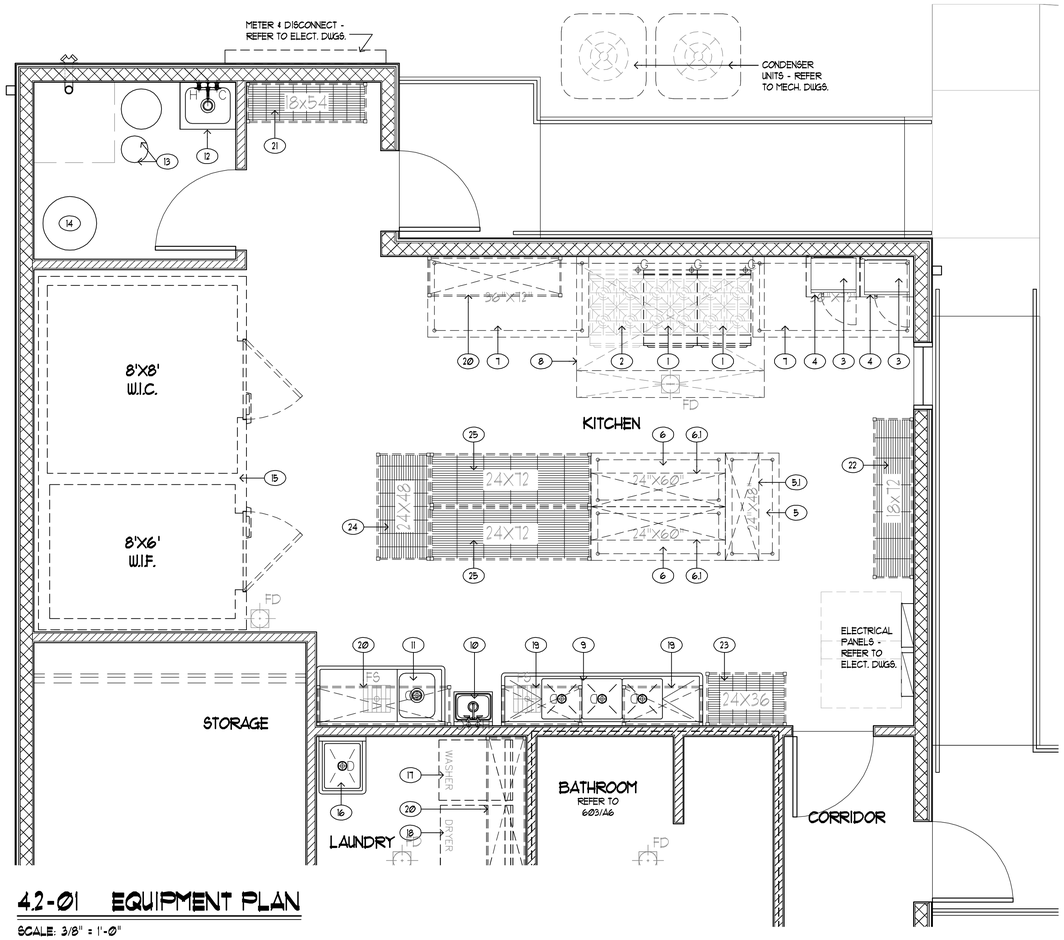


4.2-01 EQUIPMENT PLAN

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

EQUIPMENT SCHEDULE

MARK	QTY.	EQUIPMENT	MANUFACTURER/DIMENSIONS	FURN.	INST.
1	2	GAS RANGE WITH 4 OPEN BURNERS AND STANDARD OVEN	WOLF / C24S-4BN	G.C.	G.C.
2	1	FUTURE GAS RANGE WITH 4 OPEN BURNERS AND STANDARD OVEN	WOLF / C24S-4BN	-	-
3	2	MICROWAVE OVEN	WINCO / EMW-1000ST	G.C.	G.C.
4	2	MICROWAVE OVEN SHELF	ADVANCE TABCO / MS-18-24	G.C.	G.C.
5	1	STAINLESS STEEL WORK TABLE WITH 5" SPLASH & UNDERSHELF / 24" X 48"	ADVANCE TABCO / SKG-244	G.C.	G.C.
5.1	1	STAINLESS STEEL TABLE MOUNTED SHELF / 15" X 48"	ADVANCE TABCO / ODS-15-48	G.C.	G.C.
6	2	STAINLESS STEEL WORK TABLE WITH 5" SPLASH & UNDERSHELF / 24" X 60"	ADVANCE TABCO / SKG-245	G.C.	G.C.
6.1	1	STAINLESS STEEL TABLE MOUNTED SHELF / 15" X 60"	ADVANCE TABCO / ODS-15-60	G.C.	G.C.
7	2	STAINLESS STEEL WORK TABLE WITH 5" SPLASH & UNDERSHELF / 36" X 72"	ADVANCE TABCO / SKG-366	G.C.	G.C.
8	1	EXHAUST HOOD WITH MAKE UP AIR	REFER TO MECHANICAL DRAWINGS	G.C.	G.C.
9	1	THREE COMPARTMENT SINK	ADVANCE TABCO / FC-3-1818-18R	G.C.	G.C.
10	1	WALL MOUNTED HAND SINK	ADVANCE TABCO / 7-PS-60	G.C.	G.C.
10.1	1	WALL MOUNTED SOAP DISPENSER	ADVANCE TABCO / 7-PS-12	G.C.	G.C.
10.2	1	WALL MOUNTED PAPER TOWEL DISPENSER	ADVANCE TABCO / 7-PS-35	G.C.	G.C.
11	1	ONE COMPARTMENT SINK	ADVANCE TABCO / 93-1-24-36R	G.C.	G.C.
12	1	MOP SINK	ADVANCE TABCO / 9-OP-20	G.C.	G.C.
13	1	WATER SOFTENER SYSTEM	REFER TO PLUMBING DRAWINGS	G.C.	G.C.
14	1	HOT WATER HEATER	REFER TO PLUMBING DRAWINGS	G.C.	G.C.
15	1	WALK-IN COMBINATION COOLER & FREEZER	KOLPAK OR EQUAL / COOLER: 8'-0" X 8'-0" / FREEZER: 6'-0" X 8'-0"	G.C.	G.C.
16	1	LAUNDRY SINK	ADVANCE TABCO / FC-1-1620	G.C.	G.C.
17	1	LAUNDRY WASHER	VERIFY WITH OWNER	OWNER	G.C.
18	1	LAUNDRY DRYER	VERIFY WITH OWNER	OWNER	G.C.
19	LOT	HEAVY DUTY WALL MOUNTED WIRE SHELVING	2 ROWS METRO / 18" X 36" / PROVIDE IN WALL BLOCKING AS REQUIRED	G.C.	G.C.
20	LOT	HEAVY DUTY WALL MOUNTED WIRE SHELVING	2 ROWS METRO / 18" X 60" / PROVIDE IN WALL BLOCKING AS REQUIRED	G.C.	G.C.
21	LOT	WIRE SHELVING UNIT	METRO / 18"D X 54" L (5 TIER)	G.C.	G.C.
22	LOT	WIRE SHELVING UNIT	METRO / 18"D X 72" L (5 TIER)	G.C.	G.C.
23	LOT	WIRE SHELVING UNIT	METRO / 24"D X 36" L (5 TIER)	G.C.	G.C.
24	LOT	WIRE SHELVING UNIT	METRO / 24"D X 48" L (5 TIER)	G.C.	G.C.
25	LOT	WIRE SHELVING UNIT	METRO / 24"D X 72" L (5 TIER)	G.C.	G.C.

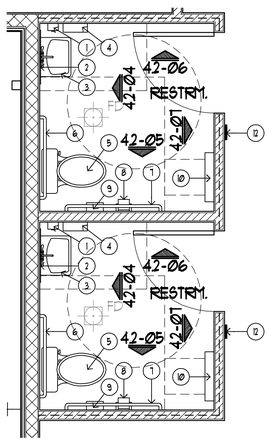
RESTROOM ACCESSORIES SCHEDULE

MARK	QTY.	EQUIPMENT	MANUFACTURER/DIMENSIONS (W X D X H)	FURN.	INST.
1	3	LIQUID SOAP DISP.	BOBRICK / B-211 SURFACE MOUNTED SOAP DISPENSER	G.C.	G.C.
2	3	MIRROR	BOBRICK / BOBRICK / B-165 2436 MIRROR WITH STAINLESS STEEL CHANNEL FRAME	G.C.	G.C.
3	3	WALL MOUNTED LAVATORY	SEE ENGINEERING PLANS	G.C.	G.C.
4	3	WALL MOUNTED PAPER TOWEL DISPENSER	BOBRICK / B-2620 SURFACE MOUNTED CLASSIC SERIES	G.C.	G.C.
5	3	ADA WATER CLOSET	SEE ENGINEERING PLANS	G.C.	G.C.
6	3	ST. STEEL GRAB BAR	BOBRICK / B-5806-36" X 1½" DIAMETER - CONCEALED MOUNT W/ SNAP FLANGE, PEENED GRIP, POLISHED ENDS	G.C.	G.C.
7	3	ST. STEEL GRAB BAR	BOBRICK / B-5806-42" X 1½" DIAMETER - CONCEALED MOUNT W/ SNAP FLANGE, PEENED GRIP, POLISHED ENDS	G.C.	G.C.
8	3	TOILET PAPER DISPENSER	BOBRICK / B-2888 / MULTIROLL (SURFACE MTD.)	G.C.	G.C.
9	3	SANITARY NAPKIN DISPOSAL	BOBRICK / B-270 / SURFACE MTD.	G.C.	G.C.
10	3 ½	BABY CHANGING UNIT	KOALA-KARE / KB101-00 / SURFACE MTD.	G.C.	G.C.
11	1	SHOWER STALL	ACCESSIBLE ACRYLIC 36"X 36" ONE PIECE SHOWER STALL WITH CENTER DRAIN, FOLD UP SHOWER BENCH AND GRAB BARS - AQUATIC #363BFSCST OR EQUAL. CONTACT AT 800-345-7228	G.C.	G.C.
12	3	ADA RESTROOM SIGN	REFER TO SHEET A11 FOR MOUNTING HEIGHTS AND NOTES ON BRAILLE.	G.C.	G.C.
13	2	ELECT. WATER COOLER (DRINKING FOUNTAIN)	SEE PLUMBING PLANS	G.C.	G.C.

NOTES:
1. FOR BOBRICK CONTACT - DEA SPECIALTIES, DAVID OLIVER - 210-523-1013.
2. REFER TO A11 FOR A.D.A. MOUNTING HEIGHTS AND GENERAL NOTES.

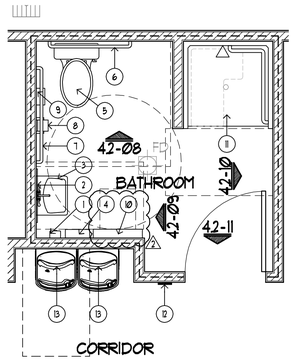
WALK-IN COOLER SPECIFICATIONS: 2

1. Panel size: 4" thick nominal
2. Metal Finish: interior and exterior 26 GA Embossed Galvalume
3. Maximum flame spread rating of 75



ENLARGED 4.2-02 RESTROOM PLAN

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



ENLARGED 4.2-03 SHOWER PLAN

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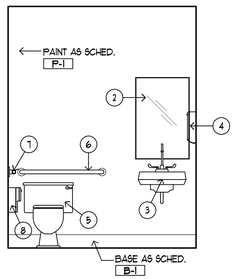

4.2-04 INT. ELEV.

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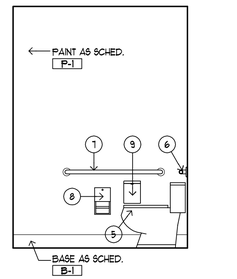

4.2-05 INT. ELEV.

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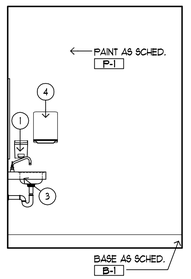

4.2-06 INT. ELEV.

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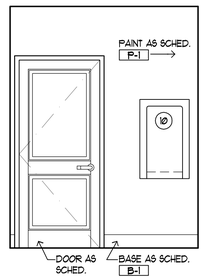
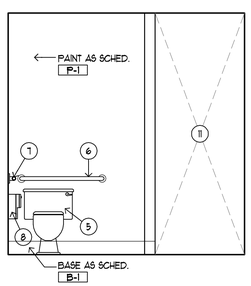


4.2-07 INT. ELEV.

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



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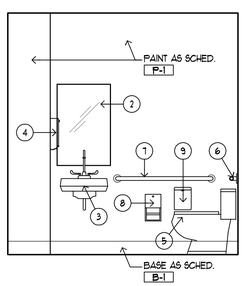

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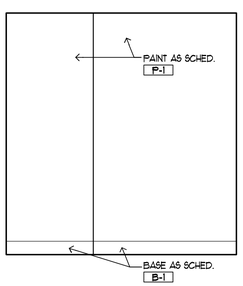

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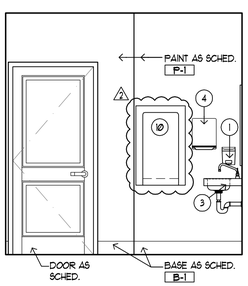

4.2-11 INT. ELEV.

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

REVISIONS	BY
1 07/22/2023	EJP
2 09/06/2023	EJP

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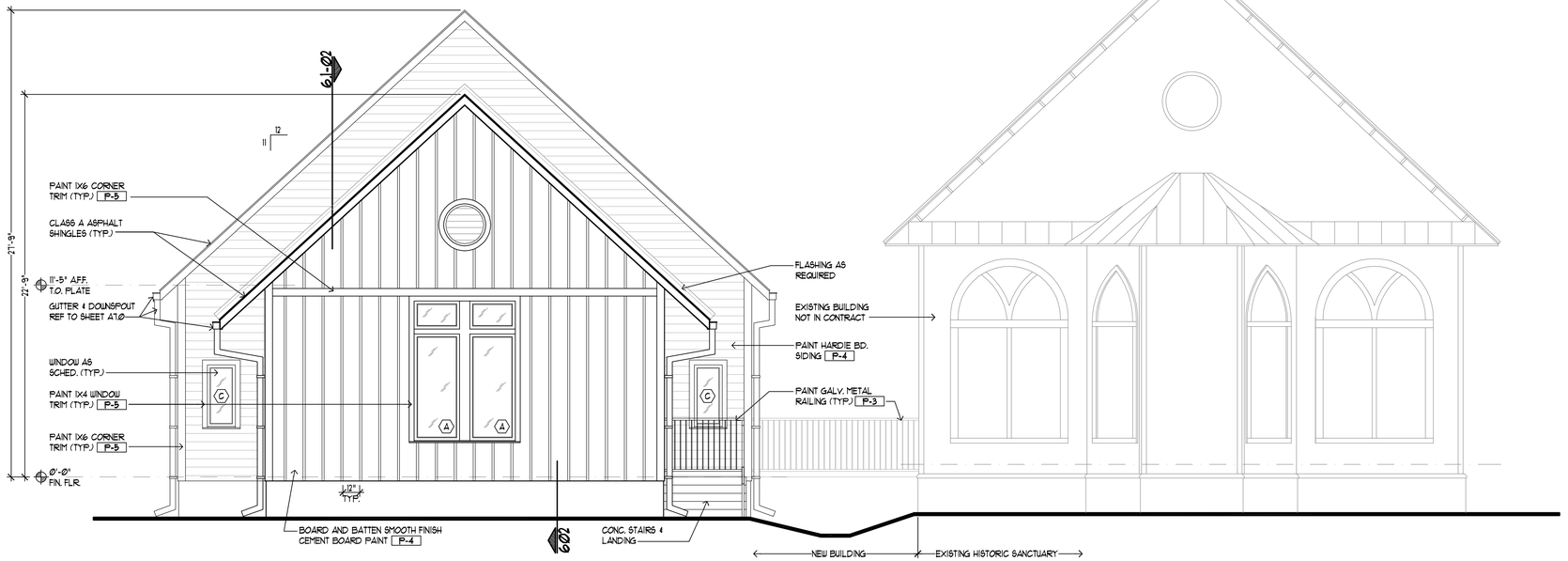

501 EXTERIOR ELEVATION SOUTH OMAHA ST. SIDE

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

502 EXTERIOR ELEVATION EAST PINE ST. SIDE

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

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3/28/23

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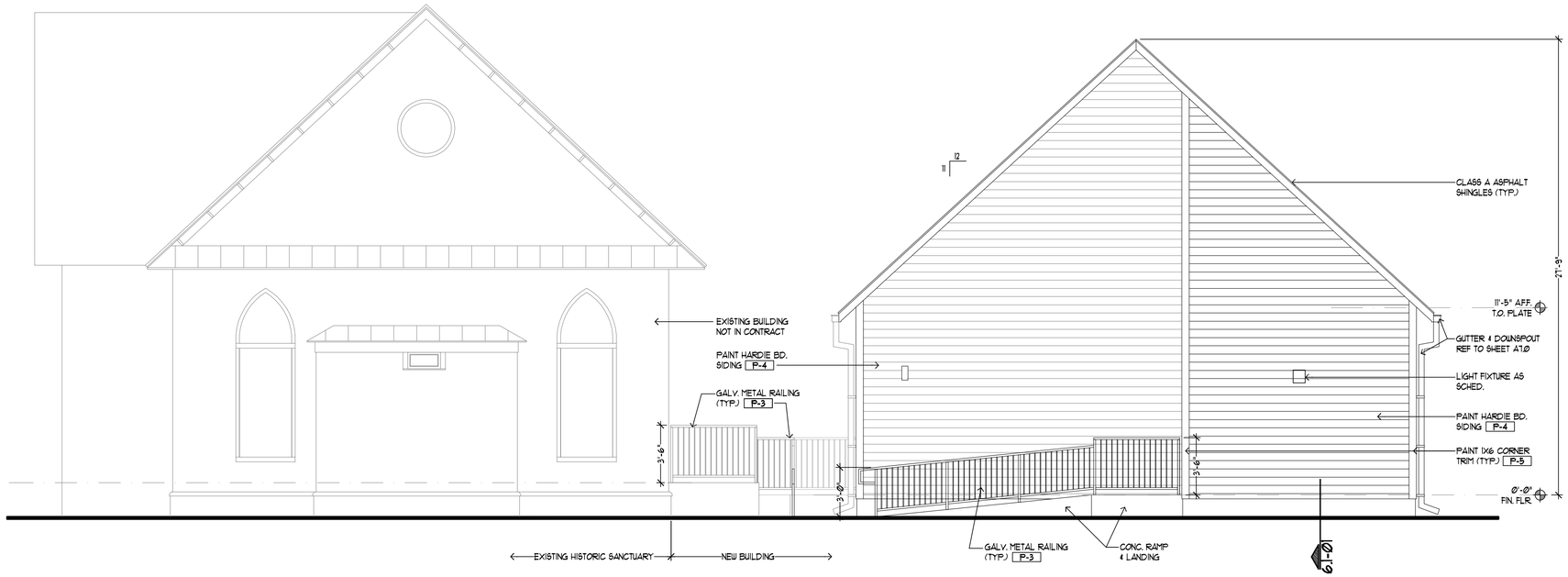

EXTERIOR ELEVATION
5.1-01 NORTH SIDE

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

EXTERIOR ELEVATION
5.1-02 WEST SIDE

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

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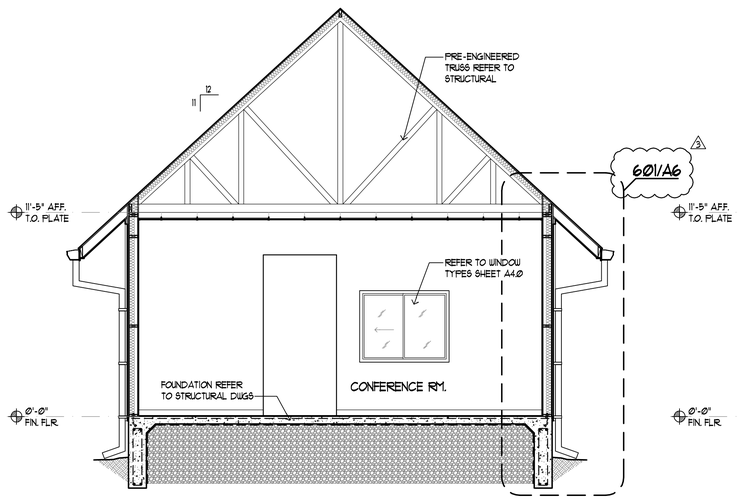

5.2-Ø1 BUILDING SECTION

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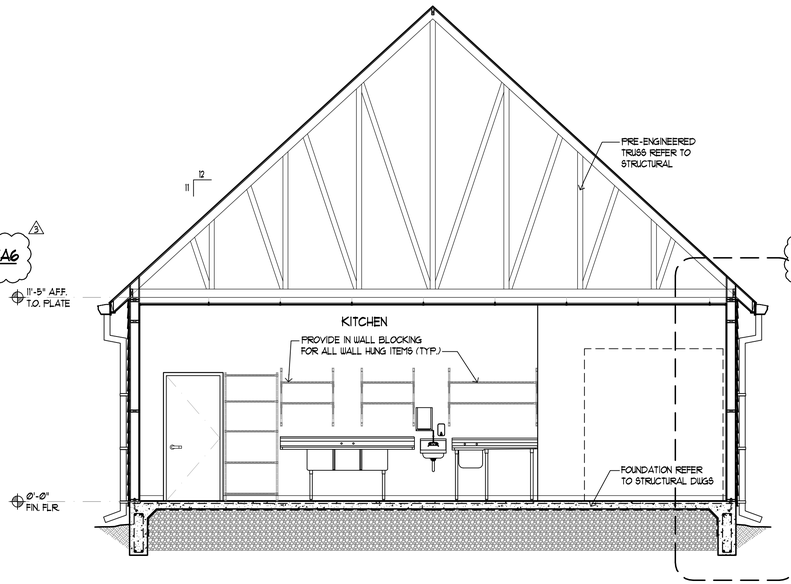

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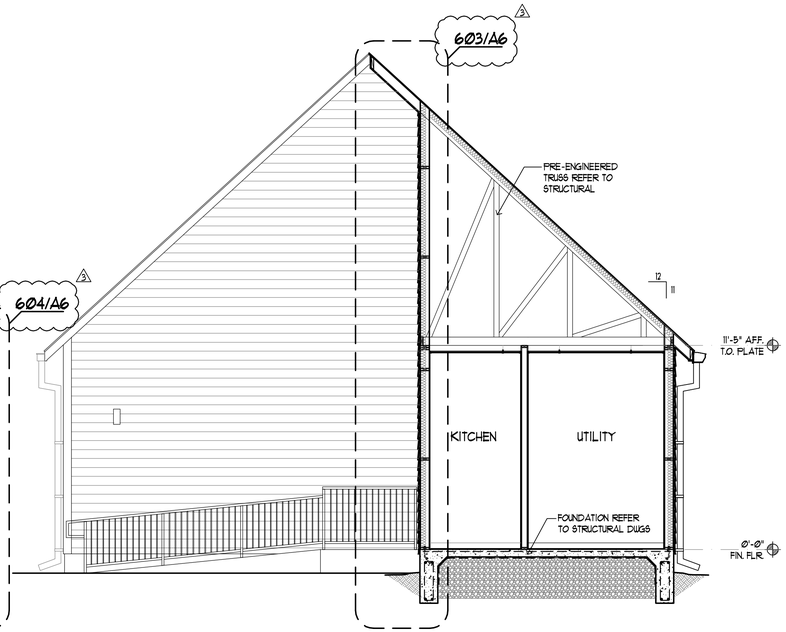

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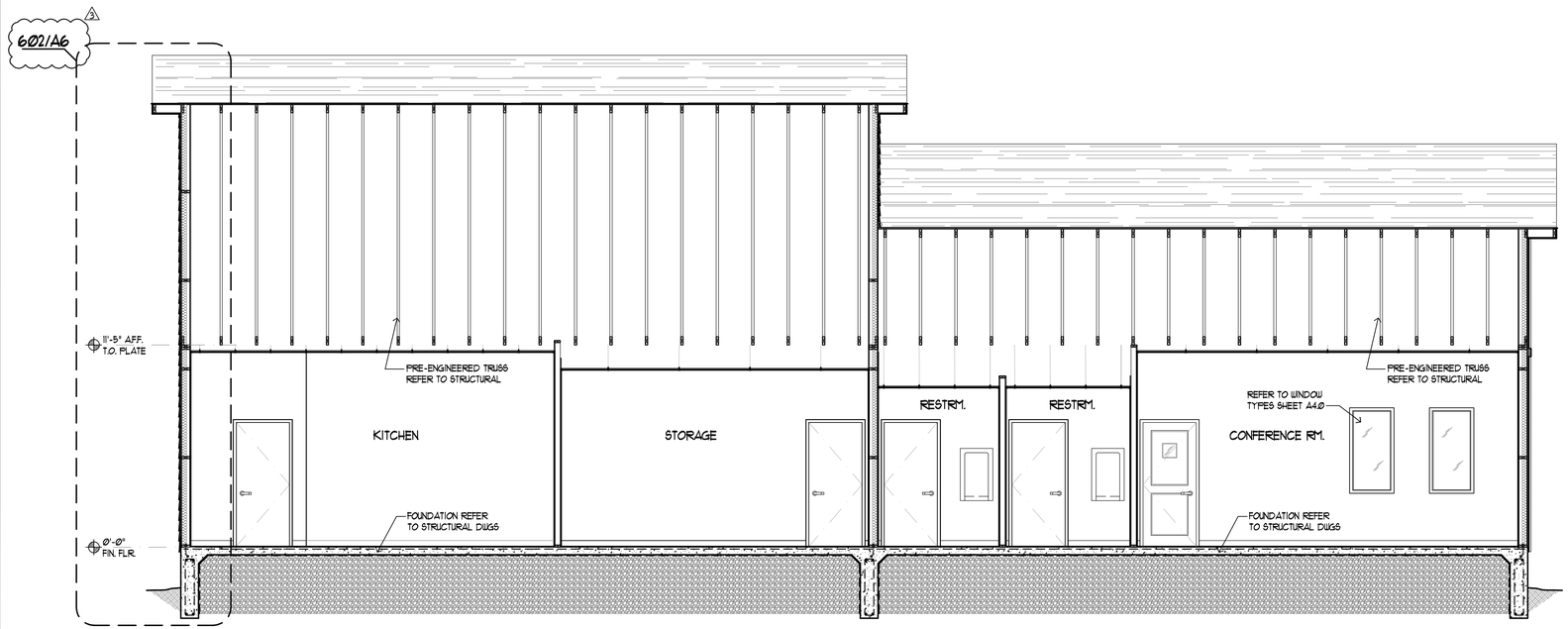

5.2-Ø4 BUILDING SECTION

SCALE: 1/4" = 1'-Ø"

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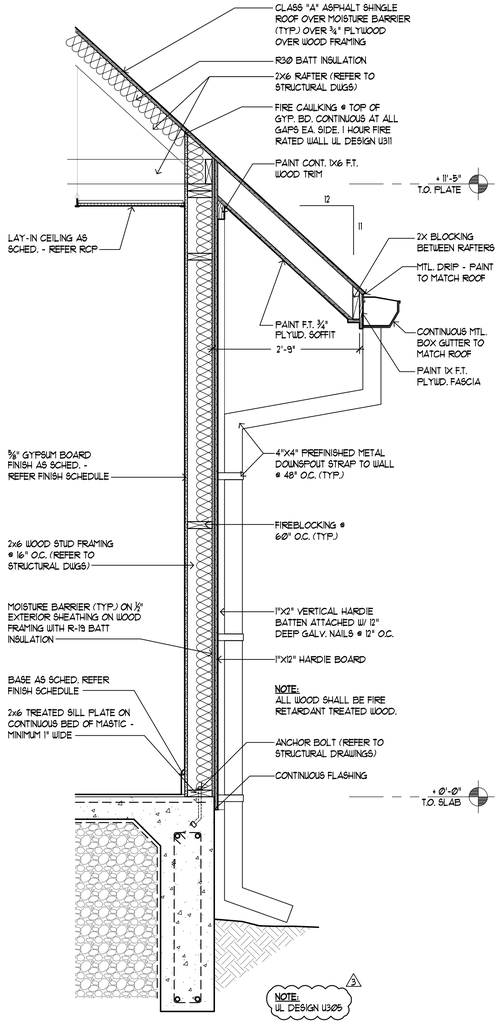

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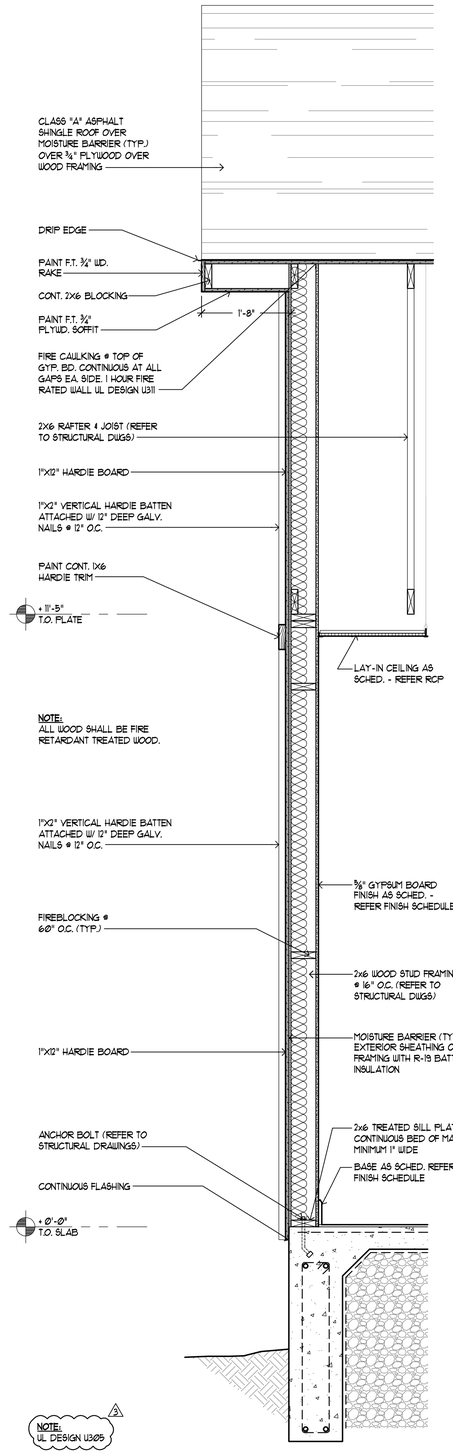

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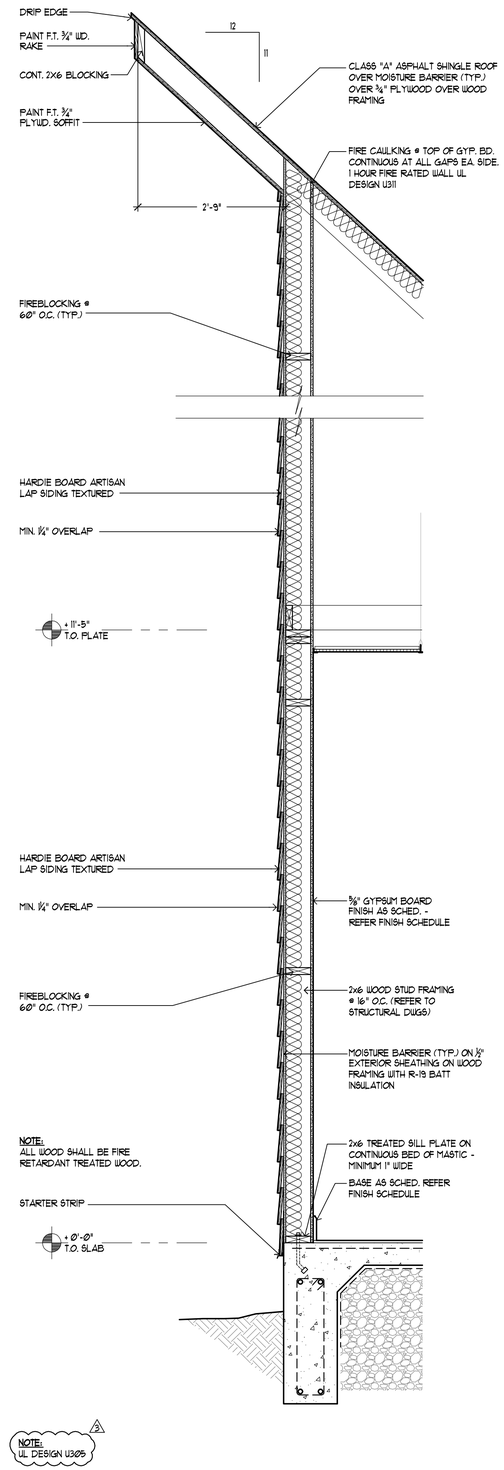

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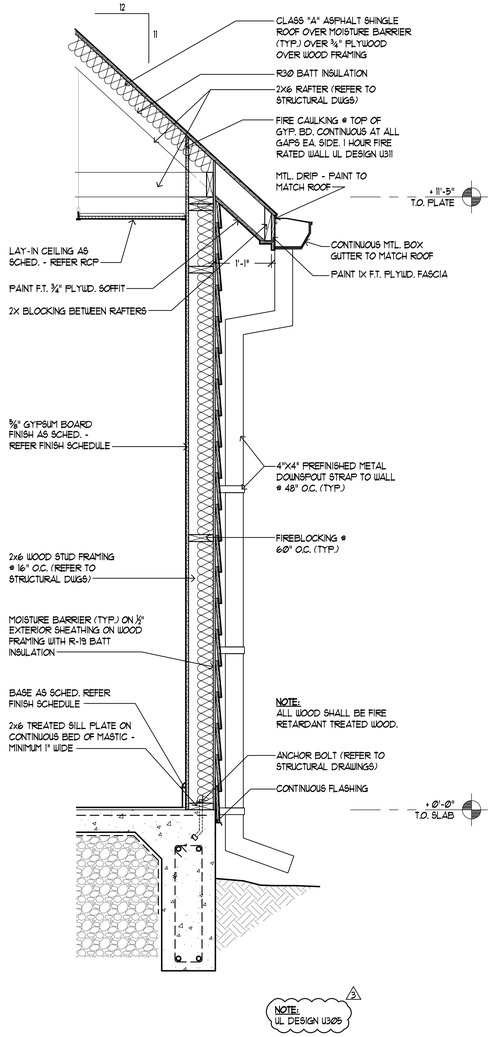

604 WALL SECTION

SCALE: 3/4" = 1'-0"

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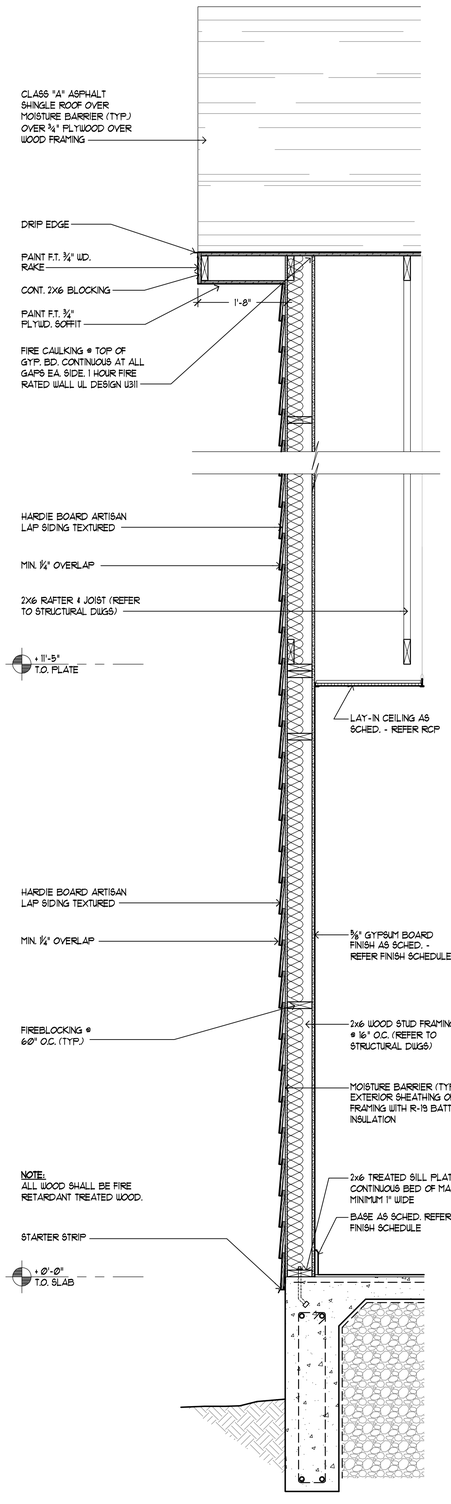

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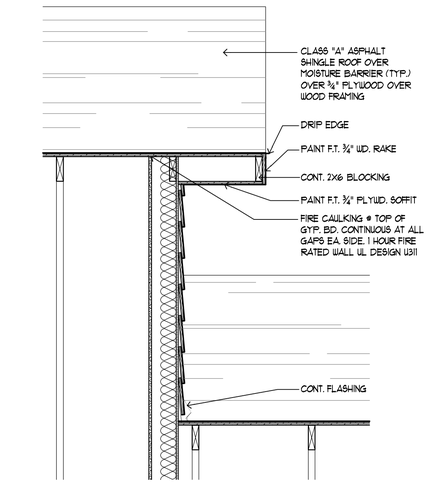

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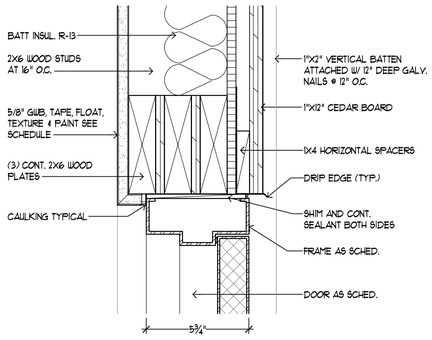

6.1-03 DOOR HEAD SECTION

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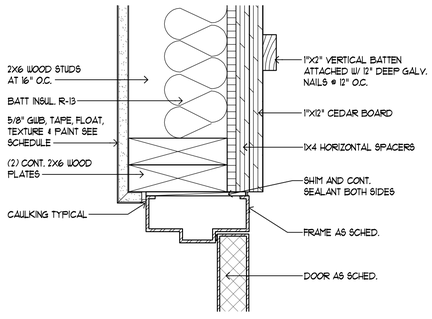

6.1-04 DOOR JAMB SECTION

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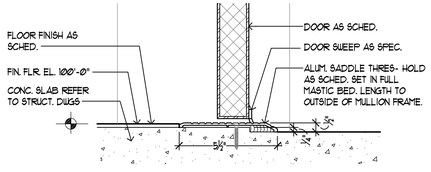

6.1-05 DOOR SILL SECTION

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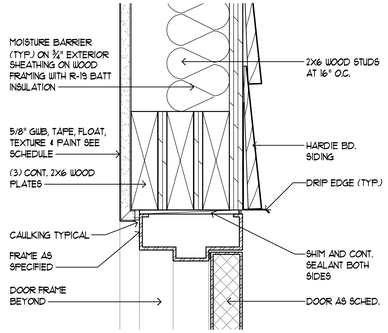

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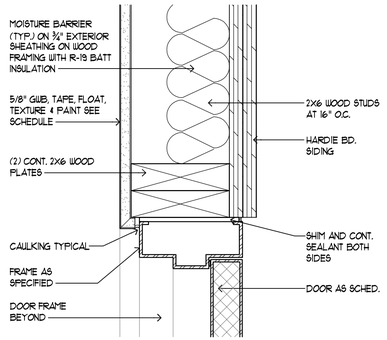

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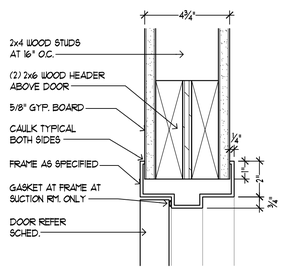

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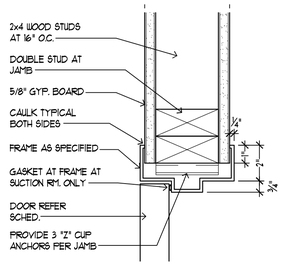

6.1-09 DOOR JAMB SECTION

SCALE: 3" = 1'-0"

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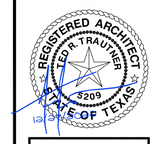

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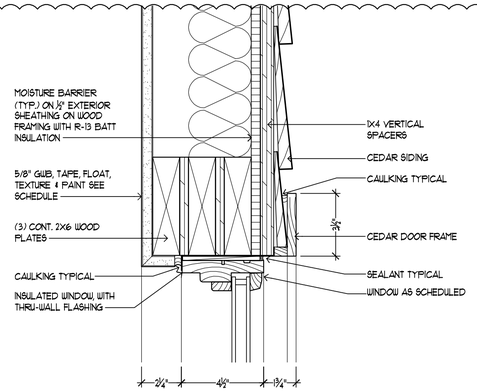

6.2-01 WINDOW HEAD SECTION

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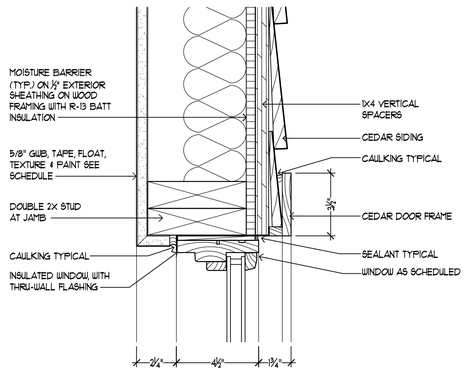

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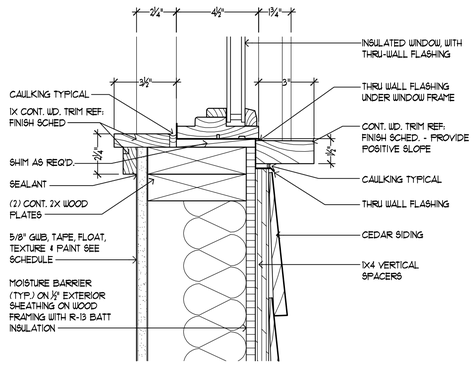

6.2-03 WINDOW SILL SECTION

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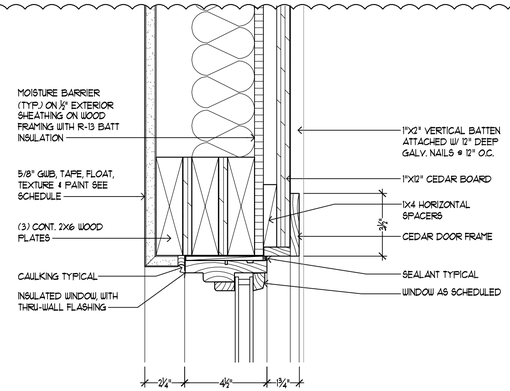

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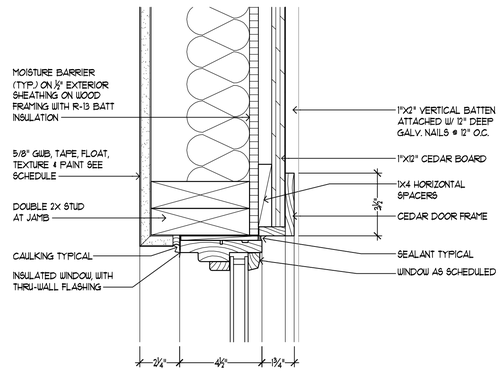

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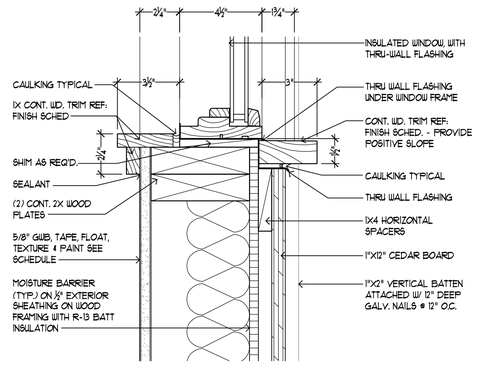

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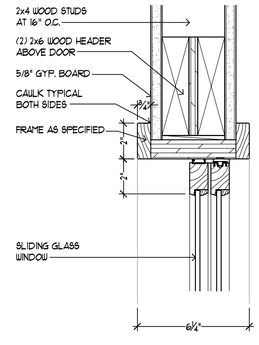

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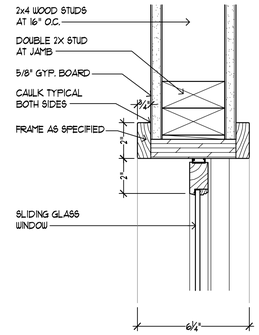

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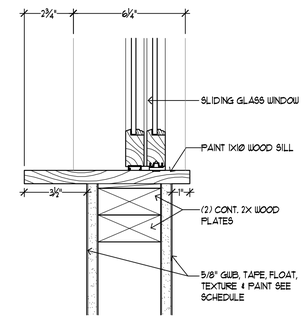

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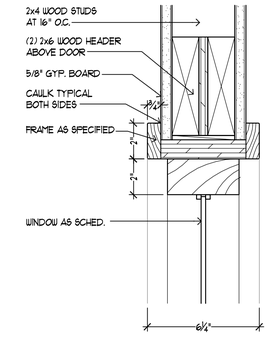

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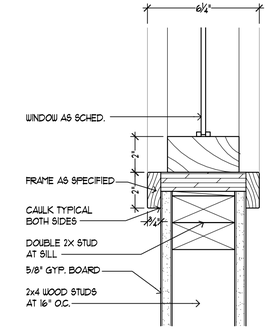

6.2-11 WINDOW SILL SECTION

SCALE: 3" = 1'-0"

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DEMOLITION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS AND/OR APPROVALS BEFORE COMMENCING DEMOLITION ACTIVITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE SITE ALL ITEMS SHOWN TO BE DEMOLISHED UNLESS OTHERWISE INDICATED. ALL MATERIALS SHALL BE DEMOLISHED AND REMOVED FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
3. ALL EXISTING ITEMS NOT SPECIFICALLY NOTED TO BE DEMOLISHED SHALL REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING ITEMS REMOVED DURING DEMOLITION ACTIVITIES THAT WERE TO REMAIN.
4. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL UTILITY COMPANIES REGARDING THE REMOVAL OF EXISTING SERVICES, EXISTING POWER/COMMUNICATIONS/LIGHT POLES, ETC..
5. STATUS AND EXACT LOCATION OF EXISTING UTILITIES IS APPROXIMATE ONLY. CONTRACTOR SHALL EXERCISE CARE IN FIELD LOCATING AND DETERMINING STATUS OF ALL UTILITIES ON THE SITE. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION PRIOR TO COMMENCING WORK AS WELL AS PROVIDE AS-BUILT NOTATIONS OF THE ACTUAL LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF UTILITIES WEATHER SHOWN OR NOT SHOWN IN THE PLANS.
6. ALL NECESSARY EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR CONSTRUCTION ACTIVITY. EROSION CONTROL MEASURES ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.
7. FOR TREES SHOWN TO REMAIN, THE CONTRACTOR SHALL INSTALL TREE PROTECTION IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL NOT REMOVE NOR DAMAGE ANY TREES WITHOUT THE PERMIT TO DO SO.
8. NO PARKING AND/OR STORAGE SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES TO REMAIN.
9. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS AND SIDEWALK JUNCTURES, NO IRREGULAR CUTS SHALL BE ACCEPTED. CONCRETE WALKS, DRIVES, CURBS, BRICK PAVER AND PAVEMENT TO BE DEMOLISHED SHALL BE SAW-CUT ALONG STRAIGHT LINES PERPENDICULAR OR RADIAL TO THE EDGES OF PROPOSED WORK.
10. THE CONTRACTOR SHALL PROTECT ALL PINS, BENCH MARKS, CONSTRUCTION STAKES, OR OTHER CONTROL POINTS. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHMENT OF ANY CONTROL POINTS AT THEIR OWN EXPENSE.
11. CONTRACTOR SHALL NOT DEMOLISH ANY PUBLIC OR PRIVATE WATER AND/OR WASTE WATER LINES WITHOUT APPROVAL. EXISTING WATER AND WASTE WATER SERVICES SHALL REMAIN ACTIVE AND OPERATIONAL UNTIL NEW SERVICES ARE CONNECTED AND FUNCTIONAL. NO ABANDONED SERVICES SHALL REMAIN CONNECTED TO THE WATER AND/OR WASTE WATER LINES.
12. ALL REMOVED ITEMS SHALL BE DISPOSED OF OFF THE INSTALLATION IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS AT THE EXPENSE OF THE CONTRACTOR.
13. MANHOLES, STRUCTURES, TREES AND OTHER MISCELLANEOUS ITEMS TO BE REMOVED SHALL HAVE RESULTING VOIDS BACKFILLED AND COMPACTED ACCORDING TO SPECIFICATIONS.
14. SIGNS AND TRAFFIC RELATED DEVICES TO REMAIN OR TO BE RELOCATED, WITHIN THE WORK SITE, SHALL BE PROTECTED AT CONTRACTOR EXPENSE THROUGHOUT CONSTRUCTION. SIGNS TO BE RELOCATED SHALL HAVE NEW POST INSTALLED.
15. ALL WATER AND NATURAL GAS DEVICES REMOVED SHALL HAVE LINES CUT AND CAPPED AT POINT OF REMOVAL.
16. WHERE ELECTRICAL OR COMMUNICATION DEMOLITION IS NEEDED, ENSURE ALL CONDUCTORS OR WIRING IN THE AFFECTED CONDUIT OR DUCT-BANK ARE REMOVED COMPLETELY.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISPOSAL PERMITS AND REGULATIONS REQUIREMENTS.
18. CONTRACTOR SHALL NOTIFY CORRESPONDING UTILITY OWNER PRIOR TO ISOLATING TRANSFORMER, CUTTING SERVICES, AND DISCONNECTING POWER FROM THE OVERHEAD OR UNDERGROUND POWER LINES. DEMOLITION MAY NOT COMMENCE UNTIL AUTHORIZATION HAS BEEN RECEIVED BY THE UTILITY OWNER.
19. REMOVAL AND/OR RELOCATION OF TEMPORARY UTILITIES UTILIZED BY OTHERS ARE TO BE COORDINATED WITH CORRESPONDING UTILITY OWNER PRIOR COMMENCEMENT OF CONSTRUCTION.
20. WHERE PEDESTRIAN AND DRIVER SAFETY IS ENDANGERED IN THE AREA OF REMOVAL WORK, USE TRAFFIC BARRICADES WITH FLASHING LIGHTS.

EXISTING UTILITIES NOTES:

1. THE UTILITY PLAN HAS BEEN PREPARED USING AVAILABLE EXISTING UTILITY DATA. EXISTING UTILITY DATA SHOWN WAS OBTAINED FROM A FIELD SURVEY OF OF THE VISIBLE FEATURES AT THE SITE AND PUBLIC RECORD MAPS OBTAINED FROM THE UTILITY COMPANIES.
2. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION LO LOCATE AND TAG THEIR UTILITIES PRIOR EXCAVATION.
3. CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS WEATHER SHOWN OR NOT SHOWN IN THE PLANS.
   - 3.1. SAN ANTONIO WATER SYSTEM (SAWS): 210.233.2010
   - 3.2. SAN ANTONIO RIVER AUTHORITY (SARA): 210.302.4200
   - 3.3. CITY OF SAN ANTONIO (COSA) DRAINAGE: 210.207.2800
   - 3.4. COSA SIDEWALK AND TRENCHING DIVISION: 210.821.3240
   - 3.5. COSA TRAFFIC SIGNAL OPERATIONS: 210.207.7765
   - 3.6. ONE CALL BOARD OF TEXAS: 800.545.6005
     - 3.6.1. AT&T
     - 3.6.2. TIME WARNER CABLE
     - 3.6.3. SPECTRUM
     - 3.6.4. VALERO ENERGY
     - 3.6.5. NUSTAR ENERGY
4. THE CONTRACTOR NEEDS TO ALLOW FOR THE POSSIBILITY OF UNDETECTED UNDERGROUND UTILITIES. ALSO, THE CONTRACTOR MUST ALLOW FOR CHANGES DUE TO UTILITIES BEING IN LOCATIONS DIFFERENT FROM THOSE SHOWN IN THE PLANS AND/OR UTILITY RECORD MAPS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND EXPOSING UTILITY CONFLICTS PRIOR CONSTRUCTION.
5. STATUS AND EXACT LOCATION OF EXISTING UTILITIES IS APPROXIMATE ONLY. CONTRACTOR SHALL EXERCISE CARE IN FIELD LOCATING AND DETERMINING STATUS OF ALL UTILITIES ON THE SITE. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION PRIOR TO COMMENCING WORK AS WELL AS PROVIDE AS-BUILT NOTATIONS OF THE ACTUAL LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF UTILITIES WEATHER SHOWN OR NOT SHOWN IN THE PLANS. ANY DAMAGE BY THE CONTRACTOR TO EXISTING UTILITIES , WEATHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR RESPONSIBILITY TO REPAIR AT HIS/HERS EXPENSE.
6. DUE TO FEDERAL REGULATIONS TITLE 49 PART 192.181 CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
7. EROSION/SEDIMENTATION CONTROL AND TREE PROTECTION MUST BE INSTALLED PRIOR TO ANY DEMOLITION. REFERENCE EROSION & SEDIMENTATION CONTROL PLAN SHEET.
8. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG TESS" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN PER THE APPROPRIATE REMEDIAL ACTION AGREED UPON BY THE ENGINEER.
9. WHERE A STATE OR LOCAL MUNICIPAL STANDARD DETAIL DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL, AS DETERMINED BY THE REVIEWING AGENCY, SHALL APPLY.
10. NO SITE DISTURBANCE SHALL OCCUR UNTIL THE PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS HELD.
11. ALL DEMOLITION OF EXISTING CURBING AND SIDEWALKS MUST BE DONE BY HAND WHEN WORKING WITHIN THE 1/2 CRITICAL ROOT ZONE OF EXISTING TREES.
12. TREE PROTECTION FENCE MOVED DURING CONSTRUCTION MUST BE RE-INSTATED AS SOON AS DEMOLITION WORK IS COMPLETED. ANY WORK BEING DONE WITHIN THE TREE PROTECTION FENCE AREA MUST NOT IMPACT TREE(S); NO ROOT DAMAGE AND NO BRANCH OR TRUNK DAMAGE. ADD A 12" LAYER OF MULCH WITHIN THE TREE PROTECTION FENCE AREA PRIOR TO CONDUCTING ANY WORK INSIDE FENCE AREA.
13. LIMITS OF CONSTRUCTION ARE SHOWN ON THE EROSION & SEDIMENTATION CONTROL PLAN(S).
14. REFERENCE "TREE LIST" ON EXISTING CONDITIONS SURVEY & DEMOLITION PLAN AND EROSION & SEDIMENTATION CONTROL PLAN FOR TREE INFORMATION.

DIMENSIONAL CONTROL NOTES:

1. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT OR LIMITS OF DIMENSIONS NECESSARY FOR CONTRACTION OF THE PROJECT.
2. THE CONTRACTOR SHALL PRESERVE ALL CONTROL POINTS, PROPERTY PINS, BENCH MARKS, HUBS OR OTHER KEY CONTROL POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO RE-ESTABLISH ANY SUCH POINTS AT THEIR OWN EXPENSE IN THE EVENT THEY ARE REMOVED.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL HORIZONTAL AND VERTICAL CONTROL PER THE CONSTRUCTION DRAWINGS.
5. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL USE THE PROPERTY PINS FOR HORIZONTAL CONTROL POINTS. BENCHMARKS ARE NOT TO BE USED FOR HORIZONTAL CONTROL
6. ALL DIMENSIONAL CONTROL POINTS OR DIMENSIONS ARE TO THE FACE OF CURB, FACE OF RETAINING WALL, AND CENTER OF PAINT STRIPING. ALL DIMENSIONS ARE PERPENDICULAR TO THE POINT OF REFERENCE.
7. REFER TO THE ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITIONAL DIMENSIONAL CONTROL INFORMATION.
8. BUILDING(S) FOUNDATION(S) SHALL NOT BE ESTABLISHED USING CIVIL PLANS. CONTRACTOR SHALL ESTABLISH BUILDING(S) FOUNDATION(S) USING STRUCTURAL FOUNDATION PLANS.
9. CURB RADII ARE 3-FEET UNLESS OTHERWISE NOTED ON THE DRAWINGS.

PAVEMENT & STRIPING NOTES:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK WHERE NOT SPECIFICALLY COVERED IN THE SPECIFICATIONS OR GEOTECHNICAL REPORT SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY OR TXDOT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
2. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITY AND STORM DRAIN SYSTEM PRIOR TO CONSTRUCTION
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES, PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).
4. THE CONTRACTOR SHALL VERIFY ELEVATIONS AND LOCATIONS OF EXISTING FACILITIES AND NOTIFY THE ENGINEER OF ANY CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
5. ALL PAINT SHALL BE 4" WIDE REFLECTIVE PAINT: WHITE ON ASPHALT PAVING AND YELLOW ON CONCRETE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF PAINT.
7. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.
8. ALL SIGNS SHALL CONFORM TO MUTCD, LATEST EDITION.
9. THE CONTRACTOR SHALL SAW CUT EXISTING PAVING, CURB, AND SIDEWALKS TO PROVIDE A SMOOTH TRANSITION. NO JAGGED OR IRREGULAR EDGES WILL BE ALLOWED.
10. ALL CURBS SHALL BE 6" UNLESS OTHERWISE NOTED.
11. ALL STANDARD PERPENDICULAR PARKING STALLS ARE 9` X 18` AND COMPACT PARKING STALLS ARE 8` X 16` UNLESS DIMENSIONED OTHERWISE.

STORMWATER POLLUTION PREVENTION NOTES:

1. DO NOT DISTURB VEGETATED ARES (TREES, GRASS, WEED, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.
2. LOCATIONS OF CONSTRUCTION ENTRANCE/EXITS, CONCRETE WASHOUT PITS, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARDS TO BE DETERMINED IN THE FIELD.
3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.
4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.
5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED IN WORKING CONDITIONS AT ALL TIMES.
6. CONTRACTOR, THE THE EXTEND PRACTICAL, SHALL MINIMIZE THE AMOUNT OF AREA DISTURBED. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.
7. BEST MANAGEMENT PRACTICES MAY INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.
8. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED.
9. ALL TEMPORARY BMPs WILL BE REMOVED ONCE WATERSHED IS STABILIZED.
10. MUD OR DIRT INADVERTENTLY TRACKED OFF-SITE AND ONTO EXISTING STREETS SHALL BE REMOVED IMMEDIATELY BY HAND OR MECHANICAL BROOM SWEEPING.
11. PRIOR TO INITIATION OF SUBSEQUENT PHASES OF CONSTRUCTION, TEMPORARY BMPs INCLUDING SILT FENCING, CONSTRUCTION ENTRANCE/EXIT, CONCRETE WASHOUT PIT, AND CONSTRUCTION STAGING AREA SHALL BE FIELD LOCATED AS APPROPRIATE FOR THE AREA OF CONSTRUCTION.
12. TEMPORARY POLLUTION ABATEMENT MEASURES SHOWN ON THE PLAN ARE FOR THE OVERALL DEVELOPMENT, TEMPORARY BMPs MAY REQUIRE ADJUSTMENT BASED ON PHASING OF CONSTRUCTION OF THE DEVELOPMENT. RECORDS OF ADJUSTMENTS AND REVISIONS SHALL BE MAINTAINED AS APPROPRIATE.
13. TEMPORARY BMPs SHOWN ON THIS SHEET ARE FOR GRAPHICAL PURPOSES AND MAY NOT BE TO SCALE. BMPs SHALL BE LOCATED WITHIN THE PROJECT LIMITS.
14. UPON COMPLETION OF THE PROJECT AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND REMOVAL OF TEMPORARY POLLUTION ABATEMENT MEASURES THAT CONFLICT WITH SITE IMPROVEMENTS SUCH AS LANDSCAPING AND FENCES SO AS TO PREVENT SEDIMENT FROM ESCAPING THE PROJECT SITE.

STORM DRAINAGE NOTES:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK SHALL COMPLY WITH THE PROJECT GEOTECHNICAL REPORT, THE PROJECT SPECIFICATIONS, AND THE CURRENT CITY, COUNTY OR TXDOT "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES. THE CONTRACTOR SHOULD EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING UTILITIES AND SHOULD THEY BE DAMAGED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE THE DAMAGED FACILITIES AT CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ORIGINAL OR BETTER CONDITION DAMAGE DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES.
4. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION.
5. WATER JETTING THE BACKFILL OF STORM DRAIN TRENCHES WILL NOT BE PERMITTED.
6. NORTHINGS AND EASTINGS LISTED ON THESE PLANS ARE TO CENTER OF BOX FOR JUNCTION BOXES AND GRATE INLETS AND TO OUTSIDE CORNER FACE OF CURB FOR ALL CURB AND COMBINATION INLETS. ALL LENGTHS OF PIPE ARE TO INSIDE FACE OF STRUCTURES.
7. CONTRACTOR SHALL ENSURE PROPER SIZE OF JUNCTION BOXES NEEDED WHERE INDICATED ON PLAN. CONTRACTOR SHALL CONNECT STORM DRAIN PIPE TO JUNCTION BOXES PER MANUFACTURES SPECIFICATIONS.
8. ALL STORM DRAIN TO JUNCTION BOX CONNECTIONS SHALL HAVE CONCRETE COLLARS.
9. ALL GRATE INLETS MUST BE H20 RATED GRATES.
10. TOPS OF MANHOLES, JUNCTION BOXES AND GRATES SHALL BE SET FLUSH TO FINISHED SURFACE BASED UPON GRADING PLAN.

GRADING NOTES:

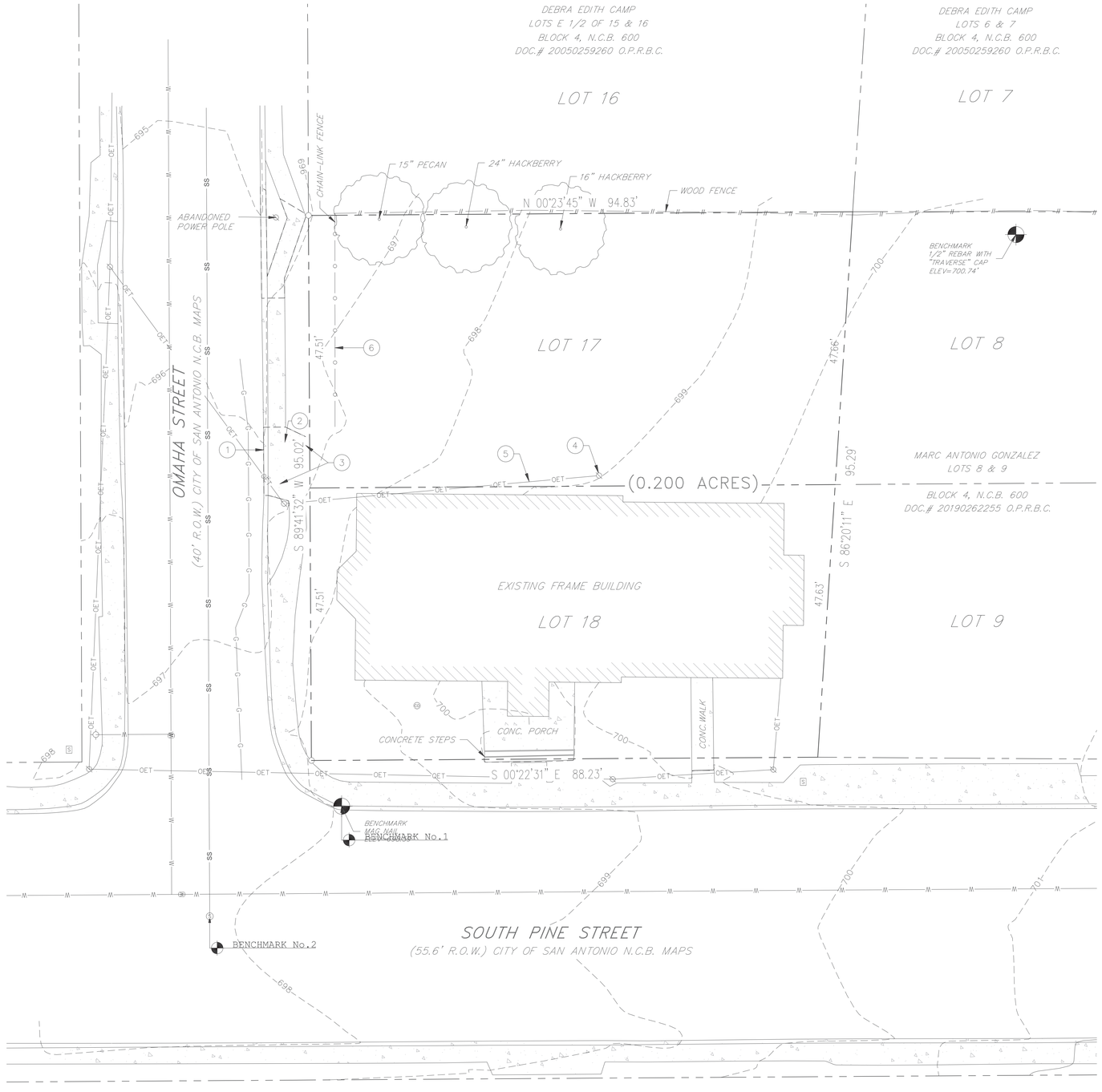
1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THIS SCOPE OF WORK, NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS AND/OR GEOTECHNICAL REPORT, SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL STANDARDS SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).
2. SITE PREPARATION, GRADING, EXCAVATION AND FILL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS.
3. ALL SELECT FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING AND COMPACTING.
4. ALL ELEVATIONS AND PROPOSED CONTOURS SHOWN ON THIS GRADING PLAN REFLECT FINISHED GRADES. THE THICKNESS OF PAVING, BASE, GRASS, TOPSOIL, AND MULCH MUST BE SUBTRACTED TO OBTAIN SUBGRADE ELEVATIONS.
5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
6. THE CONTRACTOR SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
8. THE CONTRACTOR SHALL REMOVE TOP SOIL, GRASS, ROOTS, DEBRIS, ETC. AND DISPOSE OFF SITE THOSE MATERIALS NOT SUITABLE FOR EMBANKMENT AND TOPSOIL. CLEAN STRIPPING AND TOPSOIL MAY BE STOCKPILED IN SITE FOR REUSE IN A LOCATION SPECIFIED BY THE OWNER.
9. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE STABILIZATION. ALL DISTURBED AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND TPDES/SWPPP REQUIREMENTS. REFERENCE THE LANDSCAPE ARCHITECT'S PLAN, IF APPLICABLE.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS (USE OF SILT FENCES, ETC.) TO KEEP DRAINAGE AND SILT FROM WASHING ONTO ADJACENT PROPERTY, STREET, OR DRAINAGE WAYS. CONTRACTOR SHALL IMMEDIATELY REMOVE SILT/DEBRIS WHICH WASHES OFFSITE OR INTO EXISTING STORM DRAIN SYSTEMS. (SEE SWPPP PLANS & TPDES BOOK.)
11. THE CONTRACTOR SHALL OBTAIN GRADES SHOWN HEREON WITHIN +/- ONE-TENTH (0.10) FOOT.
12. IN PROPOSED PAVING AREAS, IT IS INTENDED THAT THE MINIMUM GRADE IS 1% ALL EARTHEN SLOPES SHALL BE A MAXIMUM OF 3:1 AND A MINIMUM OF 1.0% UNLESS OTHERWISE SHOWN.
13. THE CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING SITE AND PROPOSED IMPROVEMENTS
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER, CONDITION ANY DAMAGE DONE TO EXISTING TREES, BUILDINGS, UTILITIES, FENCES PAVEMENT, CURBS, OR DRIVEWAYS (NO SEPARATE PAY ITEMS).
15. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN WORKING NEAR UTILITIES, GAS LINES, SEWER, OR EXISTING APPURTENANCES. PRIOR TO PERFORMING ANY EXCAVATION, CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND ASSURE HIMSELF THAT ALL UTILITIES HAVE BEEN ADEQUATELY LOCATED AND IDENTIFIED. THE ENGINEER SHALL BE NOTIFIED IN ANY UTILITY CONFLICTS ARE DISCOVERED.
16. UTILITIES SHOWN ON THE PLANS ARE FROM INFORMATION SOURCES AVAILABLE AT THE TIME OF DESIGN BUT MAY REPRESENT ALL EXISTING UTILITIES ON SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION AND VERIFY SIZE, GRADE AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR, AT HIS OWN EXPENSE.
17. POSITIVE DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE SCOPE OF THE PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL BUILDING FOUNDATIONS. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
18. FOR FILL PLACEMENT ON HILL SIDES OR STEEP SLOPE AREAS, THE CONTRACTOR SHALL REFERENCE THE PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT FOR SPECIAL INSTRUCTIONS REGARDING BENCHING.
19. NO WORK SHALL BE PERFORMED IN A PUBLIC RIGHT-OF-WAY WITHOUT A PERMIT.

SITE UTILITY NOTES:

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATIONS OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
2. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. ALL EXISTING UTILITIES SHALL BE VERIFIED IN THE FIELD WHETHER SHOWN ON THE PLAN OR NOT PRIOR TO INSTALLATION OF ANY NEW LINES.
3. ALL FILL MATERIAL IS TO BE PLACED, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
4. CONTRACTOR SHALL CALL FOR THE LOCAL JURISDICTIONAL INSPECTIONS AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL JURISDICTION WITH REGARDS TO MATERIALS AND INSTALLATION OF THE UTILITIES AND STORM DRAINS.
6. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
7. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS PROJECT SHALL COMPLY WITH THE FOLLOWING AS APPLICABLE:
   - A. CURRENT "SAN ANTONIO WATER SYSTEM STANDARDS SPECIFICATION FOR CONSTRUCTION"
   - B. CURRENT "SAN ANTONIO WATER SYSTEM UTILITY SERVICE REGULATIONS"
   - C. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION"
   - D. CURRENT TxDOT "STANDARD SPECIFICATION FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND DRAINAGE"
   - E. CURRENT CITY OF SAN ANTONIO "RIGHT-OF-WAY ORDINANCE AND CRITERIA MANUAL"
   - F. CURRENT "SAN ANTONIO RIVER AUTHORITY REGULATIONS"
8. MINIMUM TRENCH WIDTH FOR MAINS SHALL BE 2 FEET.
9. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
10. CONTRACTORS SHALL PROTECT ALL EXISTING TREES, FENCES, PAVING, UTILITIES, AND OTHER STRUCTURES SCHEDULED TO REMAIN. ANY STRUCTURE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
11. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH ALL FINAL UTILITY AS-BUILT MEASUREMENTS, TOPS AND LENGTH OF SERVICE CONNECTIONS OF THE PROJECT.
12. ALL GARBAGE OR SPOIL MATERIAL FROM THIS WORK SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AT HIS SOLE EXPENSE.
13. GAS AND ELECTRIC ALIGNMENTS SHOWN ON THIS DRAWING ARE CONCEPTUAL. THE ACTUAL DESIGN AND LOCATIONS SHALL BE DETERMINED BY THE LOCAL SERVICE PROVIDER OR MEP ENGINEER.
14. CONTRACTOR SHALL COORDINATE ELECTRIC AND GAS LINE INSTALLATION WITH LOCAL SERVICE PROVIDER. THE SERVICE PROVIDER WILL BE RESPONSIBLE FOR INSTALLATION OF GAS LINE TO WITHIN 5' OF BUILDING.
15. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
16. SEE IRRIGATIONS AND ARCHITECTURAL PLANS FOR ADDITIONAL CONDUIT LOCATIONS. VERIFY ALL CONDUIT AND SLEEVE LOCATIONS PRIOR TO PLACING ANY PAVEMENT.
17. CONTRACTOR SHALL INSTALL ALL CONDUITS WITH A MINIMUM 4-FOOT SWEEP RADIUS. ALL CONDUITS SHALL HAVE A PULL STRING TO BE INSTALLED BY THE CONTRACTOR.
18. NO WORK SHALL BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY W/O AN APPROVED PERMIT.
19. THE CONSTRUCTION OF UNDERGROUND PRIMARY ELECTRIC AND GAS DISTRIBUTION SYSTEMS SHALL BE GOVERNED BY THE ENGINEERING CONSTRUCTION PLANS PREPARED BY THE LOCAL SERVICE PROVIDER. THIS DRAWING SHALL SERVE ONLY AS REFERENCE DOCUMENT TO COORDINATE LOCATION OF THE PROPOSED PRIMARY ELECTRIC AND GAS DISTRIBUTION SYSTEM. THE LOCAL SERVICE PROVIDER'S CONSTRUCTION DRAWINGS AND CONSTRUCTION DETAILS SHALL GOVERN.
20. BEDDING FOR ALL UTILITIES SHALL BE PER THE PROJECT SPECIFICATIONS. NO WATER JETTING OF BACKFILL MATERIAL WILL BE ALLOWED.

WATER NOTES:

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES FOR THE WATER SYSTEM WITHIN THE SCOPE OF THIS CONTRACT SHALL CONFORM TO ALL APPLICABLE SAWS AND SARA CONSTRUCTION SPECIFICATIONS.
2. PIPELINE CHLORINATION SHALL BE BY THE CONTRACTOR ACCORDING TO THE SERVICE PROVIDER'S CONSTRUCTION SPECIFICATIONS.
3. ALL WATER LINES SHALL BE FOUR-FOOT (4') BURY UNLESS OTHERWISE NOTED.
4. ALL WATER LINES SHALL BE PVC PIPE UNLESS OTHERWISE INDICATED. ALL 6 & 8-INCH PVC WATER LINES SHALL BE CLASS 150 DR(18), MEETING AWWA C900 STANDARDS. ALL SERVICES 4 INCH AND SMALLER SHALL BE SCHEDULE 80 PVC. DUCTILE IRON WATER LINES SHALL BE CLASS 50.
5. 5.ALL WATER LINES MUST BE INSTALLED A MINIMUM DISTANCE OF 9-FEET HORIZON



BENCHMARK No.1
MAG NAIL
N=13700361.32
E=2137117.96
ELEVATION=698.59

BENCHMARK No.2
TOP OF SANITARY SEWER MANHOLE
N=13700338.33
E=2137137.14
ELEVATION=697.88

N

0 10' 20'

LEGEND

	BOUNDARY/PROPERTY LINE
	ADJACENT/PROPERTY LINE
	PROPOSED EASEMENT LINE
	EXISTING CONCRETE CURB
697	EXISTING CONTOURS
W	EXISTING WATER LINE
SD	EXISTING SANITARY SEWER LINE
SS	EXISTING STORM DRAIN LINE
G	EXISTING GAS LINE
OET	EXISTING OVERHEAD ELECTRIC AND TELEPHONE LINE
	EXISTING WOOD FENCE
	EXISTING CHAIN-LINK FENCE
	EXISTING CONCRETE
	PROPOSED CONCRETE
W	EXISTING WATER VALVE
CO	EXISTING CLEANOUT
S	EXISTING SANITARY SEWER MANHOLE
	EXISTING POWER POLE
	SET 1/2" REBAR W/MDS CAP
S	EXISTING SIGN
	BENCHMARK
O.P.R.B.C.	OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
6	KEYNOTES
	EXISTING TREE
X	EXISTING TREE TO BE REMOVED

KEYNOTES

1. EXISTING CONCRETE CURB TO BE REMOVED
2. EXISTING CONCRETE DRIVEWAY APRON TO BE REMOVED
3. EXISTING CONCRETE SIDEWALK TO BE REMOVED
4. EXISTING POWER POLE TO BE REMOVED
5. EXISTING UTILITY LINE TO BE REMOVED
6. EXISTING CHAIN-LINK FENCE TO BE REMOVED

SURVEYOR NOTES:

1. FIELD WORK PERFORMED ON: NOVEMBER 6, 2020.
2. BASIS OF BEARING: TEXAS STATE PLANE COORDINATE SYSTEM OF 1983 (2011 ADJUSTMENT), SOUTH CENTRAL ZONE (4204).
3. DISTANCES SHOWN HEREON ARE GRID VALUES.
4. THIS SURVEY WAS DONE WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT, THEREFORE ALL SETBACKS, EASEMENTS, ENCUMBRANCES AND RESTRICTIONS MAY NOT BE SHOWN HEREON. THE SURVEYOR DID NOT COMPLETE AN ABSTRACT OF TITLE.
5. ONLY APPARENT UTILITIES WERE LOCATED. NO ATTEMPT HAS BEEN MADE AS PART OF THIS SURVEY TO SHOW THE EXISTENCE, SIZE, DEPTH, CONDITION, OR LOCATION OF ANY UNDERGROUND UTILITY. FOR INFORMATION REGARDING UNDERGROUND UTILITIES PLEASE CONTACT THE APPROPRIATE UTILITY AGENCY.
6. ALL ELEVATIONS WERE DERIVED FROM THE NORTH AMERICAN VERTICAL DATUM OF 1988.

