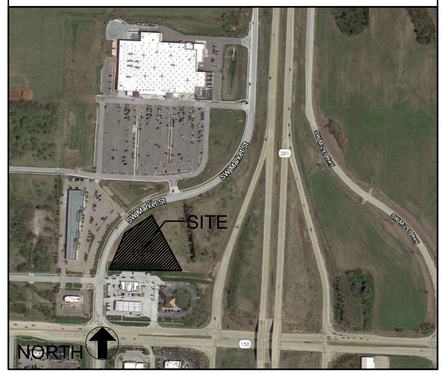
VICINITY MAP



Firestone
since 1926
COMPLETE AUTO CARE™

NEW FIRESTONE STORE

3561 SW MARKET ST., JACKSON COUNTY

LEE'S SUMMIT, MO 64082

REVISION LOG

REV	DATE	DESCRIPTION
1	04/16/20	ADD#1
2	06/30/20	CB#1

DCB TRACKING

2020 ER PROTOTYPE **WITH** APPLICABLE DCBS THROUGH DCB # 2019-037, 2020-038

DCB #	ISSUED UNDER	DATE
2019-001 - 037 2020-001 - 018	PERMIT	03/26/20
--	BID	- / - / -
2020-018 - 023	ADD#1	04/16/20
2020-024 - 038	CB#1	06/30/20
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CODE DATA SUMMARY

APPLICABLE CODES

2018 INTERNATIONAL BUILDING CODE (IBC)
2018 INTERNATIONAL MECHANICAL CODE (IMC)
2018 INTERNATIONAL PLUMBING CODE (IPC)
2017 NATIONAL ELECTRICAL CODE (NEC)
2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2018 INTERNATIONAL FIRE CODE (IFC) NFPA
ANSI A117.1 - 2017

BUILDING INFORMATION (2020 ER-LAYOUT)

ONE STORY METAL BUILDING, MERCHANDISING, AUTO SERVICE (MINOR REPAIR), INCIDENTAL STORAGE AREA.

SHOWROOM AREA	802 SF
ACCESSORY AREA (OFFICE,RESTROOMS)	531 SF
SERVICE AREA	3,421 SF
INVENTORY AREA	1,508 SF
GROSS TOTAL	6,262 SF

Chapter 3 - OCCUPANCY CLASSIFICATION (MIXED)

309.1 Occupancy Group M (Mercantile) - Showroom
311.2 Occupancy Group S-1 (Moderate Hazard) - Inventory
311.2 Occupancy Group S-1 (Moderate Hazard) - Service Areas

Chapter 5- GENERAL BUILDING HEIGHTS AND BUILDING AREAS

Table 504.3: Construction Type V-B
Group M - Allowable area = 36,000 SF, Allowable height = 60'
Group S-1 - Allowable area = 36,000 SF, Allowable height = 60'

Provided:	, 1 story	height
6,262 SF		23'-8"

Chapter 6 - TYPES OF CONSTRUCTION

602.5 Type V-B
Table 601 - Type V-B- Groups M & S-1

Structural Frame:	0 hour rating
Floor and Roof Construction:	0 hour rating
Exterior Bearing Walls:	0 hour rating

Table 602 -Type V-B - Exterior wall based on fire separation distance: All sides >10,- 0 hour rating

Chapter 7 - FIRE RATED CONSTRUCTION

705.2.2 Projections from walls of Type V Construction shall be of any approved material.
720.2 Concealed insulation materials shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

Chapter 9 - FIRE PROTECTION SYSTEM

903.2.9.1- Group S-1- Repair Garages- An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:
1. Buildings having two or more stories above grade plan, including basements, with a fire area containing a repair garage exceeding 10,000 square feet. **N/A**
2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet. **N/A**
3. Buildings with repair garages servicing vehicles parked in basements. **N/A**
4. A group S-1 fire area used for repair of commercial motor vehicles where the fire area exceeds 5,000 square feet. **N/A**

903.2.9.2 - Bulk storage of tires. Buildings and structures where the area for the storage of tires exceed 20,000 cubic feet shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. .
Proposed tire storage = < 20,000 CU. FT. OF TIRES. **N/A**

Tire Storage- On tread, in single and double row fixed stacks without solid shelves and 5 tiers.

A FIRE PROTECTION SYSTEM AND FIRE ALARM SYSTEM WILL BE PROVIDED.

Chapter 10 - MEANS OF EGRESS

Occupant load: Table 1004.1.2,
Gross Floor Areas: 6,262 SF
Showroom (Mercantile 802 SF/60 gross) = 14 occupants
Accessory (Break area & office 531 SF/150 gross) = 4 occupants
Service Area (3,421 SF/300 gross) = 12 occupants
Inventory (Storage 1,508 SF/300 gross) = 5 occupants
TOTAL OCCUPANTS for means of egress = 35 occupants

Egress width: 1005.3.2,
Egress width @ grade level doors = 0.20" per occupant, 35 occupants X 0.20 = 7" of egress width required
Provided exit width - (3) doors = 111" (#01, #07, #16)

Chapter 11- ACCESSIBILITY

1103.2.9 - Equipment spaces frequented only by personnel for maintenance, repair or monitoring of equipment are not required to be accessible.
1104.1- Accessible routes within the site shall be provided from public transportation stops, accessible parking, accessible passenger loading zones; and public streets or sidewalks to the accessible building entrance served.
1104.3.1- Employee work areas. Common use Circulation paths within employee work areas shall be accessible.
1105.1- Public Entrances, At least 60 percent of all public entrances shall be accessible.
Table 1106.1 - Accessible parking - 1 per 25 spaces.

Chapter 12 - INTERIOR ENVIRONMENT

Ventilation and Temperature control shall conform to the IMC.
1209.2.1 Toilet room floors shall have smooth, hard, nonabsorbent surface that extends upward onto the walls at least 4".
1209.2.2 Walls within 2 feet of urinals and water closets shall have a smooth, hard, nonabsorbent surface to 4 feet above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.
Accessories such as grab bars, towel dispensers, T.P. dispensers, etc, provided on or in walls, shall be installed and sealed to protect structural elements from moisture.

GENERAL NOTES

1. ALL ITEMS SHALL FULLY COMPLY WITH IBC ACCESSIBILITY GUIDELINES SECTION 1101.2 ACCESSIBLE BUILDINGS: NEW CONSTRUCTION
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE CONTRACT DOCUMENTS. THE OWNER SHALL BE NOTIFIED OF ANY UNFORESEEN CONDITIONS WHICH MAY AFFECT PROGRESS OR COST OF WORK PERFORMED.
3. FIRE EXTINGUISHERS SHALL BE LOCATED PER DIRECTION OF FIRE DEPARTMENT. REFER GENERAL NOTE #4 AND SHEET LS1 FOR REQUIRED F.E. LOCATIONS.
4. G.C. SHALL PROVIDE, INSTALL AND CERTIFY (4) DRY CHEMICAL (A, B, C) @ 10 lbs. FIRE EXTINGUISHERS. LOCATE 1 SALES, 1 BREAK AREA, 1 INVENTORY AT DOOR TO SERVICE (INVENTORY SIDE), AND 1 SERVICE AT DOOR TO INVENTORY (SERVICE SIDE). MINIMUM AMOUNT OF FIRE EXTINGUISHERS WILL BE REQUIRED WHETHER OR NOT CODE REQUIRES. IF CODE REQUIRES MORE THAN STATED HEREIN, G.C. SHALL FURNISH AND INSTALL THE ADDITIONAL REQUIRED.
5. ALL SIGNAGE, SHELVING, AND ALARMS SHALL BE DEFERRED SUBMITTALS UNDER SEPARATE PERMIT SUBMISSION.
6. THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.
7. A VESTIBULE IS NOT INCLUDED ON THIS PROJECT BASED ON EXCEPTION 4 OF THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE SECTION C402.5.7. DOORS THAT OPEN DIRECTLY FROM A SPACE LESS THAN 3,000 SQUARE FEET IN AREA.
8. FIRE PROTECTION -
   a. APPROVAL OF SPRINKLER DRAWINGS IS REQUIRED BY BRIDGESTONE CONSTRUCTION MANAGER.
   b. NO MAIN LINES RUN WITHIN THE PLAN AREA OF THE OPEN OR UP POSITION OF THE OVERHEAD DOOR.
   c. FIRE SPRINKLER TEST PIPE TO BE DIRECTED TO HARDSCAPE TO AVOID WASH OUT OF OTHER TYPE MATERIAL.
   d. FIRE SPRINKLER MONITORING REQUIRED, WITH MINIMUM (1) MANUAL PULL STATION FOR FIRE SPRINKLER MONITORING.
   e. ALL AUXILIARY DRAINS AND PIPING ARE TO BE ROUTED OUT THRU SERVICE BAYS.
9. DISTRICT/STORE MANAGER/NSC TO PROVIDE MAIL BOX TYPE AND LOCATION TO THE GENERAL CONTRACTOR'S SUPERINTENDENT APPROXIMATELY 2 WEEKS BEFORE TURNOVER FOR GC TO IMPLEMENT AS FIELD CHANGE ORDER.

