

HISTORIC AND DESIGN REVIEW COMMISSION

June 19, 2019

HDRC CASE NO: 2019-325
ADDRESS: 516 BROOKLYN AVE
LEGAL DESCRIPTION: NCB 448 BLK 1 LOT E 60 FT OF W 225 FT OF 5 OR A6 SEVENTH ST
ZONING: FBZ T6-2, RIO-2
CITY COUNCIL DIST.: 1
APPLICANT: David Moreno
OWNER: Zurich Properties
TYPE OF WORK: Signage, sidewalk modifications to meet ADA standards, painting
APPLICATION RECEIVED: May 30, 2019
60-DAY REVIEW: July 29, 2019
REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to:

1. Paint the existing structure white with black trim.
2. Replace the existing sidewalk with a new sidewalk that meets ADA standards.
3. Install planters on the sidewalk to enhance the pedestrian experience. The proposed planters will feature dimensions of eighteen (18) inches tall and nine (9) inches in depth.
4. Install one, externally illuminated blade sign on the Brooklyn Avenue façade to feature 3' – 2" in height and width, to be constructed of metal. The metal sign face will feature vinyl graphics.
5. Replace the existing logo on the primary entrance awning with a new logo to feature a diameter of eighteen (18) inches in height.
6. Install a vinyl graphic on the entry door to feature an overall dimension of twelve (12) inches in height and twenty-four (24) inches in width.

APPLICABLE CITATIONS:

UDC Section 35-672. – Neighborhood Wide Design Standards

(a) Pedestrian Circulation. Pedestrian access shall be provided among properties to integrate neighborhoods.

(1) Provide sidewalks that link with existing sidewalks on adjoining properties. If no sidewalk currently exists on an adjoining property, the applicant will have discretion in the placement of the sidewalk provided the following criteria are met:

- A. Provide a sidewalk connection from one (1) side of the applicant's property to the other, parallel to the public right-of way, on the street sides of the property in all river improvement overlay districts
- B. Provide a connection from the street level sidewalk to the Riverwalk at cross streets and bridges and other designated access points. This requirement may be waived if there is already a public connection from the street level to the Riverwalk.
- C. In order to preserve the rural character of "RIO-6," the HPO, in coordination with the development services department, may waive the requirement of sidewalks.
 - In "RIO-3," the width of the pathway along the river shall match those widths established in the historic Hugman drawings. If there are no sidewalks in the Hugman drawings, the path will not exceed eight (8) feet in width.

(2) Link the various functions and spaces on a site with sidewalks in a coordinated system.

Provide pedestrian sidewalks between buildings, parking areas and built features such as outdoor plazas and courtyards.

(3) Paving materials. Paving materials for pedestrian pathways shall use visually and texturally different materials than those used for parking spaces and automobile traffic.

- A. Paving materials for pedestrian pathways shall be either:
 - i. Broom-finished, scored, sandblasted or dyed concrete;
 - ii. Rough or honed finished stone;
 - iii. Brick or concrete pavers; or
 - iv. Other materials that meet the performance standards of the above materials.
- B. Asphalt is permitted for pedestrian pathways that also are designated as multi-use paths by the City of San

Antonio. The public works department will maintain the designated multi-use path locations.

(4) Street Connections to River. Retain the interesting and unique situations where streets dead-end at the river, creating both visual and physical access to the river for the public.

(5) Pedestrian Access Along the Riverwalk Pathway Shall Not Be Blocked.

A. Queuing is prohibited on the Riverwalk pathway.

B. Hostess stations shall be located away from the Riverwalk pathway so as to not inhibit pedestrian flow on the Riverwalk pathway. That is, the hostess station shall not be located in such a manner to cause a patron who has stopped at the hostess stand to be standing on the Riverwalk pathway. Pedestrian flow shall be considered "inhibited" if a pedestrian walking along the pathway has to swerve, dodge, change direction or come to a complete stop to avoid a patron engaged at the hostess stand.

C. Tables and chairs shall be located a sufficient distance from the Riverwalk pathway so that normal dining and service shall not inhibit the flow of pedestrian traffic. See inhibited definition in subsection B. above.

UDC Section 35-673. – Site Design Standards

(i) Street Furnishings. Street furnishings are exterior amenities, including but not limited to, tables, chairs, umbrellas, landscape pots, wait stations, valet stations, bicycle racks, planters, benches, bus shelters, kiosks, waste receptacles and similar items that help to define pedestrian use areas. Handcrafted street furnishings are particularly important in San Antonio, and therefore this tradition of craftsmanship and of providing street furniture is encouraged.

(1) Prohibited Street Furnishings in Riverwalk Area. The following street furnishings are prohibited within the publicly owned portion of the Riverwalk area, whether or not the property is leased, and on the exterior of the riverside of buildings directly adjacent to the publicly owned portion of the river:

A. Vending machines.

B. Automatic teller machines.

C. Pay phones.

D. Photo booths.

E. Automated machines such as, but not limited to, penny crunching machines, blood pressure machines, fortune-telling machines, video games, animated characters and other machines that are internally illuminated, or have moving parts, or make noise, or have flashing lights.

F. Inanimate figures such as horses, kangaroos, bears, gorillas, mannequins or any such animal, cartoon or human figure. This section does not affect public art as defined in Appendix "A" of this chapter.

G. Monitors (i.e., television screens, computer screens).

H. Speakers.

(2) Street Furnishing Materials.

A. Street furnishings shall be made of wood, metal, stone, terra cotta, cast stone, hand-sculpted concrete, or solid surfacing material, such as Corian or Surell.

B. Inexpensive plastic resin furnishings are prohibited.

(3) Advertising on Street Furnishings.

A. No commercial logos, trademarks, decals, product names whether specific or generic, or names of businesses and organizations shall be allowed on street furnishings.

B. Product or business advertising is prohibited on all street furnishings.

C. Notwithstanding the restrictions above, applications may be approved for purposes of donor or non-profit recognition.

(4) Street furnishings, such as tables and chairs may not be stored (other than overnight storage) in such a way as to be visible from the river pathway.

(m) Buffering and Screening. The manner in which screening and buffering elements are designed on a site greatly affects the character of the river districts. In general, service areas shall be screened or buffered. "Buffers" are considered to be landscaped berms, planters or planting beds; whereas, more solid "screens" include fences and walls. When site development creates an unavoidable negative visual impact on abutting properties or to the public right-of-way, it shall be mitigated with a landscape design that will buffer or screen it.

(1) Landscape Buffers Shall be Used in the Following Circumstances: To buffer the edges of a parking lot from pedestrian ways and outdoor use areas, (such as patios, and courtyards), and as an option to screening in order to buffer service areas, garbage disposal areas, mechanical equipment, storage areas, maintenance yards, equipment storage areas and other similar activities that by their nature create unsightly views from pedestrian ways, streets, public ROWs and adjoining property.

- (2) Screening Elements Shall be Used in the Following Circumstances: To screen service areas, storage areas, or garbage areas from pedestrian ways.
- (3) Exceptions for Site Constraints. Due to site constraints, in all RIOs and specifically for "RIO-3" where there is less than ten (10) feet to provide for the minimum landscape berm, a screen may be used in conjunction with plantings to meet the intent of these standards. For example a low site wall may be combined with plant materials to create a buffer with a lesser cross sectional width.
- (4) Applicable Bufferyard Types. Table 510-2 establishes minimum plant materials required for each bufferyard type. For purposes of this section, type C shall be the acceptable minimum type.
- (5) Applicable Screening Fence and Wall Types. Screening fences and walls shall be subject to conditions of subsection 35-673(h), Walls and Fences.

Sec. 35-674. Building Design Principles

(d) Materials and Finishes. Masonry materials are well established as primary features along the river corridor and their use should be continued. Stucco that is detailed to provide a texture and pattern, which conveys a human scale, is also part of the tradition. In general, materials and finishes that provide a sense of human scale, reduce the perceived mass of a building and appear to blend with the natural setting of the river shall be used, especially on major structures.

(1) Use indigenous materials and traditional building materials for primary wall surfaces. A minimum of seventy-five (75) percent of walls (excluding window fenestrations) shall be composed of the following:

- A. Modular masonry materials including brick, stone, and rusticated masonry block, tile, terra-cotta, structural clay tile and cast stone. Concrete masonry units (CMU) are not allowed.
- B. Other new materials that convey the texture, scale, and finish similar to traditional building materials.
- C. Stucco and painted concrete when detailed to express visual interest and convey a sense of scale.
- D. Painted or stained wood in a lap or shingle pattern.

(2) The following materials are not permitted as primary building materials and may be used as a secondary material only:

- A. Large expanses of high gloss or shiny metal panels.
- B. Mirror glass panels. Glass curtain wall buildings are allowed in RIO-3 as long as the river and street levels comply with 35-674(d)(1) above.

(3) Paint or Finish Colors.

- A. Use natural colors of indigenous building materials for properties that abut the Riverwalk area.
- B. Use matte finishes instead of high glossy finishes on wall surfaces. Wood trim and metal trim may be painted with gloss enamel.
- C. Bright colors may highlight entrances or architectural features.

Unified Development Code, Section 35-678 – Signs and Billboards in the RIO

(a) General Provisions.

(1) This section governs all exterior signs and all interior signs hung within ten (10) feet of an exterior fenestration, or those signs intended to be read by exterior patrons.

- A. All signage within an RIO district shall conform to all city codes and must have approval of the historic preservation officer prior to installation.
- B. Permits must be obtained following approval of a certificate of appropriateness.
- C. No sign shall be painted, constructed, erected, remodeled, refaced, relocated, expanded or otherwise altered until it has been approved and a permit has been obtained from the development services department in accordance with the provisions of this section and applicable city code.
- D. Signs, visual displays or graphics shall advertise only the business on the premises unless otherwise allowed in this section.
- E. Temporary displays for permitted events are authorized if in accordance with chapter 28 of the City Code of San Antonio, Texas.

(2) When reviewing applications for signage the historic preservation officer and the historic and design review commission shall consider the visual impact on nearby historic resources.

- A. Signs should respect and respond to the environment and landmark or district character in which constructed.
- B. Signs should respect and respond to the river improvement overlay districts character and the historic Riverwalk.

C. The content or advertising message carried by permitted signs shall pertain to the business located on the same premises as the sign or to any otherwise lawful noncommercial message that does not direct attention to a business operated for profit, or to a commodity or service for sale, provided that signs erected on buildings with multiple businesses within shall pertain to any such business within.

(3) For signs with changeable message panels, the changeable message area of the sign shall not exceed twenty-five (25) percent of the total sign area, except for gasoline price signs which shall not exceed seventy-five (75) percent of the total sign area. Electronic changeable message boards shall be prohibited.

(4) The name of a business may be changed through the administrative approval process if the sign conforms to the provisions of this section, and if the color, size, and style of lettering, and illumination of the sign remain the same.

(5) Provisions under this section shall comply with chapter 28 of the City Code of San Antonio, Texas. In cases where provisions under this section are stricter or a sign is designated as a contributing structure, then this section shall control.

(6) Special consideration should be given to the character of the sign itself proposed in the application, and whether the proposed sign has inherently historic characteristics which may fall outside of the guidelines presented below but which would contribute to the historic district, landmark or area for which it is being proposed. Additionally, when reviewing applications for signage the historic preservation officer and the historic and design review commission shall consider the visual impact on nearby historic resources.

(7) Memorials, markers, naming rights of public property, and recognition of charitable donations given to the City of San Antonio shall be additionally governed by any formal action passed by city council.

(b) Sign Definitions. For signage definitions, refer to subsection 35-612(b) and chapter 28 of the City Code.

(c) Standards for Sign Design and Placement. In considering whether to recommend approval or disapproval of an application to construct or alter signage on a building, object, site, or structure in a river improvement overlay district, review shall be guided by the following standards in addition to any specific design guidelines approved by city council.

(1) Primary sign design considerations shall be identification and legibility. Size, scale, height, color and location of signs shall be harmonious with, and properly related to, the overall character of the district and structure. Sign materials shall be compatible with that of the building facade. Highly reflective materials that will be difficult to read are not permitted.

(2) Signs which describe, point, or direct the reader to a specific place or along a specific course, such as "entrance," "exit," and "disabled persons access," as well as government signs, shall be reviewed but shall not be included in total allowable signage area. Emergency signs shall be exempt from historic and design review commission approval.

(3) All graphic elements shall reinforce the architectural integrity of any building. Signs shall not disfigure, damage, mar, alter, or conceal architectural features or details and shall be limited to sizes that are in scale with the architecture and the streetscape. Emblems and symbols of identification used as principal structural or architectural design elements on a facade shall not be included in the total allowable signage per facade per structure when approved. Review shall be guided by the building's proportion and scale when such elements are incorporated.

(4) Graphics and signage may be illuminated by indirect, internal, or bare-bulb sources, providing that glare is not produced; by indirect light sources concealed by a hood or diffuser; by internal illumination with standard opal glass or other translucent material or with an equal or smaller light transmission factor. All illumination shall be steady and stationary. Neon lighting shall be permitted when used as an integral architectural element or artwork appropriate to the site. For purposes of this subsection, "Glare" shall mean an illumination level of six (6) Lux or greater at the property boundary. If internal illumination is used, it shall be designed to be subordinate to the overall building composition. Light fixtures should reflect the design period of the building on which they are placed. The use of ambient light from storefront or streetlights is encouraged.

(5) Signage requests for multi-tenant buildings must complement existing signage with regards to size, number, placement and design, unless such existing signage is not in conformity with regulations in this article. It is recommended that the building owner or their agent develop a master signage plan or signage guidelines for the total building or property. If a property has an approved master signage plan on file with the historic preservation officer, then applications for signage may be approved administratively at the discretion of the historic preservation officer provided that they comply with such master signage plan. Notwithstanding the above, signs may not exceed the maximum size and height limitation of signage contained in chapter 28, article 9.

(d) Proportion of Signs. For all signage, signage width and height must be in proportion to the facade, respecting the size, scale and mass of the facade, building height, and rhythms and sizes of window and door openings. The building facade shall be considered as part of an overall sign program but the sign shall be subordinate to the overall building composition. Additionally, signs shall respect and respond to the character and/or period of the area in which they are being placed.

(e) Number and Size of Signs.

(1) Number and Size. The historic and design review commission shall be guided in its decisions by the total number of businesses or services per building and the percentage of visible storefront occupied by each business or service. Applicants may apply for up to three (3) signs total. Total signage for all applicants shall not exceed fifty (50) square feet unless additional signs and/or additional total footage is approved. Additional square footage may be approved provided that the additional signage is in conformity with, and does not interfere with, the pedestrian experience on the Riverwalk. The additional square footage shall be based upon the size and scope of the site. Signs should reflect the type and speed of traffic they are meant to attract. Signs designed for pedestrians and drivers of slow moving cars should not be the same size as signs designed for highway traffic.

(2) Sign Area. The sign area shall be determined in the following manner:

A. Sign Areas. The area of a sign shall be computed on the actual area of the sign. Sign area shall be calculated as the area within a parallelogram, triangle, circle, semicircle or other regular geometric figure including all letters, figures, graphics or other elements of the sign, together with the framework or background of the sign. The supporting framework of the sign shall not be included in determining sign area unless such supporting framework forms an integral part of the sign display, as determined by the historic preservation officer. If the sign is located on a decorative fence or wall, when such fence or wall otherwise meets these or other ordinances or regulations and is clearly incidental to the display itself, the fence or wall shall not be included in the sign area. In the cases of signs with more than one (1) sign face, including but not restricted to double-faced signs, back-to-back signs, overhanging signs, and projecting signs, each side of the sign shall be included in total allowable signage area.

B. Channel Letter Signs. For channel letter signs, the sign area shall be the smallest rectangle that will encompass the limits of the writing, including spaces between the letters. Each advertising message shall be considered separately.

(3) Building Identification Signs. An additional building identification sign may be placed on a building with multiple tenants, if the building name is not the same as the business(s) housed within and such sign is recommended for approval by the historic and design review commission. This type of sign is to identify a building as a destination, shall not exceed thirty-two (32) square feet, shall not be included in the total allowable signage area, and shall not include names of individual businesses.

(4) Freestanding Signs. Freestanding signs are allowed provided the sign does not interfere with pedestrian or vehicular traffic. Freestanding signs shall be perpendicular to the street, two-sided and no taller than six (6) feet. Freestanding signs shall not be located in the right-of-way.

A. Projecting Arm Signs. Signs hung from poles are allowed. Pole height shall not exceed six (6) feet and the pole diameter shall not exceed three (3) inches. Blade signs are not allowed to project over a sidewalk or other right-of-way.

(f) Allowable Signs Not Included in the Total Signage Area.

(1) Parking lot signs identifying entrances and exits to a parking lot or driveway, but only when there is one-way traffic flow. No more than one (1) sign shall be permitted for each driveway entrance or exit, and no corporate or business logos shall be permitted. Additionally, parking lot signs to identify divisions of the parking lot into sections and to control vehicular traffic and pedestrian traffic within the lot provided that no corporate or business logos shall be permitted. Signs approved under this category shall not be included in the total allowable signage per structure.

(2) Dates of erection, monumental citations, commemorative tablets, insignia of local, state or federal government, and like when carved into stone, concrete or similar material or made of bronze, aluminum or other permanent type construction and made an integral part of the structure. Signs approved under this category shall not be included in the total allowable signage per structure.

(3) Information signs of a public or quasi-public nature identifying or locating a hospital, public building, college, publicly-owned parking area, historic area, major tourist attraction or similar public or quasi-public activity; and also including signs identifying restrooms or other facilities relating to such places or activities. Signs approved under this category shall not be included in the total allowable signage per structure.

(4) Incidental signs, including signs designating business hours, street numbers, credit card acceptance and the like provided that the signs are not freestanding, the total of all such signs shall not exceed four (4) square feet for each business, and the signs are non-illuminated. Incidental signs shall not be included in the total allowable signage per structure.

(5) Real estate signs, advertising the sale, rental or lease of the premises or part of the premises on which the signs are displayed. The maximum sign area shall be eight (8) square feet. Only one (1) sign will be permitted for each building for sale or lease that is adjacent to the Riverwalk. The sign is permitted to remain only while that particular building is for sale or the lease space is available.

(k) Prohibited Signs. The following signs are prohibited:

- (1) Billboards, junior billboards, portable signs, and advertising benches;
- (2) Any sign placed upon a building, object, site, or structure in any manner so as to disfigure, damage, or conceal any window opening, door, or significant architectural feature or detail of any building;
- (3) Any sign or sign spinner which advertises commercial off-premises businesses, products, activities, services, or events unless otherwise allowed in this article;
- (4) Any sign which does not identify a business or service within the river improvement overlay district unless otherwise allowed in this article;
- (5) Any non-contributing sign which is abandoned or damaged beyond fifty (50) percent of its replacement value, including parts of old or unused signs. All remnants such as supports, brackets and braces must also be removed;
- (6) Any attachment to an already affixed sign which does not meet the provisions of the City Code;
- (7) Roof mounted signs, except in the cases of landmark signs or unless approved in accordance with standards set forth in subsections (b) and (c) of this section. Contributing roof mounted signs may be resurfaced with an approved certificate of appropriateness. The square footage of roof mounted signs shall be included in the total allowable signage for the building;
- (8) Pole-mounted cabinet signs and pylon signs;
- (9) Digital displays, digital and/or LED lighted signs, not to include LED light sources that do not meet the definition of a sign, with or without rotating, flashing lettering, icons or images.

Except as provided below:

A. A public transportation agency may incorporate transit information signage into transit shelters, utilizing LED or digital technology, provided the signage is contained within or under the transit shelter, and is limited to five (5) square feet of signage area, and one (1) sign per thirty (30) linear feet of pedestrian shelter.

B. A public transportation agency may incorporate transit information signage into a monument sign at transit stops, utilizing LED or digital technology, provided it is limited to five (5) square feet of signage area.

C. A public transportation agency may incorporate transit information signage into a monument sign at transit facilities (other than transit stops), utilizing LED or digital technology, provided it is limited to seven (7) square feet of signage area.

D. The historic preservation officer may impose additional restrictions on illumination to ensure that the character of signs are harmonious with the character of the structures on which they are to be placed and designated landmarks or districts in the area, provided that such restrictions are reasonably related to other conforming signs and conforming structures in the area, do not unreasonably restrict the amount of signage allowed by this section, and are in keeping with the intent of this section. Among other things, consideration shall be given to the location and illumination of the sign in relation to the surrounding buildings, the use of appropriate materials, the size and style of lettering and graphics, and the type of lighting proposed.

E. Digital displays, digital and/or LED lighted signs are authorized in conjunction with a temporary display for a permitted event if in accordance with chapter 28 of the City Code of San Antonio, Texas.

(10) Revolving signs or signs with a moving component.

(11) Any sandwich board which conflicts with the Americans with Disabilities Act, or which disrupts or interferes with pedestrian or other traffic.

(12) Any sign that obscures a sign display by a public authority for the purpose of giving instructions or directions or other public information.

(13) Any sign which consists of pennants, ribbons, spinners or other similar moving devices.

(14) Any sign, except official notices and advertisements, which is nailed, tacked, posted or in any other manner attached to any utility pole or structure or supporting wire, cable, or pipe; or to any tree on any street or sidewalk or to public property of any description.

(15) Moored balloons, wind jammers or other floating or inflated signs that are tethered to the ground or to a structure.

(16) Any permanent or temporary sign affixed to, painted on, or placed in or upon any parked vehicle, parked trailer or other parked device capable of being towed, which is parked so as to advertise the business to the passing motorist or pedestrian; and whose primary purpose is to provide additional on-site signage or is to serve the function of an outdoor advertising sign. Excluded from this are vehicles or equipment that are in operating condition, currently registered and licensed to operate on public streets with a valid inspection sticker, and actively used in the daily function of the business to which such signs relate; vehicles/equipment engaged in active construction projects; vehicles or equipment offered for rent to the general public and stored on-premises and otherwise allowed under applicable city ordinance. Notwithstanding the above, signs designated as a contributing sign or structure by the

historic preservation officer shall not be prohibited unless or until such designation is revoked.

FINDINGS:

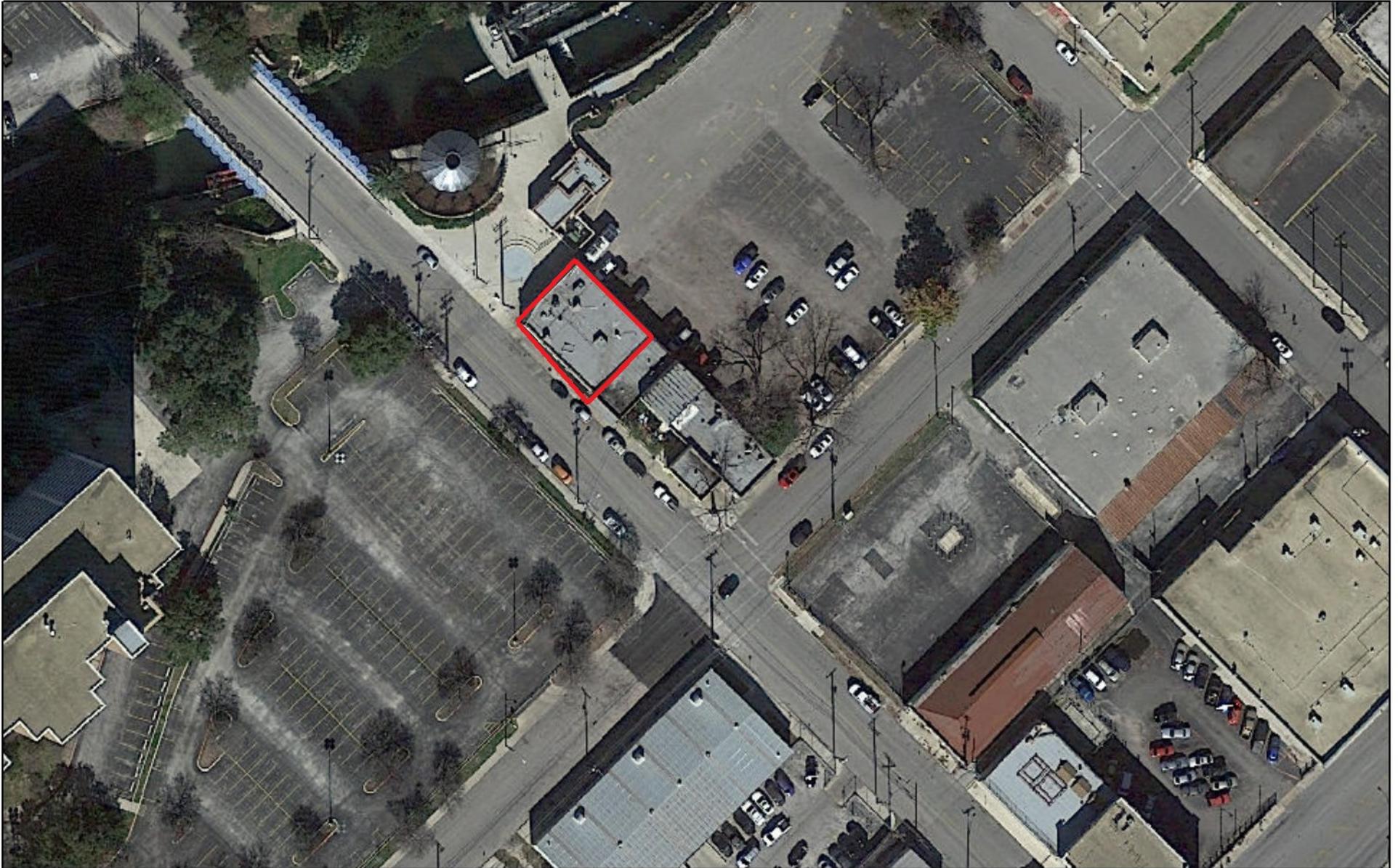
- a. The structure located at 516 Brooklynn is located within the River Improvement Overlay, District 2. At this time, the applicant has proposed scopes of work that include painting, sidewalk replacement, the installation of street furnishings and signage.
- b. PAINTING – The applicant has proposed to paint the structure white with black trim. Staff finds the proposed request to paint, as well as the proposed colors to be appropriate and consistent with the UDC.
- c. SIDEWALK REPLACEMENT – The applicant has proposed to replace the existing, damaged sidewalk with a new sidewalk. Per the application documents, the proposed sidewalk will feature a width of approximately nine (9) feet. Staff finds the proposed sidewalk replacement to be appropriate; however, the applicant is responsible for complying with all requirements in regards to Texas Accessibility Standards. Additionally, the applicant is to match the finish and texture of adjacent sidewalks.
- d. PLANTER INSTALLATION – The applicant has proposed to install planters on the sidewalk to enhance the pedestrian experience. Per the application documents, the applicant has proposed to locate the planters adjacent to the structure. Generally, staff finds the proposed planters to be appropriate; however, the applicant should ensure that at least six (6) feet of uninterrupted sidewalk width is provided at all times. Additionally, applicant shall coordinate with the City of San Antonio Center City Development Office, Transportation and Capital Improvements and the Disability Access Office in regards to the street level details, width of public walkways and public access across the site.
- e. SIGNAGE – The UDC Section 35-678(e) notes that each applicant may apply for up to three (3) signs, not exceeding more than fifty (50) square feet total. The applicant has proposed three (3) signs within this application that total approximately fourteen (14) square feet.
- f. BLADE SIGN – The applicant has proposed to install one, externally illuminated blade sign on the Brooklyn Avenue façade to feature 3’ – 2” in height and width, to be constructed of metal, and to read “Back Turned Brewing Co.”. The metal sign face will feature vinyl graphics. The proposed blade sign is consistent with the UDC. Additionally, staff finds the proposed location on the building façade to be appropriate.
- g. AWNING SIGN REPLACEMENT – The applicant has proposed to replace an existing, printed awning graphic with a new printed graphic. The graphic will feature a total size of eighteen (18) inches in diameter. Staff finds the proposed placement and size to be appropriate and consistent with the UDC.
- h. VINYL GRAPHIC – The applicant has proposed to install a vinyl graphic on the entry door to feature an overall dimension of twelve (12) inches in height and twenty-four (24) inches in width. Staff finds the proposed graphic to be appropriate.

RECOMMENDATION:

Staff recommends approval of items #1 through #5 based on findings a through h with the following stipulations:

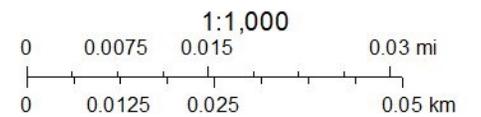
- i. That the applicant coordinates with the City of San Antonio Center City Development Office, Transportation and Capital Improvements and the Disability Access Office in regards to the street level details, width of public walkways and public access across the site. The proposed planters are not to interrupt the flow of pedestrian traffic along the public right of way.

City of San Antonio One Stop



June 12, 2019

— User drawn lines





516 Brooklyn Ave



516

506





516





PROPOSED EXTERIOR FOR BACK UNTURNED BREWING CO.

