

# HISTORIC AND DESIGN REVIEW COMMISSION

February 06, 2019

**HDRC CASE NO:** 2018-582  
**ADDRESS:** 622 S FLORES ST  
**LEGAL DESCRIPTION:** NCB 929 (ARSENAL(REPLAT)), BLOCK 3 LOT 5  
**ZONING:** D, H  
**CITY COUNCIL DIST.:** 1  
**DISTRICT:** Arsenal Historic District  
**APPLICANT:** John Speegle/SKD Architecture  
**OWNER:** City of San Antonio, Parks and Recreation  
**TYPE OF WORK:** Construction of a side addition and a side deck  
**APPLICATION RECEIVED:** January 18, 2019  
**60-DAY REVIEW:** March 19, 2019  
**REQUEST:**

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

1. Remove the existing screened porch and construct a new side addition.
2. Construct a deck to be attached to the proposed side addition to be enclosed by a wood fence.

## APPLICABLE CITATIONS:

*Historic Design Guidelines, Chapter 3, Guidelines for Additions*

### 1. Massing and Form of Residential Additions

#### A. GENERAL

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

#### B. SCALE, MASSING, AND FORM

- Subordinate to principal facade*—Design residential additions, including porches and balconies, to be subordinate to the principal façade of the original structure in terms of their scale and mass.
- Rooftop additions*—Limit rooftop additions to rear facades to preserve the historic scale and form of the building from the street level and minimize visibility from the public right-of-way. Full-floor second story additions that obscure the form of the original structure are not appropriate.
- Dormers*—Ensure dormers are compatible in size, scale, proportion, placement, and detail with the style of the house. Locate dormers only on non-primary facades (those not facing the public right-of-way) if not historically found within the district.
- Footprint*—The building footprint should respond to the size of the lot. An appropriate yard to building ratio should be maintained for consistency within historic districts. Residential additions should not be so large as to double the existing building footprint, regardless of lot size.
- Height*—Generally, the height of new additions should be consistent with the height of the existing structure. The maximum height of new additions should be determined by examining the line-of-sight or visibility from the street. Addition height should never be so contrasting as to overwhelm or distract from the existing structure.

### 3. Materials and Textures

## A. COMPLEMENTARY MATERIALS

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

## 4. Architectural Details

### A. GENERAL

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

## FINDINGS:

- a. The historic structure at 622 S Flores was constructed in 1883 and is commonly known the Commander's House. The structure features a stone façade and a wraparound porch. The structure features a modified screen porch that currently serves as a storage room. The original materials from the screened porch have been removed and it features a wood lattice and plexi-glass screen.
- b. CONCEPTUAL APPROVAL – This request received conceptual approval on December 5, 2018, with the following stipulations:
  - i. That the proposed addition be reduced in depth to feature a profile that does not extend past the historic structure's window bay.
  - ii. That the standing seam metal roof should feature panels that are 18 to 21 inches wide, seams that are 1 to 2 inches tall, a crimped ridge seam and a standard galvalume finish.
  - iii. That updated elevations drawings be submitted to staff for review that notes that the proposed addition does not extend past the historic window bay.
- c. ADDITION – The applicant has proposed to construct an addition to feature approximately 240 square feet. The proposed addition will be constructed on the historic structure's north elevation, to the immediate rear of a side window bay. The Guidelines for Additions 1.A. states that additions should be sited to minimize visual impact from the public right of way, should be designed to be in keeping with the historic context of the block, should utilize a similar roof form and should feature a transition between the old and the new. Per the construction documents, the proposed addition will feature a hipped roof to match that of the existing screened porch and will not extend beyond the north façade of the bay window. Staff finds this to be appropriate.
- d. ROOF FORM – As noted in finding c, the applicant has proposed for the addition to feature a hipped roof. The exiting screened porch features a very shallow sloped hipped roof. The proposed roof form is appropriate and consistent with the Guidelines.
- e. MATERIALS – The applicant has proposed materials that include wood columns and balusters from the previous addition, wood siding, a restored wood cornice from the previous addition, a flat seamed galvalume metal roof. Given the low slope of the roof, staff finds the flat seam roof to be appropriate.
- f. ARCHITECTURAL DETAILS – Generally, staff finds the proposed detailing and design of the proposed addition to be appropriate.
- g. DECK – To the north of the proposed addition, the applicant has proposed to construct a concrete deck with fencing to

screen service equipment as well as provide a ramp to facilitate access to the kitchen. The applicant has noted vertical wood pickets for the proposed fence. Staff finds this to be appropriate.

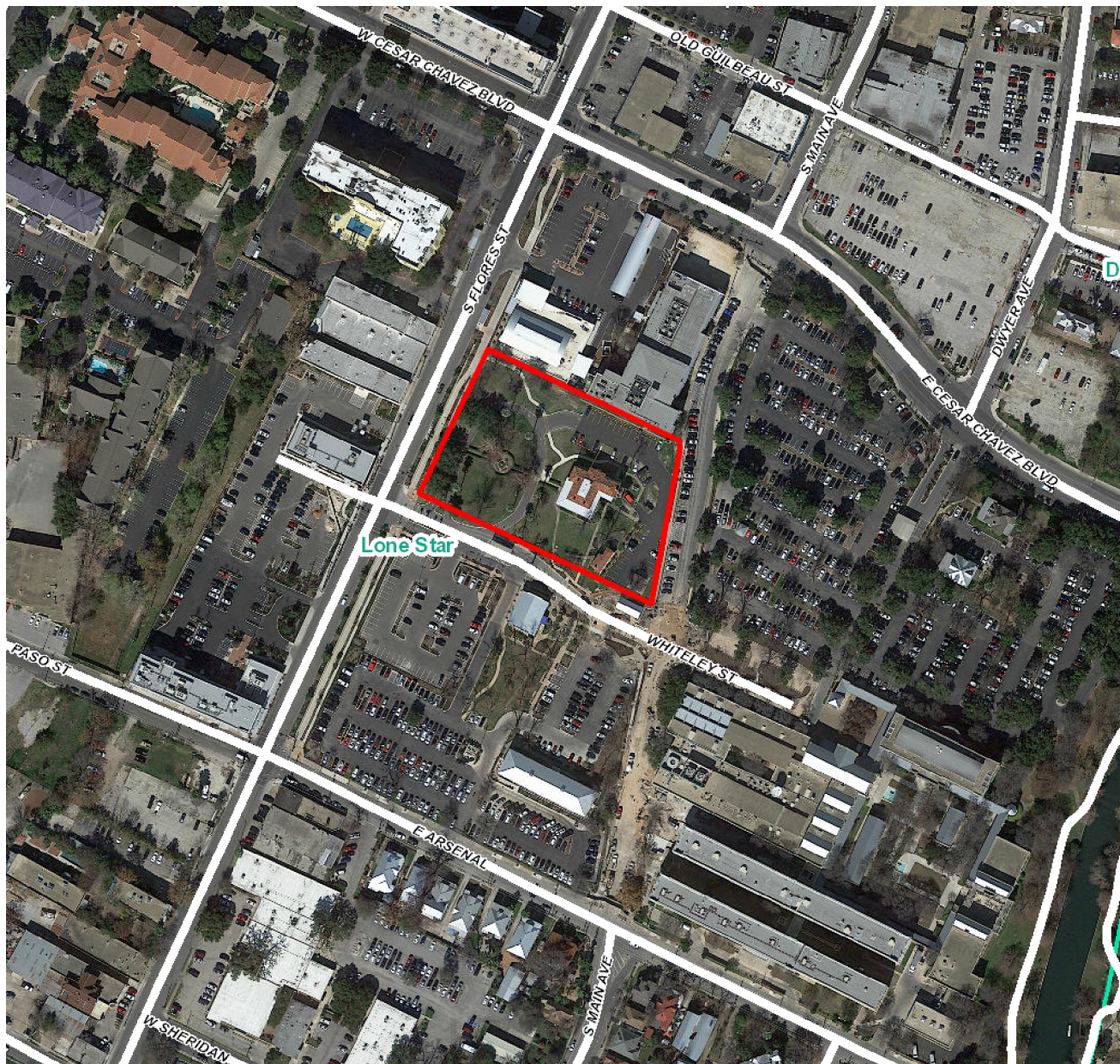
**RECOMMENDATION:**

Staff recommends approval as submitted of items #1 and #2 based on findings a through g.

**CASE MANAGER:**

Edward Hall





## Flex Viewer

Powered by ArcGIS Server

Printed: Nov 29, 2018

The City of San Antonio does not guarantee the accuracy, adequacy, completeness or usefulness of any information. The City does not warrant the completeness, timeliness, or positional, thematic, and attribute accuracy of the GIS data. The GIS data, cartographic products, and associated applications are not legal representations of the depicted data. Information shown on these maps is derived from public records that are constantly undergoing revision. Under no circumstances should GIS-derived products be used for final design purposes. The City provides this information on an "as is" basis without warranty of any kind, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose, and assumes no responsibility for anyone's use of the information.









645

KITCHEN ACCESS  
FOR  
EMPLOYEES & LUNCH  
SERVICES ONLY  
ENTRANCE NOT  
PERMITTED  
11TH OUT, 4TH IN









# speegle & **KIM**-davis: Architecture

17 January 2019

**Historic, Design & Review Commission**  
SKDA Project # 18033

## **Applicant's Project:**

### **KITCHEN ADDITION to the Commander's House**

**622 South Flores Street**  
**Old Arsenal Historic District**

#### **Scope of Work**

The property owner, the City of San Antonio Parks & Recreation Department (COSAPR) has contracted the firm of **speegle & KIM-davis Architecture** to provide architectural restoration services for the future construction of a kitchen addition to the Commander's House.

**COSAPR is requesting final approval from the HDRC of the construction documents of the kitchen addition to the house.**

The current structure, circa 1883, is a two-story stone building located at the western edge of the "old Arsenal Historic District." The building was used as the Officer's Quarters by the Commander of the Arsenal Complex up until 1930. In 1978, the House was conveyed to the City of San Antonio and renovated into a "Senior Citizen Center," which is still in operation.

The Home has a "Historic American Building Survey" (HABS TX-3175-A) performed around 1933. Photographs of that time, indicates the addition was a screened-in porch off the kitchen of the House. Over time, the porch screen was removed and enclosed with wood framing, lattice work and plexi-glass panels. The existing addition has been used for the HEB-operated kitchen. The existing kitchen and addition does not have enough square footage to properly service the senior-citizens' who eat there.

The addition is settling away from the building and has roof leaks between its existing metal roof and the limestone stone wall. The room is not large enough to provide proper clearances between the refrigeration units and the walls of the existing addition. HEB is paying for a pre-fabricated freezer/refrigerator unit that will increase this storage area for the kitchen's operational use.

The addition will be 8'-9" deep and the 27'-11" wide; 3'-3" deeper than the previous existing addition and the same width. **However, the addition's wall and cornice line does not extend past the line of the adjacent bay window. Please refer to Sheet A-1.0 "OVERALL PROPOSED SITE & FLOOR PLAN" where this is indicated.**

The inside of the proposed addition will have a walk-in cooler/freezer unit and an area for storage. A concrete deck is also proposed with the same finish floor elevation as the addition with steps and a dock ramp. A vertical wood board fence is proposed on the exterior of the deck to hide from view the kitchen's miscellaneous equipment, carts, and trash containers.

The proposed design of the addition will be 2 x 4 wood studs, and the existing wood columns and blusters installed across the elevations. Between the columns will be painted 1 x 8 wood lap siding. The existing wood cornice on the north and east elevations will be removed, restored, and re-installed.

The existing metal roof will be replaced with a flat seamed "Galvalume" (standard finish) metal roof panels 18" to 21" wide. The existing low roof slope will be matched and the flat slope mandates a folded and soldered roof panel seam.

The proposed deck will be textured concrete floor, sloped to drain. The deck will be enclosed with vertical painted wood fencing boards, installed at 42" above the finished concrete deck. The smooth-finished vertical wood boards will be a combination of 2 x 6's at the corners, and then 1 x 2's and 2 x 4's.

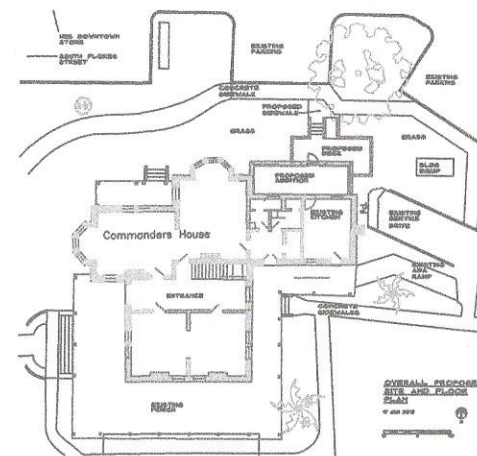
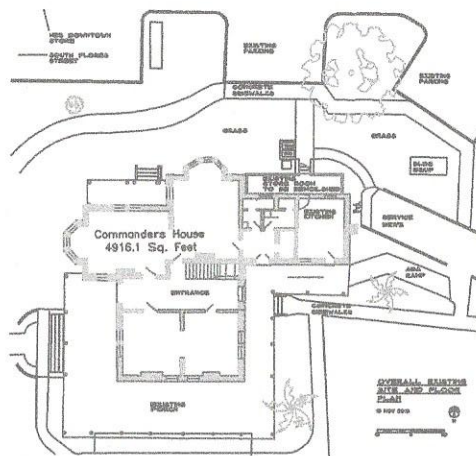
The existing two-color paint scheme will be used: accent color on the cornice line, with the off-white main color on the columns, balusters, and siding. This will be matching the existing color scheme of the Commander's House.