BUILDING DRAWING INDEX — PUBLICATION INDEX

SHT.	TITLE	DWG. DATE	REV. NO.	REV. DATE	FOR LEASE DOC.	FOR PERMIT	FOR BIDS	FOR CONST.
	GENERAL INFORMATION (FOR REFERENCE)							
T1	TITLE SHEET	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
N1	GENERAL INFORMATION	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
LS1	LIFE SAFETY PLAN	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
PSL1	PHOTOMETRIC SITE LIGHTING	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
	STORE PLANNING (FOR REFERENCE)							
F1	FIXTURE PLAN & NOTES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
F2	SHOWROOM FIXTURE PLAN & ELEVATIONS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
	ARCHITECTURAL DRAWINGS							
A1	METAL BUILDING PLAN & NOTES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A1.1	FLOOR PLAN & NOTES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A1.2	ENLARGED PLAN DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A2	REFLECTED CEILING & FINISH PLAN	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A3	ROOF PLAN & DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A4	EXTERIOR ELEVATIONS & DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A5	BUILDING SECTIONS & DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A5.1	WALL SECTIONS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
A6	WALL SECTIONS & DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A6.1	TRASH/TIRE ENCLOSURE DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A7	INTERIOR ELEVS, SECTIONS & DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
A8	ROOM FINISH & DOOR SCHEDULES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -

DEFERRED SHOP DRAIWNG SUBMITTALS

THE FOLLOWING SUBMITTALS ARE TO BE SUBMITTED BY THE GENERAL CONTRACTOR TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO FABRICATION OR INSTALLATION. SUBMITTALS ARE TO BE SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF MISSOURI OR AS REQUIRED BY THE AHJ. REFER SPECIFICATIONS.

COPIES	SUBMITTALS
3	FIRE ALARM
3	FIRE PROTECTION

1/2" DENSGLASS GOLD IS AN ACCEPTED APPROVED ALTERNATE TO 1/2" EXTERIOR GRADE PLYWOOD.

BUILDING DRAWING INDEX — PUBLICATION INDEX

SHT.	TITLE	DWG. DATE	REV. NO.	REV. DATE	FOR LEASE DOC.	FOR PERMIT	FOR BIDS	FOR CONST.
	STRUCTURAL DRAWINGS							
S1	GENERAL NOTES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
S2	FOUNDATION PLAN AND NOTES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
S3	FOUNDATION DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
	FIRE PROTECTION DRAWINGS							
FP1	FIRE SPRINKLER PLAN	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
FP2	FIRE SPRINKLER NOTES AND DETAILS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
	FIRE ALARM DRAWINGS							
FA1	FIRE ALARM PLAN AND MATRIX	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
FA2	FIRE ALARM NOTES, PROGRAMMING AND CALCULATIONS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
FA3	FIRE ALARM DETAILS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
FA4	FIRE ALARM CONTROL PANEL LAYOUT	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
	BURGLAR ALARM DRAWINGS							
BA1	INTRUSION ALARM PLAN AND MATRIX	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
BA2	INTRUSION ALARM NOTES AND CALCULATIONS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
BA3	INTRUSION ALARM CONTROL PANEL LAYOUT AND DETAILS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
	MECHANICAL DRAWINGS							
M1	MECHANICAL PLAN AND NOTES	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
M2	MECHANICAL DETAILS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
M3	MECHANICAL EQUIPMENT SCHEDULES	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
	PLUMBING DRAWINGS							
P1	PLUMBING PLAN AND NOTES	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
P2	ENLARGED RESTROOM PLUMBING PLANS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
P3	AIR PIPING PLAN AND NOTES	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
P4	OIL PIPING DETAILS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
P5	PLUMBING DETAILS	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
P6	PLUMBING SCHEDULES AND RISERS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
	ELECTRICAL DRAWINGS							
E1	ELECTRICAL SYMBOLS, NOTES AND SCHEDULES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
E2	LIGHTING PLAN	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
E3	POWER PLAN	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
E4	ELECTRICAL DETAILS	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -
E5	ONE-LINE DIAGRAM, PANEL SCHEDULES AND NOTES	03/26/20	2	06/30/20	- / - / -	03/26/20	- / - / -	- / - / -
ESL1	SITE LIGHTING PLAN	03/26/20	1	04/16/20	- / - / -	03/26/20	- / - / -	- / - / -

SUBCONTRACTOR NOTES

- THE SUB CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- THE SUBCONTRACTOR SHALL EXAMINE ENTIRE SET PRIOR TO SUBMITTING BID.

ALL RFI'S AND SUBMITTALS SHALL BE SENT TO BSRO_Submittals_RFI@sgadesigngroup.com.

DEVELOPER CONTACT:	ARCHITECTURAL CONTACT:	STRUCTURAL:	FIRE PROTECTION	FIRE ALARM/BURGLAR ALARM:	MECHANICAL/PLUMBING/ELECTRICAL:	TENANT CONTACT:
FS LEE'S SUMMIT, LLC JASON HOROWITZ 9010 OVERLOOK BLVD BRENTWOOD, TN 37027 PHONE: 615.370.0670	SGA DESIGN GROUP, P.C. OLIVIA GOOD 1437 SOUTH BOULDER AVE, SUITE 550 TULSA, TULSA COUNTY, OK 74119 PHONE: 918.587.8600	WALLACE ENGINEERING - STRUCTURAL CONSULTANTS, INC. CARRIE JOHNSON MO STATE CERTIFICATE OF AUTHORITY #001268 123 N. MARTIN LUTHER KING JR. BLVD. TULSA, TULSA COUNTY, OK 74103 PHONE: 918.584.5858 FAX: 918.584.8689	CODE CONSULTANTS, INC. WILLIAM B. SMITH MO ST. CERTIFICATE OF AUTHORITY: #000419 2043 WOODLAND PARKWAY. SUITE 300 ST. LOUIS, ST. LOUIS COUNTY, MO 63143 PHONE: 314.991.2633	CODE CONSULTANTS, INC. JACOB P. HEMKE MO ST. CERTIFICATE OF AUTHORITY: #000419 2043 WOODLAND PARKWAY. SUITE 300 ST. LOUIS, ST. LOUIS COUNTY, MO 63143 PHONE: 314.991.2633	ACERTUS CONSULTING GROUP, LLC RANDALL A. NELSON 14817 WEST 95TH ST. LENEXA, JOHNSON COUNTY, KS 66215 PHONE: 913.322.5150 FAX: 913.322.5155	BRIDGESTONE RETAIL OPERATIONS, LLC BRANT HEFLIN 200 4TH AVE. SOUTH NASHVILLE, TN 37201 PHONE: 615.937.9345

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www.sgadesigngroup.com
Certificate of Authority #A-2006031944
Architecture

Firestone COMPLETE AUTO CARE since 1926

NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
MITCH GARRETT
NUMBER A-007541
ARCHITECT

06/30/2020

Digitally signed by Mitchel Garrett
DN: C=US, E=mgarrett@sgadesigngroup.com, O=SGA Design Group, CN=Mitchel Garrett
Date: 2020.06.30 12:34:38-05'00'