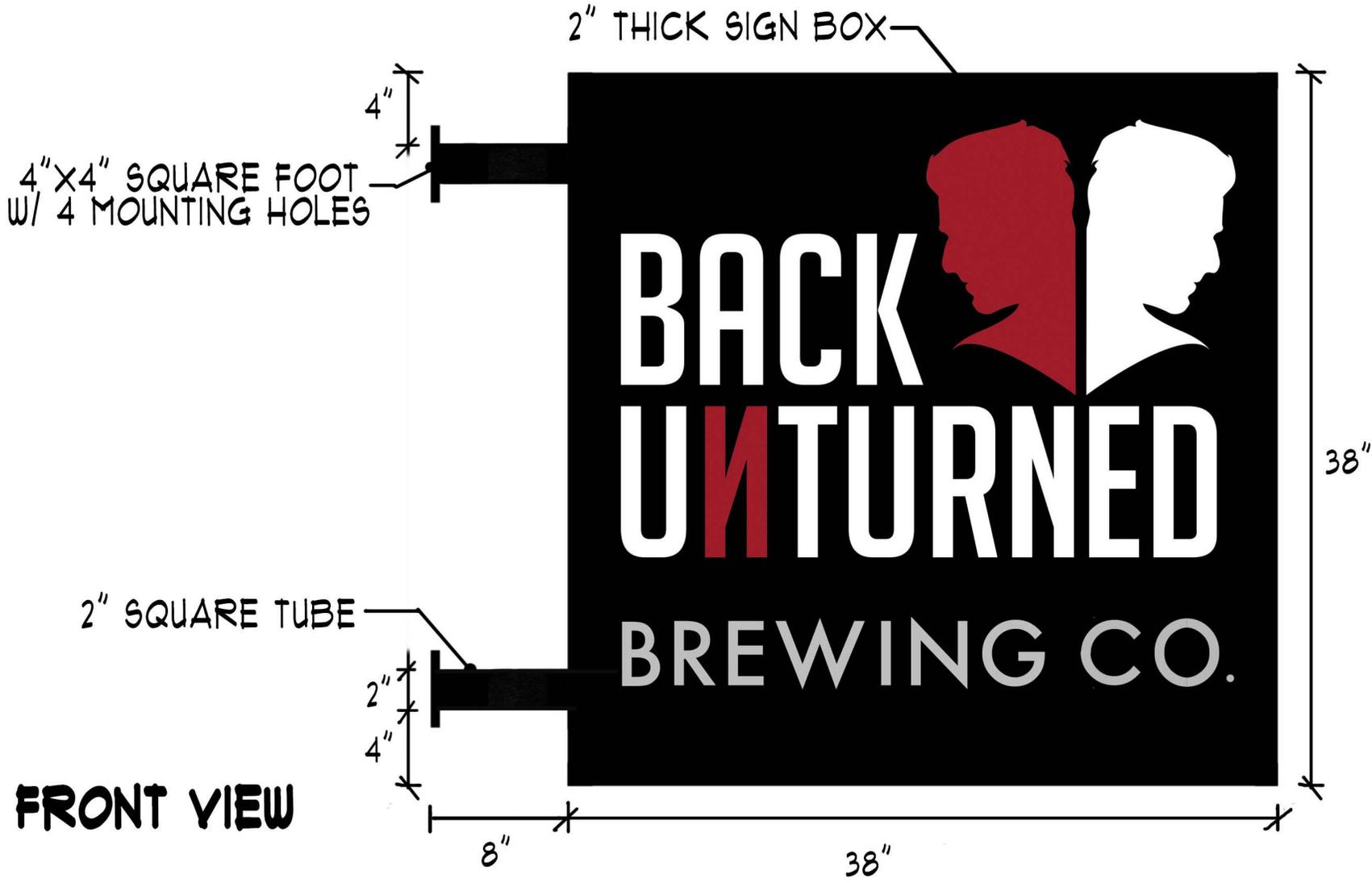
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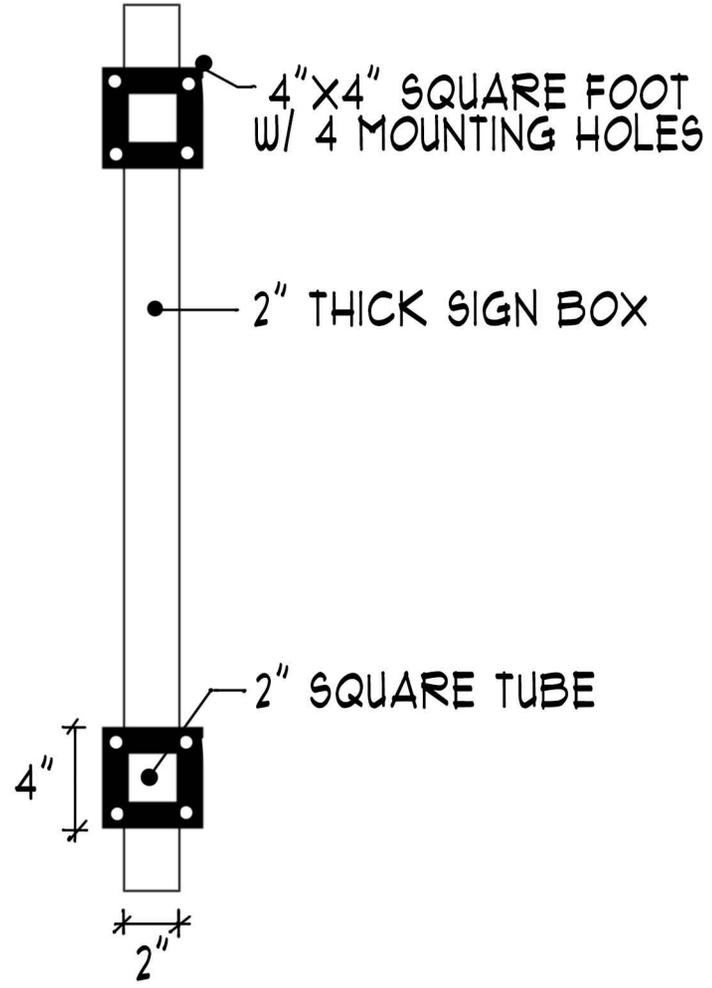
PROPOSED BLADE SIGN
LOCATION

516

BACK
UNTURNED
BREWING CO.



FRONT VIEW



SIDE VIEW

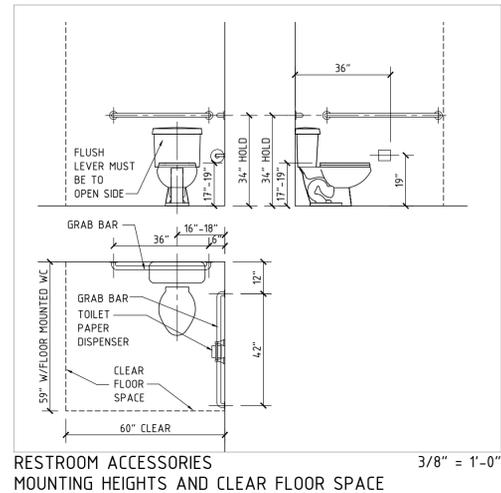
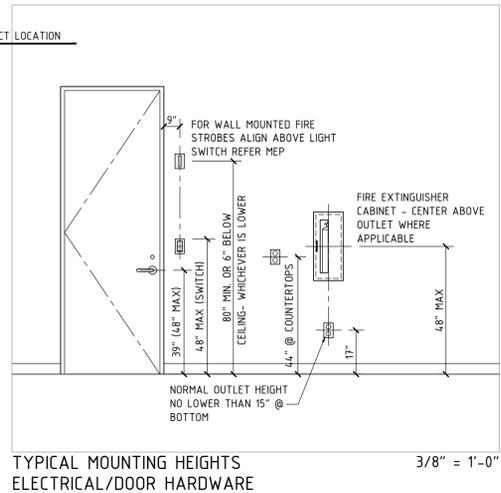
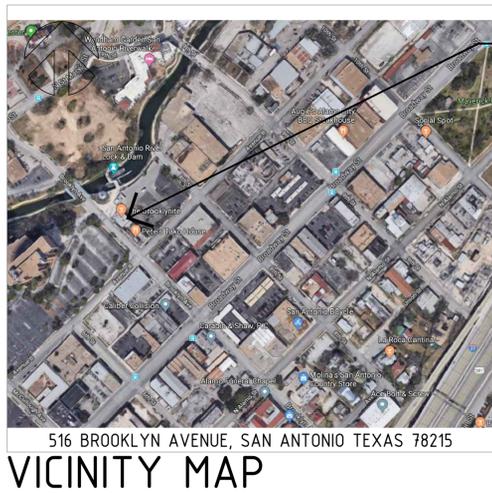
**SIGNAGE FOR BACK UNTURNED BREWING CO.
MAY 2019**

SIGN BRACKET STORE

By Hooks & Lattice  SignBracketStore.com



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A000 INDEX, VICINITY MAP, GENERAL NOTES, CODE SUMMARY

ARCHITECTURAL DRAWINGS

- A-001 LIFE SAFETY/EGRESS PLAN AND ADDRESSING PLAN
- A-101 FLOOR PLAN - DEMOLITION
- A-201 FLOOR PLAN - NEW CONSTRUCTION, ENLARGED PLAN AND DETAILS
- A-202 REFLECTED CEILING PLAN
- A-203 FINISH PLAN
- A-301 INTERIOR ELEVATIONS AND DETAILS
- A-401 DOOR AND WINDOW SCHEDULES, DETAILS AND INTERIOR ELEVATIONS

STRUCTURAL DRAWINGS

- S1 HOUSEKEEPING PADS AND DETAILS

MEP DRAWINGS

- MEP-100 MEP ENERGY SUMMARY
- M-101 MECHANICAL PLAN
- M-201 MECHANICAL SCHEDULES AND DETAILS
- M-301 MECHANICAL SPECIFICATIONS
- ED-101 ELECTRICAL DEMOLITION PLAN
- E-101 LIGHTING PLAN
- E-201 POWER AND SIGNAL PLAN
- E-301 ELECTRICAL SCHEDULES AND LEGEND
- E-401 ELECTRICAL RISER DIAGRAM
- E-501 ELECTRICAL SPECIFICATIONS
- PD-101 PLUMBING DEMOLITION PLAN
- P-101 PLUMBING PLAN AND NOTES
- P-201 PLUMBING SCHEDULES AND DETAILS
- P-301 PLUMBING SPECIFICATIONS



PERMIT SET

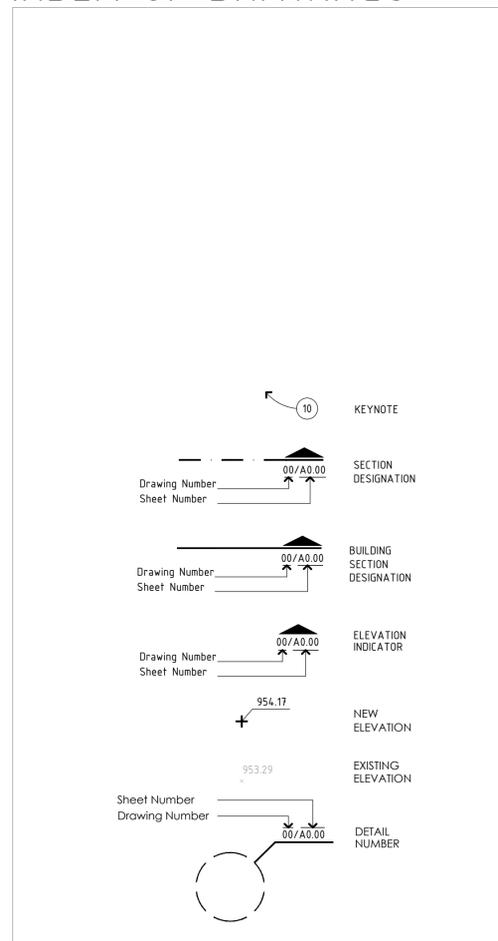


BACK UNTURNED BREW PUB

516 BROOKLYN AVENUE
SAN ANTONIO TEXAS

COVER SHEET

INDEX OF DRAWINGS



343 Williams Avenue
San Antonio, TX 78210
210.532.3242 Phone
210.532.9919 Fax



DATE	March 29, 2019
DRAWN BY	DA
CHECKED BY	DA
PROJECT NUMBER	19-0001
REVISION DESCRIPTION DATE	

A-000

BACK UNTURNED BREW PUB - INTERIOR REMODEL

GENERAL TAS NOTES

- G.C. SHALL EXERCISE PROPER PRECAUTION TO INSPECT THE CONSTRUCTION SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID FOR THE CONSTRUCTION CONTRACT. CONTRACTOR TO NOTIFY OWNER OF ANY DISCREPANCIES IN THE DRAWINGS OR CONDITIONS OF THE SITE IMMEDIATELY. CONTRACTOR IS RESPONSIBLE FOR ANY ERRORS RESULTING FROM FAILURE TO EXERCISE SUCH PRECAUTION. SUCH ERRORS WILL NOT BE CONSIDERED SUBSEQUENTLY AS A BASIS FOR EXTRA MONETARY CONSIDERATION.
- G.C. SHALL VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS. ANY ERROR OR INCONSISTENCY SHALL BE REPORTED TO THE ARCHITECT AND HIS DISPOSITION OBTAINED BEFORE ANY WORK IS BEGUN. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED ON ACCOUNT OF DIFFERENCES BETWEEN ACTUAL DIMENSIONS OF WORK AND THE MEASUREMENTS INDICATED ON THE CONSTRUCTION DOCUMENTS.
- IF THERE ARE ANY DISCREPANCIES IN DRAWINGS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL PREVAIL.
- WHEN THE DRAWING INDICATES A PRODUCT OR A MATERIAL, BUT THE SPECIFICATION DOES NOT, CONFIRM THE ITEM TO BE INSTALLED, G.C. SHALL NOTIFY THE ARCHITECT FOR A DIRECTION AND PROVIDE AN ITEM THAT IS ARCHITECT APPROVED INDUSTRY STANDARD QUALITY AND INSTALL PER MANUFACTURER'S RECOMMENDATION.

GENERAL NOTES

- G.C. SHALL CONFIRM ALL TAS REQUIREMENTS PRIOR TO COMMENCING WORK. ANY DISCREPANCY WITH THE LATEST STANDARD SHALL BE NOTIFIED TO ARCHITECT FOR FURTHER INSTRUCTION.

ADDRESS: 516 BROOKLYN AVENUE, SAN ANTONIO, TEXAS 78215
OWNER: BACK UNTURNED BREWING COMPANY
LEGAL DESCRIPTION: LOT 5, BLOCK 1, N.C.B. 448

APPLICABLE CODES:

2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL MECHANICAL CODE
2017 NATIONAL ELECTRIC CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE

OCCUPANCY CLASSIFICATION:

GROUP A2 - RESTAURANT/BAR

CONSTRUCTION TYPE:

TYPE V - B

BUILDING OCCUPANT LOAD:

1,127 NET S.F./15 (A2 OCCUPANCY) = 75 OCCUPANTS
1,937 GROSS S.F./200 (A2 KITCHEN) = 10 OCCUPANTS
TOTAL OCCUPANTS = 85

FIRE PROTECTION:

FIRE EXTINGUISHERS: PROVIDED
AUTOMATIC FIRE SPRINKLER SYSTEM: NOT REQUIRED IF OCCUPANT LOAD IS LESS THAN 100

MAX. ALLOWABLE BLDG. HEIGHT:

ALLOWED: 2 STORY - 40'-0"
ACTUAL: 1 STORY - 15'-0"

MAX. ALLOWABLE BLDG. AREA:

ALLOWABLE: 6,000 S.F.
ACTUAL: 3,064 S.F.

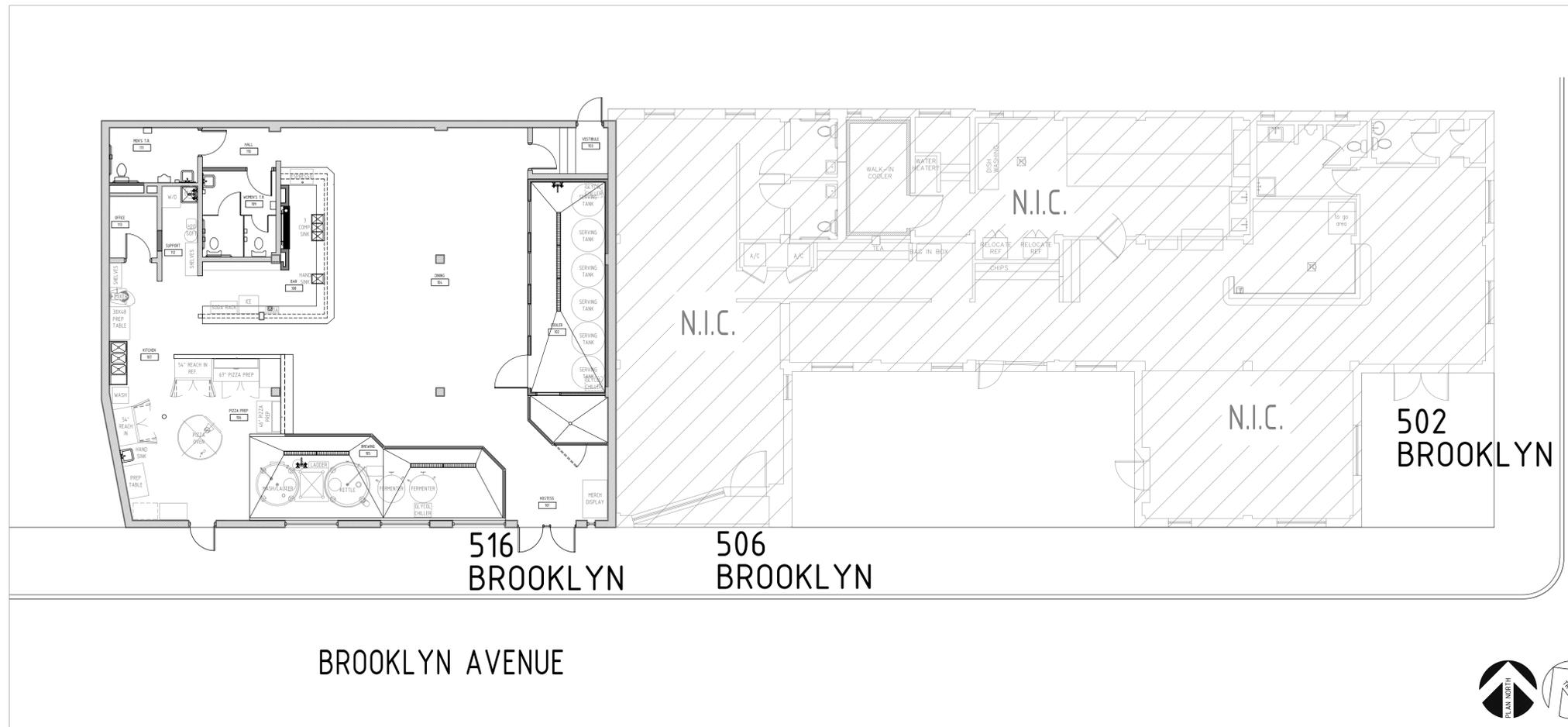
BUILDING SEPARATION

3 SIDES EXCEED 30'
1 SIDE = 1 HOUR SEPARATION WALL

CODE REVIEW SUMMARY

GENERAL NOTES

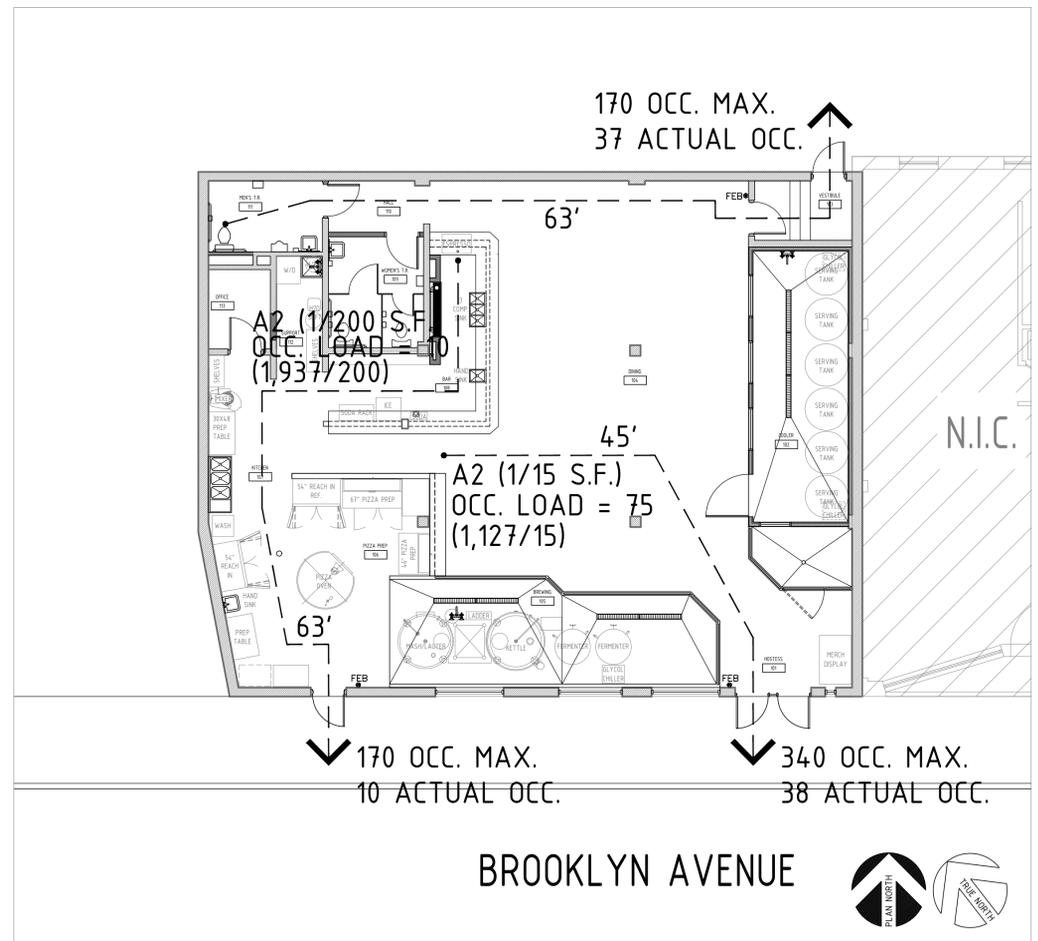
REFERENCE SYMBOLS



2 ADDRESSING PLAN



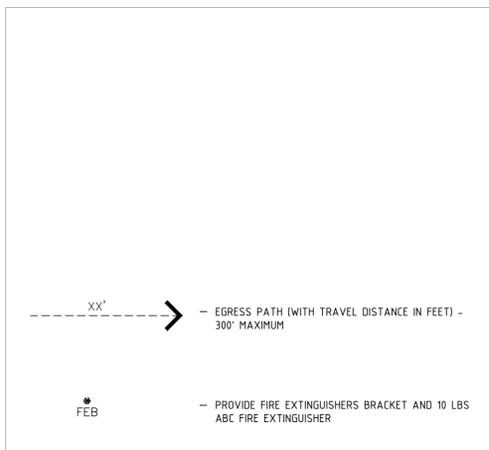
1/8" = 1'-0"



1 LIFE SAFETY/EGRESS PLAN



1/8" = 1'-0"



LEGEND

1. SEE A-000 FOR CODE REVIEW SUMMARY.

GENERAL NOTES

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2-19-2019

PERMIT SET

BACK UNTURNED BREW PUB
516 BROOKLYN AVENUE
SAN ANTONIO, TEXAS

FLOOR PLAN - DEMOLITION

343 Williams Avenue
San Antonio, TX 78210
210.532.3242 Phone
210.532.9919 Fax



DATE
February 19, 2019
DRAWN BY
DA
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DA
PROJECT NUMBER
19-0001

REVISION	DESCRIPTION	DATE

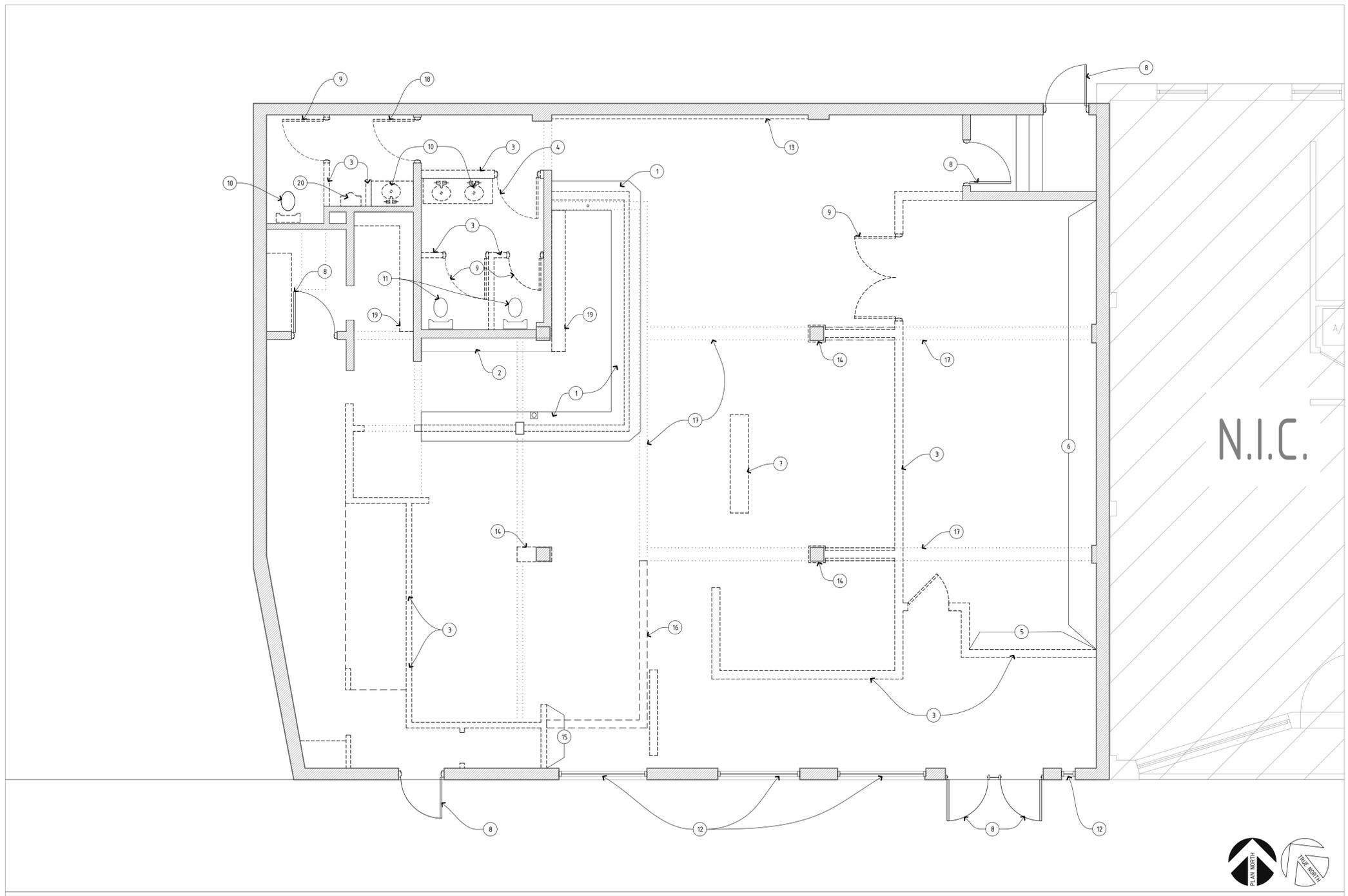
A-101

- 1 EXISTING BAR TO REMAIN
- 2 EXISTING SHELF TO REMAIN
- 3 DEMOLISH EXISTING WALL AS INDICATED
- 4 SALVAGE DOOR AND FRAME - TO BE REUSED IN RELOCATED WALL - SEE A-201
- 5 SALVAGE EXISTING DISTRESSED WOOD PLANKS ON WALL FOR REUSE
- 6 SALVAGE EXISTING WOOD FINISH FOR REUSE
- 7 REMOVE EXISTING TABLE WHICH IS BOLTED TO FLOOR
- 8 EXISTING DOOR TO REMAIN
- 9 DEMOLISH EXISTING DOOR AND FRAME
- 10 DEMOLISH EXISTING PLUMBING FIXTURE
- 11 EXISTING PLUMBING FIXTURE TO REMAIN
- 12 EXISTING WINDOWS TO REMAIN
- 13 REMOVE EXISTING SHELF
- 14 DEMOLISH EXISTING WRAP AT COLUMN
- 15 DEMOLISH EXISTING PLASTER WALL - GC TO NOTIFY ARCHITECT PRIOR TO REMOVING WALL BUT AFTER WALL IS FULLY EXPOSED TO CONFIRM NON-LOAD BEARING WALL
- 16 DEMOLISH EXISTING OVERHEAD FURR DOWN
- 17 EXISTING FURR DOWN/BEAM OVERHEAD TO REMAIN
- 18 REMOVE DOOR AND FRAME - SALVAGE DOOR FOR REUSE
- 19 DEMOLISH EXISTING SHELF
- 20 REMOVE EXISTING URINAL AND RELOCATE - SEE NEW CONSTRUCTION PLAN

KEYED NOTES

- 1. ALL DIMENSIONS ARE FROM FACE OF FINISH TO FACE OF FINISH, UNLESS NOTED OTHERWISE.
- 2. ALL EXTERIOR WALLS OF CONDITIONED SPACE INCLUDE R-20 SPRAY FOAM INSULATION IN THE WALL CAVITIES.
- 3. SEE A-302 FOR ROOM FINISHES.
- 4. G.C. TO PROVIDE PRE-ENGINEERED BUILDING STRUCTURE. PROVIDE ENGINEERED SHOP DRAWINGS TO ARCHITECT FOR REVIEW PRIOR TO ORDERING THE BUILDING. DESIGN IS BASED ON RIGID BUILDINGS. CONTACT ARCHITECT FOR RIGID BUILDINGS POINT OF CONTACT.

