REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE

ARROW ROCK, MISSOURI

CONSTRUCTION DOCUMENTS

MAY 12, 2020

ARCHITECT:

STRATA
ARCHITECTURE + PRESERVATION
1701 Oak Street, Suite 100 Kansas City, Missouri 64108
816.474.0900 www.strata-arch.com

CIVIL ENGINEER:

McCLURE™

MECHANICAL, ELECTRICAL, & PLUMBING ENGINEER:

W.L. CASSELL & ASSOCIATES INC. now IMEG

STRUCTURAL ENGINEER

McCLURE™

KITCHEN CONSULTANT:

DGG
DENNIS G. GLORE, INC.
Food Facilities Consultants
P.O. Box 200
Eureka, MO 63025
Phone: (636) 938-7887 Fax: (636) 938-6590

FIRE PROTECTION:

cmgfire
CMG Fire Protection Engineering, Inc.
Overland Park, Kansas 66213
Phone: (913) 239-8900

OWNER: STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN & CONSTRUCTION

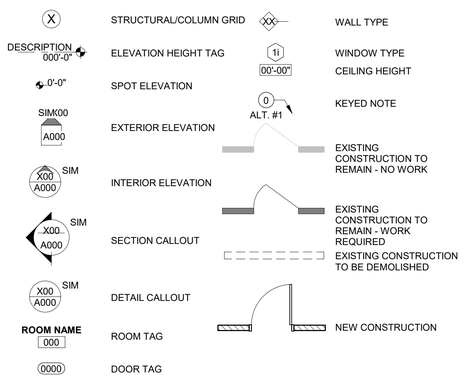
DESIGNERS: STRATA ARCHITECTURE, INC.
McCLURE ENGINEERING
W.L. CASSEL & ASSOCIATES, INC.
DENNIS G. GLORE INC.
CMG FIRE PROTECTION ENGINEERING, INC.

PROJECT #: X2001-01
ASSET #: 7815102008

SHEET NUMBER:
G100

001 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

SYMBOLS LEGEND



PROJECT SCOPE

- THE WORK CONSISTS OF A NEW KITCHEN FACILITY FOR THE J. HUSTON TAVERN (THE TAVERN), LOCATED WITHIN ARROW ROCK STATE HISTORIC SITE, IN THE VILLAGE OF ARROW ROCK, MISSOURI. THE WORK INCLUDES RENOVATING THE CURRENT KITCHEN AND SUPPORTING RESTROOM, AN ADDITION TO THE KITCHEN WITH A BASEMENT, AND A NEW STAIR LEADING TO THE EXISTING BASEMENT. A NEW MECHANICAL SYSTEM WILL BE PROVIDED FOR THE HISTORIC PORTION OF THE TAVERN.
- ALTERNATE 1 WILL INCLUDE AN ADDITION OF THREE EXTERIOR RESTROOMS FOR PUBLIC USE AND A JANITOR'S CLOSET.

HISTORIC TREATMENT

A. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION OF THE HISTORIC AND EXISTING BUILDING FABRIC (INTERIOR AND EXTERIOR) FROM DAMAGE, WEAR OR WEATHER THROUGHOUT THE PROJECT CONSTRUCTION.

B. ALL EXISTING SURFACES AND MATERIALS ARE TO BE TREATED AS ORIGINAL HISTORIC FABRIC. THESE MATERIALS ARE TO BE PROTECTED THROUGHOUT CONSTRUCTION AND ARE NOT TO BE DISTURBED OR REMOVED UNLESS AUTHORIZED BY THE OWNER OR THE ARCHITECT, OR AS RELATED TO A SPECIFIC SCHEDULED AREA OF REHABILITATION. IF HISTORIC FABRIC IS REMOVED OR DAMAGED, IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REPLACE SAID DAMAGE TO LIKE OR BETTER CONDITION AT NO COST TO THE OWNER.

C. ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH SPECIFICATION SECTION 013591 HISTORIC TREATMENT PROCEDURES AND THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES STANDARDS FOR PRESERVATION:

1. A PROPERTY WILL BE USED AS IT WAS HISTORICALLY, OR BE GIVEN A NEW USE THAT MAXIMIZES THE RETENTION OF DISTINCTIVE MATERIALS, FEATURES, SPACES, AND SPATIAL RELATIONSHIPS. WHERE A TREATMENT AND USE HAVE NOT BEEN IDENTIFIED, A PROPERTY WILL BE PROTECTED AND, IF NECESSARY, STABILIZED UNTIL ADDITIONAL WORK MAY BE UNDERTAKEN.
2. THE HISTORIC CHARACTER OF A PROPERTY WILL BE RETAINED AND PRESERVED. THE REPLACEMENT OF INTACT OR REPAIRABLE HISTORIC MATERIALS OR ALTERATION OF FEATURES, SPACES, AND SPATIAL RELATIONSHIPS THAT CHARACTERIZE A PROPERTY WILL BE AVOIDED.
3. EACH PROPERTY WILL BE RECOGNIZED AS A PHYSICAL RECORD OF ITS TIME, PLACE, AND USE. WORK NEEDED TO STABILIZE, CONSOLIDATE, AND CONSERVE EXISTING HISTORIC MATERIALS AND FEATURES WILL BE PHYSICALLY AND VISUALLY COMPATIBLE, IDENTIFIABLE UPON CLOSE INSPECTION, AND PROPERTY DOCUMENTED FOR FUTURE RESEARCH.
4. CHANGES TO A PROPERTY THAT HAVE ACQUIRED HISTORIC SIGNIFICANCE IN THEIR OWN RIGHT WILL BE RETAINED AND PRESERVED.
5. DISTINCTIVE MATERIALS, FEATURES, FINISHES, AND CONSTRUCTION TECHNIQUES OR EXAMPLES OF CRAFTSMANSHIP THAT CHARACTERIZE A PROPERTY WILL BE PRESERVED.
6. THE EXISTING CONDITION OF HISTORIC FEATURES WILL BE EVALUATED TO DETERMINE THE APPROPRIATE LEVEL OF INTERVENTION NEEDED. WHERE THE SEVERITY OF DETERIORATION REQUIRES REPAIR OR LIMITED REPLACEMENT OF A DISTINCTIVE FEATURE, THE NEW MATERIAL WILL MATCH THE OLD IN COMPOSITION, DESIGN, COLOR, AND TEXTURE.
7. CHEMICAL OR PHYSICAL TREATMENTS, IF APPROPRIATE, WILL BE UNDERTAKEN USING THE GENTLEST MEANS POSSIBLE. TREATMENTS THAT CAUSE DAMAGE TO HISTORIC MATERIALS WILL NOT BE USED

GENERAL REQUIREMENTS

A. SMOKING IS NOT PERMITTED IN ANY INTERIOR SPACES WITHIN THE PROJECT AREA OR BUILDING.

B. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE CONSTRUCTION AREA BEFORE AND AFTER EACH WORK DAY.

C. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND WORK IN-PLACE, LAYOUT ALL NEW WALLS AND PARTITIONS TO CONFIRM LOCATIONS, VERIFY DIMENSIONS, LOCATE EXISTING UTILITIES AND SYSTEMS, AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION.

D. THE CONTRACTOR SHALL INCLUDE ALL ITEMS, MATERIAL, LABOR, AND SERVICES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE INTENDED WORK.

E. GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE JOB SITE WORK SAFETY CODES AND REGULATIONS INCLUDING SAFETY OF PERSONS AND PROPERTY.

F. GENERAL CONTRACTOR IS TO OBTAIN ALL REQUIRED PERMITS AND APPROVALS FOR SALINE COUNTY, STATE OF MISSOURI, AND ANY OTHER APPLICABLE JURISDICTIONAL ENTITIES FOR EACH PHASE OF THE WORK PRIOR TO PROCEEDING.

G. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONSTRUCT IN CONFORMANCE WITH ALL CURRENT LOCAL, STATE, AND FEDERAL CODES, ORDINANCES AND PROCEDURES.

H. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING FIELD CONDITIONS INCLUDING UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING MEASUREMENTS.

I. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE WORK OF ALL SUBCONTRACTORS.

J. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING WORK AND WITH ALL OTHER BUILDING TRADES THAT CORRELATE TO SUCH WORK IN ORDER TO ENSURE THAT THE WORK DESIGNATED IS COMPLETED ON SCHEDULE AND IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

K. THE ARCHITECT IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE PROJECT DOCUMENTS AND CONDITIONS IN THE FIELD.

L. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE LICENSED AND INSURED TO PERFORM WORK, AS REQUIRED BY THE LOCAL AND STATE AUTHORITIES.

M. ALL DEMOLITION DEBRIS SHALL BE TAKEN TO A LICENSED LANDFILL WITH WRITTEN PROOF PROVIDED TO THE OWNER. PLACEMENT OF TRASH DUMPSTER FOR CONSTRUCTION DEBRIS MUST BE COORDINATED WITH THE OWNER. DUMPSTER SHALL NOT BLOCK ENTRANCES, STAIRS OR OTHERWISE ENCROACH ON THE PUBLIC RIGHT-OF-WAY.

N. THE GENERAL CONTRACTOR SHALL COORDINATE DEMOLITION SO THAT ALL EXISTING CONSTRUCTION TO REMAIN IS PROTECTED FROM DAMAGE.

O. THE TERM 'REMOVE' SHALL INCLUDE THE PROPER DISPOSAL OF THE DEMOLISHED MATERIAL, CLEANING OF THE REMAINING CONDITION, AND PREPARATION OF THE AREA FOR THE SUCCESSFUL IMPLEMENTATION OF THE REMAINING WORK UNLESS NOTED OTHERWISE.

P. FOR WORK DIRECTED TO BE COMPLETED WITHIN CRAWL SPACE, THE GENERAL CONTRACTOR SHALL PROVIDE NECESSARY TRENCH TO ACCOMMODATE INSULATION AND MEP EQUIPMENT. ALL TRENCHING SHOULD BE VERIFIED WITH STRUCTURAL ENGINEER AND SHOULD AVOID UNDERMINING ANY STRUCTURAL SUPPORTS.

Q. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS IN THE FIELD.

R. THE GENERAL CONTRACTOR AND SUBCONTRACTORS ARE SOLELY RESPONSIBLE FOR THE CONSTRUCTION PROCESS, MATERIAL VERIFICATION AND WORKER SAFETY. CONTRACTORS ARE TO INSTALL ALL MATERIALS PER MANUFACTURERS' REQUIREMENTS, UL RATING REQUIREMENTS, SPECIFIC TRADE GUIDELINES, INDUSTRY STANDARDS AND PER CURRENT BUILDING CODES.

S. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL MAKE NO STRUCTURAL CHANGES WITHOUT THE WRITTEN APPROVAL OF A STRUCTURAL ENGINEER

T. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING AS REQUIRED FOR THE SCHEDULED WORK.

U. REPAIR OR REPLACE ANY EXISTING MATERIALS SCHEDULED TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION. REPLACEMENT MATERIAL SHALL MATCH THE ORIGINAL MATERIAL, IN KIND. NOTIFY OWNER'S CONSTRUCTION REPRESENTATIVE IF ANY DAMAGE OCCURS. ALL DAMAGE MUST BE DOCUMENTED PHOTOGRAPHICALLY AND IN WRITING TO THE OWNER. PATCH AND REPAIR EXISTING CONSTRUCTION AS SPECIFIED, IN KIND, DUE TO DEMOLITION OR NEW CONSTRUCTION ACTIVITIES. REPAIRS OR REPLACEMENTS MUST MATCH THE EXISTING MATERIAL IN TEXTURE, PROFILE, DIMENSION, AND FINISH.

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G103 CODE AND LIFE SAFETY PLANS
G104 UL CONSTRUCTION

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C201 EROSION CONTROL PLAN
C301 SITE PLAN
C401 GRADING PLAN
C501 UTILITY PLAN
C601 DETAILS

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A051 FIRST FLOOR DEMOLITION PLAN
A053 ROOF DEMOLITION PLAN
A054 DEMOLITION EXTERIOR ELEVATIONS
A055 DEMOLITION EXTERIOR ELEVATIONS
A061 ALT. #1 FIRST FLOOR DEMOLITION PLAN

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A202 EXTERIOR ELEVATIONS
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A311 ALT. #1 WALL SECTIONS

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A501 DETAILS
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STRUCTURAL

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S100A BASEMENT FRAMING PLAN - ALTERNATE 1
S101 FIRST FLOOR FRAMING PLAN - BASE BID
S101A FIRST FLOOR FRAMING PLAN - ALTERNATE 1
S102 ROOF FRAMING PLAN - BASE BID
S102A ROOF FRAMING PLAN - ALTERNATE 1
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PLUMBING / MECHANICAL / ELECTRICAL

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PM000 MECHANICAL & PLUMBING GENERAL NOTES, SYMBOLS LISTS & ABBREVIATIONS

PMD050 BASEMENT PLUMBING & MECHANICAL DEMOLITION PLAN
PMD051 FIRST FLOOR PLUMBING & MECHANICAL DEMOLITION PLAN

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M101 BASEMENT MECHANICAL PLAN - SOUTH
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M103 FIRST FLOOR MECHANICAL PLAN - SOUTH
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ED103 FIRST FLOOR ELECTRICAL DEMOLITION PLAN - SOUTH

E000 ELECTRICAL SYMBOLS, GENERAL NOTES, LIGHT FIXTURE SCHEDULE
E101 BASEMENT ELECTRICAL PLAN - SOUTH
E102 BASEMENT ELECTRICAL PLAN - NORTH
E103 FIRST FLOOR ELECTRICAL PLAN - SOUTH
E104 FIRST FLOOR ELECTRICAL PLAN - NORTH
EL152 FIRST FLOOR LIGHTING PLAN - SOUTH

E300 ELECTRICAL PANEL SCHEDULES
E301 EXISTING AND NEW ADDITION RISER DIAGRAMS
E500 LIGHTNING PROTECTION PLAN
E501 DETAILS

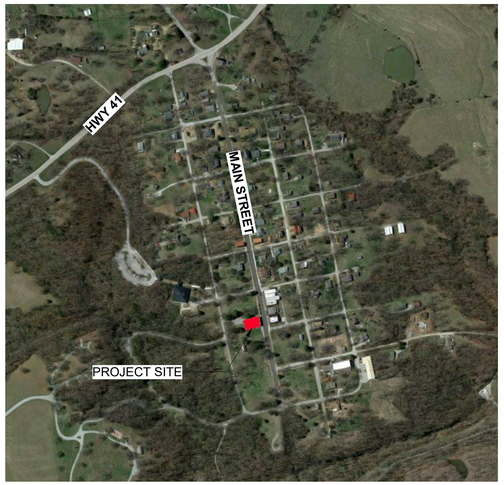
FIRE PROTECTION

F-001 FIRE ALARM PLANS
F-101 FIRE ALARM PLANS

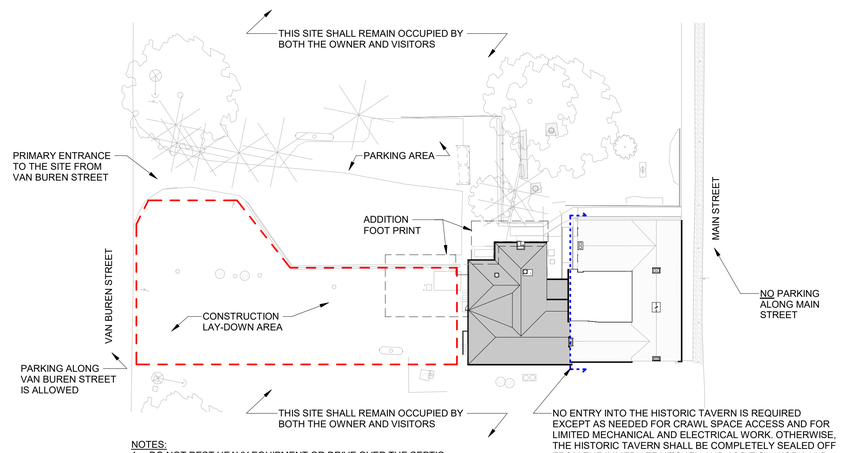
FOOD SERVICE

Q-FP-01 FOOD SERVICE EQUIPMENT FLOOR PLAN
Q-FP-02 FOOD SERVICE EQUIPMENT SPOT ELECTRICAL PLAN
Q-FP-03 FOOD SERVICE EQUIPMENT SPOT PLUMBING PLAN
Q-DT-01 FOOD SERVICE EQUIPMENT HOOD DRAWINGS
Q-DT-02 FOOD SERVICE EQUIPMENT HOOD DRAWINGS
Q-DT-03 FOOD SERVICE EQUIPMENT HOOD DRAWINGS
Q-DT-04 FOOD SERVICE EQUIPMENT ELEVATIONS
Q-DT-05 FOOD SERVICE EQUIPMENT ELEVATIONS

VICINITY MAP



CONSTRUCTION WORK-AREA LIMITS



NOTES:
1. DO NOT REST HEAVY EQUIPMENT OR DRIVE OVER THE SEPTIC AREA. NO PARKING IN THE LAWN.
2. TEMPORARY RESTROOMS SHALL BE TO THE SOUTH OF THE BUILDING AT A LOCATION APPROVED BY THE OWNER AND SHALL BE OUT OF THE VIEWSHED OF MAIN STREET.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT

05.12.2020
Angie Gaebler - Architect
MO# A-2016030717

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816.474.0900 www.strata-arch.com

Missouri State Certificate of Authority: #2009024884

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

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REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

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DATE:
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ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

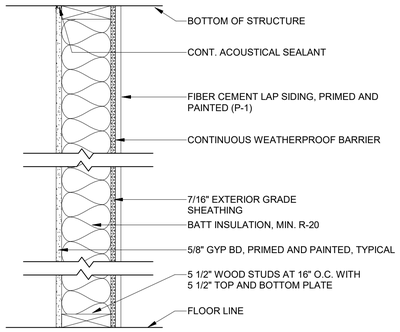
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SHEET INDEX, LIMITS OF CONSTRUCTION, NOTES

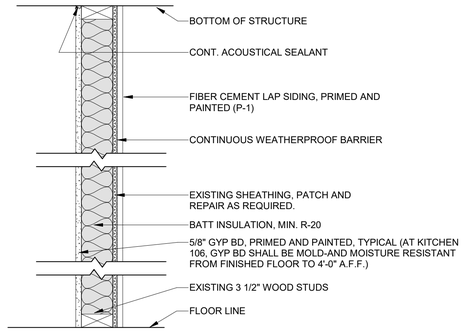
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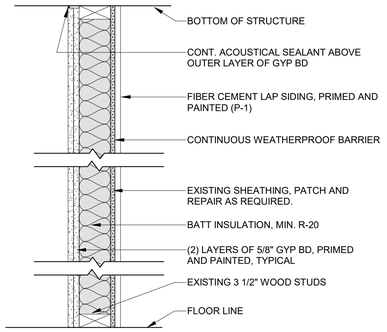
002 OF 102 SHEETS
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MAY 12, 2020



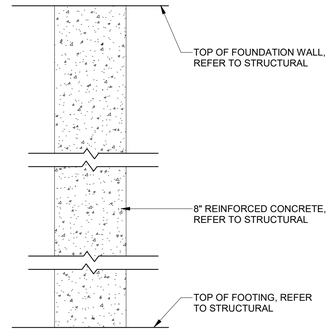
A EXTERIOR SIDING WALL CONSTRUCTION



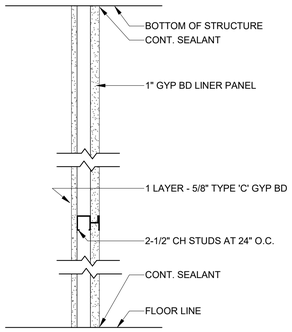
B EXISTING EXTERIOR SIDING WALL CONSTRUCTION



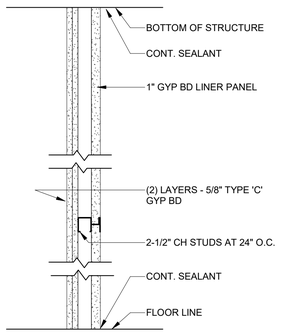
C EXISTING EXTERIOR SIDING WALL CONSTRUCTION



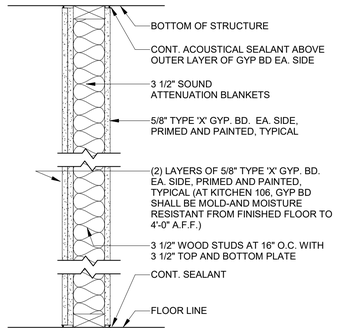
D EXTERIOR CONCRETE FOUNDATION WALL



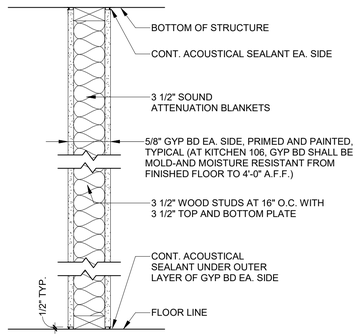
E 1-HOUR RATED SHAFT WALL, UL NO. U438



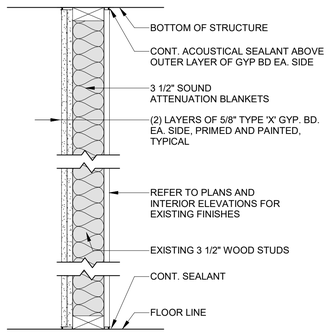
F 2-HOUR RATED SHAFT WALL, UL NO. U439



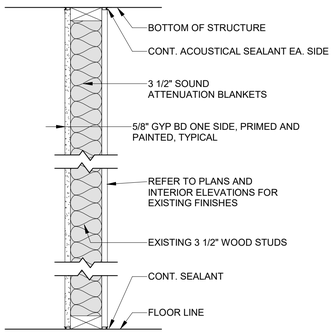
G GYPSUM BOARD ASSEMBLY



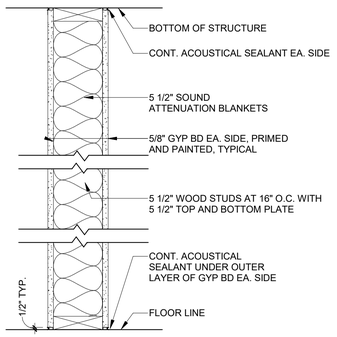
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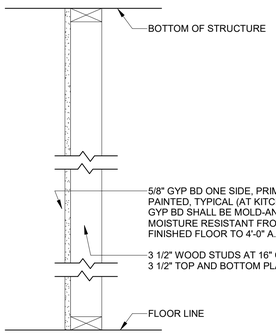
I EXISTING GYPSUM BOARD ASSEMBLY



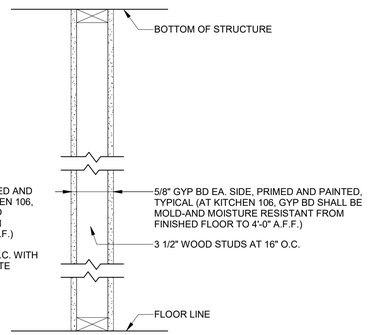
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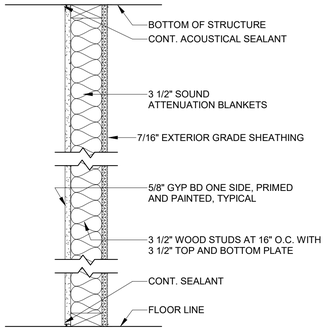
K ACOUSTIC GYPSUM BOARD ASSEMBLY



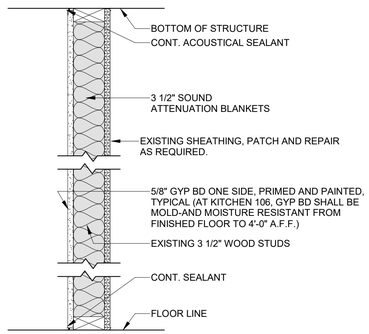
L GYPSUM BOARD ASSEMBLY



M GYPSUM BOARD ASSEMBLY

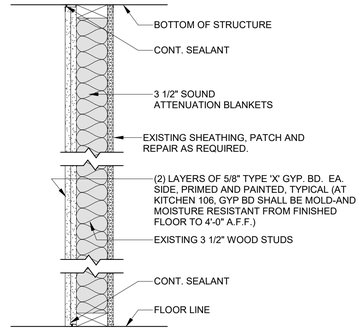


O ACOUSTIC GYPSUM BOARD ASSEMBLY



N EXISTING ACOUSTIC GYPSUM BOARD ASSEMBLY

WALL TYPE 'P' IS INCLUDED FOR ALTERNATE #1



P ALTERNATE #1 EXISITNG ACOUSTIC GYPSUM BOARD ASSEMBLY

WALL TYPES

1 1/2" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI ANGIE GAEBLER NUMBER A-2016030717 ARCHITECT

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DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:
WALL TYPES

SHEET NUMBER:

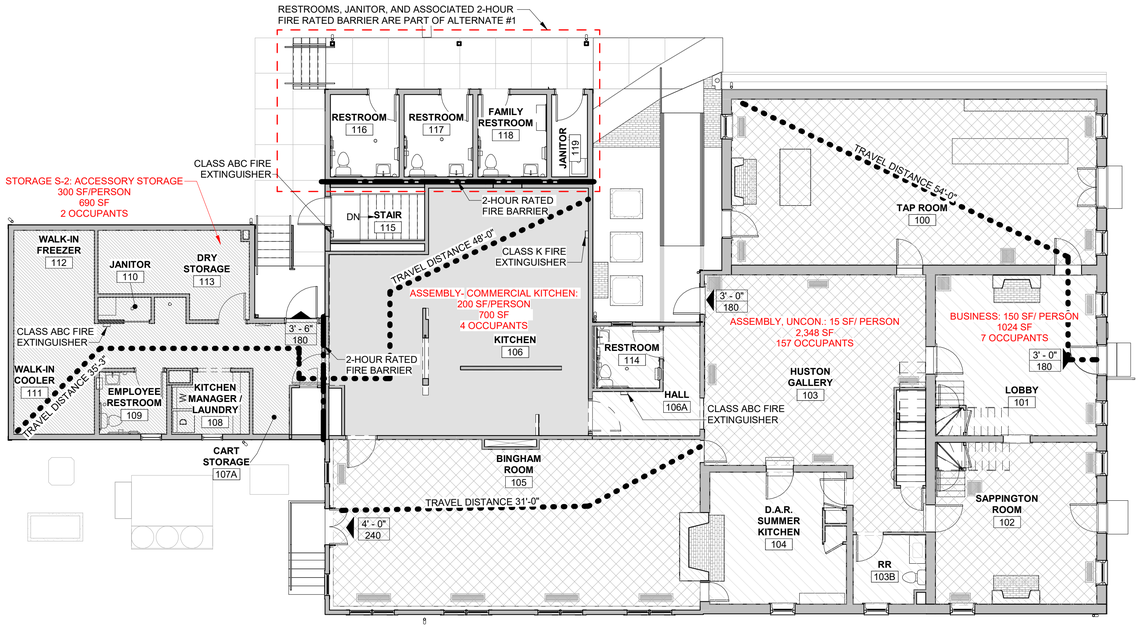
G102

003 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

ATTIC VENTILATION

1. PER IBC SECTION 1202.2.1, THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED.
2. VENTED SOFFIT PANELS SHALL HAVE A MIN. OF 5 SQ. IN. OF NET FREE VENTILATION PER LINEAL FOOT.

	ATTIC AREA	VENTILATION AREA REQUIRED	VENTILATION AREA PROVIDED
KITCHEN ADDITION MAIN ROOF	652 SF	4.4 SF	111'-0" VENTED SOFFIT PANELS x 5 SQ. IN. / 144 = 3.85 SF, WALL LOUVER GABLE VENT = 0.55 SF
KITCHEN ADDITION CONNECTION	102 SF	0.68 SF	111'-0" VENTED SOFFIT PANELS x 5 SQ. IN. / 144 = 3.85 SF
STAIR ADDITION, BASE BID	84 SF	0.56 SF	111'-0" VENTED SOFFIT PANELS x 5 SQ. IN. / 144 = 3.85 SF
RESTROOM AND STAIR ADDITION, ALT. #1	392 SF	2.61 SF	111'-0" VENTED SOFFIT PANELS x 5 SQ. IN. / 144 = 3.85 SF



1 CODE ANALYSIS - FIRST FLOOR PLAN

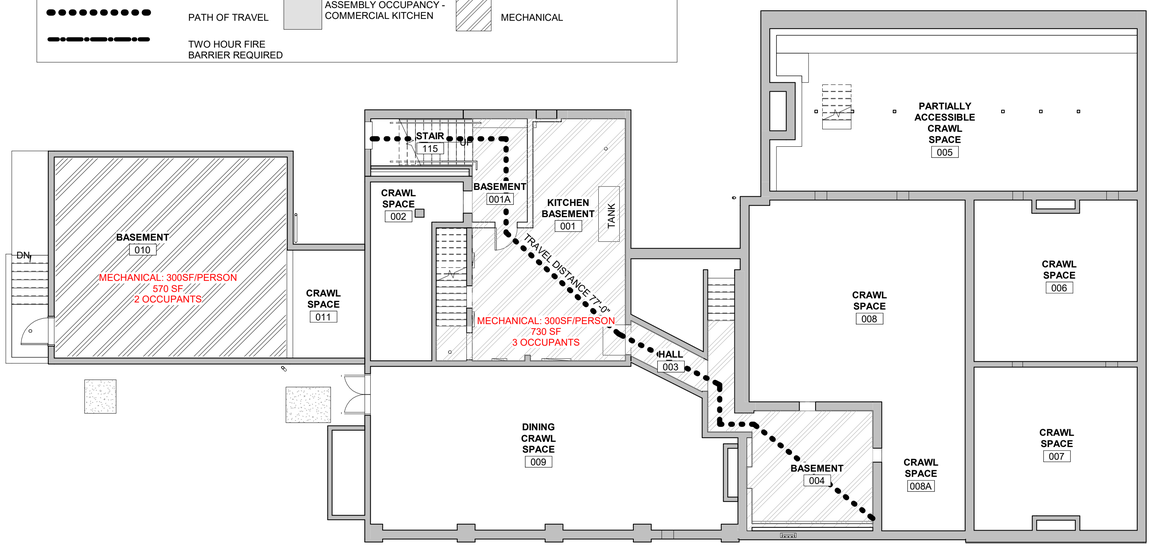
1/8" = 1'-0"

FIRST FLOOR GROSS SF= 4,773 SF
FIRST FLOOR TOTAL OCCUPANTS= 170 PERSONS

0' 4' 8' 16' 32'

CODE ANALYSIS LEGEND:

- DESIGNATED EXIT
- 3' - 0" / 243 — EXIT WIDTH / EXIT CAPACITY
- PATH OF TRAVEL
- TWO HOUR FIRE BARRIER REQUIRED
- ASSEMBLY OCCUPANCY - UNCONCENTRATED
- ASSEMBLY OCCUPANCY - COMMERCIAL KITCHEN
- BUSINESS OCCUPANCY
- MECHANICAL
- STORAGE



2 CODE ANALYSIS - BASEMENT FLOOR PLAN

1/8" = 1'-0"

BASEMENT GROSS SF= 1,300 SF
BASEMENT TOTAL OCCUPANTS= 5 PERSONS

CODES CONSULTED

- 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
- 2018 INTERNATIONAL BUILDING CODE (IBC)
- 2017 NATIONAL ELECTRIC CODE (NEC)
- 2018 INTERNATIONAL MECHANICAL CODE (IMC)
- 2018 INTERNATIONAL PLUMBING CODE (IPC)
- NATIONAL FIRE PROTECTION AGENCY (NFPA 101)
- AMERICAN SOCIETY OF HEATING REFRIGERATING AND AIR-CONDITION ENGINEERS (ASHRAE Standard 90.1)
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
- AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
- THE AMERICANS WITH DISABILITIES ACT (ADAAG)

SUMMARY

- **THE EXISTING BUILDING IS NON-COMPLIANT BECAUSE IT IS A GROUP A-2 OCCUPANCY CLASSIFICATION WITH MORE THAN ONE STORY AND IS NON-SPRINKLED.**
- **ADDITIONAL SQUARE FOOTAGE IS REQUIRED TO FIT THE DESIRED ENLARGED KITCHEN AND RESTROOM FUNCTIONS. BECAUSE OF THIS, AN ADDITION IS PLANNED, BUT IT WILL BE REQUIRED TO BE SEPARATED FROM THE EXISTING BUILDING WITH A 2-HOUR FIRE BARRIER. THEREFORE, THERE IS NO ADDED FIRE AREA TO THE EXISTING BUILDING, AND THE EXISTING PORTION OF THE BUILDING CAN REMAIN NON-COMPLIANT.**
- **THE ADDITION MAY BE CLASSIFIED AS ASSEMBLY OCCUPANCY GROUP A-2. FIRE SPRINKLERS ARE ONLY REQUIRED FOR NEW GROUP A-2 OCCUPANCIES WITH MORE THAN 5,000 SF. A SUPPRESSION SYSTEM AT KITCHEN HOODS WILL BE PROVIDED. SPRINKLERS ARE NOT REQUIRED FOR THE MAIN TAVERN BUILDING, BECAUSE THERE IS A SINGLE TENANT, THE REHABILITATION IS A LEVEL 2 ALTERATION, AND THERE IS NOT SUFFICIENT WATER SUPPLY IN THE CITY.**

BUILDING OCCUPANCY AND CONSTRUCTION TYPE

BASEMENT - ACCESSORY TO B OCCUPANCY
- MECHANICAL ADDITION

1ST FLOOR - ASSEMBLY A2: RESTAURANT / COMMERCIAL KITCHEN
- BUSINESS B: LOBBY/MUSEUM ROOM
- STORAGE S-2: KITCHEN ADDITION
- BUSINESS B: RESTROOM ADDITION

2ND FLOOR - BUSINESS B: OFFICE AND MUSEUM SPACES, INCLUDING THE BALLROOM, WHICH IS CONSIDERED AN ACCESSORY TO THE A OCCUPANCY, BECAUSE IT HAS LESS THAN 50 OCCUPANTS (SEE SECTION 303.1.2). THE BALLROOM OCCUPANT COUNT WAS CALCULATED USING THE ASSEMBLY MAX. FLOOR AREA ALLOWANCES PER OCCUPANT.

MIXED OCCUPANCY

SECTION 504.2: MIXED OCCUPANCY, CANNOT EXCEED THE NUMBER OF HEIGHT AND STORY LIMITS

ALLOWABLE HEIGHT

TABLE 504.3: 40 FEET

ALLOWABLE STORIES FOR A2

ONE STORY - TABLE 504.4: EXISTING IS NON-CONFORMING WITH TWO-STORIES
ADDITION - ONE-STORY THAT IS LEVEL WITH THE EXISTING, AND A BASEMENT WHICH IS NOT A STORY ABOVE GRADE PLANE.

ALLOWABLE AREA

TABLE 506.2: A2, TYPE VB, 10,500 SF (WITH ADDITION). HAS OPEN YARDS. THE EXISTING A-2 FIRE AREA IS NOT BEING INCREASED.

CONSTRUCTION TYPE VB

ITEM (TABLE 601)	REQUIRED HOURS
PRIMARY STRUCTURAL FRAME	0 HR
EXT. BEARING WALLS	0 HR
INT. BEARING WALLS	0 HR
EXT. NON-BEARING WALLS	0 HR
INT. NON-BEARING WALLS	0 HR
FLOOR CONSTRUCTION	0 HR
ROOF CONSTRUCTION	0 HR

IBC CHAPTER 7: FIRE AND SMOKE PROTECTION FEATURES

SECTION 707.3.10: FIRE AREAS. THE FIRE BARRIERS SEPARATING A SINGLE OCCUPANCY INTO DIFFERENT FIRE AREAS SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN THAT INDICATED IN TABLE 707.3.10. SEPARATION BETWEEN THE NEW KITCHEN ADDITION (S-2) AND THE COMMERCIAL KITCHEN (A-2) IS A 2-HOUR FIRE BARRIER. SEPARATION BETWEEN THE NEW RESTROOMS ADDITION (B) AND THE COMMERCIAL KITCHEN (A-2) IS A 2-HOUR FIRE BARRIER.

SECTION 707.5 CONTINUITY. FIRE BARRIERS SHALL EXTEND FROM THE TOP OF THE FOUNDATION OR FLOOR/CEILING ASSEMBLY BELOW TO THE UNDERSIDE OF THE FLOOR OR ROOF SHEATHING, SLAB OR DECK ABOVE AND SHALL BE SECURELY ATTACHED.

SECTION 707.5.1 SUPPORTING STRUCTURE. THE SUPPORTING CONSTRUCTION FOR A FIRE BARRIER SHALL BE PROTECTED TO AFFORD THE REQUIRED FIRE RESISTANCE RATING OF THE FIRE BARRIER SUPPORTED.

SECTION 707.6 OPENINGS. OPENINGS IN A FIRE BARRIER SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 716. OPENINGS SHALL BE LIMITED (REFER TO TEXT IN THIS SECTION). EXCEPTIONS, 2: OPENINGS SHALL NOT BE LIMITED. WHERE THE OPENING PROTECTIVE HAS BEEN TESTED IN ACCORDANCE WITH ASTM E119 OR UL 263 AND HAS A MINIMUM FIRE RESISTANCE RATING NOT LESS THAN THE RATING OF THE WALL (FIRE DOORS).

IBC CHAPTER 9: FIRE PROTECTION AND LIFE SAFETY

SECTION 901. FIRE AREAS SHALL BE SEPARATED BY FIRE BARRIERS PER 707.
- FIRE BARRIER IS NEEDED TO AVOID ADDING FIRE AREA TO THE EXISTING NON-COMPLIANT BUILDING.

SECTION 903.2.1.2

GROUP A-2 IS REQUIRED TO HAVE AN AUTOMATIC SPRINKLER SYSTEM. THE CURRENT BUILDING IS OVER 5,000 SF, THE FIRE AREA HAS AN OCCUPANT LOAD OF MORE THAN 100, AND THERE IS FIRE AREA ON THE SECOND STORY.
- CURRENT BUILDING IS NON-CONFORMING.
- ADDITIONS DO NOT REQUIRE FIRE SPRINKLERS

IBC CHAPTER 10: EXITING

SECTION 1005.3.2 EXIT DOORS WIDTH ALLOW .2 INCHES PER PERSON, WHICH ALLOWS 60 PEOPLE PER FOOT

TABLE 1017.2 TRAVEL DISTANCE FOR ASSEMBLY AND BUSINESS OCCUPANCY IN A NON-SPRINKLED BUILDING IS 200 FEET

IEBC CHAPTER 8: ALTERATIONS - LEVEL 2

IEBC SECTION 803.2.2 FIRE PROTECTION, EXCEPTION, IF THE BUILDING DOES NOT HAVE SUFFICIENT MUNICIPAL WATER SUPPLY FOR DESIGN OF A FIRE SPRINKLER SYSTEM AVAILABLE TO THE FLOOR WITHOUT INSTALLATION OF A NEW FIRE PUMP, WORK AREAS SHALL BE PROTECTED BY AN AUTOMATIC SMOKE DETECTION SYSTEM THROUGHOUT ALL OCCUPIABLE SPACES THAT ACTIVATES THE OCCUPANT NOTIFICATION SYSTEM IN ACCORDANCE WITH SECTIONS 907.4, .5, AND .6

IEBC CHAPTER 11: ADDITIONS

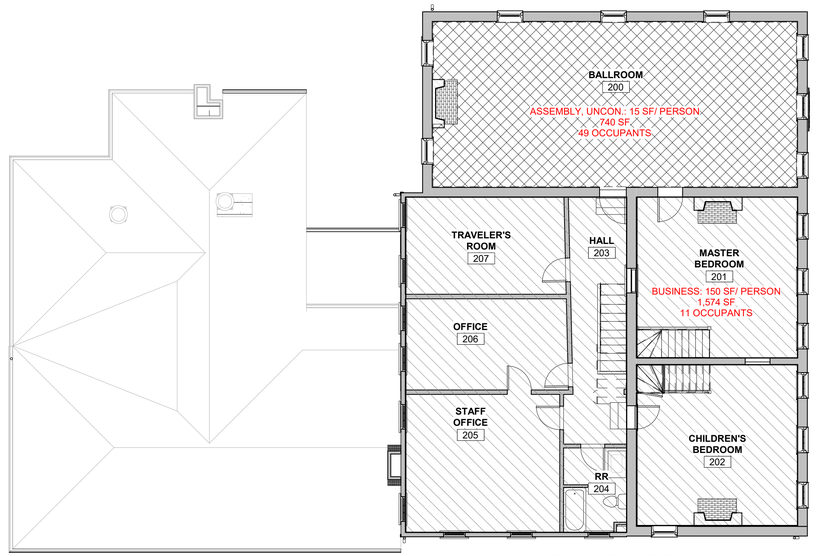
SECTION 1101.2 NEW WORK CANNOT EXTEND ANY NONCONFORMITY, AND THEREFORE, A FIRE BARRIER WILL BE CONSTRUCTED BETWEEN THE FIRE AREAS, PER TABLE 707.3.10 OF THE IBC. THE EXISTING BASEMENT STAIR IS NON-COMPLIANT. IT IS PROPOSED TO BE RELOCATED TO PROVIDE DIRECT ACCESS TO GRADE FROM THE BASEMENT OR TO IMPROVE SAFETY FROM ITS EXISTING CONDITION. A FIRE AREA THAT IS INCREASED WHICH IS USED TO IMPROVE EMERGENCY EGRESS (AS IN THE CONSTRUCTION OF A NEW BASEMENT STAIR) IS APPLICABLE.

PLUMBING FIXTURE SUMMARY

GENERAL NOTE:
THE FIXTURES, ACCESSORIES, AND BUILT ENVIRONMENT ARE TO MEET THE REQUIREMENTS OF THE ADA ACCESSIBILITY GUIDELINES (ADAAG) AS THEY APPLY TO THIS PROJECT. CONTRACTORS AND SUPPLIERS SHALL NOTIFY THE ARCHITECT IF THEY BELIEVE A PRODUCT SPECIFIED OR AN INSTALLATION DETAIL TO BE CONTRARY TO THE MINIMUM REQUIREMENTS OF THE ADAAG.

OCCUPANCY TYPE	OCCUPANT LOAD TOTAL	OCCUPANT LOAD MEN/WOMEN	MEN WC	MEN LAV	WOMEN WC	WOMEN LAV	DF	SERVICE SINK
A-2: RESTAURANT (TABLE 2902.01)	163	82	1.09 (1 PER 75)	0.41 (1 PER 200)	1.09 (1 PER 75)	0.41 (1 PER 200)	0.164 (1 PER 500)	(1)
B: BUSINESS (TABLE 2902.01)	67	34	1.36 (1 PER 25 FOR 1ST 50 THEN 1 PER 50)	0.85 (1 PER 40 FOR 1ST 80 THEN 1 PER 80)	1.36 (1 PER 25 FOR 1ST 50 THEN 1 PER 50)	0.85 (1 PER 40 FOR 1ST 80 THEN 1 PER 80)	0.67 (1 PER 100)	(1)
TOTALS	**230**	**115**	**2.45**	**1.26**	**2.45**	**1.26**	**0.834**	(2)
NUMBER OF FIXTURES **REQUIRED**			**3**	**2**	**3**	**2**	**1**	**2**
NUMBER OF FIXTURES **PROVIDED****			**3**	**3**	**3**	**3**	**0***	**1**

* DRINKING WATER IS PROVIDED IN THE KITCHEN ** SECOND FLOOR RESTROOM IS NOT INCLUDED



3 CODE ANALYSIS - SECOND FLOOR PLAN

1/8" = 1'-0"

SECOND FLOOR GROSS SF= 2,323 SF
SECOND FLOOR TOTAL OCCUPANTS= 60 PERSONS

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI ANGIE GAEBLER NUMBER A-2016030717 ARCHITECT

05.12.2020
Angie Gaebler - Architect
MO# A-2016030717

STRATA ARCHITECTURE + PRESERVATION
1701 Oak Street, Suite 100 Kansas City, Missouri 64108
816.474.0900 www.strata-arch.com

Missouri State Certificate of Authority: #2009024884

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:

CODE AND LIFE SAFETY PLANS

SHEET NUMBER:

G103

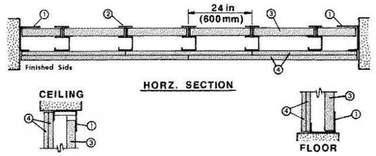
004 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

Design No. U438

May 15, 2017

Nonbearing Wall Rating — 2 HR.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** "J" -shaped runner, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG when Item 4B is used). Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs —** "C-H" -shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from 25 MSG galv steel (min 20 MSG when Item 4B, 4D, or 4E is used). Cut to lengths 3/8 to 1/2 in. less than floor to ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4B, 4D, 4E is used).

2A. **Steel Studs —** (Not shown)-"E" -shaped studs installed in place of "C-H" -shaped studs (Item 2) to secure the closure liner panels at the ends of walls. Fabricated from 25 MSG galv steel (min 20 MSG when Item 4B, 4D, or 4E is used), 2-1/2 in. wide, with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 in. less than floor to ceiling height. Sill and lintel of opening formed with "J" -shaped runners (Item 1) secured to "E" -shaped studs with angle clips and steel screws.

3. **Gypsum Board* —** 1 in. thick gypsum wallboard liner panels, supplied in nom 24 in. or 600 mm (for metric spacing) widths. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" -shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" -runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC.

CGC INC — Type SLX.

UNITED STATES GYPSUM CO — Type SLX.

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE C V — Type SLX.

4. **Gypsum Board* —** 1/2 in. thick, 4 ft. or 1200 mm (for metric spacing) wide wallboard applied vertically in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC along the edges and in the field of the boards. Outer or face layer attached to studs and "J" -runners with 1-5/8 in. long Type S steel screws spaced 12 in. along the edges and in the field of the boards, staggered from screws in inner layer. Joints between inner and outer layers staggered.

Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound.

As an alternate method, inner wallboard layer applied vertically, outer wallboard layer applied horizontally. Inner layer attached to studs with 1 in. Type S steel screws spaced 24 in. OC along vertical edges and in the field. Outer layer attached to the studs and "J" runners over the inner layer with 1-5/8 in. long Type S steel screws spaced 12 in. OC in the field, along the vertical edges and to the floor and ceiling runners. Outer layer secured to inner layer wallboard with 1-1/2 in. long Type G steel screws located midway between studs and 1 in. from the horizontal joint.

ACADIA DRYWALL SUPPLIES LTD — Type C

AMERICAN GYPSUM CO — Types AG-C .

CERTAINTEED GYPSUM INC — Type FRPC, Type C.

CGC INC — Type C, IP-X2, or WRC.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C.

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C, FSMR-C.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C.

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIVAir, Gyproc FireStop MR ACTIVAir, Gyproc FireStop M2TECH ACTIVAir

THAI GYPSUM PRODUCTS PCL — Type C.

UNITED STATES GYPSUM CO — Type C, IP-X2 or WRC.

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Type C, IP-X2 or WRC.

4A. **Gypsum Board* —** (As an alternate to Item 4) — 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Inner or base layer attached to studs with 1 in. long Type S or S-12 steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S or S-12 steel screws spaced 12 in. OC when installed vertically and staggered 12 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. When used in widths other than 48 in., gypsum panels to be installed horizontally.

CGC INC — Type AR, IP-AR, IP-X1, SCX, ULX, or WRX.

UNITED STATES GYPSUM CO — Type AR, FRX-G, IP-AR, IP-X1, SCX, ULX or WRX.

USG BORAL DRYWALL SFZ LLC — Type SCX

USG MEXICO S A DE C V — Type AR, IP-AR, IP-X1, SCX, ULX, or WRX.

4B. **Gypsum Board* —** (Not Shown) - May be used in lieu of Items 4 or 4A for the base layer - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips (Item 6) required behind vertical joints.

RAY-BAR ENGINEERING CORP — Type RB-LBG

4C. **Gypsum Board* —** (As an alternate to Item 4, 4A, 4B) — 5/8 in. thick. Two layers installed as described in Item 4.

NATIONAL GYPSUM CO — Type FSMR-C.

4D. **Gypsum Board* —** (Not Shown) - May be used in lieu of Items 4 for the base layer - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints. To be used with Lead Batten Strips (see Item 6B) or Lead Discs (see Item 6C).

MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4E. **Gypsum Board* —** (Not Shown) - May be used in lieu of Items 4 for the base layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. dam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4F. **Gypsum Board* —** (As an alternate to Item 4) — 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Inner or base layer attached to studs with 1 in. long Type S or S-12 steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S or S-12 steel screws spaced 8 in. OC when installed vertically and staggered min. 8 in. from base layer screws or 8 in. OC when installed horizontally and staggered min. 6 in. from base layer screws. Horizontal joints between inner and outer layers need not to be staggered. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound. When used in widths other than 48 in., gypsum panels to be installed horizontally.

UNITED STATES GYPSUM CO — Type ULIX.

5. **Batts and Blankets* —** (Optional) — (Not shown) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt material bearing the UL Classification Marking as to Fire Resistance.

5A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C — INS735 & INS745 for use with wet or dry application. INS765LD and INS770LD are to be used for dry application only.

5B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) anc Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

5C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

6. **Lead Batten Strips —** For Use with Item 4B - (Not Shown) - Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6A. **Lead Discs or Tabs —** (Not Shown) - Used in lieu of or in addition to the lead batten strips (Item 6) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6B. **Lead Batten Strips —** (Not Shown, for use with Item 4D) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.

6C. **Lead Discs —** (Not Shown, for use with Item 4D) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

1 U.L. NO. U438 LISTED CONSTRUCTION

Scale: N.T.S

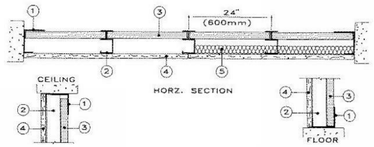
Design No. U469

June 20, 2018

Assembly Rating — 1 HR

Nonbearing Wall

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** "J" - shaped, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG steel required when Item 4A, 4B, or 4C is used). Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs —** "C-H" shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from min 25 MSG galv steel (min 20 MSG steel required when Item 4A, 4B, or 4C is used), spaced 24 in. or 600 mm OC (max 16 in. OC when Item 4A, 4B, or 4C is used). Vertically restrained walls require studs to be cut 3/8 in. less than floor to ceiling height.

3. **Gypsum Board* —** 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. or 600 mm widths. Vertical edges inserted in "H" shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" runners with 1-5/8 in. long Type S head steel screws spaced not greater than 12 in. OC.

CERTAINTEED GYPSUM INC — Types Shaftliner, EGRG Shaftliner or GlasRoc Shaftliner

CGC INC — Type SLX.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFCSL

GEORGIA-PACIFIC GYPSUM L L C — Types TP-6, DGUSL, and TRSL

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE C V — Type SLX.

4. **Gypsum Board* —** 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.

ACADIA DRYWALL SUPPLIES LTD — 5/8 Type X, Type Bluglass Exterior Sheathing

AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, LightRoc.

CERTAINTEED GYPSUM INC — Type C, Type X-2.

CGC INC — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC-C, LGFC-C/A, LGFC6A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type TG-C, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W, Type DGG, Type DAP, Type DS.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-11, PG-C, PGS-WRS.

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIVAir, Gyproc FireStop MR ACTIVAir, Gyproc FireStop M2TECH ACTIVAir, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIVAir, Gyproc DuraLine MR ACTIVAir, Gyproc DuraLine M2TECH ACTIVAir

THAI GYPSUM PRODUCTS PCL — Type C.

UNITED STATES GYPSUM CO — Types C, FRX-G, IP-X1, IP-X2, IPC-AR, SCX, ULX or WRC.

USG BORAL DRYWALL SFZ LLC — Types C, SCX

USG MEXICO S A DE C V — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.

4A. **Gypsum Board* —** Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips (Item 6) required behind vertical joints

RAY-BAR ENGINEERING CORP — Type RB-LBG

4B. **Gypsum Board* —** Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips reguired behind vertical joints. To be used with Lead Batten Strips (see Item 6B) or Lead Discs (see Item 6C).

MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4C. **Gypsum Board* —** (Not Shown - As an Alternate to Item 4.). Nom 5/8 in. thick ead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the fice of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4D. **Gypsum Board* —** For use with Item 5D, **Batts and Blankets***and minimum std depth increased to 4 in. - 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.

UNITED STATES GYPSUM CO — Type ULIX

5. **Batts and Blankets* —** (Optional) — Mineral wool batts partially or completely filling stud cavity.

ROCKWOOL — Type AFB

THERMAFIBER INC — Type SAFB, SAFB FF

5A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C — INS735 & INS745 for use with wet or dry application. INS765LD and INS770LD are to be used for dry application only.

5B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

5C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft^3.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

5D. **Batts and Blankets* —** For use with Item 4D. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

6. **Lead Batten Strips —** For Use with Item 4A - (Not Shown) — Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6A. **Lead Discs or Tabs —** (Not Shown) - Used in lieu of or in addition to the lead batten strips (Item 6) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6B. **Lead Batten Strips —** (Not Shown, for use with Item 4B) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.

6C. **Lead Discs —** (Not Shown, for use with Item 4B) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

2 U.L. NO. U439 LISTED CONSTRUCTION

Scale: N.T.S

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT

05.12.2020
Angie Gaebler - Architect
MO# A-2016030717

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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

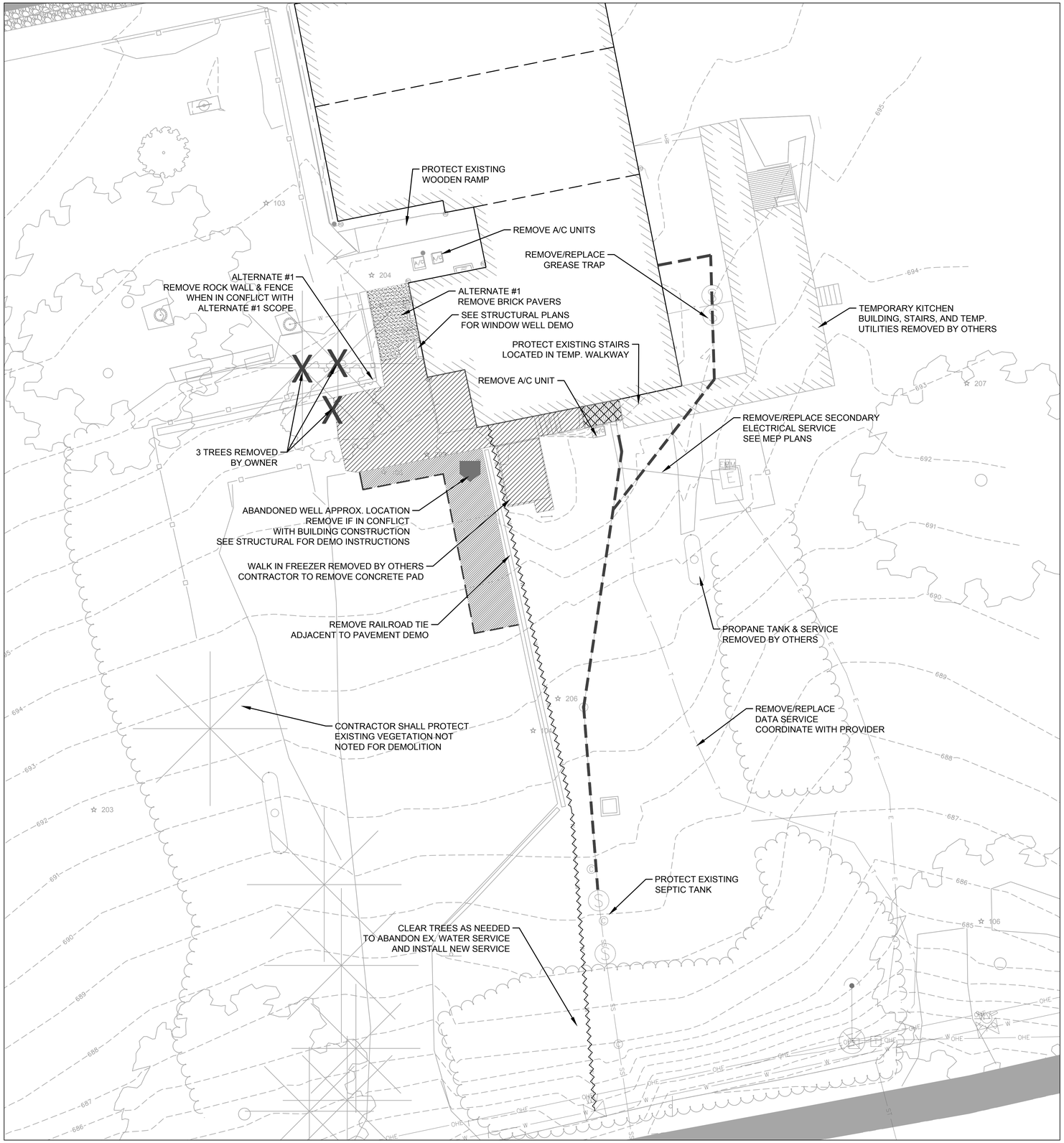
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SHEET NUMBER:

G104

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CONSTRUCTION DOCUMENTS
MAY 12, 2020



NORTH

10 5 0 10

DEMOLITION LEGEND

- DENOTES ASPHALT PAVEMENT REMOVAL
- DENOTES WOOD DECK/RAMP REMOVAL
- DENOTES BRICK PAVEMENT REMOVAL
- DENOTES CONCRETE REMOVAL
- DENOTES CURB REMOVAL
- DENOTES FULL DEPTH SAW CUT
- DENOTES SEWER REMOVAL
- DENOTES FENCE REMOVAL
- DENOTES TREE REMOVAL
- DENOTES WATERLINE REMOVAL

DEMOLITION NOTES:

1. THE SCOPE OF DEMOLITION IS NOT LIMITED EXCLUSIVELY TO THE WORK INDICATED ON THE DEMOLITION PLAN. THE CONSTRUCTION DOCUMENTS ARE PROVIDED AS A GENERAL GUIDE FOR DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADDITIONAL DEMOLITION THAT MAY BE REQUIRED FOR PROPER INSTALLATION OF NEW WORK. SEE ALL CONSTRUCTION DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. CONTRACTOR SHALL ERECT BARRIERS, FENCES, GUARDRAILS, ENCLOSURES, CHUTES, OR OTHER MEANS NECESSARY TO PROTECT PERSONNEL, STRUCTURES, AND UTILITIES REMAINING INTACT.
3. UNLESS NOTED FOR DEMOLITION, PROTECT ALL TREES AND PLANTS FROM DAMAGE.
4. ALL UTILITIES NOT SPECIFICALLY MARKED FOR DEMOLITION, SHALL BE PROTECTED THROUGHOUT CONSTRUCTION. SPECIAL SUPPORTS, BRACING ETC. SHOULD BE PROVIDED TO PROTECT EXISTING UTILITIES TO REMAIN.
5. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL UTILITY DEMOLITION, SHUTOFFS AND SWITCH OVERS WITH THE RESPECTIVE UTILITY COMPANY.
6. THE CONTRACTOR SHALL PROTECT ALL ITEMS, NOT SPECIFICALLY NOTED FOR DEMOLITION. IF ITEMS ARE DAMAGED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL REPAIR THE ITEMS AT NO ADDITIONAL COST TO THE OWNER.
7. THE CONTRACTOR SHALL REPAIR ALL SURROUNDING PAVEMENTS, SIDEWALKS AND CURBS DAMAGED BY CONSTRUCTION ACTIVITIES.
8. ALL UTILITY BOXES, MANHOLES, VALVES, POLES AND OTHER APPURTENANCES TO REMAIN, SHALL BE ADJUSTED TO MATCH THE FINISHED GRADE.
9. ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF OFFSITE.

UTILITY CONTACTS

WATER - VILLAGE OF ARROW ROCK - SUSAN MCDANIEL 660-837-3608
PROVIDED BY SLATER WATER DISTRICT

ELECTRIC - EVERGY - TONY BACHTEL 660-548-3144

TELEPHONE/DATA - OTELCO - BOBBY BROWNFIELD 660-621-2512

SEWER - VILLAGE OF ARROW ROCK - SUSAN MCDANIEL 660-837-3608

CONTROL POINTS TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1178812.58'	1514130.17'	695.12'	PK
101	1178770.83'	1513823.39'	704.47'	PK
102	1178527.02'	1514009.27'	681.50'	PK
103	1178735.94'	1514015.11'	698.93'	NAIL
104	1178633.24'	1514067.09'	691.82'	PK
105	1178683.50'	1514038.03'	695.71'	PK
106	1178596.10'	1514154.31'	685.21'	NAIL
200	1178812.58'	1514130.17'	695.06'	GPS PK
201	1178770.82'	1513823.39'	704.48'	GPS PK

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
RYAN FULLER
NUMBER PE-2016001250
PROFESSIONAL ENGINEER
5/12/2020

Ryan Fuller - Engineer
MO# E-2016001250

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TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: SH/RF
DRAWN BY: SH/RF
CHECKED BY: RF
DESIGNED BY: RF

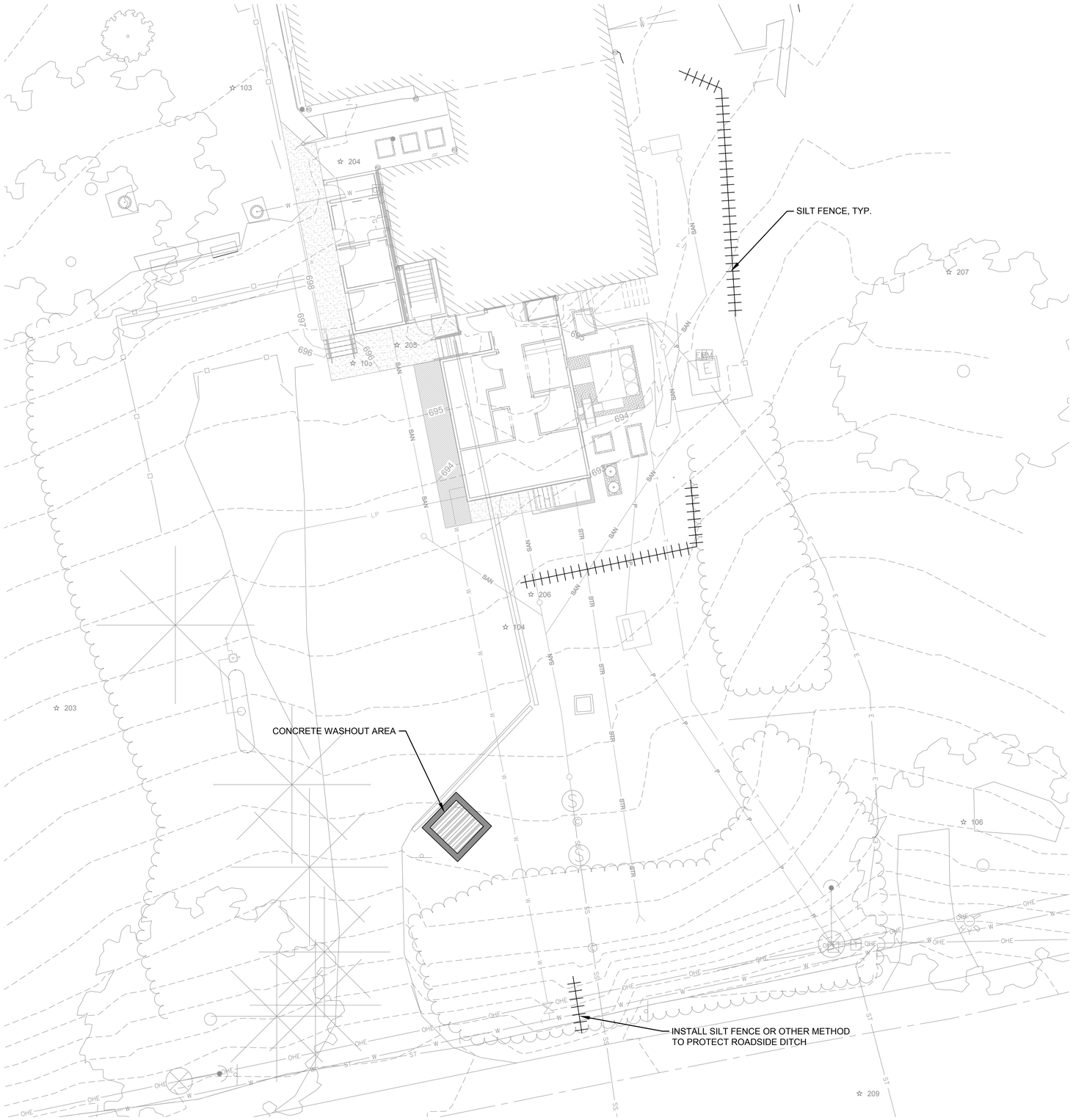
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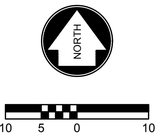
Demolition Plan

SHEET NUMBER:

C101

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CONSTRUCTION DOCUMENTS
MAY 12, 2020





GENERAL NOTES

1. THE EROSION CONTROL FEATURES, NOTES AND SPECIFICATIONS IN THE SWPPP REPRESENT THE MINIMUM REQUIREMENTS ACCEPTABLE. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTORS STAGING AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL ADJUST, MODIFY AND ADD TO THIS PLAN AS NECESSARY TO CONTROL EROSION, SILTATION AND POLLUTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT POLLUTION FOR ALL WORK.
3. EROSION CONTROL DEVICES ALONG THE DOWN SLOPE SIDE OF THE PROJECT SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY GRADING WORK.
4. WHEN POSSIBLE, WITHOUT ADVERSELY AFFECTING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL: MINIMIZE THE AMOUNT OF SURFACE AREA WHICH IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.
5. THE SPILLAGE OF DEBRIS, INCLUDING THE TRACKING OF SOIL, OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE AVOIDED. THEREFORE THE CONTRACTOR SHALL PROVIDE STABILIZED DRIVES AT ALL ACCESS LOCATIONS AS NECESSARY AND SHALL REMOVE PROMPTLY ANY MATERIAL WHICH FINDS ITS WAY INTO THE PUBLIC RIGHT-OF WAY.
6. THE CONTRACTOR SHALL PREVENT SILT AND SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. STRAW BALE DIKES/SILT FENCE PLACED AROUND ALL STORM SEWER INLETS EXCEPT DURING CONSTRUCTION OPERATIONS WHICH REQUIRE THEIR REMOVAL IS ONE METHOD OF MEETING THE ABOVE REQUIREMENT.
7. THE CONTRACTOR SHALL INSPECT THEIR EROSION CONTROL DEVICES EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT AND ADD ADDITIONAL CONTROL DEVICES AS NEEDED AS SOON AS PRACTICABLE AFTER INSPECTION. DEFICIENCIES MUST BE CORRECTED WITHIN 7 DAYS OF INSPECTION.
8. ALL AREAS UPON REACHING FINAL GRADE SHALL BE BROUGHT TO FINAL SURFACE FINISH AS SOON AS POSSIBLE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL COVER WITH A DENSITY OF 70 % (MINIMUM) IS ESTABLISHED.
9. WHERE GRADED AREAS DRAIN ONTO PAVED AREAS, SILT FENCE SHALL BE PLACED AT THE BACK OF CURB TO PREVENT SILT FROM ENTERING THE PAVED AREAS. WHEN THESE EROSION CONTROL DEVICES ARE NOT PLACED ON THE CONTOUR, THEN THEY SHALL HAVE INSTALLED AT 50' INTERVALS A 5' LENGTH PLACED AT 90 DEGREES TO THE MAIN LENGTH.
10. REMOVE CONCRETE WASH OUT AREA AFTER ALL CONCRETE WORK IS COMPLETE. AFTER REMOVAL OF THE CONCRETE WASHOUT AREA THE CONTRACTOR SHALL ESTABLISH PERMANENT GROUND COVER IN THE AREA WHERE THE WASH OUT WAS LOCATED.
11. EROSION CONTROL BLANKETS AND/OR FIBER ROLLS MAY BE USED, ON STEEP SLOPES, IN LIEU OF SILT FENCE WHEN APPROVED BY THE DESIGNER OF RECORD.

LEGEND

CONCRETE WASH OUT AREA

SILT FENCE

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
RYAN FULLER
NUMBER PE-2016001250
PROFESSIONAL ENGINEER
5/12/2020

Ryan Fuller - Engineer
MO# E-2016001250

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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION: △
DATE:
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ISSUE DATE: 05.12.2020

CAD DWG FILE: SH/RF
DRAWN BY: SH/RF
CHECKED BY: RF
DESIGNED BY: RF

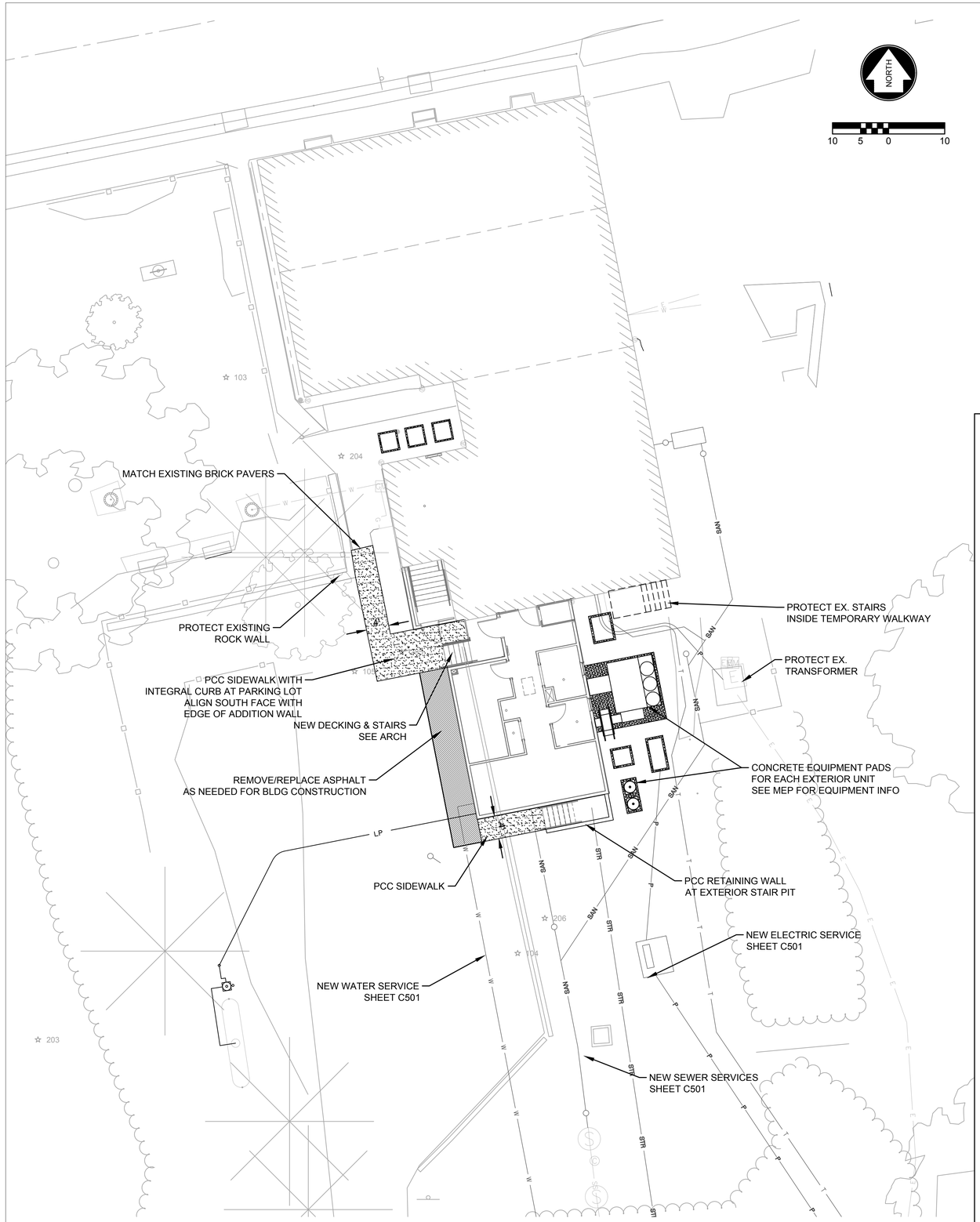
SHEET TITLE:

EROSION CONTROL PLAN

SHEET NUMBER:

C201

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CONSTRUCTION DOCUMENTS
MAY 12, 2020



BASE BID

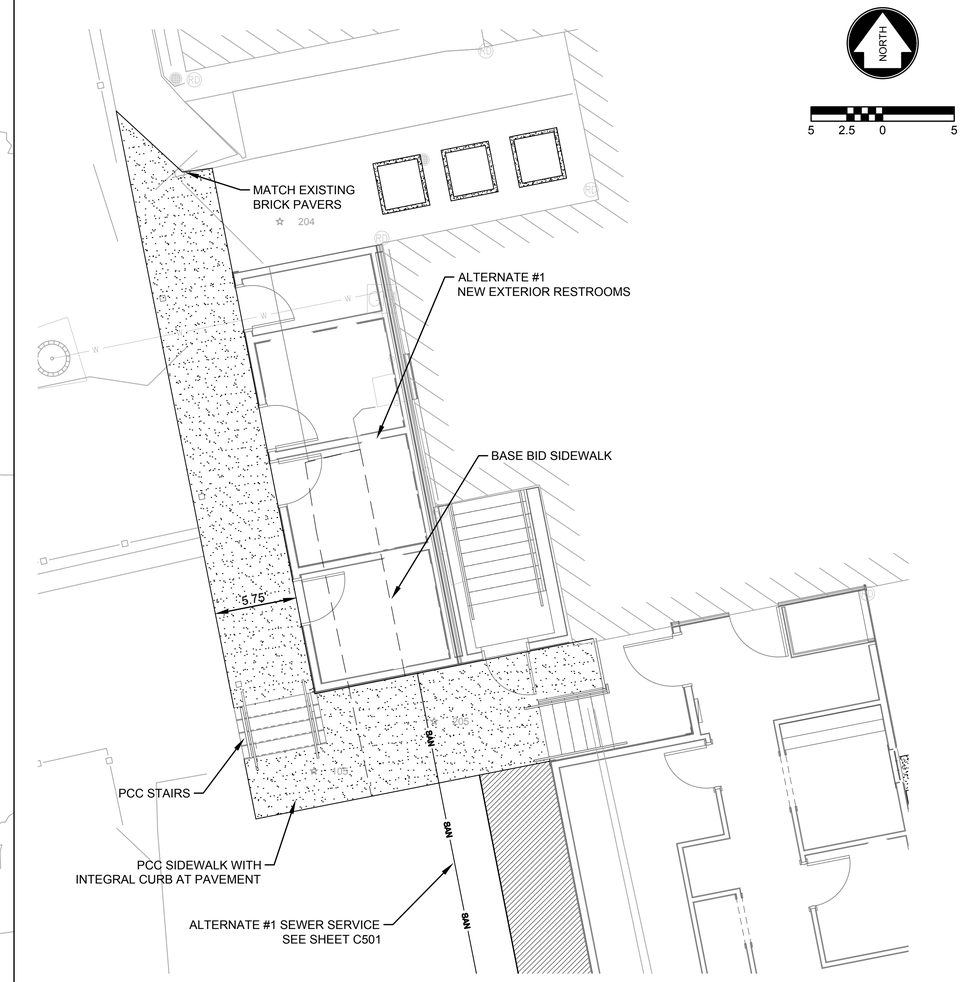
LEGEND

DENOTES NEW CONCRETE SIDEWALK

DENOTES NEW ASPHALT PAVEMENT

GENERAL NOTES:

1. SEE SHEET C601 FOR CONSTRUCTION DETAILS



ALTERNATE #1

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
RYAN FULLER
NUMBER PE-2016001250
PROFESSIONAL ENGINEER
5/12/2020

Ryan Fuller - Engineer
MO# E-2016001250

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ISSUE DATE: 05.12.2020

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DRAWN BY: SH/RF
CHECKED BY: RF
DESIGNED BY: RF

SHEET TITLE:
Site Plan

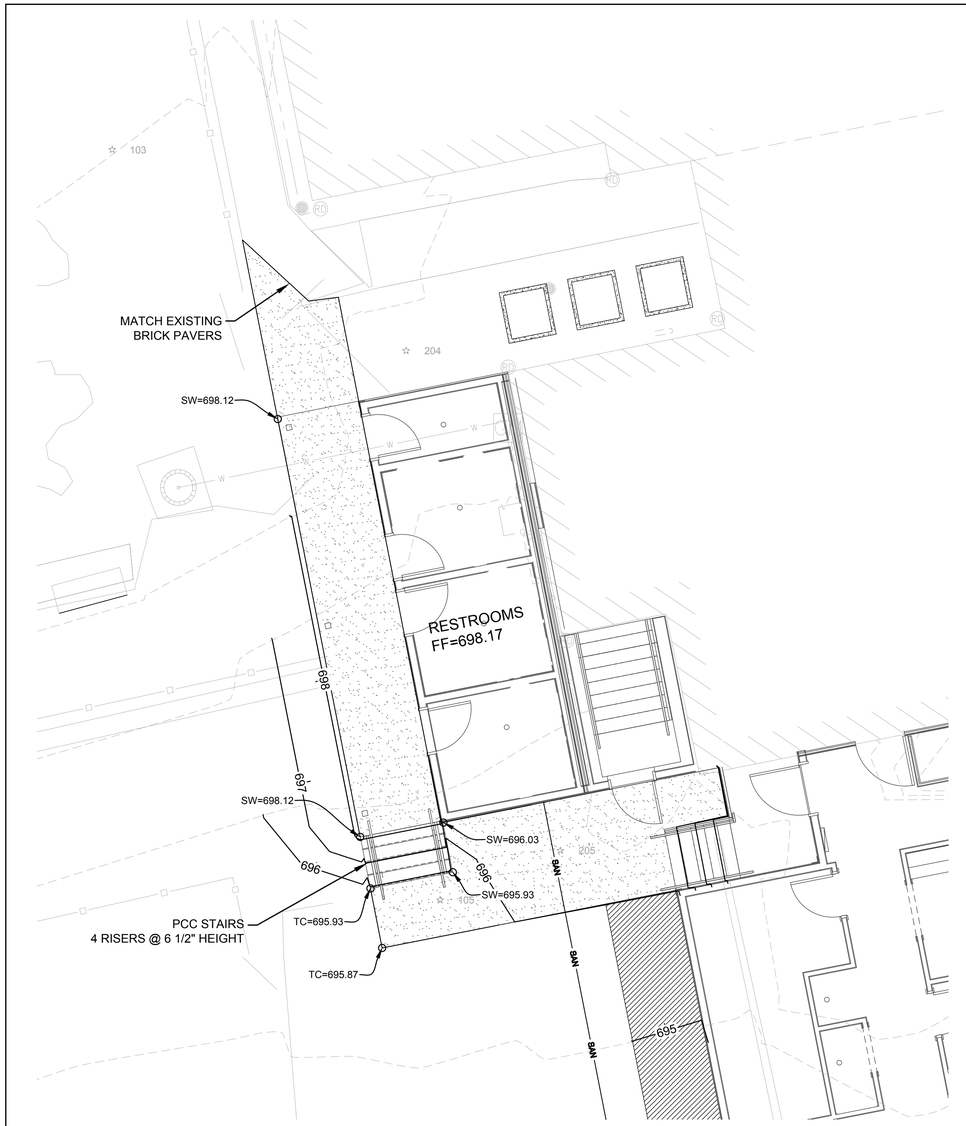
SHEET NUMBER:

C301

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CONSTRUCTION DOCUMENTS
MAY 12, 2020



BASE BID



ALTERNATE #1

SITE GRADING GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE TO FINISHED GRADE.
2. ALL GRADING OPERATIONS, EXCAVATION, FILL, COMPACTION TESTING, AND BACKFILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER.
3. THE UPPER 36" OF MATERIAL BELOW THE BUILDING SLAB SHALL BE LOW VOLUME CHANGE MATERIAL (LL<45 & PI<25).
4. NO PAVEMENTS SHALL BE PLACED PRIOR TO APPROVAL OF THE SUBGRADE BY THE GEOTECHNICAL ENGINEER.
5. ALL FILL MATERIAL SHALL BE IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS. .
6. ALL GRADING OPERATIONS SHALL BE STAKED BY A REGISTERED CIVIL ENGINEER OR A LICENSED LAND SURVEYOR.
7. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1.5%. (2.0% MAX)
8. ALL BUILDING ENTRANCES SHALL HAVE A MINIMUM 5' LANDING WITH 1.5% SLOPE AWAY FROM THE BUILDING (2% MAX).

LEGEND

924	EXISTING 1' CONTOUR
925	EXISTING 5' CONTOUR
929	PROPOSED 1' CONTOUR
930	PROPOSED 5' CONTOUR

TC - TOP OF CURB
SW - SIDEWALK ELEVATION

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
RYAN FULLER
NUMBER PE-2016001250
PROFESSIONAL ENGINEER
5/12/2020

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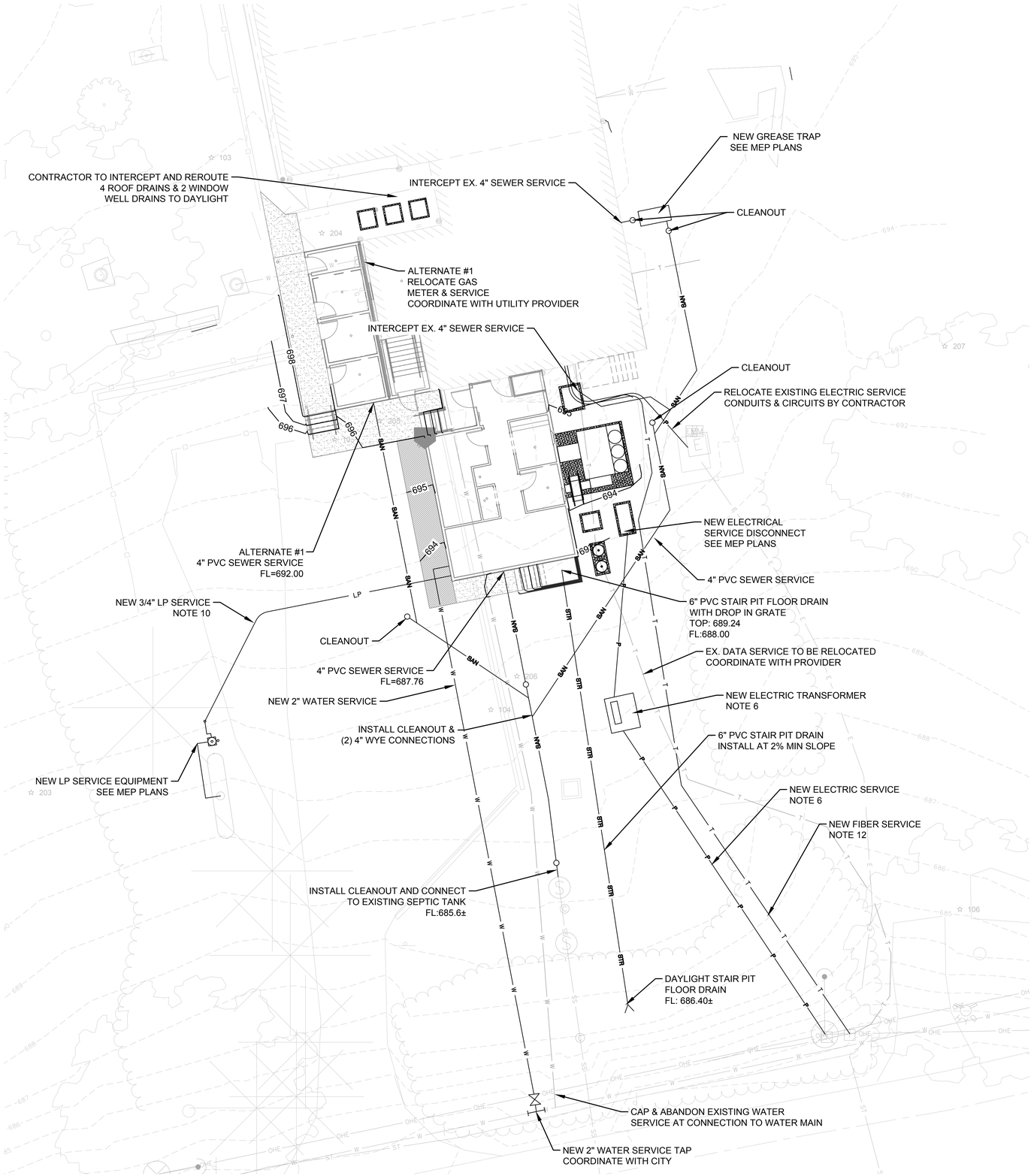
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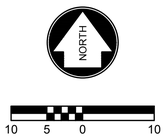
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Grading Plan

SHEET NUMBER:

C401

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CONSTRUCTION DOCUMENTS
MAY 12, 2020





UTILITY GENERAL NOTES

1. PRIOR TO BEGINNING CONSTRUCTION, LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY CONTACTING THE PROPER UTILITY COMPANY PROVIDING SERVICE, BY CONTACTING THE LOCAL ONE-CALL SERVICE OR BY CALLING 811.
2. UTILITY CONTRACTOR WILL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
3. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
4. ALL WATER AND SANITARY SEWER LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS.
5. UTILITY CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER UTILITIES SHOWN HEREON PRIOR TO INSTALLATION.
6. ELECTRIC SERVICE - ALL NEW ELECTRIC SERVICE CONDUIT AND TRANSFORMER PAD INSTALLED BY CONTRACTOR. CONDUIT FROM POWER POLE TO TRANSFORMER SHALL BE 4" PVC WITH 36" RADIUS SWEEPS AND PULL STRING. SECONDARY CONDUIT SHALL BE MINIMUM 3" AND NO HALF INCH SIZES WILL BE ALLOWED. ELECTRICAL SERVICE WIRING FROM TRANSFORMER TO KITCHEN ADDITION INSTALLED BY CONTRACTOR. SEE MEP FOR ADDITIONAL WIRING INFORMATION. TRANSFORMER AND PRIMARY SERVICE WIRES FROM POWER POLE TO TRANSFORMER INSTALLED BY UTILITY COMPANY. MAINTAIN 41" OF COVER ON ELECTRICAL PRIMARY AND SECONDARY CONDUITS.
7. REFER TO PLUMBING SHEETS FOR LOCATION OF SEWER AND DOMESTIC WATER CONNECTIONS.
8. CONNECTION TO THE GAS MAIN AND INSTALLATION OF THE GAS METER SHALL BE DONE BY THE GAS SERVICE PROVIDER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION.
9. CONNECTION TO THE EXISTING WATER MAIN SHALL BE DONE BY THE CONTRACTOR UNDER SUPERVISION OF THE CITY WATER DEPARTMENT. CONTRACTOR TO COORDINATE CONNECTION WITH OWNER'S REPRESENTATIVE AND CITY UTILITY DEPARTMENT.
10. LIQUID PROPANE SERVICE - NEW LIQUID PROPANE (LP) SERVICE SHALL BE 3/4" IPS, SDR 11 POLYETHYLENE PIPE. SEE MEP PLANS FOR ADDITIONAL RISER AND EQUIPMENT INFORMATION.
11. PATCH EXISTING PAVEMENT PER DETAILS ON SHEET C601 IN LOCATIONS WHERE NEW PAVEMENT ISN'T SPECIFIED.
12. FIBER SERVICE - CONTRACTOR SHALL INSTALL 2" PVC CONDUIT. CONTRACTOR TO INSTALL MULE TAPE PROVIDED BY OTELCO IN CONDUIT. FIBER SERVICE CABLING TO BE INSTALLED BY OTELCO.
13. ALL UTILITY WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UTILITY PROVIDER'S SPECIFICATIONS AND STANDARDS. SEE BELOW FOR UTILITY CONTACT INFORMATION.
14. SEWER SERVICES SHALL MAINTAIN A MINIMUM OF 36" OF COVER AND MINIMUM SLOPE OF 1%.