URBANE ENGINEER
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84 NE LOOP 410, SUITE #129
SAN ANTONIO, TEXAS 78216
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2022.12.14

STATE OF TEXAS
EDGAR A. MUNOZ
103673
LICENSED
PROFESSIONAL ENGINEER

Edgar A. Munoz, P.E.

Frausto Designs
8600 WURZBACH ROAD
SUITE 504
SAN ANTONIO, TX 78240
210-262-1365

MARK:	DESCRIPTION:	DATE:

FILE NUMBER:
FILE NAME:
PLOT SCALE:
SHEET SIZE: 24"x36"
DESIGNED BY: EAM
DRAWN BY: TMJr
CHECKED BY: EAM
DATE: 12.14.2022

SHEET TITLE:
EX. COND. SURVEY & DEMO PLAN

LOVE COMMUNITY CENTER
107 S. PINE ST., SAN ANTONIO, TEXAS

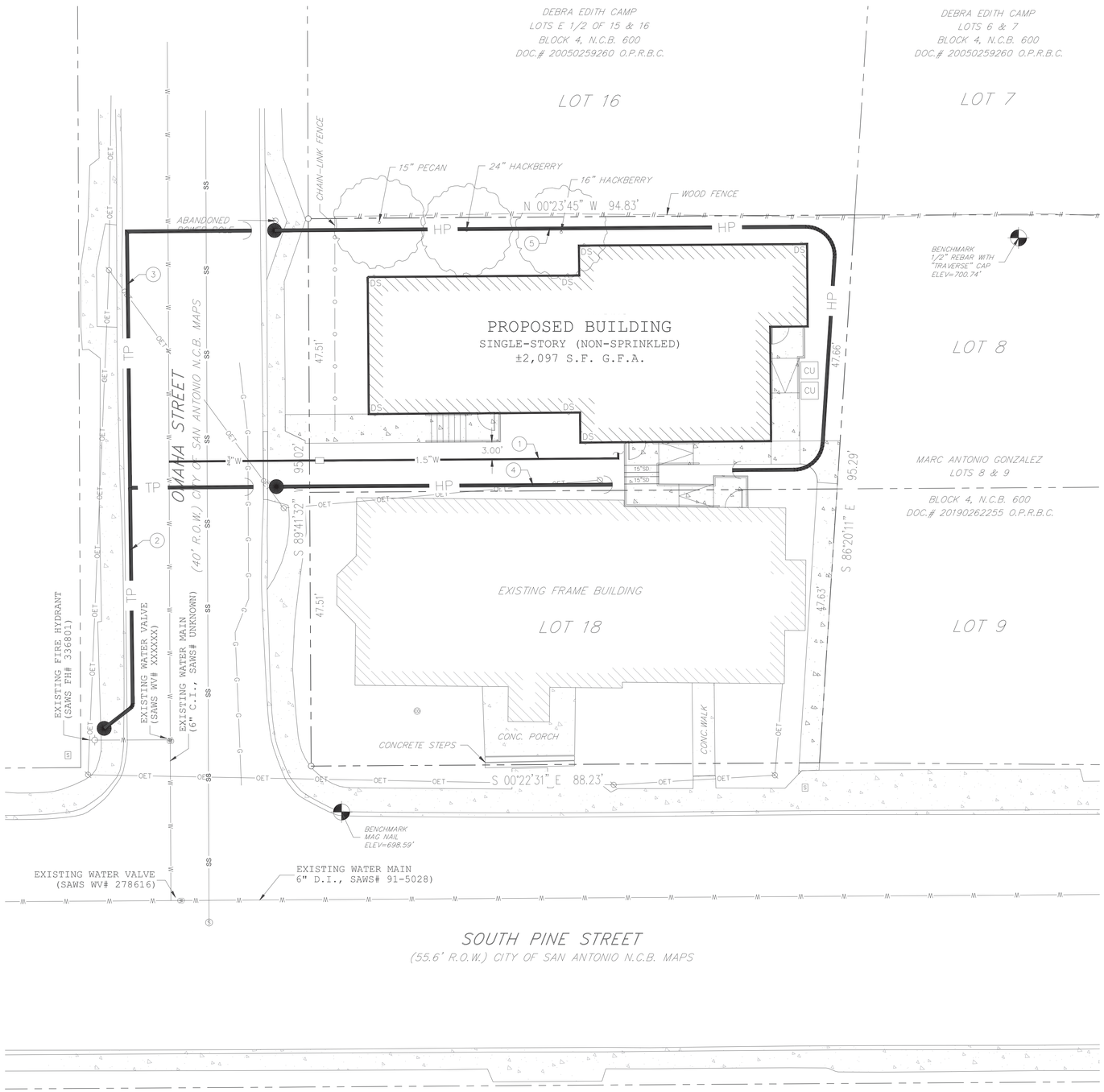
DAVID FRAUSTO DESIGNS
8600 WURZBACH RD. SUITE #504, SAN ANTONIO, TEXAS

DRAWING NUMBER:
VS-101

SHEET IDENTIFICATION
SHEET _ OF 07

D:\Urbane Engineer\Box Sync\UE\Projects\20221202 Love Community Center\02 Sheets\02 20221202 LCC VS-101 Exist Cond Survey & Demo Plan.dwg

Date: Jan 04, 2023, 11:53am User ID: Urbane Engineer



N

0 10' 20'

LEGEND

- BOUNDARY/PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING CONCRETE CURB
- PROPOSED CONCRETE CURB
- (1) KEYNOTE
- PROPOSED BUILDING
- EXISTING CHAIN LINK FENCE
- EXISTING TREE
- PROPOSED CONCRETE PAVEMENT
- PH EXISTING FIRE HYDRANT
- WV EXISTING WATER VALVE
- W—W EXISTING WATER MAIN
- PROPOSED FIRE LANE
- TP TRUCK PULL HOSE LAY
- HP HAND PULL HOSE LAY

KEYNOTES

1. PROPOSED DOMESTIC WATER SERVICE
2. 65 L.F. ~ TRUCK PULL HOSE LAY
3. 110 L.F. ~ TRUCK PULL HOSE LAY
4. 58 L.F. ~ HAND PULL HOSE LAY
5. 150 L.F. ~ HAND PULL HOSE LAY

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210-262-1365

MARK:	DESCRIPTION:	DATE:

FILE NUMBER:
FILE NAME:
PLOT SCALE:
SHEET SIZE: 24"x36"
DESIGNED BY: EAM
DRAWN BY: TMJr
CHECKED BY: EAM
DATE: 12.14.2022

SHEET TITLE:
FIRE PROTECTION PLAN

LOVE COMMUNITY CENTER
107 S. PINE ST., SAN ANTONIO, TEXAS

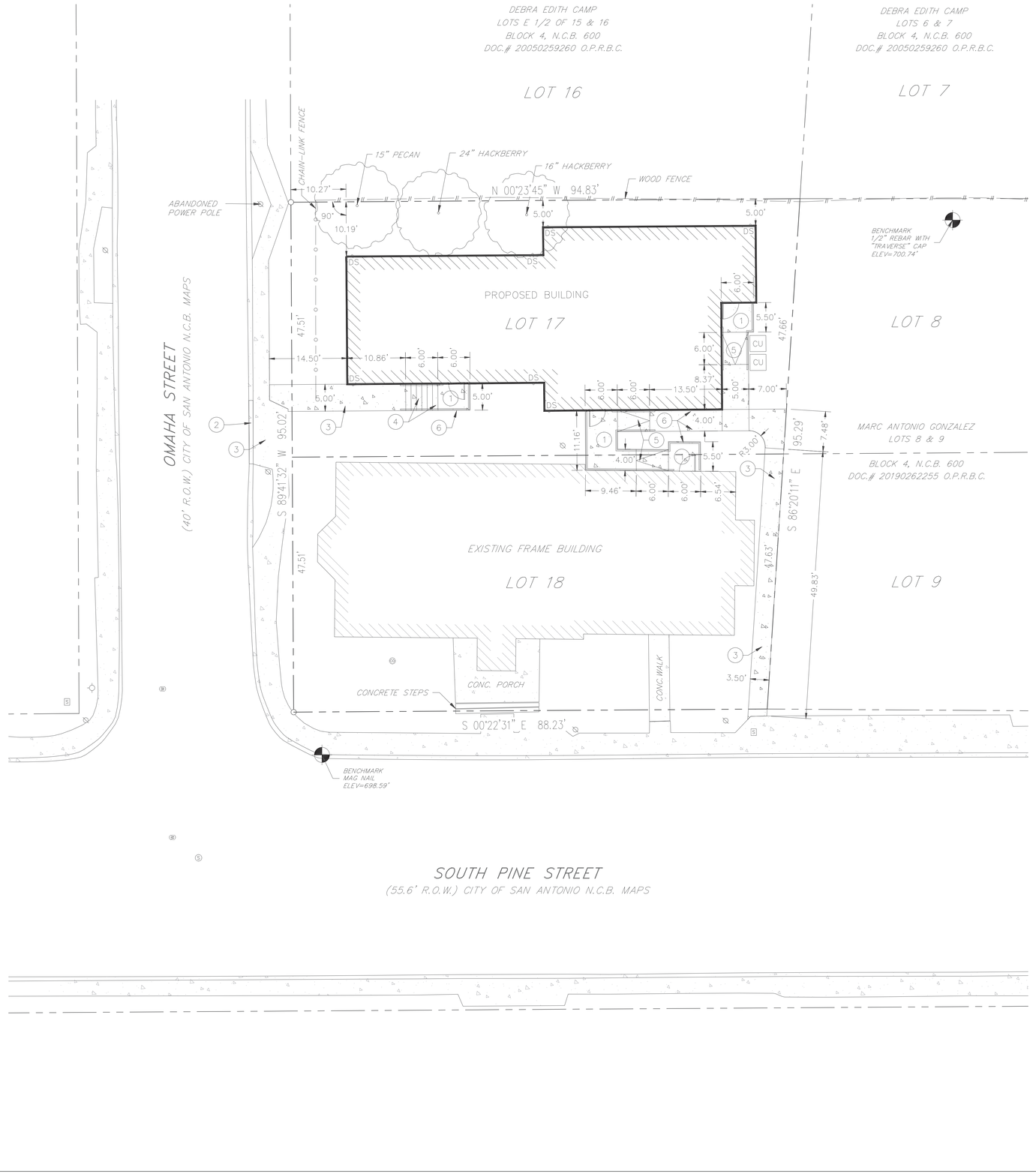
DAVID FRAUSTO DESIGNS
8600 WURZBACH RD. SUITE #504, SAN ANTONIO, TEXAS

DRAWING NUMBER:
CS-101

SHEET IDENTIFICATION
SHEET _ OF 07

D:\Urbane Engineer\Box Sync\UE\Projects\20221202 Love Community Center\02 Sheets\05 20221205 LCC CS-101 Fire Protection Plan.dwg

Date: Jan 04, 2023, 11:56am User ID: Urbane Engineer



N

0 10' 20'

LEGEND

- BOUNDARY/PROPERTY LINE
- ADJACENT/PROPERTY LINE
- PROPOSED EASEMENT LINE
- EXISTING CONCRETE CURB
- EXISTING WOOD FENCE
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED PAVEMENT
- (W) EXISTING WATER VALVE
- (CO) EXISTING CLEANOUT
- (S) EXISTING SANITARY SEWER MANHOLE
- EXISTING POWER POLE
- SET 1/2" REBAR W/MDS CAP
- [S] EXISTING SIGN
- BENCHMARK
- O.P.R.B.C. OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
- (6) KEYNOTES
- EXISTING TREE

KEYNOTES

1. PROPOSED CONCRETE (FOUNDATION) LANDING, REF: STRUCTURAL
2. PROPOSED CONCRETE CURB, REF: C-501, DETAIL 1
3. PROPOSED CONCRETE SIDEWALK, REF: C-501, DETAIL 2
4. PROPOSED CONCRETE STEPS, REF: C-501, DETAIL 3 & STRUCTURAL & ARCHITECTURAL
5. PROPOSED ADA CONCRETE RAMP (FOUNDATION), REF: STRUCTURAL
6. PROPOSED HANDRAIL, REF: ARCHITECTURAL

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MARK:	DESCRIPTION:	DATE:

DESIGNED BY: EAM
DRAWN BY: TMJr
CHECKED BY:: EAM
DATE: 12.14.2022
FILE NUMBER:
FILE NAME:
PLOT SCALE:
SHEET SIZE: 24"x36"

SHEET TITLE:
DIMENTIONAL CONTROL PLAN

LOVE COMMUNITY CENTER
107 S. PINE ST., SAN ANTONIO, TEXAS

DAVID FRAUSTO DESIGNS
8600 WURZBACH RD. SUITE #504, SAN ANTONIO, TEXAS

DRAWING NUMBER:
CS-102

SHEET IDENTIFICATION
SHEET _ OF 07

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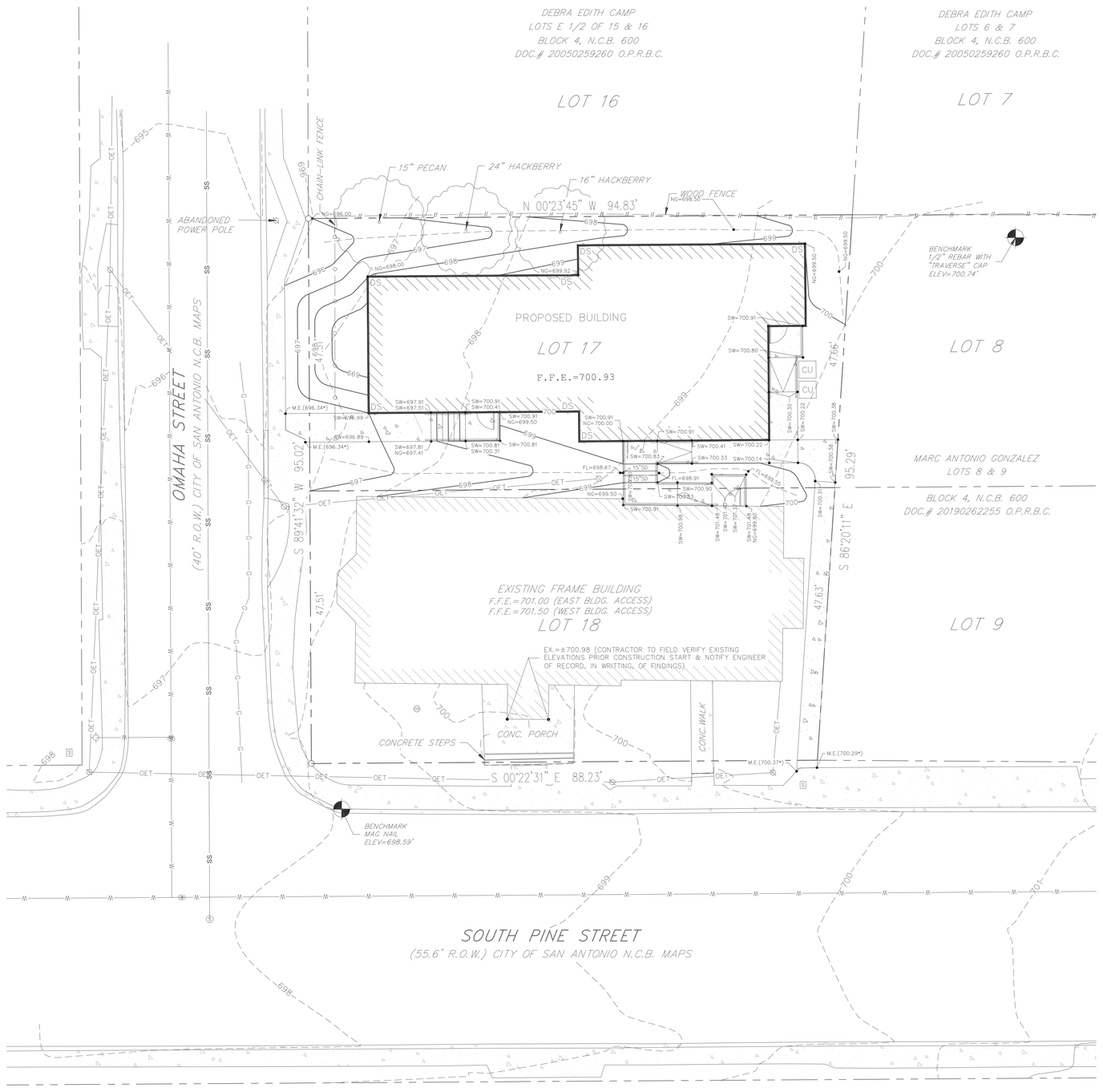
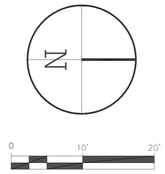
Date: Jan 04, 2023, 11:59am User ID: Urbane Engineer





LEGEND

	BOUNDARY/PROPERTY LINE
	ADJACENT/PROPERTY LINE
	PROPOSED EASEMENT LINE
	EXISTING CONCRETE CURB
697	EXISTING CONTOURS
697	PROPOSED CONTOURS
	EXISTING WOOD FENCE
	EXISTING CONCRETE
	PROPOSED CONCRETE
W	EXISTING WATER VALVE
CO	EXISTING CLEANOUT
S	EXISTING SANITARY SEWER MANHOLE
	EXISTING POWER POLE
O	SET 1/2" REBAR W/MDS CAP
S	EXISTING SIGN
	BENCHMARK
T	TOP OF CURB ELEVATION
G	GUTTER ELEVATION
SW	TOP OF SIDEWALK GRADE ELEVATION
NG	NATURAL GROUND GRADE ELEVATION
FL	FLOW LINE GRADE ELEVATION
F.F.E.	FINISH FLOOR ELEVATION
O.P.R.B.C.	OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
M.E.	MATCH EXISTING (E.G. ELEVATION)
FG	FINISH GRADE ELEVATION
6	KEYNOTES
	EXISTING TREE

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MARK:	DESCRIPTION:	DATE:

FILE NUMBER:
FILE NAME:
PLOT SCALE:
SHEET SIZE: 24"x36"

DESIGNED BY: EAM
DRAWN BY: TMJr
CHECKED BY: EAM
DATE: 12.14.2022

SHEET TITLE:
GRADING PLAN

LOVE COMMUNITY CENTER
107 S. PINE ST., SAN ANTONIO, TEXAS

DAVID FRAUSTO DESIGNS
8600 WURZBACH RD. SUITE #504, SAN ANTONIO, TEXAS

DRAWING NUMBER:
CG-102

SHEET IDENTIFICATION
SHEET _ OF 07

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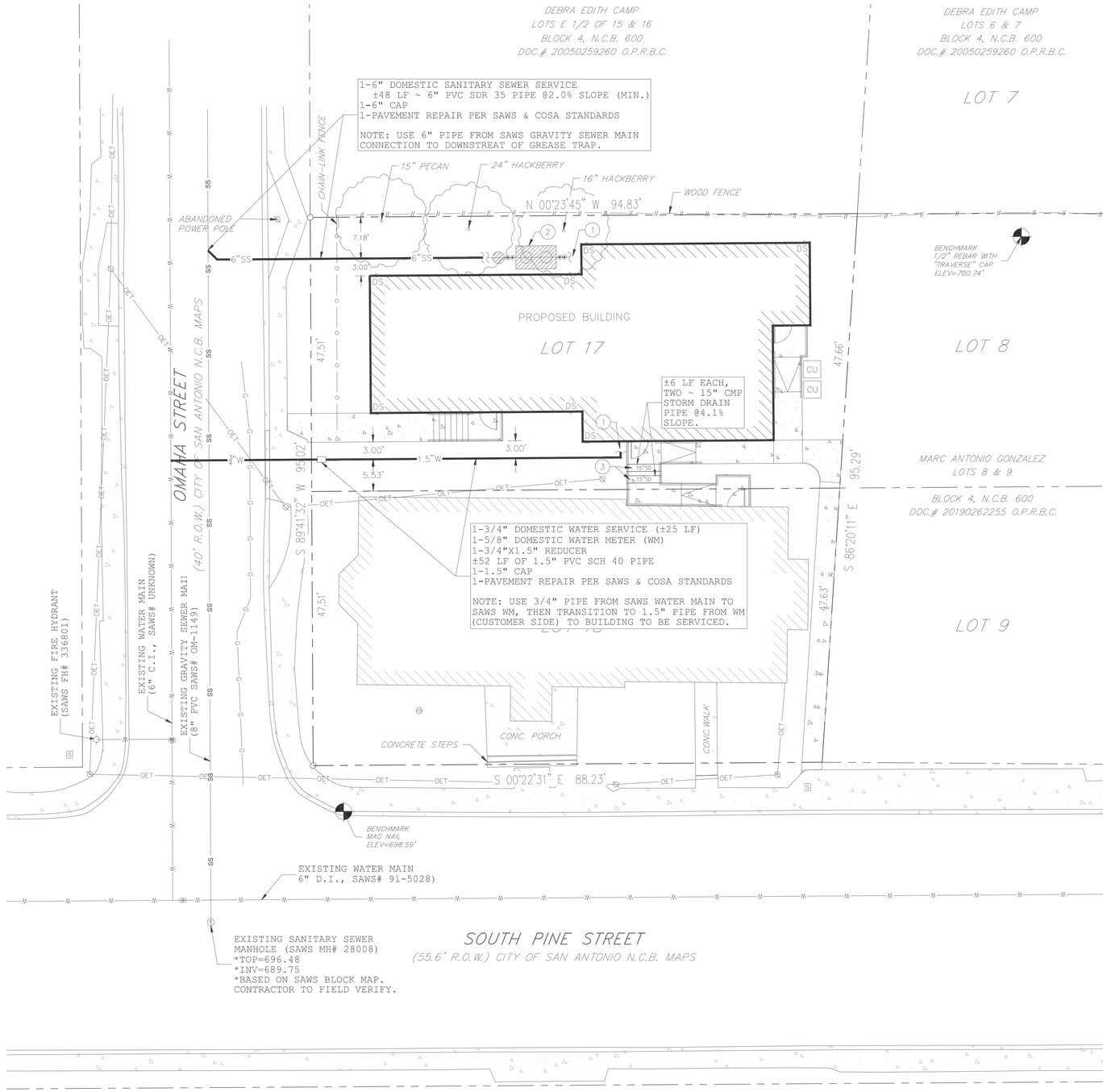
Date: Jan 04, 2023, 12:01pm User ID: Urbane Engineer



LEGEND

	BOUNDARY/PROPERTY LINE
	ADJACENT/PROPERTY LINE
	PROPOSED EASEMENT LINE
	EXISTING CONCRETE CURB
697	EXISTING CONTOURS
W	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
SD	EXISTING STORM DRAIN LINE
G	EXISTING GAS LINE
OET	EXISTING OVERHEAD ELECTRIC AND TELEPHONE LINE
	EXISTING WOOD FENCE
	EXISTING CHAIN-LINK FENCE
	EXISTING CONCRETE
	PROPOSED CONCRETE
W	EXISTING WATER VALVE
CO	EXISTING CLEANOUT
S	EXISTING SANITARY SEWER MANHOLE
	EXISTING POWER POLE
O	SET 1/2" REBAR W/MDS CAP
S	EXISTING SIGN
	BENCHMARK
O.P.R.B.C.	OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
6	KEYNOTES
	EXISTING TREE
	EXISTING TREE TO BE REMOVED

KEYNOTES

1. REFER TO MEP FOR CONTINUATION.
2. GRASE TRAP. REFER TO MEP FOR DETAILS.
3. 15" CMP STORM DRAIN PIPES. REFER TO STRUCTURAL FOR REINFORCEMENT DETAILS.

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MARK:	DESCRIPTION:	DATE:

DESIGNED BY: EAM
DRAWN BY: TMJr
CHECKED BY: EAM
DATE: 12.14.2022
FILE NUMBER:
FILE NAME:
PLOT SCALE:
SHEET SIZE: 24"x36"

SHEET TITLE:
UTILITY PLAN

LOVE COMMUNITY CENTER
107 S. PINE ST., SAN ANTONIO, TEXAS

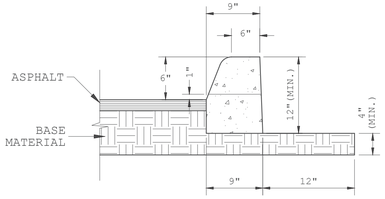
DAVID FRAUSTO DESIGNS
8600 WURZBACH RD. SUITE #504, SAN ANTONIO, TEXAS

DRAWING NUMBER:
CU-101

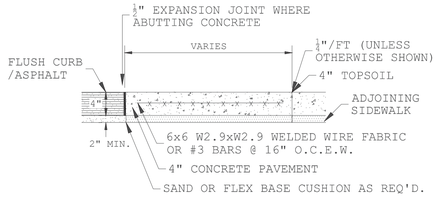
SHEET IDENTIFICATION
SHEET _ OF 07

D:\Urbane Engineer\Box Sync\UE\Projects\20221202 Love Community Center\02 Sheets\08 20221205 LCC CU-101 Utility Plan.dwg

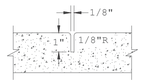
Date: Jan 04, 2023, 12:04pm User ID: Urbane Engineer



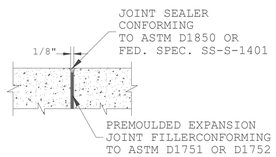
1 CONCRETE CURB
N.T.S.



CONCRETE WALK SECTION

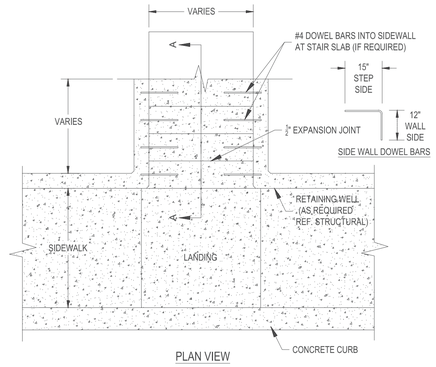


CONTRACTION JOINT
JOINTS TO BE SPACED 5' O.C.E.W

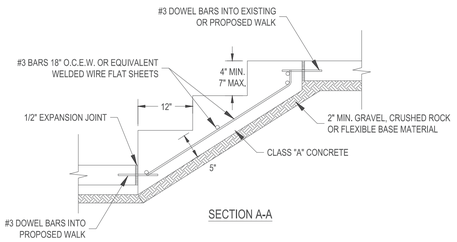


EXPANSION JOINT

2 CONCRETE SIDEWALK DETAILS
N.T.S.

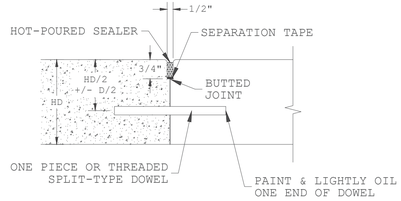


PLAN VIEW



SECTION A-A

3 TYPICAL CONCRETE STEP(S) DETAILS
N.T.S.



4 EXISTING/PROPOSED CONSTRUCTION JOINT FOR RIGID PAVEMENT
N.T.S.

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MARK:	DESCRIPTION:	DATE:

FILE NUMBER:
FILE NAME:
PLOT SCALE:
SHEET SIZE: 24"x36"
DESIGNED BY: EAM
DRAWN BY: TMJr
CHECKED BY: EAM
DATE: 12.14.2022

SHEET TITLE:
CIVIL DETAILS - 1

LOVE COMMUNITY CENTER
107 S. PINE ST., SAN ANTONIO, TEXAS

DAVID FRAUSTO DESIGNS
8600 WURZBACH RD. SUITE #504, SAN ANTONIO, TEXAS

DRAWING NUMBER:
C-501

SHEET IDENTIFICATION
SHEET x OF 07

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Date: Jan 04, 2023, 12:05pm User ID: Urbane Engineer

STRUCTURAL NOTES

GENERAL:

GN-1 BUILDING CODE: IBC 2021 EDITION

GN-2 THE DETAILS DESIGNATED AS "TYPICAL DETAILS", APPLY GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN DETAILS.

GN-3 THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE REQUIREMENTS OF OTHER TRADES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC.) WITH THE STRUCTURAL DOCUMENTS PRIOR TO FABRICATION OR INSTALLATION OF ANY STRUCTURAL MEMBERS.

GN-4 THE CONTRACTOR AND FABRICATOR SHALL VERIFY ALL QUANTITIES, DIMENSIONS AND CONDITIONS THOROUGHLY WITH THE CONTRACT DOCUMENTS AND THEN NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE SUBMITTING SHOP DRAWINGS AND PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS FOR DIMENSIONS.

GN-5 COMPLETED SHOP DRAWINGS SHALL BE PROVIDED, AS SPECIFIED, FOR ALL FABRICATED ITEMS AND SHALL BE REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO FABRICATION. STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS. USE OF STRUCTURAL DRAWINGS WITHOUT PERMISSION IS GROUNDS FOR REJECTION OF SHOP DRAWINGS. THE STRUCTURAL ENGINEER WILL REVIEW SHOP DRAWINGS FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS. THEREFORE, ALL CLOUDED DIMENSIONS, INDICATED ON ANY SHOP DRAWINGS, THAT ARE RELATIVE TO EXISTING STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR AND FABRICATOR. AS A MINIMUM, THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED AS WELL AS SHOP DRAWINGS LISTED IN THE DEFERRED SUBMITTAL SECTION OF THESE NOTES:

A. CONCRETE MIX DESIGN FOR EACH TYPE OF CONCRETE TO BE USED.
B. CONCRETE REINFORCING STEEL SHOP DRAWINGS INCLUDING PLACEMENT DRAWINGS AND CUT SHEETS.
C. PREFABRICATED WOOD TRUSSES. (GENERAL CONTRACTOR SHALL SUBMIT TO THE CITY PRIOR TO CERTIFICATE OF OCCUPANCY)

GN-6 SHOP DRAWINGS NOT PREVIOUSLY REVIEWED BY THE GENERAL CONTRACTOR SHALL BE RETURNED WITHOUT REVIEW BY STRUCTURAL ENGINEER. STRUCTURAL ENGINEER DOES NOT BEAR ANY RESPONSIBILITY TO THE STRUCTURAL MEMBERS BUILT WITHOUT APPROVED SHOP DRAWINGS.

GN-7 GENERAL CONTRACTOR SHALL INSPECT JOB FOR COMPLETION BEFORE SCHEDULING ANY OBSERVATION BY THE ENGINEER.

GN-8 SEE ARCH'L. AND MEP DRAWINGS FOR LOCATIONS AND SIZES OF SLAB OPENINGS, SLEEVES, INSERTS, ANCHORS AND BOLTS REQUIRED BY VARIOUS TRADES.

GN-9 ALL PLUMBING CONDUITS AT FOUNDATION SHOULD HAVE FLEXIBLE CONNECTIONS TO SUSTAIN A MAXIMUM DIFFERENTIAL MOVEMENT OF 1 INCH.

GN-10 THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. CONTRACTOR SHALL CONSIDER ALL CONSTRUCTION LOADS APPLIED TO THE PARTIALLY COMPLETED STRUCTURE UNTIL ALL PERMANENT CONNECTIONS ARE MADE, AND ENCLOSED PERMANENTLY AS PER CONSTRUCTION DOCUMENTS.

GN-11 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ALL CONSTRUCTION LOADS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR CONSTRUCTION ACTIVITIES.

GN-12 THE ENGINEER SHALL NOT HAVE CONTROL OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

GN-13 PERIODIC SITE OBSERVATIONS BY FIELD REPRESENTATIVES OF HQ-ENGINEERING,LLC ARE SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THESE LIMITED SITE OBSERVATIONS ARE NOT INTENDED TO BE A CHECK OF THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO INFORM THE OWNER OF DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

GN-14 PROTECT ALL REMAINING EXISTING STRUCTURES. ANY DAMAGE TO AN EXISTING STRUCTURE SHALL BE REPAIRED TO EQUIVALENT OR BETTER CONDITION.

GN-15 PROVIDE CONTROL JOINTS AT 15'-0" ON CENTER MAXIMUM FOR ALL BRITTLE FINISHES.

GN-16 IF CONFLICT EXISTS BETWEEN DRAWINGS, NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS SHALL GOVERN.

SCHEDULE OF SITE OBSERVATIONS BY ENGINEER:

SO-1 ALL STRUCTURAL ELEMENTS OF THE BUILDING SHALL BE OBSERVED BY THE STRUCTURAL ENGINEER'S REPRESENTATIVE DURING THE CONSTRUCTION PHASE, SO THAT A FINAL LETTER OF COMPLIANCE CAN BE PROVIDED TO THE OWNER AND/OR BUILDING AUTHORITY.

SO-2 PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE STRUCTURAL ENGINEER TO SET UP A SCHEDULE FOR THE FOLLOWING OBSERVATIONS, NOT TO EXCEED THE SPECIFIED NUMBER OF VISITS:

A. CONCRETE: FOR EACH CONCRETE POUR UNLESS NOTED OTHERWISE BY THE ENGINEER. SEE NOTE 5 OF CONCRETE AND CONCRETE REINFORCEMENT – ONE VISIT.

B. TIMBER FRAMING: AFTER ALL WOOD FRAMING AND CONNECTIONS ARE MADE BUT BEFORE APPLYING SHEATHING. – ONE VISIT

C. NOTIFY ARCHITECT AT LEAST 24 HOURS BEFORE EACH SITE OBSERVATION IS REQUIRED TO ALLOW TIME FOR ARRANGEMENTS TO BE MADE WITH ENGINEER FOR SITE OBSERVATION.

SO-3 THESE STRUCTURAL OBSERVATIONS ARE THE REQUIREMENTS OF THE STRUCTURAL ENGINEER AND DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE SPECIAL INSPECTIONS REQUIRED BY CHAPTER 17 OF THE 2018 INTERNATIONAL BUILDING CODE. SPECIAL INSPECTION SHALL BE PERFORMED BY THE SPECIAL INSPECTOR WHO SHALL BE HIRED BY OWNER TO MEET CHAPTER 17 OF IBC 2018.

DEFERRED DESIGN SUBMITTAL:

DD-1 SUBMITTALS LISTED IN DD-2 ARE TO BE DESIGNED, DETAILED, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS. SEE PLANS AND SPECIFICATIONS FOR DESIGN REQUIREMENTS OF THESE ELEMENTS.

DD-2

ITEM	RESPONSIBLE FOR SHOP DRAWING REVIEW	RESPONSIBLE FOR INSPECTION
o ROOF TRUSSES	STRUCTURAL ENGINEER AND BUILDING INSPECTOR (COSA)	BUILDING INSPECTOR (COSA)

DESIGN LOADS:

DL-1 DEAD LOADS INCLUDE THE WEIGHT OF CONSTRUCTION MATERIALS INCORPORATED INTO THE BUILDING, INCLUDING BUT NOT LIMITED TO WALLS, FLOORS, ROOFS, CEILINGS, STAIRWAYS, BUILT-IN PARTITIONS, FINISHES, CLADDING AND OTHER SIMILARLY INCORPORATED ARCHITECTURAL AND STRUCTURAL ITEMS, AND FIXED SERVICE EQUIPMENT. ALL DEAD LOADS ARE CONSIDERED PERMANENT LOADS.

DL-2 DEAD LOADS FOR MECHANICAL UNITS ARE BASED ON THE WEIGHTS OF EQUIPMENT, AS INDICATED ON THE STRUCTURAL DRAWINGS (INCLUDING THE WEIGHT OF CONCRETE PADS, WHERE INDICATED). ANY CHANGES IN TYPE, SIZE, LOCATION OR NUMBER OF PIECES OF EQUIPMENT SHOULD BE REPORTED TO THE ARCHITECT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.

DL-3 UNIFORM DESIGN LIVE LOADING IS AS FOLLOWS:
- o ROOF.....20 PSF
- o LIGHT STORAGE.....125 PSF
- o OFFICES + PARTITIONS.....70 PSF
- o FIRST FLOOR CORRIDORS.....100 PSF

DL-4 ROOF LIVE LOADS MAY BE REDUCED.

DL-5 SNOW LOAD:
- o GROUND SNOW LOAD, Pg.....5 PSF

DL-6 WIND LOADS:
- o RISK CATEGORY.....II
- o ULTIMATE DESIGN WIND SPEED, Vult.....105 MPH
- o ALLOWABLE DESIGN WIND SPEED, Vasd.....90 MPH
- o EXPOSURE CATEGORY.....B"
- o INTERNAL PRESSURE COEFFICIENT..... +/- 0.18 , 0.55, 0.00
- o FOR COMPONENTS AND CLADDING GROSS WIND PRESSURE, SEE DL-9.

DL-7 EARTHQUAKE DESIGN DATA:
- o SEISMIC IMPORTANCE FACTOR Ie.....1.0
- o RISK CATEGORY.....III
- o MAPPED SPECTRAL RESPONSE ACCELERATIONS:
  - Ss.....0.13g
  - S1.....0.03g
- o SITE CLASS "C"
- o SPECTRAL RESPONSE COEFFICIENTS
  - Sds.....0.13g
  - Sd1.....0.04g
- o SEISMIC DESIGN CATEGORY "A"
- o BASIC SEISMIC FORCE RESISTING SYSTEM – STRUCTURAL STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
- o DESIGN BASE SHEAR, V = N/A
- o SEISMIC RESPONSE COEFFICIENT, Cs = N/A
- o RESPONSE MODIFICATION COEFFICIENT, R = N/A
- o ANALYSIS PROCEDURE – N/A

DL-8 UNLESS SPECIFICALLY NOTED, THERE ARE NO PROVISIONS FOR FUTURE FLOORS, ROOFS OR OTHER LOADS.

BUILDING PAD PREPARATION:

A SUBSURFACE SOIL STUDY WAS PREPARED BY PSI. THEIR REPORT/PROJECT NUMBER FOR THIS SITE IS 0312-2726 AND WAS COMPLETED ON OCTOBER 27, 2022. THIS GEOTECHNICAL REPORT AND ITS ADDENDUMS WAS USED IN THE DESIGN OF THE STRUCTURES FOUNDATION. THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT PRIOR TO THE BEGINNING OF ANY FOUNDATION WORK.

UF-1 PROVIDE TEMPORARY PROVISION FOR DRAINAGE OF THE BUILDING PAD AREA DURING CONSTRUCTION AND PERMANENT DRAINAGE AWAY FROM BUILDING AFTER CONSTRUCTION.

UF-2 AT THE ENTIRE AREA OCCUPIED BY THE BUILDING (AND FOR A DISTANCE OF 5.0 FT. OUTSIDE OF THE BUILDING), REMOVE ALL ORGANIC AND OTHER DELETERIOUS MATERIALS. DO NOT USE FOR UNDERFLOOR FILL. REMOVE SOIL PER GEOTECHNICAL REPORT TO ACHIEVE THE PVR MENTIONED IN UF-10. EXPOSED SUBGRADE SHALL BE RELATIVELY LEVEL.

UF-3 THE EXPOSED SUBGRADE SHALL BE SCARIFIED AND COMPACTED PER THE GEOTECHNICAL REPORT MENTIONED ABOVE.

UF-4 BRING THE BUILDING PAD TO UNDERSIDE OF SLAB WITH SELECT STRUCTURAL FILL AS SPECIFIED PER THE GEOTECHNICAL REPORT TO ACHIEVE A MAX. PVR LISTED IN UF-10.

UF-5 PERFORM ALL EARTHWORK DESCRIBED ABOVE BEFORE TRENCHING FOR GRADE BEAMS, MEP ITEMS, OR UTILITY LINES.

UF-6 EXCAVATE BEAM TRENCHES TO MEET PLANNED DIMENSIONS. PRIOR TO PLACEMENT OF CONCRETE, HAND COMPACT BOTTOM OF BEAM TRENCHES PER THE GEOTECHNICAL REPORT STANDING WATER SHOULD NOT BE PERMITTED IN THE BEAM TRENCHES AFTER FINAL COMPACTION AND BEFORE PLACEMENT OF CONCRETE. REMOVE ALL LOOSE MATERIALS AND UNSUITABLE SOILS DUE TO RAINFALL OR BY DESICCATION.

UF-7 PLACE 10 MIL "YELLOW GUARD" OR REVIEWED EQUIVALENT ON TOP OF SELECT FILL, SMOOTH SUBGRADE TO PREVENT PROTRUSIONS THAT MAY CAUSE DAMAGE OR RUPTURE FILM. LAY FILM ON SUBGRADE INCLUDING BEAM AND FOOTING SOFFITS AND SIDES OF BEAMS AND FOOTINGS USING WIDEST PRACTICAL WIDTHS. LAP EDGES OF FILM 6" WITH TOP LAP PLACED IN DIRECTION OF CONCRETE FLOW AND TAPE ALL JOINTS. CUT FILM AROUND PIPES AND ROUGH-INS AND SEAL CUTS WITH PRESSURE SENSITIVE TAPE.

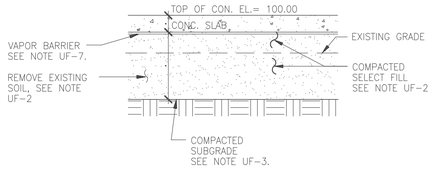
UF-8 AT AREAS OUTSIDE THE BUILDING LINE, SLOPE THE TOP SURFACE OF FILL A MIN. 5% FOR A DISTANCE OF 10 FEET TO MATCH FINISH GRADE SLOPE AND HOLD DOWN A MINIMUM OF 10 INCHES BELOW FINISH FLOOR LINE. GUTTER DOWNSPOUTS EXTEND AT LEAST THREE (3) FEET PAST THE EDGE OF BUILDING, UNLESS NOTED OTHERWISE ON THE CIVIL ENGINEERS CONSTRUCTION DOCUMENTS.

UF-9 THE OWNER IS TO EMPLOY AN INDEPENDENT TESTING LABORATORY TO TAKE DENSITY TESTS FOR SUBGRADE & EACH LIFT OF SELECT FILL TO MEET THE REQUIREMENTS FOR SPECIAL INSPECTIONS.

UF-10 THE FOLLOWING DESIGN PARAMETERS WHERE USED TO DESIGN THE FOUNDATION
- o SOIL BEARING CAPACITY – 2,500 PSF.
- o MAX. PVR FOR SLAB ON GROUND IS TO BE 1"

UF-11 IF UTILITY TRENCHES ARE REQUIRED, WE RECOMMEND THAT MEASURES BE TAKEN TO PROHIBIT TRANSMITTING WATER UNDER THE BUILDING PAD. REFERENCE GEOTECHNICAL REPORT OR CONTACT GEOTECHNICAL ENGINEER FOR BACKFILL REQUIREMENTS.

UF-12 BUILDING PAD DETAIL:



CONCRETE AND CONCRETE REINFORCEMENT:

CN-1 STRUCTURAL CONCRETE SHALL BE IN ACCORDANCE WITH THE CODE APPLICABLE EDITION OF "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)", THE AMERICAN CONCRETE INSTITUTE.

CN-2 ALL CONCRETE REINFORCEMENT SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL, CONFORMING TO ASTM A 615, GRADE 60, EXCEPT WELDABLE REBARS ASTM A706, GR. 60, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, GRADE 70"

CN-3 DETAIL REINFORCING BARS AND PROVIDE BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH ACI 315.

CN-4 ALL REINFORCING SHALL BE PROPERLY CHAIRED AND TIED PER ACI 315 (SP66) AND CRSI (PLACING REINFORCING BARS) PRIOR TO PLACING CONCRETE.

CN-5 PLACEMENT OF ALL REINFORCING STEEL SHALL BE OBSERVED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT UNLESS APPROVED OTHERWISE.

CN-6 ALL CONCRETE SHALL BE NORMAL WEIGHT STONE AGGREGATE CONCRETE UNLESS NOTED OTHERWISE. AGGREGATE SHALL MEET ASTM C33 REQUIREMENTS, AND SHALL BE 3/4" TO 1 1/2" NOMINAL AGGREGATE SIZE. PROVIDE ADMIXTURES AS REQUIRED TO IMPROVE WORKABILITY. THE GENERAL CONTRACTOR SHALL COORDINATE SLUMP REQUIREMENTS UNLESS NOTED OTHERWISE IN STRUCTURAL DOCUMENTS. PLASTIC CONCRETE TEMPERATURE SHALL NOT EXCEED 90 DEGREES PRIOR TO PLACEMENT. ALL CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS USING MOIST CURING PROCEDURES, OR CURING COMPOUNDS WHICH WILL NOT INTERFERE WITH THE BONDING OF FINISH TILE FLOORS. NO FLY ASH SHALL BE USED AT ARCHITECTURALLY EXPOSED CONCRETE WITHOUT PRIOR APPROVAL FROM ARCHITECT. THE FLYASH CONTENT SHALL NOT EXCEED THE PERCENTAGE OF CEMENTITIOUS MATERIALS SHOWN BELOW. IN ADDITION TO ABOVE THE CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS:

DESCRIPTION OF USE	f'c	MAX W/C	FLYASH CONTENT
SLAB-ON-GRADE	3,000 PSI	N/A	25% MAX
FOOTINGS	3,000 PSI	N/A	25% MAX

CN-7 PROVIDE A SET OF CYLINDERS IN ACCORDANCE WITH ASTM C 31 TO BE TAKEN BY AN INDEPENDENT TESTING LAB AT THE FREQUENCY SPECIFIED IN ACI 318 AND THE GOVERNING BUILDING CODE WITH LOCAL AMENDMENTS. COMPRESSION TEST RESULTS SHALL BE REPORTED TO THE ENGINEER WITHIN 24 HOURS.

CN-8 NO SUBSEQUENT CONSTRUCTION WILL BE ALLOWED UNTIL CONCRETE HAS REACHED 75% OF DESIGN STRENGTH.

CN-9 PORTLAND CEMENT SHALL CONFORM TO ASTM – C150, TYPE I/II.

CN-10 NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE STRUCTURAL ENGINEER.

CN-11 CONCRETE COVER SHOULD BE AS FOLLOWS:

A. FOOTINGS AND OTHER PRINCIPAL STRUCTURAL MEMBERS IN WHICH CONCRETE IS CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH – 3 INCHES.

B. WHERE CONCRETE SURFACES, AFTER REMOVAL OF FORMS, ARE EXPOSED TO WEATHER OR EARTH:
- o BARS 3/4" AND LARGER IN DIAMETER.....2 INCHES
- o BARS SMALLER THAN 5/8" IN DIAMETER.....1 1/2 INCHES

C. WHERE SURFACES ARE NOT DIRECTLY EXPOSED TO WEATHER OR EARTH:
- o SLAB ON GRADE (FROM TOP OF SLAB).....1 1/2 INCHES
- o SLABS, WALLS, JOISTS
  - No. 14 AND No. 18 BARS.....1 1/2 INCHES
  - No. 11 BARS AND SMALLER.....3/4 INCHES
- o BEAMS, COLUMNS
  - PRIMARY REINF., TIES, STIRRUPS, SPIRALS.....1 1/2 INCHES

CN-12 MECHANICAL AND ELECTRICAL CONDUIT CAN NOT BE PLACED IN BEAMS PARALLEL TO BEAM REINFORCING. PROVIDE A MINIMUM OF 1 1/2" CLEAR BETWEEN CONDUIT AND PARALLEL REINFORCING. DO NOT "BUNDLE" CONDUITS. CONDUITS SHALL BE PLACED IN THE MIDDLE ONE THIRD OF THE SLAB THICKNESS OR BEAM DEPTH.

CN-13 SET AND BUILD INTO FORM WORK ANCHORAGE DEVICES AND OTHER EMBEDDED ITEMS REQUIRED FOR OTHER WORK THAT IS ATTACHED TO OR SUPPORTED BY CAST-IN-PLACE CONCRETE. REBAR PROJECTING FROM CONCRETE SHALL BE SECURED IN PLACE PRIOR TO PLACING CONCRETE.

POST-INSTALLED CONCRETE ANCHORS:

PI-1 POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. IF ADHESIVE / MECHANICAL ANCHOR IS GENERICALLY CALLED OUT ON THE CONSTRUCTION DOCUMENTS, ANY ANCHOR MENTIONED BELOW IS ACCEPTABLE. IF SPECIFIC ANCHOR IS CALLED FOR, SUBSTITUTION MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD FOR EACH CASE.

PI-2 ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE ANCHOR MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

PI-3 CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE ANCHOR MANUFACTURER'S RECOMMENDATIONS. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY FERROSCAN, GPR, X-RAY OR OTHER MEANS ACCEPTABLE TO THE STRUCTURAL ENGINEER-OF-RECORD.

PI-4 SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. SUBSTITUTIONS WILL ALSO BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.

PI-5 THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.

PI-6 THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.

PI-7 MECHANICAL ANCHORS FOR CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193 FOR CRACKED CONCRETE RECOGNITION.

PI-8 PRE-APPROVED MECHANICAL ANCHORS FOR CONCRETE INCLUDE:
- A) SIMPSON STRONG-TIE "TITEN-HD" AND "TITEN-HD ROD HANGER"
- B) SIMPSON STRONG-TIE "STRONG-BOLT" AND "STRONG-BOLT 2"
- C) SIMPSON STRONG-TIE "TORQ-CUT"
- D) HILTI "KWIK HUS-EZ" OR "KWIK HUS-EZ-1" SCREW ANCHORS
- E) HILTI "KWIK BOLT TZ" EXPANSION ANCHOR
- F) HILTI "HDA" UNDERCUT ANCHOR
- G) HILTI "HSL-3" EXPANSION ANCHOR
- H) POWERS "POWER-BOLT +"

PI-9 ADHESIVE ANCHORS FOR CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE RECOGNITION.

PI-10 PRE-APPROVED ADHESIVE ANCHORS FOR CONCRETE INCLUDE:
- A) SIMPSON STRONG-TIE "SET-XP" AND AT-XP"
- B) HILTI "HIT-RE 500-SD" ADHESIVE
- C) HILTI "HIT-HY 200" SAFE SET SYSTEM WITH HILTI "HIT-Z" ROD.
  - a. NO CLEANING IS REQUIRED FOR HIT-Z ANCHORS FOR TEMPERATURES ABOVE 41°F.
  - b. FOR TEMPERATURE BELOW 41°F FOR HIT-Z ANCHOR INSTALLATIONS, USE HILTI TE-CD OR TE-YD HOLLOW DRILL BITS WITH VC 20/40 VACUUM SYSTEM.
  - c. FOR ALL TEMPERATURES FOR REBAR INSTALLATIONS, USE HILTI TE-CD OR TE-YD HOLLOW DRILL BITS WITH VC 20/40 VACUUM SYSTEM.
- D) HILTI "HIT-HY 200" SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT SYSTEM
- E) POWERS FASTENERS "PE1000 +" ADHESIVE
- F) POWERS FASTENERS "AC100 + GOLD" ADHESIVE ANCHORING SYSTEM

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12-23-2022

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NO.	DESCRIPTION OF ISSUE	DATE
1	REVISION #1	030323

DRAWN BY: YD
CHECKED BY: HQ

DATE
12/23/2022

PROJECT NUMBER
702

DRAWING TITLE
STRUCTURAL NOTES

SHEET NUMBER:
S1.0

STRUCTURAL NOTES

FASTENING SCHEDULE:

CONNECTION	FASTENING [a,m]	LOCATION
1. Joist to sill or girder	3 – 8d common (2½"x0.131") 3 – 3"x0.131" nails 3 – 3" 14 gage staples	toenail
2. Bridging to joist	2 – 8d common (2½"x0.131") 2 – 3"x0.131" nails 2 – 3" 14 gage staples	toenail each end
3. 1"x6" Subfloor or less to each joist	2 – 8d common (2½"x0.131")	face nail
4. Wider than 1"x6" subfloor to each joist	3 – 8d common (2½"x0.131")	face nail
5. 2" Subfloor to joist or girder	2 – 16d common (3½"x0.162")	blind and face nail
6. Sole plate to joist or blocking	16d (3½" x 0.135") at 16"o.c. 3" x 0.131" nails at 8"o.c. 3" 14 gage staples at 12"o.c.	typical face nail
Sole plate to joist or blocking at braced wall panel	3" – 16d (3½"x0.135") at 16"o.c. 4 – 3"x0.131" nails at 16" 4 – 3" 14"gage staples per 16"	braced wall panels
7. Top plate to stud	2 – 16d common (3½"x0.162") 3 – 3" x0.131" nails 3 – 3" 14 gage staples	end nail
8. Stud to sole plate	4 – 8d common (2½"x0.131") 4 – 3"x0.131" nails 3 – 3" 14 gage staples	toe nail
	2 – 16d (3½"x0.162") 3 – 3"x0.131" nails 3 – 3" 14 gage staples	end nail
9. Double Studs	16d (3½" x 0.135") at 24"o.c. 3" x 0.131" nails at 8"o.c. 3" 14 gage staples at 8"o.c.	face nail
10. Double top plates	16d (3½"x0.135") at 16"o.c. 3"x0.131" nails at 12" o.c. 3" 14 gage staples at 12"o.c.	typical face nail
Double top plates	8 – 16d common (3½"x0.162") 12 – 3" x0.131" nails 12 – 3" 14 gage staples	lap splice
11. Blocking between joists or at braced wall panel	3 – 8d common (2½"x0.131") 3 – 3" x0.131" nails 3 – 3" 14 gage staples	toenail
12. Rim joist to top plate	8d (2½"x0.131") at 6"o.c. 3"x0.131" nails at 6"o.c. 3" 14 gage staples at 6"o.c.	toenail
13. Top plates, laps and intersections	2 – 16d common (3½"x0.162") 3 – 3" x0.131" nails 3 – 3" 14 gage staples	face nail
14. Continuous header, two pieces	16d common (3½"x0.162")	16"o.c. along edge
15. Ceiling joists to plate	3 – 8d common (2½"x0.131") 5 – 3" x0.131" nails 5 – 3" 14 gage staples	toenail
16. Continuous header to stud	4 – 8d common (2½"x0.131")	toenail
17. Ceiling joists, laps over partitions	3 – 16d common (3½"x0.162") minimum, 4 – 3"x0.131" nails 4 – 3" 14 gage staples	face nail
18. Ceiling joists to parallel rafters	3 – 16d common (3½"x0.162") minimum, 4 – 3"x0.131" nails 4 – 3" 14 gage staples	face nail
19. Rafter to plate	3 – 8d common (2½"x0.131") 3 – 3"x0.131" nails 3 – 3" 14 gage staples	toenail
20. 1" Diagonal brace to each stud and plate	2 – 8d common (2½"x0.131") 2 – 3"x0.131" nails 3 – 3" 14 gage staples	face nail
21. 1"x8" Sheathing to each bearing	3 – 8d common (2½"x0.131")	face nail
22. Wider than1"x8"sheathing to each bearing	3 – 8d common (2½"x0.131")	face nail
23. Built–up corner studs	16d common (3½"x0.162") 3" x0.131" nails 3" 14 gage staples	24"o.c. 16"o.c. 16"o.c.

FASTENING SCHEDULE: (CONT.)

CONNECTION	FASTENING [a,m]	LOCATION
24. Built–up girder and beams	20d common (4"x0.192") 32"o.c. 3"x0.131" nails at 24"o.c. 3" 14 gage staples at 24"o.c. 2 – 20d common (4"x0.192") 3 – 3"x0.131" nails 3 – 3" 14 gage staples	face nail at top and bottom staggered on opposite sides face nail at ends and at each splice
25. 2" Planks	16d common (3½"x0.162")	at each bearing
26. Collar tie to rafter	3 – 10d common (3"x0.148") 4 – 3"x0.131" nails 4 – 3" 14 gage staples	face nail
27. Jack rafter to hip	3 – 10d common(3"x0.148") 4 – 3"x0.131" nails 4 – 3" 14 gage staples 2 – 16d common (3½"x0.162") 3 – 3" x0.131" nails 3 – 3" 14 gage staples	toenail face nail
28. Roof rafter to 2–by ridge beam	2 – 16d common (3½"x0.162") 3 – 3" x0.131" nails 3 – 3" 14 gage staples 2 – 16d common (3½"x0.162") 3 – 3" x0.131" nails 3 – 3" 14 gage staples	toenail face nail
29. Joist to band joist	3 – 16d common (3½"x0.162") 4 – 3" x0.131" nails 4 – 3" 14 gage staples	face nail
30. Ledger strip	3 – 16d common (3½"x0.162") 4 – 3" x0.131" nails 4 – 3" 14 gage staples	face nail
31. Wood structural panels and particleboard[b] Subfloor, roof and wall sheathing (to framing)	1/2" and less: 6d[c,1]; 2 3/8"x0.113" nail[n]; 1 3/4" 16 gage[o] 19/32" TO 3/4": 8d[d] or 6d[e]; 2 3/8"x0.113" nail[p]; 2" 16 gage[p] 7/8" TO 1": 8d[c]	
Single floor (Combination subfloor–underlayment to framing)	1 1/8" TO 1 1/4": 10d[d] or 8d[d] 3/4" and less: 6d[e] 7/8" TO 1": 8d[e] 1 1/8" TO 1 1/4": 10d[d] or 8d[e]	
32. Panel siding (to framing)	1/2" and less: 6d[j] 5/8": 8d[j]	
33. Fiberboard sheathing[g]	1/2": No. 11 gage roofing nail[h]; 6d common nail (2"x0.113"); No. 16 gage staple[i] 25/32": No. 11 gage roofing nail[h]; 8d common nail (2½"x0.131"); No. 16 gage staple[i]	
34. Interior paneling	1/4": 4d[j] 3/8": 6d[k]	

For SI: 1 inch = 25.4 mm.

a. Common or box nails are permitted to be used except where otherwise stated.
b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particle board diaphragms and shear walls, refer to section 2305. Nails for wall sheathing are permitted to be common, box or casing.
c. Common or deformed shank (6d – 2"x0.113"; 8d – 2 1/2"x0.131"; 10d – 3"x0.148").
d. Common (6d – 2" x0.113"; 8d – 2 1/2"x0131"; 10d – 3"x0.148").
e. Deformed shank (6d – 2"x0.113"; 8d – 2 1/2"x0.131"; 10d – 3"x0.148").
f. Corrosion–resistant siding (6d – 1 7/8"x0.106"; 8d – 2 3/8"x0.128") or casing (6d – 2"x0.099"; 8d – 2 1/2"x0.113") nail.
g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.
h. Corrosion–resistant roofing nails with 7/16–inch–diameter head and 1 1/2–inch length for 1/2–inch sheathing and 1 3/4–inch length for 25/32–inch sheathing.
i. Corrosion–resistant staples with nominal 7/16–inch crown and 1 1/8–inch length for 1/2–inch sheathing and 1 1/2–inch length for 25/32–inch sheathing. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
j. Casing (1 1/2"x0.080") or finish (1 1/2"x0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
k. Panel supports at 24 inches. Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
l. For roof sheathing applications, 8d nails (2 1/2"x0.113") are the minimum required for wood structural panels.
m. Staples shall have minimum crown width of 7/16 inch.
n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.
o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

TIMBER FRAMING:

TF–1 TIMBER FRAMING AND PLYWOOD SHEATHING SHALL CONFORM TO THE CODE APPLICABLE EDITIONS OF THE AMERICAN PLYWOOD ASSOCIATION (APA) PLYWOOD DESIGN SPECIFICATION, AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH THE N.F.P.A. SUPPLEMENT.

TF–2 STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS, BEAM SUPPORTS AND AROUND ALL OPENINGS. REFER DETAIL 01/S3.1.

TF–3 BEAMS MADE UP OF SEVERAL 2X PIECES SHALL HAVE NO SPLICES EXCEPT OVER SUPPORTS. NAIL BOARDS TOGETHER, REFER DETAIL 04/S3.1.

TF–4 ALL SILL PLATES SHALL BE #2 TREATED SOUTHERN PINE AND SHALL BE ATTACHED TO THE FOUNDATION WITH 1/2" DIAMETER BOLTS WITH A MINIMUM OF 7" EMBEDMENT INTO THE CONCRETE AT 4'–0"o.c. THERE SHALL BE A MINIMUM OF 2 BOLTS PER PIECE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE UNLESS NOTED OTHERWISE ON THE FRAMING PLANS OR DETAILS IF GREATER.

TF–5 PLACE SINGLE PLATE AT BOTTOM OF ALL STUD WALLS.

TF–6 NAILING AND THE ATTACHMENT OF ALL FRAMING MEMBERS SHALL BE AS SPECIFIED ON THE FASTENING SCHEDULE. COMMON WIRE NAILS OR SPIKES OR GALVANIZED BOX NAILS SHALL BE USED FOR ALL FRAMING UNLESS NOTED OTHERWISE.

TF–7 ALL EXTERIOR WALLS AT CORNERS AND MAIN CROSS STUD PARTITIONS SHALL BE BRACED AT LEAST EVERY 25 FEET AND AT EACH END WITH 4'–0" WIDE x 1/2" THICK PLYWOOD DIAPHRAGM FROM THE TOP PLATE TO THE BOTTOM PLATE. FASTEN TO STUDS W/ 10d NAILS AT 6"o.c. MAX. AND AT 12"o.c. TO BLOCKING

TF–8 ALL TIMBER FRAMING (EXCEPT WALL STUDS) MEMBERS SHALL BE NO.2 SOUTHERN YELLOW PINE WITH 15% MAXIMUM MOISTURE UNLESS NOTED OTHERWISE. STUDS SHALL BE S–P–F (SPRUCE–PINE–FIR) GRADE 2 OR BETTER. COLUMNS SHALL BE NO. 2 DOUGLAS FIR–LARCH WITH 15% MAX. MOISTURE.

TF–9 ALL HEADERS AND BEAMS INCLUDING PARALLAM BEAMS SHALL BE LATERALLY SUPPORTED ON THEIR COMPRESSION EDGE AT INTERVALS OF 24"o.c. OR CLOSER.

TF–10 ALL STUD WALLS SHALL BE A MINIMUM OF 2x4 SPACED AT 16"o.c. FOR HEIGHT NOT EXCEEDING 10 FEET, UNLESS NOTED OTHERWISE ON FRAMING PLAN OR ARCHITECTURAL DRAWINGS. USE 2x6 SPACED AT 16"o.c. FOR HEIGHT NOT EXCEEDING 14 FEET. ALL STUD WALLS SHALL BE CONTINUOUS AND HAVE SOLID BLOCKING AT MID–HEIGHT, BUT NOT TO EXCEED 6' VERTICALLY.

TF–11 SOLID 2x BLOCKING SHALL BE PROVIDED AT ENDS AND AT POINT OF SUPPORTS OF ALL WOOD JOISTS AND SHALL BE PLACED BETWEEN SUPPORTS IN ROWS NOT EXCEEDING 8'–0" APART.

TF–12 ROOF SHEATHING
PLYWOOD ROOF SHEATHING SHALL BE 3/4" THICK APA STRUCTURAL 1 32/16 RATED SHEATHING EXTERIOR WITH EXTERIOR GLUE. PLYWOOD SHEATHING EXPOSED AT OVERHANGS OR OTHERWISE PERMANENTLY EXPOSED TO WEATHER SHALL BE C–C EXT. – DFPA GRADE OR BETTER. INSTALL WITH LONG DIMENSION OF PANEL ACROSS SUPPORTS. SPACE PANEL ENDS AND PANEL EDGES 1/8" UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER. SUITABLE EDGE SUPPORT SHALL BE PROVIDED IN ACCORDANCE WITH RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION BY USE OF PLY CLIPS, TONGUE AND GROOVE PANELS, OR LUMBER BLOCKING BETWEEN JOIST. PANEL END JOINTS SHALL OCCUR OVER FRAMING. PLYWOOD ROOF SHEATHING SHALL BE ATTACHED TO SUPPORT FRAMING USING 8d NAILS. NAIL SPACING SHALL BE 6" ALONG PANEL EDGES AND 12" AT INTERMEDIATE SUPPORTS.

TF–13 ALL WOOD IN CONTACT WITH STEEL, MASONRY CONCRETE, AND/OR GROUND SHALL BE PRESSURE PRESERVATIVE TREATED AND RATED FOR GROUND CONTACT.

TF–14 UNLESS OTHERWISE SHOWN ON PLANS, WOOD LINTELS OVER OPENINGS SHALL BE DOUBLE 2x8 WITH 1/2" PLYWOOD HEADERS FOR SPANS UNDER 6'–0". FOR SPANS 6'–0" TO 8'–0", WOOD LINTELS SHALL BE DOUBLE 2x12 WITH 1/2" PLYWOOD HEADERS.

TF–15 ALL FRAMING MEMBERS FRAMING INTO THE SIDE OF A HEADER SHALL BE ATTACHED WITH METAL HANGERS.

ABBREVIATIONS

&	–	AND	I.D.	–	INSIDE DIAMETER
@	–	AT	IN.	–	INCH
C	–	CENTERLINE	INV.	–	INVERTED
X°	–	DEGREE	INT.	–	INTERIOR
Ø	–	DIAMETER	JST.	–	JOIST
#	–	NUMBER/POUND	JT.	–	JOINT
A.B.	–	ANCHOR BOLT	K	–	KIP (THOUSAND POUNDS)
APPROX.	–	APPROXIMATE	L	–	ANGLE
ARCH.	–	ARCHITECT/ARCHITECTURAL	LBS.	–	POUND
ADH.	–	ADHESIVE	L.D.H.	–	LONG DIMENSION HORIZONTAL
ALT.	–	ALTERNATE	LF	–	LINEAR FOOT
B.P.	–	BASE PLATE	LLH	–	LONG LEG HORIZONTAL
B.L.	–	BUILDING LINE	LG.	–	LONG
B.U.R.	–	BUILT–UP ROOF	LLV	–	LONG LEG VERTICAL
BM.	–	BEAM	MAX.	–	MAXIMUM
B.W.	–	BOTH WAYS	MECH.	–	MECHANICAL
BOT.	–	BOTTOM	MEZZ.	–	MEZZANINE
BLDG.	–	BUILDING	MFR.	–	MANUFACTURER
BSMT.	–	BASEMENT	MID.	–	MIDDLE
BRG.	–	BEARING	MIN.	–	MINIMUM
BTWN.	–	BETWEEN	MISC.	–	MISCELLANEOUS
CANT.	–	CANTILEVER	MAS.	–	MASONRY
C.I.P.	–	CAST–IN–PLACE	NS	–	NEAR SIDE
CLG.	–	CEILING	NOM.	–	NOMINAL
CLR.	–	CLEAR	N.T.S.	–	NOT TO SCALE
CMU	–	CONCRETE MASONRY UNITS	O.C.	–	ON CENTER
COL.	–	COLUMN	O.D.	–	OUTSIDE DIAMETER
CONC.	–	CONCRETE	O.H.	–	OPPOSITE HAND
CONTR.	–	CONTRACTOR	OPNG.	–	OPENING
C.J.	–	CONSTRUCTION JOINT	OPP.	–	OPPOSITE
CONN.	–	CONNECTION	P/C	–	PRECAST
CONST.	–	CONSTRUCTION	PREFAB.	–	PREFABRICATED
CONT.	–	CONTINUOUS	PSF	–	POUND PER SQUARE FOOT
D.E.	–	DECK EDGE	PSI	–	POUND PER SQUARE INCH
DEMO.	–	DEMOLITION	PL.	–	PLATE
DIA.	–	DIAMETER	R	–	RISER
DIAG.	–	DIAGONAL	RAD.	–	RADIUS
DIM.	–	DIMENSION	R.D.	–	ROOF DRAIN
D.L.	–	DEAD LOAD	REF.	–	REFERENCE
DBL.	–	DOUBLE	REINF.	–	REINFORCING/REINFORCED
DN.	–	DOWN	REQ'D	–	REQUIRED
DWL.	–	DOWEL	SPAC.	–	SPACES/SPACING
DWG.	–	DRAWING	SCHED.	–	SCHEDULE
EA.	–	EACH	SECT.	–	SECTION
E.F.	–	EACH FACE	SHT.	–	SHEET/SHEATHING
E.J.	–	EXPANSION JOINT	SIM.	–	SIMILAR
ELEV.	–	ELEVATION	SPEC.	–	SPECIFICATION
EQ.	–	EQUAL	SL.	–	SLOPE
EQUIP.	–	EQUIPMENT	STIFF.	–	STIFFENERS
E.W.	–	EACH WAY	STIR.	–	STIRRUPS
EXIST.	–	EXISTING	SQ.	–	SQUARE
EXP.	–	EXPANSION	STD.	–	STANDARD
EXT.	–	EXTERIOR	STL.	–	STEEL
FDN.	–	FOUNDATION	STR.	–	STAIR
F.D.	–	FLOOR DRAIN	STRUCT.	–	STRUCTURE/STRUCTURAL
F.S.	–	FAR SIDE	SYM.	–	SYMMETRICAL
FIN.	–	FINISH	T	–	TREAD
FLD.	–	FIELD	T&B	–	TOP AND BOTTOM
FLR.	–	FLOOR	THK.	–	THICK/THICKNESS
FT.	–	FOOT OR FEET	T.O.C.	–	TOP OF CONCRETE
FTG.	–	FOOTING	T.O.J.	–	TOP OF JOIST
GA.	–	GAGE	T.O.S.	–	TOP OF STEEL
GALV.	–	GALVANIZED	T.O.W.	–	TOP OF WALL
GR.	–	GRADE	TYP.	–	TYPICAL
HK.	–	HOOK	U.N.O.	–	UNLESS NOTED OTHERWISE
HORIZ.	–	HORIZONTAL	VERT.	–	VERTICAL
HCA	–	HEADED CONCRETE ANCHOR	W/	–	WITH
H.S.	–	HIGH STRENGTH	W.P.	–	WORK POINT
			W.W.F.	–	WELDED WIRE FABRIC

PREFABRICATED WOOD ROOF TRUSSES:

WT–1 PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN TEXAS, IN ACCORDANCE WITH THE DESIGN SPECIFICATION FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES, CODE APPLICABLE TPI EDITION FOR THE TRUSS PLATE INSTITUTE.

WT–2 TRUSS MEMBERS AND CONNECTIONS SHALL BE PROPORTIONED, WITH A MAXIMUM ALLOWABLE STRESS INCREASE FOR LOAD DURATION OF 25 PERCENT, TO WITHSTAND THE FOLLOWING SUPERIMPOSED LOADS. LOADS SHOWN DO NOT INCLUDE TRUSS SELF WEIGHT.

DEAD LOAD.....5 P.S.F.
(INCLUDING TRUSS OWN WEIGHT & METAL ROOF)
APPLIED TO TOP CHORD OF TRUSS
.....10 P.S.F.
APPLIED TO BOTTOM CHORD OF TRUSS

LIVE LOAD.....20 P.S.F.
APPLIED TO TOP CHORD OF TRUSS
.....10 P.S.F.
APPLIED TO BOTTOM CHORD OF TRUSS (NOT ACTING SIMULTANEOUSLY WITH TOP CHORD LIVE LOADS)
.....17 P.S.F.
NET UPLIFT APPLIED TO TOP CHORD OF TRUSS

WT–3 THE TRUSS MANUFACTURER SHALL SUBMIT THE FOLLOWING CERTIFICATIONS, SEALED BY THE ENGINEER RESPONSIBLE FOR DESIGN, FOR THE ARCHITECTS APPROVAL PRIOR TO FABRICATION OF ANY MATERIALS:

A. CERTIFICATION THAT THE MANUFACTURER IS LICENSED TO FABRICATE TRUSSES UTILIZING THE CONNECTOR SYSTEM PROPOSED.

B. CERTIFICATION THAT THE TRUSSES ARE DESIGNED TO MEET THE LOAD CRITERIA SPECIFIED HEREIN.

WT–4 FABRICATION AND INSTALLATION DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTOR FOR APPROVAL OF SIZE, SHAPE, TEMPORARY BRACING AND LAYOUT PRIOR TO FABRICATION OF MATERIALS.

WT–5 TOP CHORDS SHALL BE DESIGNED TO RESIST BENDING INDUCED BY THE ROOF DEAD LOAD AND LIVE LOAD.

WT–6 DEFLECTIONS DUE TO LIVE LOAD SHALL BE LIMITED TO L/360.

WT–7 CONNECT ROOF TRUSSES TO THE BEARING WALL OR SUPPORT BEAM AT EACH END WITH FRAMING ANCHOR TO BE SPECIFIED AFTER TRUSS SHOP DRAWING SUBMITTAL. CONTRACTOR SHOULD INCLUDE ($1,500) ALLOWANCE FOR MATERIALS AND INCLUDE ALL LABOR IN HIS BID.

WT–8 PROVIDE LONGITUDINAL WOOD DIAGONAL BRACES TO TRUSSED RAFTER RIDGES AT 20'–0" o.c. MAXIMUM. TRUSSED RAFTER CONNECTIONS SHALL HAVE A MINIMUM OF 2 – 16D NAILS UNTIL PERMANENT ROOF SHEATHING IS APPLIED. SEE DETAIL 01/S4.2 .

WT–9 PROVIDE BOTTOM CHORD BRACING AS SHOWN ON DETAIL 02/S4.2 AS TRUSSES ARE SET IN PLACE. BOTTOM CHORD BRACING TO BE LEFT IN PLACE AFTER ERECTION IS COMPLETED EXCEPT SOLID SHEATHING IS ATTACHED DIRECTLY TO BOTTOM OF TRUSS TO ACT AS BRACING.

WT–10 CARE SHALL BE TAKEN DURING THE DELIVERY AND INSTALLATION OF THE TRUSSES TO PREVENT EXCESSIVE LATERAL BENDING AND POSSIBLE JOINT DAMAGE. TRUSSES SHALL BE HANDLED, INSTALLED, AND BRACED IN ACCORDANCE WITH TRUSS PLATE INSTITUTE HIB–91 COMMENTARY AND RECOMMENDATIONS FOR HANDLING INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES. DESIGN FOR TRUSS BRACING SHALL BE IN ACCORDANCE WITH TRUSS PLATE INSTITUTE DSB–89 RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES. ALL DAMAGED TRUSSES SHALL BE REPLACED. ONLY REPAIRS AUTHORIZED BY THE TRUSS MANUFACTURER'S ENGINEER WILL BE ALLOWED.

WT–11 ALL TRUSSES SHALL BE INSTALLED PLUMB, SQUARE AND PROPERLY ALIGNED AT THE SPECIFIED SPACING. BRACING SHALL BE PROVIDED BOTH DURING ERECTION AND AFTER PERMANENT INSTALLATION HAS BEEN COMPLETED. GABLE END OR FIRST TRUSS BRACING, LATERAL BRACING, CROSS BRACING AND DIAGONAL BRACING CAN BE USED TO PROVIDE TEMPORARY AND/OR PERMANENT BRACING.

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DRAWN BY: YD
CHECKED BY: HQ

DATE
12/23/2022

PROJECT NUMBER
702

DRAWING TITLE
STRUCTURAL NOTES

SHEET NUMBER:
S1.1

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS NOTES:

SP-1 SPECIAL INSPECTION WORK IS NOT INCLUDED IN THE STRUCTURAL ENGINEER'S SCOPE OF SERVICES. THE OWNER WILL ENGAGE A TESTING AGENCY TO CONDUCT SPECIAL TESTS AND INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION AS THE RESPONSIBILITY OF THE OWNER. ALL INSPECTION REPORTS SHALL BE COPIED TO THE STRUCTURAL ENGINEER, AND A FINAL LETTER OF COMPLIANCE SHALL BE PROVIDED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (TYPICALLY ARCHITECT) TO THE OWNER OR BUILDING AUTHORITY.

SPECIAL INSPECTION SHALL INCLUDE:

- o SITE PREPARATION
- o CAST-IN-PLACE DEEP FOUNDATION ELEMENTS (NOT REQUIRED)
- o CONCRETE
- o WOOD
- o WELDING OF STRUCTURAL STEEL (NOT REQUIRED)
- o STEEL ELEMENTS OF COMPOSITE CONSTRUCTION (NOT REQUIRED)
- o BOLTING OF STRUCTURAL STEEL (NOT REQUIRED)
- o STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL (NOT REQUIRED)
- o OPEN WEB STEEL JOISTS AND JOIST GIRDERS (NOT REQUIRED)
- o MASONRY I (NOT REQUIRED)
- o MASONRY II (NOT REQUIRED)

SP-2 INSPECTOR QUALIFICATIONS: QUALIFICATIONS LISTED IN THE TESTING & INSPECTION REQUIREMENTS TABLES ARE RECOMMENDATIONS OF THE LOCAL MEMBERS OF THE TEXAS COUNCIL OF ENGINEERING LABORATORIES. IT IS ALSO RECOMMENDED THAT THE SPECIAL INSPECTORS SHOULD BE EMPLOYED BY AN AGENCY ACCREDITED BY ANY NATIONALLY RECOGNIZED ACCREDITING BODY SUCH AS AASHTO, A2LA, NVLAP, ICC ETC.

SP-3 DEFINITIONS:
ACI – AMERICAN CONCRETE INSTITUTE
ADSC-IAFD – ADSC: THE INTERNATIONAL ASSOCIATION OF FOUNDATION DRILLING
AISC – AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ASNT – AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING
ASTM – AMERICAN SOCIETY FOR TESTING MATERIALS
AWS – AMERICAN WELDING SOCIETY
CWI – CERTIFIED WELDING INSPECTOR
CRSI – CONCRETE REINFORCING STEEL INSTITUTE
IBC – INTERNATIONAL BUILDING CODE
PCI – PRECAST/PRESTRESSED CONCRETE INSTITUTE
PTI – POST-TENSIONING INSTITUTE

SP-4 TESTING AND INSPECTION DIRECTED BY ASTM E329 GUIDELINES WHERE NOTED ✱ ON THE TESTING & INSPECTION REQUIREMENTS TABLES.

SP-5 THE SPECIAL INSPECTOR CANNOT BE AN EMPLOYEE OF THE CONTRACTOR.