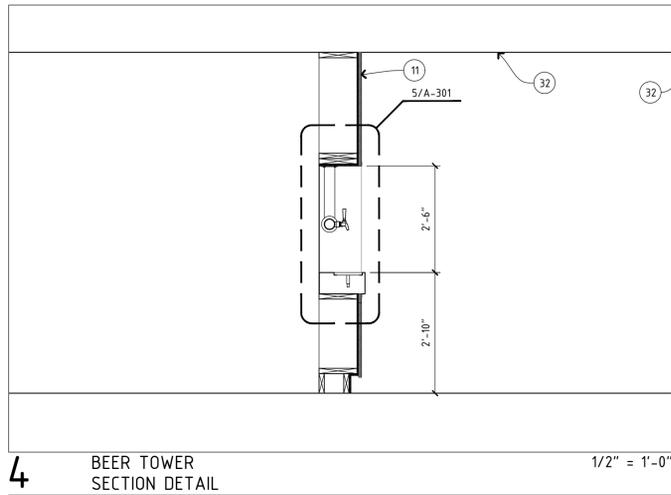
GENERAL NOTES



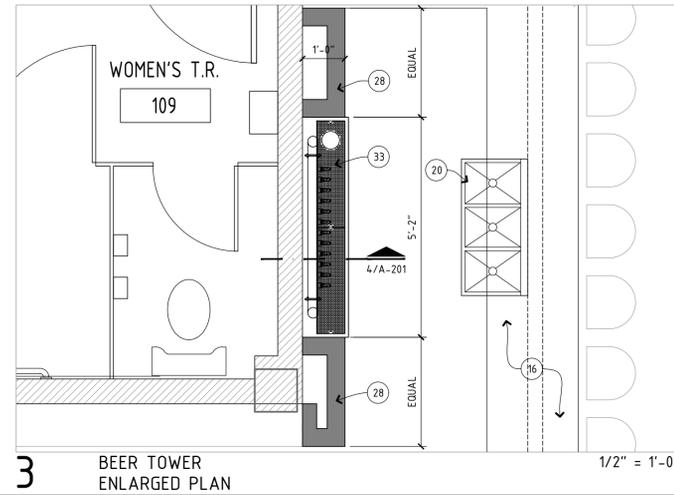
1 FLOOR PLAN - DEMOLITION

1/4" = 1'-0"

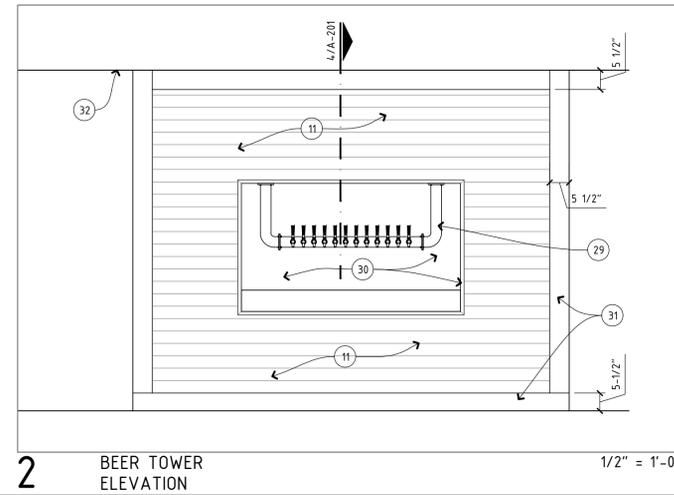
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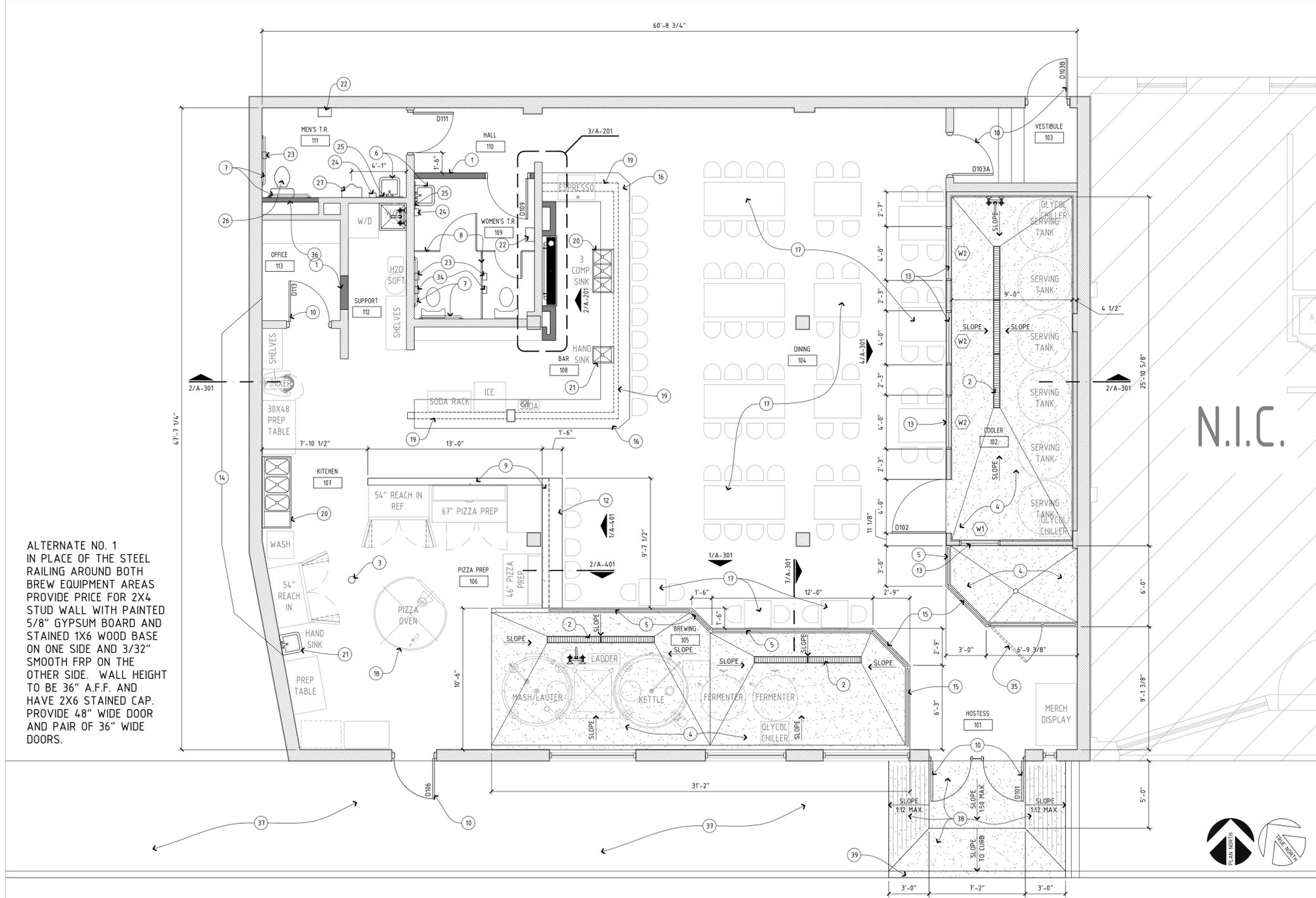
4 BEER TOWER SECTION DETAIL
1/2" = 1'-0"



3 BEER TOWER ENLARGED PLAN
1/2" = 1'-0"



2 BEER TOWER ELEVATION
1/2" = 1'-0"



1 FLOOR PLAN - NEW CONSTRUCTION
1/4" = 1'-0"

ALTERNATE NO. 1
IN PLACE OF THE STEEL RAILING AROUND BOTH BREW EQUIPMENT AREAS PROVIDE PRICE FOR 2X4 STUD WALL WITH PAINTED 5/8" GYPSUM BOARD AND STAINED 1X6 WOOD BASE ON ONE SIDE AND 3/32" SMOOTH FRP ON THE OTHER SIDE. WALL HEIGHT TO BE 36" A.F.F. AND HAVE 2X6 STAINED CAP. PROVIDE 48" WIDE DOOR AND PAIR OF 36" WIDE DOORS.

- 1 NEW 2X4 WOOD STUD WALL WITH ONE LAYER OF 5/8" GYPSUM BOARD ON EACH SIDE - PAINT
- 2 NEW TRENCH DRAIN - SEE PLUMBING
- 3 NEW FLOOR DRAIN - SEE PLUMBING
- 4 NEW REINFORCED CONCRETE PAD SLOPED TO TRENCH DRAIN
- 5 NEW STEEL RAILING - SEE DETAIL 6/A-301
- 6 NEW WALL HUNG LAVATORY
- 7 NEW TAS COMPLIANT GRAB BARS
- 8 NEW POWDER COATED TOILET PARTITIONS
- 9 NEW 2X4 WOOD STUD KNEE WALL WITH ONE LAYER OF 5/8" GYPSUM BOARD ON EACH SIDE - INSTALL SMOOTH FRP ON THE PIZZA PREP SIDE OF WALL - PROVIDE STAINED 1X WOOD CAP
- 10 EXISTING DOOR TO REMAIN
- 11 RE-USE SALVAGED DISTRESSED WOOD PLANKS
- 12 1-1/2" BUTCHER BLOCK COUNTERTOP
- 13 NEW INSULATED WINDOW AS SCHEDULED
- 14 DEMO AND REPAIR EXISTING INTERIOR WALL AS NECESSARY TO CONNECT NEW PLUMBING FIXTURES AND ELECTRICAL
- 15 REMOVABLE STEEL RAILING - SEE DETAIL 6/A-301
- 16 EXISTING METAL TOP BAR TO REMAIN
- 17 DINING TABLES BY OWNER
- 18 GAS POWERED PIZZA OVEN - FORZA FORNI PAVESI RPM 14.0 - BY OWNER
- 19 EXISTING WALL BELOW BAR TO REMAIN
- 20 NEW 3-COMPARTMENT SINK - BY OWNER
- 21 NEW HAND SINK - BY OWNER
- 22 NEW PAPER TOWEL DISPENSER - PROVIDED BY OWNER AND INSTALLED BY GC
- 23 NEW TOILET TISSUE DISPENSER - PROVIDED BY OWNER AND INSTALLED BY GC
- 24 NEW SOAP DISPENSER - PROVIDED BY OWNER AND INSTALLED BY GC
- 25 NEW MIRROR - PROVIDED BY OWNER AND INSTALLED BY GC
- 26 NEW COMMODE - SEE PLUMBING PLANS
- 27 RELOCATED URINAL
- 28 NEW 2X WOOD STUD WALL
- 29 BEER TOWER - OWNER PROVIDED AND INSTALLED
- 30 24 GA. STAINLESS STEEL BACKSLASH/SURROUND
- 31 1X WOOD TRIM - STAIN
- 32 EXISTING CEILING TO REMAIN
- 33 8" WIDE PERFORATED DRAIN WITH GLASS RINSER - OWNER PROVIDED AND INSTALLED
- 34 NEW SANITARY NAPKIN DISPOSAL - PROVIDED BY OWNER AND INSTALLED BY GC
- 35 PROVIDE 48" WIDE PIPE GATE
- 36 NEW 2X4 WOOD STUD WALL WITH ONE LAYER OF GYPSUM BOARD ON THE RESTROOM SIDE OF THE WALL
- 37 ALL SIDEWALKS, CURBS, RAMPS AND DRIVE APPROACHES IN THE RIGHT OF WAY SHALL BE IN COMPLIANCE WITH CURRENT TEXAS ACCESSIBILITY STANDARDS AND CITY OF SAN ANTONIO DESIGN STANDARDS PRIOR TO FINAL INSPECTION APPROVAL
- 38 PROVIDE NEW REINFORCED CONCRETE FLATWORK TO BE IN COMPLIANCE WITH CITY OF SAN ANTONIO STANDARDS AND TAS
- 39 PROVIDE NEW REINFORCED CONCRETE CURB TO BE IN COMPLIANCE WITH CITY OF SAN ANTONIO STANDARDS - PATCH STREET ASPHALT AS NECESSARY

KEYED NOTES

1. ALL DIMENSIONS ARE FROM FACE OF FINISH TO FACE OF FINISH, UNLESS NOTED OTHERWISE.
2. SEE A-302 FOR ROOM FINISHES.
3. ALL BREWING EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY THE OWNER. GC TO PROVIDE GAS AND ELECTRICAL AS REQUIRED AND COORDINATE INSTALLATION WITH OWNER.
4. ALL KITCHEN EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY OWNER. GC TO COORDINATE PLUMBING AND ELECTRICAL WITH OWNER.
5. INSTALL ALL TOILET ACCESSORIES IN COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS.

GENERAL NOTES



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3-29-2019

PERMIT SET

BACK UNTURNED BREW PUB
 516 BROOKLYN AVENUE
 SAN ANTONIO, TEXAS
FLOOR PLAN - NEW CONSTRUCTION

343 Millene Avenue
 San Antonio, TX 78210
 210.532.3242 Phone
 210.532.9919 Fax



DATE	March 29, 2019
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PROJECT NUMBER	19-0001

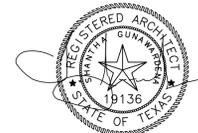
REVISION	DESCRIPTION	DATE

A-201

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2-19-2019

PERMIT SET

BACK UNTURNED BREW PUB
516 BROOKLYN AVENUE
SAN ANTONIO TEXAS

REFLECTED CEILING PLAN

343 Williams Avenue
San Antonio, TX 78210
210.532.3242 Phone
210.532.9919 Fax



DATE
February 19, 2019
DRAWN BY
DA
CHECKED BY
DA
PROJECT NUMBER
19-0001

REVISION	DESCRIPTION	DATE

A-202

- NEW 4' SUSPENDED LIGHT FIXTURE
- NEW 2X2 LAY-IN LIGHT FIXTURE
-

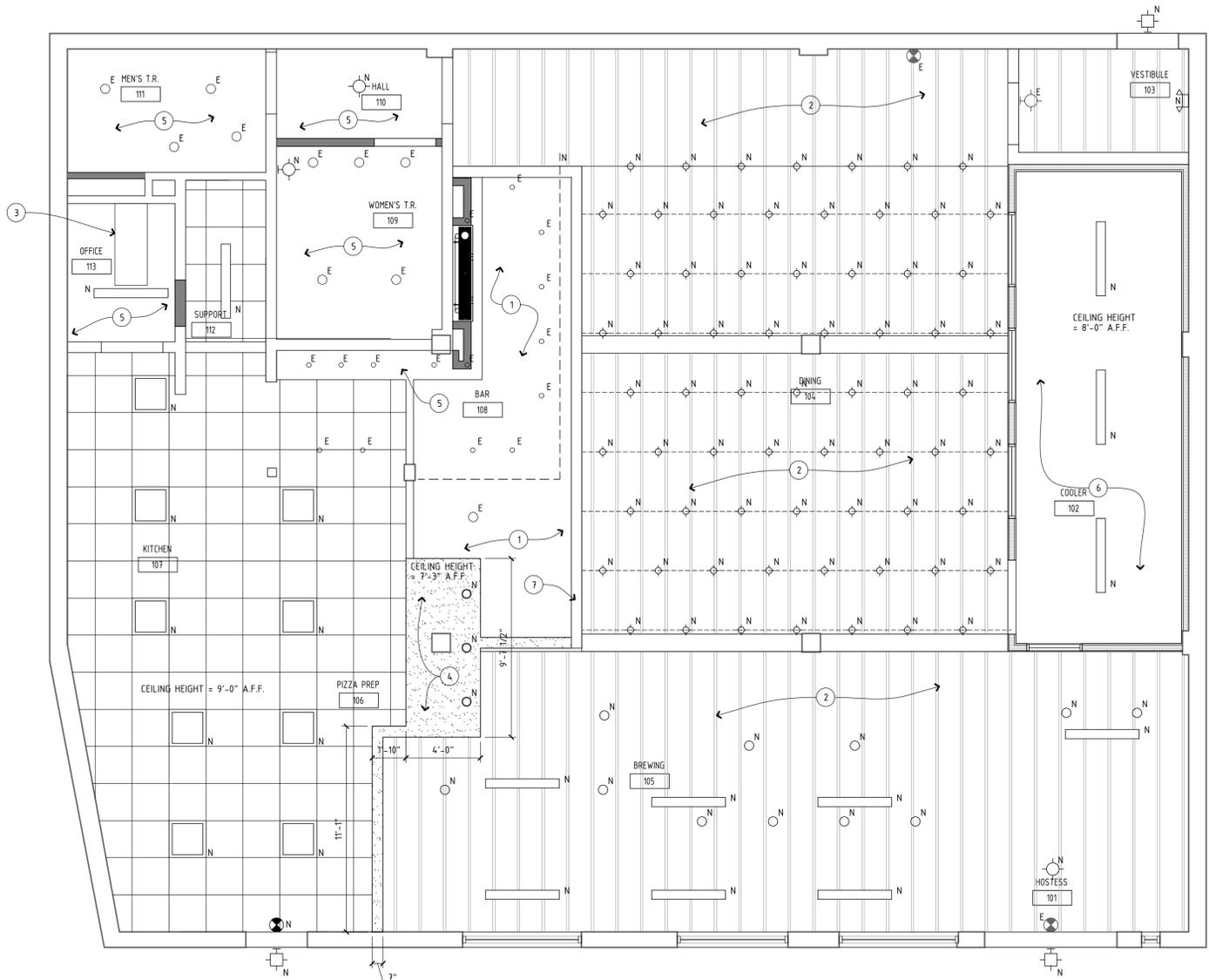
LEGEND

- 1 EXISTING PRESSED TIN CEILING TO REMAIN
- 2 EXPOSED ROOF JOISTS - PAINT
- 3 EXISTING PULL DOWN STAIR TO REMAIN - PAINT
- 4 5/8" GYPSUM BOARD - PROVIDE SMOOTH TEXTURE AND PAINT
- 5 EXISTING GYPSUM BOARD TO REMAIN - PAINT
- 6 EXPOSED R-PANEL CEILING
- 7 EXISTING FURR DOWN TO REMAIN - PAINT
- 8 OVERHEAD DOOR COIL HOUSING - TYPICAL

KEYED NOTES

1. ALL FIXTURES DENOTED WITH AND 'E' ARE EXISTING LIGHT FIXTURES TO REMAIN.

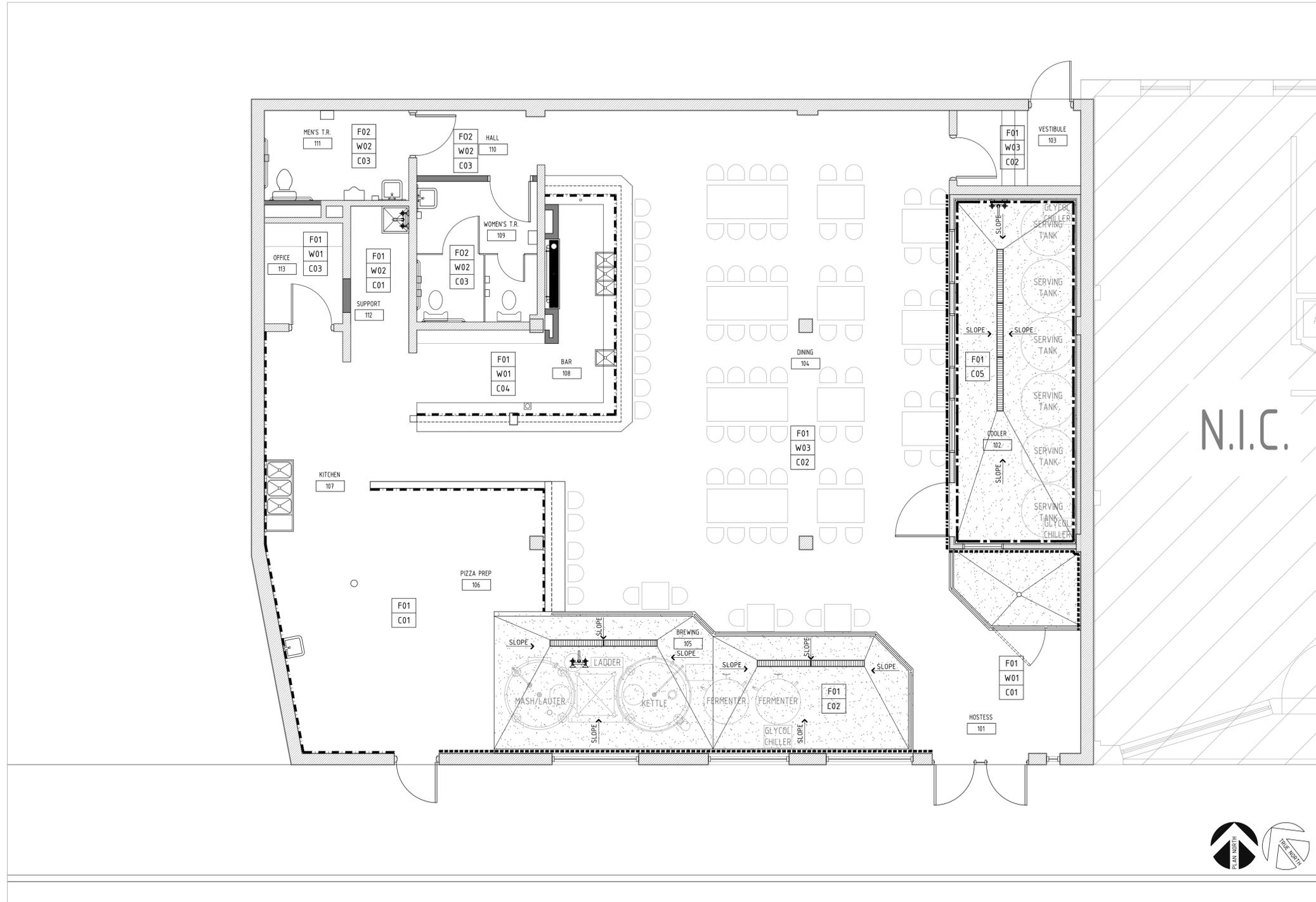
GENERAL NOTES



1/4" = 1'-0"

1 REFLECTED CEILING PLAN

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1 FINISH PLAN

1/4" = 1'-0"

FLOOR FINISHES		
MATERIAL	INDICATOR	DESCRIPTION
SEALED CONCRETE	F01	MANUFACTURER: TBD
EXISTING CERAMIC TILE	F02	EXISTING TILE TO REMAIN
WALL FINISHES		
MATERIAL	INDICATOR	DESCRIPTION
PAINTED GYPSUM BOARD	W01	MANUFACTURER: - TBD STYLE: - TBD COLOR: - TBD
EPOXY PAINT	W02	MANUFACTURER: - TBD STYLE: - TBD COLOR: - TBD
PAINT EXISTING SURFACE	W03	MANUFACTURER: - TBD STYLE: - TBD COLOR: - TBD
CEILING FINISHES		
MATERIAL	INDICATOR	DESCRIPTION
ACOUSTIC PANEL CEILING SYSTEM	C01	MANUFACTURER: - ARMSTRONG STYLE: - KITCHEN ZONE COLOR: - WHITE
PAINT EXISTING WOOD STRUCTURE	C02	MANUFACTURER: - TBD STYLE: - TBD COLOR: - TBD
PAINT EXISTING GYPSUM BOARD	C03	MANUFACTURER: - TBD STYLE: - TBD COLOR: - TBD
EXISTING PRESSED TIN TO REMAIN	C04	
EPOXY PAINT PAINT R-PANEL	C05	
SURFACES		
MATERIAL	INDICATOR	DESCRIPTION
BUTHER BLOCK	BB1	MANUFACTURER: - TBD STYLE: - TBD COLOR: - TBD

FINISH SCHEDULE

- 3/32" THICK SMOOTH FRP PANELS UP TO 48" A.F.F MARLITE STANDARD FRP OR EQUAL - COLOR BY ARCHITECT
- 3/32" THICK SMOOTH FRP PANELS FULL HEIGHT OF WALL - MARLITE STANDARD FRP OR EQUAL - COLOR BY ARCHITECT
- EPOXY PAINT - COLOR BY ARCHITECT
- SALVAGED WOOD PLANKS

FINISH LEGEND

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2-19-2019

PERMIT SET

BACK UNTURNED BREW PUB

516 BROOKLYN AVENUE
SAN ANTONIO, TEXAS

FINISH PLAN

343 WILLIAMS AVENUE
SAN ANTONIO, TX 78210
210.532.3242 Phone
210.532.3919 Fax

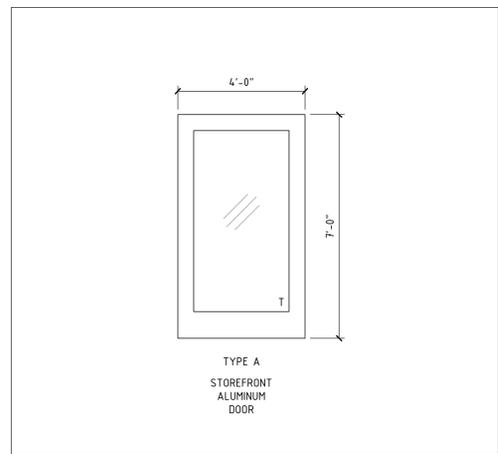
ARCHITECTS

DATE	DESCRIPTION	
February 19, 2019		
DRAWN BY	DA	
CHECKED BY	DA	
PROJECT NUMBER	19-0001	
REVISION	DESCRIPTION	DATE

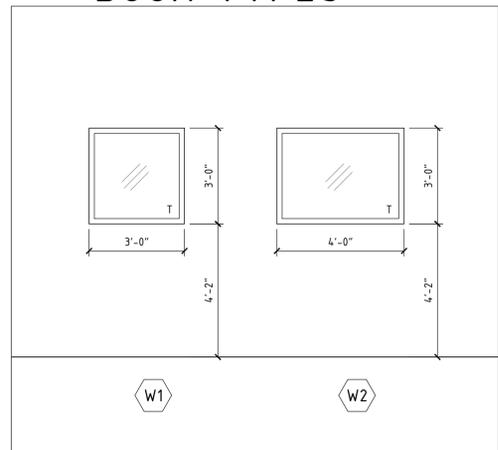
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- ① 3/32" SMOOTH FINISH FRP BY MARLITE (OR EQUAL) - COLOR BY ARCHITECT
- ② 5/8" GYPSUM BOARD
- ③ 2X4 WOOD FRAMING
- ④ EXISTING ROOF TRUSSES TO REMAIN - PAINT
- ⑤ INSULATED GLAZING AS SCHEDULED
- ⑥ EXISTING WOOD BEAM TO REMAIN - PAINT
- ⑦ 1X6 BASE BOARD WITH BULL NOSED EDGE - STAIN
- ⑧ 2X4 DIAGONAL BRACE AT 24"
- ⑨ EXISTING WOOD COLUMN TO REMAIN - PAINT
- ⑩ 1X4 TRIM - STAIN
- ⑪ SALVAGED WOOD PLANKING
- ⑫ 1-1/2" BUTCHER BLOCK COUNTER TOP
- ⑬ NEW GYPSUM BOARD SOFFIT - PAINT
- ⑭ EXISTING FURR DOWN TO REMAIN - PAINT - RECTANGLES INDICATED RECESSED AREAS THAT NEED TO FILLED IN TO BE FLUSH WITH ADJACENT SURFACE
- ⑮ 3/32" SMOOTH FINISH FRP BY MARLITE (OR EQUAL) - COLOR BY ARCHITECT
- ⑯ 2X4 WOOD FRAMING
- ⑰ NEW REINFORCED CONCRETE PAD POURED OVER EXISTING CONCRETE FOUNDATION
- ⑱ EXISTING BAR AND WOOD FINISH TO REMAIN
- ⑲ EXISTING WALL - PAINT
- ⑳ ---
- ㉑ NEW BREWING TANKS/EQUIPMENT - BY OWNER
- ㉒ NEW STEEL HANDRAIL

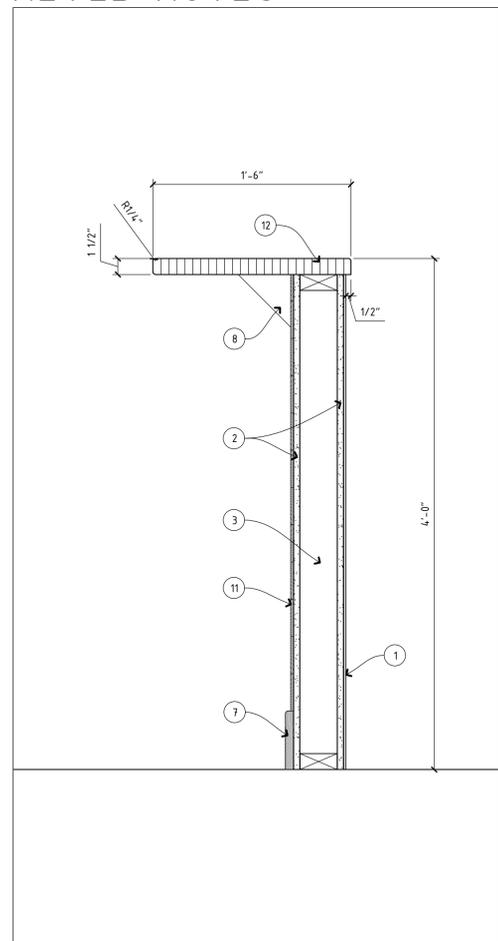
KEYED NOTES



4 DOOR TYPES



3 WINDOW TYPES



2 SECTION DETAIL AT PIZZA BAR WALL

DOOR NUMBER	DOOR							DOOR FRAME				UL FIRE RATING	HARDWARE SET	REMARKS
	SIZE			MATERIAL	DOOR TYPE	FINISH		GLAZING	FINISH					
	WIDTH	HEIGHT	THICKNESS			PUSH SIDE	PULL SIDE		MATERIAL	PUSH SIDE	PULL SIDE			
D101	EXIST.	EXIST.	EXIST.	EXIST.	-	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	---	-	EXISTING PUSH/PULL HARDWARE TO REMAIN	
D102	4'-0"	7'-0"	1-3/4"	ALUM.	A	CLR. ANOD.	CLR. ANOD.	TEMP.	ALUM.	CLR. ANOD.	CLR. ANOD.	---	1	EXISTING PUSH/PULL HARDWARE TO REMAIN
D103A	EXIST.	EXIST.	EXIST.	EXIST.	-	PAINT	PAINT	---	EXIST.	PAINT	PAINT	---	-	REPAIR/REPLACE EXISTING PANIC EGRESS DEVICE
D103B	EXIST.	EXIST.	EXIST.	EXIST.	-	PAINT	PAINT	---	EXIST.	PAINT	PAINT	---	-	REPAIR/REPLACE EXISTING PANIC EGRESS DEVICE
D106	EXIST.	EXIST.	EXIST.	EXIST.	-	PAINT	PAINT	---	EXIST.	PAINT	PAINT	---	-	
D109	EXIST.	EXIST.	EXIST.	EXIST.	-	PAINT	PAINT	---	EXIST.	PAINT	PAINT	---	-	
D111	EXIST.	EXIST.	EXIST.	EXIST.	-	PAINT	PAINT	---	EXIST.	PAINT	PAINT	---	-	
D113	EXIST.	EXIST.	EXIST.	EXIST.	-	PAINT	PAINT	---	EXIST.	PAINT	PAINT	---	-	

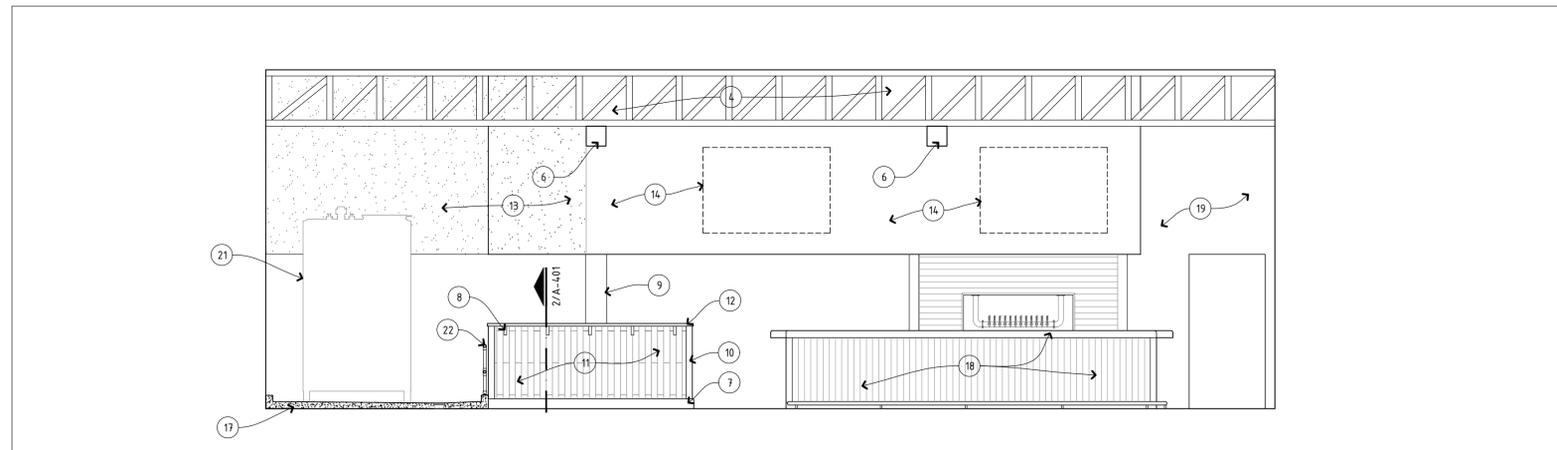
DOOR SCHEDULE

- HARDWARE SET #1**
1. INSIDE TRIM - PUSH PLATE
 2. OUTSIDE TRIM - PUSH/PULL
 3. HINGES - 4 BALL BEARING
 4. WEATHER STRIPPING
 5. DOOR CLOSER
- HARDWARE SET #2**
- REPLACE OR REPAIR EXISTING EGRESS PANIC DEVICE. DOOR HARDWARE SHALL MEET ALL EGRESS REQUIREMENTS PER BUILDING CODE.