Prepared by,



John J. Speegle

Architect-of-record, #7751 Texas



KEY NOTES

- • •

GENERAL NOTES

A. CONTRACTOR SHALL REMOVE AND STORE ON-SITE THE FOLLOWING ITEMS FOR RE-USE:  
WOOD COLUMNS AND CAPITALS AND RELATED WOOD DETAILS,  
WOOD BALUSTERS AND TOP AND BOTTOM RAILS,  
WOOD CORNICES, DETAILS, AND INTERNAL BEAMS.

NOTE: THE CORNICE MAY BE CUT ALONG THE NORTH FACADE AS DIRECTED BY THE ARCHITECT.

2. CONTRACTOR SHALL BUILD A WOOD RACK TO KEEP ALL OF THE WOOD MATERIALS TO BE STORED OFF THE GROUND. WRAP THE MATERIALS WITH HEAVY-DUTY PLASTIC MEMBRANE AND TAPE TO KEEP RAIN MOISTURE OUT.

PLEASE NOTE: IT IS THE RESPONSIBILITY OF THE CONTRACTOR, SUBCONTRACTORS, AND EMPLOYEES TO COMPLETELY UNDERSTAND THE PROJECT, ITS SCOPE AND PURPOSE. IF ANY INFORMATION CAN NOT BE GAINED OR RECEIVED FROM THE CONTRACT DOCUMENTS (BID FORMS, SPECIFICATIONS, AND ANY DRAWINGS), IT IS THEIR RESPONSIBILITY TO ASK THE ARCHITECT FOR CLARIFICATION. COMMENTS, REQUESTS, PROPER DIRECTIONS AND INSTRUCTIONS, CORRECTIONS, OR INFORMATION NOT RECEIVED FROM THE ARCHITECT, SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS, SUBCONTRACTORS, AND EMPLOYEES AND SHALL BE SUBJECT TO HAVE SUCH WORK CORRECTED AND REPLACED AT UNACCEPTABLE RISK BY THE ARCHITECT OR THE ARCHITECTURAL FIRM.

COMMANDER'S HOUSE  
KITCHEN ADDITION

622 S. FLORES, SA, TX 78204

COSA PARKS &amp; RECREATION DEPARTMENT

speedie &amp; KIM-davis: Architecture

339 Hidebrand Avenue 210 228-9921  
San Antonio, Texas 78212

The designs, drawings, and specifications included herein are instruments of services and are and shall remain the property of John J. Burgee, Architect, whether the Project is completed or not. These plans shall not be reprinted or copied in any form or manner whatsoever. They are not to be used by the Owner/Client or others on other projects or extensions to the Project except by written agreement and appropriate compensation to the Architect. This sheet is copyrighted 2000. ©

Pre-Int. Oct. 17/2018

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

© 2006 The Authors  
Journal compilation © 2006 Blackwell Publishing Ltd

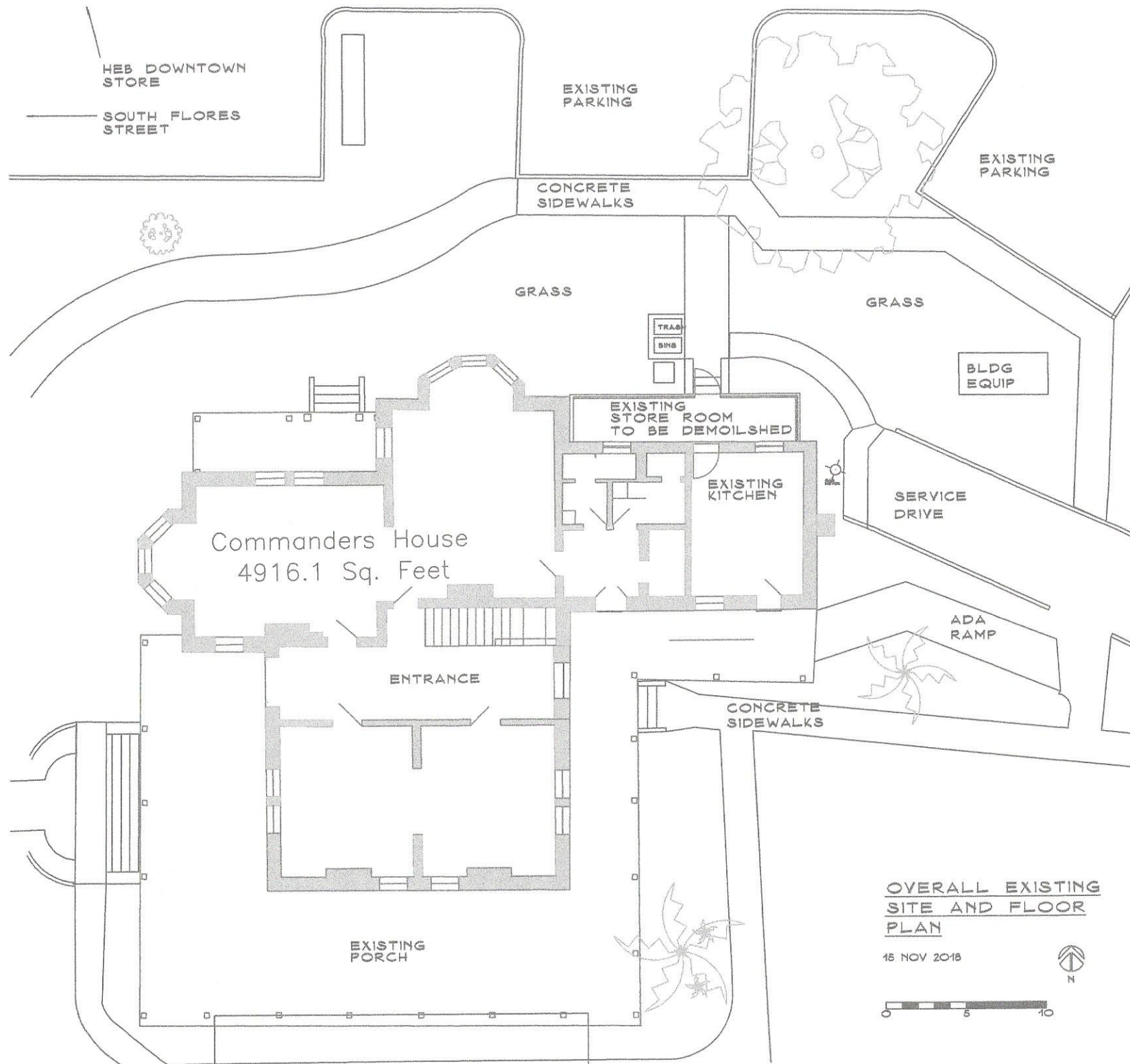
John J. Driscoll, Architect  
R.A. Town 47751



A-1.0.1 SITE PLAN-ARCHITECTURAL





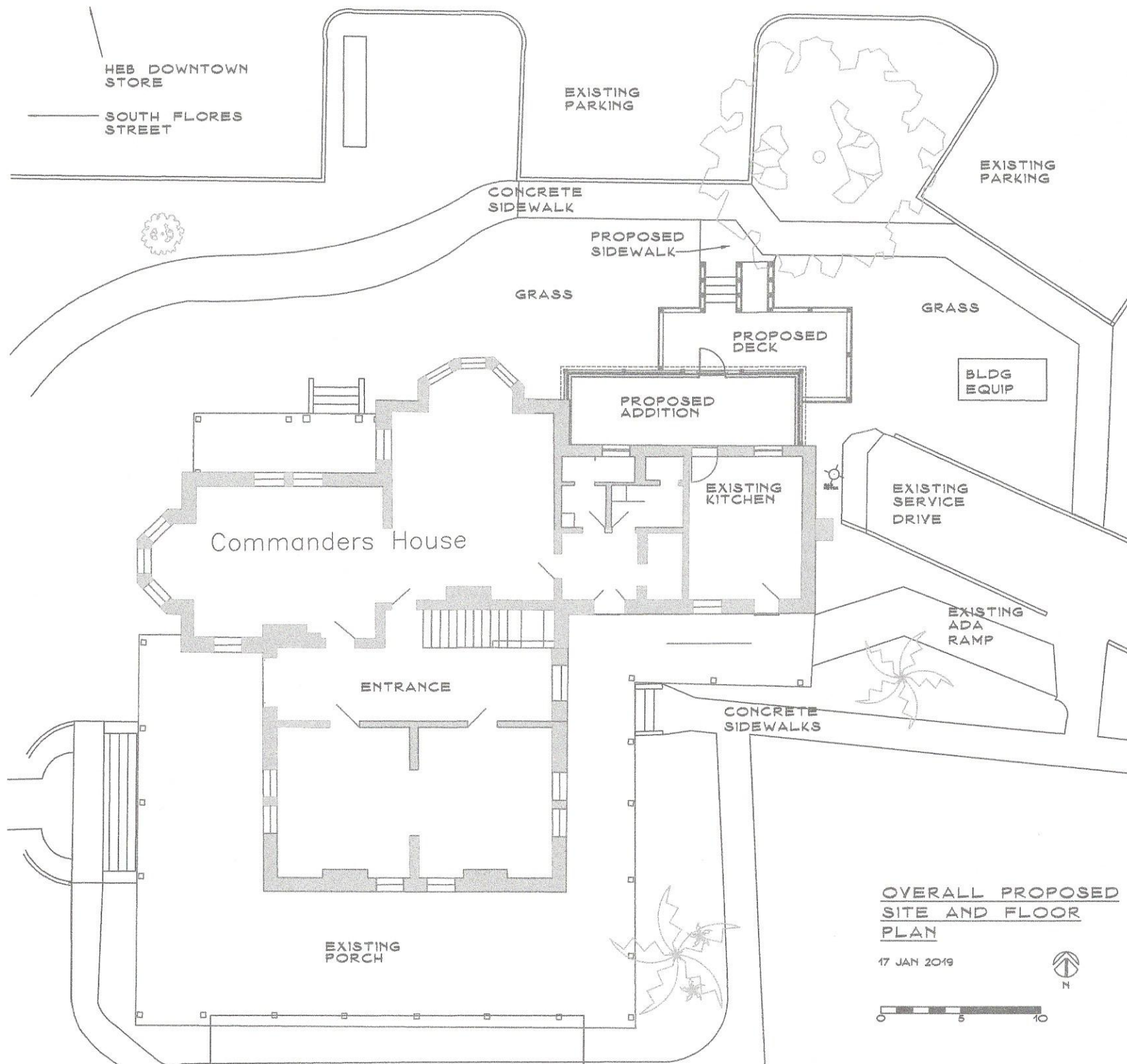


OVERALL EXISTING  
SITE AND FLOOR  
PLAN

15 NOV 2015

0 5 10



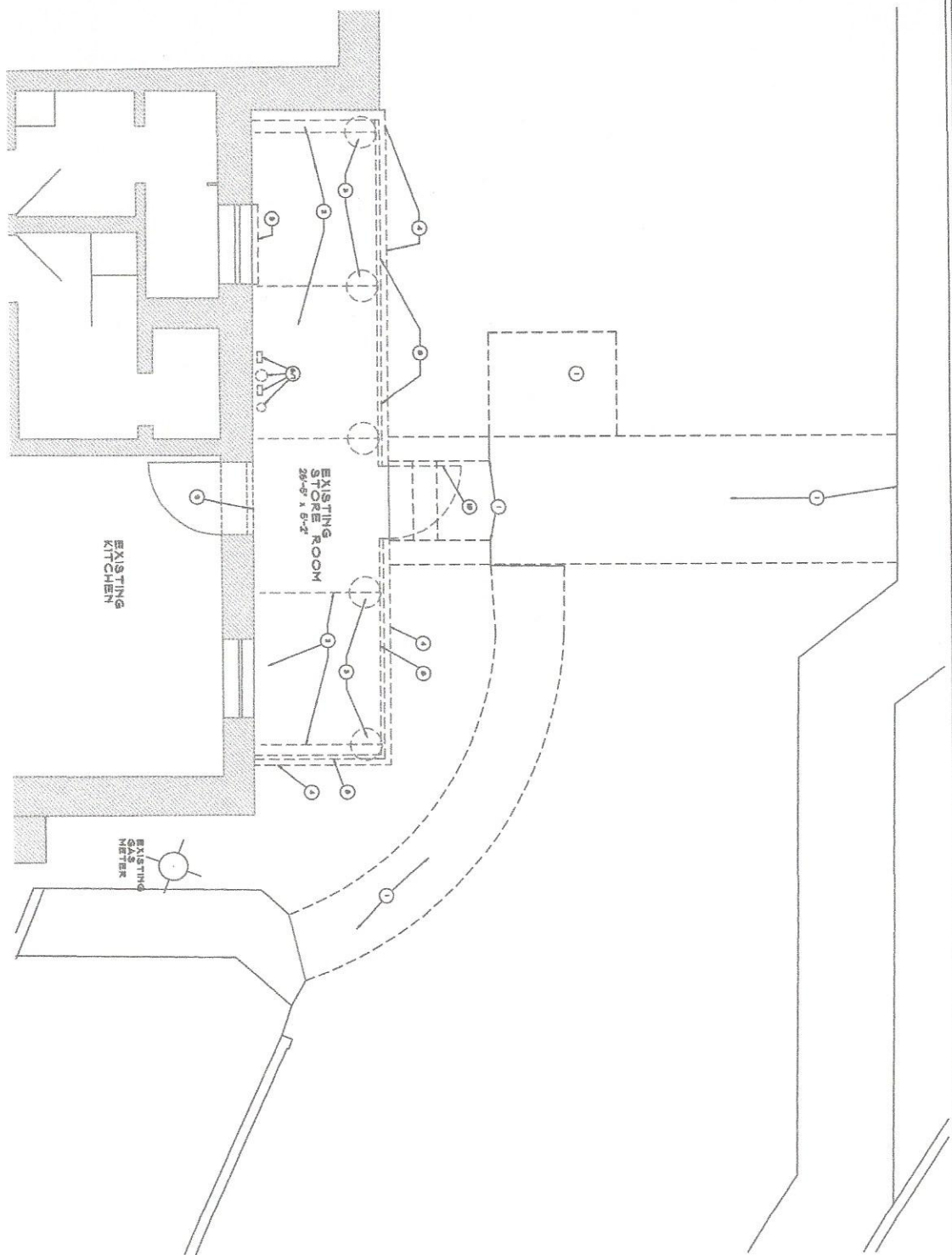


OVERALL PROPOSED  
SITE AND FLOOR  
PLAN

17 JAN 2019



0 5 10



A-1.1.01 SITE PLAN-DEMOLITION



**DEMOLITION KEY**

1. REMOVE CONCRETE MATERIAL AND CONCRETE REINFORCING
2. REMOVE CONCRETE FLOOR, CEILING AND ROOF MATERIAL
3. REMOVE CONCRETE WALL, CEILING AND ROOF MATERIAL
4. REMOVE EXISTING ROOF MATERIAL AND ROOF TRUSS
5. REMOVE EXISTING ROOF MATERIAL AND ROOF TRUSS
6. REMOVE EXISTING ROOF MATERIAL AND ROOF TRUSS
7. REMOVE EXISTING ROOF MATERIAL AND ROOF TRUSS
8. REMOVE EXISTING ROOF MATERIAL AND ROOF TRUSS
9. REMOVE EXISTING ROOF MATERIAL AND ROOF TRUSS
10. REMOVE EXISTING ROOF MATERIAL AND ROOF TRUSS