SP-6 WHERE STRUCTURAL MEMBERS AND ASSEMBLIES ARE SHOP FABRICATED, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO THE CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS, UNLESS THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. EXCEPTION: SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE WORK IS PERFORMED ON THE PREMISES OF A FABRICATOR THAT IS ENROLLED IN A NATIONALLY ACCEPTED INSPECTIONS PROGRAM ACCEPTABLE TO THE REGISTERED DESIGN PROFESSIONAL IN CHARGE. AT THE COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL UPON REQUEST AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

TESTING AND INSPECTION REQUIREMENTS FOR SITE PREPARATION FOR SOIL SUPPORTED FOUNDATIONS (INCLUDING SPECIAL INSPECTIONS)

Required Verification and Inspection	Frequency of Verification and Inspection	IBC Section and Reference Standard	Inspector Qualifications
SITE PREPARATION FOR SOIL SUPPORTED FOUNDATIONS		IBC 1705.6	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Periodic	Geotechnical Report; Site Preparation for Soil Supported Foundation Notes on construction documents.	✱ Qualifications based on ASTM D3740
2. Verify excavations are extended to proper depth and have reached proper material.	Periodic		
3. Perform classification and testing of compacted fill materials.	Periodic		
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Continuous		
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	Periodic		
6. Chemical Injection: Quality controlled testing and evaluation prior and subsequent to injection shall be performed by the Geotechnical Engineer to determine the effectiveness of the chemical injection process. The Geotechnical Engineer or his representative shall monitor the injection process to verify area coverage, injection depth and to review and monitor the swell test results.	Periodic		

VERIFICATION AND SPECIAL INSPECTION OF WOOD CONSTRUCTION

Required Verification, Inspection and Testing	Frequency of Verification and Inspection	IBC Section and Frequency of Inspection	Inspector Qualifications
WOOD CONSTRUCTION		IBC 1705.5	
1. Fabrication process of prefabricated wood structural elements and assemblies shall be in accordance with IBC 1704.2.5 and local amendments	Periodic	IBC 1704.2.5, 1705.5.2; Prefabricated Wood Truss and Timber Framing Notes on construction documents and specification sections 06100, 06150, 06173, 06181	Technical Representative under direction of Licensed Engineer
2. Inspect wood structural panel sheathing construction for the following:			
a. Grade and thickness shown on approved building plans.	Periodic	IBC 1705.5, Timber Framing Notes on construction documents and specification section 06150	Technical Representative under direction of Licensed Engineer
b. Nominal size of framing members at adjoining panel edges, per approved building plans.	Periodic		
c. Nail or staple diameter and length, per approved building plans.	Periodic		
d. Number of fastener lines and the spacing between fasteners in each line and at edge margins, per approved building plans.	Periodic		
3. Trusses over 60'-0", inspector shall verify the following:			
a. Temporary installation restraint/bracing per approved truss submittal.	Periodic	IBC 1704.2.5; 1705.5; Prefabricated Wood Roof Truss Notes on construction documents and specification section 06173	Licensed Engineer or his/her Representative
b. Permanent individual truss member restraint/bracing are installed per approved truss submittal.	Periodic		
4. Site built assemblies	Periodic	IBC 1705.5; Timber Framing Notes on construction documents and specification section 06100	Licensed Engineer or his/her Representative
5. High-load diaphragms: Verify sheathing grade and thickness, nominal size of framing members adjoining panel edges, nail/staple diameter and length, and fastener pattern per requirements of the approved construction documents.	Periodic	IBC 1704.2; 1705.5.1; Timber Framing Notes on construction documents and specification section 06150	
6. Pre-fabricated wood truss bracing: Verify that all permanent and lateral bracing has been installed per requirements of the approved construction documents.	Periodic	IBC 1705.5.2; Prefabricated Wood Roof Truss Notes and Details shown on the construction documents and specification section 06173	

TESTING AND INSPECTION REQUIREMENTS FOR CONCRETE CONSTRUCTION (INCLUDING SPECIAL INSPECTIONS)

Required Verification and Inspection	Frequency of Verification and Inspection	IBC Section and Reference Standard	Inspector Qualifications
CONCRETE CONSTRUCTION		IBC 1705.3	
1. Inspection of reinforcing steel, including prestressing tendons and placement.	Periodic	IBC 1908.4; ACI 318: 20, 25.2, 25.3, 26.5.1-26.5.3; Concrete and Concrete Reinforcement Notes on construction documents and Specifications	✱ Qualifications based on ASTM E329
2. Reinforcing bar welding:			
a. Verify weldability of reinforcing bars other an ASTM A 706	Periodic	AWS D1.4; ACI 318: 26.5.4; Concrete and Concrete Reinforcement Notes on construction documents and Specifications	CWI or Associate CWI
b. Inspect single-pass welds, maximum 5/16"	Periodic		
c. Inspect all other welds	Continous		
3. Inspect anchors cast in concrete	Periodic	ACI 318: 17.8.2; Specifications	Technician trained in field of work and has at least one year of experience
4. Inspection anchors installed in hardened concrete members.			
a. Adhesive anchors installed in horizontal position, upward inclined position, or as indicated on plans	Continous	ACI 318: 17.8.2.4; Specifications	Technician trained in field of work and ACI Adhesive Anchor Certified
b. Mechanical anchors and adhesives anchors not defined in part 4a	Periodic	ACI 318: 17.8.2; Specifications	
5. Verifying use of required design mix.	Periodic	IBC 1904.1., 1904.2, 1908.2, 1908.3; ACI 318: Ch. 19, 26.4.3, 26.4.4; Concrete and Concrete Reinforcement Notes on construction documents and Specifications	✱ Qualifications based on ASTM C1077
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete.	Continuous	IBC 1908.10; ASTM C 172, C31; ACI 318: 26.4.5, 26.12; Concrete and Concrete Reinforcement Notes on construction documents and Project Specifications	✱ Qualifications based on ASTM C1077
7. Inspection of concrete and shotcrete placement for proper application techniques.	Continuous	IBC 1908.6, 1908.7.7, 1908.8; ACI 318: 26.4.5; Project specifications	✱ Qualifications based on ASTM C1077
8. Inspection for maintenance of specified curing temperature and techniques.	Periodic	IBC 1908.9; ACI 318: 26.4.7-26.4.9; Concrete and Concrete Reinforcement Notes on construction documents and Project Specifications	✱ Qualifications based on ASTM C1077

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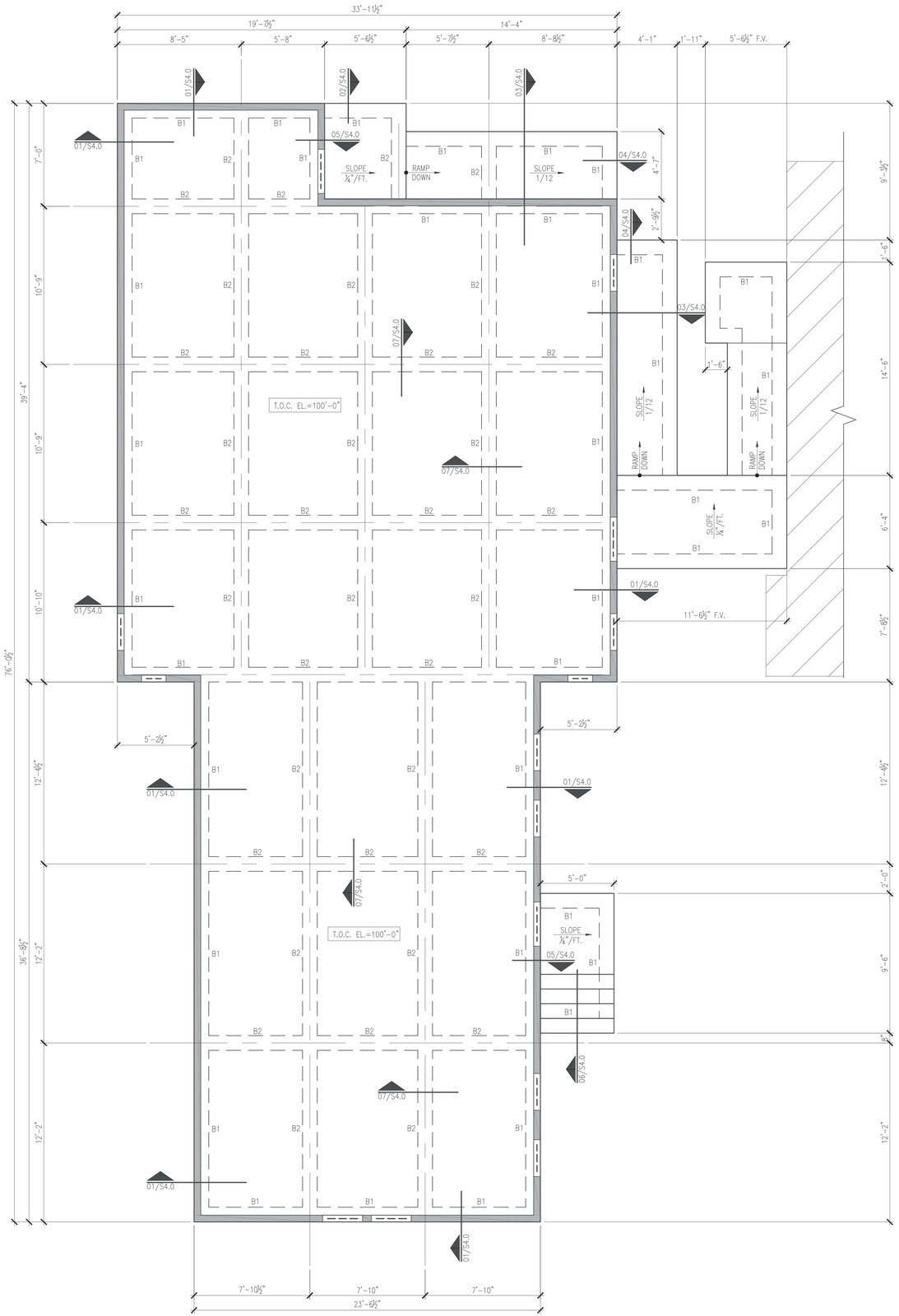
DRAWN BY: YD
CHECKED BY: HQ

DATE
12/23/2022

PROJECT NUMBER
702

DRAWING TITLE
SPECIAL INSPECTIONS

SHEET NUMBER:
S1.2



01 FOUNDATION PLAN

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

PLAN NOTES:

1. SEE S1.0 FOR GENERAL NOTES.
2. SEE S3.0 FOR TYPICAL FOUNDATION DETAILS. (1)
3. SEE S3.1 FOR TYPICAL FRAMING DETAILS. (1)
4. XX'-XX" – INDICATES TOP OF CONCRETE ELEVATION.
5. SLAB-ON-GRADE SHALL BE 5" THICK CONCRETE SLAB OVER PREPARED SUBGRADE. REINFORCED W/ #4 @ 12"O.C. LAP SPLICE = 1'-6".
6. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF FLOOR RECESS, DROPS, & SLOPES NOT DIMENSIONED ON PLANS. VERIFY EXACT LOCATIONS OF ALL MECHANICAL CHASE OPENINGS WITH ARCHITECTURAL & MEP DRAWINGS.
7. FILL MEASURE FINAL GRADE BEAM PRIOR TO ORDERING & SCHEDULE STIRRUPS, OTHERWISE PROVIDE HAIRPINS
8. DENOTES LOAD BEARING WALL (TYPICAL 2x6 STUDS AT 16"O.C TYP. U.N.O.)

CONCRETE GRADE BEAM SCHEDULE

MK	"W"	"D" (MIN.)	REINFORCING	REMARKS
B1	12"	36"	2-#6 TOP AND BOTTOM W/ #3 STIRRUPS @18"O.C.	TYP. EXT. BEAM (U.N.O)
B2	12"	30"	2-#6 TOP AND BOTTOM W/ #3 STIRRUPS @18"O.C.	TYP. INT. BEAM (U.N.O)

NOTES:

EXTERIOR SCHEDULED CONCRETE BEAM DEPTHS ARE MINIMUM. INCREASE EXTERIOR DEPTH TO MAINTAIN A MINIMUM OF 30" BELOW FINAL EXTERIOR GRADE.

ADD CONTINUOUS #3 @ 12"O.C. HORIZONTAL BARS AT EA. FACE WHEN BEAM DEPTH BECOMES DEEPER THAN 36" DUE TO LOWER FINAL GRADE (TYPICAL).

PROVIDE 3'-0" LAPS AT ALL SPLICES IN CONTINUOUS TOP AND BOTTOM BARS AT GRADE BEAMS.

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NO.	DESCRIPTION OF ISSUE	DATE
1	REVISION #1	03/03/23

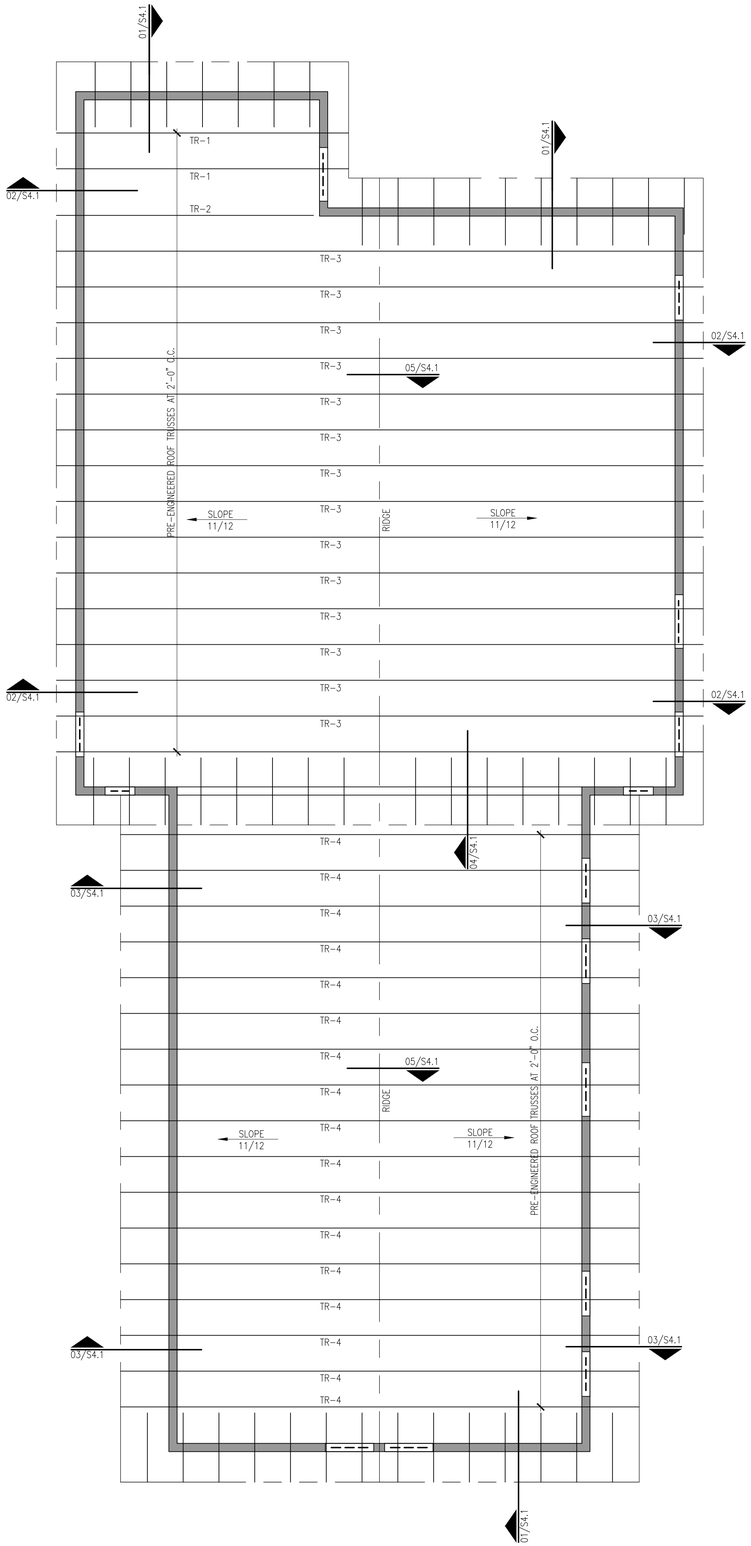
DRAWN BY: YD
CHECKED BY: HQ

DATE
12/23/2022

PROJECT NUMBER
702

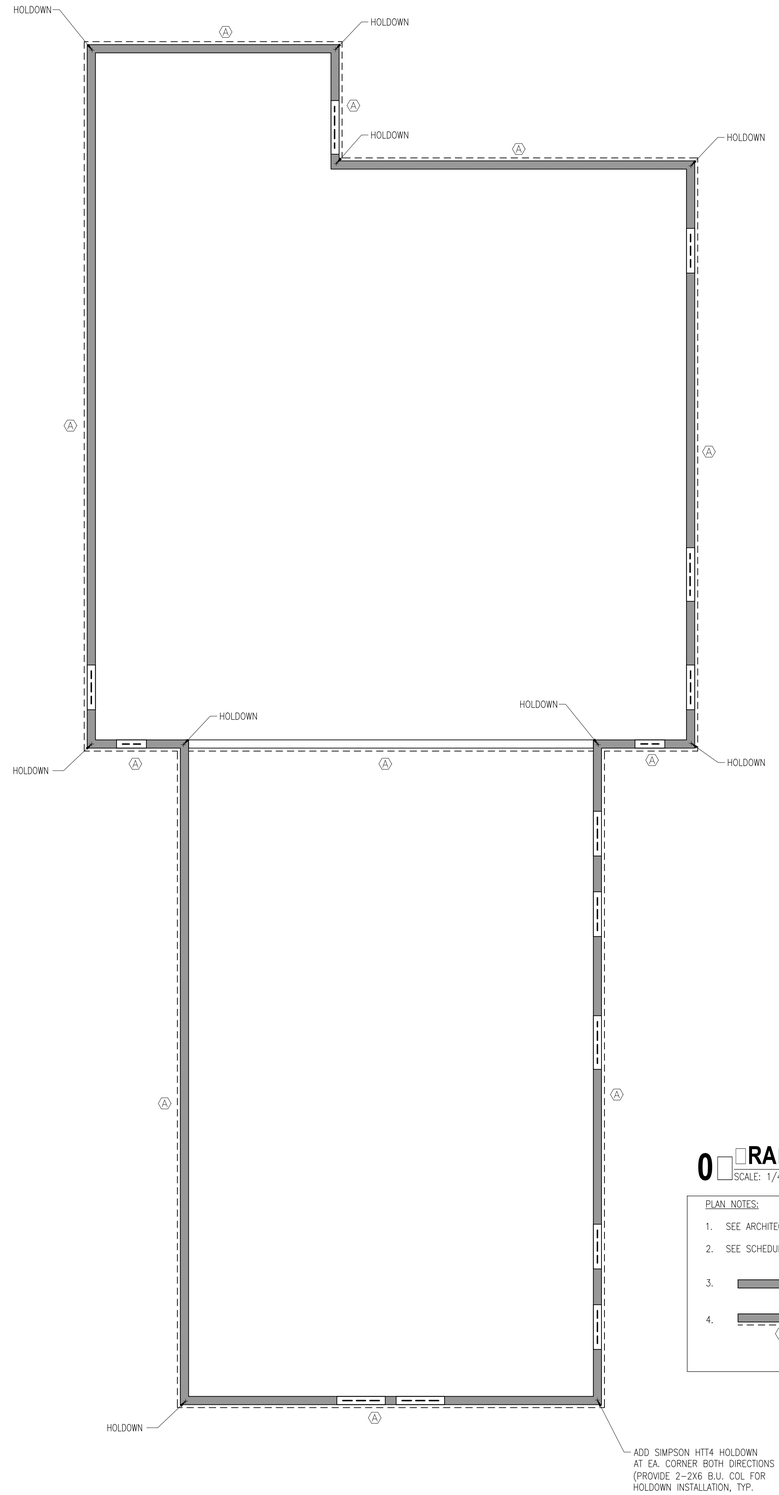
DRAWING TITLE
FOUNDATION PLAN

SHEET NUMBER:
S2.0



01 ROOF FRAMIN□ PLAN

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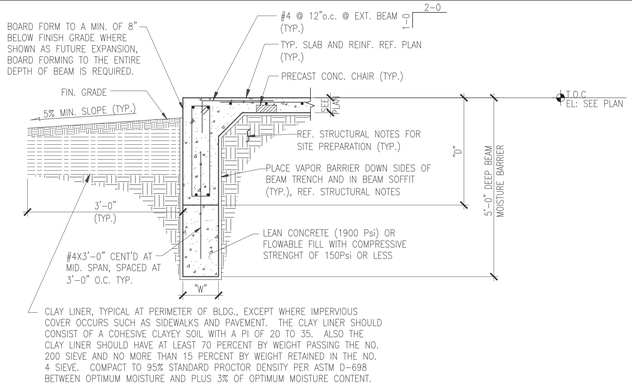
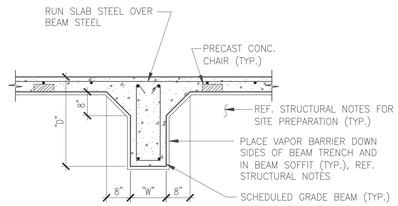
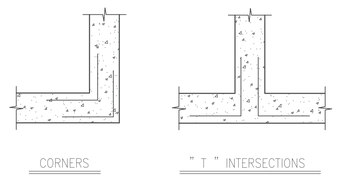


01 TYPICAL EXTERIOR DEEP BEAM MOISTURE BARRIER DETAIL
SCALE:1/2"=1'-0"

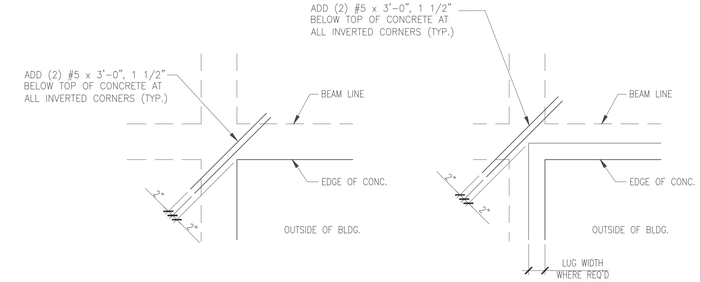


02 TYPICAL INTERIOR BEAM SECTION
SCALE:1/2"=1'-0"

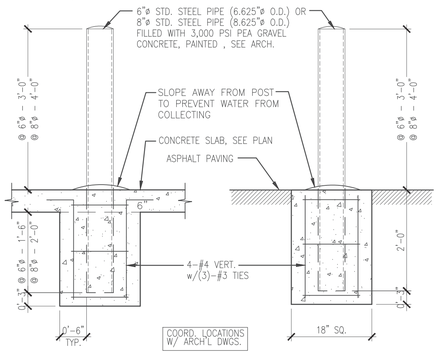


PROVIDE CORNER BARS AT ALL EXTERIOR CORNERS OF GRADE SUPPORTED BEAMS AND AT ENDS OF ALL INTERIOR GRADE BEAMS. BARS SHALL BE SAME SIZE AS BEAM REINFORCING AND SHALL LAP 40 BAR DIAMETERS WITH BEAM TOP AND BOTTOM REINFORCING. GRADE BEAM AND SLAB REINFORCEMENT SHALL BE CONTINUOUS WITH 40 BAR DIAMETER (NOT LESS THAN 18 INCHES) LAP AT ALL SPLICES.

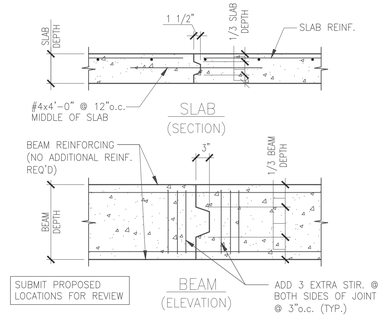
03 TYP. CORNER BAR DETAIL AT GRADE SUPPORTED FOUNDATION
SCALE:1/2"=1'-0"



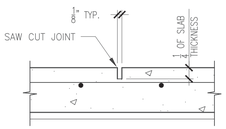
04 TYP. REINF. AT INVERTED CORNER
SCALE:1/2"=1'-0"



05 TYPICAL BOLLARD DETAIL
3/4"=1'-0" SEE ARCH'L. FOR LOCATION



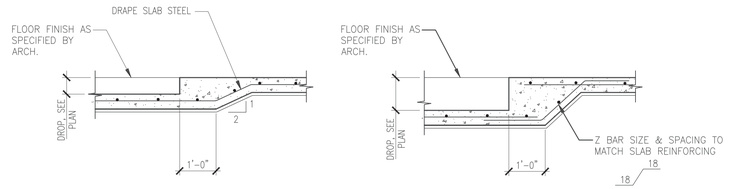
06 TYP. VERT. CONSTR. JT. DETAILS
3/4"=1'-0"



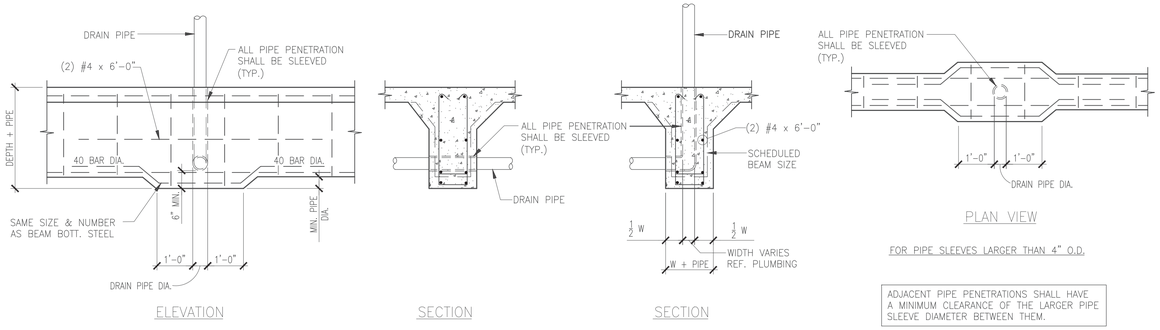
NOTES:

1. SAW CUT JOINTS SHALL BE MADE WITHIN 12 HOURS OF CONCRETE PLACEMENT (U.N.O.). FILL SAW CUT JOINT WITH EUCO QWIK JOINT 200 BY EUCLID CHEMICAL CORP. OR EQUIVALENT FOR ALL EXPOSED CONCRETE WHEN CONCRETE IS AT LEAST 28 DAYS OLD. REF PLAN FOR LOCATIONS.
2. 1/2" DEEP PLASTIC JOINT FORM OR TOOLED JOINT MAY BE USED AS AN ALTERNATIVE TO SAW-JOINTS.

07 TYPICAL SAW CUT JOINT DETAIL
1 1/2"=1'-0"



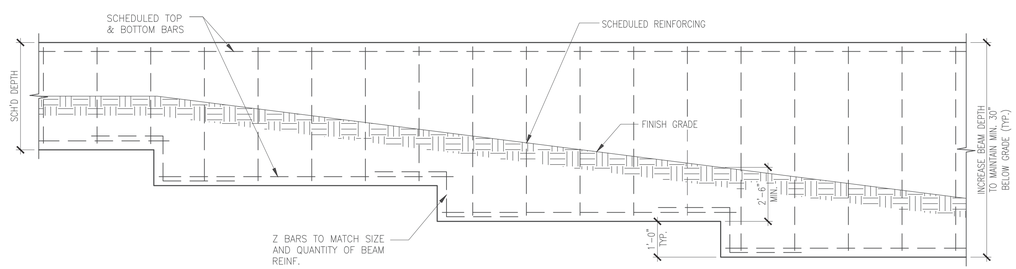
08 TYPICAL SLAB DROP DETAIL
SCALE:1/2"=1'-0"



FOR PIPE SLEEVES LARGER THAN 4" O.D.

ADJACENT PIPE PENETRATIONS SHALL HAVE A MINIMUM CLEARANCE OF THE LARGER PIPE SLEEVE DIAMETER BETWEEN THEM.

09 TYPICAL BEAM PENETRATION
SCALE:1/2"=1'-0"



10 TYPICAL GRADE BEAM SOFFIT TRANSITION
SCALE:1/2"=1'-0"

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DRAWN BY: YD
CHECKED BY: HQ

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12/23/2022

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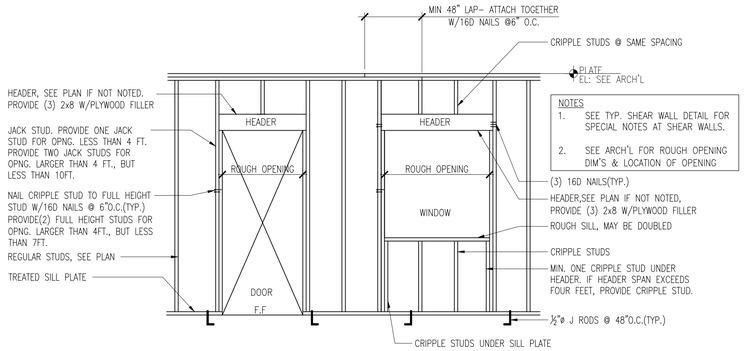
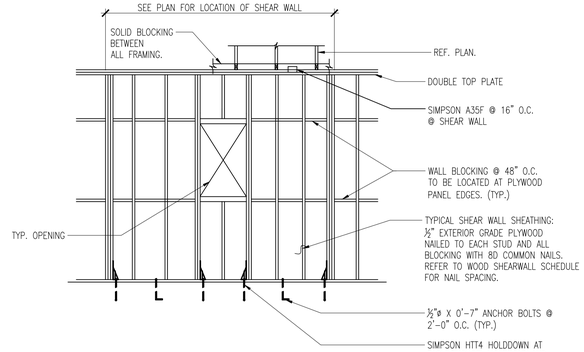
DRAWING TITLE
TYPICAL DETAILS

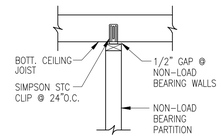
SHEET NUMBER:
S3.0



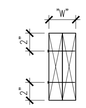
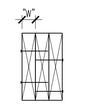
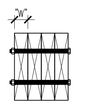
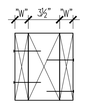
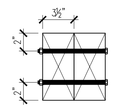
01 TYPICAL EXTERIOR FRAME OPENING DETAIL
SCALE: NONE



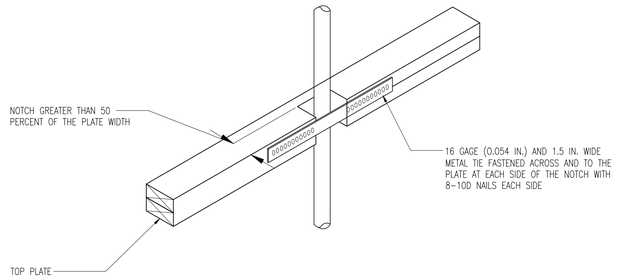
02 TYPICAL WOOD SHEAR WALL
SCALE: NONE



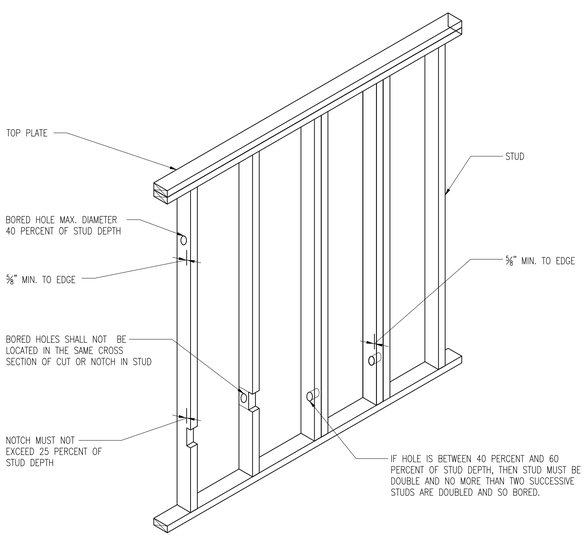
03 DETAIL AT NON–LOAD BEARING PARTITION WALL
SCALE: NONE

				
ASSEMBLY A	ASSEMBLY B	ASSEMBLY C	ASSEMBLY D	ASSEMBLY E
"W"= 2PCS. 1½" OR 1¾"	"W"= 3PCS. 1½" OR 1¾"	"W"= 4PCS. 1½" OR 1¾"	"W"= 2PCS. 1½" OR 1¾" 1 PC. 3½" OR 2 13/16"	"W"= 2PCS. 3½"
2 ROWS OF 16D @ 12" O.C.	(2)– 2 ROWS OF 16D @ 12" O.C.	2 ROWS OF ½"ø @ 12" O.C.	(2)– 2 ROWS OF 16D @ 12" O.C.	2 ROWS OF ½"ø @ 12" O.C.

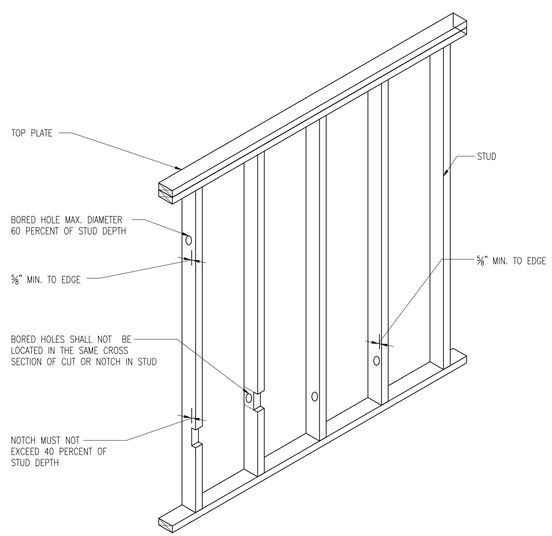
04 TYPICAL MULTI MEMBER BEAM ASSEMBLY DETAIL
SCALE: NONE



05 TOP PLATE FRAMING TO ACCOMODATE PIPING
SCALE: NONE



06 NOTCHING AND BORED HOLE LIMITATIONS FOR EXTERIOR WALLS AND BEARING WALLS
SCALE: NONE



07 NOTCHING AND BORED HOLE LIMITATIONS FOR INTERIOR NONBEARING WALLS
SCALE: NONE

WOOD HANGER SCHEDULE		
MEMBER SIZE	SIMPSON HANGER	CAPACITY (NI POUNDS)
2x4	LUS 24	670
2x6	LUS 26	865
2x8	LUS 28	1100
2x10	LUS 210	1340
2x12	HU 212	1490
2– 2x4	LUS 24–2	800
2– 2x6	LUS 26–2	1030
2– 2x8	LUS 28–2	1315
2– 2x10	LUS 210–2	1830
2– 2x12	HUS 212–2	2660
3– 2x6	LUS 26–3	1785
3– 2x8	LUS 26–3	1785
3– 2x10	LUS 210–3	2680
3– 2x12	HUC 212–3	3275
–	–	–
P/E TRUSS	AS SPECIFIED BY TRUSS DESIGNER	–

NOTES:

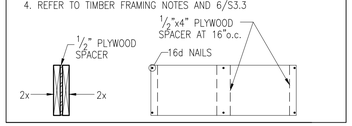
1. PROVIDE HANGERS AT ALL LOCATIONS WHERE WOOD MEMBERS FRAME TOGETHER AT THE SAME ELEVATION.
2. ALL HANGERS TO BE "SIMPSON STRONG TIE" OR APPROVED EQUAL AND SHALL BE INSTALLED PER SIMPSON'S RECOMMENDATIONS.
3. PROVIDE SLOPED OR SKEWED HANGERS AS REQUIRED.

08 WOOD HANGER SCHEDULE
SCALE: NONE

HEADER AND ULTU BEAM SCHEDULE		
MEMBER	MAX. ROOF SPAN	MAX. FLOOR SPAN
2– 2x6 W/ ½" PLYWOOD	< 4'–9"	< 4'–0"
2– 2x8 W/ ½" PLYWOOD	< 6'–3"	< 5'–2"
2– 2x10 W/ ½" PLYWOOD	< 7'–6"	< 6'–2"
2– 2x12 W/ ½" PLYWOOD	< 10'–0"	< 7'–2"

NOTES:

1. THE LENGTH OF HEADER WILL BE EQUAL TO THE ROUGH OPENING PLUS TWO TRIMMERS.
2. HEADER SIZE MAY BE INCREASED TO COMPLETELY FILL THE SPACE BELOW THE TOP PLATE.
3. PROVIDE 3 MEMBERS AT 2x6 WALLS.
4. REFER TO TIMBER FRAMING NOTES AND 6/S3.3



09 WOOD SCHEDULE
SCALE: NONE

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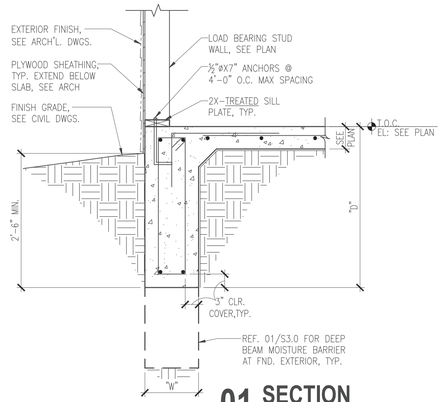
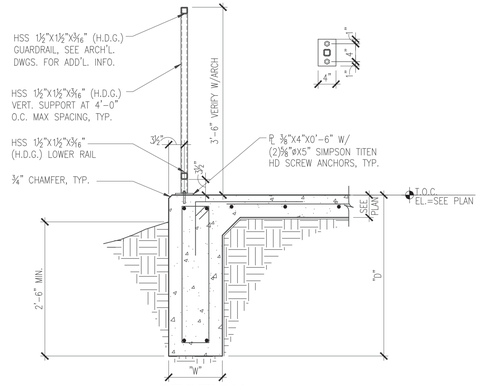


01 SECTION
SCALE: 3/4"=1'-0"



02 SECTION
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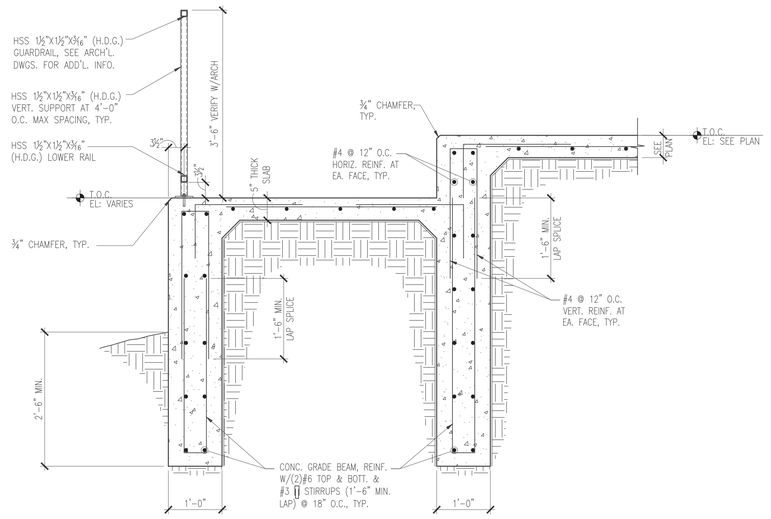

03 SECTION
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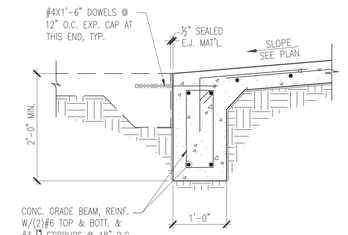

04 SECTION
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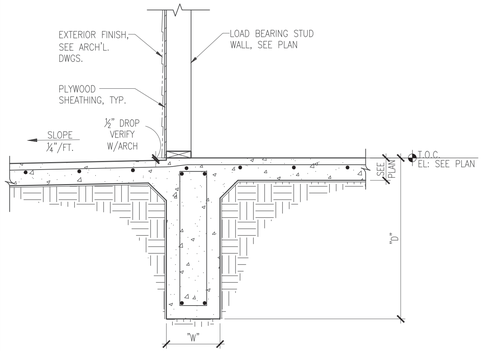
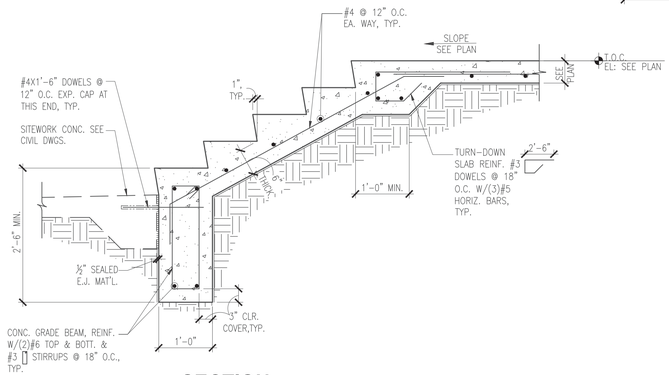
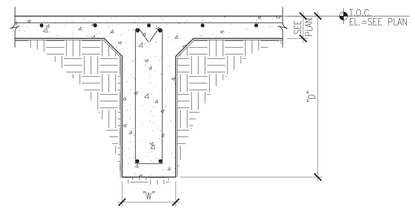


05 SECTION
3/4"=1'-0"



06 SECTION
SCALE: 3/4"=1'-0"



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

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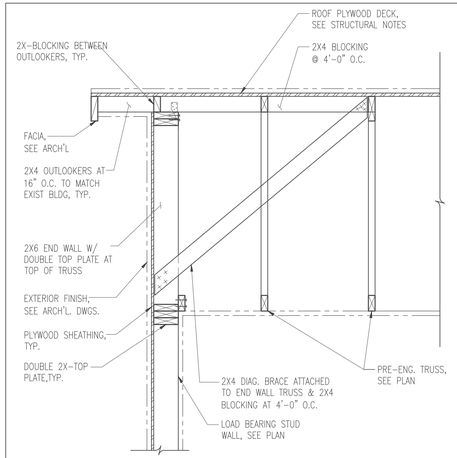

01 SECTION
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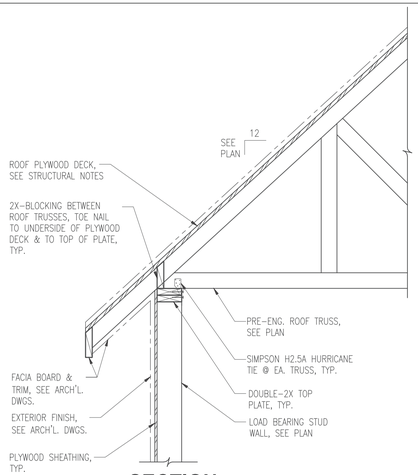

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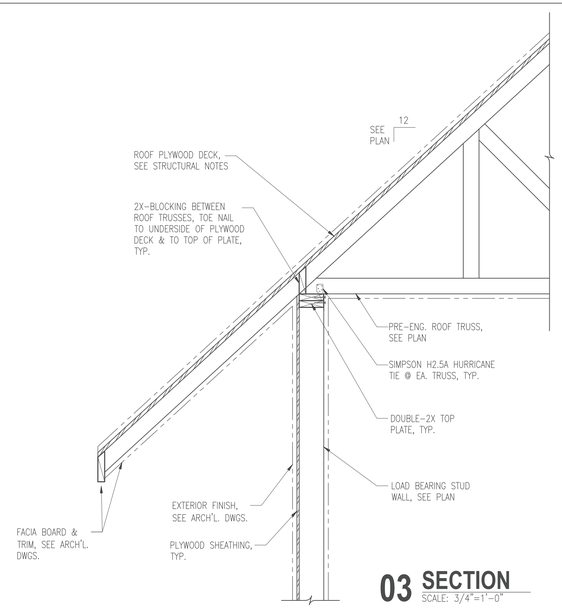

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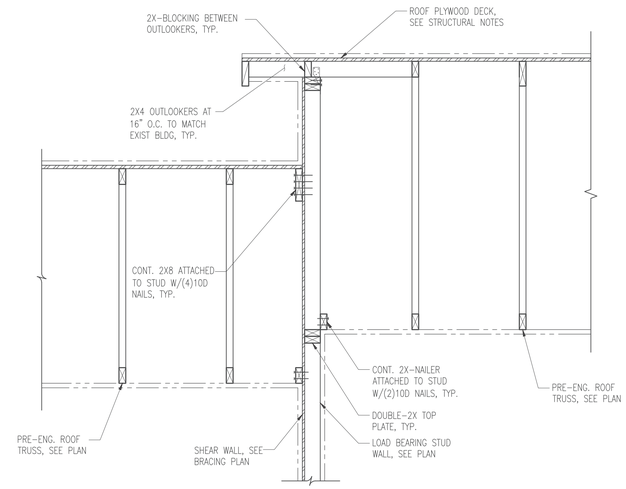

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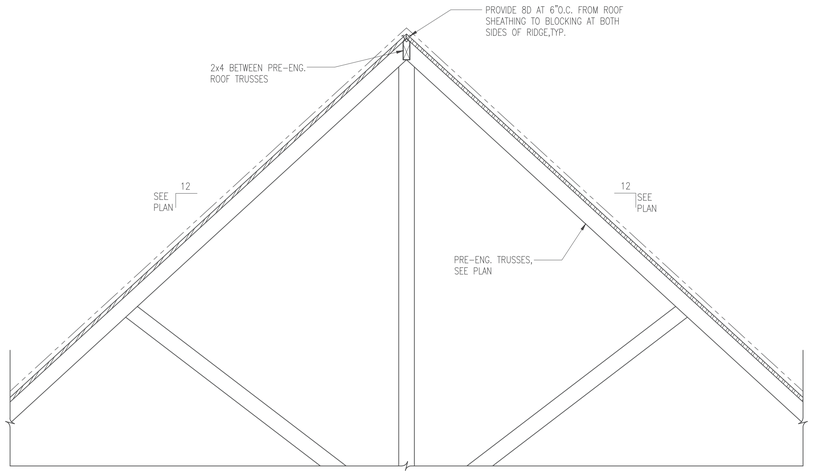

05 SECTION
SCALE: 3/4"=1'-0"

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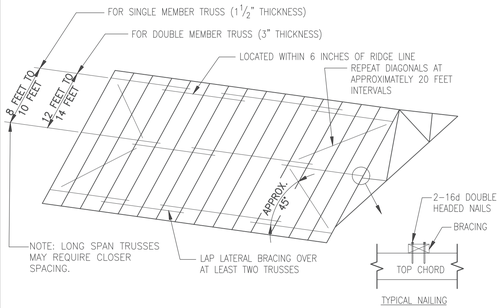
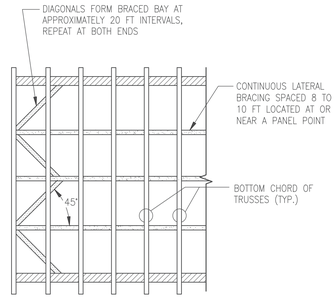


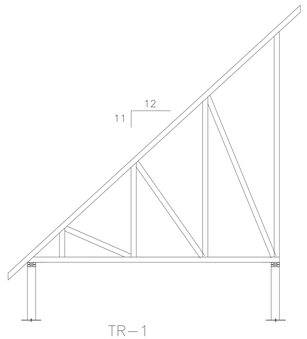
01 TYP. TEMPORARY TRUSS DIAGONAL BRACING FOR A COMPRESSION CHORD

SCALE: NONE



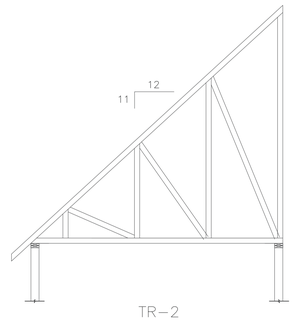
02 TYP. BOTTOM CHORD ERECTION BRACING DETAIL

SCALE: NONE



03 TRUSS PROFILES

SCALE: NONE



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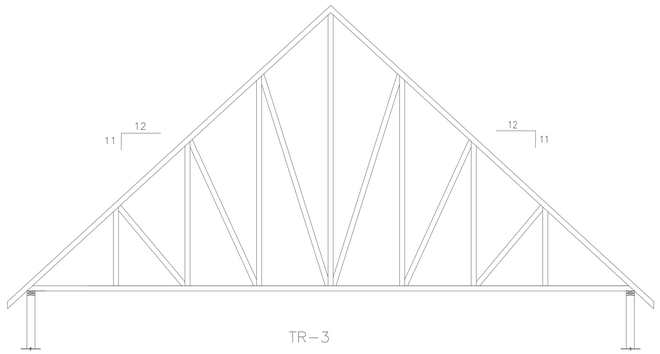

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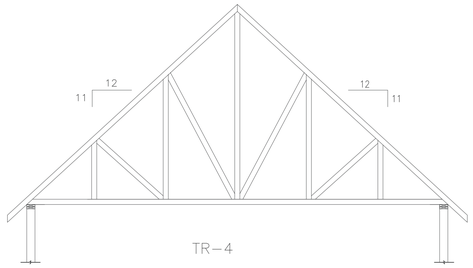

06 TRUSS PROFILES

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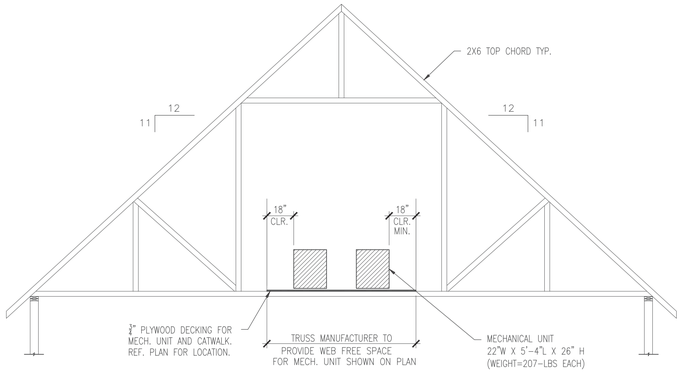

07 WOOD TRUSS AT MECHANICAL UNIT ELEVATION

SCALE: NONE

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DRAWN BY: YD
CHECKED BY: HQ

DATE
12/23/2022

PROJECT NUMBER
702

DRAWING TITLE
TYPICAL DETAILS & TRUSS PROFILES

SHEET NUMBER:
S4.2

ABBREVIATIONS

IDENTIFIER	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BTU	BRITISH THERMAL UNITS
CFM	CUBIC FEET PER MINUTE
DB	DRY BULB
DH	DOOR HEATER
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB
EER	ENERGY EFFICIENCY RATIO
EWB	ENTERING WET BULB
EF	EXHAUST FAN
FAI	FRESH AIR INTAKE
FLA	FULL LOAD AMPS
GC	GENERAL CONTRACTOR
HP	HORSEPOWER
IPLV	INTEGRATED PART LOAD VALUES
LAT	LEAVING AIR TEMPERATURE
MBH	THOUSAND BTU PER HOUR
MFR	MANUFACTURER
MOD	MOTOR OPERATED DAMPER
NIC	NOT IN CONTRACT
OA	OUTSIDE AIR
RG	RETURN GRILLE
RH	RADIANT HEATER
RLA	RATED LOAD AMPS
RT	ROOFTOP UNIT
SDD	DUCT-MOUNTED SMOKE DETECTOR
SP	EXTERNAL STATIC PRESSURE
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VIC	VIBRATION ISOLATION CONNECTION
VIF	VERIFY IN FIELD
WC	WATER COLUMN
WG	WATER GAUGE
WH	WALL HEATER
WP	WEATHER PROOF (NEMA 3R)

PIPING SYMBOLS

- FLOW DIRECTION FOR PUMPED WATER LINES SLOPE FOR STEAM AND GRAVITY CONDENSATE LINES
- DIRECTION OF FLOW
- DIRECTION OF SLOPE DOWN
- ELBOW UP
- ELBOW DOWN
- TEE OUTLET UP
- TEE OUTLET DOWN
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- UNION
- PIPE ANCHOR
- EXPANSION JOINT
- STRAINER WITH BLOWDOWN VALVE
- BALANCING VALVE
- STOP VALVE
- CHECK VALVE
- CHECK VALVE
- TWO-WAY MODULATING CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- MANUAL AIR VENT
- PRESSURE RELIEF VALVE
- VALVE IN DROP
- VALVE IN RISE
- PRESSURE REDUCING VALVE
- GLOBE VALVE
- PLUG VALVE
- GATE VALVE
- BALL VALVE
- OS&Y VALVE
- PRESSURE AND TEMPERATURE TAP
- PRESSURE GAUGE WITH GAUGE COCK
- THERMOMETER
- WATER METER
- FLEXIBLE CONNECTION
- FLOW VENTURI
- FLOWMETER, ORIFICE
- FCS — SPRINKLER FLOOR CONTROL STATION
- AUTOMATIC AIR VENT
- THERMOMETER & WELL
- THERMOMETER WELL
- FS — FLOW SWITCH
- TEST PLUG
- PRESSURE GAGE WITH GAGE COCK
- GAGE COCK
- VACUUM BREAKER
- LINE CLEANOUT
- FLOOR CLEANOUT
- BASKET TYPE STRAINER
- GAS COCK

SYMBOLS

- CFM, — CUBIC FEET PER MINUTE
- T — THERMOSTAT
- T — TEMPERATURE SENSOR
- SUPPLY AIR FLOW
- RETURN/EXHAUST AIR
- UNDERCUT DOOR
- SDD — DUCT SMOKE DETECTOR
- 4 WAY CEILING DIFFUSER
- 3 WAY CEILING DIFFUSER
- 2 WAY CEILING DIFFUSER
- EXHAUST GRILLE/RETURN REGISTER
- SUPPLY DUCT UP
- RETURN/EXHAUST DUCT UP
- SUPPLY DUCT DOWN
- RETURN/EXHAUST DUCT DOWN
- FLEXIBLE DUCT
- FD — FIRE DAMPER
- FSD — COMBINATION FIRE/ SMOKE DAMPER
- SD — SMOKE DAMPER

PIPING TYPES

- CWS — CONDENSER WATER SUPPLY
- CWR — CONDENSER WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- PCHS — PRIMARY CHILLED WATER SUPPLY
- PCHR — PRIMARY CHILLED WATER RETURN
- SCHS — SECONDARY CHILLED WATER SUPPLY
- SCHR — SECONDARY CHILLED WATER RETURN
- HWS — HEATING HOT WATER SUPPLY
- HWR — HEATING HOT WATER RETURN
- PHWS — PRIMARY HEATING HOT WATER SUPPLY
- PHWR — PRIMARY HEATING HOT WATER RETURN
- SHWS — SECONDARY HEATING HOT WATER SUPPLY
- SHWR — SECONDARY HEATING HOT WATER RETURN
- HHWS — HIGH TEMP. HEATING HOT WATER SUPPLY
- HHWR — HIGH TEMP. HEATING HOT WATER RETURN
- HSTM — HIGH PRESSURE STEAM (100 PSI)
- MSTM — MEDIUM PRESSURE STEAM (60 PSI)
- LSTM — LOW PRESSURE STEAM (15 PSI)
- PC — PUMPED CONDENSATE RETURN
- GR — GRAVITY CONDENSATE RETURN
- D — DRAIN
- A — COMPRESSED AIR
- MU — MAKE-UP WATER
- RHG — REFRIGERANT HOT GAS LINE
- RS — REFRIGERANT SUCTION LINE
- RL — REFRIGERANT LIQUID LINE
- SANITARY DRAIN BELOW FLOOR
- SANITARY DRAIN ABOVE FLOOR
- SANITARY VENT
- GW — GREASE (KITCHEN) WASTE
- SD — STORM DRAIN
- OD — OVERFLOW DRAIN
- COLD WATER
- HOT WATER
- HOT WATER RECIRCULATION
- G — NATURAL GAS
- F — FIRE STANDPIPE, FIRE LINE
- FS — FIRE SPRINKLER
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- FOV — FUEL OIL VENT
- TP — TRAP PRIMER

GENERAL NOTES:

1. ALL DRAWINGS, SPECIFICATIONS, AND OTHER RELATED DOCUMENTS SHALL BE CONSIDERED A PART OF THIS CONTRACT AS FAR AS THEY APPLY TO THE WORK OF THIS CONTRACT, AS IF REFERRED TO IN FULL.
2. DUCTWORK AND PIPING LAYOUTS ARE SCHEMATIC DIAGRAMS AND ARE INTENDED TO SHOW GENERAL ARRANGEMENT, SIZE AND CAPACITY AND DO NOT INDICATE WHICH PIPE OR DUCT IS ABOVE OR BELOW THE OTHER. ALL OFFSETS ARE NOT NECESSARILY SHOWN, CONTRACTOR SHALL ARRANGE AND COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VALVES, VENTS AND FITTINGS TO AVOID CONFLICT WITH OTHER MECHANICAL AND ELECTRICAL SERVICES AND STRUCTURAL AND ARCHITECTURAL ELEMENTS WITHOUT ADDITIONAL COST TO THE OWNER. IF AREAS OF CONFLICT ARE ENCOUNTERED, THE ARCHITECT SHALL BE NOTIFIED AND CONTRACTORS RECOMMENDATIONS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL BEFORE WORK HAS BEGUN.
3. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION & DETAILS REGARDING ROOF CURBS AND PENETRATIONS, INCLUDING INSULATING, FLASHING, COUNTERFLASHING & SEALING AND COORDINATE WITH THE ROOFING CONTRACTOR.
4. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES. THE COST OF ANY WORK AS A RESULT OF FAILURE TO COORDINATE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR & SHALL BE PERFORMED AT NO COST TO THE OWNER.
5. ALL EQUIPMENT SHALL BE FURNISHED WITH SHOP DRAWINGS, INSTALLATION GUIDELINES, MAINTENANCE MANUALS, SCHEDULES, TAGS, AND LETTER OF GUARANTEE IN A BINDER (THREE-RING) WITH TABS. ALL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH THESE DOCUMENTS & THE EQUIPMENT MANUFACTURER'S RECOMMENDATION.
6. THERE SHALL BE NO RIGID CONTACT BETWEEN CONDUIT, PIPES, CEILING WIRES, AND DUCTWORK.
7. PROPER FIRE PROTECTION MEASURES, SATISFACTORY TO THE LOCAL FIRE DEPARTMENT SHALL BE TAKEN WHEN WELDING OR CUTTING WITH TORCHES OR ELECTRIC ARC.
8. ALL REMOVED EQUIPMENT, MATERIALS AND DEBRIS SHALL BE LEGALLY DISPOSED OF OFF OF SITE BY THIS CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES, RULES AND REGULATIONS.
9. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF ANY WALLS, ROOF, OR FLOOR DURING CONSTRUCTION REQUIRED BY HIS TRADE.
10. ALL FIELD CONDITIONS AND DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED PRIOR TO SUBMITTING BIDS & PRIOR TO COMMENCEMENT OF WORK (INCLUDING UNIT ORIENTATION). NO ALLOWANCE WILL BE MADE FOR NOT COMPLYING WITH THIS REQUIREMENT.
11. THIS CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO OWNER'S EQUIPMENT.
12. BALANCE AND CERTIFY ALL AIR SYSTEMS AS PER SPECIFICATIONS. REFER TO DRAWINGS FOR FLOW REQUIREMENTS.
13. HVAC CONTRACTOR SHALL CHANGE FILTERS IN ALL AIR HANDLING UNITS EVERY 3 MONTHS DURING COURSE OF CONSTRUCTION AND PRIOR TO DELIVERY OF SYSTEM TO OWNER.
14. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL MECHANICAL EQUIPMENT SHALL BE MOUNTED ON VIBRATION ISOLATORS TO PREVENT THE TRANSMISSION OF SOUND TO THE BUILDING STRUCTURE. VIBRATION ISOLATORS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND ON ACTUAL WEIGHT DISTRIBUTION OF THE EQUIPMENT FURNISHED. DEFLECTIONS SHALL BE AS NOTED ON THE EQUIPMENT SHOP DRAWING SUBMITTALS.
15. ALL MECHANICAL CONTROLS (THERMOSTATS, ETC.) SHALL BE FURNISHED AND INSTALLED AS PER BARRIER-FREE SUBCODE OF UNIFORM CONSTRUCTION CODE. THERMOSTAT FOR EACH ZONE SHALL BE CAPABLE OF AUTOMATICALLY SETTING BACK OR SHUTTING DOWN HEATING AND COOLING SYSTEM DURING NIGHT AND WEEKENDS, AND HAVE AN ACCESSIBLE OVERRIDE TO TURN SYSTEM ON/OFF DURING OFF-HOURS.
16. THERMOSTAT WIRING SHALL BE RUN IN CONCEALED SPACE, WALL OR CHASE.
17. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL THERMOSTATS WITH ARCHITECT PRIOR TO INSTALLATION.
18. DUCT MOUNTED SMOKE DETECTORS SHALL BE PROVIDED IN ALL AIR HANDLING UNITS SUPPLYING AIR QUANTITIES GREATER THAN OR EQUAL TO 2000 CFM.

AIRSIDE:

A. ALL AIR MOVING DEVICES, INCLUDING BUT NOT LIMITED TO, AIR HANDLING UNITS, AIR CONDITIONING UNITS, AND UNIT VENTILATORS MUST COMPLY WITH AMCA STANDARD 210 AND ASHRAE STANDARD 62-2019.

B. PROVIDE VIBRATION ISOLATION ON ALL DUCT CONNECTIONS TO FANS AND OTHER EQUIPMENT WITH ROTARY PARTS.

C. DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA LOW AND MEDIUM PRESSURE "HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE".

D. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS. INTERNALLY LINED DUCTS SHALL BE INCREASED IN SIZE TO MAINTAIN THE SAME INTERNAL SIZE.

E. PROVIDE 1" THICK ACOUSTICAL LINING IN THE SUPPLY AND RETURN DUCT OF ALL AIR HANDLING UNITS UP TO 20 FEET FROM THE FAN DISCHARGE.

F. ALL RECTANGULAR DUCTWORK WITHIN 20' OF AIR HANDLING UNITS AND ALL FANS SHALL BE FABRICATED FROM SHEET METAL 2 GAUGES THICKER THAN SMACNA STANDARD GAUGES. MAXIMUM DUCT SECTION LENGTH WITHIN 20' OF EQUIPMENT SHALL BE 4'-0".

G. PROVIDE 1/4"X1/4" WOVEN WIRE MESH ON OPEN END RETURN AIR AND EXHAUST AIR DUCTS.

H. PROVIDE DOUBLE THICKNESS TURNING VANES IN ALL SQUARE ELBOWS.

I. PROVIDE VOLUME DAMPER ON EACH BRANCH TAKE OFF FROM DUCT MAIN, AND ON EACH DIFFUSER TAKE OFF FROM BRANCH DUCT OR MAIN.

J. FLEXIBLE DUCT CONNECTIONS TO REGISTERS, DIFFUSERS, ETC. SHALL NOT EXCEED 6'-0" IN LENGTH.

K. COORDINATE ALL SUPPLY AIR OUTLETS, EXHAUST GRILLES, AND RETURN AIR GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLANS AND WITH ELECTRICAL LIGHT FIXTURES.

L. BORDER TYPE, COLOR, FINISHES AND METHOD OF ATTACHMENT FOR ALL DIFFUSERS, GRILLS AND REGISTERS SHALL BE COORDINATED WITH THE ARCHITECTURAL CEILING DETAIL AND SPECIFICATIONS.

M. PROVIDE AND INSTALL FIRE DAMPERS AND ACCESS DOORS IN ALL DUCTWORK PENETRATING FIRE RATED WALLS. ALL ACCESS DOORS SHALL BE 12"X 12" UNLESS OTHERWISE NOTED.

N. ALL FIRE DAMPERS SHALL BE TYPE A WITH BLADES LOCATED OUT OF THE AIR STREAM.

O. ALL TRANSVERSE JOINTS SHALL BE SEALED WITH TAPE AND MASTIC. LONGITUDINAL SEAMS ON MEDIUM PRESSURE DUCT WORK SHALL BE SEALED WITH TAPE & MASTIC.

P. TEMPERATURE CONTROLS EXCEPT AS SPECIFIED HEREIN SHALL BE FURNISHED AND INSTALLED BY HVAC CONTRACTOR.

Q. ALL HVAC EQUIPMENT SHALL BE UL LISTED.

R. DUCT INSULATION SHALL MEET MIN. R VALUES:
A. DUCT IN UNCONDITIONED SPACE R-6.

S. TRANSVERSE JOINTS ON METAL DUCT SHALL BE SEALED. ALL OTHER DUCTS SHALL BE MECHANICALLY FASTENED AND SEALED. NO DUCT TAPE CAN BE USED AS PRIMARY SEALANT.

STATE OF TEXAS
MIGUEL A. GARCIA
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PROFESSIONAL ENGINEER
12.14.22

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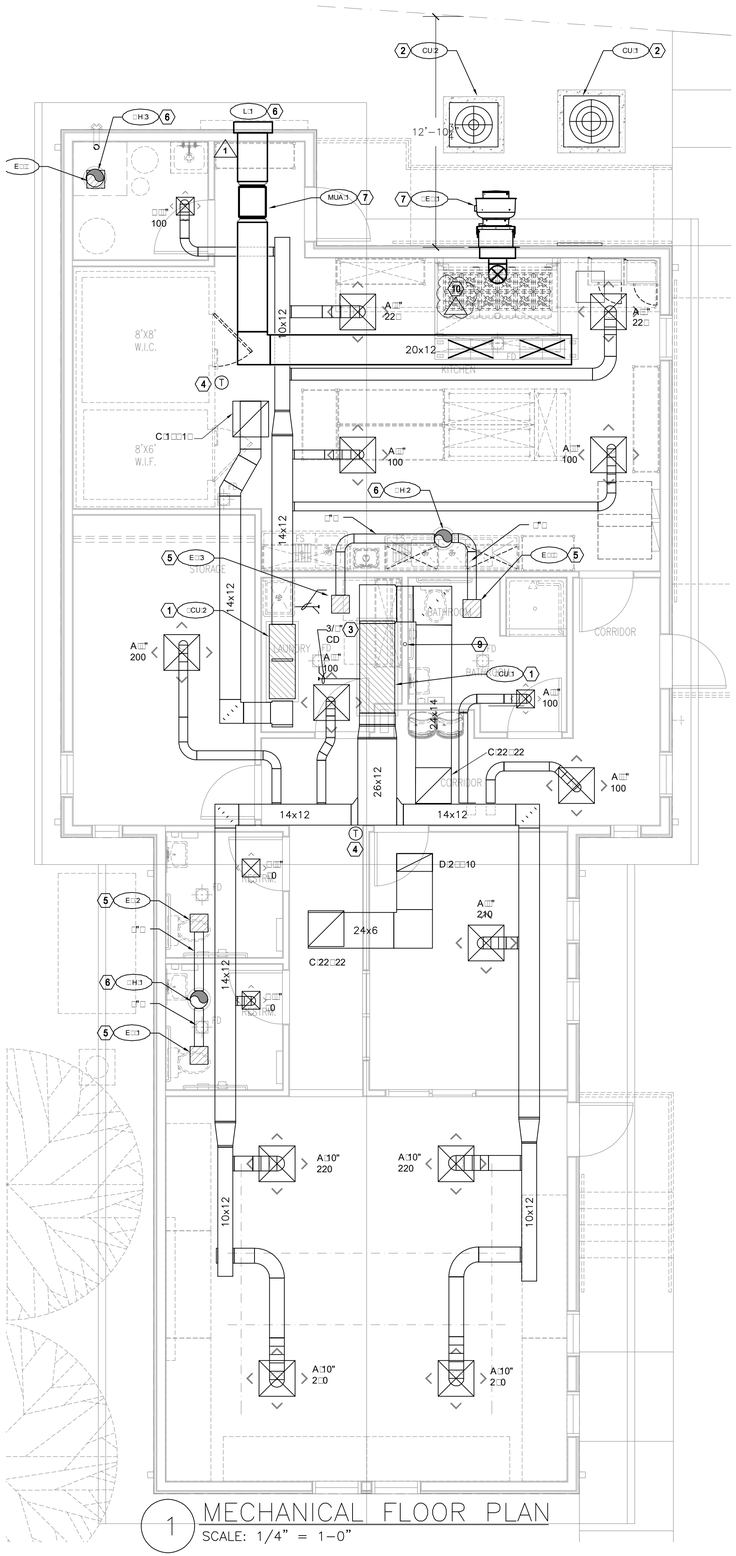


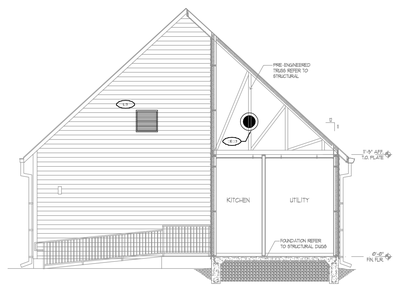
1 MECHANICAL FLOOR PLAN
SCALE: 1/4" = 1–0"

GENERAL MECHANICAL NEW WORK NOTES:

1. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
2. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED AND READY FOR OPERATION WHETHER EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
3. DUCT DIMENSIONS INDICATED ON DRAWINGS ARE CLEAN INSIDE AIR STREAM DIMENSIONS.
4. NEW A/C EQUIPMENT SHALL BE CLEANED AFTER THE FINISHING OF DRYWALL AND PRIOR TO THE RELEASE OF BUILDING TO OWNER. MECHANICAL CONTRACTOR TO PROVIDE ALL DOCUMENTATION WITH DATE AND TIME OF UNIT CLEANING AND CONSTRUCTION FILTER REPLACED WITH NEW.
5. ALL UNITS GREATER THAN 2,000 CFM REQUIRE A DUCT MOUNTED SMOKE DETECTOR. VERIFY CURRENT ADOPTED STATE AND LOCAL CODE REQUIREMENTS FOR MOUNTING LOCATION OF SMOKE DETECTOR.
6. REFLECTED CEILING PLANS ARE FOR DESIGN INTENT. ALIGNMENT OF FIXTURES, SPRINKLER HEADS, DIFFUSERS AND OTHER DEVICES TO BE SYMMETRICAL IN THE ROOMS, ALIGNED WITH EACH OTHER, AND AS SHOWN. CEILING HEIGHTS ARE SCHEDULED IN ROOM FINISH SCHEDULE. ABOVE CEILING SPACE IS LIMITED, THEREFORE COORDINATION OF ALL SYSTEMS WITH NEW STRUCTURES IS CRITICAL. COORDINATION SHOP DRAWINGS FOR REFLECTED CEILING SHALL BE SUBMITTED SHOWING LOCATIONS OF ALL FIXTURES, SPRINKLER HEADS, DIFFUSERS, AND OTHER DEVICES FOR REVIEW BY THE ARCHITECT PRIOR TO INSTALLATION OF ANY SYSTEMS.
7. EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER DRAWINGS AND CUT SHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF HOUSEKEEPING PADS.
8. ALL DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMACNA STANDARDS FOR LOW, MEDIUM, AND HIGH PRESSURE DUCTWORK.
9. MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL OUTSIDE AIR INTAKES TO MAINTAIN 10 FEET DISTANCE BETWEEN OUTSIDE AIR INTAKES AND ANY EXHAUST AIR OUTLET, FLUES, OR PLUMBING VENTS. COORDINATE WITH PLUMBING CONTRACTOR AND OTHER TRADES.
10. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT ALL DUCT PENETRATIONS OF FIRE/SMOKE RATED WALLS.
11. PROVIDE VOLUME DAMPERS AT ALL SUPPLY AS ESTABLISHED BY THE LATEST EDITION OF SMACNA DUCT CONSTRUCTION MANUAL AND MECHANICAL DETAILS.
12. ALL DUCTWORK SHALL BE CONSTRUCTED OF A MINIMUM OF 26 GAUGE GALVANIZED STEEL OR GREATER OF U.S. STANDARD SHEET METAL A GAUGE ONE HOUR RATED, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
13. ACCESS TO MUA WILL BE PROVIDE IN COMPLIANCE WITH IMC 306.3 (APPLIANCES IN ATTICS).

KEYED MECHANICAL NEW WORK NOTES:

1. PROVIDE AND INSTALL CANVAS CONNECTION HORIZONTAL DISCHARGE. PROVIDE ACCESS TO MAINTENANCE. REFER TO SCHEDULES AND DETAILS. PROVIDE STRUCTURAL SUPPORTS AS REQUIRED TO SUPPORT UNIT AND INSULATE CONDENSATE TRAY. COORDINATE EXACT LOCATION WITH ARCHITECT
2. PROVIDE AND INSTALL CONDENSING UNIT ROUND MOUNT ON PREFABRICATED PAD. REFER TO DETAIL AND SCHEDULE.
3. ROUTE 3/4" INSULATED CONDENSATE LINE WITH 1/4" SLOPE TO THE LAVATORY SINK TALE.
4. PROVIDE AND INSTALL PROGRAMMABLE THERMOSTAT MOUNTED AT ADA COMPLIANT HEIGHT.
5. PROVIDE AND INSTALL CEILING MOUNTED EXHAUST FAN. REFER TO SCHEDULES AND DETAILS.
6. PROVIDE AND INSTALL PARTY HOOD ON ROOF. REFER TO SCHEDULES AND DETAILS.
7. PROVIDE AND INSTALL KITCHEN EQUIPMENT . REFER SCHEDULES AND DETAILS .
8. PROVIDE AND INSTALL 2'-0" LOUVER FOR INTAKE AIR WITH COMPLETE SCREEN FACE LENUM.
9. PROVIDE 4" RIGID VENT FOR DRYER. UNLESS OTHERWISE NOTED OR REQUIRED BY THE DRYER MANUFACTURERS INSTALLATION INSTRUCTIONS AND APPROVED BY THE BUILDING OFFICIAL DOMESTIC DRYER MOISTURE EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMBINED HORIZONTAL AND VERTICAL LENGTH OF 35 FEET INCLUDING ALL TURNS OF 90 DEGREE ELBOWS. THE 35 FEET SHALL BE DEDUCTED FOR EACH 90 DEGREE ELBOW IN EXCESS OF TWO.
10. KITCHEN HOOD COMPLY WITH THE MIN. CLEARANCE ESTABLISHED PER IMC 507.2.2.



2 MECHANICAL NORTH ELEVATION
SCALE: 1/4" = 1–0"

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03.24.23

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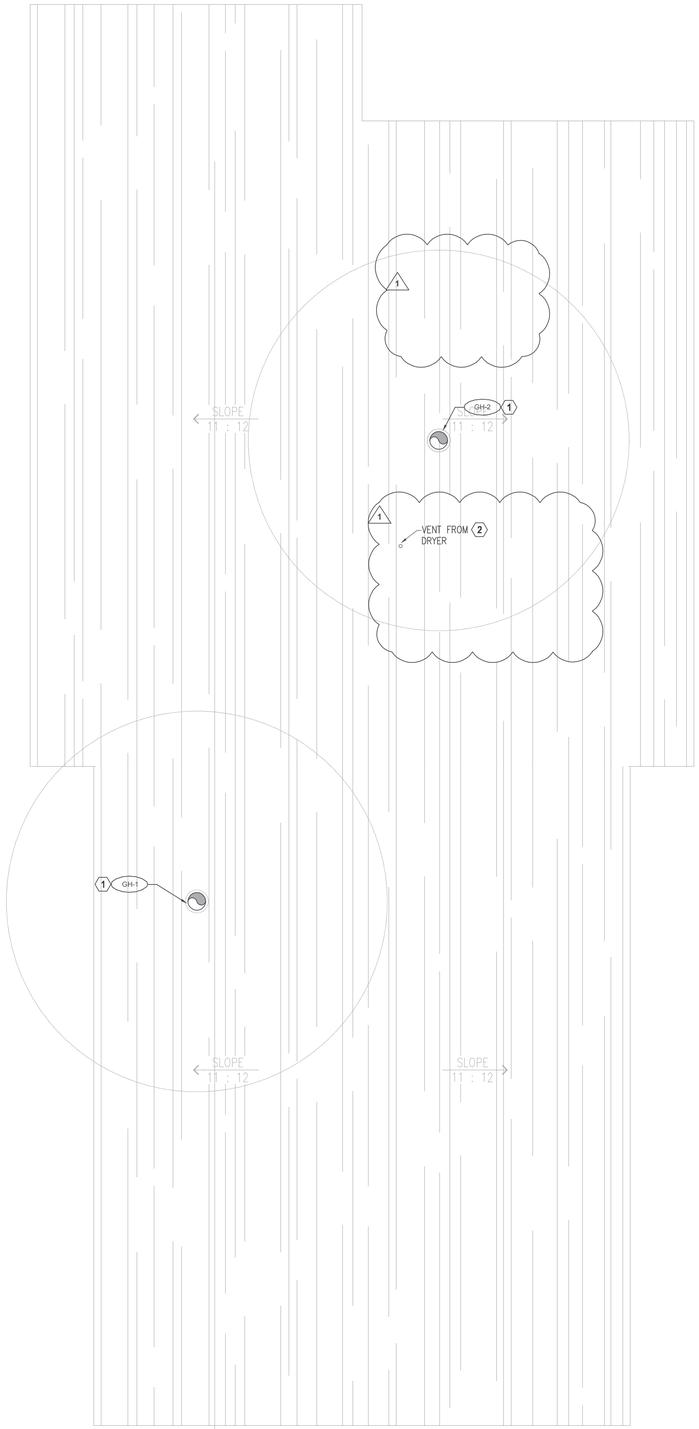


1 MECHANICAL ROOF PLAN
SCALE: 1/4" = 1-0"

GENERAL MECHANICAL NEW WORK NOTES:

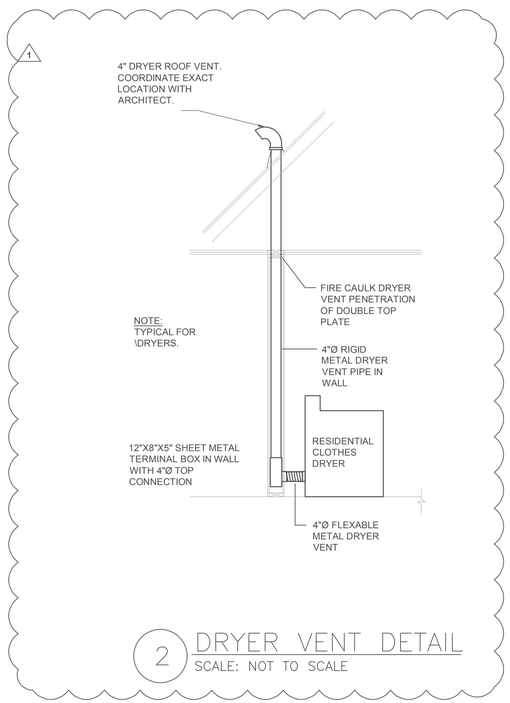
1. ALL MECHANICAL EQUIPMENT SHALL BE 10'-0" MIN. FROM EDGE OF ROOF.
2. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
3. NEW A/C EQUIPMENT SHALL BE CLEANED AFTER THE FINISHING OF DRYWALL AND PRIOR TO THE RELEASE OF BUILDING TO OWNER. MECHANICAL CONTRACTOR TO PROVIDE ALL DOCUMENTATION WITH DATE AND TIME OF UNIT CLEANING AND CONSTRUCTION FILTER REPLACED WITH NEW.
4. EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER DRAWINGS AND CUTSHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF HOUSEKEEPING PADS.
5. MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL OUTSIDE AIR INTAKES TO MAINTAIN 10 FEET DISTANCE BETWEEN OUTSIDE AIR INTAKES AND ANY EXHAUST AIR OUTLET, FLUES, OR PLUMBING VENTS. COORDINATE WITH PLUMBING CONTRACTOR AND OTHER TRADES.
6. COORDINATE LOCATIONS OF ROOF OPENINGS WITH ARCHITECT AND STRUCTURAL ENGINEER.
7. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT ALL DUCT PENETRATIONS OF FIRE/SMOKE RATED WALLS.