DOOR HARDWARE SCHEDULE

WINDOW NUMBER	WINDOW SIZE			WINDOW FRAME		UL FIRE RATING	REMARKS
	WIDTH	HEIGHT	GLAZING	MATERIAL	FINISH		
W1	3'-0"	3'-0"	TEMP.	ALUM	CLR. ANOD.	N/A	PROVIDE 1" INSULATED GLASS
W2	4'-0"	3'-0"	TEMP.	ALUM	CLR. ANOD.	N/A	PROVIDE 1" INSULATED GLASS

WINDOW SCHEDULE



1 INTERIOR ELEVATION - WEST



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PERMIT SET

BACK UNTURNED BREW PUB

516 BROOKLYN AVENUE
SAN ANTONIO TEXAS

DOOR AND WINDOW SCHEDULES

343 Millene Avenue
San Antonio, TX 78210
210.532.3242 Phone
210.532.3919 Fax



DATE: March 29, 2019
DRAWN BY: DA
CHECKED BY: DA
PROJECT NUMBER: 19-0001

REVISION	DESCRIPTION	DATE

A-401

DESIGN LOADS:

BREWING TANK LOADS: SHOWN ON PARTIAL PLAN

GENERAL NOTES:

GN-1 GOVERNING DESIGN CODE: IBC 2018.

GN-2 CONTRACTOR SHALL VERIFY ALL DIMENSIONS, QUANTITIES, ELEVATIONS AND CONDITIONS PRIOR TO START OF CONSTRUCTION. CONTRACTOR AND FABRICATOR SHALL COORDINATE ALL REQUIREMENTS OF OTHER TRADES PRIOR TO FABRICATION OR INSTALLATION. NOTIFY ENGINEER IMMEDIATELY, IN WRITING, OF ANY DISCREPANCIES.

GN-3 DO NOT SCALE DRAWINGS.

GN-4 CONFLICTS BETWEEN DRAWINGS AND NOTES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. WORK SHALL NOT PROCEED UNTIL A WORKABLE ANSWER HAS BEEN GIVEN BY THE ENGINEER. THE MOST STRINGENT REQUIREMENT SHALL BE USED UNLESS DIRECTED OTHERWISE BY ENGINEER.

GN-5 THE ENGINEER HAS MADE SOME ASSUMPTIONS REGARDING THE EXISTING CONDITIONS. THE ACTUAL CONDITIONS MAY VARY FROM THE ASSUMED CONDITIONS. NOTIFY ENGINEER IMMEDIATELY, IN WRITING, OF ANY DISCREPANCIES.

GN-6 DO NOT STORE CONSTRUCTION MATERIALS ON ROOFS OR FLOORS IN EXCESS OF THE DESIGN LOADS. DURING PLACEMENT OF CONSTRUCTION MATERIALS, IMPACT LOADING SHALL BE PREVENTED.

GN-7 THE ENGINEER SHALL NOT BE RESPONSIBLE FOR TEMPORARY SHORING, CONSTRUCTION MEANS & METHODS, TECHNIQUES, SEQUENCES, JOB SITE CONDITIONS AND JOB SITE SAFETY DURING THE COURSE OF CONSTRUCTION.

GN-8 ALL SUBSTITUTIONS MUST BE SUBMITTED TO THE THE ENGINEER, IN WRITING, FOR REVIEW AND PRIOR APPROVAL.

GN-9 GENERAL CONTRACTOR MUST INSPECT JOB FOR COMPLETION PRIOR TO SCHEDULING ANY SITE OBSERVATIONS.

GN-10 THE PROPOSED STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE. CONTRACTOR SHALL CONSIDER ALL CONSTRUCTION LOADS THAT WILL BE APPLIED TO THE PARTIALLY COMPLETED STRUCTURE. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED FOR STABILITY OF THE PARTIALLY COMPLETED STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

GN-11 THE CONTRACTOR SHALL BE RESPONSIBLE TO ANCHOR THE TANKS TO THE FOUNDATION AS REQUIRED BY THE TANK MANUFACTURER.

GN-12 THESE DRAWINGS ARE COPYRIGHTED AND SHALL NOT BE USED AS FABRICATOR'S ERECTION DRAWINGS.

SLAB PREPARATION PRIOR TO NEW CONCRETE POUR NOTES:

SP-1 THE EXISTING CONCRETE SURFACE THAT IS TO RECEIVE THE NEW CONCRETE SHALL BE CLEANED. REMOVE ANY DIRT, OIL, GREASE, COATING, SEALERS AND PAINTS FROM THE SURFACE OF THE EXISTING CONCRETE.

SP-2 REMOVE ANY UNSOUND CONCRETE, SUCH AS MINOR SPALLING, SCALING OR DELAMINATION, DOWN TO SOLID CONCRETE.

SP-3 FILL ANY ACTIVE CRACKS WITH AN APPROVED EPOXY CONCRETE CRACK REPAIR MATERIAL.

SP-4 SCARIFY THE SURFACE OF THE CONCRETE TO AT LEAST AN 1/4" AMPLITUDE BY SHOTBLASTING. THEN CLEAN ANY LOOSE MATERIAL AND DUST FROM THE SURFACE OF THE CONCRETE.

SP-5 FINALLY SUPERSATURATE THE SURFACE OF THE CONCRETE PRIOR TO CONCRETE POUR.

CONCRETE NOTES:

CN-1 CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301 AND ACI 318.

CN-2 CONCRETE SHALL BE NORMAL WEIGHT WITH A 4,000psi 28-DAY COMPRESSIVE STRENGTH. CONCRETE SHALL HAVE 3/4" MAX. AGGREGATE SIZE, 0.45 MAX. W/C RATIO.

CN-3 CEMENT SHALL BE PORTLAND CEMENT AND COMPLY WITH ASTM C-150, TYPE I OR TYPE II. CLASS "C" FLY ASH WILL BE PERMITTED UP TO 20% PORTLAND CEMENT REPLACEMENT.

CN-4 CONCRETE SHALL BE MIXED AND DELIVERED PER ASTM C-94.

CN-5 CONCRETE SHALL BE PLACED AND CURED PER ACI 302.1R. CONCRETE SHALL BE CURED FOR AT LEAST 7-DAYS.

CN-6 ALL REBAR AND INSERTS SHALL BE ADEQUATELY SECURED IN PLACE TO PREVENT MOVEMENT, PRIOR TO CONCRETE POUR.

CN-7 REBAR SHALL COMPLY WITH ASTM-615 GRADE 60 AND BE FREE OF RUST, SCALE AND DRIED CONCRETE.

CN-8 DETAILING OF REBAR AND ACCESSORIES SHALL BE IN ACCORDANCE WITH LATEST ACI 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.

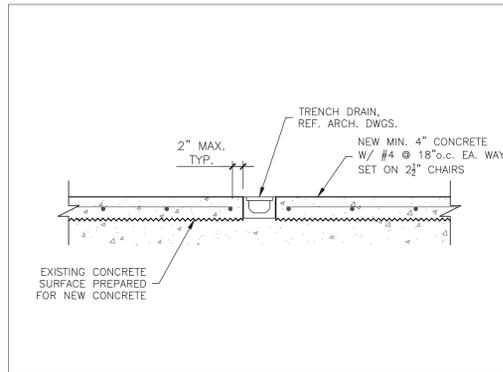
CN-9 CONTRACTOR SHALL HAVE AN INDEPENDENT TESTING LABORATORY TAKE SAMPLES AND PERFORM SLUMP AND COMPRESSION TESTS PER ASTM C-39. A SET OF FOUR CYLINDERS SHALL BE MADE FOR EACH BATCH AND FOR EACH 50 CU. YDS. OF CONCRETE PLACED.

CN-10 ALL REBAR SHALL HAVE MINIMUM 40 BAR DIAMETER SPLICES. ALL CURB AND EDGE REBAR SHALL BE CONT. AND AT EDGE WITH 40 BAR DIAMETER SPLICED CORNER BARS.

CN-11 CONTRACTOR SHALL NOTIFY A/E TEAM AT LEAST 48 HOURS PRIOR TO CONCRETE POUR, FOR SITE OBSERVATION VISIT.

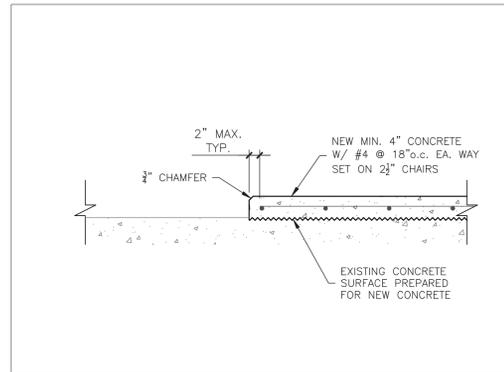
SITE OBSERVATION NOTE:

SO-1 CONTRACTOR SHALL CONTACT ENGINEER AT LEAST 48 HOURS IN ADVANCE FOR SITE OBSERVATIONS. SITE OBSERVATIONS REQUIRED ARE FOR VISUAL OBSERVATION OF ALL STRUCTURAL ITEMS PRIOR TO COVER UP WITH CONCRETE OR ANY ARCHITECTURAL FINISH MATERIALS. SITE OBSERVATIONS ARE REQUIRED TO CONFIRM THAT THE STRUCTURE IS IN GENERAL CONFORMANCE TO THE STRUCTURAL PLANS. THESE SITE OBSERVATIONS ARE IN ADDITION TO SPECIAL INSPECTIONS AND SHALL NOT BE CONSIDERED AS SPECIAL INSPECTIONS.



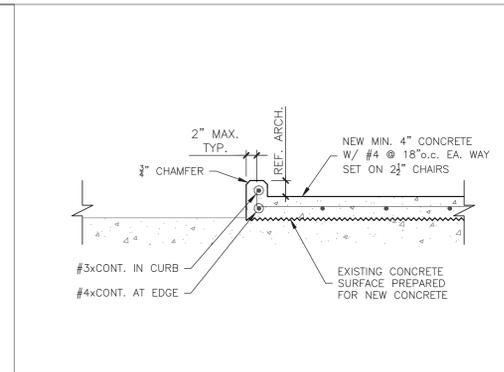
1 DETAIL - AT TRENCH DRAIN

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



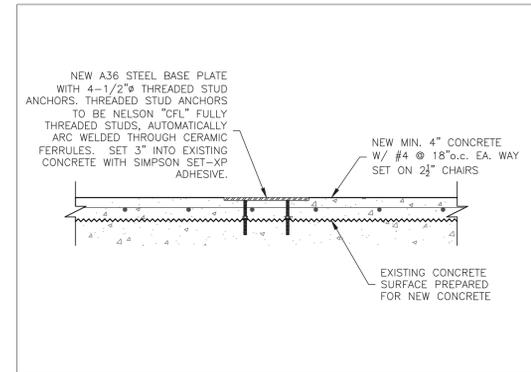
2 DETAIL - AT EDGE W/O CURB

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



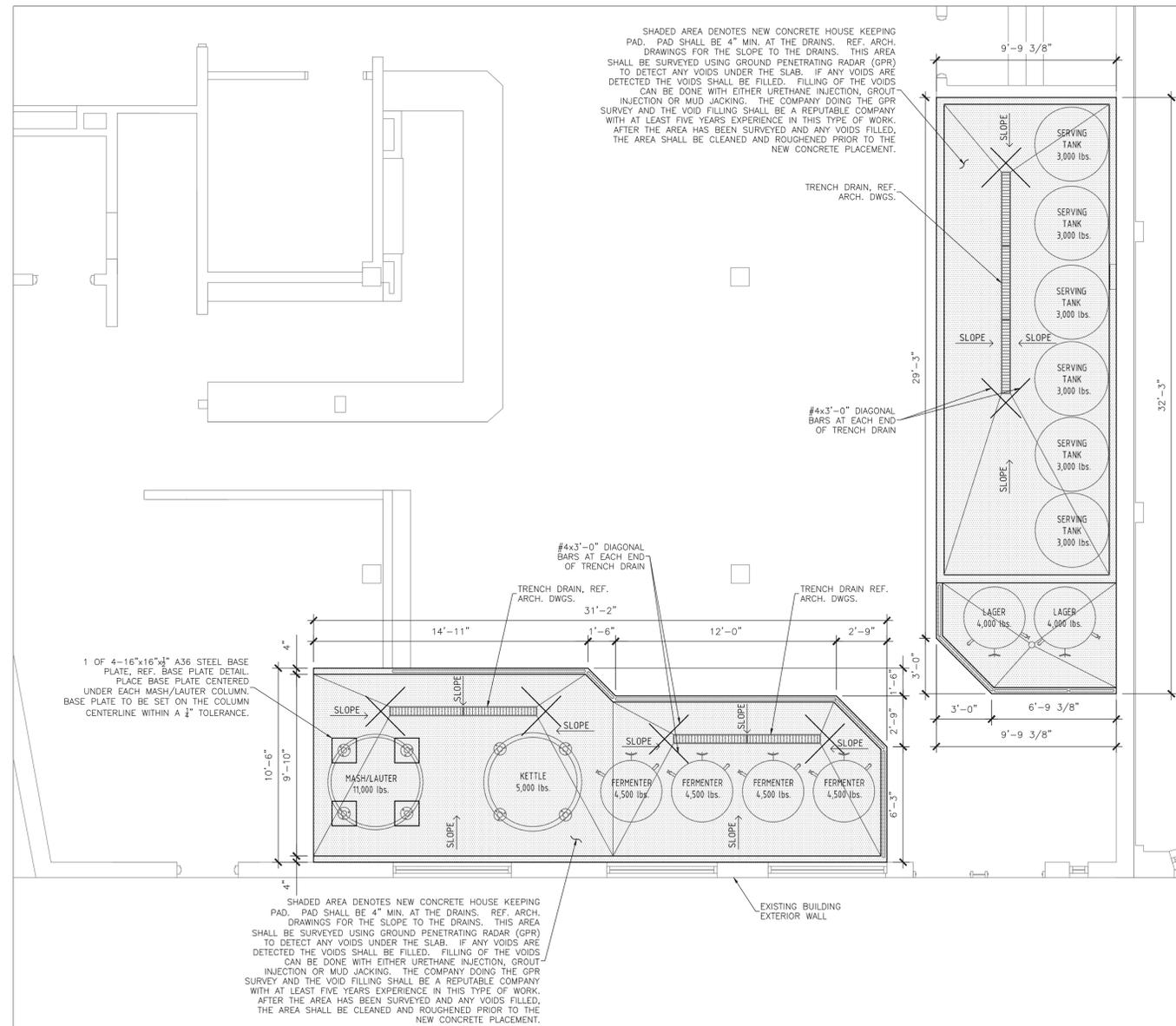
3 DETAIL - AT EDGE W/ CURB

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



4 DETAIL - AT BASE PLATE

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



PARTIAL FLOOR PLAN SHOWING HOUSEKEEPING PADS

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

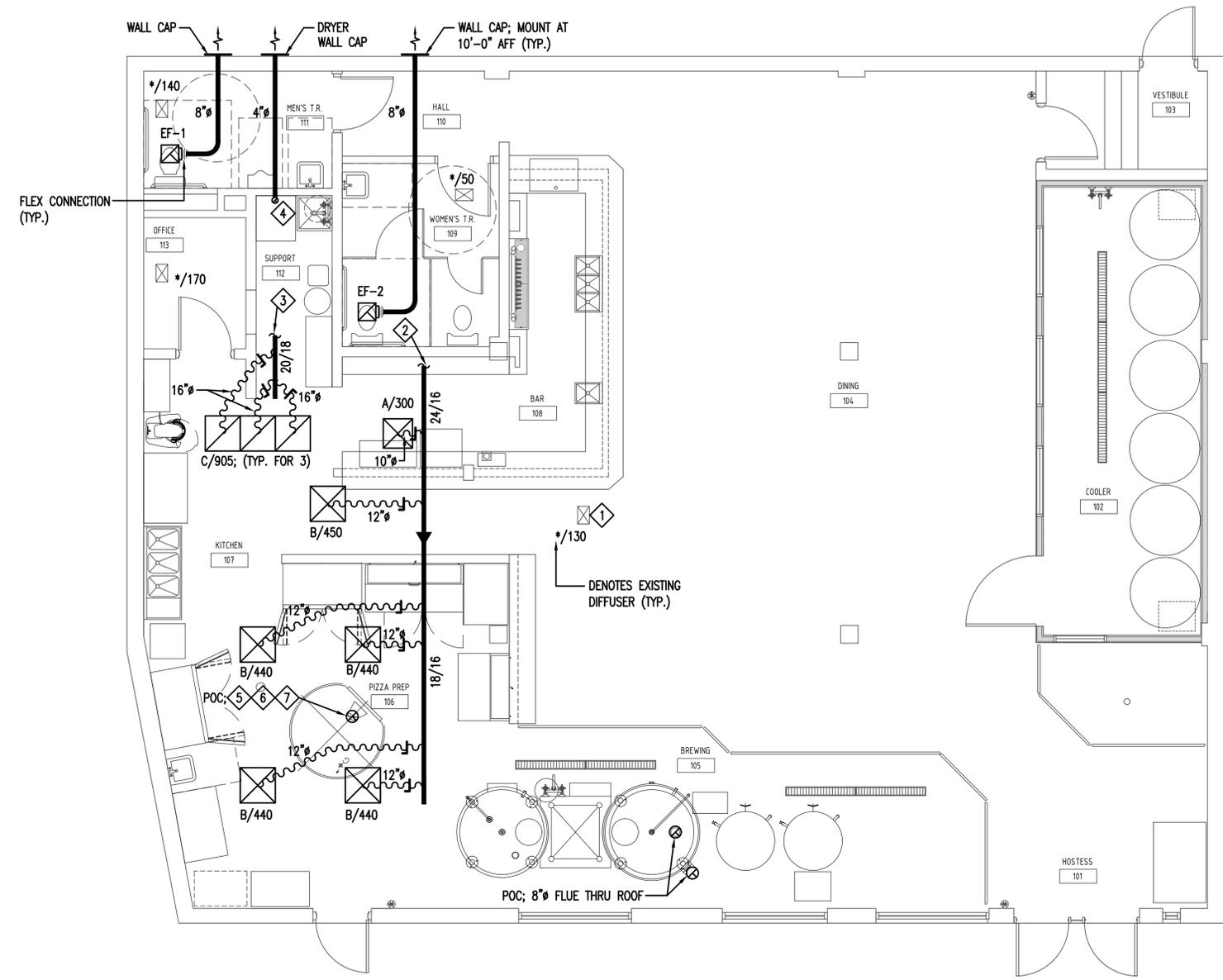
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REVISION	DESCRIPTION	DATE

MEP ENERGY SUMMARY SHEET		
Description	Section of IECC	Comment
Total BTU/h for Cooling and Combined BTU/h for Heating/Hot Water	C403.2.1 Always Required	For Commissioning Requirements ALL LOADS WERE CALCULATED USING COMMERCIALY AVAILABLE HVAC LOADS PROGRAM
Provide description/narrative of HVAC controls:	C403.2.4 Always Required	HVAC equipment and systems controls: thermostat controls, location/description of heating and cooling zones, description of the dead-band, set point overlaps, off-hour controls and controls for shutoff dampers NOT APPLICABLE
Greatest Air Flow Rate of each Fan System and Percent of Outside Air, Provide the percent of outdoor air at full design airflow	C403.2.7 Always Required	To determine the need for an Energy Recovery Ventilation System for a Cooling System (not required for Heating) NOT APPLICABLE.
Design Air Flow of Spaces, Presence of Air Side Economizers, Presence of Automatic Modulating Control of Outdoor Air Dampers	C403.2.6.1 Always Required	To determine the need for Demand Controlled Ventilation NOT APPLICABLE.
Narrative of Enclosed Parking Garage Ventilation	C403.2.6.2 Always Required	To determine the need for configuring the staging/modulating of fans NOT APPLICABLE: BUILDING IS NOT A PARKING GARAGE.
Provide Kitchen Exhaust System Air Balancing; provide total kitchen hood exhaust flow rate for each hood	C403.2.8 Always Required	To check for the need for listed factory built kitchen hoods and check airflow/balancing – Replacement Air for kitchen exhaust hoods, balance with hood exhaust flow rates, transfer air, total building required exhaust flow rates; NOT APPLICABLE: NO KITCHEN HOODS IN PROJECT.
Provide a narrative of controls for walk-in coolers, freezers and refrigerated warehouses and refrigerated display cases	C403.2.15 Always Required	NOT APPLICABLE: NO REFRIGERATION EQUIPMENT IN PROJECT.
Provide capacity of each cooling unit. Provide total chilled water system capacity minus capacity of cooling units with air economizers if applicable	C403.3 Only under the Prescriptive Path	To determine the need for economizers and where an exemption is taken NOT APPLICABLE.
Provide narrative of the economizer controls if required. Provide the type of economizer provided; show that an air economizer can supply 100% of design supply air as outdoor air. Show design of water-side – 100% of cooling load as outdoor air not greater than 50°F	C403.3.3 Only under the Prescriptive Path	Show that fault protection is provided NOT APPLICABLE.
Provide description/narrative of controls for Hydronic and multiple-zone HVAC systems equipment, any heat rejection equipment and fan speed control, and VAV systems; Provide description/narrative of controls for complex mechanical equipment serving multiple zones	C403.4, C403.4.4 Only under the Prescriptive Path	Details of hydronic and multiple zoned systems, fan speed control NOT APPLICABLE
Provide the narrative/description of the controls for a hot water recirculation pump or heat trace system	C404.7 Always Required	NOT APPLICABLE: NO RECIRCULATION LOOP IS USED FOR WATER HEATERS THIS PROJECT.
Provide a narrative of the lighting controls (occupant sensor function, time switch controls, light reduction controls, manual controls, daylight-responsive controls in daylight zones)	C405.2 Always Required	LIGHTING CONTROL TO INCLUDE MANUAL DIMMERS AND OCCUPANCY SENSORS.
Provide the total interior lighting power calculated under Equation 4–9 C405.4.1.	C405.4.1 Always Required	Provide the result from Equation 4–9 C405.4.1 TCLP = 2002W.
Provide the interior lighting power calculated under C405.4.2 – Building Area Method C405.4.2.1 or the Space by Space Method C405.4.2.2	C405.4.2 Always Required	Provide the calculation result of the interior lighting power using either the Building Area Method C405.4.2.1 or the Space by Space Method 2758W PER THE BUILDING AREA METHOD.
Provide the comparison of the two above calculated interior power – C405.4.1 vs C405.4.2	C405.4.1 and C405.4.2 Always Required	Total lighting power calculated under C405.4.1 can't be greater than interior lighting power calculated under C405.4.2 PROPOSED WATTAGE OF 2002W IS LESS THAN THE ALLOWED INTERIOR LIGHTING POWER OF 2758W.
Provide summary of the total exterior lighting power	C405.5.1 Tables C405.5.2 (1) and (2) Always Required	Provide a narrative of external lighting power, and results of calculations of the exterior lighting power in regards to the allowable exterior lighting power NOT APPLICABLE.
Provide details of an Additional Energy Package chosen	C406 Only under the Prescriptive Path	NOT APPLICABLE.



REVISION	DESCRIPTION	DATE



1 MECHANICAL PLAN

1/4" = 1'-0"



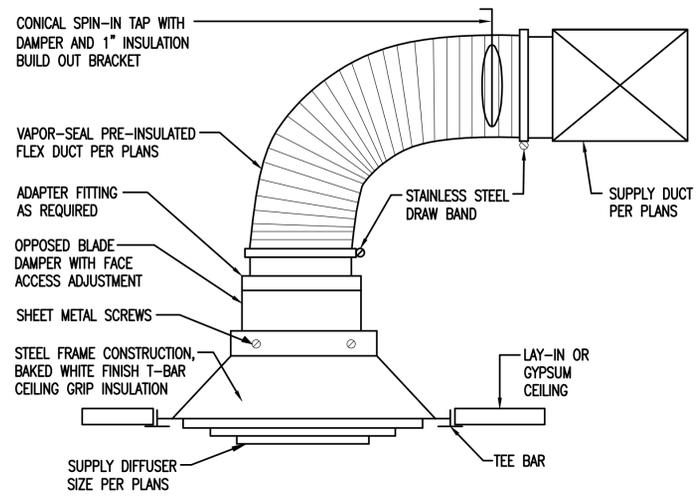
- MECHANICAL KEYED NOTES : (SHEET M-101 ONLY)
- EXISTING DIFFUSER SHALL REMAIN TO RE-USE (TYP.).
 - 24/16 SUPPLY AIR DUCT SHALL BE CONNECTED TO EXISTING ROOFTOP UNIT. SITE VERIFY PRIOR TO ORDERING THE DUCT WORK.
 - 20/18 RETURN AIR DUCT SHALL BE CONNECTED TO EXISTING ROOFTOP UNIT. SITE VERIFY PRIOR TO ORDERING THE DUCT WORK.
 - 4" ROUND SHEET METAL DRYER CONNECTION IN WALL.
 - 8" ROUND UL LISTED GREASE DUCT (SELKIRK METALBESTOS IPS C1 OR METAL-FAB MODEL IPIC-1) SHALL BE FURNISHED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR.
 - ROOF EXHAUST FAN (EXHAUSTO MODEL# GSV-009 OR GSV-012) AND CURB POWER VENTILATOR SHALL BE FURNISHED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR.
 - FAN ADAPTER PLATE, EXHAUSTO FR 2006 OR FR 2008 SHALL BE FURNISHED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR.

GENERAL MECHANICAL NOTES:

1. FIBERGLASS DUCT OPTION FOR SUPPLY AND RETURN AIR DUCT: AS AN OPTION, PROVIDE FIBERGLASS DUCT IN LIEU OF SHEET METAL FOR ALL CONCEALED DUCTWORK UP TO 48 INCHES WIDE. NO FIBERGLASS DUCTWORK WILL BE ALLOWED WITHIN THE CONFINES OF ANY MECHANICAL ROOM. SELECT HEAVY-DENSITY, NON-METALLIC DUCT SYSTEM USING 1-1/2-INCH-THICK FIBROUS GLASS BOARD, WITH A GLASS FABRIC REINFORCED, EMBOSSED ALUMINUM SURFACE. COMPLY WITH SMACNA-03, "FIBROUS GLASS DUCT CONSTRUCTION STANDARD". THE PRODUCT MUST HAVE UL STANDARD 181, CLASS I COMMERCIAL AIR DUCT APPROVAL. EACH BOARD MUST BEAR A UL LABEL.
2. FIBERGLASS DUCT SHALL NOT BE USED FOR EXHAUST SYSTEM ; SHEET METAL DUCT MUST BE USED.

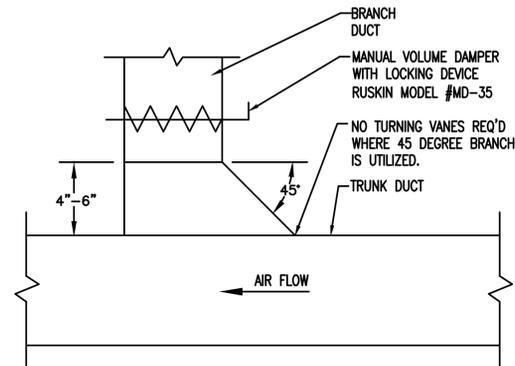
GENERAL MECHANICAL NOTE:
MAINTAIN A MINIMUM OF 10'-0" HORIZONTAL OR 3'-0" VERTICAL DISTANCE BETWEEN OUTSIDE AIR INTAKES AND ANY VTS, EF AND FLUES.





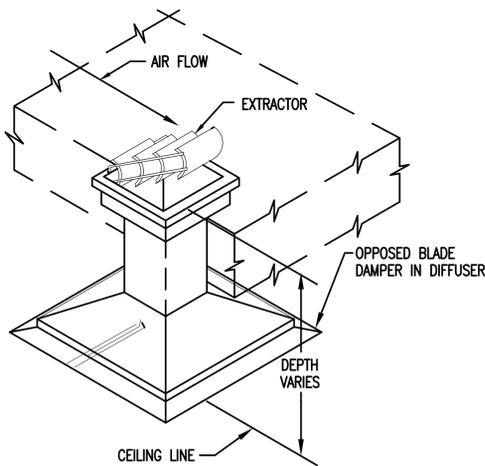
1 FLEX DUCT INSTALLATION

N.T.S.



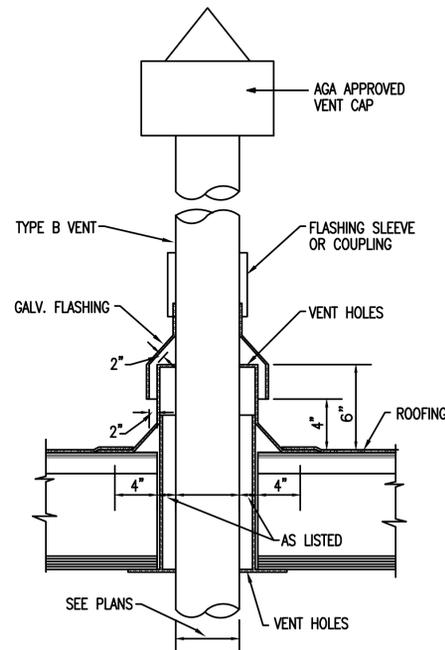
2 BRANCH TAKE OFF

N.T.S.



3 DIFFUSER DROP DETAIL

N.T.S.



4 FLUE THRU ROOF DETAIL

N.T.S.

EXHAUST FAN SCHEDULE										
MARK	AREA SERVED	CFM	ESP IN. WG	DRIVE	ELEC. V/Ø	TYPE	CONTROL WITH	OPER. WT.	REMARKS (COOK MODEL #)	
EF-1	MEN'S T.R.	150	0.375	DIRECT	115/1/150 WATTS	CEILING EXHAUST	INTERLOCK WITH LIGHT SWITCH	36#	GC-340	①
EF-2	WOMEN'S T.R.	150	0.375	DIRECT	115/1/150 WATTS	CEILING EXHAUST	INTERLOCK WITH LIGHT SWITCH	36#	GC-340	①

① UNIT SHALL BE U.L. LISTED, A.M.C.A. CERTIFIED AND FURNISHED WITH FACTORY WHITE POLYMER GRILLE, SPEED CONTROLLER (MOUNTED IN AN ACCESSIBLE LOCATION), BACKDRAFT DAMPER, GEMINI ISOLATOR KIT, GALVANIZED WALL CAP, AND DISCONNECT SWITCH.

EQUIVALENT MANUFACTURERS: GREENHECK, ACME, BREIDERT AND PENN VENTILATOR

AIR DEVICE SCHEDULE							
MARK	CFM RANGE	SUPPLY RETURN EXHAUST	NECK SIZE	THROW	DAMPER	LOCATION	REMARKS (TITUS MODEL #)
A	200-350	•	10"Ø	4-W	NO	LAY-IN CEILING	TMS, TYPE 1 BORDER 20"x20" MODULE
B	355-470	•	12"Ø	4-W	NO	LAY-IN CEILING	TMS, TYPE 3 BORDER 24"x24" MODULE
C	700-1125	•	18"x18"	--	NO	LAY-IN CEILING	PAR, TYPE 3 BORDER 24"x24" MODULE

NOTE: NOT ALL MARKS MY BE USED

EQUIVALENT MANUFACTURERS : METAL-AIRE, ANEMOSTAT, KRUEGER, HART & COOLEY AND PRICE.