**GENERAL NOTES**

- A. CONTRACTOR SHALL REMOVE AND DEMOLISH THE FOLLOWING ITEMS FROM THE SITE:
  - 1. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 2. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 3. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 4. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 5. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 6. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 7. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 8. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 9. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 10. EXISTING ROOF MATERIAL AND ROOF TRUSS
- B. CONTRACTOR SHALL REMOVE AND DEMOLISH THE FOLLOWING ITEMS FROM THE SITE:
  - 1. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 2. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 3. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 4. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 5. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 6. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 7. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 8. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 9. EXISTING ROOF MATERIAL AND ROOF TRUSS
  - 10. EXISTING ROOF MATERIAL AND ROOF TRUSS

**COMMANDER'S HOUSE  
KITCHEN ADDITION**

622 S. H. CROWB, SA. TX 75064

COBA PARKS & RECREATION DEPARTMENT

Speegle & Kim-davis: Architecture

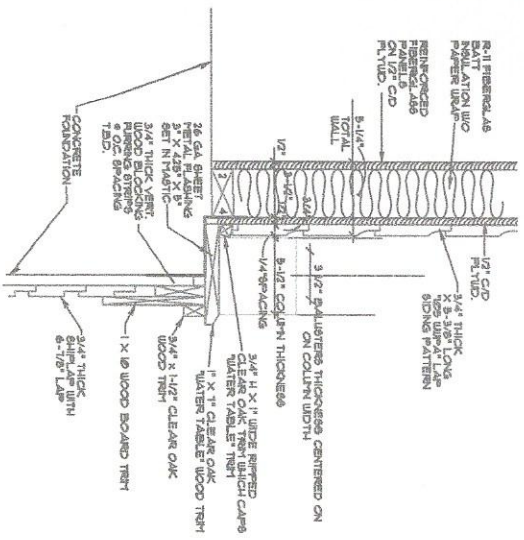
339 Haverford Avenue 20 228-8821

San Antonio, Texas 78202

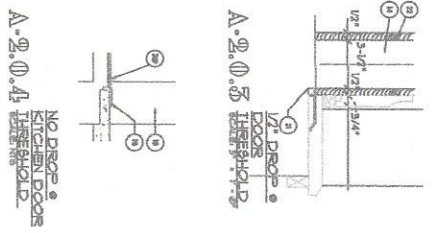
SKDA: 18033

A-1.1





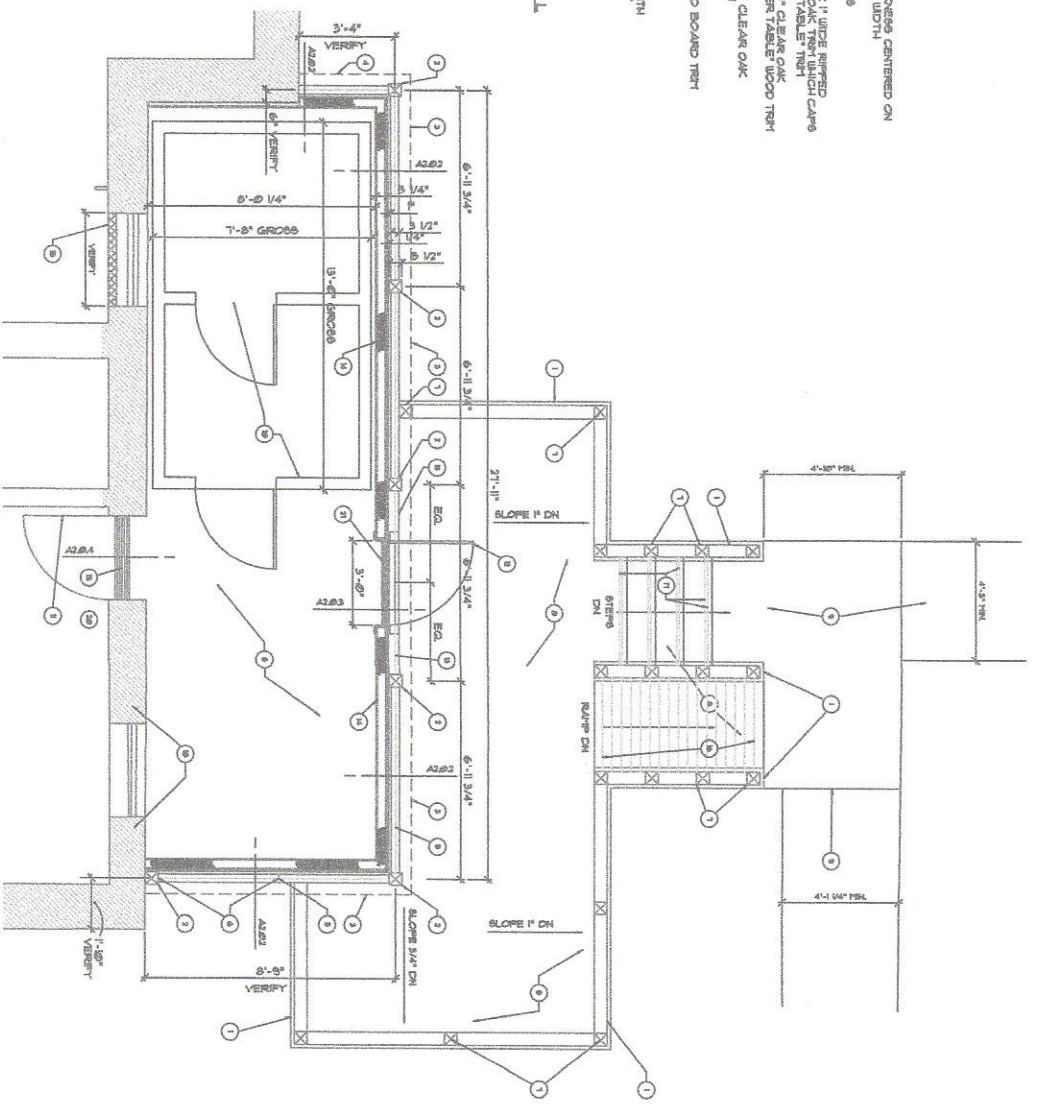
A-2.0.2 WALL DETAIL



A-2.0.3 THRESHOLD



A-2.0.4 KITCHEN DOOR THRESHOLD



A-2.0.1 FLOOR PLAN

1. KITCHEN ADDITION, 10' X 12' 6\"/>

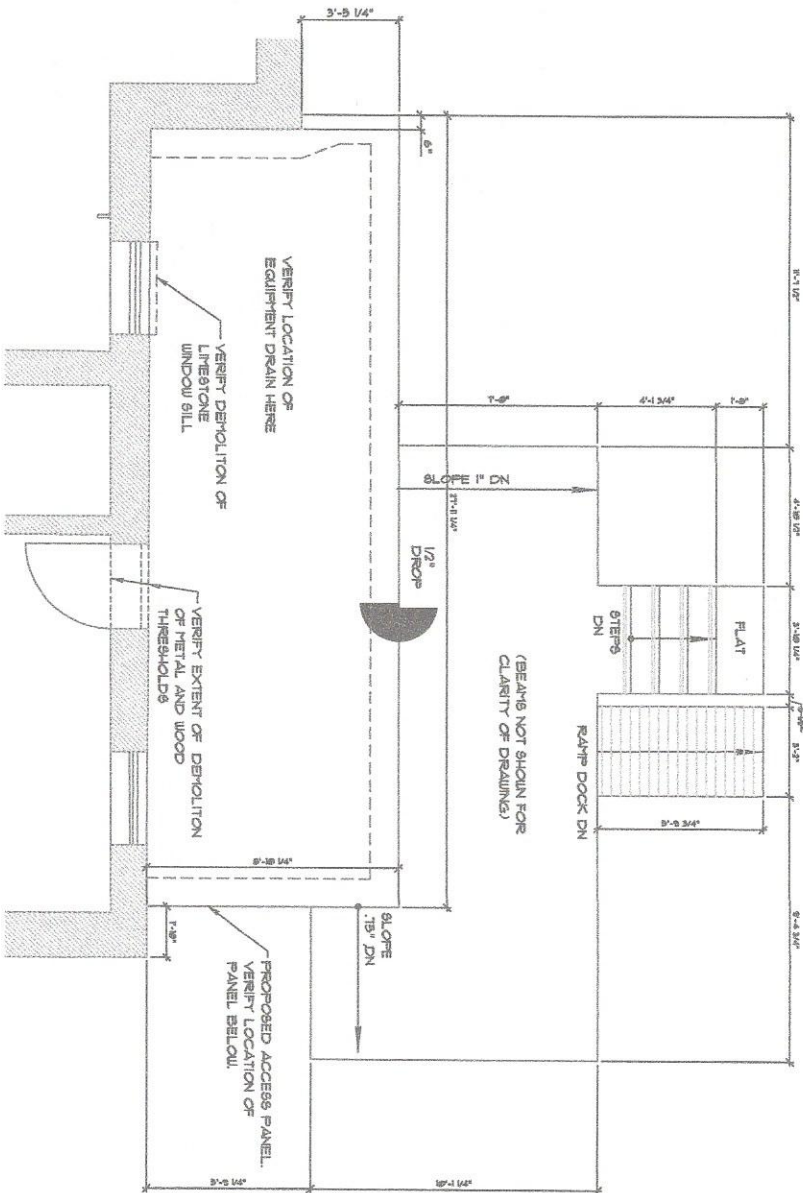
NOTES: 1. USE 1/2\"/>

**CORLANDER HOUSE**  
**KITCHEN ADDITION**  
 672 S. FLORENCE, DALLAS, TEXAS 75204  
 COCA PARKS & RECREATION DEPARTMENT

**Speegle & Kiln-davis: Architecture**  
 339 Redwood Avenue  
 San Antonio, Texas 78222  
 210-228-8821

The owner warrants that the information provided in this set of drawings is true and correct and that the information provided in this set of drawings is true and correct and that the information provided in this set of drawings is true and correct.

SKDA: 180353 A-2.0



# A-2.1.01 EQUIPMENT PLAN

THIS PLAN IS A PART OF THE ARCHITECTURAL AND ENGINEERING DRAWINGS FOR THE RECONSTRUCTION OF THE COMMANDER'S HOUSE KITCHEN ADDITION. IT IS TO BE USED IN CONJUNCTION WITH THE OTHER DRAWINGS AND SPECIFICATIONS. THE RECONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND STANDARDS. THE ARCHITECT ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE ARCHITECT'S OFFICE SHALL BE NOTIFIED OF ANY CHANGES TO THE PLAN. THE ARCHITECT'S OFFICE SHALL BE NOTIFIED OF ANY CHANGES TO THE PLAN. THE ARCHITECT'S OFFICE SHALL BE NOTIFIED OF ANY CHANGES TO THE PLAN.

PLEASE NOTE: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS. THE ARCHITECT ASSUMES NO LIABILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE ARCHITECT'S OFFICE SHALL BE NOTIFIED OF ANY CHANGES TO THE PLAN. THE ARCHITECT'S OFFICE SHALL BE NOTIFIED OF ANY CHANGES TO THE PLAN. THE ARCHITECT'S OFFICE SHALL BE NOTIFIED OF ANY CHANGES TO THE PLAN.

**COMMANDER'S HOUSE  
KITCHEN ADDITION**  
672 S. FLORES, APT. 1004  
COSA PARKS & RECREATION DEPARTMENT

**Speegle & Kim-Davis, Architecture**  
339 HAWKWOOD AVENUE  
SAN ANTONIO, TEXAS 78212  
210-228-9821

This drawing, including any amendments, shall be the property of the Architect. It shall not be reproduced, copied, or used in any way without the written consent of the Architect. The Architect assumes no liability for the accuracy of the information provided hereon. The Contractor shall be responsible for obtaining all necessary permits and approvals. The Architect's Office shall be notified of any changes to the plan. The Architect's Office shall be notified of any changes to the plan. The Architect's Office shall be notified of any changes to the plan.