Mitchel Garrett

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

ISSUE BLOCK

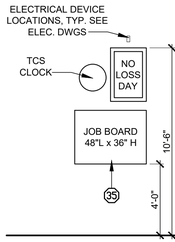
1	04/16/20	ADD #1
2	06/30/20	CB#1

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9

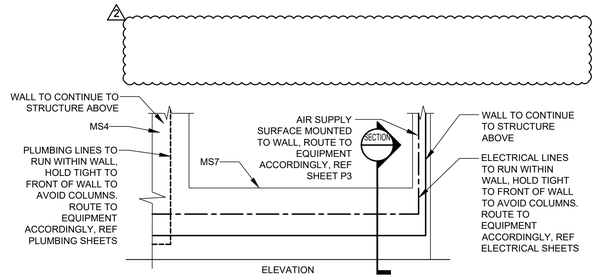
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##
KMP

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T1



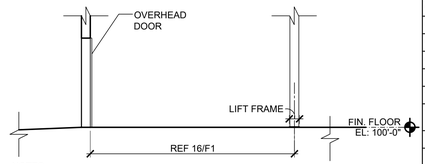
1 F1 INTERIOR ELEVATION
SCALE: 1/4"=1'-0"



3 F1 MOUNTING DETAIL
SCALE: 1/4"=1'-0"

HOIST KEY

H1	SP010 10,000 lbs.	BSRO / ROTARY
H2	SP0A10 10,000 lbs.	BSRO / ROTARY
H3	SP012 12,000 lbs.	BSRO / ROTARY
H7	FLUSH-MOUNT SCISSOR LIFT (RX16)	BSRO / HUNTER



NOTES:
1) CONTRACTOR SHALL FIELD DETERMINE THE EXACT FINISH FLOOR ELEVATION AT THE HOIST, PER MANUFACTURERS RECOMMENDATION FLOOR SLOPE & JOIST LOCATIONS VARY.
2) HOIST INSTALLER TO BE CERTIFIED BY THE MANUFACTURER.
3) WHEEL SPOTTING DISH, REFER TO MANUFACTURERS RECOMMENDED INSTALLATION INSTRUCTIONS.

INVENTORY COUNT

1,182 - UNITS/TIRES (5 TIERS OF TIRES)
475 - LF PARTS

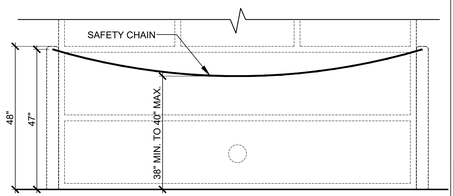
BUILDING AREAS	S.F.
SHOWROOM AREA	802
SERVICE AREA	3,421
INVENTORY AREA	1,508
ACCESSORY USE AREAS	531
FACADE UPGRADES	0
TOTAL BUILDING	6,262

SHOP EQUIPMENT KEY:
FURNISHED BY BSRO U.NO. ALL ITEMS INSTALLED BY G.C.
REFER TO P3/P4/E2/E3/E4/E5 SHEETS FOR FURTHER REQUIREMENTS.

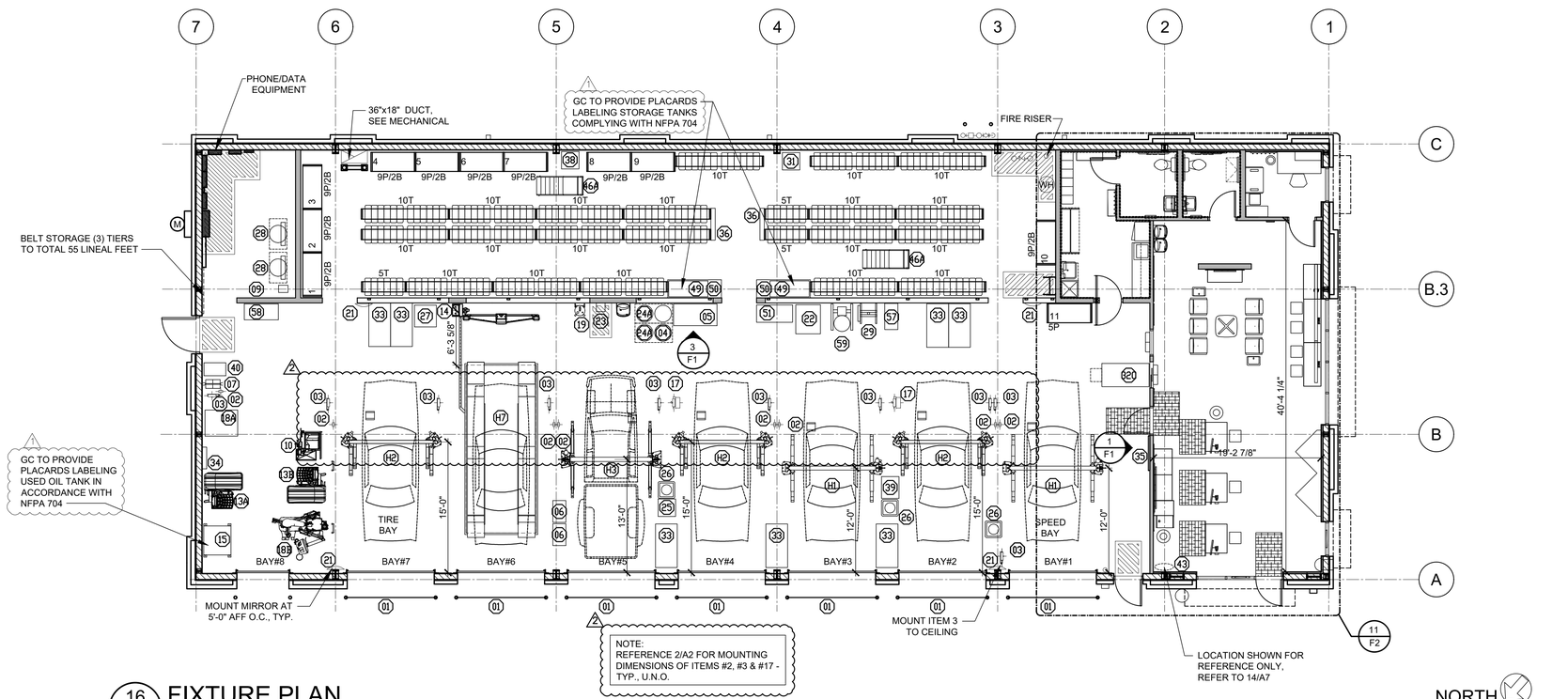
#	QTY	DESCRIPTION
01	7	SETS (BANNER/ BRACKETS/CHAIN) SEE 20/F1 & 15/A7
02	8	O.H. CORD REEL LIGHT
03	11	O.H. AIR HOSE REEL
04	1	USED OIL FILTER CONTAINER (MOBILE)
05	1	SERVICE BENCH
06	2	BRAKE TOOL STAND (MOBILE)
07	1	FLAT REPAIR STATION
09	1	AIR DRYER
10	1	BRAKE SHOP (INSTALLED BY HUNTER)
13A	1	ELECTRONIC WHEEL BALANCER (INST. BY HUNTER). GSP9700 ROAD FORCE
13B	1	ELECTRONIC WHEEL BALANCER (INST. BY HUNTER). GSP9200 NON-ROAD FORCE
14	1	WHEEL ALIGNMENT COMPUTER (FLOOR MTD INSTALLED BY HUNTER)
15	1	USED OIL TANK / BENCH
17	2	HEAVY DUTY CORD REEL
18A	1	RIM CLAMP TIRE CHANGER
18B	1	TIRE CHANGER TCR1S REVOLUTION (INSTALLED BY HUNTER)
19	1	GAS CADDIE (25 GAL) SEE A1 FOR TOX ALERT OVERRIDE NOTE AT MVS DESK
21	4	MIRROR
22	1	BATTERY RACK
23	1	EYE WASH
24A	2	SPILL SKID 6"HX26"WX52"L
25	1	COOLANT FLUSH MACHINE (MOBILE)
26	3	USED OIL RECEPTOR (MOBILE)
27	1	USED TIRE CART (MOBILE)
28	2	5 HP COMPRESSOR
29	1	SHOP PRESS
31	1	ELECTRICAL SYSTEM TESTER (MOBILE)
32C	1	65" MVS DESK
33	7	MECHANIC'S TOOL CABINETS (MOBILE)
34	1	WHEEL WEIGHT RACK
35	1	JOB BOARD 48" LONG
36	2	1 OF EACH NUT & BOLT BIN
38	1	STRUT COMPRESSOR (MOBILE)
39	1	REFRIGERANT CHARGER (MOBILE)
40	1	TIRE TEST TANK
43	1	SATELLITE DISH - VENDOR SUPPLIED REFER 14/A7
46A	2	5 TIER ROLLING LADDER
49	2	STACKABLE 2 TANK OIL SYSTEM
50	2	120/120 GALLON CONTAINMENT PAN
51	1	ECOBOX OIL RACK
57	1	LOCKABLE TOOL CABINET
58	1	SPEED SCRUB 2001E
59	1	PROCUT WARTHOG RMS
H1	2	SP010 10,000 LBS. (SEE HOIST KEY)
H2	3	SP0A10 10,000 LBS. (SEE HOIST KEY)
H3	1	SP012 12,000 LBS. (SEE HOIST KEY)
H7	1	ALIGNMENT RACK IN RECESSED SLAB (SEE HOIST KEY - INST. BY HUNTER)