MECHANICAL LEGEND	
MARK	DESCRIPTION
☒ A/350	AIR DEVICE W/MARK, CFM
28/16	DUCT WITH DIMENSION: PLAN/DEPTH
☒	SUPPLY AIR SA
☒	RETURN AIR RA
☒	OUTSIDE/EXH. OR TRANSFER AIR OA/EA/TA
☒	RADIUS ELBOW WITH TURNING VANES
☒	SPLITTER DAMPER
☒	TRANSITION
☒	FLEXIBLE CONNECTION
☒	DUCT DROP
☒	DUCT SMOKE DETECTOR
☒	FLEXIBLE DUCT
☒	VOLUME DAMPER VD
☒	RETURN OR EXHAUST AIR
☒	DIRECTION OF AIR FLOW
☒	DENOTES MECHANICAL KEYED NOTE
① AHU	AIR HANDLING UNIT THERMOSTAT
AFF	ABOVE FINISHED FLOOR
EF	EXHAUST FAN
RTU	ROOF TOP UNIT
POC	POINT OF CONNECTION
(E)	EXISTING

NOTE: NOT ALL MARKS MAY BE USED.



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PERMIT SET

BACK UNTURNED BREW PUB

516 BROOKLYN AVENUE
SAN ANTONIO, TEXAS

MECHANICAL SCHEDULES AND DETAILS

342 Wilshire Avenue
San Antonio, TX 78210
210.342.3422 Phone
210.342.3419 Fax



DATE
February 2019
DRAWN BY
JGZ
CHECKED BY
RR
PROJECT NUMBER
18-0001

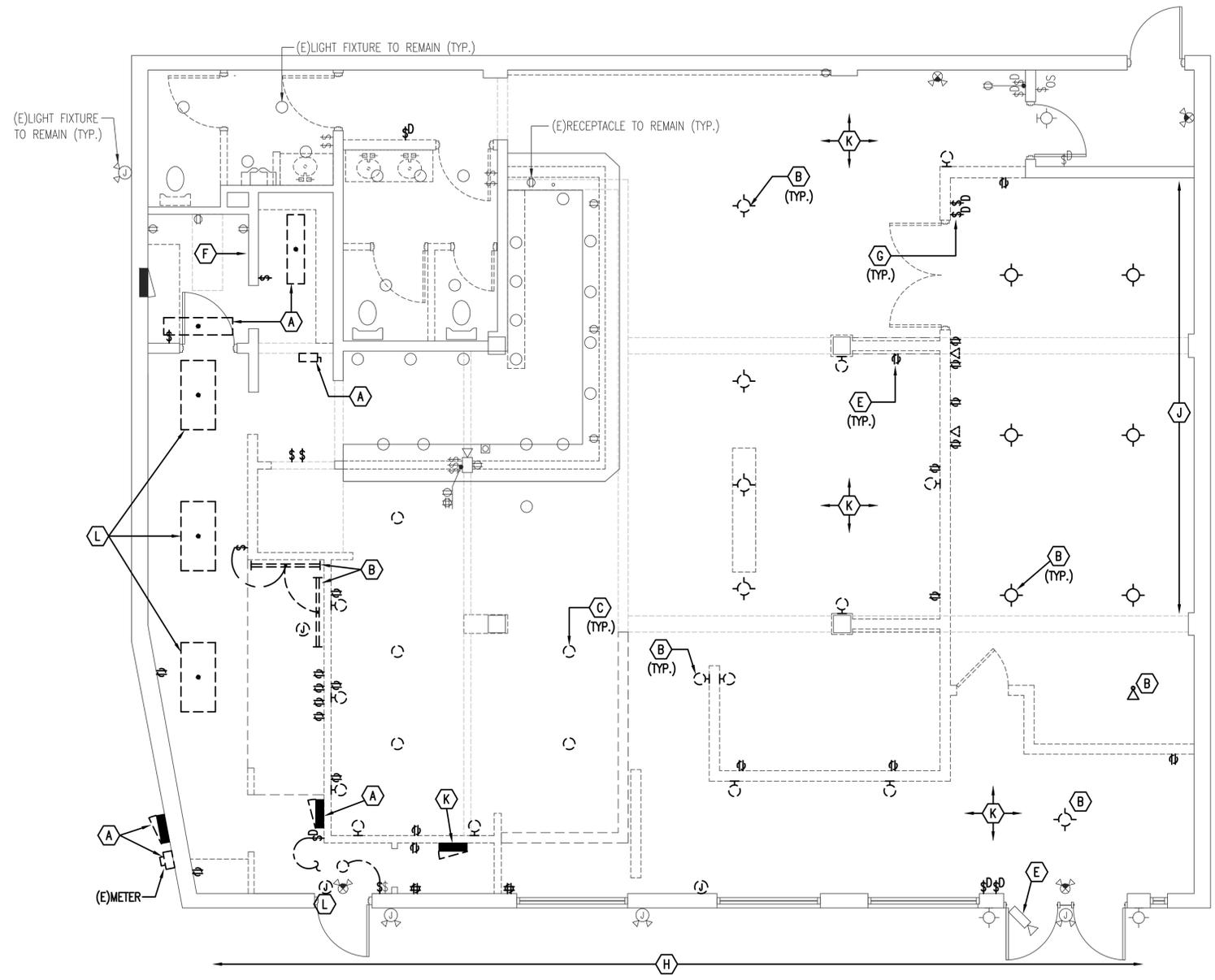
REVISION	DESCRIPTION	DATE



ESA Mechanical & Electrical
Engineering, Inc.
1100 NW Loop 410, Suite 810
San Antonio, Texas 78213
210.342.3483
F 210.342.3641
TYPE FIRM REGISTRATION NO. F-4137
JOB NO. 19001

M-201

REVISION	DESCRIPTION	DATE



ELECTRICAL DEMOLITION KEYED NOTES (FOR SHEET ED-101 ONLY)

- (A) EXISTING ELECTRICAL GEAR SHALL BE REMOVED. REMOVE EXISTING FEEDER BACK TO SOURCE. REMOVE ALL EXISTING BRANCH CIRCUITS INCLUDING WIRE AND CONDUIT; SEE RISER DIAGRAM.
- (B) EXISTING SURFACE LIGHT FIXTURE SHALL BE REMOVED. REMOVE EXISTING WIRE AND CONDUIT BACK TO REMAINING DEVICE OR BACK TO PANEL OF ORIGIN.
- (C) EXISTING RECESSED LIGHT FIXTURE SHALL BE REMOVED. REMOVE EXISTING WIRE AND CONDUIT BACK TO REMAINING DEVICE OR BACK TO PANEL OF ORIGIN.
- (D) EXISTING EXIT LIGHT FIXTURE SHALL BE REMOVED. REMOVE EXISTING WIRE AND CONDUIT BACK TO REMAINING DEVICE OR BACK TO PANEL OF ORIGIN.
- (E) EXISTING RECEPTACLE SHALL BE REMOVED. REMOVE EXISTING WIRE AND CONDUIT BACK TO REMAINING DEVICE OR BACK TO PANEL OF ORIGIN.
- (F) EXISTING COMMUNICATIONS RECEPTACLE SHALL BE REMOVED. REMOVE EXISTING WIRE AND CONDUIT BACK TO POINT OF ORIGIN.
- (G) EXISTING SWITCH SHALL BE REMOVED. REMOVE EXISTING WIRE AND CONDUIT BACK TO REMAINING DEVICE OR BACK TO PANEL OF ORIGIN.
- (H) EXISTING NEON LIGHTING SHALL REMAIN FOR REUSE. PROTECT DURING DURATION OF CONSTRUCTION.
- (J) EXISTING ALARM SYSTEM SHALL BE REMOVED.
- (K) EXISTING CEILING MOUNTED RECEPTACLE AND J-BOX SHALL REMAIN FOR REUSE.
- (L) REMOVE EXISTING J-BOX AND CONDUIT BACK TO SOURCE.

GENERAL ELECTRICAL DEMOLITION NOTES:

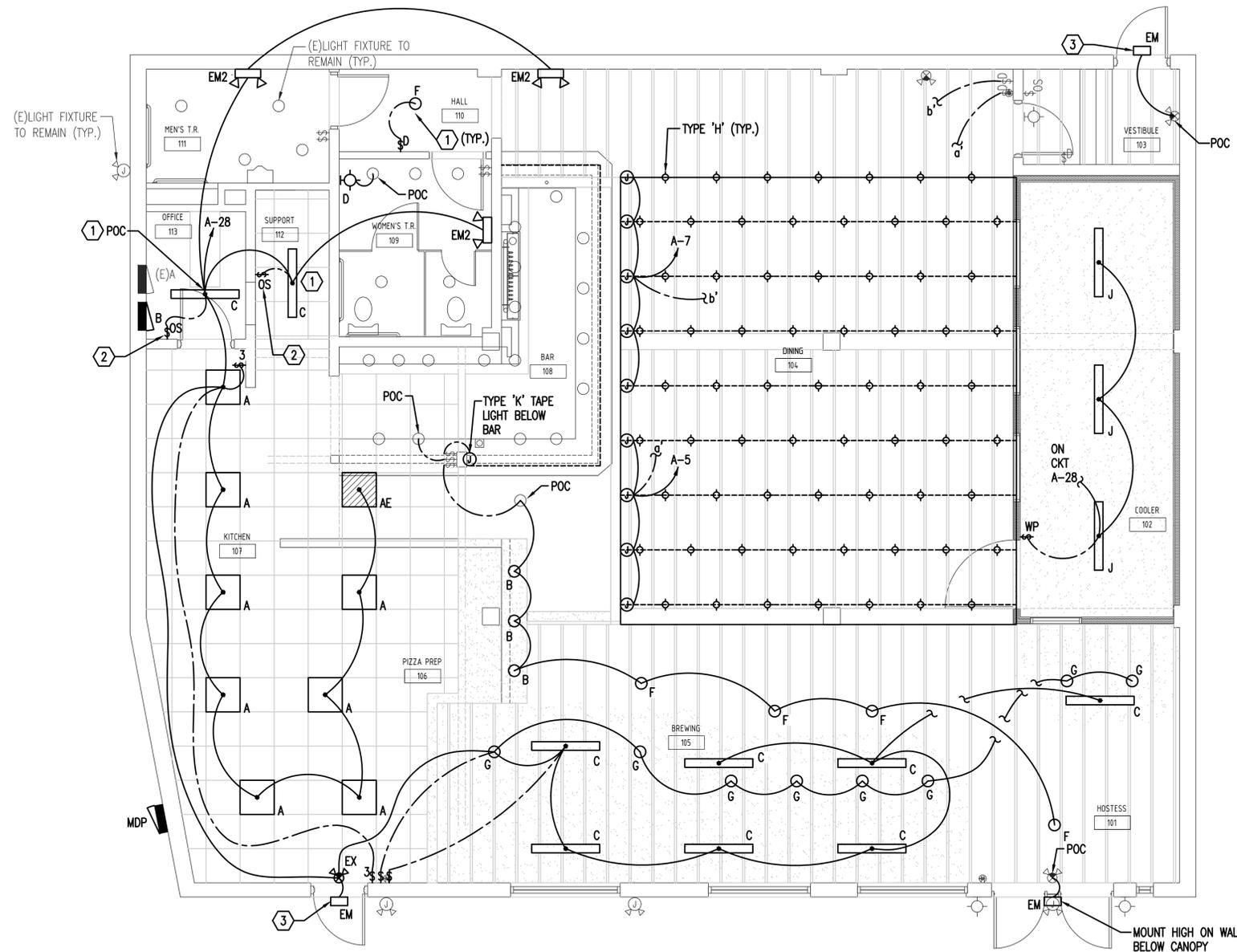
1. REMOVE ALL EXISTING ELECTRICAL EQUIPMENT IN DEMOLISHED AREA UNLESS OTHERWISE NOTED TO REMAIN OR IS SHOWN EXISTING. COMPLETELY REMOVE DEMOLISHED AND ABANDONED FIXTURES, DEVICES, PLATES, WIRE, CONDUIT, FITTING, HANGERS, STRAPS, SUPPORTS, ETC. IN ACCESSIBLE LOCATIONS, DO NOT ABANDON IN PLACE. REMOVE ALL WIRING FROM NON-ACCESSIBLE, CONCEALED CONDUITS AND ABANDON IN PLACE WITH CAP.
2. MAINTAIN ALL FEEDERS, BRANCH CIRCUITS AND CONTROL CIRCUITS EXISTING TO REMAIN OR THAT PASS THROUGH RENOVATED AREAS. RESTORE CIRCUITS AS REQUIRED IF INTERRUPTED BY DEMOLITION.
3. CIRCUITING TO SPECIFIC LIGHTS, RECEPTACLES, EQUIPMENT, ETC. WAS NOT AVAILABLE. PARTIAL BRANCH CIRCUIT WIRING DENOTED "EXISTING" ON PLANS IS SHOWN FOR REFERENCE AND/OR CLARIFICATION ONLY AND IS NOT TO BE CONSTRUED TO IMPLY COMPLETE CIRCUIT WIRING. SITE VERIFY TO ENSURE EXISTING DEVICES AND EQUIPMENT REMAIN OPERATIONAL AND IN GOOD WORKING ORDER THROUGHOUT COURSE OF CONSTRUCTION.
4. LOCATIONS AND QUANTITIES OF ALL ELECTRICAL ITEMS ARE APPROXIMATE AND IN SOME CASES ASSUMED DUE TO THE INACCESSIBILITY TO CERTAIN AREAS. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REMOVE OR RELOCATE ANY AND ALL ELECTRICAL ITEMS REQUIRED TO COMPLETE THE SCOPE OF THIS PROJECT.
5. EXISTING CONDUIT FOUND TO BE REUSABLE CAN BE USED FOR NEW WORK AT THE CONTRACTOR'S DISCRETION. ALL OTHER MATERIAL SHALL BE REMOVED FROM JOB SITE UNLESS OTHERWISE NOTED ON PLANS OR DIRECTED BY OWNER.
6. EXISTING PANEL CIRCUIT DIRECTORY CARDS SHALL BE UPDATED TO REFLECT IMPACT OF ELECTRICAL DEMOLITION AND NEW WORK.
7. THE ELECTRICAL CONTRACTOR SHALL ALLOW FOR, AS PART OF THE BID, THE TRACING OF THE EXISTING ELECTRICAL SYSTEM CIRCUITS INCLUDING BUT NOT LIMITED TO LIGHTING, RECEPTACLES, AND EQUIPMENT POWER.

1 ELECTRICAL DEMOLITION PLAN

1/4" = 1'-0"



REVISION	DESCRIPTION	DATE



GENERAL LIGHTING CONTROL NOTES: (TYPICAL FOR ALL LIGHTING SHEETS)

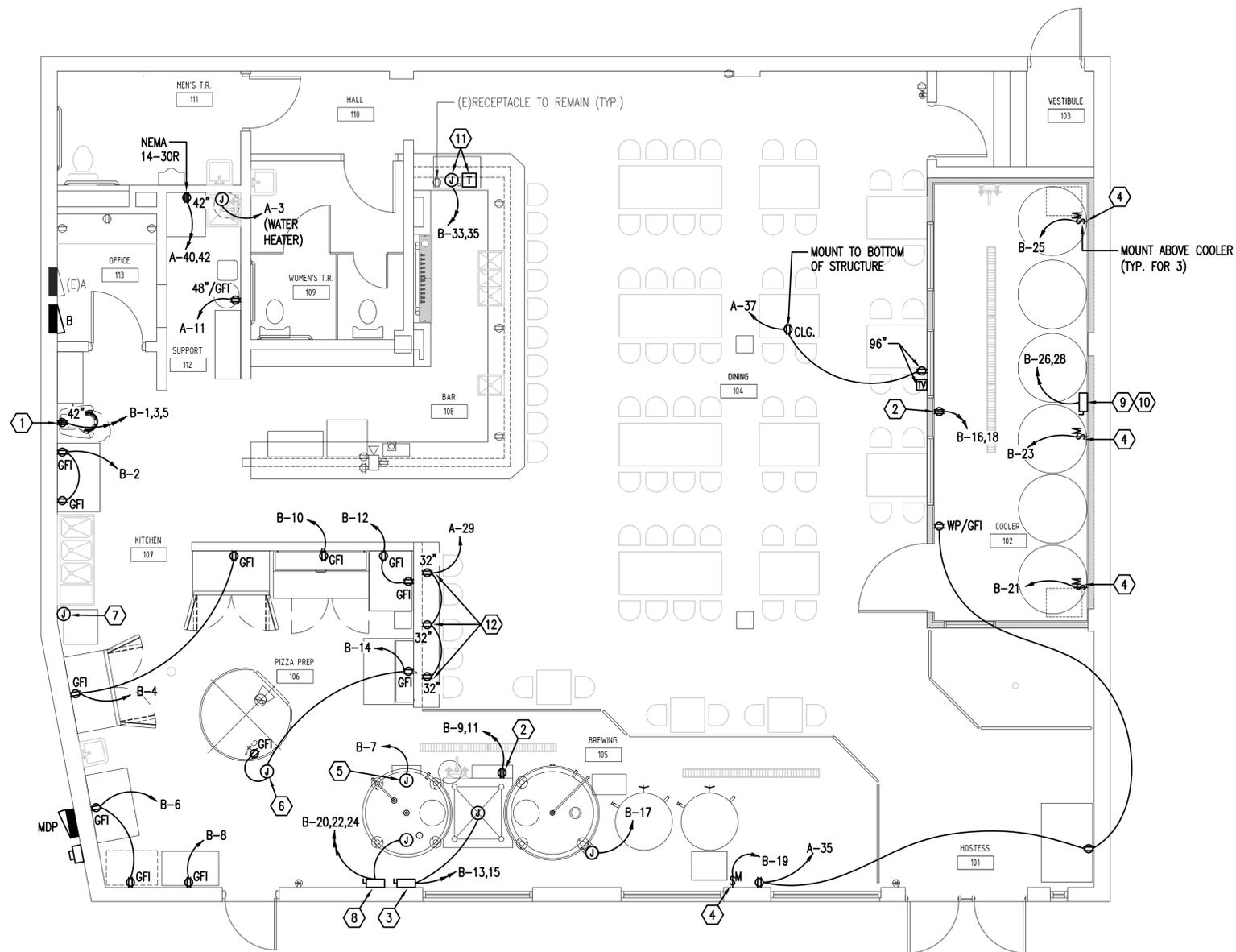
1. ALL OCCUPANCY/VACANCY/ SENSORS SHALL INCLUDE MANUAL ON/OFF CONTROL FUNCTION. SENSORS SHALL BE SET TO ALLOW OCCUPANTS TO MANUALLY TURN ON LIGHTS WHEN ENTERING A SPACE.
2. SET TIMER FUNCTION TO "20 MINUTES" (MAX) PER IECC AND SENSITIVITY TO "50%" ON ALL MANUALLY ADJUSTABLE OCCUPANCY/VACANCY SENSOR DEVICES UNLESS OTHERWISE NOTED.
3. OCCUPANCY/VACANCY SENSORS SHALL BE SET TO AUTOMATICALLY TURN OFF GENERAL LIGHTING WITHIN 20 MINUTES OF OCCUPANT LEAVING THE SPACE.

LIGHTING COMMISSIONING REQUIREMENTS:

1. SYSTEMS TO BE COMMISSIONED FOR THIS PROJECT:
 - A. LIGHTING SYSTEM FUNCTIONAL TESTING.
 - a. THE REGISTERED DESIGN PROFESSIONAL FOR THIS PROJECT (STEPHEN MITCHELL, P.E.) WILL MAKE NECESSARY SITE VISITS AND PREPARE SITE LIGHTING SYSTEM OBSERVATION REPORT(S) TO THE OWNER NOTING DEFICIENCIES OR COMPLIANCE WITH THE CONTRACT DOCUMENTS. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CORRECT ALL NOTED DEFICIENCIES PRIOR TO THE FINAL INSPECTION BY THE AUTHORITY HAVING JURISDICTION (AHJ).
2. COMMISSIONING PLAN:
 - A. PRIOR TO THE FINAL INSPECTION BY THE AHJ, THE REGISTERED DESIGN PROFESSIONAL FOR THIS PROJECT SHALL VERIFY THE LIGHTING CONTROL SYSTEMS PER CONTRACT DOCUMENTS AND MANUFACTURER'S INSTRUCTIONS BY COMPLETING THE FOLLOWING FUNCTIONAL TESTING IN ACCORDANCE WITH 2015 IECC 408.3 (NOTE: THIS PROJECT HAS FEWER THAN SEVEN (7) OCCUPANCY SENSORS THUS THERE WILL BE A 100% SAMPLE RATE):
 - a. VERIFY ALL OCCUPANCY SENSORS HAVE BEEN LOCATED AND AIMED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
 - b. VERIFY ALL OCCUPANCY SENSORS HAVE CORRECT OPERATION OF STATUS INDICATORS.
 - c. VERIFY THE CONTROLLED LIGHTS TURN OFF OR DOWN TO THE PERMITTED LEVEL WITHIN THE REQUIRED TIME.
 - d. VERIFY THE LIGHTS TURN ON TO THE PERMITTED LEVEL WHEN AN OCCUPANT ENTERS THE SPACE.
 - e. VERIFY THE LIGHTS TURN ON ONLY WHEN MANUALLY ACTIVATED.
 - f. VERIFY THE LIGHTS ARE NOT INCORRECTLY TURNED ON BY MOVEMENT IN ADJACENT AREAS OR BY HVAC OPERATION.

1 LIGHTING PLAN
1/4" = 1'-0"

- LIGHTING PLAN KEYED NOTES (SHEET E-101 ONLY)
- 1 INSTALL NEW LIGHT FIXTURE AT EXISTING FIXTURE LOCATION AND CONNECT TO EXISTING CIRCUIT.
 - 2 PROVIDE VACANCY SENSOR/SWITCH AT EXISTING BACK BOX LOCATION.
 - 3 MOUNT FIXTURE ABOVE DOOR.



1 POWER AND SIGNAL PLAN

1/4" = 1'-0"

POWER AND SIGNAL KEYED NOTES (): (SHEET E-201)

- 1 INSTALL L1520R RECEPTACLE FURNISHED WITH EQUIPMENT.
- 2 PUMP CART RECEPTACLE. COORDINATE EXACT 208V-1PH RECEPTACLE TYPE AND BREAKER AND LOCATION WITH OWNER ON SITE.
- 3 PROVIDE 240V, 30A2PNF NEMA 1 DISCONNECT WITH LIQUID TIGHT FLEXIBLE CONNECTION TO PUMP. COORDINATE EXACT LOCATION ON SITE WITH OWNER.
- 4 PROVIDE 120V, 20A MOTOR RATED SWITCH FOR CHILLER.
- 5 PROVIDE CONNECTION TO MOTOR AT TOP OF TANK; COORDINATE EXACT LOCATION ON SITE WITH OWNER.
- 6 PROVIDE RECEPTACLE ON DROP CORD FROM J-BOX MOUNTED AT STRUCTURE.
- 7 PROVIDE RECESSED BOX AND COVER PLATE WITH EMPTY 3/4" CONDUIT WITH PULL STRING BACK TO PANEL 'B' FOR FUTURE.
- 8 PROVIDE 240V, 60A3PNF NEMA 1 DISCONNECT WITH LIQUID TIGHT FLEXIBLE CONNECTION TO HEATER. COORDINATE EXACT LOCATION ON SITE WITH OWNER.
- 9 PROVIDE 240V, 30A2PNF NEMA 3R DISCONNECT ON ROOF FOR REMOTE CONDENSER. COORDINATE EXACT LOCATION ON SITE WITH OWNER.
- 10 COORDINATE COOLER FIELD WIRING WITH OWNER. PULL AND TERMINATE WIRING BETWEEN CONDENSING UNIT AND EVAPORATOR.
- 11 PROVIDE BUCK-BOOST TRANSFORMER ABOVE ACCESSIBLE CEILING TO DERIVE 220V AS REQUIRED BY EQUIPMENT MANUFACTURER; COORDINATE ON SITE FOR EXACT VOLTAGE.
- 12 PROVIDE COMBINATION RECEPTACLE WITH INTEGRAL USB CHARGER.

GENERAL KITCHEN AND REFRIGERATION ELECTRICAL NOTES:

1. ALL EXPOSED ELECTRICAL CONNECTIONS SHALL BE MADE USING PROPERLY SIZED, LIQUID-TIGHT, FLEXIBLE METAL CONDUIT WITH INTERNAL, INSULATED GROUND CONDUCTOR.
2. PROVIDE APPROVED RACEWAY SEALING FITTINGS WHERE RACEWAY PASSES BETWEEN LOCATIONS WITH DIFFERENCES IN TEMPERATURE, SUCH AS REFRIGERATED SPACES, PER NEC ART. 300.7.
3. PROVIDE BUCK-BOOST TRANSFORMERS AS REQUIRED FOR EQUIPMENT THAT ONLY OPERATES AT 240-VOLT.
4. ALL 20-AMP, 120-VOLT RECEPTACLES WITHIN DEFINED KITCHEN SPACE SHALL BE PROTECTED BY GROUND FAULT CIRCUIT INTERRUPTING (GFI) MEANS.
5. LIGHT FIXTURE LAMPS/LIGHT SOURCE SHALL BE SHIELDED, COATED, OR OTHERWISE SHATTER-RESISTANT IN AREAS WHERE THERE IS EXPOSED FOOD, UTENSILS, AND LINENS, OR UNWRAPPED SINGLE-SERVICE AND SINGLE-USE ARTICLES.

GENERAL ELECTRICAL NOTES:

1. THE WORD "PROVIDE" USED THROUGHOUT THESE CONTRACT DOCUMENTS SHALL MEAN "FURNISH AND INSTALL".
2. ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSIONS (INCLUDING LOCAL AMENDMENTS) OF THE NATIONAL ELECTRICAL CODE (NEC), INTERNATIONAL FIRE CODES (IFC), NATIONAL LIFE SAFETY CODE (NFPA 101), NATIONAL FIRE ALARM CODE (NFPA 72), APPLICABLE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR) REQUIREMENTS, INTERNATIONAL ENERGY CONSERVATION CODE (IECC), INTERNATIONAL BUILDING CODES (IBC), AMERICANS WITH DISABILITIES ACT (ADA) AND LOCAL ACCESSIBILITY STANDARDS, NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION (NEMA), AND STANDARD WORKMANSHIP PRACTICES.
3. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY PRECAUTIONS REQUIRED BY LOCAL, STATE AND FEDERAL LAWS, INCLUDING OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION).
4. CONTRACTOR SHALL VISIT THE SITE AND ASCERTAIN THE CONDITIONS TO BE MET THERE IN INSTALLING HIS WORK AND MAKE DUE PROVISIONS FOR SAME IN HIS BID.
5. PROCURE ALL THE NECESSARY AND USUAL PERMITS AND CERTIFICATES FOR ALL WORK INSTALLED. DELIVER SAME TO THE OWNER BEFORE FINAL ACCEPTANCE. PAY ALL INSPECTION FEES NECESSARY.
6. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT SHOW EVERY MINOR DETAIL. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ITEMS REQUIRED FOR A COMPLETE ELECTRICAL SYSTEM.
7. ELECTRICAL CONTRACTOR SHALL INCLUDE TEMPORARY POWER, WIRING AND LIGHTING AS PART OF HIS SCOPE AS REQUIRED.
8. ELECTRICAL GEAR SUCH AS PANELBOARDS, TRANSFORMERS, DISCONNECTS, ETC. SHALL BE LABELED BY NAME OR BY EQUIPMENT SERVED WITH PERMANENTLY ATTACHED LABELS. PANELBOARDS SHALL HAVE A TYPED CIRCUIT DIRECTORY CARD PROTECTED BY A PLASTIC SLEEVE.
9. PANELBOARDS MADE PART OF THIS PROJECT SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ARC FLASH HAZARD IN ACCORDANCE WITH NEC 110.16.
10. PROVIDE GROUND FAULT CIRCUIT INTERRUPTION (GFI) MEANS FOR RECEPTACLES LOCATED IN DAMP OR WET LOCATIONS, KITCHENS, RESTROOMS, EXTERIOR, AND ANY OTHER LOCATION REQUIRED BY CODE.
11. MINIMUM WIRE SIZE FOR LIGHTING AND RECEPTACLE BRANCH CIRCUITS SHALL BE #12 AWG. ALL CONDUCTORS SHALL BE COPPER THWN/THHN AND INSTALLED IN APPROVED RACEWAY. ALUMINUM OR COPPER-CLAD WIRING SHALL NOT BE USED. MINIMUM CONDUIT SIZE SHALL BE 1/2" AND 3/4" BELOW GRADE.
12. ALL MATERIALS SHALL BE NEW AND OF DOMESTIC ORIGIN AND SHALL BEAR UNDERWRITERS' LABEL WHERE APPLICABLE.
13. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM IS TO BE FULLY OPERABLE AND ACCEPTANCE OF THIS SYSTEM BY THE ENGINEER/ARCHITECT MUST BE A CONDITION OF THE SUB CONTRACT.
14. ALL WORK TO BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
15. CONTRACTOR TO GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF ACCEPTANCE.
16. CORRECTION OF ANY DEFECTS TO BE COMPLETED WITHOUT ADDITIONAL CHARGE AND TO INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.



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PERMIT SET

BACK UNTURNED BREW PUB

516 BROOKLYN AVENUE
SAN ANTONIO, TEXAS

POWER AND SIGNAL PLAN

343 Millene Avenue
San Antonio, TX 78210
210.332.3242 Phone
210.332.7919 Fax



DATE
February 2019
DRAWN BY
JGZ
CHECKED BY
SALM
PROJECT NUMBER
18-0001

REVISION	DESCRIPTION	DATE



ESA Mechanical & Electrical Engineering, Inc.

1100 NW Loop 410, Suite 810 210.342.3483
San Antonio, Texas 78213 F 210.342.3641
TBEF FIRM REGISTRATION NO. F-4137
JOB NO.: 19007

E-201

LIGHT FIXTURE SCHEDULE										
MARK	FIXTURE DESCRIPTION	LIGHT SOURCE	LAMP MODEL	NO. LAMPS	WATTS	VOLTS	MOUNTING	MANUFACTURER	MODEL	NOTES
A	2X2 LENSED PANEL	LED LM79 & LM80 TESTED	4,000Lm, 50Khr 30K, +80 CRI	-	40	120	LAY-IN	UTOPIA	UPL-22-40LED/30-UNV-DM	
B	6" DOWN LIGHT	LED LM79 & LM80 TESTED	SEE NOTES	1	18	120	SEE NOTES	SEE NOTES	SEE NOTES	1
C	STRIP LIGHT	LED LM79 & LM80 TESTED	3,600Lm, 50Khr 30K, +80 CRI	-	39.33	120	SURFACE	STRIP	SS-4-L36/30-SF-UNV-GR	
D	DECORATIVE SCONCE	SEE NOTES	SEE NOTES	1	18	120	SEE ARCH.	SEE NOTES	SEE NOTES	1
EM1	EGRESS LIGHT EXTERIOR	LED	-	-	-	120	SEE PLANS	UTOPIA	AEL-ACEM-BZ-SDT	
EM2	EGRESS LIGHT	LED	-	-	-	120	6" BELOW CEILING	UTOPIA	EM3	
EX	EXIT SIGN W/ HEADS	LED	-	-	-	120	UNIVERSAL	UTOPIA	CXTE-U2-R-W-EM	
F	DECORATIVE PENDNAT	SEE NOTES	SEE NOTES	1	18	120	SEE NOTES	SEE NOTES	SEE NOTES	1
G	ACCENT LIGHT	SEE NOTES	SEE NOTES	1	18	120	SEE NOTES	SEE NOTES	SEE NOTES	1
H	STRING LIGHT	SEE NOTES	SEE NOTES	1	0.32W/ft	120	SEE NOTES	SEE NOTES	SEE NOTES	1
J	VAPOR TIGHT	LED LM79 & LM80 TESTED	4,900Lm, 50Khr 30K, +80 CRI	-	40	120	SURFACE	SNOWBALL	SB-TP-F-4FT-40W-WW	
K	TAPE LIGHT	SEE NOTES	SEE NOTES	1	4.4W/ft	120	BELOW BAR	SEE NOTES	SEE NOTES	1

LIGHT FIXTURE SCHEDULE GENERAL NOTES:

- SUFFIX "E" INDICATES BATTERY PACK. PROVIDE HOT LEAD TO INSURE LAMP IS CONTROLLED WITH WALL SWITCH.
- PAY SPECIAL ATTENTION TO LAMP COLOR LISTED IN THE LIGHT FIXTURE SCHEDULE.
- THE FIXTURE DESIGNATIONS ON THIS SCHEDULE ARE TYPICAL AND NOT INTENDED TO BE RESTRICTIVE BUT ARE INDICATIVE OF A PARTICULAR QUALITY AND CLASS OF FIXTURE UON.