UTILITY CONTACTS

WATER - VILLAGE OF ARROW ROCK - SUSAN MCDANIEL 660-837-3608
PROVIDED BY SLATER WATER DISTRICT

ELECTRIC - EVERGY - TONY BACHTEL 660-548-3144

TELEPHONE/DATA - OTELCO - BOBBY BROWNFIELD 660-621-2512

SEWER - VILLAGE OF ARROW ROCK - SUSAN MCDANIEL 660-837-3608

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
RYAN FULLER
NUMBER
PE-2016001250
PROFESSIONAL ENGINEER
5/12/2020

Ryan Fuller - Engineer
MO# E-2016001250

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Missouri State Certificate of Authority: #2009024884

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

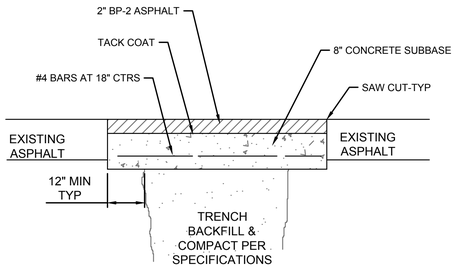
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ISSUE DATE: 05.12.2020

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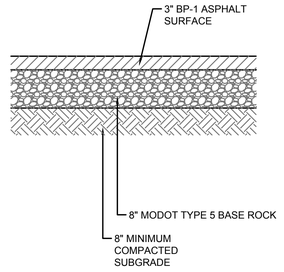
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SHEET NUMBER:
C501

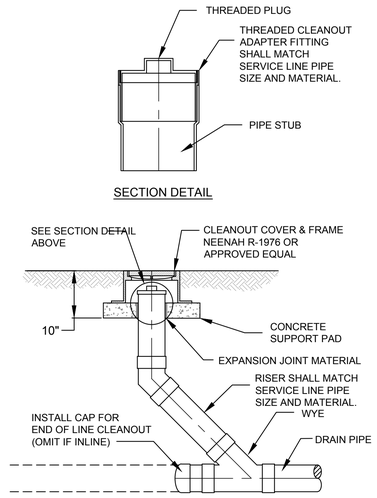
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CONSTRUCTION DOCUMENTS
MAY 12, 2020



ASPHALT REPAIR DETAIL

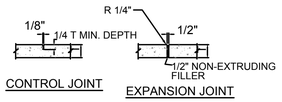


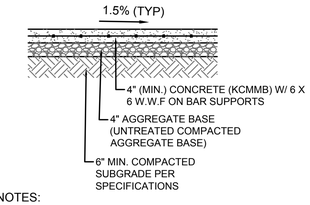
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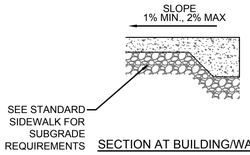


CLEANOUT DETAIL

EXTERIOR PCC STAIR DETAIL







NOTES:

1. CONCRETE SHALL CONFORM TO SPECIFICATIONS. (KCMMB4K)
2. 1/2" RUBBER EXPANSION JOINTS SHALL BE PLACED WHERE WALK ABUTS JUNCTION OF EXISTING WALK, CONCRETE CURBS, DRIVEWAYS AND SIMILAR STRUCTURES, AND AS SHOWN IN THE DRAWINGS.
3. CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE DRAWINGS OR AT DISTANCE NOT EXCEEDING THE WIDTH OF THE SIDEWALK, IF NOT SHOWN.
4. SAWCUT ALL CONTROL JOINTS.
5. ALL JOINTS SHALL BE SEALED WITH VULCAN 45 OR DOW CORNING 888 SILICON JOINT SEALANT.

SIDEWALK DETAILS

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
RYAN FULLER
NUMBER PE-2016001250
PROFESSIONAL ENGINEER
5/12/2020

Ryan Fuller - Engineer
MO# E-2016001250

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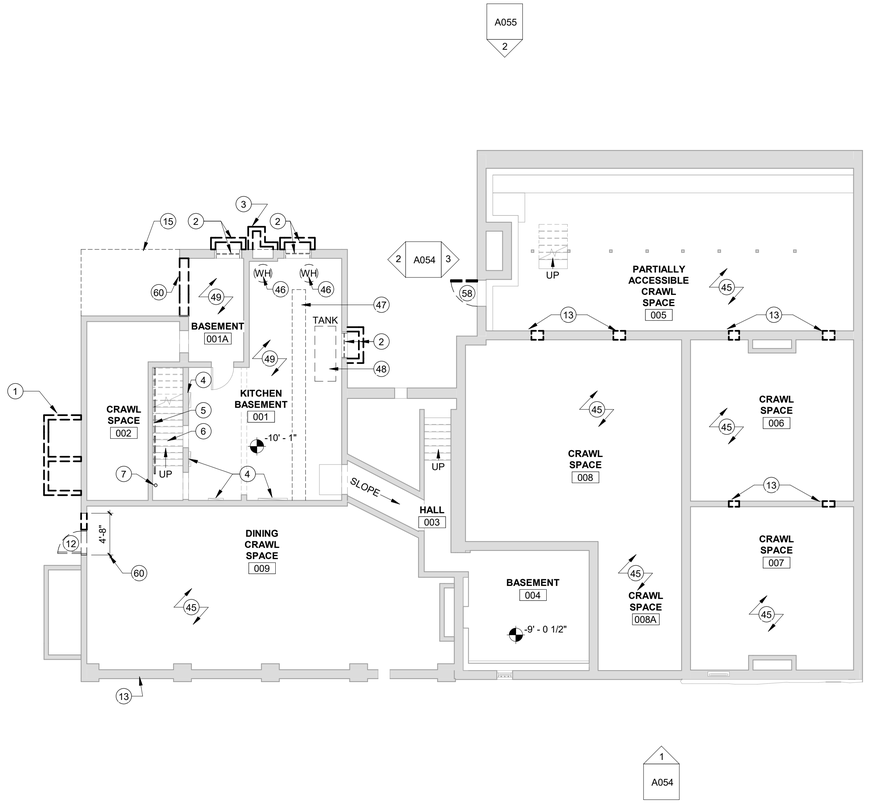
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DESIGNED BY: RF

SHEET TITLE:
Details

SHEET NUMBER:

C601

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CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 DEMOLITION BASEMENT PLAN

1/8" = 1'-0"

0' 4' 8' 16' 32'

NOTE: REMOVAL OF ANY TEMPORARY KITCHEN FACILITIES, CONSTRUCTION, AND UTILITIES IS NOT INCLUDED IN THIS SCOPE OF WORK.

DEMOLITION KEY NOTES (1)

1	REMOVE CONCRETE STAIR AND ASSOCIATED HANDRAILS IN THEIR ENTIRETY. PROVIDE TEMPORARY FALL PROTECTION AT EXISTING DOOR.
2	REMOVE WINDOW WELLS AND ASSOCIATED WINDOW. PREPARE OPENINGS TO BE INFILLED. REFER TO CIVIL, STRUCTURAL, AND MECHANICAL.
3	REMOVE EXISTING BRICK CHIMNEY.
4	EXISTING ELECTRICAL PANEL TO REMAIN.
5	REMOVE EXISTING RAILING AND GUARDRAILS.
6	EXISTING STAIR TO REMAIN, ABANDONED.
7	REMOVE AND FILL EXISTING FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
8	REMOVE EXISTING CANOPY AND ASSOCIATED SUPPORTS IN ITS ENTIRETY.
9	REMOVE EXISTING DOWNSPOUT.
10	REMOVE EXISTING WINDOW IN ITS ENTIRETY.
11	EXISTING WINDOW TO REMAIN.
12	REMOVE EXISTING DOOR AND FRAME IN THEIR ENTIRETY.
13	PORTION OF EXISTING WALL TO BE REMOVED.
14	REMOVE EXISTING WALL IN ITS ENTIRETY.
15	REMOVE EXISTING CONCRETE/ASPHALT SLAB AND SIDEWALK, REFER TO CIVIL.
16	REMOVE AND SALVAGE EXISTING BRICK PAVERS, REFER TO CIVIL.
17	EXISTING BRICK PAVERS TO REMAIN, REFER TO CIVIL.
18	EXISTING RAMP TO REMAIN.
19	EXISTING WOOD FENCE TO REMAIN.
20	EXISTING RETAINING WALL TO REMAIN.
21	EXISTING ROOFING AND ASSOCIATED FLASHING TO BE REMOVED TO SUBSTRATE. PATCH AND REPAIR EXISTING SUBSTRATE TO PREPARE FOR NEW ROOFING MATERIAL.
22	EXISTING ROOFING TO REMAIN.
23	REMOVE EXISTING EXHAUST VENT. PATCH AND REPAIR ROOF OPENING.
24	REMOVE EXISTING GUTTER.
25	EXISTING STAIR TO REMAIN.
26	REMOVE EXISTING EQUIPMENT AND ASSOCIATED DUCTWORK. REFER TO MECHANICAL DRAWINGS.
27	REMOVE EXISTING GRILLE AND PREPARE OPENING FOR NEW INFILL. NEW INFILL SHALL MATCH ADJACENT FINISHES FOR SEAMLESS APPEARANCE.
28	REMOVE EXISTING ASPHALT DRIVE AS REQUIRED FOR NEW GRADING. REFER TO CIVIL DRAWINGS.
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31	PORTION OF EXISTING ASPHALT DRIVE TO REMAIN. REFER TO CIVIL DRAWINGS.
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35	REMOVE INTERIOR FINISHES/SUBSTRATE/ BASE FROM EXISTING WALL. STUDS TO REMAIN, REPLACE FIRE-DAMAGED STUDS PER STRUCTURAL DRAWINGS.
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37	REMOVE EXISTING COUNTERTOP, BASE CABINETS, AND SINK.
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42	REMOVE EXISTING TOILET PARTITION.
43	REMOVE EXISTING SIDING.
44	EXISTING SIDING TO REMAIN.
45	REMOVE DIRT AS REQUIRED SO THERE IS AT LEAST 12" CLEAR FROM THE BOTTOM AND SIDES OF THE NEW DUCTWORK TO THE SURFACE OF THE SURROUNDING EARTH. REFERENCE MECHANICAL.
46	REMOVE HOT WATER HEATERS AND ALL ASSOCIATED PIPING, REFER TO MECHANICAL.
47	REMOVE A PORTION OF EXISTING CONCRETE SLAB FOR INSTALLATION OF NEW MECHANICAL AND PLUMBING
48	REMOVE METAL HOLDING TANK AND ASSOCIATED PIPING
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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT

05.12.2020
Angie Gaebler - Architect
MO# A-2016030717

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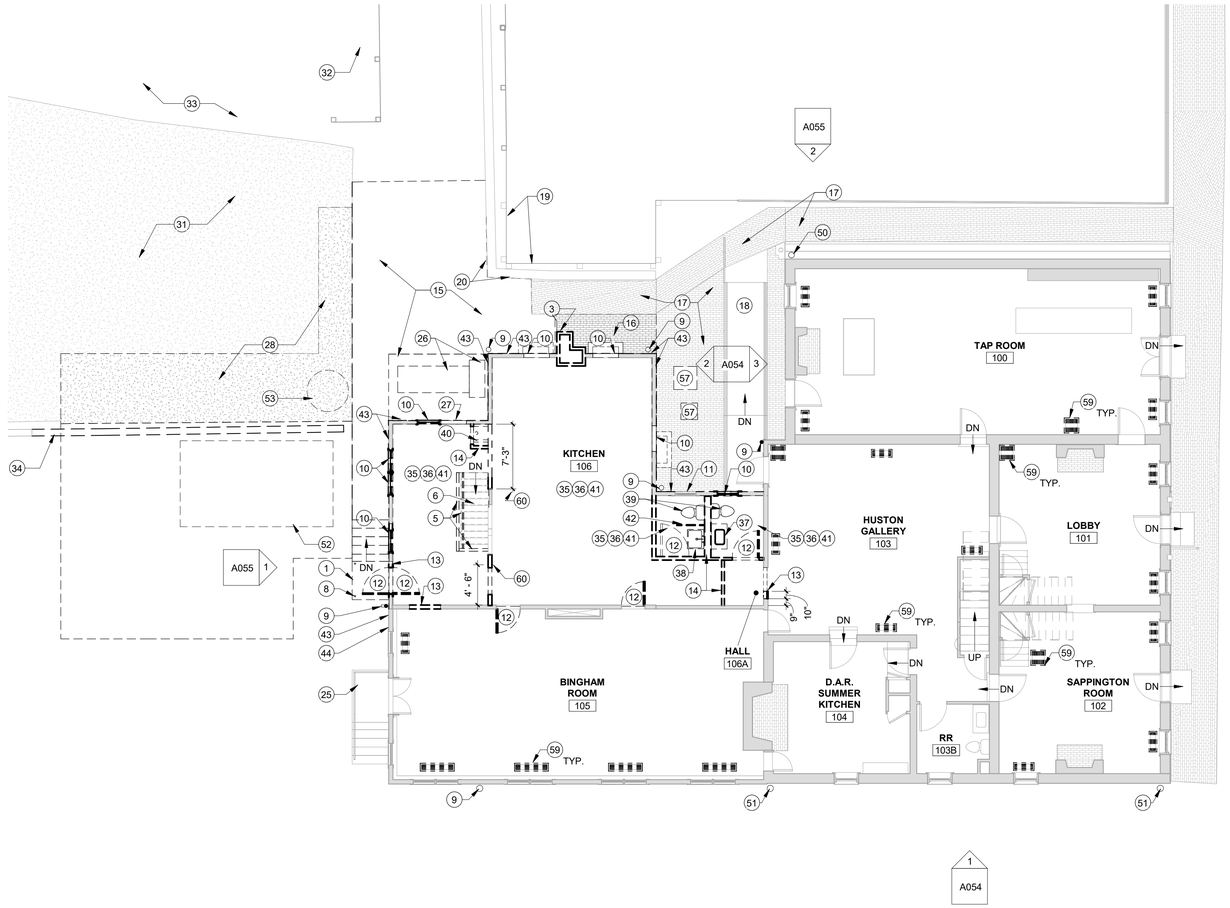
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BASEMENT DEMOLITION PLAN

SHEET NUMBER:

A050

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CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 DEMOLITION FIRST FLOOR PLAN

1/8" = 1'-0"

N

0' 4' 8' 16' 32'

NOTE: REMOVAL OF ANY TEMPORARY KITCHEN FACILITIES, CONSTRUCTION, AND UTILITIES IS NOT INCLUDED IN THIS SCOPE OF WORK.

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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
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ARCHITECT

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Angie Gaebler - Architect
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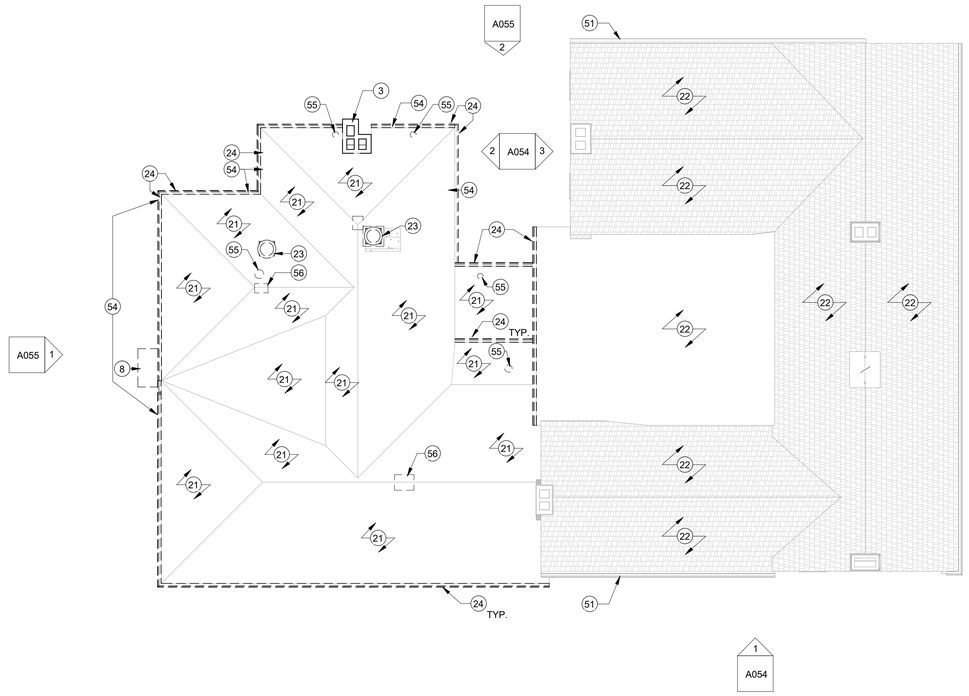
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FIRST FLOOR DEMOLITION PLAN

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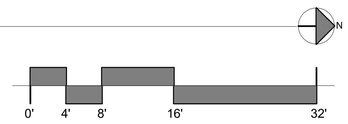
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015 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 DEMOLITION ROOF PLAN

1/8" = 1'-0"



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DEMOLITION KEY NOTES

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ARCHITECT

05.12.2020
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DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:

ROOF DEMOLITION PLAN

SHEET NUMBER:

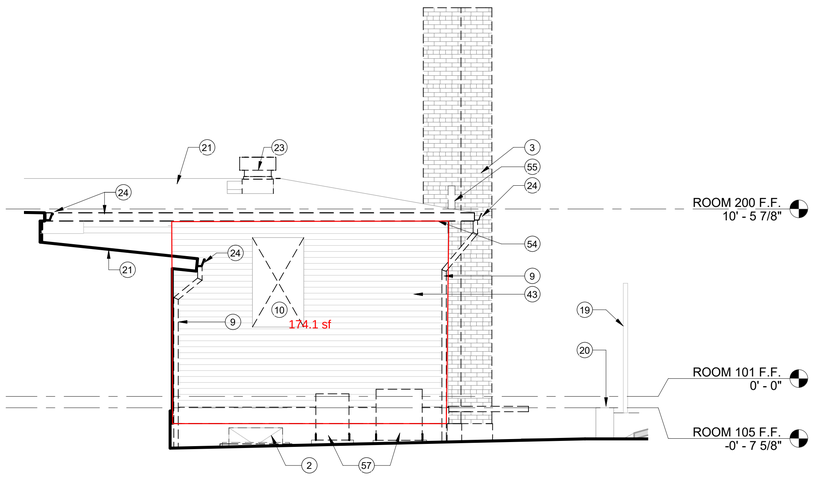
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MAY 12, 2020



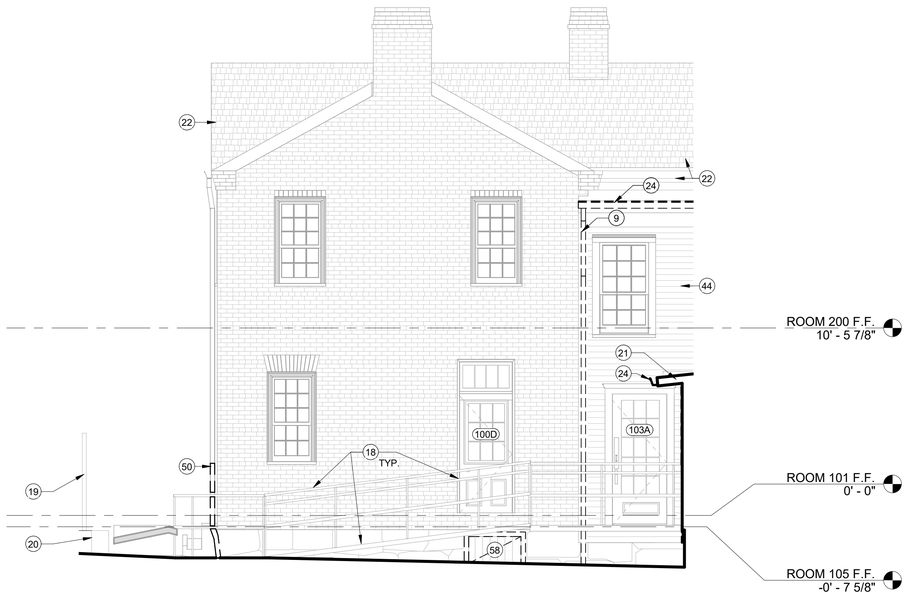
1 DEMOLITION - EAST ELEVATION

1/4" = 1'-0"



2 DEMOLLITION - PARTIAL NORTH ELEVATION

1/4" = 1'-0"



3 DEMOLITION - PARTIAL SOUTH ELEVATION

1/4" = 1'-0"

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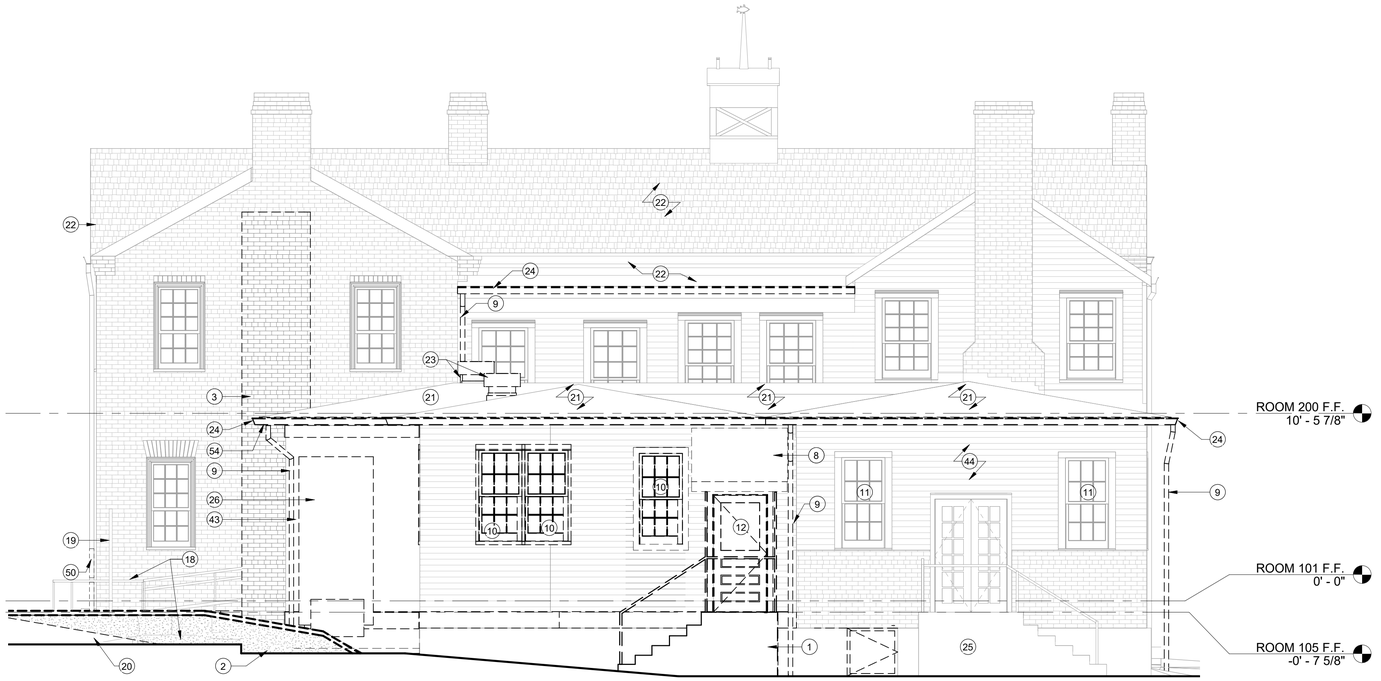
SHEET TITLE:

DEMOLITION EXTERIOR ELEVATIONS

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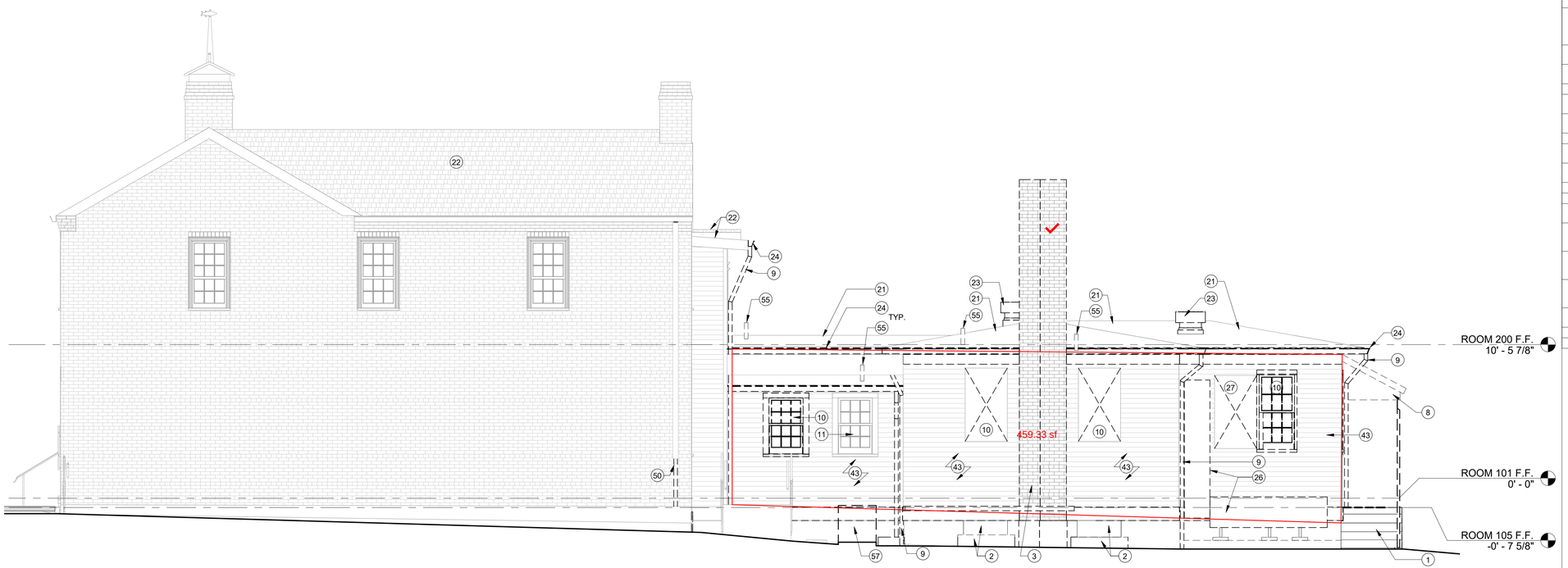
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CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 DEMOLITION - SOUTH ELEVATION

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2 DEMOLITION - WEST ELEVATION

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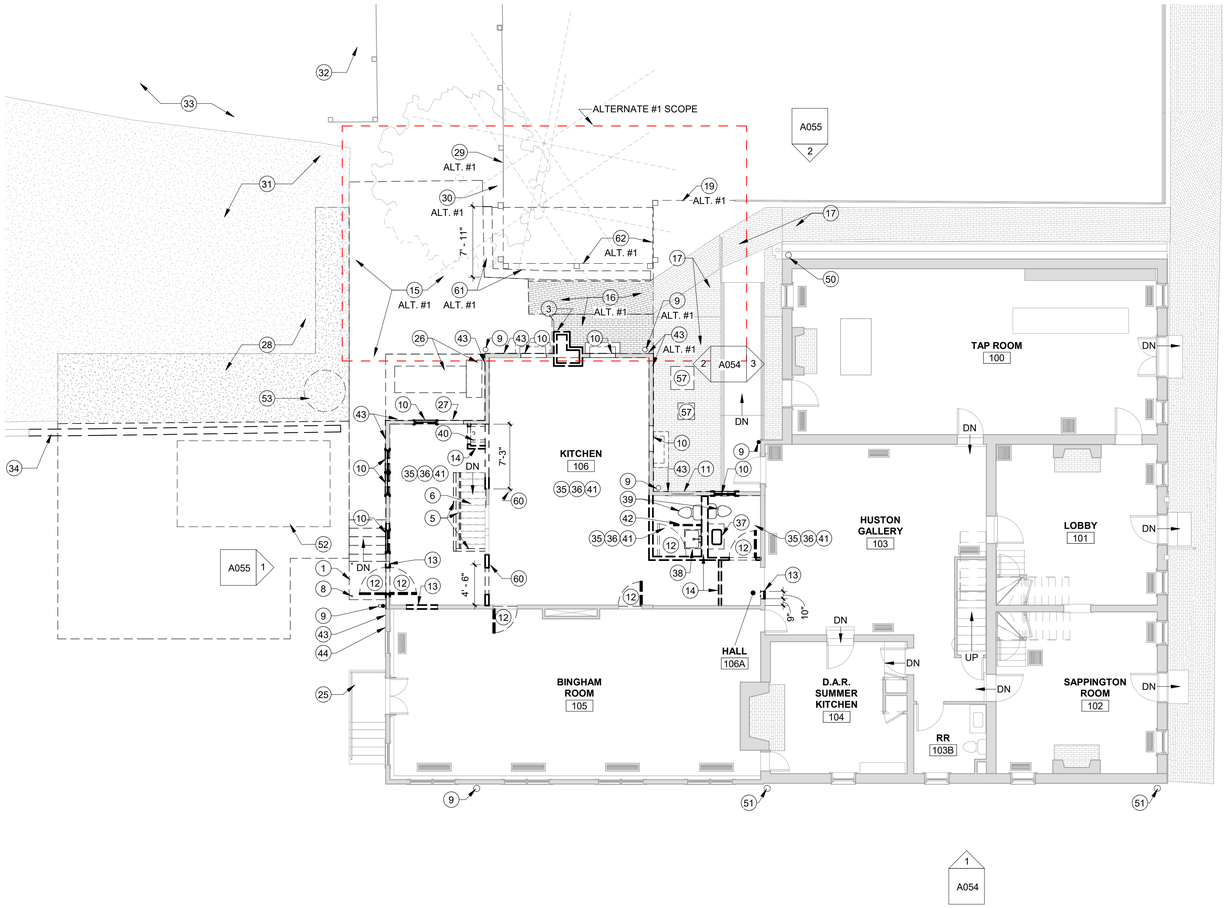
SHEET TITLE:

DEMOLITION EXTERIOR ELEVATIONS

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A055

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MAY 12, 2020



1 ALT. #1 DEMOLITION FIRST FLOOR PLAN

1/8" = 1'-0"

N

0' 4' 8' 16' 32'

NOTE: REMOVAL OF ANY TEMPORARY KITCHEN FACILITIES, CONSTRUCTION, AND UTILITIES IS NOT INCLUDED IN THIS SCOPE OF WORK.

ALTERNATES (SECTION 012300) INCLUDE:
-ALTERNATE #1 ADDITION OF PUBLIC RESTROOMS

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58	REMOVE EXISTING CRAWL SPACE ACCESS DOOR AND FRAME IN ITS ENTIRETY. PREPARE FOR LOUVER AND WOOD INFILL PANEL, REFERENCE MECHANICAL.
59	DISCONNECT AND REMOVE EXISTING FLOOR GRILLES. CLEAN AND SALVAGE FOR REINSTALLATION. REFER TO MECHANICAL DRAWINGS.
60	PORTION OF EXISTING WALL TO BE REMOVED, COORDINATE NEW LINTEL WITH STRUCTURAL.
61	PORTION OF EXISTING RETAINING WALL TO BE REMOVED.
62	PORTION OF EXISTING WOOD FENCE TO BE REMOVED.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER
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05.12.2020
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Missouri State Certificate of Authority: #2009024884

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
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REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

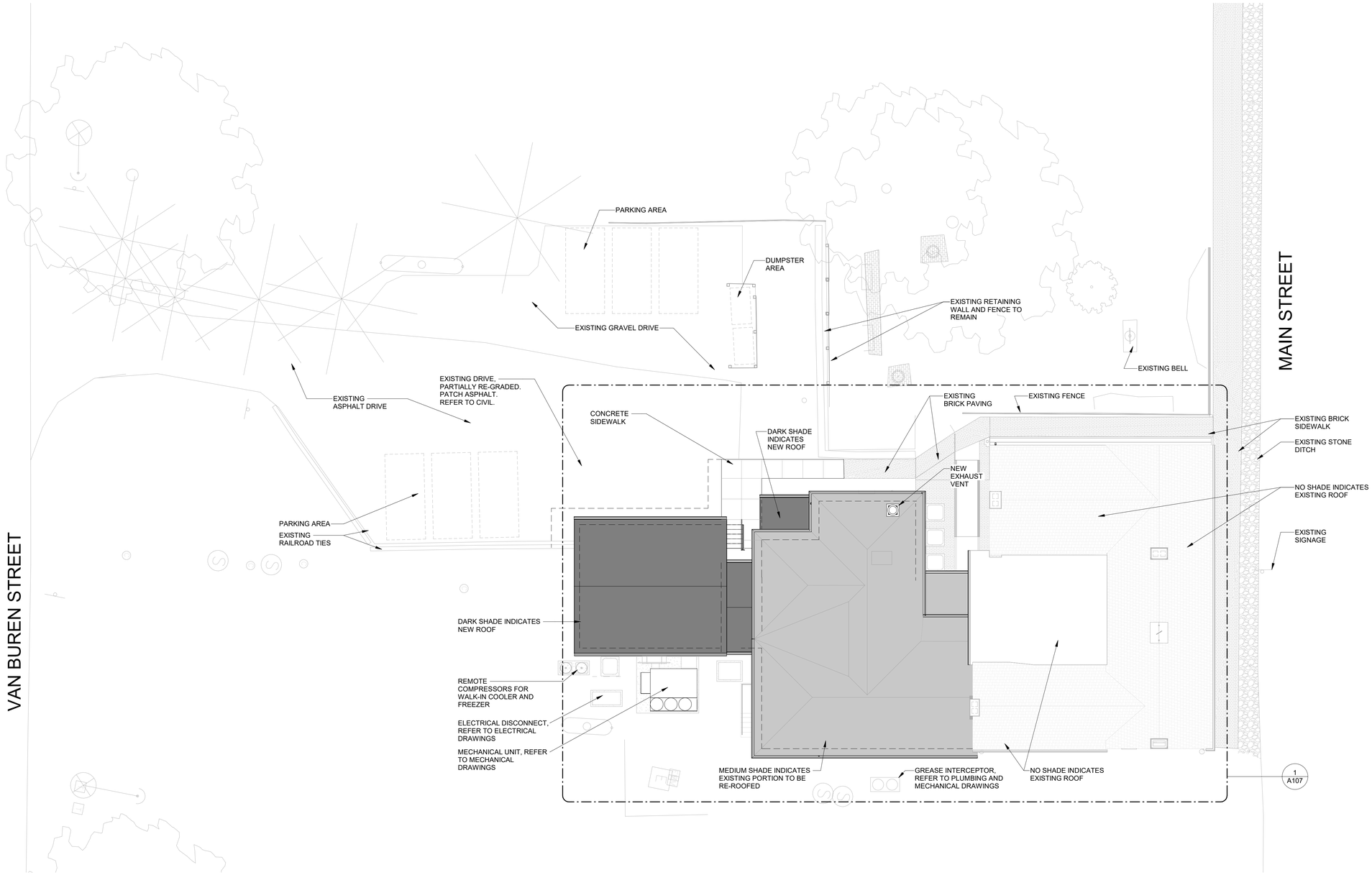
SHEET TITLE:

ALT. #1 FIRST FLOOR DEMOLITION PLAN

SHEET NUMBER:

A061

019 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ARCHITECTURAL SITE PLAN

1" = 10'-0"

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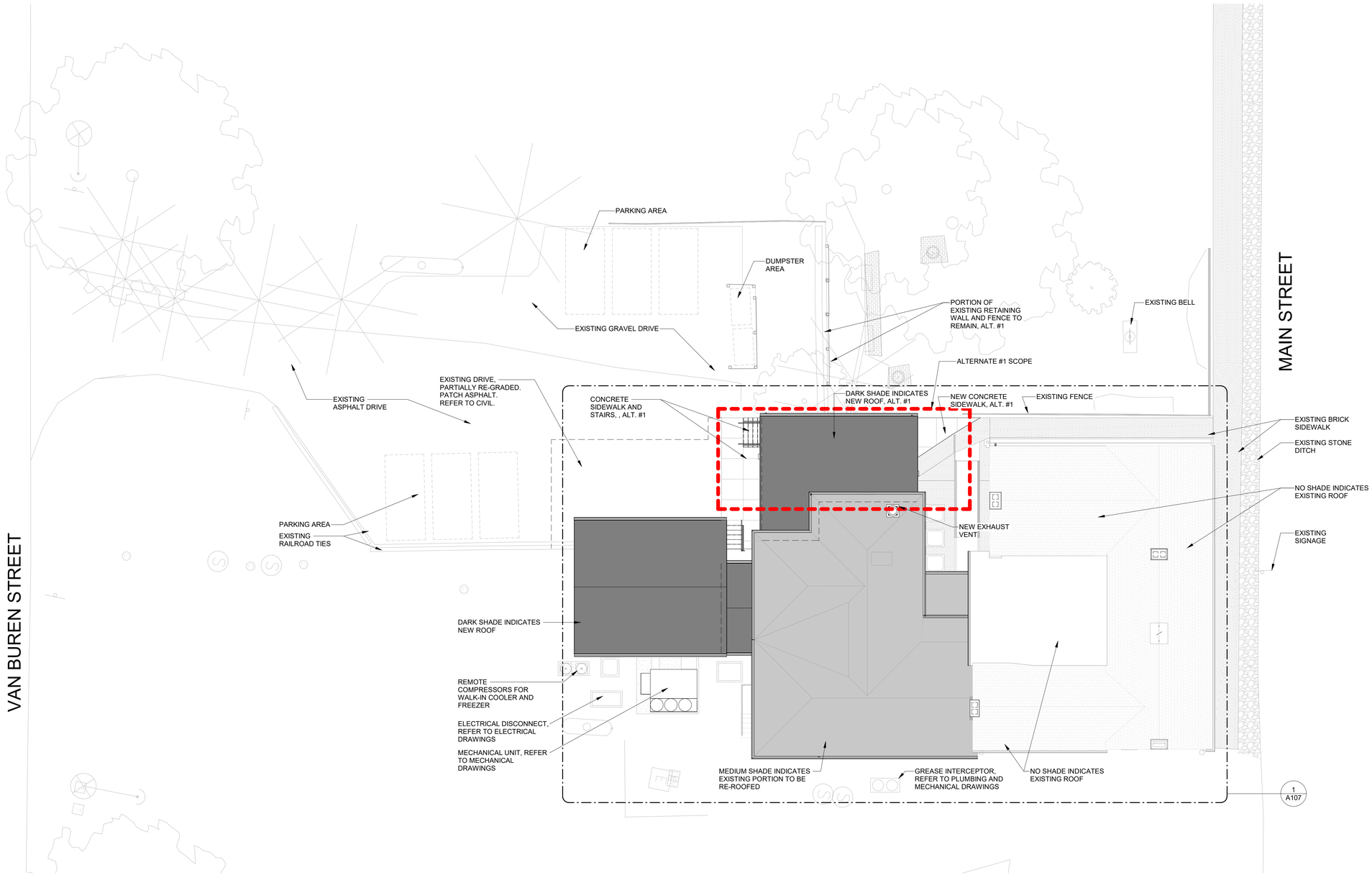
SHEET TITLE:

ARCHITECTURAL SITE PLAN

SHEET NUMBER:

AS100

012 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ALT. #1 ARCHITECTURAL SITE PLAN

1" = 10'-0"

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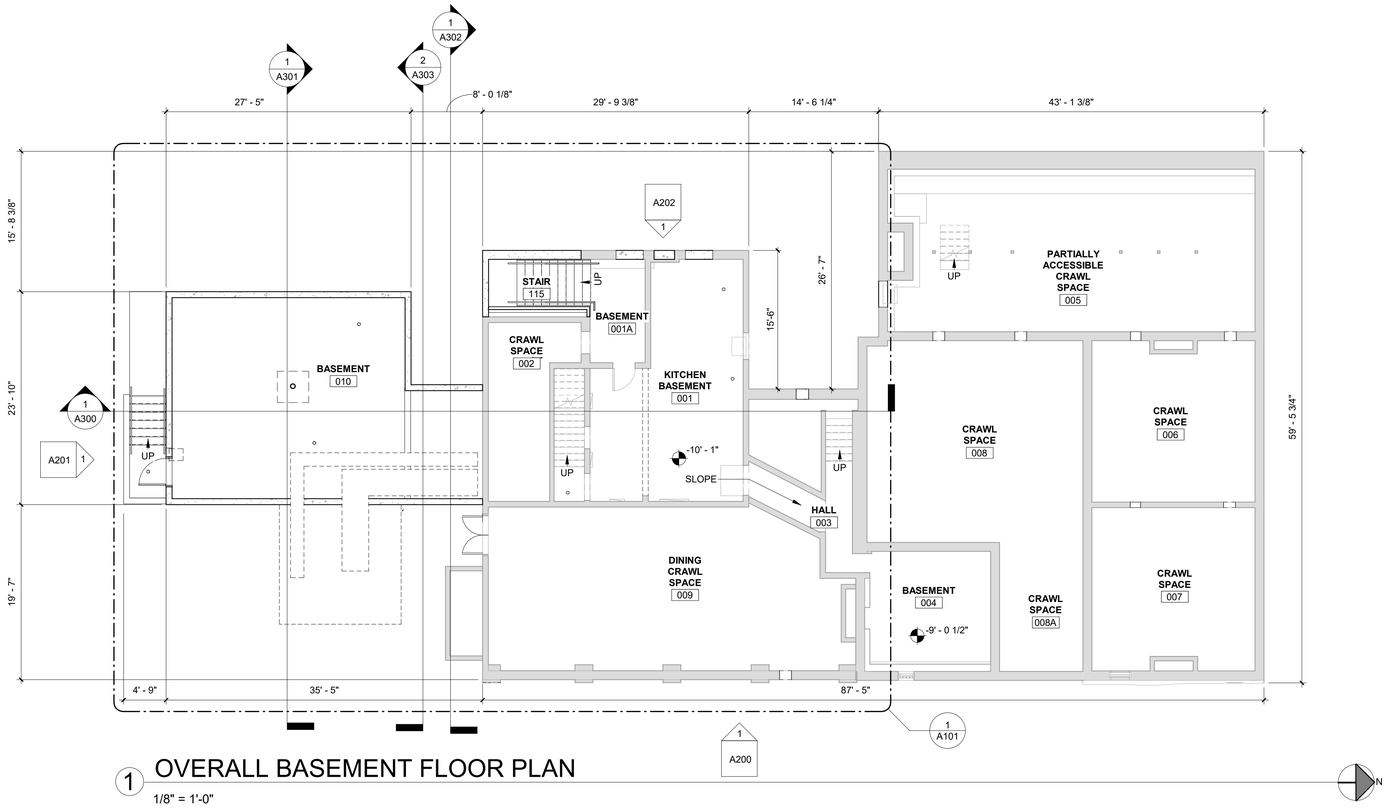
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ALT. #1 ARCHITECTURAL SITE PLAN

SHEET NUMBER:

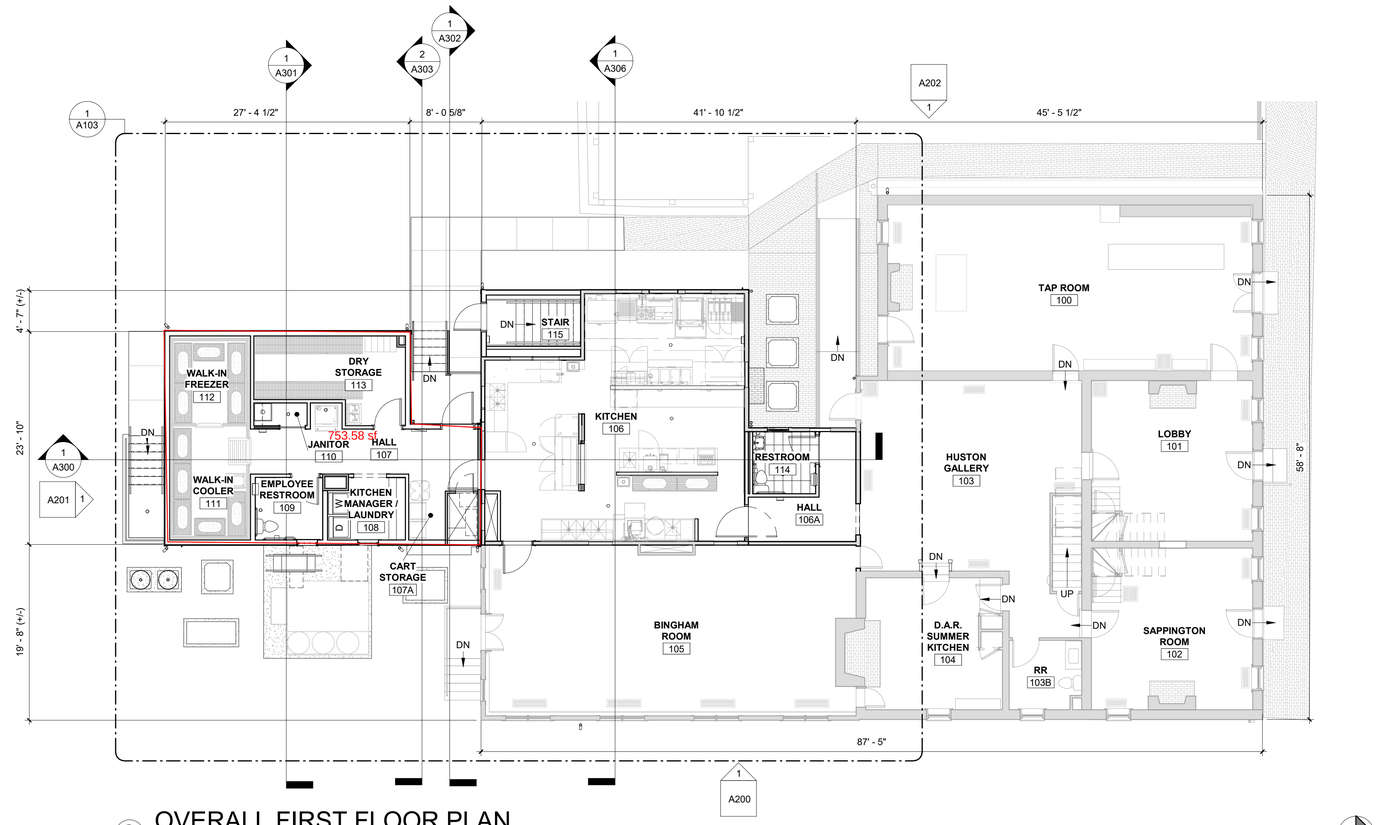
AS110

013 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 OVERALL BASEMENT FLOOR PLAN

1/8" = 1'-0"



2 OVERALL FIRST FLOOR PLAN

1/8" = 1'-0"

0' 4' 8' 16' 32'

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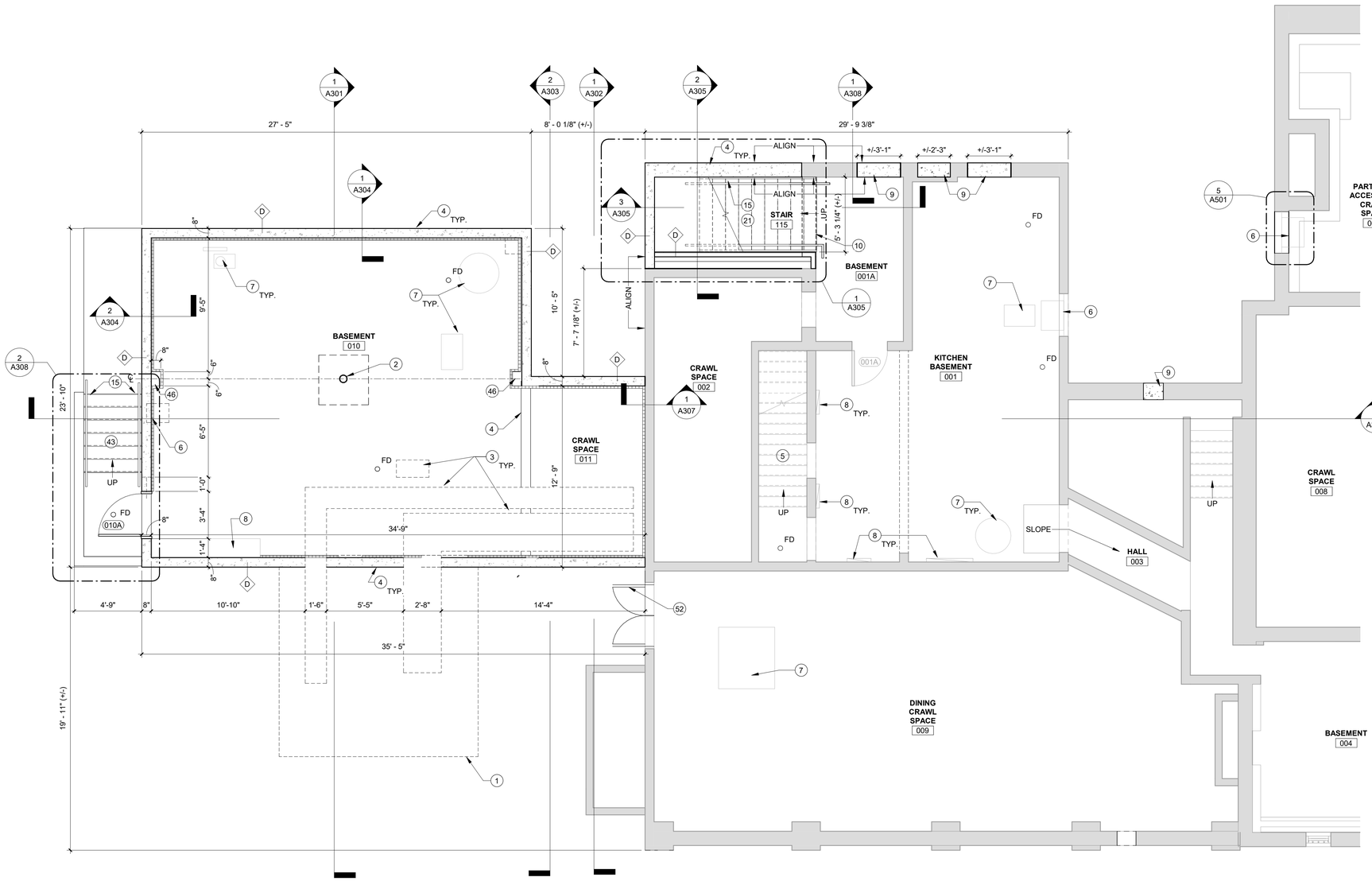
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SHEET TITLE:
OVERALL FLOOR PLANS

SHEET NUMBER:

A100

020 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ENLARGED BASEMENT FLOOR PLAN - SOUTH

1/4" = 1'-0"

0' 2' 4' 8' 16'

PLAN KEY NOTES	
1	SLAB ON GRADE ABOVE, REFER TO CIVIL AND STRUCTURAL.
2	PIPE COLUMN AND CONCRETE FOOTING, REFER TO STRUCTURAL DRAWINGS.
3	OVERHEAD DUCTWORK, COORDINATE CONCRETE OPENING, REFER TO MECHANICAL AND STRUCTURAL DRAWINGS.
4	REINFORCED CONCRETE FOUNDATION WALL, REFER TO STRUCTURAL DRAWINGS.
5	EXISTING BASEMENT STAIRS SHALL BE ABANDONED IN PLACE.
6	LOUVER AND EXHAUST FAN, REFER TO MECHANICAL
7	EQUIPMENT, REFER TO MECHANICAL AND PLUMBING DRAWINGS.
8	ELECTRICAL PANEL, REFER TO ELECTRICAL DRAWINGS.
9	INFILL EXISTING OPENING TO MATCH ADJACENT WALL. REFERENCE STRUCTURAL DRAWINGS
10	HEADER, REFER TO STRUCTURAL.
11	KITCHEN EQUIPMENT, REFER TO FOOD SERVICE DRAWINGS.
12	CHASE, REFER TO MECHANICAL.
13	ASPHALT PAVING, REFER TO CIVIL.
14	LANDSCAPING BY OWNER.
15	BLACK PAINTED GALVANIZED STEEL HANDRAILS, GUARDRAILS, AND SUPPORTS.
16	PAVING TRANSITION SHALL BE FLUSH.
17	RECONFIGURE PORTION OF EXISTING DOWNSPOUT.
18	EXISTING BRICK PAVERS TO REMAIN.
19	CONCRETE PAVING, REFER TO CIVIL.
20	HOSE BIBB, REFER TO PLUMBING
21	WOOD STAIR AND LANDING.
22	EXISTING RAMP TO REMAIN.
23	2" W. X 6'-0" H. STAINLESS STEEL CORNER GUARD
24	WASHER AND DRYER BY OWNER.
25	TWO-STEP, OPEN GRATE PLATFORM SYSTEM, DELEGATED DESIGN. COORDINATE WITH MECHANICAL DUCTWORK AT AHU.
26	AHU, REFER TO MECHANICAL
27	INFILL PAVEMENT WITH SALVAGED BRICKS.
28	UTILITY SHELF
29	INSTALL FRP OVER GYPSUM BOARD FROM TOP OF EPOXY BASE TO 4'-0" A.F.F AT MOP SINK
30	STAINLESS STEEL TRIM BY K.E.C., REFER TO FOOD SERVICE DRAWINGS
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32	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON 19/32" OSB SHEATHING.
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36	ATTIC ACCESS HATCH.
37	CONCRETE EQUIPMENT PAD, REFER TO STRUCTURAL.
38	EXISTING DOWNSPOUT TO REMAIN.
39	ASPHALT SHINGLE ROOF INSTALLED OVER MANUFACTURER APPROVED UNDERLAYMENT. INSTALL SELF-ADHERING WATER AND ICE BARRIER TO WITHIN 36 INCHES INSIDE OF INTERIOR FACE OF EXTERIOR WALLS.
40	6" 'K' SERIES PREFINISHED WHITE METAL ROOF GUTTER AND DOWNSPOUTS.
41	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON EXISTING SHEATHING AND EXISTING STRUCTURE
42	EXISTING ROOFING TO REMAIN.
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44	PARTIAL HEIGHT WALL CAPPED WITH STAINLESS STEEL, BY K.E.C.
45	CONCRETE PAVING CONTROL JOINTS TO BE SPACED AT APPROXIMATELY 4'-0" o.c. COORDINATE WITH CIVIL REQUIREMENTS.
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48	LAP CUT TRUSS CHORDS W/ NEW 2X8 EXTENDING FULL LENGTH OF CUT MEMBER. REFERENCE STRUCTURAL.
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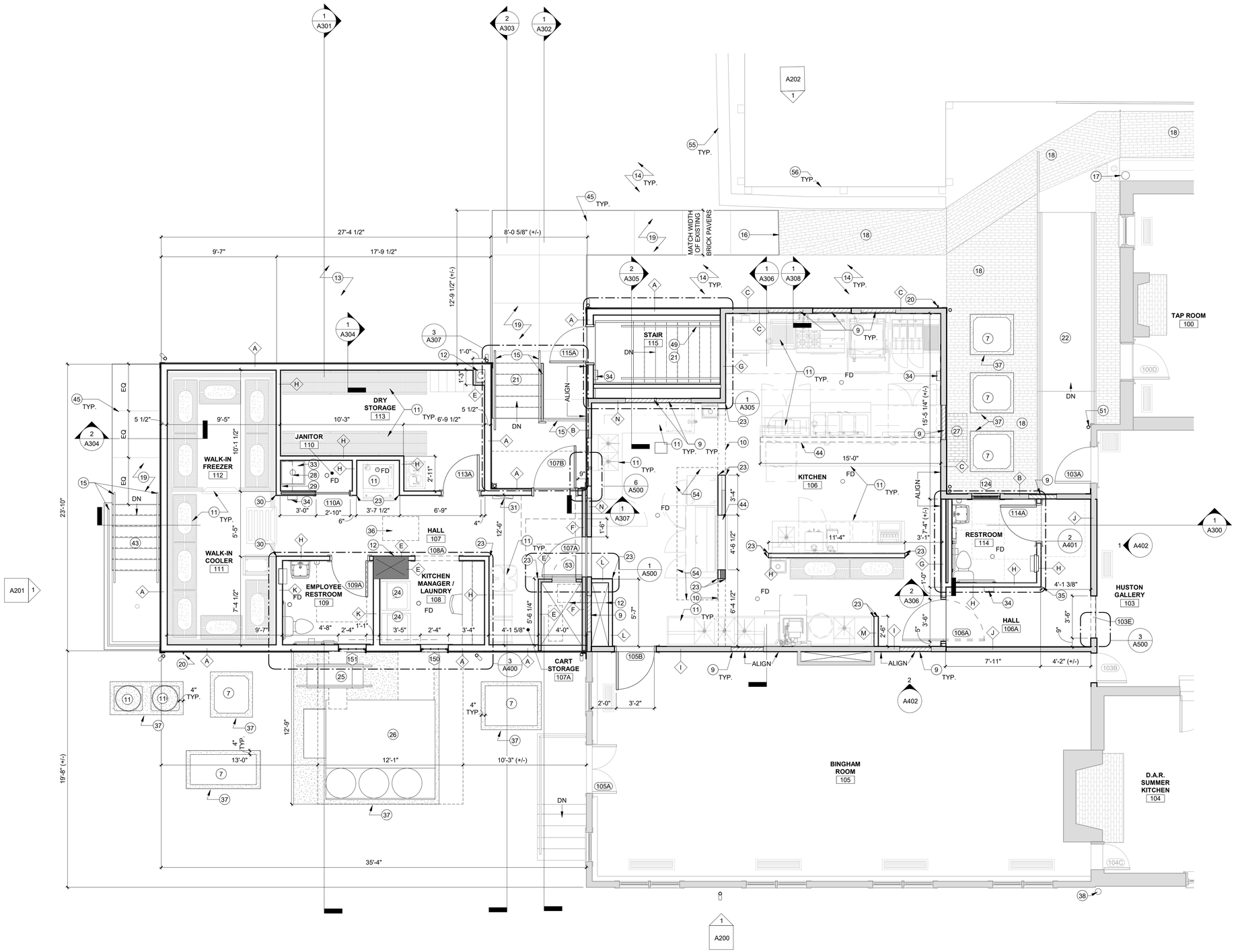
SHEET TITLE:

ENLARGED BASEMENT PLAN - SOUTH

SHEET NUMBER:

A101

021 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ENLARGED FIRST FLOOR PLAN - SOUTH

1/4" = 1'-0"

0' 2' 4' 8' 16'

PLAN KEY NOTES	
1	SLAB ON GRADE ABOVE, REFER TO CIVIL AND STRUCTURAL.
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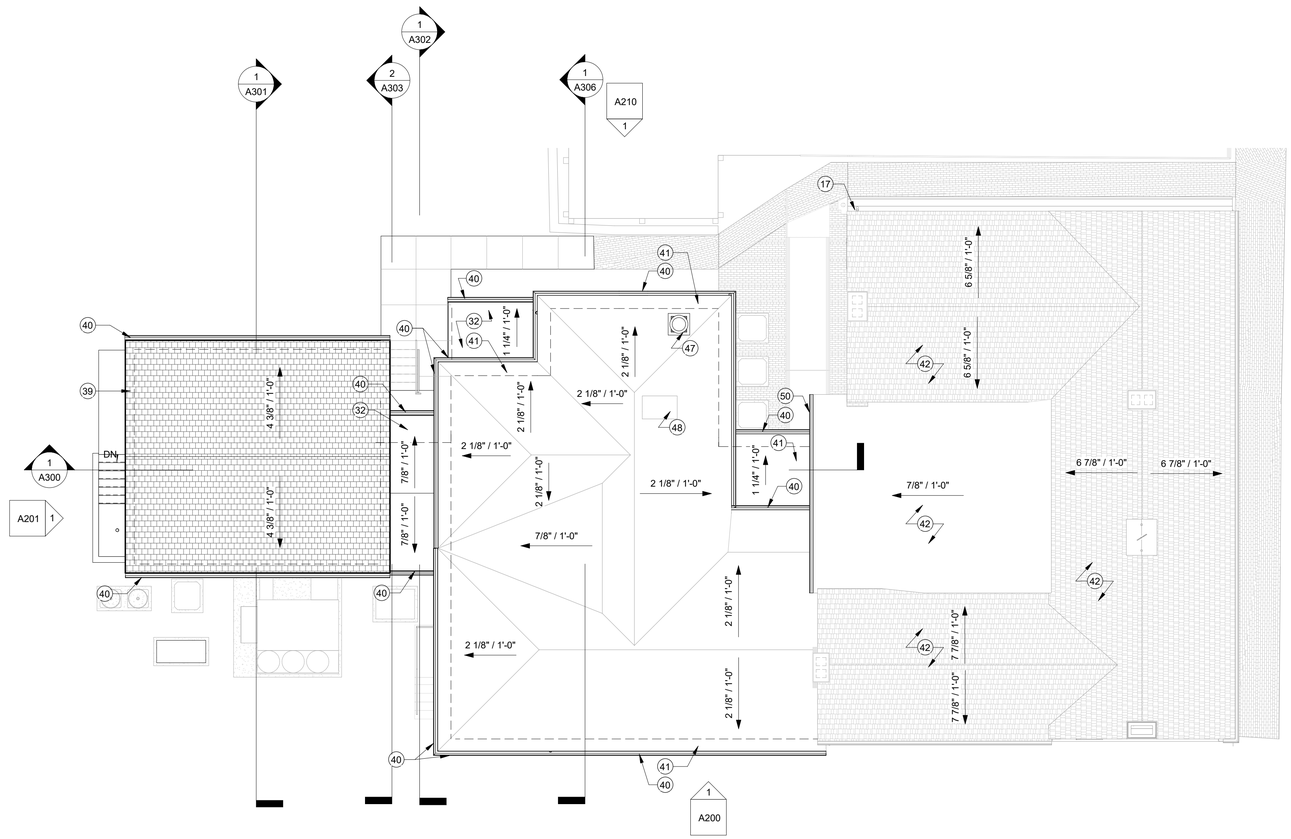
SHEET TITLE:

ENLARGED FIRST FLOOR PLAN - SOUTH

SHEET NUMBER:

A103

022 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ROOF PLAN

1/8" = 1'-0"

N

0' 4' 8' 16' 32'

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TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
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ISSUE DATE: 05.12.2020

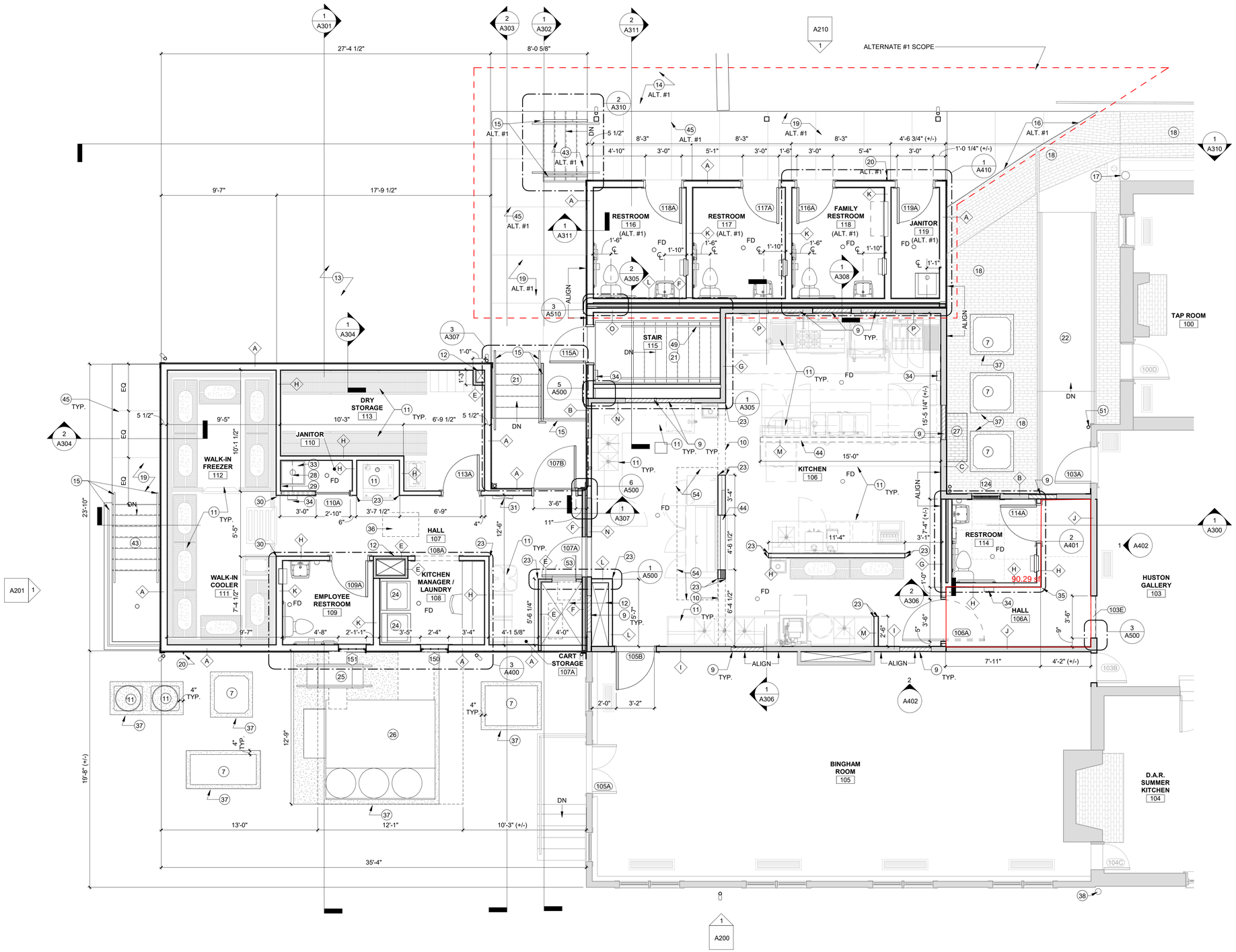
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DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:
ROOF PLAN

SHEET NUMBER:

A107

023 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ALT. #1 ENLARGED FIRST FLOOR PLAN - SOUTH

1/4" = 1'-0"

0' 2' 4' 8' 16'

PLAN KEY NOTES

1	SLAB ON GRADE ABOVE, REFER TO CIVIL AND STRUCTURAL.
2	PIPE COLUMN AND CONCRETE FOOTING, REFER TO STRUCTURAL DRAWINGS.
3	OVERHEAD DUCTWORK, COORDINATE CONCRETE OPENING, REFER TO MECHANICAL AND STRUCTURAL DRAWINGS.
4	REINFORCED CONCRETE FOUNDATION WALL, REFER TO STRUCTURAL DRAWINGS.
5	EXISTING BASEMENT STAIRS SHALL BE ABANDONED IN PLACE.
6	LOUVER AND EXHAUST FAN, REFER TO MECHANICAL
7	EQUIPMENT, REFER TO MECHANICAL AND PLUMBING DRAWINGS.
8	ELECTRICAL PANEL, REFER TO ELECTRICAL DRAWINGS.
9	INFILL EXISTING OPENING TO MATCH ADJACENT WALL. REFERENCE STRUCTURAL DRAWINGS
10	HEADER, REFER TO STRUCTURAL.
11	KITCHEN EQUIPMENT, REFER TO FOOD SERVICE DRAWINGS.
12	CHASE, REFER TO MECHANICAL.
13	ASPHALT PAVING, REFER TO CIVIL.
14	LANDSCAPING BY OWNER.
15	BLACK PAINTED GALVANIZED STEEL HANDRAILS, GUARDRAILS, AND SUPPORTS.
16	PAVING TRANSITION SHALL BE FLUSH.
17	RECONFIGURE PORTION OF EXISTING DOWNSPOUT.
18	EXISTING BRICK PAVERS TO REMAIN.
19	CONCRETE PAVING, REFER TO CIVIL.
20	HOSE BIBB, REFER TO PLUMBING
21	WOOD STAIR AND LANDING.
22	EXISTING RAMP TO REMAIN.
23	2" W. X 6'-0" H. STAINLESS STEEL CORNER GUARD
24	WASHER AND DRYER BY OWNER.
25	TWO-STEP, OPEN GRATE PLATFORM SYSTEM, DELEGATED DESIGN. COORDINATE WITH MECHANICAL DUCTWORK AT AHU.
26	AHU, REFER TO MECHANICAL
27	INFILL PAVEMENT WITH SALVAGED BRICKS.
28	UTILITY SHELF
29	INSTALL FRP OVER GYPSUM BOARD FROM TOP OF EPOXY BASE TO 4'-0" A.F.F AT MOP SINK
30	STAINLESS STEEL TRIM BY K.E.C., REFER TO FOOD SERVICE DRAWINGS
31	FIRE ALARM PANEL, RE: FIRE ALARM DRAWINGS.
32	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON 19/32" OSB SHEATHING.
33	MOP SINK, REFER TO PLUMBING. PROVIDE 4'-0" HIGH FRP PANELS ON SURROUNDING WALLS.
34	FIRE EXTINGUISHER IN SURFACE MOUNTED FIRE EXTINGUISHER CABINET.
35	2" W. X 6'-0" H. VINYL CORNER GUARD.
36	ATTIC ACCESS HATCH.
37	CONCRETE EQUIPMENT PAD, REFER TO STRUCTURAL.
38	EXISTING DOWNSPOUT TO REMAIN.
39	ASPHALT SHINGLE ROOF INSTALLED OVER MANUFACTURER APPROVED UNDERLAYMENT. INSTALL SELF-ADHERING WATER AND ICE BARRIER TO WITHIN 36 INCHES INSIDE OF INTERIOR FACE OF EXTERIOR WALLS.
40	6" 'K' SERIES PREFINISHED WHITE METAL ROOF GUTTER AND DOWNSPOUTS.
41	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON EXISTING SHEATHING AND EXISTING STRUCTURE
42	EXISTING ROOFING TO REMAIN.
43	CONCRETE STAIR, REFER TO CIVIL.
44	PARTIAL HEIGHT WALL CAPPED WITH STAINLESS STEEL, BY K.E.C.
45	CONCRETE PAVING CONTROL JOINTS TO BE SPACED AT APPROXIMATELY 4'-0" o.c. COORDINATE WITH CIVIL REQUIREMENTS.
46	PILASTER, REFER TO STRUCTURAL.
47	KITCHEN EXHAUST VENT, REFER TO MECHANICAL AND FOOD SERVICE DRAWINGS
48	LAP CUT TRUSS CHORDS W/ NEW 2X8 EXTENDING FULL LENGTH OF CUT MEMBER. REFERENCE STRUCTURAL.
49	BLACK PAINTED STEEL HANDRAILS, GUARDRAILS, AND SUPPORTS.
50	AT THE EXISTING SECOND STORY TAVERN ROOF, REPLACE EXISTING COPPER GUTTER TO MATCH EXISTING.
51	AT THE EXISTING SECOND STORY TAVERN ROOF, REPLACE EXISTING COPPER DOWNSPOUT TO MATCH EXISTING.
52	CRAWL SPACE ACCESS DOOR, COORDINATE WITH MECHANICAL AND STRUCTURAL.
53	DUCT CHASE ACCESS DOOR, 1-HR RATED. COORDINATE WITH MECHANICAL.
54	FLOOR OPENING INFILL, REFER TO STRUCTURAL.
55	EXISTING RETAINING WALL TO REMAIN.
56	EXISTING FENCE TO REMAIN.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT

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ALT. #1 ENLARGED FIRST FLOOR PLAN - SOUTH

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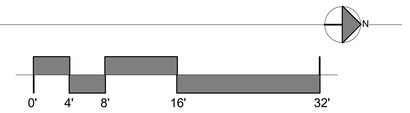
A113

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CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ALT. #1 ROOF PLAN

1/8" = 1'-0"



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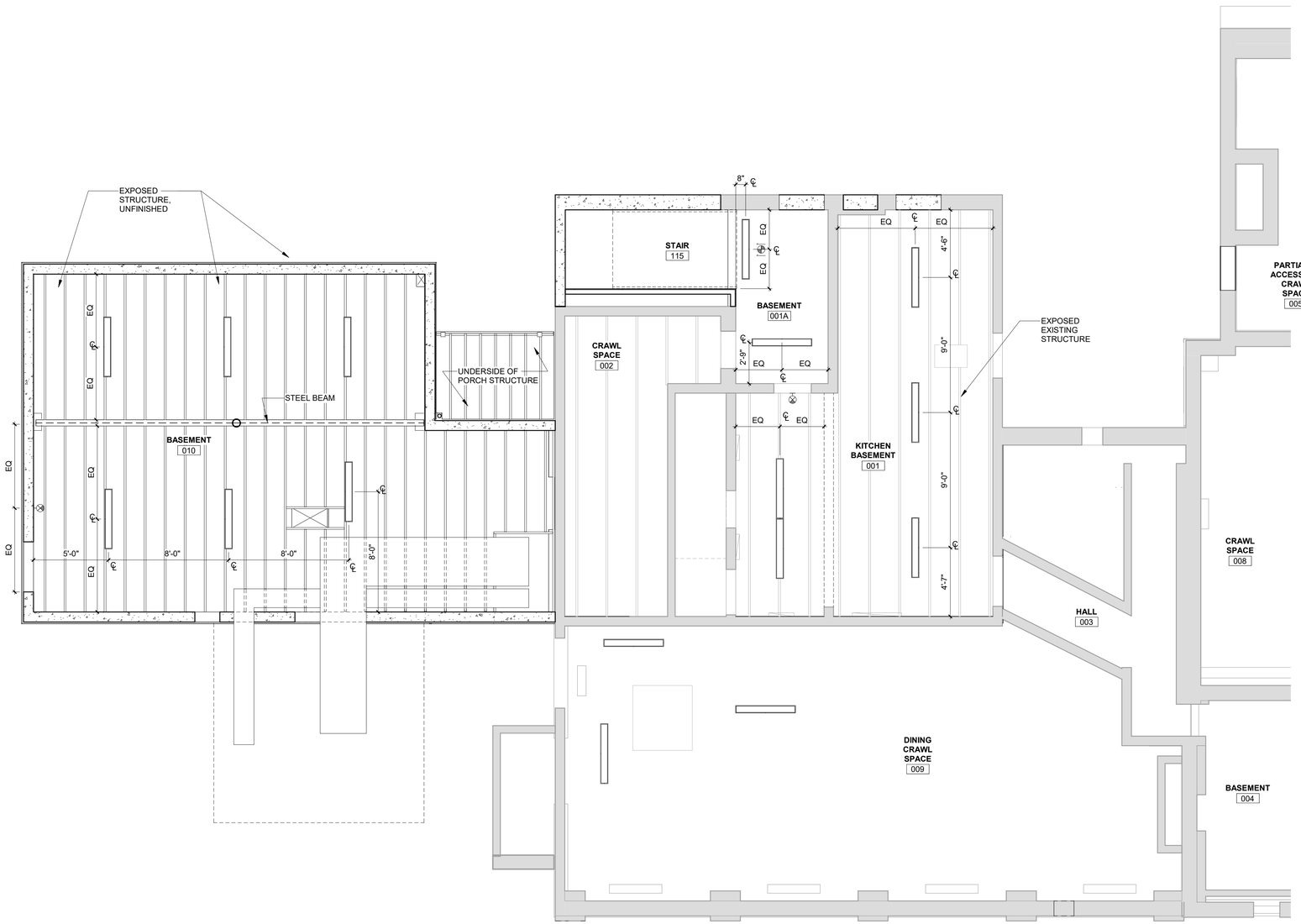
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SHEET TITLE:
ALT. #1 ROOF PLAN

SHEET NUMBER:

A117

025 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 PARTIAL BASEMENT REFLECTED CEILING PLAN - SOUTH

1/4" = 1'-0"

N

0' 2' 4' 8' 16'

REFLECTED CEILING PLAN LEGEND

- 2'x4' WASHABLE ACOUSTICAL PANEL CEILING IN NON-CORROSIVE GRID
- 5/8" GYP BD, PRIMED AND PAINTED (P-5)
- 5/8" GYP BD, TAPED AND UNFINISHED
- 1x4 RECESSED LIGHT FIXTURE, REFER TO ELECTRICAL
- 2x4 RECESSED LIGHT FIXTURE, REFER TO ELECTRICAL
- STRIP LIGHT FIXTURE, REFER TO ELECTRICAL
- RECESSED CAN LIGHT FIXTURE, REFER TO ELECTRICAL. DO NOT INSTALL ATTIC INSULATION WITHIN 3" OF ANY PART OF THE RECESSED CAN LIGHTS.
- PENDANT LIGHT FIXTURE
- EXTERIOR WALL PACK LIGHT FIXTURE, REFER TO ELECTRICAL
- CEILING MOUNTED EXIT SIGN, REFER TO ELECTRICAL
- WALL MOUNTED EXIT SIGN, REFER TO ELECTRICAL
- CEILING MOUNTED DIRECTIONAL EXIT SIGN, REFER TO ELECTRICAL

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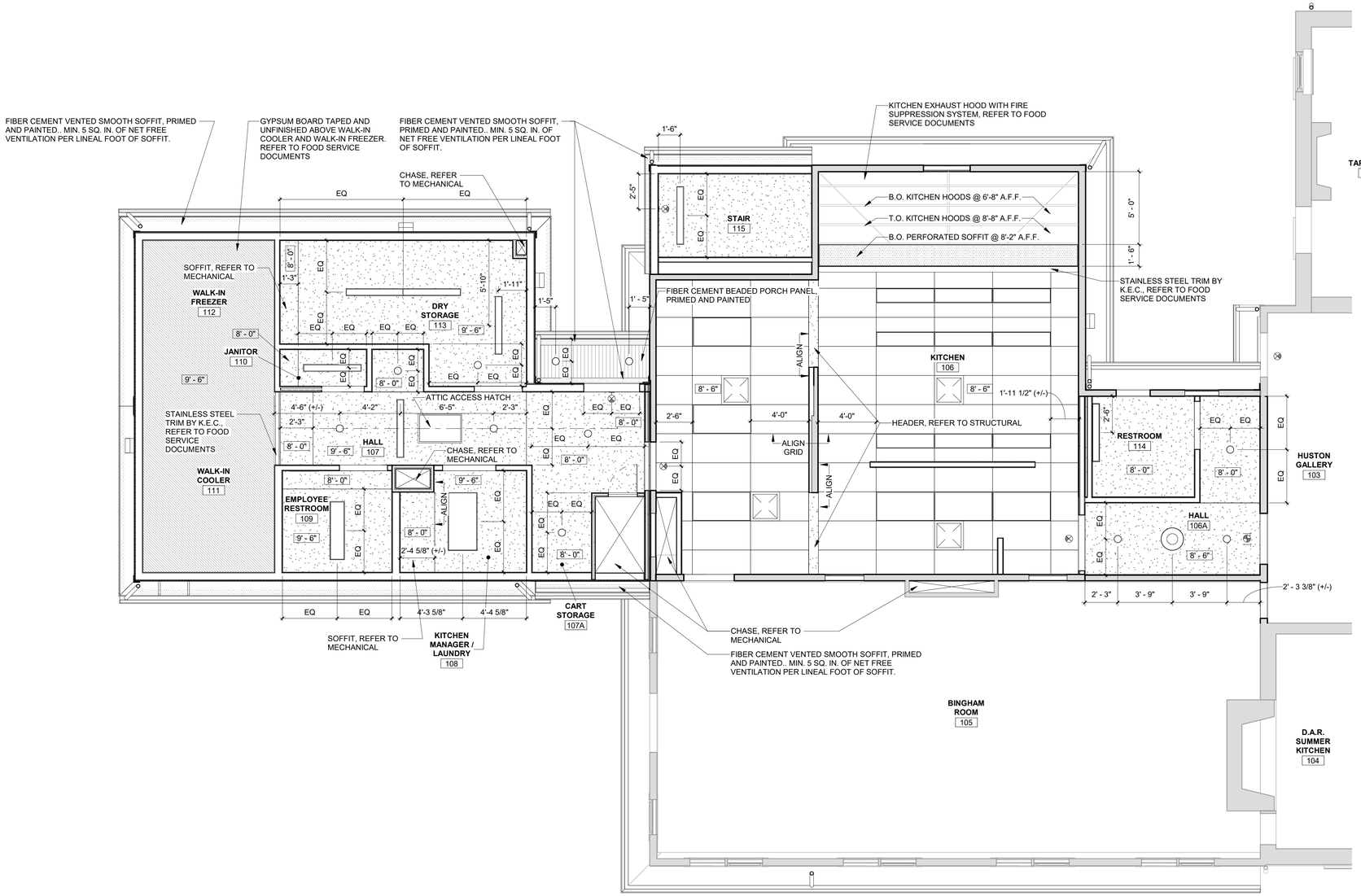
SHEET TITLE:

BASEMENT REFLECTED CEILING PLAN - SOUTH

SHEET NUMBER:

A150

026 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 PARTIAL FIRST FLOOR REFLECTED CEILING PLAN - SOUTH

1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- 2'x4' WASHABLE ACOUSTICAL PANEL CEILING IN NON-CORROSIVE GRID
- 5/8" GYP BD, PRIMED AND PAINTED (P-5)
- 5/8" GYP BD, TAPED AND UNFINISHED
- 1x4 RECESSED LIGHT FIXTURE, REFER TO ELECTRICAL
- 2x4 RECESSED LIGHT FIXTURE, REFER TO ELECTRICAL
- STRIP LIGHT FIXTURE, REFER TO ELECTRICAL
- RECESSED CAN LIGHT FIXTURE, REFER TO ELECTRICAL. DO NOT INSTALL ATTIC INSULATION WITHIN 3" OF ANY PART OF THE RECESSED CAN LIGHTS.
- PENDANT LIGHT FIXTURE
- EXTERIOR WALL PACK LIGHT FIXTURE, REFER TO ELECTRICAL
- CEILING MOUNTED EXIT SIGN, REFER TO ELECTRICAL
- WALL MOUNTED EXIT SIGN, REFER TO ELECTRICAL
- CEILING MOUNTED DIRECTIONAL EXIT SIGN, REFER TO ELECTRICAL

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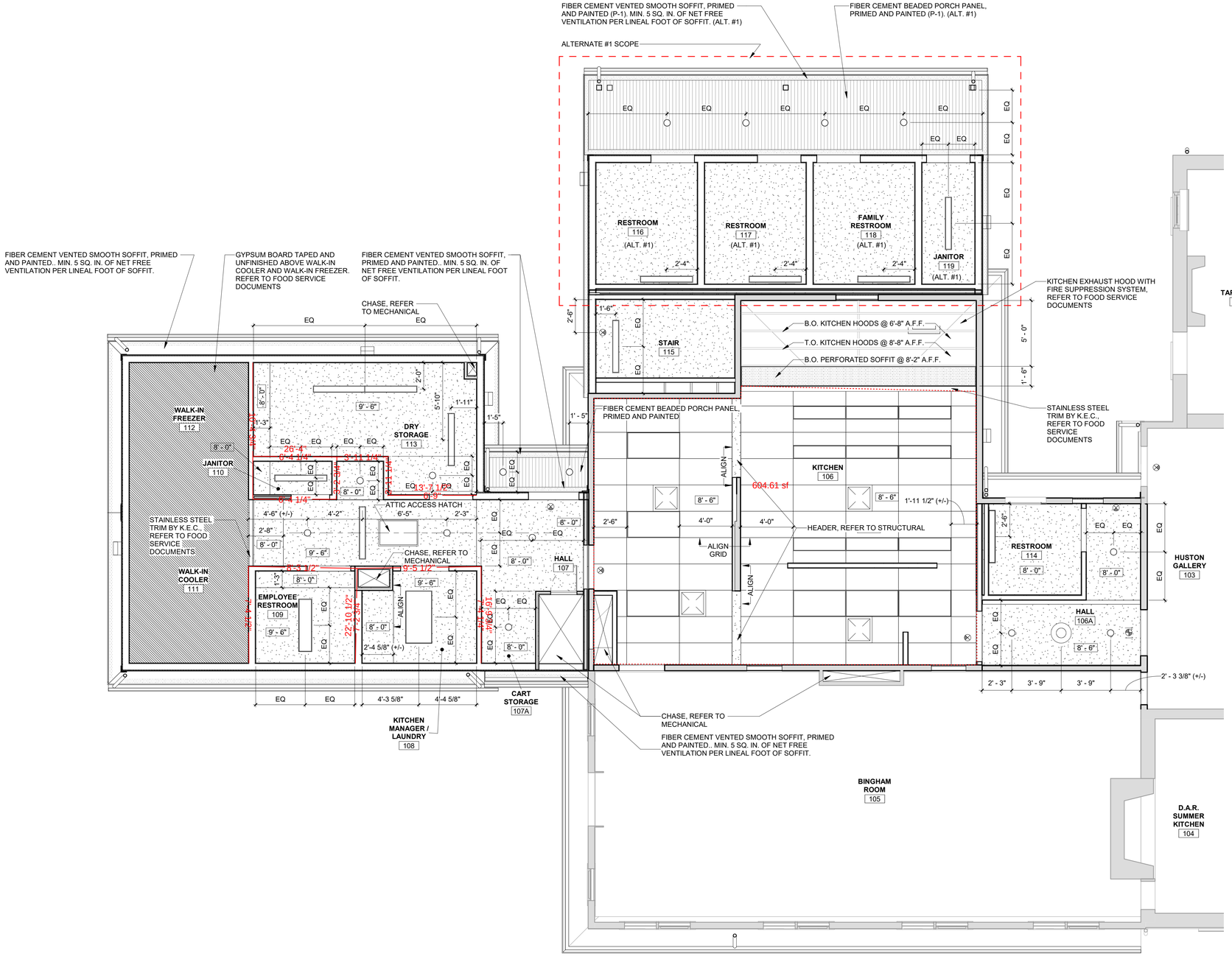
SHEET TITLE:

FIRST FLOOR REFLECTED CEILING PLAN - SOUTH

SHEET NUMBER:

A152

027 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 ALT. #1 PARTIAL FIRST FLOOR REFLECTED CEILING PLAN - SOUTH

1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- 2'x4' WASHABLE ACOUSTICAL PANEL CEILING IN NON-CORROSIVE GRID
- 5/8" GYP BD, PRIMED AND PAINTED (P-5)
- 5/8" GYP BD, TAPED AND UNFINISHED
- 1x4 RECESSED LIGHT FIXTURE, REFER TO ELECTRICAL
- 2x4 RECESSED LIGHT FIXTURE, REFER TO ELECTRICAL
- STRIP LIGHT FIXTURE, REFER TO ELECTRICAL
- RECESSED CAN LIGHT FIXTURE, REFER TO ELECTRICAL. DO NOT INSTALL ATTIC INSULATION WITHIN 3" OF ANY PART OF THE RECESSED CAN LIGHTS.
- PENDANT LIGHT FIXTURE
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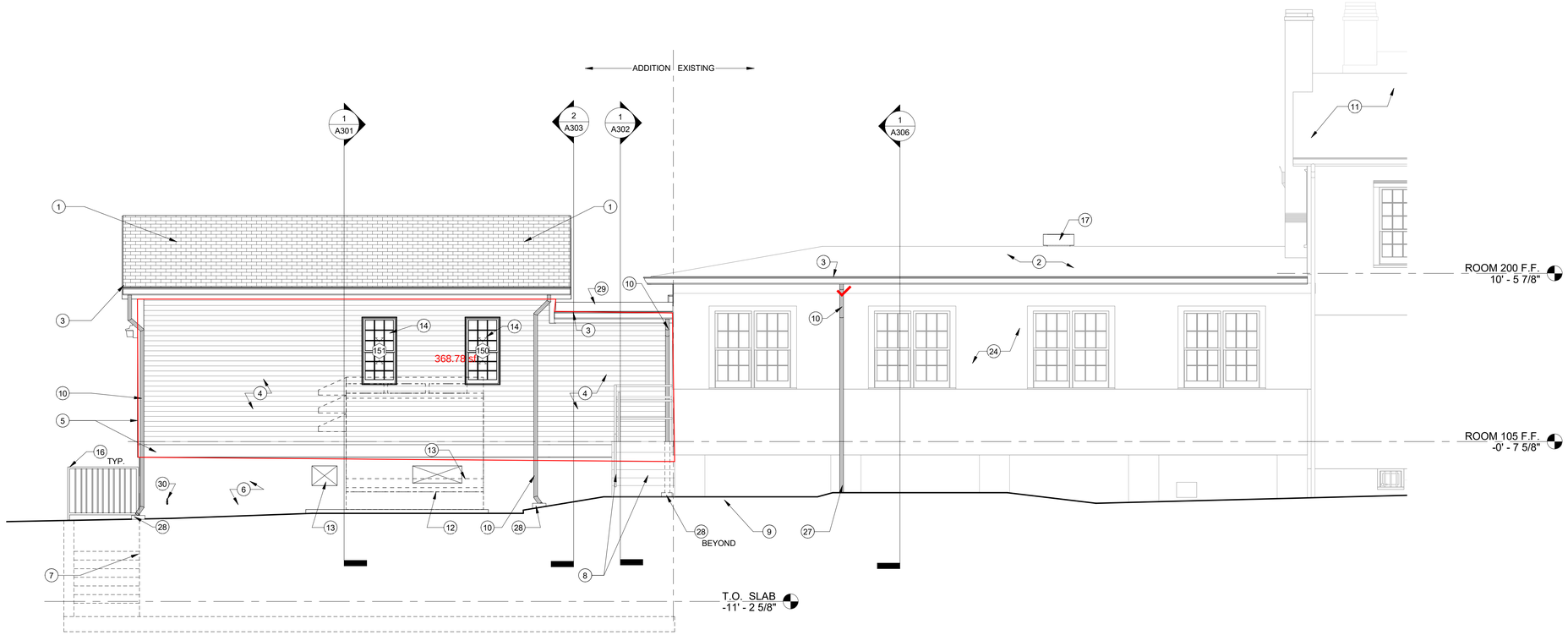
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ALT. #1 FIRST FLOOR REFLECTED CEILING PLAN - SOUTH

SHEET NUMBER:

A161

028 OF 102 SHEETS
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MAY 12, 2020



1 EAST ELEVATION

1/4" = 1'-0"

0' 2' 4' 8' 16'

ELEVATION KEY NOTES	
1	ASPHALT SHINGLE ROOF INSTALLED OVER MANUFACTURER APPROVED UNDERLAYMENT. INSTALL SELF-ADHERING WATER AND ICE BARRIER TO WITHIN 36 INCHES INSIDE OF INTERIOR FACE OF EXTERIOR WALLS.
2	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON EXISTING SHEATHING AND EXISTING STRUCTURE.
3	6" K-STYLE PRE-FINISHED METAL GUTTER.
4	FIBER CEMENT BOARD SIDING, PRIMED AND PAINTED TO MATCH EXISTING
5	FIBER CEMENT BOARD TRIM, PRIMED AND PAINTED TO MATCH EXISTING
6	CONCRETE FOUNDATION WALL, REFER TO STRUCTURAL
7	CONCRETE FOUNDATION WALL AND FOOTINGS, BEYOND, REFER TO STRUCTURAL
8	EXISTING STAIR, RAILINGS, AND GUARDRAILS TO REMAIN, INSTALLED BY OWNER.
9	GRADE, REFER TO CIVIL
10	PRE-FINISHED METAL DOWNSPOUT.
11	EXISTING ROOFING TO REMAIN.
12	MECHANICAL UNIT SHOWN DASHED. REFER TO MECHANICAL DRAWINGS.
13	DUCTWORK OPENING, REFER TO MECHANICAL AND STRUCTURAL.
14	ALUMINUM-CLAD WOOD WINDOWS
15	EXTERIOR WALL PACK LIGHT FIXTURE, REFER TO ELECTRICAL
16	BLACK PAINTED GALVANIZED STEEL HANDRAILS, GUARDRAILS, AND SUPPORTS.
17	KITCHEN EXHAUST VENT, REFER TO MECHANICAL AND FOOD SERVICE DRAWINGS
18	EXISTING WINDOW TO REMAIN RESTORE/MODIFY AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.
19	EXISTING BOTTOM HALF OF DOWNSPOUT IS DAMAGED AND NEEDS TO BE REMOVED AND REPLACED.
20	EXISTING RAMP TO REMAIN.
21	WOOD STAIR AND LANDING.
23	POLYURETHANE LOUVER GABLE VENT, MIN. 55 SQ. IN. NET FREE AREA
24	EXISTING SIDING TO REMAIN.
25	AHU, REFER TO MECHANICAL.
26	EXISTING RETAINING WALL TO REMAIN.
27	TIE DOWNSPOUT TO EXISTING DRAIN BELOW GRADE.
28	SPLASH BLOCK.
29	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON 19/32" OSB SHEATHING.
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31	TWO-STEP, OPEN GRATE PLATFORM SYSTEM, DELEGATED DESIGN. COORDINATE WITH MECHANICAL DUCTWORK AT AHU.
32	EXTERIOR HOLLOW METAL DOOR IN WOOD FRAME, PAINTED.
33	REPLACE EXISTING COPPER GUTTER TO MATCH EXISTING.
34	REPLACE EXISTING COPPER DOWNSPOUT TO MATCH EXISTING.