SERVICE SAFETY CHAINS

GC TO INSTALL A BSRO PROVIDED YELLOW PLASTIC CHAIN AT ALL OVERHEAD DOORS ON THE OUTSIDE OF BUILDING. GC TO FURNISH AND INSTALL 1" LONG AND 1/4" DIA. CLOSED EYE BOLT HOOK ON BOLLARDS AT EVERY OVERHEAD DOOR MOUNTED 47" AFF (1" BELOW TOP OF BOLLARD). MOUNT BETWEEN THE WALL AND BACK SIDE OF BOLLARD THROUGH 1/4" HOLE IN BOLLARD AND BOLTED ON THE INSIDE PRIOR TO FILLING BOLLARD WITH CONCRETE. GC TO FURNISH A SPRING LOADED SNAP HOOK ON BOTH ENDS OF THE CHAIN. GC TO CUT THE CHAIN TO LENGTH SO THAT CENTER HANGS BETWEEN 38" AND 40" AFF (ALMOST HORIZONTAL) SO THAT THE APPEARANCE IS CONSISTENT AT ALL DOOR OPENINGS. GC TO FURNISH AND INSTALL A 1" LONG AND 1/4" DIA. CLOSED EYE SCREW HOOK AT 60" AFF INTO THE WOOD BUCK ON THE DRIVER'S SIDE OF EVERY DOOR TO STORE THE LOOSE END OF THE CHAIN WITH THE SPRING LOADED SNAP HOOK. THIS ALLOWS THE OVERHEAD DOOR TO BE CLOSED AND STORED INSIDE THE BUILDING.



20 F1 SERVICE BAY SAFETY CHAIN
SCALE: 1/2"=1'-0"



16 F1 FIXTURE PLAN
SCALE: 1/8"=1'-0"

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STATE OF MISSOURI
MITCH GARRETT
NUMBER A-007541
ARCHITECT

06/30/2020

Mitchel Garrett
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Date: 2020.06.30 12:35:21-05'00'

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

ISSUE BLOCK

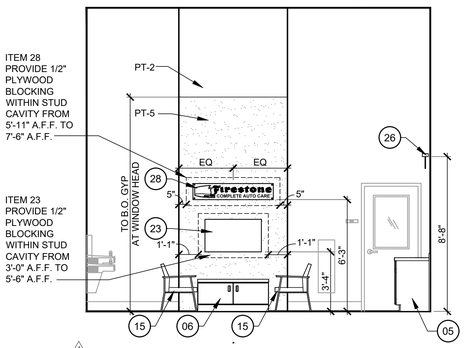
1	04/16/20	ADD #1
2	06/30/20	CB#1

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9

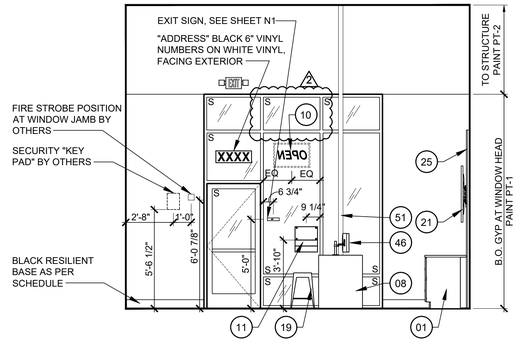
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ####-##
KMP

SHEET TITLE:
FIXTURE PLAN & NOTES

SHEET NUMBER:
F1



ELEVATION "A"



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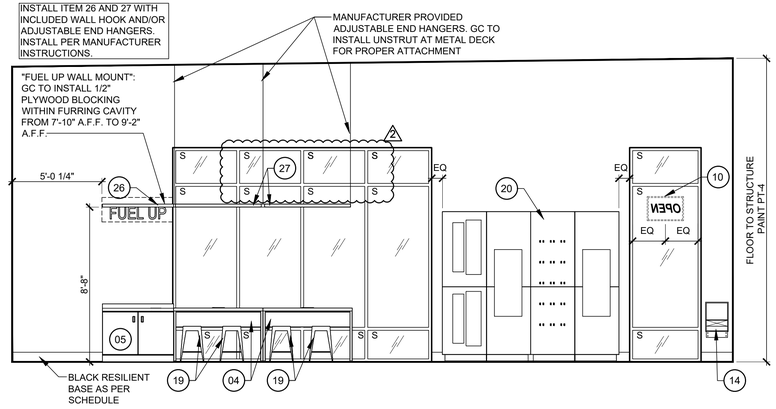

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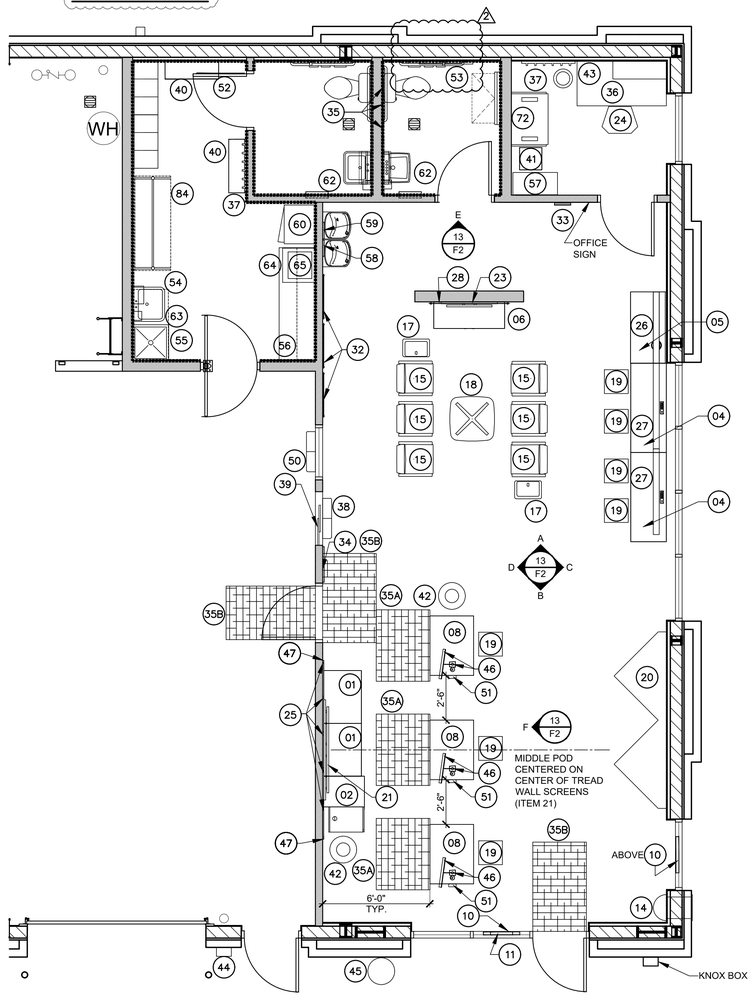
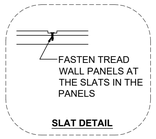