LIGHT FIXTURE SCHEDULE NUMBERED NOTES:

- FIXTURE FURNISHED BY OWNER. ELECTRICAL CONTRACTOR SHALL INSTALL, CIRCUIT, AND CONTROL FIXTURES AS INDICATED ON THE PLANS.

SEE NOTE AT BOTTOM OF PANEL (TYP.)

PANEL		(E) A		COMMENTS: EXISTING SIEMENS G2442MCU											
LOCATION:		OFFICE													
120/ 208		VOLTS, 3 PHASE, 4 WIRE		200 AMP MAIN LUGS ONLY											
CIRCUIT DATA		LOAD		LOAD											
NR	WIRE	END	C	CB POLE NR	CB TRIP A VA	CB LOAD VA	PHASE A	PHASE B	PHASE C	CB POLE NR	CB TRIP A VA	CB LOAD VA	LOAD	OKT NR	CIRCUIT DATA
1				1	30/20	360	675			315	20	1	LIGHTS	2	
2	12	12	1/2"	3		200			515	315	20	1	LIGHTS	4	
3	12	12	1/2"	5		778			1091	315	20	1	LIGHTS	6	
4	12	12	1/2"	7		778	1276			500	20	1	UNKNOWN	8	
5				9		900		1400		500	20	1	UNKNOWN	10	
6	12	12	1/2"	11		200			515	315	20	1	LIGHTS	12	
7				13		415	1415			1000	20	1	NEON	14	
8				15		180		680		500	20	1	UNKNOWN	16	
9				17		900			900	30	1	SPARE	18		
10				19		415	915			500	20	1	UNKNOWN	20	
11				21		540		720		180	20	1	RECEPT.	22	
12				23		900		1080		180	20	1	RECEPT.	24	
13				25		315	495			180	20	1	RECEPT.	26	
14				27		315		1115		800	20	1	LIGHTS OFFICE	28	2 12 12 1/2"
15	12	12	1/2"	29		540		720		180	20	1	RECEPT.	30	
16				31			720			720	20	1	OFFICE RECEPT.	32	
17				33				500		500	20	1	UNKNOWN	34	
18	12	12	1/2"	35		540			1040	500	20	1	UNKNOWN	36	
19	12	12	1/2"	37		1090	1590			500	20	1	UNKNOWN	38	
20				39				2880		2880	30	2	MACHES/DRYER COMBO	40	3 10 10 1/2"
21				41				2880		2880	30	2	MACHES/DRYER COMBO	42	

CIRCUIT DATA NOTES:

- EXISTING BREAKER AND CIRCUIT TO REMAIN; SPARE OTHERWISE. TRACE CIRCUIT TO VERIFY AND UPDATE SCHEDULE AS REQUIRED.
- EXISTING SPACE; PROVIDE NEW BREAKER AND CIRCUIT AS INDICATED.
- EXISTING BREAKER; PROVIDE NEW CIRCUIT AS INDICATED.

PANEL		B		COMMENTS:											
LOCATION:		OFFICE													
120/ 208		VOLTS, 3 PHASE, 4 WIRE		225 AMP MAIN LUGS ONLY											
CIRCUIT DATA		LOAD		LOAD											
NR	WIRE	END	C	CB POLE NR	CB TRIP A VA	CB LOAD VA	PHASE A	PHASE B	PHASE C	CB POLE NR	CB TRIP A VA	CB LOAD VA	LOAD	OKT NR	CIRCUIT DATA
3	12	12	1/2"	1		960	1320			360	20	1	RECEPT.	2	2 12 12 1/2"
4				3		960		1872		312	20	1	REACH-IN	4	2 12 12 1/2"
5				5		960			1320	360	20	1	RECEPT.	6	2 12 12 1/2"
6	12	12	1/2"	7		1176	3696			1920	20	1	RECEPT.	8	2 12 12 1/2"
7	10	10	1/2"	9		1144		2320		1176	20	1	REF. PREP TABLE	10	2 12 12 1/2"
8				11		1144			1504	360	20	1	RECEPT.	12	2 12 12 1/2"
9	10	10	1/2"	13		1144	1864			720	20	1	PIZZA OVEN & PREP TABLE	14	2 12 12 1/2"
10				15		1144		2288		1144	30	2	PUMP CART RECEPT.	16	2 10 10 1/2"
11	12	12	1/2"	17		350			1504	1144	30	2	PUMP CART RECEPT.	18	2 10 10 1/2"
12	12	12	1/2"	19		1656	5656			4000	50	3	12KW TANK HEATER	20	3 8 10 3/4"
13	12	12	1/2"	21		1656		5656		4000				22	
14	12	12	1/2"	23		1656			5656	4000				24	
15	12	12	1/2"	25		1656	2883			1227	20	2	REMOTE CONDENSER	26	2 12 12 1/2"
16				27		4000		5227		1227	20	1	SPARE	28	
17				29		4000			4000	20	1	SPARE	30		
18				31		4000	4000			20	1	SPARE	32		
19	10	10	1/2"	33		2156		2156		20	1	SPARE	34		
20				35					2156	20	1	SPARE	36		
21				37				0					38		
22				39				0					40		
23				41				0					42		

CIRCUIT DATA NOTES:

- COORDINATE EXACT BREAKER AND WIRE SIZE WITH EQUIPMENT DELIVERED TO SITE PRIOR TO ROUGH-IN.

MOUNTING HEIGHTS	
DEVICE	HEIGHT (PER ADA)
RECEPTACLES, DATA/TELEPHONE, TV	15" AFF TO BOTTOM OF DEVICE
SWITCHES	48" AFF TO CENTER OF DEVICE
COUNTERTOP RECEPTACLES	MOUNTED VERTICALLY, 8" ABOVE COUNTER TO CENTER MOUNTED HORIZONTALLY, 6" ABOVE COUNTER TO CENTER

NOTE: ALL DEVICES SHALL BE MOUNTED AT THESE HEIGHTS UNLESS OTHERWISE NOTED.

PANEL		MDP		COMMENTS: MAX SIX (6) DISCONNECTS											
LOCATION:		EXTERIOR													
120/ 208		VOLTS, 3 PHASE, 4 WIRE		400 AMP MAIN LUGS ONLY											
CIRCUIT DATA		LOAD		LOAD											
NR	WIRE	END	C	CB POLE NR	CB TRIP A VA	CB LOAD VA	PHASE A	PHASE B	PHASE C	CB POLE NR	CB TRIP A VA	CB LOAD VA	LOAD	OKT NR	CIRCUIT DATA
1				1		7366				10656	150	3	ROOF PANEL C	2	SEE RISER FOR DATA
2				3		7910		18466		10656				4	SEE RISER FOR DATA
3				5		8226			18882	10656				6	
4				7										8	
5				9					18519					10	
6				11					16140					12	
7				13				0						14	
8				15				0						16	
9				17				0						18	

CIRCUIT DATA NOTES:

- COORDINATE EXACT BREAKER AND WIRE SIZE WITH BOTH OWNER AND LANDLORD PRIOR TO ORDERING GEAR.

ELECTRICAL LEGEND	
MARK	DESCRIPTION
	FLUORESCENT FIXTURE
	FLUORESCENT FIXTURE WITH BATTERY PACK
	FLUORESCENT STRIP FIXTURE
	WALL BRACKET FIXTURE
	INCANDESCENT FIXTURE
	EXIT LIGHT
	EMERGENCY LIGHT
	DUPLEX CONVENIENCE OUTLET
	OUTLET WITH GROUND FAULT CIRCUIT INTERRUPTER
	RECEPTACLE WITH ISOLATED GROUND
	FLOOR MOUNTED DUPLEX OUTLET
	240V OUTLET
	QUAD PLEX CONVENIENCE OUTLET
	PROVIDE 2X4 BOX WITH 3/4\"/>
	WALL SWITCH
	3-WAY SWITCH
	OCCUPANCY SENSOR WALL SWITCH
	MOTOR
	CIRCUIT HOME-RUN TO PANEL
	SWITCH LEG
	DISCONNECT SWITCH
	JUNCTION BOX
	TRANSFORMER
	PANEL
	PHOTO CELL
	SPEAKER
	DENOTES ELECTRICAL KEYED NOTE
	DENOTES EXISTING
	FIRE SMOKE DAMPER
	POINT OF CONNECTION
	MAGNETIC DOOR RELEASE

NOTE: NOT ALL ITEMS MAY BE USED. DASHED ITEMS INDICATE DEMOLITION.



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PERMIT SET

BACK UNTURNED BREW PUB
516 BROOKLYN AVENUE
SAN ANTONIO TEXAS

343 Williams Avenue
San Antonio, TX 78210
210.532.3212 Phone
210.532.7919 Fax



DATE February 2019
DRAWN BY JGZ
CHECKED BY SALM
PROJECT NUMBER 18-0001

REVISION	DESCRIPTION	DATE

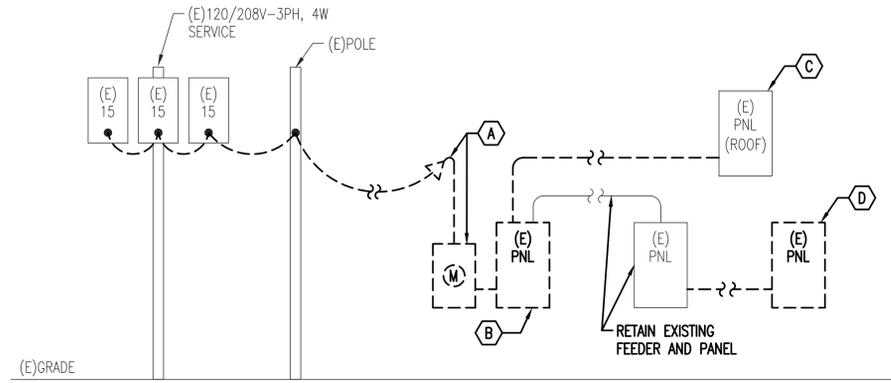


ESAMechanical & Electrical Engineering, Inc.

1100 NW Loop 410, Suite 810 210.342.3483
San Antonio, Texas 78213 F 210.342.3641
TYPE FIRM REGISTRATION NO. F-4137
JOB NO. 19007

E-301

LOAD ANALYSIS					
PROJECT: BACK UNTURNED BREWING					
AREA (SF): 2,500		VOLTS: 208		THREE PHASE	
LOAD DESCRIPTION		CONNECTED KVA	DIVERSITY	DEMAND KVA	
LIGHTING:		6	1.25	8	
RECEPTACLES:		7	1.0/0.5	7	
AIR CONDITIONING: (20-TONS)		32	1.00	32	
SPACE HEATING: (NON-COINCIDENT LOAD; GAS HEATING)			N/A	N/A	
WATER HEATING: (GAS)			N/A	N/A	
KITCHEN EQUIPMENT:		28	0.90	25	
REFRIGERATION EQUIPMENT:		13	1.00	13	
MOTORS AND FANS:		9	1.00	9	
LARGEST MOTOR:		2	0.25	1	
WASHER-DRYER COMBO:		6	1.00	6	
MISC. EXISTING EQUIP:		8	1.00	8	
TOTAL KVA:		111		108	
TOTAL AMPS:				301	
SERVICE ENTRANCE SIZE, AMPS: (BASED ON WIRE SIZE)				310	

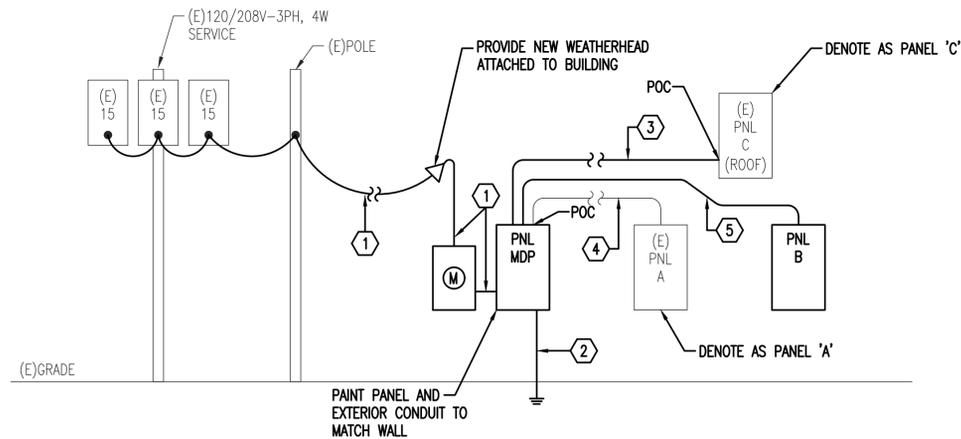


1 ELECTRICAL RISER DIAGRAM - DEMOLITION

N.T.S.

ELECTRICAL RISER DIAGRAM KEYED NOTES (E): (FOR 1/E-401 ONLY)

- (A) COORDINATE WITH CPS AND REMOVE EXISTING METER, WEATHER HEAD, SERVICE DROP, ETC.
- (B) REMOVE EXISTING MAIN PANEL AND RETURN TO OWNER FOR REUSE.
- (C) EXISTING ROOF PANEL SHALL REMAIN OR BE UPGRADED BY LANDLORD UNDER SEPARATE CONTRACT. REMOVE EXISTING FEEDER BACK TO MAIN PANEL.
- (D) REMOVE EXISTING SUB PANEL AND RETURN TO OWNER.



2 ELECTRICAL RISER DIAGRAM - NEW WORK

N.T.S.

ELECTRICAL RISER DIAGRAM KEYED NOTES (E): (FOR 2/E-401 ONLY)

- (1) PROVIDE 4#350 KCMIL, 1#2 GND, 3'C
- (2) PROVIDE 1#2 GND IN 1/2"C TO LIMIT PUBLIC VIEW OF CONDUCTOR. BOND TO NEW 5/8"x10 GROUND ROD DRIVEN INTO EARTH BELOW EXISTING PAVERS AND TO DOMESTIC COLD WATER PIPE. PAINT CONDUIT TO MATCH WALL.
- (3) PROVIDE 4#1/0, 1#6 GND, 2'C. COORDINATE EXACT WIRE SIZE WITH LANDLORD PRIOR TO ORDERING MATERIALS PER KEYED NOTE #C ABOVE.
- (4) EXISTING 4#1/0 CU IN 1-1/2"C SHALL REMAIN. CONNECT TO NEW PANEL MDP.
- (5) PROVIDE 4#3/0, 1#6 GND, 2'C.

GENERAL RISER DIAGRAM NOTES:

1. MAIN SERVICE ENTRANCE GEAR SHALL BE LISTED AND LABELED AS SUCH.
2. TEST SOIL FOR LESS THAN 25-OHM RESISTANCE AND ADD ADDITIONAL GROUND RODS AS REQUIRED. AT A MINIMUM, THE SERVICE GROUND SHALL BE BONDED TO DOMESTIC METAL COLD WATER PIPE.
3. CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD CONNECTIONS TO AVOID VANDALISM.
4. COORDINATE AVAILABLE FAULT CURRENT IN SUPPLY SOURCE WITH LOCAL UTILITY REPRESENTATIVE. INCREASE EQUIPMENT FAULT CURRENT RATING AS REQUIRED IF SPECIFIED RATING FOR THIS PROJECT IS FOUND TO BE INSUFFICIENT AND REPORT TO ENGINEER.
5. PAINT EXTERIOR GEAR AND CONDUIT TO MATCH MOUNTING SURFACE.
6. ALL CONDUCTORS ARE COPPER UNLESS OTHERWISE NOTED. COMPACT STRANDED ALUMINUM CONDUCTORS ARE AN ACCEPTABLE ALTERNATE FOR FEEDERS ONLY AS LONG AS THE AMPACITY MATCHES THE SPECIFIED COPPER AND THE CONDUIT SIZE IS ADJUSTED ACCORDINGLY.



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PERMIT SET

BACK UNTURNED BREW PUB

516 BROOKLYN AVENUE
SAN ANTONIO TEXAS

ELECTRICAL RISER DIAGRAM

342 Millers Avenue
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210.332.3202 Phone
210.332.7919 Fax



DATE: February 2019
DRAWN BY: JGZ
CHECKED BY: SALM
PROJECT NUMBER: 18-0001

REVISION	DESCRIPTION	DATE



ESA Mechanical & Electrical Engineering, Inc.
1100 NW Loop 410, Suite 810 210.342.3483
San Antonio, Texas 78213 F 210.342.3641
TYPE FIRM REGISTRATION NO. F-4137
JOB NO.: 19007

E-401

PART 1 – GENERAL

1.01 WORK INCLUDED IN THIS SECTION

A. Referenced Documents: Bidding Requirements, Conditions of the Contract, and Division 01 – General Requirements are hereby made a part of this section.

B. Work included in Division 16 includes the furnishing of all labor, materials, tools, equipment, drayage, rigging, fees, permits, inspections, etc., necessary for the complete installation and operation of all electrical equipment and work as shown on the Plans and specified herein. Work includes the following general listings, in addition to which furnish all fittings, hangers, supports, conduits, sleeves, inserts and other such items and accessories required or necessary for the operation of a complete electrical system as shown on the Plans and/or specified herein:

1. Lighting and outlet system.
2. Telephone conduit system.
3. Service entrance.
4. Wiring, feeders, and panelboards.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Submittals: Division 1.
- B. Painting: Division 9.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

Work shall conform to the latest editions of the following:

- A. Power company electrical standard requirements.
- B. International Energy Conservation Code (IECC).
- C. National Electrical Code (NEC) with local amendments.
- D. National Electrical Manufacturers Association (NEMA).
- E. Occupational Safety and Health Administration (OSHA).
- F. Underwriters' Laboratories, Inc. (UL), and shall be so labeled.
- G. International Building Code (IBC).

1.04 QUALIFICATIONS

Electrical Contractor of work specified herein to have been engaged in electrical contracting business for a minimum of five (5) years prior to bid date and be prepared to show evidence and references if requested by the Owner.

1.05 SUBMITTALS

- Brochures shall be submitted for the following:
- A. Light fixtures.
 - B. Panelboards.
 - C. Disconnects, fuses.

1.06 SUBSTITUTIONS AND DEVIATIONS

A. The intent of these specifications is to establish minimum quality standards for material and equipment installed. All materials, equipment, and apparatus shall be new and of the quality indicated in the following specifications.

B. It is not the Architect/Engineer's intention to discriminate against any manufacturer or product. Any manufacturer desiring to submit his product for approval as an equal to that specified may do so by providing a sample specification to the Engineer's office for approval a minimum of 10 working days prior to bid date.

1.07 FEES

Procure all the necessary and usual permits and certificates for all work installed. Deliver same to the Owner before final acceptance. Pay all inspection fees necessary.

1.08 SPECIAL CONDITIONS OF THE WORK

A. Drawings are necessarily diagrammatic and do not show every connection in detail or every line conduit in its exact location.

B. Investigate structural and finish conditions and arrange Work accordingly; furnish all fittings and accessories required to meet conditions and give satisfactory operation. Coordinate with other contractors to avoid interference with the Work.

1. Work shall be laid out to be concealed in furred chases and suspended ceilings, etc., in finished portions of building, unless specifically noted to be exposed. Work shall be installed to avoid crippling of structural members. Thimbling of beams shall be done only with the specific approval of the Owner.

2. Electrical Contractor, by submitting a sub-bid, sets forth that he has the necessary technical training and ability and that he will install his Work in a satisfactory and workmanlike manner up to the best standard of the trade, complete and in good working order.

3. If any of the requirements of the plans and specifications are impossible of performance, or if the installation will not perform satisfactorily, he shall report same to the Owner for correction during the bidding period.

4. No extra will be allowed for extra work or changes caused by failure to comply with above requirements.

5. The right to make any reasonable change in the location of outlets, apparatus, and equipment up to time of roughing-in is reserved by the Owner without involving any additional expense to the Owner.

1.09 SITE INVESTIGATION

A. Electrical Contractor shall visit the site and ascertain the conditions to be met there in installing his Work and make due provisions for same in his bid. It will be assumed that the Electrical Contractor in submitting his bid has visited the premises and that his bid covers all work necessary to properly install his Work. Failure to comply with these requirements shall not be considered justification for the omission or faulty installation of any of his Work, or for the payment of extra compensation for work covered by Specifications and Plans.

B. Locations and elevations of utilities shown on Plans have been obtained from site utility plans, existing plans, site inspection and utility companies serving the site. The Electrical Contractor shall examine the site verifying to his own satisfaction the location and elevation of all utilities and shall adequately inform himself as to their relationship to the Work before entering into a contract.

C. Specifications and the Drawings in no way imply as to the condition of the soil to be encountered. No representations as to soil conditions are made or implied in any portion of the Contract documents.

D. All Work in connection with this Contract will be under the supervision and to the entire satisfaction of the Owner or his authorized representative who shall determine all questions as to the satisfactory completion of the Work, or any part thereof, and defects necessary to be remedied.

E. The Electrical Contractor shall give his personal attention to all parts of the Work and shall employ only skilled and reliable workmen in the performance thereof. They shall also accord to the Owner the right to decide upon and discontinue the services of any workman who does not possess satisfactory skill and qualifications, or is otherwise objectionable.

1.10 SAFETY STANDARDS

It shall be the responsibility of the Electrical Contractor to initiate, maintain and supervise all safety precautions required by local, state and federal laws, including OSHA (Occupational Safety and Health Administration).

PART 2 – PRODUCTS

2.01 MATERIALS

All materials described in Division 16 shall be new; no used materials shall be used. Brands and models listed are for quality assurance only; other brands equal in quality and approved for use are acceptable. Any material damaged during installation shall be replaced at Electrical Contractor's expense.

2.02 LIGHTING AND POWER PANELBOARDS

A. 240/120 volt, grounded wye panels as noted on Plans; Square D type NQO or equal, factory assembled, plug-on breakers.

B. Panels shall be listed by Underwriters' Laboratories, Inc.

C. Circuit breakers shall be plug-on type thermal-magnetic type unit construction, employing quick-make and quick-break toggle mechanisms for manual operation as well as automatic operation.

Circuit breakers shall be of the thermal magnetic type, having inverse time delay thermal trip on overloads and instantaneous magnetic trip on short circuits. Interrupting capacities shall be as noted on the drawings. Breakers employing slow-make and slow-break operating mechanisms NOT ACCEPTABLE. Automatic tripping shall be indicated by breaker's handle assuming a clearly distinctive position from manual "On" and "Off" positions; breakers shall be removable from front of enclosure for inspection and replacement. All 20 amp single pole breakers shall be suitable for switching duty.

D. Provide directory card with each circuit labeled on card.

2.03 DISCONNECT SWITCHES

A. General-Duty Disconnect Switches: Provide surface-mounted, general-duty type, sheet-steel enclosed switches, of types, sizes, and electrical characteristics indicated; rated 240 volts, 60 hertz, with 3-blades, 4-poles, solid neutral; incorporating spring assisted, quick-make, quick-break switches which are so constructed that switch blades are visible in OFF position with door open. Equip with operating handle which is integral part of enclosure base and whose position is easily recognizable, and is capable of being padlocked in OFF position. Construct current carrying parts of high-conductivity copper, with silver-tungsten type switch contacts, and stamped enclosure knockouts.

B. Fuses: Provide fuses for safety switches, as recommended by switch manufacturer, of classes, types, and ratings needed to fulfill electrical requirements for service indicated.

2.04 CONDUCTORS

All conductors shall be copper, 600V rating, type THHN, THHW unless shown otherwise.

2.05 CONDUIT

- A. Thin wall EMT acceptable for general application.
- B. PVC acceptable in slabs or underground. Provide factory wrapped steel ells for rising exposed out of ground or slab.

2.06 LIGHT FIXTURES

A. The Contractor shall furnish and install lighting fixtures complete with lamps for every lighting outlet shown on the accompanying drawings. Where a fixture type designation may have been omitted from the drawings, it shall be the responsibility of the Contractor to contact the Engineer in writing prior to the bid opening and determine which fixture type is intended at the location in question. If the Contractor fails to comply with this requirement, he shall furnish and install fixtures as instructed by the Architect without additional cost to the Owner. No allowance will be made on behalf of the Contractor who fails to comply with this requirement.

B. All lighting fixtures shall be furnished complete with accessories to suit the specific service intended. Fixtures shown in the schedule to be recessed shall be complete with frames, mounting yokes, rod hangers to furnish support from the structure above and/or any other accessories required to fit the fixture to the ceiling construction.

C. The fixture designations on the drawings and schedule are typical and are not intended to be restrictive but are indicative of a particular quality and class of fixture.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Work shall be done in accordance with Plans and Specifications and shall meet rules and regulations of all governing agencies having jurisdiction.

B. If Plans and Specifications differ from required minimum standards set forth in ordinances, ordinances shall govern unless the Plans and Specifications exceed requirements, in which case Plans and Specifications shall govern.

C. If any disagreement between the Plans and Specifications and the ordinances occurs, attention must be called to same before signing of the Contract. After the contract has been signed, the Electrical Contractor is responsible for having all Work meet with the requirements of the governing ordinances. No extra to the contract will be granted to correct any discrepancy existing between the Work and the ordinances.

3.02 GUARANTEE

A. All electrical Work shall be guaranteed for a period of one (1) year from date of acceptance by Owner.

B. Upon notice of any electrical malfunction, the Electrical Contractor shall remedy the malfunction including all materials, equipment and labor at no extra cost to the Owner.

3.03 LOCATIONS OF FIXTURES AND EQUIPMENT

Fixtures and equipment shall be as shown on Plans and Elevations. Locations of fixtures or equipment not shown on Plans shall be established or verified in writing or by shop drawings.

3.04 PARTS LISTS AND MAINTENANCE MANUALS

A. The Electrical Contractor shall submit to the Owner 30 days prior to final acceptance of the building, complete and detailed parts lists, maintenance manuals, etc., covering electrical equipment furnished under this Contract. Brochures shall include all as-built equipment shop drawings, all cuts and capacity information, names and addresses of manufacturers, stocking distributors, manufacturer's agents and/or factory representatives and shall cover all items of equipment on which submittal data is made and shall also include manuals and lists herein called for.

B. Brochures shall be in three copies, shall be bound, indexed and tabbed referencing all items to the Plans and Specifications regarding locations of equipment and materials.

3.05 AS-BUILT DRAWINGS

At the completion of this project, the Electrical Contractor shall provide the Owner with a set of marked-up drawings showing all conduit, outlets, etc., installed by the Electrical Contractor. These drawings shall be complete in every detail and shall incorporate all changes made during the course of the conduct of the project. These drawings shall be prepared in such a manner as to enable the Owner to properly maintain, operate, and repair both concealed and exposed Work. Actual routing of all underground conduit shall be shown.

3.06 PAINTING AND FINISHING

A. Paint all equipment, metal work, conduit, hangers and rods, etc., exposed to view and installed under this Division, with two coats of oil base metal protective paint in colors as directed by the Owner.

B. Refer to Division 9 for painting requirements.

3.07 LOCAL BOARDS

Before submitting a bid, Electrical Contractor shall familiarize himself with the rules of all governing boards having jurisdiction, and he shall notify the Owner before submitting his bid, if in his opinion, any work or material specified is contrary to such rules.

3.08 SEPARATE CONTRACTS WITH OWNER

A. The Owner reserves the right to let other contracts to perform tenant work. The Electrical Contractor shall afford other contractors reasonable opportunity for the storage and introduction of materials for execution of their Work and shall properly connect and coordinate his own Work with theirs. Cooperation shall be absolute to insure harmonious relations with these other contractors that all Work may be completed efficiently.

B. If any part of the Work depends upon work of other contractors for operation or results, Electrical Contractor shall inspect the other work, and shall promptly report to the Owner any condition that conflicts with his Work. Failure to do so shall constitute an acceptance as being suitable and proper as for as his own Work is concerned.

3.09 SLEEVES

A. Where conduit passes through partitions, walls, and floors, provide galvanized sheet metal sleeves of sizes to readily accommodate conduit.

B. Conduit projecting through roofing shall be made water-tight by proper flashing, a sheet metal cap and tightening band. Flashings shall be furnished by Electrical Contractor and installed by roofer.

3.10 INTERIOR CUTTING AND PATCHING

A. Should any structural difficulties prevent installation of fixtures, equipment, running of conduit, etc., at all points shown on Drawings, then necessary minor deviations therefrom, as determined by the Owner, may be permitted and must be made without additional cost to the Owner.

B. Any necessary cutting into partitions, walls, or floors shall be neatly and carefully done. No cutting into structural parts of buildings, likely to impair strength of building, shall be done without approval of Owner.

C. Electrical Contractor shall be held responsible for all damages caused by his Work or through the neglect of his workmen. All patching and repairing of damaged Work shall be done under direction of Owner at expense of Electrical Contractor.

3.11 SCAFFOLDING

Furnish and erect, at Electrical Contractor's expense and risk, any and all appliances, scaffolding, lights, guards, temporary walks, tools, transportation, etc., required for the proper construction or protection of his Work.

3.12 CONTRACTOR'S COORDINATION AND CLEANING UP

A. Electrical Contractor shall cooperate with the other contractors on the job to the end that as a whole, the job shall be completely finished, and shall carry on this Work in such a manner that none of the other contractors shall be handicapped, hindered, or delayed. When work is finished, remove from the premises all tools, machinery, debris, etc., occasioned by his Work, and leave the premises free of all obstructions and hindrances.

B. Where electrical work occurs in masonry walls, the installation shall be done sufficiently in advance of construction; fittings, appurtenances, etc., shall be installed in such a manner and at such locations as to avoid unnecessary cutting of masonry units. Work erected in advance of masonry shall be securely supported and held in position to prevent displacement. Cutting and fitting of masonry around properly located equipment will be done by masons. Place Work located in partitions or ceilings ahead of the construction, with equipment securely wired in place. The Contractor shall have a representative on the job during all concrete pours to insure all of his equipment is adequately supported and protected and will not be adversely affected by such operations.

C. Cooperate with the local utility companies in such a manner that the installation of all services proceeds in an orderly manner, and meets all requirements of the specified companies involved.