Project No. 18033

Revision: 1 of 1

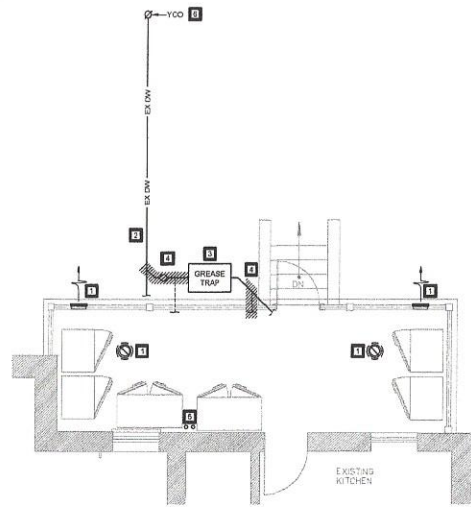
SKDA: 18033 A-2.1



SKDA: 18033 A-3.0



- STRUCTURAL DESIGN DESIGNER**
- THE STRUCTURAL DESIGNER OF RECORD UNDER THE 2008 INTERNATIONAL BUILDING CODE SHALL BE RESPONSIBLE FOR THE DESIGN OF THE STRUCTURAL SYSTEMS AND FOR THE DESIGN OF THE FOUNDATION SYSTEMS. THE DESIGNER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE STRUCTURAL SYSTEMS AND FOR THE DESIGN OF THE FOUNDATION SYSTEMS. THE DESIGNER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE STRUCTURAL SYSTEMS AND FOR THE DESIGN OF THE FOUNDATION SYSTEMS.
  - STRUCTURAL DESIGN IS BASED ON THE FOLLOWING:
    1. BUILDING CODES AND STANDARDS
    2. CLIENT'S REQUIREMENTS
    3. SITE CONDITIONS
    4. MATERIALS AND METHODS
    5. DESIGN LOADS
    6. DESIGN CRITERIA
    7. DESIGN ASSUMPTIONS
    8. DESIGN LIMITS
    9. DESIGN CONSTRAINTS
    10. DESIGN OBJECTIVES
    11. DESIGN PARAMETERS
    12. DESIGN VARIABLES
    13. DESIGN FACTORS
    14. DESIGN COEFFICIENTS
    15. DESIGN MODIFIERS
    16. DESIGN ADJUSTMENTS
    17. DESIGN CORRECTIONS
    18. DESIGN REVISIONS
    19. DESIGN UPDATES
    20. DESIGN RECALLS
    21. DESIGN REFERENCES
    22. DESIGN SOURCES
    23. DESIGN TOOLS
    24. DESIGN METHODS
    25. DESIGN PROCEDURES
    26. DESIGN PRACTICES
    27. DESIGN STANDARDS
    28. DESIGN CONVENTIONS
    29. DESIGN NOTATIONS
    30. DESIGN SYMBOLS
    31. DESIGN ABBREVIATIONS
    32. DESIGN ACRONYMS
    33. DESIGN INITIALS
    34. DESIGN MARKS
    35. DESIGN SIGNS
    36. DESIGN FLAGS
    37. DESIGN TAGS
    38. DESIGN LABELS
    39. DESIGN IDENTIFIERS
    40. DESIGN MARKERS
    41. DESIGN INDICATORS
    42. DESIGN POINTERS
    43. DESIGN GUIDES
    44. DESIGN HELPERS
    45. DESIGN SUPPORTERS
    46. DESIGN ASSISTERS
    47. DESIGN FACILITATORS
    48. DESIGN ENHANCERS
    49. DESIGN IMPROVERS
    50. DESIGN OPTIMIZERS
    51. DESIGN PERFECTORS
    52. DESIGN POLISHERS
    53. DESIGN FINISHERS
    54. DESIGN COMPLETERS
    55. DESIGN DELIVERERS
    56. DESIGN HANDOFFERS
    57. DESIGN TRANSFERRERS
    58. DESIGN PASSERS
    59. DESIGN HANDERS
    60. DESIGN CARRIERS
    61. DESIGN BRINGERS
    62. DESIGN TAKERS
    63. DESIGN ACCEPTORS
    64. DESIGN APPROVERS
    65. DESIGN REVIEWERS
    66. DESIGN CHECKERS
    67. DESIGN VERIFIERS
    68. DESIGN VALIDATORS
    69. DESIGN TESTERS
    70. DESIGN EVALUATORS
    71. DESIGN ASSESSORS
    72. DESIGN ANALYZERS
    73. DESIGN MONITORS
    74. DESIGN TRACKERS
    75. DESIGN FOLLOWERS
    76. DESIGN GUIDES
    77. DESIGN HELPERS
    78. DESIGN SUPPORTERS
    79. DESIGN ASSISTERS
    80. DESIGN FACILITATORS
    81. DESIGN ENHANCERS
    82. DESIGN IMPROVERS
    83. DESIGN OPTIMIZERS
    84. DESIGN PERFECTORS
    85. DESIGN POLISHERS
    86. DESIGN FINISHERS
    87. DESIGN COMPLETERS
    88. DESIGN DELIVERERS
    89. DESIGN HANDOFFERS
    90. DESIGN TRANSFERRERS
    91. DESIGN PASSERS
    92. DESIGN HANDERS
    93. DESIGN CARRIERS
    94. DESIGN BRINGERS
    95. DESIGN TAKERS
    96. DESIGN ACCEPTORS
    97. DESIGN APPROVERS
    98. DESIGN REVIEWERS
    99. DESIGN CHECKERS
    100. DESIGN VERIFIERS
    101. DESIGN VALIDATORS
    102. DESIGN TESTERS
    103. DESIGN EVALUATORS
    104. DESIGN ASSESSORS
    105. DESIGN ANALYZERS
    106. DESIGN MONITORS
    107. DESIGN TRACKERS
    108. DESIGN FOLLOWERS
    109. DESIGN GUIDES
    110. DESIGN HELPERS
    111. DESIGN SUPPORTERS
    112. DESIGN ASSISTERS
    113. DESIGN FACILITATORS
    114. DESIGN ENHANCERS
    115. DESIGN IMPROVERS
    116. DESIGN OPTIMIZERS
    117. DESIGN PERFECTORS
    118. DESIGN POLISHERS
    119. DESIGN FINISHERS
    120. DESIGN COMPLETERS
    121. DESIGN DELIVERERS
    122. DESIGN HANDOFFERS
    123. DESIGN TRANSFERRERS
    124. DESIGN PASSERS
    125. DESIGN HANDERS
    126. DESIGN CARRIERS
    127. DESIGN BRINGERS
    128. DESIGN TAKERS
    129. DESIGN ACCEPTORS
    130. DESIGN APPROVERS
    131. DESIGN REVIEWERS
    132. DESIGN CHECKERS
    133. DESIGN VERIFIERS
    134. DESIGN VALIDATORS
    135. DESIGN TESTERS
    136. DESIGN EVALUATORS
    137. DESIGN ASSESSORS
    138. DESIGN ANALYZERS
    139. DESIGN MONITORS
    140. DESIGN TRACKERS
    141. DESIGN FOLLOWERS
    142. DESIGN GUIDES
    143. DESIGN HELPERS
    144. DESIGN SUPPORTERS
    145. DESIGN ASSISTERS
    146. DESIGN FACILITATORS
    147. DESIGN ENHANCERS
    148. DESIGN IMPROVERS
    149. DESIGN OPTIMIZERS
    150. DESIGN PERFECTORS
    151. DESIGN POLISHERS
    152. DESIGN FINISHERS
    153. DESIGN COMPLETERS
    154. DESIGN DELIVERERS
    155. DESIGN HANDOFFERS
    156. DESIGN TRANSFERRERS
    157. DESIGN PASSERS
    158. DESIGN HANDERS
    159. DESIGN CARRIERS
    160. DESIGN BRINGERS
    161. DESIGN TAKERS
    162. DESIGN ACCEPTORS
    163. DESIGN APPROVERS
    164. DESIGN REVIEWERS
    165. DESIGN CHECKERS
    166. DESIGN VERIFIERS
    167. DESIGN VALIDATORS
    168. DESIGN TESTERS
    169. DESIGN EVALUATORS
    170. DESIGN ASSESSORS
    171. DESIGN ANALYZERS
    172. DESIGN MONITORS
    173. DESIGN TRACKERS
    174. DESIGN FOLLOWERS
    175. DESIGN GUIDES
    176. DESIGN HELPERS
    177. DESIGN SUPPORTERS
    178. DESIGN ASSISTERS
    179. DESIGN FACILITATORS
    180. DESIGN ENHANCERS
    181. DESIGN IMPROVERS
    182. DESIGN OPTIMIZERS
    183. DESIGN PERFECTORS
    184. DESIGN POLISHERS
    185. DESIGN FINISHERS
    186. DESIGN COMPLETERS
    187. DESIGN DELIVERERS
    188. DESIGN HANDOFFERS
    189. DESIGN TRANSFERRERS
    190. DESIGN PASSERS
    191. DESIGN HANDERS
    192. DESIGN CARRIERS
    193. DESIGN BRINGERS
    194. DESIGN TAKERS
    195. DESIGN ACCEPTORS
    196. DESIGN APPROVERS
    197. DESIGN REVIEWERS
    198. DESIGN CHECKERS
    199. DESIGN VERIFIERS
    200. DESIGN VALIDATORS
    201. DESIGN TESTERS
    202. DESIGN EVALUATORS
    203. DESIGN ASSESSORS
    204. DESIGN ANALYZERS
    205. DESIGN MONITORS
    206. DESIGN TRACKERS
    207. DESIGN FOLLOWERS
    208. DESIGN GUIDES
    209. DESIGN HELPERS
    210. DESIGN SUPPORTERS
    211. DESIGN ASSISTERS
    212. DESIGN FACILITATORS
    213. DESIGN ENHANCERS
    214. DESIGN IMPROVERS
    215. DESIGN OPTIMIZERS
    216. DESIGN PERFECTORS
    217. DESIGN POLISHERS
    218. DESIGN FINISHERS
    219. DESIGN COMPLETERS
    220. DESIGN DELIVERERS
    221. DESIGN HANDOFFERS
    222. DESIGN TRANSFERRERS
    223. DESIGN PASSERS
    224. DESIGN HANDERS
    225. DESIGN CARRIERS
    226. DESIGN BRINGERS
    227. DESIGN TAKERS
    228. DESIGN ACCEPTORS
    229. DESIGN APPROVERS
    230. DESIGN REVIEWERS
    231. DESIGN CHECKERS
    232. DESIGN VERIFIERS
    233. DESIGN VALIDATORS
    234. DESIGN TESTERS
    235. DESIGN EVALUATORS
    236. DESIGN ASSESSORS
    237. DESIGN ANALYZERS
    238. DESIGN MONITORS
    239. DESIGN TRACKERS
    240. DESIGN FOLLOWERS
    241. DESIGN GUIDES
    242. DESIGN HELPERS
    243. DESIGN SUPPORTERS
    244. DESIGN ASSISTERS
    245. DESIGN FACILITATORS
    246. DESIGN ENHANCERS
    247. DESIGN IMPROVERS
    248. DESIGN OPTIMIZERS
    249. DESIGN PERFECTORS
    250. DESIGN POLISHERS
    251. DESIGN FINISHERS
    252. DESIGN COMPLETERS
    253. DESIGN DELIVERERS
    254. DESIGN HANDOFFERS
    255. DESIGN TRANSFERRERS
    256. DESIGN PASSERS
    257. DESIGN HANDERS
    258. DESIGN CARRIERS
    259. DESIGN BRINGERS
    260. DESIGN TAKERS
    261. DESIGN ACCEPTORS
    262. DESIGN APPROVERS
    263. DESIGN REVIEWERS
    264. DESIGN CHECKERS
    265. DESIGN VERIFIERS
    266. DESIGN VALIDATORS
    267. DESIGN TESTERS
    268. DESIGN EVALUATORS
    269. DESIGN ASSESSORS
    270. DESIGN ANALYZERS
    271. DESIGN MONITORS
    272. DESIGN TRACKERS
    273. DESIGN FOLLOWERS
    274. DESIGN GUIDES
    275. DESIGN HELPERS
    276. DESIGN SUPPORTERS
    277. DESIGN ASSISTERS
    278. DESIGN FACILITATORS
    279. DESIGN ENHANCERS
    280. DESIGN IMPROVERS
    281. DESIGN OPTIMIZERS
    282. DESIGN PERFECTORS
    283. DESIGN POLISHERS
    284. DESIGN FINISHERS
    285. DESIGN COMPLETERS
    286. DESIGN DELIVERERS
    287. DESIGN HANDOFFERS
    288. DESIGN TRANSFERRERS
    289. DESIGN PASSERS
    290. DESIGN HANDERS
    291. DESIGN CARRIERS
    292. DESIGN BRINGERS
    293. DESIGN TAKERS
    294. DESIGN ACCEPTORS
    295. DESIGN APPROVERS
    296. DESIGN REVIEWERS
    297. DESIGN CHECKERS
    298. DESIGN VERIFIERS
    299. DESIGN VALIDATORS
    300. DESIGN TESTERS
    301. DESIGN EVALUATORS
    302. DESIGN ASSESSORS
    303. DESIGN ANALYZERS
    304. DESIGN MONITORS
    305. DESIGN TRACKERS
    306. DESIGN FOLLOWERS
    307. DESIGN GUIDES
    308. DESIGN HELPERS
    309. DESIGN SUPPORTERS
    310. DESIGN ASSISTERS
    311. DESIGN FACILITATORS
    312. DESIGN ENHANCERS
    313. DESIGN IMPROVERS
    314. DESIGN OPTIMIZERS
    315. DESIGN PERFECTORS
    316. DESIGN POLISHERS
    317. DESIGN FINISHERS
    318. DESIGN COMPLETERS
    319. DESIGN DELIVERERS
    320. DESIGN HANDOFFERS
    321. DESIGN TRANSFERRERS
    322. DESIGN PASSERS
    323. DESIGN HANDERS
    324. DESIGN CARRIERS
    325. DESIGN BRINGERS
    326. DESIGN TAKERS
    327. DESIGN ACCEPTORS
    328. DESIGN APPROVERS
    329. DESIGN REVIEWERS
    330. DESIGN CHECKERS
    331. DESIGN VERIFIERS
    332. DESIGN VALIDATORS
    333. DESIGN TESTERS
    334. DESIGN EVALUATORS
    335. DESIGN ASSESSORS
    336. DESIGN ANALYZERS
    337. DESIGN MONITORS
    338. DESIGN TRACKERS
    339. DESIGN FOLLOWERS
    340. DESIGN GUIDES
    341. DESIGN HELPERS
    342. DESIGN SUPPORTERS
    343. DESIGN ASSISTERS
    344. DESIGN FACILITATORS
    345. DESIGN ENHANCERS
    346. DESIGN IMPROVERS
    347. DESIGN OPTIMIZERS
    348. DESIGN PERFECTORS
    349. DESIGN POLISHERS
    350. DESIGN FINISHERS
    351. DESIGN COMPLETERS
    352. DESIGN DELIVERERS
    353. DESIGN HANDOFFERS
    354. DESIGN TRANSFERRERS
    355. DESIGN PASSERS
    356. DESIGN HANDERS
    357. DESIGN CARRIERS
    358. DESIGN BRINGERS
    359. DESIGN TAKERS
    360. DESIGN ACCEPTORS
    361. DESIGN APPROVERS
    362. DESIGN REVIEWERS
    363. DESIGN CHECKERS
    364. DESIGN VERIFIERS
    365. DESIGN VALIDATORS
    366. DESIGN TESTERS
    367. DESIGN EVALUATORS
    368. DESIGN ASSESSORS
    369. DESIGN ANALYZERS
    370. DESIGN MONITORS
    371. DESIGN TRACKERS
    372. DESIGN FOLLOWERS
    373. DESIGN GUIDES
    374. DESIGN HELPERS
    375. DESIGN SUPPORTERS
    376. DESIGN ASSISTERS
    377. DESIGN FACILITATORS
    378. DESIGN ENHANCERS
    379. DESIGN IMPROVERS
    380. DESIGN OPTIMIZERS
    381. DESIGN PERFECTORS
    382. DESIGN POLISHERS
    383. DESIGN FINISHERS
    384. DESIGN COMPLETERS
    385. DESIGN DELIVERERS
    386. DESIGN HANDOFFERS
    387. DESIGN TRANSFERRERS
    388. DESIGN PASSERS
    389. DESIGN HANDERS
    390. DESIGN CARRIERS
    391. DESIGN BRINGERS
    392. DESIGN TAKERS
    393. DESIGN ACCEPTORS
    394. DESIGN APPROVERS
    395. DESIGN REVIEWERS
    396. DESIGN CHECKERS
    397. DESIGN VERIFIERS
    398. DESIGN VALIDATORS
    399. DESIGN TESTERS
    400. DESIGN EVALUATORS
    401. DESIGN ASSESSORS
    402. DESIGN ANALYZERS
    403. DESIGN MONITORS
    404. DESIGN TRACKERS
    405. DESIGN FOLLOWERS
    406. DESIGN GUIDES
    407. DESIGN HELPERS
    408. DESIGN SUPPORTERS
    409. DESIGN ASSISTERS
    410. DESIGN FACILITATORS
    411. DESIGN ENHANCERS
    412. DESIGN IMPROVERS
    413. DESIGN OPTIMIZERS
    414. DESIGN PERFECTORS
    415. DESIGN POLISHERS
    416. DESIGN FINISHERS
    417. DESIGN COMPLETERS
    418. DESIGN DELIVERERS
    419. DESIGN HANDOFFERS
    420. DESIGN TRANSFERRERS
    421. DESIGN PASSERS
    422. DESIGN HANDERS
    423. DESIGN CARRIERS
    424. DESIGN BRINGERS
    425. DESIGN TAKERS
    426. DESIGN ACCEPTORS
    427. DESIGN APPROVERS
    428. DESIGN REVIEWERS
    429. DESIGN CHECKERS
    430. DESIGN VERIFIERS
    431. DESIGN VALIDATORS
    432. DESIGN TESTERS
    433. DESIGN EVALUATORS
    434. DESIGN ASSESSORS
    435. DESIGN ANALYZERS
    436. DESIGN MONITORS
    437. DESIGN TRACKERS