KEYED MECHANICAL NEW WORK NOTES:

1 PROVIDE AND INSTALL GRAVITY HOOD ON ROOF. REFER TO SCHEDULES AND DETAILS.

2 PROVIDE AN INSTALL DRYER ROOF VENT SIMILAR TO DRYER JACK MODEL 477. REFER TO MANUFACTURER RECOMENDATION AND COORDINATE OPENING WITH ARCHITECT.

1



2 DRYER VENT DETAIL
SCALE: NOT TO SCALE

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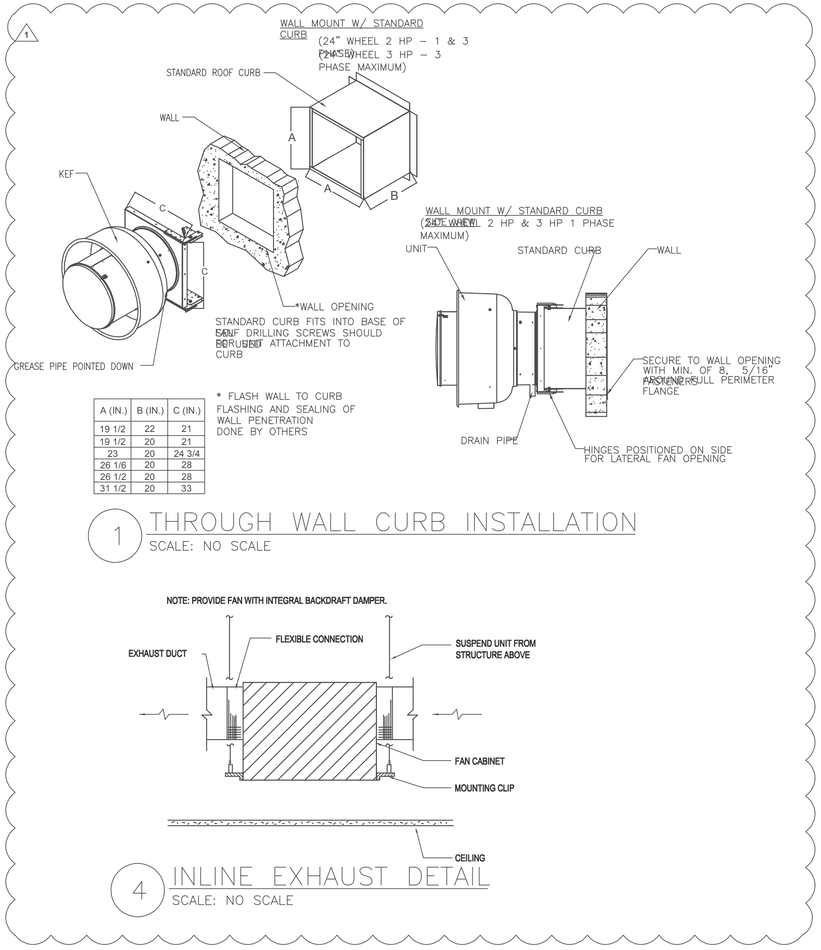
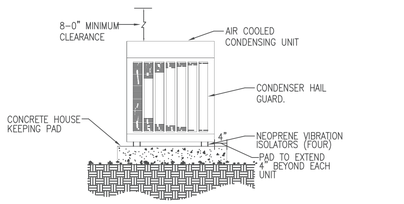


A (IN.)	B (IN.)	C (IN.)
19 1/2	22	21
19 1/2	20	21
23	20	24 3/4
26 1/6	20	28
26 1/2	20	28
31 1/2	20	33

* FLASH WALL TO CURB FLASHING AND SEALING OF WALL PENETRATION DONE BY OTHERS

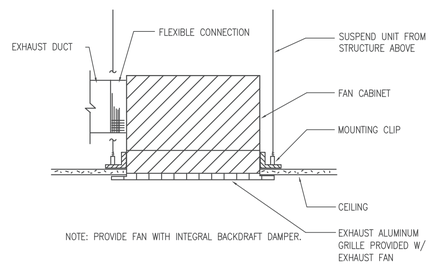
1 THROUGH WALL CURB INSTALLATION
SCALE: NO SCALE

4 INLINE EXHAUST DETAIL
SCALE: NO SCALE

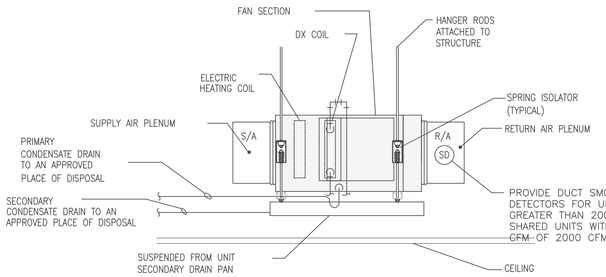


NOTE:
CLEARANCE AROUND UNIT FOR AIR FLOW AND SERVICE PER MANUFACTURER INSTALLATION INSTRUCTION.

2 CONDENSING UNIT DETAIL
SCALE: NOT TO SCALE

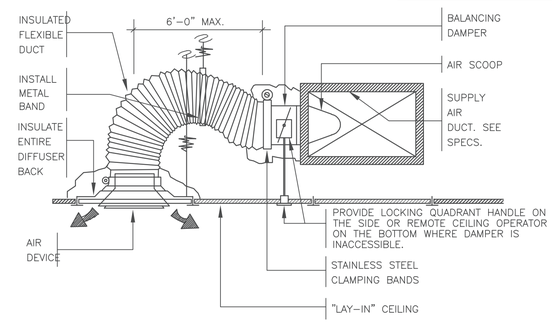


5 CEILING MOUNTED EXHAUST DETAIL
SCALE: NO SCALE

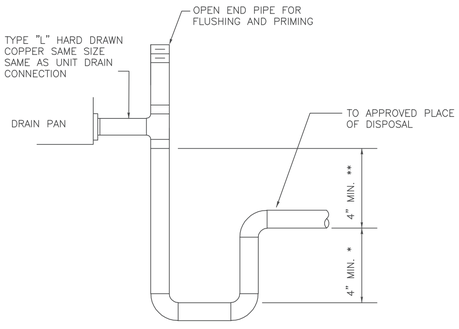


3 AIR HANDLING UNIT MOUNTING DETAIL
SCALE: NO SCALE

SUPPLY DIFFUSERS = 6'-0". FLEX DUCT IS NOT ALLOWED ON EXHAUST. RETURN, AND EXPOSED DUCTWORK.



6 FLEXIBLE DUCT TAP DETAIL
SCALE: NOT TO SCALE

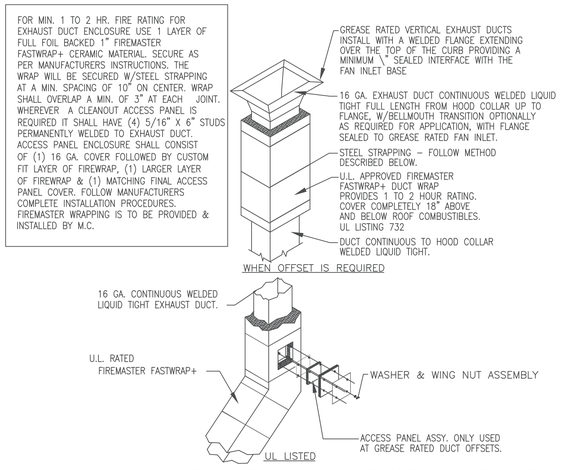


* OR 1" PLUS UNIT TOTAL PRESSURE WHICHEVER IS GREATER FOR BLOW THRU UNIT.

** OR 1" PLUS UNIT TOTAL PRESSURE WHICHEVER IS GREATER FOR DRAW THRU UNIT.

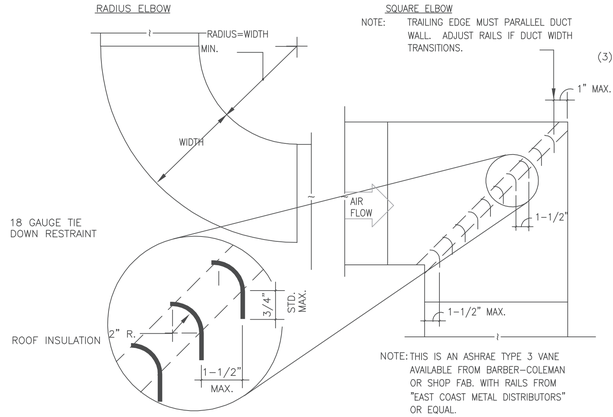
7 CONDENSATE DRAIN TRAP DETAIL
SCALE: NO SCALE

FOR MIN. 1 TO 2 HR. FIRE RATING FOR EXHAUST DUCT ENCLOSURE USE 1 LAYER OF FULL FOIL BACKED 1" FIREMASTER FASTWRAP+ CERAMIC MATERIAL. SECURE AS PER MANUFACTURERS INSTRUCTIONS. THE WRAP WILL BE SECURED W/STEEL STRAPPING AT A MIN. SPACING OF 10" ON CENTER. WRAP SHALL OVERLAP A MIN. OF 3" AT EACH JOINT. WHEREVER A CLEANOUT ACCESS PANEL IS REQUIRED IT SHALL HAVE (4) 5/16" X 6" STUDS PERMANENTLY WELDED TO EXHAUST DUCT. ACCESS PANEL ENCLOSURE SHALL CONSIST OF (1) 16 GA. COVER FOLLOWED BY CUSTOM FIT LAYER OF FIREWRAP, (1) LARGER LAYER OF FIREWRAP & (1) MATCHING FINAL ACCESS PANEL COVER. FOLLOW MANUFACTURERS COMPLETE INSTALLATION PROCEDURES. FIREMASTER WRAPPING IS TO BE PROVIDED & INSTALLED BY M.C.

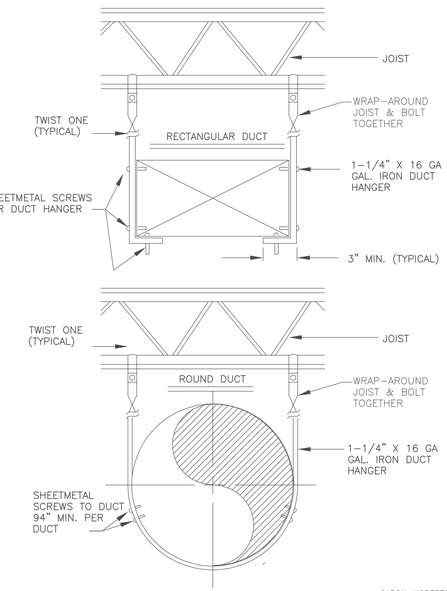


NFPA 96 COMPLIANT FIREWRAP DETAIL FOR GREASE RATED DUCT ALLOWING ZERO CLEARANCE TO COMBUSTIBLES WHERE REQUIRED BY LOCAL CODE

8 CLEARANCE TO COMBUSTIBLES
SCALE: NOT TO SCALE



9 TYP. DUCT ELBOW
SCALE: NOT TO SCALE



10 DUCT HANGERS
SCALE: NOT TO SCALE

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AIR CONDITIONING UNIT SCHEDULE

R410A ELECTRIC

DESIGNATION	FCU-1 / CU-1	FCU-2 / CU-2
CARRIER MODEL	FZ4ANP061/24SPA660	FZ4ANP036/24SPA636
SEER2/EER2	15.2/13	14.5/12
NET COOLING CAPACITY (MBH)	5121.0	29.1
NET SENSIBLE COOLING CAPACITY (MBH)	41.3	22.8
EAT (DB) DEG F	76.5	76.0
EAT (WB) DEG F	63	63
LAT (DB) DEG F	55.3	55.9
LAT (WB) DEG F	53.47	53.53
AMBIENT TEMP (DEG F)	105	105
AUXILIAR ELECTRIC HEATER (KW)	15	8
SUPPLY AIR (CFM)	1840	1050
OUTSIDE AIR (CFM)	310	240
FAN (HP)	3/4	1/2
E.S.P.	0.6	0.6
INDOOR VOLTAGE/PHASE/HZ	230/1/60	230/1/60
MINIMUM CIRCUIT AMPACITY	51.8	48.5
MAXIMUM FUSE SIZE	60	50
WEIGHT (LB)	201	122
OUTDOOR VOLTAGE/PHASE/HZ	230/1/60	230/1/60
MINIMUM CIRCUIT AMPACITY	33.4	16.7
MAXIMUM FUSE SIZE	50	25
WEIGHT (LB)	242	198
COND DRAIN LINE SIZE (" NPT)	3/4"	3/4"
REFRIGERANT SUCTION LINE SIZE	7/8	5/8
REFRIGERANT LIQUID LINE SIZE	3/8	3/8

Notes (1-5 TON):

1. CASING LEAKAGE RATES SHALL BE 2% OR LESS.
2. FURNISH WITH SLIDE OUT BLOWER ASSEMBLY.
3. FURNISH WITH SINGLE WALL CASING WITH R-4 INSULATION AND MICROBIAL COATING.
4. FURNISH WITH ELECTRONIC EXPANSION VALVE WITH LOW AMBIENT AND SUPERHEAT PROTECTION.
5. PROVIDE 2" THROWAWAY FILTERS.
6. REFRIGERANT SIZE IS CONNECTION EQUIPMENT SIZE. VERIFY THE REFRIGERATION LINES ACCORDING DISTANCE.
7. PROVIDE WITH PROGRAMMABLE THERMOSTAT.

DESIGN OUTDOOR AIR BALANCE SCHEDULE

EQUIPMENT		EXHAUST AIR (CFM)	REPLACEMENT AIR (CFM)
INTAKE	EXHAUST		
	EF-1	75	
	EF-2	75	
	EF-3	50	
	EF-4	125	
	EF5	50	
	KEF-1	1575	
FCU-1			310
			240
MAU-1			1418
		TOTAL EXHAUST AIR (CFM)	TOTAL REPLACEMENT AIR (CFM)
		1950	1968
		NET EXFILTRATION (CFM)	
		18	
DOES TOTAL REPLACEMENT AIR FLOW RATE MEET OR EXCEED THE EXHAUST AIR FLOW RATE?		YES	

NOTES:

1. THIS SCHEDULE IS TO SHOW COMPLIANCE WITH 403 "MECHANICAL VENTILATION" OF THE 2018 IMC.

FAN SCHEDULE

MARK	EF-1	EF-2	EF-3	EF-4	EF-5
SERVES	RESTROOM	RESTROOM	LAUNDRY	RESTROOMS	UTILITY
CFM	75	75	50	125	50
E.S.P. (IN W.G.)	0.5	0.5	0.5	0.5	0.5
TYPE	CEILING	CEILING	CEILING	CEILING	CEILING
DIRECT/BELT DRIVE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
FAN RPM	930	930	930	940	930
MOTOR HORSEPOWER (HP)	36.5 W	36.5 W	36.5 W	71 W	36.5 W
VOLTS/PHASE/HERTZ	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60
SONES	2	2	2	3.5	2
WEIGHT (LBS)	15	15	15	25	15
MANUFACTURER	COOK	COOK	COOK	COOK	COOK
MODEL NO.	GC-148	GC-148	GC-148	GC-186	GC-148
NOTES	1	1	1	1	1

NOTES:

1. PROVIDE STD DISCONNECT, WHITE ALUM GRILLE, PREWIRED FAN SPEED CONTROLLER, GRAVITY DAMPER & RUBBER ISOLATORS.

GRAVITY HOOD SCHEDULE

MARK	GH-1	GH-2	GH-3
SERVES	EF-1/EF-2	EF-3/EF-4	EF-5
CFM	150	225	75
MAX. P.D. (IN. W.G.)	0.5	0.5	0.5
INTAKE/RELIEF	RELIEF	RELIEF	RELIEF
THROAT SIZE (FT2)	0.394	0.852	0.394
WEIGHT (LBS.)	20	30	20
MANUFACTURER	COOK	COOK	COOK
MODEL NO.	PR08	PR12	PR08

NOTES:

1. PROVIDE ROOF CURB.
2. PROVIDE GRAVITY DAMPER
3. PROVIDE BIRDSCREEN

AIR DEVICE SCHEDULE

MARK	MANUFACTURER/ MODEL	MODULE SIZE	MAX NC	REMARKS	NOTES
A	TITUS / TMS-AA	24"X24" SUPPLY	26	ALUMINUM CONSTRUCTION.	1, 2, 3
B	TITUS / TMS-AA	12"X12" SUPPLY	26	ALUMINUM CONSTRUCTION.	1, 2, 3
C	TITUS / 50F	24"X24" EGGCRATE RETURN	26	ALUMINUM CONSTRUCTION.	1, 2, 3, 4
D	TITUS / 50F	24"X12" EGGCRATE RETURN	26	ALUMINUM CONSTRUCTION.	1, 2, 3, 4

NOTES:

1. PROVIDE STANDARD WHITE FINISH FOR ALL AIR DEVICES UNLESS NOTED OTHERWISE ON PLAN.
2. PAINT ALL SURFACES VISIBLE THROUGH FACE OF RETURN AIR GRILLES FLAT BLACK. THIS SHALL INCLUDE PIPING, CONDUIT,
3. PROVIDE FRAME FOR MOUNTING AIR DEVICE IN LAY-IN GRID CEILING UNLESS REFLECTED CEILING PLAN INDICATES HARD CEILING. IN AREAS WITH HARD CEILINGS, PROVIDE FRAMES FOR SURFACE MOUNTING.
4. UNLESS OTHERWISE NOTED, BRANCH DUCTS SERVING AIR DEVICES SHALL BE SAME SIZE AS NECK OF AIR DEVICE.

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HEATING, VENTILATION AND AIR CONDITIONING SPECIFICATIONS
DIVISION 15 -- MECHANICAL
SECTION – 15700

15700.01 GENERAL

A. PROVISIONS OF THE GENERAL CONDITIONS AND SUPPLEMENTARY GENERAL CONDITIONS, WHETHER ATTACHED HERETO OR NOT, SHALL GOVERN ALL WORK UNDER THIS SECTION.

B. ALL WORK COVERED UNDER THE FOLLOWING HVAC SPECIFICATIONS AND CONTRACT DRAWINGS IS TO BE PROVIDED AND INSTALLED BY AND IS TO BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR, HERE IN REFERRED TO AS THE CONTRACTOR.

C. WHERE MANUFACTURERS' NAMES, CATALOG NUMBERS, OR TRADE NAMES APPEAR IN THE SPECIFICATIONS, IT IS NOT THE INTENT TO RESTRICT OR ELIMINATE COMPETITION, BUT MERELY TO ESTABLISH QUALITY OF MATERIAL REQUIRED. WHERE THE WORDS "OR APPROVED EQUAL" APPEAR THE "EQUAL" ITEM MUST CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS AND MUST BE SUBMITTED WITH COMPLETE INFORMATION TO THE ENGINEER FOR APPROVAL. IT IS IMPORTANT TO NOTE THAT ALL COSTS OF ADDITIONAL WORK REQUIRED OF OTHER TRADES CAUSED BY A SUBSTITUTION OF EQUIPMENT AND/OR MATERIALS SHALL BE BORNE BY THE CONTRACTOR.

D. FOR FURTHER DETAILS OF THE INSTALLATION REQUIREMENTS, REFER TO THE FIXTURE PLANS, REFRIGERATION SCHEDULES, FLOOR PLANS, PLUMBING PLANS, ELECTRIC PLANS, AIR CONDITIONING, HEATING AND VENTILATION PLANS, MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ALL APPLICABLE CODES AND ORDINANCES.

E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED COMPONENTS AND ACCESSORIES NECESSARY TO FACILITATE A COMPLETE INSTALLATION, INCLUDING ALL LABOR REQUIRED TO COMPLETE THE INSTALLATION AND PERFORM THE SERVICE COVERED BY THIS SPECIFICATION. THE CONTRACTOR IS RESPONSIBLE FOR UNLOADING, ASSEMBLING, AND INSTALLING ALL HVAC EQUIPMENT AND RELATED ITEMS UNLESS OTHERWISE SPECIFIED.

F. THE CONTRACTOR SHALL FAMILIARIZE THEMSELF WITH THE PROJECT AND SHALL COOPERATE WITH OTHER CONTRACTORS DOING WORK IN THE BUILDING. IF ANY CONFLICT, INTERFERENCE OR DISCREPANCIES COME TO THE ATTENTION OF THE CONTRACTOR, HE SHALL NOTIFY THE ENGINEER IMMEDIATELY, BEFORE PROCEEDING ANY FURTHER WITH THE INSTALLATION.

G. NO ADDITIONAL PAYMENT OVER AND ABOVE THE CONTRACT PRICE WILL BE MADE UNLESS THE CONTRACTOR RECEIVES A WRITTEN ORDER BY THE OWNER OR HIS REPRESENTATIVE FOR THE ADDITIONAL WORK.

H. PRIOR TO SUBMITTING THE PROPOSALS, THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS, SPECIFICATIONS, AND OTHER AVAILABLE ESTIMATING DATA, AND SHALL BECOME FULLY INFORMED AS TO THE EXTENT AND CHARACTER OF THE WORK REQUIRED, AND IT'S RELATION TO THE OTHER WORK IN THIS PROJECT. NO CONSIDERATION WILL BE GIVEN FOR ANY ALLEGED MISUNDERSTANDING OF THE MATERIALS TO BE FURNISHED OR WORK TO BE DONE; IT SHALL BE CLEARLY UNDERSTOOD THAT THE SUBMISSION OF A PROPOSAL INDICATES A COMPLETE UNDERSTANDING OF AND AGREEMENT TO ALL THE ITEMS AND CONDITIONS SPECIFIED HEREIN, OR INDICATED ON THE DRAWINGS.

I. PLANS AND SPECIFICATIONS ARE COMPLEMENTARY TO EACH OTHER, ANY DISCREPANCIES INDICATED ON DIFFERENT DRAWINGS, OR BETWEEN DRAWINGS AND SPECIFICATIONS, OR BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS, OR ERRORS SHOWN ON EITHER DRAWINGS OR SPECIFICATIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF RGM ENGINEERING AND ASSOCIATES, INC. FOR DECISION PRIOR TO BID SUBMISSION.

J. COMPLY WITH THE LATEST APPLICABLE REQUIREMENTS OF THE IMC, IECC, NFPA AND THE LOCAL INSPECTION AUTHORITY WHO SHALL HAVE FINAL JURISDICTION. COMPLY ALSO WITH ALL REQUIREMENTS OF AMENDMENTS TO THE CODES FROM AUTHORITY HAVING JURISDICTION.

15700.02 DESIGN CONDITIONS

A. OUTDOOR DESIGN CONDITIONS ARE TO CONFORM TO VALUES FOR THE SPECIFIC LOCATION AS OUTLINED IN ASHRAE HANDBOOK FUNDAMENTALS VOLUME, LISTED IN CHAPTER 26 TABLE 1A, FROM COLUMNS OF 99.6% VALUES FOR HEATING AND 0.4% VALUES FOR COOLING.

B. INDOOR DESIGN TEMPERATURES FOR MAIN SALES AREA ARE INDICATED ON THE PLANS. ALL OTHER HEATED AND COOLED AREAS ARE TO MAINTAIN 70 DEG. F. HEATING AND 75 DEG. F. COOLING DURING OCCUPIED HOURS AT PUBLISHED OUTDOOR CONDITIONS. UNOCCUPIED REQUIREMENTS SHALL BE IN ACCORDANCE WITH INTERNATIONAL CODE SETBACK REQUIREMENTS.

C. INDOOR DESIGN RELATIVE HUMIDITY SHALL NOT EXCEED 30 PERCENT FOR HEATING. THE ACTUAL DESIGN RELATIVE HUMIDITY FOR COOLING SHALL BE WITHIN THE COMFORT ENVELOPE AS DEFINED IN ASHRAE 55, LISTED IN APPENDIX A, AND SELECTED FOR THE MINIMUM SYSTEM ENERGY USE FOR AIR CONDITIONING AND VENTILATION AND IN ACCORDANCE WITH THE OPERATING REQUIREMENTS OF THE DISPLAY FIXTURES, WHICH SHALL NOT EXCEED 55% RH.

15700.03 SCOPE OF WORK

A. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, RIGGING, APPLIANCES, TOOLS AND ACCESSORIES REQUIRED TO PROVIDE, INSTALL, CONNECT, AND TEST THE COMPLETE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE APPLICABLE DRAWINGS.

B. THE HVAC CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES AND OTHER COSTS IN CONNECTION WITH HIS WORK. THE CONTRACTOR SHALL FILE ALL NECESSARY APPROVALS OF ALL DEPARTMENTS HAVING JURISDICTION, AND OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK AND DELIVER SAME TO THE ARCHITECT BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK. THE CONTRACTOR SHALL INCLUDE IN HIS SCOPE OF WORK, WITHOUT EXTRA COST TO THE OWNER, ALL LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS), IN ORDER TO COMPLY WITH ALL APPLICABLE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS.

C. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER AND ALL APPLICABLE CODES AND REGULATIONS, INCLUDING BUT NOT LIMITED TO THE LATEST APPLICABLE EDITIONS OF THE ASHRAE GUIDE AND DATA BOOK, UL, ASME, NEMA, IBR, AMCA, NEC, NFPA, IEEE, OSHA, SMACNA, UNIFORM BUILDING AND MECHANICAL CODES.

D. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL HVAC WORK IS PROVIDED AND INSTALLED IN STRICT ACCORDANCE WITH STATE AND LOCAL CODE SEISMIC RESTRAINT REQUIREMENTS.

E. SCOPE OF WORK SHALL INCLUDE, BUT NOT BE LIMITED TO:

* ROOFTOP HVAC UNITS
* EXHAUST FANS
* SHEET METAL WORK AND INSULATION
* AIR DEVICES INCLUDING DIFFUSERS, REGISTERS AND GRILLES
* SYSTEM TEST AND BALANCE
* WARRANTY FOR ONE YEAR

15700.04 CONTRACT DRAWINGS

A. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT AND THE EXTENT OF THE WORK TO BE DONE, HOWEVER, THE EXACT LOCATION AND ARRANGEMENT OF ALL PARTS SHALL BE DETERMINED AS THE WORK PROGRESSES.

B. THE LOCATIONS OF ALL PIPING, DUCTS AND EQUIPMENT AS SHOWN ON THE PLANS ARE APPROXIMATELY CORRECT, BUT THEY ARE SUBJECT TO SUCH MODIFICATIONS AS MAY BE NECESSARY AT THE TIME OF INSTALLATION TO MEET ANY CONDITIONS. SUCH CHANGES SHALL BE IMMEDIATELY REVIEWED WITH THE ENGINEER AND INSTITUTED BY THIS CONTRACTOR WITHOUT EXTRA COST.

C. THE LOCATIONS OF ALL PARTS AND EQUIPMENT SHALL BE COORDINATED WITH THE WORK OF ALL OTHER TRADES PRIOR TO SUBMITTING SHOP DRAWINGS FOR FABRICATION AND EQUIPMENT PURCHASE APPROVALS.

15700.05 SHOP DRAWING REVIEWS AND APPROVALS

A. ALL DETAILED EQUIPMENT CUTS, SHOP DRAWINGS, SUBSTITUTIONS, CHANGES, ETC. MUST BE SUBMITTED TO ARCHITECT, ENGINEER AND OWNER REPRESENTATIVE FOR FINAL REVIEW AND APPROVAL PRIOR TO PURCHASING, FABRICATING OR INSTALLING ANY PORTION OF THE HVAC CONTRACT.

B. SHOP DRAWINGS MUST SHOW ALL HVAC COMPONENTS WITH DUCTWORK DRAWN IN DOUBLE LINE, AT A SCALE OF 1/4" = 1'-0". THESE DRAWINGS MUST BE FULLY DETAILED, DIMENSIONED AND COORDINATED, INDICATING ALL OTHER TRADES AND DISCIPLINES.

C. FURNISH TO THE ARCHITECT/ENGINEER FOR REVIEW, SIX(6) COPIES OF SUCH EQUIPMENT SUBMITTALS AND SETTING DRAWINGS OR DIAGRAMS AS MAY BE REQUIRED FOR THE PROPER EXECUTION OF THE WORK. PROVIDE THREE (3) SETS OF DRAWINGS FOR ALL SHEET METAL WORK TO ARCHITECT/ENGINEER FOR USE IN REVIEW PROCESS.

D. CONTRACTORS MAY MAKE NECESSARY ADJUSTMENTS TO SUIT CONDITIONS AND IN ORDER TO COMPLY WITH THE GUARANTEE OF PERFORMANCE OF THE SYSTEMS. APPROVALS MUST BE OBTAINED FROM THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION CHANGES.

E. APPROVALS MUST ALSO BE OBTAINED FROM LOCAL AND STATE AUTHORITIES, INSURANCE UNDERWRITERS, OR OTHER AGENCIES HAVING JURISDICTION.

F. ALL WIRING DIAGRAMS OF THERMOSTATS, DAMPERS, INTERLOCKS ETC. SHALL BE INCLUDED ON SHOP DRAWINGS OR IF SUBMITTED SEPARATELY, SIX COPIES SHALL BE PROVIDED PRIOR TO ANY INSTALLATION OF THE HVAC CONTRACT.

G. UPON OWNER REQUEST, CONTRACTOR IS TO SUBMIT ACCURATE AS-BUILT SHOP DRAWINGS IN DIGITAL FORMAT REFLECTING ALL CHANGES TO THE MECHANICAL PLANS PRIOR TO REQUESTING FINAL PAYMENT.

15700.06 DETAILS OF EQUIPMENT

A. SUBMIT FOR APPROVAL SIX (6) COPIES OF THE MANUFACTURER'S DETAILED CERTIFIED DIMENSIONAL DRAWINGS OF ALL EQUIPMENT.

15700.07 SUBSTITUTIONS

A. AS NOTED ON THE PLANS AND DESCRIBED ON THE SCHEDULES, SUBSTITUTIONS MUST SATISFY ALL REQUIREMENTS AND MUST BE APPROVED BY THE ARCHITECT/ENGINEER.

15700.08 MATERIALS AND LABOR

A. ALL MATERIALS SHALL BE NEW AND MUST MEET THE STANDARDS AS STIPULATED IN THE LATEST EDITION OF ASHRAE GUIDE AND DATA BOOK.

B. GOOD WORKMANSHIP AND LABOR SHALL BE PERFORMED BY QUALIFIED MECHANICS AND MUST COMPLY WITH ASHRAE STANDARDS.

15700.09 ORDINANCES, SERVICES, PERMITS AND FEES

A. AS REQUIRED FOR THE PROPER INSTALLATION, ALL WORK SHALL BE PROVIDED BY THE CONTRACTOR IN FULL ACCORDANCE WITH THE REQUIREMENTS OF ALL LOCAL, STATE AND NATIONAL BUREAUS, BOARD OF FIRE UNDERWRITERS AND AUTHORITIES HAVING JURISDICTION, WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

B. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL NECESSARY PERMITS PRIOR TO WORK COMMENCEMENT.

C. CONTRACTOR SHALL PREPARE, AT HIS EXPENSE, ANY AND ALL SHOP DRAWINGS AS REQUIRED TO OBTAIN PERMITS AND APPROVALS.

D. THESE DOCUMENTS SHALL BE SIGNED AND SEALED BY A DULY LICENSED ENGINEER AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.

15700.10 CHASES, CUTTING, PATCHING, ETC.

A. ALL CHASES, ROOF OPENINGS, CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH FULL INFORMATION REGARDING SIZE AND LOCATIONS, AND DETAILS OF ALL REQUIRED OPENINGS, CHASES OR OTHER PROVISIONS FOR THIS WORK TO THE GENERAL CONTRACTOR.

B. SHOULD ANY CUTTING AND PATCHING BE NECESSARY AS A RESULT OF FAILURE TO FURNISH SUCH INFORMATION IN A TIMELY MANNER, IT WILL THEN BE DONE BY THE GENERAL CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.

15700.11 TEMPORARY LIGHT AND POWER

A. THE ELECTRICAL CONTRACTOR ARRANGES FOR, INSTALLS AND MAINTAINS TEMPORARY LIGHT AND POWER AS DESCRIBED IN THE ELECTRICAL SPECIFICATIONS.

B. IT WILL BE THE DUTY OF THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE LIMITATIONS OF THIS SERVICE BY THE ELECTRICAL CONTRACTOR, AND TO PLAN HIS WORK ACCORDINGLY.

15700.12 TEMPORARY HEAT

A. TEMPORARY HEAT FOR CONSTRUCTION PURPOSES AND FOR DRYING OUT THE BUILDING SHALL BE PROVIDED WHEN ORDERED BY THE GENERAL CONTRACTOR AND COSTS THEREOF WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

B. REFER TO THE GENERAL CONDITIONS WHEREIN TEMPORARY HEAT IS PROVIDED BY THE GENERAL CONTRACTOR AT HIS EXPENSE.

C. THE USE OF THE PERMANENT HEATING SYSTEM FOR TEMPORARY HEAT IS AT THE DIRECTION AND EXPENSE OF THE GENERAL CONTRACTOR AND SHALL NOT OBLIGATE THE OWNERS IN ANY MANNER WHATEVER.

15700.13 ELECTRICAL WORK

A. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS FOR POWER WIRING AND CONNECTIONS OF ALL EQUIPMENT AND CONTROLS. THE CONTRACTOR SHALL PROVIDE CONTROL COMPONENTS AND WIRING DIAGRAMS FOR ALL HVAC EQUIPMENT TO ELECTRICAL CONTRACTOR AS REQUIRED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROL WIRING, AND THE CONTRACTOR SHALL SUPERVISE ITS INSTALLATION WHEN REQUESTED.

B. THE DELIVERY OF ALL CONTROL COMPONENTS SHALL BE SCHEDULED SO AS NOT TO DELAY THE PROJECT. THE CONTRACTOR SHALL RECEIVE A SIGNED, DATED RECEIPT OF ALL ITEMS DELIVERED TO ELECTRICAL CONTRACTOR.

C. FUSED DISCONNECT SWITCHES WHERE REQUIRED, WILL BE FURNISHED BY THE HVAC CONTRACTOR UNLESS SPECIFICALLY NOTED TO BE SUPPLIED BY THE ELECTRICAL CONTRACTOR. WEATHERPROOF FUSED DISCONNECTS SHALL BE FURNISHED FOR ALL OUTDOOR AND WET, INDOOR APPLICATIONS.

D. HVAC CONTRACTOR SHALL PROVIDE ALL MOTOR STARTERS AS FOLLOWS: MOTORS 1/2 HP AND LARGER SHALL BE PROVIDED WITH COMBINATION UNFUSED LINE SWITCH AND CROSS-THE-LINE MAGNETIC STARTERS WITH START-STOP PUSH BUTTONS AND PILOT LIGHTS UNLESS AUTOMATIC CONTROL IS REQUIRED. IN THIS CASE, STARTERS ARE TO BE PROVIDED WITH H.O.A. SELECTOR SWITCH AND CONTROL TRANSFORMER. ALL MOTORS BELOW 1/2 HP WHICH ARE NOT AUTOMATICALLY CONTROLLED SHALL BE PROVIDED WITH MANUALLY OPERATED STARTERS. ALL STARTERS SHALL BE BUILT AND RATED IN ACCORDANCE WITH NEMA AND AICE STANDARDS. ALL STARTERS TO INCLUDE THERMAL OVERLOAD RELAYS AND HEATERS PROPERLY SIZED TO PROTECT MOTOR. ALL POLY-PHASE MOTORS SHALL BE PROVIDED WITH PHASE PROTECTION.

E. THE CONTRACTOR TO VERIFY ALL ELECTRICAL POWER ON JOB SITE PRIOR TO ORDERING NEW EQUIPMENT.

F. THE CONTRACTOR SHALL PROVIDE ALL SMOKE DETECTORS FOR EMERGENCY SHUTDOWN TO COMPLY TO THE LATEST STATE & NFPA 90A CODES.

15700.14 LABELING

A. ALL CONTROL DEVICES SHALL BE CLEARLY LABELED WITH PLASTIC NAME PLATES WITH NUMBERS AND LETTERS NO LESS THAN 3/8" IN HEIGHT. A FRAMED PERMANENT OPERATING WIRING DIAGRAM SHALL BE LOCATED NEAR EACH SYSTEM SO THAT OPERATION OF THAT SYSTEM IS READILY AVAILABLE AT ALL TIMES. INTERNAL WIRING DIAGRAM OF INDIVIDUAL RELAYS, SHALL ALL BE LOCATED IN THEIR RESPECTIVE BOXES.

15700.15 SCHEDULING REQUIREMENTS

A. THE CONTRACTOR SHALL PERFORM HIS WORK IN THE BUILDING WHEN AND AS DIRECTED, AND GENERALLY IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION AND OPERATION OF THE BUILDING, SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE OTHER TRADES, OWNER AND OCCUPANTS.

B. CONSULT WITH THE GENERAL CONTRACTOR FOR SEQUENCE OF CONSTRUCTION PRIOR TO SUBMITTING BID. SOME OR ALL OF THIS WORK MAY BE PERFORMED IN PHASES OR ON AN OVERTIME SCHEDULE. BID SHALL INCLUDE ALL SUCH PREMIUM TIME COSTS AND SHALL ELIMINATE ANY SUBSEQUENT REQUESTS FOR EXTRA COMPENSATION.

15700.16 COORDINATION

A. ALL WORK SHALL BE COORDINATED WITH THE STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ARCHITECTURAL, FIRE PROTECTION AND LIGHTING DRAWINGS APPLYING TO THIS PROJECT PRIOR TO SUBMITTING SHOP DRAWINGS FOR FABRICATION APPROVAL.

B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL INVOLVED PARTIES AND PREPARE A SHOP DRAWING WHICH WILL ACCURATELY LOCATE AND DIMENSION ALL REQUIRED ROOF OPENINGS, CURBS AND SUPPORT PLATFORMS BASED UPON APPROVED EQUIPMENT SUBMITTALS.

C. ALL DIFFUSERS AND CEILING RETURNS SHALL BE COORDINATED WITH LIGHTING, SPEAKERS, SPRINKLER HEADS, ETC. IN FIELD WITH OWNER, TENANT AND ARCHITECT.

15700.17 RIGGING

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RIGGING, HOISTING AND FASTENING INTO PLACE ALL EQUIPMENT UNDER THIS CONTRACT AND SHALL COORDINATE WITH THE GENERAL CONTRACTOR REGARDING THE LOCATION OF ALL EQUIPMENT WITHIN, OUTSIDE AND ON TOP OF THE BUILDING TO INSURE PROPER ACCESS, SAFETY AND PROTECTION OF PEOPLE AND BUILDING SYSTEMS.

B. WHERE EQUIPMENT MUST BE MOVED OVER THE ROOF, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINFORCING AND PROTECTING THE ROOF STRUCTURE AS REQUIRED TO AVOID OVERLOADING. SUCH SITUATIONS MUST BE APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO MOVING EQUIPMENT.

5700.18 ROOF PROTECTION

A. WHEN WORKING ON THE FINISHED ROOF, THE CONTRACTOR MUST PROVIDE PLYWOOD SHEETS TO PROTECT ROOFING AND MUST TAKE ALL PRECAUTIONS TO AVOID DAMAGING THE ROOF. NO OPENINGS SHALL BE CUT IN THE ROOF AFTER THE ROOFING HAS BEEN COMPLETED UNLESS THEY ARE INSTALLED BY THE ROOFING CONTRACTOR, PAID FOR BY THE CONTRACTOR AND COORDINATED WITH THE GENERAL CONTRACTOR.

15700.20 FLASHING & CURBS

A. ALL DUCTS AND PIPING PASSING THROUGH THE ROOF SHALL BE FITTED WITH INSULATED CURBS, FLASHING COLLARS, RINGS OR SIMILAR DEVICES TO PROVIDE WATERTIGHT PROTECTION.

B. PROVIDE PRE-FAB CURBS AROUND ALL ROOF OPENINGS AND FLASHINGS TO MAKE WATERTIGHT OPENINGS. INCLUDE PITCH COLLARS AROUND ALL OPENINGS WHICH DO NOT HAVE CURBS. ALL CURBS TO SET ON ROOF STEEL, NOT DECKING AND ALL EQUIPMENT TO BE SET LEVEL. THE CONTRACTORS SHALL PROVIDE TAPERED CURBS AS REQUIRED.

C. FLASHINGS AND CURB WORK SHALL ALL BE INSTALLED IN COORDINATION WITH THE WORK OF THE ROOFING AND GENERAL CONTRACTORS.

D. FURNISH AND INSTALL PATE EQUIPMENT SUPPORTS FOR ROOF MOUNTED CONDENSING UNITS, UTILITY TYPE FANS, CHILLERS, ETC. ALL EQUIPMENT SUPPORTS SHALL BE PROPERLY SECURED TO BUILDING STRUCTURE. PROVIDE FLASHING AND COUNTER FLASHING TO MAKE WATERTIGHT CONSTRUCTION.

15700.21 FIRE RATED CONSTRUCTION

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY FROM THE ARCHITECTURAL PLANS, AREAS IN THE BUILDING WHICH HAVE BEEN DESIGNATED AS HAVING A FIRE RATING AND PROVIDE AND INSTALL THE NECESSARY FIRE DAMPERS WITH ACCESS DOORS. IF ANY DISCREPANCY EXISTS BETWEEN THE INDICATED AND REQUIRED FIRE DAMPER REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO BID DATE.

B. THE CONTRACTOR MUST PROVIDE ALL FIRE RATED, DAMPERS, DIFFUSERS, GRILLES, REGISTERS, FIRE LINKS, ETC., IN ORDER TO COMPLY WITH ALL APPLICABLE CODES FOR FIRE RATED CONSTRUCTION, EVEN IF NOT EXPLICITLY SHOWN ON DRAWINGS.

15700.22 TEST & INSPECTIONS

A. THE CONTRACTOR SHALL PERFORM TESTS AND INSPECTIONS TO THE COMPLETE DUCT INSTALLATION FOR ANY LEAKS, DEFECTS OR DEFICIENCIES. ALL SUCH DEFICIENCIES DISCOVERED AS A RESULT OF THE TESTS, SHALL BE IMMEDIATELY REPAIRED.

B. THE CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS AND CORRECTIONS TO THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS FOR THE PURPOSE OF EQUALIZING THE FLOW OF AIR. ANY DAMPERS, DEFLECTORS OR DIFFUSERS NECESSARY TO BRING ABOUT THIS ADJUSTMENT, WHETHER SPECIFICALLY SHOWN AND SPECIFIED OR NOT, SHALL BE PROVIDED BY THE CONTRACTOR.

C. EQUIPMENT AND SYSTEMS WHICH NORMALLY OPERATE DURING CERTAIN SEASONS OF THE YEAR SHALL BE TESTED DURING THE APPROPRIATE SEASON. TESTS SHALL BE PERFORMED ON INDIVIDUAL EQUIPMENT, SYSTEMS, AND THEIR RESPECTIVE CONTROLS.

D. WHENEVER THE EQUIPMENT OR SYSTEM UNDER TEST IS INTERRELATED WITH, AND DEPENDS UPON THE OPERATION OF OTHER EQUIPMENT, SYSTEMS AND CONTROLS FOR PROPER OPERATION, THE LATTER SHALL BE OPERATED SIMULTANEOUSLY WITH THE EQUIPMENT OR SYSTEM BEING TESTED.

E. AIR LEAKAGE TEST -- THE COMPLETE AIR HANDLING SYSTEMS, ALL VENTILATING EXHAUST SYSTEMS, INCLUDING ALL CONVENTIONAL SUPPLY AND RETURN DUCTWORK SHALL BE TESTED. LEAKAGE SHALL NOT EXCEED 5% OF RATED CFM AT RATED PRESSURE. ALL THE AIR LEAKS FOUND SHALL BE CORRECTED WITHIN ACCEPTABLE MARGIN.

F. THE CONTRACTOR SHALL DEMONSTRATE THAT ALL EQUIPMENT AND APPARATUS FULFILLS THE REQUIREMENTS OF THE SPECIFICATIONS.

G. ALL WORK PROVIDED UNDER THE CONTRACT SHALL OPERATE WITHOUT ANY OBJECTIONABLE NOISE OR VIBRATION. SHOULD OPERATION OF ANY ONE OR MORE OF THE SYSTEMS PRODUCE NOISE, OR VIBRATION, WHICH IS IN THE OPINION OF THE ENGINEER OBJECTIONABLE, THE CONTRACTOR SHALL AT HIS OWN EXPENSE MAKE CHANGES IN EQUIPMENT, ETC., AND DO ALL WORK NECESSARY TO ELIMINATE THE OBJECTIONABLE NOISE OR VIBRATION.

15700.23 OPERATING INSTRUCTIONS

A. THREE COPIES OF THE OPERATING INSTRUCTIONS, SEQUENCE OF OPERATIONS AND CONTROL DIAGRAMS FOR THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM SHALL BE GIVEN TO THE OWNER, TOGETHER WITH MAINTENANCE SCHEDULING AND SERVICE DATA.

15700.24 OPERATIONS

A. THE HVAC CONTRACTOR SHALL HAVE COMPETENT MECHANICAL PERSONNEL PRESENT TO OWNER PROPER OPERATION OF ALL EQUIPMENT.

15700.25 BALANCING

A. NEBB CERTIFIED BALANCING CONTRACTOR MUST BE A COMPANY WHICH IS INDEPENDENT OF THE MECHANICAL CONTRACTOR AND BE APPROVED FOR USE BY THE ENGINEER PRIOR TO BALANCING THE SYSTEM.

B. BALANCE THE HEATING AND COOLING SYSTEMS TO PROVIDE UNIFORM TEMPERATURES IN ALL HEATED OR COOLED AREAS AND ROOMS.

C. BALANCE NEW AIR SYSTEMS TO QUANTITIES INDICATED AND FURNISH TO OWNER A REPORT INDICATING FAN PERFORMANCE, DIFFUSER, REGISTER AND GRILLE SIZES, LOCATIONS, CFM VALUES, DX COIL BYPASS VALUES, OUTSIDE AIR CFM QUANTITIES, MOTOR HP, RATED AMP, ACTUAL AMP, RATED VOLTAGE, ACTUAL VOLTAGE ETC.

D. THE CONTRACTOR SHALL SUBMIT BALANCE REPORT PRIOR TO FINAL ACCEPTANCE.

15700.26 WARRANTY

A. THE CONTRACTOR SHALL WARRANTY IN WRITING ALL MATERIALS AND WORKMANSHIP FOR THE PERIOD OF ONE(1) YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER. THIS SHALL INCLUDE AN AGREEMENT TO REPAIR AND MAKE GOOD OR REPLACE AT NO COST TO OWNER ANY AND ALL DEFECTS OF HIS WORK, EQUIPMENT, APPARATUS, OR MATERIALS DURING THAT PERIOD, WHICH ARISE FROM INCORRECT WORKMANSHIP, IMPERFECT OR INFERIOR MATERIALS, OR DEFECTIVE EQUIPMENT. THIS WARRANTY SHALL INCLUDE REPLACEMENT OF ALL PARTS OR BASIC COMPONENTS AS REQUIRED INCLUDING LABOR.

B. ALL NEW COMPRESSORS TO BE PROVIDED WITH A TOTAL OF FIVE(5) YEARS WARRANTY PERIOD, LABOR AND PARTS FOR FIRST YEAR, AND PARTS FOR REMAINING FOUR(4) YEARS.

C. WHEN SPECIAL GUARANTEES COVERING INSTALLATION, OPERATION OR PERFORMANCE OF ANY SYSTEMS OR APPLIANCES FURNISHED UNDER THE HVAC CONTRACT ARE HEREIN REQUIRED, THE FULL RESPONSIBILITY FOR FULFILLMENT OF SUCH GUARANTEES MUST BE ASSUMED BY THE HVAC CONTRACTOR, WHO SHALL OBTAIN WRITTEN GUARANTEES IN TRIPLICATE FROM ANY AND ALL SUBCONTRACTORS WITH TWO (2) COPIES TO BE FILED WITH THE ARCHITECT PRIOR TO FINAL ACCEPTANCE.

D. CERTAIN EQUIPMENT HAVE BEEN SPECIFIED WITH STAINLESS STEEL HEAT EXCHANGERS. IF APPROVED ALTERNATES OR A DESIGN CHANGE ON THE SPECIFIED EQUIPMENT RENDERS THIS OPTION UNAVAILABLE THEN AN EQUIVALENT WARRANTY SHALL BE PROVIDED WITH THE STANDARD HEAT EXCHANGER.

15700.27 FINAL APPROVAL

A. UPON WRITTEN APPROVAL NOTIFICATION BY THE CONTRACTOR THAT HIS WORK IS COMPLETED AND READY FOR ACCEPTANCE, ALL REQUIRED INSPECTIONS AND TESTS SHALL BE PERFORMED BY THE CONTRACTOR, AS DIRECTED BY, AND IN THE PRESENCE OF THE OWNER. IF FAILURE TO COMPLY WITH THE CONTRACT REQUIREMENTS ARE DISCOVERED, THE HVAC CONTRACTOR SHALL AT ONCE REMEDY ALL DEFECTS AND SHORTCOMINGS AND PERFORM ANY ADDITIONAL REQUIRED TESTS AT HIS EXPENSE.

15700.28 FILTER CHANGES

A. HVAC CONTRACTOR MUST NOT OPERATE ANY HVAC UNITS WITHOUT FILTERS INSTALLED DURING CONSTRUCTION SEQUENCE.

B. FILTERS MUST BE CHANGED TWO (2) WEEKS PRIOR TO FINAL BALANCING OF THE SYSTEM. THIS FILTER CHANGE MUST BE WITNESSED BY A REPRESENTATIVE OF THE OWNER.

15700.29 MISCELLANEOUS

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL OF HIS DEBRIS.

B. THE CONTRACTOR SHALL FIELD VERIFY PROJECT REQUIREMENTS, AND EXISTING CONDITIONS PRIOR TO BID SUBMISSION.

C. THE CONTRACTOR SHALL PROVIDE SUFFICIENT FIREPROOF TARPAULINS, AND COVER ALL EQUIPMENT IN WORK AREA WITH SAME DURING WORK OPERATIONS.

D. DO NOT SCALE FROM THE DRAWINGS; FOLLOW WRITTEN DIMENSIONS WHERE GIVEN AND FIELD VERIFY ALL DIMENSIONS WHERE NECESSARY.

E. REFER TO CONTRACT DRAWINGS FOR GENERAL HVAC NOTES.

15700.30 SHEET METAL WORK

A. FURNISH AND INSTALL ALL SHEET METAL DUCTWORK, PLENUMS, GOOSENECKS, AND ALL ITEMS OF METAL WORK AS NECESSARY TO COMPLETE THE VARIOUS AIR CONDITIONING, VENTILATING AND HEATING SYSTEMS OF THE BUILDING SO THEY ARE READY FOR SATISFACTORY OPERATION. WHILE THE INSTALLATION SHOULD ADHERE TO THE PLANS AND SPECIFICATIONS AS MUCH AS POSSIBLE, THE CONTRACTOR SHALL BE ENTITLED TO MODIFY THE RUNS AND SIZES OF THE DUCTWORK AND TO MAKE OFFSETS, WHERE NECESSARY TO ACCOMMODATE BUILDING CONDITIONS, ONLY AFTER RECEIPT OF WRITTEN APPROVAL FROM THE ENGINEER. ALL SUCH CHANGES OR OFFSETS SHALL BE INDICATED IN THE "AS-BUILT" DRAWINGS SUBMITTED AT THE END OF THE JOB.

B. PROVIDE DEFLECTOR FINS, TURNING VANES, PLENUMS, FIRE DAMPERS, AIR INTAKES, EXHAUST DUCTS, GOOSENECKS AND ALL ITEMS OF METAL WORK, AS REQUIRED.

C. DUCTWORK SHALL BE CONSTRUCTED ACCORDING TO THE "EQUIPMENT HANDBOOK" PUBLISHED BY ASHRAE AND "HVAC DUCT CONSTRUCTION STANDARDS" PUBLISHED BY SMACNA.

D. SHEET METAL GAUGES, TRANSVERSE JOINTS, LONGITUDINAL SEAMS AND INTERMEDIATE REINFORCING MUST BE IN CONFORMANCE WITH SMACNA STANDARDS AS FOLLOWS:

1) LOW PRESSURE DUCTS PER SMACNA TABLE 2" W.G.
2) MEDIUM PRESSURE DUCTS PER SMACNA TABLE 4" W.G.
3) HIGH PRESSURE DUCTS PER SMAC

CONTROL INFORMATION

MARK	ELECTRICAL CONTROL PACKAGE		USER INTERFACE		FANS CONTROLLED											
	MODEL	LOCATION	TYPE	LOCATION	FAN #	TYPE	FAN	FAN MARK	ZONE	CFM	MOTOR HP	MOTOR VOLT	CYCLE	MOTOR PHASE	MOTOR STARTER IN PANEL	VFD IN PANEL
CONTROLS	GKC-CV-S-11-1-1-0	RIGHT CABINET ON HOOD 1	FULL COLOR TOUCHSCREEN	CABINET – RIGHT CABINET ON HOOD 1	1	EXHAUST	E1	KEF-1	1	1575	0.75	115	60	1	NO	NO
					2	SUPPLY	S1	MUA OPTION	1	1418	0.5	115	60	1	NO	NO

CONTROL FEATURES

- HOOD LIGHT CONTROL
- TEMP SENSORS (FACTORY INSTALLED) - QTY. 1
- DRY FIRE CONTACTS - QTY. 1
- LIGHTS OFF DURING FIRE
- EXHAUST MAX DURING FIRE
- SUPPLY OFF DURING FIRE

GREENHECK
BUILDING VALUE IN AIR.

DOC NUMBER: #### REV: ####

CAUTION
UNIT MUST BE GROUNDED IN ACCORDANCE WITH N.E.C. POWER MUST BE OFF WHILE SERVICING.

ATTENTION
L'APPAREIL DOIT ÊTRE MIS À LA TERRE CONFORMÉMENT AU CODE C.E. L'ALIMENTATION DOIT ÊTRE COUPÉE DURANT L'ENTRETIEN.

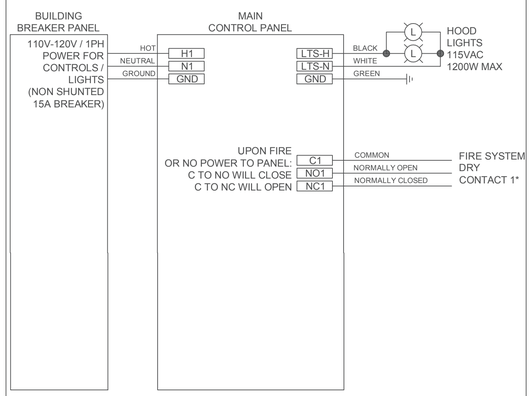
c UL us LISTED 43BM
COMMERCIAL APPLIANCE OUTLET CENTER
ELECTRICAL RATINGS: 110-240V, 1PHASE, 50-60HZ, 15A
BASE FILE #E200616, ML FILE #E313951

THESE DRAWINGS SHALL NOT BE REMOVED FROM THIS EQUIPMENT. USE COPPER CONDUCTORS RATED TO 90°C UNLESS SPECIFIED. TORQUE CONTROL & GROUND BLOCKS TO 8 LBS. IN. TORQUE POWER LUGS/SCREWS TO COMPONENT RATINGS LISTED. TORQUE CONTROL BOARD SCREW TERMINALS TO 3.5 LBS. IN. FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM. SEE IOM FOR ADDITIONAL INFORMATION, OR CALL FACTORY AT 1-800-371-6858.
PRG VERSION: V4
FIELD WIRED (CÂBLÉ LOCALEMENT) ———
FACTORY WIRED (CÂBLÉ À L'USINE) ———

NE PAS RETIRER CES DESSINS DE CET ÉQUIPEMENT. SAUF INDICATION CONTRAIRE, UTILISER DES CONDUCTEURS EN CUIVRE CLASSÉS 90 °C. SERRER LES BORNES DE COMMANDE ET DE MISE À LA TERRE À 8 LB-PO. SERRER LES COSSES/VIS D'ALIMENTATION AUX COUPLES INDIQUÉS POUR LE COMPOSANT. SERRER LES BORNES À VIS DE LA CARTE DE COMMANDE À 3,5 LB-PO. LA RÉSISTANCE DU CÂBLAGE DE COMMANDE LOCAL NE DOIT PAS DÉPASSER 0,75 OHM. POUR PLUS D'INFORMATION, CONSULTER LE MANUEL OU APPELER 1-800-371-6858

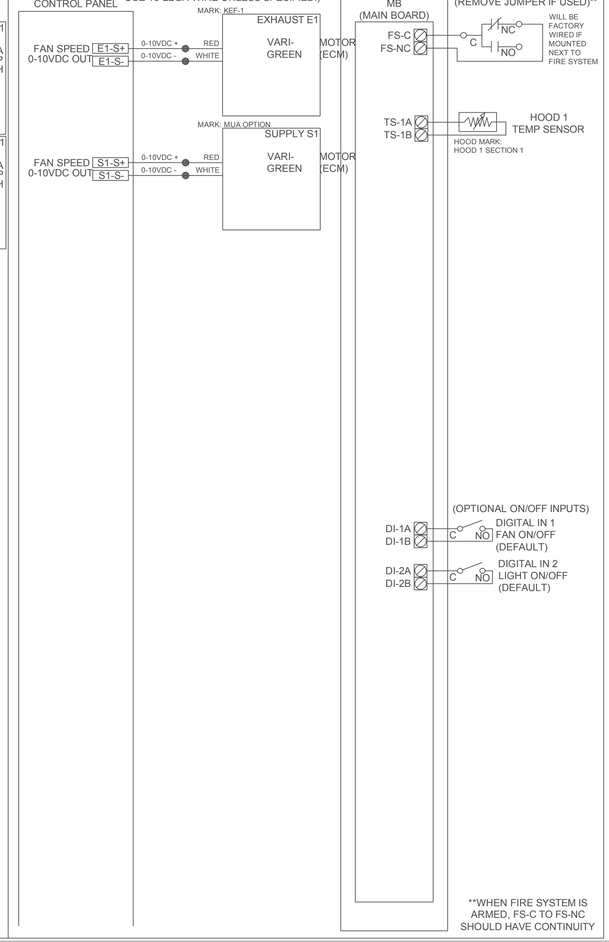
WIRING DIAGRAM CODE: #####
JOB NAME: REDEEEMER KVS
MODEL: GKC-CV-S-11-1-1-0
SERIAL NUMBER: WDSN#
MARK: CONTROLS

POWER WIRING FOR KITCHEN CONTROLS
(WIRING TO BE DONE BY ELECTRICIAN)



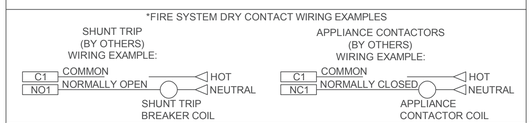
POWER WIRING FROM BREAKER PANEL DIRECT TO FANS
(WIRING TO BE DONE BY ELECTRICIAN)

CONTROL WIRING FOR KITCHEN CONTROLS
(WIRING TO BE DONE BY ELECTRICIAN, IF NO CONTROLS CONTRACTOR. USE 18-22GA WIRE UNLESS SPECIFIED.)



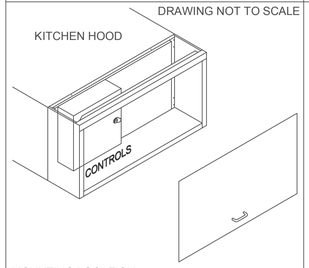
**WHEN FIRE SYSTEM IS ARMED, FS-C TO FS-NC SHOULD HAVE CONTINUITY

*FIRE SYSTEM DRY CONTACT WIRING EXAMPLES



CABINET DETAILS

DRAWING NOT TO SCALE



MOUNTING LOCATION:
UTILITY CABINET ON HOOD
(INNER CONTROL BOX: 12 X 20 X 6)

NOTES:
1) WHEN CONTROLS ARE MOUNTED IN HOOD-MOUNTED OR WALL-MOUNTED UTILITY CABINET, FOR HOOD OR WALL CABINET DIMENSIONS SEE HOOD SUBMITTAL.

2) MINIMUM OF 36" OF CLEARANCE RECOMMENDED IN FRONT OF CONTROL CABINET

USER INTERFACE DETAILS

MOUNTING TYPE
FACTORY MOUNTED:
UTILITY CABINET - RIGHT END OF HOOD

USER INTERFACE CONTROL
FANS AND LIGHTS

INTERFACE CABLE LENGTH
7FT (FACTORY PROVIDED)

ZONE CONFIGURATION

ZONE #	ZONE	ROOM TEMP
1	Z1	PRESET

HOOD CONFIGURATION

HOOD #	HOOD	HOOD MARK	ZONE	EXHAUST	SUPPLY	MB-TEMP SENSORS	HCB
1	H1	HOOD 1 SECTION 1	Z1	E1	S1	TS1	NO

WIRING DIAGRAM CODE: ####
JOB NAME: REDEEEMER KVS
MODEL: GKC-CV-S-11-1-1-0
SERIAL NUMBER: WDSN#
MARK: CONTROLS
DOC NUMBER: #### REV: ####

DEFAULT SETTINGS / PARAMÈTRES PAR DÉFAUT

FACTORY SETTINGS
TYPE: CV
CONFIGURATION: STANDARD
ZONES: 1
HOODS: 1
SUMPS: 0
EXHAUST FANS: 1
SUPPLY FANS: 1
MB ROOM SENSOR: NO
MB TEMP SENSORS: 1
HIGH TEMP FAULT: NO
FREEZE PROTECTION: YES
GAS RESET: NO
FAN PROVING: NO
BMS: NONE

ZONE SETTINGS
SEE ZONE CONFIGURATION IN TABLE ON LEFT

HOOD SETTINGS
SEE HOOD CONFIGURATION IN TABLE ON LEFT

EXHAUST FAN SETTINGS
SEE FAN CONFIGURATION IN TABLE ON LEFT

SUPPLY FAN SETTINGS
SEE FAN CONFIGURATION IN TABLE ON LEFT

SENSOR SETTINGS
SEE HOOD CONFIGURATION IN TABLE ON LEFT

USER INTERFACE SETTINGS (MB)
FAN & LIGHT BUTTONS: SHOW BOTH (SEPERATE)

USER INTERFACE SETTINGS (HCB)
NA

GENERAL SETTINGS
TIME ZONE: CENTRAL DAYLIGHT (DEFAULT)

FIRE/FAULT SETTINGS
EXHAUST DURING FIRE: MAX
SUPPLY DURING FIRE: OFF
LIGHTS DURING FIRE: OFF

BMS SETTINGS
NA

PRG VERSION: V4

FAN CONFIGURATION

FAN #	TYPE	FAN	FAN MARK	ZONE	MIN CFM	MAX CFM	MODBUS VFD	VFD ADDRESS	MIN FREQ.	MAX FREQ.	MIN VDC	MAX VDC
1	EXHAUST	E1	KEF-1	Z1	-	1575	NO	-	-	-	-	10.0
2	SUPPLY	S1	MUA OPTION	Z1	-	1418	NO	-	-	-	-	10.0

GARCIA MODESTO, INC.
ENGINEERING SERVICES
FIRM #2556
3935 HUNTERS ROCK
SAN ANTONIO, TEXAS 78230

REVISIONS	BY
1 COSA COMMENTS	030323

REDEEEMER KVS
CONTROLS
PROJECT 2/28/2023
MARK

MECHANICAL REPS INC
AARON LEE
AARONL@MECHREPS.COM
(210)650-9005

LOVE COMMUNITY CENTER
REDEEMER PRAISE CHURCH
107 S. PINE STREET, SAN ANTONIO, TEXAS 78203

Frausto Partners
8400 WURZBACH ROAD
SUITE 800
SAN ANTONIO, TX 78240
210-582-1365

CONTENTS

Date
Drawn
Job
Sheet
1
M5.0
Of Sheets

HOOD □N□ORMAT□ON

HOOD NO.	MAR□	MODEL	HOOD D□MENS□ONS □N.□ LEN□TH	□ □DTH	HE□□HT	HOOD CONSTR.	COO□□N□ LOAD / DUTY RAT□N□	E□HAUST TOTAL C□M	E□HAUST COLLAR□S□ □ □DTH	LEN□TH	D□A.	C□M	S.□.	SU□□LY MUA C□M	SU□□LY AC C□M	TOTAL □ E□□HT L□S.	SECT□ON LOCAT□ON
1	HOOD 1	□□E□ □□□S	□□	□□	2□	□30 SS □ HERE E□□OSED	HEA□Y	1□7□			12	1□7□	0.7□□	1□1□		2□□.□□1	S□N□LE

HOOD □N□ORMAT□ON

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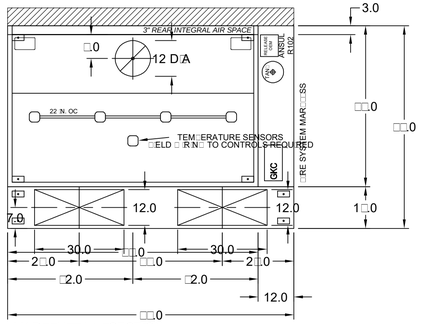
1	HOOD 1	□NCANDESCENT □□LO□□E□ 100□ A1□ □□UL□S NOT □NCL.□	□	□□.□7	□□TRACTOR STA□NLESS STEEL	□	1□	20	R□□HT	ANSUL R102	3	□□C	TOUCHSCREEN
						1	20						

SU□□LY □LENUM □N□ORMAT□ON

HOOD NO.	MAR□	□OS.	TY□E	S□□E □N.□ L	□	H	□NSULATED	DAM□ER S□	LED L□HT S□ SU□□LED	QTY	TOTAL C□M	COLLARS TY□E	MOUNT□N□	QTY	□	L	D□A.	C□M	S.□.	□EL.
1	HOOD 1	□RONT	AS□	□□	1□	□	NO	YES	NO		1□1□	MUA	□ACTORY	2	12	30		70□	0.02	2□□

HOOD O□T□ONS

UL 710 L□STED □ / OUT E□HAUST □□RE DAM□ER □UL □MH1172□
HOOD TO□ □NSULATED □OR □ERO CLEARANCE TO COM□UST□□LES
□AC□ □NTE□□RAL A□R S□ACE □3 □N □ □DE □□ERO CLEARANCE
1□□N H□□H CE□L□N□ ENCLOSURES □□RONT LE□T R□□HT □□ELD □NSTALLED
□ACTORY MOUNTED E□HAUST COLLAR□S□
□AC□S□LASH □0.00 □N H□□H □□.00 □N LON□
□ER□ORMANCE ENHANC□N□ L□□ □□EL□TECHNOLO□Y
STAND□N□ SEAM CONSTRUCT□ON □OR SU□ER□OR STREN□TH



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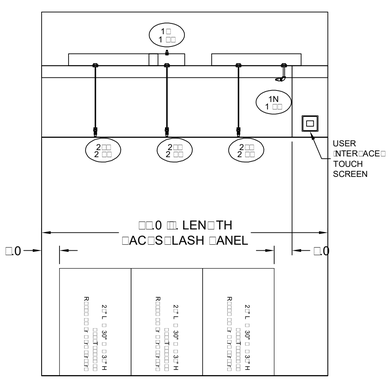

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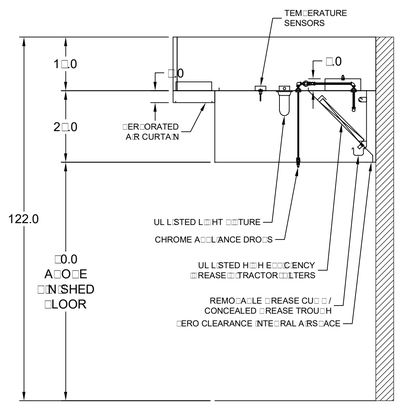
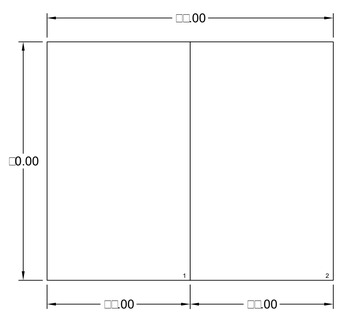
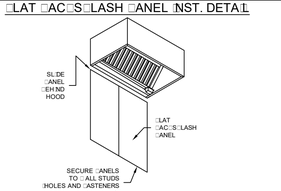


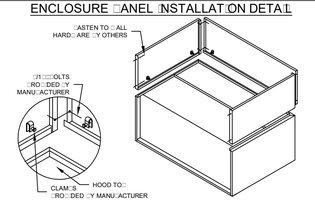


BACK SPLASH

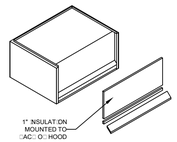
□LAT □AC□S□LASH □ANEL □NST. DETA□L



ENCLOSURE □ANEL □NSTALLAT□ON DETA□L



□ERO CLEARANCE TO □AC□ O□ HOOD



NOTES□
TO □E UL L□STED THERE MUST □E □AC□S□LASH □ANELS MOUNTED THE □ULL LEN□TH O□ THE HOOD A□A□NST THE COM□UST□□LE □ ALL

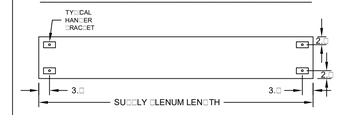
HOOD HAN□□N□ HE□□HT □OR □RE SYSTEMS

□ER□□CAT□ON O□ HOOD HAN□□N□ HE□HT A□O□E □N□SHED □LOOR A□□.□□ □S REQU□RED □OR CORRECT □LACEMENT O□ □RE SYSTEM NO□□LES.

☐ RECOMMENDED HAN□□N□ HE□HT □ □0" □ROM □N□SHED □LOOR TO LO□□ ER □RONT ED□E O□ HOOD.

☐ OTHER HAN□□N□ HE□HT □ □□□□□□□□□□" □ROM □N□SHED □LOOR TO LO□□ ER ED□E O□ HOOD.

SU□□LY □LENUM HAN□ER □RAC□ET DETA□L



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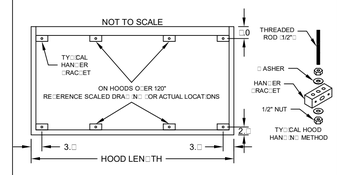
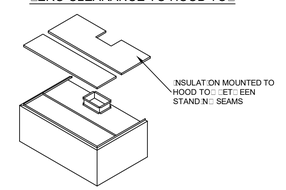


□ERO CLEARANCE TO HOOD TO□



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1 COSA COMMENTS	030323
2 COSA COMMENTS	030323

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REDEEEMER □□S
HOOD 1
2/2/2023
MAR□

MECHAN□CAL RE□□S □NC
AARON LEE
AARONL□ MECHRE□□S.COM
□210 □□0□00□

GARCIA MODESTO, INC.
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Direct Drive Upblast Centrifugal Wall Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	KEF-1	CUE-130-VG	1,575	1.25	1,704	0.56	93	0.75	115/60/1	OP	1725	1	13.8

*NEC FLA - Based on table 430.250 or 430.248 of National Electrical Code 2020. Actual motor FLA may vary for sizing thermal overload, consult factory"

KEF-1 : SELECTED OPTIONS AND ACCESSORIES
LARGER CURB CAP SIZE - 22 SQUARE
SIDEWALL MOUNTING - FAN CONFIGURED FOR WALL-MOUNTED APPLICATIONS
CURB WILL BE THROUGH WALL, 8 IN. WALL THICKNESS
UL/CUL 762 LISTED - "POWER VENTILATORS FOR REST. EXH. APPLIANCES"
SWITCH, NEMA-1, TOGGLE, SHIPPED WITH UNIT
HINGE, (PN 918380), (SHIPPED LOOSE)
HIGH TEMP CURB SEAL RATED FOR CONTINUOUS DUTY AT 1500 F (FACTORY ATTACHED)
GREASE PAN KIT - CONTAINMENT CONFIGURED FOR WALL-MOUNTED APPLICATIONS (PN:879136)
GREASE TRAP (PN:475538)
CLEAN-OUT PORT - FACTORY INSTALLED

DIRECT DRIVE CENTRIFUGAL INLINE FAN

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	MUA-1	SQ-120-VG	1,418	0.5	1,518	0.31	99	0.5	115/60/1	OP	1725	1	9.8

*NEC FLA - BASED ON TABLE 430.250 OR 430.248 OF NATIONAL ELECTRICAL CODE 2020. ACTUAL MOTOR FLA MAY VARY FOR SIZING THERMAL OVERLOAD, CONSULT FACTORY"

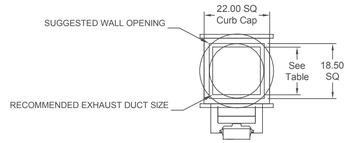
MUA Option : SELECTED OPTIONS AND ACCESSORIES
UL/CUL 705 LISTED - "POWER VENTILATORS"
JUNCTION BOX MOUNTED AND WIRED
SWITCH, NEMA-1, TOGGLE, SHIPPED SEPARATE
DAMPER SHIPPED LOOSE, INLINE, VCD-20-OB-16X16, NOT COATED
ALUMINUM WHEEL MATERIAL
MOTOR COVER
FAN: SPRING, HANGING, 1 INCH ISOLATOR PN: 850343, INCL. 4 ISOLATORS AND 4 BRACKETS

FIRE SYSTEM INFORMATION

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
FSS	ANSUL R-102 WET CHEMICAL	CABINET – RIGHT END OF HOOD 1	8 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	HOOD 1 SECTION 1

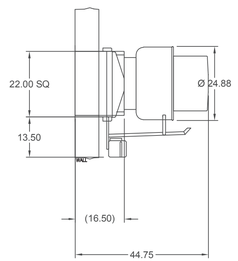
FIRE SYSTEM OPTIONS AND ACCESSORIES

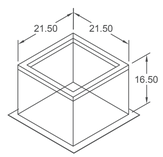
- FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
- CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
- METAL BLOW-OFF CAPS - INCLUDED
- GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
- HOOD SUPPRESSION TANK - INCLUDED - 3 GAL. - [(1) 3.0 TANK(S)]
- REMOTE PULL STATION - STANDARD - FIELD INSTALLATION AT SINGLE POINT OF EGRESS



KEF-1 UNIT

DUCT TYPE	SIZE
STANDARD	16 SQ
FIRE-WRAPPED	8 SQ



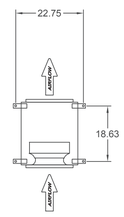


NOTE: SUGGESTED WALL OPENING WITH ROOF CURB - 22

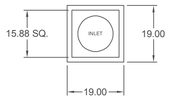
DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB. CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.

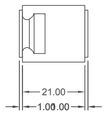
MUA-1 UNIT



TOP VIEW



END VIEW

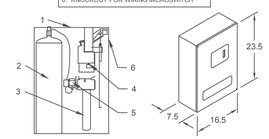


SIDE VIEW

ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSC

CONTROL PANEL

1. STAINLESS STEEL ENCLOSURE
2. AGENT STORAGE TANK
3. EXPELLENT GAS CARTRIDGE
4. ANSUL AUTOMAN RELEASE
5. REGULATOR
6. KNOCKOUT FOR WIRING MICROSWITCH



NOT TO SCALE

NOTES:

WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R-102, DESIGNED IN COMPLIANCE WITH UL 300 REQUIREMENTS.
-VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS.
-ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END.
-ANSUL AUTOMAN RELEASE TO BE LOCATED WITHIN 60" OF HOOD.