3.13 ELECTRICAL EQUIPMENT BY OTHERS

Except for such items as are normally wired up at their point of manufacture and unless specifically noted to the contrary in the documents, execute all electric wiring of every character both for power supply and for pilot and control for equipment. Others will erect all motors in place ready for connection. Mount all starters and control equipment, furnishing supporting structures where necessary.

3.14 TESTING AND ADJUSTING

A. All systems shall be tested in the presence of the Owner.

B. All testing equipment necessary to satisfactorily conduct the required tests shall be provided, and the tests shall be made by the Electrical Contractor at his expense under the direction of the Owner.

C. All equipment furnished and installed and/or connected under the provisions of these Specifications shall be demonstrated to function electrically in the manner required.

D. The entire electrical installation shall be free from short circuits and improper grounds. Tests shall be made at each power panel and lighting panel with all switches closed. Each power circuit shall be tested at its switch. In testing for insulation values to ground, the power equipment shall be connected for normal operation. The instruments required for these tests shall be furnished by the Electrical Contractor.

E. Insulation values shall not be less than those required by the National Electric Code. Other specific tests shall be made in accordance with requirements stated in these Specifications.

F. All loads shall be properly balanced on each phase of the system, within five percent (5%).

G. If the tests indicate unsatisfactory materials, workmanship, or performance, the Electrical Contractor shall remove such defective materials and replace with new material at his own expense, shall correct defective workmanship, and shall then conduct same tests again until the satisfactory character of the work installed by him has been fully demonstrated to the satisfaction of the Owner.

3.15 PROTECTION OF UNDERGROUND CONDUIT

A. All steel conduit run underground shall be protected by a factory applied coating or wrapping consisting of one of the following:

1. Minnesota Mining and Manufacturing Company "Scotch Kote" Resin #202, factory applied coating with two-ply "Scotchwrap" #50 tape on field joints.
2. PVC plastic primer, followed by poly-vinyl plastic coating as supplied by Lone Star Steel Company "Extra Coat" or approved equal. Field joints shall be wrapped in strict accordance with manufacturer's directions.

B. Electrical Contractor shall submit samples and detailed Specifications for final approval.

3.16 GROUNDING

A. Grounding of electrical conduit system and neutral of wiring system for building shall be effectively made by connection to earth, using standard ground clamps and cables.

B. Electrical continuity of all metallic raceway systems shall be assured. Wherever expansion joints occur, bonding shall be provided. Carefully and securely ground all fluorescent fixture bodies to the conduit system.

C. Provide continuous grounding wire through all PVC conduits.

H. Ground wires for telephone and cable TV service shall be copper #6.

3.17 TELEPHONE SYSTEM

A. Provide telephone service as shown on plans.

B. Provide pull wires in all conduit.

C. Provide conduit runs from junction boxes with empty conduit run back to telephone cabinet location.

3.18 WORKMANSHIP

A. Labor shall be performed in a thorough and workmanlike manner and with all reasonable rapidity to the satisfaction of the Owner.

B. Material or equipment shall be delivered to the project in the manufacturer's original, unopened, labeled containers and be adequately protected against moisture, tampering, or damage from improper handling or storage. Materials shall not be delivered to the job before they are ready for installation.

C. The Owner will require the removal from the premises of such material or work as in his opinion is not in accordance with the Specifications or Drawings. The Owner has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract.

D. Any item of equipment shall be the product, modified as required by the requirements of the project, of a manufacturer experienced in the design, construction, and operation of equipment for the purpose required and who shall have furnished such equipment long enough to be able to show a record of successful operation.

3.19 CLEANING UP

It is the Electrical Contractor's responsibility to clean up all trash and debris caused by the work of this Division, keeping premises, street, sidewalks, and adjacent property clean and neat at all times and to dispose of such materials outside the legal limits of the project or as directed by the Owner.

END OF SECTION 16000



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PERMIT SET

BACK UNTURNED BREW PUB
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SAN ANTONIO TEXAS
ELECTRICAL SPECIFICATIONS

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210.532.3242 Phone
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DATE	February 2019
DRAWN BY	JGZ
CHECKED BY	SALM
PROJECT NUMBER	18-0001

REVISION	DESCRIPTION	DATE

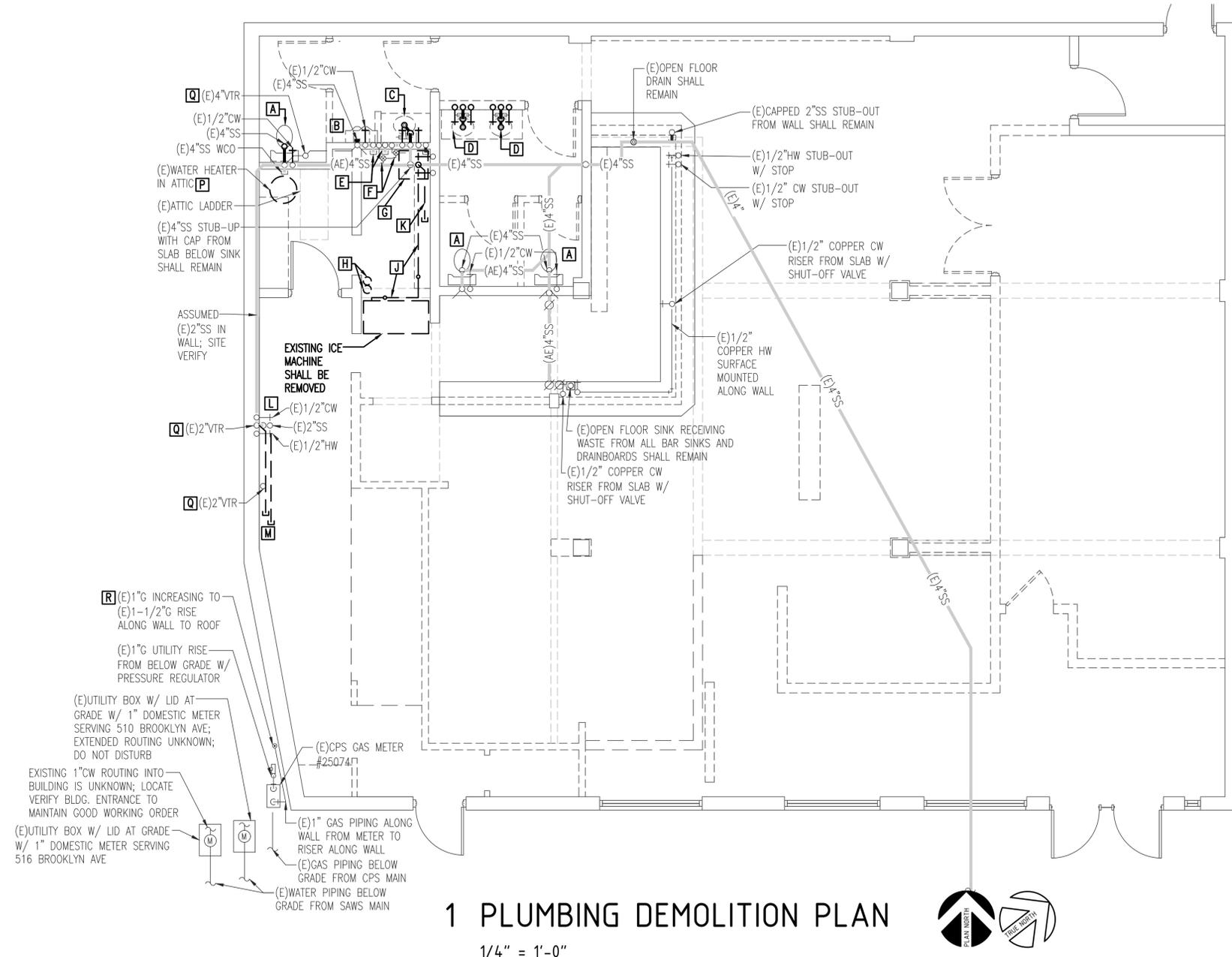


ESA Mechanical & Electrical ENGINEERING, Inc.

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TYPE FIRM REGISTRATION NO. F-4137
JOB NO.: 19007

E-501

REVISION	DESCRIPTION	DATE



1 PLUMBING DEMOLITION PLAN

1/4" = 1'-0"



GENERAL PLUMBING DEMOLITION NOTES:

EXACT PIPING LAYOUT TO SPECIFIC FIXTURES, ETC. WAS NOT AVAILABLE DUE TO INACCESSIBILITY CREATED BY WALLS AND/OR CEILINGS. PARTIAL PLUMBING BRANCH PIPING DENOTED ON THE PLANS IS SHOWN FOR REFERENCE AND/OR CLARIFICATION ONLY AND IS NOT TO BE CONSTRUED TO IMPLY THE COMPLETE PIPING SYSTEM. SITE VERIFY TO ENSURE EXISTING PLUMBING FIXTURES AND EQUIPMENT REMAIN OPERATIONAL AND IN GOOD WORKING ORDER THROUGHOUT COURSE OF CONSTRUCTION.

THE EXISTING WATER SYSTEM IS OBSERVED TO BE A COMBINATION OF GALVANIZED STEEL AND COPPER PIPING AND UNLESS SPECIFICALLY NOTED TO REMAIN, ALL PIPING ARE TO BE EITHER ABANDONED IN PLACE OR REMOVED WHERE INDICATED.

REMOVE ALL EXISTING PLUMBING EQUIPMENT IN DEMOLISHED AREA UNLESS OTHERWISE NOTED TO REMAIN OR IS SHOWN EXISTING. COMPLETELY REMOVE DEMOLISHED VALVES, PIPING, FITTINGS, HANGERS, STRAPS, SUPPORTS, ETC. IN ACCESSIBLE LOCATIONS, DO NOT ABANDON IN PLACE. ALL DEMOLISHED PIPING SHALL BE REMOVED BACK TO NEAREST ACTIVE MAIN AND CAPPED.

MAINTAIN ALL PIPING MAINS AND BRANCHES THAT ARE EXISTING TO REMAIN OR THAT PASS THROUGH RENOVATED AREAS. RESTORE PIPING FLOW IN MAINS AND BRANCHES AS REQUIRED IF INTERRUPTED BY DEMOLITION.

- LOCATIONS AND QUANTITIES OF ALL EXISTING PIPING ITEMS ARE APPROXIMATE AND IN SOME CASES ASSUMED DUE TO THE INACCESSIBILITY TO CERTAIN AREAS. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO REMOVE OR RELOCATE ANY AND ALL PLUMBING ITEMS REQUIRED TO COMPLETE THE SCOPE OF THIS PROJECT.
- IN GENERAL, PATCH PENETRATIONS THROUGH WALLS TO MATCH EXISTING AS A RESULT OF PLUMBING DEMOLITION.
- IT IS RECOMMENDED THAT ANY WORK PERFORMED WITHIN THIS BUILDING BE DONE SO WITH CAUTION, AS THE POSSIBILITY OF HAZARDOUS MATERIALS IS PRESENT. CARE SHOULD BE EXERCISED WHEN DEMOLISHING AND DISPOSING OF MATERIALS THOUGHT TO CONTAIN HAZARDOUS SUBSTANCES.
- VERIFY EXISTING WATER PRESSURE WITHIN BUILDING AND PROVIDE PRSSURE REDUCING VALVE ON INCOMING MAIN LINE FROM METER IF EXISTING PRESSURE EXCEEDS 80 PSI.

PLUMBING DEMOLITION KEYED NOTES □: (THIS SHEET ONLY)

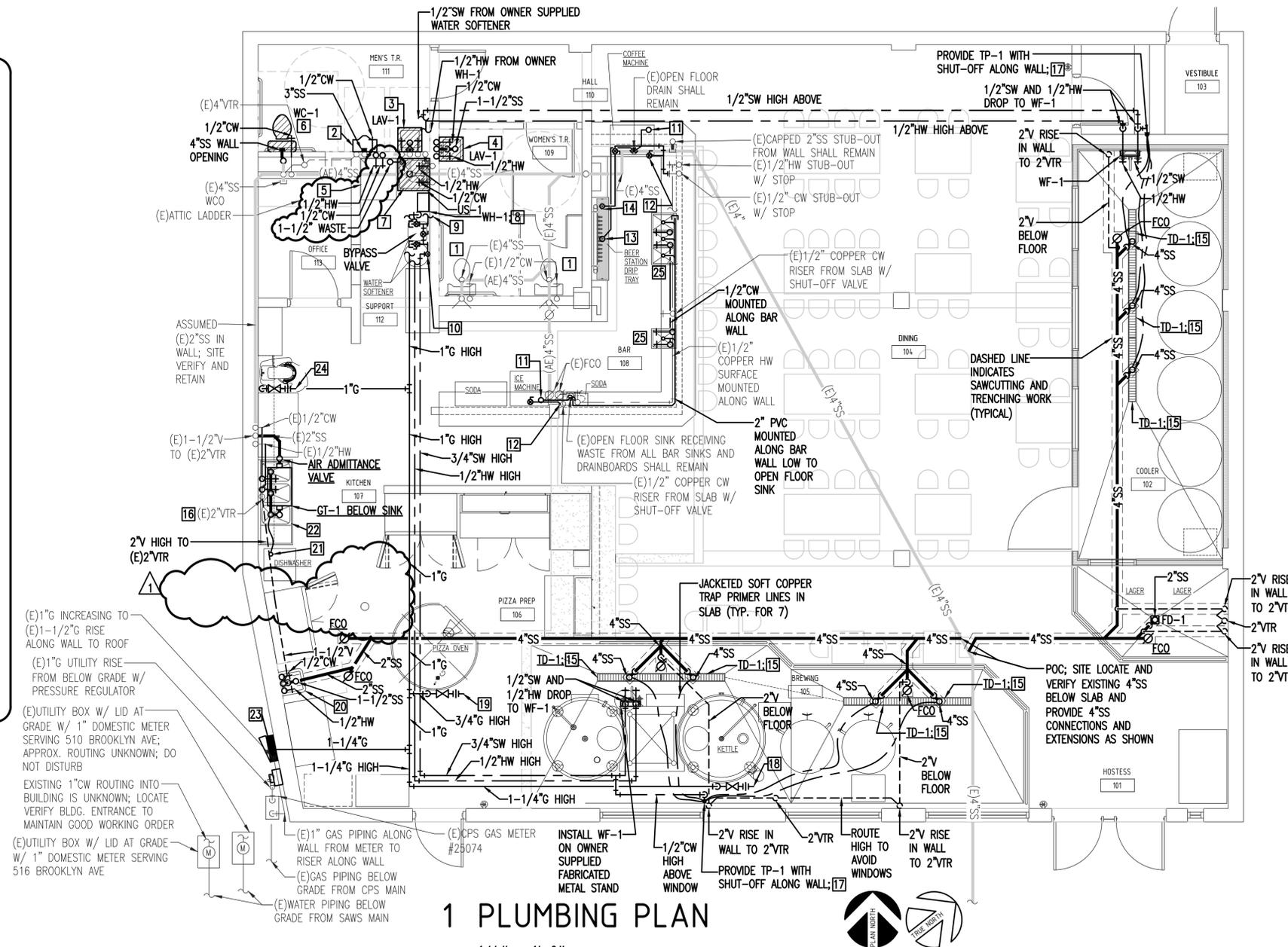
- A** EXISTING TANK-TYPE WATER CLOSET, SEAT, STOP AND SUPPLY RISER SHALL BE REMOVED ENTIRELY. REMOVE UTILITY CONNECTIONS BACK INTO WALL AND PREP FOR EXTENSION TO NEW WATER CLOSET. CAP SEWER OPENING IN FLOOR (AS IT WILL CONFLICT W/ NEW WALL). CAP CW UTILITY AND PREP FOR EXTENSION TO NEW WATER CLOSET.
- B** EXISTING URINAL, STOP, AND FLUSH VALVE SHALL BE REMOVED FROM CURRENT LOCATION AND BE RETAINED FOR RELOCATION +/- 6-INCHES EAST. REMOVE ALL UTILITIES, SS, CW, AND VENT INTO WALL AND PREP FOR URINAL RELOCATION.
- C** EXISTING LAVATORY, FAUCET, SUPPLIES, RISERS, AND TAILPIECE SHALL BE REMOVED. EXISTING CONNECTION TO SANITARY SEWER SHALL BE REMOVED AND WASTE PIPING SHALL BE REMOVED TO STUB-OUT FROM WALL; CAP STUB-OUT FOR NEW WORK FIXTURE. SHUT-OFF WATER AT STOPS, REMOVE WATER CONNECTIONS AND RISERS AND PREP FOR NEW WORK FIXTURE. ENSURE VENT LINE SERVING FIXTURE IN WALL HAS BRANCH CONNECTION TO VENT MAIN TERMINATING AT AN EXISTING VENT THRU ROOF.
- D** EXISTING LAVATORY, FAUCET, SUPPLIES, RISERS, AND TAILPIECE SHALL BE REMOVED. REMOVE EXISTING CONNECTIONS TO SANITARY SEWER, COLD WATER, HOT WATER, AND VENT PIPING IN WALL BACK TO NEAREST BRANCH CONNECTION AT MAIN AND CAP; IT IS UNKNOWN IF THIS FIXTURE HAS UTILITIES COMING FROM BELOW SLAB OR ROUTED IN WALL, BUT ALL PIPING SHALL BE REMOVED IN WALL.
- E** EXISTING 2"SS CAPPED STUB-OUT SHALL REMAIN.
- F** EXISTING 1/2" COPPER STUB-OUTS W/ SHUT-OFF VALVES AND PIPING ROUTED ALONG WALL SHALL REMAIN; IT IS NOT KNOWN IF THESE LINES ARE SUPPLYING CW AND HW TO THE FIXTURES IN THE MEN'S ROOM OR IF THEY ARE EXTENDING CW AND HW UTILITIES TO THE MOP SINK AND WOMEN'S - SITE VERIFY OPERATION AND ENSURE UTILITIES REMAIN IN GOOD WORKING ORDER.
- G** EXISTING UTILITY SINK ON LEGS, FAUCET, STOPS, SUPPLIES, TAILPIECE, AND P-TRAP SHALL BE REMOVED. EXISTING CONNECTION TO SANITARY SEWER SHALL BE REMOVED AND WASTE PIPING SHALL BE REMOVED TO STUB-OUT FROM WALL; CAP STUB-OUT FOR NEW WORK FIXTURE. SHUT-OFF WATER AT STOPS, REMOVE WATER CONNECTIONS AND RISERS AND PREP FOR NEW WORK FIXTURE. ENSURE VENT LINE SERVING FIXTURE IN WALL HAS BRANCH CONNECTION TO VENT MAIN TERMINATING AT AN EXISTING VENT THRU ROOF.
- H** EXISTING ICE MAKER WATER FILTER, SUPPLY CONNECTIONS, AND MOUNTING BRACKETS SHALL BE REMOVED. REMOVE ALL TUBING CONNECTED TO ICE MAKER IN IT'S ENTIRETY. REMOVE ALL PIPING SUPPLYING WATER BACK TO IT'S ORIGIN AND REMOVE UTILITY CONNECTIONS, RISER, AND SHUT-OFF STOP.
- J** REMOVE EXISTING PVC DRAINAGE PIPING FROM REAR AND BOTTOM OF ICE MACHINE IN IT'S ENTIRETY; REMOVE PVC PIPING ROUTED ALONG FLOOR AND HARD CONNECTION AT 4"SS STUB-UP FROM GROUND, LEAVE (E)4"SS STUB-OUT TO REMAIN.
- K** REMOVE EXISTING 2"PVC WASTE LINE ROUTED ALONG WALL AND REMOVE HARD CONNECTION AT 4"SS STUB-UP FROM GROUND; LEAVE (E)4"SS STUB-OUT TO REMAIN.
- L** EXISTING THREE-COMPARTMENT GLASS SINK SHALL BE REMOVED. EXISTING CONNECTION TO SANITARY SEWER SHALL BE REMOVED AND WASTE PIPING SHALL BE REMOVED TO STUB-OUT FROM WALL; CAP STUB-OUT FOR NEW WORK FIXTURE. SHUT-OFF WATER AT STOPS, REMOVE WATER CONNECTIONS AND RISERS AND PREP FOR NEW WORK FIXTURE. ENSURE VENT LINE SERVING FIXTURE IN WALL HAS BRANCH CONNECTION TO VENT MAIN TERMINATING AT AN EXISTING VENT THRU ROOF.
- M** EXISTING WASTE LINE AND HW SUPPLY TO GLASS DISHWASHER SHALL BE REMOVED ENTIRELY. REMOVE ALL FITTINGS, SUPPORTS, AND BRANCH CONNECTIONS.
- N** EXISTING WATER HEATER, WATER SUPPLY LINES, FITTINGS, AND VALVES IN ATTIC SHALL REMAIN; ENSURE EQUIPMENT IS IN GOOD WORKING ORDER.
- P** REMOVE EXISTING WATER HEATER, SUPPORTS, VALVES, AND ALL ACCESSORIES IN ATIC SPACE; REMOVE UTILITY CONNECTIONS ENTIRELY - REMOVE CW INLET PIPING BACK TO NEAREST BRANCH CONNECTION AT MAIN AND CAP; REMOVE HW OUTLET SUPPLY CONNECTION TO NEAREST HW MAIN AND REMOVE BRANCH CONNECTION - NOTE LOCATION OF HW MAIN FOR RECONNECTION TO NEW WATER HEATER AS PART OF NEW WORK.
- Q** SITE VERIFY APPROXIMATE LOCATION, REMOVE ANY EXISTING CONNECTIONS AND PREP FOR REUSE WITH NEW VENT PIPING AS PART OF NEW WORK; ENSURE PENETRATION IS WEATHER SEALED.
- R** VERIFY EXISTING GAS PIPING SYSTEM MAINTAINS SERVICE TO EXISTING ROOF AND IDENTIFY ALL RELEVANT AND MISCELLANEOUS PIPING AND SHALL FIELD LOCATE EXISTING CW, HW, AND HWR BRANCH CONNECTIONS TO OTHER REMOVED OR UNKNOWN EQUIPMENT ALONG WITH ANY FITTINGS, SUPPORTS, AND VALVES.

NOTE: CONTRACTOR SHALL THOROUGHLY SURVEY AND IDENTIFY ALL RELEVANT AND MISCELLANEOUS PIPING AND SHALL FIELD LOCATE EXISTING CW, HW, AND HWR BEFORE COMMENCING WITH DEMOLITION.



GENERAL PLUMBING NOTES:

- ALL PLUMBING INSTALLATIONS TO BE MADE IN ACCORDANCE WITH LATEST LOCAL ADOPTED CODES AND CURRENT A.D.A. CRITERIA.
- WASTE AND VENT LINES TO BE SCHEDULE 40 PVC.
- COPPER LINES IN CONCRETE TO BE PROTECTED WITH PLASTIC JACKET.
- ALL WATER LINES IN BUILDING SHALL BE RUN ABOVE CEILING UNLESS NOTED OTHERWISE.
- SLOPE ALL SANITARY SEWER WASTE LINES AT 1/4" PER FOOT.
- INSULATE ALL HOT WATER LINES (INCLUDING LINES RUN ABOVE CEILING) WITH 1" OWENS-CORNING FIBERGLASS ASI/SSL-11 OR EQUIVALENT.
- FIRE-SEAL ALL PIPE PENETRATIONS THRU FIRE-RATED WALLS.
- PLUMBING LINES SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. COORDINATE PANEL LOCATIONS WITH ELECTRICAL CONTRACTOR.
- PROVIDE LOCAL CODE APPROVED BACKFLOW PREVENTERS CONFORMING TO ASSE 1022 FOR ALL BEVERAGE DISPENSERS AND WATER DISPENSING FOOD SERVICE EQUIPMENT. FOR ALL CARBONATED BEVERAGE DISPENSERS, PROVIDE LOCAL CODE APPROVED STAINLESS STEEL BACKFLOW PREVENTERS CONFORMING TO ASSE 1022.
- ALL POTABLE WATER PIPING SHALL BE COPPER. ALL COPPER LINES IN SLAB TO BE TYPE "K" SOFT COPPER WITH NO JOINTS. COPPER LINES NOT INSTALLED IN SLAB TO BE TYPE "L" HARD COPPER.
- PROVIDE ALTERNATE BID WITH ALL POTABLE WATER LINES TO BE PEX. PIPE SIZE INDICATED ON THESE DRAWINGS ARE SIZED PER COPPER AND SHALL BE ADJUSTED AS REQUIRED FOR PEX. APPROVED PEX MANUFACTURERS: AQUATHERM GREENPIPE, UPINOR WIRSBO AND REHAU. PEX PIPING MUST BE APPLICABLE FOR HOT WATER RECIRCULATION SYSTEM.
- COORDINATE ROUGH-IN HEIGHTS, FIXTURE MOUNTING HEIGHTS, AND ADA CLEARANCES WITH VENDOR EQUIPMENT DRAWINGS, ARCHITECT, AND TEXAS ADA ACCESSIBILITY STANDARDS.
- GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL FOR ABOVE GROUND INSTALLATIONS.
- ALL PIPING BELOW GRADE SHALL HAVE NO JOINTS BELOW GRADE.
- ALL WATER HAMMER ARRESTORS TO BE SIOUX CHIEF PISTON TYPE OR EQUAL. PROVIDE ACCESS PANELS WHERE REQUIRED.
- ALL CONDENSATE DRAIN LINES SHALL SLOPE AT 1/8" PER FOOT.
- ALL INTERIOR CONDENSATE PIPING SHALL BE INSULATED SCHEDULE 40 PVC.
- ALL EXTERIOR CONDENSATE PIPING SHALL BE TYPE "L" HARD COPPER.
- DO NOT INSTALL WATER LINES OR VENT LINES ABOVE ELECTRICAL PANELBOARDS. COORDINATE PANELBOARD LOCATIONS WITH ELECTRICAL CONTRACTOR.
- ALL PLUMBING SHALL COMPLY WITH THE MOST STRINGENT OF APPLICABLE CODES, ORDINANCES, OR SPECIFICATIONS.
- ALL FIXTURES SHALL BE PROPERLY VENTED TO THE ATMOSPHERE.
- REFER TO MECHANICAL SHEETS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND DUCTWORK AND CORRELATE ALL WORK TO FIT AVAILABLE SPACE.
- WATER PIPING AND VENT PIPING MAINS SHALL BE INSTALLED ABOVE LAY-IN CEILING UNLESS OTHERWISE NOTED.
- FOR INDIVIDUAL LINE SIZES TO FIXTURES SEE PLUMBING FIXTURE SCHEDULE.
- DO NOT RUN PLUMBING IN SHEAR WALLS.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADA MOUNTING HEIGHTS.
- PROVIDE WATER HAMMER ARRESTORS FOR DISHWASHER AND KITCHEN SINKS PER CITY OF SAN ANTONIO CHAPTER 24 PLUMBING CODE SECTION 604.9. INSTALL WATER HAMMER ARRESTORS ABOVE CEILING ON HOT AND COLD WATER LINES.
- GAS PIPING ALONG EXTERIOR WALL AND GAS METER SHALL BE PAINTED TO MATCH BUILDING EXTERIOR WALL COLOR.
- SEAL AROUND PIPE PENETRATIONS WHERE PIPE PASSES BETWEEN LOCATIONS WITH DIFFERENCES IN TEMPERATURE, SUCH AS REFRIGERATED SPACES.
- PROVIDE GAS VALVES WITH SHUNT TRIP FOR GAS LINES SERVING KITCHEN EQUIPMENT LOCATED UNDER HOODS. GAS VALVE SHUNT TRIP SHALL BE INTERLOCKED WITH THE HOOD ANSUL SYSTEM.
- VENT LINES SHALL BE INSTALLED ABOVE CEILING OR A MINIMUM OF 6" ABOVE THE FLOOD RIM OF THE FIXTURE SERVED. VENT LINES SHOWN IN SLAB CONNECT TO TRAPS OF FLOOR DRAINS AND FLOOR SINKS. ENSURE VENT PIPING IS INSTALLED WITH A SLOPE OF 1/8" RISE PER FOOT TOWARDS VENT RISER IN NEAREST WALL.
- EVERY DRY VENT SHALL RISE VERTICALLY TO A MINIMUM OF 6" ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST TRAP OR TRAPPED FIXTURE BEING VENTED. WHEN STRUCTURAL CONDITIONS REQUIRE HORIZONTAL VENTS TO BE INSTALLED BELOW THE FLOOD LEVEL RIM OF THE FIXTURE THEY SERVE, THEY SHALL HAVE A CLEANOUT INSTALLED ON THE RISER IN AN ACCESSIBLE LOCATION.
- A CONNECTION BETWEEN A VENT PIPE AND A VENT STACK OR STACK VENT SHALL BE MADE AT LEAST 6" ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST FIXTURE SERVED BY THE VENT. HORIZONTAL VENT PIPES FORMING BRANCH VENTS, RELIEF VENTS OR LOOP VENTS SHALL BE AT LEAST 6" ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST FIXTURE SERVED.



- PLUMBING KEYED NOTES □: (THIS SHEET ONLY)
- EXISTING WATER CLOSETS - ENSURE ALL UTILITIES, SS, CW, AND VENT ARE IN GOOD WORKING ORDER.
 - INSTALL RETAINED URINAL IN NEW LOCATION AND FLUSH VALVE; PROVIDE 1/2" CW AND 2" SS FROM EXISTING UTILITIES IN WALL; ALL EXTENSIONS SHALL BE CONCEALED WITHIN WALL.
 - INSTALL LAV-1 AND PROVIDE 1-1/2" SS, 1-1/2" V, 1/2" CW, AND 1/2" HW TO RETAINED UTILITIES IN WALL.
 - INSTALL LAV-1 AND PROVIDE 1-1/2" SS, 1-1/2" V, 1/2" CW, AND 1/2" HW CONNECTIONS. EXTEND EXISTING SANITARY SEWER, COLD WATER, HOT WATER AND VENT PIPING EXISTING IN WALL SERVING ADJACENT FIXTURES.
 - INSTALL 3/4" CW AND 3/4" HW THREADED MALE STUB-OUTS W/ BALL VALVES SURFACE MOUNTED ON WALL FOR CONNECTION TO WASHING MACHINE; ROUTE 1-1/2" DISCHARGE LINE TO TERMINATE ABOVE RIM OF ADJACENT MOP SIN - LEAVE AIR GAP; UTILIZE EXISTING SS, CW, HW, AND VENT UTILITIES IN WALL AND EXTEND AS NEEDED. PLEASE NOTE EXISTING 2" SS CAPPED STUB-OUT AND EXISTING 1/2" COPPER STUB-OUTS W/ SHUT-OFF VALVES AND PIPING ROUTED ALONG WALL SHALL REMAIN AS IT IS NOT KNOWN IF THESE LINES ARE SUPPLYING CW AND HW TO THE FIXTURES IN THE MEN'S ROOM OR IF THEY ARE EXTENDING CW AND HW UTILITIES TO THE MOP SINK AND WOMEN'S - SITE VERIFY OPERATION AND ENSURE UTILITIES REMAIN IN GOOD WORKING ORDER - EXISTING UTILITIES ON WALL NOT SHOWN FOR CLARITY, BUT SEE 1/PD-101 FOR LOCATION.
 - INSTALL WC-1 W/ 4" SS AND 1/2" CW; INTERCEPT EXISTING 4" SS BELOW FLOOR TO PROVIDE 4" SS WALL OUTLET FOR REAR OUTLET TOILET, SEE MANUFACTURER'S RECOMMENDATIONS FOR PROPER WASTE OUTLET DIMENSIONS; EXTEND EXISTING 1/2" CW PIPING TO PROVIDE NEW STOP AND SUPPLY RISER.