11 F2 ENLARGED SHOWROOM FIXTURE PLAN

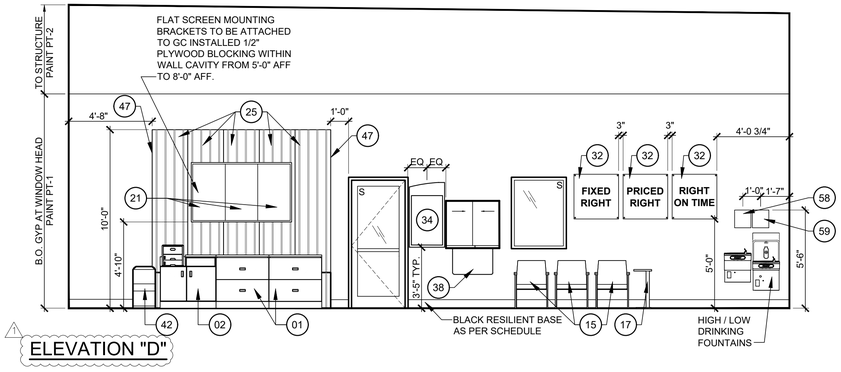
SCALE: 1/4"=1'-0"

ITEM 25 INSTALLATION INSTRUCTIONS:

1. FIND THE STUDS ON THE WALL AND MARK THEM WHERE YOU WILL BE ATTACHING TO PANELS.
2. APPLY THE CONSTRUCTION GRADE ADHESIVE TO THE BACK OF THE PANEL AS RECOMMENDED BY THE ADHESIVE MANUFACTURER.
3. SET THE PANEL TO THE WALL IN THE DESIRED LOCATION. BE SURE TO PRESS THE BOARD TIGHT TO THE WALL SO THE ADHESIVE WILL SPREAD OUT EVENLY ALONG THE BOARD AND WALL. YOU MAY NEED TO SLIDE THE BOARD BACK AND FORTH SLIGHTLY TO SMOOTH THE ADHESIVE.
4. SECURE PANEL TO THE WALL EITHER WITH BRACES OR MECHANICALLY TO KEEP THE BOARD FROM MOVING AS THE ADHESIVE SETS. TO DO THIS YOU NEED TO FIRE A 1 1/4" PIN (WITH PIN NAILED INTO THE STUD THROUGH THE PANEL NEAR EACH CORNER OF THE PANEL AND 2-4 THROUGHOUT THE MID-SECTION. THE FINISH PINS ARE VERY THIN AND WILL NOT BE NOTICEABLE, HOWEVER FEEL FREE TO COVER THEM WITH EITHER TOUCH UP PAINT OR PUTTY. WITHOUT THE ADHESIVE THE PINS WILL NOT BE SUFFICIENT TO HOLD THE PANEL TO THE WALL, THEY ARE ONLY INTENDED TO KEEP THE PANEL FROM MOVING WHILE THE ADHESIVE IS CURING.
5. PREFINISHED EDGE TRIM TO MATCH TIRE TREAD PANELS PROVIDED BY MANUFACTURER. INSTALL PER MANUFACTURER INSTRUCTIONS.



SLAT DETAIL



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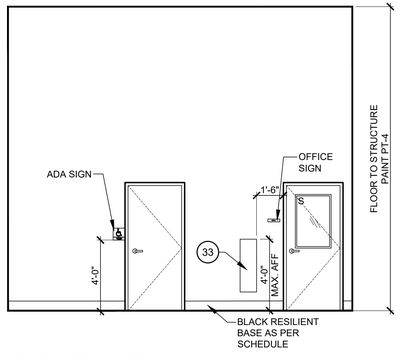

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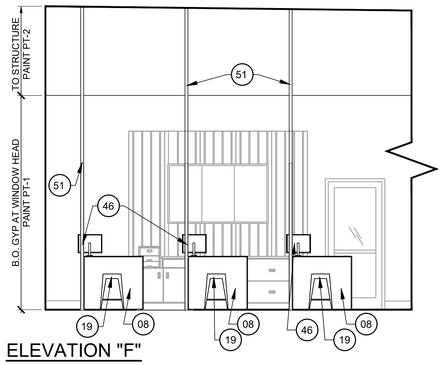


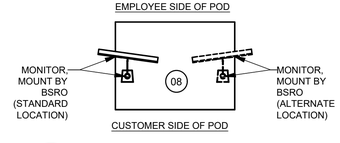
ELEVATION "F"

13 F2 INTERIOR ELEVATIONS

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

#	QTY	DESCRIPTION
01	2	2020 LATERAL FILE CREDENZA
02	1	2020 PRINTER CABINET CREDENZA
04	2	2020 PRODUCTIVITY COUNTER
05	1	2020 COFFEE BAR
06	1	2020 TV STAND
08	3	2020 CONSULT POD
10	2	2020 OPEN SIGN
11	1	2020 STORE HOURS SIGN KIT
14	1	KEY DROP BOX, SEE DETAIL 16/A7
15	6	2020 STD LOUNGE CHAIR
17	2	2020 SIDE TABLE
18	1	2020 COFFEE TABLE
19	7	2020 INDUSTRIAL STOOL
20	1	2020 MRT UNIT
21	1	2020 MENU BOARD 43" TV'S WITH 3 SCREEN TV BRACKETS
23	1	2020 LOUNGE SCREEN 43" TV WITH ARTICULATING TV BRACKET
24	1	MANAGER'S CHAIR
25	1	2020 TIRE TREAD WALL PANEL
26	1	2020 FUEL UP SHELF
27	2	2020 FUEL UP SHELF EXTENSION
28	1	2020 FIRESTONE WALL SIGN
32	1	2020 TRIPLE PROMISE WALL STAND OFF
33	1	2020 MAGAZINE RACK
34	1	2020 ASE WALL PLAQUE
35	1	2020 RESTROOM GRAPHICS
35A	3	2020 3 X 4 FATIGUE MAT
35B	3	2020 3 X 5 PERFORMANCE MAT
36	1	MANAGER'S DESK 5'-0"
37	2	COAT RACK
38	1	2020 JOB ENVELOPE WALL BOX
39	1	OVERFLOW BAR
40	2	CLEANING SUPPLY RACK (3'-0" EACH)
41	1	ABOVE GROUND SAFE
42	2	2020 18 GALLON INSIDE TRASH CAN
43	1	2020 10 GALLON INSIDE TRASH CAN
44	1	EXTERIOR WALL MOUNTED SMOKER STATION, MOUNT 48" TO TOP
45	1	2020 34 GAL OUTDOOR TRASH CAN
46	3	2020 CONSULT POD MONITOR ARM & SCREEN
47	6	2020 TIRE TREAD TRIM CAP
50	1	SPECIAL ORDER & PENDING BIN
51	3	2020 15' POWER POLE QPA5210-BFRC
52	1	SAFETY GRAPHIC 24" X 36" MOUNTED 4'-7" A.F.F. ON DOOR
53	1	2020 FIRESTONE BOWTIE SIGN
54	1	PAPER TOWEL DISPENSER (ROLL)
55	1	GOVERNMENT POSTER
56	1	OSHA POSTER
57	1	FOUR DRAWER VERTICAL FILING CABINETS
58	1	WALL MOUNTED FRAME (CERTIFICATE OF OCCUPANCY)
59	1	WALL MOUNTED FRAME (BUSINESS LICENSE)
60	1	SOILED GARMENT CABINET
62	2	HAND SOAP DISPENSER
63	1	HAND GREASE CLEANER DISPENSER
64	1	COMPACT REFRIGERATOR
65	1	MICROWAVE
72	1	WALL MOUNTED IT SERVER CABINET
84	1	MOBILE COAT RACK

DISPLAY FIXTURES & ACCESSORY KEY:
FURNISHED BY BSRO U.N.O. ALL ITEMS INSTALLED BY G.C.
REFER TO E2/E3/E4/E5 SHEETS FOR FURTHER REQUIREMENTS.