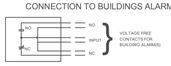
THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
-GAS SHUT-OFF VALVE, IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD), AND INSTALLED BY A LICENSED PLUMBER.
-MICRO SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEM(S), EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.

THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:
-FULL DUMP TEST OTHER THAN WHT IS SPECIFIED PER THE INSTALLATION MANUAL, OR TO SATISFY A STATE OR LOCAL CODE. PERMIT AND TESTING FEES ARE NOT INCLUDED UNLESS NOTED UNDER THE EQUIPMENT SCHEDULE FOR THE FIRE SYSTEM.
-MORE THEN TWO TRIPS TO THE JOBSITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LODGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM) FROM OFFICE.
- SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS.
-INSTALLATION OF GAS SHUT-OFF VALVE.
-SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE. PLAN EXAMINATION FEES, PE OR FS APPROVAL STAMP.
-UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOK-UP.
-ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICE FOR ELECTRIC COOKING EQUIPMENT (SHUNT TRIP BREAKER), OR ACTIVATE AN ALARM SYSTEM, ETC.
-ANY DISMANTLING OR REASSEMBLY REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
-ROUGH-IN HIDDEN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FLUSH MOUNTED PULL STATION).
-INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1M.)
-PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS. OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THEN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

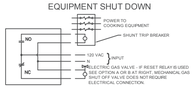
WIRING DIAGRAMS
W/DPDT MICRO SWITCH

DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.

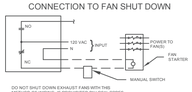
CONNECTION TO BUILDINGS ALARM



CONNECTION TO COOKING EQUIPMENT SHUT DOWN



CONNECTION TO FAN SHUT DOWN



NOTES:
1. — — — DENOTES FIELD INSTALLATION.
2. ——— DENOTES FACTORY INSTALLATION.
3. DO NOT USE BLACK WIRE ON SNAP-ACTION SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTRANEOUS ALARM, LIGHT CIRCUITS, ETC.

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REDEEEMER KVS

PROJECT 2/28/2023 | MARK | KEF-1

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GREENHECK

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GARCIA MODESTO, INC.
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FIRM #2556
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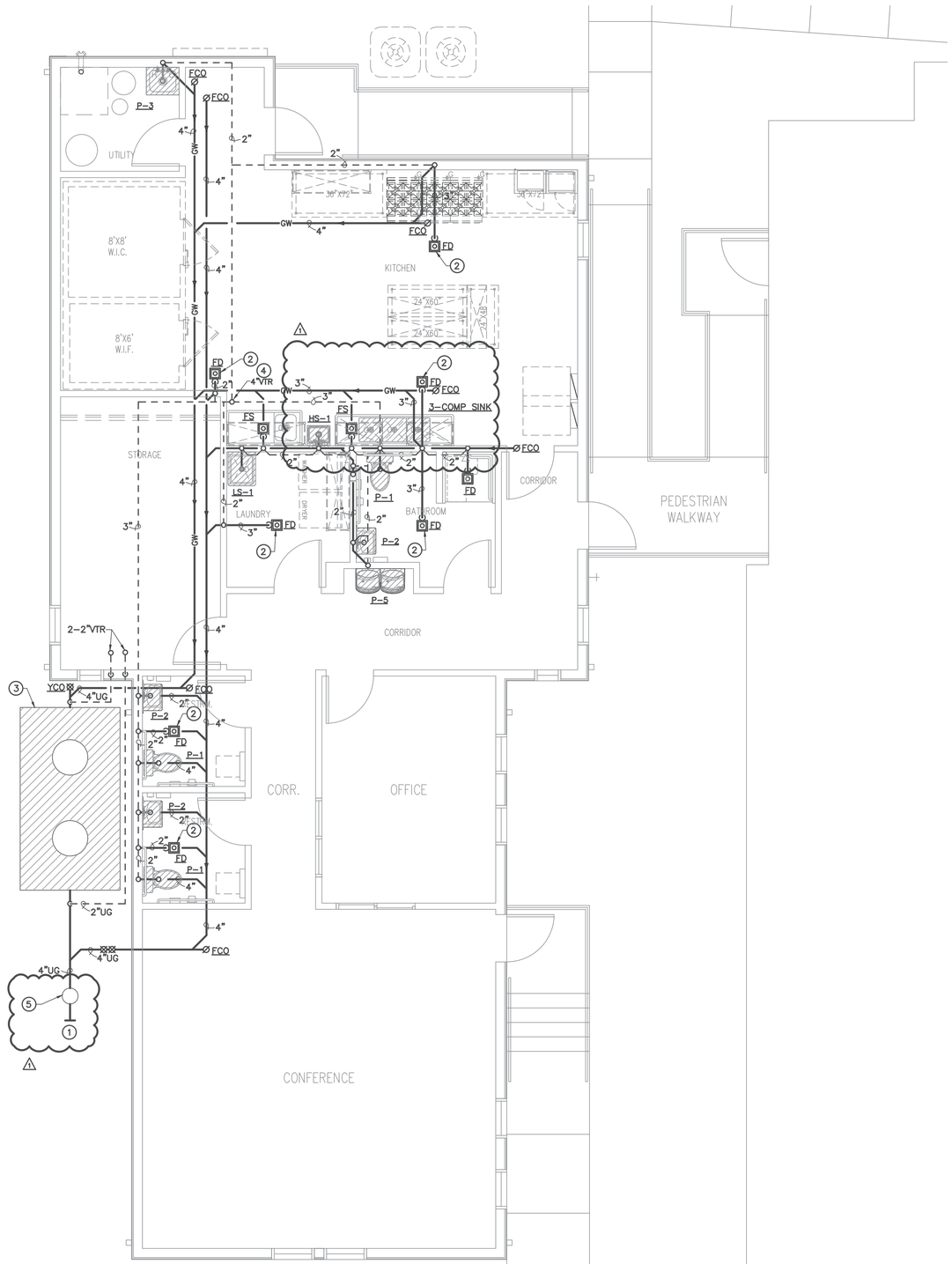
SAN ANTONIO, TEXAS 78230



1 PLUMBING FLOOR PLAN - WASTE & VENT
SCALE: 1/4"=1'-0"

PLUMBING GENERAL NOTES:

1. ROOF PENETRATIONS SHALL BE DONE IN STRICT COMPLIANCE WITH SPECIFICATIONS AND SHALL BE LEAK PROOF.
2. ALL PLUMBING WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL GOVERNING CODES, INCLUDING THE 2018 INTERNATIONAL PLUMBING CODE, 2011 NEC, AND THE LOCAL AHJ.
3. THE PLUMBING CONTRACTOR SHALL GUARANTEE THE COMPLETE PLUMBING SYSTEM TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF 12 MONTHS FROM DATE OF FINAL ACCEPTANCE BY LANDLORD.
4. PROVIDE TEMPERATURE CONTROL MIXING VALVES (MV) AT ALL LAVATORIES AND HAND SINKS.
5. PROVIDE WALL CLEANOUTS AT ALL LAVATORIES AND HAND SINKS.

PLUMBING KEYED NOTES:

1. 4" SANITARY WASTE STUB OUT. REFERENCE CIVIL DRAWINGS FOR CONTINUATION.
2. CONTRACTOR TO PROVIDE TRAP GUARDS AT FLOOR DRAIN.
3. PROVIDE AND INSTALL 1000 GALLON GREASE INTERCEPTOR.
4. NEW 4" VENT THRU ROOF LOCATION. CONTRACTOR TO VERIFY LOCATION IN FIELD.
5. CONTRACTOR TO PROVIDE AND INSTALL GATCO TREATMENT SYSTEM 6" SAMPLE WELL.

ABBREVIATIONS

AC	ABOVE CEILING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BF	BELOW FLOOR
CLG	CEILING
CO	CLEANOUT
FCO	FLOOR CLEAN OUT
GPM	GALLONS PER MINUTE
P-2	PLBG. FIXTURE DESIGNATION
PLBG	PLUMBING
POC	POINT OF CONNECTION
VTR	VENT THRU ROOF
YCO	YARD CLEANOUT

PLUMBING SYMBOLS

WCO	WALL CLEANOUT
FCO	FLOOR CLEANOUT
YCO	YARD CLEANOUT
FD	FLOOR DRAIN (SIZE & TYPE NOTED IN SPECIFICATION)
	VENT PIPE (PLUMBING)
	SOIL, WASTE PIPE OR SANITARY SEWER
	COLD WATER PIPE
	HOT WATER (120°)
	HOT WATER PIPE RECIRC.
G	GAS
GW	GREASE WASTE

STATE OF TEXAS
MIGUEL A. GARCIA
71024
LICENSED
PROFESSIONAL ENGINEER
03.09.23

Garcia Modesto, Inc.
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3935 Hunters Rock
San Antonio, TX 78230
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REVISIONS	BY
1 CITY COMMENTS 2-13-23	

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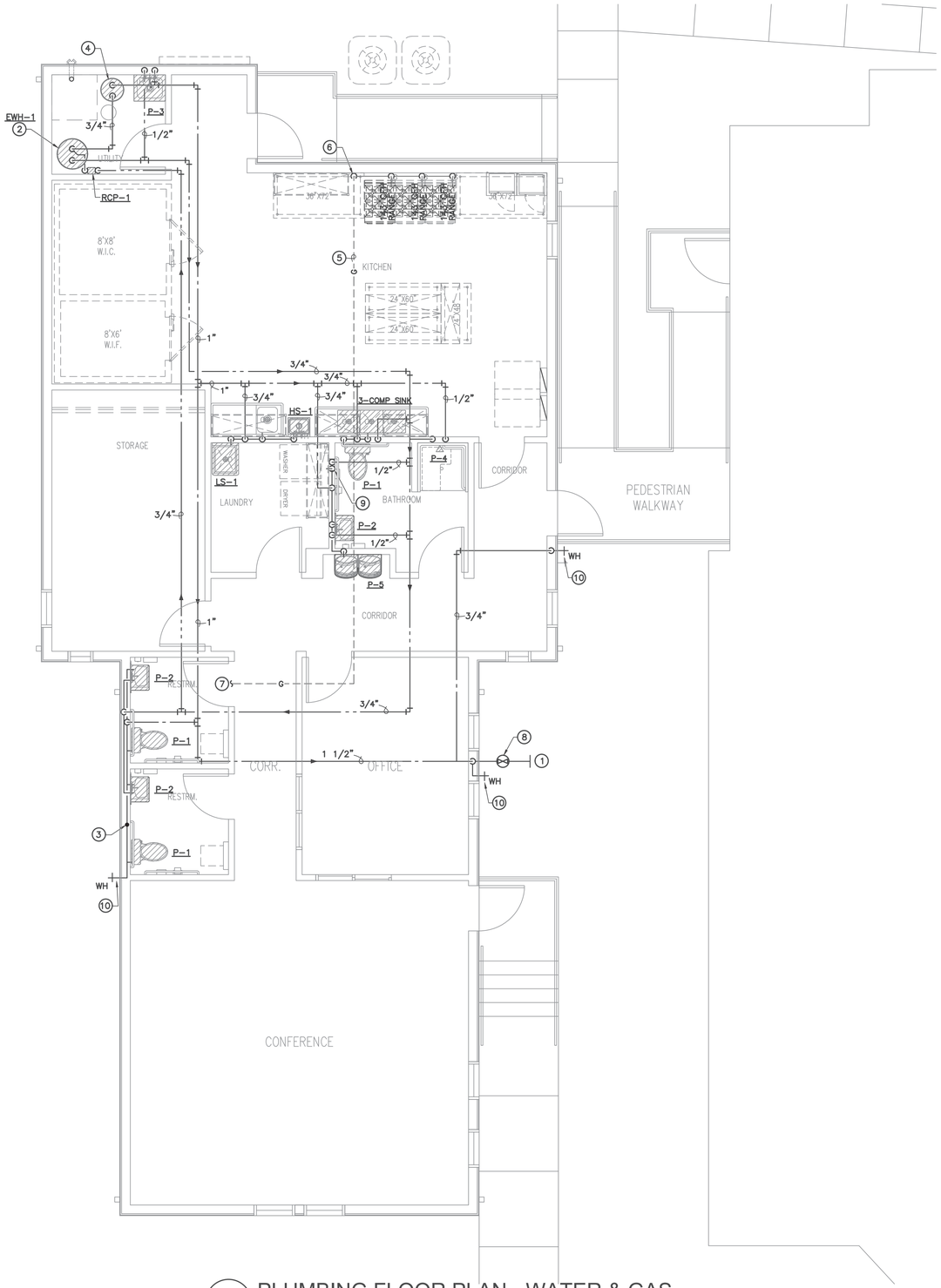

1 PLUMBING FLOOR PLAN - WATER & GAS
SCALE:1/4"=1'-0"

PLUMBING GENERAL NOTES:

1. ROOF PENETRATIONS SHALL BE DONE IN STRICT COMPLIANCE WITH SPECIFICATIONS AND SHALL BE LEAK PROOF.
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3. THE PLUMBING CONTRACTOR SHALL GUARANTEE THE COMPLETE PLUMBING SYSTEM TO BE FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF 12 MONTHS FROM DATE OF FINAL ACCEPTANCE BY LANDLORD.
4. PROVIDE TEMPERATURE CONTROL MIXING VALVES (MV) AT ALL LAVATORIES AND HAND SINKS.
5. PROVIDE WALL CLEANOUTS AT ALL LAVATORIES AND HAND SINKS.

PLUMBING KEYED NOTES:

(1) 1 1/2" DOMESTIC WATER STUB OUT. REFERENCE CIVIL DRAWINGS FOR CONTINUATION.
(2) ELECTRIC WATER HEATER REF: DETAIL 4/P3.
(3) PROVIDE TYPE "A" WATER HAMMER ARRESTOR WITH ACCESS DOOR.
(4) CONTRACTOR TO PROVIDE AND INSTALL GEMLINE-90 90,000 GRAINS WATER SOFTNER OR APPROVED EQUAL.
(5) 1 1/2" GAS PIPING ON ROOF.
(6) 1 1/2" GAS LINE DOWN THRU ROOF WITH AGA APPROVED BALL VALVE. PROVIDE A LINE SIZE ELECTRONICALLY ACTUATED SOLENOID VALVE AT 48" A.F.F. INTERLOCKED WITH FIRE SUPPRESSION SYSTEM.
(7) ROUTE AND CONNECT NEW GAS PIPING TO NEW GAS METER.
(8) SHUT-OFF VALVE IN CAST IRON BOX.
(9) CONTRACTOR TO PROVIDE AND INSTALL GUY GRAY #B200 WASHER BOX OR APPROVED EQUAL.
(10) CONTRACTOR TO PROVIDE AND INSTALL WALL HYDRANT (WH) - WOODFORD MODEL #RB65 ANTI-SIPHON FREEZELESS OR APPROVED EQUAL.

STATE OF TEXAS
MIGUEL A. GARCIA
71024
LICENSED
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12.14.22

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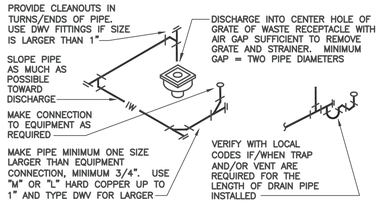
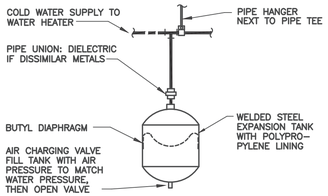


ROUTE PIPE INCONSPICUOUSLY AND UNOBTRUSIVELY. HANG PIPE AS REQUIRED. DO NOT INSULATE INDIRECT DRAIN PIPE WHEN INSTALLED EXPOSED IN FOOD SERVICE FACILITY. REFER TO LOCAL CODES FOR FURTHER INFORMATION.

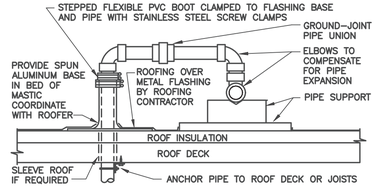
1 INDIRECT DRAIN
SCALE: NOT TO SCALE



PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. MAKE PIPE SAME SIZE AS TANK FITTING. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION PROCEDURE. VERIFY PROPER OPERATION WHEN INSTALLED.

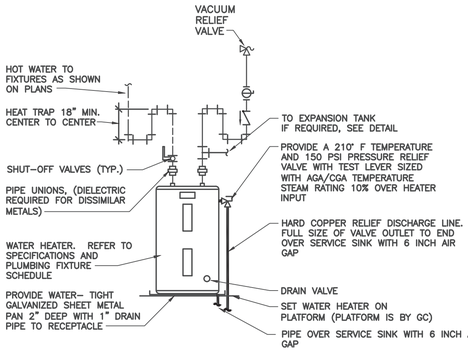
EXPANSION TANK INSTALLATION SHALL OCCUR ONLY WHEN THERE IS A BACK FLOW PREVENTION DEVICE INSTALLED WITHIN THE TENANT SPACE WATER SYSTEM OR BUILDING WATER SYSTEM. FIELD VERIFY BACKFLOW PREVENTION DEVICE.

2 SMALL EXPANSION TANK
SCALE: NOT TO SCALE



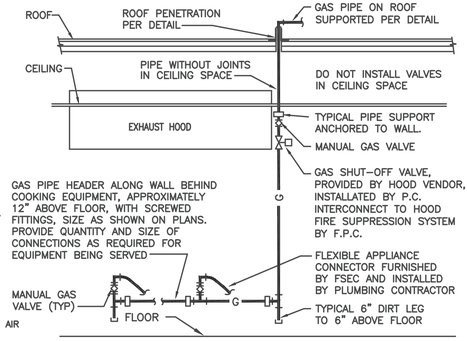
REFER TO PLANS FOR PIPE SIZE(S) AND LOCATION(S). USE WELDED OR SCREWED FITTINGS AS SPECIFIED FOR PIPE SIZE. LOCATE PENETRATION MINIMUM 18" FROM ADJACENT WALLS.

3 ROOF PENETRATION
SCALE: NOT TO SCALE



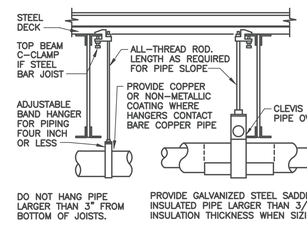
PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. REFER TO FLOOR PLAN FOR PIPE SIZES. SET WATER HEATER THERMOSTAT AT 120° F. PROVIDE SEISMIC STRAP OR BRACING AND FLEXIBLE CONNECTORS TO WATER CONNECTIONS IF/AS REQUIRED BY LOCAL AUTHORITIES.

4 WATER HEATER ON PLATFORM
SCALE: NOT TO SCALE



ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT ACTUAL CONDITIONS. ATTACH RISER & HEADER TO WALL WITH 1" CLEARANCE BEHIND PIPE. MAKE FINAL CONNECTION TO EQUIPMENT AS RECOMMENDED BY MANUFACTURER. PROVIDE WELDED FITTINGS/JOINTS IN ANY CONCEALED, UNSLEEVED LOCATION

5 TYP. GAS PIPING DETAIL WITH HOOD
SCALE: NOT TO SCALE

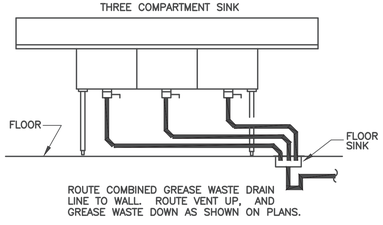


DO NOT HANG PIPE LARGER THAN 3" FROM BOTTOM OF JOISTS.

PROVIDE GALVANIZED STEEL SADDLE FOR ALL INSULATED PIPE LARGER THAN 3/4". VERIFY INSULATION THICKNESS WHEN SIZING HANGERS.

PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES. HANGER SPACING FOR PIPE SIZE: COPPER: 4"=12' 3"=11' 2-1/2"=10' 2"=9' 1-1/2"=8' 1-1/4"=7' 1"=6' 3/4"=6' 1/2"=5'. CAST IRON: 10' AND ONE NEAR ALL JOINTS. STEEL: 4"=14' 3"=12' 2-1/2"=11' 2"=10' 1-1/2"=9' 1"=7' 3/4"=6' 1/2"=5'. LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED.LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. REFER TO CODES FOR FURTHER INFORMATION.

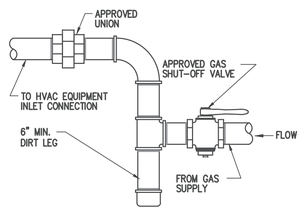
6 PIPE HANGERS
SCALE: NOT TO SCALE



ROUTE COMBINED GREASE WASTE DRAIN LINE TO WALL. ROUTE VENT UP, AND GREASE WASTE DOWN AS SHOWN ON PLANS.

ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS OR MEET LOCAL CODE REQUIREMENTS. GREASE WASTE PIPING ABOVE GRADE IS TO HAVE NO HUB CONNECTIONS WHERE AS GREASE WASTE PIPING BELOW GRADE IS TO HAVE HUB AND SPIGOT CONNECTIONS PER LANDLORD DESIGN MANUAL.

7 THREE COMPARTMENT SINK DETAIL
SCALE: NOT TO SCALE



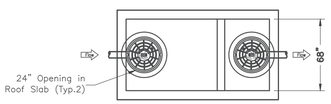
8 TYPICAL GAS CONNECTION DETAIL
SCALE: NOT TO SCALE

GREASE TRAP SCHEDULE

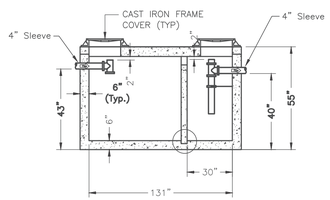
MARK	SUPPLIED QTY.	INSTALL G.C.	INSTALL OWN.	G.C.	OWN.	ITEM DESCRIPTION	MANUF. MODEL NO. / REMARKS	UTILITIES CW	HW	DR
GI-1	1	●		●		GREASE INTECEPTOR ①	GATCO TREATMENT SYSTEM (COMAL CONCRETE PRODUCTS) 1000 GALLON CAPACITY	–	–	4"

① GREASE INTERCEPTOR SHALL BE INSTALLED AS PER LOCAL AND CITY CODES.

GREASE INTERCEPTOR SIZING:
MEALS/PEAK HOURS X WASTE FLOW RATE X RETENTION TIME X STORAGE FACTOR
75 5 GALLONS 1.5 HOURS 1.0 = GT-750

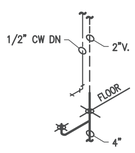


Plan View

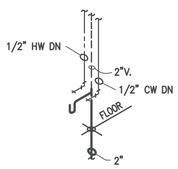


Elevation

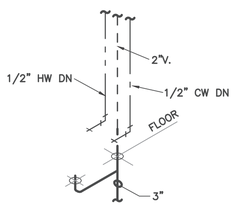
6 GREASE INTERCEPTOR DETAIL
NOT TO SCALE



9 RISER - W.C.
NOT TO SCALE



10 RISER - LAV
NOT TO SCALE



11 RISER - SERVICE SINK
NOT TO SCALE

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	CW	HW	DRAIN	VENT	MANUFACTURER
P-1	WATER CLOSET HANDICAPPED	3/4"	–	4"	2"	AMERICAN STANDARD CADET 3 FLOW WISE RIGHT HEIGHT #3378.128, FLOOR MOUNTED WATER CLOSET, 1.28 GPF, WITH 12 INCH ROUGH-IN. OPEN FRONT, LESS COVER, STAINLESS STEEL HINGES, WITH AMERICAN STANDARD #5901.100 SEAT. INSTALL PER A.D.A./TAS REQUIREMENTS
P-2	LAVATORY HANDICAPPED	1/2"	1/2"	2"	1-1/2"	AMERICAN STANDARD #0355.012 "LUCERNE", WALL MOUNTED, WITH CHICAGO #802-A317XKCP FAUCET WITH E2605JKCP AERATOR FOR 0.5 GPM AT 60 PSI, OFFSET TAILPIECE, MCGUIRE CHROME SUPPLIES AND LOOSE KEY ANGLE STOPS, 1/2"X 3/8" C.P. 17 GAUGE ADJUSTABLE P-TRAP WIH CLEANOUT AND CHROME ST SCREW ESCHUTCHEONS THROUGH WALL. INSULATE ALL EXPOSED PIPING WITH "TRUBRO LAV-GUARD" INSULATION #102 EZ. INSTALL PER A.D.A./TAS REQUIREMENTS.
P-3	MOP SINK	1/2"	1/2"	3"	2"	DURASTEEL SSMS19 STAINLESS STEEL MOP SINK. PROVIDE WITH T&S #B-0665-BSTP SERVICE SINK FAUCET WITH GARDEN HOSE OUTLET
P-4	SHOWER	1/2"	1/2"	–	–	DELTA #T13H363-05 1.6 GPM UNIVERSAL DUAL SHOWER OR APPROVED EQUAL.
P-5	DRINKING FOUNTAIN, ADA	1/2"	–	2"	2"	ELKAY #EZSTL8LC; WALL MOUNTED, BI-LEVEL BARRIER-FREE, NO LEAD WATER COOLER STAINLESS STEEL CABINET, STAINLESS STEEL TOP WITH BUFFED SATIN COMPLETE FINISH, FLEXIGUARD SAFETY BUBBLER, SELF CLOSING FRONT AND SIDE PUSH BARS COMPLETE WITH APRON FOR UPPER FOUNTAIN. SUPPLY: CHICAGO #1006; 3/8-INCH I.P.S. WITH 3/8-INCH O.D. 12-INCH LONG FLEXIBLE RISER, CHROME PLATED. P-TRAP; MCGUIRE #8902; 1-1/4"X1-1/2"X17 GAUGE, CHROME PLATED CAST BRASS ADJUSTABLE SWIVEL P-TRAP CARRIER; WADE #W-400; TOP AND BOTTOM HANGER PLATE CARRIER. INSTALL IN ACCORDANCE WITH A.D.A. REGULATIONS.
FD	FLOOR DRAIN RESTROOM	–	–	2"/3"/4"	2"	JOSAM 3000-7A COATED CAST IRON, 2 PIECE BODY WITH DOUBLE DRAINAGE FLANGE, FLASHING COLLAR WEEP HOLES, ADJUSTABLE 7" ROUND SATIN NICKALOY STRAINER, VANDAL-PROOF SCREW 1/2" TRAP PRIMER CONNECTION, BOTTOM OUTLET AND INSIDE CAULK CONNECTION
FD	FLOOR DRAIN KITCHEN	–	–	2"/3"/4"	2"	JOSAM 32100 COATED CAST IRON, 2 PIECE BODY WITH DOUBLE DRAINAGE FLANGE, FLASHING COLLAR WEEP HOLES WITH SEDIMENT BUCKET, 1/2" TRAP PRIMER CONNECTION BOTTOM OUTLET AND INSIDE CAULK CONNECTION
FS	FLOOR SINK	–	–	2"/3"/4"	2"	JOSAM 49340A WHITE PVC FLOOR SINK WITH 12" SQUARE TOP AND ALUMINUM DOME STRAINER WITH 1/2 GRATE TOP.
HS-1	HAND SINK	1/2"	1/2"	2"	2"	BY KITCHEN CONTRACTOR
–	3-COMPARTMENT SINK	3/4"	3/4"	–	–	BY KITCHEN CONTRACTOR
–	WALL CLEANOUT	–	–	2"	2"	JOSAM 58600-COT CAST IRON CAULKING FERRULE WITH BRASS RAISED HEAD PLUS POLISHED NIKALOY OR STAINLESS STEEL COVER PLATE. SECURE WITH SCREW SPIGOT CONNECTION
–	FLOOR CLEANOUT	–	–	4"	–	JOSAM 57000 LEVELEZE COATED CAST IRON BODY WITH ADJUSTABLE HOUSING, SATIN NIKALOY TOP AND INSIDE CAULK CONNECTION

WATER HEATER SCHEDULE

MARK	RECOVERY GPH	RECOVERY RISE°F	STORAGE GALLONS	LINING	MAXIMUM INPUT FUEL	CFH	VOLTS/ø	KW	REMARKS
EWH-1	30	60	40	GLASS	ELEC	120	120/1	4.5	A.O. SMITH DEL-40

RECIRCULATING PUMP SCHEDULE

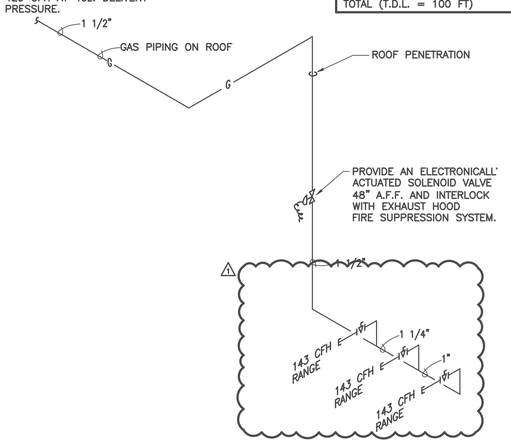
MARK	SERVICE	GPM	TOTAL HEAD FT	MOTOR HP	ELECTRICAL VOLTS	PHASE	HERTZ	REMARKS
RCP-1	DOMESTIC 120°F HW RECIRCULATING	5	5	1/12	120	1	60	BELL & GOSSETT SERIES 100

APPROVED MANUFACTURERS: BELL & GOSSETT, ARMSTRONG

GAS LOAD TABULATION

EQUIPMENT	CFH
RANGE	143.0
RANGE	143.0
RANGE	143.0
TOTAL (T.D.L. = 100 FT)	429.0

1 1/2" GAS LINE TO TENANT GAS METER LOCATION. TOTAL DEMAND IS; 429 CFH AT 4oz. DELIVERY PRESSURE.



12 PLUMBING RISER - GAS
SCALE:NOT TO SCALE

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ELECTRICAL SPECIFICATIONS
DIVISION 16 – ELECTRIC

16100.02 DRAWINGS AND SPECIFICATIONS

A. DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY TO EACH OTHER, AND WHAT IS CALLED FOR ONE, SHALL BE AS IF CALLED FOR BY BOTH.
B. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL DESIGN, LAYOUT, AND ARRANGEMENT OF EQUIPMENT AND VARIOUS SYSTEMS. HOWEVER, BEING DIAGRAMMATIC THE DRAWINGS DO NOT NECESSARILY SHOW ALL DETAILS SUCH AS JUNCTION BOXES, PULL BOXES, WIRING, ETC. NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
C. STUDY AND REVIEW ALL CONTRACT DOCUMENTS, INCLUDING DRAWINGS AND SPECIFICATIONS FOR ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND OTHER PORTIONS OF THE WORK TO AVERT POSSIBLE INSTALLATION CONFLICTS. ADJUST ELECTRICAL WORK TO CONFORM TO ALL CONDITIONS INDICATED THEREIN. SHOULD CONFLICTS ARISE WHICH REQUIRE CHANGES IN THE CONTRACT DOCUMENTS, NOTIFY THE ARCHITECT AND OWNER. SECURE WRITTEN APPROVAL AND AGREEMENT ON NECESSARY ADJUSTMENTS BEFORE THE BIDDING.
D. DISCREPANCIES BETWEEN DRAWINGS, BETWEEN DRAWINGS AND SPECIFICATIONS, OR BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS, OR ERRORS ON EITHER DRAWINGS OR SPECIFICATIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF RGM ENGINEERING FOR A DECISION BEFORE THE SPECIFIC BIDDING.

16100.05 PERMITS, FEES, TAXES AND ROYALTIES

A. ARRANGE AND PAY FOR ALL NECESSARY PERMITS, FEES, TAXES, AND ROYALTIES IN CONNECTION WITH ELECTRICAL WORK.

16100.06 CODES AND REGULATIONS

A. COMPLY WITH THE LATEST APPLICABLE REQUIREMENTS OF THE NEC, NESC, OSHA, NFPA AND THE LOCAL ELECTRICAL INSPECTION AUTHORITY WHO SHALL HAVE FINAL JURISDICTION. COMPLY ALSO WITH ALL REQUIREMENTS OF LOCAL UTILITY AND TELEPHONE COMPANIES.
REPORT TO THE ENGINEER PRIOR TO SUBMITTING BIDS, ANY PART OR PORTION OF THE ELECTRICAL DESIGN WHICH DOES NOT CONFORM TO THE REQUIREMENTS OF THE APPLICABLE LOCAL OR STATE CODES OR REQUIREMENTS OF LOCAL UTILITY OR TELEPHONE COMPANIES, OTHERWISE BE HELD RESPONSIBLE TO PROVIDE INSTALLATION WHICH WILL COMPLY WITH THESE CODES AND REGULATIONS.
APPLICABLE CODES AND ORDINANCES AND LOCAL INTERPRETATIONS ARE TO TAKE PRECEDENCE WHEN THEY CONFLICT WITH, OR ARE MORE STRINGENT THAN THE ELECTRICAL DESIGN. DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE WHERE DESIGN IS MORE STRINGENT THAN CODES AND ORDINANCES.

16100.07 STANDARDS

A. MATERIALS AND INSTALLATION SHALL ALSO CONFORM TO LATEST STANDARDS AND PRACTICES OF THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE), THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA), INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AMERICAN SOCIETY OF TESTING MATERIALS (ASTM), AND THE NATIONAL BUREAU OF STANDARDS.

B. THE FOREGOING RULES, STANDARDS AND REGULATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING HIGHER GRADES OF MATERIALS AND WORKMANSHIP WHICH ARE SPECIFIED HEREIN OR INDICATED ON DRAWINGS.

16100.09 PRODUCT DATA AND SUBMITTALS

A. FURNISH PRODUCT DATA AND SUBMITTALS FOR REVIEW BY THE CONSULTING ENGINEER AND OWNER PRIOR TO INSTALLATION.

B. FURNISH DETAILED AND DIMENSIONED PRODUCT DATA, SUBMITTALS, AND SHOP DRAWINGS FOR ALL ELECTRICAL DISTRIBUTION EQUIPMENT, LIGHTING FIXTURES AND LAMPS, SPECIAL EQUIPMENT, SPECIAL SYSTEMS AND SPECIAL APPARATUS WHICH ARE TO BE PROVIDED FOR INSTALLATION IN THIS WORK.

C. INCLUDE CATALOG CUTS, DIMENSIONAL AND OPERATING DATA, WIRING DIAGRAMS FOR SPECIAL SYSTEMS, AND SUCH OTHER DATA AS MAY BE REQUIRED BY RGM ENGINEERING AND OWNER. SUBMIT SAMPLES OF EQUIPMENT WHEN REQUESTED BY THE CONSULTING ENGINEER AND OWNER.

D. SUBMITTALS SHALL BE PROVIDED IN 3–RING HARD BACK BINDERS.

16100.10 MINOR DEVIATIONS AND CHANGES

A. FURNISH AND INSTALL ENTIRE ELECTRICAL INSTALLATIONS AS DESIGNED AND IN ACCORDANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS. MINOR DEVATIONS NECESSITATED BY FIELD CONDITIONS OR EQUIPMENT BEING SUPPLIED MAY BE MADE UPON APPROVAL OF RGM ENGINEERING AND OWNER. CHANGES IN DESIGN AND INSTALLATION SHALL BE DONE IN THE MANNER PROVIDED FOR IN THE GENERAL CONDITIONS.

16100.11 CUTTING AND REPAIRING

A. PROVIDE ALL CUTTING, PATCHING CHANNELING, CORE DRILLING, ETC., IN BUILDING STRUCTURE NECESSARY FOR ELECTRICAL WORK. LOCATE HOLES TO BE DRILLED, OUTLETS, ETC., COORDINATE WORK WITH ALL OTHER TRADES ON THE JOB, AND MAKE ARRANGEMENTS FOR NECESSARY OPENINGS AND CHASES. SEAL ALL HOLES CUT FOR WIRING RUNS. NO CUTTING, CHANNELING, CORE DRILLING, ETC., SHALL BE DONE WITHOUT PRIOR APPROVAL OF THE ARCHITECT. MAKE NECESSARY REPAIRS TO FINISHED BUILDING WHERE PATCHING OR REFINISHING IS NECESSARY DUE TO ELECTRIC WORK. ACTUAL WORK INVOLVED IN THESE REPAIRS SHALL BE DONE BY SKILLED CRAFTSMEN IN THE TRADES INVOLVED.

16100.12 MATERIALS

A. FURNISH AND INSTALL ALL MATERIAL, EQUIPMENT, AND DEVICES WHICH ARE NEW, FIRST QUALITY, BEAR THE LISTED LABEL OF THE UNDERWRITERS LABORATORIES, INC. AND WHICH ARE ACCEPTED BY RGM ENGINEERING FOR INSTALLATION IN THIS PROJECT. REPLACE, IN A MANNER ACCEPTED BY THE CONSULTING ENGINEER AND PAY FOR ALL EQUIPMENT OR MATERIALS DAMAGED IN THE COURSE OF INSTALLATION OR TESTING.
BASIC BID SHALL INCLUDE MANUFACTURERS AND CATALOG NUMBERS AS SHOWN IN THESE SPECIFICATIONS, OR ON THE DRAWINGS WITH NO EQUALS, UNLESS SPECIFICALLY INDICATED. SPECIFIED MATERIALS, EQUIPMENT, AND DEVICES SHALL BE FURNISHED AND INSTALLED UNDER THE CONTRACT UNLESS CHANGED BY MUTUAL AGREEMENT BETWEEN CONTRACTOR AND THE CONSULTING ENGINEER.
SUBSTITUTE EQUIPMENT OF OTHER MANUFACTURERS WHICH IS EQUIVALENT TO OR SUPERIOR THAN THAT SPECIFIED MAY BE PROPOSED. HOWEVER, SUCH SUBSTITUTIONS MUST BE ACCEPTED IN WRITING BY THE CONSULTING ENGINEER PRIOR TO BIDDING.
IF SUBSTITUTIONS ARE NOT REQUESTED OR GRANTED, THE SPECIFIED MATERIALS AND EQUIPMENT MUST BE INSTALLED. THE DECISION OF RGM ENGINEERING REGARDING SUBSTITUTIONS SHALL BE FINAL. IT SHALL BE THE ELECTRICAL CONTRACTORS RESPONSIBILITY UNDER THIS SECTION OF THE SPECIFICATION TO NOTIFY ALL CREATED TRADES OF THE ACCEPTED SUBSTITUTIONS AND TO ASSUME FULL RESPONSIBILITY FOR ALL COSTS CAUSED AS A RESULT OF THE SUBSTITUTION. PRIOR TO START OF WORK, SUBMIT TO THE ENGINEER A COMPLETE LIST OF TYPES, MATERIALS, AND EQUIPMENT AND MANUFACTURERS OF THESE ITEMS WHICH ARE TO BE FURNISHED FOR THIS WORK.

B. COPPER WIRE MUST BE USED. ALUMINUM WIRE WILL NOT BE ACCEPTED.

C. EQUIPMENT AND MATERIALS MUST COMPLY WITH THE REQUIREMENTS OF THE UTILITY COMPANY, AND WHERE REQUIRED, SHALL BE SUBMITTED TO THEM FOR THEIR APPROVAL.

16100.15 GUARANTEE

A. FURNISH TO OWNER A FORMAL GUARANTEE COVERING ENTIRE ELECTRICAL SYSTEM, TO BE FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE OF INSTALLATION BY OWNER. DURING THIS PERIOD, PROVIDE ALL LABOR AND NEW MATERIALS WHERE REQUIRED, TO REPAIR OR REPLACE ALL DEFECTS TO THE SATISFACTION OF OWNER AT NO ADDITIONAL COST.

16100.16 FINAL ACCEPTANCE AND WORK CLOSE–OUT

A. CONTRACTOR SHALL INSPECT THE ENTIRE ELECTRICAL INSTALLATION TO ASSURE THAT ALL WORK IS COMPLETED AND ALL SYSTEMS ARE COMPLETELY OPERATIONAL BEFORE CALLING FOR A FINAL ACCEPTANCE OF THE WORK. ALL CERTIFICATES INCLUDING ACCEPTANCE OF LOCAL INSPECTION AUTHORITY MUST BE PRESENTED AT THAT TIME.

16100.19 CLEANING AND PAINTING

A. IN GENERAL, EXCEPT WHERE SPECIFIED OTHERWISE HEREIN, FINISH PAINTING OF CONDUITS, BOXES, POLES, AND EQUIPMENT WHERE SPECIFIED TO BE DONE IN FIELD, SHALL BE DONE BY OTHER TRADES UNDER ANOTHER SECTION OF THE SPECIFICATIONS. PROTECT ELECTRICAL APPARATUS, CABINETS, BOXES AND ALL OTHER EQUIPMENT NORMALLY FURNISHED ON THE JOB WITH FACTORY APPLIED FINISH, EITHER PAINTED OR GALVANIZED, DURING STORAGE AND INSTALLATION. CLEAR ALL ELECTRICAL EQUIPMENT SUCH AS LIGHTING FIXTURES, LAMPS, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, ETC., OF CONSTRUCTION DIRT, DRILL CHIPS, DEBRIS, DUST PAINT SMEARS, ETC., BEFORE COMPLETION OF WORK. CLEAN OR TOUCH–UP AND REPAINT ALL SCARS BLEMISHES, RUST SPOTS, ETC., TO ORIGINAL STATE OF FINISH.

16100.20 TRENCHING AND BACKFILL

A. PROVIDE ALL TRENCHING AND BACKFILLING REQUIRED FOR ELECTRICAL WORK.

16100.21 SCOPE OF WORK

A. WORK UNDER THIS CONTRACT COMPRISES THE PROVIDING OF ALL LABOR, MATERIAL, EQUIPMENT, TRANSPORTATION, SCAFFOLDING, RIGGING, TOOLS AND RELATED ITEMS AND SUBCONTRACT WORK FOR A COMPLETE OPERATING ELECTRICAL SYSTEM AND INCLUDES BUT IS NOT LIMITED TO:

TRENCHING AND BACKFILL.
TEMPORARY LIGHT AND POWER.
CUTTING AND PATCHING.
SHOP DRAWINGS.
TESTING AND ADJUSTMENTS.
CLEANING AND PAINTING.
ELECTRICAL SERVICE CONDUITS.
LOW VOLTAGE FEEDERS
LIGHT AND POWER DISTRIBUTION PANELS.
LIGHTING BRANCH CIRCUIT WIRING.
CONNECTIONS TO EQUIPMENT FURNISHED BY OTHERS.
LIGHTING FIXTURES AND LAMPS.
TELEPHONE SYSTEM AS INDICATED ON PLANS.

B. ITEMS MENTIONED IN THE ABOVE SCHEDULE ARE LISTED FOR THE PURPOSE OF DESCRIBING BASIC SPECIFICATION CONTENTS AND SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM EXECUTING ANY WORK DESCRIBED THROUGHOUT THE SPECIFICATION OR INDICATED ON DRAWINGS BECAUSE OF ITS DETAILED OMISSION IN THIS SCHEDULE.

16100.22 SHOP DRAWINGS AND MANUFACTURER'S SUPERVISION REQUIRED

A. PROVIDE SHOP DRAWINGS FOR THE FOLLOWING, PRIOR TO FABRICATION, INCLUDING ALL ACCESSORIES AND MANUFACTURER'S SUPERVISION WHERE INDICATED:

PANELS
MOLDED CASE CIRCUIT BREAKERS.
LIGHTING FIXTURES AND LAMPS.
CABLE TRAYS
SECURITY SYSTEM
FIRE ALARM

16100.23 GROUNDING

A. PROVIDE ALL ELECTRICAL SYSTEM GROUNDING IN ACCORDANCE WITH THE NEC AND ANY STATE AND LOCAL CODE REQUIREMENTS, EVEN IF NOT SHOWN ON THE DRAWINGS. INCLUDE ADDITIONAL GROUNDING CONDUCTORS IN NON–METALLIC RACEWAYS, EVEN THOUGH THE DRAWINGS SHOW ONLY CIRCUIT AND/OR NEUTRAL CONDUCTORS.

B. RECEPTACLES WHICH DO NOT HAVE THEIR MOUNTING YOKES CONNECTED TO RECEPTACLE GROUNDING POINT SHALL BE GROUNDED WITH A GREEN INSULATED GROUNDING JUMPER CONNECTED TO OUTLET BOX. PROVIDE A SEPARATE GROUND CONDUCTOR WITH BRANCH CIRCUIT WIRING WHEN INDICATED ON DRAWINGS OR WHEN REQUIRED BY CODE.

C. GROUND CABLES SHALL BE CONTINUOUS WITHOUT JOINTS OR SPLICES THROUGH ITS LENGTH. IF BARE GROUND CONDUCTORS ARE RUN THROUGH METALLIC CONDUIT, THEY BE SECURELY BONDED TO EACH CONDUIT AT THE ENTRANCE AND EXIT. ALL CONNECTIONS TO EQUIPMENT OR CONDUIT SHALL BE MADE WITH APPROVED TYPE OF SOLDERLESS CONNECTOR, AND SAME SHALL BE THOROUGHLY CLEANED AND BRIGHT BEFORE CONNECTION IS MADE SO AS TO ENSURE A GOOD METAL CONTACT. CONNECTIONS WHICH WILL BE INACCESSIBLE AFTER COMPLETION OF PROJECT SHALL BE MADE BY THE CADWELD OR THERMO WELD PROCESS.

D. GROUNDING CONNECTIONS: UTILIZE BURNDY "THERMOWELD" PROCESS FOR ALL CABLE–TO–CABLE, CABLE–TO–STEEL, AND CABLE–TO–GROUND ROD CONNECTIONS.

E. WHEN THE MAXIMUM RESISTANCE TO GROUND SPECIFIED ABOVE CANNOT BE ACHIEVED, THE CONTRACTOR SHALL INCREASE THE LENGTH AND QUANTITY OF GROUND RODS TO ACHIEVE THIS RESISTANCE REQUIRED. WHERE INCREASED, QUANTITY AND LENGTH OF GROUND RODS DO NOT PRODUCE THE MAXIMUM SPECIFIED RESISTANCE, SOIL TREATMENT AROUND GROUND RODS SHALL BE PROVIDED.

F. SOIL TREATMENT TO REDUCE GROUND RESISTANCE AROUND COPPER WELD GROUND RODS SHALL BE PROVIDED AS FOLLOWS:

1. EXCAVATE CIRCULAR TRENCH AROUND EACH ELECTRODE AND 2'–6" BELOW TOP OF ELECTRODE. FILL WITH 100 POUNDS OF MAGNESIUM SULFATE.

2. SEPARATE ELECTRODE FROM CHEMICAL TO 18" RADIUS WITH STONEFREE EARTH BACKFILL. USE EXTREME CARE TO AVOID DIRECT CHEMICAL CONTACT WITH THE ELECTRODE.

16100.24 WIRING – GENERAL

A. ALL BRANCH CIRCUIT WIRING RUN WITHIN THE BUILDING AND NOT EXPOSED TO MOISTURE, SHALL BE INSTALLED IN ELECTRO–METALLIC TUBING AND RUN CONCEALED IN NEW WALLS, CEILINGS AND/OR SLABS, BUT EXPOSED ON EXISTING SURFACES WHERE CONDUITS CANNOT BE CONCEALED.

B. ALL BRANCH CIRCUIT WIRING RUN OUTSIDE OF THE BUILDING AND EXPOSED TO MOISTURE SHALL BE INSTALLED IN RIGID INTERMEDIATE GALVANIZED CONDUIT AND RUN CONCEALED IN NEW CONSTRUCTION, BUT EXPOSED ON EXISTING CONSTRUCTION.

C. ALL ELECTRIC AND TELEPHONE SERVICE SHALL BE IN RIGID METALLIC CONDUIT. SLOPE CONDUIT AWAY FROM BUILDING A MINIMUM OF 3" IN 100'.

D. ALL RACEWAYS UNDER ROADS, WALKS OR OTHER PAVED AREAS SHALL BE RIGID GALVANIZED CONDUIT.

E. ALL UNDERGROUND WIRING OUTSIDE BUILDING AND UTILITY COMPANY SERVICES, SHALL BE IN RIGID NON–METALLIC CONDUIT SCHEDULE–40 (UNLESS NOTED OTHERWISE ON DRAWINGS) AND SHALL BE ENCASED IN CONCRETE, BURIED BELOW THE FROST LINE.

F. RIGID NON–METALLIC CONDUIT SHALL BE ALLOWED IN STRUCTURAL SLABS, UNLESS DISAPPROVED BY THE STRUCTURAL ENGINEERS.

G. INSTALL RACEWAYS FROM BOX–TO–BOX OR TERMINATIONS AS SHOWN ON THE DRAWINGS OR AS REQUIRED TO AFFECT CIRCUITING DESCRIBED WITH CIRCUIT NUMBERS ADJACENT TO EQUIPMENT. GROUPING HOME RUNS OR COMBINING WIRES IN COMMON RACEWAYS WILL BE ALLOWED, WITH A MAXIMUM OF FOUR SINGLE POLE BRANCH CIRCUITS IN A RACEWAY. INCREASE WIRE SIZES AND RACEWAYS WHERE REQUIRED TO AVOID LOSS OR AMPACITY AS REQUIRED BY NATIONAL ELECTRICAL CODE.

H. PROVIDE 'OZ' OR EQUAL CONDUIT SEALS FOR ALL RACEWAYS, WIRES OR CABLES PASSING THROUGH FOUNDATIONS, FLOORS, WALLS, FOOTINGS, COOLER AND FREEZER WALLS.

I. ALL UNDERGROUND WIRING AND RACEWAYS SHALL BE A MINIMUM OF 24" BELOW FINISHED GRADE EXCEPT WIRING OVER 600 VOLTS WHICH SHALL BE 30" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE. WIRING IN SLAB SHALL BE INSTALLED IN SCHEDULE 40 RIGID NON METALLIC CONDUIT.

16100.25 CONDUITS AND RACEWAYS

A. ALL CONDUITS SHALL BE 1/2" MINIMUM TRADE SIZE DIAMETER, UNLESS SPECIFIED OTHERWISE.

B. ALL RIGID STEEL CONDUITS SHALL HAVE THREADS PAINTED WITH THOMAS AND BETTS COPPER SHIELD WHERE CONDUIT IS EXPOSED TO WEATHER OR DAMPNESS.

C. RIGID NON–METALLIC CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE. NO SECTION OR LENGTH OF CONDUIT SHALL BE EXPOSED. ALL ELBOWS SHALL BE RIGID GALVANIZED TO AVOID CUTTING WITH PULL WIRES AND TAPES. CONDUIT SHALL BE PROTECTED FROM LIGHT DURING STORAGE AND INSTALLATION.

D. RACEWAYS SHALL BE CAPPED WITH BUSHINGS DURING CONSTRUCTION AND SWABBED CLEAN BEFORE DRAWING IN WIRE.

E. CONDUITS SHALL BE CUT SQUARE AND REAMED AND ALL TERMINALS SHALL BE MADE UP TIGHT.

F. RIGID CONDUIT SYSTEM SHALL BE MADE UP WITH THREADED FITTINGS AND COUPLINGS.

G. EXPOSED RACEWAYS SHALL RUN PARALLEL TO OR AT RIGHT ANGLES TO SURFACES WIRED OVER AND SHALL BE PROVIDED WITH FITTINGS OR STANDARD MANUFACTURED ELBOWS.

H. SUPPORTS ON ALL RACEWAYS SHALL RUN PARALLEL TO OR AT RIGHT ANGLES TO SURFACES WIRED OVER AND SHALL BE SPACED AT A MAXIMUM OF 10'. SUPPORTS ON RACEWAYS LARGER THAN 2" SHALL BE SPACED AT A MAXIMUM OF 6'.

I. FASTENINGS SHALL BE LAD SHIELDS, RAW PLUGS, WOOD SCREWS, LAG BOLTS, BEAM CLAMPS OR TOGGLE BOLTS. NO WOODEN PLUGS WILL BE PERMITTED. NO NAILS WILL BE PERMITTED.

J. CONDUITS AND HANGERS SHALL BE INSTALLED IN A MANNER NOT TO INTERFERE WITH THE WORK OF OTHER TRADES. THIS SHALL INCLUDE TRAPEZE HANGERS TO STRADDLE DUCTS, PIPES OR OTHER OBSTRUCTIONS, WHERE NECESSARY. NO PERFORATED STRAP IRON WILL BE PERMITTED.

K. PROVIDE A CONDUIT EXPANSION FITTING WHEREVER RUN CROSSES AND EXPANSION JOINT IN THE STRUCTURE, AND WHERE CONDUIT IS ATTACHED TO SEPARATE STRUCTURES. EXPANSION FITTING SHALL BE "OZ" TYPE "AX," THOMAS AND BETTS, STEEL CITY OR APPROVED EQUAL.

L. RIGID NON–METALLIC CONDUIT SHALL BE POLYVINYL CHLORIDE SCHEDULE–40 HEAVY WALL, MADE BY CARLON OR APPROVED EQUAL.

M. SURFACE METAL RACEWAY SHALL BE WIREMOLD, KINDORF OR APPROVED EQUAL.

N. RIGID CONDUIT BUSHINGS SHALL BE IMPACT RESISTANT PLASTIC INSULATING TYPE, AS MADE BY THOMAS & BETTS, APPLETON, STEEL CITY OR APPROVED EQUAL.

O. ELECTRO–METALLIC TUBING SHALL BE REPUBLIC, ETP, NATIONAL OR APPROVED EQUAL WITH SCREW–TYPE FITTINGS.

P. ALL STEEL CONDUITS IN DIRECT CONTACT WITH EARTH SHALL BE PAINTED WITH TWO(2) COATS OF BLACK ASPHALT, PRIOR TO INSTALLATION.

Q. PROVIDE A CONTINUOUS RED PLASTIC STRIP 1'–0" ABOVE TOP OF ALL UNDERGROUND RACEWAYS.

R. CONDUIT SUPPORTS AND HANGERS SHALL BE GALVANIZED BY STEEL CITY, KINDORF OR EQUAL.

16100.27 PULL OR JUNCTION BOXES AND WIRING TROUGHS

A. FURNISH AND INSTALL PULL OR JUNCTION BOXES WHERE INDICATED OR WHERE NECESSARY TO FACILITATE PULLING OF CONDUCTORS. ALL BOXES SHALL BE SIZED ACCORDING TO NEC REQUIREMENTS.

B. BOXES SHALL BE FORMED OF HOT DIPPED GALVANIZED SHEET STEEL EXCEPT WHERE SPECIFIED OTHERWISE.

C. BOXES INSTALLED IN WET AREAS OR WHERE EXPOSED TO WEATHER SHALL BE GALVANIZED WITH CAST BOLTED COVERS.

E. ALL COVERS ON BOXES AND TROUGHS SHALL BE SCREW COVER TYPE, OR COMBINATION HINGED AND SCREWED TYPE.

16100.28 WIRES AND CABLES – 600 VOLT INSULATION

A. WIRE AND CABLE SHALL BE COPPER AND SHALL HAVE CURRENT CARRYING CAPACITY NOT LESS THAN INDICATED AND SHALL CONFIRM TO UL STANDARDS. CONDUCTOR SIZES SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL NOT BE LESS THAN NO. 12 AWG FOR POWER AND LIGHTING WORK UNLESS OTHERWISE INDICATED OR SPECIFIED. ALL NO. 8 B&S GAUGE WIRE AND LARGER SHALL BE STRANDED UNLESS OTHERWISE NOTED ON DRAWINGS. VOLTAGE RATING OF CONDUCTORS WHICH OPERATE AT 600 VOLTS AND BELOW SHALL BE 600 VOLTS. TYPE THWN INSULATION SHALL BE USED FOR ALL SIZES OF WIRE WITH XHHW USED FOR RISERS, UNLESS OTHERWISE NOTED. RECESSED LIGHTING FIXTURES IN HUNG CEILINGS SHALL BE SUPPLIED WITH TYPE AF INSULATED WIRE IN FLEXIBLE METAL CONDUIT, IN LENGTHS NOT EXCEEDING 6 FEET, FROM ADJACENT JUNCTION BOX. TYPE THWN INSULATED WIRE MAY BE USED FOR BRANCH CIRCUIT WIRING, PROVIDING THE AMPACITIES AT WHICH IT IS EMPLOYED ARE BASED ON THE ALLOWABLE AMPACITY OF 75?C. WIRE.

B. CABLES IN HIGH TEMPERATURE AREAS SHALL HAVE AN INSULATION TYPE SUITABLE FOR THE TEMPERATURE CABLES USED IN SPACES FOR ENVIRONMENTAL AIR SHALL CONFORM WITH APPLICABLE NEC REQUIREMENTS.

16100.29 WIRE SPLICING AND TERMINATING OF 600 VOLT CONDUCTORS

A. SPLICES OF WIRES UP TO 3 #8 CONDUCTORS SHALL BE MADE WITH PRESSURE TYPE CONNECTORS. WIRE NUTS OR SCREW CAPS WILL NOT BE PERMITTED. SPLICES ABOVE THIS SIZE SHALL BE MADE WITH APPROVED MECHANICAL CONNECTORS, SCOTCHFILL AND SCOTCH #88 VINYL TAPE.

B. SPLICES IN CABLES #6 GAUGE AND LARGER SHALL BE MADE WITH CAST SLEEVE TYPE CONNECTORS WITH SET SCREWS, SCOTCHFILL AND SCOTCH #88 VINYL TAPE.

C. COPPER CONDUCTOR TERMINATIONS SHALL BE MADE WITH MECHANICAL, SET SCREW, PRESSED COPPER LUGS. TWO(2) BOLT LUGS SHALL BE USED IF NECESSARY, TO OBTAIN SUFFICIENT CONTACT SURFACE OR 200 AMPERES PER SQUARE INCH CAPACITY TO MAINTAIN RIGIDITY IN TERMINATING LARGE CABLES.

D. SMALL WIRE SPLICES SHALL BE MADE WITH THOMAS AND BETTS WIRE NUTS OR APPROVED EQUAL CONNECTORS.

E. LARGE WIRE SPLICES SHALL BE MADE WITH "OZ" TYPE XW AND "OZ" TYPE XTP, OR APPROVED EQUAL CONNECTORS.

F. TERMINAL LUGS SHALL BE PRESSED COPPER SCREW LUGS AS MADE BY MAC OR EQUAL.

16100.30 WIRING DEVICES AND PLATES

A. PROVIDE AT EVERY INDICATED OUTLET THE PROPER DEVICES AND PLATES AS SPECIFIED HEREIN OR ON THE DRAWINGS. WHERE MORE THAN ONE DEVICE IS INDICATED IN ONE LOCATION, THEY SHALL BE GANGED TOGETHER IN ONE BOX AND UNDER ONE PLATE AS REQUIRED.

B. DEVICES LISTED ARE TO ESTABLISH TYPE, COLOR, OPERATION AND CAPACITY. MANUFACTURERS SHALL BE HUBBELL, PASS AND SEYMOUR, OR ARROW HART.

C. COLOR TO BE CHOSEN BY ARCHITECTS.

16100.32 LAMPS AND FIXTURES

A. PROVIDE FIXTURES AS SHOWN ON THE FIXTURE SCHEDULE AND DESCRIBED BELOW. THE FIXTURES SHALL BE SUPPLIED COMPLETE WITH LAMPS AND ANY AUXILIARY DEVICES NECESSARY FOR THEIR FUNCTION. FIXTURES SHALL BE SECURELY FASTENED TO THE CEILING STRUCTURE, AS WELL AS THE OUTLET BOX WHERE NECESSARY TO MAINTAIN PROPER ALIGNMENT.

B. HID BALLAST SHALL BE HIGH POWER FACTOR TYPE.

C. FIXTURES SHALL BE DESIGNED AND APPLIED SUCH THAT THE BALLAST/FIXTURE COMBINATION WITH ALL UNITS IN–PLACE IN THE ROOM OR SPACE SHALL HAVE AN INAUDIBLE SOUND.

D. FIXTURE/BALLAST COMBINATION SHALL BE DESIGNED TO LIMIT MAXIMUM BALLAST CASE TEMPERATURE TO 90 DEG.C.

E. LIGHTING FIXTURES SHALL CONFORM TO ARTICLES 410 AND 300–22 OF THE NEC..

F. FOR THE SIGNS, PROVIDE CONNECTIONS WITH WATERPROOF JUNCTION BOXES OR AS SPECIFIED ON THE PLANS.

G. ALL EXTERIOR LIGHTING FIXTURES WHERE EXPOSED TO WEATHER SHALL BE UL TESTED FOR WET LOCATIONS. OUTDOOR CANOPY LIGHTING FIXTURES SHALL BE UL LISTED FOR DAMP LOCATIONS.

E. EXTERIOR LIGHTING FIXTURES SHALL BE CONTROLLED BY A PHTOCELL–ON/ TIMER–OFF SCHEME. CONTRACTOR TO PROVIDE ALL MATERIALS, CONTACTORS, AND HARDWARE AS REQUIRED.

16100.33 TELEPHONE CONDUIT SYSTEM

A. PROVIDE A COMPLETE TELEPHONE SYSTEM AS INDICATED ON THE PLANS WITH OUTLET BOXES, PLATES AND CABINETS FOR THE INSTALLATION OF TELEPHONE AND WIRING BY THE TELEPHONE COMPANY.

B. ALL RACEWAYS, CABINETS, OUTLETS, ETC., AND THE METHOD OF INSTALLATION SHALL COMPLY WITH THE REGULATIONS AND REQUIREMENTS OF THE TELEPHONE COMPANY.

16100.36 SERVICE AND CURRENT CHARACTERISTICS

A. ELECTRICAL SERVICE SHALL BE BROUGHT IN OVERHEAD OR UNDERGROUND BY THIS CONTRACTOR FROM THE UTILITY COMPANY POLE TO THE PAD OR POLE MOUNTED TRANSFORMER AND TO THE MAIN FUSED SWITCHBOARD LOCATED AS SHOWN ON THE DRAWINGS. ELECTRICAL CONTRACTOR TO COORDINATE ALL NECESSARY REQUIREMENTS WITH THE UTILITY COMPANY.

B. SERVICE SHALL BE THREE PHASE, FOUR WIRE, 120/208 VOLTS OR AS SHOWN ON PLANS.

16100.38 SAFETY AND DISCONNECT SWITCHES

A. BASE NAMED MANUFACTURER – SQUARE 'D'.

B. UNLESS NOTED OTHERWISE, ALL OTHER SWITCHES SHALL SQUARE 'D' HEAVY DUTY CLASS 3110.

C. ALL DISCONNECT SWITCHES SHALL BE LOCKABLE IN THE "ON" OR "OFF" POSITION.

D. OTHER ACCEPTABLE MANUFACTURERS – GENERAL ELECTRIC, WESTINGHOUSE, CUTLER–HAMMER.

16100.42 MOLDED CASE CIRCUIT BREAKERS

A. BASED NAMED MANUFACTURER – "G.E."

B. CIRCUIT BREAKERS SHALL BE OF THE MOLDED CASE BOLTED IN TYPE CONSISTING OF THE NUMBER OF POLES AND AMPERE RATINGS AS NOTED ON THE DRAWINGS.

C. CIRCUIT BREAKERS SHALL BE OF THE INDICATING TYPE PROVIDING "ON," "OFF," AND "TRIPPED" POSITIONS OF THE OPERATING HANDLE. WHEN THE BREAKER IS TRIPPED, THE HANDLE SHALL ASSUME A POSITION BETWEEN "ON" AND "OFF" POSITIONS. BREAKERS SHALL BE OF THE QUICK–MAKE QUICK–BREAK TYPE WITH INVERSE TIME CHARACTERISTICS SECURED THROUGH THE USE OF A BI–METALLIC AND A MAGNETIC TRIPPING ELEMENT.

D. TWO AND THREE POLE BREAKERS SHALL BE THE COMMON TRIP TYPE. HANDLE EXTENSIONS PROVIDING COMMON MANUAL OPERATION WILL NOT BE ACCEPTABLE.

16100.43 LIGHTING AND POWER PANELS

A. BASED NAME MANUFACTURER – "G.E."

B. THE LIGHTING PANELBOARDS SHALL BE FOR THE DEAD FRONT, AUTOMATIC MOLDED CASE CIRCUIT BREAKER TYPE.

C. CABINETS SHALL BE CODE GAUGE WITH MINIMUM 4" SIDE, TOP, AND BOTTOM GUTTERS AND A MINIMUM OF 20" WIDE. PROVIDE SUBFEED LUGS AND A MINIMUM OF 8" TOP, BOTTOM AND SIDE GUTTERS FOR FEEDER TAPS WITHIN PANELBOARDS AND WHEN FEEDERS ARE INSTALLED IN SIDE GUTTERS.

D. THE PANELS SHALL BE FACTORY ASSEMBLED COMPLETE WITH BREAKERS. ANY CIRCUIT BREAKER SHALL BE CAPABLE OF REPLACEMENT WITHOUT DISTURBING ANY OTHER BREAKER, THE MAIN BUS BARS OR BRANCH WIRE CONNECTORS. THE PANELS SHALL BE CAPABLE OF HAVING BRANCH CIRCUITS ADDED WITHOUT ADDITIONAL MACHINING, DRILLING, OR TAPPING. BRANCH CIRCUITS SHALL BE SEQUENCED PHASED ON THE MAIN BUS CARRYING CAPACITY SHALL BE DETERMINED ON A BASIS OF NOT MORE THAN 750 AMPERES PER SQUARE INCH OF CROSS SECTIONAL AREA FOR ALUMINUM BUSES.

E. THE PANELS SHALL BE ARRANGED FOR 3 PHASE, 4 WIRE, 120/208 VOLT SERVICE AS REQUIRED.

F. CIRCUIT BREAKERS SHALL BE AS SPECIFIED IN "MOLDED CASE CIRCUIT BREAKER" SECTION OF THE H. ALL PANELS SHALL BE PROVIDED WITH A COMPLETE TYPE–WRITTEN DIRECTORY OF ALL CONNECTED AND SPECIFICATIONS. MINIMUM INTERRUPTING CAPACITY – 120/208 VOLT SYSTEMS TO BE COORDINATED WITH LOCAL UTILITY COMPANIES SO AS TO INTERRUPT THE AVAILABLE FAULT CURRENT.

G. OTHER ACCEPTABLE MANUFACTURERS – SIEMENS ITE, WESTINGHOUSE, GENERAL ELECTRICAL, CUTLER–HAMMER.

H. THE PANELS SHALL BE LOCATED AND SIZED AS INDICATED ON PRINTS AND CONNECTED AS SHOWN ON THE RISER DIAGRAM.

16100.48 TEMPORARY LIGHT AND POWER

A. THE ELECTRICAL CONTRACTOR SHALL PROVIDE, MAINTAIN, AND OPERATE A SUITABLE TEMPORARY ELECTRIC DISTRIBUTION SYSTEM FOR LIGHT AND POWER.

B. ALL NECESSARY MAT

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER / MODEL	CONTACT	MOUNTING	LAMPS
A	INDUSTRIAL LIGHTING PRODUCTS LED 2X4 FLAT PANEL / VPAN24-55L/UNV-35	VENESSA BABCOCK 210-782-4234	LAY-IN	LED 47W / 80 CRI / 3500K
AE	INDUSTRIAL LIGHTING PRODUCTS LED 2X4 FLAT PANEL WITH EMERGENCY BATTERY PACK VPAN24-55L/UNV-35-EM10	VENESSA BABCOCK 210-782-4234	LAY-IN	LED 57W / 80 CRI / 3500K
B	HE WILLIAMS 6" LED DOWNLOAD / 6DR-TL-L10-9-35-DIM-UNV-O-W-OF-CS	VENESSA BABCOCK 210-782-4234	RECESSED	LED 8.7W / 3500K / 90 CRI
C	HE WILLIAMS 6" LED DOWNLOAD / 6DR-TL-L10-9-35-DIM-UNV-S-W-OF-CS	VENESSA BABCOCK 210-782-4234	RECESSED	LED 8.7W / 3500K / 90 CRI
D	NUTONE RESTROOM VENT FAN / LPN80	LOCAL HARDWARE STORE	RECESSED	N/A
E	EXTERIOR DECORATIVE WALL SCONCE	–	SURFACE	–
F	ATLAS AMERICAN LIGHTING LED WALL PACK / WSPL-60LED-4K-BK-EB	VENESSA BABCOCK 210-782-4234	SURFACE	LED 58W / 83 CRI / 4000K
G	LED EXHAUST HOOD LIGHT	KITCHEN EQUIPMENT INSTALLER	EQUIPMENT SURFACE	LED 11W 120V
H	LED WALK-IN UNIT LIGHT	KITCHEN EQUIPMENT INSTALLER	EQUIPMENT SURFACE	LED 11W 120V
X1	LIGHT ALARMS COMBINATION EXIT SIGN/ EMERGENCY LIGHT / UQLXN500R-2LEDR	VENESSA BABCOCK 210-782-4234	SURFACE	LED 2.6W
X2	LIGHT ALARMS LED DOUBLE FACE EXIT SIGN / 6UEARM	VENESSA BABCOCK 210-782-4234	SURFACE	LED 2.6W

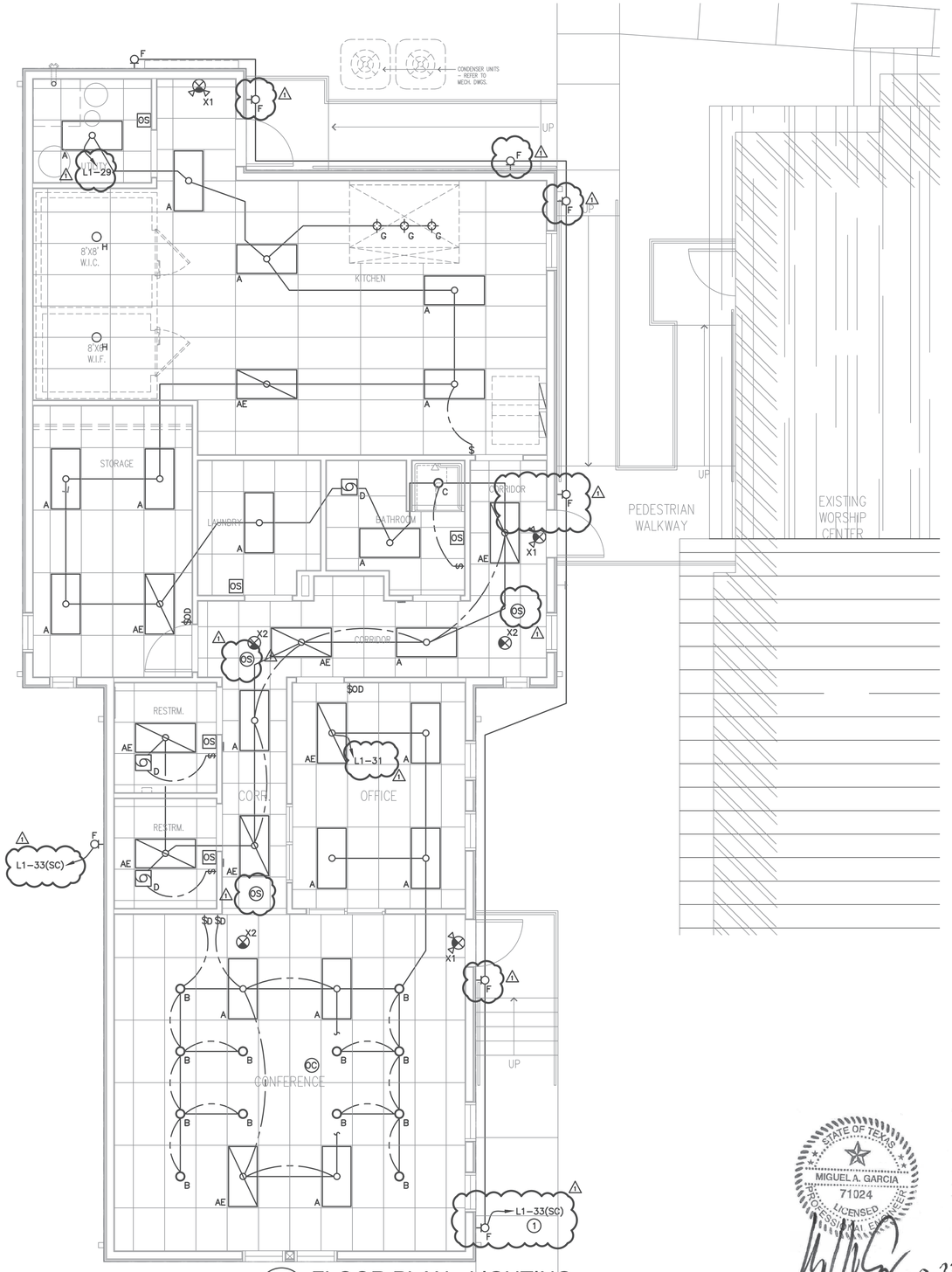
NOTE:
SEE ELECTRICAL PLANS FOR LIGHTING SPECIFICATIONS. THIS REFLECTED CEILING PLAN SHALL BE REFERENCED FOR LIGHTING PLACEMENT AND QUANTITY OF FIXTURES.

ADDITIONAL NOTES:
1. PROVIDE LENSED LAMPS FOR LIGHTING FIXTURES INSTALLED ABOVE FOOD SERVICE OR FOOD PREPARATION AREAS OR, WHERE SPECIFIED, TEFLON COATED LAMPS.
2. ALL FIXTURES SHALL BE AS SPECIFIED HEREIN. NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT THE DESIGNER'S AND ENGINEER'S EXPRESS WRITTEN CONSENT-NO EXCEPTIONS.
3. ALL FLUORESCENT LIGHT FIXTURES ARE EQUIPPED W/ ENERGY SAVING BALLAST & REDUCED WATTAGE LAMPS.
4. PROVIDE EMERGENCY POWERED BATTERY PACK BATTERY BALLAST FOR ALL 24 HOUR LAMPS.
5. GENERAL CONTRACTOR SHALL FURNISH ALL REQUIRED MATERIALS FOR THE PROPER INSTALLATION OF ALL LIGHT FIXTURES.
6. ELECTRICAL CONTRACTOR TO CROSS REFERENCE FIXTURE SCHEDULE WITH ELECTRICAL PANEL SCHEDULE BEFORE PLACING ORDER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
7. GENERAL CONTRACTOR TO INSTALL ALL SPEAKERS AT HEIGHTS AND WITH MOUNTING TYPES AS PER OWNER'S INSTRUCTIONS.
8. EMERGENCY LIGHTING SHALL BE INSTALLED 6" BELOW CEILING HEIGHTS.

LIGHTING FUNCTIONAL TESTING/PLAN:

THE CONTRACTOR SHALL COMPLETE THE TASKS BELOW TO COMMISSION THE LIGHTING CONTROL SYSTEM AND SUBMIT WRITTEN DOCUMENTATION DETAILING THE TASK BELOW. FOR EACH TASK, LIST THE DATE PERFORMED, PERSON COMPLETING THE TASK, THE INITIAL SETTING CONDITION, ACTIONS PERFORMED, AND FINAL SETTING CONDITION. SUBMIT DOCUMENTATION TO THE PROJECT MANAGER/ARCHITECT AT OR BEFORE SUBSTANTIAL COMPLETION TO FACILITATE OBTAINING THE CERTIFICATE OF OCCUPANCY.

1. ENSURE ALL LIGHTING FIXTURES HAVE PROPER LAMPS INSTALLED AND ARE FUNCTIONAL.
2. TEST ALL EXIT SIGNS, EMERGENCY LIGHTING FIXTURES, AND EMERGENCY BALLAST FURNISHED INTEGRAL TO FIXTURES.
3. VERIFY EXTERIOR LIGHTING CONTROLLERS ARE WORKING AND THE PHOTOCELL OVERRIDE WORKING. SET EXTERIOR LIGHTING CONTROLLER TIME SEQUENCE PER OWNERS INSTRUCTIONS.
4. ENSURE ALL OCCUPANCY SENSORS HAVE BEEN INSTALLED AND ARE OPERATIONAL.
5. ENSURE ALL WALL BOX DIMMING AND SCENE DIMMING CONTROLLERS ARE INSTALLED AND OPERATIONAL.
6. VERIFY THE FOLLOWING:
   - 6.1 SENSORS HAVE BEEN LOCATED AND AIMED PER THE MANUFACTURERS RECOMMENDATIONS.
   - 6.2 STATUS INDICATORS ON DEVICES ARE OPERATIONAL AND CORRECT.
   - 6.2 DEVICES CONTROL LIGHTING FIXTURES AS INDICATED ON DRAWINGS.
   - 6.4 TIME DELAYS HAVE BEEN SET AS PER THE OWNER'S INSTRUCTIONS.
   - 6.5 MOVEMENT IN ADJACENT AREAS AND/OR CYCLING OF HVAC SYSTEMS DOES NOT FALSE TRIGGER SENSORS.
7. ALL CONTROLS SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF IECC SECTION C405.2.1, C405.2.1.1 AND C405.2.2.



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

ELECTRICAL KEYED NOTES

(1) ROUTE EXTERIOR LIGHTS THRU LIGHTING CONTACTOR.

$D – WALL MOUNTED 0–10V DIMMER
$T – 24HR PROGRAMMABLE TIMER, LEGRAND #RT2I OR EQUAL.
$OD – COMBINATION WALL MOUNTED SENSOR/DIMMER.
(OS) – CEILING MOUNTED OCCUPANCY SENSOR.
[OS] – WALL MOUNTED OCCUPANCY SENSOR.