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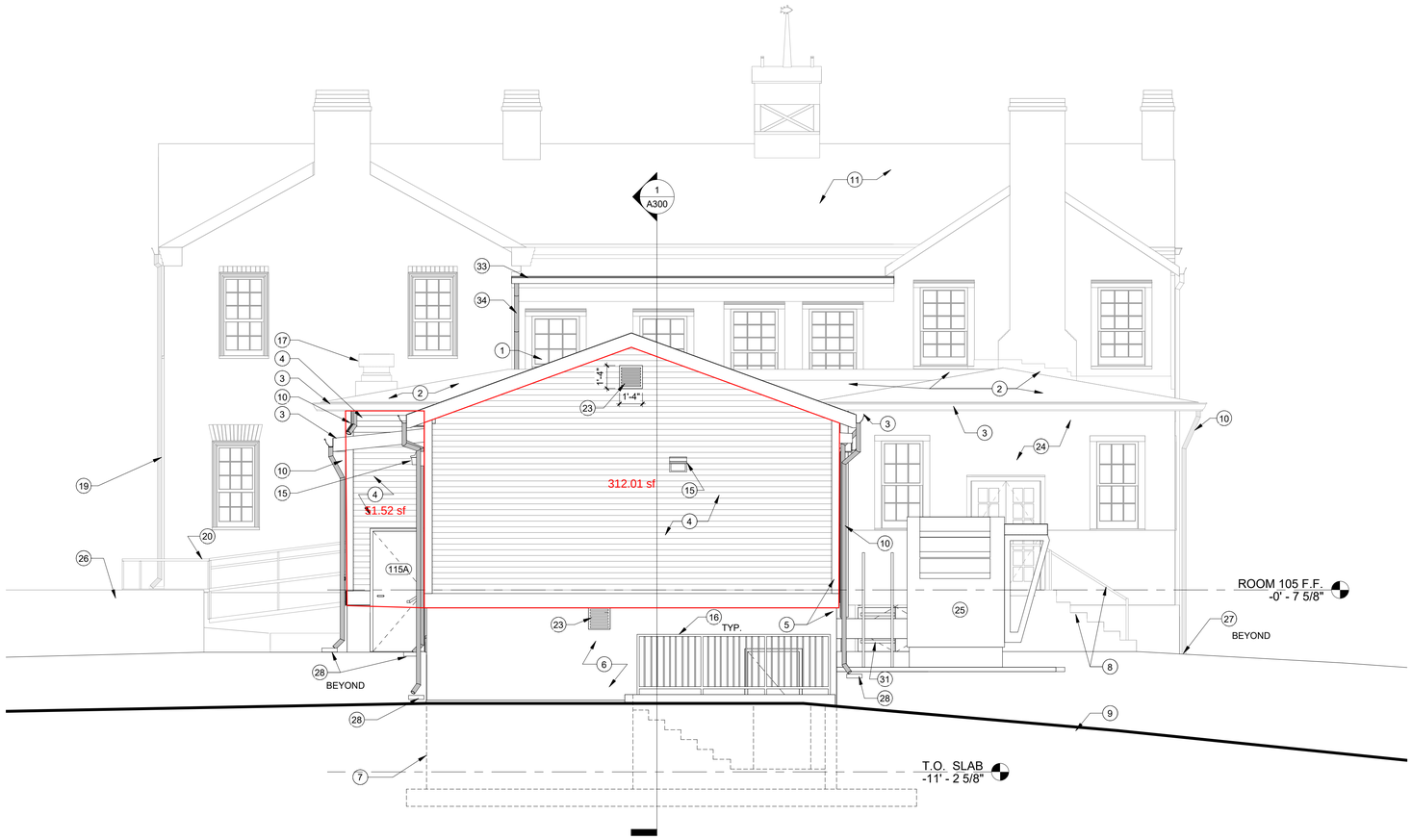
SHEET TITLE:

EXTERIOR ELEVATIONS

SHEET NUMBER:

A200

029 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 SOUTH ELEVATION

1/4" = 1'-0"

0' 2' 4' 8' 16'

ELEVATION KEY NOTES	
1	ASPHALT SHINGLE ROOF INSTALLED OVER MANUFACTURER APPROVED UNDERLAYMENT. INSTALL SELF-ADHERING WATER AND ICE BARRIER TO WITHIN 36 INCHES INSIDE OF INTERIOR FACE OF EXTERIOR WALLS.
2	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON EXISTING SHEATHING AND EXISTING STRUCTURE.
3	6" K-STYLE PRE-FINISHED METAL GUTTER.
4	FIBER CEMENT BOARD SIDING, PRIMED AND PAINTED TO MATCH EXISTING
5	FIBER CEMENT BOARD TRIM, PRIMED AND PAINTED TO MATCH EXISTING
6	CONCRETE FOUNDATION WALL, REFER TO STRUCTURAL
7	CONCRETE FOUNDATION WALL AND FOOTINGS, BEYOND, REFER TO STRUCTURAL
8	EXISTING STAIR, RAILINGS, AND GUARDRAILS TO REMAIN, INSTALLED BY OWNER.
9	GRADE, REFER TO CIVIL
10	PRE-FINISHED METAL DOWNSPOUT.
11	EXISTING ROOFING TO REMAIN.
12	MECHANICAL UNIT SHOWN DASHED. REFER TO MECHANICAL DRAWINGS.
13	DUCTWORK OPENING, REFER TO MECHANICAL AND STRUCTURAL.
14	ALUMINUM-CLAD WOOD WINDOWS
15	EXTERIOR WALL PACK LIGHT FIXTURE, REFER TO ELECTRICAL
16	BLACK PAINTED GALVANIZED STEEL HANDRAILS, GUARDRAILS, AND SUPPORTS.
17	KITCHEN EXHAUST VENT, REFER TO MECHANICAL AND FOOD SERVICE DRAWINGS
18	EXISTING WINDOW TO REMAIN RESTORE/MODIFY AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.
19	EXISTING BOTTOM HALF OF DOWNSPOUT IS DAMAGED AND NEEDS TO BE REMOVED AND REPLACED.
20	EXISTING RAMP TO REMAIN.
21	WOOD STAIR AND LANDING.
23	POLYURETHANE LOUVER GABLE VENT, MIN. 55 SQ. IN. NET FREE AREA
24	EXISTING SIDING TO REMAIN.
25	AHU, REFER TO MECHANICAL.
26	EXISTING RETAINING WALL TO REMAIN.
27	TIE DOWNSPOUT TO EXISTING DRAIN BELOW GRADE.
28	SPLASH BLOCK.
29	MODIFIED BITUMEN APP OVER HIGH DENSITY POLYISOCYANURATE INSULATION ON 19/32" OSB SHEATHING.
30	HOSE BIBB, REFER TO PLUMBING
31	TWO-STEP, OPEN GRATE PLATFORM SYSTEM, DELEGATED DESIGN. COORDINATE WITH MECHANICAL DUCTWORK AT AHU.
32	EXTERIOR HOLLOW METAL DOOR IN WOOD FRAME, PAINTED.
33	REPLACE EXISTING COPPER GUTTER TO MATCH EXISTING.
34	REPLACE EXISTING COPPER DOWNSPOUT TO MATCH EXISTING.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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ANGIE GAEBLER
NUMBER
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ARCHITECT

05.12.2020
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Missouri State Certificate of Authority: #2009024884

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DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

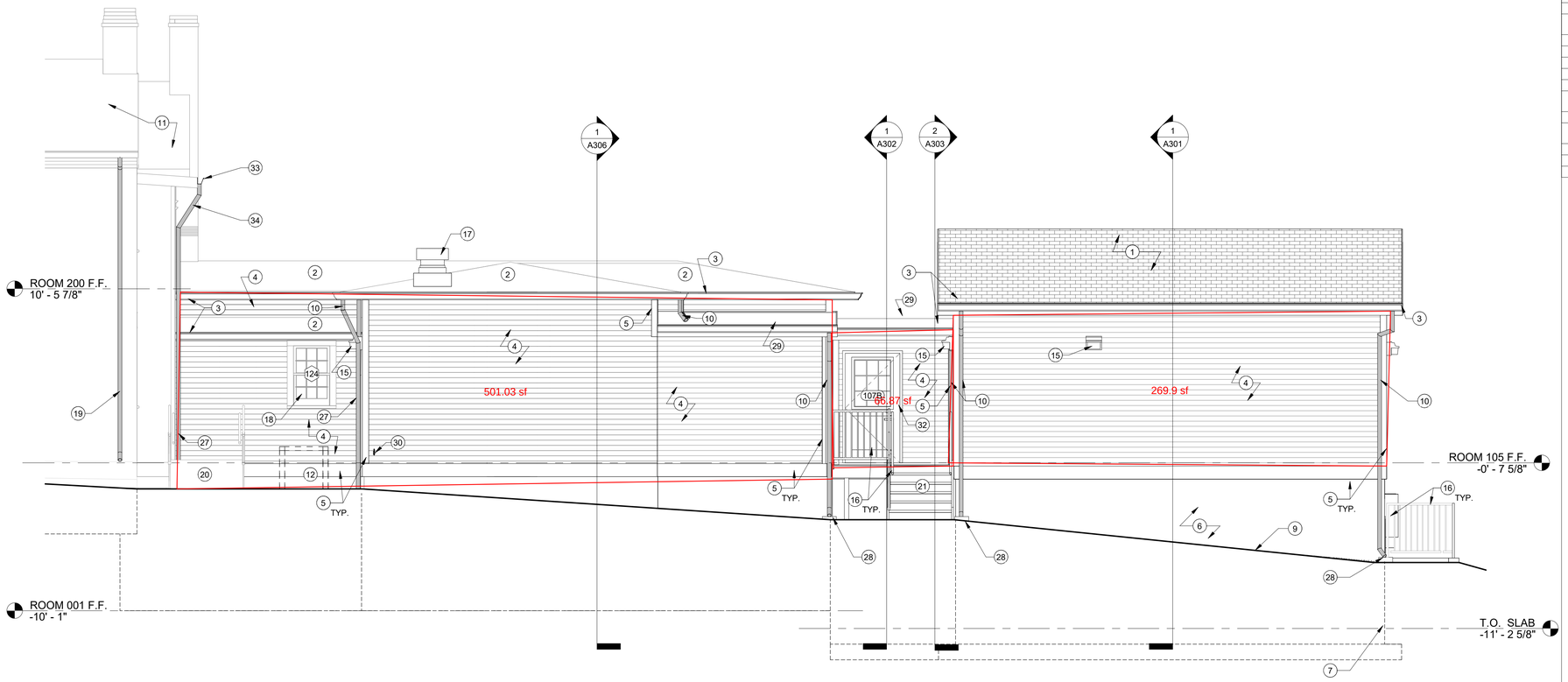
SHEET TITLE:

EXTERIOR ELEVATIONS

SHEET NUMBER:

A201

030 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 WEST ELEVATION

1/4" = 1'-0"

ELEVATION KEY NOTES	
1	ASPHALT SHINGLE ROOF INSTALLED OVER MANUFACTURER APPROVED UNDERLAYMENT. INSTALL SELF-ADHERING WATER AND ICE BARRIER TO WITHIN 36 INCHES INSIDE OF INTERIOR FACE OF EXTERIOR WALLS.
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MICHAEL L. PARSON, GOVERNOR

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NUMBER A-2016030717
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TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

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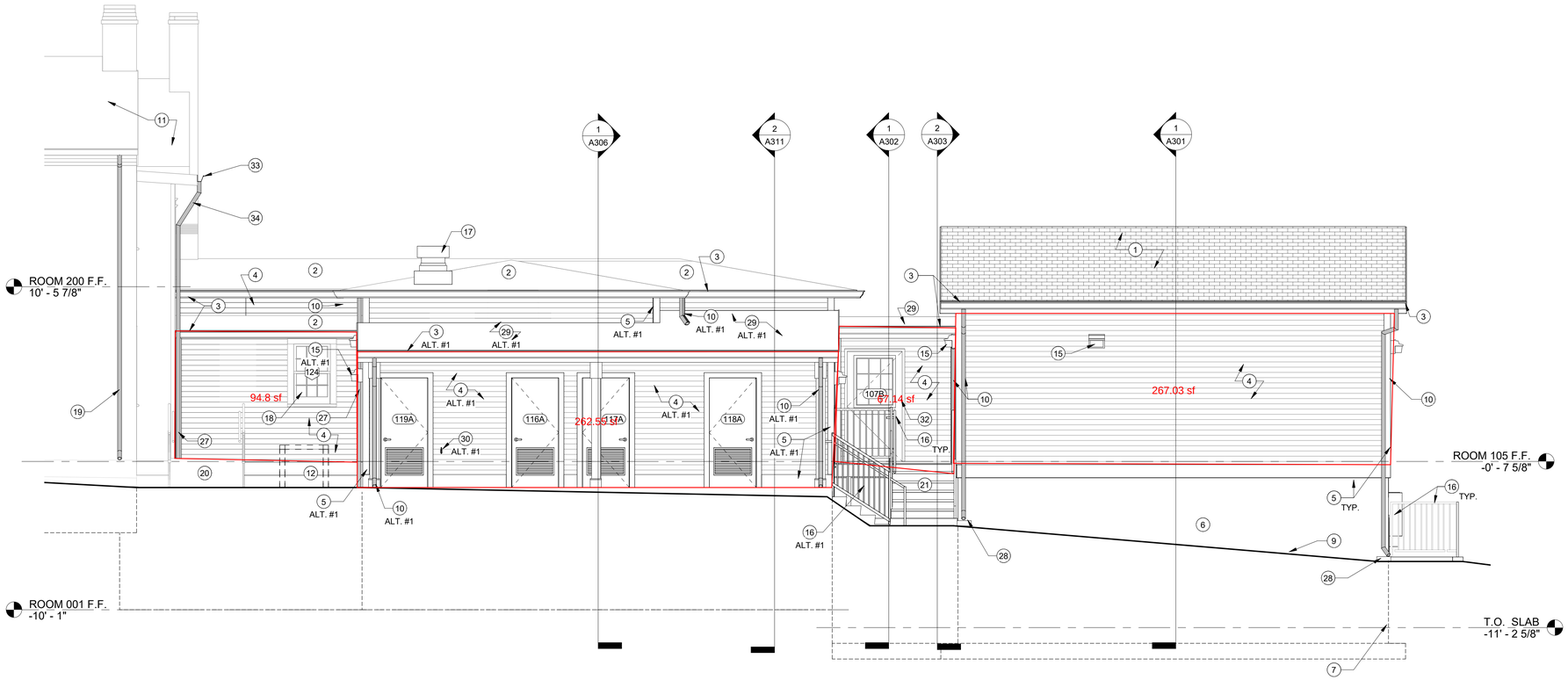
SHEET TITLE:

EXTERIOR ELEVATIONS

SHEET NUMBER:

A202

031 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 WEST ELEVATION - ALTERNATE #1

1/4" = 1'-0"

0' 2' 4' 8' 16'

ELEVATION KEY NOTES	
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305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

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DRAWN BY: CA/JT
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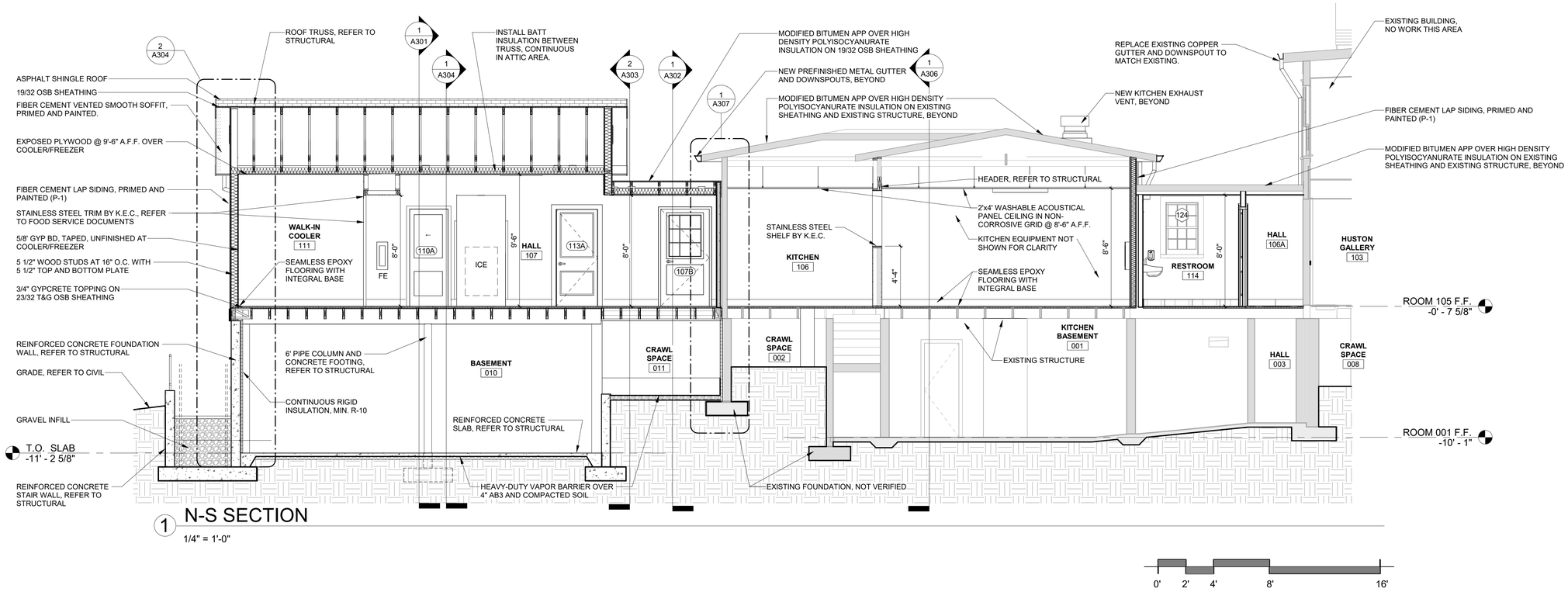
SHEET TITLE:

ALT. #1 EXTERIOR ELEVATIONS

SHEET NUMBER:

A210

032 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 N-S SECTION

1/4" = 1'-0"

STATE OF MISSOURI
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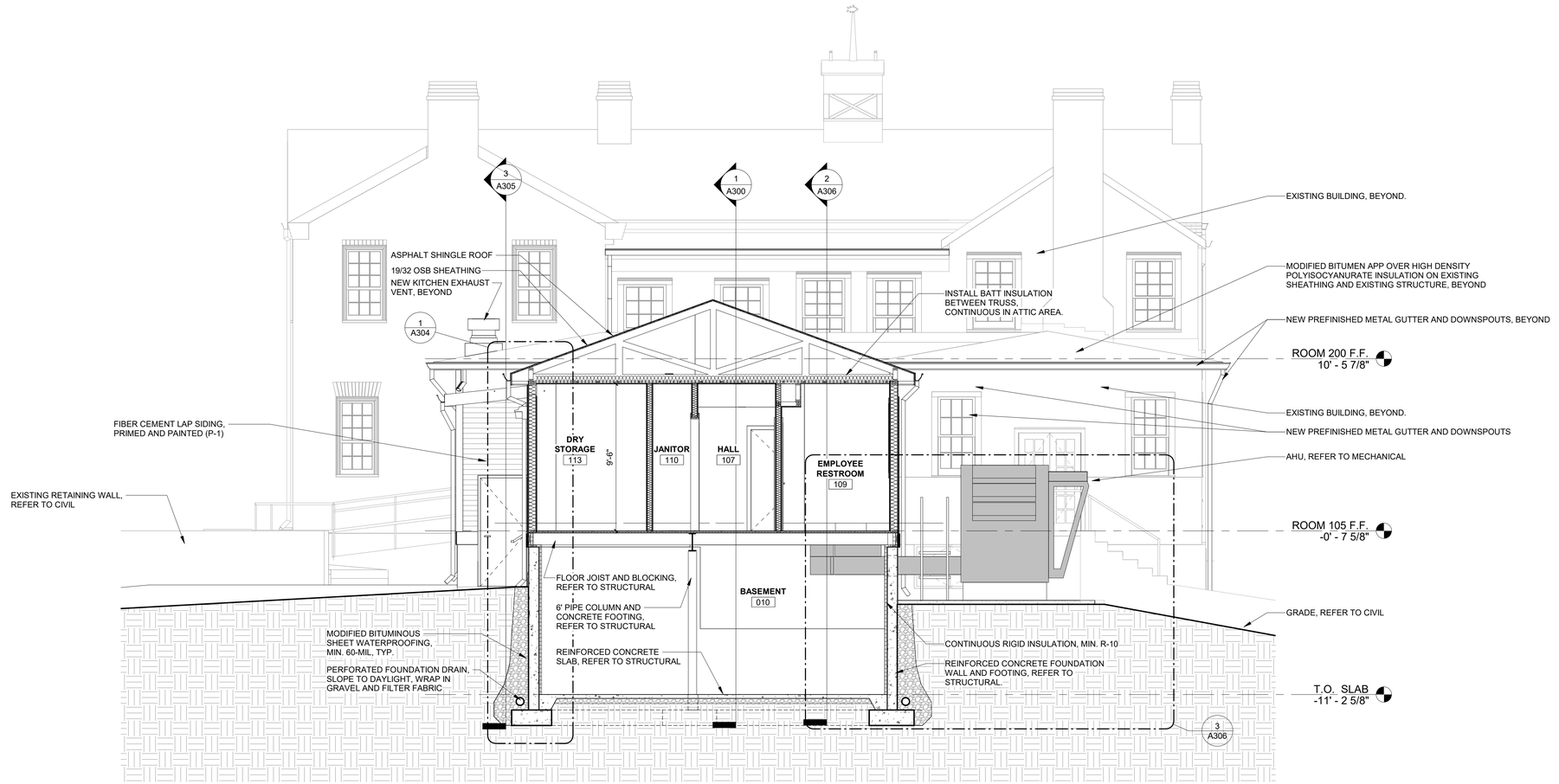
SHEET TITLE:

BUILDING SECTIONS

SHEET NUMBER:

A300

033 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 E-W SECTION

1/4" = 1'-0"

0' 2' 4' 8' 16'

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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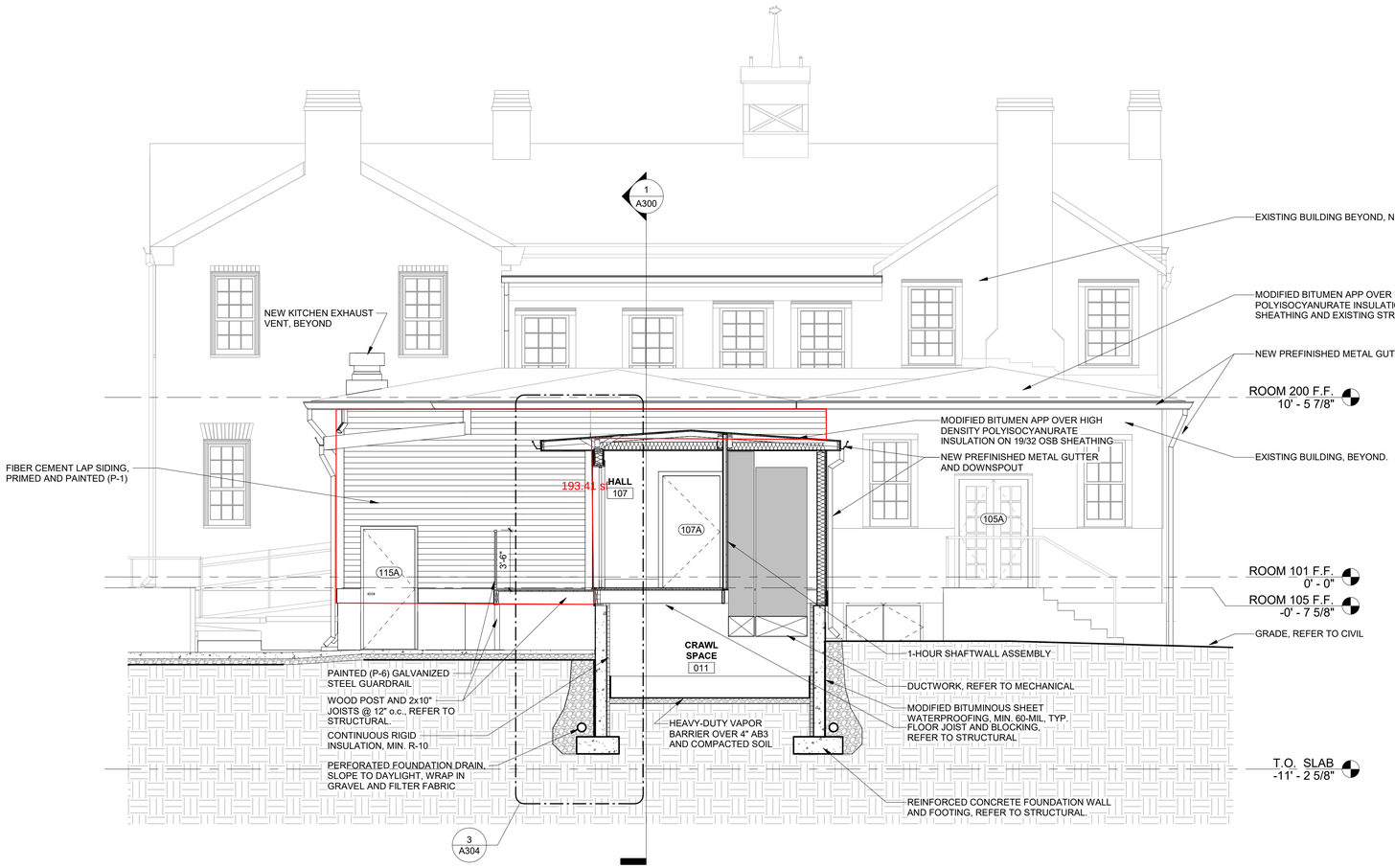
CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:
BUILDING SECTIONS

SHEET NUMBER:

A301

034 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 E-W SECTION

1/4" = 1'-0"

0' 2' 4' 8' 16'

STATE OF MISSOURI
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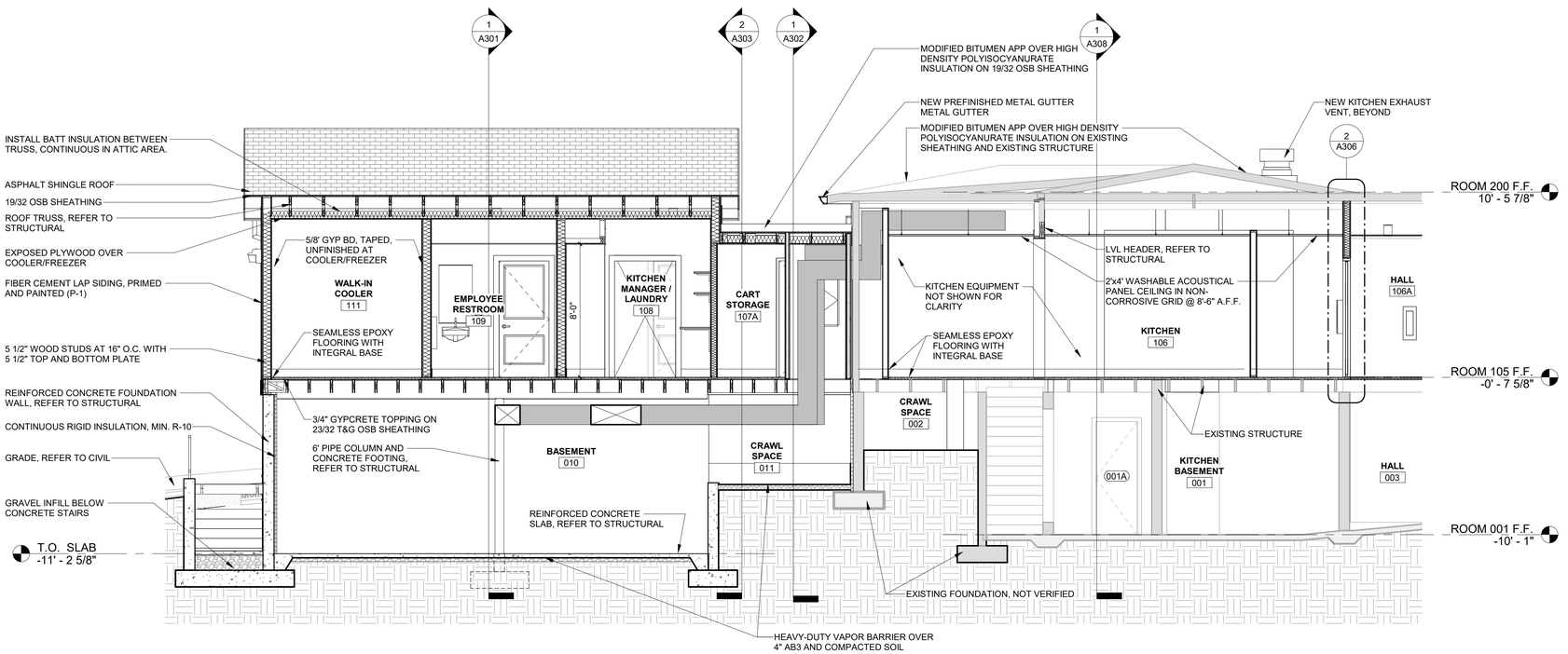
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DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:
BUILDING SECTIONS

SHEET NUMBER:

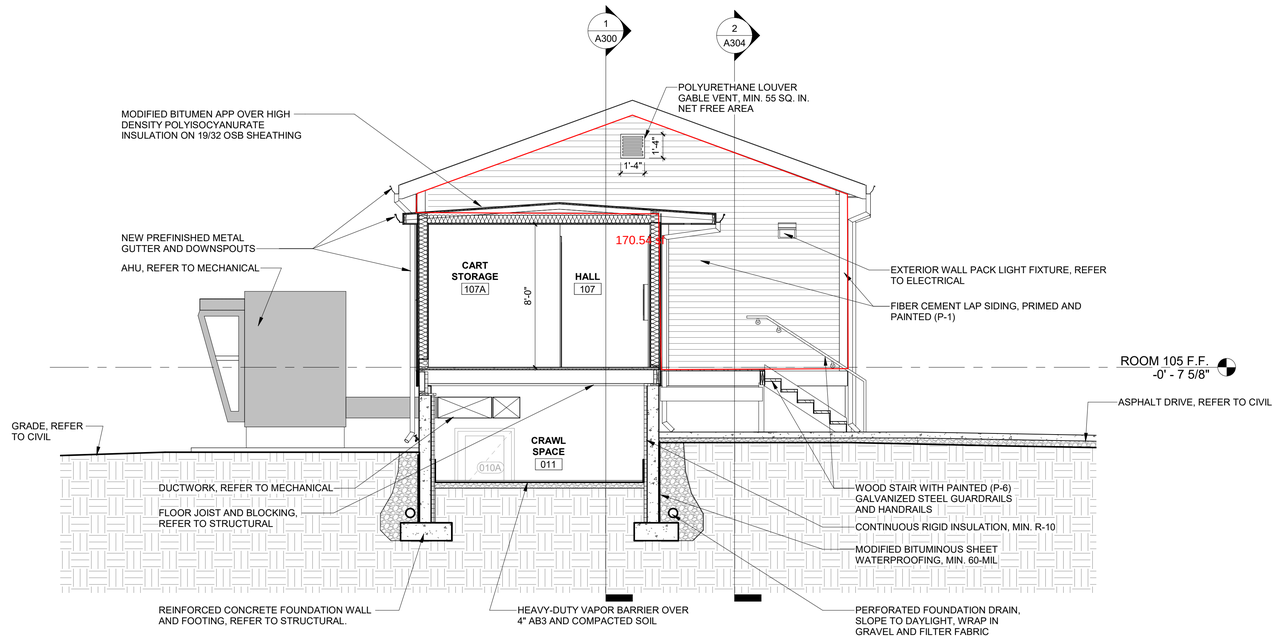
A302

035 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



1 N-S KITCHEN SECTION

1/4" = 1'-0"



2 E-W SECTION

1/4" = 1'-0"

0' 2' 4' 8' 16'

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI ANGIE GAEBLER NUMBER A-2016030717 ARCHITECT

05.12.2020
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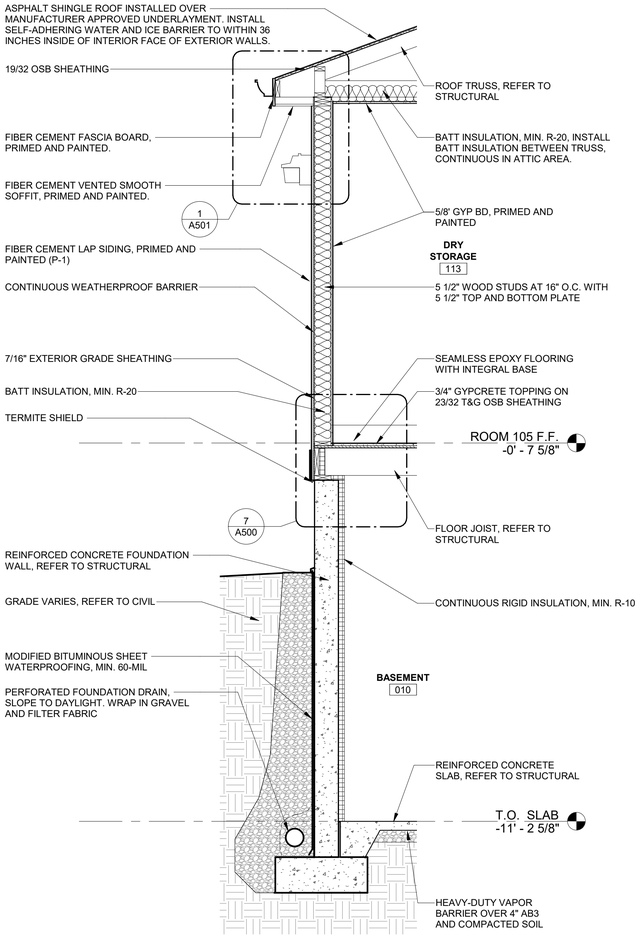
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SHEET TITLE:
BUILDING SECTIONS

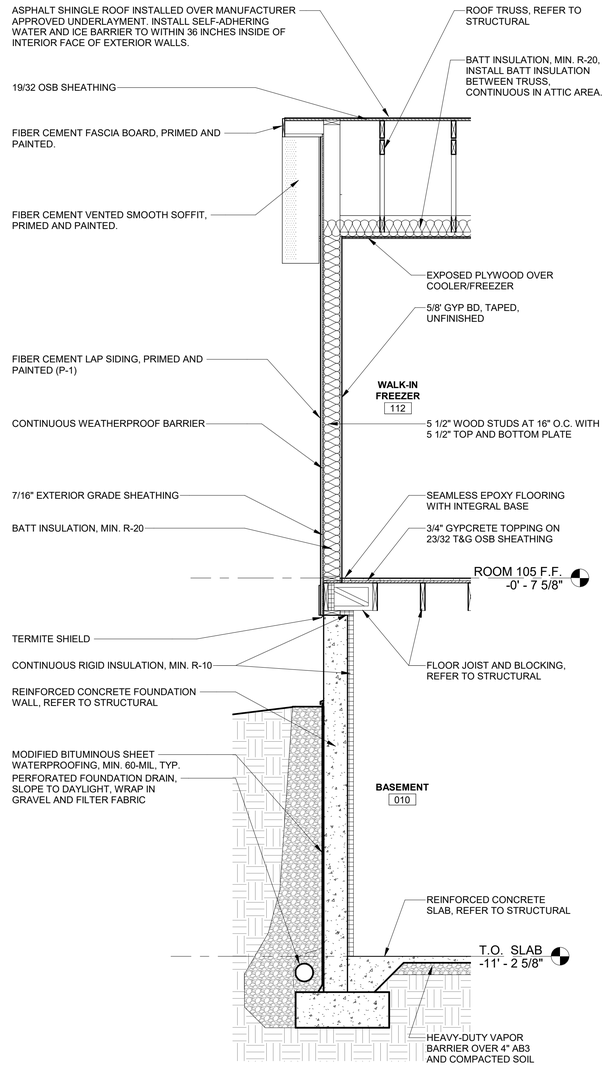
SHEET NUMBER:
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036 OF 102 SHEETS
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MAY 12, 2020



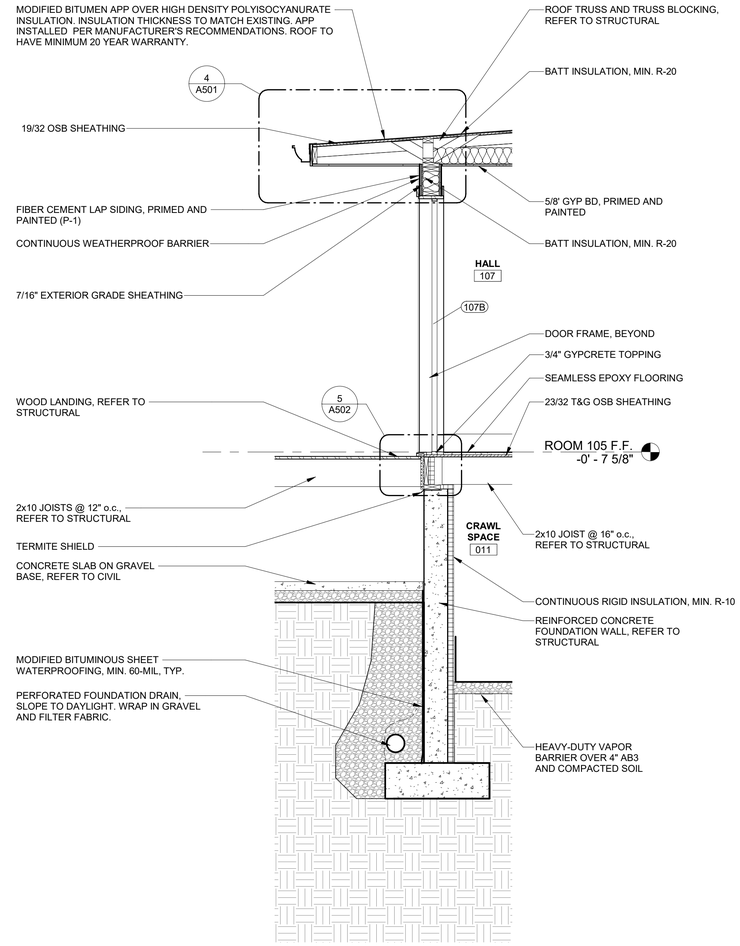
1 WALL SECTION

1/2" = 1'-0"



2 WALL SECTION

1/2" = 1'-0"



3 WALL SECTION

1/2" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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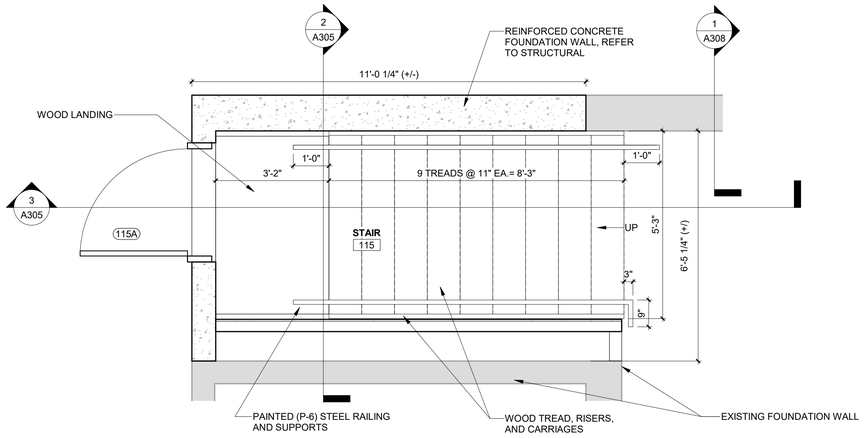
SHEET TITLE:

WALL SECTIONS

SHEET NUMBER:

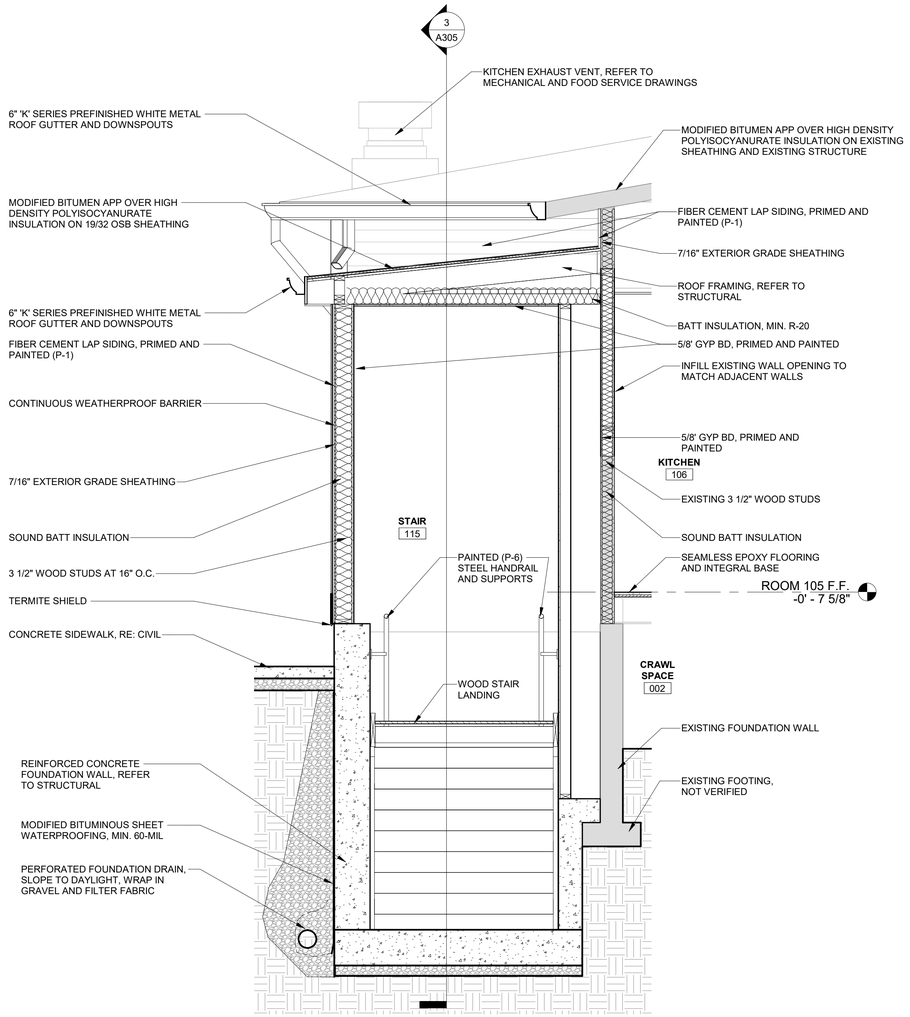
A304

037 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



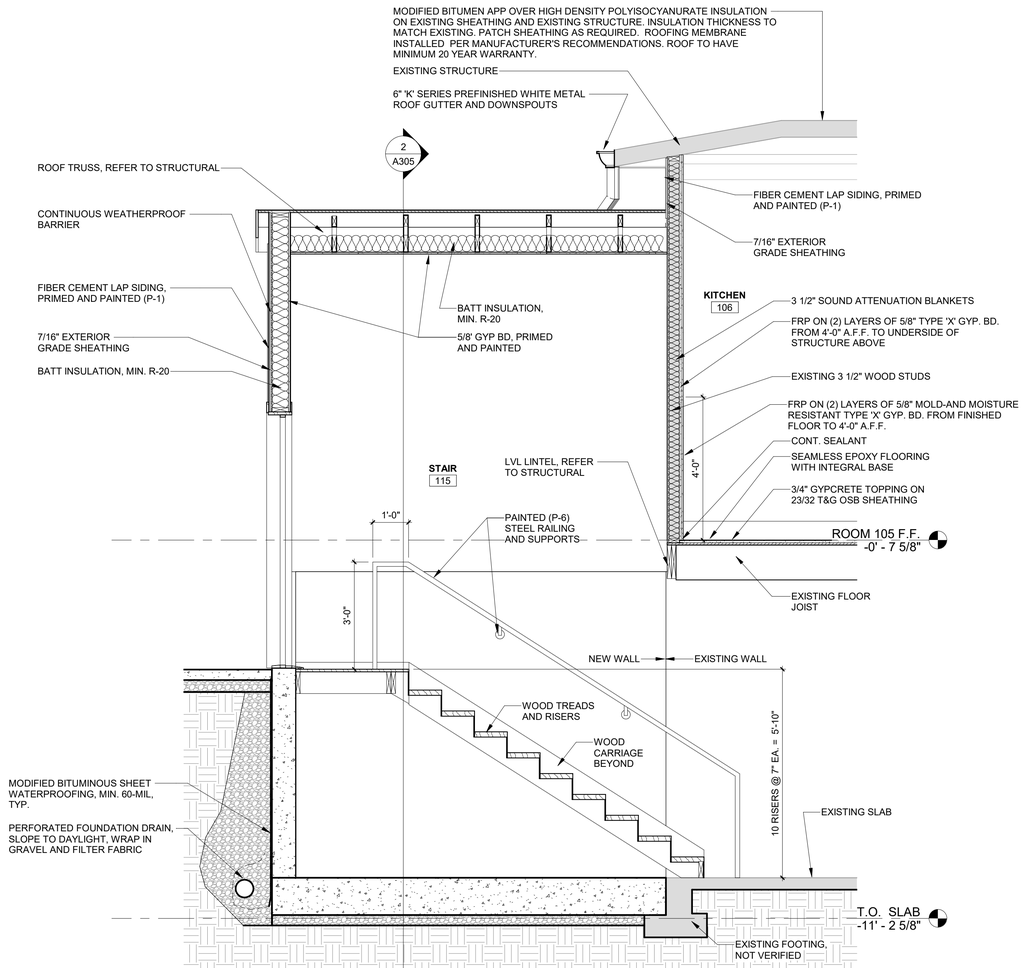
1 BASEMENT STAIR ENLARGED PLAN

1/2" = 1'-0"



2 WALL SECTION

1/2" = 1'-0"



3 N-S BASEMENT STAIR

1/2" = 1'-0"

STATE OF MISSOURI
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ISSUE DATE: 05.12.2020

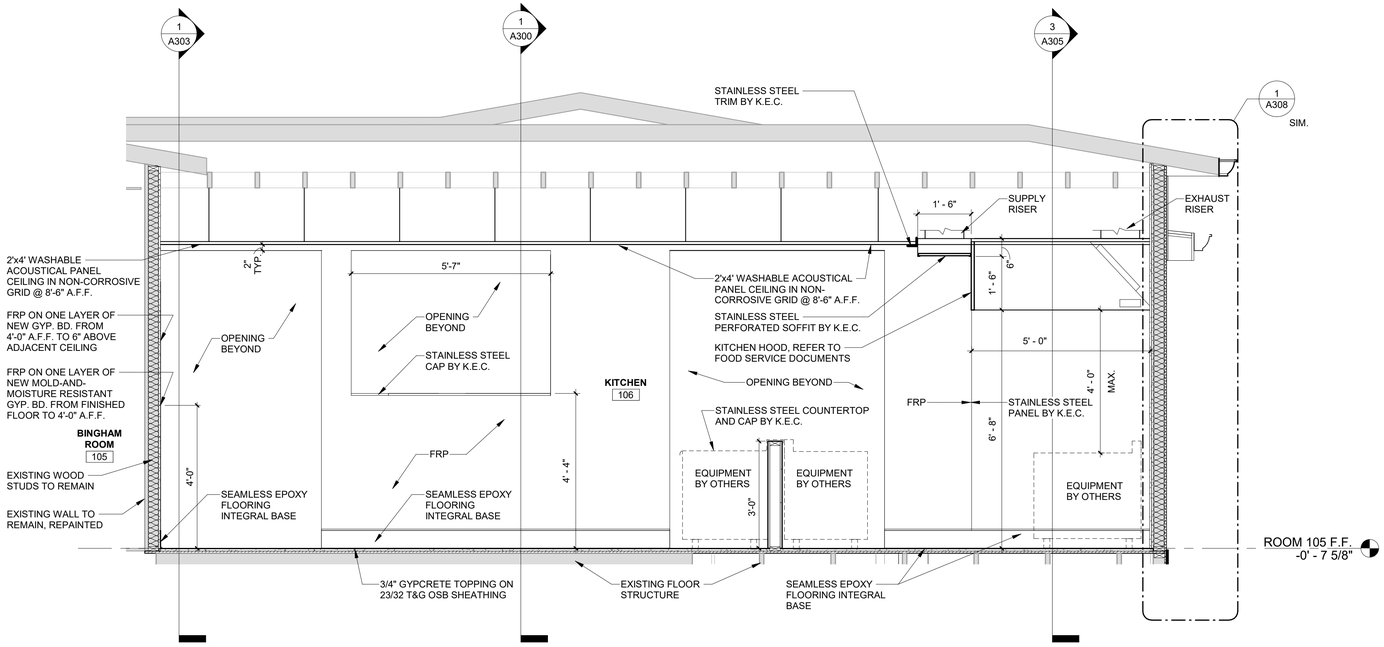
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DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:
WALL SECTIONS

SHEET NUMBER:

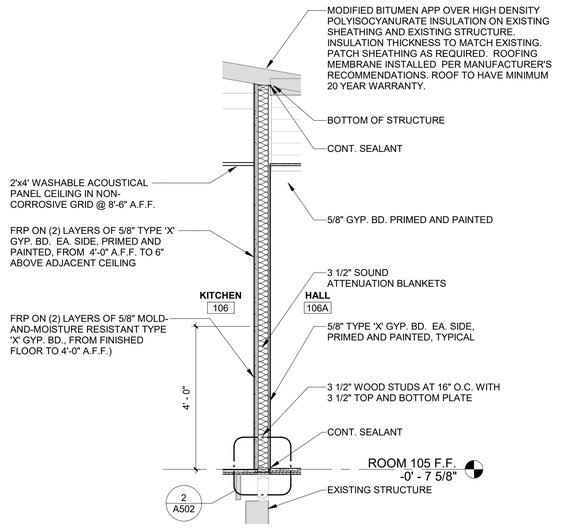
A305

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MAY 12, 2020



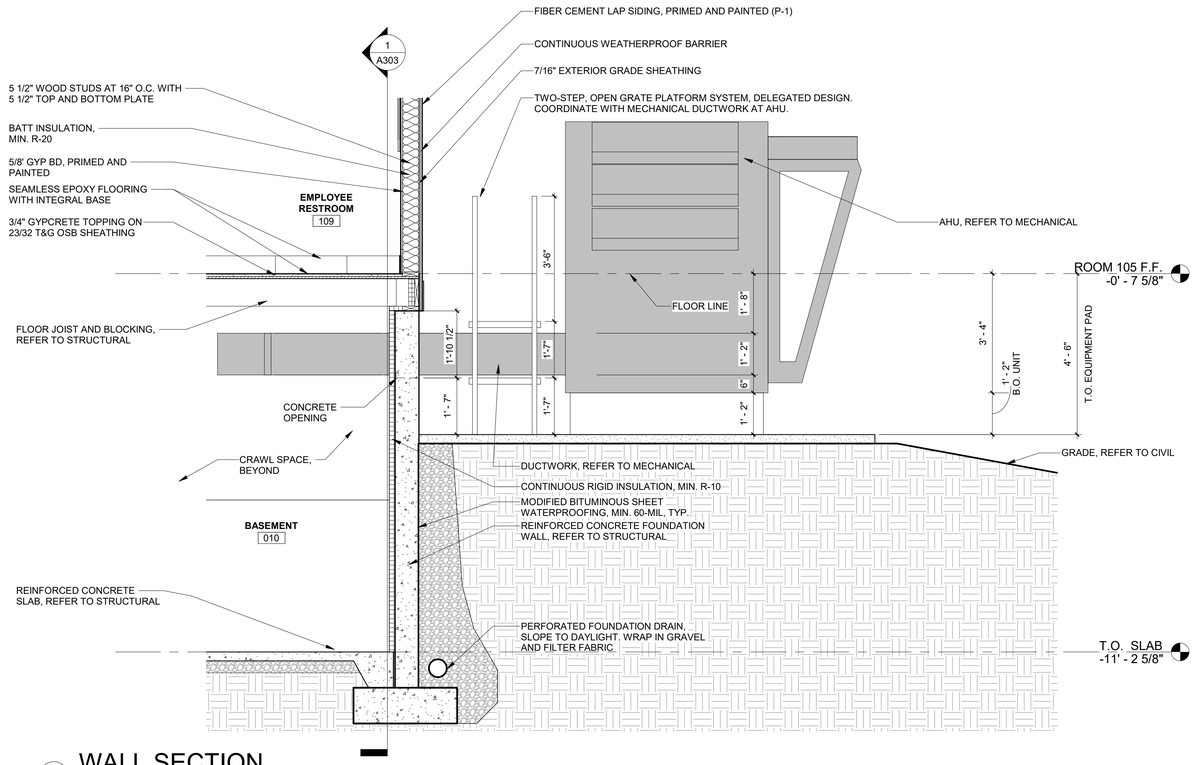
1 E-W SECTION

1/2" = 1'-0"



2 WALL SECTION

1/2" = 1'-0"



3 WALL SECTION

1/2" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER
A-2016030717
ARCHITECT

05.12.2020
Angie Gaebler - Architect
MO# A-2016030717

STRATA
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Missouri State Certificate of Authority: #2009024884

OFFICE OF
ADMINISTRATION

DIVISION OF FACILITIES
MANAGEMENT, DESIGN,
AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN &
STABILIZE STRUCTURE

TAVERN, ARROW ROCK
STATE HISTORIC SITE,
MISSOURI

305 MAIN ST, ARROW
ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

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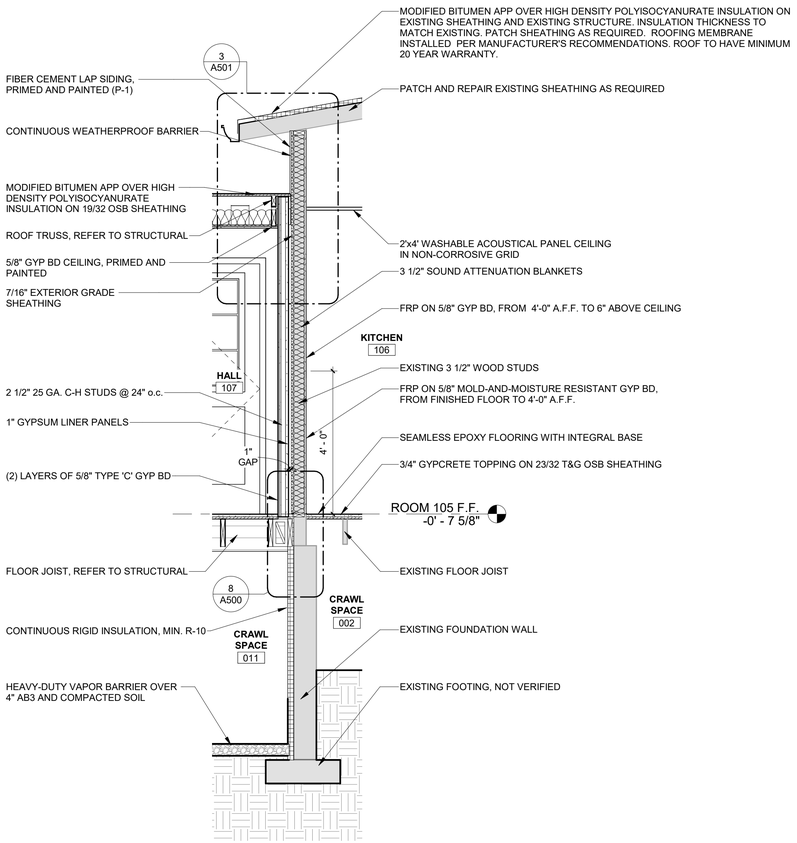
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SHEET NUMBER:

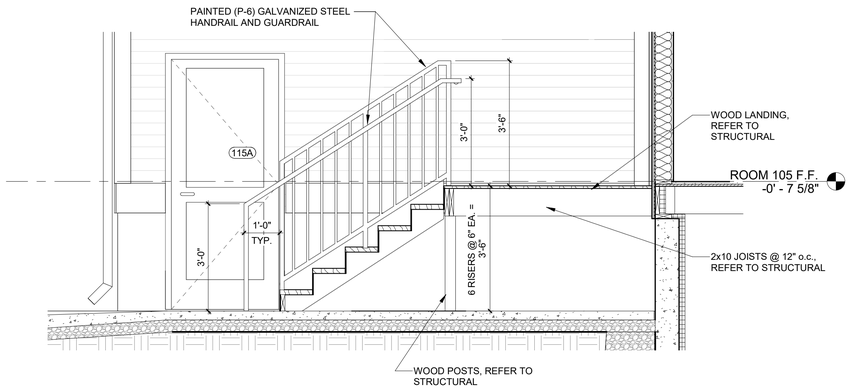
A306

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MAY 12, 2020



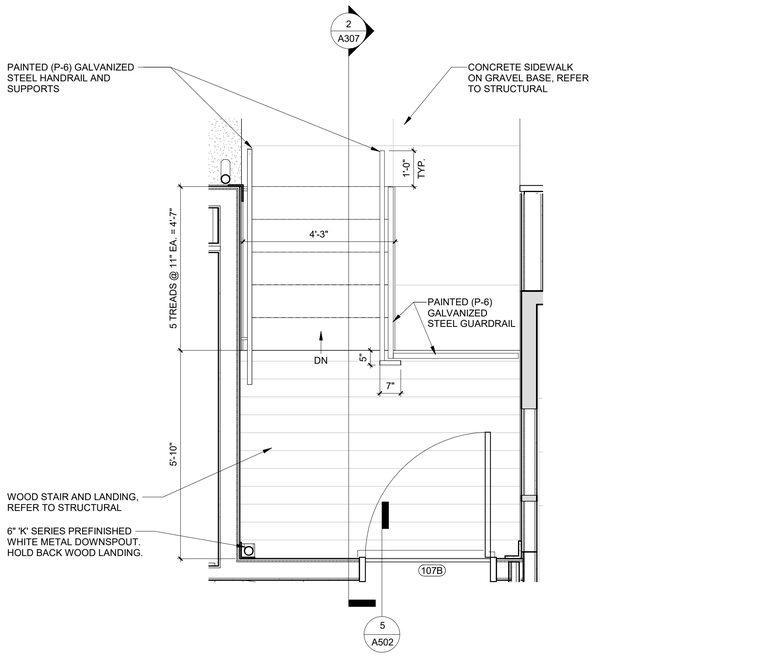
1 WALL SECTION

1/2" = 1'-0"



2 ADDITION ENTRANCE STAIR SECTION

1/2" = 1'-0"



3 ADDITION ENTRANCE STAIR ENLARGED PLAN

1/2" = 1'-0"

N

STATE OF MISSOURI
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STATE OF MISSOURI
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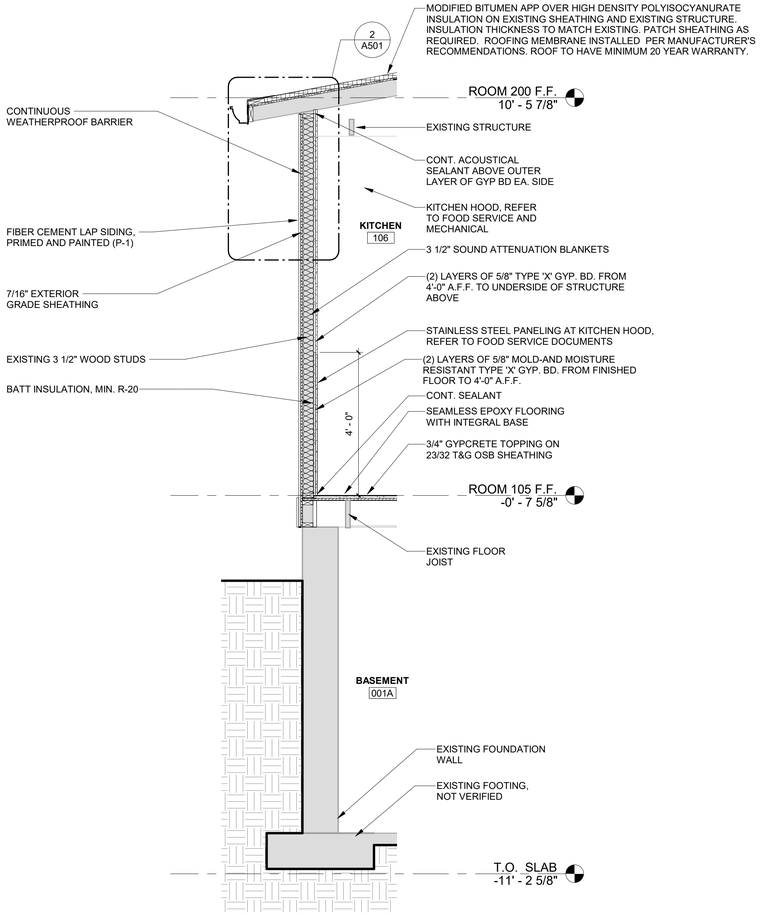
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SHEET TITLE:
WALL SECTIONS

SHEET NUMBER:

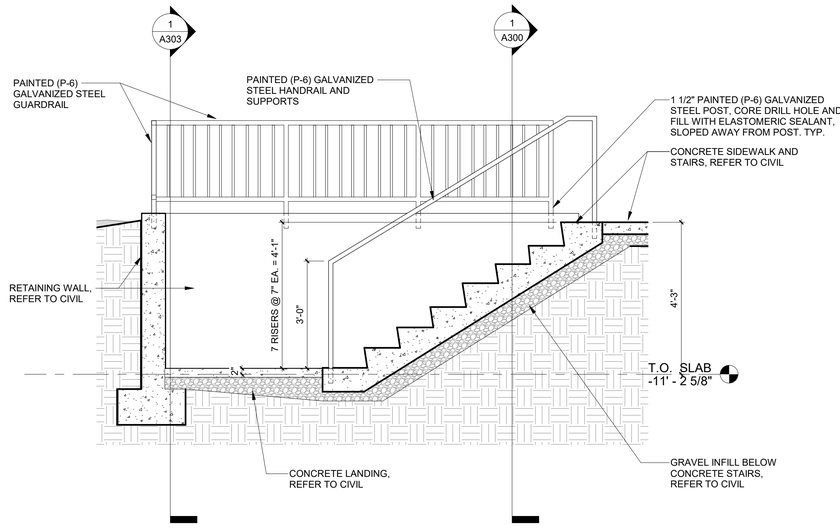
A307

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1 WALL SECTION

1/2" = 1'-0"



3 BASEMENT ADDITION STAIR SECTION

1/2" = 1'-0"

2 BASEMENT ADDITION STAIR PLAN

1/2" = 1'-0"

N

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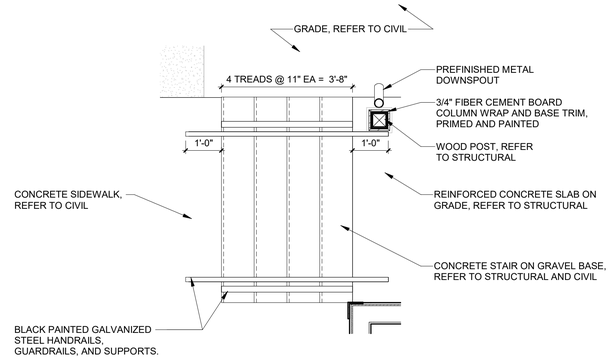
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SHEET TITLE:
WALL SECTIONS

SHEET NUMBER:

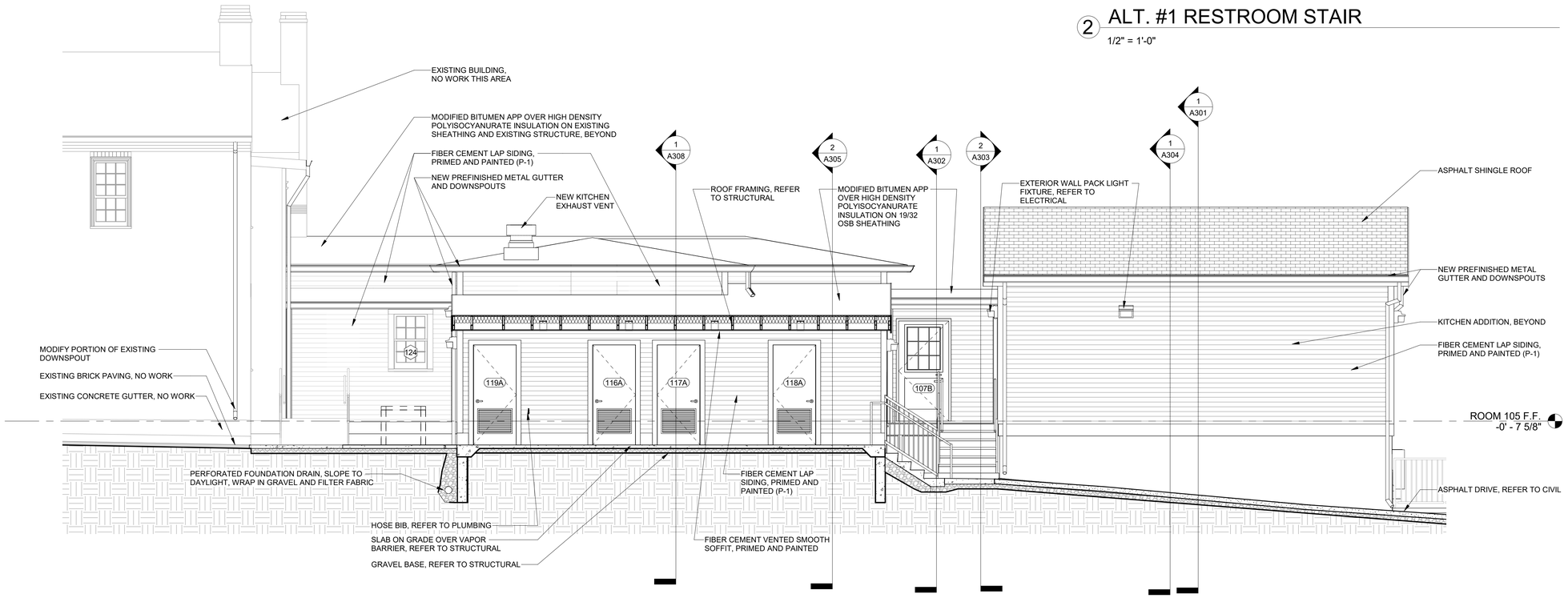
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2 ALT. #1 RESTROOM STAIR

1/2" = 1'-0"



1 ALT. #1 N-S SECTION

1/4" = 1'-0"

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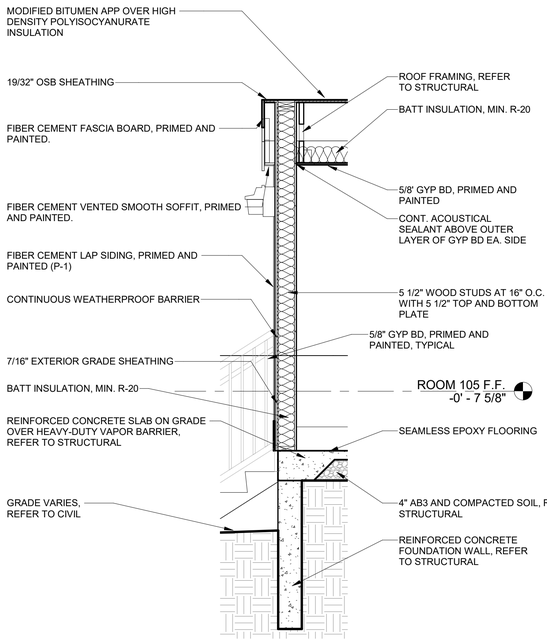
SHEET TITLE:

ALT. #1 - BUILDING SECTIONS

SHEET NUMBER:

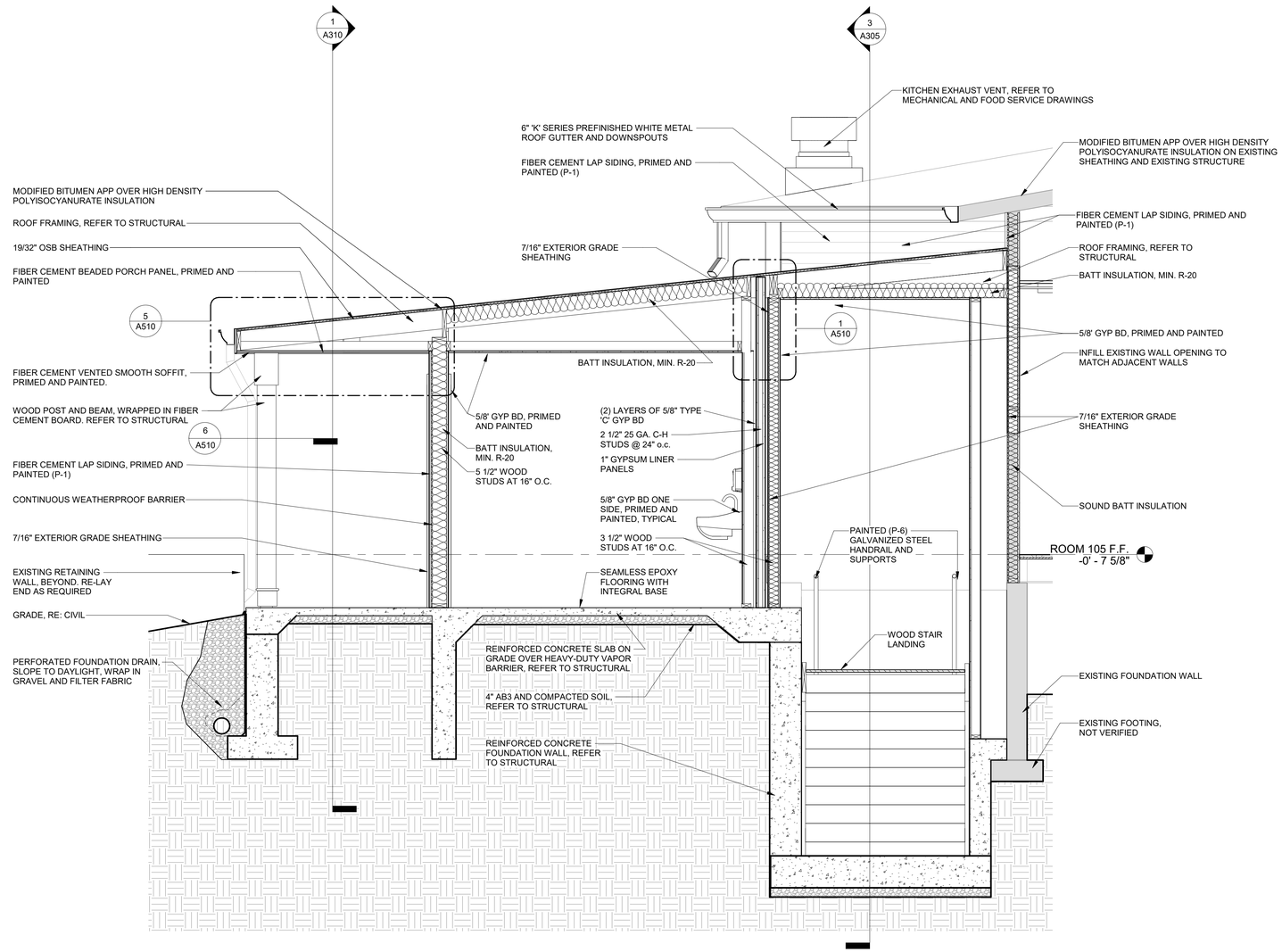
A310

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MAY 12, 2020



1 ALT. #1 - WALL SECTION

1/2" = 1'-0"



2 ALT. #1 - WALL SECTION

1/2" = 1'-0"

STATE OF MISSOURI
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STATE OF MISSOURI
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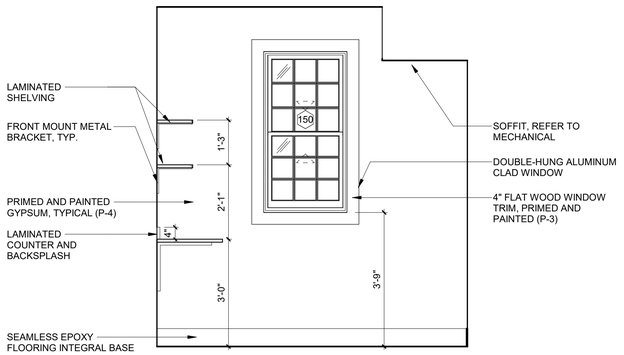
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ALT. #1 WALL SECTIONS

SHEET NUMBER:

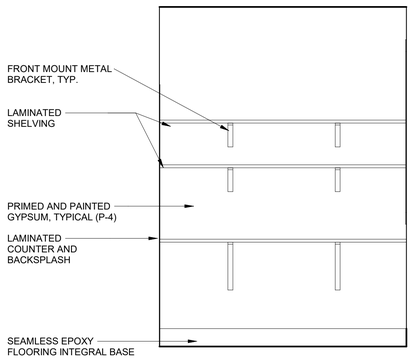
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MAY 12, 2020



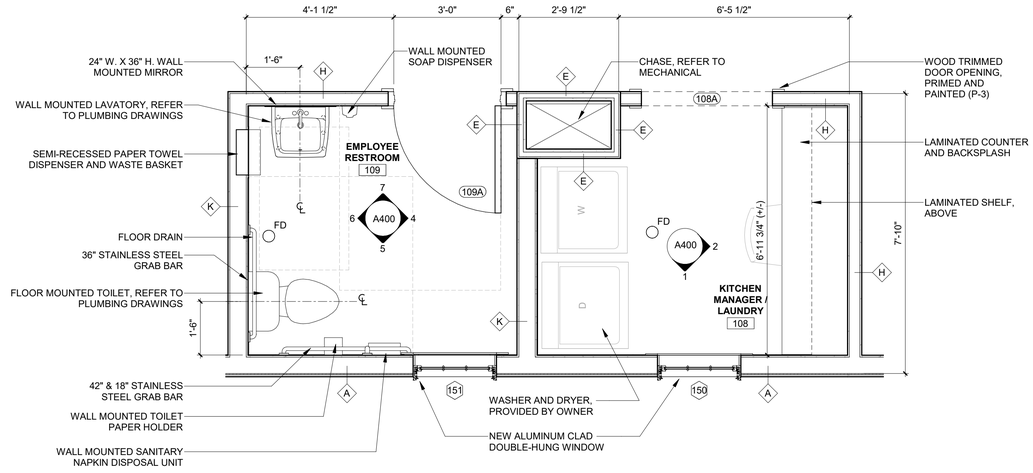
1 KITCHEN MANAGER 108 EAST

1/2" = 1'-0"



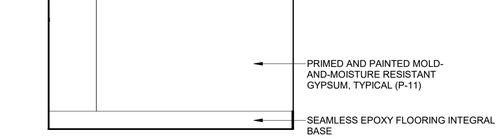
2 KITCHEN MANAGER 108 NORTH

1/2" = 1'-0"



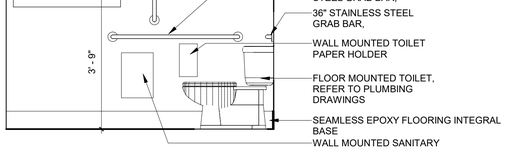
3 EMPLOYEE RESTROOM AND KITCH. MANAGER ENLARGED PLAN

1/2" = 1'-0"



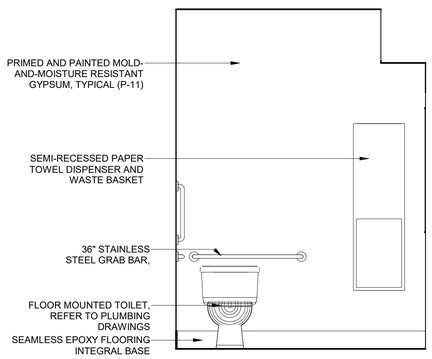
4 EMPLOYEE RESTROOM - NORTH

1/2" = 1'-0"



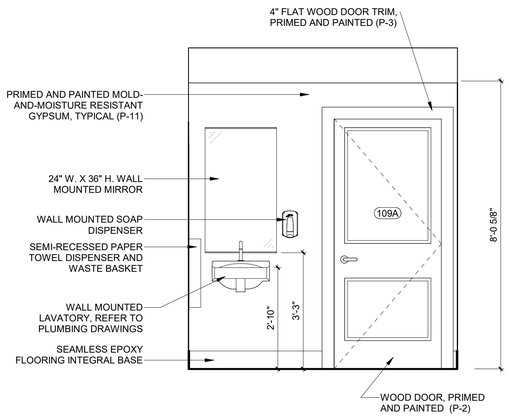
5 EMPLOYEE RESTROOM - EAST

1/2" = 1'-0"



6 EMPLOYEE RESTROOM - SOUTH

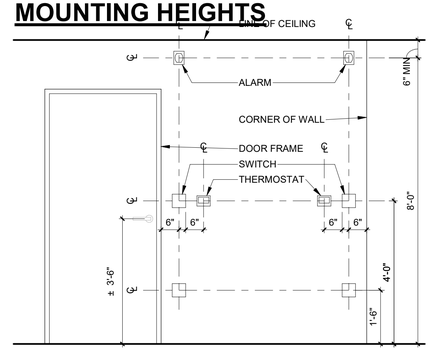
1/2" = 1'-0"



7 EMPLOYEE RESTROOM - WEST

1/2" = 1'-0"

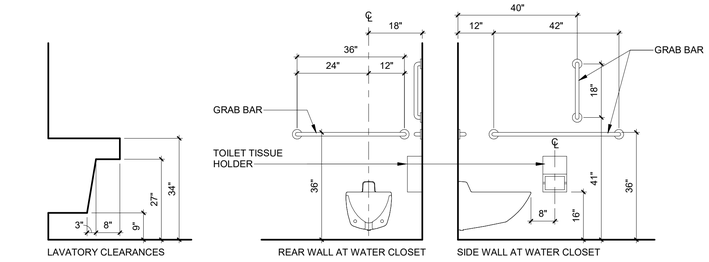
MOUNTING HEIGHTS

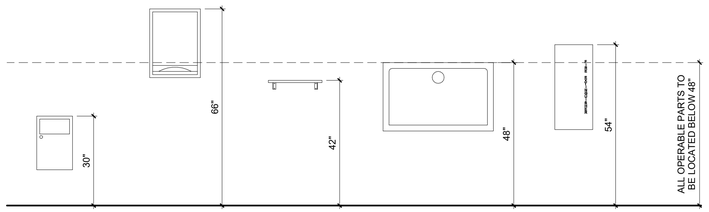


TYPICAL ELECTRICAL DEVICE LOCATIONS

ALL DEVICES SHALL BE LOCATED AT A CORNER OR DOOR JAMB AS SHOWN. NOTIFY ARCHITECT OF ANY CONFLICTS.