15 F2 SALES POD PLAN

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

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O=SGA Design Group,
CN=Mitchel Garrett
Date: 2020.06.30 12:35:21 -05'00'

Mitchel Garrett

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

ISSUE BLOCK

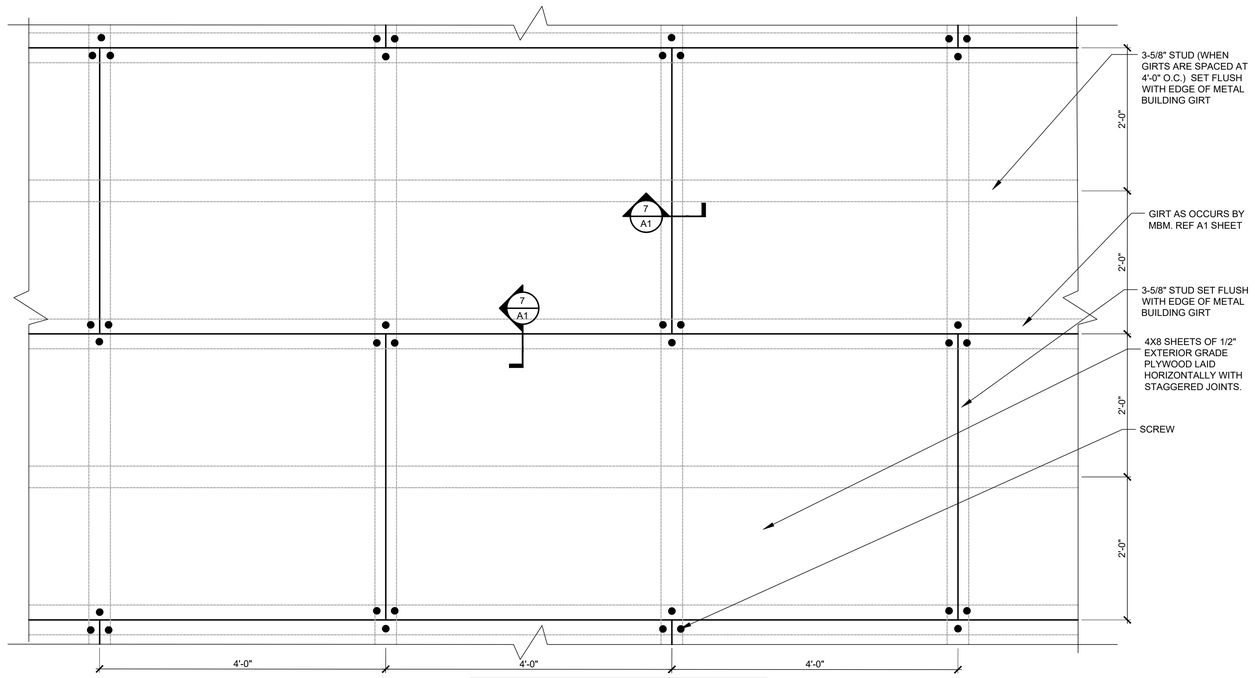
1	04/16/20	ADD #1
2	06/30/20	CB#1

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9

AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##
KMP

SHEET TITLE:
SHOWROOM FIXTURE PLAN & ELEVATIONS

SHEET NUMBER:
F2

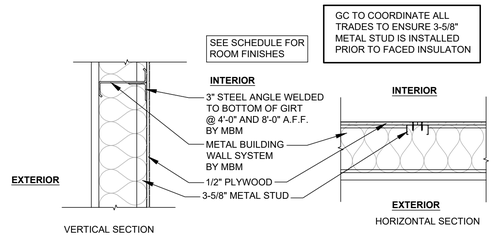


SCREW PATTERN:
EACH 4X8 SHEET OF PLYWOOD TO HAVE SCREWS IN ALL (4) CORNERS AND (1) AT TOP AND BOTTOM AT MIDPOINT OF EACH SHEET. TOTAL (6) SCREWS PER 4X8 SHEET.

6 A1 PLYWOOD FRAMING LAYOUT
SCALE: 1"=1'-0"

GC NOTES AND REQUIREMENTS

1. GC TO PROVIDE ANY NECESSARY INTERMEDIATE FRAMING FLUSH WITHIN GIRT CAVITY FOR ATTACHMENT OF INTERIOR FINISH MATERIAL.
2. GC TO VERIFY THAT NO METAL BUILDING COMPONENTS ARE WARPED OR DAMAGED PRIOR TO ERECTION.



7 A1 PLYWOOD FRAMING DETAIL
SCALE: 1"=1'-0"

METAL BUILDING NOTES/REQUIREMENTS

WALL PANELS

- METAL BUILDING WALL PANELS: NRC (NUCOR REVERSE CLASSIC) 24-GAUGE PANEL MINIMUM, PAINTED GALVANIZED OR PAINTED GALVALUME. REFER ELEVATIONS ON SHEET A4.
- METAL BUILDING WALL INSULATION: SIMPLE SAVER, U-0.052
  - MBM CAN PROVIDE INSULATION, IF IT IS SIMPLE SAVER
- ON NON-INSULATED PANELS, MBM TO PROVIDE BASE CLOSURES, BUT NO BASE FLASHING.

ROOF PANELS

- METAL BUILDING ROOF PANELS: CFR 24 GALVANIZED
- METAL PARAPET BACKER PANELS: CFR 26 POLAR WHITE
- METAL BUILDING ROOF INSULATION: SIMPLE SAVER (2 / U-0.031) MBM TO PROVIDE ROOF CLIPS AND THERMAL BLOCKS AS REQUIRED.
  - MBM CAN PROVIDE INSULATION, IF IT IS SIMPLE SAVER
- MBM TO PROVIDE ROOF CURBS AND REINFORCING FOR ROOF TOP MECHANICAL EQUIPMENT (RTU, EXHAUST FAN, ETC). (2) 14" HIGH CURB. REF MECHANICAL DRAWINGS.
- MBM TO PROVIDE ROOF HATCH AND CURB AND REINFORCING FOR HATCH.

GIRTS

- GIRTS WITH NRC: 8" WIDE METAL BUILDING GIRTS MAXIMUM 2'-0" O.C., TO BE FLUSH WITHIN THE WALL CAVITY
- MBM TO TOE DOWN GIRTS AT 12' AFF. MBM TO PROVIDE 3" STEEL ANGLE ATTACHED TO GIRTS AT 4' AND 8' AFF GIRTS FOR INSTALLATION OF PLYWOOD.
- WITH PARAPET GUTTER, GIRTS MUST BE PLACED TO ALLOW PLACEMENT FOR SCUPPERS AND OVERFLOW SCUPPERS. REFER TO A4 SHEET.
- C CHANNEL AT PARAPET CAP TO BE PROVIDED TOE DOWN.
- MBM TO PROVIDE CONTINUOUS C CHANNEL AT CONCRETE SLAB - INCLUDING BETWEEN THE COLUMNS AND O.H. DOOR JAMBS.
- MBM TO ENSURE ACCURACY OF THE ALIGNMENT OF THE C CHANNELS THE COLUMN FACE.
- MBM TO PROVIDE HORIZONTAL GIRTS BETWEEN O.H. DOORS.
- GIRTS MUST BE PROVIDED CONSISTENTLY AROUND THE BUILDING.