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03.09.23

REVISIONS	BY
1 CITY COMMENTS 2-13-23	

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210-262-7265

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Job 22101
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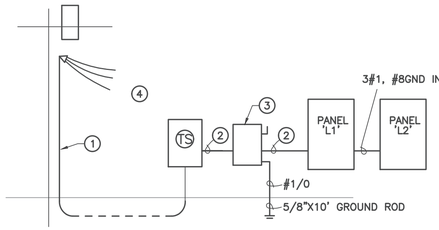
Of Sheets



ONE- LINE KEYED NOTES

1. 3#350 IN 2 1/2"C
2. 3#350, #4 GND IN 2 1/2"C
3. 400A/300AF/2P/N3R/HD
4. COORDINATE SERVICE SIZE WITH UTILITY COMPANY PRIOR TO ROUGH-IN.

2 ONE-LINE DIAGRAM
NTS

PANELBOARD SCHEDULE

PANEL: 'L1' | MOUNTING: SURFACE | NOTE: ALL BRANCH CIRCUITS SHALL BE RUN IN EMT CONDUIT FROM PANEL TO DEVICE. WHERE CONDUIT SIZE IS NOT INDICATED E.C. MAY COMBINE SIMILAR TYPE CIRCUITS IN LARGER CONDUIT NOT TO EXCEED 40% FILL PER TABLES IN NEC 2017 AND PER TABLE 310.15 (B) (2) (a) FOR CONDUCTOR DERATING WHERE APPLICABLE. ALL OTHER BR. CKTS WITH #12 OR #10 CU. SHALL BE RUN IN 3/4"C.
PROJECT: REDEEMER CHURCH COMM CTR | TYPE:
FED FROM SERVICE | BUSSING:
VOLTAGE: 240 120 | MLO: 400A
PH/WIRE: 1 3W | MAIN C.B.:
SUB-FEED LUGS: | A.I.C. RATING:
CONDUIT/CONDUCTORS: | KEY NOTES: 3

CIRCUIT DESCRIPTION	CONDUIT SIZE	COND. SIZE (AWG)	NEUT SIZE (AWG)	E.G.C SIZE (AWG)	TYPE LOAD	LOAD VA	CKT BKR	CKT #	CKT #	CKT BKR	LOAD VA	TYPE LOAD	CONDUIT SIZE	COND. SIZE (AWG)	NEUT SIZE (AWG)	E.G.C SIZE (AWG)	CIRCUIT DESCRIPTION
ELECTRIC DRRINKING FOUNTAIN					9	800	20/1	1	2	20/1	720	1					RCPTS: EXTERIOR
RCPTS: CONFERENCE ROOM					1	360	20/1	3	4	20/1	540	1					RCPTS: CONFERENCE TABLES
FCU-2					4	4320	60/2	5	6	60/2	5165	4					FCU-1
					4	4320		7	8		5165	4					
CU-2					3	1738	30/2	9	10	50/2	3110	3					CU-1
					3	1738		11	12		3110	3					
EF-1/-2					9	85	20/1	13	14	30/2	2640	9					COOLER CONDENSER
EF-3/-4/-5					9	170	20/1	15	16		2640	9					
WASHER							30/2	17	18	20/1	1200	9					COOLER COIL
								19	20	20/1	360	1					RCPTS: CONFERENCE TABLES
DRYER					9	3000	40/2	21	22	30/2	2640	9					FREEZER CONDENSER
					9	3000		23	24		2640	9					
WATERHEATER					6	4500	50/1	25	26	20/1	1200	9					FREEZER COIL
RCPTS: KITCHEN ISLAND						360	20/1	27	28	20/1							SPARE
LIGHTS					2	935	20/1	29	30	20/1	800	9					KITCHEN HOOD
LIGHTS					2	484	20/1	31	32	20/1	720	1					RCPTS: CORRIDOR/CONF. RM
EXTERIOR LIGHTS					10	464	20/1	33	34	35/1	1997	9					MUA-1
SPARE							20/1	35	36	20/1	1656	9					KEF-1
SPARE							20/1	37	38	20/1							SPARE
PANEL 'L2'							100/2	39	40	20/1							SPARE
								41	42	20/1							SPARE

CONNECTED LOADS SUMMARY	VA/PH	AMPS/PH
PHASE 'A'	35314	294
PHASE 'B'	27263	227
TOTALS	62577	261

PANELBOARD LOAD ANALYSIS	KVA	AMPS
1. TOTAL NEC DEMAND LOAD	68.35	284.8
2. ADD LARGEST MOTOR (25%)		
3. ADD LIGHTING PER VA/SF (SEE NOTE 2	0.00	0.0
4. SUB-TOTAL LOAD	68.35	284.8
5. NOT USED		
6. TOTAL NEC LOAD WITH FUTURE LOAD	68.35	284.8

PANELBOARD LOAD COMPUTATIONS - LOAD SUMMARY

TYPE	LOAD DESCRIPTION	SUB FEED	KVA	D.F.	DEMAND LOAD (KVA)
1	1. RECEPTACLES		3.66	NOTE 1	6.4
2	2. LIGHTING	0.00	1.42	125%	1.8
3	3. AIR CONDITIONING	0.00	9.70	100%	9.7
4	4. ELECTRIC HEATING	0.00	18.97	100%	19.0
5	5. MOTORS	0.00	0.00	100%	0.0
6	6. ELECT WATER HTG.	0.00	4.50	100%	4.5
7	7. ELEVATOR	0.00	0.00	100%	0.0
8	8. KITCHEN EQUIP.	0.00	0.00	80%	0.0
9	9. MISCELANEOUS	2.00	26.47	100%	26.5
10	10.EXT. LIGHTING	0.00	0.46	125%	0.6
	TOTAL KVA	5.66	67.88		68.35
	TOTAL AMPERES	13.6	282.8		284.8

LOAD ANALYSIS NOTES AND PANELBOARD TYPICAL NOTES:
1. REFER TO THE TYPICAL LOAD ANALYSIS NOTES ON THIS DRAWING SHEET.
2. REFER TO THE TYPICAL PANELBOARD KEYED NOTES ON THIS DRAWING SHEET.
3. YELLOW SHADED LOADS ARE TO BE CONFORMED IN FRIELD BY CONTRCATOR PRIOR TO INSTALLATION

PANELBOARD SCHEDULE

PANEL: 'L2' | MOUNTING: SURFACE | NOTE: ALL BRANCH CIRCUITS SHALL BE RUN IN EMT CONDUIT FROM PANEL TO DEVICE. WHERE CONDUIT SIZE IS NOT INDICATED E.C. MAY COMBINE SIMILAR TYPE CIRCUITS IN LARGER CONDUIT NOT TO EXCEED 40% FILL PER TABLES IN NEC 2017 AND PER TABLE 310.15 (B) (2) (a) FOR CONDUCTOR DERATING WHERE APPLICABLE. ALL OTHER BR. CKTS WITH #12 OR #10 CU. SHALL BE RUN IN 3/4"C.
PROJECT: REDEEMER CHURCH COMM CTR | TYPE:
FED FROM 'L1' | BUSSING:
VOLTAGE: 240 120 | MLO: 100A
PH/WIRE: 1 3W | MAIN C.B.:
SUB-FEED LUGS: | A.I.C. RATING:
CONDUIT/CONDUCTORS: | KEY NOTES:

CIRCUIT DESCRIPTION	CONDUIT SIZE	COND. SIZE (AWG)	NEUT SIZE (AWG)	E.G.C SIZE (AWG)	TYPE LOAD	LOAD VA	CKT BKR	CKT #	CKT #	CKT BKR	LOAD VA	TYPE LOAD	CONDUIT SIZE	COND. SIZE (AWG)	NEUT SIZE (AWG)	E.G.C SIZE (AWG)	CIRCUIT DESCRIPTION
RCPT.- CONF. ROOM					1	180	20/1	1	2	20/1	360	1					RCPTS.- KITCHEN
RCPT.- CONF. ROOM					1	180	20/1	3	4	20/1	720	1					RCPTS.- KITCHEN
RCPT.- CONF. ROOM					1	180	20/1	5	6	20/1	1000	9					E03.MICROWAVE OVEN
RCPT.- OFFICE					1	300	20/1	7	8	20/1	1000	9					E03.MICROWAVE OVEN
RCPT.- OFFICE					1	300	20/1	9	10	20/1	360	1					RCPTS.- RESTROOMS
RCPTS.- CORRIDOR/STORAGE					1	1080	20/1	11	12	20/1							SPARE
SPARE							20/1	13	14	20/1							SPARE
SPARE							20/1	15	16	20/1							SPARE
SPARE							20/1	17	18	20/1							SPARE
BUSSED SPACE								19	20								BUSSED SPACE
BUSSED SPACE								21	22								BUSSED SPACE
BUSSED SPACE								23	24								BUSSED SPACE

CONNECTED LOADS SUMMARY	VA/PH	AMPS/PH
PHASE 'A'	2380	20
PHASE 'B'	3280	27
TOTALS	5660	24

PANELBOARD LOAD ANALYSIS	KVA	AMPS
1. TOTAL NEC DEMAND LOAD	5.66	23.6
2. ADD LARGEST MOTOR (25%)		
3. ADD LIGHTING PER VA/SF (SEE NOTE 2	0.00	0.0
4. SUB-TOTAL LOAD	5.66	23.6
5. NOT USED		
6. TOTAL NEC LOAD WITH FUTURE LOAD	5.66	23.6

PANELBOARD LOAD COMPUTATIONS - LOAD SUMMARY

TYPE	LOAD DESCRIPTION	SUB FEED	KVA	D.F.	DEMAND LOAD (KVA)
1	1. RECEPTACLES	0.00	3.66	NOTE 1	3.7
2	2. LIGHTING	0.00	0.00	125%	0.0
3	3. AIR CONDITIONING	0.00	0.00	100%	0.0
4	4. ELECTRIC HEATING	0.00	0.00	100%	0.0
5	5. MOTORS	0.00	0.00	100%	0.0
6	6. ELECT WATER HTG.	0.00	0.00	100%	0.0
7	7. ELEVATOR	0.00	0.00	100%	0.0
8	8. KITCHEN EQUIP.	0.00	0.00	80%	0.0
9	9. MISCELANEOUS	0.00	2.00	100%	2.0
10	10.EXT. LIGHTING	0.00	0.00	125%	0.0
	TOTAL KVA	0.00	5.66		5.66
	TOTAL AMPERES	0.0	23.6		23.6

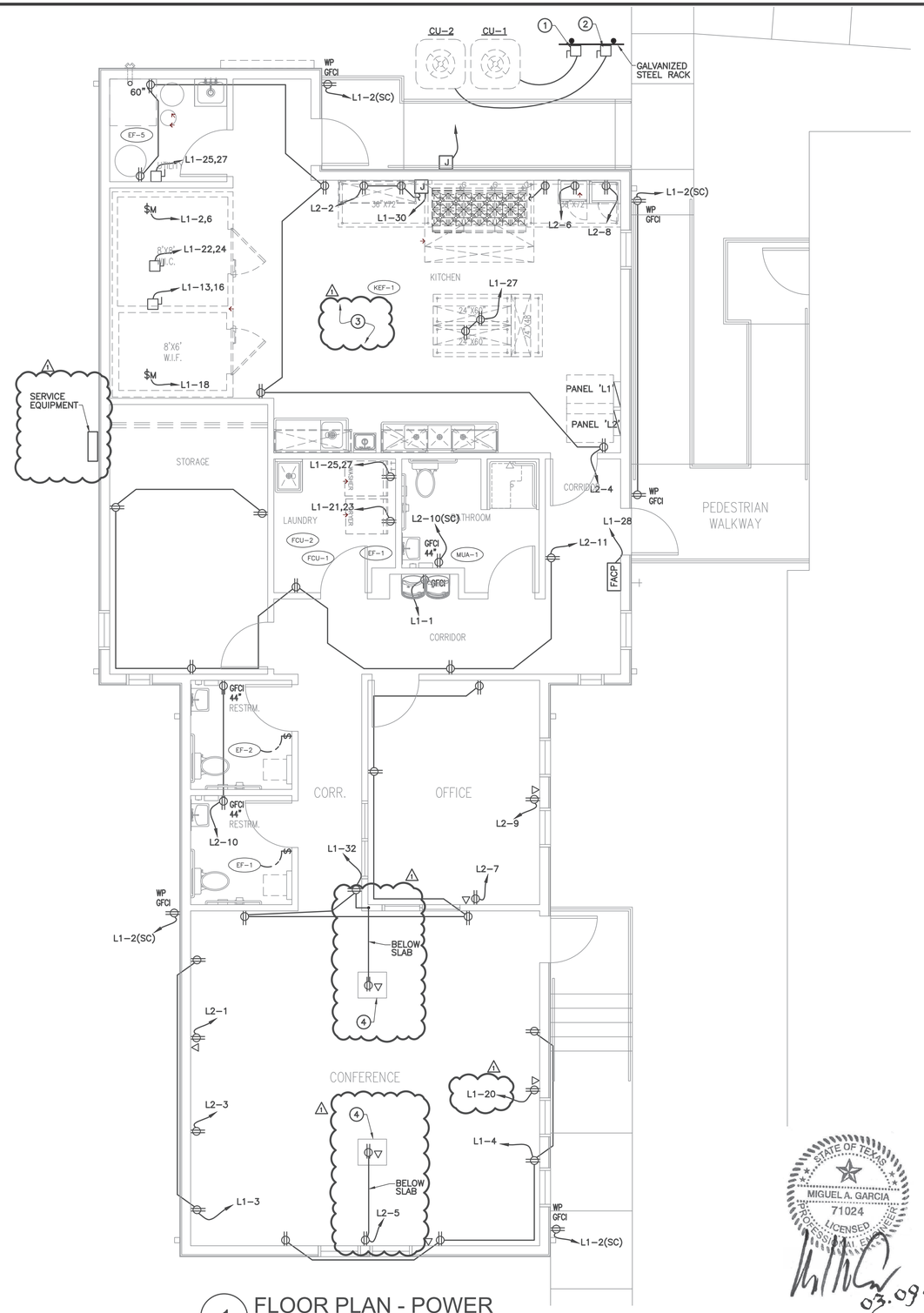
LOAD ANALYSIS NOTES AND PANELBOARD TYPICAL NOTES:
1. REFER TO THE TYPICAL LOAD ANALYSIS NOTES ON THIS DRAWING SHEET.
2. REFER TO THE TYPICAL PANELBOARD KEYED NOTES ON THIS DRAWING SHEET.

EQUIPMENT CONNECTION SCHEDULE

EQUIPMENT TAG	VOLTAGE / PHASE	KW HEAT	VOLTAGE / PHASE	MOTOR (HP)	EQUIPMENT (FLA)	EQUIPMENT (MCA)	OCP	DISCONNECTING MEANS	ENCLOSURE NEMA RATING	Wire & Conduit Size	Circuit Number	Notes
TERMINAL UNITS	HEATER DATA											
FCU-1			240/1			53.8	60/2	60A/NF/2P/N1		SEE PANEL SCHEDULE	L1-6,8	
FCU-2			240/1			45	60/2	60A/NF/2P/N1		SEE PANEL SCHEDULE	L1-5,7	
CONDENSER UNITS												
CU-1			240/1			32.4	50/2	SEE RISER DIAGRAM		SEE RISER DIAGRAM	L1-10,12	
CU-2			240/1			18.1	30/2	SEE RISER DIAGRAM		SEE RISER DIAGRAM	L1-9,11	
EXAUST FANS												
EF-1			120/1		36.5 W		20/1	30A/NF/1P/N1		2-#12, #12 GND IN 1/2"C	L1-13	3
EF-2			120/1		36.5 W		20/1	30A/NF/1P/N1		2-#12, #12 GND IN 1/2"C	L1-13	3
EF-3			120/1		36.5 W		20/1	30A/NF/1P/N1		2-#12, #12 GND IN 1/2"C	L1-15	3
EF-4			120/1		71 W		20/1	30A/NF/1P/N1		2-#12, #12 GND IN 1/2"C	L1-15	3
EF-5			120/1		36.5 W		20/1	30A/NF/1P/N1		2-#12, #12 GND IN 1/2"C	L1-15	3
KITCHEN EQUIPMENT												
MUA			120/1			20.8	35/1	60A/NF/2P/N3R		2 #10, #10 GND IN 3/4"C	L1-34	
KEF-1			120/1		13.8		20/1	30A/NF/1P/N3R		2 #10, #10 GND IN 3/4"C	L1-36	
WATERHEATER												
EWH-1			240/1				30/2	30A/NF/2P	N1	2-#10, #10 GND IN 3/4""C		

NOTES:
1. CONTROLS PROVIDED BY DIVISION 15, INSTALLED AND WIRED THROUGH DIVISION 16
2. ONE POINT OF CONNECTION. WIRING BETWEEN EXTERIOR UNIT AND UNITERIOR UNIT BY DIVISION 15.
3. CONTROLLED PER SEPARATE LIGHT SWITCH

GENERAL NOTES:
1. VERIFY ELECTRICAL REQUIREMENTS WITH MECHANICAL /EQUIPMENT SUBMITTALS PRIOR TO ELECTRICAL ROUGH-IN



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

ELECTRICAL KEYED NOTES

1. 60A/NF/2P/N3R
2. 30A/NF/2P/N3R
3. RECEPTACLES IN KITCHEN TO BE GFCI PROTECTED PER NEC 210.8(B)(2).
4. DUAL SERVICE FLOOR OUTLET BOX.

Garcia Modesto, Inc.
Engineering Services
Firm # 2556
3935 Hunters Rock
San Antonio, TX 78230
Project Manager:
David Vasquez
tel. (210) 865-2294

STATE OF TEXAS
MIGUEL A. GARCIA
71024
LICENSED
PROFESSIONAL ENGINEER
03.09.23

REVISIONS	BY
1 ETC. COMMENTS 2-15-23	

LOVE COMMUNITY CENTER
REDEEMER PRAISE CHURCH
107 S. PINE STREET, SAN ANTONIO, TEXAS 78203

Fraustro Engineering
8647 WILDBEACH ROAD
SUITE 504
SAN ANTONIO, TX 78240
210-520-1360

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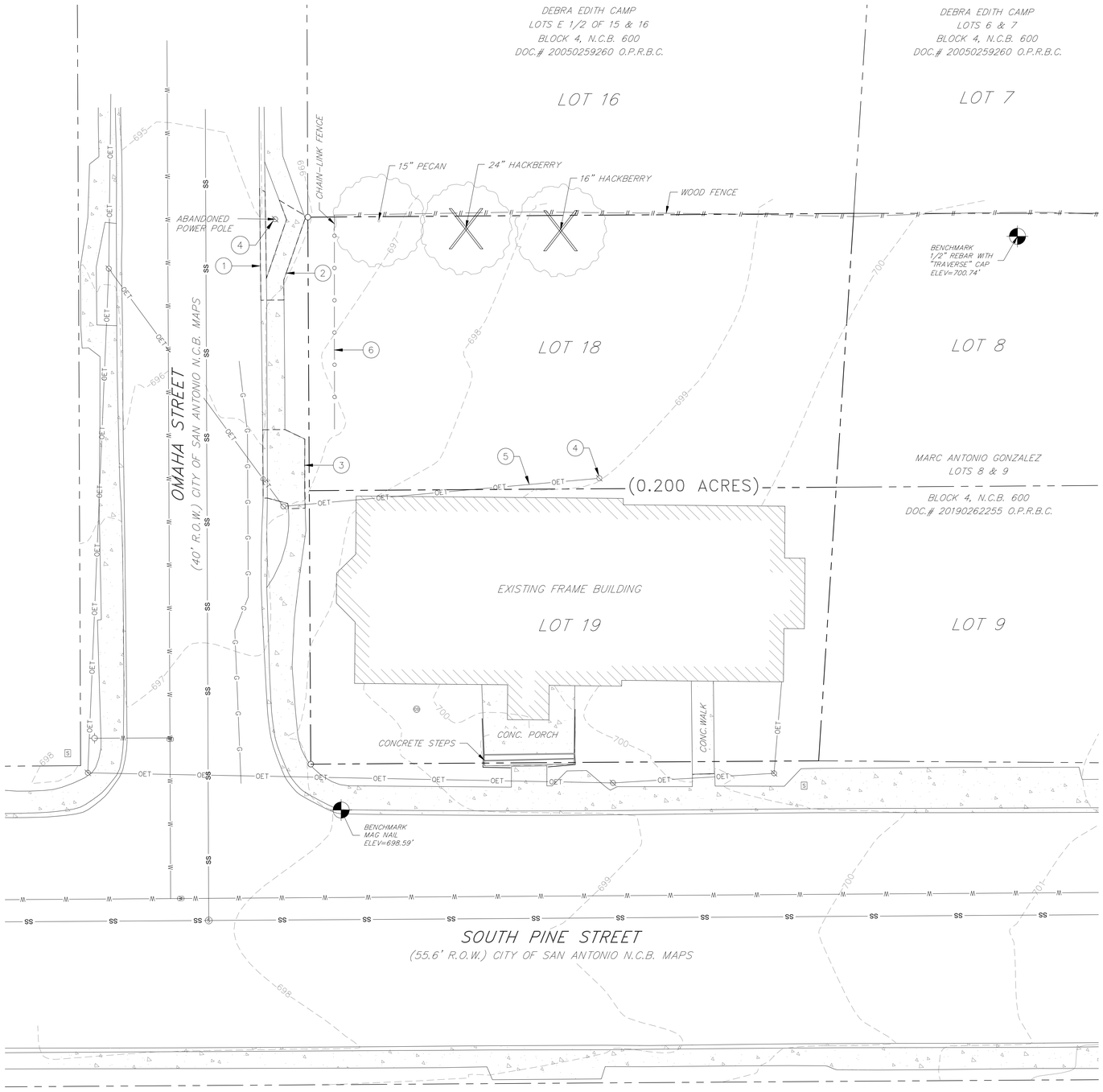
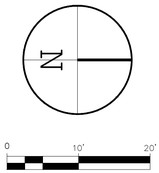
PREVIOUSLY APPROVED CONSTRUCTION DOCUMENTS - INCLUDED FOR REFERENCE ONLY





LEGEND

- BOUNDARY/PROPERTY LINE
- ADJACENT/PROPERTY LINE
- PROPOSED EASEMENT LINE
- EXISTING CONCRETE CURB
- EXISTING CONTOURS
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC AND TELEPHONE LINE
- EXISTING WOOD FENCE
- EXISTING CHAIN-LINK FENCE
- EXISTING CONCRETE
- PROPOSED CONCRETE
- EXISTING WATER VALVE
- EXISTING CLEANOUT
- EXISTING SANITARY SEWER MANHOLE
- EXISTING POWER POLE
- SET 1/2" REBAR W/MDS CAP
- EXISTING SIGN
- BENCHMARK
- O.P.R.B.C. OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY
- KEYNOTES
- EXISTING TREE
- EXISTING TREE TO BE REMOVED

KEYNOTES

1. EXISTING CONCRETE CURB TO BE REMOVED
2. EXISTING CONCRETE DRIVEWAY APRON TO BE REMOVED
3. EXISTING CONCRETE SIDEWALK TO BE REMOVED
4. EXISTING POWER POLE TO BE REMOVED
5. EXISTING UTILITY LINE TO BE REMOVED
6. EXISTING CHAIN-LINK FENCE TO BE REMOVED

URBANE ENGINEER
TBPELS REGISTRATION NO. F-18361
11503 JONES MALTSBERGER ROAD
SUITE NO. 1148

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REGISTRATION NO. 103673
DATE: JANUARY 15, 2021

MARK:	DESCRIPTION:	DATE:

FILE NUMBER:
FILE NAME:
PLOT SCALE:
SHEET SIZE: 24"x36"

DESIGNED BY: EAM
DRAWN BY: TMJr
CHECKED BY: EAM
DATE: 01.12.2021

SHEET TITLE:
EXISTING CONDITIONS SURVEY AND DEMOLITION PLAN

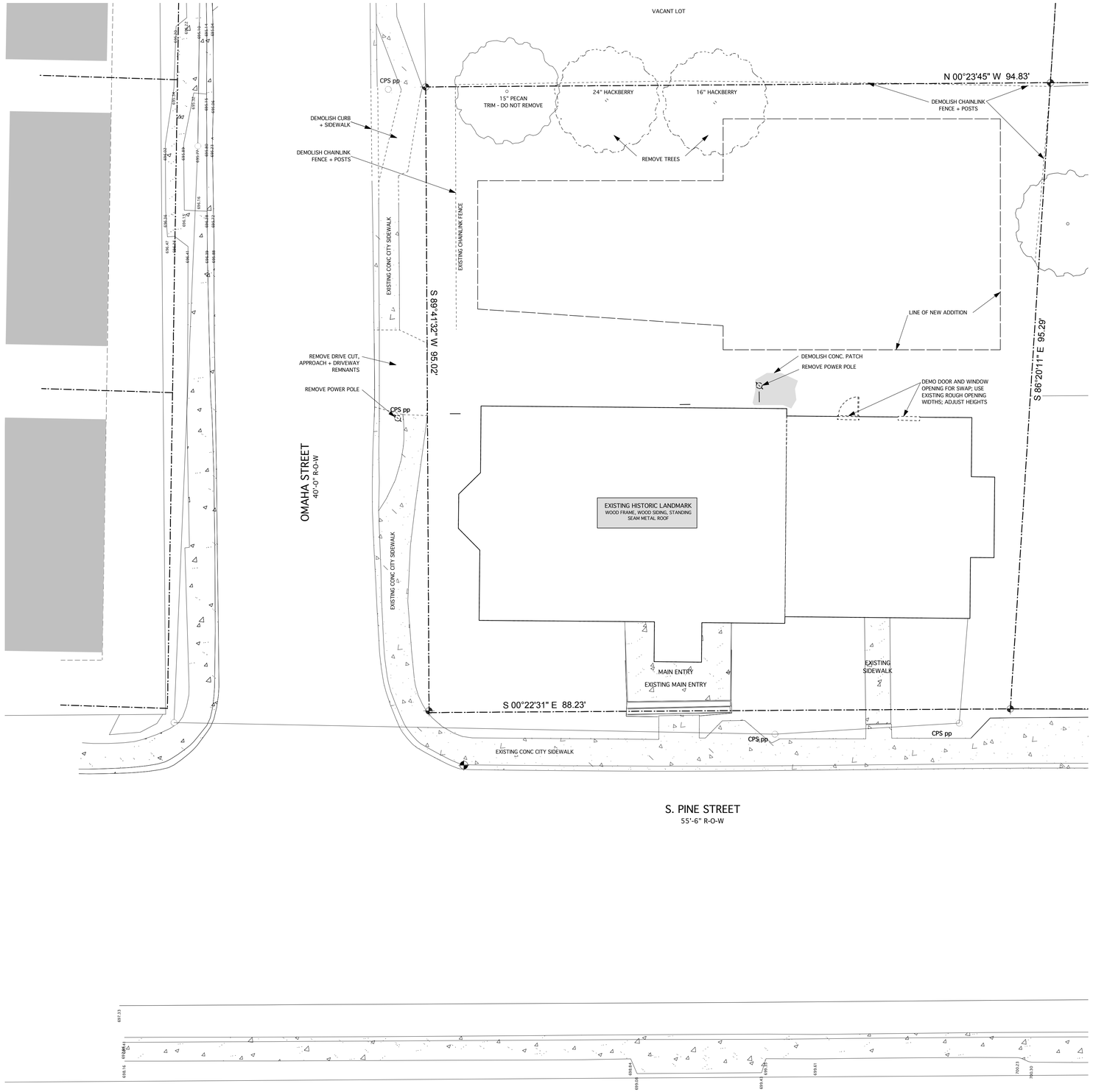
REDEEMER - COMMUNITY CENTER
107 S. PINE STREET, SAN ANTONIO, TEXAS

SAVINO ARCHITECTURE, LLC.
1120 E. CROCKETT STREET, SAN ANTONIO, TEXAS

DRAWING NUMBER:
VS-101

SHEET IDENTIFICATION
SHEET _ OF 8

C:\Users\UEGuest\Box\02 Sheets (Edgar A Munoz PE 2)\20200805 VS-101 Exist Cond Survey & Demo Plan.dwg



2 SITE PLAN / EXISTING CONDITIONS
SCALE: 1/8" = 1'-0"

PREVIOUSLY APPROVED CONSTRUCTION DOCUMENTS - INCLUDED FOR REFERENCE ONLY

ARCHITECTURAL DRAWINGS - OHP/HDRC REVIEW

A0.1	EXISTING SITE CONDITIONS
A0.2	SITE PLAN
A0.3	CONTEXT PHOTOS
A0.4	CONTEXT PHOTOS
A0.5	CONTEXT PHOTOS
A0.6	SITE ASSESSMENT
A1.0	BUILDING PLAN
A2.0	EXTERIOR ELEVATIONS
A2.1	EXTERIOR ELEVATIONS
A2.2	EXTERIOR ELEVATIONS
A3.0	BUILDING SECTIONS
A4.0	WALL SECTIONS
A5.0	WINDOWS
A6.0	LANDSCAPE + HARDSCAPE

BUILDING DATA

PROJECT NAME: REDEEMER PRAISE CHURCH and LOVE COMMUNITY CENTER

PROJECT DESCRIPTION: NEW BUSINESS ADDITION TO EXISTING HISTORIC LANDMARK CHURCH

BUILDING ADDRESS: 107 S. PINE STREET, SAN ANTONIO, TEXAS 78203

LEGAL DESCRIPTION: SEE ATTACHED SURVEY

BUILDING CODES:
1. 2018 IBC WITH CITY OF SAN ANTONIO AMENDMENTS
2. UNIFORM MECHANICAL CODE 2018 EDITION, AS AMENDED BY THE CITY OF SAN ANTONIO
3. UNIFORM PLUMBING CODE 2018 EDITION, AS AMENDED BY THE CITY OF SAN ANTONIO
4. UNIFORM ELECTRICAL CODE 2018 EDITION, AS AMENDED BY THE CITY OF SAN ANTONIO
5. INT'L. ENERGY CONSERVATION CODE 2018 EDITION, AS AMENDED BY THE CITY OF SAN ANTONIO

CITY ORDINANCES: 1. CITY OF SAN ANTONIO UDC

CITY GUIDELINES: 1. OFFICE OF HISTORIC PRESERVATION HISTORIC DESIGN GUIDELINES

SCOPE OF WORK: 1 STORY BUSINESS (B) ADDITION TO EXISTING CHURCH (A-3)
(LOCAL DESIGNATED HISTORIC LANDMARK)

BUILDING AREA: 2352 SF NEW AREA (1 STORY)
2483 SF EXISTING (1 STORY)
4835 SF TOTAL PROJECT
TABLE 506.2 - 36,000 SF TOTAL ALLOWABLE AREA BOTH A AND B

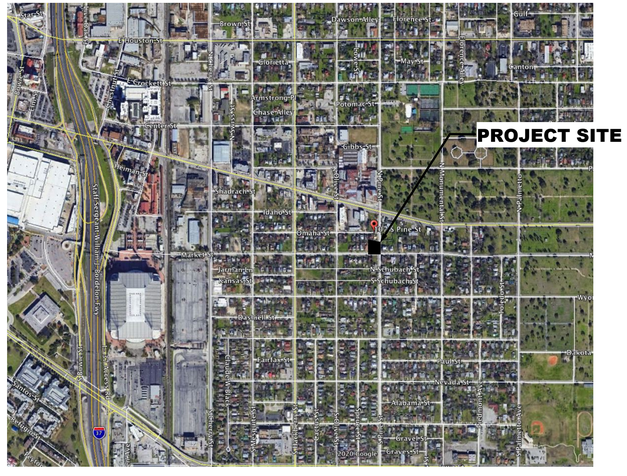
OCCUPANCY TYPE: BUSINESS GROUP (B), SECT. 304.1 (NEW)
ASSEMBLY GROUP (A-3) SECT. 303.4 (EXISTING)

CONSTRUCTION: TYPE VB SPRINKLERED (NEW)

PLUMBING CALCULATIONS: CITY OF SAN ANTONIO, IBC, AND 2012 TAS

LOT AREA				8699 SF
EXISTING				
	CHURCH	2483		
	ENTRIES	234		
	PATCH	29		
TOTAL EXISTING				2746
NEW				
	COMM CTR	2250		
	CONNECTOR			
	LANDING	54		
	RAMP 1	60		
	RAMP 2	30		
	LANDING/CHURCH	24		2418
PAVING	OMAHA LANDING / STAIR		46	
	OMAHA WALK		45	
	OMAHA GATE		60	
	SOUTH WALKWAY		55	
	DRIVE LANDING		17	
	LOADING RAMP		100	
	LOADING LANDING		48	
	WEST UTLITY YARD		368	
	TREE ZONE	56		
	EGRESS DISCH. TO PINE	224	1019	
TOTAL NEW			3437	
TOTAL COVERAGE				6183

6183/ 8699 = .7107 = 71% IMPERVIOUS



1 GENERAL INFORMATION
N.T.S.

REDEEMER PRAISE CHURCH
LOVE COMMUNITY CENTER
ADDITION and CHURCH REPAIR

107 S. PINE STREET
SAN ANTONIO, TEXAS 78203

Verify all dimensions and materials. Do not scale drawings; contact Architect in case of discrepancy. The Architect is not responsible for construction means, methods, techniques, sequences,or procedures, or for safety precautions and programs in connection with the Project.

Drawings and Specifications as instruments of service are and shall remain the property of the Architect. They are not to be used on other projects, except by agreement in writing from and with appropriate compensation to the Architect.

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SAVINO ARCHITECTURE LLC

Monica Savino
713 231-7871

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San Antonio, Texas 78202
info@savinoarchitecture.com
www.savinoarchitecture.com

RECORD

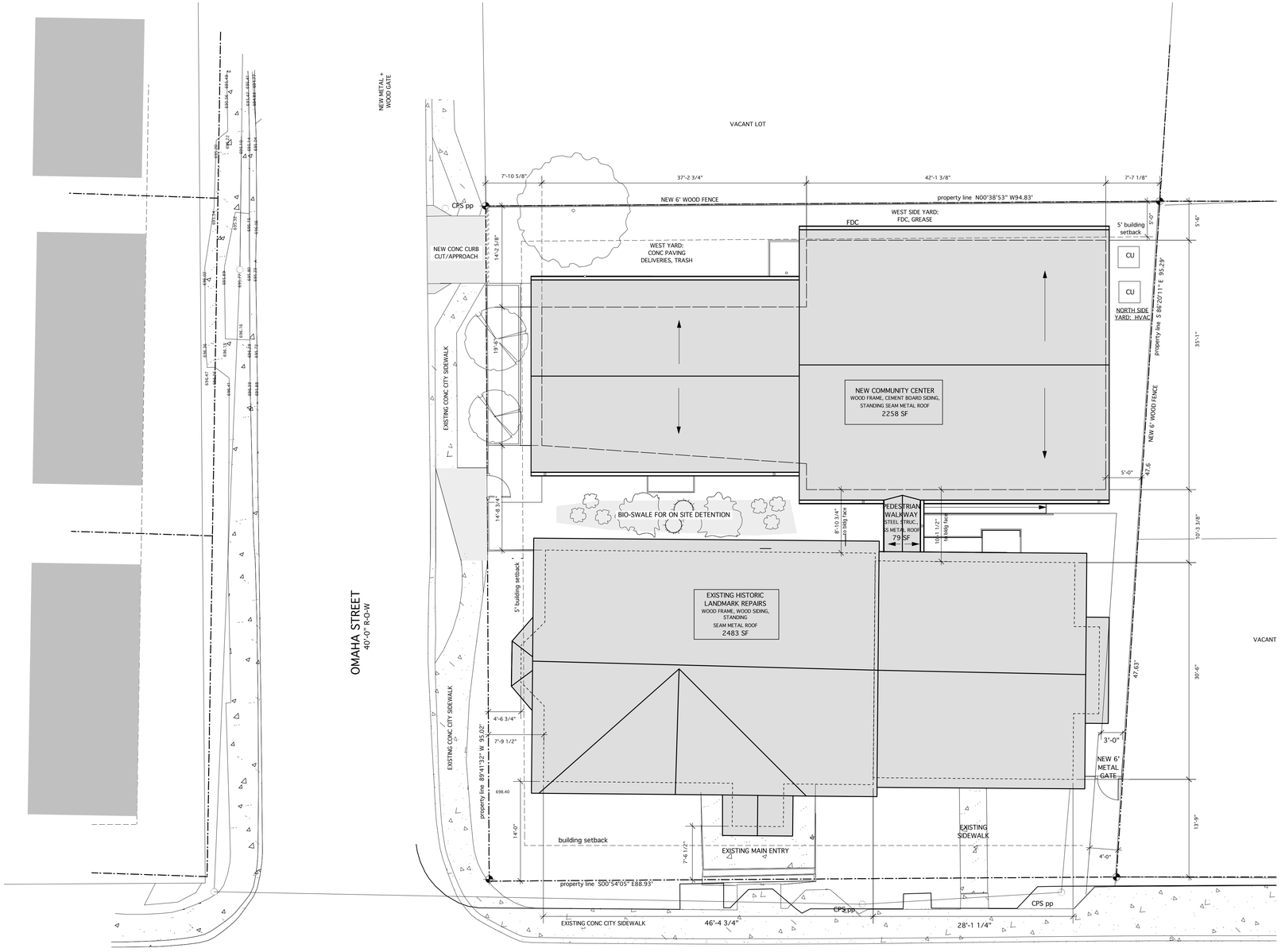
FEB 17, 2021 OHP / HDRC REVIEW

- FOR REVIEW ONLY - NOT FOR CONSTRUCTION

EXISTING SITE + DEMOLITION PLAN

A 0.1

PREVIOUSLY APPROVED CONSTRUCTION DOCUMENTS - INCLUDED FOR REFERENCE ONLY



2 SITE PLAN + ROOF PLANS
SCALE: 1/8" = 1'-0"

METAL ROOF FOR CHURCH, ADDITION, + CONNECTOR

1. ALL BOLTS, LAG SCREWS AND FASTENERS SHALL BE GALVANIZED METAL AND PAINTED WITH RUST INHIBITOR.

2. ROOFING: 24 GA., GALVALUME FINISH; 1" - 2" LOK STANDING SEAM PANELS, (CONCEALED CLIPS); 18" O.C. SEAMS. INSTALLED OVER NAILABLE, INSULATED BOARD.

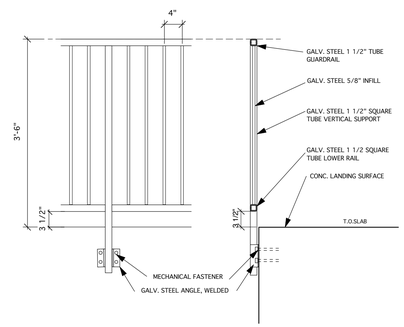
3. CRIMPED RIDGE SEAMS AT ALL STRUCTURES.

4. ALL METAL TRIMS AT ROOF INCLUDING DRIP EDGES, FLASHING, J-TRIMS, SHALL MATCH ROOF COLOR, U.N.O.

5. EXHAUST CHIMNEYS OR FLUES: GALVANIZED FINISH TO MATCH ROOF.

6. CONFIRM MATERIALS AND DETAILS WITH OHP BEFORE INSTALLATION.

2 SPECS / ROOF METAL
N.T.S.



1 DETAIL / GUARD RAIL, TYP.
SCALE: 3/4" = 1'-0"

REDEEMER PRAISE CHURCH LOVE COMMUNITY CENTER ADDITION and CHURCH REPAIR

107 S. PINE STREET
SAN ANTONIO, TEXAS 78203

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www.savinoarchitecture.com

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FEB 17, 2021 OHP / HDRC REVIEW

EXISTING SITE

A 0.2

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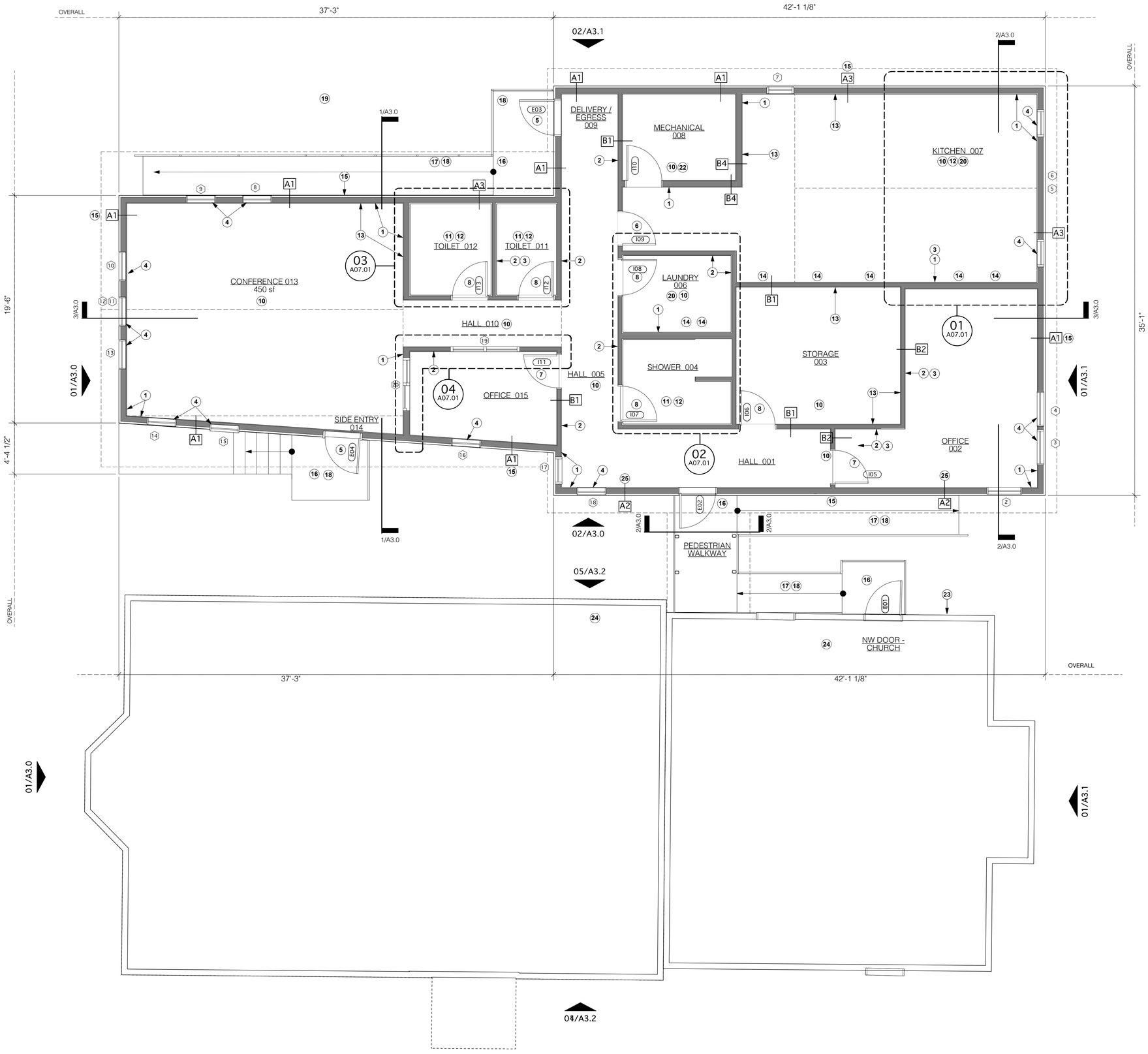

ARCHITECTURAL KEY NOTES

1. 2x6 PARTITION
2. 2x4 PARTITION
3. WALL WITH ACOUSTIC BATTS
4. ALUM. CLAD WOOD WINDOW SYSTEM; RE: WINDOW SCHEDULE
5. METAL CLAD EXTERIOR DOOR SYSTEM; RE: DOOR SCHEDULE
6. METAL DOOR; RE: DOOR SCHEDULE
7. SOLID WOOD DOOR WITH LITE; RE: DOOR SCHEDULE
8. SOLID WOOD DOOR; RE: DOOR SCHEDULE.
9. PROTECTIVE WALL COVERING; RE: FINISH SCHEDULE
10. CLEAR SEALED CONCRETE; RE: FINISH SCHEDULE
11. TILE FLOOR; RE: FINISH SCHEDULE
12. TILE WALL; RE: FINISH SCHEDULE
13. WALL BLOCKING FOR SHELVING UNITS OR CABINETS.
14. RECESSED PWR DEVICE AT APPLIANCE
15. CEMENT BOARD EXTERIOR; RE: WALL SECTIONS
16. CONCRETE LANDING; RE: LANDSCAPE
17. CONCRETE RAMP; RE: LANDSCAPE
18. METAL GUARD AND HAND RAILS; RE: SITE PLAN
19. UTLITY YARD; RE: SITE PLAN + LANDSCAPE
20. APPLIANCES; RE: APPLIANCE SCHEDULE
21. PROVIDE ALL PLUMBING FIXTURES; RE: FIXTURE SCHEDULE + MEP
22. MECH: WET SPRINKLER, HVAC, WTR HEATER; RE: MEP
23. EXPANSION JOINT
24. EXISTING HISTORIC STRUCTURE
25. 2 HR. RATED WALL

1 BUILDING PLAN / ADDITION
SCALE: 1/4" = 1'-0"

REDEEMER PRAISE CHURCH LOVE COMMUNITY CENTER ADDITION and CHURCH REPAIR

107 S. PINE STREET
SAN ANTONIO, TEXAS 78203

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BUILDING PLAN - ADDITION

A 1.0

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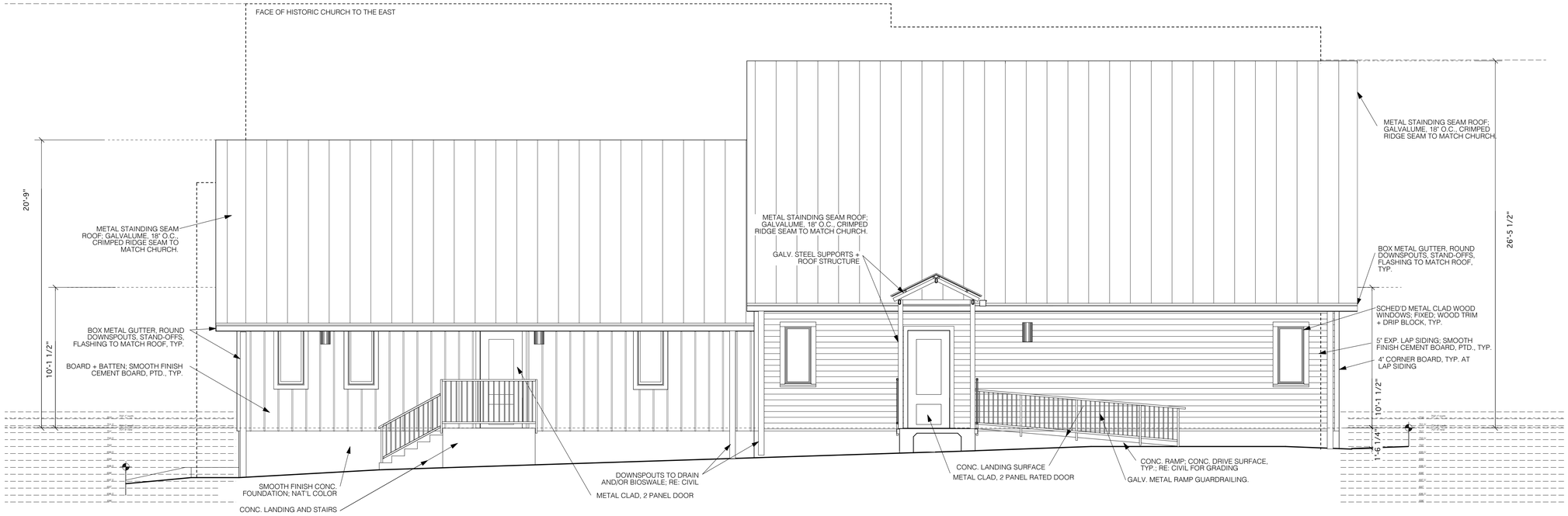
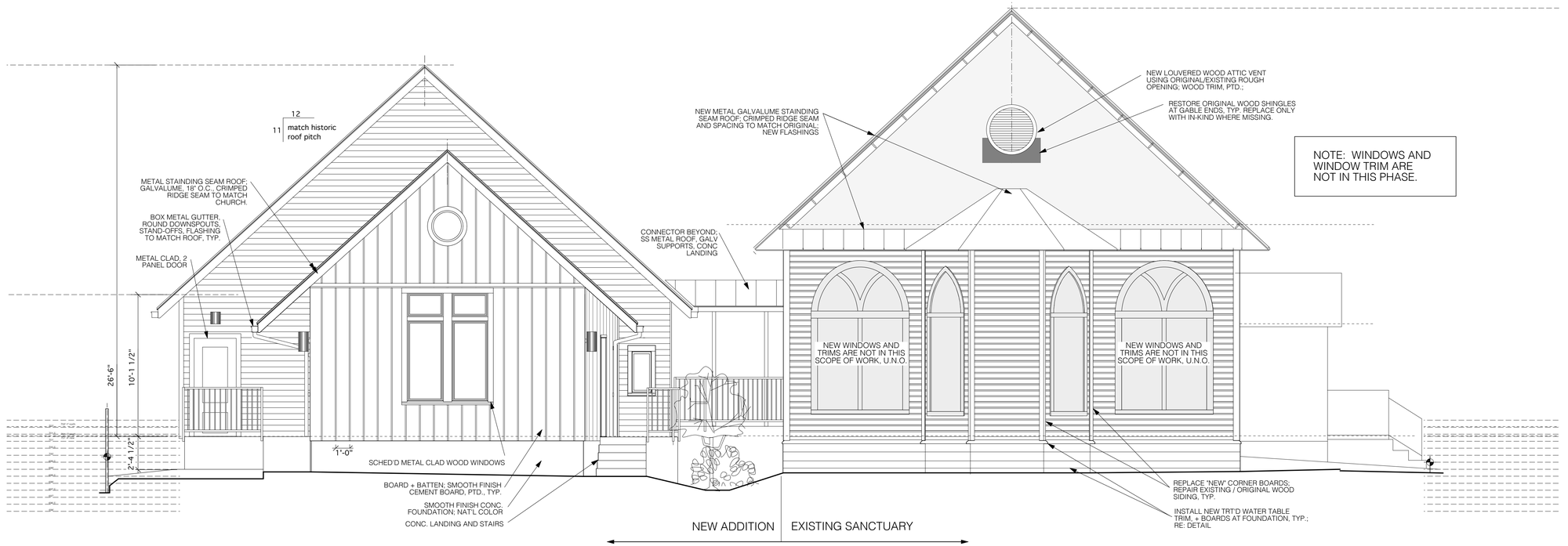


2 EAST ELEVATION / NEW ADDITION
SCALE: 1/4" = 1'-0"



1 SOUTH ELEVATION / NEW ADDITION + EXISTING CHURCH
SCALE: 1/4" = 1'-0"

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LOVE COMMUNITY CENTER
ADDITION and CHURCH REPAIR

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EXTERIOR ELEVATIONS

A 2.0

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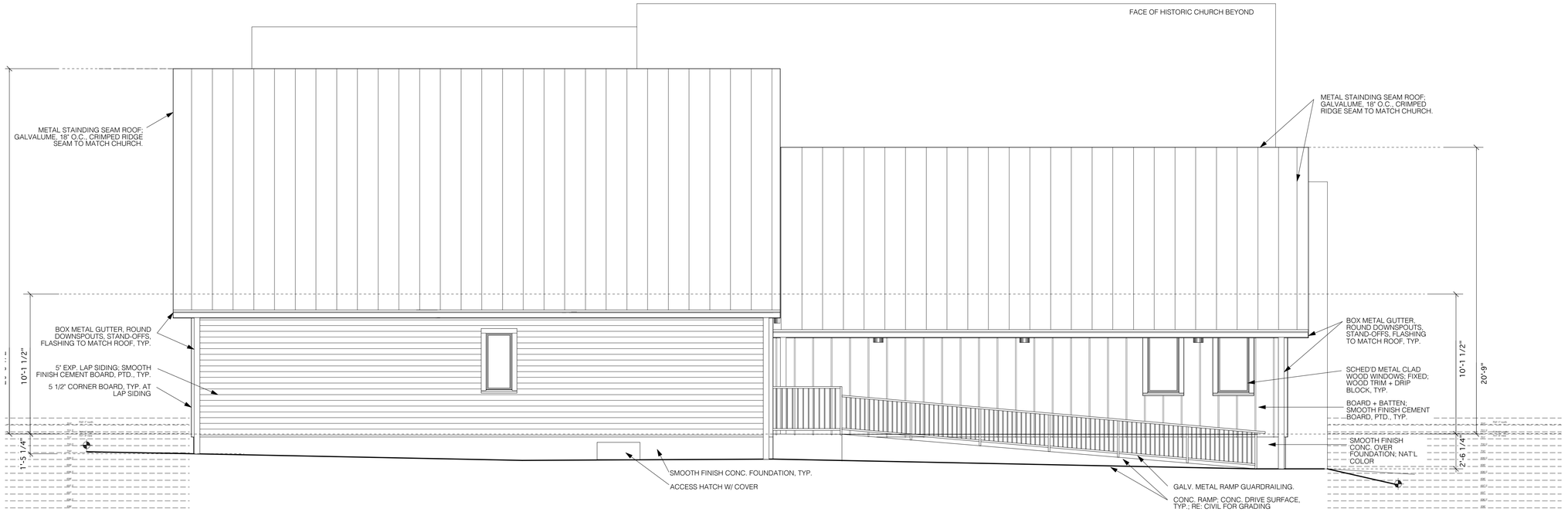
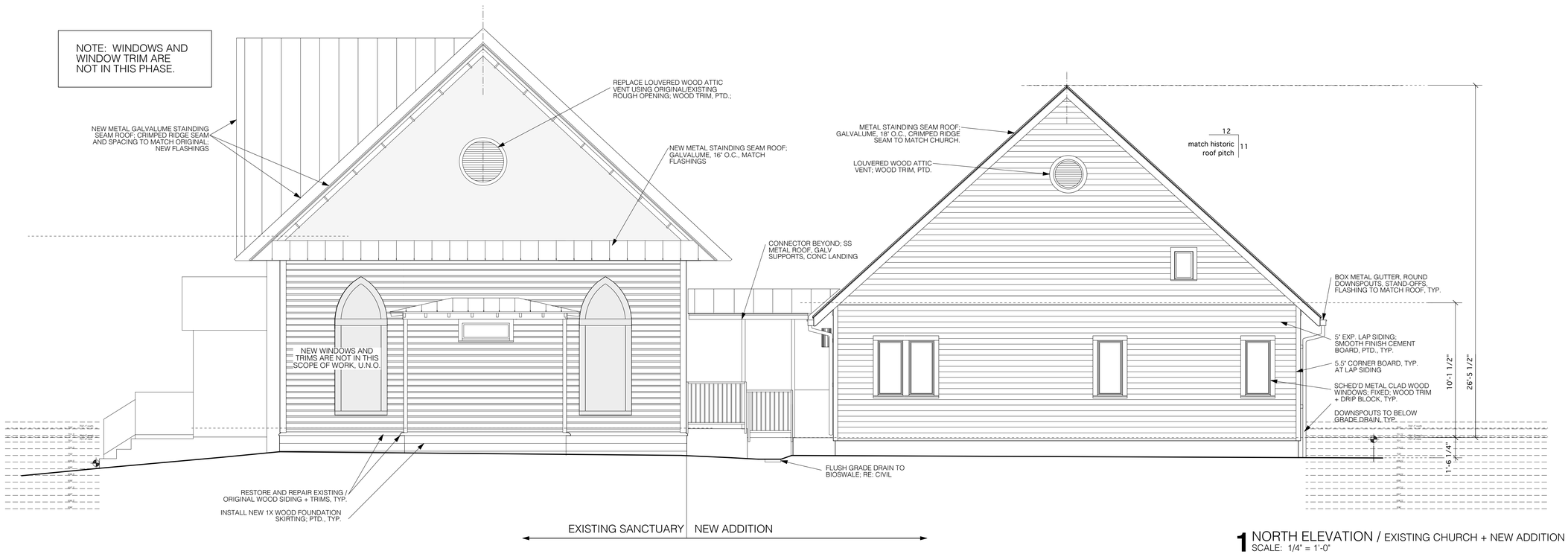


2 WEST ELEVATION / NEW ADDITION
SCALE: 1/4" = 1'-0"



1 NORTH ELEVATION / EXISTING CHURCH + NEW ADDITION
SCALE: 1/4" = 1'-0"

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ADDITION and CHURCH REPAIR

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EXTERIOR ELEVATIONS 2

A 2.1

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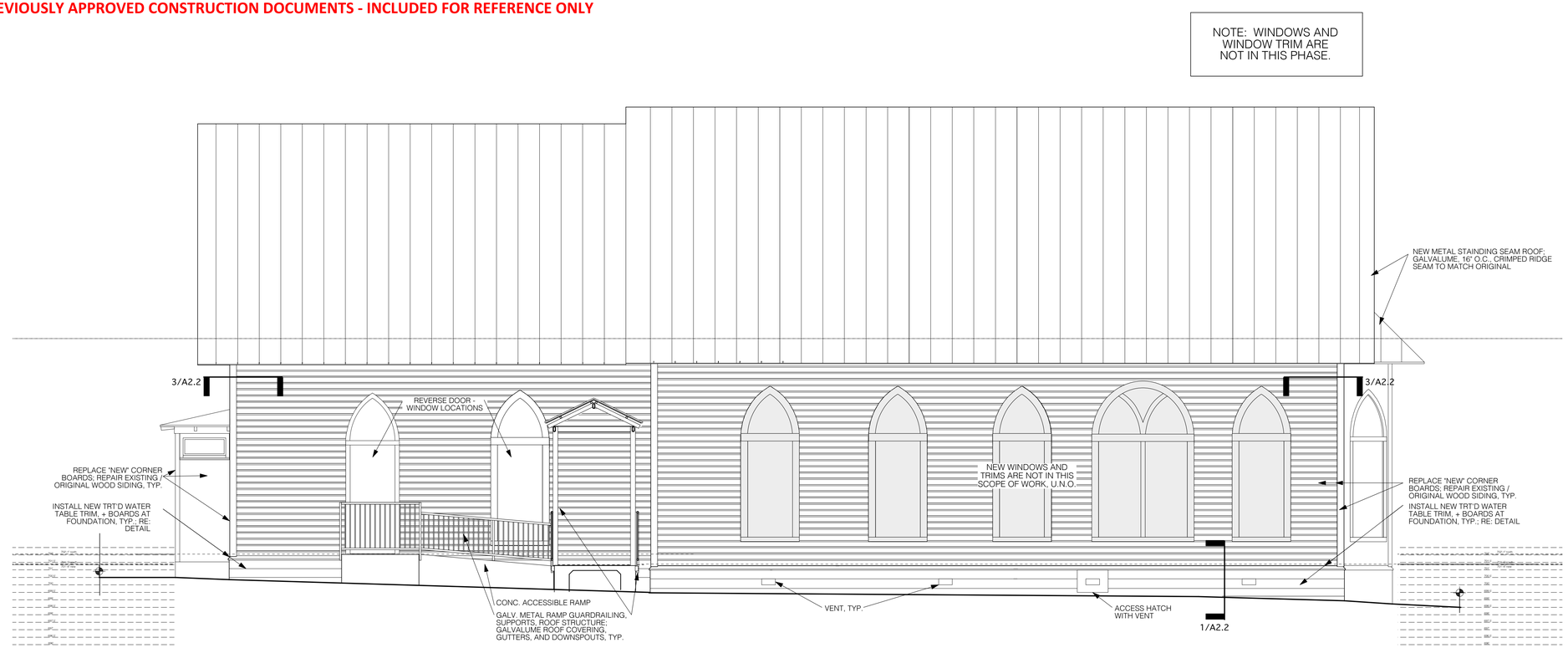
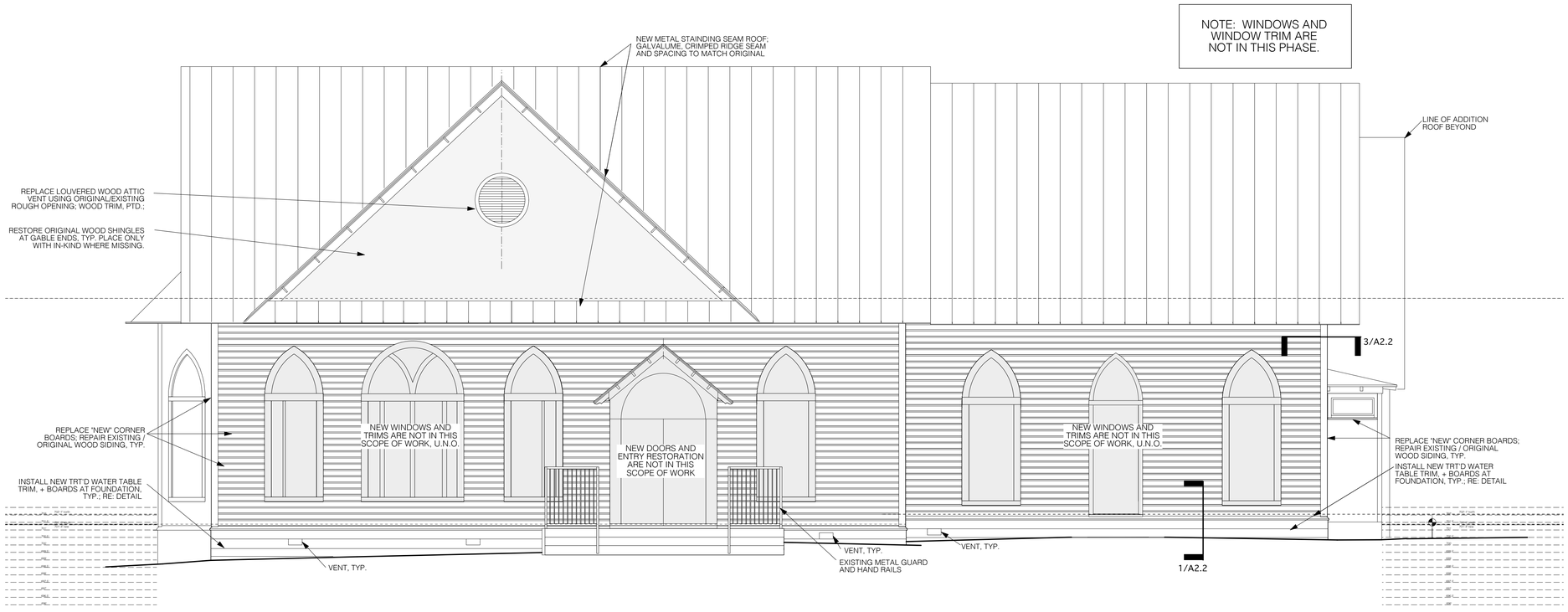
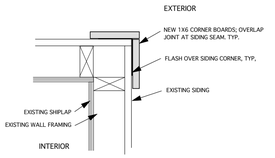


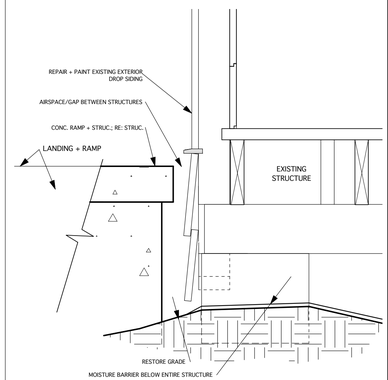
5 WEST ELEVATION / EXISTING CHURCH
SCALE: 1/4" = 1'-0"



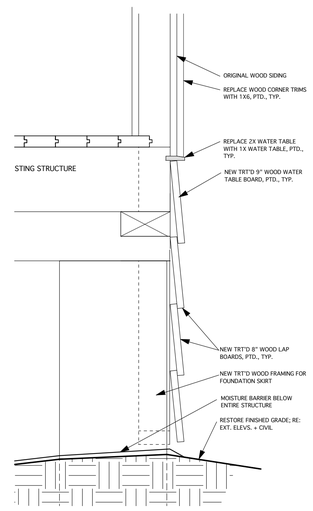
4 EAST ELEVATION / EXISTING CHURCH
SCALE: 1/4" = 1'-0"



3 DETAIL / EXT CORNERS @ CHURCH, TYP.
SCALE: 1 1/2" = 1'-0"



2 DETAIL / RAMP/LANDING @ CHURCH
SCALE: 1 1/2" = 1'-0"



1 DETAIL / FOUNDATION SKIRT @ CHURCH
SCALE: 1 1/2" = 1'-0"

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LOVE COMMUNITY CENTER
ADDITION and CHURCH REPAIR

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EXTERIOR ELEVATIONS 3

A 2.2

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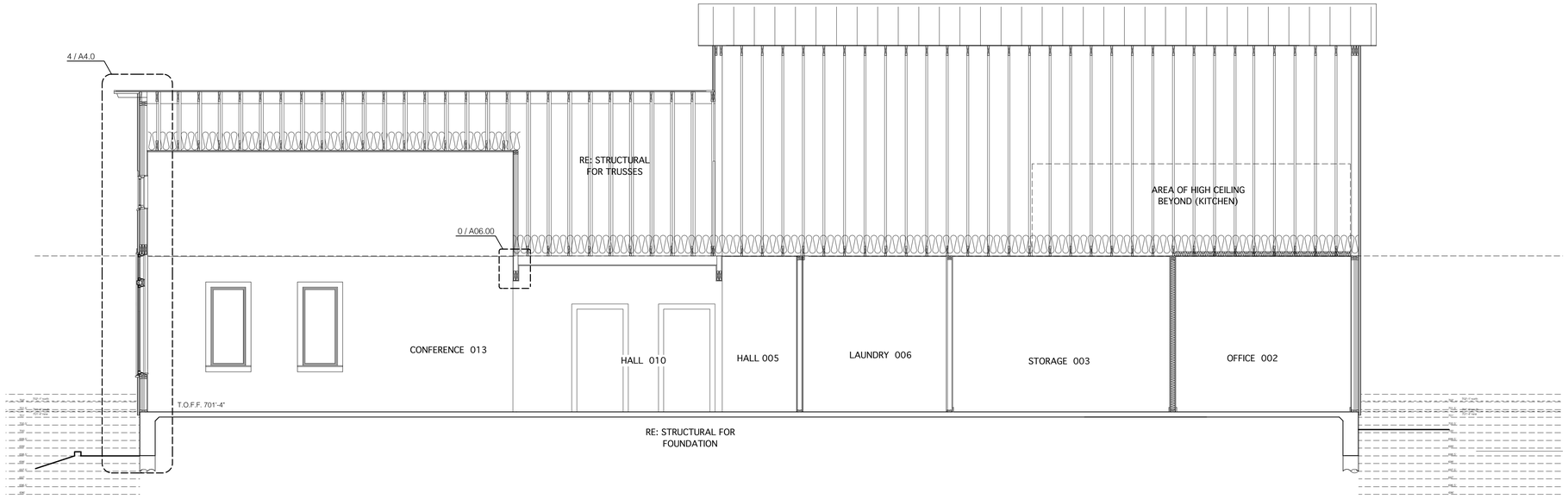
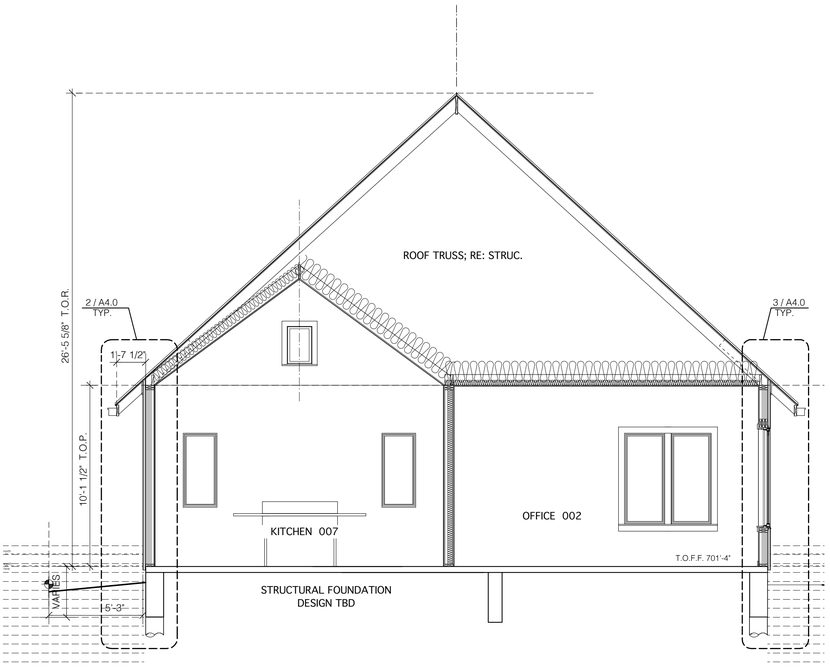
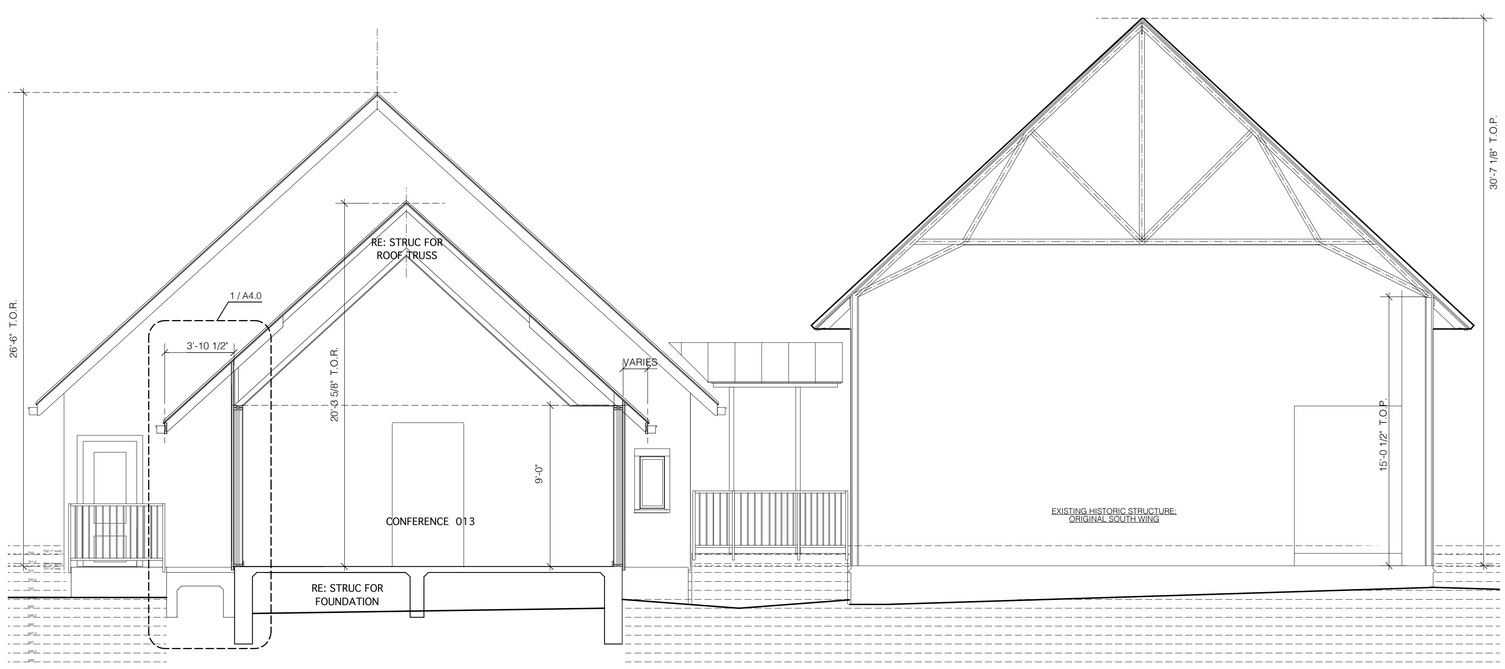


3 LONG SECTION / AT ADDITION
SCALE: 1/4" = 1'-0"



2 CROSS -SECTION / ADDITION
SCALE: 1/4" = 1'-0"



1 CROSS SECTION / ADDITION + EXISTING CHURCH
SCALE: 1/4" = 1'-0"

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LOVE COMMUNITY CENTER
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BUILDING SECTIONS - TYP, NEW ADDITION

A 3.0

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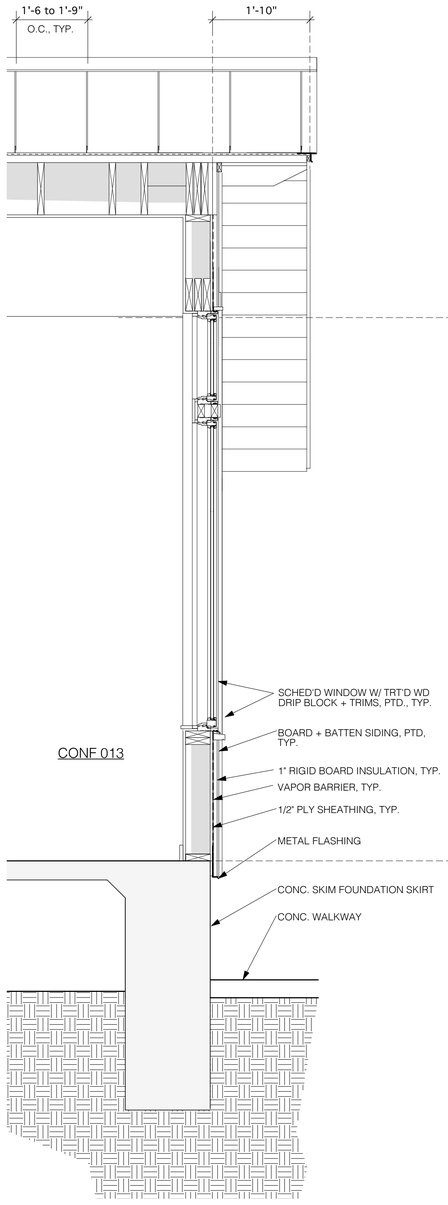