    438. DESIGN FOLLOWERS
    439. DESIGN GUIDES
    440. DESIGN HELPERS
    441. DESIGN SUPPORTERS
    442. DESIGN ASSISTERS
    443. DESIGN FACILITATORS
    444. DESIGN ENHANCERS
    445. DESIGN IMPROVERS
    446. DESIGN OPTIMIZERS
    447. DESIGN PERFECTORS
    448. DESIGN POLISHERS
    449. DESIGN FINISHERS
    450. DESIGN COMPLETERS
    451. DESIGN DELIVERERS
    452. DESIGN HANDOFFERS
    453. DESIGN TRANSFERRERS
    454. DESIGN PASSERS
    455. DESIGN HANDERS
    456. DESIGN CARRIERS
    457. DESIGN BRINGERS
    458. DESIGN TAKERS
    459. DESIGN ACCEPTORS
    460. DESIGN APPROVERS
    461. DESIGN REVIEWERS
    462. DESIGN CHECKERS
    463. DESIGN VERIFIERS
    464. DESIGN VALIDATORS
    465. DESIGN TESTERS
    466. DESIGN EVALUATORS
    467. DESIGN ASSESSORS
    468. DESIGN ANALYZERS
    469. DESIGN MONITORS
    470. DESIGN TRACKERS
    471. DESIGN FOLLOWERS
    472. DESIGN GUIDES
    473. DESIGN HELPERS
    474. DESIGN SUPPORTERS
    475. DESIGN ASSISTERS
    476. DESIGN FACILITATORS
    477. DESIGN ENHANCERS
    478. DESIGN IMPROVERS
    479. DESIGN OPTIMIZERS
    480. DESIGN PERFECTORS
    481. DESIGN POLISHERS
    482. DESIGN FINISHERS
    483. DESIGN COMPLETERS
    484. DESIGN DELIVERERS
    485. DESIGN HANDOFFERS
    486. DESIGN TRANSFERRERS
    487. DESIGN PASSERS
    488. DESIGN HANDERS
    489. DESIGN CARRIERS
    490. DESIGN BRINGERS
    491. DESIGN TAKERS
    492. DESIGN ACCEPTORS
    493. DESIGN APPROVERS
    494. DESIGN REVIEWERS
    495. DESIGN CHECKERS
    496. DESIGN VERIFIERS
    497. DESIGN VALIDATORS
    498. DESIGN TESTERS
    499. DESIGN EVALUATORS
    500. DESIGN ASSESSORS
    501. DESIGN ANALYZERS
    502. DESIGN MONITORS
    503. DESIGN TRACKERS
    504. DESIGN FOLLOWERS
    505. DESIGN GUIDES
    506. DESIGN HELPERS
    507. DESIGN SUPPORTERS
    508. DESIGN ASSISTERS
    509. DESIGN FACILITATORS
    510. DESIGN ENHANCERS
    511. DESIGN IMPROVERS
    512. DESIGN OPTIMIZERS
    513. DESIGN PERFECTORS
    514. DESIGN POLISHERS
    515. DESIGN FINISHERS
    516. DESIGN COMPLETERS
    517. DESIGN DELIVERERS
    518. DESIGN HANDOFFERS
    519. DESIGN TRANSFERRERS
    520. DESIGN PASSERS
    521. DESIGN HANDERS
    522. DESIGN CARRIERS
    523. DESIGN BRINGERS
    524. DESIGN TAKERS
    525. DESIGN ACCEPTORS
    526. DESIGN APPROVERS
    527. DESIGN REVIEWERS
    528. DESIGN CHECKERS
    529. DESIGN VERIFIERS
    530. DESIGN VALIDATORS
    531. DESIGN TESTERS
    532. DESIGN EVALUATORS
    533. DESIGN ASSESSORS
    534. DESIGN ANALYZERS
    535. DESIGN MONITORS
    536. DESIGN TRACKERS
    537. DESIGN FOLLOWERS
    538. DESIGN GUIDES
    539. DESIGN HELPERS
    540. DESIGN SUPPORTERS
    541. DESIGN ASSISTERS
    542. DESIGN FACILITATORS
    543. DESIGN ENHANCERS
    544. DESIGN IMPROVERS
    545. DESIGN OPTIMIZERS
    546. DESIGN PERFECTORS
    547. DESIGN POLISHERS
    548. DESIGN FINISHERS
    549. DESIGN COMPLETERS
    550. DESIGN DELIVERERS
    551. DESIGN HANDOFFERS
    552. DESIGN TRANSFERRERS
    553. DESIGN PASSERS
    554. DESIGN HANDERS
    555. DESIGN CARRIERS
    556. DESIGN BRINGERS
    557. DESIGN TAKERS
    558. DESIGN ACCEPTORS
    559. DESIGN APPROVERS
    560. DESIGN REVIEWERS
    561. DESIGN CHECKERS
    562. DESIGN VERIFIERS
    563. DESIGN VALIDATORS
    564. DESIGN TESTERS
    565. DESIGN EVALUATORS
    566. DESIGN ASSESSORS
    567. DESIGN ANALYZERS
    568. DESIGN MONITORS
    569. DESIGN TRACKERS
    570. DESIGN FOLLOWERS
    571. DESIGN GUIDES
    572. DESIGN HELPERS
    573. DESIGN SUPPORTERS
    574. DESIGN ASSISTERS
    575. DESIGN FACILITATORS
    576. DESIGN ENHANCERS
    577. DESIGN IMPROVERS
    578. DESIGN OPTIMIZERS
    579. DESIGN PERFECTORS
    580. DESIGN POLISHERS
    581. DESIGN FINISHERS
    582. DESIGN COMPLETERS
    583. DESIGN DELIVERERS
    584. DESIGN HANDOFFERS
    585. DESIGN TRANSFERRERS
    586. DESIGN PASSERS
    587. DESIGN HANDERS
    588. DESIGN CARRIERS
    589. DESIGN BRINGERS
    590. DESIGN TAKERS
    591. DESIGN ACCEPTORS
    592. DESIGN APPROVERS
    593. DESIGN REVIEWERS
    594. DESIGN CHECKERS
    595. DESIGN VERIFIERS
    596. DESIGN VALIDATORS
    597. DESIGN TESTERS
    598. DESIGN EVALUATORS
    599. DESIGN ASSESSORS
    600. DESIGN ANALYZERS
    601. DESIGN MONITORS
    602. DESIGN TRACKERS
    603. DESIGN FOLLOWERS
    604. DESIGN GUIDES
    605. DESIGN HELPERS
    606. DESIGN SUPPORTERS
    607. DESIGN ASSISTERS
    608. DESIGN FACILITATORS
    609. DESIGN ENHANCERS
    610. DESIGN IMPROVERS
    611. DESIGN OPTIMIZERS
    612. DESIGN PERFECTORS
    613. DESIGN POLISHERS
    614. DESIGN FINISHERS
    615. DESIGN COMPLETERS
    616. DESIGN DELIVERERS
    617. DESIGN HANDOFFERS
    618. DESIGN TRANSFERRERS
    619. DESIGN PASSERS
    620. DESIGN HANDERS
    621. DESIGN CARRIERS
    622. DESIGN BRINGERS
    623. DESIGN TAKERS
    624. DESIGN ACCEPTORS
    625. DESIGN APPROVERS
    626. DESIGN REVIEWERS
    627. DESIGN CHECKERS
    628. DESIGN VERIFIERS
    629. DESIGN VALIDATORS
    630. DESIGN TESTERS
    631. DESIGN EVALUATORS
    632. DESIGN ASSESSORS
    633. DESIGN ANALYZERS
    634. DESIGN MONITORS
    635. DESIGN TRACKERS
    636. DESIGN FOLLOWERS
    637. DESIGN GUIDES
    638. DESIGN HELPERS
    639. DESIGN SUPPORTERS
    640. DESIGN ASSISTERS
    641. DESIGN FACILITATORS
    642. DESIGN ENHANCERS
    643. DESIGN IMPROVERS
    644. DESIGN OPTIMIZERS
    645. DESIGN PERFECTORS
    646. DESIGN POLISHERS
    647. DESIGN FINISHERS
    648. DESIGN COMPLETERS
    649. DESIGN DELIVERERS
    650. DESIGN HANDOFFERS
    651. DESIGN TRANSFERRERS
    652. DESIGN PASSERS
    653. DESIGN HANDERS
    654. DESIGN CARRIERS
    655. DESIGN BRINGERS
    656. DESIGN TAKERS
    657. DESIGN ACCEPTORS
    658. DESIGN APPROVERS
    659. DESIGN REVIEWERS
    660. DESIGN CHECKERS
    661. DESIGN VERIFIERS
    662. DESIGN VALIDATORS
    663. DESIGN TESTERS
    664. DESIGN EVALUATORS
    665. DESIGN ASSESSORS
    666. DESIGN ANALYZERS
    667. DESIGN MONITORS
    668. DESIGN TRACKERS
    669. DESIGN FOLLOWERS
    670. DESIGN GUIDES
    671. DESIGN HELPERS
    672. DESIGN SUPPORTERS
    673. DESIGN ASSISTERS
    674. DESIGN FACILITATORS
    675. DESIGN ENHANCERS
    676. DESIGN IMPROVERS
    677. DESIGN OPTIMIZERS
    678. DESIGN PERFECTORS
    679. DESIGN POLISHERS
    680. DESIGN FINISHERS
    681. DESIGN COMPLETERS
    682. DESIGN DELIVERERS
    683. DESIGN HANDOFFERS
    684. DESIGN TRANSFERRERS
    685. DESIGN PASSERS
    686. DESIGN HANDERS
    687. DESIGN CARRIERS
    688. DESIGN BRINGERS
    689. DESIGN TAKERS
    690. DESIGN ACCEPTORS
    691. DESIGN APPROVERS
    692. DESIGN REVIEWERS
    693. DESIGN CHECKERS
    694. DESIGN VERIFIERS
    695. DESIGN VALIDATORS
    696. DESIGN TESTERS
    697. DESIGN EVALUATORS
    698. DESIGN ASSESSORS
    699. DESIGN ANALYZERS
    700. DESIGN MONITORS
    701. DESIGN TRACKERS
    702. DESIGN FOLLOWERS
    703. DESIGN GUIDES
    704. DESIGN HELPERS
    705. DESIGN SUPPORTERS
    706. DESIGN ASSISTERS
    707. DESIGN FACILITATORS
    708. DESIGN ENHANCERS
    709. DESIGN IMPROVERS
    710. DESIGN OPTIMIZERS
    711. DESIGN PERFECTORS
    712. DESIGN POLISHERS
    713. DESIGN FINISHERS
    714. DESIGN COMPLETERS
    715. DESIGN DELIVERERS
    716. DESIGN HANDOFFERS
    717. DESIGN TRANSFERRERS
    718. DESIGN PASSERS
    719. DESIGN HANDERS
    720. DESIGN CARRIERS
    721. DESIGN BRINGERS
    722. DESIGN TAKERS
    723. DESIGN ACCEPTORS
    724. DESIGN APPROVERS
    725. DESIGN REVIEWERS
    726. DESIGN CHECKERS
    727. DESIGN VERIFIERS
    728. DESIGN VALIDATORS
    729. DESIGN TESTERS
    730. DESIGN EVALUATORS
    731. DESIGN ASSESSORS
    732. DESIGN ANALYZERS
    733. DESIGN MONITORS
    734. DESIGN TRACKERS
    735. DESIGN FOLLOWERS
    736. DESIGN GUIDES
    737. DESIGN HELPERS
    738. DESIGN SUPPORTERS
    739. DESIGN ASSISTERS
    740. DESIGN FACILITATORS
    741. DESIGN ENHANCERS
    742. DESIGN IMPROVERS
    743. DESIGN OPTIMIZERS
    744. DESIGN PERFECTORS
    745. DESIGN POLISHERS
    746. DESIGN FINISHERS
    747. DESIGN COMPLETERS
    748. DESIGN DELIVERERS
    749. DESIGN HANDOFFERS
    750. DESIGN TRANSFERRERS
    751. DESIGN PASSERS
    752. DESIGN HANDERS
    753. DESIGN CARRIERS
    754. DESIGN BRINGERS
    755. DESIGN TAKERS
    756. DESIGN ACCEPTORS
    757. DESIGN APPROVERS
    758. DESIGN REVIEWERS
    759. DESIGN CHECKERS
    760. DESIGN VERIFIERS
    761. DESIGN VALIDATORS
    762. DESIGN TESTERS
    763. DESIGN EVALUATORS
    764. DESIGN ASSESSORS
    765. DESIGN ANALYZERS
    766. DESIGN MONITORS
    767. DESIGN TRACKERS
    768. DESIGN FOLLOWERS
    769. DESIGN GUIDES
    770. DESIGN HELPERS
    771. DESIGN SUPPORTERS
    772. DESIGN ASSISTERS
    773. DESIGN FACILITATORS
    774. DESIGN ENHANCERS
    775. DESIGN IMPROVERS
    776. DESIGN OPTIMIZERS
    777. DESIGN PERFECTORS
    778. DESIGN POLISHERS
    779. DESIGN FINISHERS
    780. DESIGN COMPLETERS
    781. DESIGN DELIVERERS
    782. DESIGN HANDOFFERS
    783. DESIGN TRANSFERRERS
    784. DESIGN PASSERS
    785. DESIGN HANDERS
    786. DESIGN CARRIERS
    787. DESIGN BRINGERS
    788. DESIGN TAKERS
    789. DESIGN ACCEPTORS
    790. DESIGN APPROVERS
    791. DESIGN REVIEWERS
    792. DESIGN CHECKERS
    793. DESIGN VERIFIERS
    794. DESIGN VALIDATORS
    795. DESIGN TESTERS
    796. DESIGN EVALUATORS
    797. DESIGN ASSESSORS
    798. DESIGN ANALYZERS
    799. DESIGN MONITORS
    800. DESIGN TRACKERS
    801. DESIGN FOLLOWERS
    802. DESIGN GUIDES
    803. DESIGN HELPERS
    804. DESIGN SUPPORTERS
    805. DESIGN ASSISTERS
    806. DESIGN FACILITATORS
    807. DESIGN ENHANCERS
    808. DESIGN IMPROVERS
    809. DESIGN OPTIMIZERS
    810. DESIGN PERFECTORS
    811. DESIGN POLISHERS
    812. DESIGN FINISHERS
    813. DESIGN COMPLETERS
    814. DESIGN DELIVERERS
    815. DESIGN HANDOFFERS
    816. DESIGN TRANSFERRERS
    817. DESIGN PASSERS
    818. DESIGN HANDERS
    819. DESIGN CARRIERS
    820. DESIGN BRINGERS
    821. DESIGN TAKERS
    822. DESIGN ACCEPTORS
    823. DESIGN APPROVERS
    824. DESIGN REVIEWERS
    825. DESIGN CHECKERS
    826. DESIGN VERIFIERS
    827. DESIGN VALIDATORS
    828. DESIGN TESTERS
    829. DESIGN EVALUATORS
    830. DESIGN ASSESSORS
    831. DESIGN ANALYZERS
    832. DESIGN MONITORS
    833. DESIGN TRACKERS
    834. DESIGN FOLLOWERS
    835. DESIGN GUIDES
    836. DESIGN HELPERS
    837. DESIGN SUPPORTERS
    838. DESIGN ASSISTERS
    839. DESIGN FACILITATORS
    840. DESIGN ENHANCERS
    841. DESIGN IMPROVERS
    842. DESIGN OPTIMIZERS
    843. DESIGN PERFECTORS
    844. DESIGN POLISHERS
    845. DESIGN FINISHERS
    846. DESIGN COMPLETERS
    847. DESIGN DELIVERERS
    848. DESIGN HANDOFFERS
    849. DESIGN TRANSFERRERS
    850. DESIGN PASSERS
    851. DESIGN HANDERS
    852. DESIGN CARRIERS
    853. DESIGN BRINGERS
    854. DESIGN TAKERS
    855. DESIGN ACCEPTORS
    856. DESIGN APPROVERS
    857. DESIGN REVIEWERS
    858. DESIGN CHECKERS
    859. DESIGN VERIFIERS
    860. DESIGN VALIDATORS
    861. DESIGN TESTERS
    862. DESIGN EVALUATORS
    863. DESIGN ASSESSORS
    864. DESIGN ANALYZERS
    865. DESIGN MONITORS
    866. DESIGN TRACKERS
    867. DESIGN FOLLOWERS
    868. DESIGN GUIDES
    869. DESIGN HELPERS
    870. DESIGN SUPPORTERS
    871. DESIGN ASSISTERS
    872. DESIGN FACILITATORS
    873. DESIGN ENHANCERS
    874. DESIGN IMPROVERS
    875. DESIGN OPTIMIZERS
    876. DESIGN PERFECTORS
    877. DESIGN POLISHERS
    878. DESIGN FINISHERS
    879. DESIGN COMPLETERS
    880. DESIGN DELIVERERS
    881. DESIGN HANDOFFERS
    882. DESIGN TRANSFERRERS
    883. DESIGN PASSERS
    884. DESIGN HANDERS
    885. DESIGN CARRIERS
    886. DESIGN BRINGERS
    887. DESIGN TAKERS
    888. DESIGN ACCEPTORS
    889. DESIGN APPROVERS
    890. DESIGN REVIEWERS
    891. DESIGN CHECKERS
    892. DESIGN VERIFIERS
    893. DESIGN VALIDATORS
    894. DESIGN TESTERS
    895. DESIGN EVALUATORS