COLUMNS & BRACING

- COLUMN LINE 2 - ALL COLUMNS IN SHOWROOM TO BE STRAIGHT COLUMNS. COLUMNS IN BATHROOMS TO BE SUPERMARKET COLUMNS THAT START TAPERING AT MINIMUM 10'-0" AFF.
- ALL METAL BUILDING COLUMNS AS SHOWN ON SHEETS A1 AND S2 ARE SET AND TO BE PROVIDED AS NOTED. NO COLUMN CHANGES EXCEPT IF SPECIFIC SITE CONDITIONS REQUIRE CHANGES.
- ALL METAL BUILDING MAINFRAME COLUMNS TO BE TAPERED UNLESS NOTED OTHERWISE AND HAVE A MAXIMUM BASE PLATE AT CONCRETE SLAB OF 14" DEEP.
- COLUMN LINES 3-6 (SERVICE BAY), PROVIDE OVERHEAD CLEARANCE OF 15'-6" MINIMUM ON HIGH EAVE, 14'-6" MINIMUM ON LOW EAVE.
- REFER TO SHEET S2 FOR BRACING LOCATIONS THAT WERE ASSUMED BY STRUCTURAL IN PRELIMINARY DESIGN. NO BRACING CHANGES EXCEPT IF SPECIFIC SITE CONDITIONS REQUIRE CHANGES.
- NO FIXED BASE BRACING ALLOWED.
- MBM TO CENTER ANCHOR BOLTS ON COLUMNS AT THE PORTAL FRAMES.
- ~~ALL BRACING TO BE WITHIN THE GIRT SPACING.~~
- ~~NO FLANGE BRACES ALLOWED ON COLUMNS.~~
- (2 / A) ENDWALL COLUMNS 8" DEEP MAX - FLUSH WITHIN GIRTS.

FRAMING AND OPENINGS

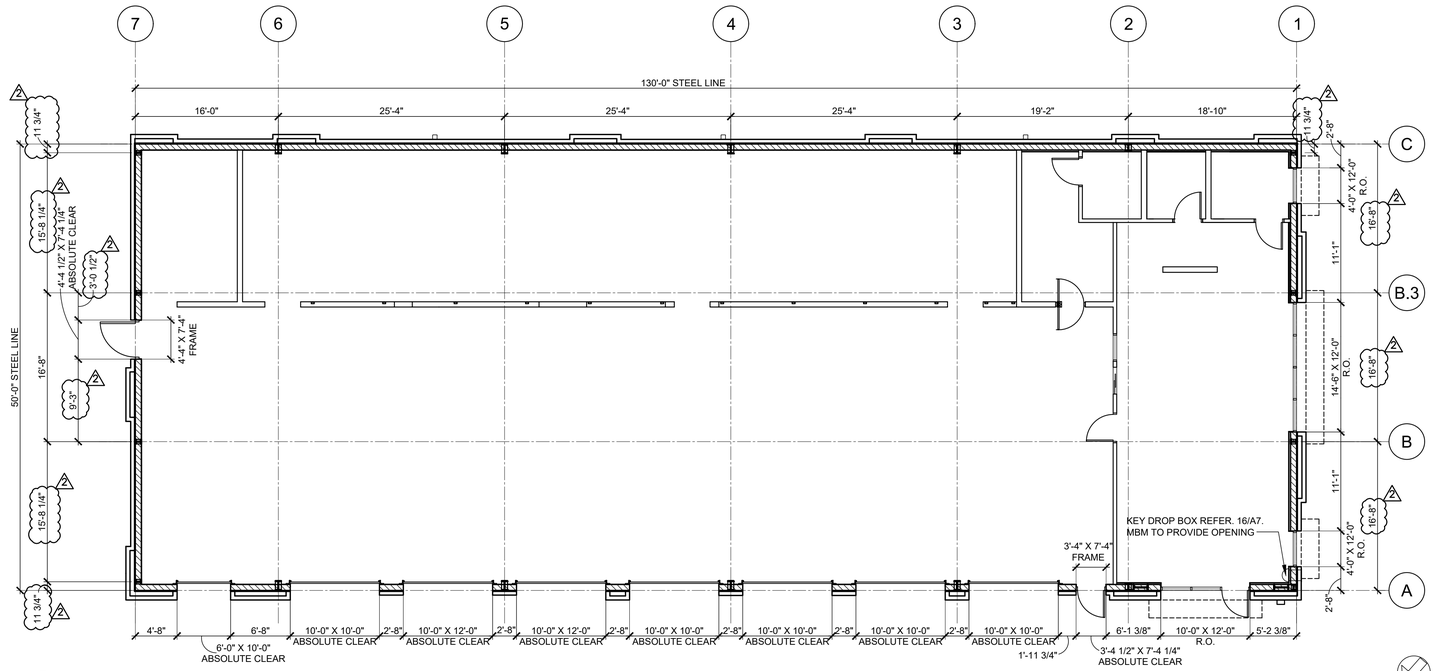
- AT ALL AWNING/CANOPY LOCATIONS, MBM TO PROVIDE MINIMUM OF ONE BOX BEAM AT TOP AND BOTTOM. REFER TO A4 SHEET.
- INTERMEDIATE SUPPORTS FOR ALL EXTERIOR WALL LOUVER/VENT OPENINGS TO BE PROVIDED BY MBM.
- MBM TO PROVIDE STEEL ANGLE ATTACHED TO TOP OF O.H. DOOR FRAMING MEMBER FOR ATTACHMENT OF O.H. DOOR BLOCKING. REFER TO DETAIL 15/A7.
- ENSURE OPENING IN METAL BUILDING IS PROVIDED FOR KEY DROP BOX. REFER TO F1 AND A1.1 SHEETS FOR LOCATION.
- ALL HOLLOW METAL DOOR OPENINGS TO BE 3'-4 ½" OR 4'-4 ½" WIDE BY 7'-4 ¼" TALL.
- ALL ROUGH OPENINGS AS NOTED ON SHEET A1.1 ARE NOT ALLOWED TO BE REDUCED FOR METAL BUILDING TRIM OR FLASHING.
- MBM TO PROVIDE NECESSARY ANGLES BETWEEN THE COLUMNS AND THE O.H. DOOR JAMBS.
- CONNECTIONS BETWEEN O.H. DOOR VERTICAL CHANNELS AND HEADER CHANNELS CANNOT BE EXPOSED.

WARRANTIES

- 20-YEAR WEATHER TIGHTNESS WARRANTY ON ROOF.
- 25-YEAR FINISH WARRANTY FOR GALVANIZED/GALVALUME PANELS.
- BUILDING WARRANTY - 1-YEAR.

MISCELLANEOUS

- MEET MBDP CRITERIA PROVIDED BY STRUCTURAL AT THE START OF THE PROJECT.
- MBM TO PROVIDE ROOF PIPE JACKS.
- MBM TO PROVIDE 2 INSPECTIONS. 1 PRE-ERECTION MEETING AND 1 FINAL INSPECTION OF THE METAL BUILDING (MIN. 30 DAYS FROM CONSTRUCTION COMPLETION), TO INCLUDE A PUNCH LIST OF ITEMS NOT ERECTED CORRECTLY.
- ALL SIGN LOCATIONS, GC TO PROVIDE BLOCKING FOR ATTACHMENT. MBM DOES NOT NEED TO PROVIDE ADDITIONAL GIRT FOR SIGNAGE.
- RED OR GRAY PRIMER STRUCTURE.
- ALL GIRTS/CHANNELS/ETC. MUST BE STEEL.
- ON PROJECTS WITH NON-INSULATED PANELS, MBM TO PROVIDE STRAPS/CLIPS FOR THE INSULATION IN THE WALLS.