ALL WALL MOUNTED DEVICE LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH ALL OTHER SUB-CONTRACTORS SO THAT THEY ARE INSTALLED IN AN ORDERLY MANNER (I.E. LIGHT SWITCHES, RECEPTACLE, FIRE ALARM DEVICES, COMMUNICATION DEVICES, THERMOSTATS, ETC.) THE INTENT IS TO HAVE THE DEVICES THAT ARE AT DIFFERENT HEIGHTS ABOVE FINISHED FLOOR AND WITHIN 60" OF ONE ANOTHER HORIZONTALLY, BE INSTALLED TO ALIGN VERTICALLY (IE. RECEPTACLES AND LIGHT SWITCHES OR THERMOSTATS AND FIRE ALARM VISUAL DEVICES) AND THE DEVICES AT THE SAME HEIGHTS ABOVE THE FINISHED FLOOR BE INSTALLED SIDE-BY-SIDE (IE. RECEPTACLES AND COMMUNICATION DEVICES OR LIGHT SWITCHES AND THERMOSTATS). AFTER METAL STUD FRAMING, THE CONTRACTOR SHALL COORDINATE AND PHYSICALLY MARK THE LOCATION OF ALL DEVICES WITH SUB-CONTRACTORS.





STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI ANGIE GAEBLER NUMBER A-2016030717 ARCHITECT

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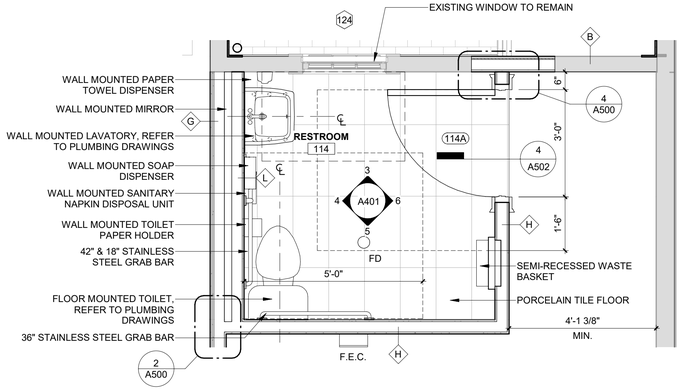
SHEET TITLE:

ENLARGED PLANS AND INTERIOR ELEVATIONS

SHEET NUMBER:

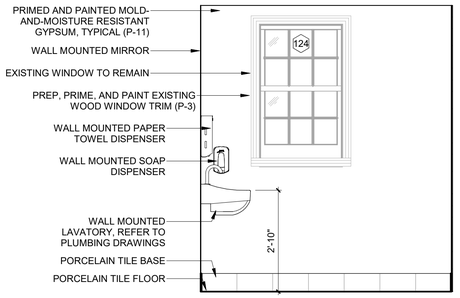
A400

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MAY 12, 2020



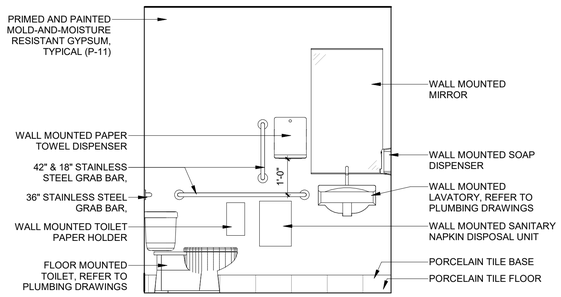
2 RESTROOM 114 ENLARGED PLAN

1/2" = 1'-0"



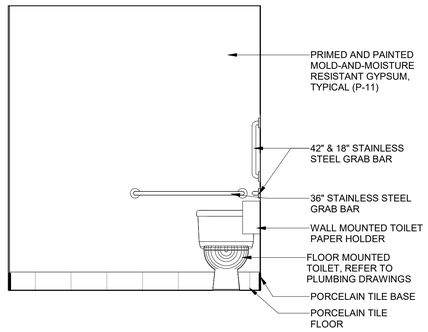
3 RESTROOM 114 WEST

1/2" = 1'-0"



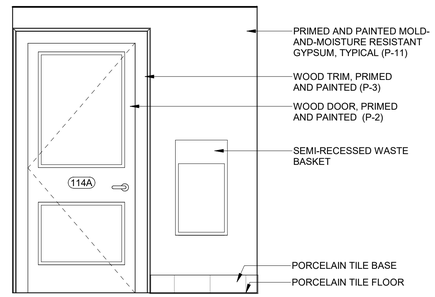
4 RESTROOM 114 SOUTH

1/2" = 1'-0"



5 RESTROOM 114 EAST

1/2" = 1'-0"



6 RESTROOM 114 NORTH

1/2" = 1'-0"

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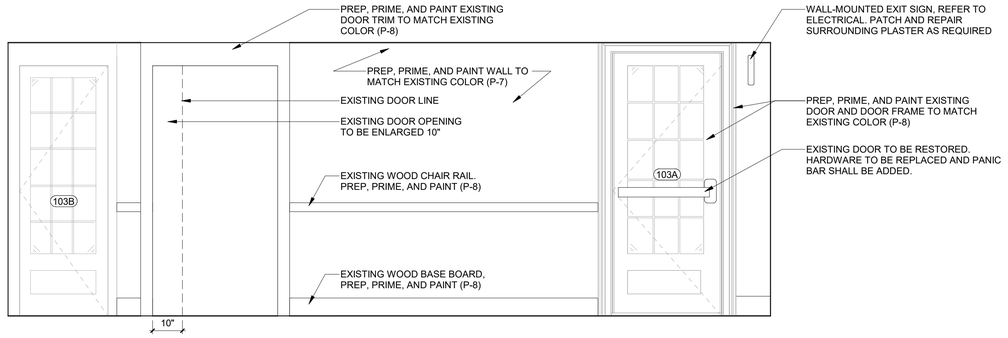
SHEET TITLE:

ENLARGED PLANS AND INTERIOR ELEVATIONS

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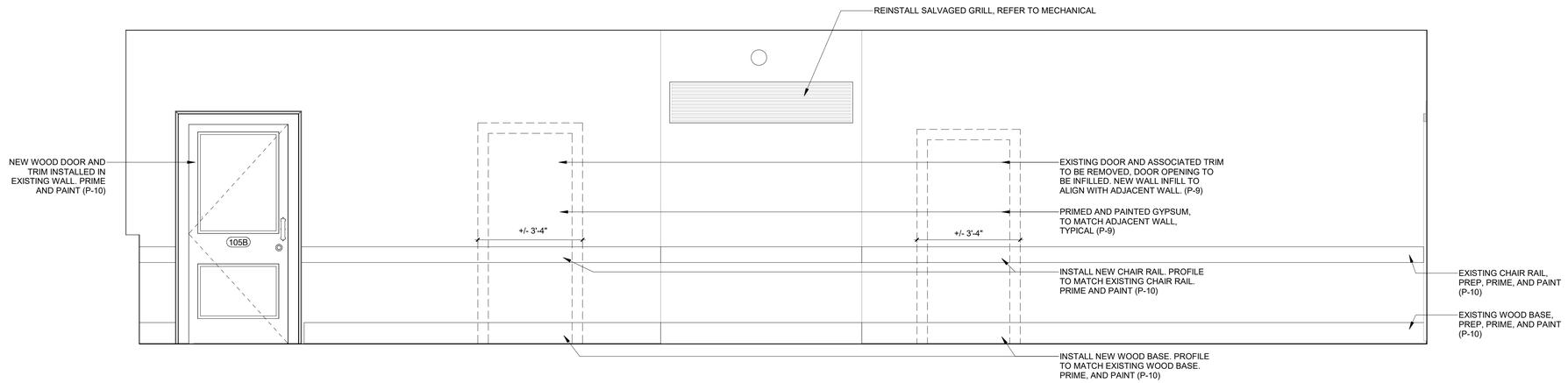
A401

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1 HUSTON GALLERY SOUTH

1/2" = 1'-0"



2 BINGHAM ROOM WEST

1/2" = 1'-0"

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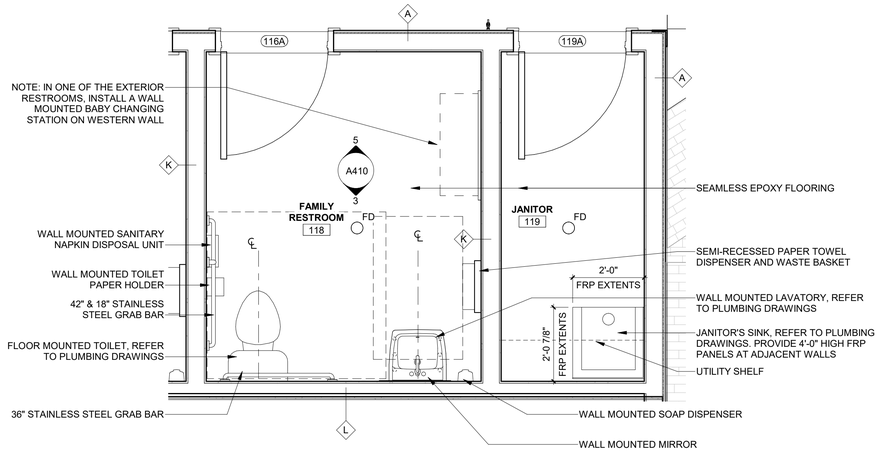
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INTERIOR ELEVATIONS

SHEET NUMBER:

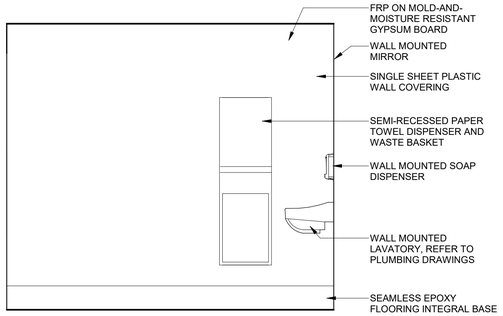
A402

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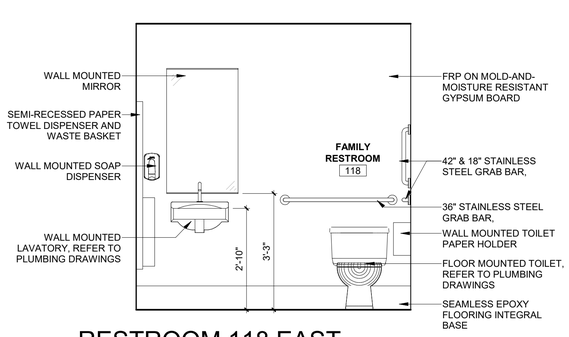
1 TYPICAL EXTERIOR RESTROOM ENLARGED PLAN

1/2" = 1'-0"



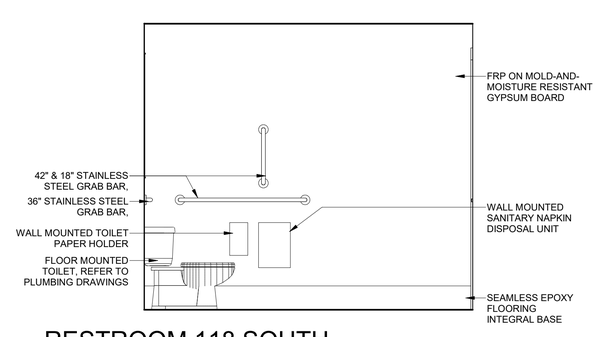
2 RESTROOM 118 NORTH

1/2" = 1'-0"



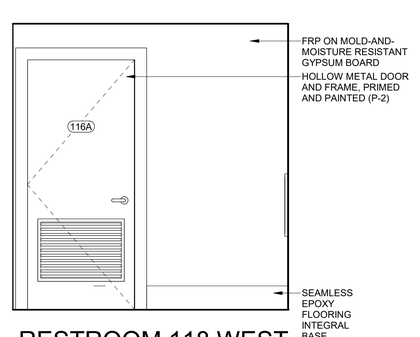
3 RESTROOM 118 EAST

1/2" = 1'-0"



4 RESTROOM 118 SOUTH

1/2" = 1'-0"



5 RESTROOM 118 WEST

1/2" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT

05.12.2020
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MO# A-2016030717

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ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
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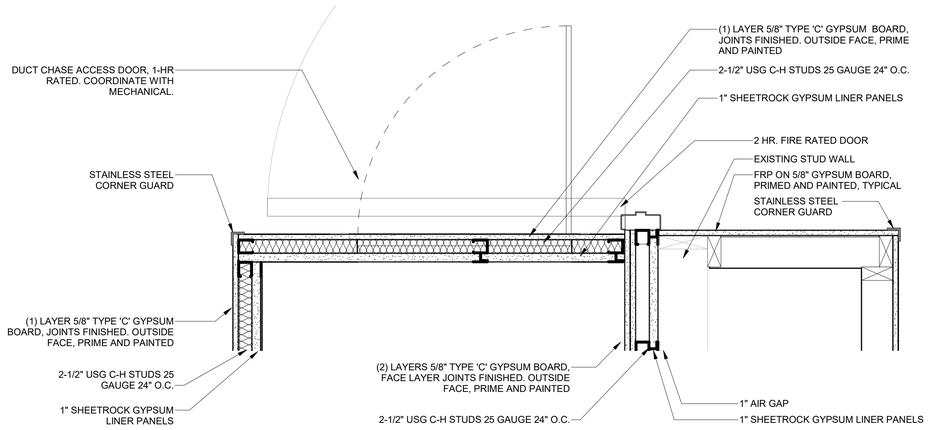
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ALT. #1 ENLARGED PLANS AND INTERIOR ELVATIONS

SHEET NUMBER:

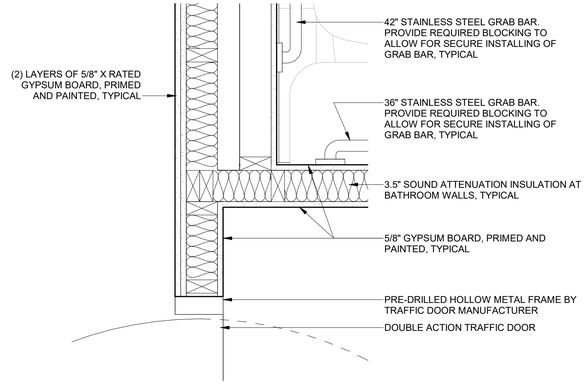
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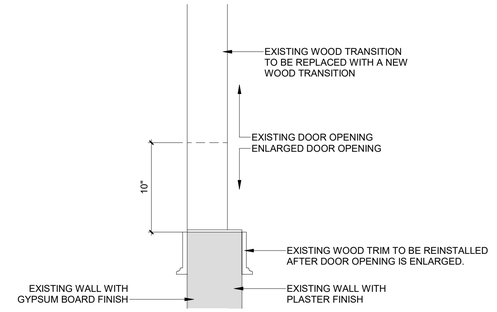
1 PLAN DETAIL AT EAST SIDE OF FIRE DOOR

1 1/2" = 1'-0"



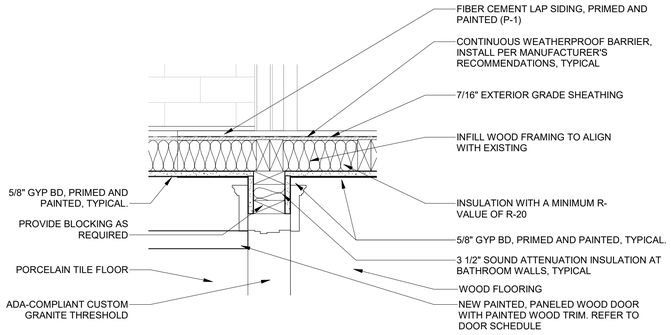
2 PLAN DETAIL SOUTHEAST CORNER ROOM 114

1 1/2" = 1'-0"



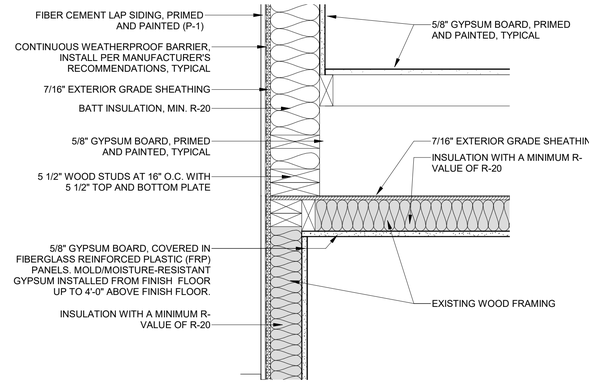
3 PLAN DETAIL EAST SIDE DOOR 103E

1 1/2" = 1'-0"



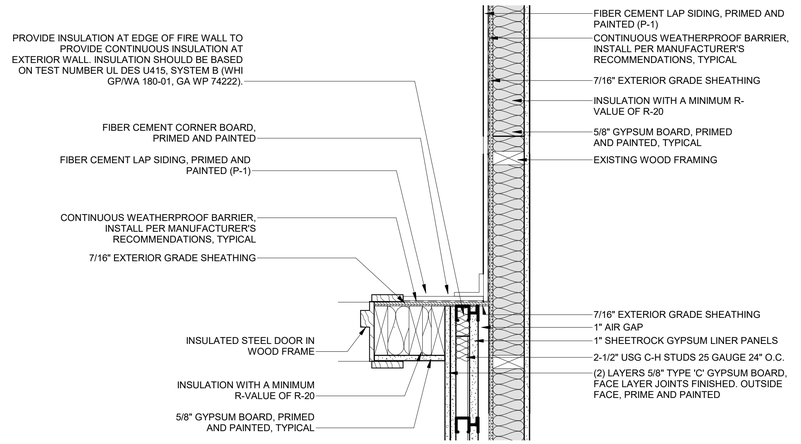
4 PLAN DETAIL SOUTH SIDE DOOR 114A

1 1/2" = 1'-0"



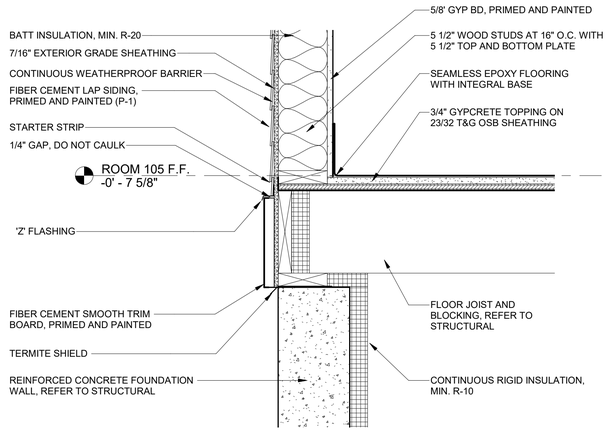
5 PLAN DETAIL SOUTHEAST CORNER STAIRS 115

1 1/2" = 1'-0"



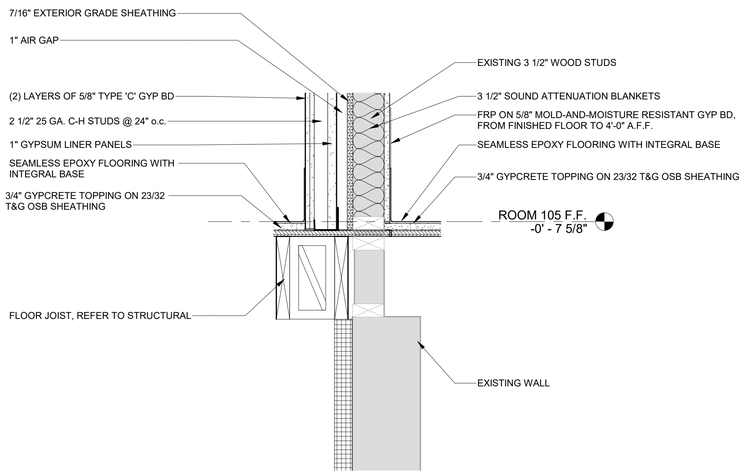
6 PLAN DETAIL NORTH SIDE DOOR 107B

1 1/2" = 1'-0"



7 DETAIL

1 1/2" = 1'-0"



8 DETAIL

1 1/2" = 1'-0"

STATE OF MISSOURI
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STATE OF MISSOURI ANGIE GAEBLER NUMBER A-2016030717 ARCHITECT

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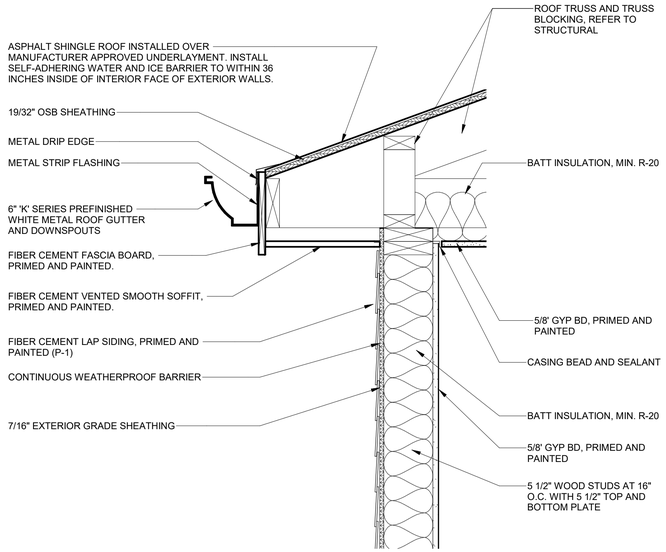
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SHEET TITLE:
DETAILS

SHEET NUMBER:

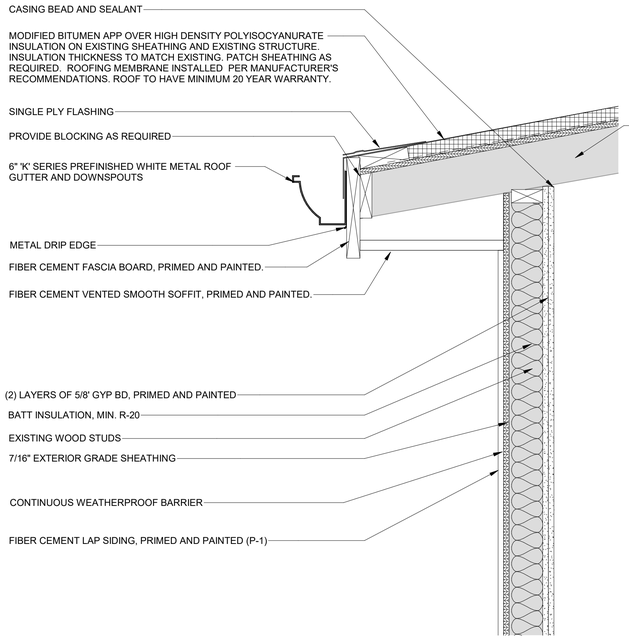
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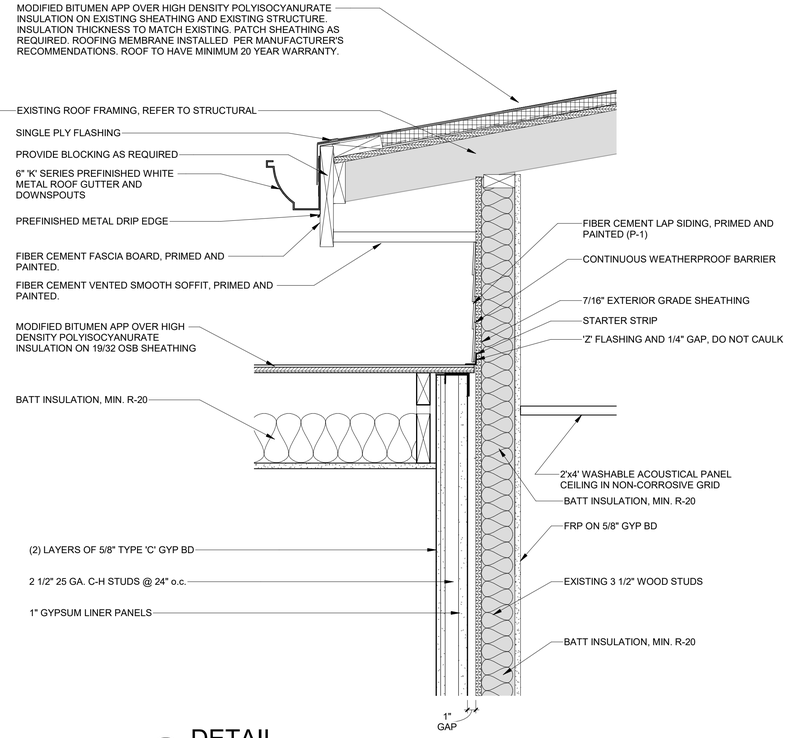
1 DETAIL

1 1/2" = 1'-0"



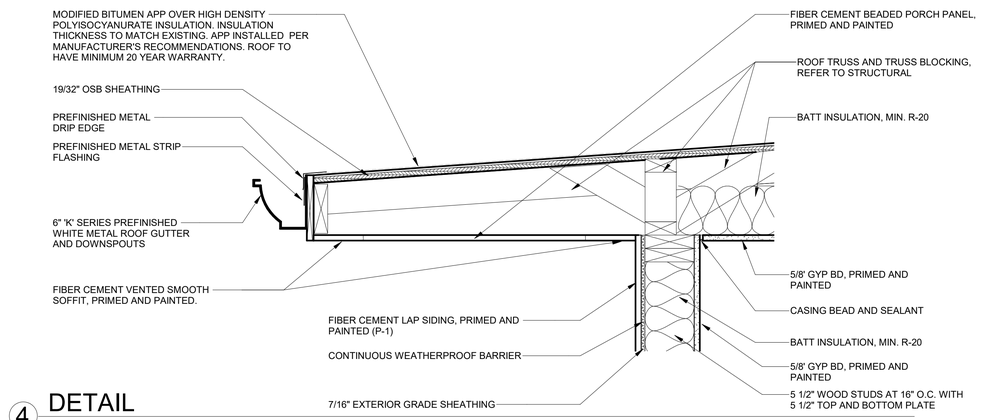
2 DETAIL

1 1/2" = 1'-0"



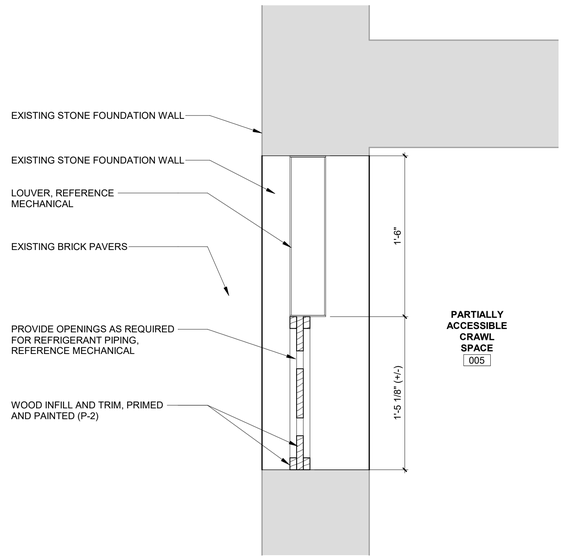
3 DETAIL

1 1/2" = 1'-0"



4 DETAIL

1 1/2" = 1'-0"



5 LOUVER AT CRAWL SPACE OPENING

1 1/2" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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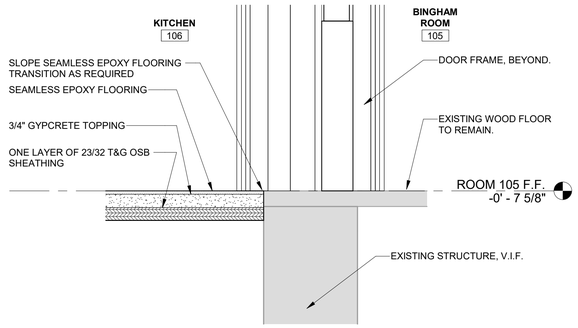
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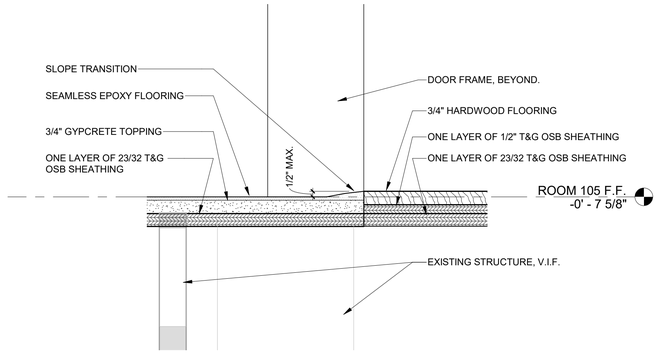
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MAY 12, 2020



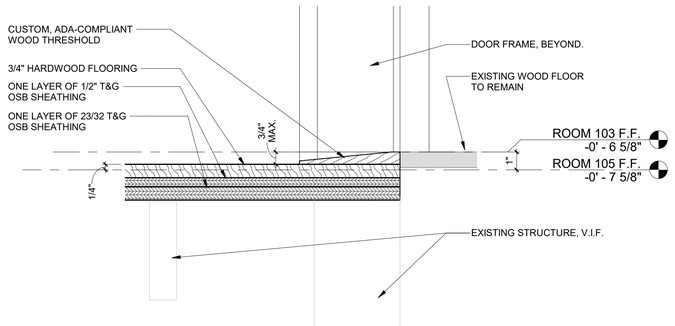
1 DOOR 105B THRESHOLD DETAIL

3" = 1'-0"



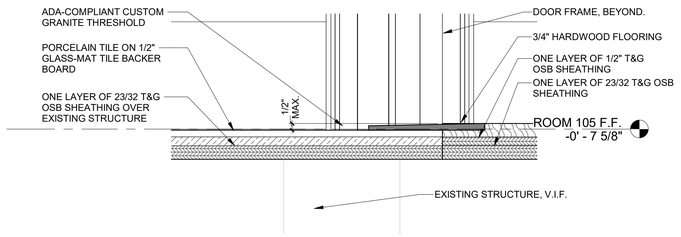
2 DOOR 106A THRESHOLD DETAIL

3" = 1'-0"



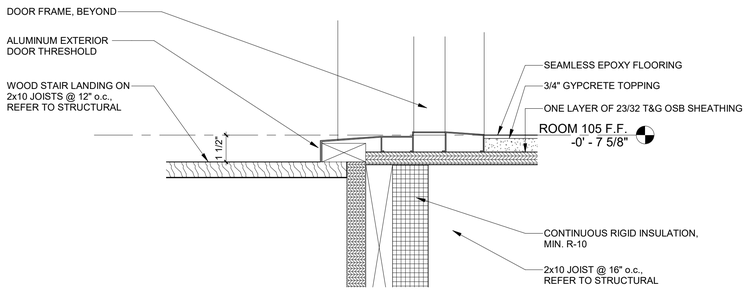
3 DOOR 103E THRESHOLD DETAIL

3" = 1'-0"



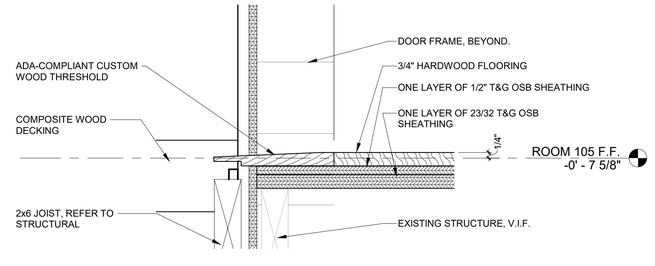
4 DOOR 109A THRESHOLD DETAIL

3" = 1'-0"



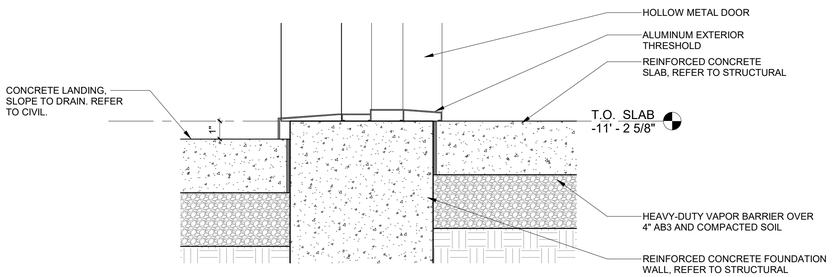
5 DOOR 107B THRESHOLD DETAIL

3" = 1'-0"



6 DOOR 106B THRESHOLD DETAIL

3" = 1'-0"



7 DOOR 010A THRESHOLD DETAIL

3" = 1'-0"

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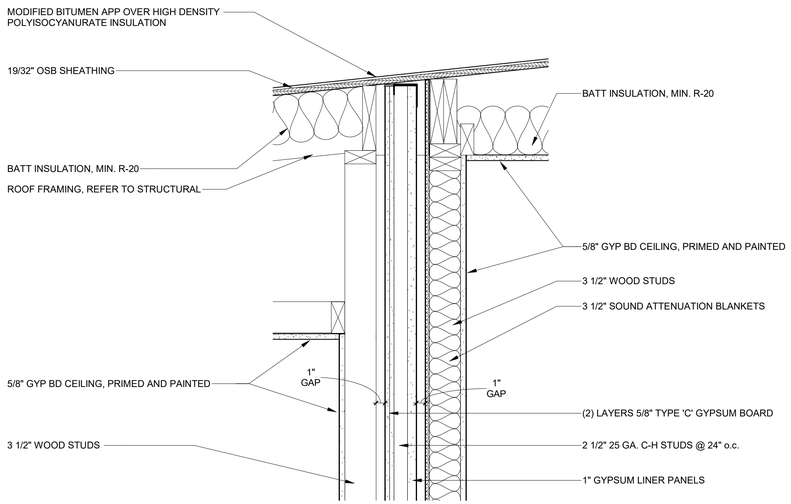
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DESIGNED BY: AG

SHEET TITLE:
DETAILS

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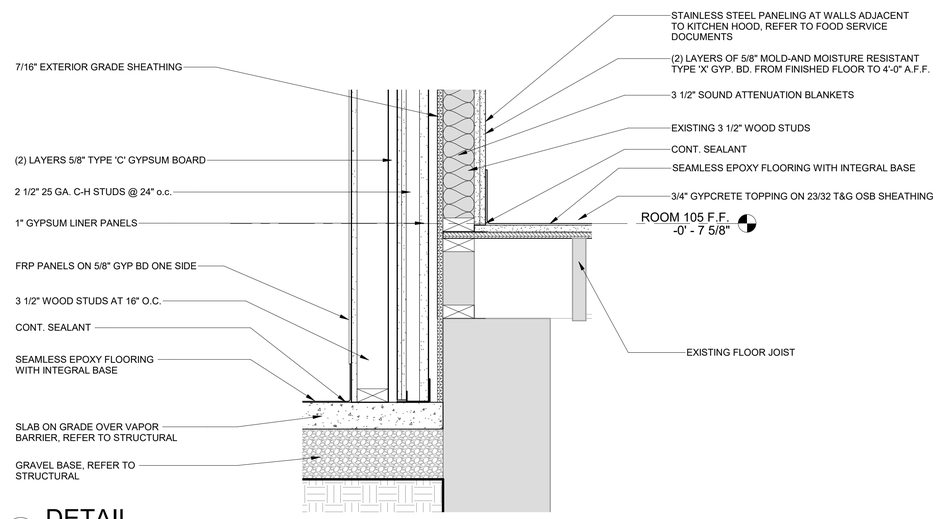
A502

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MAY 12, 2020



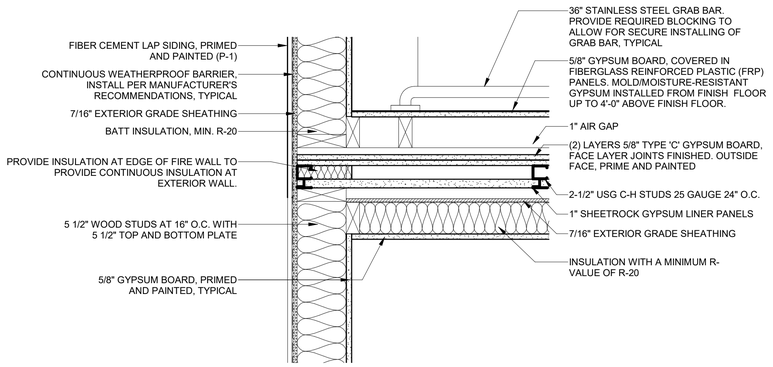
1 DETAIL

1 1/2" = 1'-0"



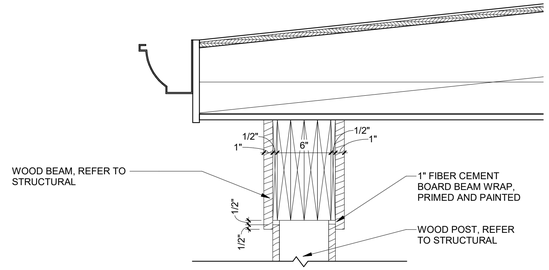
2 DETAIL

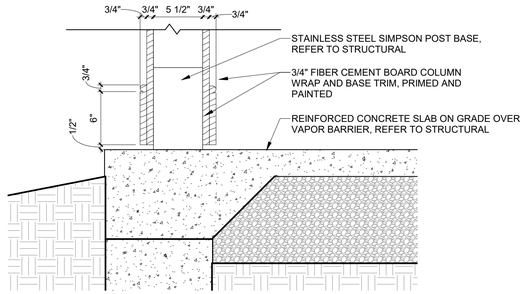
1 1/2" = 1'-0"



3 PLAN DETAIL SOUTHEAST CORNER ROOM 116

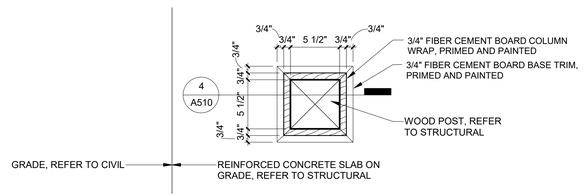
1 1/2" = 1'-0"





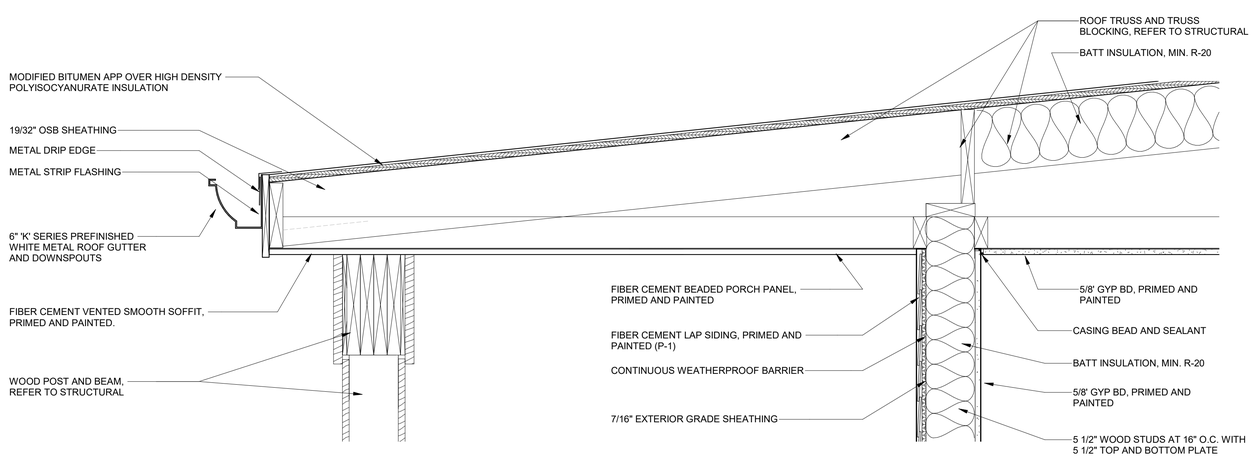
4 DETAIL

1 1/2" = 1'-0"



6 DETAIL

1 1/2" = 1'-0"



5 DETAIL

1 1/2" = 1'-0"

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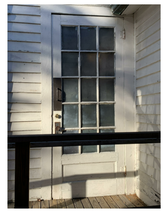
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ALT. #1 DETAILS

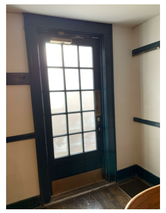
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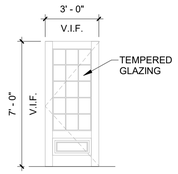
051 OF 102 SHEETS
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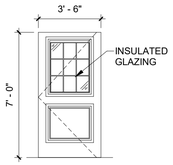
EXISTING DOOR 103A, EXTERIOR



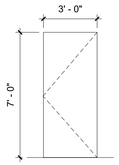
EXISTING DOOR 103A, INTERIOR



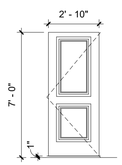
A EXISTING EXTERIOR DOOR (P-2, P-8)



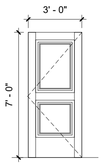
B EXTERIOR INSULATED EMBOSSED HOLLOW METAL DOOR WITH VISION LITE, PAINTED (P-2)



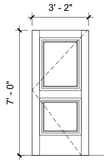
C EXTERIOR INSULATED FLUSH HOLLOW METAL DOOR, PAINTED (P-2)



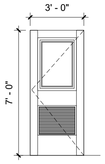
D INTERIOR WOOD POCKET DOOR, PAINTED (P-2)



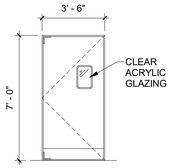
E INTERIOR WOOD DOOR, PAINTED (P-2)



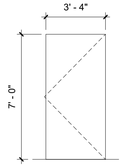
F INTERIOR WOOD DOOR, PAINTED (P-10)



G INTERIOR WOOD DOOR WITH LOUVER, PAINTED (P-2)

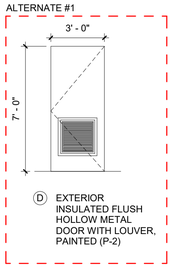


H DOUBLE-ACTING POLYMER CELL CORE TRAFFIC DOOR WITH HIGH-PRESSURE LAMINATE FINISH



I 2-HOUR FIRE RATED FLUSH HOLLOW METAL DOOR, PAINTED (P-4)

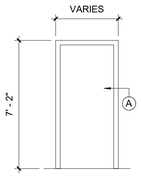
ALTERNATE #1



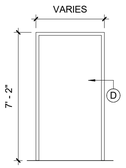
D EXTERIOR INSULATED FLUSH HOLLOW METAL DOOR WITH LOUVER, PAINTED (P-2)

DOOR TYPES

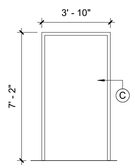
1/4" = 1'-0"



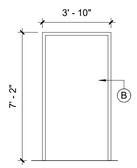
1 WOOD FRAME, PAINTED (P-3) (P-10) @ BINGHAM ROOM 105



2 HOLLOW METAL FRAME, PAINTED (P-3)



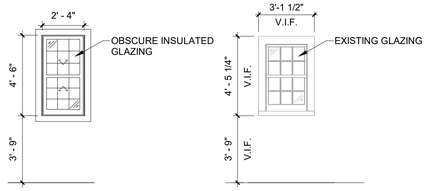
3 PRE-DRILLED HOLLOW METAL FRAME



4 2-HOUR FIRE RATED HOLLOW METAL FRAME (P-3)

FRAME TYPES

1/4" = 1'-0"



ALUMINUM-CLAD WOOD WINDOW
150, 151

RESTORE/MODIFY EXISTING WOOD WINDOW
124



EXISTING WINDOW 124 - EXTERIOR



EXISTING WINDOW 124 - INTERIOR

WINDOW TYPES

1/4" = 1'-0"

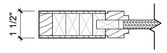
EXISTING DOOR SCHEDULE		
OPENING NO.	DOOR TYPE	REMARKS
103A	A	3, 4, 5, 6

DOOR SCHEDULE								
OPENING NO.	DOOR			DOOR PROFILE	FRAME		GLAZING	REMARKS
	TYPE	WIDTH	HEIGHT		TYPE	PROFILE		
010A	C	3' - 0"	7' - 0"	D5	2	D		
103E	-	0' - 0"	0' - 0"	-	1	A		
105B	F	3' - 2"	7' - 0"	D1	1	A		
106A	H	3' - 6"	7' - 0"	D3	3	C	CLEAR ACRYLIC	
107A	I	3' - 4"	7' - 0"	D4	4	B		1, 2
107B	B	3' - 6"	7' - 0"	D2	1	A	INSULATED	
108A	-	0' - 0"	0' - 0"	-	1	A		
109A	G	3' - 0"	7' - 0"	D1	1	A		
110A	D	2' - 10"	7' - 0"	D1	1	A		8
113A	E	3' - 0"	7' - 0"	D1	1	A		
114A	E	3' - 0"	7' - 0"	D1	1	A		
115A	C	3' - 0"	7' - 0"	D5	1	A		
116A	J	3' - 0"	7' - 0"	D5	1	A		7
117A	J	3' - 0"	7' - 0"	D5	1	A		7
118A	J	3' - 0"	7' - 0"	D5	1	A		7
119A	J	3' - 0"	7' - 0"	D5	1	A		7

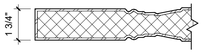
ALTERNATE #1

DOOR REMARKS:

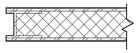
1. 2-HOUR FIRE RATED DOOR AND FRAME.
2. HOLD-OPEN DOOR HARDWARE.
3. EXISTING DOOR TO BE RESTORED, HARDWARE TO BE REPLACED AND SHALL BE ADA COMPLIANT.
4. REPLACE EXISTING GLAZING WITH TEMPERED GLASS.
5. EXTERIOR DOOR FACE AND FRAME SHALL BE PAINTED (P-2) INTERIOR DOOR FACE AND FRAME SHALL BE PAINTED (P-8) TO MATCH EXISTING.
6. DOOR FRAME SHALL BE PREPPED, PRIMED, AND REPAINTED ANY DETERIORATED WOOD WITH DUTCHMAN REPAIR.
7. ALTERNATE #1
8. DOOR SHALL BE UNDERCUT 1"



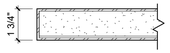
D1 WOOD PANELED DOOR



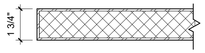
D2 INSULATED EMBOSSED HOLLOW METAL DOOR



D3 FLUSH POLYMER CELL CORE DOOR



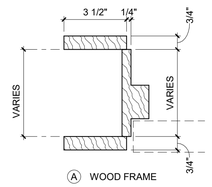
D4 FLUSH 2-HOUR RATED HOLLOW METAL DOOR



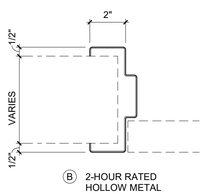
D5 INSULATED FLUSH HOLLOW METAL DOOR

DOOR PROFILES

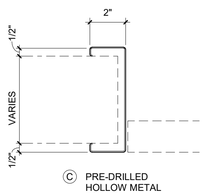
3" = 1'-0"



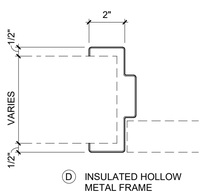
A WOOD FRAME



B 2-HOUR RATED HOLLOW METAL FRAME



C PRE-DRILLED HOLLOW METAL FRAME



D INSULATED HOLLOW METAL FRAME

FRAME PROFILES

3" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
ANGIE GAEBLER
NUMBER A-2016030717
ARCHITECT

05.12.2020
Angie Gaebler - Architect
MO# A-2016030717

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816.474.0900 www.strata-arch.com

Missouri State Certificate of Authority: #2009024884

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:

DOOR SCHEDULE AND DETAILS

SHEET NUMBER:

A600

052 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

Room Schedule										
NO.	ROOM NAME	FLOOR	BASE	WALL NORTH	WALL EAST	WALL SOUTH	WALL WEST	CEILING	TRIM PROFILE	REMARKS
103	HUSTON GALLERY	-	-	-	-	W-5	-	-	T-1	-
105	BINGHAM ROOM	-	-	-	W-6	-	-	-	T-2	-
106	KITCHEN	F-1	B-1	W-2	W-2	W-2	W-2	C-2	-	1,2,4
106A	HALL	F-2	B-2	W-1	W-1	W-1	W-1	C-1	T-1	5
107	HALL	F-1	B-1	W-1	W-1	W-1	W-1	C-1	-	4, 5
107A	CART STORAGE	F-1	B-1	W-1	W-1	W-1	W-1	C-1	-	5
108	KITCHEN MANAGER / LAUNDRY	F-1	B-1	W-1	W-1	W-1	W-1	C-1	-	3, 5
109	EMPLOYEE RESTROOM	F-1	B-1	W-4	W-4	W-4	W-4	C-1	-	5
110	JANITOR	F-1	B-1	W-1	W-1	W-1 / W-2	W-1 / W-2	C-1	-	5, 6
111	WALK-IN COOLER	F-4	B-4	W-3	W-3	W-3	W-3	C-3	-	2
112	WALK-IN FREEZER	F-4	B-4	W-3	W-3	W-3	W-3	C-3	-	2
113	DRY STORAGE	F-1	B-1	W-1	W-1	W-1	W-1	C-1	-	5
114	RESTROOM	F-3	B-3	W-4	W-4	W-4	W-4	C-1	-	5
115	STAIR	F-2	B-1	W-1	W-1	W-1	W-1	C-1	-	5
116	RESTROOM	F-1	B-1	W-2	W-2	W-2	W-2	C-1	-	5
117	RESTROOM	F-1	B-1	W-2	W-2	W-2	W-2	C-1	-	5
118	FAMILY RESTROOM	F-1	B-1	W-2	W-2	W-2	W-2	C-1	-	5
119	JANITOR	F-1	B-1	W-1 / W-2	W-1 / W-2	W-1	W-1	C-1	-	5, 6

ALTERNATE #1

ROOM FINISH LEGEND

FLOOR
- F-1 SEAMLESS EPOXY FLOORING WITH KNOCK-DOWN FINISH
- F-2 HARDWOOD FLOORING
- F-3 PORCELAIN TILE
- F-4 GYP. BD. TAPED, UNFINISHED

BASE
- B-1 4" SEAMLESS EPOXY FLOORING INTEGRAL BASE
- B-2 PAINTED WOOD BASE (P-8)
- B-3 PORCELAIN TILE COVE BASE
- B-4 NONE

WALL
- W-1 PAINTED GYP BD (P-4)
- W-2 FRP, COLOR AND TEXTURE TO BE SELECTED FROM MANUFACTURER'S FULL RANGE
- W-3 GYP BD TAPED, UNFINISHED
- W-4 EPOXY-PAINTED MOLD-AND-MOISTURE RESISTANT GYP BD (P-11)
- W-5 PAINTED EXISTING WALL (P-7)
- W-6 PAINTED EXISTING WALL (P-9)

CEILING
- C-1 PAINTED GYP BD (P-5)
- C-2 2'x4' WASHABLE ACOUSTICAL CEILING PANEL
- C-3 EXPOSED STRUCTURE

TRIM
- T-1 MATCH EXISTING HUSTON GALLERY, PAINTED (P-8)
- T-2 MATCH EXISTING BINGHAM ROOM, PAINTED (P-10)

REMARKS
- R-1 STAINLESS STEEL PANELS AT KITCHEN HOOD BY K.E.C. REFER TO FOOD SERVICE DRAWINGS.
- R-2 REFER TO FOOD SERVICE DRAWING FOR EQUIPMENT CONFIGURATION.
- R-3 SEE INTERIOR ELEVATIONS FOR CASEWORK CONFIGURATION.
- R-4 STAINLESS STEEL TRIM BY K.E.C., REFER TO FOOD SERVICE DRAWINGS.
- R-5 PREP, PRIME, AND PAINT CEILING.
- R-6 PROVIDE 4'-0" HIGH FRP PANELS ON WALLS SURROUNDING THE MOP SINK.

PAINT SCHEDULE

NO.	MANUFACTURER	COLOR	LOCATION
P-1	TBD	TBD	FIBER CEMENT BOARD SIDING, TRIM, SOFFITS, ETC.
P-2	TBD	TBD	DOORS, EXCEPT AS NOTED
P-3	TBD	TBD	DOOR FRAMES, EXCEPT AS NOTED
P-4	TBD	TBD	GYPSUM BOARD WALLS
P-5	TBD	TBD	GYPSUM BOARD CEILINGS
P-6	TBD	TBD	HANDRAILS AND GUARDRAILS
P-7	TBD	TBD	EXISTING WALL IN HUSTON GALLERY 103 TO MATCH EXISTING
P-8	TBD	TBD	EXISTING TRIM AND DOOR FRAMES IN HUSTON GALLERY 103 TO MATCH EXISTING
P-9	TBD	TBD	EXISTING WALL IN BINGHAM ROOM 105 TO MATCH EXISTING
P-10	TBD	TBD	EXISTING TRIM AND DOOR FRAMES IN BINGHAM ROOM 105 TO MATCH EXISTING
P-11	TBD	TBD	EPOXY-PAINTED GYPSUM BOARD WALLS

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI ANGIE GAEBLER NUMBER A-2016030717 ARCHITECT

05.12.2020
Angie Gaebler - Architect
MO# A-2016030717

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REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: CA/JT
CHECKED BY: AG
DESIGNED BY: AG

SHEET TITLE:

ROOM FINISH SCHEDULE

SHEET NUMBER:

A601

053 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

GENERAL NOTES

1. All construction shall conform to the standards referenced in "Design Criteria" on this page.
2. The structural drawings are intended to be utilized in conjunction with other design consultant's drawings (Architectural, Civil, Mechanical, etc.). It is the responsibility of the contractor to coordinate the requirements of the drawings into their shop drawings and construction.
3. See Specifications or Notes on drawings for materials of construction.
4. Unless noted specifically on a plan, all plans show floor framing for the floor indicated and framing for the walls supported by that floor.
5. Contractor shall verify all dimensions and conditions at the job site before commencing work and shall report any discrepancies to the engineer.
6. Omissions or conflicts between various elements of the drawings, notes and details shall be brought to the attention of the engineer and resolved before proceeding with the work.
7. Do not use scaled dimensions; use written dimensions or where no dimension is provided, consult the engineer for clarification before proceeding with the work.
8. Details and keynotes shown shall be incorporated into the project at all appropriate locations whether specifically called out or not.
9. Refer to architectural, mechanical, electrical, and civil drawings for location and size of block outs, inserts, openings, curbs, bases & pads, and dimensions not shown on the structural drawings.
10. Refer to the architectural drawings for size and location of doors and window openings, dimensions not shown on structural drawings, exterior wall assemblies, and floor, wall and roof finishes.
11. Construction sequence and methods
    a. Construction Loads have not been considered and the Contractor must brace all elements of the structure during construction.
    b. The structural drawings are intended for the structure to act as a whole once construction is complete. It is the responsibility of the contractor to ensure safety and stability during construction as a result of means and sequence by providing shoring, bracing etc. as required.
        i. Temporary bracing shall remain until positive connection is made to shear walls (with floor diaphragm). This is a means and methods item.
    c. The contractor shall consider the effects of thermal movements due to hot or cold weather or extreme temperature variations.
    d. Any foundation wall restrained by a floor is not designed to be backfilled prior to the floor being in place with decking and lateral bracing elements (shear walls, x-braces, etc) installed unless temporary bracing is designed and provided.
12. Required submittals
    a. Submittals must be returned to contractor marked "approved" or "approved as noted" prior to proceeding with work.
    b. Allow three weeks for review of shop drawings. Time required for more than two (2) reviews of a submittal will be billed hourly.
    c. Shop drawings should be original drawings. Any submission incorporating any portion or reproduction of the contract documents will not be reviewed.
    d. Submittals/shop drawings are required for the following:
        i. Concrete Mix Designs
        ii. Concrete Reinforcing
        iii. Concrete Anchor Bolts
        iv. Structural Steel Framing
        v. Wood Framing Materials
        vi. Wood Roof Trusses*
        vii. Specialty Wood Fasteners

    * Items marked with (*) require drawings sealed by a professional engineer registered in the state where the project is located.

DESIGN CRITERIA

1. Design Codes:
    a. International Building Code: IBC 2018
    b. Minimum Design Loads for Buildings and Other Structures: ASCE 7-16
2. Design Loads:

Dead Loads

Floors	= 20psf
Roof	= 15 psf plus mechanical equipment shown on roof plan

Live Loads (reducible per code UNO)

Slab on Grade	= 150 psf (non-reducible
Public and Kitchen	= 100 psf

Roof Snow Load

Ground Snow Load (P_g)	= 20 psf
Flat Roof Snow Load (Pf)	= 14 psf
Snow Exposure Factor (Ce)	= 1.0
Snow Load Importance (I)	= 1.0
Roof Thermal Factor (Ct)	= 1.0

Wind Load

Ultimate Wind Speed, V_{ult}	= 109 mph (3 sec. Gust)
Nominal Wind Speed, V	= 90 mph
Risk Category	= II
Wind Exposure	= C
Internal pressure Coefficient (GC_{pi})	= ±0.18

Components and Cladding (psf):

Zone	*A_e≤50*	*A_e≤100*	*A_e≤500*
1	+13/-30	+11/-29	+10/-28
2	+13/-51	+11/-38	+10/-33
3	+13/-76	+11/-46	+10/-33
4	+28/-30	+25/-27	+24/-26
5	+28/-37	+25/-31	+24/-29

Gross Uplift at Roof (MWFRS) = 24 psf

Earthquake Load

Seismic Importance Factor	= 1.0
Seismic Occupancy Category	II
S_S = 0.132g S_1 = 0.082g	
Soil Site Class:	D
S_{DS} = 0.141 S_{D1} = 0.131	
Seismic Design Category	B
Basic Seismic Force Resisting System	
Light-framed wood walls w/ struct. wood panels	C_s = 0.022 R = 6.5

Analysis Procedure = Equivalent Lateral Force Procedure (ASCE 7-10 Chapter 12.8)

3. Allowable Deflections:

	Total Load	Live/Snow/Wind Load	Absolute Maximum
Floor Joists/Trusses	L/360	L/480	1"
Roof Joists/Trusses	L/240	L/360	1.5"
Wall Framing (flexible finish)		L/240	0.75"
Wall Framing (brittle/brick finish)		L/360	0.5"

Deflection limits at cantilevers to be absolute max value from above at tip of cantilever (UNO)

4. Soil Properties:

Soil properties are based on geotechnical investigation report prepared by Terracon dated April 8, 2020

Lateral Earth Pressure:

Cohesive Material, at Rest:	= 70 psf
Cohesive Material, Active:	= 50 psf
Granular Material, at Rest:	= 60 psf
Granular Material Active:	= 40 psf
Allowable Soil Bearing Pressure	= 2500 psf

CONCRETE

1. Reinforced concrete shall have the following minimum 28 day compressive strengths:

Slab on grade, unless noted otherwise	4000 psi normal weight
Foundations	4000 psi normal weight
Concrete Walls and pilasters	4000 psi normal weight

2. All concrete exposed to weather shall have 6% (+- 1%) air entrainment.
3. Submit mix designs for all concrete mixes prior to placement. All submittals shall include the following:
    a) Batch quantities including admixture dosage rates
    b) Strength test results for trial mixes
    c) Cured unit weight results (for lightweight concrete mixes only)
    d) Aggregate source(s) and gradation(s)
    e) Product data for cement, fly ash and other cementitious materials
    f) Product data for all admixtures
    g) itectural and plumbing drawings for drain locations.
4. Provide protection for reinforcing bars as follows:

Cast-in-place concrete:	
Concrete cast against and permanently exposed to earth	3"
Concrete exposed to earth and weather (formed)	
#5 and smaller	1-1/2"
#6 and larger	2"
Concrete not exposed to weather and not in contact with ground:	
Slabs and walls	3/4"
Beams and columns	1-1/2"

5. Construction joints in walls shall be keyed and placed at locations approved by the Architect and Structural Engineer.
6. Provide control joints in all retaining walls at 15 ft to 20 ft intervals.
7. Provide compressible filler and sealant in all slab-on-grade and wall and column interfaces that are not doweled together.
8. Sleeves and openings in slabs not shown on structural drawings or outside the parameters of typical sleeve details are not permitted, unless approved by the Structural Engineer.
9. Conduit and pipes embedded in slabs or walls shall be no larger in outside dimension than 1/3 the overall member thickness, and shall be placed no closer than 3 diameters or widths on center.
10. Conduits and pipes shall not be permitted in concrete pilasters or columns.
11. Slab on Grade
    a) Slab shall be constructed as shown on plans
    b) Slab-on-grade shall be founded on 6" deep ¾" clean aggregate base.
    c) The upper 24" of subgrade extending 5' beyond the footprint of the building shall consist of low volume change material such as rollstone or wastelime. Granular fill shall be compacted to a minimum of 95% of the ASTM D698 maximum dry Standard Proctor density. The 6" aggregate base shall be included in the 24" depth required for the low volume change layer.
    d) Provide joints at 30 x slab thickness (+-) in both directions and located to conform to bay spacing wherever possible (at column centerlines, half bays, third bays, etc.). Submit control joint layout to Architect for any exposed concrete surface
    e) Saw cut control joints shall be done late enough to prevent raveling of the cut edges and early enough to prevent cracking of the slab ahead of the saw blade.
    f) Concrete slab to be cured according to ACI Standards. Concrete slab cure to be compatible with any sealer, grout, or adhesive that may be used on the floor later.
    g) At floor drains, locally slope floor towards drain. See architectural and plumbing drawings for drain locations.

REINFORCING FOR CONCRETE

1. General
    a. All reinforcing steel to be ASTM A615, Grade 60, deformed bars, unless noted otherwise.
        i) Any reinforcing to be welded shall be ASTM A706 and welded with E80 electrodes
        ii) Alternatively, ASTM A615 reinforcing may be welded with E90 electrodes and proper preheat according to AWS D1.4
        iii) E70 electrodes are not permitted for welding rebar
    b. Welded wire fabric shall be ASTM A185. Welded wire fabric shall be in flat sheets.
    c. All reinforcing bars to be detailed and placed in accordance with the ACI "Manual of Standard Practice for Detailing Reinforced Concrete Structures" specifications.
    d. All reinforcing, including dowels, shall be securely tied and cast with the lower member. Placing reinforcing after concrete has been placed will not be permitted.
    e. Field bending of reinforcing partially embedded in concrete will not be allowed unless specifically noted on the drawings or approved by the Structural Engineer.
    f. All reinforcing bar shall be contact lap spliced or doweled as follows, unless noted otherwise:

Tension Development and Splice Lengths for f'c=4,000psi

Bar Size	*Development* Top Bar	*Development* Other Bar	*Class "B" Splice* Top Bar	*Class "B" Splice* Other Bar	*Standard 90 deg. Hook* Embed	Leg Length	Bend Dia.
#3	19	15	24	19	6	6	2-1/4
#4	25	19	32	25	7	8	3
#5	31	24	40	31	9	10	3-3/4
#6	37	29	48	37	10	12	4-1/2
#7	54	42	70	54	12	14	5-1/4
#8	62	48	80	62	14	16	6
#9	70	54	91	70	15	19	9-1/2
#10	79	61	102	79	17	22	10-3/4
#11	87	67	113	87	19	24	12
#14	105	81	---	---	32	31	18-1/4
#18	139	107	---	---	43	41	24

1. Straight development and Class "B" splice lengths shown in above tables are based on uncoated bars assuming center-to-center bar spacing >= 3*db without ties or stirrups or >= 2*db with ties or stirrups, and bar clear cover >= 1.0*db Normal weight concrete as well as no transverse reinforcing are both assumed.
2. Standard 90 deg. hook embedment lengths are based on bar side cover >= 2.5" and bar end cover >= 2" without ties around hook.
3. For special seismic considerations, refer to ACI 318 Code Chapter 21.
4. All tension splices shall be Class "B" splices unless noted otherwise on plans.

    g. All welded wire fabric shall be lapped 12" or 48 wire diameters, whichever is greater.
    h. Provide 2-#5 x 6'-0" diagonals at all corners of openings and re-entrant corners, unless noted otherwise.
    i. Dowels between foundation and walls shall be installed and shall be the same grade, size, and spacing as the vertical wall reinforcing, unless noted otherwise.
    j. Provide corner bars to match longitudinal reinforcing in all footings. Provide (2) corner bars at tee intersections.
    k. Provide 500 pounds of miscellaneous straight bar reinforcing (#4 & #5) to be used in field for special conditions. Labor for placing same to be included.
2. Slabs and Slabs-on-Grade
    a. All slabs on grade to be reinforced with 6x6 – W2.1xW2.1 welded wire fabric or #3 bars spaced 18" o.c., unless noted otherwise.
3. Walls
    a. Provide corner bars in the outside face and at wall junctures to match horizontal wall bars. Use 3-#5 vertical construction rods at corners.
    b. Provide #4 at 12" o.c. horizontal and vertical in each face of all walls, unless noted otherwise.

POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY

1) Post installed anchors shall be expansion, adhesive, or screw anchors as indicated in details, unless noted otherwise. Only use the anchor type indicated. All anchors on the project of each type must be by the same manufacturer, see below for substitution requirements.
    a) Expansion anchors:
        i) Concrete:
            (1) Hilti Kwik Bolt TZ (ICC-ES ESR1917).
            (2) Simpson Strong-Bolt 2 (ICC-ES ESR3037).
            (3) Powers Power-Stud+ SD2 (ICC-ES ESR2502).
    b) Adhesive anchors (threaded rods shall be ASTM A193 B7 for all anchors):
        i) Concrete:
            (1) Hilti HIT RE 500-SD (ICC-ES ESR2322) or Hilti HIT-HY 200 (ICC-ES ESR3187).
            (2) Simpson AT-XP (UES ER263), SET-XP (ICC-ES ESR2508) or ET-HP (ICC-ES ESR3372)
            (3) Powers Pure 110+ (ICC-ES ESR3298), PE1000+ (ICC-ES ESR2583), Pure 50+ (ICC-ES ESR3576), AC 200+ (ICC-ES ESR4027), or AC100+ Gold (ICC-ES ESR2582)
    c) Screw anchors:
        i) Concrete:
            (1) Hilti Kwik HUS EZ (ICC-ES ESR3027)
            (2) Simpson Titen HD (ICC-ES ESR2713)
            (3) Powers Wedge-Bolt+ (ICC-ES ESR2526)
2) Post-installed anchors shall only be used where specified on the drawings. Contractor shall obtain approval from engineer prior to using post installed anchors for missing or misplaced cast in place anchors.
3) All personnel installing anchors shall be trained and certified by the anchoring system manufacturer or by ACI. Contractor shall submit current certification for all personnel. ACI certification required for all personnel installing adhesive anchors in a horizontal or overhead conditions. If a failure occurs at any time during testing or construction, personnel shall be retrained and recertified.
4) Installation:
    a) Do not cut existing reinforcing.
    b) The hole through the supported steel member shall be 1/16" larger in diameter (1/8" for screw anchors) than the anchor unless noted otherwise. Use plate washers with a standard size hole welded to steel members where oversized holes must be used.
    c) Holes shall be drilled per the manufacturer's written instructions as outlined in the ESR.
    d) Where applicable, installation shall follow cleaning procedure indicated in the ESR. Holes shall be made with a hammer drill. Use of a core drill is not allowed.
5) Special inspection shall be provided for all post installed anchors as required by the building code and/or ICC-ES report. Written special inspection reports shall be submitted to the registered design professional in responsible charge by the special inspector. The reports shall record and report the following as a minimum:
    a) Prior to and during installation of anchors, inspection and report shall include:
        i) Installer shall have reviewed manufacturer's ESR report and written installation procedures and has been certified by the manufacturer or ACI.
        ii) General concrete conditions (cracked or un-cracked, wet or dry, etc).
        iii) Whether manufacture's written proceedures for preparation of hole were followed. Indicate if hole is wet or dry.
        iv) Whether hole was made with a hammer drill
        v) Whether manufacture's written procedures for anchor installation were followed.
        vi) Embedment depth and concrete thickness.
        vii) Anchor diameter, length and type.
    b) After installing anchors, inspection and report shall include:
        i) All test locations.
        ii) Anchor size and/or type.
6) Substitution requests for products other than those listed above shall be submitted to the engineer with calculations that are prepared and sealed by a registered structural engineer at least two weeks prior to scheduled installations. Calculations shall demonstrate that the substituted product will achieve an equivalent capacity using the appropriate design procedure required by the building code. Product ICC-ES code reports shall be included with the submittal package.

WOOD FRAMING AND CONNECTIONS

1) Install rough carpentry according to the American Institute of Timber Construction Manual.
2) Material
    a) Sawn lumber
        i) Sawn lumber shall be grade stamped and visually graded with maximum 19% moisture content
        ii) All members shall meet strength requirements in NDS "National Design Specification for Wood Construction".
        iii) Joists, rafters, and nailers with nominal depth 8" or less shall be Southern Pine (SP) or Douglas Fir-Larch (DFL), No. 2 or better.
        iv) Joists, rafters, and nailers with nominal depth greater than 8" shall be Southern Pine (SP) or Douglas Fir-Larch (DFL), **Select Structural**.
        v) All exterior posts shall be Western Red Cedar No. 2 or better.
        vi) Bearing and shear wall studs, and wall plates, shall be Douglas Fir-Larch (DFL), No. 2 or better.
    b) Structural Composite Lumber
        i) SCL shall meet material specifications in ASTM D5456
        ii) SCL shall include laminated veneer lumber (LVL), laminated strand lumber (LSL), oriented strand lumber (OSL) and parallel strand lumber (PSL)
        iii) All LVL shall be stress class 2.0E-2600F.
        iv) Other SCL materials shall be graded as indicated on the plans.
    c) Structural Panels
        i) All plywood or oriented strand board (OSB) panels shall meet the strength requirements in Department of Commerce (DOC) PS 1 and PS 2 or ANSI/APA PRP 210.
        ii) All structural panels (walls, floor and roof) shall meet the Structural 1 grading standard
    d) Connectors and Fasteners
        i) Metal connectors and associated fasteners used for the applications indicated shall meet the following minimum standards:
            (1) Untreated Lumber
                (a) Connectors..... ASTM A653 G90
                (b) Bolts and Anchor Rods..... ASTM F1554 Gr36
                (c) Nails and Staples ..... ASTM F1667
            (2) Sodium Borate (SBX) Pressure Treated Lumber
                (a) Connectors..... ASTM A653 G90
                (b) Bolts ..... ASTM A307
                (c) Anchor Rods..... ASTM F1554 Gr 55
                (d) Nails and Staples..... ASTM F1667 with A153 Hot Dipped Galvanized
            (3) All Other Pressure Treated Lumber (e.g. ACQ-C, ACQ-D, CA-B, CBA-A, ACZA)
                (a) Connectors..... ASTM A653 G90
                (b) Bolts ..... ASTM A193, GrB7
                (c) Anchor Rods..... ASTM A193, GrB7
                (d) Nails and Staples ..... ASTM F1667 using AISI Type 304 or 316 Stainless Steel
        ii) Fasteners utilizing dissimilar materials are prohibited.
        iii) Power driven fasteners shall comply with NES NER-272.
        iv) Fastener installation whether power driven or otherwise shall be in accordance with the Building Code and the manufacturer's recommendations. In general fastener heads shall be installed nominally flush with the outer ply of the connection. Sheathing and support framing damaged by overdriven fasteners shall be removed and replaced.
        v) Aluminum fasteners and flashing shall not be in contact with pressure treated lumber.
3) General
    a) All light framed wood construction shall be fastened as indicated on the plans. Connections not detailed shall be fastened in accordance with the table below.
    b) All framing in direct contact with water, soil, concrete, masonry, or permanently exposed to weather shall be preservative treated lumber in accordance with the AWPA Standard U1 and M4
    c) All framing indicated to be fire-retardant treated or fire resistive on the drawings (Architectural or Structural) shall comply with AWPA U1 UCFA, Type A or ICC-ES ESR 2645 and shall have UL FR-S surface burning characteristics.
    d) All wood shall be stored on site and protected from the elements to prevent warping, cupping, bowing, crooking and twisting. Use only material that is straight. All stored wood shall be held off the ground with sacrificial dunnage blocks.
    e) Wood connectors shall be installed to prevent wood from splitting or otherwise damaging either member.
    f) Use 4x4, 4x6 and 6x6 columns as shown on plans. Built-up sections of 2x studs shall not be substituted for timber posts.
    g) All multi-ply beams, joists and headers shall be fastened together.
        i) Fasten sawn lumber members per schedule below.
        ii) Fasten structural composite lumber per manufacturer's literature.
    h) Wall studs are designed based on being fully braced by sheathing. Design of temporary or permanent blocking or bridging for support of construction loads by unsheathed walls is the responsibility of the contractor.
    i) Wood joists shall bear on the full width of supporting members (stud walls, beams, nailers, etc.) unless noted otherwise.
    j) Subject to compliance with the project requirements, wood connectors, joist hangers, post caps and bases, holdowns, and related hardware shall be manufactured by Simpson Strong-Tie Company, Inc. San Leandro, CA, or Mi-Tek Corp, Minneapolis, MN.
        i) Contractor shall follow the manufacturer's latest recommendations for installation of connectors.
        ii) Simpson Strong-Tie is basis of design. Submit substitution request demonstrating that the proposed hardware from other manufacturer has the same or greater capacity for each connection. Allow two weeks for review.
    k) All beams and joists not bearing on supporting members shall be framed with Simpson joist hangers. Use LU (or equal) for single joists and type LUS for double joists, unless noted otherwise. The joist hangers shall be installed using nails or screws supplied by the hanger manufacturer as required for the hanger type.
    l) Bottom plates of all bearing walls on concrete shall be anchored with 5/8" diameter x 6" screw anchors spaced not more than 4'-0" o.c., unless noted otherwise. Sill plate anchors shall be located a maximum of 1'-0" from corners, ends of walls and sill plate splices. Provide (2) anchors minimum in each sill plate segment Refer to plans and details for shear wall anchorage requirements.
    m) Nailers shall be anchored to steel beams and columns with 1/2" diameter A307 bolts with required washers at a maximum spacing of 24" on center (alternate sides), unless noted otherwise.
    n) Wall studs, jamb studs, and beam support studs shall have adequate vertical blocking installed to transfer all vertical loads to the foundation.
4) Wood Floor and Roof Trusses
    a) Provide wood trusses capable of withstanding the design loads within the limits and under the conditions indicated. Truss design shall be in accordance with the Building Code and TPI-1 Nation Design Standard for Metal Plate Connected Wood Truss Construction.
    b) Wood trusses shall be of sawn lumber with 2x nominal thickness.
    c) In addition to the loads indicated, wood trusses shall be designed for all applicable wind, seismic, and snow (including drift) loads required by Building Code and noted in plan. Truss design and shop drawing preparation shall be supervised by a registered professional engineer licensed in the state where the project is located.
    d) Submittals shall be signed and sealed and include comprehensive truss layout plans, design calculations that indicate species and grades of lumber, design stresses, size and type of connector plates used.
    e) Fabricator shall determine truss diagonal locations. Truss configurations shown on drawings are diagrammatic only. Bearing points shall coincide with intersections of diagonals and chords.
    f) Truss member design shall consider unbalanced snow load with full dead load, as well as, full dead and snow load.
    g) Roof trusses shall be designed for the loads shown in "Design Criteria"
    h) Floor trusses shall be designed for the loads shown in "Design Criteria"
    i) The maximum allowable deflection shall be:
        i) Roof Trusses: Total Load: L/240, Roof Live or Snow Load: L/360
        ii) Floor Trusses: Total Load: L/360, Live Load: L/480
    j) The manufacturer shall provide all open web trusses and accessories as shown on the structural and architectural drawings and as required for a complete project.
    k) All truss to truss connections and truss to supporting member connections shall be designed and detailed by the truss supplier and the size and type of connectors included in the shop drawing submittal. Coordinate size, species and grade of supporting chord and web members with the truss hanger selected.
    l) All temporary and permanent bracing shall be in accordance with the TPI standards for bracing. The bracing shall be furnished and installed by the Contractor. Do not use ceilings as uplift bracing at truss bottom chord.
    m) Girder trusses shown on drawings shall be designed to carry concentrated reactions from supported members.
    n) Wood trusses shall be handled and erected in accordance with TPI HIB-91. Trusses shall be unloaded and stored in bundles in an upright position out of contact with the ground until ready for installation.
    o) Any damage to the trusses shall be brought to the immediate attention of the Structural Engineer and truss supplier. Field repair and modification of trusses shall not be made with prior written approval from the supplier, except for nominal trimming to correct length where such trimming will not impair the load carrying capacity of the truss.