NORTH  
1 DEMOLITION FLOOR PLAN - PLUMBING/MECHANICAL  
SCALE: 1/4" = 1'-0"

#### DEMOLITION PLUMBING/MECHANICAL KEYED NOTES

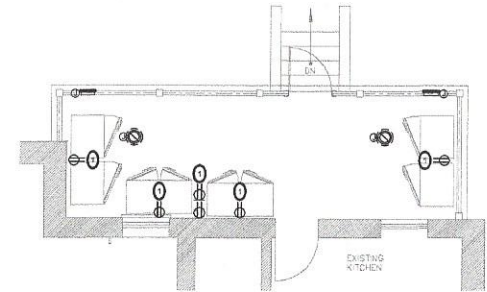
- 1 EXISTING CEILING AND WALL EXHAUST FANS TO BE REMOVED.
- 2 EXISTING BUILDING MAIN WASTE PIPING TO REMAIN.
- 3 EXISTING IN-GROUND GREASE TRAP TO BE RELOCATED.
- 4 EXISTING INLET AND OUTLET GREASE AND WASTE, VENT PIPING TO BE REMOVED, SEE DETAIL, No. 1 ON SHEET PM1.01 FOR NEW SCOPE OF WORK.
- 5 EXISTING 3-1 1/2" VENT THROUGH FLOOR TO BE RELOCATED. SEE DETAIL, No. 1 ON SHEET PM1.01 FOR NEW SCOPE OF WORK.
- 6

#### DEMOLITION ELECTRICAL KEYED NOTES

- 1 EXISTING 120VOLT RECEPTACLES TO BE COMPLETELY REMOVED.
- 2
- 3

#### GENERAL DEMOLITION NOTES

1. EXISTING POWER, DATA, AND VOICE RECEPTACLES SHALL BE REMOVED WHERE WALLS ARE TO BE DEMO.
2. ALL EXISTING RECEPTACLE FACE PLATES SHALL BE NEW TO MATCH NEW WALL RECEPTACLES, SIZE, TYPE, AND COLOR.
3. COORDINATE ALL EXISTING LOW VOLTAGE DROP'S TO BE RELOCATED TO OWNERS NEW LIT. ROOM.



NORTH  
2 DEMOLITION FLOOR PLAN - ELECTRICAL  
SCALE: 1/4" = 1'-0"

NOTE: DO NOT SCALE THESE DRAWINGS FOR CONSTRUCTION INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

COMMANDER'S HOUSE ADDITION  
WALK-IN COOLER/FREEZER

622 S. FLORES  
SAN ANTONIO, TEXAS 78204

speegle & KIM-davis: Architecture  
626 Avenue L, San Antonio, Texas 78215-1814  
210 228-9921



Printed 17 JAN 2019

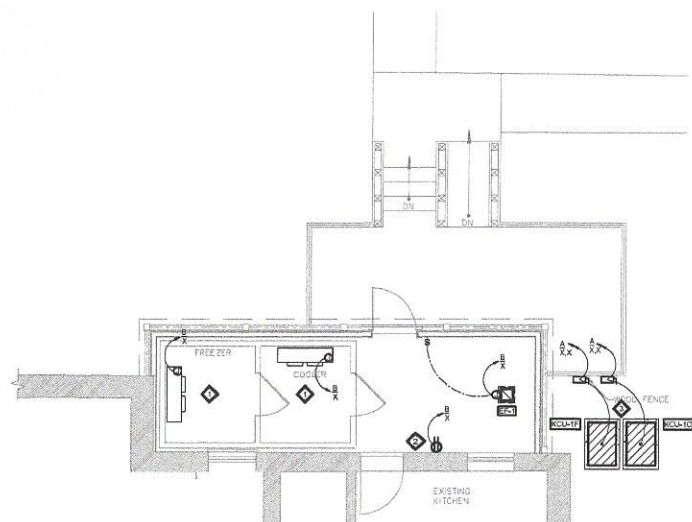
REVISIONS

1

DEMOLITION FLOOR PLAN  
PLUMBING/ MECHANICAL/  
ELECTRICAL

DPME1.01

NOTE: DO NOT SCALE THESE DRAWINGS FOR CONSTRUCTION. INSTALLATION REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.



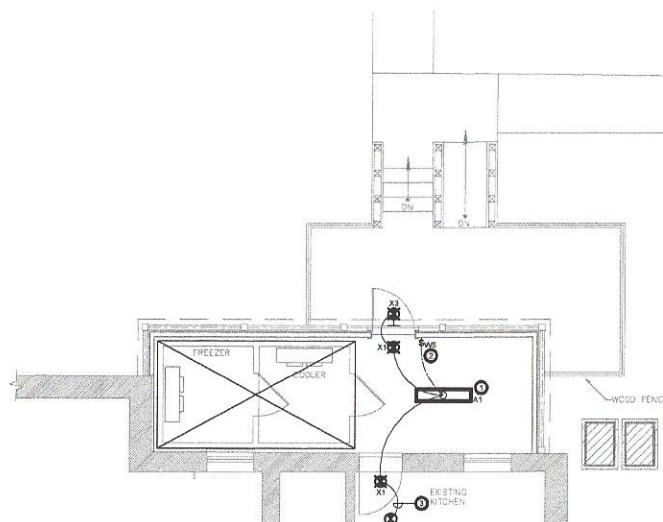
NORTH  
1 FLOOR PLAN - POWER  
SCALE: 1/4" = 1'-0"

#### POWER KEYED NOTES

- 1. WALK-IN COOLER/FREEZER. SEE ARCHITECTURAL DRAWINGS FOR WALK-IN INFORMATION AND DIMENSION.
- 2. SURFACE MOUNTED 120 VOLT RECEPTACLE. COORDINATE EXACT LOCATION WITH PROJECT ARCHITECT.
- 3. LOCATION OF REMOTE WALK-IN CONDENSERS. CONDENSERS LOCATED ON EQUIPMENT RACK. (STAKED) SEE ARCHITECTURAL AND EQUIPMENT DRAWINGS FOR EXACT INFORMATION.