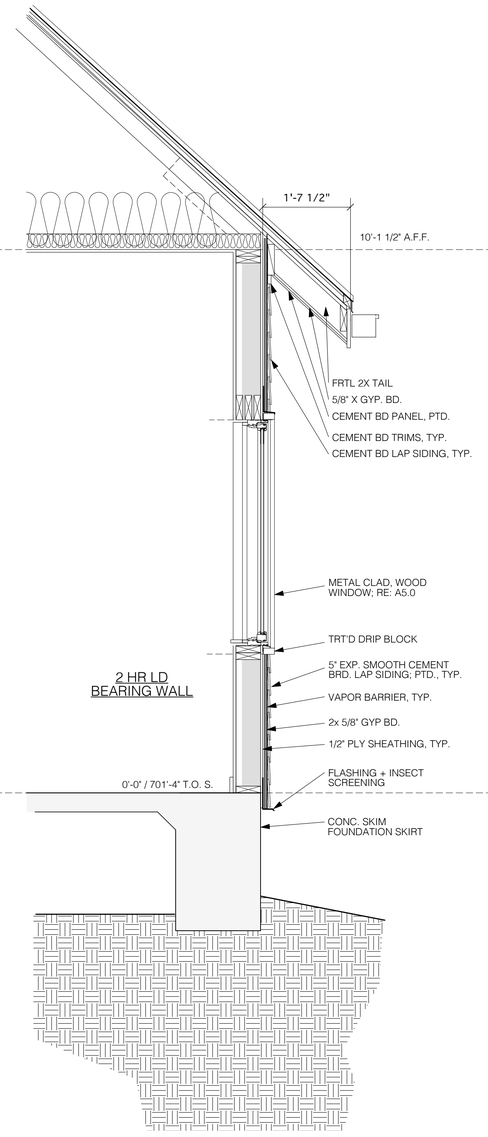

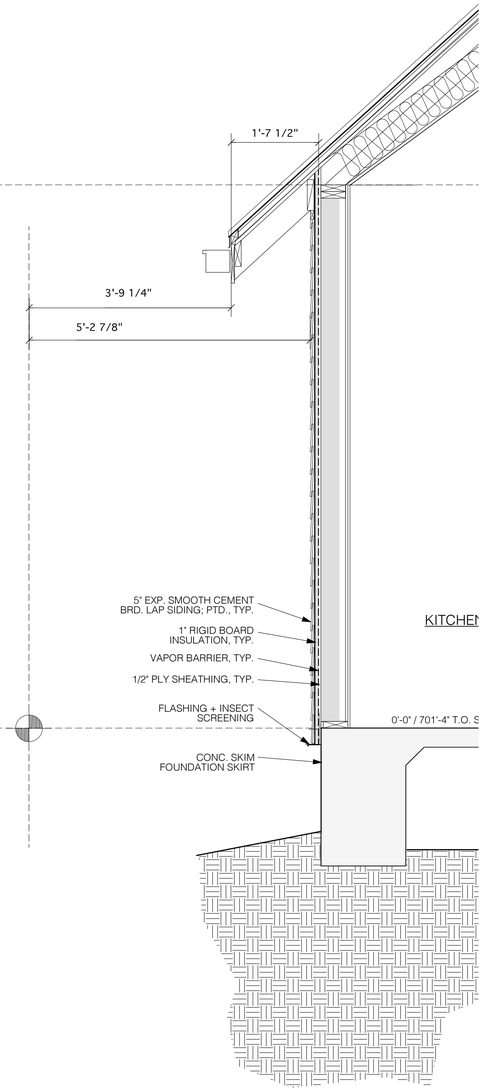

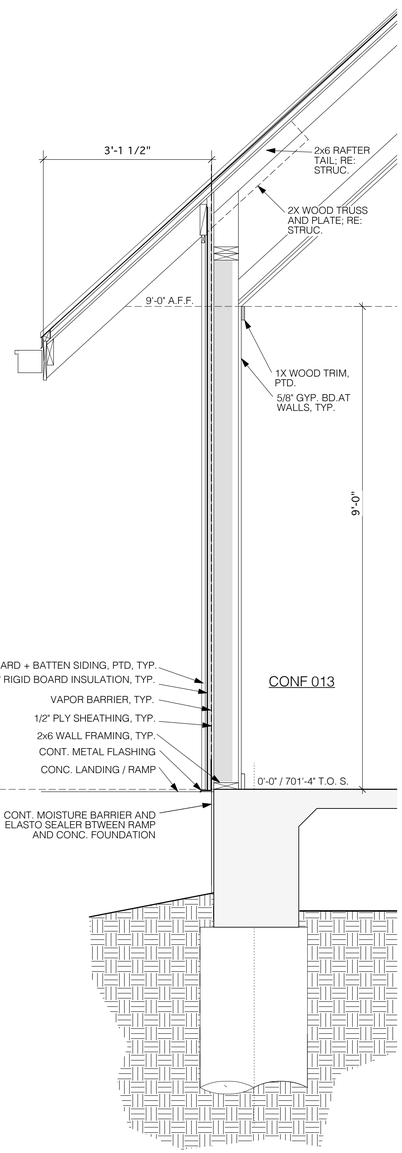

4 WALL SECTION / AT BOARD AND BATTEN END WALL
SCALE: 3/4" = 1'-0"

3 WALL SECTION / AT LAP SIDING, CLOSED EAVE
SCALE: 3/4" = 1'-0"

2 WALL SECTION / AT LAP SIDING, OPEN EAVE
SCALE: 3/4" = 1'-0"

1 WALL SECTION / AT BOARD AND BATTEN, OPEN EAVE
SCALE: 3/4" = 1'-0"

REDEEMER PRAISE CHURCH
LOVE COMMUNITY CENTER
ADDITION and CHURCH REPAIR

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EXTERIOR ELEVATIONS
A 4.0

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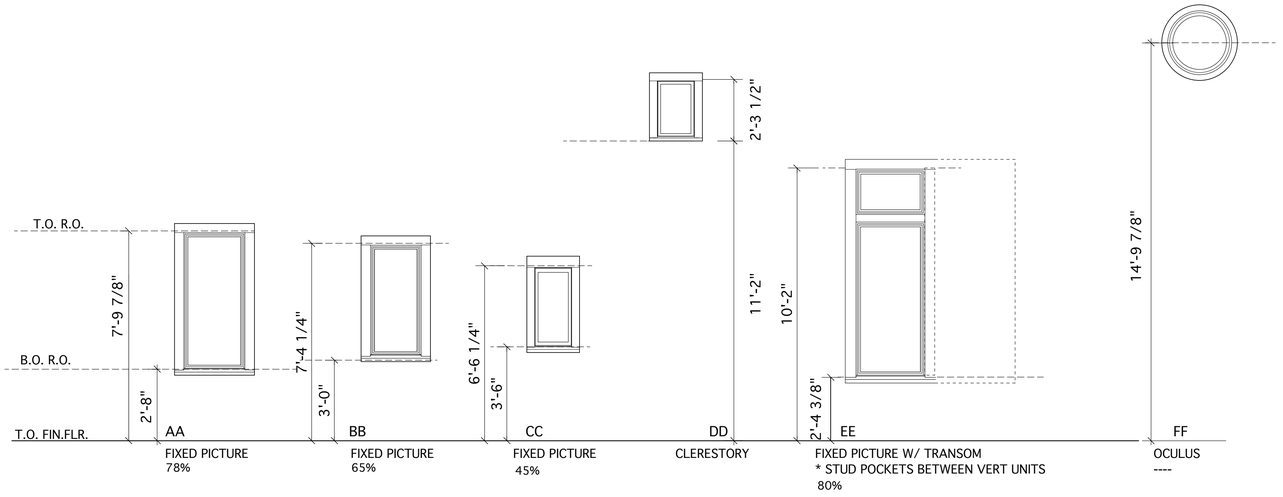
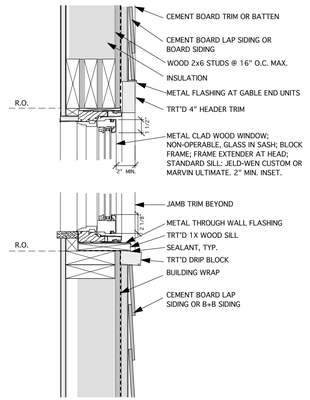
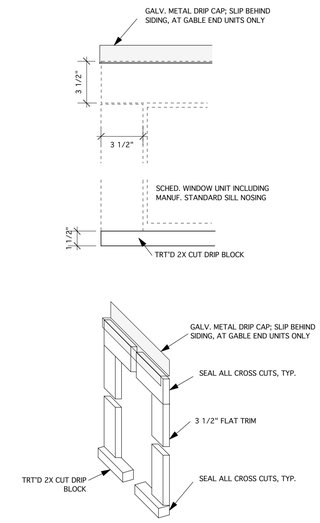


6 WINDOW TYPES / EXTERIOR VIEW
N.T.S.



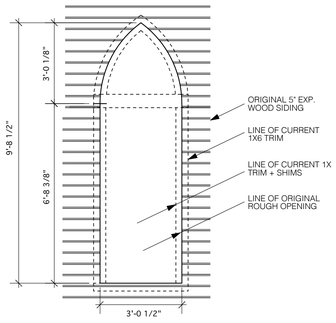
5 SECTION DETAIL / WINDOW, TYP.
SCALE: 1 1/2" = 1'-0"



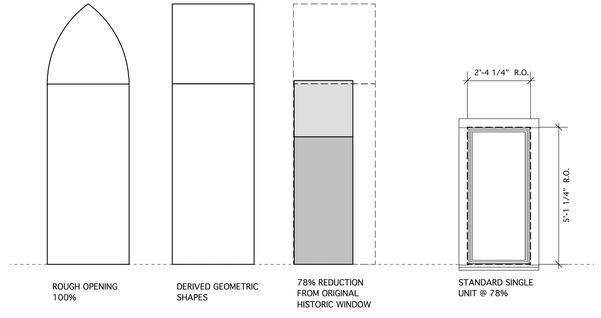
NOTE: WINDOWS ARE BLOCK FRAME; INSET PER SECTION DETAIL 5

4 WINDOW TRIMS / EXTERIOR
N.T.S.

3 PHOTO / WEST ELEVATION
N.T.S.



2 WINDOW ELEV / EXISTING, TYP.
SCALE: 3/8" = 1'-0"



1 WINDOW ELEV / GEOMETRY + PROPORTIONS
SCALE: 3/8" = 1'-0"

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LOVE COMMUNITY CENTER
ADDITION and CHURCH REPAIR

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WINDOWS, DETAILS

A 5.0

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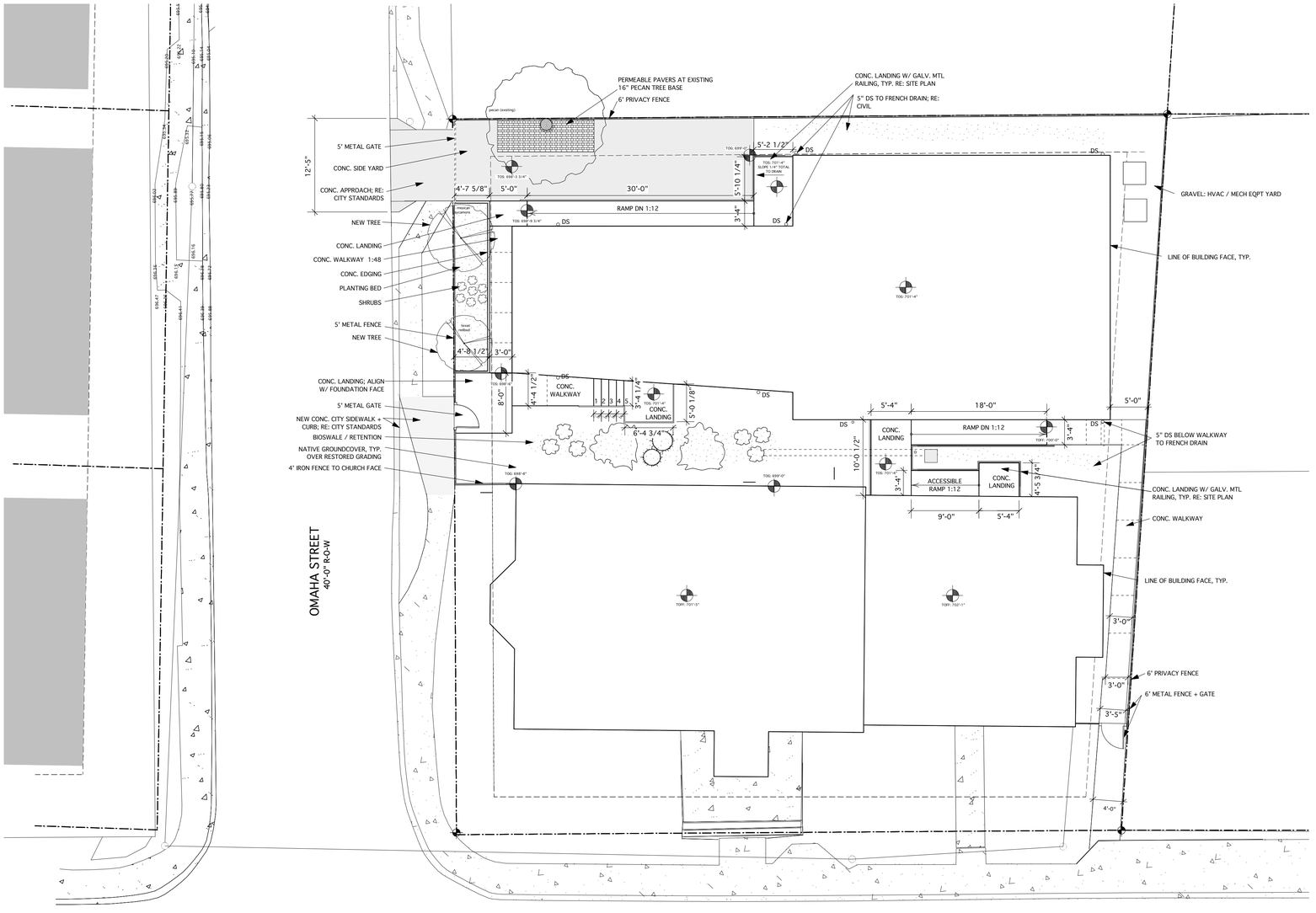
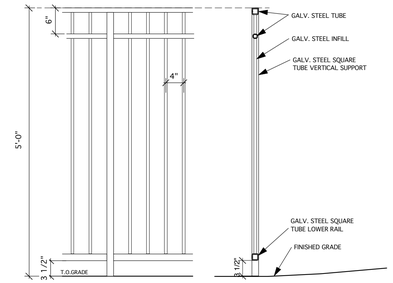


3 SITE PLAN / LANDSCAPE + HARDSCAPES
SCALE: 1/8" = 1'-0"



2 ELEV + SECTION / FRONT METAL FENCE
SCALE: 3/4" = 1'-0"

	NAME	BOTANICAL	QTY.	SPACING
TREES	PECAN	Carya illinoinensis	-	existing
	MEXICAN SYCAMORE	Platanus mexicana	1	per plan
	TEXAS REDBUD	Cercis canadensis var. texensis	1	per plan
SHRUBS	INLAND SEA OATS	Chasmanthium latifolium	9	12"
	KATIE RUELLIA	Ruellia brittoniana 'Katie's'	5	12"
BIOSWALE	SHRIMP PLANT	Justicia brandegeiana	3	12"
	CRINUM LILY	Crinum americanum	5	8"
	INLAND SEA OATS	Chasmanthium latifolium	12	12"
	DWARF PALMETTO	Sabal minor	3	30"
GROUND COVER	HORSEHERB	Calyptocarpus vialis	-	per plan
	PURPLE HEART	Setcreasea pallida	-	per plan

RE: SPECS FOR BED PREP AND MULCH

1 PLANTING LIST / ADDITION ONLY
N.T.S.

REDEEMER PRAISE CHURCH
LOVE COMMUNITY CENTER
ADDITION and CHURCH REPAIR

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LANDSCAPE + HARDSCAPE LAYOUT

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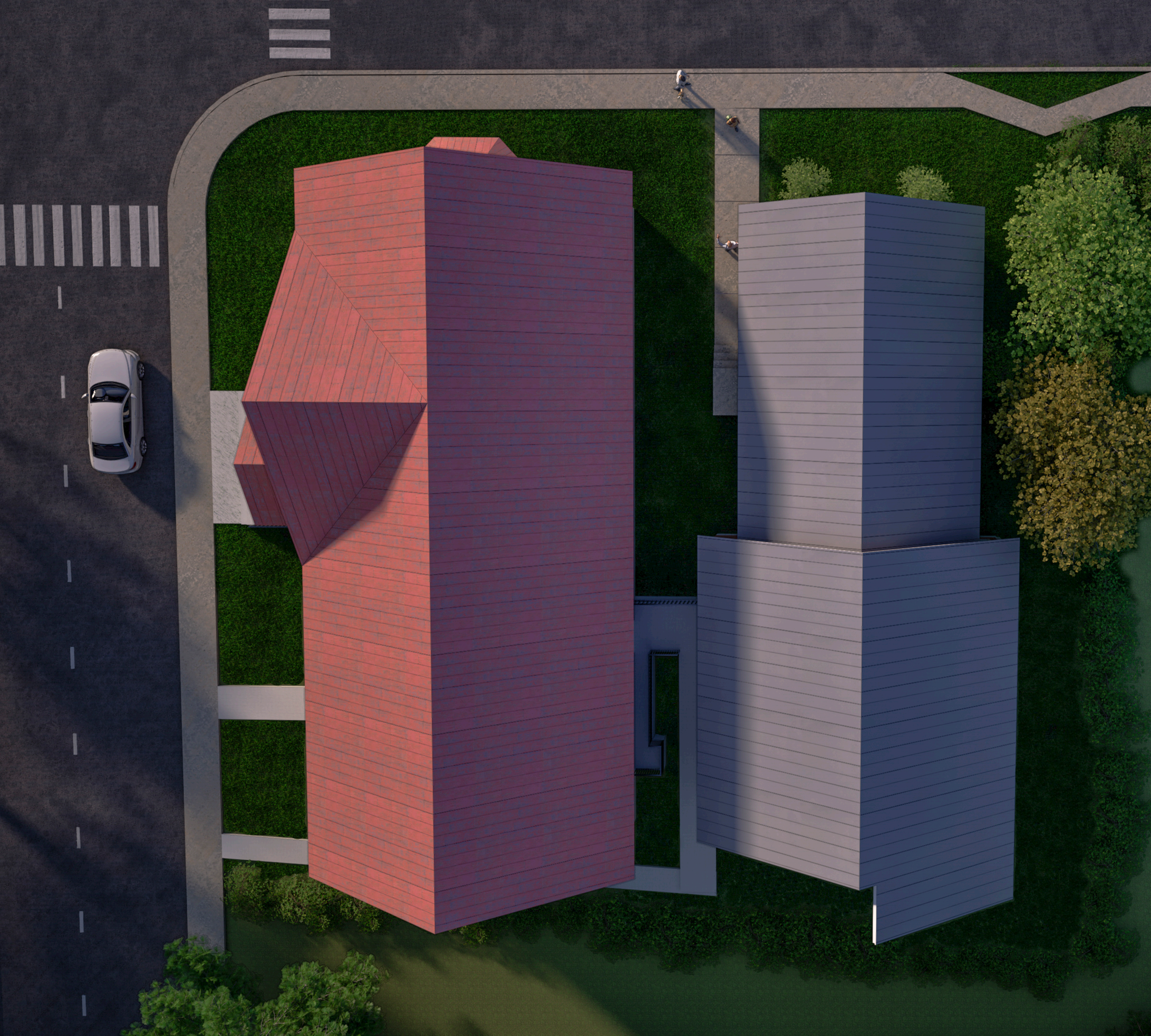
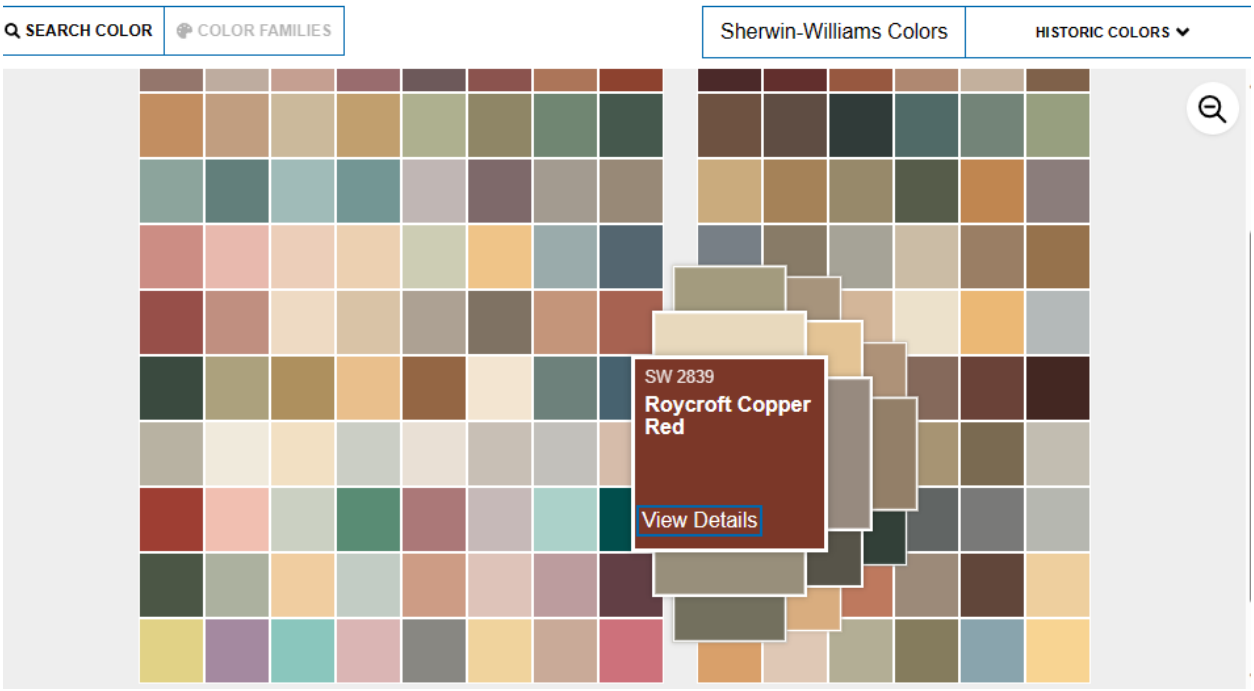
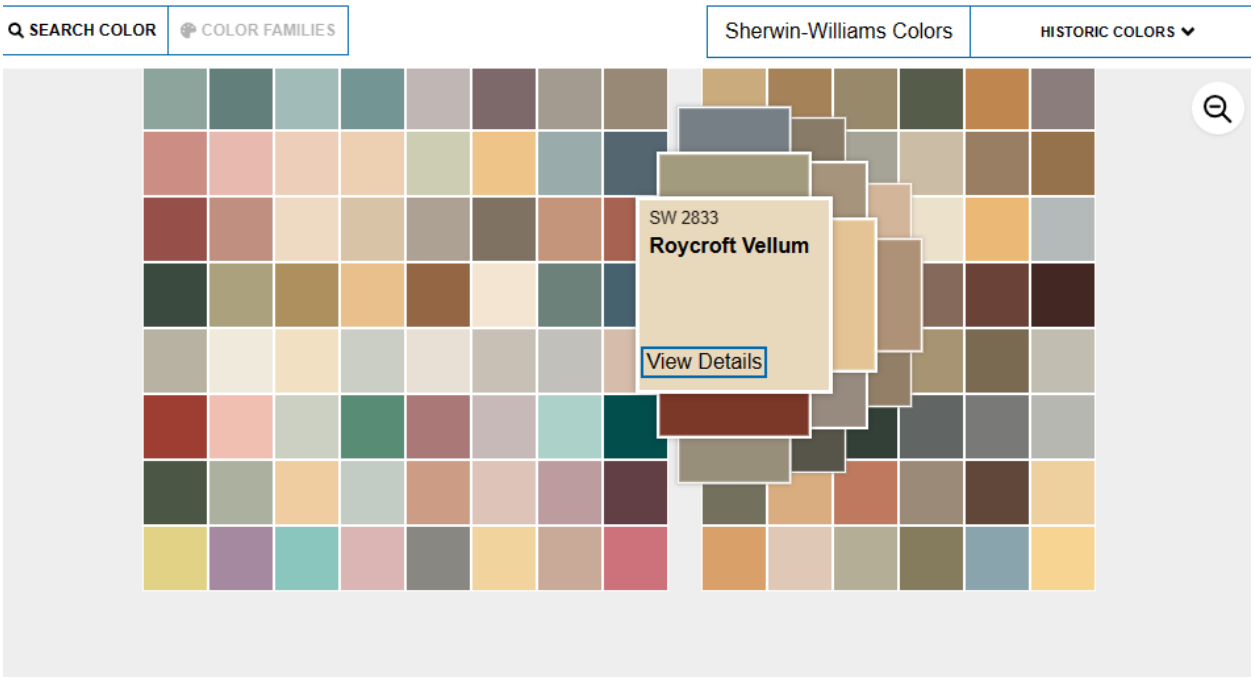



SEARCH COLOR
COLOR FAMILIES
Sherwin-Williams Colors
HISTORIC COLORS
SW 2839
Roycroft Copper Red
View Details


SEARCH COLOR
COLOR FAMILIES
Sherwin-Williams Colors
HISTORIC COLORS
SW 2833
Roycroft Vellum
View Details

Product Catalog

WINDOWS AND PATIO DOORS

1 WELCOME

With nearly 75 years of manufacturing experience and craftsmanship built into every window and patio door we produce, Lincoln continues to provide products with strong visual appeal and outstanding performance. A long history of satisfied homeowners is proof of our exceptional customer service before and after the sale.

We are continually expanding and refining our list of products, options and accessories to meet ever changing market needs. Our windows and patio doors are independently tested and certified to meet energy efficiency requirements and structural performance expectations. Also, in order to maintain the high level of quality you expect, we test products in-house against rigid industry manufacturing standards.

Whether your project is residential, light commercial or replacement, we are confident Lincoln has the products to meet your needs.

General Information

Markets 3
Environmental Commitment 4

Exteriors

Aluminum Clad 5-6
Vinyl Clad 7-8
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Primed Wood 11-12
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Slide 57-58
Multi-Slide 59-60
Lift & Slide 61-62

Series

Revitalize - Replacement 63-64

Residential

Every new residential project is the culmination of a persons' dreams. Product selection, from flooring to shingles, are all key elements to fulfillment of that dream. Lincoln windows and patio doors are made to compliment any architectural style in size, shape and color to help your dream become a reality.

Remodeling

Your home is where your heart is. Do a makeover on something you love! There has never been a better time to improve comfort levels, lower energy costs and increase market value. Our Revitalize Series includes remodeling products designed specifically for your next replacement window project.

Light Commercial

A school, library, office complex, country club, fire house, armory, hotel, assisted living facility, or condominium – one thing these examples all have in common is their Lincoln windows. Some are installed in new construction and some as renovations. Lincoln windows, beautiful as residential products, also meet the demands of light commercial applications.

The Environment

Our management team feels strongly about protecting and preserving the environment and we have implemented programs to reduce landfill waste and lower energy consumption.

We recycle: aluminum, anti-freeze, ballasts, batteries, cardboard, cellular PVC, copper wire, electronics, fluorescent light bulbs, freon, glass, oil, oil filters, paper, plastic bottles, sawdust, scrap metal, shrink wrap, soda cans, steel, tin, tires, vinyl and wood.

Energy Efficiency

Our products are tested and certified for water penetration, air infiltration, structural integrity and thermal performance. We also offer numerous product enhancements to increase energy savings such as thermal breaks, weatherstripping and high performance glass. In addition, we engage in lean and sustainable manufacturing processes and strive to use suppliers that do the same.

Testing and Certification

Our products carry certification by the National Fenestration Rating Council (NFRC). In addition, Lincoln is an ENERGY STAR Partner. One portion of a product's certification is derived from computerized simulation, which computes the thermal value of the product. Another is physical testing to establish air and water infiltration and structural performance. We strive for the best in our windows and doors.

ASK ABOUT ENERGY STAR

EXTERIORS - ALUMINUM CLAD

Aluminum clad is definitely the most popular exterior choice from Lincoln, offering color flexibility and structural strength while providing a homeowner with a low maintenance exterior. Extruded aluminum .050 thick frame and sash cladding protects homes from the outdoor elements and add structural integrity for maximum functionality. The Aluminum Clad Collection is wide-ranging and includes a full line of windows, patio doors and a multitude of options.

Beauty, durability, variety and performance are all brought to you by the Aluminum Clad Collection and built with pride at Lincoln.

Features

- **Available Product:**
  Full product selection.
- **Maintenance:**
  Minimal. Periodic soap & water.
- **Structural Performance:**
  Superior strength and rigidity for all-weather protection.
- **Thermal Performance:**
  High. Good for meeting Energy Star.

Frame and Sash Finishes

We offer eight standard colors, thirty-eight feature colors, seven spray-on anodized colors and have the ability to match from a customer's sample.

All of our standard, feature and custom color options are painted to AAMA 2605 performance requirements. AAMA 2605 high performance paint is the preferred choice of designers, architects and builders. Exceptional color retention and minimal chalking are leading characteristics of this premium paint finish.

Standard Colors - AAMA 2605

Feature Colors - AAMA 2605

Spray-On Anodized Colors - AAMA 2604

Custom Colors - AAMA 2605

Due to printing limitations, the colors shown are for representation only.

EXTERIORS - VINYL CLAD

Our thought process behind the Vinyl Clad Collection is simple. Create an exceptional value-based window platform that performs well without sacrificing quality attributes like cladding thickness, amount of material and product enhancement choices.

Vinyl clad exteriors resist the harmful effects of salt water spray, UV damage and have excellent color retention making it a great choice for harsh environments.

Vinyl clad products have a high level of energy efficiency and superior exterior protection along with a multitude of available options.

Features

- **Available Product:**
  Limited product selection.
- **Maintenance:**
  Very minimal. Periodic soap and water.
- **Structural Performance:**
  Excellent resistance to harsh coastal environments.
- **Thermal Performance:**
  Very high.

Frame and Sash Finishes

Our vinyl clad product is offered in 2 extruded colors, White and Adobe. No sacrifices are made in the manufacturing of the Vinyl Clad line. In fact, many builder clients favor the traditional exterior appearance, excellent color steadfastness, value-based product pricing and exceptional energy performance, all backed with a strong Lincoln warranty.

Extruded Colors

White

Adobe

EXTERIORS - HYBRID

The best of both worlds! Combine a traditional window look with today's modern exterior options. Create your hybrid window package by picking a traditional trim/casing and then choose an aluminum clad or vinyl clad sash. This unique blend of conventional window parts and popular accent trim best describes this collection.

Casings are non-rot cPVC and will take heat reflective and UV resistant paint well, allowing you to match our clad sash. For the more adventuresome, you can create a color contrast between the sash and frame. Historical appearances will charm an architectural eye and our durable low-maintenance qualities will satisfy an owners concern for longevity.

Features

- **Available Product:**
  Extensive product selection.
- **Maintenance:**
  Moderate. Apply UV resistant paint and periodic check-up.
- **Structural Performance:**
  Excels in strength and design flexibility.
- **Thermal Performance:**
  High.

Primed Frames

Wood with a white factory applied water-based acrylic latex primer and white, paintable cellular PVC sill, blindstop & casings.

- Five (5) standard exterior trim options: 2" Brickmould, Williamsburg Trim, Backband, 2-Piece Backband and Flat Casing (up to 8").
- Two (2) sill nosing options: 1" and 2"

Aluminum or Vinyl Clad Sash

Choose a low-maintenance sash option in either extruded aluminum or vinyl.

- Extruded Aluminum Clad Sash: Painted to AAMA 2605 performance requirements in 8 standard colors, 38 feature and custom colors. Also available in AAMA 2604 spray-on anodized in 7 finishes.
- Extruded Vinyl Clad Sash: Available in 2 extruded colors, White & Adobe.

EXTERIORS - PRIMED WOOD

This time-honored window design captures the original depth and beauty of Lincoln products. Our Primed Wood products are architect friendly and designed for new construction or historical renovation.

High risk rot-prone components are substituted with cPVC parts ready for a high quality heat reflective and UV resistant exterior paint color choice.

From a traditionalist point-of-view, Lincoln's stylish windows, patio doors and shapes are dimensionally accurate, historically desired and design friendly.

Features

- **Available Product:**
  Extensive product selection.
- **Maintenance:**
  Moderate. Apply UV resistant paint and periodic check-up.
- **Structural Performance:**
  Exceptional strength.
- **Thermal Performance:**
  Very high.

Frame Finishes

Wood with a white factory applied, water-based, acrylic primer and white, paintable cellular PVC sill, blindstop and casings or all-wood with a white factory applied water-based acrylic latex primer.

Sash Finish

Wood with a white factory applied, water-based acrylic latex primer.

EXTERIORS - NATURAL WOOD

Nothing demonstrates class better than the warmth and beauty of all natural wood. Lincoln's Natural Wood Collection clearly defines elegance and charm on both the exterior and interior of your home or business.

Wood is nature's exceptional natural insulator. Environmentally friendly wood is a very energy efficient window construction material and is a renewable resource.

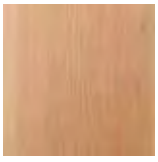
Protect your investment by applying a quality stain and sealer on both window surfaces and enhance the appearance all while blending in with your native landscape.

Features

- **Available Product:**
  Extensive product selection.
- **Maintenance:**
  Frequent. Apply high-grade finish and inspect annually.
- **Structural Performance:**
  Exceptional strength.
- **Thermal Performance:**
  Very high.

Frame & Sash Finishes

High-grade natural wood inside and out in three beautiful species.


Fir

Mahogany

Pine

Trim

Add that finishing touch to the exterior of your windows and patio doors by adding one of the many brickmould and casings offered by Lincoln. Along with enriching the aesthetics of your home, these factory-applied trims reduce the installation labor and hassle.

For aluminum clad units, Lincoln offers extruded aluminum brickmould in 2" and 4" widths, Bullnose Casing and 4" flat casing, along with 3 different sill nosing options. All come factory applied and are available in all of our aluminum clad colors.

Also available - a factory applied rigid aluminum nailing flange and color matched drip cap. This .050 extruded option features mitered corners with supplied gaskets.

Rigid Aluminum Nailing Flange

Extruded Aluminum

2" Brickmould | 4" Brickmould | 4" Flat Casing | Bullnose Casing

1/4" Sill Nosing | 7/8" Sill Nosing | 1" Box Sill Nosing

Note: 4" Brickmould & Flat Casings require installation clips.

The Lincoln vinyl clad windows feature an accessory groove to the exterior, just like our aluminum clad line, which will accept 2" brickmould, 3-1/2" flat casing and 7/8" Sill Nosing. These vinyl trims feature a 1" x 1" J-channel and integral nailing flange. The original window nailing fin remains fully intact strengthening the entire system. Architects will enjoy our attention to detail by providing an authentic sill profile.

Vinyl

2" Brickmould w/ J-Channel | 3-1/2" Flat Casing w/ J-Channel | 7/8" Sill Nosing w/ J-Channel

The wood exterior product lines are available with cPVC 2" brickmould. Other styles of cPVC trim include Backband and Williamsburg along with flat casings up to 8" in width. When using heavier trims, the double hung & casement lines come with an optional 2" sill nosing for complimentary style. Primed and stain grade unfinished brickmould, sill and sill nosing are also available as options.

cPVC

2" Brickmould

Williamsburg

Backband

Flat Casing
Any dimension up to 8"

1" Sill Nosing

2" Casement Sill Nosing

2" Double Hung Sill Nosing

Primed Wood

2" Brickmould

Williamsburg

Flat Casing
Any dimension up to 8"

1" Sill Nosing

Natural Wood

2" Brickmould

Williamsburg

Flat Casing
Any dimension up to 8"

1" Sill Nosing

Dressed up or dressed down, all windows and doors have trim. Lincoln offers trim variations for the convenience of the builder and the end user. Of course trim has a utilitarian function as a bridge between the window and the wall inside and out. However, trim ultimately frames the window in its setting. The exterior trim rounds out the architectural presentation. Interior trim becomes the frame for natures setting.

Multiple Mull Options

- Tight and Spread Mulls

Panning

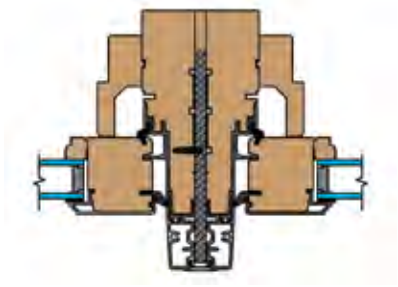
- Fills void between

Spread Mulls

When your project requires windows and patio doors in multiple-wide configurations, Lincoln has the mulls to make them right. Typical mulling is done with a tight unit to unit mull clip. Spread mulls add additional spacing between windows and patio doors. Popular reasons for utilizing a spread mull would include: accommodating a special opening with standard size windows, to achieve a 'heavier' look and the ability to work around essential structural framing. Spread mulls can be done both vertically and horizontally.

Extruded Aluminum

1/2" 3/4" 2" 3-1/2"



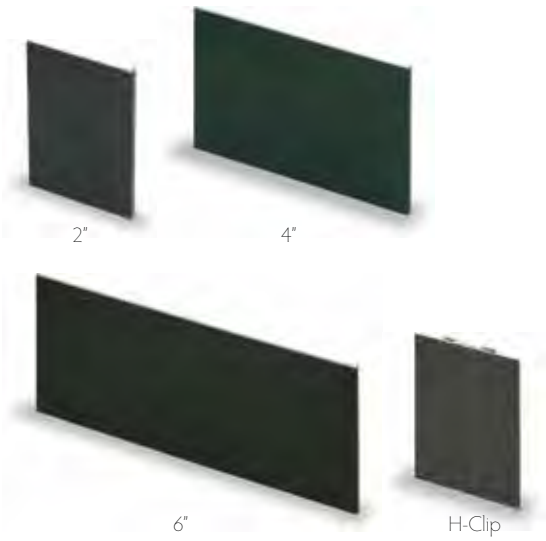
New - 1/4" Extruded Aluminum Spread Mull with 1/4" Steel Reinforcment

Vinyl

Standard Tight Mull 5/8"

Panning Systems

Lincoln also offers a panning system for aluminum clad exteriors. These additional trims snap into the accessory groove which can add additional width and height to the exterior appearance of a window or patio door. This system will fill space from a window frame to the building thereby covering the framing material and nail fins. Incorporate an H-Clip and create an adjustable panning used to join two units fairly far apart. The panning system is a nice feature commonly used for remodeling when there are existing and varying openings.



Finishes

Define inner beauty by choosing a time saving, factory applied interior finish from Lincoln.

Natural Wood: Lincoln will leave your interior wood surface sanded smooth, ready for stain and sealer.

Primed: If you plan to paint the interior of your windows and patio doors, have them primed with a white factory applied, water-based acrylic latex primer.

Pre-Finish Options: To take things a step further, we offer factory applied top-coats of paint intended to be your final coat of paint with the nail holes filled reducing jobsite finishing costs. Choose from our traditional Pre-Finish White or contemporary Pre-Finish Black.

Primed

Pre-Finish White

Pre-Finish Black

Wood Species

Nothing enhances the look and feel of a room more than the richness and beauty of wood. Lincoln product comes standard with a pine interior which has a nice smooth finish ideal for accepting paint and stain alike.

Pine

For those looking to really enhance the character of a project, Lincoln also offers six additional wood species. The popular red oak, white oak, cherry, alder, mahogany and fir options all come with their own unique color and grain patterns to really enhance the character of the window.

Alder

Red Oak

White Oak

Cherry

Mahogany

Fir

Trim

Lincoln offers interior trims in ten profiles for radius products. Customers benefit from our ability to shape the trim at the time a unit is produced.

Ranch Princeton Colonial GR-499 F-131

RB3-Howell WP-444 WP-442 WP-445 WM-356 WM-376

Jamb Extensions

When installing a window, increasing the depth of the window frame to accommodate the wall thickness is sometimes necessary. This can easily be accomplished with the use of jamb extensions. These factory applied extensions are available in all seven wood species.

LITES & GRILLES

Here is another opportunity to have your windows and doors made to fit the interior design, décor and style of the room. Additionally, the exterior interacts with the overall architecture and creates fantastic curb appeal. Enhancing windows and doors with lite divisions definitely puts the icing on the cake. Although there are standard lite configurations designated for all products, custom designs are also welcome.

Lite & Grille Options

- Simulated Divided Lite (SDL)
- Interior Wood Grille
- Internal Aluminum Grille (GBG)
- Lincoln Divided Lite (LDL)

Simulated Divided Lite

- ⅝", ⅞", 1 ⅛" and 2"
- Profiled or Square
- Bronze, Black & Mill Finish
- Shadow Bar

Flat SDL Bars

Simulated Divided Lite

Interior Wood Grille

- Single Profile Widths: ⅝", 1", 1 ⅛" and 1 ¼"
- Double Profile Width: ⅞"
- With Surround
- Without Surround

Interior Wood Grille
(With Surround)

Internal Aluminum Grille

- 1⅛" Double Profiled
- Color Matched to Cladding
- Two-Toned (white one side, 9 standard colors on other side)

Internal Aluminum Grille

Lincoln Divided Lite

- ⅞" and 1 ¼"
- Authentic Divided Lites
- True Historic Appeal

Lincoln Divided Lite
(Primed only)

GLASS

The glass in windows and patio doors has the single largest effect on energy efficiency. Lincoln's standard insulated glass offering includes double strength glass combined with a warm edge spacer. For greater energy efficiency, argon is added to all Low-E glass units, at no cost to the customer, with the exception of those units requiring capillary/breather tubes.* Choose Lincoln's standard glass or a combination of the options for appearance, performance and comfort.

* These are units shipped over high elevations. Lincoln does not guarantee that the initial argon fill rate will be maintained over the life of the product. Argon depletion may decrease energy efficiency. For more information, contact your local distributor or Lincoln Wood Products, Inc.

Insulated Glass Construction

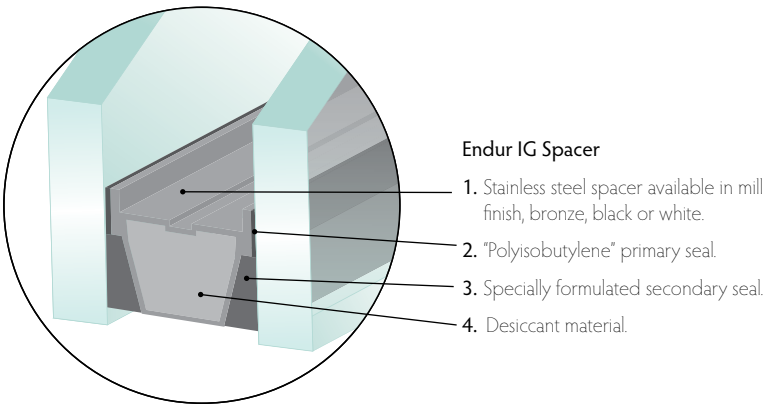
Our insulating glass (IG) is constructed with four major components. It's the quality of these components, sheet glass, desiccant material, sealants and spacers that set companies apart.

Let's consider the sheet glass. We exclusively utilize double-strength glass (3.2mm) even on the smallest sizes. Some companies believe this should be an upgrade while we eliminated the thinner glass option many years ago.

Quality desiccant material is used to absorb moisture within the IG unit during assembly and the polyisobutylene sealant provides excellent adhesion to the glass with a low moisture vapor transmission rate for years of outstanding field performance.

Choose one of our premium warm-edge spacer systems to complete your perfect glazing package.

WARM EDGE SPACER



LoĒ-180™

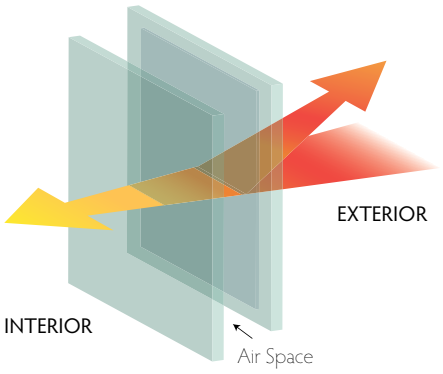
Constructed with a single LoE coating, this glass option is perfect for climates where solar heat gain is welcome. LoE-180™ outperforms clear IG glazing with warmer inside glass temperatures and better UV protection.

Projects looking for passive solar glazing solutions including good U-Value performance in conjunction with higher Solar Heat Gain Coefficients experience positive benefits with LoE-180.™

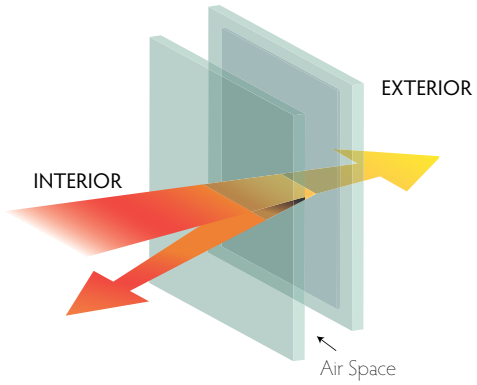
LoĒ²-272®

Safeguard your home from the elements by using this nearly invisible protection. Consisting of two microscopic layers of silver sealed in the airspace, this glass is a nice step-up from our standard offering.

Obtain an affordable balance of U-value, solar shading, visible light transmittance and UV protection by choosing LoĒ²-272®.



Solar energy rejected by LoĒ insulated glass.



Room-side heat reflected back into room by LoĒ insulated glass

LoĒ³-366™/Neat®

Controlling solar heat gain just became easier with the unparalleled performance of LoĒ³-366™/Neat® glass technology. By adding a third layer of silver coating, LoĒ³-366™/Neat® effectively blocks solar gain and reflects heat more efficiently.

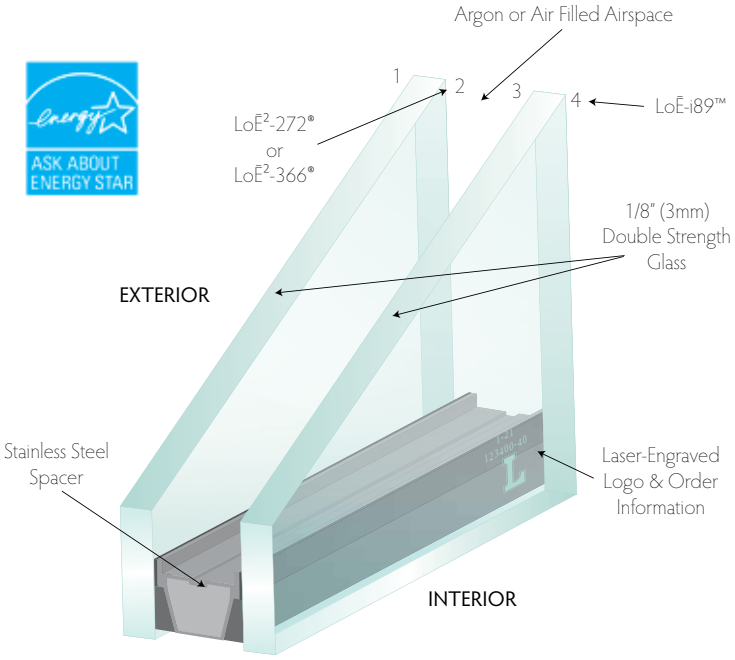
In addition to reducing heat gain, the goal with any high performance glazing is clarity. LoĒ³-366™/Neat® was produced to show a minimum of exterior "mirror" reflectance and does not require smoke-colored tints that can darken your home's interior.

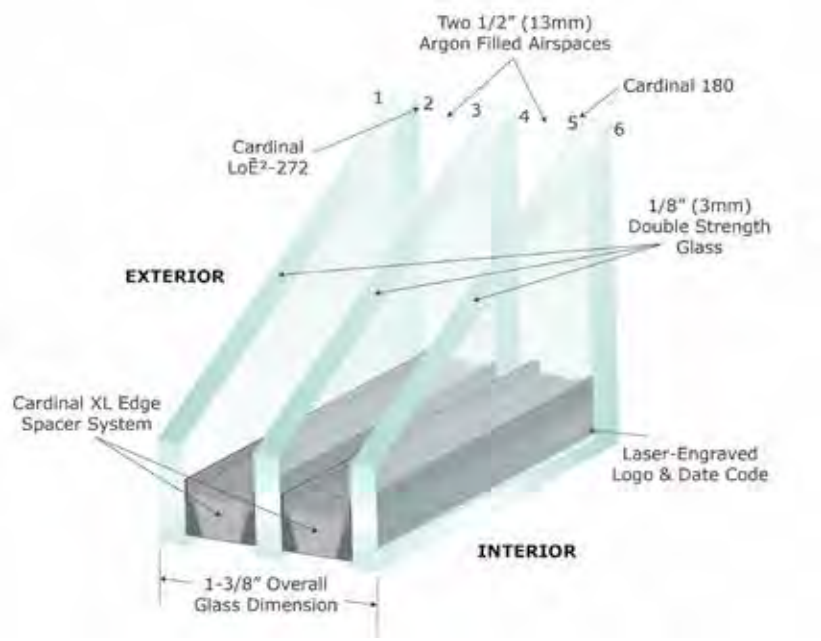
Dual Low-E2 (LoĒ i89™/LoĒ²-272®) and Dual Low-E3 (LoĒ i89™/LoĒ³-366®)

Our most ecologically aware combination of glass products designed for projects requiring extraordinary energy efficiencies.

As the ENERGY STAR® program ratchets up its requirements, our glass offering continues to provide consumers with an ability to comply. Lincoln's Dual Low-E options are the next generation insulating glass packages that tackles these stricter requirements by combining LoĒ²-272® or LoĒ³-366® with a room side loE coating (LoĒ-i89™ is on surface #4). Don't worry, LoĒ-i89™ performs well without sacrificing glass clarity, doesn't require special cleaning and provides additional UV protection.

This energy efficient glass lowers U-Values and retains more of your costly heat inside for the Northern and North/Central zones. Assembling Dual Low-E with our foam spacer system further improves U-value performance.

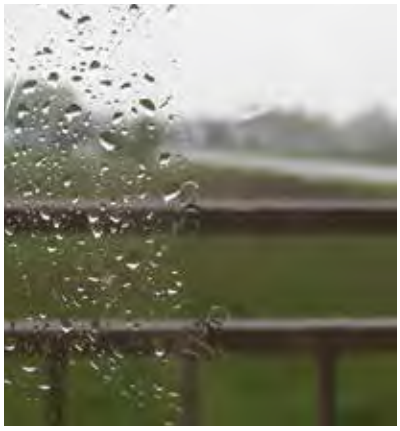




Triple Pane Glass

Experience excellent thermal comfort with Lincoln's most energy conscious glazing selection-Triple Pane Glass. This glass offering utilizes 3 sheets of double strength glass, Cardinal's Endur IG spacers and features an Argon Gas fill. Triple Pane glass is perfect for your new energy efficient home.

Clients enjoy reduced condensation during freezing cold weather, better UV protection and improved Sound Transmission Class (STC) ratings by including Triple Pane glass.



Without Neat®

With Neat®

Preserve®

Neat® and Preserve®

Neat®: Combines a permanent layer of silicon dioxide, which causes water to sheet off leaving fewer water spots, and a layer of titanium dioxide that reacts with the sun's UV rays causing organic material on the glass to decompose - no manual activation required.

Preserve®: A low density polyethylene adhesive that protects the glass during shipping and construction making clean-up a quick and easy process.

Specialty Glass Options

The majority of projects utilize clear glass, but occasionally a project requires the use of a specialty glass. Whether it be to conceal the view from the exterior of a building, distort the details of objects through the glass or provide an extra level of safety, we have a variety of specialty glasses that will meet your needs. Our specialty glass options include: laminated, obscure, tempered, tinted and spandrel.

Tinted Glass

Grey

Bronze

Obscure Patterns

Glue Chip

Pattern 62 (Obscure)

Rain

Reed

Matte Frost

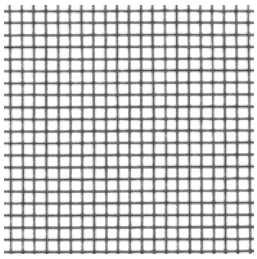
Screen Mesh

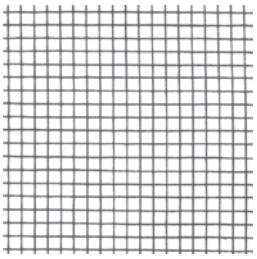
Screens allow you to enjoy the fresh air while keeping insects and debris out of your home. Lincoln offers three practical options.

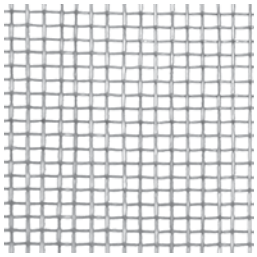
BetterVue: Our standard screen mesh. Made of fiberglass, it has thinner strands and a tighter weave than traditional fiberglass screen providing better visibility, increased light transmittance, greater airflow, improved curb appeal and enhanced protection from small insects (no-see-ums), debris and dust.

UltraVue: The least visible of our screen mesh options. The strands of UltraVue are thinner than BetterVue, providing even better airflow, optical clarity and insect protection.

Aluminum (charcoal wire): The most widely used metal for screens and is a great option for homes with pets or kids.


BetterVue


UltraVue


Aluminum

Screen Finishes

Lincoln interior screens are available in five metal frame finishes. Our color-matched PVC corner keys help keep interiors from scuffing during removal and installation. Double Hungs, Gliders and Patio Doors feature color-matched screen frames to match the exterior.

Standard Colors

White

Coppertone

Bronze

Faux Bronze

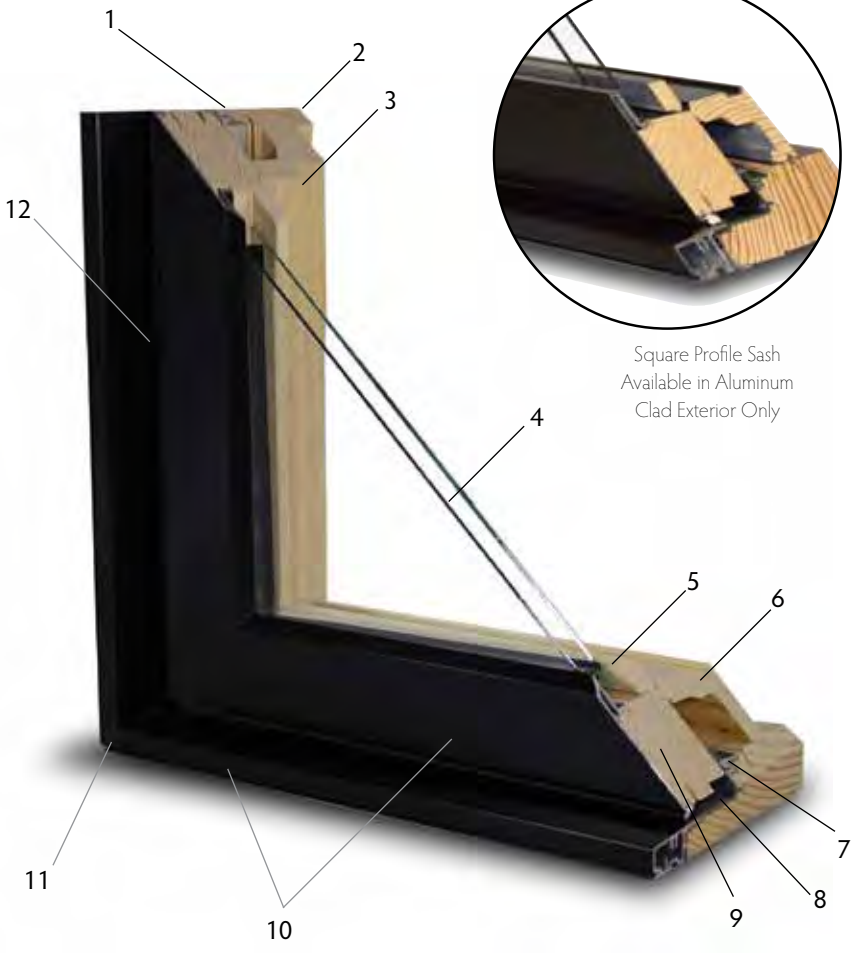
Black

CASEMENT & AWNING WINDOWS

Available as a traditional cranking unit or as our increasingly popular push-out style, Lincoln casements and awnings have a lot to offer.

Casement and awning features include an architecturally pleasing recessed sash, mortise and tenon joinery, multi-point locking hardware with single handle activation and adjustable hinges.

Awnings can be mulled above or below a studio window or utilized as a standalone element. Because they are hinged at the top, awnings provide secure ventilation and shed water during a light rain.

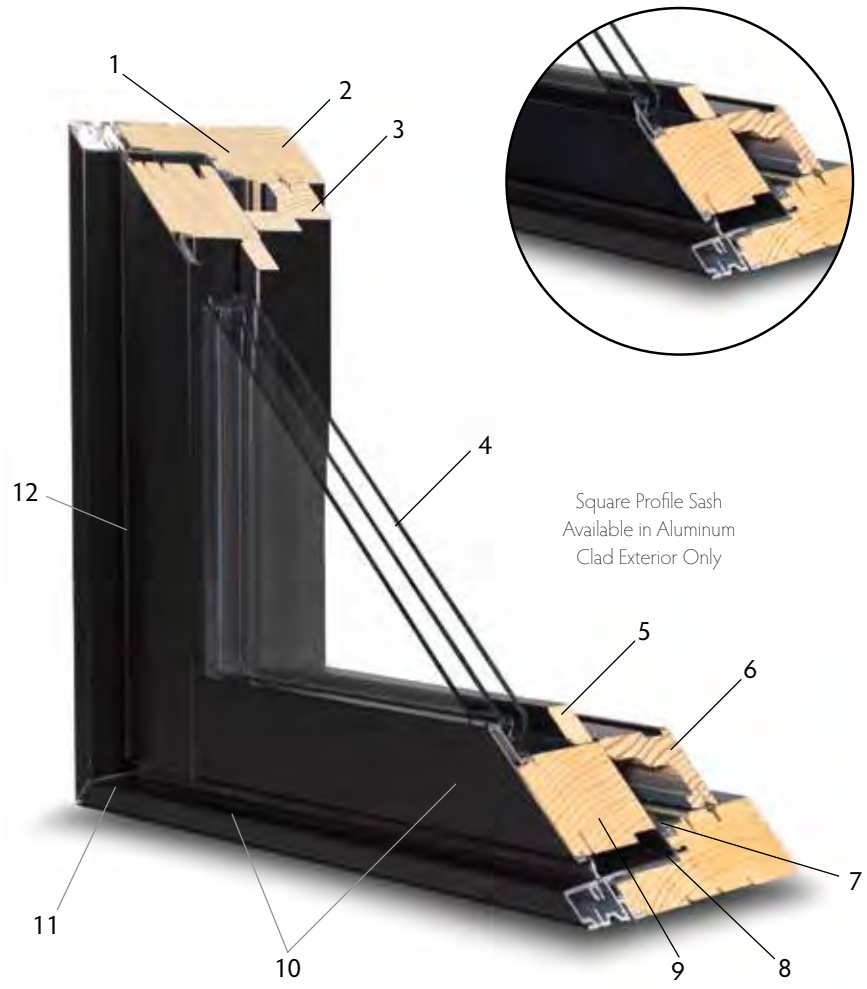


Square Profile Sash
Available in Aluminum
Clad Exterior Only

	Specifications
Maximum RO Width	42 ½"
Maximum RO Height	96 ½"
Sash Thickness	1 ¾" thick

1-3/4" Sash

1. 4-9/16" jamb.
2. 1-3/16" thick side jambs, head and sill.
3. Clean interior stop design.
4. 7/8" warm edge insulating glass.
5. Interior wood glazing bead.
6. Maximum thickness sill cover.
7. Full surround frame weatherstrip..
8. Thermally enhanced frame with specialty composite polymer.
9. 1-3/4" thick sash.
10. .050 extruded aluminum on sash and frame. Vinyl exteriors utilize .050 extruded PVC vinyl. Wood units have primed sash on the exterior with cPVC, sill nosing and brickmould.
11. Gasketed frame corners on aluminum clad products with corner key for added stability.
12. Sash weatherstrip wtih combination drip cap detail on top rail.



Square Profile Sash
Available in Aluminum
Clad Exterior Only

	Specifications
Maximum RO Width	36 ½"
Maximum RO Height	84 ½"
Sash Thickness	2 ¼" thick

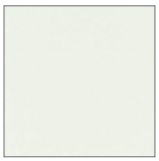
2-1/4" Sash - Triple Pane

1. 4-9/16" jamb.
2. 1-3/16" thick side jambs, head and sill.
3. Clean interior stop design.
4. 1-1/4" triple glazed warm edge insulating glass.
5. Interior wood glazing bead.
6. Maximum thickness sill cover.
7. Full surround frame weatherstrip..
8. Thermally enhanced frame with specialty composite polymer.
9. 2-1/4" thick sash.
10. .050 extruded aluminum on sash and frame. Vinyl exteriors utilize .050 extruded PVC vinyl. Wood units have primed sash on the exterior with cPVC, sill nosing and brickmould.
11. Gasketed frame corners on aluminum clad products with corner key for added stability.
12. Sash weatherstrip wtih combination drip cap detail on top rail.

CASEMENT & AWNING WINDOWS

Hardware

Casement & Awning: Lincoln products feature a low profile folding handle, advantageous for use with some window treatments and provide lower clearance for removal of window screen. As standard, operating hardware (crank handle, operator cover and lever lock) are a soft coppertone color that blends well with most clear wood finishes. All casements feature adjustable hinge tracks for proper sash alignment.


White

Coppertone

Bronze

Faux Bronze

Matte Black

Polished Brass

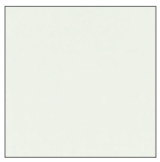
Oil-Rubbed Brass

Satin Nickel

Contempo casement hardware: Contemporary enthusiasts utilize the Contempo gear cover and handle as the finishing touch to a clean crisp design aesthetic. Cover and handle are metal, have a durable finish yet are an affordable upgrade. This style fits all Lincoln crank out casement and awning windows.

Standard Finishes

Matte Black


White

Faux Bronze

Satin Nickel

Special Order Finishes*

*May require additional lead time.

Bronze

Polished Brass

Oil-Rubbed Brass

Push-Out Casement & Awning: Single handle for easy operation and available in five finishes: Faux Bronze, Polished Brass, Black, White and Satin Nickel. Multi-point locking system directly routed into the stile for greater performance, security and durability.

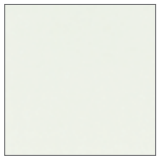
3-point stainless steel high-friction washability hinges on top and bottom keep the window in place and allow access to clean the glass from the inside.

Faux Bronze

Black

Polished Brass

Satin Nickel

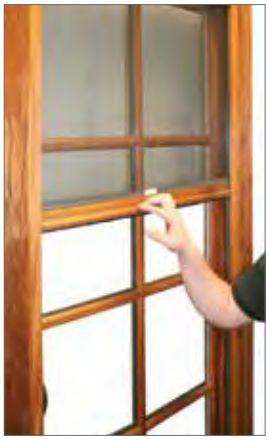

White

Screens

Standard: Casement & Awning windows come standard with 5 metal frame finishes to compliment hardware.

Retractable: Available on our traditional casement and our push-out style casement, retractable screens roll up for convenient storage when not desired. Screens are operated with a simple touch and roll up with very little effort. Enjoy crisp clean interior lines because operating tracks are hidden with a wood cover.

Hinged: Designed for our push-out style casement products, Lincoln's hinged screen offers classic styling and excellent functionality. This screen option is supplied with an attractive color-matched knob for easy operation.



Retractable Screen

Hinged Screen

Sash Limiters: Thinking safety? Lincoln offers safe and secure sash limiters. This release mechanism keeps the window from being opened no more than four inches, allows the window to be fully opened for quick emergency exits and resets automatically every time the window is opened - all meeting the requirements of ASTM F2090.

CASEMENT & AWNING WINDOWS

Styles

Casement: The Lincoln crank-out casement is a versatile design with exceptional architectural appeal, performance and strength. Available in many combinations of types and sizes, our casement line delivers outstanding value without sacrificing or limiting product options.

Stylish Truth brand operators function smoothly while opening the sash to a full 90° for maximum ventilation. Single-lever multipoint sash locks pull tight to a full perimeter weatherstrip for security against the elements. Heavy frames and sash components are standard.

Radius Top Casement: Lincoln casements with a radius design element are sure to add elegance and charm to any building project. Segment head casements and our traditional casements have matching sight lines so they can cosmetically complement each other.

Segment head operating windows combined with stationary units and studio picture windows create many design options. Exterior (outboard) hinges allow for easy operation. Radius interior trim is available for the finishing touch.

Push-Out French Casement: Continental flavor is apparent in Push-out French casement windows –one window frame – two operating sash – one clear opening. Push-out French casements are available in standard twin casement widths for perfect vertical sight line presentations when used in combination with standard casement windows.

Their popularity is additionally increased due to egress code requirements for width. Operation, via the centrally located lever activates a multi-point system that functions easily and locks securely.

Awning: As part of Lincoln's casement family, traditional crank-out awning windows look great and perform efficiently year-after-year. Awnings match casement/studio profiles, are stackable and can be mulled above (as a transom) or below in multiple combinations.

Awning characteristics allow venting from the bottom and will shed light rain. Sash locks, located on the side jambs, pull sash tight to the frame weatherstripping and make traditional awning units very secure against turbulent weather.

Push-Out Casement and Awning: These windows are beautiful inside and out. The sash swings open with a simple turn of the handle, while the friction hinges keep it firmly in place whether fully or partially opened.

Traditional hinged screens add a historical touch-of-class and feature a color matched knob. Or, choose a retractable screen that rolls up when not needed, leaving a clear view of the outdoors.

Casement Bay and Bow: Casement bay and bow units offer contemporary styling, create a roomy feeling, increase ventilation and can be built in many combinations.

Bay units are constructed using three windows or more. Flankers are aligned with a center unit at 45° or 30° angles.

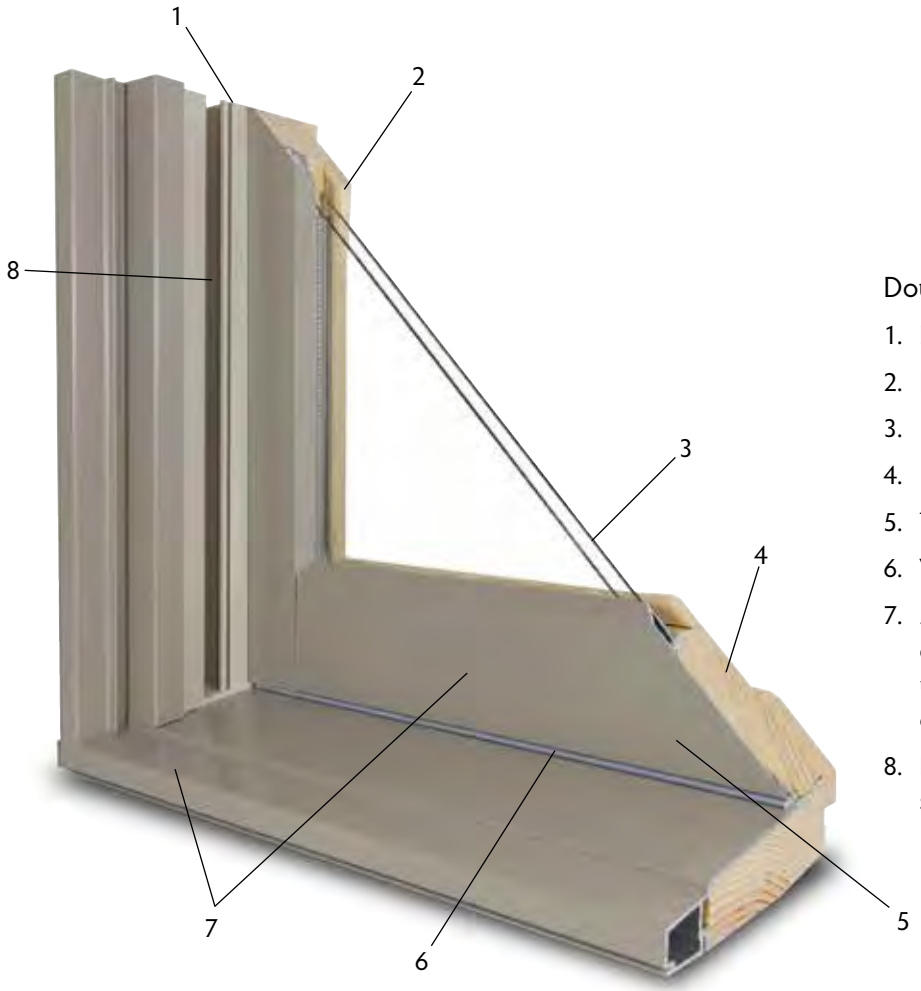
Bow windows typically feature a series of 3-6 casements mulled as a radius.

Bay/Bow windows may include factory-assembled head and seat boards and a cable kit to compensate for overhanging weight and aid in installation.

DOUBLE HUNG WINDOWS

Double hung windows are popular due to their traditional design that compliments so many different styles of homes. They're also easy to operate, maintain and clean.

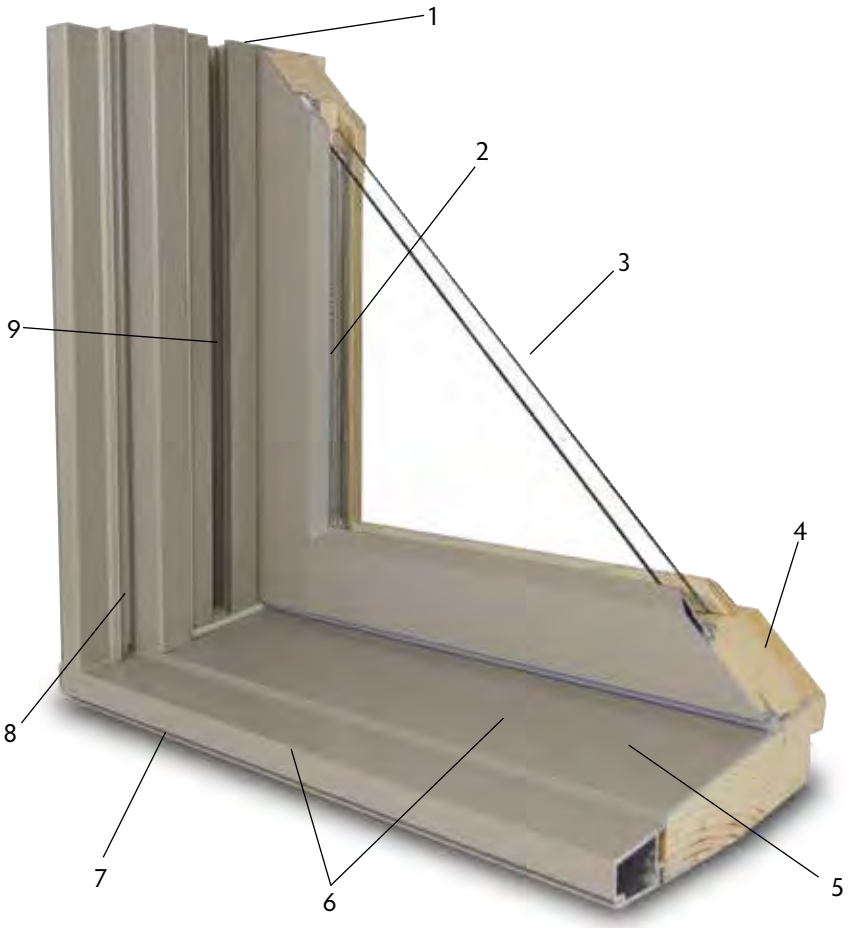
Lincoln double hungs allow architects, designers and builders to customize and tailor each individual project. Your specialist will create a contemporary edge with the clean lines of our narrow rail sash. Or stick with a strong historical influence by utilizing our traditional wide rail sash. Double hungs offer the flexibility to accommodate many design elements and are a great choice for both residential or light commercial projects.



	Specifications
Maximum RO Width	45 ⅜"
Maximum RO Height	93"
Sash Thickness	1 7⁄16" thick
Bottom Rail Height	2 11⁄16"

Double Hung with Wide Rail Sash

1. Full 4-9/16" jamb depth.
2. Interior wood glazing bead.
3. 11/16" warm edge insulating glass.
4. 1-7/16" thick sash.
5. Traditional wide rail sash profile option.
6. Weatherstripped at head, sill and checkrail.
7. .050 extruded aluminum on sash and frame. Vinyl exteriors utilize .050 extruded PVC vinyl. Wood units have primed sash on the exterior with cPVC sill, sill nosing, blindstops and brickmould.
8. Recessed jambliner option with inverted balance system.



	Specifications
Maximum RO Width	45 ⅜"
Maximum RO Height	93"
Sash Thickness	1 ⅞" thick
Bottom Rail Height	1 ¹¹⁄₁₆"

Double Hung with Narrow Rail Sash

1. Full 4-9/16" jamb depth.
2. Sloped putty-glazed styling.
3. 11/16" warm edge insulating glass.
4. Contemporary narrow rail sash profile option.
5. Low-profile 8° sloped sill.
6. .050 extruded aluminum on sash and frame. Vinyl exteriors utilize .050 extruded PVC vinyl. Wood units have primed sash on the exterior with optional cPVC sill, brickmould and blindstop.
7. Full perimeter accessory groove.
8. Integral screen channel.
9. Concealed jambliner option with inverted balance system.

Hardware

Locks & Tilt Latches: Available in seven hardware finishes, two low-profile pick resistant locks are used on units with 37 ⅜" box size and wider. Units smaller than 37 ⅜" box size have one lock.

Color matched double hung tilt latches are set into the check rail of the bottom sash and concealed in the top rail on the upper sash. Spring loaded, they release to tilt in with ease. Made to last and out of sight, these lock options are sure to please.

White | Coppertone | Faux Bronze | Black

Bronze | Satin Nickel | Polished Brass | Oil-Rubbed Brass

Sash Lift/Pull Handles: Our stylish lift/pull handles are available in three popular finishes that match sash locking hardware. They are also very easy-to-grab and easy to install after the interior finishing process is complete. These handles reduce damage from opening your windows by providing a solid area to grasp.

Not available for narrow rail double hung

White | Coppertone | Bronze

Sash Limiters: Thinking safety? Lincoln offers safe and secure sash limiters. This release mechanism keeps the window from being opened no more than four inches, allows the window to be fully opened for quick emergency exits and resets automatically every time the window is opened - all meeting the requirements of ASTM F2090.

White | Chrome | Oil-Rubbed Brass

Jambliner Options

Lincoln offers two different jambliner options for our double hung window lines. Both options utilize an inverted balance system for consistent performance and durability.

The standard jambliner comes in either beige or white and is recessed in the frame to minimize it's visibility.

The concealed jambliner takes the design aesthetic a step further. From the exterior, the jambliner is concealed by color matched cladding. From the interior, the jambliner design utilizes a clear pine insert to give more wood warmth when the window is closed.

Standard Jambliner - White Balances
Exterior View

Standard Jambliner - White Balances
Interior View

Concealed Jambliner - Beige Balances
Exterior View

Concealed Jambliner - Beige Balances
Interior View

DOUBLE HUNG WINDOWS

Styles

Double Hung: This arrangement is an ageless window type that offers some unique advantages. Sash tilt in for easy cleaning, ventilation is improved by opening the top and bottom sash equally and classic historical appeal is achieved when using Lincoln double hungs.

Our traditional window is equipped with advanced energy saving features. For example, Lincoln double hung checkrails incorporate the use of interlocks, weatherstrip and high-quality sash locks for a precision fit.

Radius Top Double Hung: Built as a single hung, Lincoln segment head and quarter segment windows are part of our double hung family. By utilizing the same parts and simply fixing the top sash, radius top hung windows can be mixed with traditional double hungs to create exciting elevations.

As with all Lincoln radius shapes, interior trim is available for the finishing touch. Segment head windows include a half screen.

Double Hung Bay: What could be more exciting than installing a Lincoln double hung bay window at the heart of your room? This attractive window combination is sure to add both functionality and flair.

Bay units are constructed using three windows or more. Flankers are aligned with a center unit at 45° or 30° angles. Center units can consist of operating double hungs or studio windows.

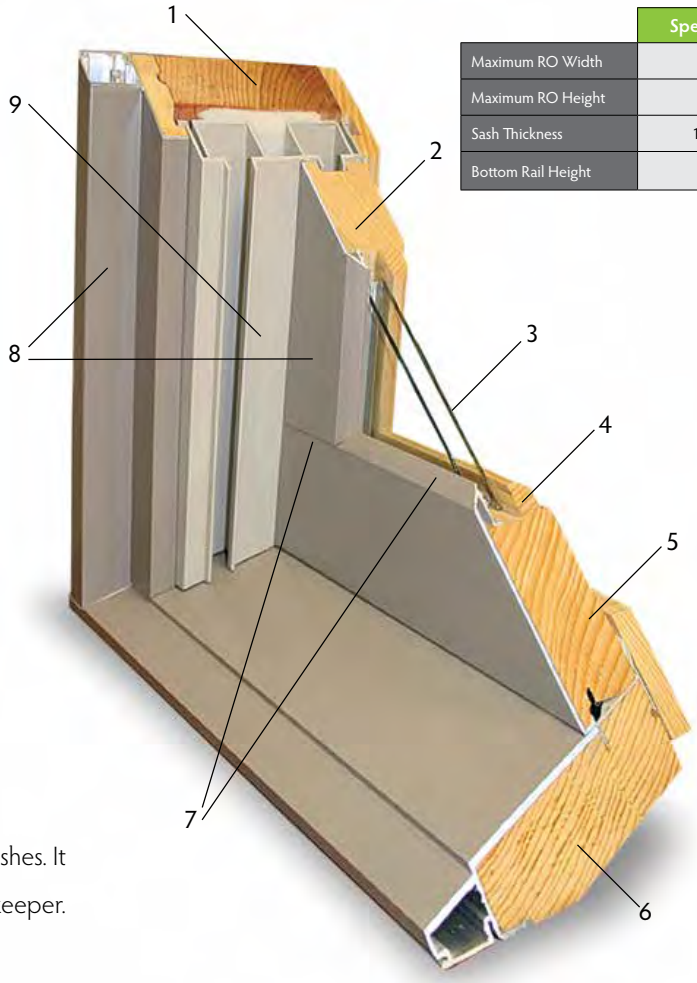
Double hung bay windows may include factory-assembled head and seat boards and a cable kit to compensate for overhanging weight and aid in installation.

Searching for a really big window? The Lincoln Quantum double hung is the answer. Patterned after huge double hung windows typically found in older public buildings, the Quantum establishes its' value in both new traditional construction and the renovation of existing historical buildings. Quantum double hung windows are also available in a replacement kit package for replacement of existing over-size windows.

Not available in Vinyl Clad exterior.

Quantum Double Hung

1. 5-7/16" jamb.
2. 1-3/4" thick sash.
3. 7/8" warm edge insulating glass.
4. Interior glazing bead.
5. Historical 3-1/4" bottom rail.
6. 1-7/32" thick sill with 14° sill angle.
7. Mortise and tenon sash with putty-glazed style.
8. .050 extruded aluminum on sash and frame. Wood units have primed sash on the exterior with wood sill nosing and cPVC sill, blindstops and brickmould.
9. Heavy foam-backed PVC jambliners with four block and tackle balances per sash.



Specifications	
Maximum RO Width	56 5/16"
Maximum RO Height	114 7/16"
Sash Thickness	1 3/4" thick
Bottom Rail Height	3 1/4"

Hardware

Window Locks: Quantum sash locks are available in four finishes. It is a heavy-duty lock with alignment nubs that inset into the keeper. Typical Quantum double hung units have two locks.