Schedule of minimum nailing for standard connections[1]

Connection[2, 3]	Number, or spacing, of fasteners required per connection. Nail lengths are minimum, nominal lengths, in inches. Nail shank diameters are minimum, nominal diameters, in inches. 3 ½ x 0.162	3 x 0.148	3 ¼ x 0.131	3 x 0.131	2 ½ x 0.131	3 ¼ x 0.120	3 x 0.120	2 ½ x 0.113	2 x 0.113	2 ½ x 0.105	2 ½ x 0.099
Equiv. Common Nail	16d	10d			8d				6d		
Floor Framing											
Joist to band joist	3	5	5	5	N/A	6	6	N/A	N/A	N/A	N/A
Ledger strip	3	4	4	4	6	4	4	N/A	N/A	N/A	N/A
Joist to sill or girder	3	3	3	3	3	4	4	N/A	N/A	N/A	N/A
Blocking between joist or rafter to top plate	3	3	3	4	3	4	4	N/A	N/A	N/A	N/A
Bridging to joist	N/A	N/A	N/A	N/A	2	3	3	3	4	3	4
Rim joist to top plate	8" o.c.	6" o.c.	6" o.c.	6" o.c.	6" o.c.	6" o.c.	4" o.c.	6" o.c.	3" o.c.	3" o.c.	3" o.c.
Built-up Girders & Beams - Spacing along edges, - # at ends & splices	24" o.c. 3	24" o.c. 3	24" o.c. 3	24" o.c. 3	16" o.c. 4	16" o.c. 3	16" o.c. 3	N/A	N/A	N/A	N/A
Ceiling and Roof Framing											
Ceiling joists to plate	3	4	5	5	5	5	5	6	N/A	N/A	N/A
Ceiling joists, laps over partitions	3	4	4	4	6	4	4	N/A	N/A	N/A	N/A
Ceiling joist to parallel rafter	3	4	4	4	6	4	4	N/A	N/A	N/A	N/A
Collar tie to rafter	3	3	4	4	5	4	4	N/A	N/A	N/A	N/A
Jack rafter to hip, toe-nailed	3	3	4	4	5	4	4	N/A	N/A	N/A	N/A
Jack rafter to hip, face nailed	2	3	3	3	3	4	4	N/A	N/A	N/A	N/A
Roof rafter to plate	3	3	3	3	3	4	4	5	5	5	6
Roof rafter to 2-by ridge beam (driven through beam into end of ridge)	2	3	3	3		4	4	N/A	N/A	N/A	N/A
Roof rafter to 2-by ridge beam (toe-nail rafter to beam)	2	3	3	3	3	4	4	N/A	N/A	N/A	N/A
Wall Framing											
Top or sole plate to stud (End nailed)	2	3	3	3	5	4	4	N/A	N/A	N/A	N/A
Stud to top or sole plate (toe-nailed)	2	3	3	3	5	4	4	5	5	5	5
Cap/top plate laps and intersections (each side of lap)	2	3	3	3	4	3	3	N/A	N/A	N/A	N/A
Diagonal bracing	2	2	2	2	2	3	3	3	4	4	4
Sole plate to joist or blocking @ braced panels (number per 16" joist space)	2	3	3	4		4	4	N/A	N/A	N/A	N/A
Sole plate to joist or blocking	16" o.c.	8" o.c.	8" o.c.	8" o.c.	6" o.c.	8" o.c.	8" o.c.	N/A	N/A	N/A	N/A
Double top plate	16" o.c.	16" o.c.	12" o.c.	12" o.c.	8" o.c.	12" o.c.	12" o.c.	N/A	N/A	N/A	N/A
Double studs	12" o.c.	12" o.c.	8" o.c.	8" o.c.	6" o.c.	8" o.c.	8" o.c.	N/A	N/A	N/A	N/A
Corner studs	24" o.c.	16" o.c.	16" o.c.	16" o.c.	8" o.c.	12" o.c.	12" o.c.	N/A	N/A	N/A	N/A

N/A – Fastener not applicable to connection

[1]This fastening schedule applies to framing members having ar actual thickness of 1 ½"(Nominal "2-by" lumber)

[2]Fastenings listed above may also be used for other connections that are not listed but that have the same configuration and the same code requirement for fastener quantity/spacing and fastener size (pennyweight and style, e.g., 8d common, "8-penny common nail").

[3]Fastening schedule only applies to buildings of conventional wood frame construction. Connections of shear walls and floor and roof diaphragms shall be as shown on the drawings.

STRUCTURAL STEEL

1. Materials
    a. Materials shall conform to the following, unless noted otherwise.
        i) Rolled WF shapes ASTM A992, Fy = 50ksi
        ii) Plates ASTM A572-50
        iii) Channels and angles ASTM A36
        iv) HSS: Rectangular ASTM A500, Grade C
        v) HSS: Round ASTM A500, Grade C
        vi) Bolts ASTM F3125
            (1) All bolts shall be Grade A325 or F1852, UNO
            (2) Bolts designated as "A490" shall be Grade A490 or F2280
        vii) Nuts ASTM A563 DH or A194
        viii) Washers ASTM F436
        ix) Anchor Bolts ASTM F1554 Grade 36, UNO
        x) Threaded Rod ASTM A36
        xi) Electrodes Matching weld metal, 70 ksi minimum strength
    b. Finishes
        i) All material that is protected from the elements shall be shop primed.
            (1) Do not prime surfaces to be fireproofed, field welded, in contact with concrete, or high-strength bolted.
2. Fabricator
    a. Structural members shall be detailed, fabricated, and erected in accordance with the latest edition AISC Code of Standard Practice.
    b. Structural steel fabrication and erection drawings must be submitted to the engineer for review and approval prior to fabrication.
3. Erection
    a. All structural steel to be fabricated and erected in accordance with latest AISC specifications.
        i) It is the responsibility of the contractor to ensure that structure is maintained in a safe, stable configuration at all times.
    b. Splicing of steel members not specifically shown on the drawings is prohibited without prior approval from the engineer.
    c. Beams shall bear 8" minimum on supporting concrete.
    d. All beams shall be installed with the mill camber up.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

TIMOTHY P. EARNEY NUMBER PE-2011000879 PROFESSIONAL ENGINEER
5/12/20

T. PATRICK EARNEY - PROFESSIONAL ENGINEER
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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

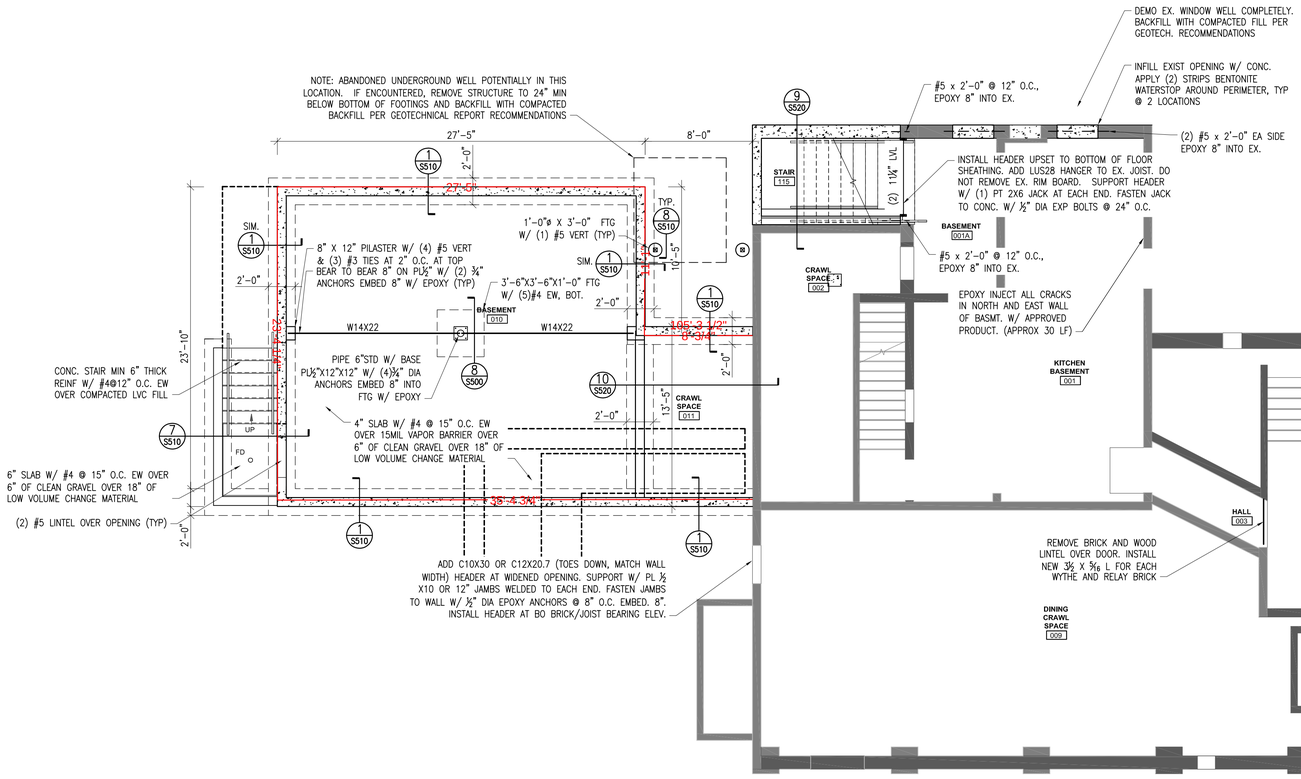
CAD DWG FILE: JDM
DRAWN BY: JDM
CHECKED BY: TPE
DESIGNED BY: TPE

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
S001

054 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

NOTES:
1) ALL 8" FOUNDATION WALL REINF. W/ #5 @ 12" O.C. EW, CNTR
2) ALL FOOTINGS REINF W/ (4) #5 CONT
3) FOOTINGS TO BE STEPPED AS NECESSARY TO MAINTAIN 36" MIN BELOW FINISH GRADE
4) NEW FOOTING ELEV. TO MATCH ELEV OF EXIST. FOOTINGS AT INTERSECTION – FIELD VERIFY



1/S100 BASEMENT PLAN – BASE BID
3/16"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
TIMOTHY P. EARNEY
NUMBER PE-2011000879
PROFESSIONAL ENGINEER
5/12/20

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ISSUE DATE: 05.12.2020

CAD DWG FILE: JDM
DRAWN BY: JDM
CHECKED BY: TPE
DESIGNED BY: TPE

SHEET TITLE:

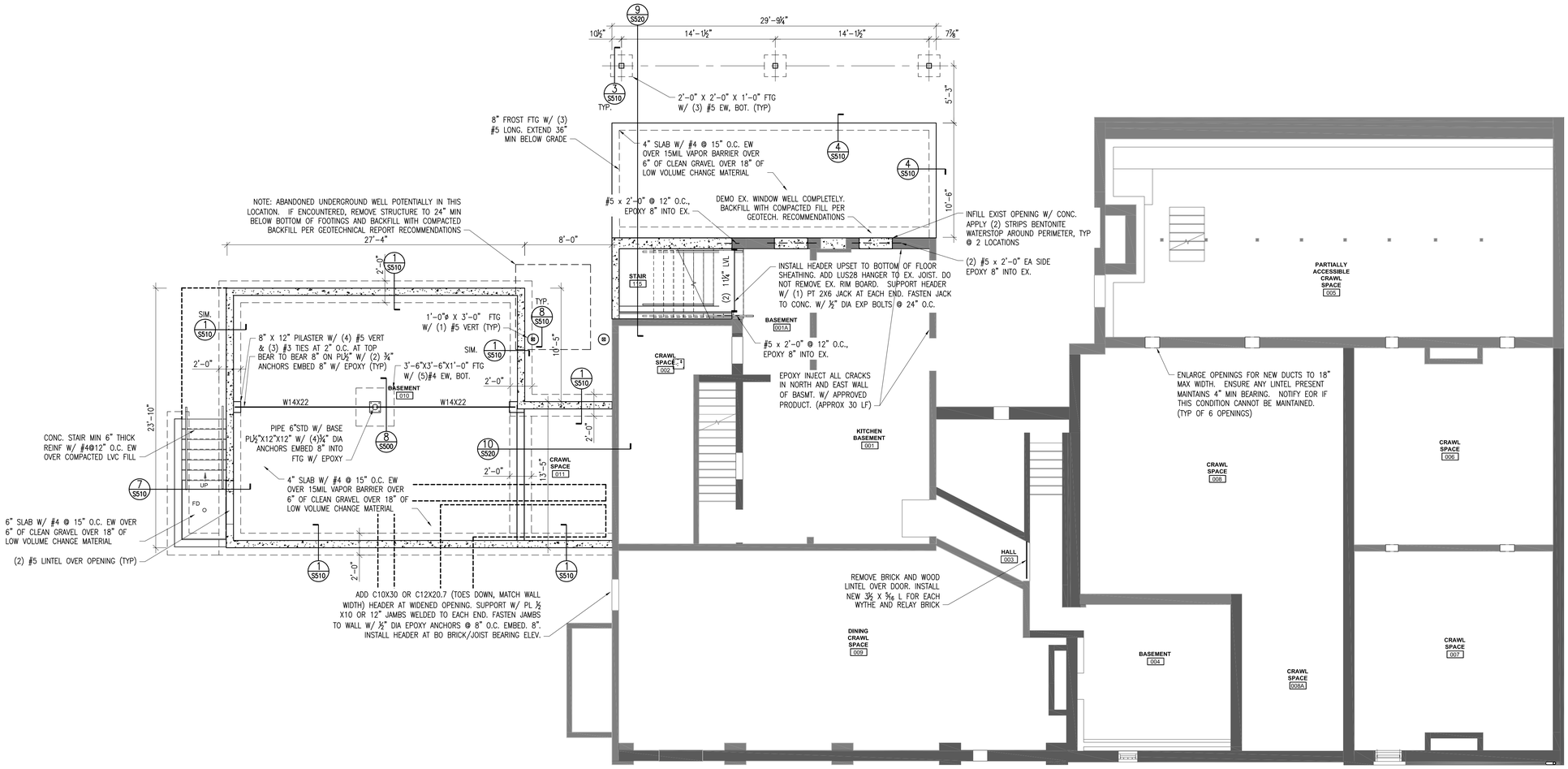
BASEMENT FRAMING PLAN - BASE BID

SHEET NUMBER:

S100

055 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

NOTES:
1) ALL 8" FOUNDATION WALL REINF. W/ #5 @ 12" O.C. EW, CNTR
2) ALL FOOTINGS REINF W/ (4) #5 CONT
3) FOOTINGS TO BE STEPPED AS NECESSARY TO MAINTAIN 36" MIN BELOW FINISH GRADE
4) NEW FOOTING ELEV. TO MATCH ELEV OF EXIST. FOOTINGS AT INTERSECTION – FIELD VERIFY



1 S100A BASEMENT PLAN – ALTERNATE 1
3/16"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
TIMOTHY P. EARNEY
NUMBER PE-2011000879
PROFESSIONAL ENGINEER
5/12/20

T. PATRICK EARNEY - PROFESSIONAL ENGINEER
MO# 2011000879

STRATA ARCHITECTURE + PRESERVATION
1701 Oak Street, Suite 100 Kansas City, Missouri 64108
816.474.0900 www.strata-arch.com
Missouri State Certificate of Authority: #2009024884

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: JDM
DRAWN BY: JDM
CHECKED BY: TPE
DESIGNED BY: TPE

SHEET TITLE:

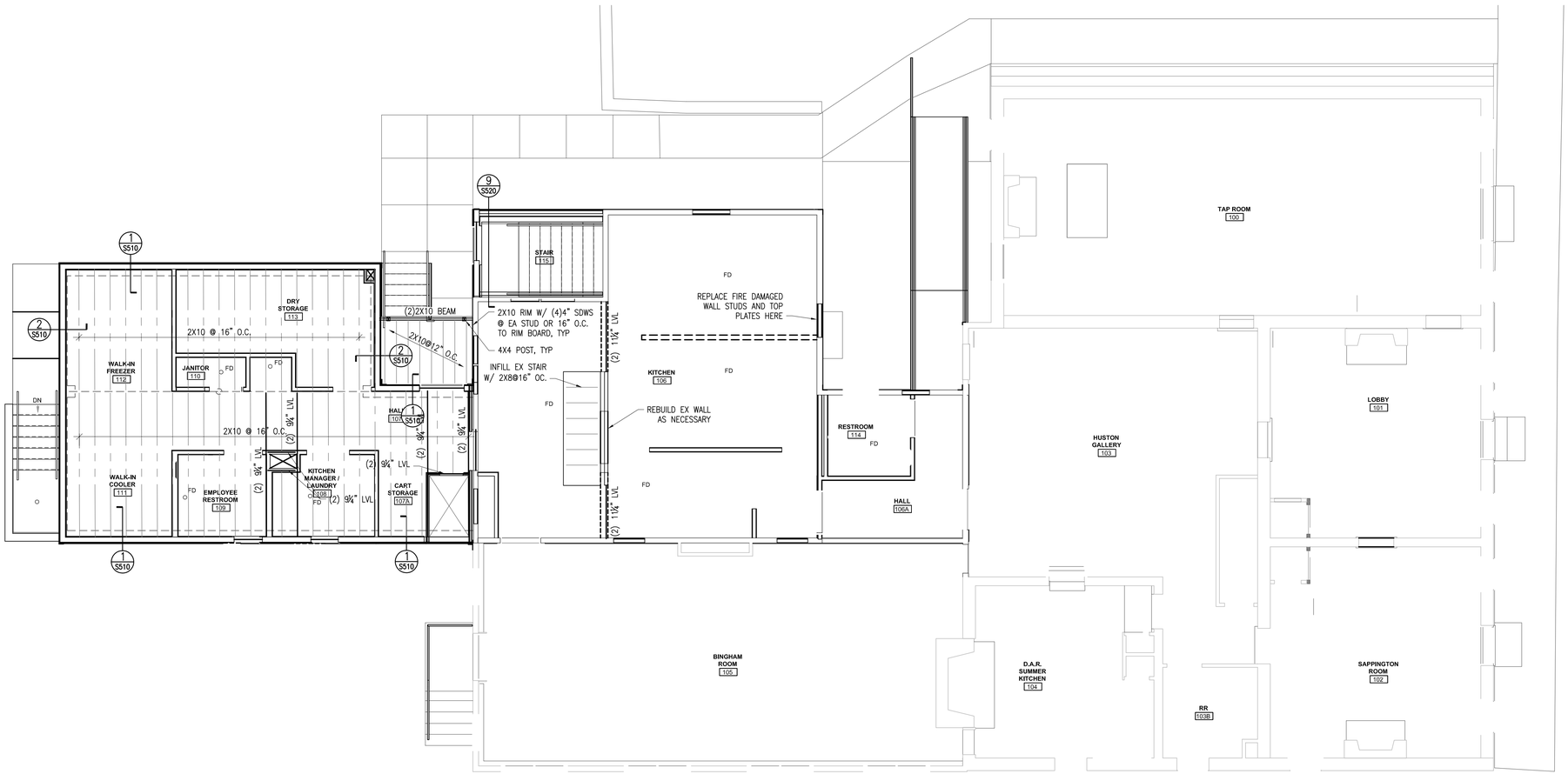
BASEMENT FRAMING PLAN - ALTERNATE 1

SHEET NUMBER:

S100A

056 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

NOTES:
1) ALL FLOOR SHEATHING 23/32 T&G OSB W/ 8D NAILS AT 4/12
2) NEW AND EXIST. KITCHEN FLOOR TO RECEIVE ¾" GYPCRETE TOPPING
3) ALL EXTERIOR WALLS 2X6@16" O.C. W/ 8D NAILS AT 6/12
4) ALL NEW INTERIOR BEARING WALLS 2X4@16" O.C. W/ ⅝" GWB EA SIDE.
5) ALL NEW OPENINGS (2) 2X10 W/ (1) JACK STUD AND ONE (1) KING STUD UNO



1 S101 FRAMING PLAN – BASE BID
3/16"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
TIMOTHY P. EARNEY
NUMBER PE-2011000879
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5/12/20

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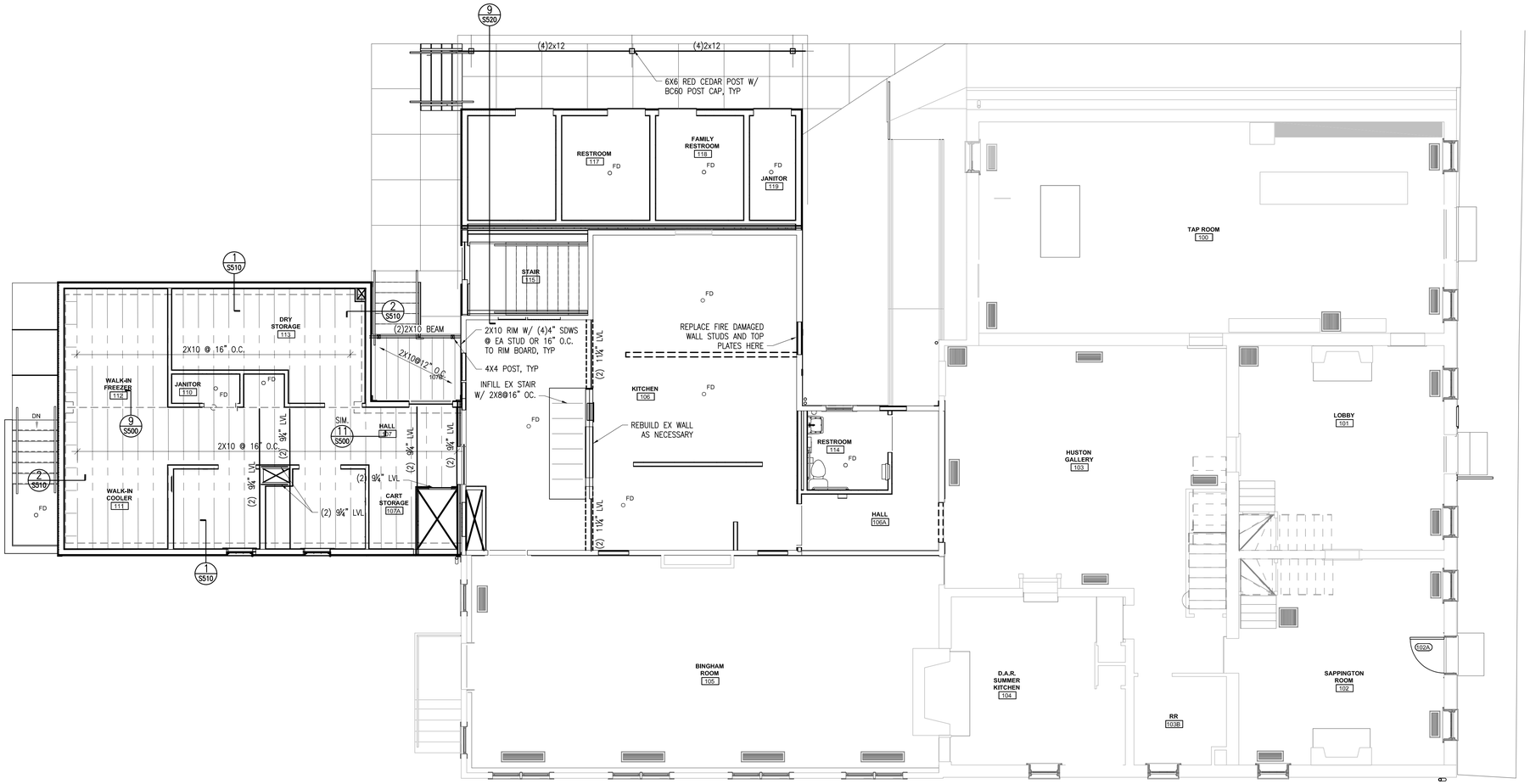
CAD DWG FILE: -RM
DRAWN BY: -RM
CHECKED BY: TPE
DESIGNED BY: TPE

SHEET TITLE:
FRAMING PLAN - BASE BID

SHEET NUMBER:
S101

057 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

NOTES:
1) ALL FLOOR SHEATHING 23/32 T&G OSB W/ 8D NAILS AT 4/12
2) NEW AND EXIST. KITCHEN FLOOR TO RECEIVE ¾" GYPCRETE TOPPING
3) ALL EXTERIOR WALLS 2X6@16" O.C. W/ 8D NAILS AT 6/12
4) ALL NEW INTERIOR BEARING WALLS 2X4@16" O.C. W/ ⅝" GWB EA SIDE.
5) ALL NEW OPENINGS (2) 2X10 W/ (1) JACK STUD AND ONE (1) KING STUD UNO



1 S101A FRAMING PLAN – ALTERNATE 1
3/16"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

TIMOTHY P. EARNEY
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PROFESSIONAL ENGINEER
5/12/20

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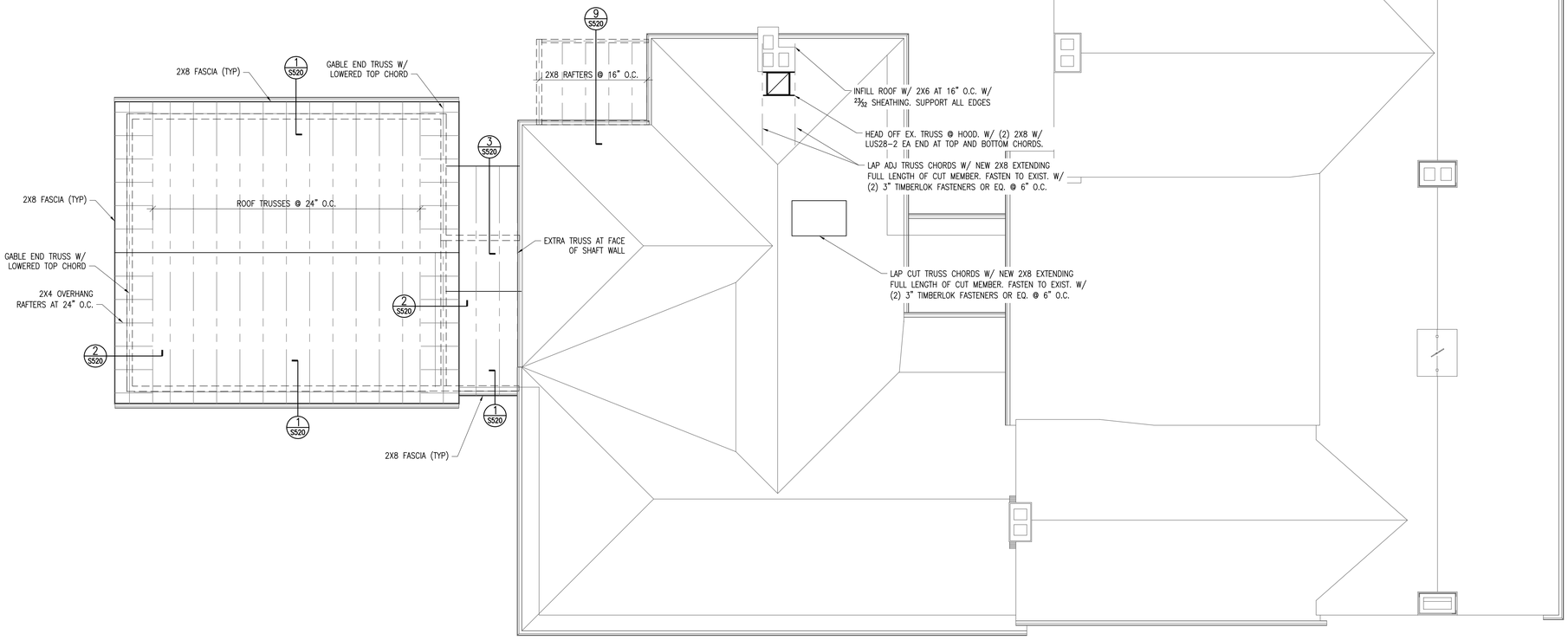
CAD DWG FILE: JDM
DRAWN BY: JDM
CHECKED BY: TPE
DESIGNED BY: TPE

SHEET TITLE:
FRAMING PLAN - ALTERNATE 1

SHEET NUMBER:
S101A

058 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

NOTES:
1) ALL ROOF SHEATHING $^{19}/_{32}$ OSB W/ 8D NAILS AT 6/12
2) MATCH THICKNESS OF EXIST SHEATHING WHEN PATCHING EXIST ROOF.
3) SUPPORT ALL EDGES OF INFILL SHEATHING



1 S102 ROOF FRAMING PLAN – BASE BID
3/16"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI · TIMOTHY P. EARNEY · NUMBER PE-2011000879 · PROFESSIONAL ENGINEER

5/12/20

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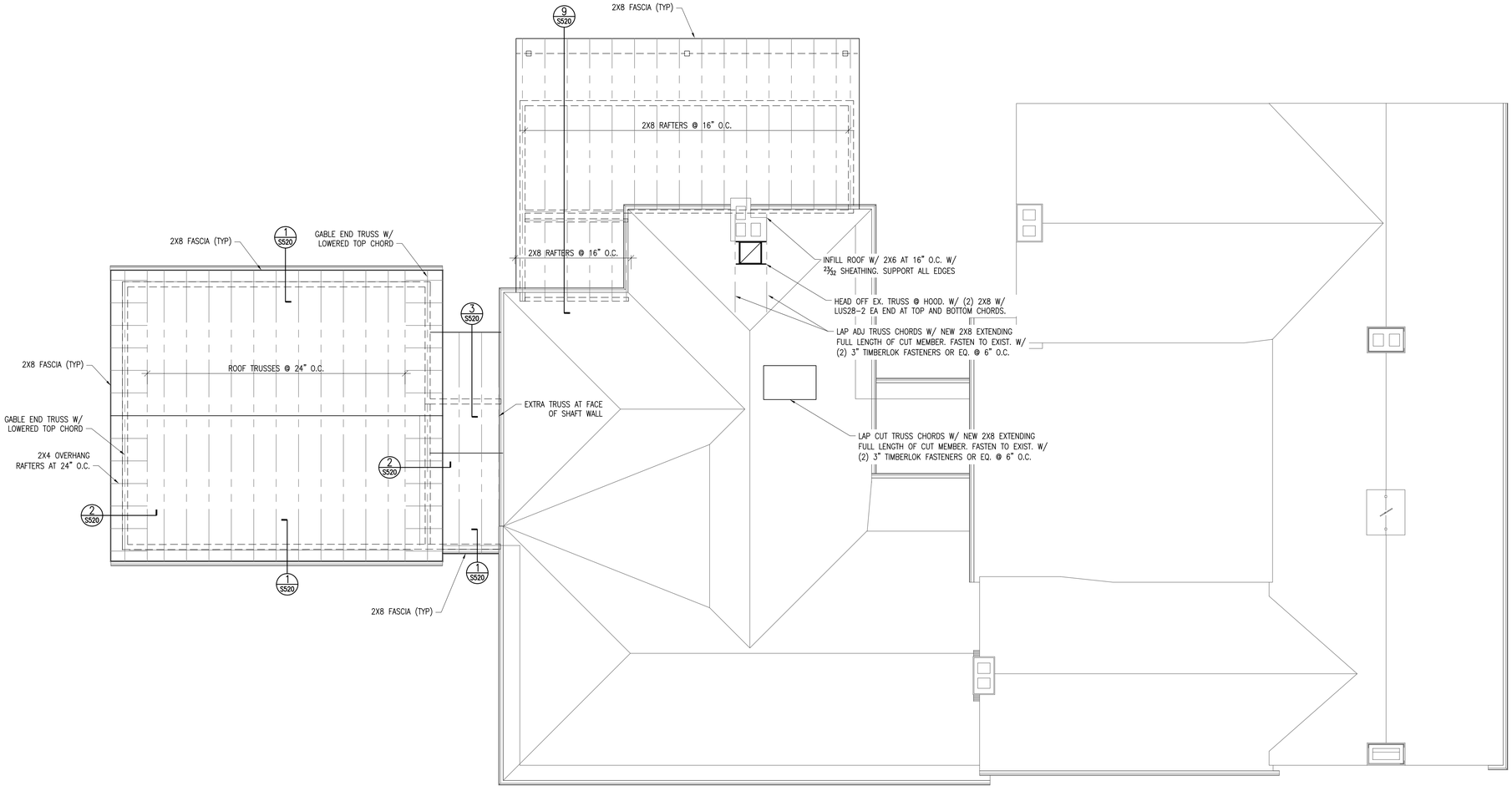
ROOF FRAMING PLAN - BASE BID

SHEET NUMBER:

S102

059 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

NOTES:
1) ALL ROOF SHEATHING $^{19}/_{32}$ OSB W/ 8D NAILS AT 6/12
2) MATCH THICKNESS OF EXIST SHEATHING WHEN PATCHING EXIST ROOF.
3) SUPPORT ALL EDGES OF INFILL SHEATHING



1 S102A ROOF FRAMING PLAN – ALTERNATE 1
3/16"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
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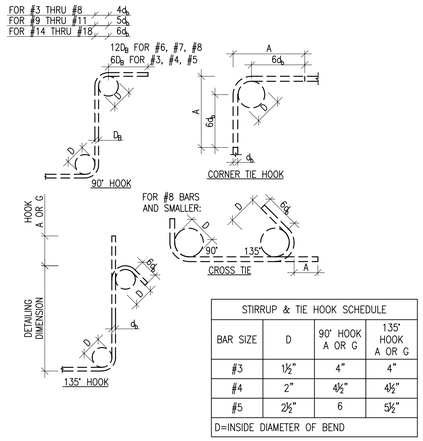
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ROOF FRAMING PLAN - ALTERNATE 1

SHEET NUMBER:

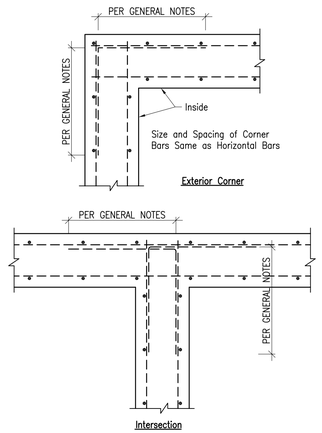
S102A

060 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

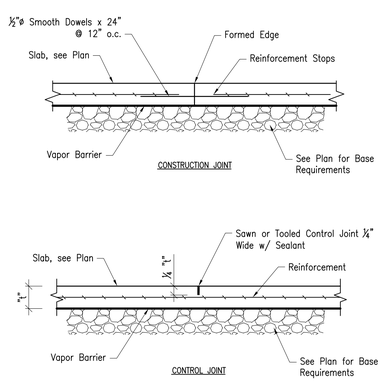


STIRRUP & TIE HOOK SCHEDULE			
BAR SIZE	D	90° HOOK A OR G	135° HOOK A OR G
#3	1½"	4"	4"
#4	2"	4½"	4½"
#5	2½"	6	5½"
D=INSIDE DIAMETER OF BEND			

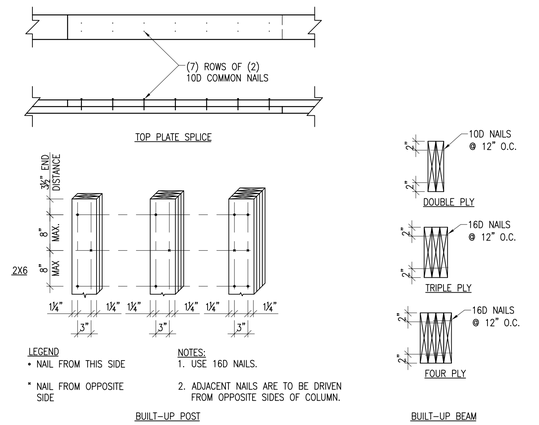
1 S500 DETAIL 3/4"=1'-0"



2 S500 DETAIL 3/4"=1'-0"



3 S500 DETAIL 3/4"=1'-0"

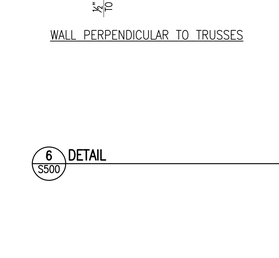


4 S500 DETAIL 3/4"=1'-0"



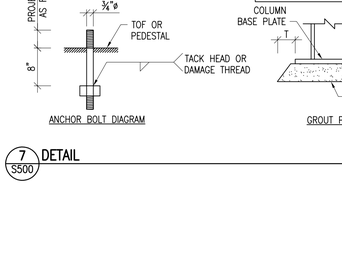


5 S500 DETAIL 1/2"=1'-0"



6 S500 DETAIL 3/4"=1'-0"

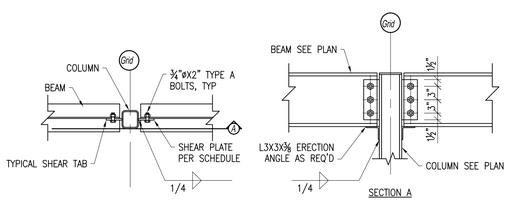
NOTES:
1. SIZE WELDS PER AISC MIN FILLET REQUIREMENTS.
2. ANCHOR BOLTS WITH FORGED HEADS MEETING THE REQUIREMENTS OF ASTM A307 MAY BE SUBSTITUTED FOR ¾"ø ANCHOR BOLTS



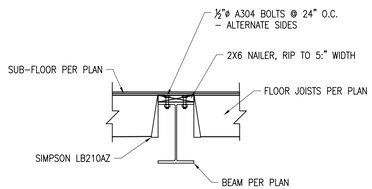
GROUT MAY BE BEVELED OR FORMED BUT SHALL EXTEND A MIN "T" BEYOND FACE OF BASE PLATE.
"T"=1½" FOR ANCHOR BOLT DIA UP TO 1"

7 S500 DETAIL 3/4"=1'-0"

CONNECTION SCHEDULE				
SECTION	BOLTS PER MEMBER	BOLT DIAMETER	PLATE THICKNESS	ALLOWABLE REACTION (KIPS)
W14	3	3/4"	3/8	71.6

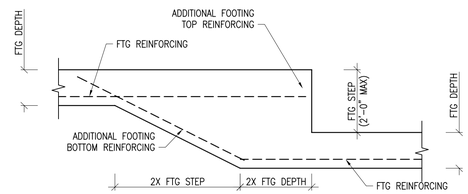


8 S500 DETAIL 3/4"=1'-0"



9 S500 DETAIL 3/4"=1'-0"

10 S500 NOT USED 1/2"=1'-0"



11 S500 DETAIL 1/2"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI TIMOTHY P. EARNEY NUMBER PE-2011000879 PROFESSIONAL ENGINEER
5/12/20

T. PATRICK EARNEY - PROFESSIONAL ENGINEER
MO# 2011000879

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305 MAIN ST, ARROW ROCK, MO 65320

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ASSET #: 7815102008

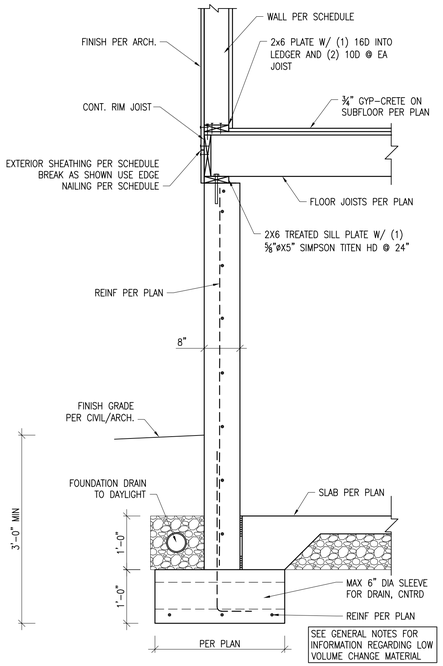
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ISSUE DATE: 05.12.2020

CAD DWG FILE: JDM
DRAWN BY: JDM
CHECKED BY: TPE
DESIGNED BY: TPE

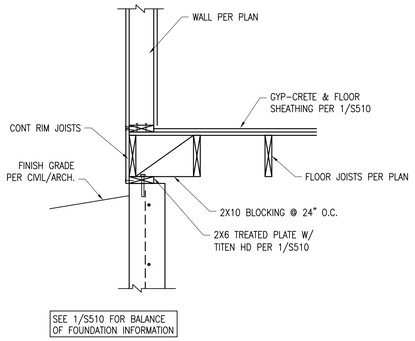
SHEET TITLE:
DETAILS

SHEET NUMBER:
S500

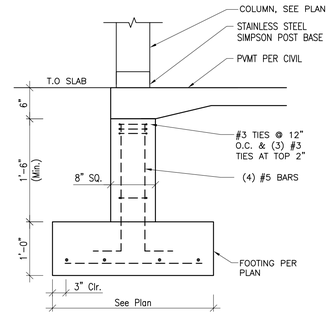
061 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



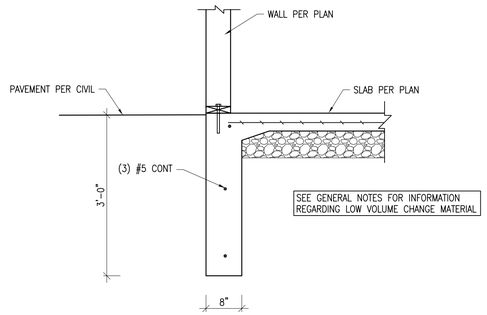
1 S510 **DETAIL** 3/4"=1'-0"



2 S510 **DETAIL** 3/4"=1'-0"



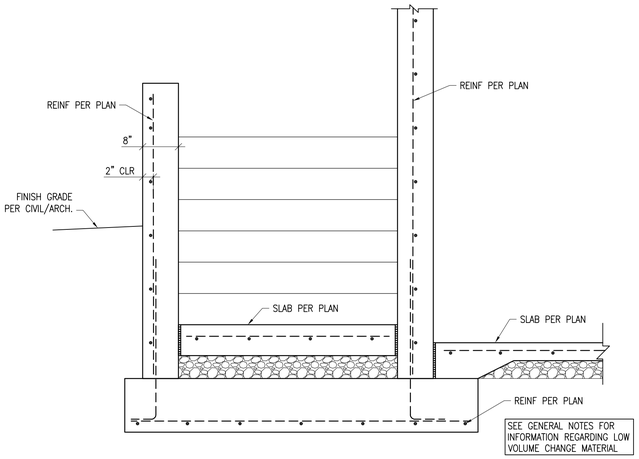
3 S510 **FOUNDATION SECTION** 3/4"=1'-0"



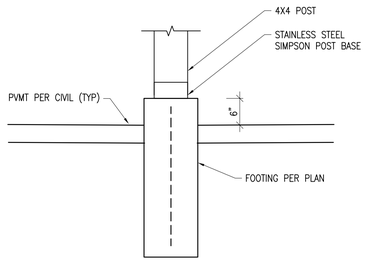
4 S510 **FOUNDATION SECTION** 3/4"=1'-0"

5 S510 **NOT USED** 3/4"=1'-0"

6 S510 **NOT USED** 3/4"=1'-0"



7 S510 **DETAIL** N.T.S.



8 S510 **DETAIL** 3/4"=1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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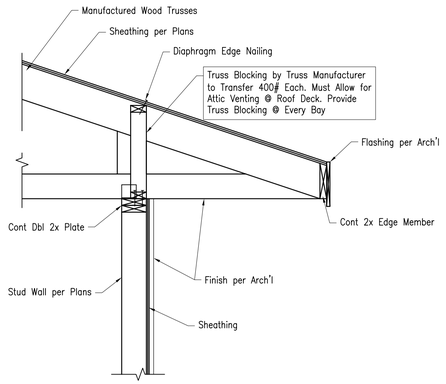
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: JDM
DRAWN BY: JDM
CHECKED BY: TPE
DESIGNED BY: TPE

SHEET TITLE:
DETAILS

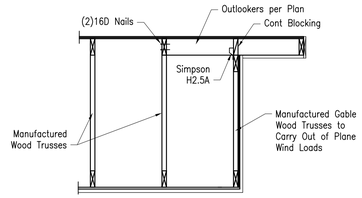
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S510

062 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



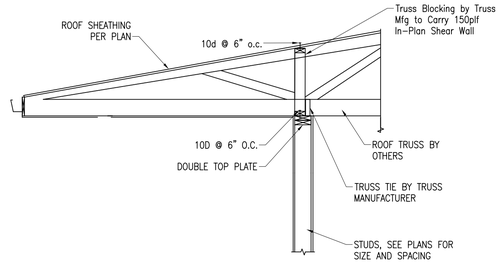
1 S520 SECTION AT ROOF

3/4"=1'-0"



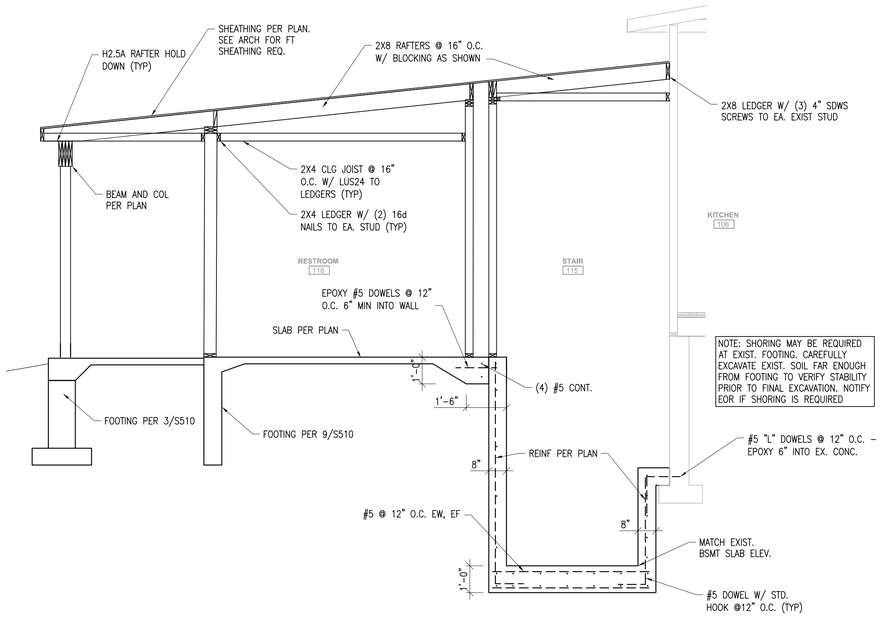
2 S520 SECTION AT OUTLOOKER

1/2"=1'-0"



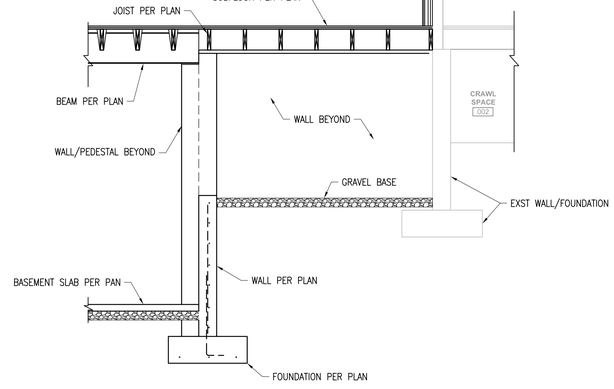
3 S520 SECTION AT ROOF

3/4"=1'-0"



9 S520 SECTION AT STAIR AND RESTROOM ADDITION - ALTERNATE 1

3/8"=1'-0"



10 S520 SECTION AT BASEMENT / CRAWL SPACE

3/8"=1'-0"

STATE OF MISSOURI
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DESIGNED BY: TPE

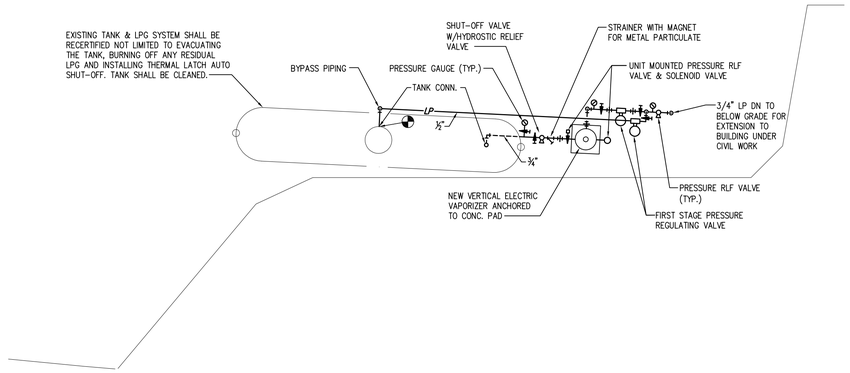
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SHEET NUMBER:

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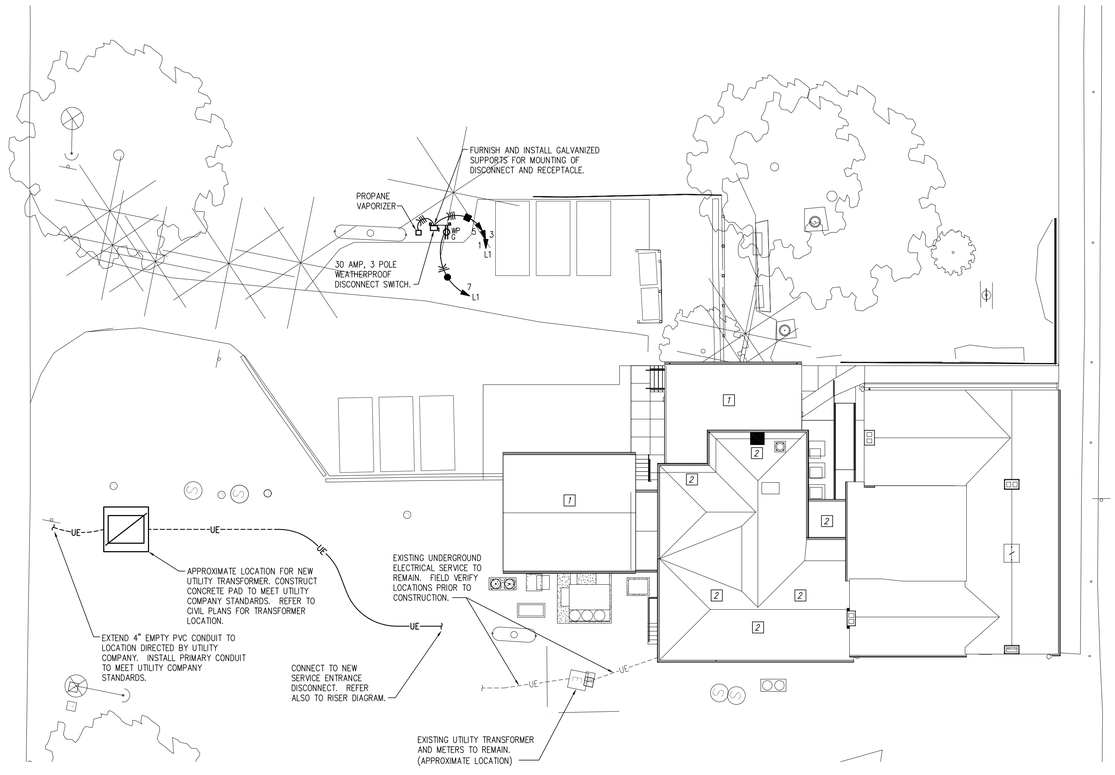
063 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



2 LPG TANK & VAPORIZER - PLUMBING PLAN

N

0' 2' 4' 8' 32'



1 PLUMBING AND ELECTRICAL SITE PLAN

N

0' 8' 16' 32' 64'

GENERAL NOTES:

1. LOCATE ALL EXISTING BURIED UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. COORDINATE ALL NEW WORK WITH EXISTING CONDITIONS AND CIVIL DRAWINGS.

KEYED NOTES:

1 FURNISH AND INSTALL NEW LIGHTNING PROTECTION SYSTEM ON NEW ROOF. CONNECT TO EXISTING SYSTEM AS REQUIRED.

2 MODIFY, ADAPT, EXTEND RELOCATE EXISTING LIGHTNING PROTECTION SYSTEM AS NEEDED FOR CONSTRUCTION OF NEW BUILDING AND ADDITIONS AND RE-ROOFING OF EXISTING BUILDING.

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MICHAEL L. PARSON, GOVERNOR

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05/12/2020

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Missouri State Certificate of Authority: #000396

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 5/12/2020

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DESIGNED BY: SGB/PIP

SHEET TITLE:
PLUMBING & ELECTRICAL SITE PLAN

SHEET NUMBER:

PES100

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ABBREVIATIONS

ABBREV.	DESCRIPTION
AAV	AUTOMATIC AIR VENT
ABAN	ABANDON
ABV	ABOVE
AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AF	AFTER FILTER
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AMB	AMBIENT
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AS	AIR SEPARATOR
ATM	ATMOSPHERE
ATMV	ATMOSPHERIC VENT
AWT	AVERAGE WATER TEMPERATURE
BDD	BACKDRAFT DAMPER
BFWP	BOILER FEED WATER PUMP
BFW	BOILER FEED WATER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BLWDN	BLOWDOWN
BS	BLOWDOWN SEPARATOR
BLR	BOILER
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BOD	BOTTOM OF DUCT
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
C	CONVERTER
C/C	CENTER TO CENTER
CC	COOLING COIL
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFP	CHEMICAL FEED PUMP
CH	CHILLER
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CO	CLEANOUT
COL	COLUMN
CONC	CONCRETE
COND	CONDENSATE
CONDR	CONDENSOR
CONN	CONNECTION
CONT	CONTINUATION/CONTINUOUS
CONV	CONVECTOR
COP	COEFFICIENT OF PERFORMANCE
CP	CONTROL PANEL
CPF	CHEMICAL POT FEEDER
CRP	CONDENSATE RETURN PUMP
CT	COOLING TOWER
CU FT	CUBIC FEET
CU IN	CUBIC INCHES
DB	DRY BULB
DEG	DEGREE FAHRENHEIT
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DLV	DOOR LOUVER
DMPR	DAMPER
DN	DOWN
DR	DRAIN
DWG	DRAWING
EX	EXISTING
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EDBT	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
ENT	ENTERING
EQ	EQUAL
ET	EXPANSION TANK
EXH	EXHAUST
EXP	EXPANSION
EXT	EXTERIOR
EWBT	ENTERING WET BULB TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
FA	FACE AREA
FCU	FAN COIL UNIT
FCV	FLOW CONTROL VALVE
FD	FIRE DAMPER
FF	FINAL FILTER
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FLA	FULL LOAD AMP
FMD	FLOW MEASURING DEVICE
FPM	FEET PER MINUTE
FSD	FIRE AND SMOKE DAMPER
FSS	FLOW SENSING SWITCH
FT	FEET
FTR	FINNED TUBE RADIATION

ABBREVIATIONS

ABBREV.	DESCRIPTION
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GRD	GROUND
GPM	GALLON PER MINUTE
GRL	GRILLE
GSNK	GOOSENECK
HC	HEATING COIL
HX	HEAT EXCHANGER
HORIZ	HORIZONTAL
HP	HORSEPOWER
HP	HIGH PRESSURE
HPT	HIGH POINT
HTG	HEATING
HZ	HERTZ
IN	INCHES
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LD	LINEAR DIFFUSER
LDBT	LEAVING DRY BULB TEMPERATURE
LWBT	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M	MOTORIZED DAMPER
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBTU	BRITISH THERMAL UNIT (1000)
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPWT	OPERATING WEIGHT
P	PUMP
PA	PIPE ANCHOR
PCF	POUNDS PER CUBIC FOOT
PEN	PENETRATION
PERF	PERFORATOR
PL	PLATE
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH (ABSOLUTE)
PSIG	POUNDS PER SQUARE INCH (GAUGE)
RA	RETURN AIR
RD	RETURN DIFFUSER
RET	RETURN
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
S	STEAM TRAP
SA	SUPPLY AIR
SD	SUPPLY DIFFUSER
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SQ FT	SQUARE FEET
SRV	SAFETY RELIEF VALVE
SS	STEAM SEPARATOR
SST	STAINLESS STEEL
ST	SOUND ATTENUATOR
STL	STEEL
STM	STEAM
STRUCT	STRUCTURAL
TEMP	TEMPERATURE
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
TG	TRANSFER GRILLE
THK	THICK
TNL	TUNNEL
TYP	TYPICAL
UFD	UNDERFLOOR DUCT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VIF	VERIFY IN FIELD
W/	WITH
WB	WET BULB
WC	WATER COLUMN
WF	WATER FILTER
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
W/O	WITHOUT
WT	WEIGHT
WS	WATER SOFTENER

GENERAL MECHANICAL NOTES

1. EXACT LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS AND GRILLES DETAILED ON THE ARCHITECTURAL REFLECTIVE CEILING PLAN, AND ARCHITECTURAL ROOM ELEVATIONS.
2. THE LOCATION OF ALL STRUCTURAL OPENINGS SHALL BE AS INDICATED ON THE MECHANICAL, STRUCTURAL AND ARCHITECTURAL DRAWINGS. COORDINATE EXACT SIZES OF OPENINGS REQUIRED.
3. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, DAMPERS, VALVES AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
4. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF LOCAL REGULATIONS, PROCEDURES DETAILED IN THE ASHRAE HANDBOOK OF FUNDAMENTALS, OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.
5. DUCTWORK SHALL BE INSULATED PER SPECIFICATIONS OR AS NOTED ON DRAWINGS. ALL DUCT JOINTS AND SEAMS SHALL BE SEALED PER SPECIFICATIONS.
6. DUCT AND PLENUM SIZES INDICATED ON THE DRAWINGS ARE SHEET METAL DIMENSIONS.
7. MANUAL DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES AND IN ALL BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES AND REGISTERS.
8. CONTRACTOR SHALL FURNISH AND INSTALL CONCEALED DAMPER ACTUATORS AND DAMPER WHERE DAMPERS ARE INSTALLED IN INACCESSIBLE CEILINGS.
9. PROVIDE METAL COVER PLATES FOR ALL PIPES LOCATED AT FLOOR LEVEL TO PREVENT PIPE DAMAGE. PLATES SHALL NOT BE DAMAGED BY NORMAL MAINTENANCE TRAFFIC.
10. PROVIDE MANUAL AIR VENTS, DRAINS AND RELIEF VALVES AS REQUIRED AT THE HIGH AND LOW POINTS IN THE SYSTEM.
11. PROVIDE VALVED AND CAPPED CONNECTIONS FOR DRAINAGE AT ALL LOW POINTS OF PIPING SYSTEM.
12. MINIMUM PITCH SHALL BE SUFFICIENT TO INSURE ADEQUATE VENTING OR DRAINAGE.
13. CONTRACTOR SHALL COORDINATE INSTALLATION OF HORIZONTAL PIPE RUNS IN THE CEILING SLABS WITH ALL TRADES.
14. CONTRACTOR SHALL FIELD VERIFY CLEARANCE ABOVE THE CEILING AND NOTIFY THE ENGINEER ABOUT POSSIBLE CONFLICTS.
15. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES RELATING TO WORK TO VERIFY SPACE IN WHICH WORK WILL BE INSTALLED. MAINTAIN HEADROOM AND SPACE CONDITIONS AT ALL TIMES.
16. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE ALL WORK WITH ALL OTHER TRADES. THE SHOP DRAWINGS PREPARED BY THIS CONTRACTOR SHALL INDICATE SPACE ALLOWANCES FOR ALL WORK OF ALL OTHER TRADES AND SHALL BE SIGNED OFF BY ALL OTHER CONTRACTORS.
17. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE BUILDING CODE REQUIREMENTS AND PROVIDE ALL REQUIRED CONTROLLED INSPECTIONS FOR HIS WORK.
18. PROVIDE ESCUTCHEONS AND SEALING OF ALL PENETRATIONS OF FIRE SEPARATIONS IN ACCORDANCE WITH THE BUILDING CODE AND DETAIL DRAWINGS.
19. PROVIDE REDUCER FITTINGS FOR CHANGE IN PIPE SIZE AND FOR FINAL CONNECTION AT EQUIPMENT AND AS REQUIRED TO PERMIT DRAINAGE AND VENTING.
20. CONTRACTOR SHALL VERIFY ON-SITE ALL CONDITIONS AND MEASUREMENTS SHOWN ON CONTRACT DRAWINGS.
21. ALL SUPPORTS FOR MECHANICAL EQUIPMENT ARE BASED ON PRELIMINARY INFORMATION FROM ONE MANUFACTURER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING SIZES FROM CERTIFIED DRAWINGS OF EQUIPMENT BEING SUBMITTED AND SHALL MAKE ANY STRUCTURAL MODIFICATIONS REQUIRED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
22. ALL PIPING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISERS OF RUNS.
23. THERMOSTAT AND/OR HUMIDISTAT LOCATIONS SHALL BE COORDINATED WITH LIGHT SWITCHES. FINAL LOCATIONS OF THERMOSTAT AND/OR HUMIDISTAT SHALL BE COORDINATED WITH ARCHITECT AND ENGINEER.
24. MECHANICAL CONTRACTOR IS RESPONSIBLE TO FURNISH DISCONNECT SWITCHES AND MOTOR STARTERS FOR ALL HVAC EQUIPMENT. FOR INSTALLATION AND WIRING, MECHANICAL CONTRACTOR SHALL COORDINATE WITH DIVISION 16000.
25. MECHANICAL CONTRACTOR IS RESPONSIBLE TO INSTALL DUCT MOUNTED SMOKE DETECTOR AS INDICATED ON DESIGN DRAWINGS. DUCT MOUNTED SMOKE DETECTORS ARE FURNISHED AND WIRED BY ELECTRICAL SPECIFICATIONS..
26. INSTALL BREAK GLASS SWITCHES FOR EMERGENCY SHUTDOWN FOR CHILLER ROOM, BOILER ROOM, AND ALL REQUIRED PRESSURE VESSELS.
27. ALL NEW EQUIPMENT FURNISHED BY THE MECHANICAL CONTRACTOR SHALL BE MANUFACTURED INTO COMPONENTS THAT CAN BE MOVED INTO THE BUILDING THROUGH AVAILABLE BUILDING OPENINGS. IF ADDITIONAL BUILDING OPENINGS ARE REQUIRED, THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND MAKE ALL PROVISIONS TO MOVE EQUIPMENT INTO FINAL LOCATION.
28. WHERE EQUIPMENT AND/OR PIPING AND/OR DUCTWORK IS NOTED TO BE DEMOLISHED, COORDINATE WITH GENERAL CONTRACTOR PRIOR TO REMOVAL OR ENSURE THAT REMOVAL OR EQUIPMENT FALLS WITHIN PRESENT CONSTRUCTION LIMITS AND SCOPE OF WORK.
29. ALL STORED AND/OR PARTIALLY INSTALLED SHEET METAL, PIPING, AND EQUIPMENT SHALL BE PROTECTED FROM WEATHER. CONTRACTOR SHALL COVER OPEN ENDS AT END OF WORK DAY.

PLUMBING GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO ALL APPLICABLE LOCAL CODES AND REGULATIONS.
2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES RELATING TO WORK TO VERIFY SPACE IN WHICH WORK WILL BE INSTALLED. MAINTAIN HEADROOM AND SPACE CONDITIONS AT ALL TIMES.
3. COORDINATE PLUMBING SYSTEMS WITH WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS AND TRANSITIONS AS REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
4. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES. PROVIDE ALL FITTINGS, TRANSITIONS, VALVES AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
5. MAINTENANCE LABEL SHALL BE AFFIXED TO ALL PLUMBING EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED TO OWNER.
6. CONTRACTOR SHALL REFER TO ALL THE ARCHITECTURAL DRAWINGS FOR PLUMBING RELATED WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO ENTERING MANHOLES, USE OF WATER FROM LOW PRESSURE HYDRANTS, DEMOLITION AND NEW WORK, ETC. PRIOR TO COMMENCEMENT OF WORK.
8. WHERE EQUIPMENT AND/OR PIPING IS NOTED TO BE DEMOLISHED, COORDINATE WITH GENERAL CONTRACTOR PRIOR TO REMOVAL TO ENSURE THAT REMOVAL OF EQUIPMENT FALLS WITHIN PRESENT CONSTRUCTION LIMITS AND SCOPE OF WORK.
9. PLUMBING CONTRACTOR IS RESPONSIBLE TO FURNISH DISCONNECT SWITCHES AND MOTOR STARTERS FOR ALL PLUMBING EQUIPMENT. FOR INSTALLATION AND WIRING, PLUMBING CONTRACTOR SHALL COORDINATE WITH ELECTRICAL SPECIFICATIONS.

MECHANICAL SHEET METAL SYMBOLS

- EXISTING DUCTWORK TO REMAIN
- EXISTING DUCTWORK TO BE REMOVED
- NEW DUCTWORK
- HAND DAMPER IN DUCT
- HAND DAMPER IN CONCEALED DUCT W/ CONCEALED DAMPER ACTUATOR
- HUMIDIFIER IN DUCT
- FIRE DAMPER WITH HINGED ACCESS DOOR (B) DENOTES 'B' STYLE DAMPER
- SMOKE DAMPER WITH HINGED ACCESS DOOR
- COMBINATION FIRE/SMOKE DAMPER WITH HINGED ACCESS DOOR
- RECTANGULAR TO ROUND BRANCH CONNECTION FROM MAIN DUCT
- RECTANGULAR TO ROUND BRANCH CONNECTION FROM MAIN DUCT WITH HAND DAMPER IN ROUND SECTION
- RECTANGULAR TO ROUND TRANSITION
- RECTANGULAR TO ROUND TRANSITION WITH HAND DAMPER
- S-2412 / 300 — ROUND NECK SUPPLY SIFFUSER. "S" DENOTES DIFFUSER TYPE ON DIFFUSER SCHEDULE. "2412" DENOTES 24"x24" FACE SIZE AND 12"ø NECK SIZE. "300" DENOTES CFM. ARROWS INDICATE DIRECTION OF THROW. NO ARROWS INDICATE 4-WAY THROW.
- SA-12x12 / 400 — CEILING SUPPLY OUTLET. (SA) DENOTES DIFFUSER TYPE, (12x12) DENOTES SIZE, (400) DENOTES CFM. ARROWS INDICATE DIRECTION OF THROW. NO ARROWS INDICATE 4-WAY THROW.
- E-12x12 / 400 — CEILING RETURN OR EXHAUST GRILLE. (E) DENOTES GRILLE TYPE. (12x12) DENOTES SIZE, (300) DENOTES CFM.
- W-18x12 / 400 — WALL SUPPLY GRILLE. (W) DENOTES GRILLE TYPE, (18x12) DENOTES SIZE, (400) DENOTES CFM.
- E-12x12 / 400 — WALL EXHAUST OR RETURN GRILLE. (E) DENOTES GRILLE TYPE, (12x12) DENOTES SIZE, (400) DENOTES CFM.
- SL-48x2.5-12"ø / 300 — CEILING SLOT DIFFUSER WITH LINED PLENUM. (SL) DENOTES DIFFUSER TYPE, (48x2.5) DENOTES DIFFUSER LENGTH x SLOT WIDTH, 12"ø DENOTES PLENUM CONNECTION SIZE.
- R-12x12 — CEILING RETURN GRILLE WITH LINED BOOT ABOVE. FINISH CEILING - FREE AREA OF BOOT = 2/3 OF GRILLE FACE. (R) DENOTES GRILLE TYPE.
- LINED RETURN AIR BOOT, WITH NO TURNING VANES, ABOVE CEILING - SIZE OF BOOT IS INDICATED ON DRAWINGS

MECHANICAL PIPING SYMBOLS

- EXISTING PIPING TO REMAIN
- EXISTING PIPING TO BE REMOVED
- NEW PIPING
- LPS — STEAM SUPPLY (LOW PRESSURE)
- LPR — STEAM RETURN (LOW PRESSURE)
- RS — REFRIGERANT SUCTION PIPING
- RL — REFRIGERANT LIQUID PIPING
- HG — HOT GAS PIPING
- CD — CONDENSATE DRAIN PIPING
- T — THERMOSTAT
- H — HUMIDISTAT
- CONNECTION - NEW TO EXISTING
- SHUT-OFF VALVE
- GLOBE VALVE
- CHECK VALVE (SWING OR CUSHION)
- CONTROL VALVE
- LUBRICATED PLUG COCK
- SOLENOID VALVE
- PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- WYE STRAINER
- UNION
- DIRECTION OF FLOW IN PIPES
- DIRECTION OF PITCH IN PIPES
- RISE AND DROP IN PIPING
- BRANCH PIPING CONNECTION (TOP OF PIPE)
- BRANCH PIPING CONNECTION (BOTTOM OF PIPE)
- WELDED ELBOW

PLUMBING SYMBOLS

- C — COLD WATER PIPING
- H — HOT WATER PIPING
- HC — HOT WATER CIRCULATING PIPING
- VENT PIPING
- WASTE PIPING
- LP — PROPANE PIPING
- SC — SOFT COLD WATER PIPING
- PD — PUMP DISCHARGE
- CO — CLEANOUT
- FCO — FLUSH CLEANOUT
- FS — FLOOR SINK
- FD — FLOOR DRAIN
- FD — FLOOR DRAIN
- FFD — FLOOR DRAIN WITH FUNNEL
- SFD — SAFE WASTE FLOOR DRAIN
- HB — HOSE BIBB
- WH — WALL HYDRANT
- VTR — VENT THRU ROOF
- SHUT-OFF VALVE
- BALANCING VALVE
- GLOBE VALVE
- CHECK VALVE (SWING OR CUSHION)
- CONTROL VALVE
- LUBRICATED PLUG COCK
- SOLENOID VALVE
- PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- WYE STRAINER
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- DIRECTION OF FLOW IN PIPES
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- RISE AND DROP IN PIPING
- BRANCH PIPING CONNECTION (TOP OF PIPE)
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MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI · BRUCE ELDON HART · NUMBER E-22817 · PROFESSIONAL ENGINEER
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Bruce E. Hart - Engineer
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Missouri State Certificate of Authority: #000396

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

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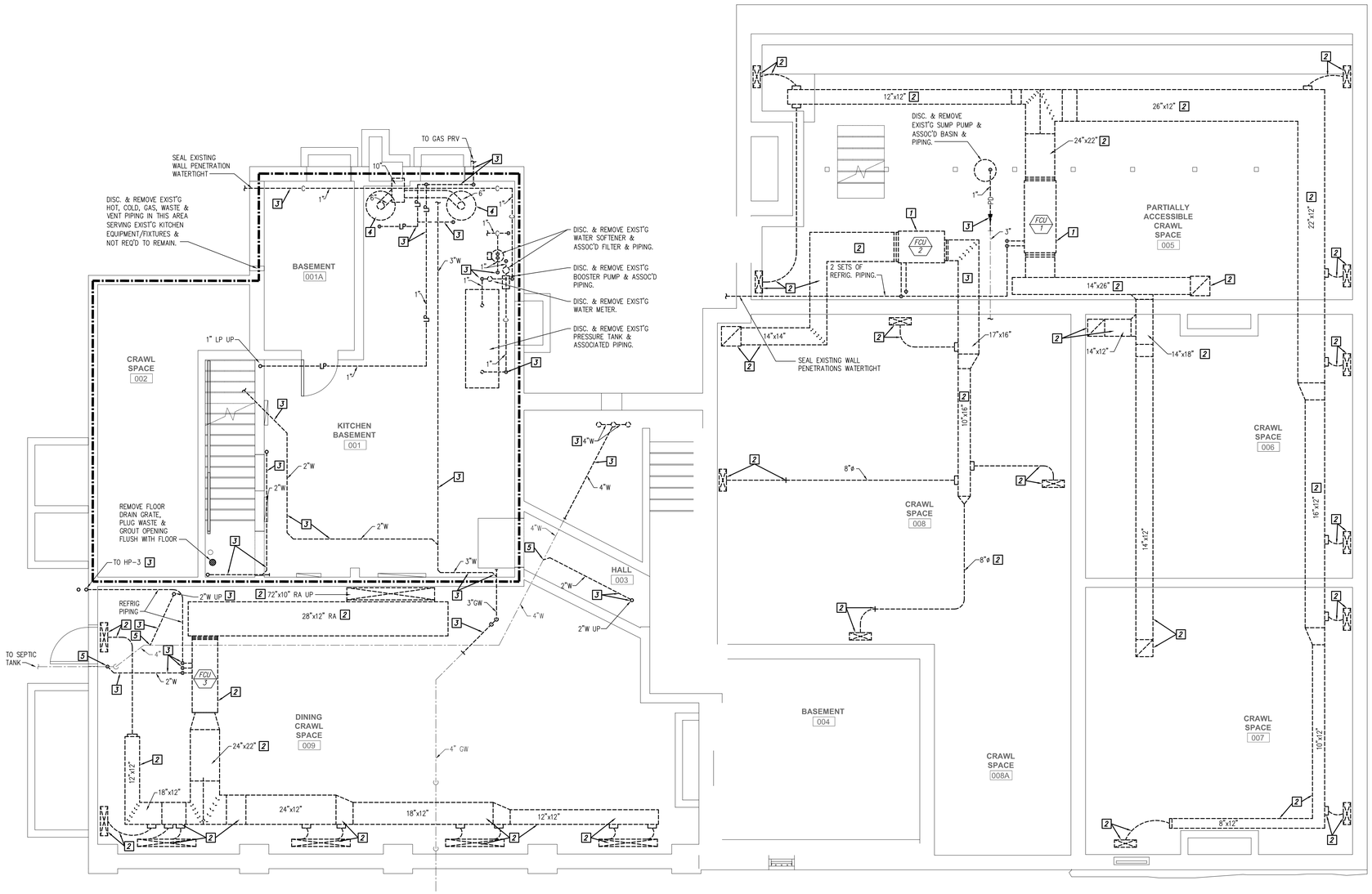
SHEET TITLE:
MECH/PLUMB. GEN. NOTES, SYMBOLS & ABBREVIATIONS

SHEET NUMBER:

PM000

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CONSTRUCTION DOCUMENTS
MAY 12, 2020

2019-175 PM000.dwg



1 BASEMENT PLUMBING/MECHANICAL DEMOLITION PLAN

GENERAL NOTES:

1. THIS IS A HISTORIC OCCUPIED BUILDING. GREAT CARE MUST BE TAKEN TO PROTECT EXISTING CONDITIONS TO REMAIN.
2. DEMO ALL WORK NOT REQUIRED TO REMAIN WHETHER SHOWN DEMOED OR NOT.

KEYED NOTES:

1. DISC. & REMOVE EXISTING FAN COIL UNIT & ASSOCIATED REFRIGERANT PIPING & DUCTWORK. SALVAGE FCU-1 & TURN OVER TO OWNER.
2. DISC. & REMOVE EXISTING DUCTWORK.
3. DISC. & REMOVE EXISTING PIPING.
4. DISC. & REMOVE EXISTING WATER HEATER & ASSOCIATED PIPING AND FLUE.
5. CAP DEMOED PIPING AT MAIN.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI · BRUCE ELDON HART · NUMBER E-22817 · PROFESSIONAL ENGINEER

05/12/2020

Bruce E. Hart - Engineer
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REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
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DESIGNED BY: SGB

SHEET TITLE:
BASEMENT PLUMB. & MECH. DEMOLITION PLAN

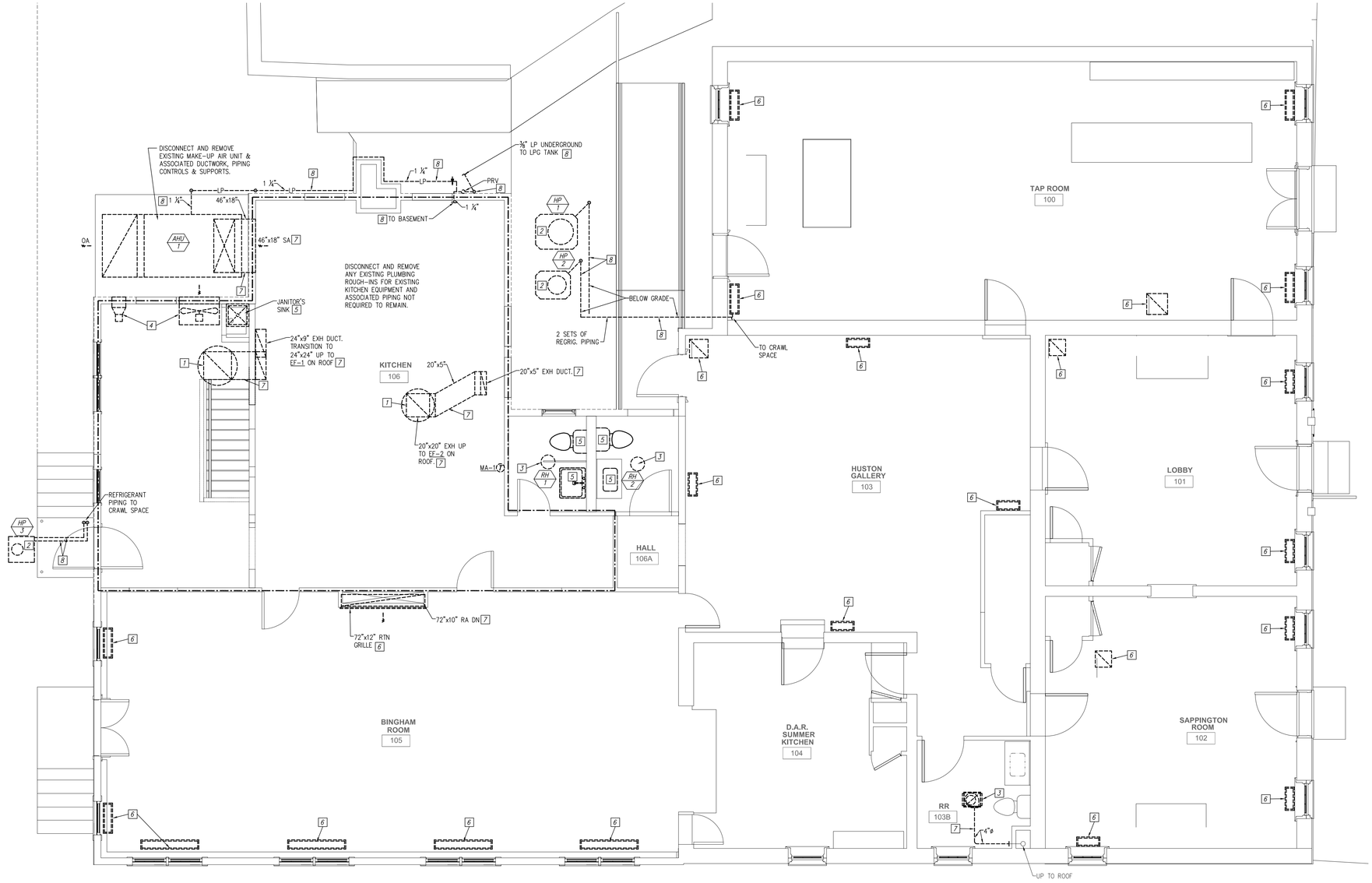
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1 FIRST FLOOR PLUMBING/MECHANICAL DEMOLITION PLAN

N

0' 2' 4' 8' 16'

GENERAL NOTES:

1. THIS IS A HISTORIC OCCUPIED BUILDING. GREAT CARE MUST BE TAKEN TO PROTECT EXISTING CONDITIONS TO REMAIN.
2. DEMO ALL WORK NOT REQUIRED TO REMAIN WHETHER SHOWN DEMOED OR NOT.

KEYED NOTES:

1. DISCONNECT AND REMOVE EXISTING ROOF MOUNTED EXHAUST FANS AND ASSOCIATED DUCT WORK.
2. DISCONNECT AND REMOVE EXISTING HEAT PUMP AND ASSOCIATED REFRIGERANT PIPING. SALVAGE HP-1 AND TURN OVER TO THE OWNER.
3. DISCONNECT AND REMOVE EXISTING CEILING EXHAUST FAN.
4. DISCONNECT AND REMOVE EXISTING PROPELLER EXHAUST FAN AND ASSOCIATED BACKDRAFT DAMPER.
5. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE AND ASSOCIATED PIPING NOT REQUIRED TO REMAIN.
6. DISCONNECT AND REMOVE EXISTING FLOOR OR WALL GRILLE. CLEAN & SALVAGE FOR REINSTALLATION.
7. DISCONNECT AND REMOVE EXISTING DUCTWORK.
8. DISCONNECT AND REMOVE EXISTING PIPING.

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05/12/2020

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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION: △
DATE:
REVISION: △
DATE:
REVISION: △
DATE:
ISSUE DATE: 5/12/2020

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DRAWN BY: SGB
CHECKED BY: SGB
DESIGNED BY: SGB

SHEET TITLE:
FIRST FLOOR PLUMB. & MECH. DEMOLITION PLAN

SHEET NUMBER:

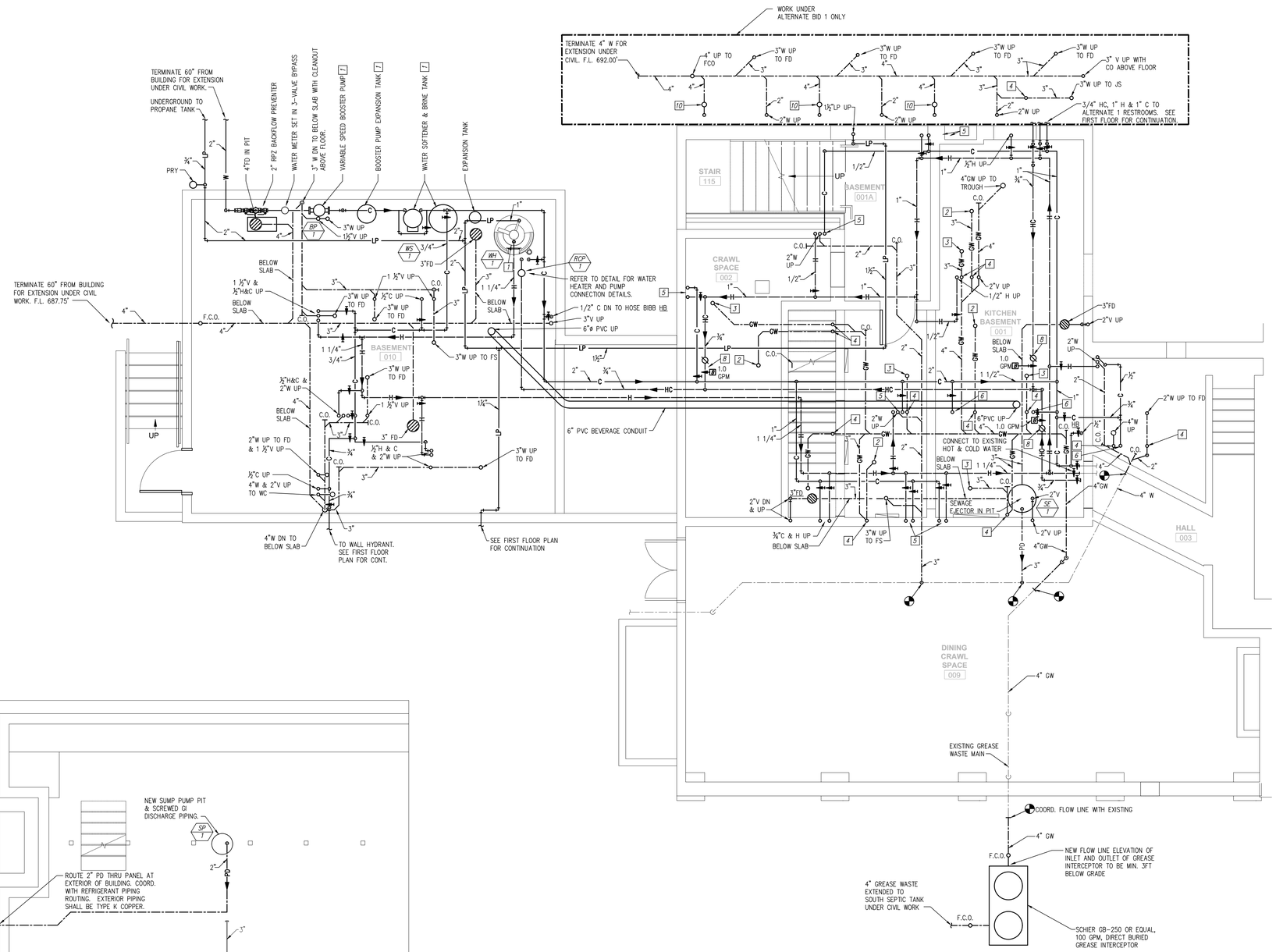
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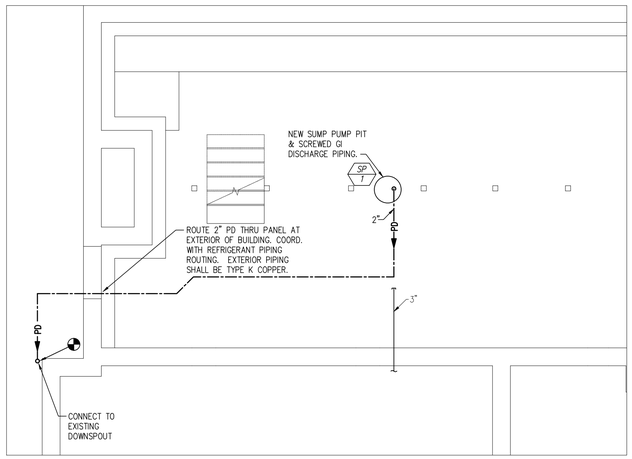
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1 PARTIAL BASEMENT PLUMBING PLAN - NORTH

0' 2' 4' 8' 16'

1 BASEMENT PLUMBING PLAN - SOUTH

0' 2' 4' 8' 16'

GENERAL NOTES:

1. REFER TO SHEET PM000 FOR ADDITIONAL NOTES AND SYMBOLS LISTS.
2. COORDINATE VERY CAREFULLY W/EXISTING CONDITIONS & OTHER WORK BEFORE ROUTING & FABRICATION.
3. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION RELATED TO FOOD SERVICE REQUIREMENTS.

KEYED NOTES:

[7] MOUNT EQUIPMENT ON 4" MIN, HIGH CONCRETE HOUSE KEEPING PAD.

[2] 3"GW UP TO FLOOR DRAIN.

[3] 3"GW UP TO FLOOR SINK.