#### POWER GENERAL NOTES

- 1. ALL WIRING TO BE INSTALLED IN CONDUIT RACEWAY.
- 2. ALL WIRE SHALL BE COPPER.
- 3. ANY FLEXIBLE CONDUIT SHALL NOT EXCEED 5'-0" IN LENGTH.
- 4. ALL RECEPTACLES SHALL BE LABELED INDICATION CIRCUIT HOME-RUN.
- 5. SECURITY SYSTEM AND DATA SYSTEMS BY OTHERS.



NORTH  
2 FLOOR PLAN - LIGHTING  
SCALE: 1/4" = 1'-0"

#### LIGHTING KEYED NOTES

- 1. COORDINATE SURFACE MOUNTED FIXTURE INSTALLATION HEIGHT WITH PROJECT ARCHITECT.
- 2. WALL SENSOR W/6 PER IECC CHAPTER 5 ENERGY REQUIREMENTS.
- 3. CONNECT NEW LIGHT FIXTURES TO EXISTING AREA LIGHTING CIRCUIT.

#### LIGHTING GENERAL NOTES

- 1. EMERGENCY LIGHTING FIXTURE POWER CONNECTION SHALL BE CONNECTED AHEAD OF EMERGENCY BACKUP BATTERY. (FIXTURE TO HAVE A CONSTANT HOT)

#### COMMANDER'S HOUSE ADDITION WALK-IN COOLER/FREEZER

622 S. FLORES  
SAN ANTONIO, TEXAS 78204

speegle & KIM-davis: Architecture  
826 Avenue E, Suite 210 228-9921  
San Antonio, Texas 78215-1814



Printed: 17 JAN 2019

REVISIONS

1. ☒ 1.0

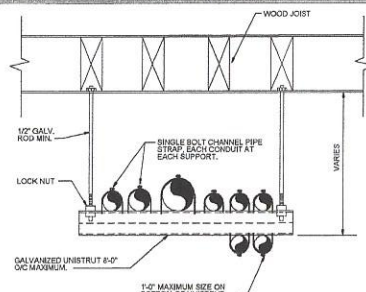
FLOOR PLAN  
POWER/LIGHTING

E1.01



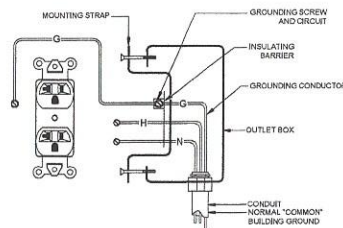
## GENERAL ELECTRICAL NOTES

- ALL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODES AND ALL OTHER AUTHORITIES HAVING JURISDICTION. OBTAIN PERMITS AND PAY ALL FEES. PERFORM MODIFICATION TO MEET CODE AND ORDINANCE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER, ARCHITECT, OR ENGINEER.
- VERIFY AT JOB SITE THE EXACT LOCATION OF STRUCTURAL MEMBERS SUCH AS BEAMS, COLUMNS ETC. TO LOCATE EQUIPMENT, CONDUIT, PANELS, AND DEVICES. IF DEVIATIONS FROM THE DRAWINGS ARE NECESSARY TO MEET STRUCTURAL CONDITIONS, NOTIFY ARCHITECT. MAKE DEVIATIONS WITHOUT ADDITIONAL COST TO OWNER, ARCHITECT, OR ENGINEER.
- SUBMIT COMPLETE DESCRIPTIVE DATA TO OWNERS REPRESENTATIVE FOR APPROVAL BEFORE ORDERING EQUIPMENT.
- ALL ITEMS OF MATERIAL AND EQUIPMENT FOR WHICH STANDARDS HAVE BEEN ESTABLISHED BY UNDERWRITERS LABORATORIES, ELECTRICAL TESTING LABORATORIES OF NATIONAL ELECTRICAL MFG. ASSOCIATION, SHALL BE APPROVED OR LISTED AND SHALL BEAR SUCH LABELS. ALL MATERIALS SHALL BE NEW.
- TEST ALL EQUIPMENT INCLUDED IN THIS CONTRACT FOR PROPER OPERATION.
- THE OWNER SHALL BE GUARANTEED BY THE ELECTRICAL CONTRACTOR THAT ANY DEFECTS ARISING IN THE WORK WITHIN ONE YEAR OF THE DATE OF ACCEPTANCE SHALL BE CORRECTED FREE OF CHARGE.
- ALL SLEEVES, PENETRATIONS, ETC. SHALL BE SEALED WITH NON-SHRINKING MATERIAL IMMEDIATELY UPON FILLING THE OPENING WITH PIPE OR CONDUIT.
- GROUND ENTIRE ELECTRICAL SYSTEM IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. SPECIFY PANEL BORDS WITH BOLT-ON CIRCUIT BREAKERS. PANEL BORDS WITH COPPER BUSSESS ONLY.
- CONDUIT OUTDOORS OR WHERE EXPOSED TO WET OR DAMP CONDITIONS SHALL BE RIGID, GALVANIZED WITH THREADED FITTING. CONDUIT INDOORS SHALL BE EMT, WITH THREADED FITTING. SCHEDULE 40 PVC CONDUIT MAY BE USED UNDERGROUND ONLY.
- ALL ELECTRICAL CONDUCTORS SHALL BE COPPER WIRE, NUMBER 8 AND LARGER SHALL BE STRANDED AND HAVE MINIMUM TYPE THIN; INSTALLATION OR EQUAL. ALL WIRING SHALL BE INSTALLED IN EMT CONDUIT RACEWAY.
- COORDINATE ALL WORK AND ELECTRICAL EQUIPMENT LOCATIONS WITH CIVIL, ARCHITECTURAL, STRUCTURAL AND MECHANICAL TRADES.
- WALL RECEPTACLES SHALL BE DUPLEX CONVENIENCE OUTLETS 20 AMPERES, 120V/120V.
- WALL SWITCHES SHALL BE HUBBELL 20AMP 120V/120V.
- VERIFY AT JOB SITE GENERAL WORK TO BE DONE AS SPECIFIED. AS NOTED, OR AS REQUIRED FOR INSTALLATION OF ELECTRICAL OR ELECTRICAL SYSTEMS PRIOR TO SUBMISSION OF BIDS.
- THE ELECTRICAL CONTRACTOR AND HIS EMPLOYEES SHALL PERFORM THEIR WORK IN A SAFE MANNER TO MAINTAIN ADEQUATE PROTECTION OF THEIR WORK, THE OWNERS PROPERTY, AND ALL PERSONS ON THE SITE FROM INJURY, DAMAGE OR LOSS.
- CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY PROBLEM ARISING FROM INTERPRETATION ON THESE DOCUMENTS IMMEDIATELY AS IT IS DISCOVERED.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND EQUIPMENT TO BE REMOVED AND REPLACED BEFORE SUBMITTING HIS BID.
- CONTRACTOR SHALL COORDINATE ALL LIGHT FIXTURES TYPES AND LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PROJECT.
- WALL RECEPTACLES, SWITCHES AND TELEPHONE PLATES SHALL BE COLOR AS REQUIRED BY PROJECT ARCHITECT.
- INSTALLATION SHALL BE IN ACCORDANCE WITH NEC 2017 AND IEC 2018 WITH CITY AMENDMENTS AND THE STATE OF TEXAS AUTHORITY HAVING JURISDICTION.

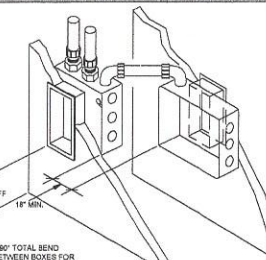


NOTE:  
1. PROVIDE BIR CABLE FOR APARTMENT TYPE CONSTRUCTION.

### 1 MULTIPLE ELECTRICAL CONDUIT MOUNTING SCALE: NOT TO SCALE



### 2 120VOLT RECEPTACLE WITH GROUND CONDUCTOR SCALE: NOT TO SCALE



NOTE:  
MINIMUM OF 90° TOTAL BEND  
REQUIRED BETWEEN BOXES FOR  
SOUND ATTENUATION

### 3 120VOLT WALL RECEPTACLE SCALE: NOT TO SCALE

ELECTRICAL SERVICE LOAD ANALYSIS				
PROJECT: COMMANDER HOUSE- ADDITION HES ARSENAL 122 S. Flores San Antonio, Texas 78204 SERVICE VOLTAGE: 120/208VOLT, 3 PHASE, 4 WIRE				
EXISTING LOADS	LOAD DESCRIPTION	UNIT LOAD	VOLT-AMPERES	AMPERES
1	201			2
2	201			2
3	201			2
4	201			2
5	201			2
6	201			2
7	201			2
8	201			2
9	201			2
10	201			2
11	201			2
12	201			2
13	201			2
14	201			2
15	201			2
16	201			2
17	201			2
18	201			2
19	201			2
20	201			2
21	201			2
22	201			2
23	201			2
24	201			2
25	201			2
26	201			2
27	201			2
28	201			2
29	201			2
30	201			2
31	201			2
32	201			2
33	201			2
34	201			2
35	201			2
36	201			2
37	201			2
38	201			2
39	201			2
40	201			2
41	201			2
42	201			2
TOTAL PROJECTED CONNECTED LOAD PER NEC 2017				

EXISTING				
PANEL: 'A'	VOLTS: 208/120	KAIC: 14	225 MLO	
LOCATION: BASEMENT	PHASE 3	NEMA: 1	225 AMP	
WIRE: 4	WIRE: 4	WIRE: 4	WIRE: 4	
Q/L NO.	CIRCUIT USE	SKR SIZE	VA LOAD/PHASE	Q/L NO.
1	201			2
2	201			2
3	201			2
4	201			2
5	201			2
6	201			2
7	201			2
8	201			2
9	201			2
10	201			2
11	201			2
12	201			2
13	201			2
14	201			2
15	201			2
16	201			2
17	201			2
18	201			2
19	201			2
20	201			2
21	201			2
22	201			2
23	201			2
24	201			2
25	201			2
26	201			2
27	201			2
28	201			2
29	201			2
30	201			2
31	201			2
32	201			2
33	201			2
34	201			2
35	201			2
36	201			2
37	201			2
38	201			2
39	201			2
40	201			2
41	201			2
42	201			2
TOTALS IN VA				

EXISTING				
PANEL: 'B'	VOLTS: 208/120	KAIC: 14	225 MLO	
LOCATION: BASEMENT	PHASE 3	NEMA: 1	225 AMP	
WIRE: 4	WIRE: 4	WIRE: 4	WIRE: 4	
Q/L NO.	CIRCUIT USE	SKR SIZE	VA LOAD/PHASE	Q/L NO.
1	201			2
2	201			2
3	201			2
4	201			2
5	201			2
6	201			2
7	201			2
8	201			2
9	201			2
10	201			2
11	201			2
12	201			2
13	201			2
14	201			2
15	201			2
16	201			2
17	201			2
18	201			2
19	201			2
20	201			2
21	201			2
22	201			2
23	201			2
24	201			2
TOTALS IN VA				

LOAD	CONTR. VA	DEMAND	DESIGN VA	NOTES
LOAD LIGHTING (L)	X	100%		
AIR COND (AC)	X	100%		
HEATING (HVA/C)	X	100%		
RECEPTACLES (R)	X	100%		
CONTINUOUS LOAD	X	100%		
EQUIPMENT	X	100%		
MOTOR LOAD	X	100%		
PANEL 'X'	X	100%		
SUB-TOTAL				
RESERVE CAPACITY (10%)				
TOTAL				

## ELECTRICAL SYMBOLS

## ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FLUORESCENT FIXTURE		SWITCH LEG USED TO INDICATE SWITCH SCHEME
	EXIT LIGHT - GLOWING INDICATOR		BRANCH CIRCUIT HOME RUN, SUBSCRIPT INDICATES PANEL & # INDICATE BREAKER POSITION
	EMERGENCY LIGHT UNIT WITH BATTERY PACK AS INDICATED		SAFETY SWITCH, NON-FUSED OR FUSED, SIZE AS INDICATED
	SINGLE POLE SWITCH		CEILING MOUNTED SMOKE DETECTOR
	DISTRIBUTION PANEL BOARD, SEE SCH. PANEL BOARD, SEE SCH.		DUCT MOUNTED SMOKE DETECTOR
	DUPLEX RECEPTACLE, 20A, 120V/3 WIRE GROUNDING TYPE		ABOVE COUNTER (OUTLET)
	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTING (GFCI) WEATHER PROOF		
	CENTRALIZED CONDUIT WITH ONE PHASE OTHERWISE NOTED		
	TELEPHONE OUTLET IN FLOOR		
	QUADPLEX OUTLET		
	LIGHT SWITCH - SINGLE POLE		
	LIGHT SWITCH - KEYED		
	LIGHT SWITCH - THREE WAY		

LIGHTING SCHEDULE						
TYPE	DESCRIPTION	MOUNTING	LAMP	FIXTURE WATTAGE	VOLTAGE	MANUFACTURER
A1	4-4" UTILITY WRAP AROUND	SURFACE	LED	30/2500K	120VOLT	LITHONIA
X1	EXIT LIGHT UNIT W/LED BATTERY BACKUP CLEAR RED	CEILING	LED	5	120VOLT	LITHONIA
X3	EMERGENCY EXTERIOR WALL SCONCE (BLACK)	WALL	LED	2/60/2500K	120VOLT	LITHONIA

- NOTES:  
(1) ALL EXIT SIGNS TO HAVE RED LETTERS WITH 6"X3" LETTERS AND 90 MINUTES OF BATTERY BACKUP.  
(2) CONFIRM ALL FIXTURE VOLTAGES WITH CIRCUITING ON PLAN.  
(3) MANUFACTURER TO VERIFY FIXTURE CATALOG NUMBERS WITH THE DESCRIPTION OF THE FIXTURE AND CIRCUITING ON THE PLANS.  
(4) AUTOMATIC WALL SWITCH AND SENSOR VAS AS REQUIRED PER IEC 2018 CHAPTER 5, SECTION 505.