- INSTALL US-1 W/ 2" SS W/ P-TRAP, 1/2" CW, 1/2" HW, AND 1-1/2" V; INTERCEPT EXISTING SEWER LINE BELOW IN SLAB TO PROVIDE 2" SS FLOOR CONNECTION AND 1-1/2" V FROM FIXTURE P-TRAP TO RISE IN ADJACENT WALL AND CONNECT TO VENT MAIN TERMINATING TO ATMOSPHERE; PROVIDE 1/2" CW AND 1/2" HW CONNECTIONS TO IN WALL.
- INSTALL WH-1 ON WALL ABOVE US-1; SEE DETAIL 3/P-201 FOR INSTALLATION DETAIL. PROVIDE 3/4" SW INLET FROM NEARBY WATER SOFTENER, ROUTE 3/4" HW OUTLET TO EXISTING RETAINED HW MAIN, AND PROVIDE 3/4" G CONNECTION FROM 1" G OVERHEAD W/ GAS STOP AND UNION. ENSURE ALL FIXTURES AND HW MAINS, EXISTING AND NEW, SERVING HW ARE CONNECTED TO THIS NEW WATER HEATER.
- PROVIDE 1-1/4" CW INLET TO WATER SOFTENER BYPASS VALVE AND CONNECT TO OWNER SUPPLIED WATER SOFTENER.
- ROUTE 1-1/4" SW PIPING FROM OWNER SUPPLIED WATER SOFTENER TO RISE ALONG WALL AND BRANCH AS SHOWN; SOFT WATER SHALL BE DELIVERED TO COOLER ROOM WF-1, BREWING WF-1, AND WH-1.
- PROVIDE 3/4" PVC DRAIN CONNECTION TO EQUIPMENT, ROUTE LOW ALONG WALL AND TERMINATE ABOVE OPEN FLOOR DRAIN.
- PROVIDE 1/2" CW CONNECTION TO EXISTING CW STUB-UP FROM SLAB AND EXTEND W/ SHUT-OFF TO EQUIPMENT.
- PROVIDE 3/4" DRAIN LINE CONNECTION TO BEER STATION DRIP TRAY AND ROUTE PIPING AND SUPPORT TIGHT ALONG WALL TOWARDS EXISTING OPEN FLOOR DRAIN.
- PROVIDE 1/2" CW W/ SHUT-OFF UNDER BAR TO PROVIDE CONNECTION GLASS WASHER; ROUTE PIPING AND SUPPORT TIGHT TO WALL.
- TRENCH DRAIN SHALL BE BOARD FORMED TRENCH WITH ANGLE IRON WELDED TO REBAR IN CONCRETE WITH OWNER SUPPLIED STEEL GRATE AND OWNER SUPPLIED SEDIMENT BASKET: SFF DFTAIL 1/P-201 FOR INSTALLATION DFTAIL.
- SITE VERIFY APPROXIMATE LOCATION AND PROVIDE NEW VENT PIPING CONNECTION TO RETAINED EXISTING VENT THRU ROOF.
- PROVIDE 1/2" SOFT COPPER TRAP PRIMER LINES ROUTING TO TD-1 TRAP PRIMER CONNECTIONS.
- PROVIDE 3/4" G DROP TO KETTLE BURNER (300 CFH) W/ UNION AND GAS STOP.
- PROVIDE 3/4" G DROP TO PIZZA OVEN GAS INLET (140 CFH) W/ UNION AND GAS STOP.
- HAND SINK AND FAUCET SHALL BE PROVIDED BY OWNER; PROVIDE 1-1/2" SS, 1-1/2" V, 1/2" CW, AND 1/2" HW UTILITY CONNECTIONS; EXTEND 1/2" CW AN 1/2" HW FROM RETAINED EXISTING CW AND HW STUB OUTS AND MOUNT ALONG WALL TO PROVIDE CONNECTION. PROVIDE 1-1/2" SS SINK CONNECTION TO TAILPIECE W/ P-TRAP AND DROP IN TO SLAB TO PROVIDE WASTE CONNECTION. 1-1/2" V PIPING SHALL RISE ALONG WALL AND RUN HIGH ABOVE AND CONNECT TO EXISTING 2" VTR. INSTALL MV-1 MIXING VALVE BELOW DECK OF HAND SINK.
- PROVIDE LINE-SIZE DRAIN DISCHARGE FROM DISHWASHER AND PROVIDE CONNECTION TO THREE-COMPARTMENT SINK AS SHOWN; ENSURE DRAIN LINE IS PROVIDED WITH A HIGH LOOP MOUNTED AS HIGH AS POSSIBLE BELOW ADJACENT DRAINBOARD PRIOR TO TAILPIECE CONNECTION.
- THREE-COMPARTMENT SINK AND FAUCET SHALL BE PROVIDED BY OWNER; PROVIDE 1-1/2" SS, 1/2" CW, AND 1/2" HW UTILITY CONNECTIONS; EXTEND 1/2" CW AN 1/2" HW FROM RETAINED EXISTING CW AND HW STUB OUTS AND MOUNT ALONG WALL TO PROVIDE CONNECTION. PROVIDE 1-1/2" SS BASIN CONNECTIONS WITH 2" CONTINUOUS WASTE AND ROUTE TO GT-1 INLET CONNECTION; INSTALL MV-1 MIXING VALVE BELOW DECK OF HAND SINK. SEE 2/P-201 FOR INSTALLATION DETAIL.
- INTERCEPT 1-1/2" G PIPING RISING ALONG WALL AND PROVIDE TEE CONNECTION AND PENETRATE WALL AT 8'-0" ABOVE FINISH FLOOR TO ROUTE 1-1/4" G INTO BUILDING.
- PROVIDE 3/4" G DROP TO FUTURE GAS EQPT. (50 CFH ESTIMATED) W/ UNION AND GAS STOP.
- SINK AND FAUCET SHALL BE PROVIDED BY OWNER; PROVIDE 1-1/2" DRAIN, 1/2" CW, AND 1/2" HW UTILITY CONNECTIONS; EXTEND 1/2" CW AND 1/2" HW FROM RETAINED EXISTING CW STUB OUT AND HW PIPING AND MOUNT ALONG WALL TO PROVIDE CONNECTION. PROVIDE 1-1/2" DRAIN BASIN CONNECTIONS WITH 2" CONTINUOUS WASTE AND ROUTE TO OPEN HUB DRAIN; INSTALL MV-1 MIXING VALVE BELOW DECK OF SING COMP HAND SINK.

NOTE: CONTRACTOR SHALL THOROUGHLY SURVEY AND IDENTIFY ALL RELEVANT AND MISCELLANEOUS PIPING AND SHALL FIELD LOCATE EXISTING CW, HW, AND HWR BEFORE COMMENCING WITH DEMOLITION.



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PERMIT SET

BACK UNTURNED BREW PUB
516 BROOKLYN AVENUE
SAN ANTONIO TEXAS

PLUMBING PLAN AND NOTES

342 Wilshire Avenue
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DATE February 2019
DRAWN BY JGZ
CHECKED BY SALM
PROJECT NUMBER 18-0001

REVISION	DESCRIPTION	DATE
Δ	CITY COMMENTS	3/5/19

P-101

GENERAL PLUMBING SYSTEMS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK:

A. Extent of plumbing systems work is indicated on drawings and schedules, and by requirements of this section.

B. Applications for plumbing systems include the following:

1. Domestic cold–water piping.
2. Domestic hot–water piping.
3. Sanitary sewer piping.
4. Plumbing fixtures.
5. Plumbing faucets.
6. Cleanouts.
7. Gas Piping.

1.2 QUALITY ASSURANCE:

A. Manufacturers: Firms regularly engaged in manufacture of plumbing systems products, of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.

B. Installer: A firm with at least 3 years of successful installation experience on projects with plumbing systems work similar to that required for project.

C. Plumbing Code Compliance: Comply with applicable portions of International Plumbing Code pertaining to plumbing materials, construction and installation of products.

D. ANSI Compliance: Comply with applicable American National Standards pertaining to products and installation of plumbing systems.

E. CABO Standards: Comply with CABO A117.1 standard pertaining to plumbing fixtures for handicapped.

F. PDI Compliance: Comply with standards established by Plumbing and Drainage Institute pertaining to plumbing fixture supports.

G. UL Labels: Provide water coolers which have been listed and labeled by Underwriters Laboratories.

H. ARI Labels: Provide water coolers which are rated and certified in accordance with applicable Air–Conditioning and Refrigeration Institute standards.

1.3 SUBMITTALS:

A. Product Data: Submit manufacturer’s data for the following:

1. Pipe
2. Fixtures
3. Faucets
4. Floor Drains
5. Cleanouts
6. Water Fountains

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING:

A. Provide factory–applied plastic end–caps on each length of pipe and tube. Maintain end–caps through shipping, storage and handling as required to prevent pipe–end damage and eliminate dirt and moisture from inside of pipe and tube.

B. Where possible, store pipe and tube inside and protected from weather. Where necessary to store outside, elevate above grade and enclose with durable, waterproof wrapping. Protect fittings from moisture and dirt by inside storage and enclosure, or by packaging with durable, waterproof wrapping.

C. Deliver plumbing fixtures individually wrapped in factory–fabricated containers.

D. Handle plumbing fixtures carefully to prevent breakage, chipping and scoring the fixture finish. Do not install damaged plumbing fixtures; replace and return damaged units to equipment manufacturer.

PART 2 – PRODUCTS

2.1 PIPING MATERIALS AND PRODUCTS:

A. General: Provide piping materials and factory–fabricated piping products of sizes, types, pressure ratings, temperature ratings, and capacities as indicated. Where not indicated, provide proper selection as determined by installer to comply with installation requirements. Provide sizes and types matching piping and equipment connections; provide fittings of materials which match pipe materials used in plumbing systems. Where more than 1 type of materials or products are indicated, selection is Installer’s option.

Domestic Water Piping – Type L Hard Copper, ANSI H23.1 or

Cross–linked polyethylene (PEX) water distribution pipe that meets standards NSF 14/61, ASTM F 876 and F 877, and CSA B 137.5 Pipe to be tested for resistance to hot chlorinated water in accordance with ASTM F 2023. Pipe to have a minimum extrapolated

time–to–failure of 50 years, calculated in accordance with Section 13.3 of F 2023. All fittings used with cross–linked polyethylene (PEX) water distribution pipe intended for plumbing applications shall be of the cold–expansion compression–sleeve design in accordance with ASTM F 2080. Flow shall be equal to or better than copper. Equivalent Manufacturers: Uponor and Rehau

C. Sanitary Sewer Piping:

1. PVC: Use in general applications and where allowed by local code.
 - a. Wall Thickness: Schedule 40, ASTM D 2665.
 - b. Fittings: Solvent welded joints, ASTM D 2564 for solvent cement.
- 2 Cast Iron: Use where required by local codes and where specifically noted on plans.
 - a. Wall Thickness: Service Weight.
 - b. Fittings: Hub and spigot Joints Under Slabs; ASTM A 74, with compression gaskets per CISPI HSN 85.
 - c. Fittings: No–Hub Joints: CISPI 301 and 310 (latest editions) and bear the NSF certification. Do not install over concrete floor slabs.

D. Gas Piping:

1. Building Above/Below ground Distribution Piping: Pipe: Black steel pipe. Pipe Weight: Schedule 40. Fittings: Malleable iron threaded (up to 2–1/2")
 - E. Pipe Insulation:
 1. Fiberglass Pipe Insulation: ASTM C547, Type II.
 2. Fiberglass Pipe Fitting Insulation: ASTM C553, Type V.
 3. Flexible Unicellular Pipe Insulation: FS HH–1–573, Class
 4. Vapor Barrier Material: ASTM C 1136, paper–backed aluminum foil, except as otherwise indicated, strength and permeability rating equivalent to adjoining pipe insulation jacketing.
 5. Staples, Bands, Wires, and Cement: As recommended by insulation manufacturer for application indicated.
 6. Adhesives, Sealers, and Protective Finishes: As recommended by insulation manufacturer for applications indicated.

F. Cleanouts:

1. General: Provide factory–fabricated floor drains and cleanouts of size and type indicated or approved equal. Where not indicated, provide proper selection as determined by Installer to comply with installation requirements and governing regulations. All floor drains shall have traps.

2. Cleanout Plugs: Cast–bronze or brass, threads complying with ASME B1.20.1, countersunk head, Zurn ZN–1403 or equal.
3. Wall Cleanouts: Cast–iron body adaptable to pipe with cast–bronze or brass cleanout plug; stainless steel cover including screws, Zurn ZB–1447, Z–1446, or equal.

2.2 PLUMBING FIXTURES AND TRIM:

A. General: Provide factory–fabricated fixtures of type, style and material indicated. For each type fixture, provide fixture manufacturer’s standard trim, carrier, seats, and valves as indicated by their published product information; either as designed and constructed, or as recommended by the manufacturer, and as required for a complete installation. Where more than one type is indicated, selection is Installer’s option; but, all fixtures of same type must be furnished by a single manufacturer. Where type is not otherwise indicated, provide fixtures complying with governing regulations. All fixtures shall have traps.

B. Materials:

1. Provide materials which have been selected for their surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, foundry sand holes, stains, discoloration, or other surface imperfections on finished units are not acceptable.
2. Where fittings, trim and accessories are exposed or semi–exposed, provide bright chrome–plated or polished stainless steel units. Provide copper or brass where not exposed.
3. Stainless Steel Sheets: ASTM A 167, Type 302/304, hardest workable temper, with No. 4, bright, directional polish on exposed surfaces.
4. Steel Sheets for Baked Enamel Finish: ASTM A 591, coating Class C, galvanized–bonded.
5. Steel Sheets for Porcelain Enamel Finish: ASTM A 424, commercial quality, Type I.
6. Aluminum: ASTM B 209/B 221 sheet, plate and extrusions, as indicated; alloy, temper and finish as determined by manufacturer, except 0.40 mil natural anodized finish on exposed work unless another finish is indicated.
7. Vitreous China: High quality, free from fire cracks, spots, blisters, pinholes and specks; glaze exposed surfaces, and test for crazing resistance in accordance with ASME A112.19.2M.
8. Fiberglass: ANSI Z124, smooth surfaced, with color selected by Architect/Engineer.
9. Synthetic Stone: High quality, free from defects, glaze on exposed surfaces, stain resistant.

C. Plumbing Fittings, Trim, and Accessories:

1. Water Outlets: At locations where water is supplied (by manual, automatic or remote control), provide commercial quality faucets, valves, or dispensing devices, of type and size indicated, and as required to operate as indicated. Include manual shutoff valves and connecting stem pipes to permit outlet servicing without shut–down of water supply piping systems.
2. P–Traps: Include removable P–traps where drains are indicated for direct connection to drainage system. P–traps shall be chrome–plated brass, McGuire #8902 for lavatories and McGuire #8912 for sinks, or respective equal.
3. Fixture Bolt Caps: Provide manufacturer’s standard exposed fixture bolt caps finished to match fixture finish.
4. Escutcheons: Where fixture supplies and drains penetrate walls in exposed locations, provide chrome plated sheet steel escutcheons with friction clips.
5. Stops: Install on each plumbing fixture not provided with integral stops. Stops to be gate valve type, chrome finish, Chicago #1022 or equal.
6. Risers: Install hot and cold water risers on each plumbing fixture. Risers to be McGuire #H2165 for lavatories and McGuire #H169 for water closets, or respective equal.

2.3 SPECIALTIES:

A. Dielectric unions: Provide dielectric unions on all dissimilar pipe connections.

B. Water Hammer Arresters: Provide piston type water hammer arresters, brass casing and piston, pressure rated for 250 psi, tested and certified in accordance with PDI Standard WH–20I. Equal to Sioux Chief Manufacturing Corp., Inc.

C. Vent Flashing: Plumbing vent lines to have sheet lead flashings of 4 pound lead extending a minimum of 15 inches in all directions from pipe and turned down into top of pipe minimum of 1 inch.

D. Escutcheons: Provide and install chrome plated sectional floor and ceiling plates around pipe passing exposed through walls, floors, and ceilings.

2.4 SUPPORTS AND ANCHORS:

A. Piping shall be supported in accordance with ASHRAE Equipment Handbook recommendations, and the local plumbing code.

B. Provide assemblies rated for the applied load. Hangers and supports capable of vertical adjustment under load. Hangers and supports of carbon steel, malleable iron, or cast iron, insulated for copper pipe and tubing. Hangers and supports of chain, strap, perforated bar stock, gray cast iron, or wire not allowed or approved.

C. Hangers and supports installed to adequately support pipe without interfering with inherent flexibility, and as required to prevent sagging and vibration. Lines shall be braced to prevent horizontal movement.

D. Concentrated loads of valves, fittings, etc., require closer spacing of hangers and supports. Spacing shall be based on weight to be supported and on maximum recommended loads for the hanger components.

E. On insulated piping, hangers shall be installed outside covering with sheet metal protection saddles. Under no circumstances shall hangers, supports and guides be applied directly to horizontal pipe or tubing.

F. Pipes through the buildings, both horizontal and vertical, shall be adequately supported from the construction. Vertical pipes shall be supported from floor lines with riser clamps sized to fit the lines and to adequately support their weight. Where required for proper support, furnish and install anchor base fittings or other approved supports.

G. Provide all pipe hangers and guides as indicated or required to properly support and anchor the piping systems. Piping in parallel shall be supported by Unistrut P–1000 or equal with P–1100 series clamps; single pipes shall be hung from rings or clamps. Size all members for weight to be carried.

H. All horizontal cast iron pipe shall be supported every five (5) feet where joints occur, and every ten (10) feet where the pipe exceeds five (5) feet in length. Supports shall be adequate to maintain alignment and prevent sagging, and shall be placed within 18 inches of the hub or joint. Lines shall be braced to prevent horizontal movement.

I. All horizontal copper piping shall be supported at seven (7) foot spacing for pipe 1–1/2" and smaller, and at ten (10) foot spacing for pipe 2" and larger.

J. All vertical pipes shall be supported at least once every story height and at the base.

K. All horizontal plastic pipe shall be supported on 4–foot centers.

L. Small lines supported under bar joists shall have rods run through space between the bottom angles secured with a washer and two (2) nuts. For larger

lines beneath bar joists, the hanger rods shall be secured to angle irons of adequate size, with each angle spanning two or more joists as required. Angles shall be welded to the joists.

M. For pipes supported under exposed steel beams, use beam clamps.

N. For pipes supported under concrete slabs, use concrete inserts.

O. Flush valve supports shall be provided for all water closet and urinal flush valves to prevent movement of valves and shall be all brass support type or equal.

2.5 VALVES:

A. General: Provide factory–fabricated valves recommended by manufacturer for use in service indicated. Provide valves of types and pressure ratings indicated; provide proper selection as determined by Installer to comply with installation requirements. Provide sizes as indicated, and connections which properly mate with pipe, tube, and equipment connections. Where more than one type is indicated, selection is Installer’s option.

B. Gate Type, Screwed model: Bronze, solid wedge, screw–in bonnet, inside screw, traveling stem, Jenkins 47, Nibco T111, T121, Hammond IB640, or equal.

C. Gate Type, Soldered model: Bronze, solid wedge, screw–in bonnet, inside screw, traveling stem, Jenkins 1242, Nibco S111, S121, Hammond IB635, or equal.

D. Check Type, Screwed model:

1. Bronze, regrinding bronze disk, Jenkins 92A, Nibco T4138WY, Hammond IB940, or equal.

2. Check Type, Soldered model: a. Bronze, regrinding bronze disk, Jenkins 1222, Nibco 5433 (BY), Hammond IB945, or equal.

3. Drain Type:

- a. Hammond 719, 711, or 100, or equal by Jenkins or Nibco

4. Balancing & Shutoff Type:

- a. Illinois 4000 or 5000
- b. DeZurik 4255–787–RS55
- c. Sarco

5. Balancing, Shutoff, & Flow Measurement Type:

- a. Illinois 6000
- b. Armstrong CBV–1 or 11
- c. Pressure drop shall not exceed 2 psig; provide pressure taps.

E. Pressure & Temperature Relief Type, ASME rated:

1. Watts
2. Cash Acme
3. McDonell–Miller

F. Gas Cocks

1. Gas Cocks: 150 psi non–shock WOG, bronze straightway cock, flat or square head, threaded ends.
2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering gas cocks which may be incorporated in the work include, but are not limited to, the following:
 - a. DeZurik; Unit of General Signal.
 - b. NIBCO, Inc.
 - c. Invensys Co.

PART 3 – EXECUTION

3.1 INSTALLATION OF INTERIOR DOMESTIC WATER DISTRIBUTION PIPING:

a. General: Install pipe, tube and fittings in accordance with recognized industry practices which will achieve permanently–leakproof piping systems, capable of performing each indicated service without piping failure. Install each run with minimum joints and couplings, but with adequate and accessible unions for disassembly and maintenance/replacement of valves and equipment. Reduce sizes (where indicated) by use of reducing fittings. Align piping accurately at connections, within 1/16" misalignment tolerance.

b. Locate piping runs, except as otherwise indicated, vertically and horizontally (pitched to drain) and avoid diagonal runs wherever possible. Orient horizontal runs parallel with walls and column lines. Locate runs as shown or described by diagrams, details and notations or, if not otherwise indicated, run piping in shortest route which does not obstruct usable space or block access for servicing building and its equipment. Hold piping close to walls, overhead construction, columns and other structural and permanent–enclosure elements of building; limit clearance to 1/2" where furring is shown for enclosure or concealment of piping, but allow for insulation thickness, if any. Where possible, locate insulated piping for 1.0" clearance outside insulation. Wherever possible in finished and occupied spaces, conceal piping from view, by locating in column enclosures, in hollow wall construction or above suspended ceilings; do not enclose horizontal runs in solid partitions, except as indicated.

3.5 INSTALLATION OF PLUMBING FIXTURES AND TRIM

A. Examine roughing–in work of domestic water and waste piping systems to verify actual locations of piping connections prior to installing fixtures. Also examine floors and substrates, and conditions under which fixture work is to be accomplished. Correct any incorrect locations of piping, and other unsatisfactory conditions

c. Electrical Equipment Spaces: Do not run piping through electrical or electronic equipment spaces and

enclosures unless unavoidable. Install drip pan under piping that must be run through electrical spaces. Under no circumstances run pipes above electrical panels, motor control centers, switchboards, and similar equipment.

F. Solder copper tube–and–fitting joints where indicated, in accordance with recognized industry practice. Cut tube ends square, ream to full inside diameter, and clean outside of tube ends and inside of fittings. Apply solder flux to joint areas of both tubes and fittings. Insert tube full depth into fitting, and solder in manner which will draw solder full depth and circumference of joint. Wipe excess solder from joint before it hardens.

G. INSULATION

1. Insulate all hot water, hot water return lines and copper condensate lines:

Temperature Range (F)	Pipe Size(in.)	Thickness
	Runouts	0.5"
105' and up	1–1/2 and less	1.0"
(Kvalue .24–.28@100F)	1–1/2 to 4	1.5"

2. Install insulation on pipe systems subsequent to testing and acceptance of tests.
3. Install insulation materials with smooth and even surfaces. Insulate each continuous run of piping with full–length units of insulation, with single cut piece to complete run. Do not use cut pieces or scraps abutting each other.
4. Clean and dry pipe surfaces prior to insulating. Butt insulation joints firmly together to ensure complete and tight fit over surfaces to be covered.
5. Maintain integrity of vapor–barrier jackets on pipe insulation, and protect to prevent puncture or other damage.
6. Cover valves, fittings and similar items in each piping system with equivalent thickness and composition of insulation as applied to adjoining pipe run. Install factory molded, precut or job fabricated units (at Installer’s option) except where specific form or type is indicated.
7. Extend piping insulation without interruption through walls, floors and similar piping penetrations, except where otherwise indicated.
8. Install protective metal shields and insulated inserts wherever needed to prevent compression of insulation.
9. Pipe Hanger Insulation Inserts: Butt pipe insulation against pipe hanger insulation inserts. For hot pipes, apply 3 inch wide vapor barrier tape or band over the butt joints. For cold piping apply wet coat of vapor barrier lac cement on butt joints and seal joints with 3 inch wide vapor barrier tape or band.

3.2 INSTALLATION OF EXTERIOR WATER PIPING:

A. General: Install exterior water service piping system in compliance with local governing regulations.

B. Copper Tube: Install in accordance with recommended procedures of the Copper Development Association.

3.3 INSTALLATION OF SANITARY SEWER PIPING

A. General: Install underground building drains as indicated and in accordance with International Plumbing Code. Lay underground building drains beginning at low point of systems, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install required gaskets in accordance with manufacturer’s recommendations for use of lubricants, cements, and other special installation requirements. Clean interior of piping of dirt and other superfluous material as work progresses. Maintain swab or drag in line and pull past each joint as it is completed. Place plugs in ends of uncompleted piping at end of day or whenever work stops.

B. Install soil and vent piping pitched to drain at minimum slope of 1/4" per foot.

C. Plastic Pipe/Tube Joints: Comply with manufacturer’s instructions and recommendations, and with applicable industry standards. Make Solvent–Cemented Joints in accordance with ASTM D 2672.

3.4 INSTALLATION OF FLOOR DRAINS AND CLEANOUTS

A. Cleanouts: Install in sanitary aboveground piping and sanitary building drain piping as indicated, as required by International Plumbing Code; and at each change in direction of piping greater than 45 degrees; at minimum intervals of 50 feet for piping 4" and smaller and 100 feet for larger piping; and at base of each vertical soil or waste stack. Install floor and wall cleanout covers for concealed piping, select type to match adjacent building finish.

3.5 INSTALLATION OF PLUMBING FIXTURES AND TRIM

A. Examine roughing–in work of domestic water and waste piping systems to verify actual locations of piping connections prior to installing fixtures. Also examine floors and substrates, and conditions under which fixture work is to be accomplished. Correct any incorrect locations of piping, and other unsatisfactory conditions

for installation of plumbing fixtures. Do not proceed with work until unsatisfactory conditions have been corrected.

B. Install plumbing fixtures of types indicated where shown and at indicated heights; in accordance with fixture manufacturer’s written instructions, roughing–in drawings, and with recognized industry practices. Ensure that plumbing fixtures comply with requirements and serve intended purposes. Comply with applicable requirements to the International Plumbing Code pertaining to installation of plumbing fixtures.

C. Fasten plumbing fixtures securely to indicated supports or building structure; and ensure that fixtures are level and plumb. Secure plumbing supplies behind or within wall construction so as to be rigid, and not subject to pull or push movement.

3.6 INSTALLATION OF SPECIALTIES

A. Water Hammer Arresters: Install in upright position, in locations and of sizes in accordance with PDI Standard WH–20I, and elsewhere as indicated.

3.7 INSTALLATION OF VALVES:

A. Install valves where required for proper operation of piping and equipment, including valves in branch lines where necessary to isolate sections of piping. Locate valves so as to be accessible and so that separate support can be provided when necessary.

B. Install valves with stems pointed up, in vertical position where possible, but in no case with stems pointed downward for horizontal plane unless unavoidable. Install valve drains with hose–end adapter for each valve that must be installed with stem below horizontal plane.

C. Shutoff Valves: Install on inlet of each plumbing fixture, and elsewhere as indicated.

D. Check Valves: Install on discharge side of each pump, and elsewhere as indicated.

E. Balance Cocks: Install in each hot water recirculating loop where indicated.

F. Hose Bibbs: Install on exposed piping where indicated, with vacuum breaker.

G. Hydrants: Installed where indicated, in accordance with manufacturer’s installation instructions.

H. Water Pressure Reducing Valve: Contractor shall verify existing building’s water main pressure and shall install in the water service pipe near its entrance to the building where supply main pressure exceeds 80psi to reduce it to 55psi or lower. The water pressure reducing valve shall be constructed using Lead Free materials and shall comply with state codes and standards. Approved valve shall be listed to ASSE 1003 and IAPMO and certified to CSA B356. Valve shall be a Watts Series LF25AUB–Z3.

3.8 INSTALLATION OF NATURAL GAS PIPING

A. General: Install natural gas distribution piping in accordance with applicable codes and local base requirements.

B. Use sealants on metal gas piping threads which are chemically resistant to natural gas. Use sealants sparingly, and apply to only male threads of metal joints.

C. Remove cutting and threading burrs before assembling piping.

D. Do not install defective piping or fittings. Do not use pipe with threads which are chipped, stripped or damaged.

E. Plug each gas outlet, including valves, with threaded plug or cap immediately after installation and retain until continuing piping, or equipment connections are completed.

F. Ground gas piping electrically and continuously within project, and bond tightly to grounding connection.

G. Install drip–legs in gas piping where indicated, and where required by code or regulation.

H. Install "Tee" fitting with bottom outlet plugged or capped, at bottom of pipe risers.

I. Use dielectric unions where dissimilar metals are joined together.

J. Install piping with 1" drop in 60' pipe run (0.14%) in direction of flow.

K. Install piping parallel to other piping, but maintain minimum of 12" clearance between gas piping and steam or hot water piping above 200 F.

GAS SERVICE

A. General: Arrange with local utility to provide gas service to indicated location with shutoff at terminus. Obtain permits.

B. Extend service pipe from utility’s terminus to building.

3.8 CLEAN, FLUSH, AND INSPECT:

A. General: Flush out piping systems with clean water before proceeding with required tests. Inspect each run of each system for completion of joints, supports and accessory items.

B. Clean plumbing fixtures of dirt and debris upon completion of installation. Protect installed fixtures from damage during the remainder of the construction period.

3.9 PIPING TESTS:

A. Test soil and waste piping system in accordance with requirements of International Plumbing Code.

B. General: Provide temporary equipment for testing, including pump and gages. Test piping system before insulation is installed wherever feasible, and remove control devices before testing. Test each natural section of each piping system independently but do not use piping system valves to isolate sections where test pressure exceeds valve pressure rating. Fill each section with water and pressurize for indicated pressure and time.

C. Repair piping systems sections which fail required piping test by disassembly and re–installation, using new materials to extent required to overcome leakage. Do not use chemicals, stop–leak compounds, mastics, or other temporary repair methods.

D. Drain test water from piping systems after testing and repair work has been completed.

3.10 FIELD QUALITY CONTROL:

A. Upon completion of installation of plumbing fixtures and after units are water pressurized, test fixtures to demonstrate capability and compliance with requirements. When possible, correct malfunctioning units at site, then retest to demonstrate compliance; otherwise, remove and replace with new units and proceed with retesting.

B. Inspect each installed unit for damage to finish. If feasible, restore and match finish to original at site; otherwise, remove fixture and replace with new unit. Feasibility and match to be judged by Architect/Engineer. Remove cracked or dented units and replace with new units.

END OF SECTION.



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PERMIT SET

BACK UNTURNED BREW PUB

516 BROOKLYN AVENUE
SAN ANTONIO TEXAS

PLUMBING SPECIFICATIONS

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ARCHITECTS

DATE
February 2019
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CHECKED BY

PROJECT NUMBER
18-0001

REVISION DESCRIPTION DATE

REVISION	DESCRIPTION	DATE



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