[4] 1 ½"V UP.

[5] ½"H & C UP.

[6] ½"C UP.

[7] HOT AND COLD WATER UP TO KITCHEN EQUIPMENT. REFER TO P102 AND FOOD SERVICE DRAWINGS FOR CONNECTION DETAILS AND SIZING.

[8] PROVIDE BALANCE VALVE AND CHECK VALVE FOR HOT WATER CIRC. PIPING AND BALANCE TO GPM SHOWN. FUTURE EXTENSION OF HOT CIRC. LOOP TO BE BALANCED AT LATER DATE.

[9] 3" W UP TO FLOOR DRAIN

[10] 4" W UP TO WATER CLOSET. PROVIDE 2" VENT.

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SHEET TITLE:
BASEMENT PLUMBING PLANS

SHEET NUMBER:

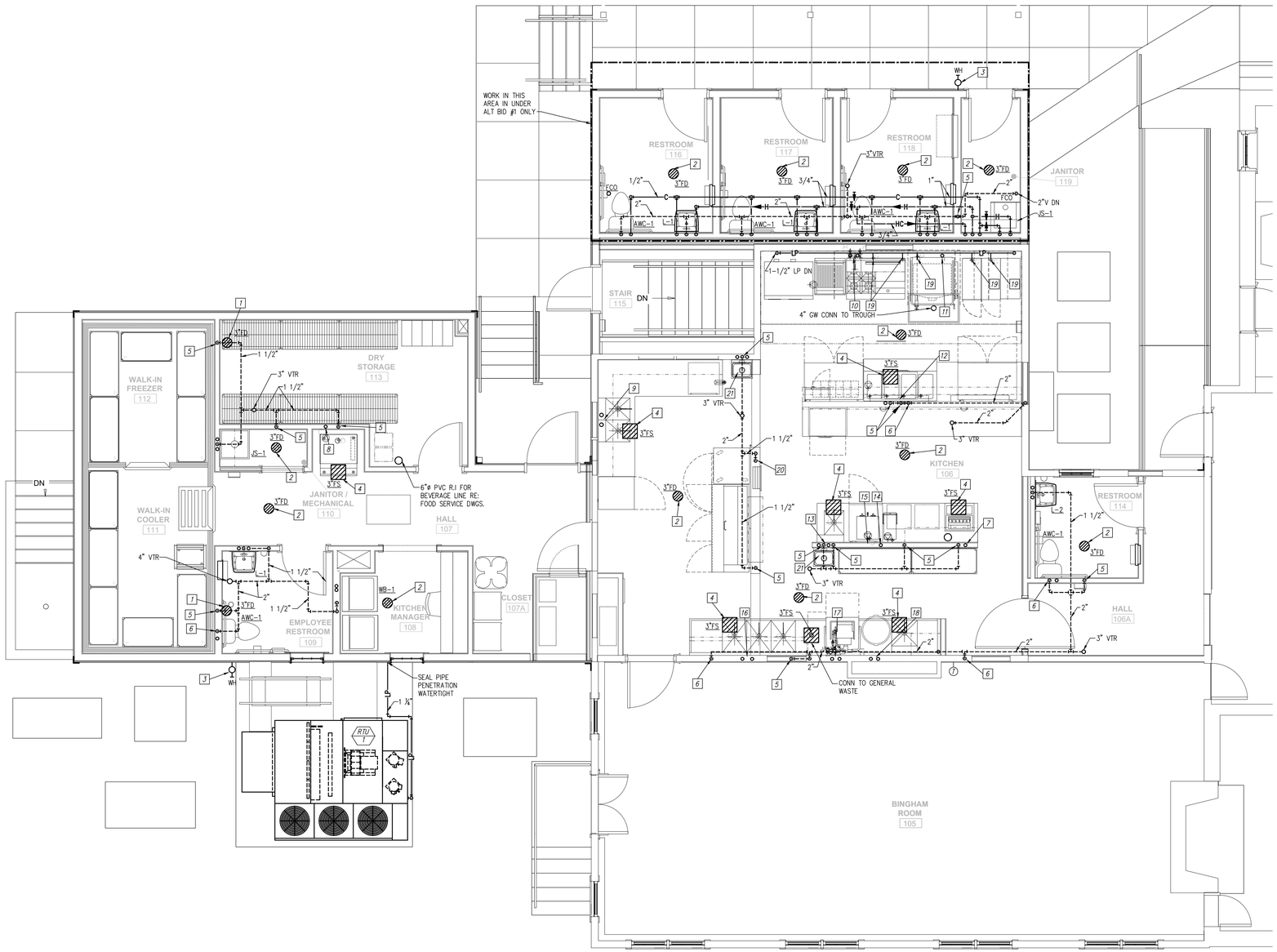
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1 FIRST FLOOR PLUMBING/MECHANICAL PLAN - SOUTH

0' 2' 4' 8' 16'

GENERAL NOTES:

1. REFER TO SHEET PM000 FOR ADDITIONAL NOTES AND SYMBOLS LISTS.
2. COORDINATE VERY CAREFULLY W/EXISTING CONDITIONS & OTHER WORK BEFORE ROUTING & FABRICATION.
3. REFERENCE FOOD SERVICE DRAWINGS FOR CONNECTIONS TO KITCHEN EQUIPMENT.

KEYED NOTES:

1. 3" CAST IRON FUNNEL FLOOR DRAIN W/ NICKEL BRONZE GRATE. CONNECT TO GENERAL WASTE PIPING. FURNISH W/ PROSET TRAP GUARD OR EQUIVALENT.
2. 3" CAST IRON FLOOR DRAIN W/ NICKEL BRONZE TOP CONNECTED TO GENERAL WASTE. FURNISH W/ PROSET TRAP GUARD OR EQUAL INSERT.
3. COORDINATE WALL HYDRANT LOCATION WITH ARCH. SEAL AROUND TOP AND SIDES OF COVER.
4. WADE 9150 OR EQUAL 12"X12" CAST IRON, ENAMELED, 10" DEEP SUMP FLOOR SINK. FURNISH W/ PROSET TRAP GUARD OR EQUAL INSERT. CONNECT TO GREASE WASTE UNLESS NOTED OTHERWISE.
5. 1 1/2" VENT DN.
6. 2" VENT DN.
7. KITCHEN ITEM #7, PROVIDE 1/2" C STUB OUT FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVE AS REQUIRED.
8. KITCHEN ITEM #8, PROVIDE 1/2" C STUB OUT FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVE AS REQUIRED. ROUTE INDIRECT WASTE TO FLOOR SINK AS REQUIRED.
9. KITCHEN ITEM #13, PROVIDE 1/2" C AND 1/2" H STUB OUTS FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVES AS REQUIRED. ROUTE INDIRECT WASTE TO FLOOR SINK AS REQUIRED.
10. KITCHEN ITEM #25A, PROVIDE 1/2" C AND 1/2" H STUB OUTS FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVES AS REQUIRED.
11. KITCHEN ITEM #26, PROVIDE 1/2" C STUB OUT FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVE AS REQUIRED.
12. KITCHEN ITEM #35, PROVIDE 1/2" H STUB OUT FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVE AS REQUIRED. ROUTE INDIRECT WASTE TO FLOOR SINK AS REQUIRED. COMBINE VENT PIPING BELOW COUNTER, 6" A.F.F. AND ROUTE HORIZONTAL TO WALL.
13. KITCHEN ITEM #42, PROVIDE 1/2" C AND 1/2" H STUB OUTS FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVES AS REQUIRED. ROUTE INDIRECT WASTE TO FLOOR SINK AS REQUIRED.
14. KITCHEN ITEM #47, PROVIDE 1/2" C STUB OUT FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVE AS REQUIRED.
15. KITCHEN ITEM #48, PROVIDE 1/2" C STUB OUT FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVE AS REQUIRED.
16. KITCHEN ITEM #49, PROVIDE 1/2" C AND 1/2" H STUB OUTS FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVES AS REQUIRED. ROUTE INDIRECT WASTE TO FLOOR SINK AS REQUIRED.
17. KITCHEN ITEM #51, PROVIDE 1/2" C AND 1/2" H STUB OUTS FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVES AS REQUIRED. ROUTE INDIRECT WASTE TO FLOOR SINK AS REQUIRED.
18. KITCHEN ITEM #52, PROVIDE 1/2" C AND 1/2" H STUB OUTS FOR EQUIPMENT CONNECTION. PROVIDE ISOLATION VALVES AS REQUIRED. ROUTE INDIRECT WASTE TO FLOOR SINK AS REQUIRED.
19. PROVIDE LP CONNECTION TO KITCHEN EQUIPMENT. INCLUDE ISOLATION VALVE AND INSTALL KITCHEN VENDOR PROVIDED REGULATOR AS REQUIRED.
20. COMBINE 1-½" VENTS DN ABOVE FLOOR.
21. KITCHEN ITEM #18, PROVIDE 1/2" C, 1/2" H, AND 2" WASTE CONNECTION FOR HAND SINK. PROVIDE ISOLATION VALVES AS REQUIRED.

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DESIGNED BY: SGB

SHEET TITLE:
FIRST FLOOR PLUMBING PLAN SOUTH

SHEET NUMBER:

P102

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MAY 12, 2020

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PUMP SCHEDULE

PUMP MARK	LOCATION	SERVICE	MANUFACTURER	TYPE OF PUMP	CATALOG NUMBER	GPM	PUMP HEAD (FT)	PUMP MOTOR DATA			MOTOR CONTROL DATA			EXPANSION TANK		REMARKS
								MIN. HP	RPM	VOLTS/PHASE	STARTER/ DISC. SWITCH	LOCAL CONTROL DEVICES @ STARTER	MISC. CONTROL & DEVICES	TOTAL MIN. ACC. FACTOR	GALLONS	
BP-1	BASEMENT 010	DOMESTIC WATER	GOULDS	VARIABLE SPEED BOOSTER	10SV3TF4F60V32	40	130	3	3500	208/3	INTEGRAL VFD/ NON FUSED DISC. SW	HOA SWITCH IN DRIVE CABINET	PRESSURE SENSOR IN SET @ 30PSI (ADJ.)	0.77	44	PUMP TO INCLUDE INTEGRATED CONTROLS. ALSO PROVIDE WITH WESSELS FXT 403 HYDRO-PNEUMATIC PRESSURE TANK, CHARGED TO 70PSI.
RCP-1	BASEMENT 010	WATER HEATER	BELL & GOSSETT	IN-LINE	NBF-25	3	15	125W	2950	120/1	---	THERMAL MOTOR STARTER SWITCH	CLAMP ON ADJUSTABLE ELECTRIC AQUASTAT AND TIMER TO START PUMP MOTOR	---	---	
SE-1	KITCHEN BASEMENT 001	SEWAGE EJECTOR	WEIL	SUBMERSIBLE	1408	30	20	1/3	1750	120/1	---	THERMAL MOTOR STARTER SWITCH	8245 PIGGY BACK FLOAT SWITCH AND SEE WATER HLA-4X ALARM.	---	---	PROVIDE WITH 24" DIA. BY 48" DEEP FIBERBASIN WITH 8805 WET WELL COVER AND DISCHARGE CHECK VALVE AND UNION. BASIN TO INCLUDE WASTE CONNECTIONS AS SHOWN ON PLAN. COORD. SIZE AND LOCATIONS.
SP-1	CRAWL SPACE 005	SUMP PUMP	WEIL	SUBMERSIBLE	1408	15	15	1/3	1750	120/1	---	THERMAL MOTOR STARTER SWITCH	8245 PIGGY BACK FLOAT SWITCH AND SEE WATER HLA-4X ALARM.	---	---	PROVIDE WITH 24" DIA. BY 24" DEEP FIBERBASIN WITH 8805 WET WELL COVER AND DISCHARGE CHECK VALVE AND UNION. BASIN TO INCLUDE TWO 4" SIDE INLETS FOR POTENTIAL CONNECTION TO SUB SOIL DRAIN.

NOTES:
1. MANUFACTURER LISTED IS BASIS OF DESIGN, REFER TO SPECIFICATIONS FOR ALTERNATE APPROVED MANUFACTURERS.

WATER SOFTENER									
MARK	LOCATION	MANUFACTURER	MODEL	CONTINOUS GPM PER TANK	CONTINOUS PRESSURE DROP	WATER HARDNESS (GRAINS)		TANK SIZE		REMARKS
						INCOMING	LEAVING	SOFTENER TANK	BRINE TANK	
WS-1	BASEMENT 010	CUSTOM CARE	C43-0120.20	48	15		1.0	16"x65"	24"x41"	

NOTES:
1. SET ON 4" CONCRETE HOUSEKEEPING PAD
2. MANUFACTURER LISTED IS BASIS OF DESIGN, REFER TO SPECIFICATIONS FOR ALTERNATE APPROVED MANUFACTURERS.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	DESCRIPTION	ACCESSORIES	MANUFACTURER & MODEL No.	CONNECTION SIZE			
					WASTE	VENT	HOT	COLD
WB-1	SPACE SAVER BOX	RECESSED BOX FOR WASHING MACHINE SUPPLIES & DRAIN. ½" HOT AND COLD WATER & 2" DRAIN CONNECTIONS. PROVIDE HOSE OUTLET, VALVES ON HOT AND COLD WATER SUPPLIES. MOUNT LOWER LIP 36" ABOVE FLOOR OR AS NOTED ON ARCHITECTURAL DRAWINGS. PROVIDE STANDPIPE WITH 2" "P" TRAP.	WATTS NO. 8A VACUUM BREAKERS ON OUTLETS. AMERICAN STANDARD NO. 7583-016 SCREWDRIVER STOPS AND BRASS ESCUTCHEONS.	GUY-GRAY NO. BB-200TS	2"	1-1/2"	1/2"	1/2"
L-1	ACCESSIBLE LAVATORY	VITREOUS CHINA LAVATORY WITH INTEGRAL BACK, FRONT OVERFLOW, SIDE SPLASH SHIELDS FOR CONCEALED ARMS AND SINGLE FAUCET HOLE. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.	SYMMONS SLS 3510-05 SINGLE HOLE FAUCET, 4" SPOUT, SINGLE LEVER HANDLE WITH CERAMIC DISC CARTRIDGE & NO. E12 AERATOR. ELKAY NO LK-8 STAINLESS STEEL GRID STRAINER & 1-½" STAINLESS STEEL TAILPIECE. DEARBORN NO. 510 1-½" 17 GAUGE "P" TRAP WITH ADAPTER FOR 1-½" TAILPIECE, CLEANOUT & ESCUTCHEONS. DEARBORN NO. 2712 SCW HOT AND COLD WATER COMPRESSION INLET SUPPLIES WITH STOPS WITH LEONARD 170-LF THERMOSTATIC MIXING VALVE.	AMERICAN STANDARD NO. 0954.904EC "MURRO" WALL HUNG LAVATORY.	1-½"	1-½"	½"	½"
L-2	ACCESSIBLE LAVATORY	VITREOUS CHINA LAVATORY WITH INTEGRAL BACK, FRONT OVERFLOW, SIDE SPLASH SHIELDS FOR CONCEALED ARMS AND SINGLE FAUCET HOLE. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.	SYMMONS SLS 3510-05 SINGLE HOLE, 4" SPOUT, SINGLE LEVER HANDLE WITH CERAMIC DISC CARTRIDGE & NO. E12 AERATOR. ELKAY NO LK-8 STAINLESS STEEL GRID STRAINER & 1-½" STAINLESS STEEL TAILPIECE. DEARBORN NO. 510 1-½" 17 GAUGE "P" TRAP WITH ADAPTER FOR 1-½" TAILPIECE, CLEANOUT & ESCUTCHEONS. DEARBORN NO. 2712 SCW HOT AND COLD WATER COMPRESSION INLET SUPPLIES WITH STOPS WITH LEONARD 170-LF THERMOSTATIC MIXING VALVE.	AMERICAN STANDARD NO. 0355.12 "LUCERNE" WALL HUNG LAVATORY.	1-½"	1-½"	½"	½"
AWC-1	ACCESSIBLE TANK TYPE WATER CLOSET	1.6 GPF SIPHON JET ACTION, ELONGATED BOWL, FLOOR MOUNTED, CLOSE-COUPLED TANK, VITREOUS CHINA, AND ADAAG COMPLIANT AT 16-½" HIGH. RIGHT OR LEFT HANDLE PER ADAAG.	CHURCH 9400 SSC ELONGATED OPEN FRONT SEAT (LESS COVER) STAINLESS STEEL HINGE WITH CHECK STOP, TRIP LEVER, VACUUM BREAKER AND STOPS. FLOOR MOUNTING KIT. SECURELY BOLT FIXTURE TO FLOOR. FURNISH WITH FLOOR FLANGE AND WAX RING.	AMERICAN STANDARD 4188 "CADET PRO - RIGHT HEIGHT" ADAAG MODEL	4"	2"	---	½"
JS-1	JANITOR SINK	24"x24"x12" MOLDED-STONE FLOOR SERVICE SINK WITH STAINLESS STEEL CAP 3" CAST BRASS DRAIN AND STAINLESS STEEL STRAINER PLATE.	FIAT SERVICE SINK FAUCET 830-AA, WALL MOUNTED 8" CENTER TO CENTER, FOUR ARM HANDLES , CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND ¾" HOSE THREAD ON SPOUT. CAULK BETWEEN WALL AND FLANGE WITH G.E. SILICONE SEALANT.	FIAT MSB 2424 MOP SERVICE BASIN.	3"	2"	1/2"	1/2"
WH	WALL HYDRANT	ENCASED, NON-FREEZE, FLUSH WALL HYDRANT WITH BRONZE CASING.	NON FREEZE WALL HYDRANT WITH ALL BRONZE INTERIOR PARTS, NON-TURNING OPERTATING ROD WITH FREE FLOATING COMPRESSION CLOSURE VALVE, NICKEL BRONZE BOX AND HINGED COVER WITH OPERATION KEY LOCK AND "WATER" CAST ON COVER.	ZURN Z1305	---	---	---	¾"
HB	HOSE BIBB	EXPOSED WALL FAUCET, FOR MODERATE CLIMATE	EXPOSED, ANTI-SIPHON, WALL FAUCET WITH EXTERNAL VACUUM BREAKER, ALL BRONZE INTERIOR COMPONENTS, VANDAL-RESISTANT OPERATING STEM, ROUGH BRONZE EXTERIOR AND ¾" MALL HOSE CONNECTION, CAST IRON METAL HANDLE.	ZURN Z1341	---	---	---	¾"

ROOF DRAIN & AREA DRAINS SCHEDULE

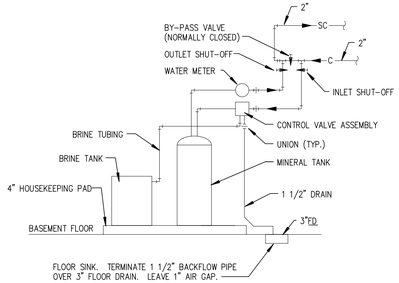
MARK	FIXTURE	DESCRIPTION	MANUFACTURER & MODEL No.	CONN. SIZE	
				WASTE	VENT
FD	FLOOR DRAIN ABOVE GRADE	CAST IRON DRAIN WITH INTEGRAL CLAMPING COLLAR, SEEPAGE OPENINGS AND 7" MINIMUM DIAMETER SATIN NICKEL BRONZE STRAINER WITH VANDAL PROOF SCREW. PROVIDE WITH PROSET TRAP GUARD INSERT OR EQUAL.	WADE 1100 SERIES	AS NOTED ON DRWG'S	AS NOTED ON DRWG'S
FD	FLOOR DRAIN BELOW GRADE	CAST IRON DRAIN WITH INTEGRAL TRAP WITH INTEGRAL CLAMPING COLLAR, SEEPAGE OPENINGS AND 7" MINIMUM DIAMETER SATIN NICKEL BRONZE STRAINER WITH VANDAL PROOF SCREW. PROVIDE WITH PROSET TRAP GUARD INSERT OR EQUAL.	WADE 1120 SERIES	AS NOTED ON DRWG'S	AS NOTED ON DRWG'S
FS	FLOOR SINK	CAST IRON 12"x12"x10" DEEP FLOOR SINK WITH ENAMELED ACID RESISTANT INTERIOR COATING WITH VANDAL PROOF SCREW FOR GRATING. PROVIDE WITH FUNNEL AS NOTED ON PLANS AND INCLUDE ALL WITH PROSET TRAP GUARD INSERT OR EQUAL.	ZURN Z1902	AS NOTED ON DRWG'S	AS NOTED ON DRWG'S

WATER HEATER SCHEDULE

WH 01

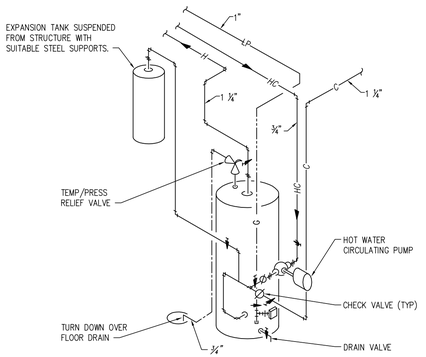
PLAN MARK	MANUF.	MODEL NUMBER	CAPACITY GAL	RECOVERY GPH (100° RISE)	MBH		EXPANSION TANK			
					INPUT	OUTPUT	MANUF.	MODEL	TANK VOL. GAL.	ACCEPTANCE VOL. GAL.
WH-1	A.O. SMITH	BTH-300	119	349	300	288	WESSELS	TTA-30	15	10

NOTES:
1. PROVIDE WITH CONDENSATE NEUTRALIZER KIT
2. MANUFACTURER LISTED IS BASIS OF DESIGN, REFER TO SPECIFICATIONS FOR ALTERNATE APPROVED MANUFACTURERS.



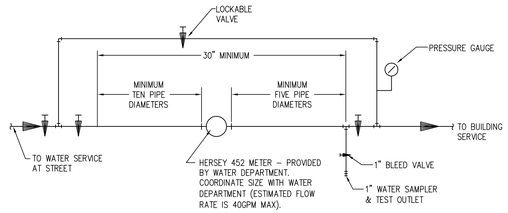
SKETCH OF CONNECTIONS FOR WATER SOFTENER

NOT TO SCALE



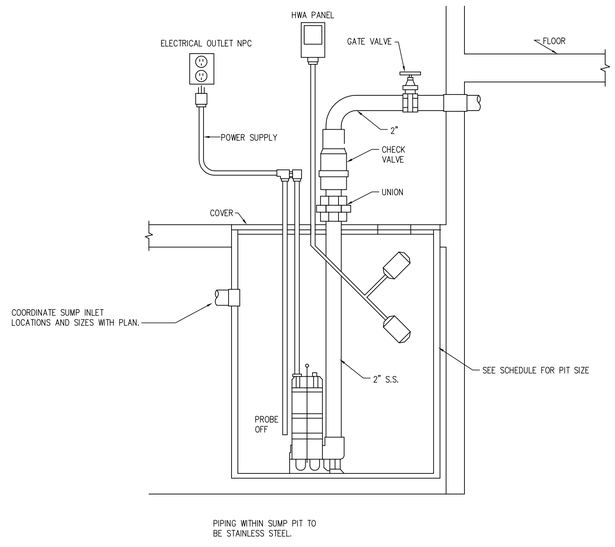
SKETCH OF CONNECTIONS TO LP WATER HEATER

NOT TO SCALE



SKETCH OF CONNECTIONS FOR WATER METER

NOT TO SCALE



SEWAGE EJECTOR SUMP PUMP DETAIL

NOT TO SCALE

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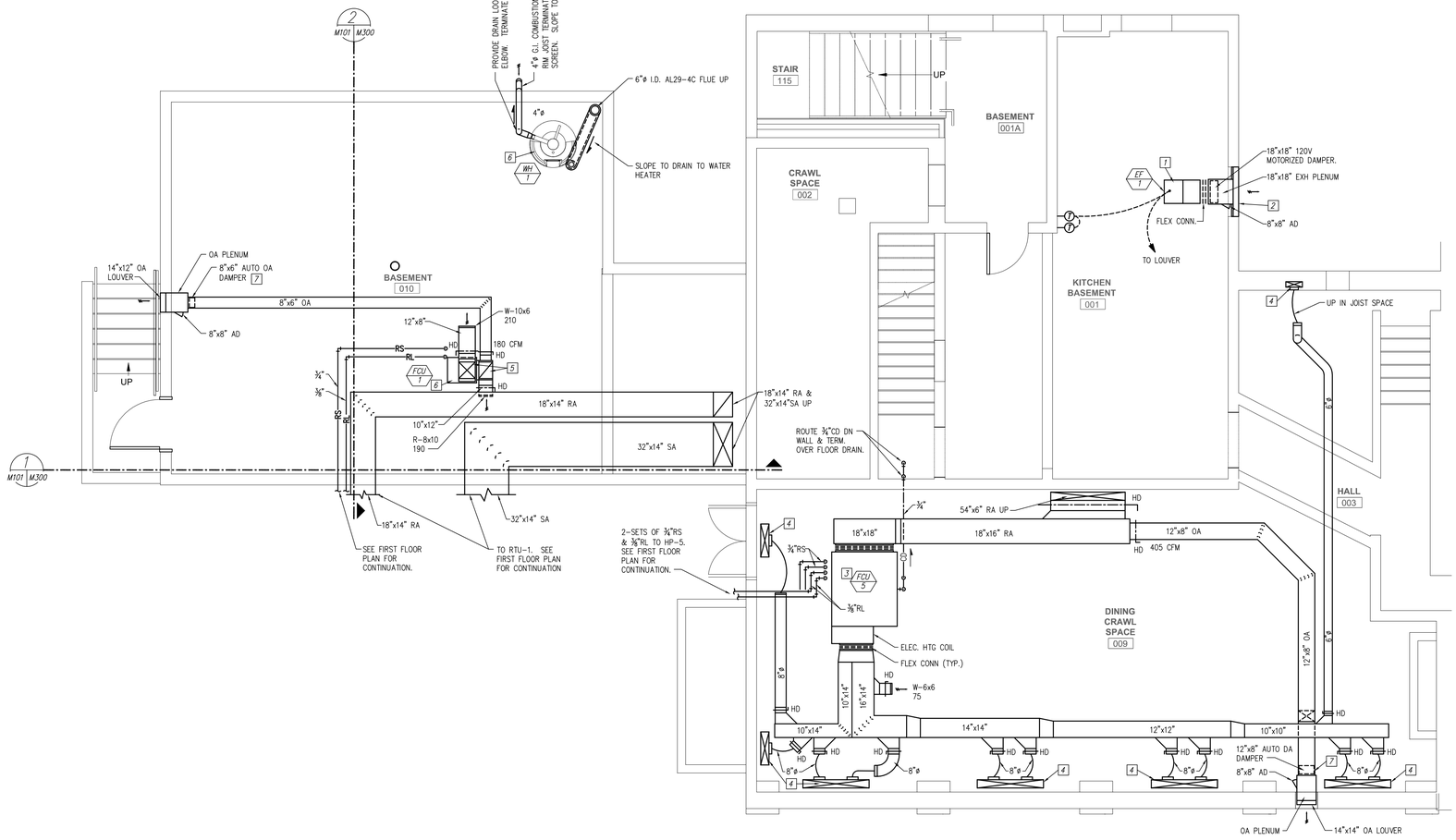
SHEET TITLE:
PLUMBING SCHEDULES & DETAILS

SHEET NUMBER:

PE500

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2019-175 PE500.dwg



1 BASEMENT MECHANICAL PLAN - SOUTH

0' 2' 4' 8' 16'

GENERAL NOTES:

1. CAREFULLY COORDINATE WITH EXISTING CONDITIONS AND OTHER WORK BEFORE ROUTING AND FABRICATION.
2. EXISTING CRAWL SPACE SHALL BE EXCAVATED AS REQ'D TO MAINTAIN MINIMUM CLEARANCE BELOW EQUIPMENT & DUCTWORK OF 12".

KEYED NOTES:

7 PROPELLER EXHAUST FAN W/OSHA INTAKE & DISCHARGE WIRE GUARDS & FLEX CONNECTION. SUSPEND FAN FROM STRUCTURE W/SUITABLE STEEL RODS & SPRING ISOLATORS.

2 33"x24" EXHAUST LOUVER. FIELD VERIFY EXISTING OPEN'G SIZE. BLANK OFF UNUSED PORTION OF LOUVER.

3 NEW DX FCU SUSPENDED FROM STRUCTURE W/SPRING ISOLATION.

4 LINED SUPPLY DUCT PLENUM CONNECTION TO FLOOR GRILLE ABOVE.

5 16"x12" SA DN TO FCU & 12"x12" UP THROUGH FLOOR. 10"x14" RA DN TO UNIT RA PLENUM & 10"x12" UP THROUGH FLOOR WITH HAND DAMPER.

6 MOUNT EQUIPMENT ON 4" MIN, HIGH CONCRETE HOUSEKEEPING PAD.

7 LOW LEAKAGE MOTORIZED DAMPER W/120V OPERATOR. DAMPER TO OPEN WHEN FAN COIL UNIT STARTS & CLOSE WHEN OFF.

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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION: 1
DATE:
REVISION: 2
DATE:
REVISION: 3
DATE:
ISSUE DATE: 5/12/2020

CAD DWG FILE: 19-175 PM100.dwg
DRAWN BY: SGB
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DESIGNED BY: SGB

SHEET TITLE:
BASEMENT MECHANICAL PLAN SOUTH

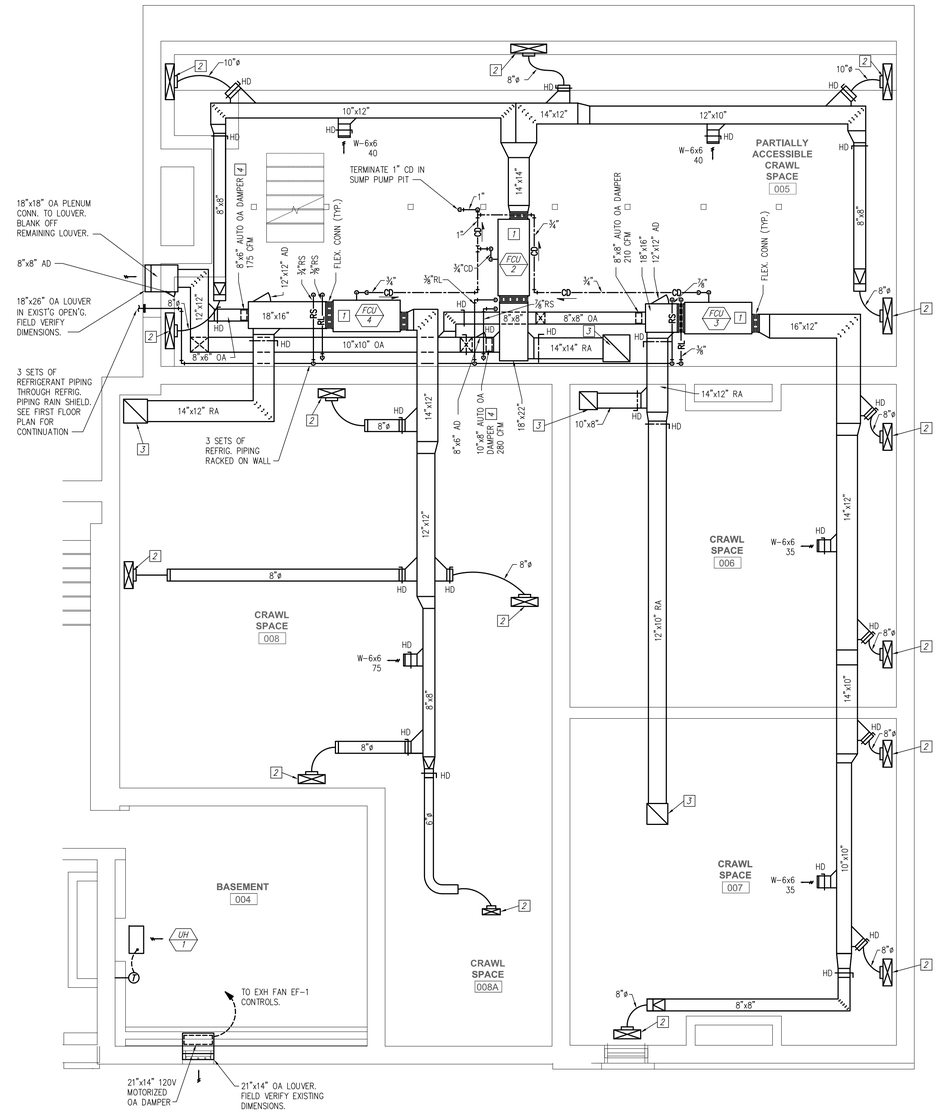
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M101

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MAY 12, 2020

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1 BASEMENT MECHANICAL PLAN - NORTH

0' 2' 4' 8' 16'

GENERAL NOTES:

1. THIS IS A HISTORIC BUILDING AND ALL DUCTWORK, PIPING & WIRING SHALL BE RUN CONCEALED FROM VIEW & ALL ROUTING SHALL BE APPROVED BY ARCHITECT BEFORE INSTALLATION. COORDINATE WHERE EXISTING FINISH MATERIALS NEED TO BE REMOVED FOR INSTALLATION AND PATCH TO MATCH EXISTING.
2. EXISTING CRAWL SPACE SOIL SHALL BE EXCAVATED AS REQUIRED TO MAINTAIN MIN. CLEARANCE BELOW EQUIPMENT & DUCTWORK OF 12".
3. COORDINATE VERY CAREFULLY WITH EXISTING CONDITIONS AND OTHER TRADES BEFORE ROUTING & FABRICATION.

KEYED NOTES:

1. NEW DX FCU SUSPENDED FROM STRUCTURE W/SPRING ISOLATION.
2. LINED SUPPLY DUCT PLENUM CONNECTION TO FLOOR GRILLE ABOVE.
3. LINED RETURN DUCT PLENUM CONNECTION TO FLOOR GRILLE ABOVE.
4. LOW LEAKAGE AUTOMATIC CONTROL DAMPER WITH 120V OPERATOR TO OPEN WHEN FCU STARTS & CLOSE WHEN UNIT IS OFF.

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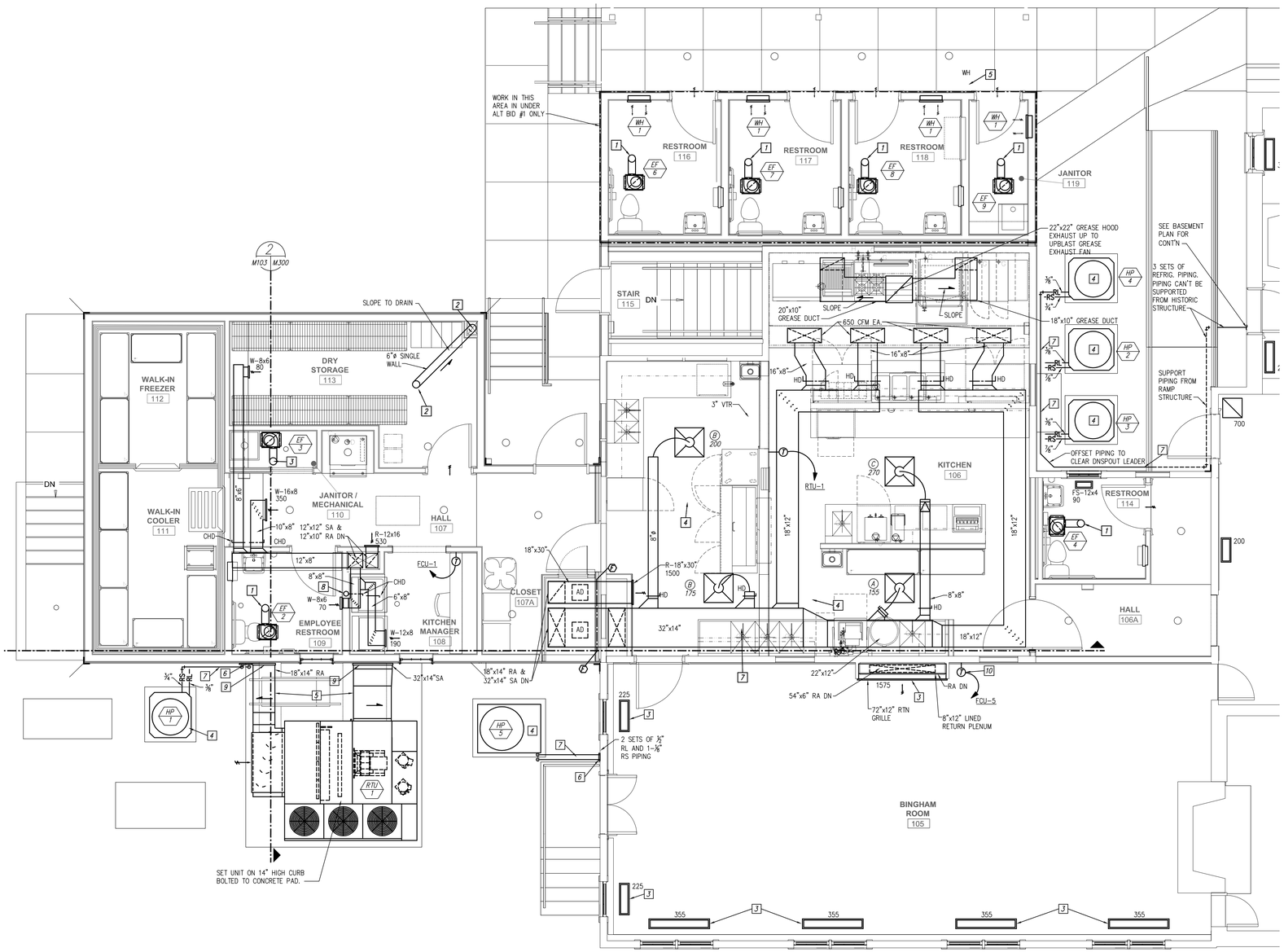
M102

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1 FIRST FLOOR MECHANICAL PLAN - SOUTH

0' 2' 4' 8' 16'

GENERAL NOTES:

1. CAREFULLY COORDINATE WITH EXISTING CONDITIONS AND OTHER WORK BEFORE ROUTING AND FABRICATION.

KEYED NOTES:

1. 6"ø EXHAUST UP.
2. AL29-4C FLUE FROM WATER HEATER DOWN AND UP THROUGH ROOF.
3. REINSTALL SALVAGED GRILLE. BALANCE TO AIRFLOWS NOTED.
4. HEAT PUMP CONDENSING UNIT MOUNTED ON 4 MIN. HIGH CONCRETE HOUSEKEEPING PAD.
5. SLOPE TOPS OF DUCTWORK TO DRAIN.
6. REFRIGERANT PIPING RAIN SHIELD. SEE DETAIL.
7. REFRIGERANT PIPING RACKED ON WALL.
8. 4"ø DRYER VENT UP THROUGH ROOF.
9. FLASH AND COcounterFLASH DUCT PENETRATIONS THROUGH WALL WATERTIGHT.
10. COORDINATE EXACT LOCATION OF NEW THERMOSTAT W/ARCHITECT. CONTROL WIRING SHALL BE FISHED IN EXISTING WALL CAVITY WITHOUT MARRING EXISTING WALL FINISHES.

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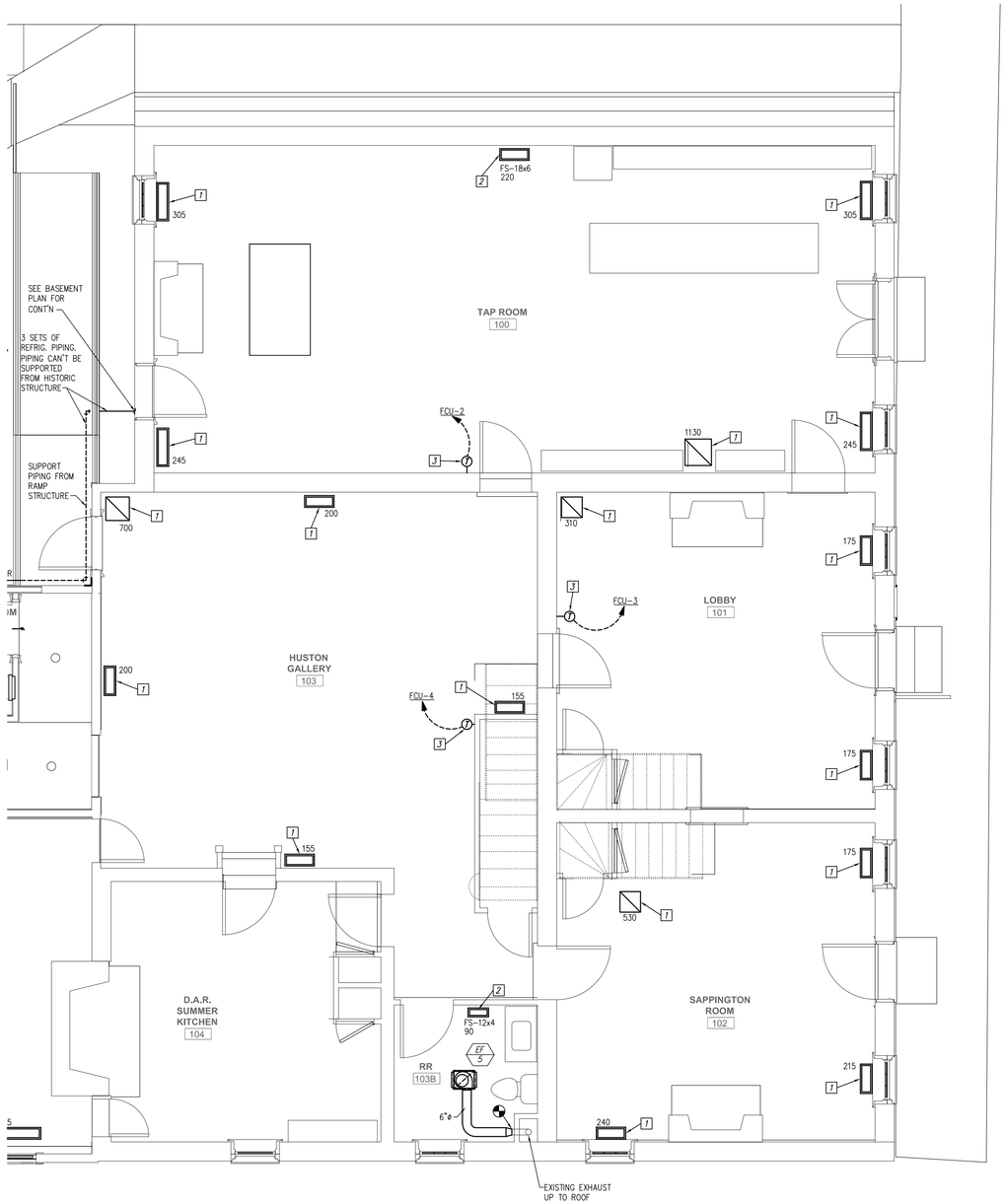
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1 FIRST FLOOR MECHANICAL PLAN - NORTH

N

0' 2' 4' 8' 16'

GENERAL NOTES:

1. THIS IS A HISTORIC BUILDING AND ALL DUCTWORK, PIPING & WIRING SHALL BE RUN CONCEALED FROM VIEW & ALL ROUTING SHALL BE APPROVED BY ARCHITECT BEFORE INSTALLATION. COORDINATE WHERE EXISTING FINISH MATERIALS NEED TO BE REMOVED FOR INSTALLATION AND PATCH TO MATCH EXISTING.

2. COORDINATE VERY CAREFULLY WITH EXISTING CONDITIONS AND OTHER TRADES BEFORE ROUTING & FABRICATION.

KEYED NOTES:

1 REINSTALL SALVAGED GRILLE. BALANCE TO AIRFLOWS NOTED.

2 NEW HEAVY DUTY FLOOR RATED ALUMINUM BAR GRILLE. COORDINATE LOCATION W/EXISTING FLOOR STRUCTURE.

3 COORDINATE EXACT LOCATION OF NEW THERMOSTAT W/ARCHITECT. CONTROL WIRING SHALL BE FISHED IN EXISTING WALL CAVITY WITHOUT MARRING EXISTING WALL FINISHES.

STATE OF MISSOURI
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FIRST FLOOR MECHANICAL PLAN NORTH

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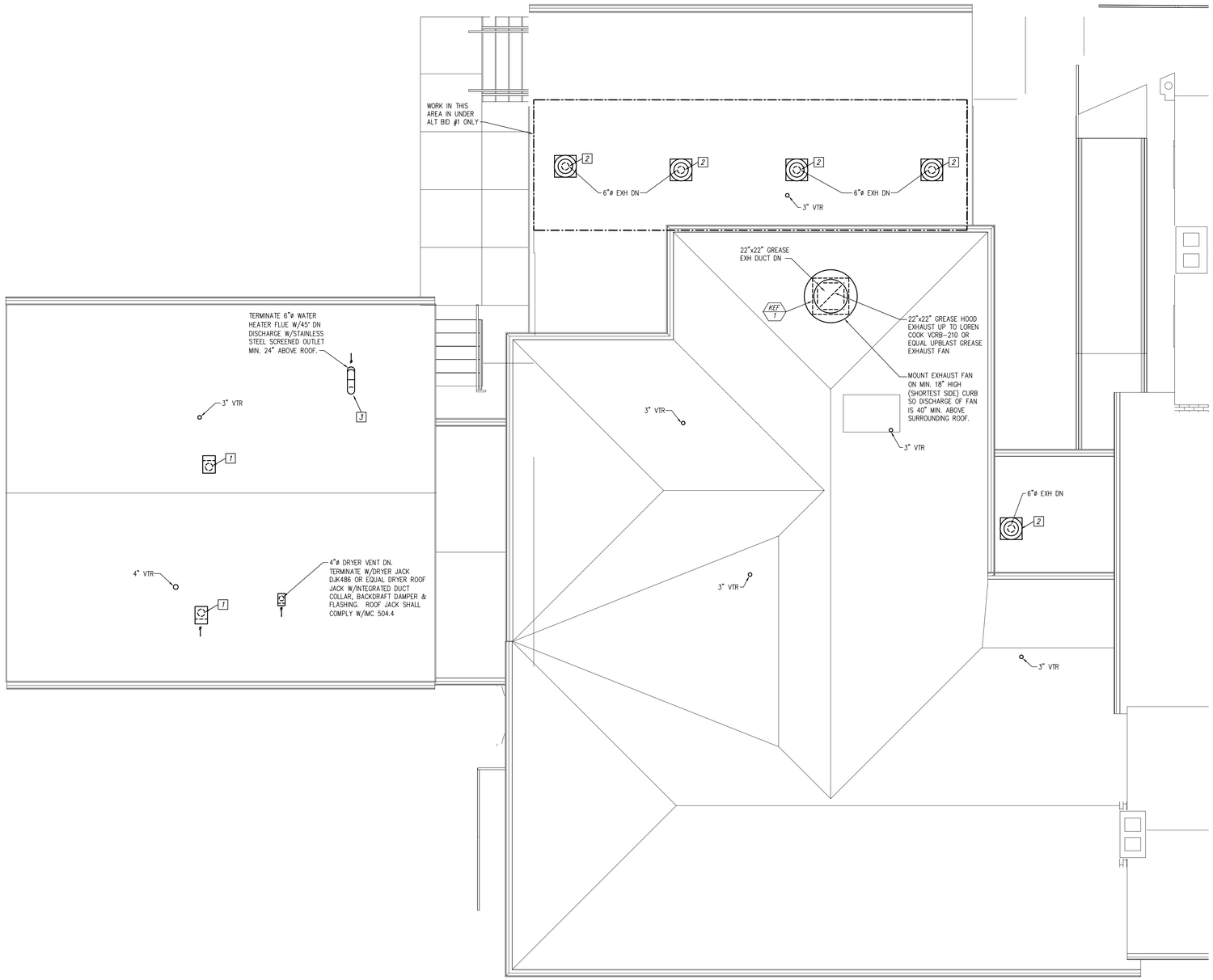
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GENERAL NOTES:

1. COORDINATE VERY CAREFULLY W/EXISTING CONDITIONS & OTHER TRADES BEFORE ROUTING AND FABRICATION.

KEYED NOTES:

1 LOREN COOK RJR100 OR EQUAL BLACK ENAMELED ROOF JACK W/BIRDSREEN, BACKDRAFT DAMPER & INTEGRAL FLASHING.

2 LOREN COOK PR8 OR EQUAL SPUN ALUMINUM EXHAUST ROOF CAP WITH BIRD SCREEN MOUNTED ON 14" MIN. HIGH INSULATED ROOF CURB.

3 6"ø AL29-4C FLUE FROM WATER HEATER DOWN. FLASH & COUNTERFLASH ROOF PENETRATION.

1 ROOF PLUMBING/MECHANICAL PLAN - SOUTH

N

0' 2' 4' 8' 16'

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ROOF PLUMBING/MECHANICAL PLAN - SOUTH

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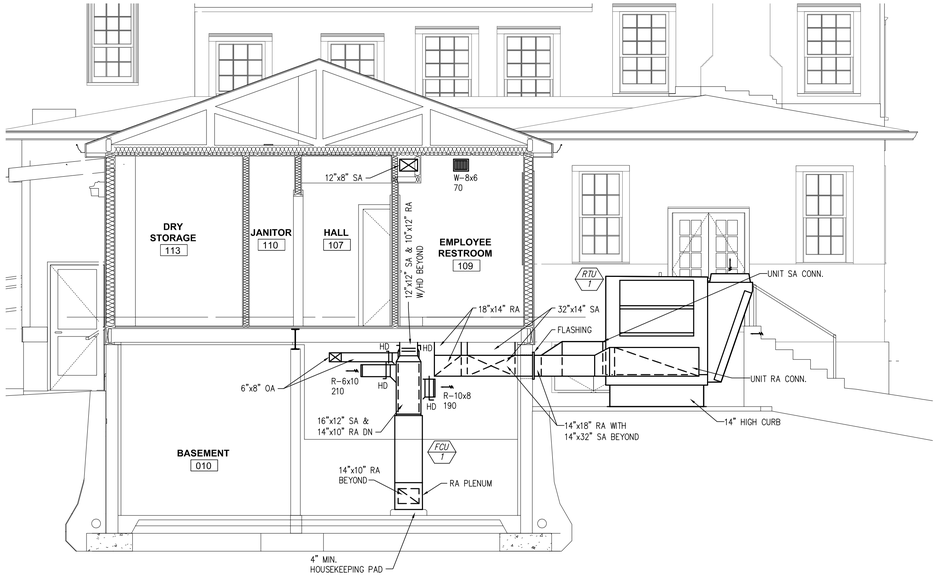
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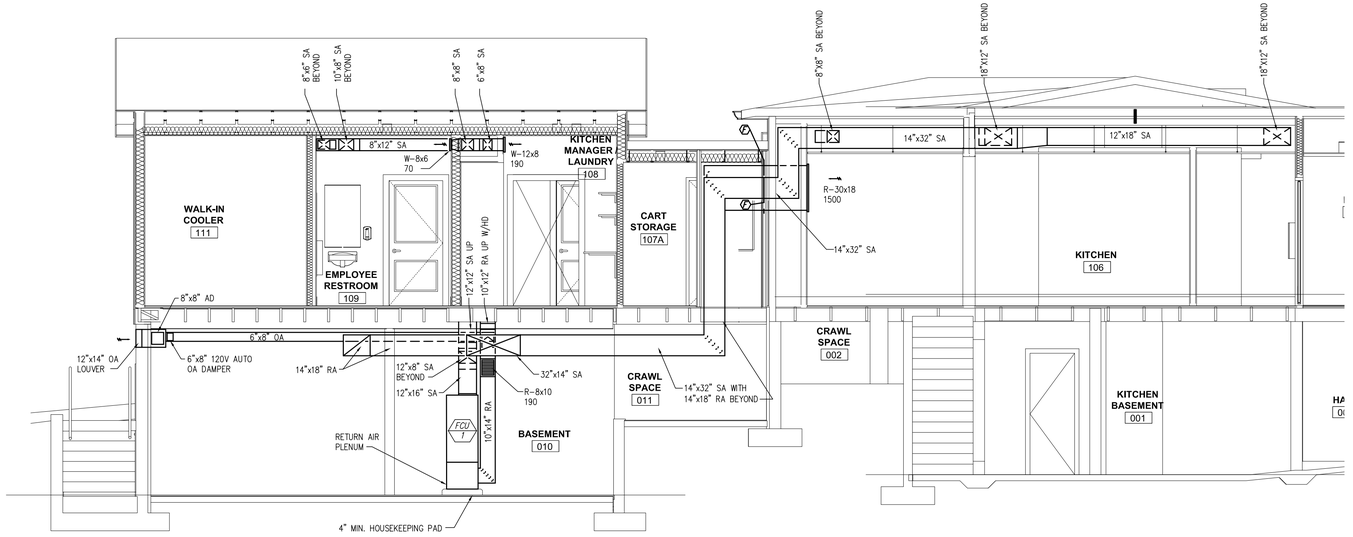
GENERAL NOTES:

1. COORDINATE VERY CAREFULLY WITH EXISTING CONDITIONS AND OTHER WORK BEFORE ROUTING AND FABRICATION.



2 E-W RTU-1 MECHANICAL SECTION - LOOKING NORTH

0' 2' 4' 8' 16'



1 N-S MECHANICAL SECTION - LOOKING WEST

0' 2' 4' 8' 16'

STATE OF MISSOURI
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MECHANICAL SECTIONS

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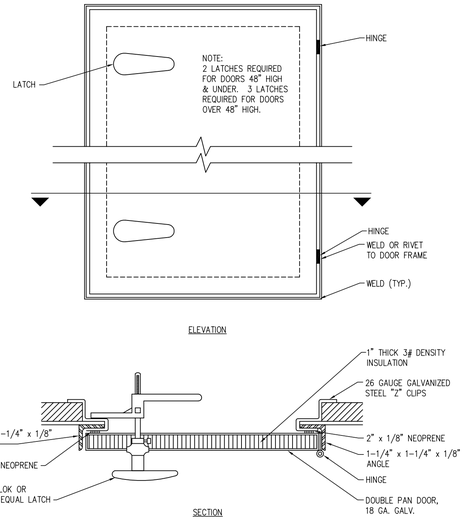
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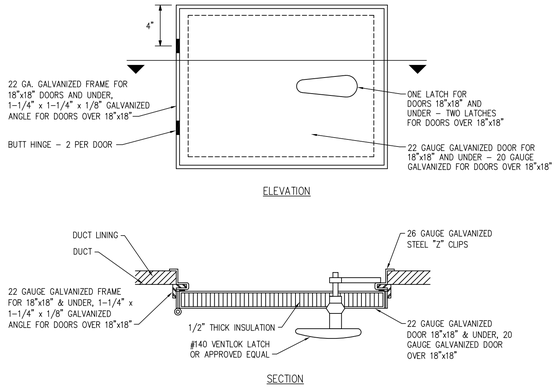
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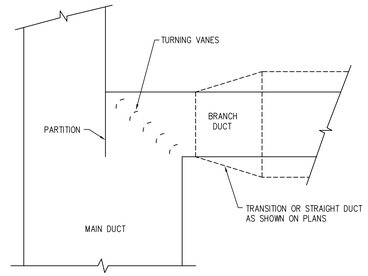
TYPICAL HOUSING DOOR

NOT TO SCALE



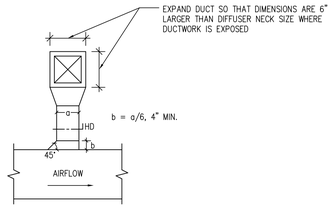
TYPICAL DUCT ACCESS DOOR

NOT TO SCALE



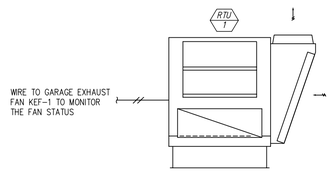
TYPICAL DETAIL OF BRANCH CONNECTION FROM MAIN SUPPLY DUCT

NOT TO SCALE



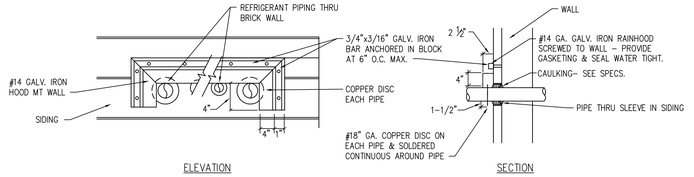
TYPICAL DETAIL OF BRANCH TAKE OFF AND RECT. NECK DIFFUSER CONN.

NOT TO SCALE



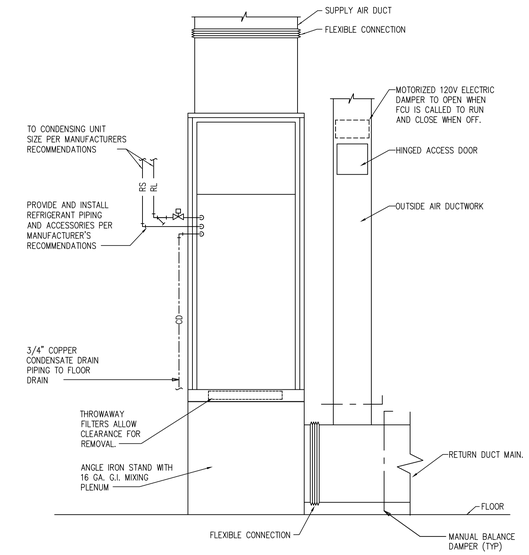
RTU-1 CONTROL

NOT TO SCALE



DETAIL OF RAINHOOD FOR REFRIGERANT PIPING

NOT TO SCALE



FAN COIL UNIT DETAIL

NOT TO SCALE

SEQUENCE OF OPERATION FOR RTU-1

Supply Fan:
The unit shall run based upon an operator adjustable schedule via an internal 7-day timeclock. The unit shall start prior to scheduled occupancy based on the time necessary for the space to reach its occupied setpoint. The start time shall automatically adjust based on changes in outside air temperature and space temperature and the "occupied" temperature set point. If the supply fan status does not match the command an alarm will be generated. The supply fan speed will be modulated to maintain the space temperature setpoints and will be based on the differential between the space temperature setpoint and the actual space temperature. The fan shall go to full flow when the kitchen grease hood is operating.

Filter Differential Pressure Monitor:
The controller shall monitor the differential pressure across the filters. Alarms shall be provided if the filters differential pressure exceeds a user definable limit (adj.).

Outside Air Damper Control:
The OA damper shall open whenever the RTU is commanded to run and shall modulate per the economizer sequence. The damper shall fully open when the kitchen grease hood is operating. The damper shall close when the RTU is off or in the unoccupied mode.

Return Air Damper Control:
The damper shall be open when the RTU is commanded off and shall be controlled by the economizer sequence when the RTU is operating. The return air damper shall fully close when the kitchen grease hood is operating.

Integrated Economizer Control:
When the RTU is in occupied mode and the outside air enthalpy is less than the return air enthalpy, and the outdoor air temperature is below 75°F (adj.), the economizer mode will be enabled unless the RTU is under dehumidification control. The economizer OA and return air dampers will modulate to maintain the supply air temperature set point. When the RTU is off or in unoccupied mode the outside air damper shall close and the return damper shall open.

Temperature Control:
Temperature control will be accomplished through the staging of the fan speed, Cooling Coil, Hot Gas Reheat Coil and the Gas Furnace.

Cooling Control:
When the space temperature is greater than the cooling setpoint the compressors will be staged on to maintain 55°F (adj.) cooling setpoint. Cooling shall be enabled whenever the outside air temperature is greater than 55°F (adj.) and the space temperature is above its cooling setpoint. The inverter scroll compressor will be the lead compressor. The fan speed will be increased before staging on the second compressor. The second compressor will be staged on when the cooling coil discharge raises above 57°F (adj.) for 5 minutes (adj.). The electronic expansion valve will be modulated to maintain 8°F of superheat. The lag compressor will be staged off when the supply is at its minimum speed and the discharge air temperature drops below 53°F. During occupied mode the space cooling setpoint shall be 75°F (adj). During unoccupied mode (night setback) the space cooling setpoint shall be 85°F (adj). Mechanical cooling shall be locked out when the outside air temperature is less than 50°F (adj.).

Condenser Fan Control:
Lead EC motor fan will be modulated and additional fans staged to maintain head pressure control.

Heating Control:
When the space temperature is less than the heating setpoint, the gas furnace valve will modulate to maintain the space heating setpoint. The fan speed shall be at its minimum setpoint when the heating is enabled and shall be increased to ensure heating discharge temperature does not exceed 90°F (adj.). Heating shall be enabled whenever the outside air temperature is less than 50°F (adj.) and the space temperature is below the heating setpoint. During occupied mode the space heating setpoint shall be 70°F (adj). During unoccupied mode (night setback) the space heating setpoint shall be 55°F (adj).

Dehumidification:
The controller shall measure the space humidity and override the cooling sequence to maintain space humidity at or below 55% rh (adj). Dehumidification shall be enabled whenever the supply fan status is on. During the dehumidification cycle the compressors shall modulate and stage to maintain of 50°F setpoint as sensed by the cooling coil discharge temperature. The hot gas reheat valve will be modulated to prevent over cooling of the space. The gas furnace shall be enabled and modulated to maintain space temperature if hot gas reheat coil can not maintain space temperature.

Unoccupied Setback Control:
During "Unoccupied" cycle the supply fan will remain off until the space temperature drops below the heating unoccupied setpoint or above its unoccupied cooling setpoint at which time the fan is cycled on with 100% return air. During the morning warm-up cycle the return air temp sensor will prevent the outside air damper from opening until the return air temperature is above 70°F. During the warm up cycle cooling is disabled and the supply air temperature shall be controlled to maintain 80°F until the cycle is completed.

Outside Air Ventilation – Carbon Dioxide (CO2) Control:
If the space CO2 level exceeds the indoor air quality setpoint of 1000PPM (adj) the outside air damper position setpoint will be gradually automatically adjusted up to increase the outside air flow. Once the CO2 level falls below its setpoint the mixed air dampers shall modulate back to their minimum position. The amount of the reset will be overridden lower in order to prevent the discharge air temp from exceeding more than 5°F above or below the setpoint.

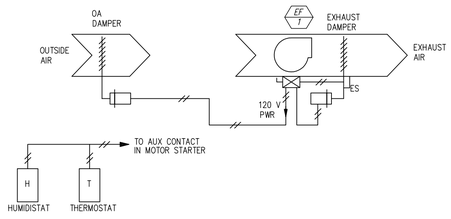
Safeties:
If any of the addressable duct mounted smoke detectors detect smoke, the fan will be shut down via hardwired contact from the fire alarm system. The fire alarm shutdown will cause 2 alarms to be generated to the system operator. A supply fan alarm will be issued to the operator if the unit was previously commanded to be operating and a "Fire-Alarm" point will also be in alarm.

Supply fan alarm – If the airflow proving switch for the supply fan is not activated within 30 sec. (adj.) of being commanded on the unit will be disabled and a supply fan alarm will be sent.

Temperature sensor alarm – An alarm shall be sent to the system operator when any one of the temperature sensors fails.

Refrigerant pressure alarm – The refrigerant pressure shall be monitored. If the refrigerant pressure is below the low limit setpoint the compressors shall be disabled until the pressure returns to normal levels and an alarm will be sent to the systems operator. If the pressure exceeds the high limit the compressors will be disabled requiring a manual reset and an alarm will be sent to the systems operator.

Fire Alarm Shutdown – An addressable relay module on the fire alarm network will shutdown the fan(s) and an alarm will be generated to the system operator in the event of a fire alarm.



EXHAUST FAN EF-1 CONTROL DIAGRAM

SEQUENCE OF OPERATION:

THE EXHAUST FAN WILL BE ENABLED WHEN THE SPACE TEMPERATURE OR %RH RISES ABOVE THE THERMOSTAT OR HUMIDISTAT SETPOINT (80°F & 50% RH ADJ.) THE OUTSIDE AIR & EXHAUST AIR DAMPERS WILL OPEN & THE EXHAUST FAN WILL START ONCE THE EXHAUST DAMPER IS PROVEN OPEN BY THE END SWITCH. WHEN THE SPACE TEMPERATURE FALLS TO 75°F (ADJ.) AND RH REACHES 40% (ADJ.) THE FAN SHALL BE DISABLED. THE EXHAUST FAN WILL STOP AFTER A 5 MINUTE (ADJ.) VIA A TIME DELAY RELAY.

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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI · BRUCE ELDON HART · NUMBER E-22817 · PROFESSIONAL ENGINEER
05/12/2020
Bruce E. Hart - Engineer
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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
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ISSUE DATE: 5/12/2020

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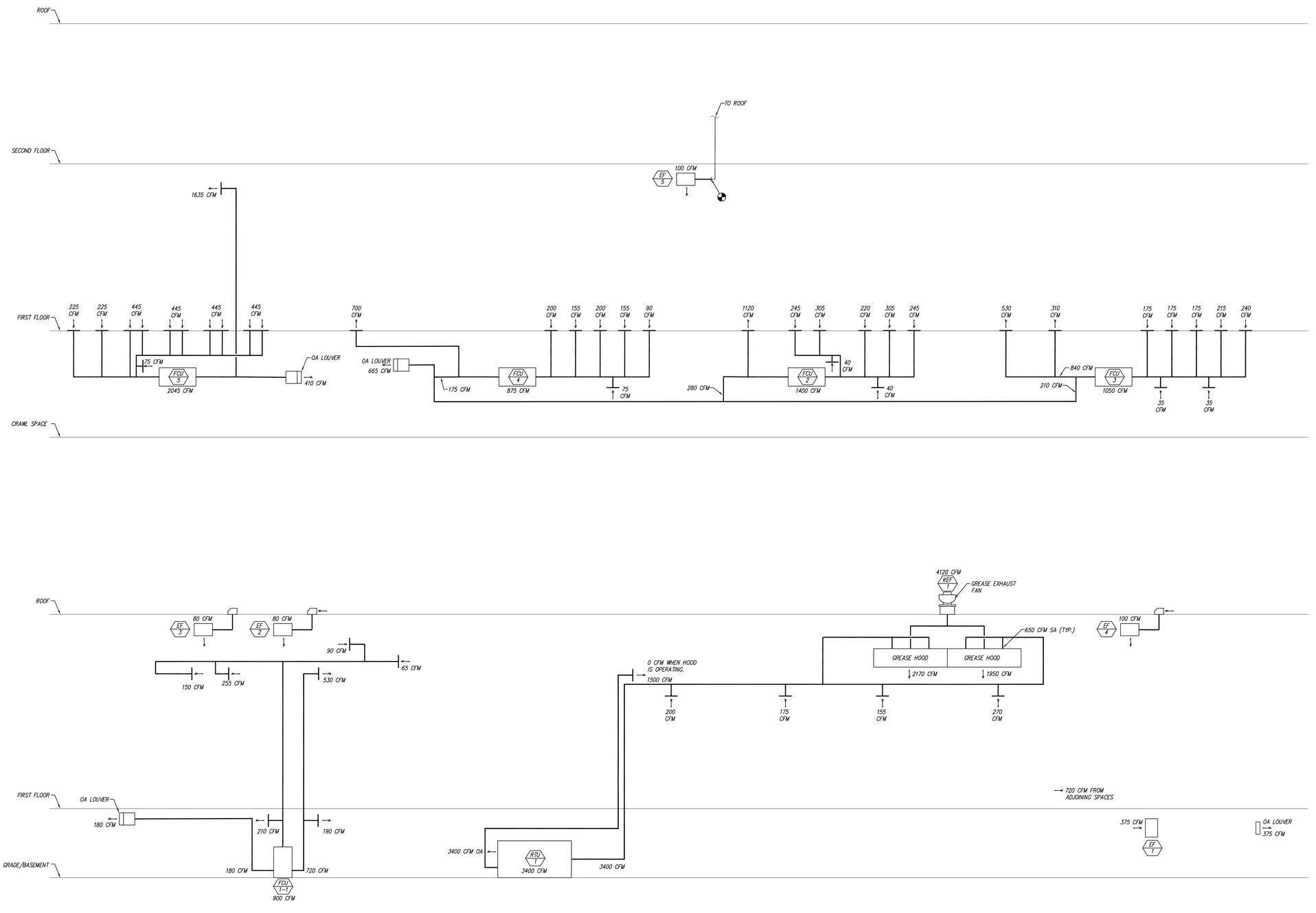
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1 AIRFLOW RISER DIAGRAMS

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ROOFTOP UNIT SCHEDULE

	PLAN MARK	AREA SERVED	MANUFACTURER	MODEL NO.	TOTAL CFM	MIN. O.A. CFM	SUPPLY FAN			DX COOLING					HOT GAS REHEAT COIL DATA			GAS HEATING			FILTERS			COMPRESSOR DATA			CONDENSER FAN DATA			ELECTRICAL DATA	
							E.S.P. IN. W.G.	MIN. HP	RPM	ENT. AIR DB/WB	LVG. AIR DB/WB	SENSIBLE MBH	TOTAL MBH	EER	MBH	ENT. AIR DB	LVG. AIR DB	EAT	LAT	MBH OUTPUT	TYPE	MAX FV	EFF.	NO.	RLA	TYPE	NO.	HP	RPM	VOLTS/PHASE	MCA
(2)	RTU-1	KITCHEN 110	GREENHECK	RV-45-20I-M	3400	(1) 340	0.50	5	1000	100/78	56.9/56.8	162	262	11.1	113.3	56.9	87.8	-10	77.1	320	2" PLEATED	500	MERV 8	2	32.3/28.2	INVERTER SCROLL	3	1.34 EA.	?	230/3	93.4

NOTES:
1. UNITS SHALL HAVE ECONOMIZER WITH BAROMETRIC RELIEF & CONDENSER COIL HAIL GUARDS
2. REFRIGERANT SHALL BE R-410A
3. COOLING CAPACITIES BASED ON 100°F AMBIENT TEMPERATURE.
4. UNIT SHALL OPERATE AS SINGLE ZONE VAV.
5. UNIT SHALL OPERATE AT 100% OA WHEN KITCHEN EXH FAN IS OPERATING AND SHALL RECIRC. W/MIN. OA OR ECONOMIZER WHEN HOOD IS OFF.
6. LP GAS BURNER SHALL HAVE 16:1 TURNDOWN.
7. FURNISH W/REAR RETURN CONNECTION & SIDE SUPPLY DISCHARGE.
8. MOUNT ON 14" MIN. HIGH CURB.
9. MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

EXHAUST FAN SCHEDULE

	ITEM	LOCATION	AREA SERVED	TYPE	MANUFACTURER	CATALOG NUMBER	CFM	E.S.P. (IN. W.G.)	MAX. O.V. (FPM)	TYPE WHEEL	MOTOR DATA			AUTO DAMPER	MOTOR CONTROL DATA			ISOLATION MOUNTINGS	
											MIN. HP	RPM	VOLTS/PHASE		STARTER/ DISC. SWITCH	LOCAL CONTROL DEVICES @ STARTER	MISC. CONTROL DEVICES & NOTES	TYPE	DEFLECTION (IN.)
(1)	KEF-1	KITCHEN ROOF	KITCHEN HOODS	UPBLAST CENTRIFUGAL	LOREN COOK	VCR-210	4120	1.25	800	BACKWARD INCLINED	2	1725	208/3	_____	COMB. MOTOR STARTER/ NON-FUSED DISC. SW.	HOA SWITCH IN STARTER COVER	UNIT MOUNTED TOGGLE DISC. SW.	_____	_____
(2)	EF-1	KITCHEN BASEMENT 001	KITCHEN BASEMENT 001	PROPELLER FAN	LOREN COOK	XWD 12-EC	375	0.50	445	ALUMINUM PROPELLER	1/4	1525	120/1	18"x18"	NON-FUSED DISC. SW.	UNIT MOUNTED FAN SPEED CONTROLLER	UNIT MOUNTED TOGGLE DISC. SW.	B.5	1"
	EF-2	EMPLOYEE RESTROOM 109	EMPLOYEE RESTROOM 109	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-146	80	0.25	410	FORWARD CURVED	31.8 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____
	EF-3	JANITOR 110	JANITOR 110	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-146	80	0.25	410	FORWARD CURVED	31.8 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____
	EF-4	RESTROOM 114	RESTROOM 114	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-148	100	0.25	510	FORWARD CURVED	36.6 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____
	EF-5	RESTROOM 103B	RESTROOM 103B	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-148	100	0.50	510	FORWARD CURVED	41.7 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____
(4)	EF-6	RESTROOM 116	RESTROOM 116	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-146	80	0.25	410	FORWARD CURVED	31.8 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____
(4)	EF-7	RESTROOM 117	RESTROOM 117	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-146	80	0.25	410	FORWARD CURVED	31.8 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____
(4)	EF-8	RESTROOM 118	RESTROOM 118	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-146	80	0.25	410	FORWARD CURVED	31.8 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____
(4)	EF-9	JANITOR 119	JANITOR 119	CENTRIFUGAL CEILING FAN	LOREN COOK	GC-146	80	0.25	410	FORWARD CURVED	31.8 W	900	120/1	_____	UNIT MOUNTED TOGGLE DISC. SWITCH	(3)	(3)	(3)	_____

NOTES
(1) FAN SHALL MEET UL762 REQUIREMENTS. MOUNT FAN ON MIN. 18" HIGH CURB.
(2) FURNISH W/EC MOTOR AND CONTROLLER AND 120V MOTORIZED DAMPER TO OPEN WHEN MOTOR IS COMMANDED ON AND CLOSE WHEN MOTOR IS OFF. FAN SHALL BE CONTROLLED BY LINE VOLTAGE THERMOSTAT & HUMIDISTAT.
(3) FURNISH FAN WITH WHITE PLASTIC GRILLE, HANGING ISOLATOR KIT, PREWIRED FAN SPEED CONTROLLER, TIME DELAY RELAY, INTEGRAL ALUMINUM BACKDRAFT DAMPER AND ROOF JACK DISCHARGE.
(4) FURNISHED UNDER ALTERNATE BID 1 ONLY.
5. MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

DX FAN COIL UNIT SCHEDULE

	UNIT NO.	AREA SERVED	LOCATION	ASSOCIATED CONDENSING UNIT	TYPE	CATALOG NUMBER	MANUFACTURER	TOTAL CFM	MIN O.A. CFM	ESP (IN. W.G.)	MOTOR HP	PRE-FILTERS	COOLING CAPACITY			HEATING CAPACITY			ELECTRIC COIL HEATING CAPACITY			REFRIGERANT PIPING SIZE				VOLTS/ PHASE
																						CONNECTION		PIPE SIZE		
												TYPE	ENT. AIR DB/WB	LVG. AIR DB/WB	MBH	ENT. AIR DB	LVG. AIR DB	MBH	ENT. AIR DB	LVG. AIR DB	KW	LIQUID	SUCTION	LIQUID	SUCTION	
(2)	FCU-1	NEW KITCHEN ANNEX	BASEMENT 010	HP-1	VERTICAL AHU	TEM4A0B30S31	TRANE	900	180	0.50	1/2	MERV 8	80.0/66.8	57.6/56.8	27.4	63.0	85.6	22.0	54	79.3	7.2	3/8"	3/4"	(1)	(1)	208/1
(2)	FCU-2	TAP ROOM 100	CRAWL SPACE 005	HP-2	HORIZONTAL AHU	TEM4A0C48S41	TRANE	1400	280	0.50	3/4	MERV 8	80.0/66.8	58.6/56.3	44.5	63.0	87.1	36.5	54	86.4	14.4	3/8"	7/8"	(1)	(1)	208/1
(2)	FCU-3	LOBBY 101 SAPPINGTON ROOM 102	CRAWL SPACE 005	HP-3	HORIZONTAL AHU	TEM4A0B36S31	TRANE	1050	210	0.50	1/2	MERV 8	80.0/66.8	58.8/56.3	33.2	63.0	86.7	26.9	54	86.5	10.8	3/8"	7/8"	(1)	(1)	208/1
(2)	FCU-4	HUSTON GALLERY 103	CRAWL SPACE 005	HP-4	HORIZONTAL AHU	TEM4A0B30S31	TRANE	875	175	0.50	1/2	MERV 8	80.0/66.8	57.3/56.5	27.3	63.0	86.3	22.0	54	80.0	7.2	3/8"	3/4"	(1)	(1)	208/1
(2)(3)	FCU-5	BINGHAM ROOM 105	CRAWL SPACE 009	HP-5	HORIZONTAL AHU	TWE07243BAA	TRANE	2045	410	0.75	1-1/2	MERV 8	80.0/66.8	55.8/55.1	75.1	63.0	85.8	50.4	54	82.9	18.7	2 - 1/2"	2 - 1 1/8"	(1)	(1)	208/3

NOTES:
(1) REFRIGERANT PIPE SIZES SHALL BE PROVIDED BY MANUFACTURER'S REP. BASED ON ACTUAL INSTALLATION LENGTHS, ELEVATION CHANGES AND FITTING.
(2) FAN COIL UNITS SHALL BE PROVIDED WITH SINGLE POINT POWER CONNECTION.
(3) DUAL CIRCUIT COOLING COIL FURNISH WITH RUBBER-IN-SHEAR ISOLATORS.
4. MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

HEAT PUMP CONDENSING UNIT SCHEDULE

UNIT NO.	MANUF.	MODEL	COOLING CAPACITY		HEATING CAPACITY		MIN. EER	VOLTS/ PHASE	REFRIGERANT PIPING SIZE				MISC. DEVICES
									CONNECTION		PIPE SIZE		
			MBH	AMBIENT TEMP	MBH	AMBIENT TEMP			LIQUID	SUCTION	LIQUID	SUCTION	
HP-1	TRANE	4TWR4030G1	27.4	100° F	22.0	35° F	11.5	208/1	3/8"	3/4"	(1)	(1)	NON-FUSED DISC. SWITCH
HP-2	TRANE	4TWR4048G1	44.5	100° F	36.5	35° F	11.5	208/1	3/8"	7/8"	(1)	(1)	NON-FUSED DISC. SWITCH
HP-3	TRANE	4TWR4036G1	33.2	100° F	26.9	35° F	11.5	208/1	3/8"	3/4"	(1)	(1)	NON-FUSED DISC. SWITCH
HP-4	TRANE	4TWR4030G1	27.3	100° F	22.0	35° F	11.5	208/1	3/8"	3/4"	(1)	(1)	NON-FUSED DISC. SWITCH
HP-5	TRANE	TWA07243DAB	75.1	100° F	50.4	35° F	12.7	208/3	2 - 3/8"	2 - 3/4"	(1)	(1)	NON-FUSED DISC. SWITCH

NOTES:
(1) REFRIGERANT PIPE SIZES SHALL BE PROVIDED BY MANUFACTURER'S REP. BASED ON ACTUAL INSTALLATION LENGTHS, ELEVATION CHANGES AND FITTING.
2. MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

UNIT HEATER SCHEDULE

PLAN MARK	MANUFACTURER/ MODEL NO.	TYPE	CAPACITY BTU/HR	CFM	KW	ELECTRICAL		REMARKS
						AMPS	VOLTS/PH.	
UH-1	BERKO HUHAA720	HORIZONTAL	25,600	650	7.5	36.0	208/1	PROVIDE WITH DISCONNECT SWITCH & LOW VOLTAGE REMOTE THERMOSTAT
WH-1	QMARK AWH4408F	WALL HEATER	6,825	100	2.0	9.6	208/1	RECESSED WALL HEATER WITH BRONZE BAR STOCK COVER, INTERNAL DISC. SW. & THERMOSTAT

NOTES:
1. MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

LPG ELECTRIC VAPORIZER SCHEDULE

LOCATION	TYPE	MANUFACTURER	MODEL NUMBER	CAPACITY	KW	VOLTS/PHASE
LPG TANK	VERT. SINGLE CORE	ALGAS SDI	TX50	2200 MBH	5.9	208/3

NOTES:
1. PROVIDE W/EXPLOSION PROOF ELECTRICAL CONNECTION.
2. PROVIDE W/ECONOMY OPERATION VALVE.
3. MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

SCHEDULE OF GRILLES & DIFFUSERS

DESIGNATION	DESCRIPTION
S	TITUS "OMNI" SQUARE PANEL STEEL ROUND NECK SUPPLY AIR DIFFUSER WITH REMOVABLE CORE. DIFFUSER SHALL HAVE A 24"x24" NOMINAL FACE DIMENSION FOR INSTALLATION IN LAY-IN TYPE CEILING. 4 WAY BLOW UNLESS SHOWN OTHERWISE ON DRAWINGS. WHITE FINISH.
SA	TITUS TYPE "TDC" STEEL RECTANGULAR CEILING AIR DIFFUSERS WITH BEVELED DROP FRAME, REMOVABLE CORE, 4-WAY BLOW, UNLESS SHOWN OTHERWISE ON DRAWINGS. WHITE FINISH.
W	TITUS TYPE "300RS" ADJUSTABLE DOUBLE DIFFUSER GRILLES WITH VERTICAL VANES ON OUTSIDE, HORIZONTAL VANES INSIDE. WHITE FINISH.
FS	TITUS TYPE "CT-480" ALUMINUM LINEAR BAR FLOOR DIFFUSERS. CORE SHALL BE HEAVY DUTY REINFORCED FOR FLOOR APPLICATION WITH ⅛" BARS SPACED ¼" O.C. FURNISH WITH TYPE 5 HEAVY DUTY 1" FLANGED FLOOR FRAME AND ALUMINUM O.B. DAMPER. PROVIDE FLOOR REINFORCING TO SUPPORT FLANGES AS REQUIRED. ANODIZED FINISH, COLOR AS DIRECTED BY ARCHITECT..
FR	SAME AS TYPE "FS" FLOOR DIFFUSER EXCEPT FURNISH LESS DAMPER.
R	TITUS TYPE "355RL" STEEL RETURN AIR GRILLES WITH HORIZONTAL BARS ON ½" CENTERS SET AT 35° ANGLE. GRILLES IN T-BAR CEILINGS SHALL BE SIZED TO LAY IN T-BAR CEILING. OMIT SCREW HOLES IN GRILLES IN LAY-IN CEILINGS. WHITE FINISH.
TR	TRANSFER GRILLES - SAME AS TYPE "R" RETURN GRILLES.

NOTES:
1. MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

TYPE "S" DIFFUSER SCHEDULE

MARK	SIZE
(A)	6"ø
(B)	8"ø
(C)	10"ø
(D)	12"ø
(E)	15"ø

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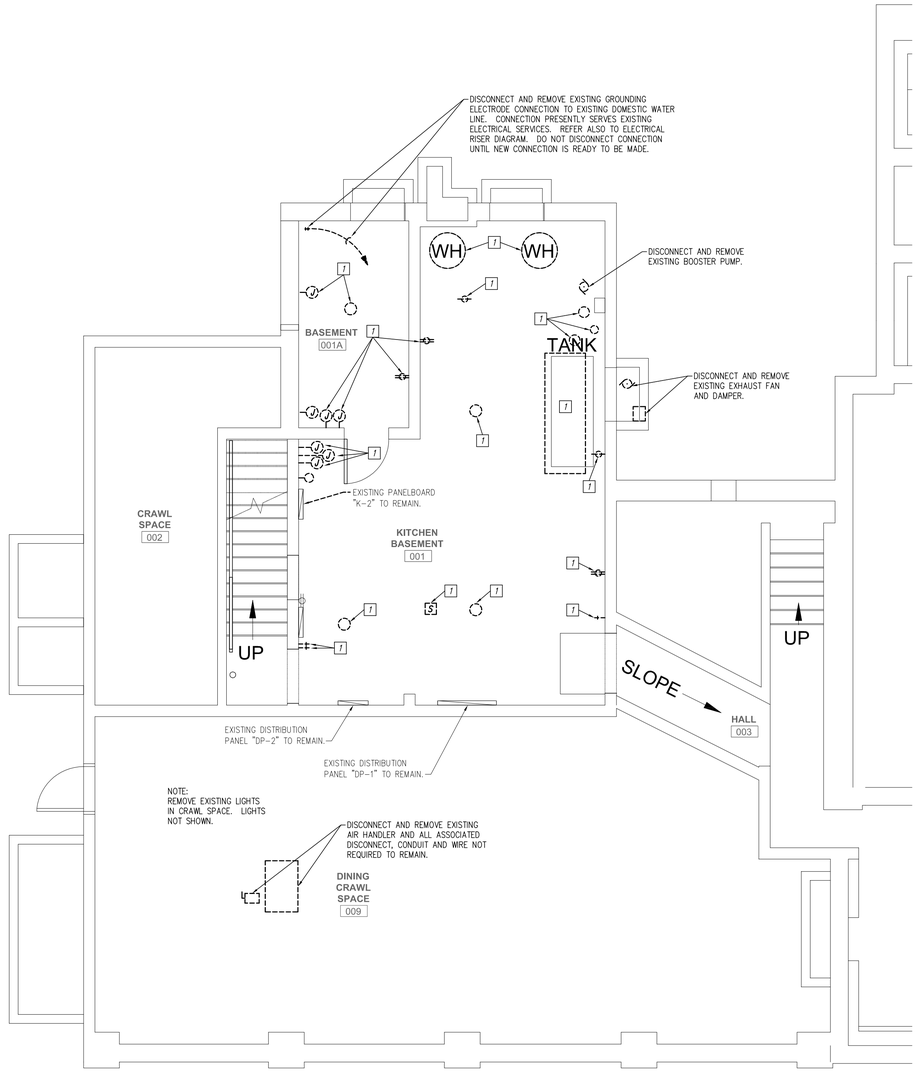
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1 BASEMENT ELECTRICAL DEMOLITION PLAN - SOUTH

N

0' 2' 4' 8' 16'

GENERAL NOTES:

1. REFER TO PROJECT GENERAL NOTES ON SHEET E000.

KEYED NOTES:

[1] DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL JUNCTION BOXES, CONDUIT, WIRE, DEVICE, LIGHT FIXTURE, ECT. AS REQUIRED.