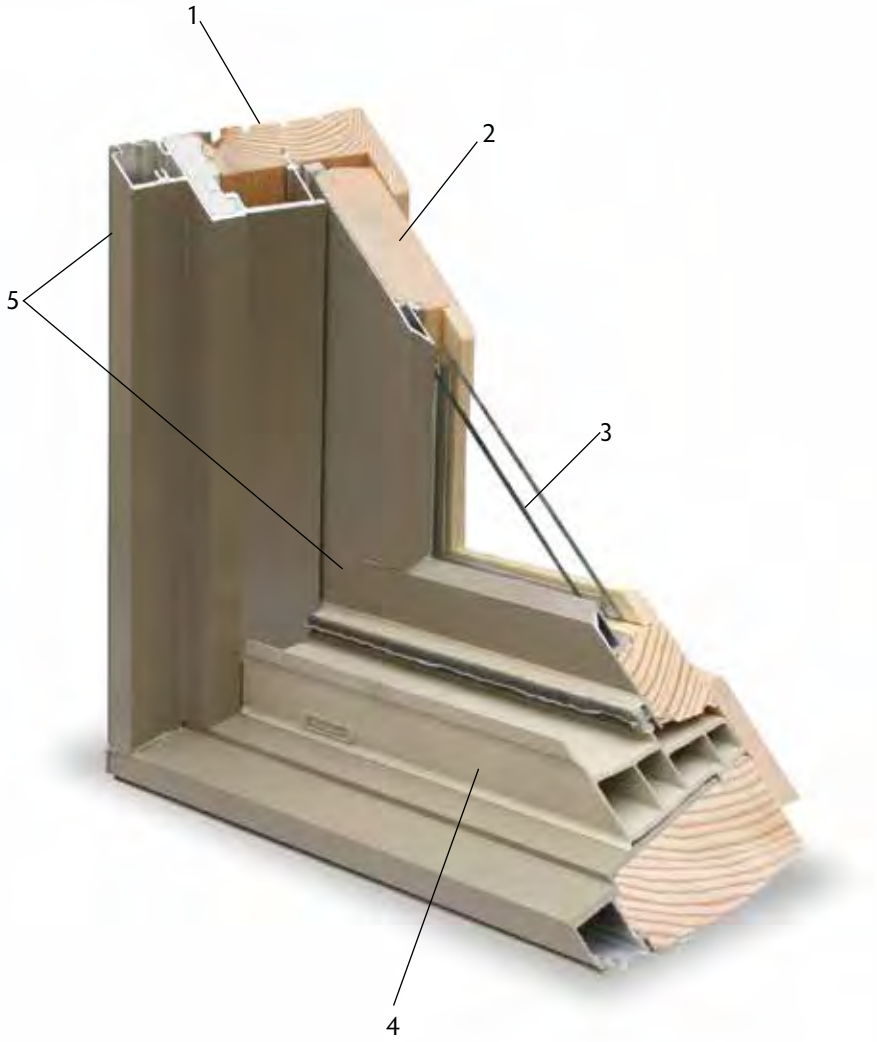
White | Coppertone | Polished Brass | Bronze

GLIDER WINDOWS

Lincoln gliders are available as a single unit with one side fixed and the other operable or as a triple unit with operating sash flanking a studio center. Left or right handing for single units is specified at the time of order. Sash glide smoothly and evenly over a vinyl track for long-lasting trouble-free operation.

Also choose from a full or half screen option, eight hardware finishes, an array of exterior types and different interior wood species.

Not available in Vinyl Clad exterior.



Glider

1. 4-9⁄16" jamb.
2. 1-7⁄16" thick sash.
3. 11/16" warm edge insulating glass.
4. Heavy extruded PVC sill track.
5. .050 extruded aluminum on sash and frame. Wood units have primed sash on the exterior with cPVC sill, sill nosing, blindstops and brickmould.

Styles

Glider: The gliders' main characteristic is its ability to slide easily on a heavy vinyl track. Lincoln gliders are the perfect utility window because they blend well with a twin casement from afar and are an exceptional value.

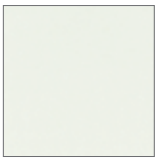
Our traditional glider is equipped with advanced energy saving features. For example, glider checkrails incorporate the use of interlocking sash, weatherstrip and high-quality locks for a precision fit.

Triple Glider: Lincoln's energy efficient triple glider is built to fill large openings and can be installed where casement windows, that open outward, are just not practical. Triple gliders operate from each end for excellent ventilation and utilize a studio center to capture your view.

Gliders offer simple operation and are extremely durable because they have fewer moving parts. Triple gliders also reduce your energy consumption by featuring fully weather-stripped sash with interlocking checkrails.

Hardware

Locks & Tilt Latches: Available in seven hardware finishes, two low-profile pick resistant locks are used on units with 32" glass and taller. Units smaller than 32" tall have one lock.


White

Coppertone

Faux Bronze

Black

Bronze

Satin Nickel

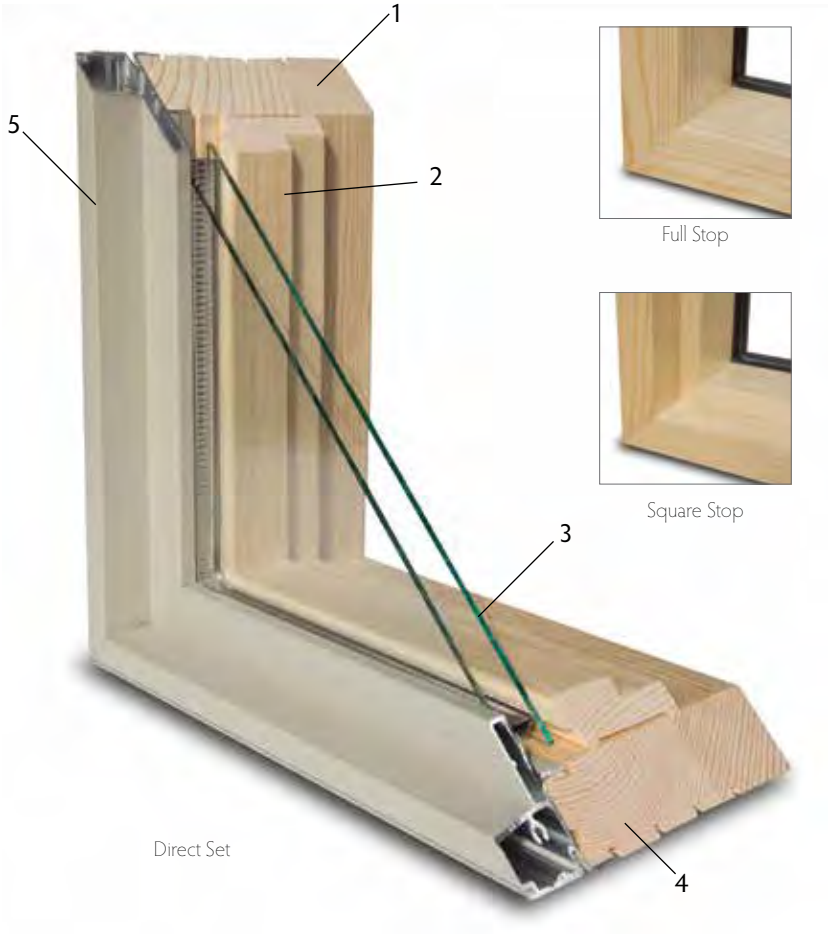
Polished Brass

Oil-Rubbed Brass

SPECIALTY WINDOWS

Modern architecture often includes higher sidewalls and open spaces. Filling a wall with glass has never been easier - we have just the right sizes and shapes.

Lincoln offers rectangular & geometric units as well as radius products together totaling 20 different designs. Specialty windows can be complementary to our standard product or complete stand-alone windows.



Direct Set

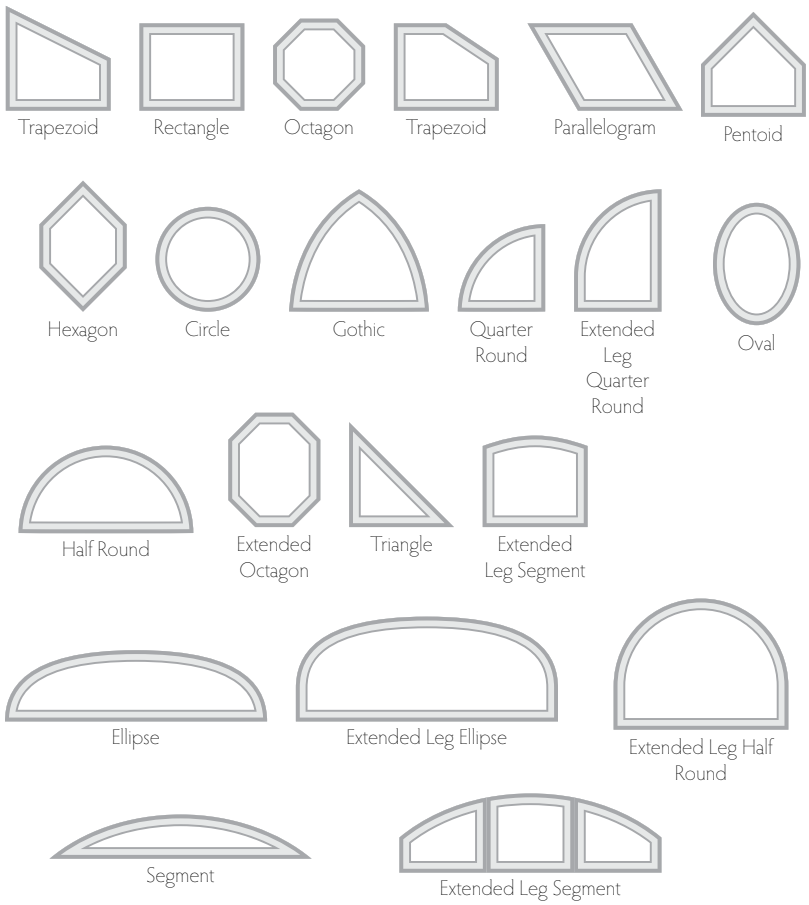
Full Stop

Square Stop

Radius Sash Set
(Shown with brickmould)

1. 4-9⁄16" jamb.
2. Interior wood glazing stop options.
3. 3⁄4" warm edge insulating glass. with 1 3⁄8" triple pane optional.
4. 1" thick frame.
5. .050 extruded aluminum frame. Vinyl exteriors utilize .050 extruded PVC vinyl. Wood units have primed frame exterior with cPVC brickmould and glazing stop.

Photo Courtesy of Chris Luker of Luker Photography. Home Design by Christopher Architecture & **Interiors.**



Styles

Shaped Windows: Be exciting, distinctive and even a little daring by incorporating a specialty window into your next project! Choose an elegant shape as the focal point of your elevation or as an accent in a foyer or gable. Let Lincoln's specialty department work for you!

Lincoln specialty shapes are crafted from a CAD template and built as a direct set frame or a sash and frame style. Radius shaped interior trim is available in ten different profiles, providing superb fit and finish.

SPECIALTY WINDOWS

Direct Set: A direct set shape is best described by installing a piece of insulated glass 'directly' into its frame. This is the most cost effective means to purchasing a non-operating window. Lincoln direct set windows can be built in every shape we offer including radius products and geometric shapes.

Direct sets are custom-sized windows and can include: multiple grille types, three glazing stop options, six wood species, applied jamb extensions, interior prime or pre-finish, all glass options and nearly any paint color.

Recent design trends led us to a contemporary style square stop profile - available on all direct set products.

Sash Set: A sash set Lincoln window employs a heavier look by adding a sash component within a frame (glass is glazed into a sash which is then installed into a frame). This design complements our operating units and is commonly used in combinations because glass sightlines match better.

Architecturally, a sash set is usually favored for its enhanced aesthetics. This type of window construction is both appealing and functional. View our options section for additional features such as: exterior trims, grilles, interior casings, colors and our many glass choices.

Studio Windows: The studio window is designed to compliment an operating unit as a mulled combination or they can stand alone. Because studios are often fairly large windows, they add a sense of openness to a room and often times are positioned for a great view of the outdoors.

Lincoln constructs fixed studio windows as a direct set or in a sash and frame design. This is a perfect unit for commercial projects when venting is not required or the window is inconvenient to reach. Non-operable windows are also very energy efficient.

Transoms: With taller ceiling heights and the popularity of great rooms, you need your windows and patio doors to look and feel in proportion to the design. You can always go with a taller window or door, but transoms offer an exceptional design opportunity. Not only do you get the benefit of more light, you add a key architectural element to your room.

Transoms may be split to align with the window or patio door configuration or can be a one-piece design that extends over the entire span. Our transoms are made to exacting standards and can be built with narrow and wide stiles to maintain site lines. When looking for a little extra style or flair, transoms are a simple and attractive solution for your taller window and patio door requirements.

Corner Windows: From the outside, corner windows help break up the visual mass of a home and provide unique architectural appeal. From the interior, they provide a way to emphasize an incredible view or landscape while allowing sunlight to come in the room from separate directions throughout the day.

The Lincoln corner window is available up to a maximum 96" box width on one side and 72" box width on the other. Maximum box height is 96" with the overall square foot of glass size to not exceed 50 square feet per side.

The specialized center mull post is the significant design feature providing the structural support with minimal sight line interference. This mull post, with an extruded aluminum exterior cover, takes up only 3-1/16" of visual space from each direction.

1¾" SWING PATIO DOORS

Our most comprehensive door category, swing products are widely used for nearly every type of project including new construction, remodeling and light commercial. Swing doors are versatile, long-lasting and design friendly.

Configurations

- 1, 2, 3 and 4-wide
- French doors: 2, 3 and 4-wide
- Transoms: 1, 2, 3 and 4-wide
- Sidelites: 2½", 3⅜" & 4 13⁄16" Stiles
- Segment head:
  - 1 and 2-wide
  - French 2-wide
  - Quarter segment French sidelite
- Full Radius

Out-Swing
Shown w/ 6" Stile
and 7 3⁄16" Bottom Rail

In-Swing
Shown w/ 4 13⁄16" Stile
and 4 13⁄16" Bottom Rail

	Specifications
Maximum RO Width	1 wide = 3' 7 ⅞" -- 2 wide= 6' 2 7⁄16"
Maximum RO Height	9' 2 ¾"
Door Panel Thickness	1 ¾" thick panels
Stile Widths	3 ⅜", 4 13⁄16"& 6"
Top Rail Heights	3 ⅜", 4 13⁄16"& 6"
Bottom Rail Heights	4 13⁄16", 7 3⁄16" & 12"

1. 4 9⁄16" jamb.
2. 1 ¾" thick panels.
3. ¾" tempered insulating glass.
4. Interior wood glazing bead.
5. .125 pultruded resin coated fiberglass sill.
6. Panel drip edge.
7. Full surround weatherstrip.
8. .050 extruded aluminum clad on sash and frame. Wood units have primed panels on the exterior with cPVC brickmould.

The 2 ¼" door program is the perfect complement and extension to Lincoln's significant swing door offering. Greater heights (up to 10' tall) are achieved with the 2 ¼" panel system including our optional Lifestyle door panel. 5-point locking hardware is standard.

Configurations

- 1 & 2 wide
- French doors: 2 wide
- Transoms: 1 & 2 wide
- Sidelites: 3 ⅜" & 4 13⁄16" Stiles

Out-Swing
Shown w/ 4 13⁄16" Stile
and 7 3⁄16" Bottom Rail

In-Swing
Shown w/ 4 13⁄16" Stile
and 7 3⁄16" Bottom Rail

	Specifications
Maximum RO Width	1 wide = 3' 7 ⅞" -- 2 wide= 7' 2 7⁄16"
Maximum RO Height	10' 2 ¾"
Door Panel Thickness	2 ¼" thick panels
Stile Widths	3 ⅜", 4 13⁄16"& 6"
Top Rail Heights	3 ⅜", 4 13⁄16"& 6"
Bottom Rail Heights	4 13⁄16", 7 3⁄16" & 12"

1. 5 ⅛" jamb.
2. 2 ¼" thick panels.
3. ¾" tempered insulating glass & 1 ⅜" Triple Pane.
4. Interior wood glazing bead.
5. .125 pultruded resin coated fiberglass sill.
6. Panel drip edge.
7. Full surround weatherstrip.
8. .050 extruded aluminum clad on sash and frame. Wood units have primed panels on the exterior with cPVC brickmould.

SWING PATIO DOORS

Options

Design flexibility and accommodating accurately describe Lincoln's swing patio doors. Three different size options for stiles, rails and mid-rails epitomize versatility with options to customize doors for any design aesthetic.

- Top Rail sizes: 3 3/8", 4 13/16", 6"
- Stile sizes: 3 3/8", 4 13/16", 6"
- Mid Rail sizes: 3 3/4", 4 3/4", 6 3/4"
- Bottom Rail sizes: 4 13/16", 7 3/16", 12"

These doors limit the limitations. Pick the door that's right for you from Lincoln and enjoy the possibilities.

Styles

In-Swing: Make a statement with Lincoln's most popular door product. In-swing doors blend with almost every architectural theme and they are incredibly stylish. Secure multipoint hardware makes a Lincoln in-swing door both beautiful and strong.

Adjustable hinges are standard (residential) and ball-bearing hinges (light commercial) are available. Easy operating color matched sliding screens feature extruded framing for superior strength.

Out-Swing: Lincoln out-swing door products are packed with performance. The harder the weather pushes against the operable panels, the tighter the weatherstrip seal on the frame becomes.

Also, by swinging to a building's exterior, this type of door will not create an interruption to your interior décor. Durable maple thresholds are standard. Optional ADA compliant (low profile) thermally broken sills are available.

French Doors

A French style swing patio doors' most distinguishable feature is its ability to have both panels operate. Lincoln offers extremely functional in-swing or out-swing models that can be used for large object passageways. An active panel operates as the primary operator and the passive panel need only be utilized when you want the entire use of the opening. French doors may also be configured with different panel widths. Offset panel sizes create an entrance style look with the functionality of a large net clear opening.

Our strong three-point hardware system looks great, locks securely and is available with either a handle activated bolt or center activated bolt (dummy handle optional). French doors are available in 2, 3 or 4-wide configurations.

Segment Top

Enhance your home with a little curve appeal from Lincoln. By utilizing a segment top swing patio door in your design you incorporate a subtle accent that compliments almost any architectural theme.

The radius option, available in 6' radius only, can be used with both in-swing and out-swing patio doors. Select your radius top option for a single door or use it with our factory mulled side-lite combinations for a more dramatic statement.

Whether viewed from the curb or inside your home, the gentle slope of our radius doors have lasting design appeal.

SWING PATIO DOORS

Entry Sill

Lincoln's entry sill option resists weathering, keeps air and water out while providing long-lasting adjustability.

- Adjustable PVC rail with ImperiSeal continuous gasket
- Bronze contemporary exterior color
- Composite underlayment is durable, non-rot and thermally advanced
- In-swing doors with 4 9/16" or 6 9/16" jamb depth.
- Color matched door sweep

Quanex Sill
(Shown with Frame Screen Track Filler)

In-Swing Extended Jamb

Lincoln swing doors feature a 4 9/16" jamb depth that will accommodate an additional 2" clad extrusion to the exterior. Doors extended in this fashion will have full hinge travel on a 6 9/16" wall thickness. Additional interior wood jamb extensions are available for thicker walls.

Extended Jamb
(Shown with 2" Brickmould Option)

ADA Sill

ADA Sill

Low profile sills are easily adaptable to our frame components making the Lincoln swing doors ADA code compliant and can be used in most light commercial applications.

ADA sills are constructed with extremely durable dark bronze anodized aluminum complete with a thermal break for better energy efficiency. This option is available in 4 9/16" and 6 9/16" jamb depth.

Mid-Rail & Wide Bottom Rail

Accessorize your swing doors by inserting an optional mid-rail. Rails run horizontally and can be located at virtually any height. Additional divisions are made by adding a vertical rail. The spaces created can be filled with raised panels, flat panels or insulated glass. Mid-rail sizes are 3 ¾", 4 ¾" and 6 ¾" and may be used together on the same panel.

Three bottom rail choices add versatility to swing patio door panels. The bottom rail options include nominal measurements of 4 13⁄16", 7 3⁄16" and 12". Choose one of the bottom rails with any door height and design a door panel best suited for your project. Commonly used on taller residential doors and in light commercial applications, our durable 12" bottom rail allows ample room for a kick plate.

Flat Panel & Raised Panel

With a mid-rail used horizontally and/or vertically, you can place panels at standard and custom height locations to further enhance the door design.

The stylish and architecturally friendly raised panel adds depth and feel to contemporary or traditional design themes. Raised door panels feature durable color-matched polane painted exteriors.

Flat panels are popular because of straight clean aesthetically pleasing lines. These panels are insulated with a painted extruded aluminum veneer exterior (Aluminum Clad) and thick stain-grade wood interiors.

Commercial Doors

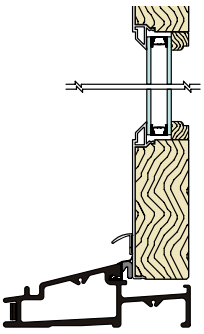
Fitting your commons area or vestibule with Lincoln's diverse door offering allows for continuity in design with matching clad colors, glazing appearance, durability, delivery and performance all backed with a substantial warranty.

Our door products are stylish, functional (both in-swing or out-swing) and can be specified with nearly endless size options and design configurations.

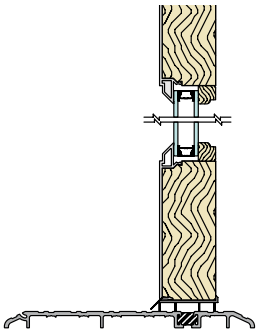
ADA Sill

Some commercial applications require swing door thresholds that do not exceed ½" total height above finished floor height.

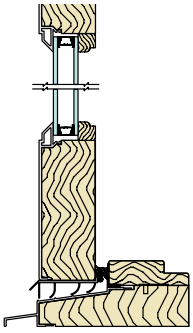
- Strategically located thermal break under door panel to reduce thermal transfer.
- Available on doors both at 4 9/16" and 6 9/16". Interior extension jambs can be utilized for walls that vary.
- Bronze anodized finish.



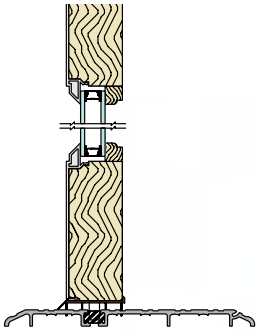
In-Swing Standard Sill



In-Swing ADA Sill



Out-Swing Standard Sill



Out-Swing ADA Sill

Concealed Cable Prep and Panel Spacing

A concealed cable route can be specified for doors to eliminate unsightly rods.

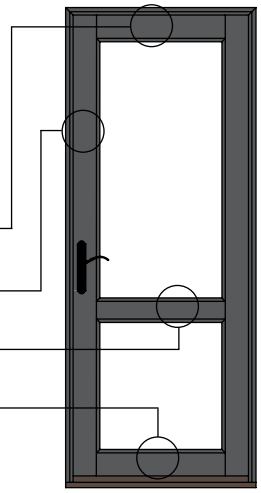
The cable prep consists of a ¾" x ¾" continuous route profile hidden inside the door panel for use with VonDuprin (or similar) panic bar systems.

Double wide doors can be specified without an astragal with spacing between panels for your weatherstrip detail. Options include: 3⁄16", ¼", ⅜", ½".

Panel Combinations

Lincoln door panel thickness of 1 ¾" and 2 ¼" & multiple stile and rail configuration will suit your building's style.

- Top Rail sizes: 3 ⅜", 4 13⁄16", 6"
- Stile sizes: 3 ⅜", 4 13⁄16", 6"
- Mid Rail sizes: 3 ¾", 4 ¾", 6 ¾"
- Bottom Rail sizes: 4 13⁄16", 7 3⁄16", 12"



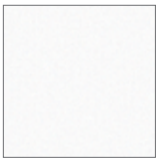
Ball Bearing Hinges

Optional 4" ball bearing hinge are available in 9 spectacular finishes.

Hinges feature a 5/8" radius corner and NRP (non-removable pins) for added security.

Pre-Finished White and Black Interiors

Take one thing off the general contractors' task list by finishing the interiors. Factory-applied painted interiors will save valuable time and money all while protecting the wood during the construction phase. Introduce your builder client to the peace of mind that a Lincoln factory finish provides.

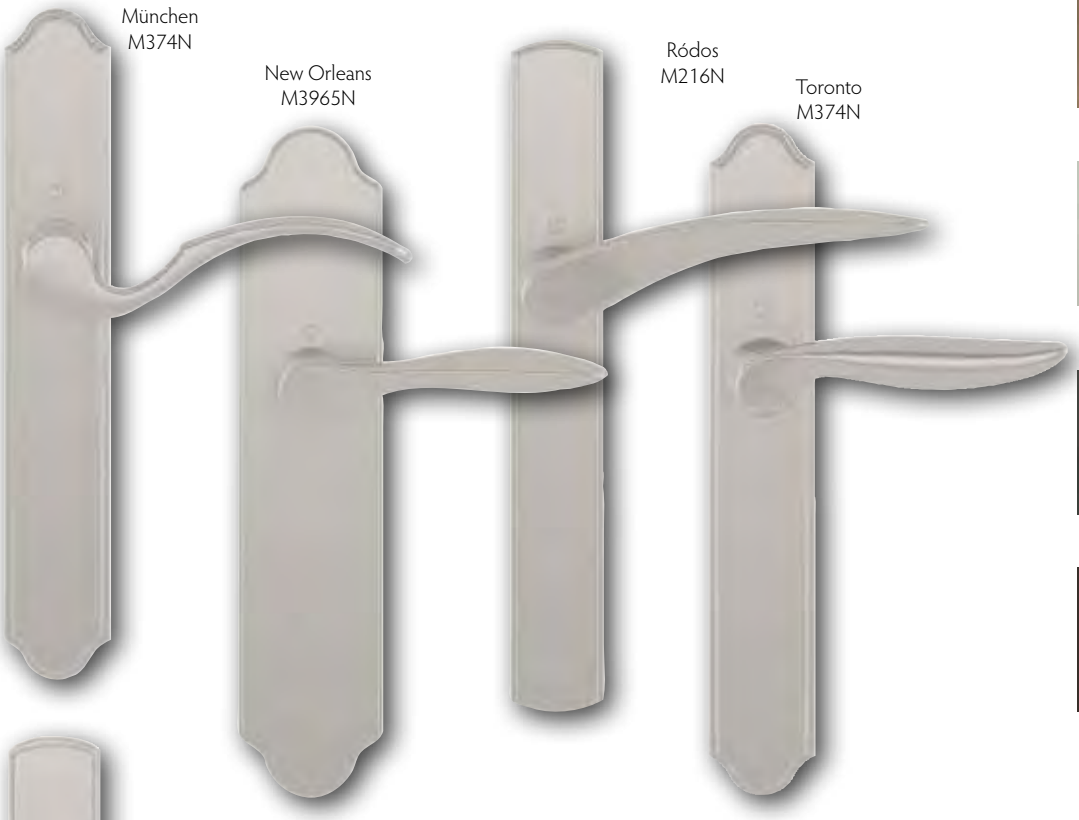


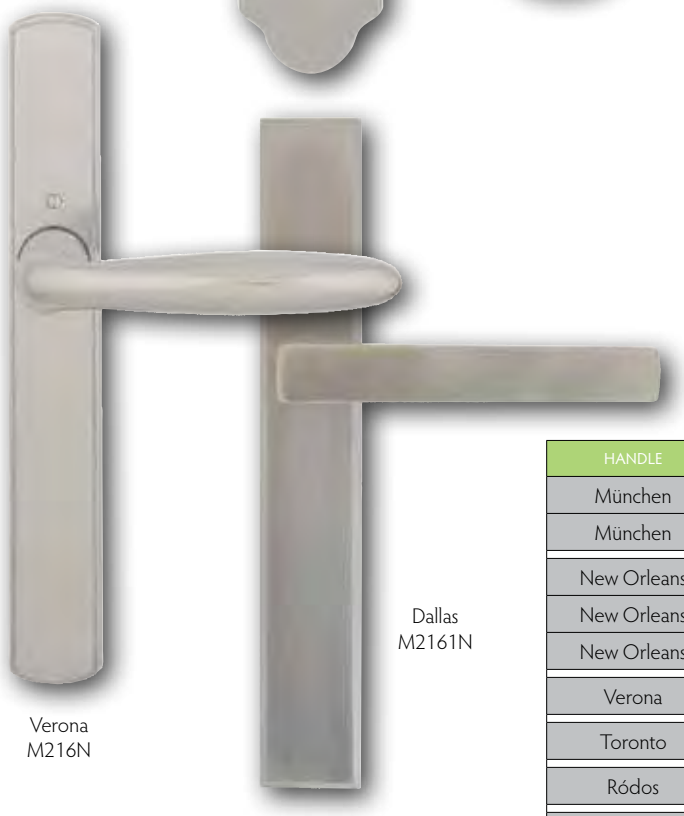
Pre-Finish White

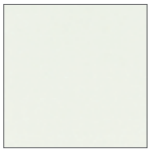
Pre-Finish Black

Hardware

Handles & Backplates: Our handles are manufactured using the finest quality brass alloys. The surface of the handle, except oil-rubbed, is protected by a transparent enamel finish which offers strength and durability as well as a smooth, blemish free surface. Oil-Rubbed has a "live" finish that changes over time. Celebrate your distinctive design style by creating a handle package from our many finish options, lever choices and backplate styles.






White

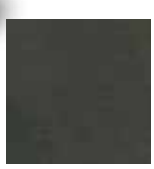
Polished Brass

Antique Brass

Satin Nickel

Brushed Chrome

Polished Chrome


Oil-Rubbed Brass

Matte Black

Faux Bronze

Dark Bronze Metallic

Options Chart

HANDLE	BACKPLATES	White	Polished Brass	Antique Brass	Brushed Chrome	Polished Chrome	Satin Nickel	Oil-Rubbed Brass	Faux Bronze	Matte Black	Dark Bronze Metallic
		FINISHES									
München	M374N	■	■	■	■	■	■	■	■	■	
München	M216N		■	■	■		■	■	■	■	
New Orleans	M374N		■				■		■	■	
New Orleans	M216N						■	■	■	■	
New Orleans	M3965N						■		■		
Verona	M216N	■	■	■	■	■	■	■	■	■	
Toronto	M374N				■		■	■	■	■	
Ródos	M216N			■	■		■		■	■	
Dallas	M2161N		■				■		■	■	■

3-Point & 5-Point Hardware: As standard, active door panels utilize our multi-point (3-Point or 5-Point) hardware system. Engaging the multi-point system creates a tight seal, maintains straight door panels and is an added security measure. Passive doors are equipped with either a handle activated bolt system or the flush bolt version firing rods securely into the head and sill.

Single Point Hardware: While specifying your next entry system, consider the Single Point Hardware mechanism for easier operation. This hardware is simple to operate as no handle activation is required to throw the deadbolt or engage other locking points. This system accepts the same trim hardware and can be keyed alike to match all your other Lincoln swing doors.

Hinges: In-swing doors are equipped with adjustable hinges including a secure non-removable pin to ensure safe and smooth operation. Adjustments are made via the large 3/16" hex head screw both vertically (Set Hinge) and horizontally (Guide Hinge).

Standard Hinge Finishes

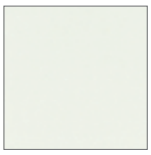
Polished Brass

Antique Brass

Brushed Chrome

Oil-Rubbed Brass

Grey Powder Coat

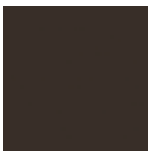

White Powder Coat

Gold Powder Coat

Matte Black

Satin Nickel

Antique Nickel


Faux Bronze

Bronze Anodized

Resista® Satin Nickel

Resista® Polished Brass

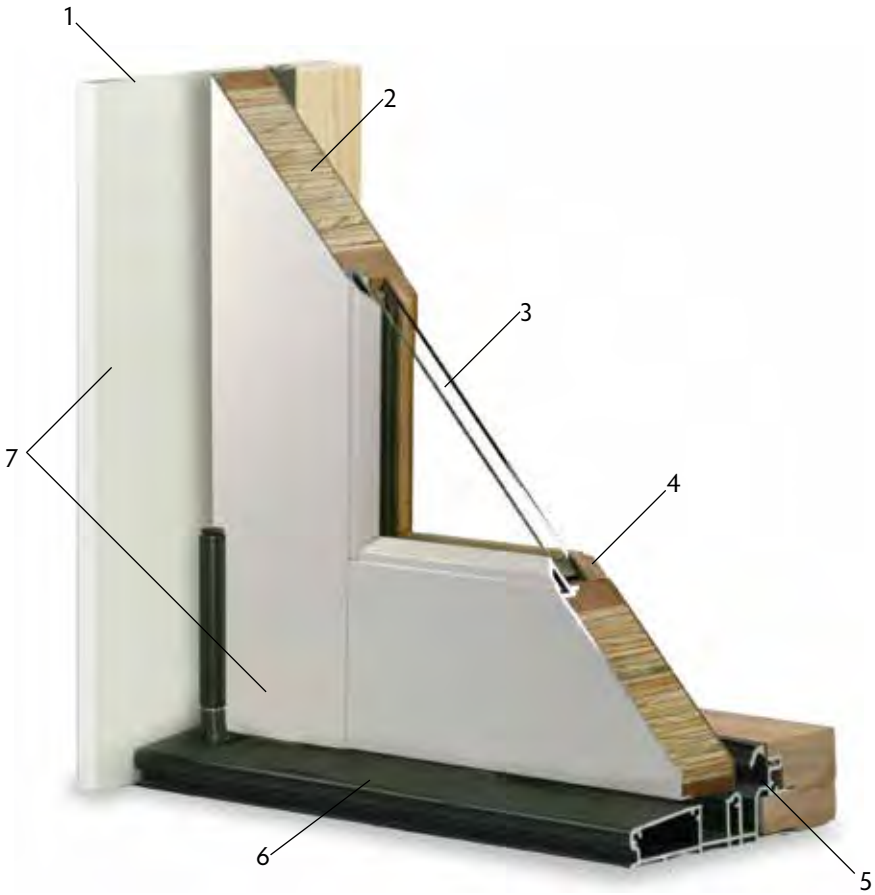
FOLDING PATIO DOORS

Distinctive rooms require an exceptional door system. Lincoln Folding doors, when completely opened, leave a stunning unobstructed view. Multiple configurations consist of stacking panels and may include an operable out-swing panel.

Configurations

Numerous out-swing configurations are available anywhere from one to eight panels in each direction and can include an access panel. The innovative hinge system enables all door panels to be made the same size regardless of the door configuration.

See examples of Lincoln's matching Folding Window at www.lincolnwindows.com.



	1 ¾" Panel Thickness	2 ¼" Panel Thickness
Maximum Panel Width	3' 6"	3' 6"
Maximum Panel Height	9' 0"	10' 0"
Maximum Number of Panels	16 Panels	16 Panels
Approx. Maximum Width	48'	48'
Maximum Height	9' 4 ¾"	10' 4 ¾"

NOTE: When using maximum door width and height, door may exceed maximum door weight. Calculated weight check should be done.

1. 5 ½" jamb with clad exterior. 6⁹⁄₁₆" jamb on primed exterior.
2. 1 ¾" & 2 ¼" thick panels.
3. ¾" tempered insulating glass & 1 ⅜" Triple Pane. (2¼" panels only)
4. Interior wood glazing bead.
5. Full surround weatherstrip.
6. .080 extruded aluminum sill (shown) or recessed floor channel guide option.
7. .050 extruded aluminum clad on panels and frame.

Hardware

Track, Guide Channel and Sill: The Folding patio door has a top mounted track system allowing the weight of door to be carried on the header. The bottom guide glides with minimal effort in a polypropylene floor channel lining allowing a smooth, almost silent rolling action. A low threshold guide channel is available for internal applications - no obtrusive door sill, just a recessed track in the floor.

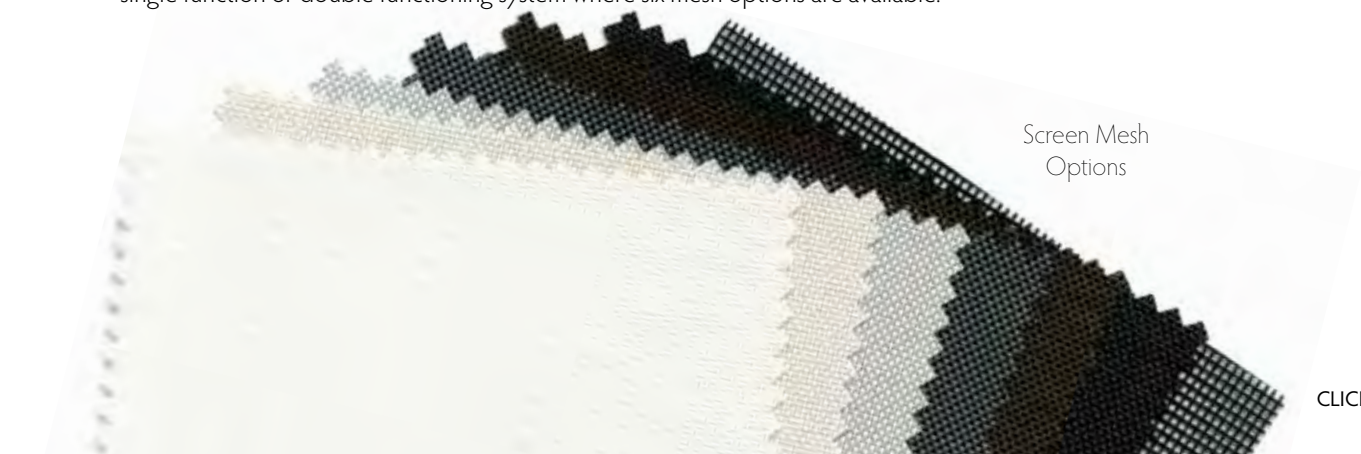
Handles & Backplates: The main operating panel for the folding door system utilizes the same high quality HOPPE hardware found on all Lincoln swing patio doors. The benefits include: matching styles, color continuity and the keyed alike feature.

Pull Handles, Hinges and Twinpoint: The remaining panels in the folding door system are operated using heavy-duty pull handles and hinges. Three hinges come standard with each Door panel - with a fourth hinge added for doors over 7'4". The twinpoint lever activates concealed rods into the head and sill for secure locking action.

Screens

All screens are made-to-order and specially configured for each bi-fold door system. They are available for openings up to 24' wide x 10' high and feature load balancing technology for effortless operation while remaining firmly in any chosen position until further pressure is applied. Screens store easily into its own frame when a clear opening is desired.

The tough PVC-coated polyester mesh used in the screen is hard wearing, resistant to damage, easy to clean and can be replaced if necessary. Choose a single function or double functioning system where six mesh options are available.



Screen Mesh Options

SLIDE PATIO DOORS

Featuring wide, lifestyle or narrow styles, our slide doors are a beautiful combination of practicality and performance. Light up your room and keep the weather outside all while avoiding the clearance needed with a swinging patio door.

Configurations

- 3 Stile Widths: 2 ½", 3 ⅜" & 4 13⁄16"
- 2-wide
- 3-wide
- 4-wide (OXXO)
- Transoms: 1, 2, 3 and 4-wide
- Sidelites

1. 4 9⁄16" jamb.
2. 1 ¾" thick panels.
3. ¾" tempered insulating glass.
4. Interior wood glazing bead.
5. .022 stainless steel roller track cover.
6. .125 pultruded resin coated bronze fiberglass sill.
7. .050 extruded aluminum clad on panels and frame. Wood units have primed panels on the exterior with cPVC brickmould.
8. Integral screen channel.
9. "t-Rail" Panel Guide System.

Standard Sill

High Performance Sill

Hardware

Rollers & Handles: Slide patio doors feature a dual lock and keeper system with an optional keyed lock. This 2-point hardware securely engages the heavy-duty keeper by latching both upward and downward. Door panels glide easily on durable ball-bearing rollers.

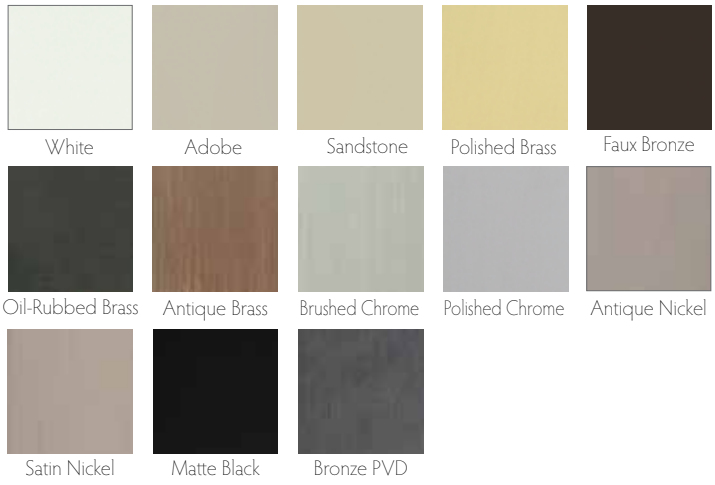
Allure Handleset (standard): Both functional and attractive, with it's painted metal available in five popular finishes. Keyed cylinders are optional.

Signature Handleset: Available in twelve finishes. If there is more than one door on a project, they may be ordered keyed alike. The latch mechanism is dual point, latching both up and down to resist forced entry by lifting the panel. Keyed cylinders are standard.

Contempo Handleset: Building and completing a contemporary or modern design theme off requires the straight sleek lines of the Contempo handle set. The shape and color options pair nicely with the Dallas Hardware found on our swing doors creating the perfect room accent. Keyed cylinders are standard. Available in nine finishes.

Flush Pull Hardware: While large pull handles do add leverage, sometimes they are difficult to design around. Flush Pull hardware has exactly the minimal interior exposure some interior décor's call for. Available in three finishes.

Finish Options	White	Adobe	Sandstone	Polished Brass	Faux Bronze	Oil-Rubbed Brass	Antique Brass	Brushed Chrome	Polished Chrome	Antique Nickel	Satin Nickel	Matte Black	Matte Black
Allure	■	■	■		■							■	
Signature	■	■	■	■	■	■	■	■	■	■	■	■	
Contempo	■			■	■	■	■	■	■		■	■	
Flush Pull											■	■	■



Stile Options

Slide doors continue to be a popular design for tighter spaces and are minimally invasive because an open panel simply covers the fixed portion. Looking for a lot of glass, choose from 2 narrow stile options; 2 1/2" and 3 3/8". These traditional sliding patio doors provide the most visible glass of all our door products. No room for a swinging door? Then compliment your home with an elegant wide 4 13/16"" stile slide door from Lincoln. Our wide stiles feature more wood than a traditional slide door and become the perfect choice when using an alternate wood species.

Screens

Sliding patio door screens offer a heavy-duty extruded frame channel available in all our aluminum clad colors. There are adjustable rollers on top and bottom. Screen mesh options include BetterVue, UltraVue and aluminum.

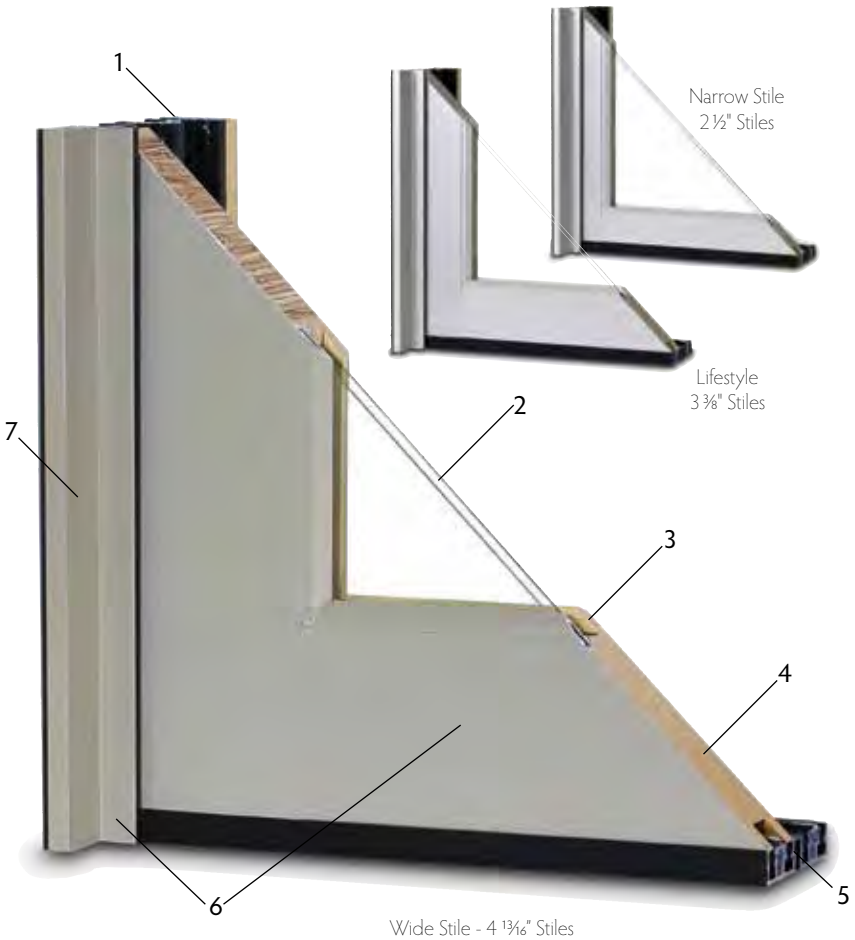
MULTI-SLIDE PATIO DOORS

Lincoln's multi-slide patio door is an extremely versatile system designed where immense areas of glass are desirable. A closed door will highlight elegant wide-stile panels or emphasize thin sight lines when using our narrow stile options.

Configurations

We offer numerous stacking or pocketing configurations from one panel to ten, creating a superb range of door widths and heights.

** It is highly recommended that the Multi Slide Door is installed in areas with a minimum 8' overhange to prevent water or air infiltration.*



Wide Stile - 4 13⁄16" Stiles

	Specifications	
	1 ¾" Panel Thickness	2 ¼" Panel Thickness
Maximum Panel Width	4' ½"	6' 0"
Maximum Panel Height	9' 0"	10' 0"
Maximum Number of Panels	10 Panels	10 Panels
Approx. Maximum Width	38'	38'
Maximum Height	9' 3⁄16"	10' 3⅛"
Stile Options	2½", 3⅜", 4 13⁄16"	3⅜", 4 13⁄16"
Minimum Roof Overhang	8' 0"	8' 0"

1. Modular frame system.
2. ¾" tempered insulating glass. 1⅜" triple pane optional with 2¼" thick panels.
3. Interior wood glazing bead.
4. 1¾" thick panels. 2¼" thick panels optional.
5. Thermally-broken bronze anodized sill.
6. .050 extruded aluminum on panels and frame.
7. Frame width accommodates from 1 to 10 panels.

Our Lift & Slide is truly elegant, architecturally driven and entirely functional. Modern building systems allow for massive openings and Lincoln's ability to utilize panels up to 5' by 10' fits thisw design criteria perfectly. Operational concerns? No problem! The 'lift' system elevates the panel for simple, easy 'slide' action. Walls of patio doors will disappear leaving the extraordinary uninterrupted view you long for.

Configurations

- Pocketing
- Stacking
- 90° Corner/Inverse 90°
- One Way Direction
- Bi-Parting

Panel Options

Lincoln multi-slide doors systems feature 1¾" or 2¼" thick panels, perfect for your next building project whether its modern, contemporary or traditional appearing. Capture your spectacular view with just the right panel choice, door size and operational function.

- **Narrow Stile:** 2½" Wide - 1¾" thick Only
- **Lifestyle Stile:** 3⅜" Wide - 1¾" or 2¼" thick
- **Wide Stile:** 4 13/16" Wide - 1¾" or 2¼" thick

	Specifications
Maximum Panel Width	6' 0"
Maximum Panel Height	10' 0"
Minimum Panel Width	2' 0""
Maximum Number of Panels	10 Panels
Minimum Number of Panels	1
Door Panel Thickness	2 ¼"

Operational Choices

Stacking: The stacking system allows all operating panels to fit over the end stationary panel. Door jamb widths will vary with the number of panels/tracks utilized. A pull handle is commonly used with this door for an additional design element.

Pocketing: Doors disappear fully into a specially designed wall cavity. A pocketing arrangement employs a flush lock permitting the locking panel to completely slide out-of-sight. What remains is an entirely open space.

Bi-Parting: Operating panels oppose to operate and join in the center with an astragal.

MULTI-SLIDE PATIO DOORS

Multi-Slide Hardware

Two styles of lever pull handlesets are available for multi-slide stacking door configurations. The multi-slide comes standard with a stainless steel 2-point locking mechanism built for lasting appearance and performance. The adjustable rollers glide easily, quietly and are available in stainless steel.

M574
Handleset

Polished Brass

Faux Bronze

Satin Nickel

Matte Black

M151
Handleset

*Handles and Backplates are interchangeable.

Our multi-slide patio doors are manufactured with Hoppe two point locking system.

Flush Pull Hardware

The attractive flush pull handles, designed to allow the panels to recess fully for pocketed multi-slide systems, can also be used for the stacking panel configurations when when minimal hardware is desired. The flush pulls comes standard with the same 2-point locking gear utilized by the lever pull option.

Also available with Lincoln Standard Slide Patio Door with 3⅜" & 4¹³⁄₁₆" stiles.

Satin Nickel

Bronze PVD

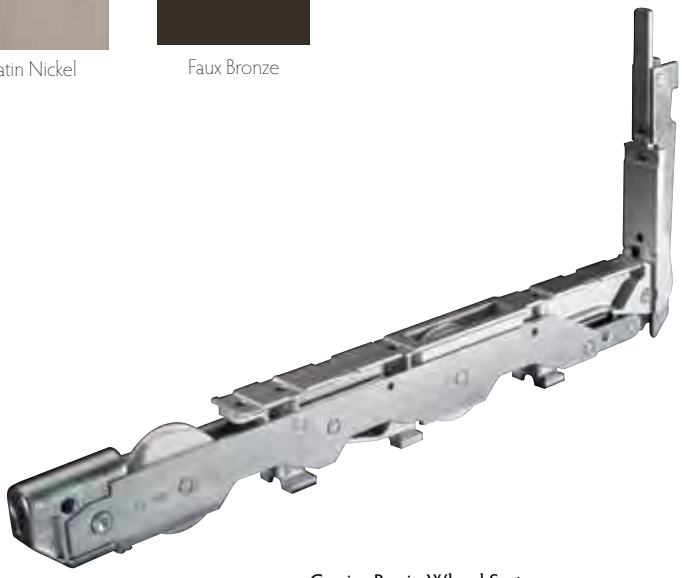
Matte Black

Lift-&-Slide Hardware

Operate these magnificent doors by turning the solid brass lever handle 180 degrees to 'lift' the panel easily up off of the sill track and on to the corrosion resistant carrier hardware. The 'slide' operation is smooth as the glass reinforced nylon rollers glide on a stainless steel track cap. Stacking doors feature non-removable hardware standard and pocketing doors use removable hardware as standard.

Satin Nickel

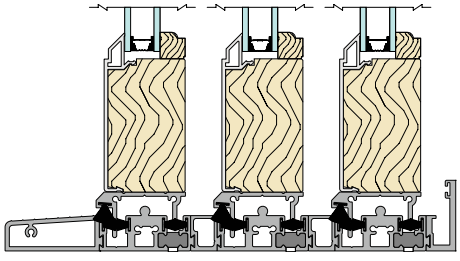
Faux Bronze



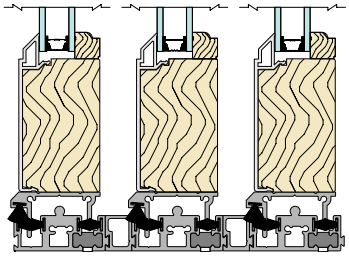
Carrier Bogie Wheel System

Sill Options

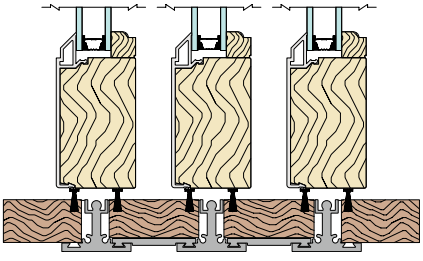
Three distinctive low profile sill options are available for the Multi-Slide and Lift & Slide doors and they accommodate nearly any flooring condition. The full width sill has an inside riser and a nosing system running the complete length of the door unit. The staggered track system features a flat edge, creating a smooth tranistion to floor coverings. A weep system is available. Lincoln's 'T' track allows for a flooring detail between the track system minimizing the visable track area.



Full Sill w/ Nosing & Riser
Multi-Slide with 1-3/4" Panels



Stagger Sill - Low Profile
Multi-Slide with 1-3/4" Panels



T-Track Sill
Multi-Slide with 1-3/4" Panels

Revitalize
REPLACEMENT WINDOWS & PATIO DOORS

OUT WITH THE OLD AND IN WITH THE NEW!

Do you live with any or all of the following: (1) high energy bills due to heat loss in the winter and heat gain in the summer, (2) fogging glass or water damage caused by condensation, (3) chipping paint or rotting wood, (4) difficulties with opening and cleaning, (5) excessive air and noise penetration, (6) fading window coverings, carpet and upholstery? You don't have to!

Over the years, windows and patio doors can become worn from continual use and exposure to the elements. In addition to being hard to operate and looking unattractive, they are not usually energy efficient. By simply replacing old windows and patio doors, you can easily eliminate these problems and increase the energy efficiency, comfort, appearance and value of your home - all in record time with little or no inconvenience to daily living.

Whether your remodeling project consists of replacing a few windows, adding on a room, bringing your home up to code or making historical renovations, we have the product that will meet your exacting specifications. Revitalize your home!

CALL: 800.967.2461

Take your old, drafty, hard to operate, inefficient windows and update them with all of today's technology and styles. Over the years, the sash, balance systems and hardware of a window may wear out, while the trim and frame can remain in good condition. Lincoln makes updating these windows a snap by offering three replacement window options, the Lincoln Fit double hung, Lincoln Fit casement and the Double Hung Replacement Kit. You can easily increase the energy efficiency, comfort, appearance and value of your windows in record time with little or no inconvenience to daily living.

Lincoln Fit Insert Windows

Window replacement doesn't have to mean ripping out the old window and damaging drywall. The Lincoln Fit is designed to be installed from the interior or exterior of the home with minimal disruption to the existing frame and trim. Every Lincoln Fit is custom sized to your exact specifications, ensuring a perfect fit for your window opening. This versatile product is available for double hung, casement, transom and picture window replacements.

Double Hung Replacement Kit

Even huge jobs become small projects with the Double Hung Replacement Kit. There is no reason to replace or even disturb the interior or exterior trim. The replacement kit utilizes the existing window frame in combination with snap-in jambliners and energy efficient sash. Since we offer custom sizing, finding the right size replacement for your project is easy.

CLICK: lincolnwindows.com

CLICK: lincolnwindows.com

When only the best will do.

Choose Lincoln for your new construction, remodeling or even light commercial projects. With almost 75 years of manufacturing experience built into every unit, we engineer our windows and patio doors for visual appeal as well as outstanding performance. In addition, Lincoln backs it up with exceptional customer service before and after the sale.

We are continually expanding our list of products, options and accessories. Check us out online for the latest offerings in the building industry. We are confident that we have the perfect windows and patio doors to harmonize with your ideas and designs.

Learn more about our products and options by contacting a local authorized Lincoln dealer or visiting us online at lincolnwindows.com.

Committed to protecting and preserving the environment.

Lincoln Windows is committed to environmental stewardship. As responsible corporate citizens, we are dedicated to manufacturing energy efficient products and managing our resources in a manner that reduces our impact on the environment.

Lincoln Windows is an ENERGY STAR® Partner.

Many of our products carry certification by the National Fenestration Rating Council (NFRC).

Lincoln products carry an extensive warranty. Ask your dealer for complete information.

Lincoln Windows & Patio Doors proudly supports the American Institute of Architects (AIA) Continuing Education System (CES).

Lincoln Wood Products, Inc.
1400 W. Taylor Street • P.O. Box 375
Merrill, Wisconsin 54452-1355
800-967-2461 • Fax: 715-536-9783
www.lincolnwindows.com

LPC2021-04-V1

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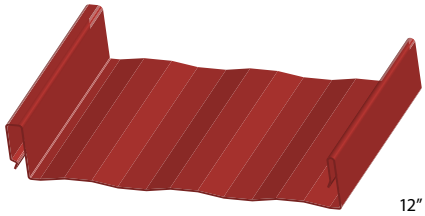
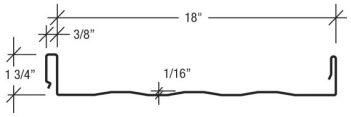
STANDING SEAM METAL ROOFING

LOKSEAM®

LokSeam® is a snap-together standing seam roof system with a 1¾" tall vertical rib, for use on roofs with a minimum slope of 3:12. LokSeam® panels are available in 12", 16" and 18" widths. LokSeam® panels can be installed over open framing or a solid substructure and are capable of transitioning from roof to fascia with the use of a rib cover. LokSeam® does not require a solid substructure for support.





Features and Benefits:

- Narrower widths, heavier gauges, striations and embossing minimize oil canning.
- Panels can be installed on roofs with a transition by using MBCI's die-formed rib covers.
- Numerous UL 580 Construction rating are available, as well as UL 790, Class A for external fire, numerous roof assemblies for UL 263 for internal fire and the UL 2218 Class 4 impact rating.
- LokSeam® carries Florida approval rating.

Product Specifications

- **Applications:** Roof
- **Coverage Widths:** 12", 16", 18"
- **Minimum Slope:** 3:12
- **Panel Attachment:** Concealed Fastening System, Standard and UL90 Clips
- **Gauges:** 24 (standard); 22 (12", 16", 18"), 26 (12") (optional)
- **Finishes:** Striated (standard); Embossed Striated (optional)
- **Coatings:** Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

LOKSEAM®

STANDING SEAM METAL ROOFING

CATEGORY	CHARACTERISTIC	TEST METHOD	PURPOSE	RESULT
ENVIRONMENTAL	Impact Resistance	UL 2218	Determines Impact Resistance of prepared Roof Covering Materials	Class 4 Rating
FIRE RESISTANCE	Room Fire Performance	UL 790	Standard for Standard Test Methods for Fire Tests of Roof Coverings	See Class A Fire Rating Data Sheet
	Room Fire Performance	UL 263	Standard for Fire Tests of Building Construction and Materials. Requires installation over a non-combustible substrate to qualify for Class A rating. Installation over a combustible substrate qualifies for Class C rating.	For use in Design Nos. P225, P227, P230, P237, P265, P268, P508, P510, P512, P701, P711, P720, P722, P726, P731, P734, P801, P815, P819.
STRUCTURAL	Uplift Resistance	ASTM E 1592	Provides a standard procedure to evaluate or confirm structural performance under uniform static air pressure difference	See Load Chart Section
	Gravity Loads	AISI S100	North American Specification for the Design of Cold-Formed Steel Structural Members	See Section Properties and Allowable Load Table Section
ROOF LISTINGS	Roof Performance Underwriters Laboratories	UL 580	Determines the uplift resistance of roof assemblies consisting of the roof and roof coverings materials	Class 90 Rating - Construction Number 254, 255, 261, 303, 342, 343, 414, 436, 445, 446, 448, 486, 508A, 543 and 544.
	Roof Performance Florida Approval	ASTM E 1592 FM 4471 UL 790	Florida product approval is the approval of products and systems, which comprise the building envelope and structural frame, for compliance with the structural requirements of the Florida Building Code.	See FL# 11819.4, 11819.5 and 11903.6
	Roof Performance Texas Department of Insurance	UL 580 UL 1897	TWIA provides windstorm and hail insurance in areas exposed to hurricanes and currently provides windstorm and hail coverage in the following 14 “first tier” Texas coastal counties: Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kenedy, Kleberg, Matagorda, Nueces, Refugio, San Patricio and Willacy.	See RC-61 and RC-526

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, MBCI reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. To ensure you have the latest information available, please inquire or visit our website at mbci.com. Application details are for illustration purposes only and may not be appropriate for all environmental conditions, building designs or panel profiles. Projects should be designed to conform to applicable building codes, regulations and accepted industry practices. If there is a conflict between this manual and project erection drawings, the erection drawings will take precedence.
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allura™
Making the Material Difference

FULL-LINE PRODUCT COLLECTION

Beyond the appeal of the products.

For more than 75 years, Allura has been building its enviable reputation by Making the Material Difference — focusing on the things that make a real difference for our customers. We begin by providing service through a team of professionals dedicated to exceeding your expectations. We're adamant about ensuring you get the right material in the right location at the right time. To do so, we offer a full line of building materials that deliver the distinctive look and unsurpassed performance you demand.

Unlike wood, vinyl and other traditional building materials, Allura Fiber Cement products resist damage from hail or termite attacks, resist rot, are noncombustible, and are free from manufacturing defects. They are also suitable in both hot and cold climates and are fire resistant. What's more, Allura products feature realistic wood grain and textures, come in an incredible array of colors and are paintable for unlimited design possibilities.

When it comes to the natural look you want with none of the hassles, Allura fiber cement products are all you need.

- *Durable, engineered to endure harsh weather and high-wind climates*
- *Noncombustible, Class A fire rating*
- *Superior aesthetics*
- *Factory pre-primed*
- *Distinctive, more realistic textures*
- *30-year limited warranty*
- *Best ROI for homeowners* for 8 years in a row*

** According to Remodeling Cost vs Value Report*

allura™
Making the Material Difference

LAP SIDING

Classic style. State-of-the-art performance.

Combining the appearance and workability of wood with the durability of specially formulated fiber cement, Allura Lap Siding not only looks great but lasts considerably longer than traditional exterior wall cladding or vinyl siding.

AVAILABLE TEXTURES *

Traditional Cedar

Smooth

DESIGNER'S CORNER

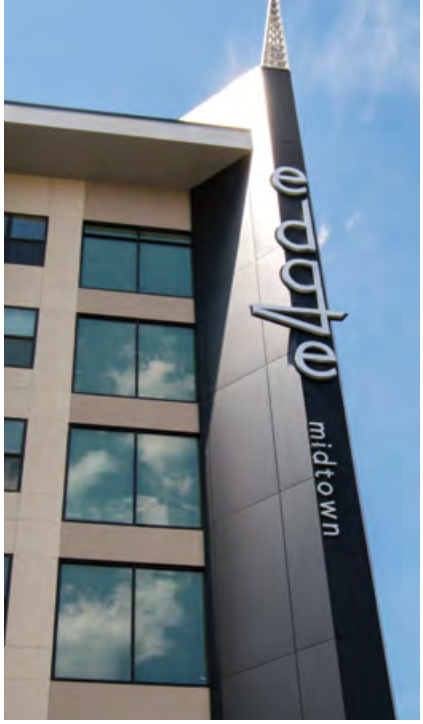
Our Traditional Cedar texture features a deep, realistic wood grain appearance for an unbeatable classic style, while the Smooth texture creates a cleaner, modern aesthetic. You can even customize your design utilizing our extensive range of widths. No matter the style, Allura Lap Siding has got yours covered.

LAP SIDING*

Thickness	Width	Length	Exposure
5/16"	5¼"	12'	4"
5/16"	6¼"	12'	5"
5/16""	7¼"	12'	6"
5/16"	8¼"	12'	7"
5/16"	9¼"	12'	8"
5/16"	12"	12'	10¾"

** 1¼" min. overlap with all Lap Siding. Check market availability, as products may vary.*

PANEL SIDING



Versatility that spans traditional to contemporary.

Designed for everything from sidewalls to overhead accents, Allura Panel Siding adds beautifully versatile — and exceedingly durable — distinction to your next project.

TECHNICAL SPECIFICATIONS

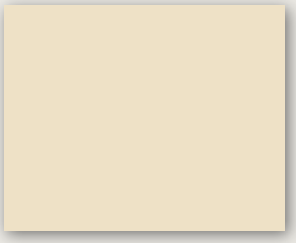
Thickness	Width	Length
5/16"	4'	8'
5/16"	4'	9'
5/16"	4'	10’
5/16"	4'	12’

** Check market availability, as products may vary.*

AVAILABLE TEXTURES*

Traditional Cedar

8” OC Groove



Smooth

SHAKE

Random Square – Straight Edge

Half Rounds

Random Square – Staggered Edge

Octagons

The undeniable allure of texture and detail.

Replacing split or rotted wood shingles is a thing of the past thanks to Allura Shake. Featuring the natural beauty of cedar, our Shake provide the appearance of wood without the wear and tear, ideal for everything from small facades to large areas to full wall applications. What's more, our Shake achieves the look of individual shingles in easy-to-install panels. To elevate the authenticity even further, opt for Allura Shake Select, the innovative interlocking 3-panel system that minimizes repeating patterns to deliver a truly random aesthetic. All of which deliver a lot of extra curb appeal without a lot of extra work.

Allura Shake*

- Primed only
- Two textures: Traditional Cedar & Combed

STAGGERED EDGE

Thickness	Dimensions	Exposure
¼"	16" x 48"	6"

STRAIGHT EDGE

Thickness	Dimensions	Exposure
¼"	16" x 48"	7"
¼"	12" x 48"	5"

HALF ROUNDS & OCTAGON

Thickness	Dimensions	Exposure
¼"	16" x 48"	7"

** Check market availability, as products may vary.*

DESIGNER'S CORNER

When it comes to creativity and versatility, Allura Shake is all you need to establish a look that's all your own. Whether you prefer the classic Straight Edge look, the "randomness" of Staggered Edge or the decorative possibilities of our Half Round, Allura Shake makes your design ideas come alive.

SHAKE SELECT

Random Square – Straight Edge

Random Square – Staggered Edge

Innovative design for random beauty.

It's possible to achieve the look of handcrafted randomly placed shake shingle siding without actually installing individual shake shingles, one by one.

Allura's Shake Select siding achieves the truly distinctive look once only possible with individual cedar shingles with a fiber cement product that's unsurpassed in its ability to stand up to the harshest weather, wood-devouring insects or whatever else Mother Nature throws its way.

Allura Shake Select*

- Available in Straight Edge & Staggered Edge
- Traditional Cedar texture
- Available in Factory Prefinished & Primed

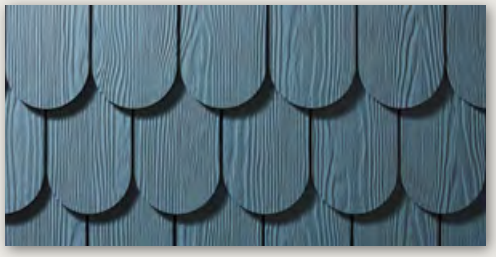
Thickness	Dimensions	Exposure
5/16"	16" x 48"	7"

** Check market availability, as products may vary.*

DESIGNER'S CORNER

A repeating pattern is the last thing you want to see when standing on the curb looking at one of your finished homes. Allura has overcome this annoyance through an ingenious, one-of-a-kind system that utilizes a series of three distinct 4' X 8' panels and an intuitive installation sequence. With Allura Random Shake, installers can knock out 4' X 8' sections in a fraction of the time it would take to place individual shingles over that same surface area. Allura Shake Select is truly unique, delivering the look of old world craftsmanship in a beautiful new way.

Octagons



Half Rounds

TRIM

Tie it all together.

Thanks to our special fiber cement formulation, Allura Trim has all the advantages of wood and none of the hassles. It looks like wood yet is incredibly durable. It won't rot, warp or splinter and is designed to significantly outperform wood in every way. Best of all, there is no need for special tools on the job site. Our Trim can be cut with the same saw blades and installed with the same tools normally used for wood products. Why bother with wood? Trim provides the look and long-lasting protection you need to bring your home that all-important finishing touch.

TRIM FEATURES

- Available in reversible Cedar/Smooth board for added versatility
- 15-year limited warranty

DESIGNER'S CORNER

Nothing brings the look of your home together quite like Allura Trim. Its clean lines, exceptional durability and paintability provide the ultimate in beauty and versatility. Allura Trim is the perfect finishing touch.

		Nominal Width*							
Size	Thickness	2"	3"	4"	5"	6"	8"	10"	12"
7/16"	7/16"			●		●	●		●
4/4	¾"	●	●	●		●	●	●	●
5/4	1"	●	●	●	●	●	●	●	●
8/4	1½"			●		●			

All available in 12-ft. lengths

**Check market availability, as products may vary.*

Industry-leading 15-year Transferable Trim Limited Warranty

SOFFIT

Elevate the look and performance.

Available in both vented and non-vented styles, Allura Soffit Panels will neither warp nor rot. Unlike traditional wood, they are engineered to repel moisture, withstand any climate, and provide extensive protection around the home. Soffit helps equalize the roof temperature from top to bottom by supplying a consistent airflow along the entire underside of the roof deck.

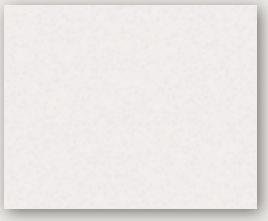
For outdoor ceiling applications, including porches and gazebos. Allura Fiber Cement Beadboard is perfect. Best of all, it's weather-, rot- and fire-resistant. Raise your expectations for any outdoor ceiling with the aesthetics and durability of Allura Beadboard.

DESIGNER'S CORNER

Whether you prefer Smooth or Cedar texture, Allura Soffit options allow you to ensure your home's design style is consistent from every angle.

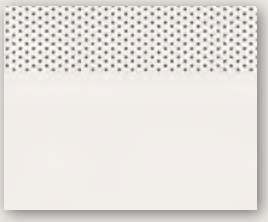
AVAILABLE TEXTURES*

Traditional Cedar

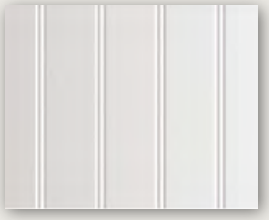


Smooth

Traditional Cedar Vented



Smooth Vented



Beadboard
(only available for Ceiling Soffit)

EAVES SPECIFICATIONS

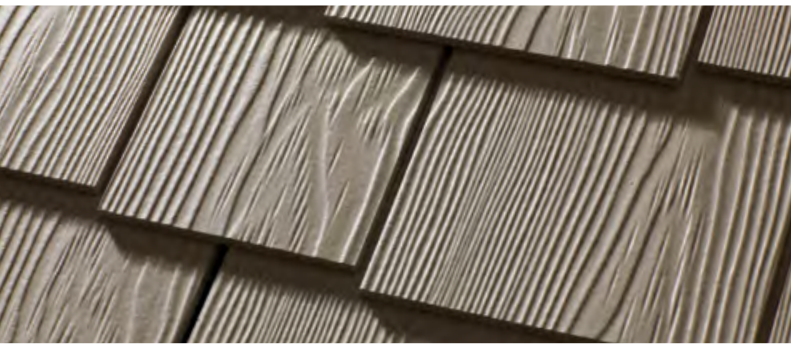
Type	Thickness	Width	Length
Vented/Non-Vented	¼"	24"	8'
Vented/Non-Vented	¼"	24"	12'
Vented/Non-Vented	¼"	16"	12'
Vented/Non-Vented	¼"	12"	12'

CEILING SPECIFICATIONS

Type	Thickness	Width	Length
Non-Vented	¼"	4'	8'
Beadboard	5/16"	4'	8'

** Check market availability, as products may vary.*

PRE-FINISHED



Build in more durability with pre-painted fiber cement.

Opt for pre-finished fiber cement siding to build in quality and durability. Unlike retail paint made from a clear base tinted with synthetic pigments, the paint formulated for fiber cement manufacturers uses natural color pigments, which are renowned for their superior durability, coverage, stability and resistance to fading. (Ancient cave drawings used natural pigments, and they haven't disappeared after 30,000 years.) Pre-painted siding from Allura is guaranteed for 15 years — up to twice the durability of an on-site application.

ALWAYS THE RIGHT CONDITIONS

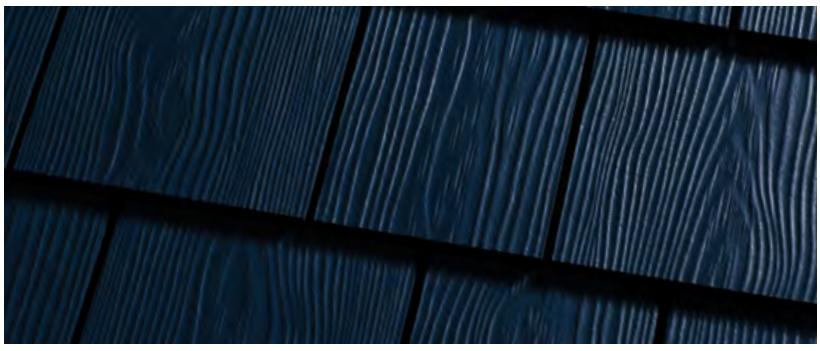
Paint will never apply with the same consistency and control on a vertical surface in outdoor conditions as it will in a cutting-edge painting facility. Not only is pre-painted siding application more consistent, but the coating is also thicker.

Moisture can prevent paint adherence to virtually any substrate. For best results, painters should delay for 24-hours after any precipitation and should avoid application altogether within 4 hours before forecasted rain. Additionally, most paint labels recommend painting when the relative humidity is between 40-60%, but in many areas around the United States, the humidity almost never drops below 60%.

When temperatures outside are too high or too low, painting the building's siding is also problematic. To create a durable film, the air temperature must be over 35° and lower than 90°. But weather is never a problem in the factory, where painting conditions are perfect 365 days a year.

DESIGNER'S CORNER

Would you prefer to have a new car delivered with just the primer applied? Imagine trying to match that factory finish out in your driveway. When a product is finished in a controlled factory setting with specially formulated coatings, it delivers unrivaled results. It's that simple.



Unleash your imagination.

Allura's proprietary Spectrum™ Finishing System not only ensures unparalleled protection against the elements, but also brings out your style in a gorgeous palette of eye-catching designer colors. But that's only part of the story. Beneath our alluring Spectrum finish lies a strong precision process. Optimal defense is built in with our primer/sealer for premium weather protection and machine-applied coats of Spectrum color.

With 25 solid colors available to choose from our Spectrum pre-painted collection, your homeowner can rest assured knowing they won't need to repaint for 15 years. We back this claim up with a 15-year warranty on all our pre-finished options.

Or if you have a special request beyond our existing samples, you can create your own custom look with our Spectrum Plus™ curated collection. This offers a palette of beautiful colors reserved exclusively for your use in your market. Contact your Allura sales representative for more details on both of these customized programs to determine what best fits your needs.

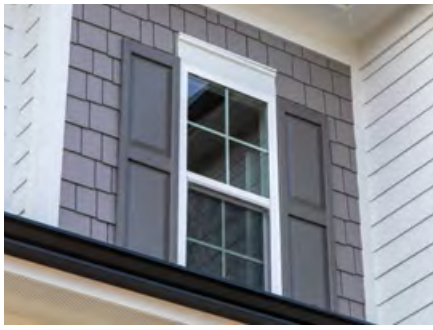
The color samples shown here are as accurate as printing methods will permit.
For a physical color card, a request form or to find a preferred dealer near you, please visit AlluraUSA.com.

We don't just promise world-class service. *We guarantee it.*

At Allura, we believe the building industry is first and foremost a service industry. We understand time is money and you deserve respectful, courteous and knowledgeable customer service. So you can always count on us for helpful technical support, customer service reps and managers who are eager to assist you with all your Allura fiber cement needs.

ON-TIME SHIPMENTS

We take pride in delivering full and on-time shipments. If for any reason your direct Allura order does not ship on your promised ship date, please contact Allura's Customer Support immediately, so we can assist you.



QUALITY PRODUCTS & PROTECTED INVESTMENT

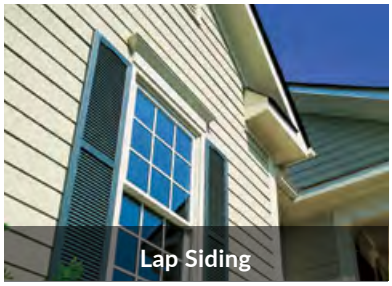
With over 75 years of experience, Allura provides a top-line fiber cement product using our advanced formulation and quality-control monitoring. Every piece of fiber cement product delivered from Allura will be palletized and wrapped to protect your investment.

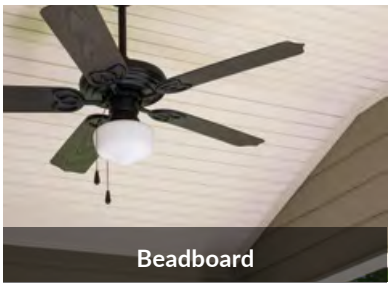
BACKED BY CONFIDENCE.

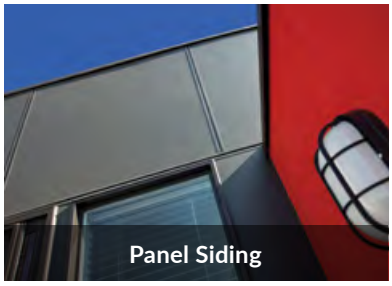
Allura fiber cement siding products are backed by our 30-year Transferable Limited Product Warranty*.

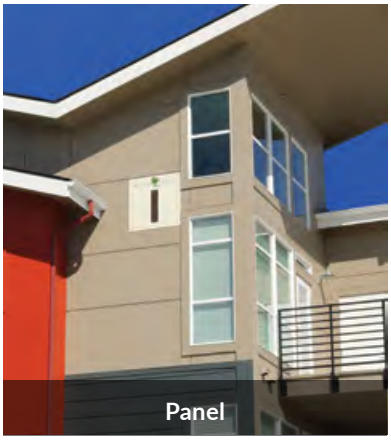
**Please review our Limited Transferable Warranty for specific details. Use of the product subjects you to a Limited Warranty and Arbitration Agreement. For a copy and further details, visit Allurausa.com/warranties.*

allura™
Making the Material Difference









AlluraUSA.com

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