NOTE: ALL NOTES AND SYMBOLS MAY NOT BE APPLICABLE TO THIS PROJECT.

## COMMANDER'S HOUSE ADDITION WALK-IN COOLER/FREEZER

622 S. FLORES  
SAN ANTONIO, TEXAS 78204

speegle & KIM-davis: Architecture  
625 Avenue E, San Antonio, Texas 78215-1814



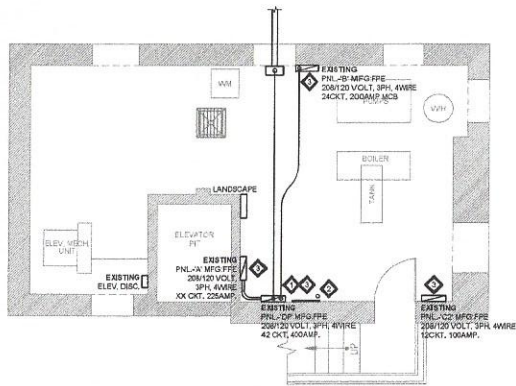
Printed: 17 JAN 2019

REVISIONS

ELECTRICAL  
GENERAL NOTES/ DETAILS/  
PANELS/LIGHTING SCHEDULE

E2.01

NOTE: DO NOT SCALE THESE DRAWINGS FOR CONSTRUCTION INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

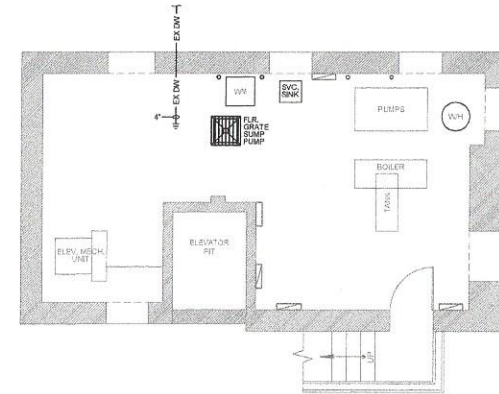


#### POWER KEYED NOTES

- 1 EXISTING BUILDING ELECTRICAL SERVICE ENTRY MAIN DISTRIBUTION.
- 2 LOCATION OF EXISTING DEMARCATION.
- 3 LOCATION OF EXISTING ELECTRICAL PANEL(S).

#### PLUMBING KEYED NOTES

- 1 POINT OF NEW CONNECTION FOR SANITARY SEWER (SS) PIPE TO EXISTING SANITARY SEWER. CONTRACTOR SHALL VERIFY EXACT LOCATION OF CONNECTION.
- 2 POINT OF CONNECTION TO EXISTING DRAIN WASTE.
- 3 EXISTING BUILDING WASTE PIPING.



NORTH  
1 BASEMENT FLOOR PLAN - ELECTRICAL  
SCALE: 1/4" = 1'-0"

NORTH  
2 BASEMENT FLOOR PLAN - PLUMBING  
SCALE: 1/4" = 1'-0"

COMMANDER'S HOUSE ADDITION  
WALK-IN COOLER/FREEZER

622 S. FLORES  
SAN ANTONIO, TEXAS 78204

speegle & KIM-davis: Architecture  
626 Avenue E, 210 228-9921  
San Antonio, Texas 78215-1814



Printed: 17 JAN 2019

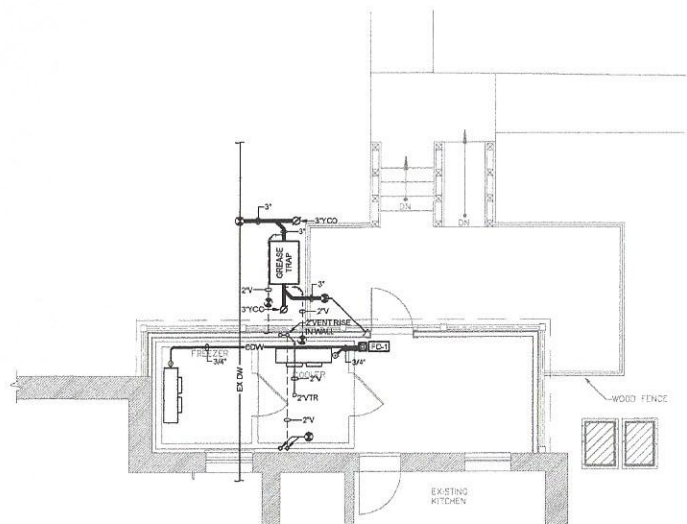
REVISIONS

1

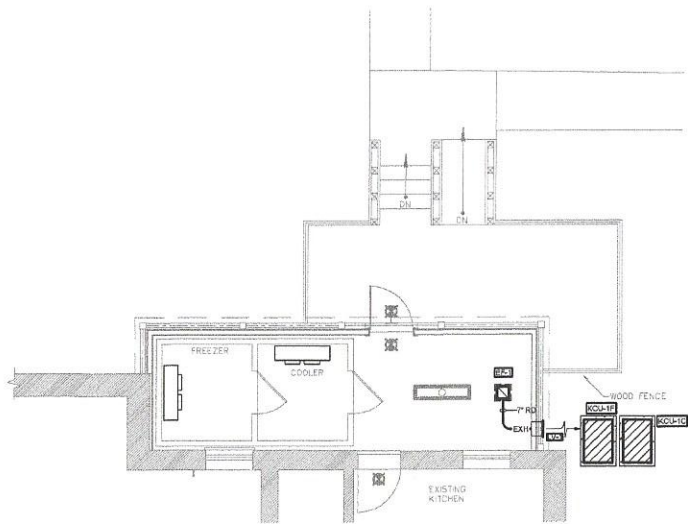
FLOOR PLAN  
PLUMBING/ELECTRICAL

PE1.01

NOTE: DO NOT SCALE THESE DRAWINGS FOR CONSTRUCTION INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.



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



2 FLOOR PLAN - MECHANICAL  
SCALE: 1/4" = 1'-0"

**MECHANICAL KEYED NOTES**

- CONNECT EXHAUST DUCT TO EXHAUST LOUVER AT EXTERIOR WALL.
- EXHAUST LOUVER AT EXTERIOR WALL. INSTALL AS PER DETAIL No. 1 SHEET.
- EP-1 HUNG FROM STRUCTURE. ROUTE EXHAUST DUCT TO EXTERIOR WALL LOUVER.

**PLUMBING KEYED NOTES**

- POINT OF NEW CONNECTION FOR SANITARY SEWER (SS) PIPE TO EXISTING SANITARY SEWER. CONTRACTOR SHALL VERIFY EXACT LOCATION OF CONNECTION.
- DROP 5/8" CONDENSATE DRAIN WASTE (CDW) FROM UNIT TO DRAIN INTO HIS DRAIN.
- POINT OF CONNECTION TO EXISTING DRAIN WASTE.
- EXISTING BUILDING WASTE PIPING.
- EXISTING DOMESTIC WATER ENTRY INTO BUILDING.

**PLUMBING GENERAL NOTES**

- CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND FLOW DIRECTION OF EXISTING BUILDING WASTE BY STEM TO BE USED.
- CONTRACTOR SHALL COORDINATE WITH STRUCTURAL DRAWINGS FOR BEAM LOCATIONS BEFORE ANY INSTALLATION OF WASTE SYSTEM.
- NO AS-BUILT DRAWINGS HAVE BEEN PROVIDED. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID.
- NO AS-BUILT DRAWINGS HAVE BEEN PROVIDED FOR INSTALLATION LOCATIONS OF WASTE AND WATER BY STEM CONTRACTOR SHALL ALLOW FOR EXPLORATION FOR LOCATING THE WASTE AND WATER SYSTEM.

**EXHAUST FAN SCHEDULE**

MARK	TYPE	MANUFACTURER AND MODEL	SERVICE	CFM	S.P. (\"WG)	H.P.	WHP	MAX. SONES	DRIVE	CONTROL	NOTES
EF-1	CEILING	COOK CO-186	EXHAUST	150	.125	1/8	120/1	10.0	DIRECT	SWITCH	ALL

- NOTES:
- PROVIDE WITH WALL SWITCH. INTERLOCK WITH AREA LIGHT.
  - TRANSITION DUCT ROUTED TO EXTERIOR WALL LOUVER.
  - CONFIRM MODEL NUMBERS WITH OWNER BEFORE ORDERING.
  - PROVIDE WITH MOTOR RATED ON/OFF SWITCH.

**PLUMBING FIXTURE SCHEDULE**

MARK	TYPE	MANUFACTURER AND MODEL	DESCRIPTION	WASTE	VENT	WTR	HW
FD-1	FLOOR DRAIN	ZURN MODEL #C400-65	ZURN TYPE 6\" SQUARE ADJUSTABLE LIGHT-OUTY STRAINER TOP WITH SECURE HEBL-PROOF GRATE. 6\"X6\" POLISH NICKEL BRONZE TOP (ZN).	3\"	1 1/2\"	-	-

- GENERAL NOTES:
- ALL FIXTURES SHALL BE PROVIDED WITH APPROPRIATE STOPS, KEYS, TRAPS, ESCUTOCHONS, VACUUM BREAKERS, WALL CARRIERS.
  - ALL LAVATORIES AND SINK FALCETS SHALL BE PROVIDED WITH THERMOSTATIC MIXING VALVE LEONARD MODEL #170.
  - PROVIDE ALL LAVATORIES/SINKS WITH STRAINERS.
  - CONTRACTOR SHALL PROVIDE ANTI SIPHON DEVICES, VACUUM RELIEF VALVES TO BE INSTALLED ON DOMESTIC WATER SUPPLY LINE.
  - PROVIDE ALL WALL MOUNTED FIXTURES WITH FLOOR SECURED CARRIERS.
  - PROVIDE ALL LAVATORY AND SINK FALCETS WITH INTERNAL LIMITING THERMOSTATIC VALVES.

**LOUVER SCHEDULE**

MARK	SIZE	MAX. CFM	MIN. FREE AREA (SQ FT)	MAX. S.P. DROP (\"WG)	SERVICE	MFG.	MODEL	NOTES
LV-1	12\"X18\"	200	0.41	.05	EXHAUST	RUSKN	ELF378D4H	ALL

- \*AT MAX. CFM
- NOTES:
- SEE TYPICAL INSTALLATION DETAIL.
  - PROVIDE WITH BACKDRAFT DAMPER, BIRDSCREEN.
  - TRANSITION AS REQUIRED FOR WALL LOUVER DUCT.

**COMMANDER'S HOUSE ADDITION  
WALK-IN COOLER/FREEZER**

622 S. FLORES  
SAN ANTONIO, TEXAS 78204  
**speggle & KIM-davis: Architecture**  
526 Avenue E  
San Antonio, Texas 78215-1814  
210 228-9921



Printed: 17 JAN 2019

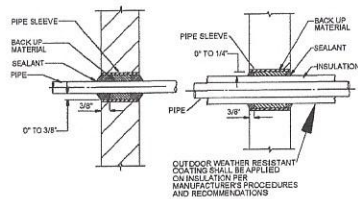
**REVISIONS**

1				
2				
3				
4				
5				

FLOOR PLAN  
PLUMBING/MECHANICAL

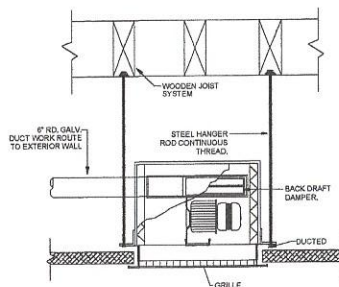
PM1.01



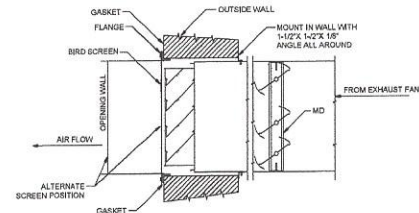


NOTE: FIRE RATE AS REQUIRED.

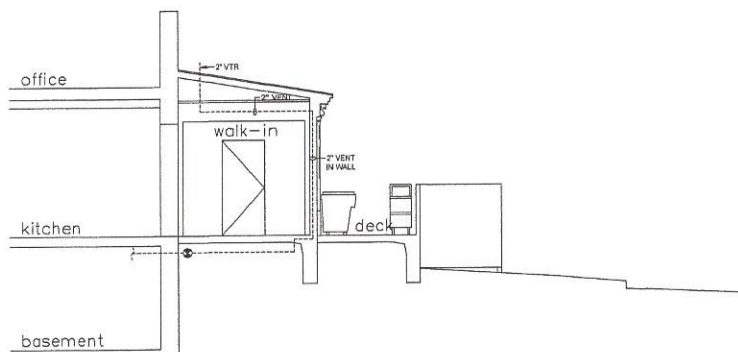
**1 PIPE THRU WALL**  
SCALE: NOT TO SCALE



**2 CEILING EXHAUST FAN**  
SCALE: NOT TO SCALE



**3 EXHAUST LOUVER AND SCREEN**  
SCALE: NOT TO SCALE



**4 WALK-IN AREA SECTION**  
SCALE: NOT TO SCALE

COMMANDER'S HOUSE ADDITION  
WALK-IN COOLER/FREEZER

622 S. FLORES  
SAN ANTONIO, TEXAS 78204

speegle & KIM-davis: Architecture  
526 Avenue E 210 228-9921  
San Antonio, Texas 78215-1814



Printed: 17 JAN 2019

REVISIONS

1

PLUMBING/ MECHANICAL  
DETAILS

PM2.01





HABS No. TX-3175-A-3



