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BASEMENT ELECTRICAL DEMOLITION PLAN - SOUTH

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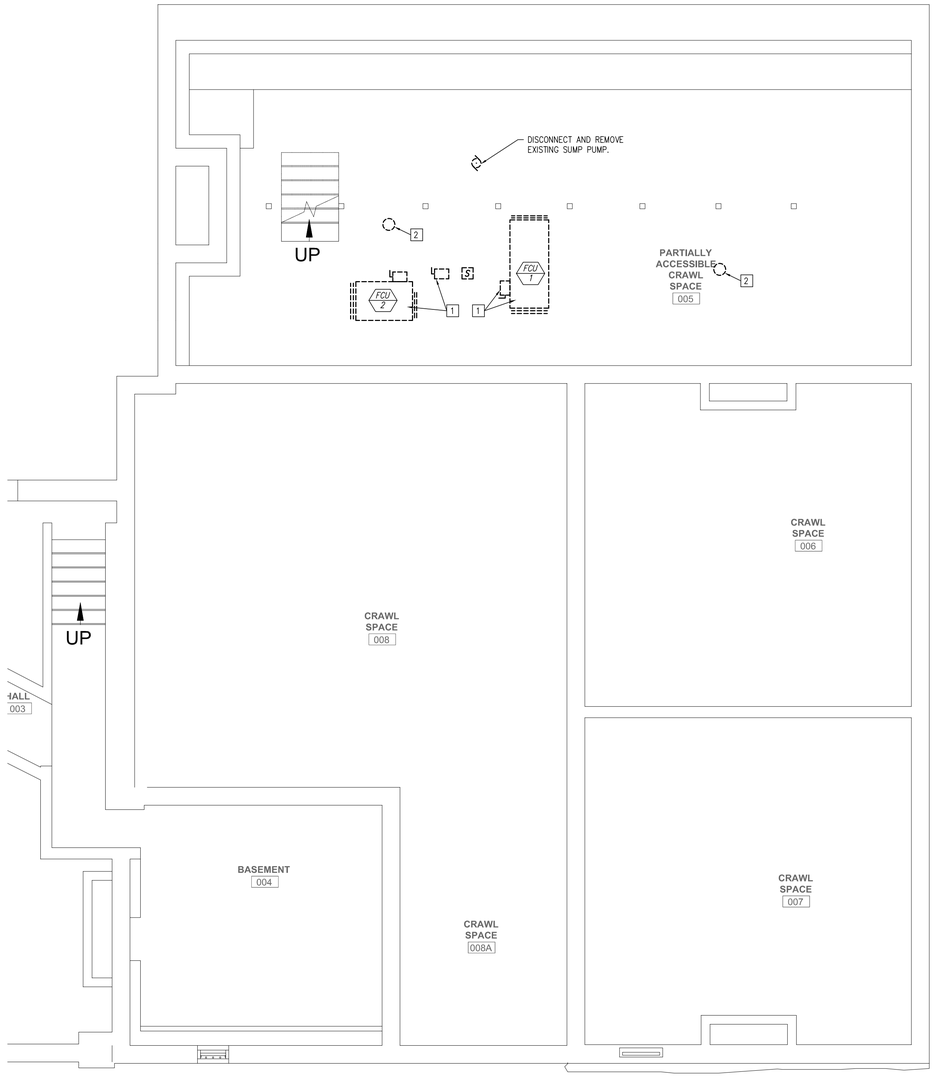
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1 BASEMENT ELECTRICAL DEMOLITION PLAN - NORTH

N

0' 2' 4' 8' 16'

GENERAL NOTES:

1. REFER TO PROJECT GENERAL NOTES ON SHEET E000.

KEYED NOTES:

1 DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL JUNCTION BOXES, CONDUIT, WIRE, DEVICE, LIGHT FIXTURE, ECT. AS REQUIRED.

2 DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES.

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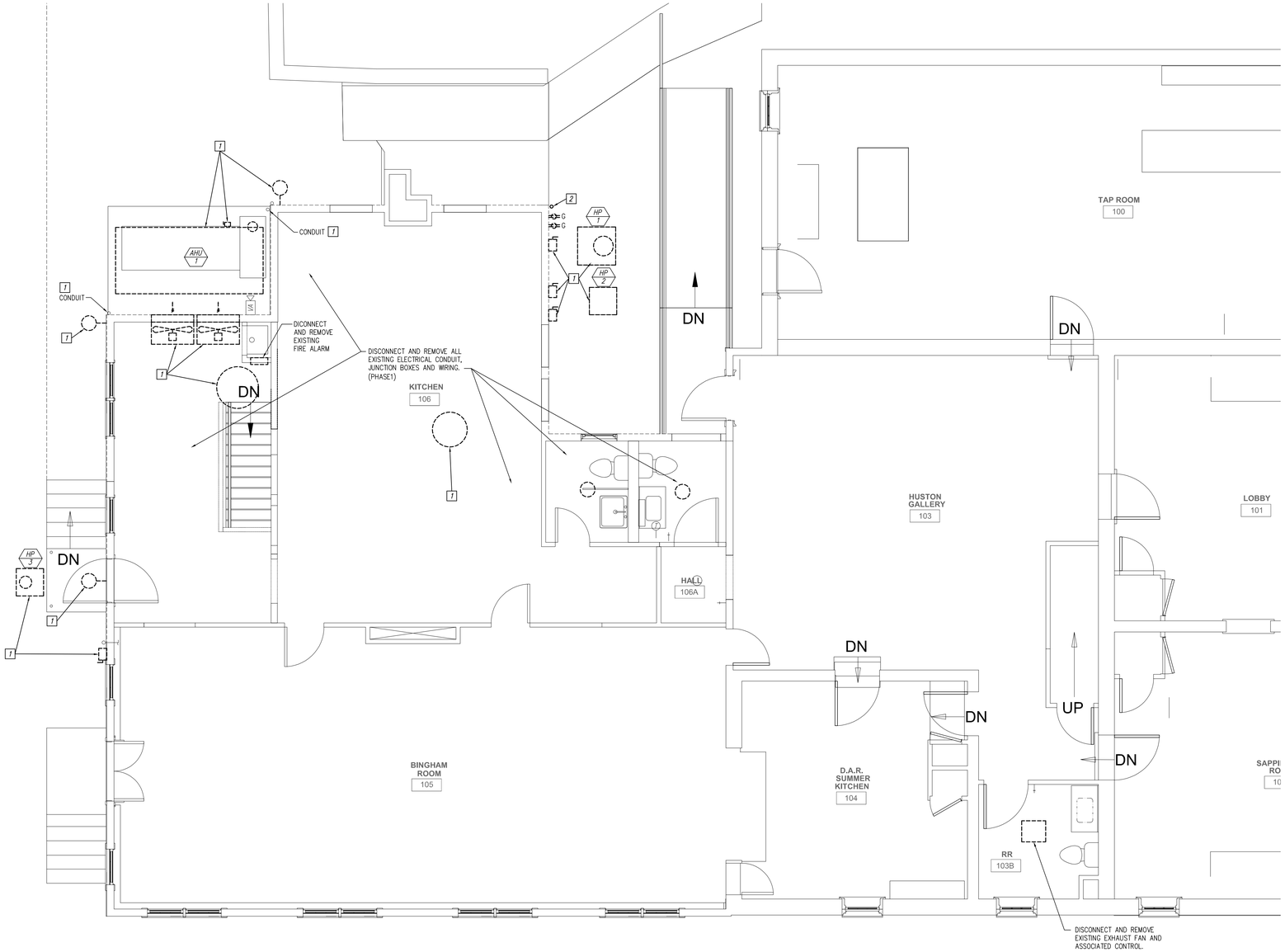
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1 FIRST FLOOR ELECTRICAL DEMOLITION PLAN - SOUTH

N

0' 2' 4' 8' 16'

GENERAL NOTES:

1. REFER TO PROJECT GENERAL NOTES ON SHEET E000.

KEYED NOTES:

1 DISCONNECT AND REMOVE EXISTING EQUIPMENT AND ALL EXISTING CONDUIT AND WIRE NOT REQUIRED TO REMAIN.

2 REMOVE AND RELOCATE LIGHTNING PROTECTION TO ACCOMMODATE NEW CONSTRUCTION.

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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

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SHEET TITLE:

FIRST FLOOR ELECTRICAL DEMOLITION PLAN-SOUTH

SHEET NUMBER:

ED103

082 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

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ELECTRICAL SYMBOLS LIST

(ALL MAY NOT APPLY)

POWER SYMBOLS

- HOMERUN TO SOURCE AS NOTED
- CONDUIT IN WALL OR CEILING CONSTRUCTION WITH ONE PHASE WIRE, ONE NEUTRAL WIRE AND ONE GROUND WIRE
- CONDUIT IN FLOOR OR BELOW GRADE CONSTRUCTION WITH ONE PHASE WIRE, ONE NEUTRAL WIRE AND ONE GROUND WIRE
- CONDUIT WITH WIRING (TWO PHASE WIRES, NEUTRAL AND GROUND WIRE)
- CONDUIT WITH #10 WIRE THROUGHOUT ENTIRE CIRCUIT
- PARTIAL CIRCUIT, HOMERUN TO SOURCE AS NOTED
- LV / N — LOW VOLTAGE WIRING
- EXISTING CONDUIT WITH NEW WIRE
- PANELBOARD (DOUBLE LINE INDICATES FRONT OF PANELBOARD)
- MOTOR STARTER
- DISCONNECTING SWITCH
- COMB. MOTOR STARTER AND DISC. SWITCH
- NF — NF DENOTES NON-FUSED
- VFD — VARIABLE FREQUENCY DRIVE
- VFD — VARIABLE FREQUENCY DRIVE WITH DISCONNECTING MEANS
- TCP — TEMPERATURE CONTROL PANEL
- MOTOR CONNECTION
- MECHANICAL VAV BOX
- MECHANICAL MIXING BOX
- TRANSFORMER
- SINGLE RECEPTACLE
- DUPLEX CONVENIENCE RECEPTACLE
- FOURPLEX CONVENIENCE RECEPTACLE
- 6-20R — HEAVY DUTY OUTLET – WITH NEMA CONFIGURATION
- CONVENIENCE RECEPTACLE – TOP HALF SWITCHED
- A — ARC FAULT CIRCUIT INTERRUPTER
- G — GROUND FAULT CIRCUIT INTERRUPTER
- IG — ISOLATED GROUND RECEPTACLE
- H — CONVENIENCE RECEPTACLE – MOUNTED HORIZONTALLY
- 48 — NUMBER INDICATES MOUNTING HEIGHT OF DEVICE (CENTER LINE ABOVE FLOOR) IF OTHER THAN SPECIFIED HEIGHT
- FLOOR OUTLET
- J — JUNCTION BOX
- J — WALL MOUNTED JUNCTION BOX
- J — JUNCTION BOX MOUNTED OVER CEILING
- T — ELECTRIC THERMOSTAT – WALL MOUNTED
- J — BUSHING AT END OF CONDUIT
- CM — INDICATES DEVICE THAT SHALL BE MOUNTED ABOVE OR BELOW ARCHITECTURAL CASEWORK. CONTRACTOR SHALL REFER TO ARCHITECTURAL DETAILS AND ELEVATIONS AND COORDINATE EXACT LOCATION OF DEVICE. WHERE DEVICES ARE NOT SHOWN IN ARCHITECTURAL DETAILS, CONTRACTOR SHALL CONFIRM EXACT MOUNTING LOCATION WITH ARCHITECT.
- EM — INDICATES LIGHT OR DEVICE CONNECTED TO EMERGENCY POWER OR FURNISHED WITH A BATTERY PACK CONNECTED TO A NON-SWITCHED HOT WIRE
- EX — EXISTING DEVICE, LIGHT, OR CONDUIT & WIRE TO REMAIN
- N — NEW DEVICE IN EXISTING OUTLET BOX
- NL — INDICATES NIGHT LIGHT FIXTURE CONNECTED TO A NON-SWITCHED HOT WIRE
- R — EXISTING DEVICE, LIGHT, OR CONDUIT & WIRE TO BE REMOVED
- RB — EXISTING DEVICE OR LIGHT TO BE REMOVED WITH BLANK COVER ON OUTLET BOX
- RL — EXISTING DEVICE OR LIGHT RELOCATED
- RN — EXISTING DEVICE OR LIGHT TO BE REMOVED AND OUTLET BOX REUSED FOR NEW DEVICE OR LIGHT
- RT — RAINTIGHT DEVICE – NEMA 3R
- TP — TAMPER-PROOF DEVICE
- WP — WEATHER-PROOF DEVICE
- VUH — VERTICAL UNIT HEATER. REFER TO DETAIL FOR ALL WIRING REQUIRED. REFER TO FLOOR PLANS FOR LOCATIONS.

COMMUNICATION SYMBOLS

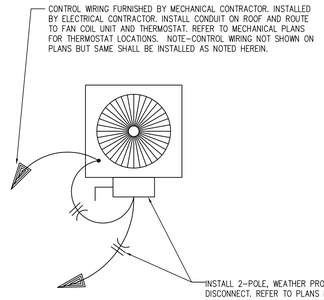
- TELEPHONE OUTLET WITH 3/4" CONDUIT INTO ACCESSIBLE CEILING SPACE
- DATA OUTLET WITH 3/4" CONDUIT INTO ACCESSIBLE CEILING SPACE
- TELEPHONE/DATA OUTLET WITH 3/4" CONDUIT INTO ACCESSIBLE CEILING SPACE
- 48 — WALL MOUNTED TELEPHONE OUTLET – NUMBER INDICATES HEIGHT ABOVE FINISHED FLOOR
- TV — TELEVISION OUTLET

TEMPERATURE CONTROL SYMBOLS

- R — INTER RELAY
- EP — ELECTRIC TO PNEUMATIC SWITCH
- PE — PNEUMATIC TO ELECTRIC SWITCH
- DP — DIFFERENTIAL PRESSURE SWITCH
- T1 — THERMOSTAT – SEE TEMP. CONT. DRAWING
- T2 — THERMOSTAT – SEE TEMP. CONT. DRAWING

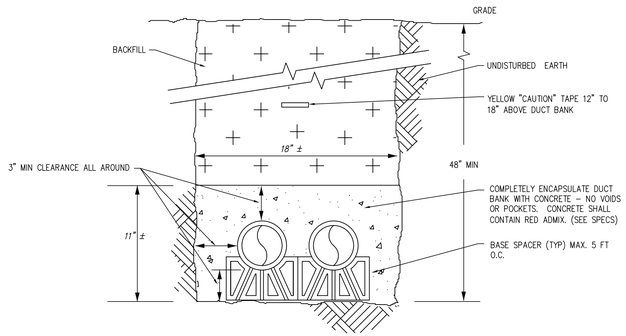
LIGHTING SYMBOLS

- CEILING MOUNTED LIGHT FIXTURE
- CEILING MOUNTED WALL WASH LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- CEILING MOUNTED FLUORESCENT LIGHT FIXTURE
- WALL MOUNTED FLUORESCENT LIGHT FIXTURE
- CEILING MOUNTED EXIT LIGHT
- WALL MOUNTED EXIT LIGHT
- CEILING MOUNTED EXIT LIGHT W/DIRECTIONAL ARROW
- WALL MOUNTED EXIT LIGHT W/DIRECTIONAL ARROW
- SHADING DENOTES FACE DIRECTION OF EXIT LIGHT
- SINGLE POLE SWITCH
- S_2 — DOUBLE POLE SWITCH
- S — SINGLE POLE SWITCH
- S_P — SWITCH WITH PILOT LIGHT
- S_3 — THREE-WAY SWITCH
- S_4 — FOUR-WAY SWITCH
- D_{LED} — LED DIMMER SWITCH – COMPATIBLE WITH FIXTURE DRIVER
- S_{MS} — WATTSTOPPER DW-100 SERIES DUAL TECHNOLOGY WALL SWITCH WITH MOTION SENSOR
- $S_{MS\text{-}D}$ — WATTSTOPPER DW-311 DUAL TECHNOLOGY 0-10V DIMMABLE WALL SWITCH WITH MOTION SENSOR
- S_{DT} — WATTSTOPPER TS-400 SERIES DIGITAL TIME SWITCH.
- D_{LM} — WATTSTOPPER LMSW-100 SINGLE BUTTON WALL SWITCH FOR USE WITH DLM SYSTEM.
- D — DIMMER
- RC # — WATTSTOPPER DIGITAL LIGHTING MANAGEMENT LMRC-100 SERIES ROOM CONTROLLER. # INDICATES NUMBER OF RELAY. WHERE BLANK, PROVIDE SINGLE RELAY UNIT. PROVIDE ALL NECESSARY LOW VOLTAGE WIRING AND CONNECTIONS FOR COMPLETE FUNCTIONING SYSTEM REFER TO DETAIL ON SHEET E502 FOR FURTHER INSTALLATION DETAILS.
- RC #-# — WATTSTOPPER DIGITAL LIGHTING MANAGEMENT LMRC-200 SERIES DIMMING ROOM CONTROLLER. # INDICATES NUMBER OF RELAY. WHERE BLANK, PROVIDE SINGLE RELAY UNIT. PROVIDE ALL NECESSARY LOW VOLTAGE WIRING AND CONNECTIONS FOR COMPLETE FUNCTIONING SYSTEM REFER TO DETAIL ON SHEET E502 FOR FURTHER INSTALLATION DETAILS.
- OS $_{DT}$ — WATTSTOPPER DIGITAL LIGHTING MANAGEMENT LMDC-100 SERIES DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSOR. OCCUPANCY SENSOR SHALL TURNS OFF LIGHTS AFTER 20 MINUTES OF INACTIVITY. PROVIDE ALL LOW VOLTAGE CABLING AS REQUIRED.
- PC — WATTSTOPPER DIGITAL LIGHTING MANAGEMENT LMLS-105 SERIES PHOTOCELL. PROVIDE ALL LOW VOLTAGE CABLING AS REQUIED.
- WS $_{EM}$ — WATTSTOPPER ELCU-200 SERIES EMERGENCY LIGHTING CONTROL UNIT. UPON LOSS OF NORMAL POWER, EMERGENCY LIGHTING SHALL TURN ON REGARDLESS OF SWITCH POSITION.



DETAIL OF UNDERGROUND ELECTRICAL DUCTBANK

NOT TO SCALE



DETAIL OF UNDERGROUND ELECTRICAL DUCTBANK

NOT TO SCALE

SCHEDULE OF LIGHTING FIXTURES

TYPE	APPROVED MANUFACTURER AND MODEL	DESCRIPTION	LED/ SOURCE	BALLAST/ DRIVER	MOUNTING	VOLTAGE	WATTAGE
A	WILLIAMS – 50 SERIES 2x4 LED	2'x4' RECESSED TROFFER FOR LED SOURCE. 22 GAUGE CRS HOUSING. WHITE FLAT ALUMINUM DOOR FRAME. CLEAR ACRYLIC LENS, PATTERN 12, 0.125" THICK. ALL FIXTURE STEEL POST PAINTED BAKED WHITE ENAMEL. FURNISH ALL HARDWARE AS REQUIRED FOR MOUNTING INDICATED. FURNISH WITH 10 WATT 90 MINUTE BATTERY PACK WHERE LIGHT FIXTURES ARE LABELED EM.	INTEGRAL LED 3500 K CCT, 3300 LUMENS DELIVERED, MIN. 80 CRI LED	INTEGRAL LED 0-10 VOLT DIMMABLE DRIVER	RECESSED IN LAY-IN GRID CEILING	120-277 V	25 W
A1	WILLIAMS – 50 SERIES 2x4 LED	2'x4' SURFACE MOUNTED TROFFER FOR LED SOURCE. 22 GAUGE CRS HOUSING. WHITE FLAT ALUMINUM DOOR FRAME. CLEAR ACRYLIC LENS, PATTERN 12, 0.125" THICK. ALL FIXTURE STEEL POST PAINTED BAKED WHITE ENAMEL. FURNISH ALL HARDWARE AS REQUIRED FOR MOUNTING INDICATED. FURNISH WITH 10 WATT 90 MINUTE BATTERY PACK WHERE LIGHT FIXTURES ARE LABELED EM.	INTEGRAL 3500 K CCT, 3300 LUMENS DELIVERED, MIN. 80 CRI LED	INTEGRAL LED 0-10 VOLT DIMMABLE DRIVER	SURFACE MOUNT	120-277 V	25 W
A2	WILLIAMS – 50 SERIES 2x4 LED	2'x4' RECESSED TROFFER FOR LED SOURCE. 22 GAUGE CRS HOUSING. WHITE FLAT ALUMINUM DOOR FRAME. CLEAR ACRYLIC LENS, PATTERN 12, 0.125" THICK. ALL FIXTURE STEEL POST PAINTED BAKED WHITE ENAMEL. FURNISH ALL HARDWARE AS REQUIRED FOR MOUNTING INDICATED. FURNISH WITH 10 WATT 90 MINUTE BATTERY PACK WHERE LIGHT FIXTURES ARE LABELED EM.	INTEGRAL 3500 K CCT, 5900 LUMENS DELIVERED, MIN. 80 CRI LED	INTEGRAL LED 0-10 VOLT DIMMABLE DRIVER	RECESSED IN LAY-IN GRID CEILING	120-277 V	50 W
B	WILLIAMS – 50 SERIES 1x4 LED	1'x4' RECESSED TROFFER FOR LED SOURCE. 22 GAUGE CRS HOUSING. WHITE FLAT ALUMINUM DOOR FRAME. CLEAR ACRYLIC LENS, PATTERN 12, 0.125" THICK. ALL FIXTURE STEEL POST PAINTED BAKED WHITE ENAMEL. FURNISH ALL HARDWARE AS REQUIRED FOR MOUNTING INDICATED. LOWER LED LUMEN PACKAGE. FURNISH WITH 10 WATT 90 MINUTE BATTERY PACK WHERE LIGHT FIXTURES ARE LABELED EM.	INTEGRAL 3500 K CCT, 2700 LUMENS DELIVERED, MIN. 80 CRI LED	INTEGRAL LED 0-10 VOLT DIMMABLE DRIVER	RECESSED IN LAY-IN GRID CEILING	120-277 V	19W
B1	WILLIAMS – 50 SERIES 1x4 LED	1'x4' SURFACE MOUNTED TROFFER FOR LED SOURCE. CENTER DIFFUSE RIBBED ACRYLIC LENS, ALL FIXTURE STEEL POST PAINTED BAKED WHITE ENAMEL. FURNISH ALL HARDWARE AS REQUIRED FOR MOUNTING INDICATED. LOWER LED LUMEN PACKAGE. FURNISH WITH 10 WATT 90 MINUTE BATTERY PACK WHERE LIGHT FIXTURES ARE LABELED EM.	INTEGRAL 3500 K CCT, 2700 LUMENS DELIVERED, MIN. 80 CRI LED	INTEGRAL LED 0-10 VOLT DIMMABLE DRIVER	SURFACE MOUNT	120-277 V	19W
C	WILLIAMS-75S SERIES LED	4FT LED STRIP LIGHT FIXTURE WITH SQUARE DIFFUSE ACRYLIC LENS AND WHITE POST PAINT STEEL HOUSING. FURNISH WITH 10 WATT 90 MINUTE BATTERY PACK WHERE LIGHT FIXTURES ARE LABELED EM.	INTEGRAL LED. 3500K CCT, MIN 80 CRI, 3000 LUMEN MODULE	ELECTRONIC 0-10V DIMMING DRIVER	SURFACE MOUNT	120-277 V	23 W
D	PORTFOLIO LD6B	RECESSED NOMINAL 6" DIAMETER LED DOWNLIGHT WITH SEMI-SPECULAR SELF-FLANGED REFLECTOR FOR WIDE DISTRIBUTION. U.L. LISTED FOR WET LOCATIONS IN COVERED CEILINGS. WHERE FIXTURES ARE LABELED EM FURNISH WITH 90 MINUTE BATTERY PACK.	INTEGRAL LED. 3500K CCT, MIN 80 CRI, 3000 LUMEN MODULE	ELECTRONIC 0-10V DIMMING DRIVER	RECESSED	120V	28 W
E	WILLIAMS EXIT/CA	LED EXIT SIGN, WHITE HOUSING WITH RED LETTERING. FURNISH WITH NECESSARY MOUNTING HARDWARE FOR CEILING OR WALL MOUNTING AND CONFIGURE FACES AND ARROWS AS SHOWN ON PLANS. FURNISH WITH 90 MINUTE BATTERY PACK WHERE LIGHT FIXTURES ARE LABELED EM.	INTEGRAL LED	INTEGRAL LED DRIVER	PER DRAWINGS	120-277 V	5 W
F	INVUE ENC SERIES	LED WALL PACK WITH CURVED FACEPLATE. ONE-PIECE DIE-CAST ALUMINUM HOUSING. EXTRUDED ALUMINUM HEAT SINK. SILICONE GASKET BETWEEN DOOR AND HOUSING. TWO(2) 7-LED LIGHT BARS PROVIDING TYPE 3 DISTRIBUTION WITH BACK LIGHT CONTROL. BRONZE POLYESTER POWDER COAT FINISH. COLD WEATHER EMERGENCY BATTERY PACK. WET LOCATION LISTED.	INTEGRAL 4000K CCT, 2200 LUMENS DELIVERED, 70 CRI	TWO(2) INTEGRAL ELECTRONIC DRIVERS	WALL MOUNTED	120V	26 W
G	WILLIAMS SLF SERIES	WALL MOUNTED LED FIXTURE. NOMINAL 4' LENGTH. 16 GAUGE COLD ROLLED STEEL HOUSING. 0.100" THICK FROSTED HIGH-IMPACT ACRYLIC LENS. WHITE POLYESTER POWDER COAT FINISH. PAINTED AFTER FABRICATION.	INTEGRAL 3500K CCT, 2860 LUMENS DELIVERED, 80 CRI	INTEGRAL NON-DIMMING ELECTRONIC DRIVER	WALL MOUNTED	120-277 V	20 W
H	COPPER LANTERN LIGHTING	C2518T COLONIAL 5-ARM CHANDELIER IN BRONZE. 10"Hx20"W. 5 LIGHTS AT 60W EACH. HANDCRAFTED METAL. CHAIN HUNG TO HEIGHT AS DIRECTED BY ARCHITECT. APPROVED EQUAL IRVIN'S TINWARE (SKU-340WBT), PERIOD LIGHTING (MODEL C101A-7) OR THE TIN BIN MODEL 409-8.	NA	NA	CHAIN HUNG	120V	300 W

NOTE: THE ABOVE LISTED MANUFACTURERS ARE THE BASIS OF DESIGN. APPROVED EQUALS BY LITHONIA, COOPER AND EATON UNLESS NOTED OTHERWISE.

GENERAL NOTES

(THESE NOTES APPLY TO ALL ELECTRICAL SHEETS)

1. A MAXIMUM OF SIX(6) CURRENT – CARRYING WIRES SHALL BE INSTALLED IN ANY ONE(1) CONDUIT. ALL BRANCH CIRCUITS EXCEPT MOTOR CIRCUITS SHALL BE INSTALLED WITH A DEDICATED NEUTRAL WIRE.
2. COORDINATE ALL WORK WITH OTHER TRADES. OFFSET PANELS, LIGHTS, RECEPTACLES AND CONDUIT AS REQUIRED. APPROVAL MUST BE OBTAINED FROM ARCHITECT PRIOR TO OFFSETTING ANY DEVICE OR EQUIPMENT.
3. CONTRACTOR SHALL COORDINATE ALL SHUT DOWNS WITH OWNER. NO SHUT DOWNS SHALL BE PERFORMED WITHOUT RECEIVING PRIOR APPROVAL FROM OWNER.
4. NO CONDUIT OR DEVICES IN FINISHED AREAS SHALL BE SURFACE MOUNTED. CONTRACTOR SHALL RECESS OR CONCEAL CONDUITS AND DEVICES AS REQUIRED. WHERE WALL TRENCHING IS REQUIRED, SAME SHALL BE APPROVED BY ARCHITECT.
5. CONTRACTOR SHALL GAIN APPROVAL FROM ARCHITECT PRIOR TO INSTALLING ANY SURFACE MOUNTED DEVICES.
6. CONTRACTOR SHALL RE-LABEL AND UPDATE SCHEDULES IN ALL EXISTING TO REMAIN PANELBOARDS AT THE COMPLETION OF THE PROJECT. PROVIDE NEW TYPED DIRECTORIES FOR EXISTING PANELBOARDS TO REFLECT ALL WORK DONE AS PART OF THIS PROJECT.
7. ALL EXISTING CONDUIT AND WIRING BEING CONNECTED TO NEW WORK THAT IS NOT IN COMPLIANCE WITH THE NEC SHALL BE CORRECTED AS REQUIRED.
8. AFTER COMPLETION OF NEW WORK REMOVE ALL TEMPORARY EQUIPMENT, CONDUIT, AND WIRING NOT REQUIRED TO REMAIN.
9. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING ANY WORK.
10. ALL EXISTING ITEMS REMOVED DURING DEMOLITION SHALL BE TURNED OVER TO OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING THE ITEMS TO A STORAGE LOCATION AS DETERMINED BY THE OWNER. ANY ITEMS THAT ARE NOT TO BE KEPT BY THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR. COORDINATE AS REQUIRED.
11. ALL CONDUITS SHALL BE HELD AS HIGH AND AS TIGHT AS POSSIBLE TO THE STRUCTURE SUPPORTING THE FLOOR ABOVE AREA WHERE INSTALLATION OCCURS. COORDINATE WITH OTHER TRADES AS REQUIRED.
12. COORDINATE THE ROUTING OF ALL CONDUITS WITH OTHER TRADES. MAKE OFFSETS AS REQUIRED. FURNISH AND INSTALL JUNCTION AND PULL BOXES AS REQUIRED. ROUTING SHOWN ON PLANS IS DIAGRAMMATIC.
13. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK. MAINTAIN AND RESTORE POWER TO ALL EXISTING DEVICES BEING SERVED IN UNDISTURBED AREAS, AND DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN.
14. ALL CIRCUITS FROM EXISTING-TO-REMAIN PANELBOARDS THAT HAVE THEIR ENTIRE LOAD REMOVED AND ARE NOT REQUIRED TO BE REUSED TO SERVE NEW LOADS, AS SHOWN ON NEW WORK DRAWINGS, SHALL HAVE THEIR CONDUIT AND WIRE REMOVED BACK TO THEIR PANELBOARD AND THEIR ASSOCIATED BREAKER SHALL BE LABELED AS A SPARE. CONDUIT THAT IS LOCATED IN THE FLOOR SLAB OR ABOVE INACCESSIBLE CEILING SHALL BE ABANDONED IN PLACE; HOWEVER, ALL CONDUCTORS SHALL BE REMOVED.
15. DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL DEVICES, LIGHT FIXTURES, ELECTRICAL EQUIPMENT SHOWN DARK AND DASHED ON THE DEMOLITION PLANS. DEVICES SHOWN LIGHT ARE EXISTING TO REMAIN.
16. THE CONTRACTOR SHALL VERIFY THE OPERATION OF ALL DEVICES THAT ARE EXISTING TO REMAIN. ALL NON-OPERATIONAL DEVICES SHALL BE CORRECTED OR REPLACED AS REQUIRED. REPLACE ALL DAMAGED AND MISSING COVERPLATES IN AREAS OF NEW WORK AS REQUIRED.
17. ALL CONDUIT, WIRING, DEVICES AND EQUIPMENT TO BE REMOVED MAY NOT BE SHOWN. HOWEVER, ALL ITEMS NOT REQUIRED TO REMAIN SHALL BE REMOVED.
18. THE CONTRACTOR SHALL MATCH THE RATINGS AND CHARACTERISTICS OF ALL NEW CIRCUIT BREAKERS BEING FURNISHED TO THAT OF THE EXISTING BREAKERS IN EXISTING PANELBOARDS UNLESS NOTED OTHERWISE.
19. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND ELEVATIONS FOR EXACT LOCATION OF LIGHT FIXTURES.
20. ALL RECEPTACLES INSTALLED IN BATHROOMS OR WITHIN SIX FEET OF ANY SINK SHALL BE GFI PROTECTED.
21. MC CABLE WILL BE ALLOWED FOR ALL INTERIOR POWER WIRING INSTALLED CONCEALED OR ABOVE 7'-6". SAME SHALL BE RAN IN A NEAT MANNER AND SUPPORTED PROPERLY.

ELECTRICAL SYMBOLS LIST AND GENERAL NOTES

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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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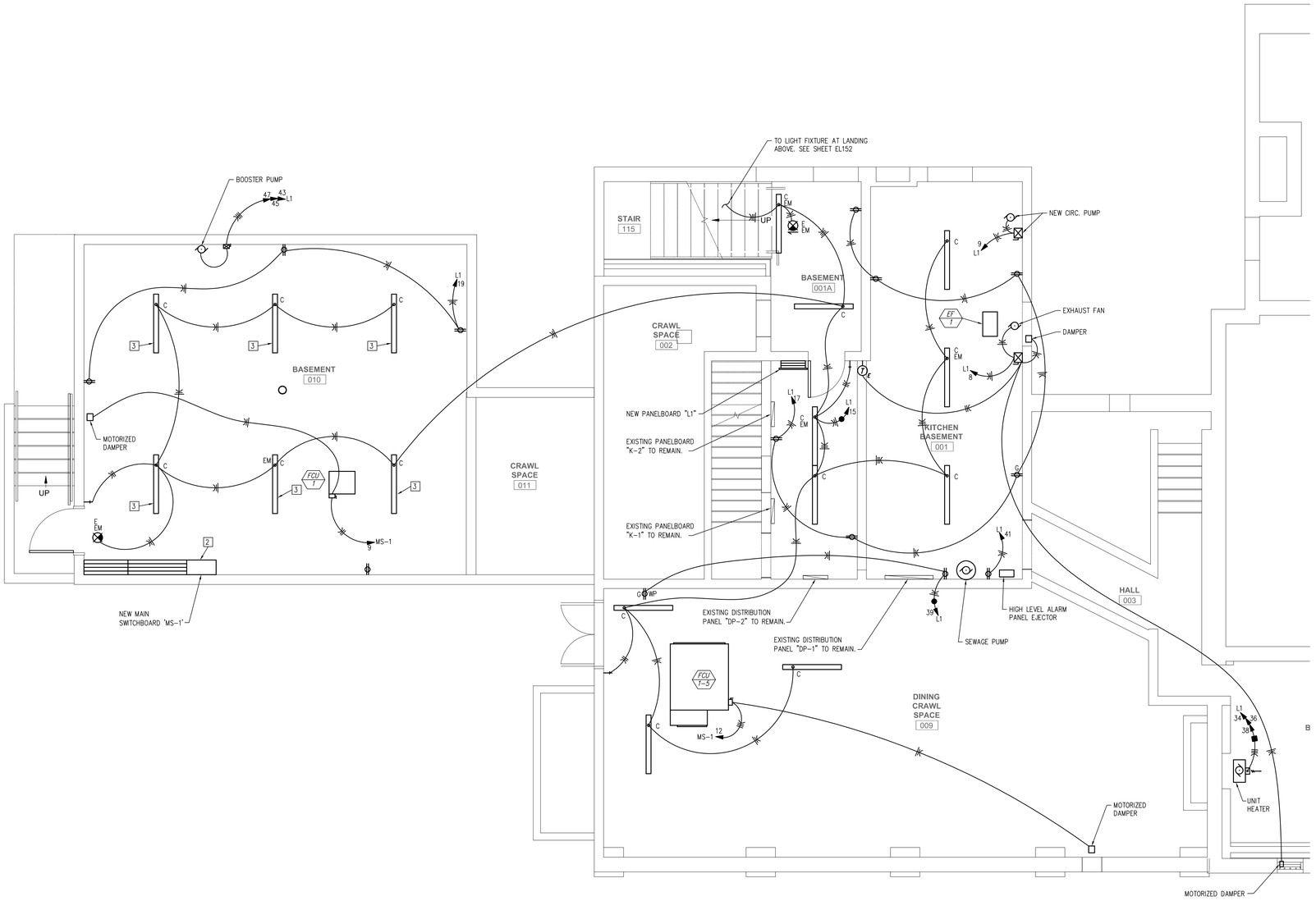
SHEET TITLE:
ELECTRICAL SYMBOLS, NOTES & LIGHT FIXTURE SCHEDULE

SHEET NUMBER:

E000

083 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

2019-175 E000.dwg



GENERAL NOTES:

1. REFER TO PROJECT GENERAL NOTES ON SHEET E000.

KEYED NOTES:

1. REFER TO RISER DIAGRAM FOR FEEDER SIZE.
2. FURNISH AND INSTALL PULL SECTION AS REQUIRED.
3. MOUNT TO STRUCTURE SUPPORTING FLOOR ABOVE.

1 BASEMENT ELECTRICAL PLAN - SOUTH

0' 2' 4' 8' 16'

2019-175 E101.dwg

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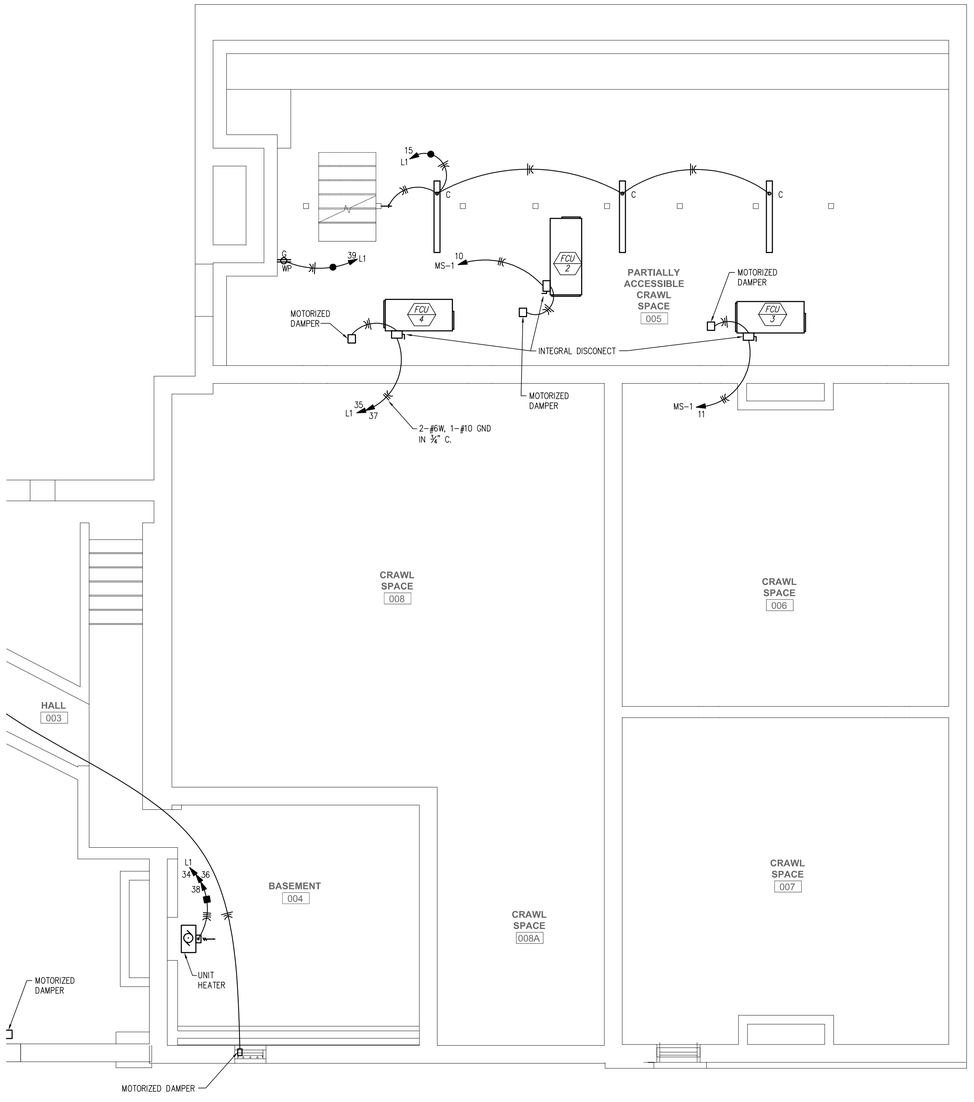
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GENERAL NOTES:

1. *REFER TO PROJECT GENERAL NOTES ON SHEET E000.*



1 BASEMENT ELECTRICAL PLAN - NORTH

0' 2' 4' 8' 16'

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SHEET TITLE:

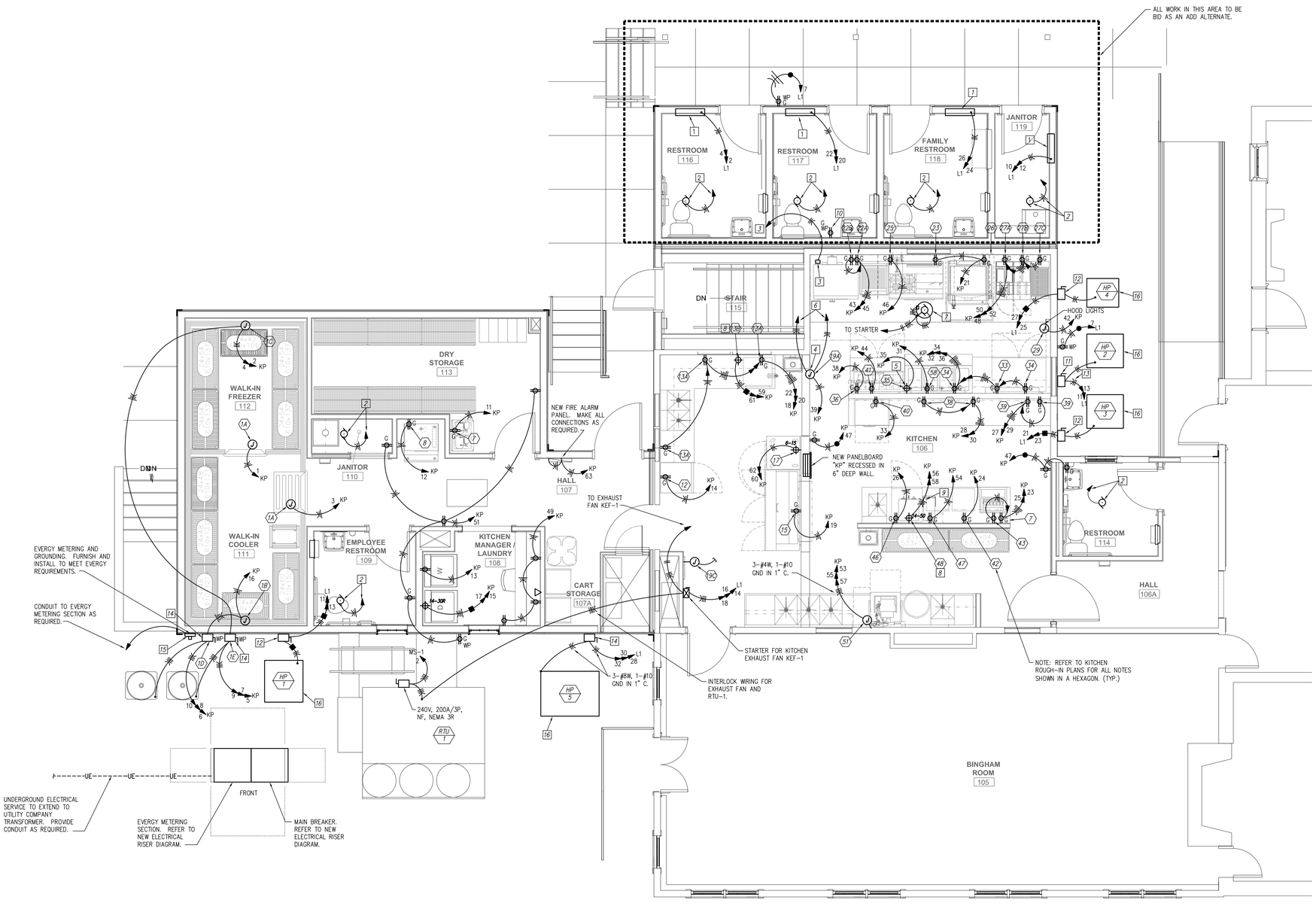
BASEMENT ELECTRICAL PLAN - NORTH

SHEET NUMBER:

E102

085 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

2019-175 E102.dwg



1 FIRST FLOOR ELECTRICAL PLAN - SOUTH

0' 2' 4' 8' 16'

GENERAL NOTES:

1. REFER TO PROJECT GENERAL NOTES ON SHEET E000.
2. REFER TO FOOD VENDOR DRAWINGS FOR ROUGH-IN INFORMATION FOR ELECTRICAL DEVICES, DETAILS AND OTHER PERTINENT INFORMATION.

KEYED NOTES:

1. 2KW ELECTRIC CABINET UNIT HEATER WITH INTEGRAL DISCONNECT AND THERMOSTAT.
2. EXHAUST FAN. CONNECT TO CIRCUIT SERVING LIGHT FIXTURE IN SAME AREA. EXHAUST FAN TO BE ON WHEN LIGHT IS ON.
3. GAS SOLENOID VALVE. CONNECT TO KITCHEN HOOD PANEL AS REQUIRED.
4. INTERCONNECT LOADS WITH SHUNT TRIP BREAKERS IN PANEL "KP" WITH HOOD SUPPRESSION PANEL AS REQUIRED.
5. THIS EQUIPMENT IS EXISTING AND IS TO BE RELOCATED TO THIS LOCATION. FIELD VERIFY PLUG AND WIRE SIZE AND MATCH EXISTING.
6. FURNISH AND INSTALL CONNECTIONS TO EXHAUST FAN AND MAKE-UP AIR FAN AS REQUIRED.
7. EXHAUST FAN KEF-1 WITH DAMPER ON ROOF. FURNISH AND INSTALL WEATHER PROOF TOGGLE TYPE DISCONNECT.
8. VERIFY RECEPTACLE CONFIGURATION WITH KITCHEN EQUIPMENT VENDOR.
9. 3#6WIRE, 1#10 GROUND IN 1" CONDUIT.
10. LOCATION OF EXTERIOR RECEPTACLE IF ADD ALTERNATE IS NOT ACCEPTED.
11. 240 VOLT, 60 AMP NON-FUSED DISCONNECT SWITCH IN LOCKABLE NEMA 3R ENCLOSURE.
12. 240 VOLT, 60 AMP NON-FUSED DISCONNECT SWITCH IN LOCKABLE NEMA 3R ENCLOSURE.
13. 2#6WIRES, 1#10 GROUND IN ¾" CONDUIT.
14. 30 AMP, 3 POLE WEATHER PROOF DISCONNECT.
15. NEW ELECTRIC SERVICE METER. FURNISH AND INSTALL METER SOCKET PER EVERGY STANDARDS AND REGULATIONS. CONTACT TONY BACHTEL (TONY.BACHTEL@EVERGY.COM) FOR MORE INFORMATION.

REFER TO DETAIL ON SHEET E000 FOR CONTROL WIRING INSTALLATION.

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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:	△
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DATE:	
REVISION:	△
DATE:	
ISSUE DATE:	5/12/2020

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SHEET TITLE:

FIRST FLOOR ELECTRICAL PLAN - SOUTH

SHEET NUMBER:

E103

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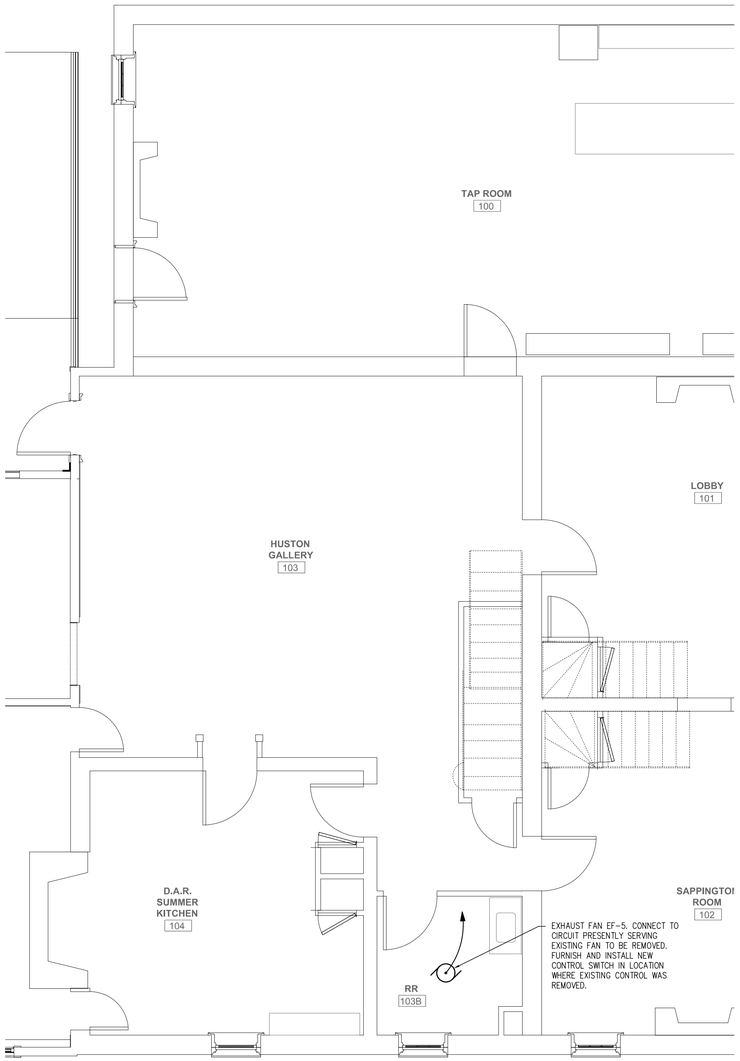
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GENERAL NOTES:

1. REFER TO PROJECT GENERAL NOTES ON SHEET E000.



1 FIRST FLOOR ELECTRICAL PLAN - NORTH

N

0' 2' 4' 8' 16'

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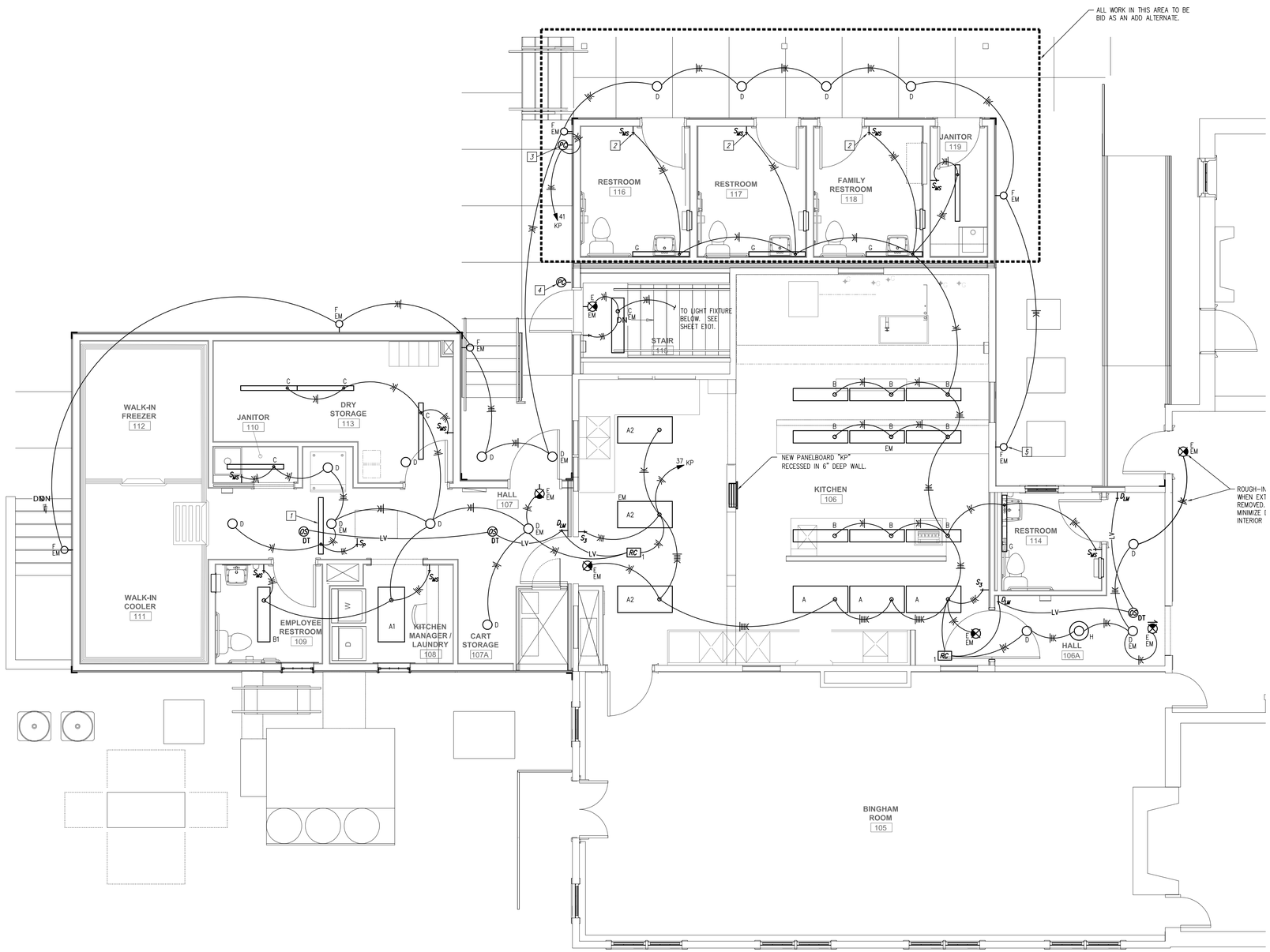
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1 FIRST FLOOR LIGHTING PLAN - SOUTH

0' 2' 4' 8' 16'

GENERAL NOTES:

1. REFER TO PROJECT GENERAL NOTES ON SHEET E000.

KEYED NOTES:

1. MOUNT LIGHT IN ATTIC AS REQUIRED.
2. MOTION SENSOR TO CONTROL LIGHT FIXTURE AND EXHAUST FAN.
3. PHOTOCELL FOR CONTROL OF ALL NEW EXTERIOR LIGHTING. PHOTOCELL TO BE INTERMATIC #EK4226S, OR APPROVED EQUAL, STEM AND SWIVEL MOUNT MODEL. PROVIDE ALL COMPONENTS AND ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION.
4. LOCATION OF PHOTOCELL IF ADD ALTERNATE IS NOT ACCEPTED.
5. IF ADD ALTERNATE IS NOT ACCEPTED, CONNECT THIS FIXTURE TO TYPE 'D' FIXTURE UNDER CANOPY AT ENTRANCE TO HAL 107.

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305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

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SHEET TITLE:

FIRST FLOOR LIGHTING PLAN - SOUTH

SHEET NUMBER:

EL152

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SCHEDULE OF CIRCUIT BREAKERS IN NEW SWITCHBOARD PANEL "MS-1"

120/208 VOLT, 4 WIRE, 3 Ø, 4 WIRE 1200 AMP BUS

NUMBER	BREAKER DESIGNATION	HORSE POWER	AMPS RUN	BREAKER SIZE	TYPE BREAKER	TRIP AMPS	WIRE AND CONDUIT SIZE
1	TVSS			100	3P	60	4-#4W, 1-#10 GND IN 1 1/4" C.
2	RTU-1		93.40	200	3P	125	3-#1W, 1-#6 GND IN 1 1/2" C.
3	PANELBOARD "L1"			400	3P	300	4-#350 MCM W, 1-#4 GND IN 3" C.
4	PANELBOARD "KP"			400	3P	300	4-#350 MCM W, 1-#4 GND IN 3" C.
5	NEW PANELBOARD - FIRST FLOOR (PHASE 2)			100	3P	100	PANEL TO BE NEW
6	PANELBOARD "K-2" (FUTURE)			400	3P	400	PANEL TO BE NEW
7	DOAS (FUTURE)			200	3P	110	
8	NEW PANELBOARD - SECOND FLOOR (FUTURE)			100	3P	100	PANEL TO BE NEW
9	FAN COIL UNIT FCU-1			100	2P	50	2-#6W, 1-#10 GND IN 1" C.
10	FAN COIL UNIT FCU-2		75.50	100	2P	100	2-#1W, 1-#8 GND IN 1 1/4" C.
11	FAN COIL UNIT FCU-3		54.50	100	2P	80	2-#3W, 1-#8 GND IN 1" C.
12	FAN COIL UNIT FCU 1-5		72.00	100	3P	80	3-#3W, 1-#8 GND IN 1 1/4" C.
13					3P		

PROJECT NAME:	ARROW ROCK KITCHEN				PROJECT #:		2019-175	
PANELBOARD NAME:	"KP"		VOLTAGE:	120/208 ???				
MAIN BREAKER:	300	CONNECTED LOAD:	#VALUE!		FED FROM:		MS-1	
NOTES: STAINLESS STEEL COVER					MOUNTING:		FLUSH	
	DESCRIPTION OF LOAD SERVED	AMPS	POLE	CIR #	CIR #	POLE	AMPS	DESCRIPTION OF LOAD SERVED	
	FREEZER LTS, DOOR HEATER	20	1	1	2	2	15	WALK-IN FREEZER	
	COOLDER LTS, DOOR HEATER	20	1	3	4				
	FREEZER CONDENSER	20	3	5	6	3	20	COOLER CONDENSER	
				7	8				
				9	10				
	SODA MACHINE	20	1	11	12	1	20	ICE MACHINE	
	WASHER	20	1	13	14	1	20	REFRIGERATOR	
	DRYER	30	2	15	16	1	30	COOLER EVAP COIL	NOTE 1
				17	18	1	20	PREP TABLE	
	REFRIG PREP TABLE	20	1	19	20	1	20	PREP TABLE	
NOTE 2	TILT SKILLET	20	1	21	22	1	20	PREP TABLE	
	BEVERAGE COUNTER	20	2	23	24	1	20	BEVERAGE COUNTER	
	BEVERAGE COUNTER	20	1	25	26	1	20	U.C. REFRIG.	
	SOUP WELLS	20	1	27	28	1	20	RECEP	
	SOUP WELLS	20	1	29	30	1	20	RECEP	
	DRAWER WARMER	20	1	31	32	1	20	HEAT LAMP	
	U.C. DRAWER WARMER	20	1	33	34	1	20	U.C. REFRIG.	
NOTE 1	HOT FOOD TABLE	20	1	35	36	1	20	HEAT LAMP	
	KITCHEN LIGHTS	20	1	37	38	1	20	REFRIG. PREP TABLE	
	FIRE PROTECTION PANEL	20	1	39	40	1	20	ANNEX LIGHTS	
	EXTERIOR LIGHTS	20	1	41	42	1	20	HOOD LIGHTS	
NOTE 2	CONVECTION OVEN	20	1	43	44	1	20	MICROWAVE	NOTE 2
NOTE 2	CONVECTION OVEN	20	1	45	46	1	20	RANGE WITH GRILL	NOTE 2
	KITCHEN RECEPTACLES	20	1	47	48	1	20	FRYER	NOTE 2
	KITCHEN MANAGER RECEPTACLES	20	1	49	50	1	20	FRYER	NOTE 2
	ANNEX RECEPTACLES	20	1	51	52	1	20	FRYER	NOTE 2
				53	54	1	20	TEA BREWER	
NOTE 3	DISH WASHER	60	3	55	56	2	40	COFFEE BREWER	
				57	58				
	PREP TABLE	30	2	59	60	2	15	HEATED HOLDING CABINET	
				61	62				
	FIRE ALARM PANEL	20	1	63	64	1	20	*SPARE*	
	SPARE	20	1	65	66	1	20	*SPARE*	
	SPARE	20	1	67	68	1	20	*SPARE*	
	SPARE	20	1	69	70	1	20	*SPARE*	
	SPARE	20	1	71	72	1	20	*SPARE*	

NOTES:
1. GFCI CIRCUIT BREAKER
2. SHUNT TRIP BREAKER
3. PROVIDE PERMANENT LOCKING MEANS FOR CIRCUIT BREAKER.

PANELBOARD NAME:	L1		VOLTAGE:		120/208		3 Phase, 4 Wire
MAIN BREAKER:	300	CONNECTED LOAD:			FED FROM:		MS-1
NOTES:							
DESCRIPTION OF LOAD SERVED	AMPS	POLE	CIR #	CIR #	POLE	AMPS	DESCRIPTION OF LOAD SERVED
VAPORIZER	25	3	1	2	2	20	REST ROOM HEATER
			3	4			
			5	6	1	20	*SPARE*
EXTERIOR RECEPTACLE	20	1	7	8	1	15	EXHAUST FAN (BASEMENT)
CIRC. PUMP	15	1	9	10	2	20	JANITOR HEATER
HEAT PUMP HP-1	25	2	11	12			
			13	14	3	15	EXHAUST FAN
BASEMENT LIGHTS	20	1	15	16			
BASEMENT RECEPTACLES	20	1	17	18			
BASEMENT RECEPTACLES	20	1	19	20	2	20	REST ROOM HEATER
HEAT PUMP HP-3	30	2	21	22			
			23	24	2	20	REST ROOM HEATER
HEAT PUMP HP-4	25	2	25	26			
			27	28	3	35	HEAT PUMP HP-5
HEAT PUMP HP-2	45	2	29	30			
			31	32			
SPARE	20	1	33	34	3	30	UNIT HEATER - NORTH BASEMENT
FAN COIL UNIT FCU-4	50	2	35	36			
			37	38			
SEWAGE EJECTOR RECEPTACLE	20	1	39	40	1	20	*SPARE*
HIGH LEVEL ALARM PANEL RECEPTACLE	20	1	41	42	1	20	*SPARE*
BOOSTER PUMP	20	3	43	44			*SPARE*
			45	46			*SPARE*
			47	48			*SPARE*
SPARE	*20*	*1*	*49*	*50*			*SPARE*
SPARE	*20*	*1*	*51*	*52*			*SPARE*
SPARE	*20*	*1*	*53*	*54*			*SPARE*
SPARE	*20*	*1*	*55*	*56*			*SPARE*
SPARE	*20*	*1*	*57*	*58*			*SPARE*
SPARE	*20*	*1*	*59*	*60*			*SPARE*

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ELECTRICAL PANEL SCHEDULES

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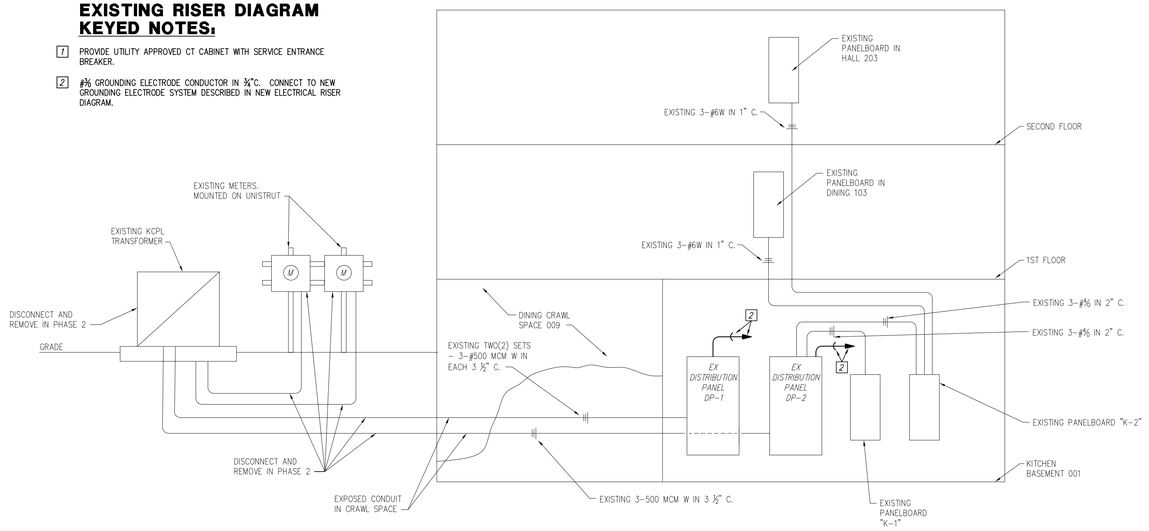
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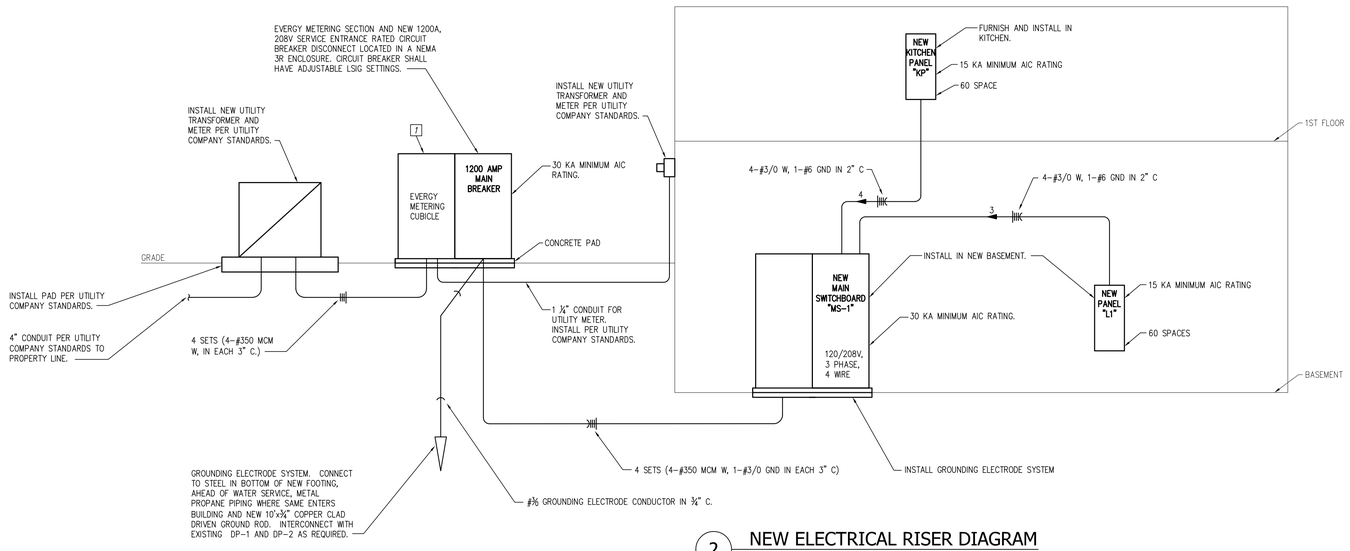
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EXISTING RISER DIAGRAM KEYED NOTES:

1. PROVIDE UTILITY APPROVED CT CABINET WITH SERVICE ENTRANCE BREAKER.
2. #⅜ GROUNDING ELECTRODE CONDUCTOR IN ¾"C. CONNECT TO NEW GROUNDING ELECTRODE SYSTEM DESCRIBED IN NEW ELECTRICAL RISER DIAGRAM.



1 EXISTING ELECTRICAL RISER DIAGRAM - FOR INFORMATION (ONLY)
NOT TO SCALE



2 NEW ELECTRICAL RISER DIAGRAM
NOT TO SCALE

2019-175 E301.dwg

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EXISTING AND NEW ADDITION RISER DIAGRAMS

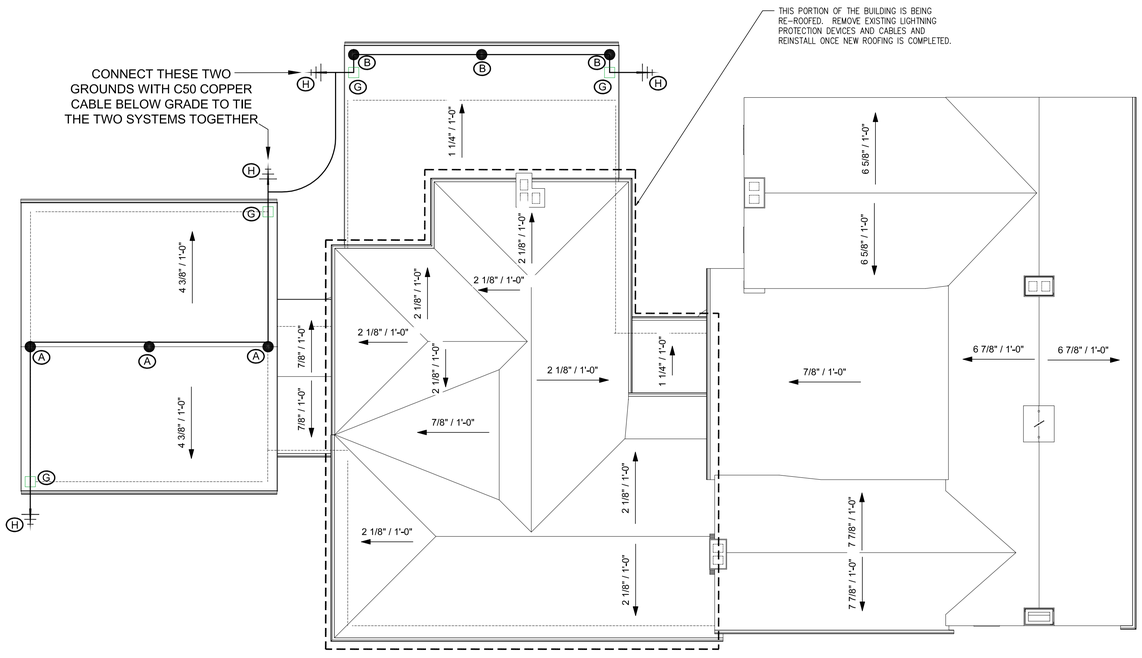
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LIGHTNING PROTECTION PLAN

GENERAL NOTES

NOTE: THE DESIGN & DETAILS SHOWN WILL MEET THE REQUIREMENTS OF UNDERWRITERS LABORATORY STANDARD 96A, NATIONAL FIRE PROTECTION ASSOCIATION CODE 780 & THE LIGHTNING PROTECTION INSTITUTE STANDARD 175 FOR LIGHTNING PROTECTION SYSTEMS.

1	CONDUCTOR BEND SHALL NOT FORM A SHARPER ANGLE THAN 90 DEGREES OR HAVE A RADIUS LESS THAN 8 INCHES.
2	ISOLATED METAL BODIES THAT SHOW NO CONDUCTANCE TO GROUND SHALL NOT REQUIRE BONDING. A GROUNDED METAL BODY WITHIN THE SIX FOOT RULE SHALL BE BONDED TO THE SYSTEM.
3	CONNECTIONS TO GROUND AND/OR COUNTERPOISE SHALL BE MADE AT A POINT NOT LESS THAN 1'-0" BELOW GRADE, AND 2'-0" AWAY FROM FOUNDATION WALL.
4	AIR TERMINAL SHALL BE PLACED AT THE LOCATIONS INDICATED, NOT MORE THAN 2'-0" FROM THE ENDS OF RIDGES, OUTSIDE CORNERS, OR OUTSIDE EDGES OF MAIN ROOFS AND MUST EXTEND A MINIMUM OF 10" ABOVE OBJECT TO BE PROTECTED.
5	MIDROOF AIR TERMINALS SHALL BE SPACED AT 50'-0" O.C. MAXIMUM SPACING.
6	JOB CONDITIONS MAY DICTATE VARIATIONS IN AIR TERMINAL, CONDUCTORS AND GROUND ROD LOCATIONS.
7	CONDUCTORS SHALL MAINTAIN A HORIZONTAL OR DOWNWARD PATH FREE FROM "U" AND "V" POCKETS. ANY RISE IN HORIZONTAL CONDUCTOR SHALL NOT EXCEED 8 INCHES.
8	CABLE MAY RISE UPWARDS AT A RATE OF 3" OF RISE PER 1'-0" RUN MAXIMUM.
9	COPPER LIGHTNING PROTECTION MATERIALS SHALL NOT BE PLACED ON ALUMINUM, GALVANIZED STEEL, GALVALUME SURFACES OR ANY OTHER DISSIMILAR METAL SURFACES, PAINTED OR NOT, NOR SHALL ALUMINUM MATERIALS BE PLACED ON COPPER SURFACES.
10	FOR THE SAKE OF CLARITY WE HAVE NOT CALLED OUT EACH INDIVIDUAL ITEM OF LIGHTNING PROTECTION MATERIALS ON THE ROOF PLAN. WE HAVE SHOWN TYPICAL DETAILS AND HAVE CALLED OUT EACH OF THESE DETAILS ON THE ROOF PLAN, ONLY IN SCATTERED LOCATIONS.
11	ALL STRUCTURAL STEEL, REBAR, FRAMING & MISCELLANEOUS STEEL SHALL BE MADE ELECTRICALLY CONTINUOUS THROUGH CONSTRUCTION (NOT THE RESPONSIBILITY OF THE LIGHTNING PROTECTION CONTRACTOR).
12	ELECTRIC, TELEPHONE AND ANTENNA SYSTEM GROUNDS SHALL BE CONNECTED WITH MAIN SIZE CONDUCTOR TO ONE LIGHTNING PROTECTION GROUND OR METAL WATER PIPE.
13	A LIGHTNING ARRESTOR, PROTECTOR, OR ANTENNA-DISCHARGE UNIT MUST BE INSTALLED ON EACH ELECTRIC AND TELEPHONE SERVICE ENTRANCE AND RADIO AND TELEVISION ANTENNA LEAD IN. (TO BE PROVIDED BY ELECTRICAL CONTRACTOR.)
14	ALL ADHESIVE FIXTURES SHALL BE SET WITH AN ADHESIVE COMPOUND COMPATIBLE WITH THE ROOFING MATERIAL. ADHESIVES SHALL BE APPROVED IN ADVANCE BY THE ROOFING CONTRACTOR.
15	BOND ALL METAL PIPES SUCH AS WATER, GAS, FIRE, STORM, SEWER WHICH ENTER THE STRUCTURE TO THE NEAREST DOWNLEAD, GROUND ROD OR COUNTERPOISE.
16	CABLE WILL BE FASTENED EVERY 3'-0" O.C. MAXIMUM SPACING.
17	PERIMETER AND RIDGE AIR TERMINALS 10" TO 23" WILL BE SPACED UP TO 20' MAXIMUM. AIR TERMINALS 24" AND OVER WILL BE SPACED 25' MAXIMUM.
18	LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN A NEAT, PROFESSIONAL MANNER.
19	ON EXTERIOR WALLS OF BLOCK OR BRICK, DOWNLEAD CABLES SHALL BE ANCHORED IN THE BLOCK OR BRICK, NOT IN MORTAR.

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816.474.0900 www.strata-arch.com

Missouri State Certificate of Authority: #000396

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 5/12/2020

CAD DWG FILE: 19-175 E500.dwg
DRAWN BY: PIP
CHECKED BY: PIP
DESIGNED BY: PIP

SHEET TITLE:

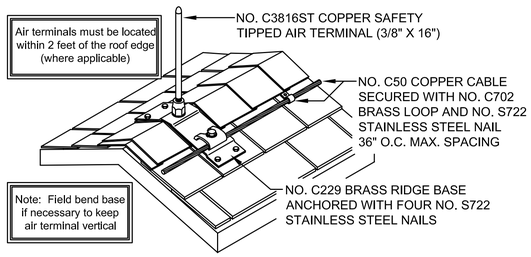
LIGHTNING PROTECTION PLAN

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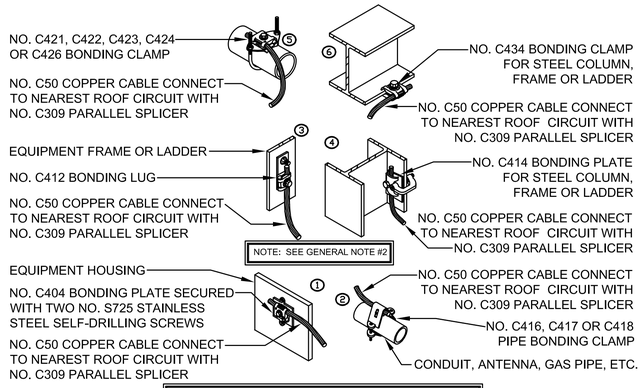
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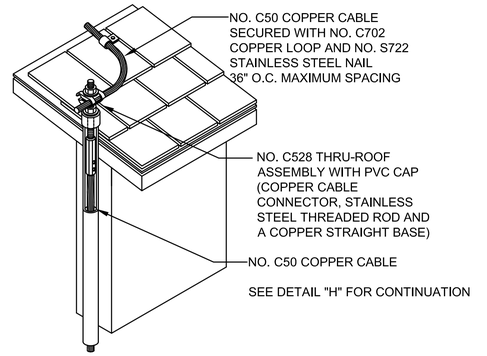
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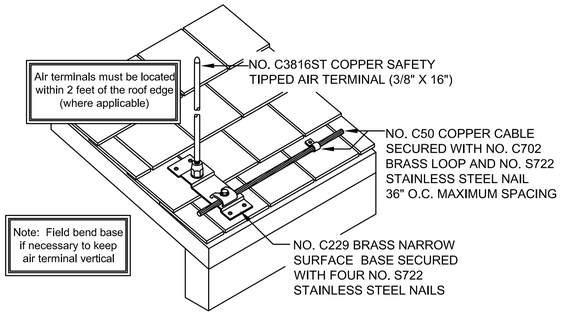
Ⓐ TYPICAL RIDGE AIR TERMINAL
N.T.S



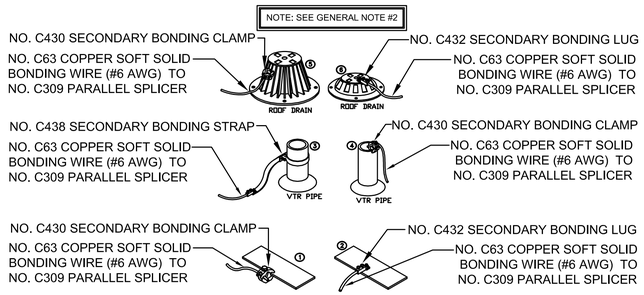
Ⓓ TYPICAL ROOF EQUIPMENT BONDS - CLASS I
N.T.S.



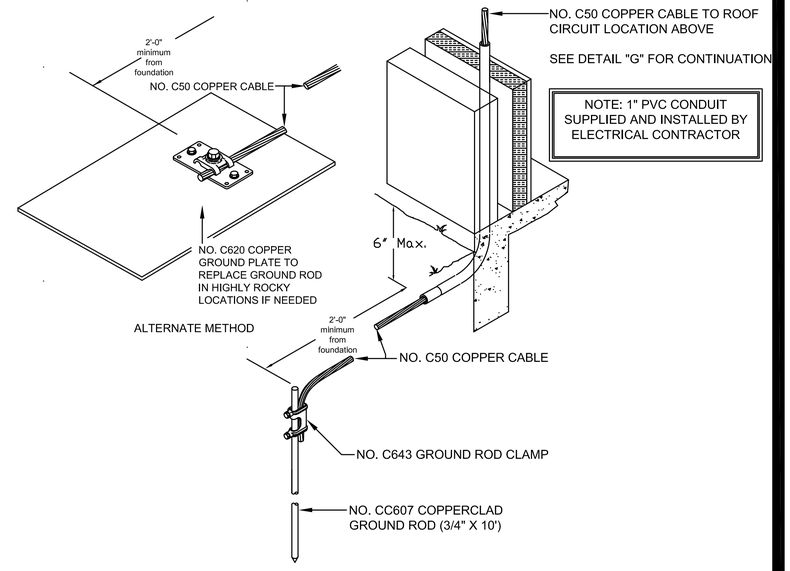
Ⓖ TYPICAL THRU-ROOF AND CONCEALED DOWNLEAD TO GROUND
N.T.S.



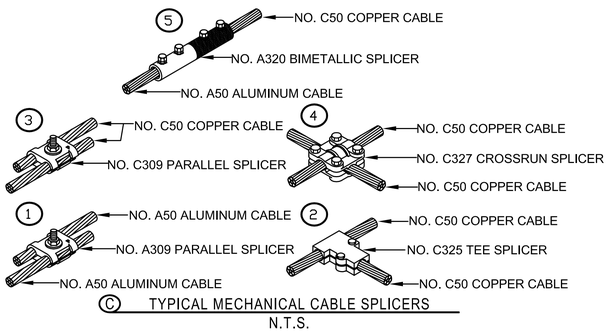
Ⓑ TYPICAL NARROW SURFACE AIR TERMINAL BASE AT ROOF EDGE
N.T.S.



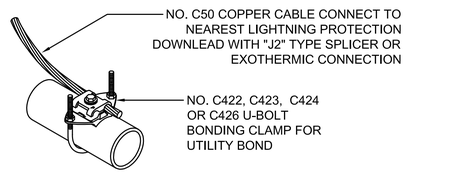
Ⓔ TYPICAL SECONDARY BONDS
N.T.S.



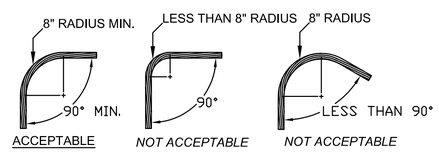
Ⓗ TYPICAL CONCEALED DOWNLEAD TO GROUND ROD AND COUNTERPOISE
N.T.S.



Ⓒ TYPICAL MECHANICAL CABLE SPLICERS
N.T.S.



Ⓕ TYPICAL METAL UNDERGROUND UTILITY PIPE BOND
N.T.S.



Ⓙ TYPICAL - ACCEPTABLE CABLE BENDS
N.T.S.

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Mechanical and Electrical Engineers • Since 1933
1600 Baltimore, Suite 300
Kansas City, Missouri 64108
Phone: 816.842.8437
Fax: 816.842.6441
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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI BRUCE ELDON HART NUMBER E-22817 PROFESSIONAL ENGINEER
05/12/2020
Bruce E. Hart - Engineer
Missouri # E-22817

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CHECKED BY: PIP
DESIGNED BY: PIP

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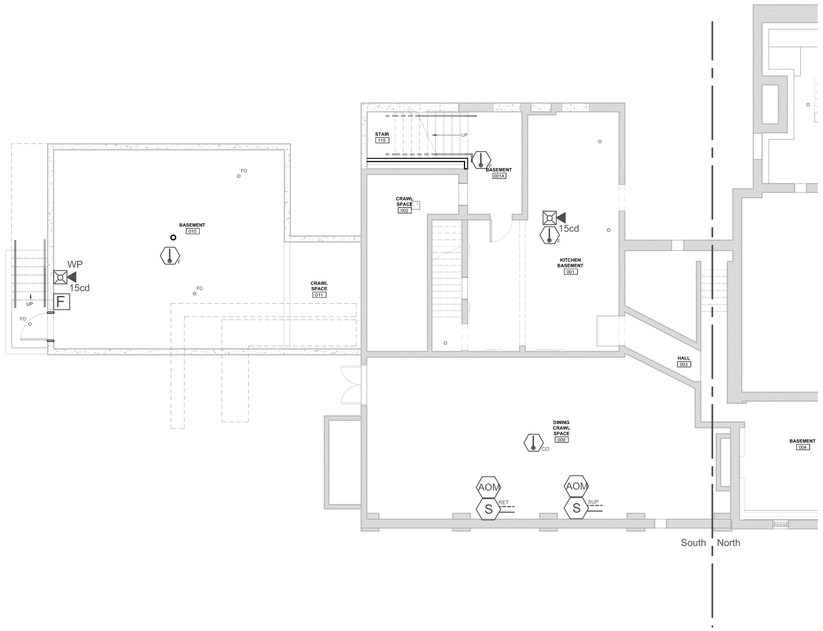
DETAILS

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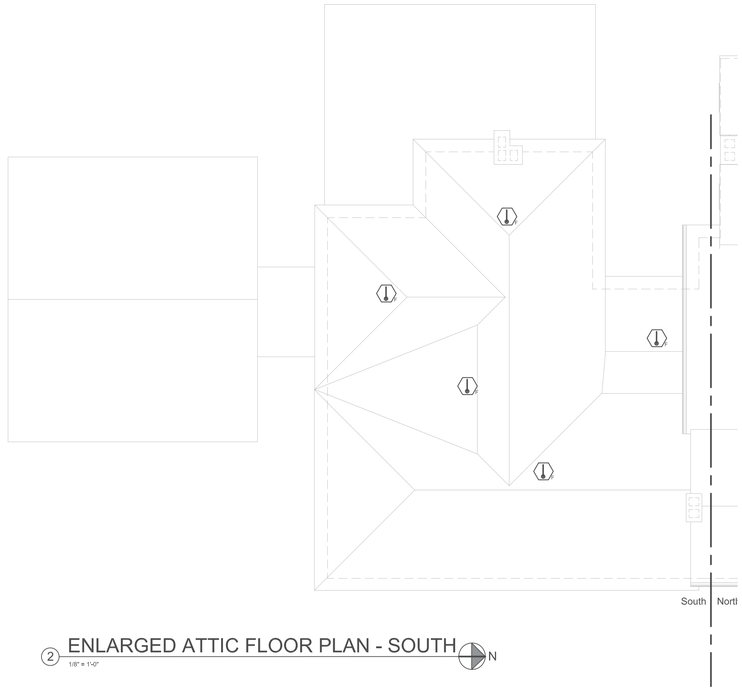
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MAY 12, 2020

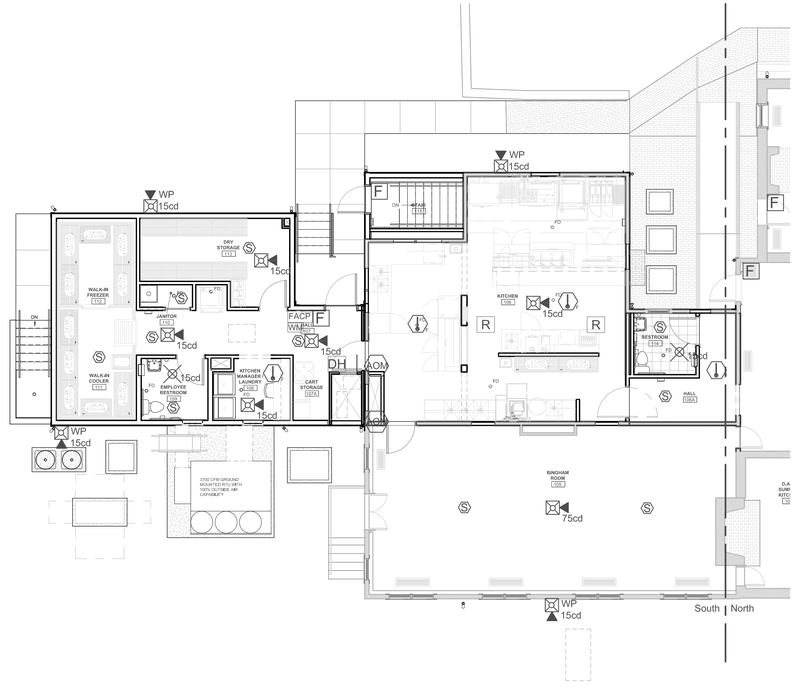
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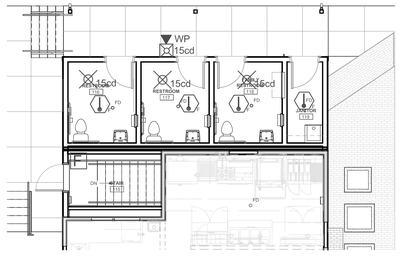
1 ENLARGED BASEMENT FLOOR PLAN - SOUTH
1/8" = 1'-0"



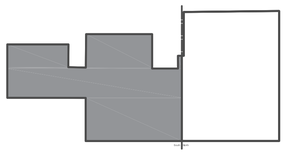
2 ENLARGED ATTIC FLOOR PLAN - SOUTH
1/8" = 1'-0"



3 ENLARGED FIRST FLOOR PLAN - SOUTH
1/8" = 1'-0"



4 ENLARGED FIRST FLOOR PLAN - SOUTH - ALTERNATE 1
1/8" = 1'-0"



5 KEY PLAN
1/32" = 1'-0"

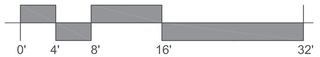
FIRE ALARM PANEL NOTES:
PROVIDE FIRE ALARM CONTROL PANEL BY FIRELITE ES200X OR EQUAL BY OTHERS. PROVIDE RED FINISH, SEMIFLUSH CABINET, WITH LED INDICATORS, VISIBLE NOTIFICATION APPLIANCES AND ELECTRONIC HORNS, IVORY/WHITE COVERS WITH RED "FIRE" LETTERING, SMART SYNC CONTROL MODULE, CLASS B.

PROVIDE WEATHERPROOF HI-CANDELA LED HORN/STROBES, WALL MOUNTED ON THE EXTERIOR OF THE BUILDING AS SHOWN.

PROVIDE ADDRESSABLE MODULES FOR NEW HVAC NON-SYSTEM SMOKE SENSORS (QUANTITY 4). PROVIDE ADDRESSABLE MODULES & RELAYS FOR DAMPERS IN RATED FIRE BARRIERS TO CLOSE UPON DUCT SMOKE DETECTION OPERATION - LOCATE WITHIN 3 FEET OF DAMPER PER NFPA 72.

PROVIDE COMBINATION HEAT & CARBON MONOXIDE DETECTION IN ALL AREAS WITH GAS FIRED EQUIPMENT. PROVIDE THERMAL DETECTORS IN ALL ACCESSIBLE CRAWL SPACES AND ATTIC OR "PROTECTOWIRE" CTI - CONFIRMED TEMPERATURE INITIATION CABLE.

PROVIDE WIRELESS FIRE SYSTEM "SWIFT" GATEWAY FOR PHASE 2 - ALL WIRELESS DEVICES SHALL BE PROVIDED IN THE EXISTING HISTORIC FACILITY INCLUDING PULL STATIONS (W-BG12LX), PHOTOELECTRIC SMOKE DETECTORS (W-SD355), W-SYNC AV BASES AND W-CRF/MMF MODULES.



GRAPHIC SCALE
1/8" = 1'-0"

FIRE ALARM DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
WM	WIRELESS MODULE FOR WIRELESS DEVICES
15cd	FIRE ALARM HORN/STROBE (WP=WEATHERPROOF)
15cd	FIRE ALARM STROBE ONLY
	FIRE ALARM HORN ONLY
	HEAT SENSOR (CO = CARBON MONOXIDE BASE) (F = 135° TEMPERATURE OPERATION)
S	SMOKE DETECTOR
F	MANUAL PULL STATION
DH	MAGNETIC DOOR HOLDER
R	COOKING HOOD EXTINGUISHING SYSTEM RELAY
S	DUCT DETECTOR FOR HVAC UNIT SHUTDOWN
AIM	ADDRESSABLE INPUT MODULE FOR SIGNAL FROM NON-SYSTEM SMOKE DETECTOR
AOM	ADDRESSABLE OUTPUT MODULE FOR DAMPER CLOSURE IN 3-HR FIRE BARRIER

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
CYNTHIA M. GIER
NUMBER PE-137695
5/12/20
PROFESSIONAL ENGINEER

Cynthia M. Gier - Engineer
MO# E-1999137695

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Missouri State Certificate of Authority: #2003025022

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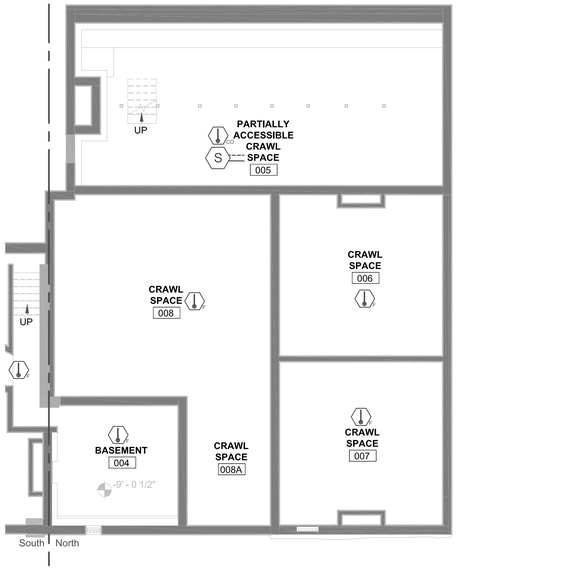
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DATE:
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DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: BG/CG
DRAWN BY: BG/CG
CHECKED BY: AG
DESIGNED BY: CMG

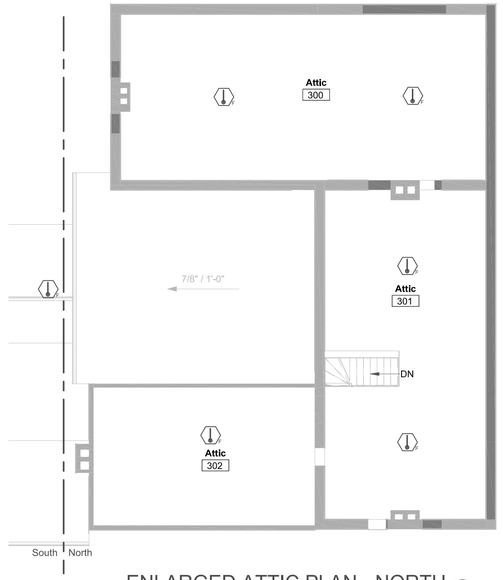
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FIRE ALARM PLANS

SHEET NUMBER:
F-001

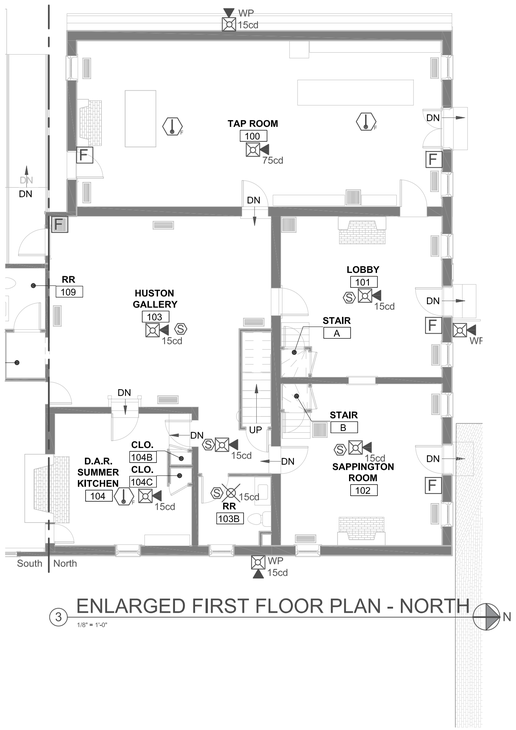
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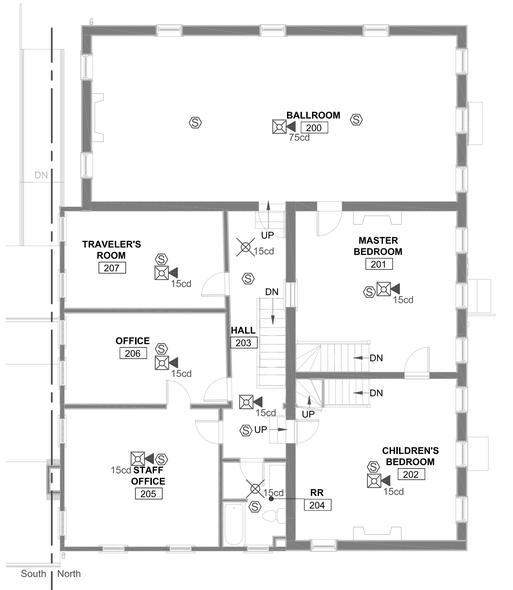
1 ENLARGED BASEMENT FLOOR PLAN - NORTH
1/8" = 1'-0"



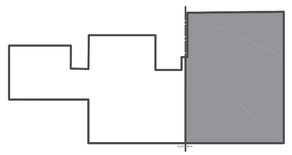
2 ENLARGED ATTIC PLAN - NORTH
1/8" = 1'-0"



3 ENLARGED FIRST FLOOR PLAN - NORTH
1/8" = 1'-0"



4 ENLARGED SECOND FLOOR PLAN - NORTH
1/8" = 1'-0"



KEY PLAN
1/32" = 1'-0"

0' 4' 8' 16' 32'

GRAPHIC SCALE
1/8" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
CYNTHIA M. GIER
NUMBER PE-137695
5/12/20
PROFESSIONAL ENGINEER

Cynthia M. Gier - Engineer
MO# E-1999137695

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CAD DWG FILE: BG/CG
DRAWN BY: BG/CG
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DESIGNED BY: CMG

SHEET TITLE:
FIRE ALARM PLANS

SHEET NUMBER:

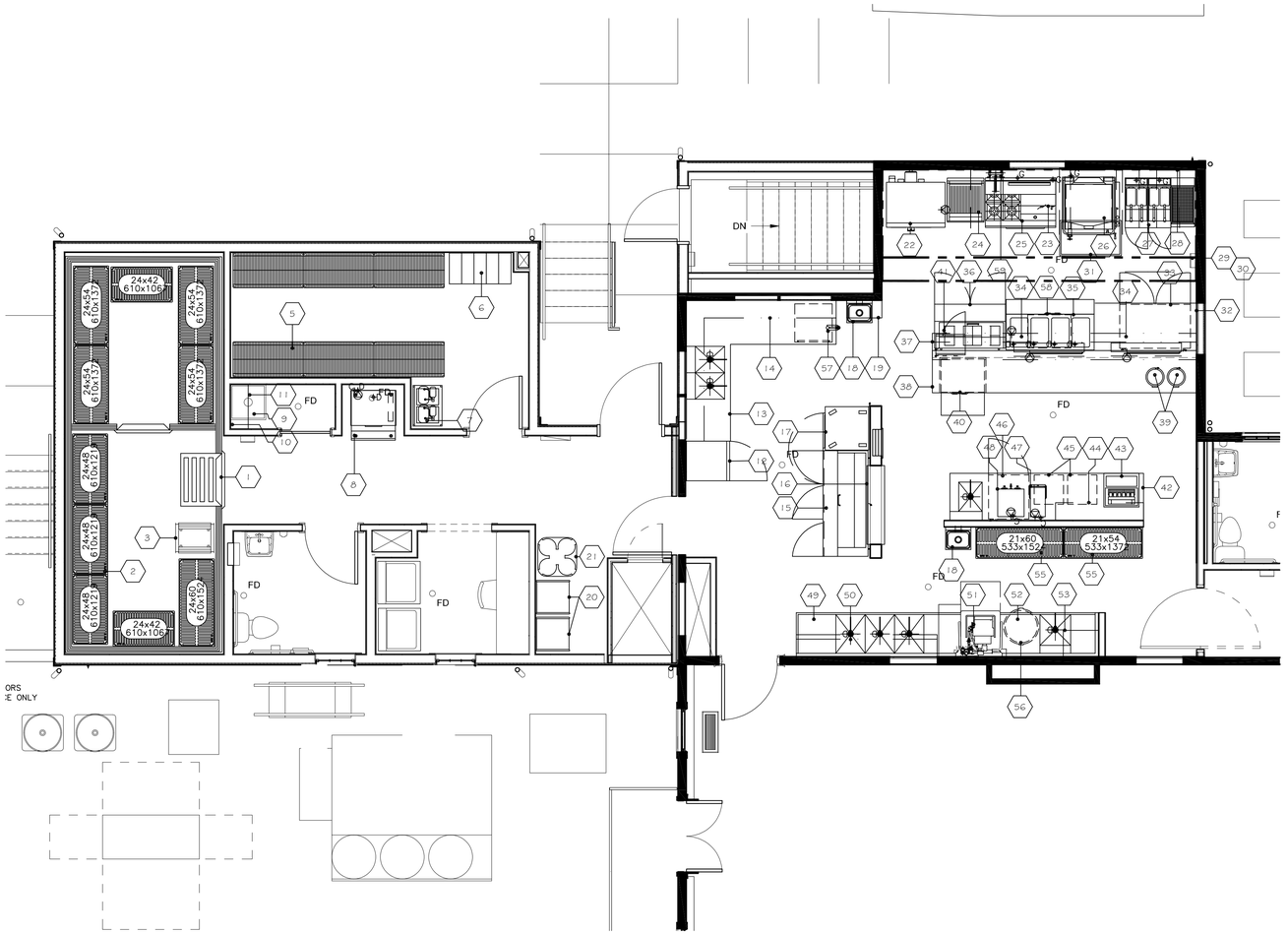
F-101

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EQUIPMENT SCHEDULE

ITEM NO.	QTY.	DESCRIPTION	FURN. BY	REMARKS
1	1	WALK-IN COOLER/FREEZER	CFCI	
2	1 LOT	COOLER SHELVING	CFCI	
3	1	RACK	OFCI	
4	1 LOT	FREEZER SHELVING	OFCI	
5	1 LOT	DRY STORAGE	OFCI	
6	1	CAN RACK	OFCI	
7	1	SODA SYSTEM	OFCI	
8	1	ICE MACHINE W/ BIN	OFCI	EXISTING LEASED UNIT TO BE RELOCATED
9	1	MOP SINK	CFCI	BY P.C.
10	1	MOP RACK	CFCI	BY G.C.
11	1	WALL SHELF	CFCI	BY G.C.
12	1	REFRIGERATOR	OFCI	SINGLE SECTION W/ HALF HEIGHT DOORS
13	1	PREP TABLE W/ SINK	OFCI	
14	1	WALL SHELF	OFCI	
15	1	REFRIGERATED SANDWICH PREP TABLE	OFCI	EXISTING TO BE RELOCATED
16	2	WALL SHELVES	OFCI	
17	1	HOT HOLDING CABINET	OFCI	FULL HEIGHT UNIT
18	2	HAND SINKS	OFCI	WITH SIDE SPLASHES
19	1	FIRE CABINET	CFCI	
20	2	GLASS RACK DOLLIES	OFCI	
21	1	DISH RACK DOLLY	OFCI	
22	1	CONVECTION OVEN	OFCI	DOUBLE DECK
23	1	SALAMANDER BROILER	OFCI	EXISTING TO BE RELOCATED
24	1	CHAR BROILER	OFCI	25" UNIT WITH STAND
25	1	RANGE W/ GRILL	OFCI	4 BURNER W/ 2'-0" GRILL W/ STANDARD OVEN BASE
26	1	TILT SKILLET	OFCI	30 GALLON
27	1	FRYERS W/ DUMP STATION	OFCI	
28	1	ST. ST. WALL PANELING	OFCI	
29	1	HOOD	CFCI	
30	1	DUCT AND FAN	CFCI	BY HVAC
31	1	TRENCH DRAIN	CFCI	
32	1	WORK TABLE	OFCI	
33	1	UNDER COUNTER FREEZER	OFCI	4'-0" LONG 2 DOOR UNIT
34	2	HEAT LAMP	OFCI	4'-0" LONG UNITS
35	1	HOT FOOD TABLE	OFCI	EXISTING TO BE RELOCATED
36	1	REFRIGERATED PREP TABLE	OFCI	EXISTING TO BE RELOCATED
37	1	DOUBLE OVER SHELF WITH UTENSIL RACK	OFCI	
38	1	PICK-UP COUNTER	OFCI	
39	2	SOUP WELLS	OFCI	COUNTER UNITS
40	1	UNDER COUNTER DRAWER WARMER	OFCI	TWO DRAWER UNIT
41	1	MICROWAVE	OFCI	
42	1	BEVERAGE COUNTER W/ SINK	OFCI	
43	1	SODA UNIT	OFOI	BY VENDOR
44	1	WALL SHELF	OFCI	
45	1 LOT	SLIDE-IN GLASS RACKS	OFCI	
46	1	UNDER COUNTER REFRIGERATOR	OFCI	SINGLE DOOR UNIT
47	1	TEA BREWER	OFOI	BY VENDOR
48	1	COFFE BREWER	OFOI	BY VENDOR
49	1	THREE COMPARTMENT SINK	OFCI	
50	1	DOUBLE OVER SHELF	OFCI	
51	1	DISH MACHINE	OFCI	
52	1	SOILED DISH TABLE	OFCI	
53	1	DISH RACK	OFCI	
54	0	SPARE NUMBER	OFCI	
55	2	POT RACKS	OFCI	
56	1 LOT	TRASH CANS	OFOI	BY OWNER
57	1	CAN OPENER	OFCI	
58	1	DRAWER WARMER	OFCI	SINGLE DRAWER UNIT
59	1	FILL FAUCET	OFCI	

CFCI - CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
OFOI - OWNER/OWNER'S AGENT FURNISHED & INSTALLED
OFCI - OWNER FURNISHED/CONTRACTOR INSTALLED



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

STATE OF MISSOURI
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CAD DWG FILE: CA/JT
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

FOOD SERVICE EQUIPMENT FLOOR PLAN

SHEET NUMBER:

Q-FP-01

095 OF 102 SHEETS
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ELECTRICAL NOTES:

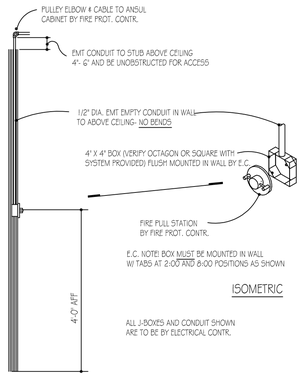
1. ALL ELECTRICAL OUTLETS AND CONNECTIONS SHOWN ON PLAN ARE FOR FOODSERVICE EQUIPMENT AND ARE FOR REFERENCE ONLY. ELECTRICAL CONTRACTOR SHALL VERIFY ALL LEFT TO RIGHT DIMENSIONAL LOCATIONS WITH THE KITCHEN EQUIPMENT CONTRACTOR'S SHOP DRAWINGS.
2. ELECTRICAL CONTRACTOR SHALL VERIFY ALL INCOMING SERVICES, MAKE ALL EXTERNAL & INTERNAL CONNECTIONS AND PROVIDE ALL SWITCHES, BREAKERS, PANEL BOARDS, CONDUITS, J-BOXES, ETC. AS NECESSARY TO MAKE FOODSERVICE EQUIPMENT FUNCTIONAL.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL J-BOXES, OUTLETS AND RECEPTACLES IN FIXTURES. FIXTURE FABRICATOR TO LOCATE ALL RECEPTACLES AND/OR SWITCHES WHEN PART OF THE FIXTURE. INTERNAL WIRING SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
4. ELECTRICAL CONTRACTOR SHALL MAKE ALL INTER-CONNECTIONS FOR ALL FOODSERVICE EQUIPMENT REQUIRING A FIELD JOINT DUE TO LENGTH OR OTHER CONSTRAINTS. (THIS MAY INCLUDE BUT IS NOT LIMITED TO: EXHAUST VENTILATORS, CHEF'S COUNTERS, BUFFET COUNTERS, CONVEYORS, ETC.)
5. ALL SYMBOLS NOTED AS 12", 18", 24", ETC. ARE FROM FINISHED FLOOR TO CENTERLINE OF STUB-OUT AT HEIGHT INDICATED ON PLAN. ALL SYMBOLS NOTED AS STUB-UP SHALL TERMINATE IN A J-BOX MOUNTED HORIZONTAL TO THE FINISHED FLOOR. THE J-BOX TOP SHALL BE AT 5 1/2" A.F.F. AND SHALL BE FITTED WITH APPROPRIATE RECEPTACLE AND FACE PLATE.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE A 6'-0" PIGTAIL FLEX CONDUIT AT ALL DIRECT CONNECT STUB-OUTS. ELECTRICAL CONTRACTOR TO EXTEND AND CONNECT TO ALL EQUIPMENT AND/OR FIXTURES AS REQUIRED.
7. ELECTRICAL CONTRACTOR SHALL CONNECT 120V CONTROL CIRCUIT FROM FIRE PROTECTION SYSTEM TO CONTROL COIL.
8. ELECTRICAL CONTRACTOR SHALL PROVIDE A MINIMUM OF 3 WIRES ON ALL 208 OR 230 VOLT CIRCUITS.
9. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SERVICE ON ROOF FOR EXHAUST AND/OR MAKE-UP AIR SYSTEMS. ELECTRICAL CONTRACTOR SHALL VERIFY LOCATION.
10. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL UNDERBAR LIGHTING AND CONNECT BACKBAR DISPLAY LIGHTING.
11. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL STAINLESS STEEL COVER PLATES ON ALL RECEPTACLES AND SWITCHES IN FOODSERVICE AREAS. ALL RECEPTACLES ABOVE 48" SHALL BE SET HORIZONTALLY.
12. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL GENERAL LIGHTING FIXTURES. DECORATIVE LIGHTING FIXTURES SUPPLIED BY THE KITCHEN EQUIPMENT CONTRACTOR SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
13. ELECTRICAL CONTRACTOR SHALL PROVIDE CAPS AND CORDS FOR ALL ITEMS WHICH USE CONVENIENCE OUTLETS WHEN NOT SUPPLIED BY THE MANUFACTURER. ELECTRICAL CONTRACTOR SHALL SHORTEN ANY CORDS IF NECESSARY OR IF REQUESTED. KITCHEN EQUIPMENT CONTRACTOR SHALL COORDINATE.
14. ELECTRICAL CONTRACTOR SHALL PROVIDE TWIST-LOCK TYPE RECEPTACLES ON ALL PENDANT CORDS THAT HANG FROM A CEILING JUNCTION BOX. KITCHEN EQUIPMENT CONTRACTOR SHALL PROVIDE TWIST-LOCK PLUGS ON ALL FOODSERVICE EQUIPMENT POWERED BY THE PENDANT CORDS.
15. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTION TO ALL FLY FANS AND/OR AIR CURTAINS PROVIDED AND INSTALLED BY THE KITCHEN EQUIPMENT CONTRACTOR.
16. LIGHT AND POWER PANELS SHALL BE SELECTED AND SIZED TO ALLOW FOR A 20 PERCENT CIRCUIT CAPACITY FOR FUTURE USE.
17. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUIT FOR BEVERAGE AND REMOTE REFRIGERATION LINES AS REQUIRED. CONDUIT BENDS SHALL BE A MINIMUM OF 24" RADIUS.
18. BEVERAGE AND/OR REFRIGERATION CONDUIT LINES DEPICTED ON PLAN ARE SCHEMATIC ONLY. ACTUAL LINE RUN LOCATION/ROUTE SHALL BE VERIFIED AND COORDINATED BY THE ELECTRICAL CONTRACTOR AND KITCHEN EQUIPMENT CONTRACTOR AND/OR VENDOR.
19. BEVERAGE CONDUITS REQUIRE A PULL BOX OR PULL SLEEVE EVERY 75'-0" OR EVERY THREE (3) BENDS, WHICH EVER COMES FIRST. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL PULL BOXES. KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE LOCATION BASED ON MANUFACTURER'S RECOMMENDATION.
20. ELECTRICAL CONTRACTOR SHALL CONNECT ALL COMPRESSORS COMPLETE WITH DISCONNECT SWITCHES AND MAGNETIC STARTERS.
21. ELECTRICAL CONTRACTOR SHALL PROVIDE ON/OFF SWITCH WITH MAGNETIC STARTER(S) FOR EXHAUST FAN AND/OR MAKE-UP AIR FAN.
22. ELECTRICAL CONTRACTOR SHALL VERIFY ALL WIRING OF WALK-IN COOLERS/FREEZERS, EXHAUST HOODS, BUFFET COUNTER, DISH MACHINES AND BOOSTER HEATERS, ETC. WITH SHOP DETAILS.
23. ELECTRICAL CONTRACTOR SHALL VERIFY TYPE OF CONDUIT THAT MEETS LOCAL CODES.
24. ELECTRICAL CONTRACTOR SHALL PROVIDE SEAL TIGHT CONDUIT IN ALL EXPOSED AREAS.
25. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL UTILITY LOADS SHOWN ON THIS PLAN. IF DISCREPANCIES ARE FOUND, THE KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE CHANGES REQUIRED WITH ALL TRADES AND PARTIES INVOLVED PRIOR TO PURCHASE AND INSTALLATION OF EQUIPMENT. THE KITCHEN EQUIPMENT CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH ANY CHANGES REQUIRED AS A RESULT OF ITS FAILURE TO COORDINATE AS REQUIRED.
26. ELECTRICAL CONTRACTOR SHALL PROVIDE A DEDICATED CIRCUIT WITH AN ISOLATED GROUND FOR ALL POINT OF SALE AND COMPUTER EQUIPMENT SHOWN ON PLAN.
27. ELECTRICAL CONTRACTOR SHALL INTER-WIRE ALL WALK-IN COOLER/FREEZER LIGHTS (AS REQUIRED.) ALL CONDUIT SHALL BE RUN ON THE TOP EXTERIOR CEILING OF THE WALK-IN. ALL PENETRATIONS SHALL BE SEALED BY THE KITCHEN EQUIPMENT CONTRACTOR.
28. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SHUNT-TRIP BRANCH BREAKER FOR ALL ELECRICAL APPLIANCES UNDER THE EXHAUST HOODS UNLESS OTHER WISE NOTED OR PROVIDED IN A UTILITY DISTRIBUTION SYSTEM.

LEGEND

A.	AMPERES
A.F.F.	ABOVE FINISHED FLOOR
C.O.	CONVENIENCE OUTLET
D.F.A.	DOWN FROM ABOVE
E.C.	ELECTRICAL CONNECTION
D.R.	DUPLEX RECEPTACLE
J.B.	JUNCTION BOX
S.R.	SINGLE RECEPTACLE
H.P.	HORSE POWER
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
K.W.	KILOWATTS
P.W.	PRE-WIRED
P	PHONE LINE/SYSTEM
S.D.	STUB-DOWN
S.O.	STUB-OUT
S.U.	STUB-UP

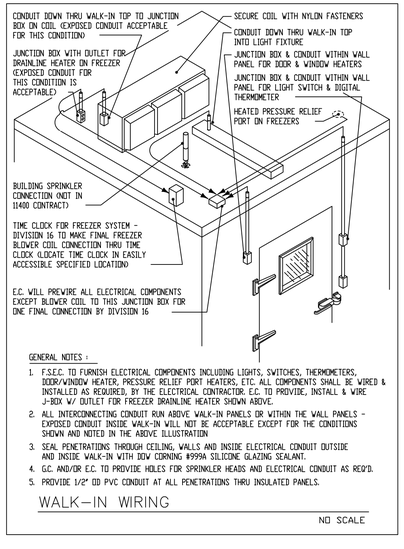
NOTES:
1. MECHANICAL AND ELECTRICAL REQUIREMENTS SHOWN ARE FOR FOOD SERVICE EQUIPMENT ONLY.

2. ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACE FLOOR (FLOOR, WALL OR CEILING) TO THE CENTERLINE OF ROUGH-INS.



SECTION THRU WALL

VERIFY LOCATION OF FIRE PULL(S) W/FIRE MARSHALL PRIOR TO INSTALLATION
(MUST BE 10'-0" MIN FROM HOOD AND NO MORE THAN 48"A.F.F., AND LOCATED IN EGRESS PATH)



GENERAL NOTES :

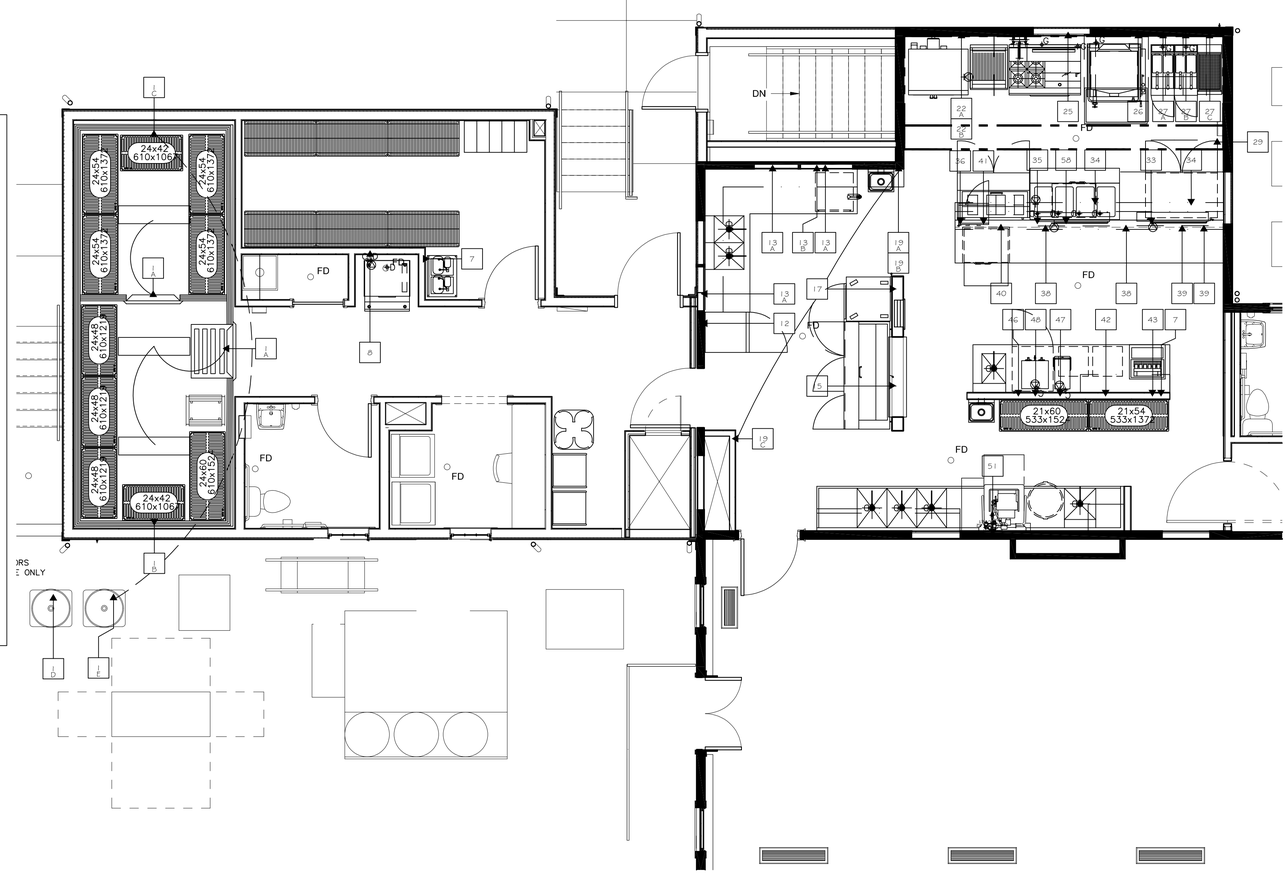
1. F.S.E.C. TO FURNISH ELECTRICAL COMPONENTS INCLUDING LIGHTS, SWITCHES, THERMOMETERS, DOOR/WINDOW HEATER, PRESSURE RELIEF PORT HEATERS, ETC. ALL COMPONENTS SHALL BE WIRED & INSTALLED AS REQUIRED, BY THE ELECTRICAL CONTRACTOR. E.C. TO PROVIDE, INSTALL & WIRE J-BOX W/ OUTLET FOR FREEZER BRAINLINE HEATER SHOWN ABOVE.
2. ALL INTERCONNECTING CONDUIT RUN ABOVE WALK-IN PANELS OR WITHIN THE WALL PANELS - EXPOSED CONDUIT INSIDE WALK-IN WILL NOT BE ACCEPTABLE EXCEPT FOR THE CONDITIONS SHOWN AND NOTED IN THE ABOVE ILLUSTRATION
3. SEAL PENETRATIONS THROUGH CEILING, WALLS AND INSIDE ELECTRICAL CONDUIT OUTSIDE AND INSIDE WALK-IN WITH DOW CORNING #999A SILICONE GLAZING SEALANT.
4. G.C. AND/OR E.C. TO PROVIDE HOLES FOR SPRINKLER HEADS AND ELECTRICAL CONDUIT AS REQ'D.
5. PROVIDE 1/2" OD PVC CONDUIT AT ALL PENETRATIONS THRU INSULATED PANELS.

WALK-IN WIRING

NO SCALE

ELECTRICAL SCHEDULE

CONN. NO.	VOLTAGE	PHASE	AMPS LOAD	K.W. LOAD	CONN. TYPE	MGT. A.F.F.	COMMENTS
1A	115	1	20	1.92	J.B.	9'-0"	ELECT. CONTR. SHALL CONNECT TO J-BOX ON TOP OF WALK-IN FOR LIGHTS, DOOR HEATER, RELIEF PORT, ALARM, ETC.
1B	115	1	2		J.B.	9'-0"	ELECT. CONTR. SHALL CONNECT TO J-BOX ON TOP OF WALK-IN FOR COOLER EVAP. COIL
1C	208	1	8.9		J.B.	9'-0"	ELECT. CONTR. SHALL CONNECT TO J-BOX ON TOP OF WALK-IN FOR FREEZER EVAP. COIL - INNERWIRE BETWEEN COIL AND COMPRESSOR
1D	208	3	4.8		J.B.	1'-0"	ELECT. CONTR. SHALL PROVIDE J-BOX AND DISCONNECT SWITCH FOR REMOTE WALK-IN COOLER COMPRESSOR - VERIFY LOCATION
1E	208	3	7.7		J.B.	1'-0"	ELECT. CONTR. SHALL PROVIDE J-BOX AND DISCONNECT SWITCH FOR REMOTE WALK-IN FREEZER COMPRESSOR - INNERWIRE BETWEEN COMPRESSOR AND COIL
7	115	1	20	1.92	D.R.	1'-6"	FOR CARBONATORS
8	115	1	14.3		D.R.	6'-6"	
12	115	1	2.8		D.R.	1'-6"	
13A	115	1	20	1.92	D.R.	4'-0"	CONVENIENCE OUTLET
13B	208	1	30		S.R.	4'-0"	CONVENIENCE OUTLET
15	115	1	15		D.R.	1'-6"	
17	220	1	12.8	3.1	S.R.	1'-6"	6-15P
19A	115	1	20	1.92	J.B.	9'-0"	ELECT. CONTR. SHALL PROVIDE 20 AMP 24 HR DEDICATED CIRCUIT FOR FIRE PROTECTION SYSTEM
19B					J.B.	9'-0"	ELECT. CONTR. SHALL INNERCONNECT EXHAUST FAN AND MAKE-UP AIR FAN TO MICRO SWITCH IN FIRE PROTECTION CABINET
19C					J.B.	4'-0"	ELECT. CONTR. SHALL PROVIDE J-BOX AND EMPTY CONDUIT IN WALL FOR REMOTE MANUAL PULL STATION - SEE DETAIL THIS SHEET
22A	115	1	7.7		D.R.	1'-6"	
22B	115	1	7.7		D.R.	3'-0"	
23	115	1	5.7		D.R.	1'-6"	
25	115	1	20	1.92	D.R.	1'-6"	
26	115	1	15		D.R.	1'-6"	
27A	115	1	1.7		D.R.	1'-6"	FOR LIFTS AND CONTROLS
27B	115	1	10		D.R.	1'-6"	FOR FILTER
27C	115	1	6.3		D.R.	1'-6"	FOR HEAT LAMP
29	115	1	15		J.B.	9'-0"	ELECT. CONTR. SHALL CONNECT TO J-BOX ON TOP OF HOOD FOR PRE-WIRED LIGHT SWITCH
33	115	1	5.4		D.R.	1'-6"	
34	115	1	9.2	1.1	D.R.	9'-0"	
35	208	1	25	3	S.R.	1'-6"	
36	115	1	8.6		D.R	1'-6"	
38	115	1	20	1.92	D.R.	4'-0"	CONVENIENCE OUTLET
39	115	1	6.7	.8	D.R.	1'-6"	
40	115	1	7.5	.9	D.R.	1'-6"	
41	115	1	13.4		J.B.	1'-6"	ELECT. CONTR. SHALL CONNECT TO RECEPTACLE ON LOWER SHELF OF ITEM #37
42	115	1	20	1.92	D.R.	4'-0"	CONVENIENCE OUTLET
43	115	1	2		D.R.	4'-0"	VERIFY - BY VENDOR
46	115	1	2		D.R.	1'-6"	
47	115	1	14	1.7	D.R.	4'-0"	VERIFY - BY VENDOR
48	115/208	1	28.8	5.9	D.R.	4'-0"	VERIFY - BY VENDOR
51	208	3	45.4		J.B.	1'-6"	
58	115	1	3.8	.5	D.R.	1'-6"	



FOODSERVICE EQUIPMENT SPOT ELECTRICAL PLAN

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

STATE OF MISSOURI
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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

FOOD SERVICE EQUIPMENT SPOT ELECTRICAL PLAN

SHEET NUMBER:

Q-FP-02

096 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

PLUMBING NOTES:

1. ALL PLUMBING OUTLETS AND CONNECTIONS SHOWN ON PLAN ARE FOR FOODSERVICE EQUIPMENT AND ARE FOR REFERENCE ONLY. PLUMBING CONTRACTOR TO VERIFY ALL LEFT TO RIGHT DIMENSIONAL LOCATIONS WITH THE KITCHEN EQUIPMENT CONTRACTOR'S SHOP DRAWINGS.
2. PLUMBING CONTRACTOR SHALL VERIFY ALL INCOMING SERVICES, MAKE ALL EXTERNAL & INTERNAL CONNECTIONS AND PROVIDE ALL PIPING, FITTINGS, BACK FLOW PREVENTOR, PARTS, ETC. AS NECESSARY TO MAKE FOODSERVICE EQUIPMENT FUNCTIONAL.
3. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL INDIVIDUAL SHUT-OFF VALVES FOR ALL WATER & GAS LINES AS REQUIRED.
4. ALL FLOOR, WALL & CEILING PENETRATIONS MUST BE SEALED WATER TIGHT AND VERMIN PROOF.
5. ALL SYMBOLS NOTED AS 12", 18", 24", ETC. ARE FROM FINISHED FLOOR TO CENTERLINE OF STUB-OUT AT HEIGHT INDICATED ON PLAN. ALL SYMBOLS NOTED AS STUB-UP SHALL BE STUBBED-UP ABOVE FINISHED FLOOR AT HEIGHT INDICATED ON PLAN.
6. ALL FLOOR SINKS SHOWN ARE TO BE FLUSH WITH THE FINISHED FLOOR (UNLESS OTHERWISE REQUIRED BY LOCAL BUILDING AND/OR HEALTH CODE.) FLOOR SINKS SHALL BE LOCATED IN MANNER SO AS TO ALLOW FOR SIGHT INSPECTION BY CODE OFFICIALS.
7. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL REMOVABLE GRILLS OR COVERS FOR ALL FULLY OR PARTIALLY EXPOSED FLOOR SINKS.
8. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL TYPE "L" COPPER TUBING DRAIN LINES FROM ALL APPLICABLE EQUIPMENT TO FLOOR SINKS. ALL DRAIN LINES FROM ICE BIN/MACHINES, WALK-IN AND/OR BEER REFRIGERATION SYSTEMS, ETC. ARE TO BE INSULATED.
9. FLOOR SINKS FOR DISHWASHING MACHINES SHALL HAVE A MINIMUM OF A 3" CAST IRON DRAIN PIPE. PVC WILL MELT OR DEFORM FROM HEAT.
10. PLUMBING CONTRACTOR SHALL PROVIDE 140 DEGREE HOT WATER TO DISHWASHING MACHINE.
11. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL PRESSURE REGULATING VALVE FOR DISHWASHING MACHINE IF HOT WATER PRESSURE IS IN EXCESS OF 25 LBS. FLOW PRESSURE.
12. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL AUTOMATIC SHUT-OFF VALVE(S) IN GAS LINE FOR ALL FOODSERVICE EQUIPMENT BELOW EXHAUST VENTILATOR.
13. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL LINE STRAINER AND/OR APPROVED FILTER ON GAS SUPPLY LINE.
14. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL HOT WATER TANK (UNLESS OTHERWISE NOTED.) UNIT SHALL BE SIZED FOR ADEQUATE WATER CONSUMPTION TO MEET ALL APPLICABLE CODES.
15. KITCHEN EQUIPMENT CONTRACTOR SHALL PROVIDE AND PLUMBING CONTRACTOR TO INSTALL APPLIANCE GAS PRESSURE REGULATOR(S) FOR EQUIPMENT (AS REQUIRED.) BLDG. MAIN LINE PRESSURE REGULATOR(S) SHALL BE FURNISHED AND INSTALLED BY THE PLUMB. CONTR.
16. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL GATE VALVES ON ALL WATER AND GAS LINES.
17. PLUMBING CONTRACTOR SHALL PROVIDE CHROME PLATED PIPES AND FITTINGS FOR ALL EXPOSED LINE RUNS (AS REQUIRED.) EXPOSED PIPING SHALL BE HELD OFF THE WALL FOR CLEANING.
18. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL GREASE TRAPS AS REQUIRED BY BUILDING/HEALTH CODE.
19. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL UTILITY SIZES AND LOAD REQUIREMENTS SHOWN ON PLANS.
20. KITCHEN EQUIPMENT CONTRACTOR AND PLUMBING CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS AT THE JOB-SITE.
21. ALL WALK-IN DRAIN LINES TO HAVE A MINIMUM SLOPE OF 1" PER 1'-0". ALL DRAIN LINES SHALL BE MOUNTED 1" FROM WALLS.
22. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXTERNAL AND/OR INTERNAL HOOK-UPS OF WATER, GAS, STEAM, ETC. TO ALL NEW AND REUSED EQUIPMENT PER PLAN.
23. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL INTER-CONNECTIONS REQUIRED DUE TO FIELD JOINTS REQUIRED IN FOODSERVICE EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE AS REQUIRED.
24. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL UTILITY LOADS SHOWN ON THIS PLAN. IF DISCREPENCIES ARE FOUND THE KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE CHANGES REQUIRED WITH ALL TRADES AND PARTIES INVOLVED.
25. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH ALL FAUCETS LOOSE FOR PLUMBING CONTRACTOR TO INSTALL ON SINKS, COUNTERS, DISH TABLES, ETC...

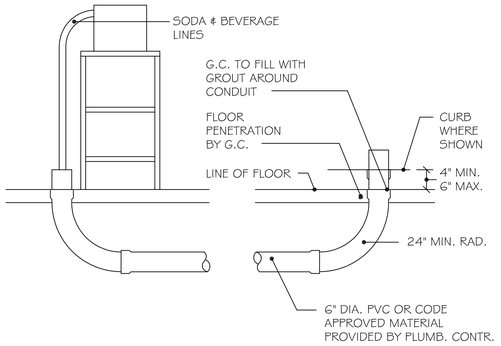
LEGEND

A.	AMPERES
A.F.F.	ABOVE FINISHED FLOOR
C.O.	CONVENIENCE OUTLET
C.W.	COLD WATER
D.F.A.	DOWN FROM ABOVE
E.C.	ELECTRICAL CONNECTION
E.D.R.	DUPLEX RECEPTACLE
E.J.B.	JUNCTION BOX
E.S.R.	SINGLE RECEPTACLE
F.D.	FLOOR DRAIN
F.F.D.	FUNNEL FLOOR DRAIN
F.S.	FLOOR SINK
G.T.	GREASE TRAP
H.D.	HUB DRAIN
H.P.	HORSE POWER
H.W.	HOT WATER
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
K.W.	KILOWATTS
P.W.	PRE-WIRED
S.D.	STUB-DOWN
S.O.	STUB-OUT
S.U.	STUB-UP
W&V	WASTE WITH VENT

NOTES:
1. MECHANICAL AND ELECTRICAL REQUIREMENTS SHOWN ARE FOR FOOD SERVICE EQUIPMENT ONLY.

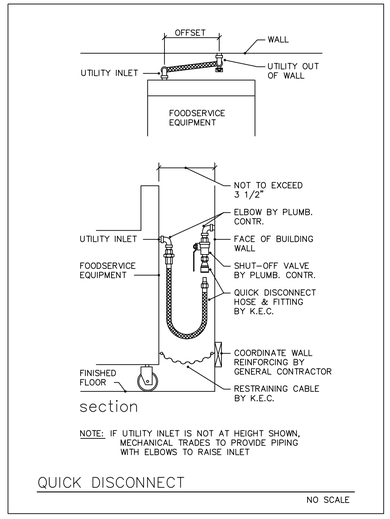
2. ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACE FLOOR (FLOOR, WALL OR CEILING) TO THE CENTERLINE OF ROUGH-INS.

3. PLUMB. CONTR. IS RESPONCIBLE FOR REDUCING BUILDING GAS SUPPLY PRESSURE TO ACCEPTABLE LEVELS FOR EQUIPMENT TO OPERATE PROPERLY.



SODA LINE CONDUIT - USE ONLY:

1. 24" MINIMUM RAD. EASY SWEEP ELBOWS, DO NOT USE ORDINARY 90° ELBOW
2. STUB-UP 4" MIN., 6"MAX. ABOVE FINISHED FLOOR OR CURB
3. CONDUIT MUST BE WATERTIGHT
4. PLUMBING CONTR. TO FILL CONDUIT STUB-UP WITH FOAM AFTER SODA LINES ARE INSTALLED
5. INSTALL CONDUIT PER APPLICABLE CODES

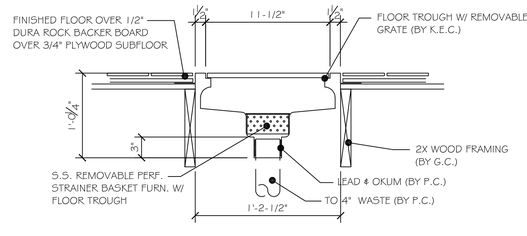


section

NOTE: IF UTILITY INLET IS NOT AT HEIGHT SHOWN, MECHANICAL TRADES TO PROVIDE PIPING WITH ELBOWS TO RAISE INLET

QUICK DISCONNECT

NO SCALE

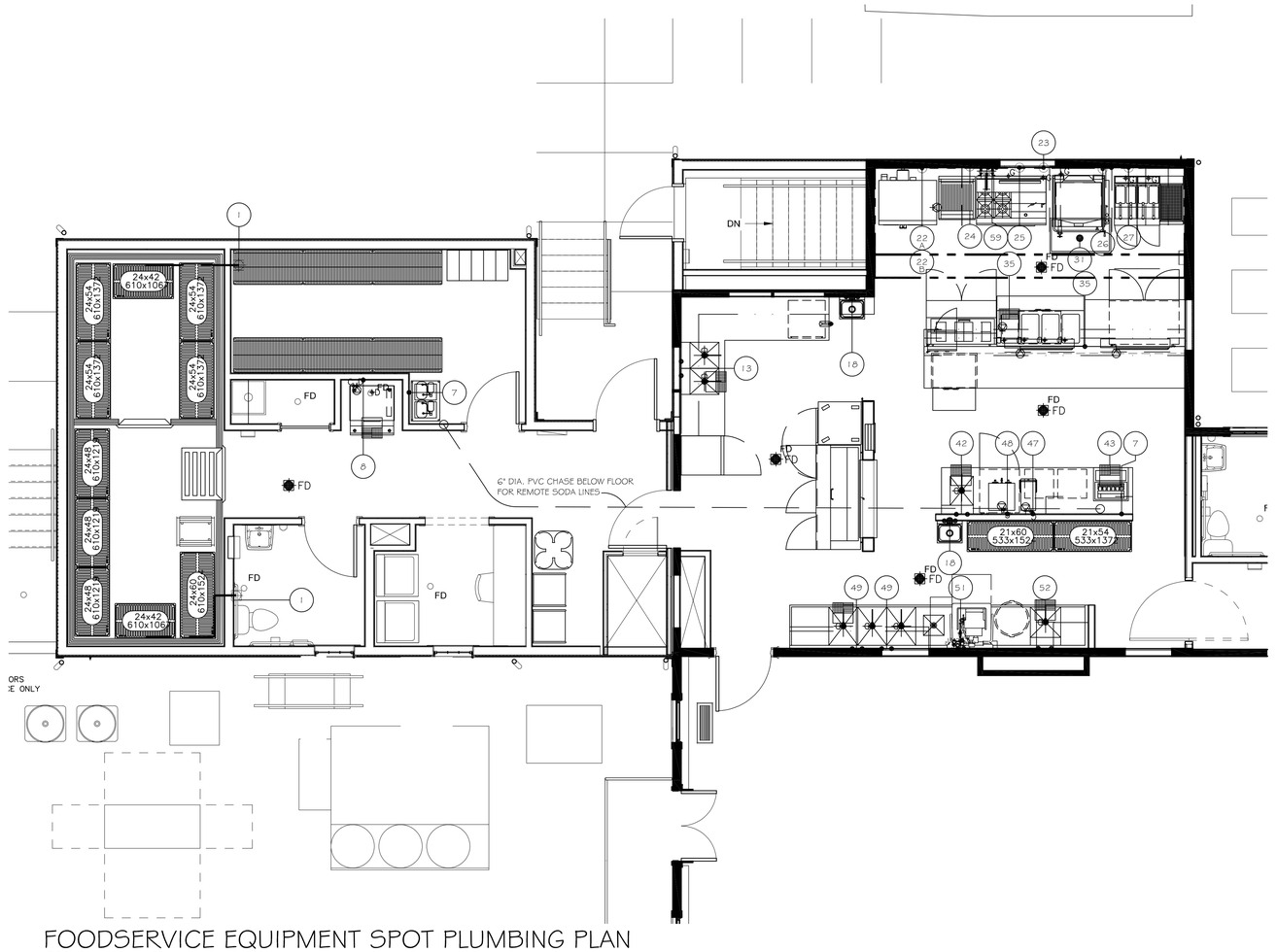


NOTE: FLOOR TROUGH TO BE INSTALLED FLUSH TO FINISHED FLOOR TO ELIMINATE TRIP HAZARD.

FLOOR TROUGH TO PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR. PLUMBING CONTRACTOR TO INSTALL.

PLUMBING SCHEDULE

CONN. NO.	HOT WATER	COLD WATER	DIRECT WASTE	IN-DIRECT WASTE	GAS SIZE	GAS MBTU/S	CONN. TYPE	HGT. A.F.F.	COMMENTS
1				1"			FFD		K.E.C. SHALL BRANCH FROM DR. ON EVAP. COILS TO FUNNEL FLOOR DR.
7		1/2"					S.O.	1'-6"	FOR CARBONATOR
8		1/2"					S.O.	6'-0"	PLBG. CONTR. SHALL PIPE THRU KEC PROVIDE FILTER SYSTEM TO ICE MACHINE
				1/2"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DR. ON EQUIPMENT TO FLOOR SINK
13	1/2"						S.O.	1'-6"	
		1/2"					S.O.	1'-6"	
				1-1/2"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DR. ON EQUIPMENT TO FLOOR SINK
18	1/2"						S.O.	1'-6"	
		1/2"					S.O.	1'-6"	
			1-1/2"				S.O.	1'-9"	
22					3/4"	100	S.O.	2'-6"	
23					3/4"	50	S.O.	6'-0"	
24					3/4"	58	S.O.	2'-6"	
25					3/4"	195	S.O.	2'-6"	
26	1/2"						S.O.	1'-6"	FOR FILL FAUCET
					3/4"	90	S.O.	2'-6"	
27					3/4"	244	S.O.	2'-6"	
31			4"				S.U.	1"	PLBG. CONTR. SHALL CONNECT TO KEC PROVIDED TRENCH DRAIN - SEE DETAIL
35	1/2"						S.O.	1'-6"	FOR FILL FAUCET
				3/4"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DR. ON EQUIPMENT TO FLOOR SINK
39				3/4"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DR. ON EQUIPMENT TO FLOOR SINK
42	1/2"						S.O.	1'-6"	
		1/2"					S.O.	1'-6"	
				1-1/2"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DR. ON EQUIPMENT TO FLOOR SINK
43				3/4"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DR. ON EQUIPMENT TO FLOOR SINK
47		1/2"					S.O.	4'-0"	VERIFY - VENDOR PROVIDED EQUIPMENT
48		1/2"					S.O.	4'-0"	VERIFY - VENDOR PROVIDED EQUIPMENT
49	1/2"						S.O.	1'-6"	FOR FAUCETS AND PRE-RINSE SPRAY
		1/2"					S.O.	1'-6"	FOR FAUCETS AND PRE-RINSE SPRAY
				1-1/2"			F.S.		PLBG. CONTR. SHALL BRANCH SINK DRAINS AND EXTEND TO FLOOR SINK. FLOOR SINK SHALL BE BRANCHED TO GREASE TRAP. PLBG. CONTR. SHALL SIZE, PROVIDE AND INSTALL GREASE TRAP FOR (3) 20"x27"x14"D SINK COMPARTMENTS
51	1/2"						S.O.	6'-6"	PLBG. CONTR. SHALL PROVIDE 110 MIN. H.W.
		1/2"					S.O.	6'-6"	FOR DRAIN WATER TEMPERING KIT
				2"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DRAIN ON EQUIPMENT TO FLOOR SINK. PROVIDE DRAIN MATERIAL FOR HIGH TEMPERATURE DISCHARGE
52	1/2"						S.O.	1'-6"	
		1/2"					S.O.	1'-6"	
				1-1/2"			F.S.		PLBG. CONTR. SHALL BRANCH FROM DR. ON EQUIPMENT TO FLOOR SINK
59	1/2"						S.O.	4'-6"	FOR FILL FAUCET
		1/2"					S.O.	4'-6"	FOR FILL FAUCET



FOODSERVICE EQUIPMENT SPOT PLUMBING PLAN

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

STATE OF MISSOURI
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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CAJT
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

FOOD SERVICE EQUIPMENT SPOT PLUMBING PLAN

SHEET NUMBER:

Q-FP-03

097 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

HOOD INFORMATION – Job#4143273

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	APPLIANCE DUTY	DESIGN CFM/ft	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG. END TO END	ROW
1	Item 29	6024 ND-2-PSP-F	8' 8"	600 Deg.	Heavy	250	2167			4"	16"	2167	1552	-0.764"	1734	304 SS 100%	LEFT	ALONE
2	Item 29	6024 ND-2-PSP-F	8' 8"	600 Deg.	Heavy	225	1950			4"	14"	1950	1824	-0.818"	1599	304 SS 100%	RIGHT	ALONE

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S) TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY.	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WGHT
1	Item 29	Captrate Solo Filter	6	20"	16"	85% See Filter Spec.	3	Recessed	NO	Wall Mnt	12"x54"x24"	Ansul R102	3.0/3.0/3.0	DCV-2111	1 Light 1 Fan	YES	462 LBS
2	Item 29	Captrate Solo Filter	6	20"	16"	85% See Filter Spec.	3	Recessed	NO							YES	488 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1	Item 29	BACKSPLASH 122.00" High X 209.00" Long 304 SS Vertical
		LEFT SIDESPLASH 122.00" High X 90.00" Long 304 SS Vertical
		BACKSPLASH - INSIDE CORNER 80.00" High X 2.00" Leg Length 304 SS Vertical
		BACKSPLASH - INSIDE CORNER 80.00" High X 2.00" Leg Length 304 SS Vertical
		BACKSPLASH - OUTSIDE CORNER 122.00" High X 2.00" Leg Length 304 SS Vertical
		SENSOR-CV
2	Item 29	FIELD WRAPPER 18.00" High Front
		RIGHT SIDESPLASH 122.00" High X 90.00" Long 304 SS Vertical
		RIGHT END STANDOFF (FINISHED) 1" Wide 60" Long Insulated
		SENSOR-CV
		RIGHT WALL AS END PANEL

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG.	DIA.	CFM	S.P.
1	Item 29	Front	104"	18"	6"	MUA	10"	28"		578	0.155"
						MUA	10"	28"		578	0.155"
						MUA	10"	28"		578	0.155"
2	Item 29	Front	105"	18"	6"	MUA	12"	28"		799	0.237"
						MUA	12"	28"		799	0.237"

Fire System Information – Job#4143273

FIRE SYSTEM NO.	Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION SYSTEM	LOCATION ON HOOD
1		Ansul R102	3.0/3.0/3.0	16	Wall Utility Cabinet Left	N/A

GAS VALVE(S)

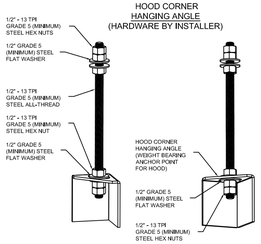
FIRE SYSTEM NO.	TAG	TYPE	SIZE	SUPPLIED BY
1		Mechanical	2.000	Distributor

System Design Verification (SDV)

If ordered, CAS Service will perform a System Design Verification (SDV) once all equipment has had a complete start up per the Operation and Installation Manual. Typically, the SDV will be performed after all inspections are complete.

Any field related discrepancies that are discovered during the SDV will be brought to the attention of the general contractor and corresponding trades on site. These issues will be documented and forwarded to the appropriate sales office. If CAS Service has to resolve a discrepancy that is a field issue, the general contractor will be notified and billed for the work. Should a return trip be required due to any field related discrepancy that cannot be resolved during the SDV, there will be additional trip charges.

During the SDV, CAS Service will address any discrepancy that is the fault of the manufacturer. Should a return trip be required, the general contractor and appropriate sales office will be notified. There will be no additional charges for manufacturer discrepancies.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH

UL 710 AND NFPA 96

AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:

ETL SANITATION LISTED

ETL LISTED FILE# 3054804-001

ND–2 Series with PSP Accessory Specification

The model ND-2 with PSP Accessory is a compensating canopy hood rated for all types of cooking equipment. The hood shall have the size, shape and performance specified on drawings.

Construction shall be type 430 stainless steel, with a #3 or #4 polish where exposed. The manufacturer, ETL and NSF shall determine the individual component construction. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints and penetrations of the hood enclosure to the lower outermost perimeter that directs and captures grease-laden vapor and exhaust gases shall have a liquid-tight continuous external weld in accordance with NFPA 96. The hood shall be wall type with a minimum of four connections for hanger rods. Connectors shall have 9/16" holes pre-punched in 1 ½" x 1 ½" angle iron at the factory to allow for hanger rod connection by others.

The hood shall be furnished with U.L. classified filters, supplied in size and quantity as required by ventilator. The filters shall extend the full length of the hood and the filler panels shall not be more than 6" in width.

The hood manufacturer shall supply complete computer generated submittal drawings including hood sections view(s) and hood plan view(s). These drawings must be available to the engineer, architect and owner for their use in construction, operation and maintenance.

Exhaust duct collar to be 4" high with 1" flange. Duct sizes, CFM and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

U.L. incandescent light fixtures and globes shall be installed and pre-wired to a junction box. The light fixtures shall be installed with a maximum of 4'0" spacing on center and allow up to a 100 watt standard light bulb.

The hood shall have:
- A double wall insulated front to elliminate condensation and increase rigidity. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.
- An integral front baffle to direct grease laden vapors toward the exhaust filter bank.
- A built-in wiring chase provided for outlets and electrical controls on the hood face and shall not penetrate the capture area or require an external chase way.
- Removable grease cup for easy cleaning.

The hood shall be ETL Listed as "Exhaust Hood Without Exhaust Damper", NSF Listed and built in accordance with NFPA 96.

The hood shall be listed for 450°F cooking surfaces at 150 CFM/ft, 600°F cooking surfaces at 200 CFM/ft, and 700°F cooking surfaces at 250 CFM/ft. The hood shall be ETL Listed as "Exhaust Hood Without Exhaust Damper".

PATENT NUMBERS

AC-PSP (United States) - US Patent 7963830 B2
AC-PSP Wall (Canada) - CA Patent 2820509
AC-PSP Island (Canada) - CA Patent 2520330

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

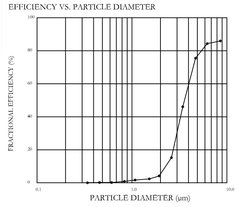
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

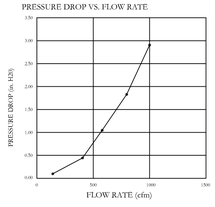
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

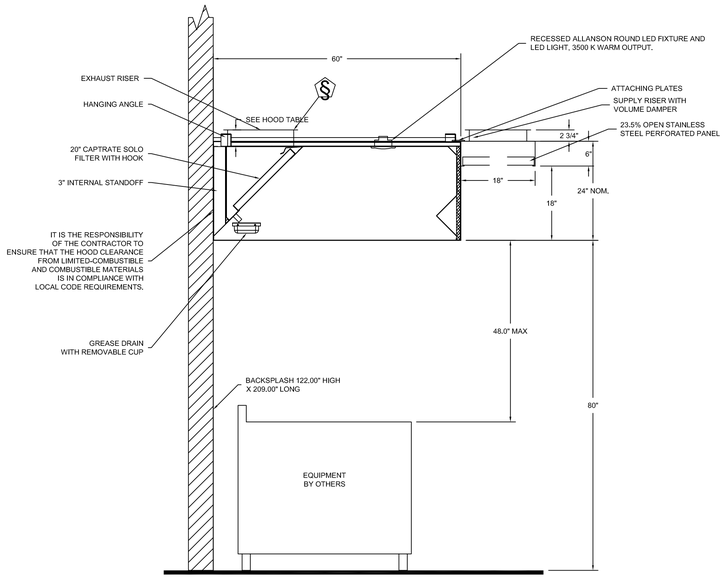
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:.
NFPA #96
NSF STANDARD #2
UL STANDARD #1046
INT. MECH. CODE (IMC)
ULC-S649



SECTION VIEW – MODEL 6024ND–2–PSP–F HOOD – #1 (Item 29)

THESE DRAWINGS ARE THE BASIS OF DESIGN. OTHER MANUFACTURERS LISTED IN FOODSERVICE EQUIPMENT SPECIFICATION SECTION 114000

REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

CAPTIVE-AIRE
St. Louis Office
16024 Manchester Rd., Suite 233, Ellisville, MO, 63011 PHONE: (636) 225-3113 FAX: (919) 227-5939 EMAIL: reg72@captiveaire.com
www.captiveaire.com

Arrow Rock
39521 Visitor Center Drive,
ARROW ROCK, MO, 65320

DATE: 1/3/2020

DWG.#: 4143273

DRAWN BY: JB-72

SCALE: 3/4" = 1'–0"

MASTER DRAWING

SHEET NO. 1

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

STRATA
ARCHITECTURE + PRESERVATION
1701 Oak Street, Suite 100 Kansas City, Missouri 64108
816.474.0900 www.strata-arch.com

PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION: △
DATE:
REVISION: △
DATE:
REVISION: △
DATE:
ISSUE DATE: 05.12.2020

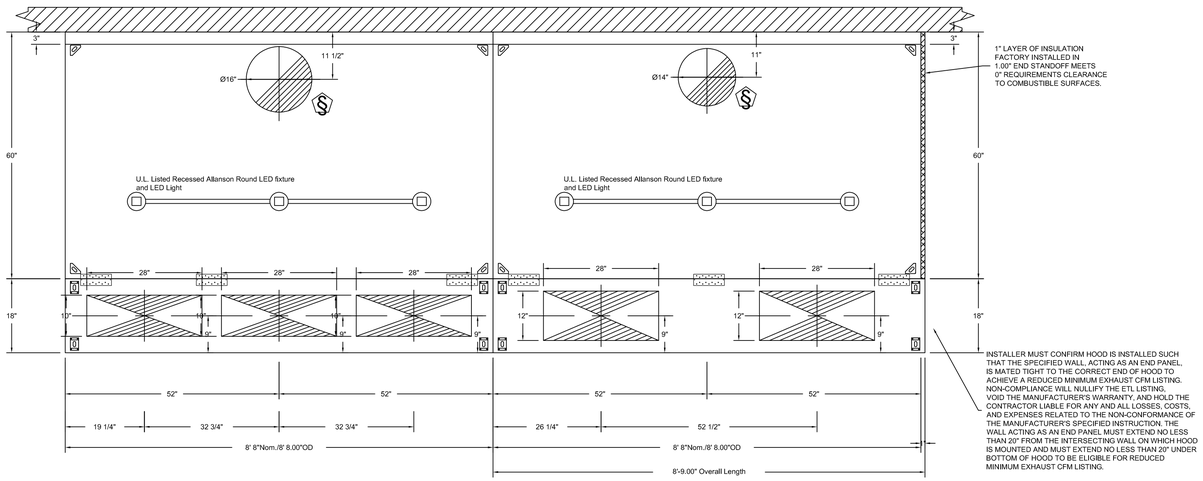
CAD DWG FILE: CA/JT
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:
FOOD SERVICE EQUIPMENT HOOD DRAWINGS

SHEET NUMBER:

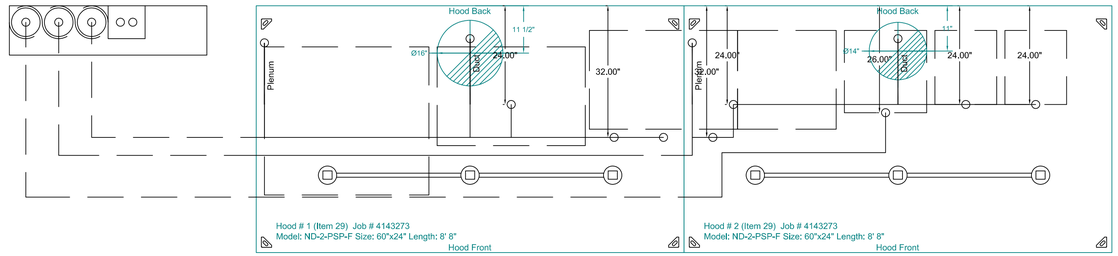
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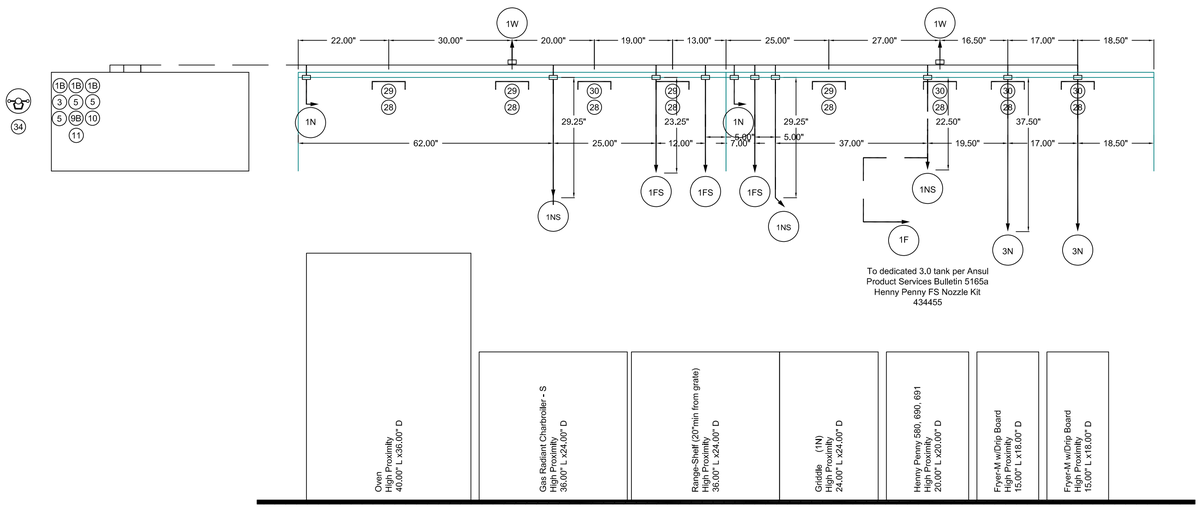
098 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



PLAN VIEW – Hood #1 (Item 29)
8' 8.00" LONG 6024ND-2-PSP-F

PLAN VIEW – Hood #2 (Item 29)
8' 8.00" LONG 6024ND-2-PSP-F





NOTES
- FIELD PIPE DROPS AS SHOWN
  SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS

SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)

THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET/ LINKAGE ASSEMBLY.

THESE DRAWINGS ARE THE BASIS OF DESIGN. OTHER MANUFACTURERS LISTED IN FOODSERVICE EQUIPMENT SPECIFICATION SECTION 114000

REVISIONS

	DESCRIPTION	DATE
1		
2		
3		
4		

CAPTIVEAIRE
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DATE: 1/3/2020

DWG.#: 4143273

DRAWN BY: JB-72

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

MASTER DRAWING

SHEET NO. 2

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

STRATA
ARCHITECTURE + PRESERVATION
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PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION: △
DATE:
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DATE:
REVISION: △
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

FOOD SERVICE EQUIPMENT HOOD DRAWINGS

SHEET NUMBER:

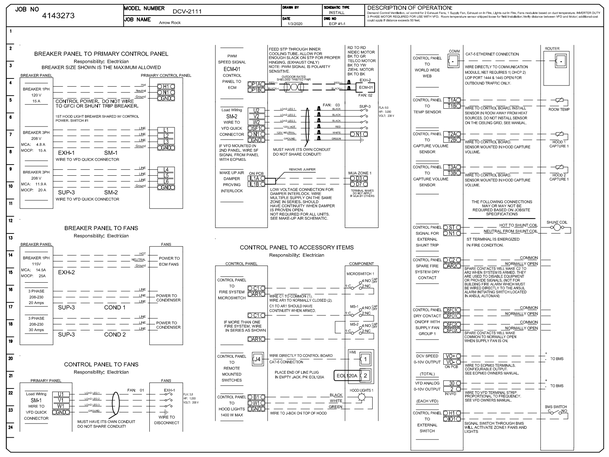
Q-DT-02

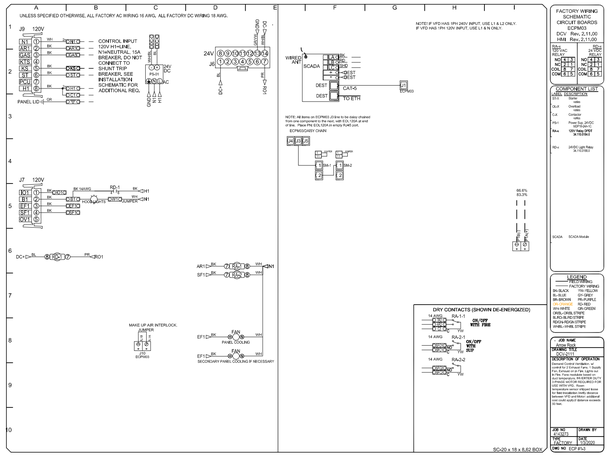
099 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020

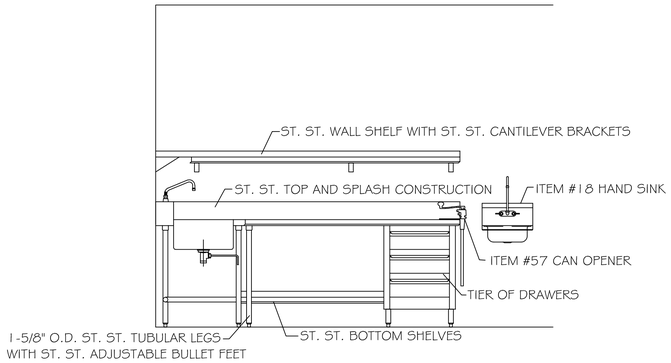
ELECTRICAL PACKAGE – Job#4143273

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED			
				LOCATION	QUANTITY		TYPE	ϕ	H.P.	VOLT	FLA
1		DCV-2111	Wall Utility Cabinet Left	01 - Face Mount Left Side of Hood	1 Light	Smart Controls DCV	Exhaust	3	1.000	208	3.8
				Hood # 1	1 Fan		Exhaust	1	1.000	115	11.6
							Supply	3	3.000	208	9.5

CONTROLS ARE BASED ON CAPTIVEAIRE FAN SELECTION. MUST VERIFY FAN MOTOR HP, FLA, PHASE, AND VOLTAGE BEFORE ORDER IS PLACED.

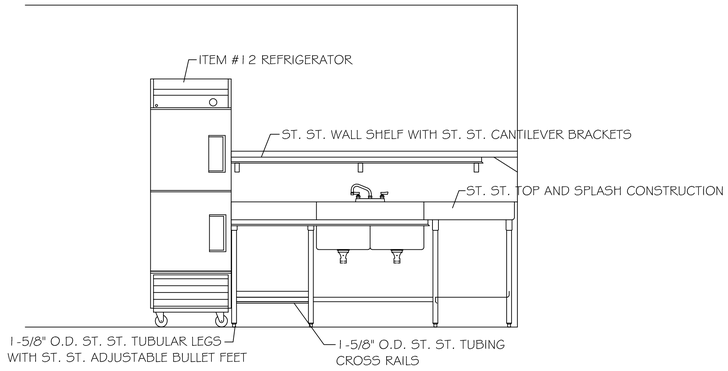






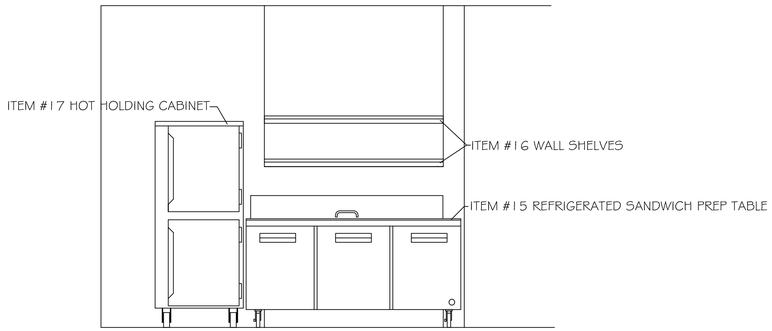
ELEVATION - ITEM #13 PREP TABLE W/ SINK

SCALE: 1/2" = 1'-0"



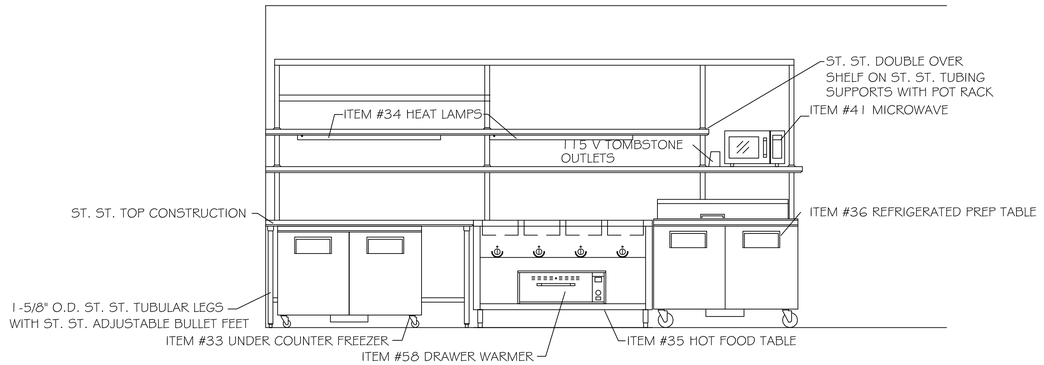
ELEVATION - ITEM #13 PREP TABLE W/ SINK

SCALE: 1/2" = 1'-0"



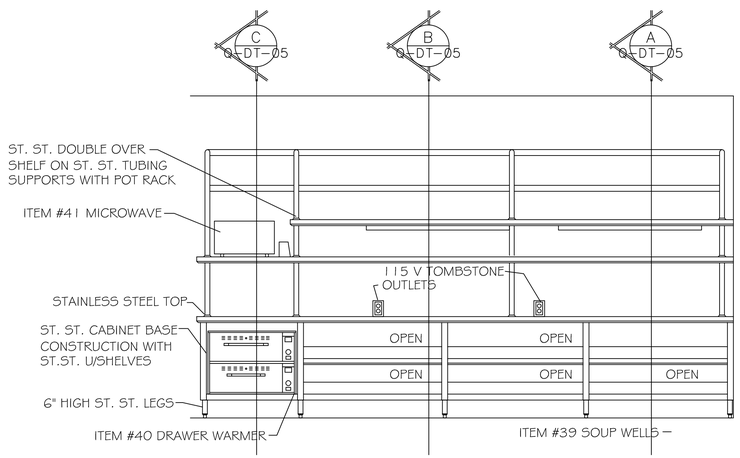
ELEVATION - ITEM #15 REFRIGERATED SANDWHICH PREP TABLE AND #17 HOT HOLDING CABINET

SCALE: 1/2" = 1'-0"



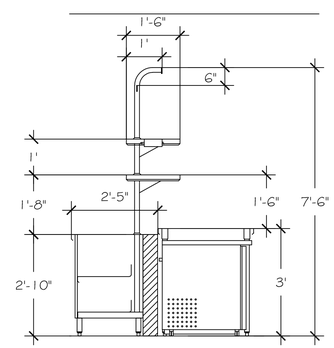
ELEVATION - ITEM #32 WORK TABLE

SCALE: 1/2" = 1'-0"



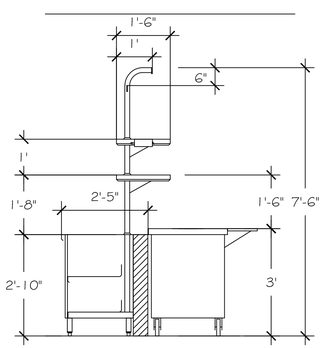
ELEVATION - ITEM #38 PICK-UP COUNTER

SCALE: 1/2" = 1'-0"



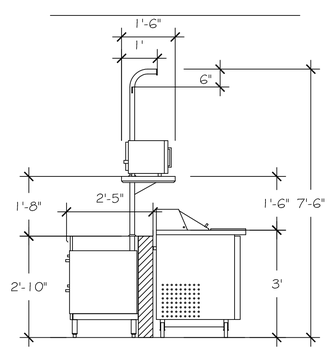
A SECTION

SCALE: 1/2" = 1'-0"



B SECTION

SCALE: 1/2" = 1'-0"



C SECTION

SCALE: 1/2" = 1'-0"

STATE OF MISSOURI
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PROJECT TITLE:

REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CAJT
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

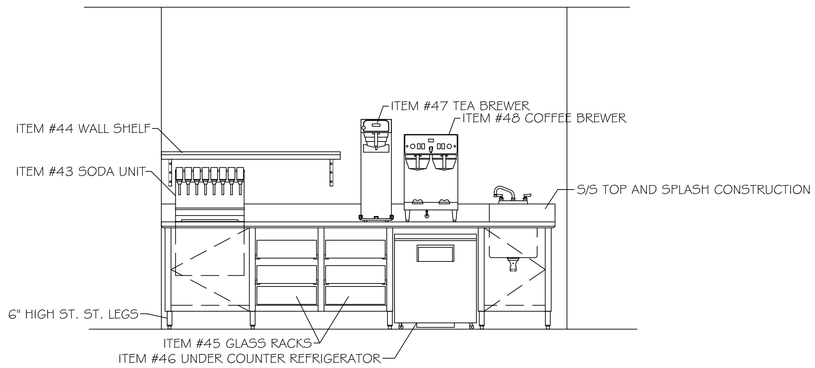
SHEET TITLE:

FOOD SERVICE EQUIPMENT ELEVATIONS

SHEET NUMBER:

Q-DT-04

101 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020



ELEVATION - ITEM #42 BEVERAGE COUNTER W/ SINK

SCALE: 1/2" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

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ARCHITECTURE + PRESERVATION
1701 Oak Street, Suite 100 Kansas City, Missouri 64108
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OFFICE OF ADMINISTRATION

DIVISION OF FACILITIES MANAGEMENT, DESIGN, AND CONSTRUCTION

PROJECT TITLE:

HUSTON TAVERN
REBUILD KITCHEN & STABILIZE STRUCTURE

TAVERN, ARROW ROCK STATE HISTORIC SITE, MISSOURI

305 MAIN ST, ARROW ROCK, MO 65320

PROJECT #: X2001-01
ASSET #: 7815102008

REVISION: △
DATE:
REVISION: △
DATE:
REVISION: △
DATE:
ISSUE DATE: 05.12.2020

CAD DWG FILE: CA/JT
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

FOOD SERVICE EQUIPMENT ELEVATIONS

SHEET NUMBER:

Q-DT-05

102 OF 102 SHEETS
CONSTRUCTION DOCUMENTS
MAY 12, 2020