16 A1 FLOOR PLAN
SCALE: 1/8"=1'-0"

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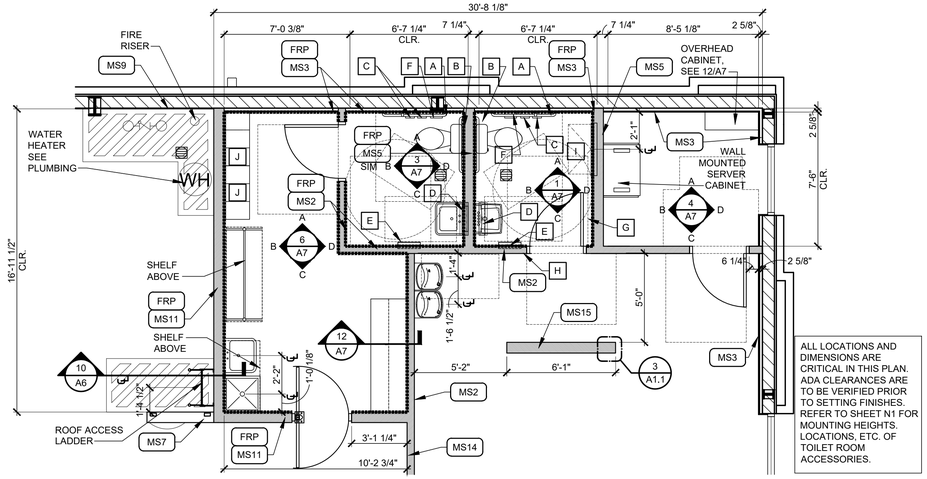
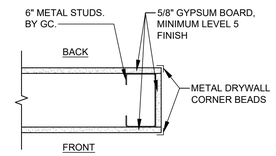
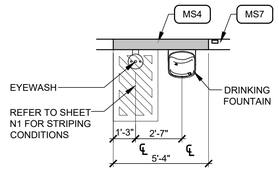


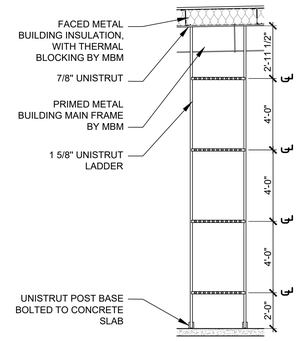
2 A1.1 ENLARGED PLAN
SCALE: 1/4"=1'-0"



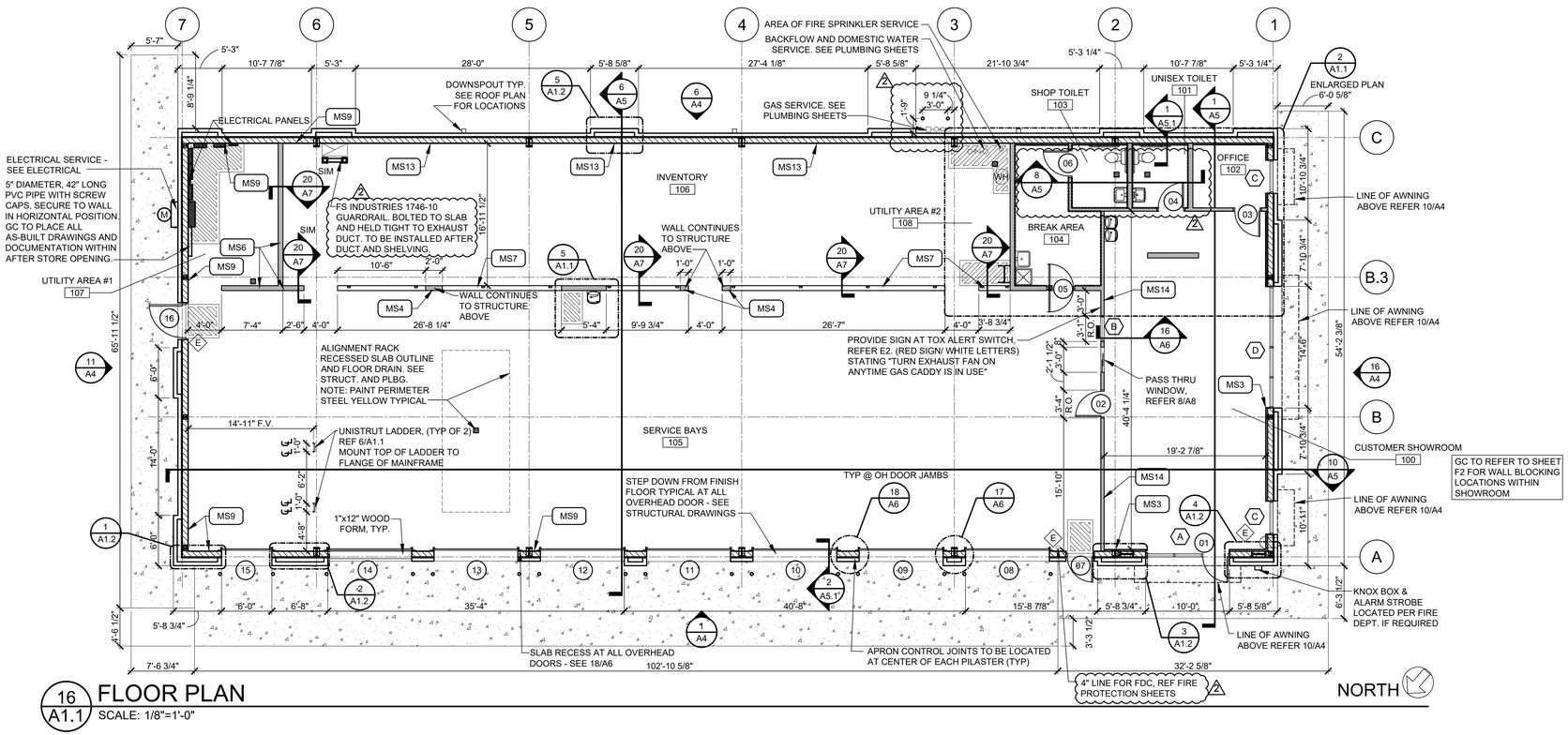
3 A1.1 ENLARGED PLAN
SCALE: 1-1/2"=1'-0"



5 A1.1 ENLARGED PLAN
SCALE: 1/4"=1'-0"



6 A1.1 ENLARGED ELEVATION
SCALE: 1/4"=1'-0"



16 A1.1 FLOOR PLAN
SCALE: 1/8"=1'-0"

STANDARD WALL TYPES

NOTES:
1. SOME WALL TYPES MAY NOT BE USED. REFER TO PLANS
2. REFER TO STRUCTURAL DRAWINGS FOR STUD GAUGES AND ADDITIONAL FRAMING INFORMATION.

MS1	3 5/8" METAL STUDS AT 16" O.C. WITH 5/8" GYPSUM BOARD BOTH SIDES. EXTEND PARTITION TO DECK (TYPICAL U.N.O.). USE MOISTURE RESISTANT GYPSUM BOARD ON INTERIOR SIDE OF TOILET AND MOP BASIN AREAS.
MS2	3 5/8" METAL STUDS AT 16" O.C. WITH 5/8" GYPSUM BOARD BOTH SIDES WITH SOUND ATTENUATION BLANKETS BETWEEN. EXTEND PARTITION TO DECK (TYPICAL U.N.O.) USE MOISTURE RESISTANT GYPSUM BOARD ON INTERIOR SIDE OF TOILET AND MOP BASIN AREAS AND BEHIND DRINKING FOUNTAINS.
MS3	(METAL BUILDING FRAME WALL SYSTEM) WITH 2" FURRING WITH 5/8" GYPSUM BOARD TO METAL DECK
MS4	6" METAL STUDS AT 16" O.C. WITH 1/2" PLYWOOD BOTH SIDES TO METAL DECK, PAINTED (TYPICAL UNLESS NOTED OTHERWISE).
MS5	6" METAL STUDS AT 16" O.C. WITH 5/8" GYPSUM BOARD BOTH SIDES WITH SOUND ATTENUATION BLANKETS BETWEEN. EXTEND PARTITION TO DECK (TYPICAL U.N.O.) AT SIM. CONDITION, EXTEND PARTITION 4" MIN. ABOVE CEILING. USE MOISTURE RESISTANT GYPSUM BOARD ON INTERIOR SIDE OF TOILET AND MOP BASIN AREAS.
MS6	6" METAL STUDS AT 16" O.C. TO DECK, WITH 1/2" PLYWOOD BOTH SIDES TO 8' A.F.F., PAINTED.
MS7	6" METAL STUDS TO 4' A.F.F AT 16" O.C., STEEL COLUMNS WITHIN WALL FOR SUPPORT WITH 1/2" PLYWOOD BOTH SIDES, PAINTED. REFER STRUCTURAL DRAWINGS FOR STEEL COLUMNS.
MS8	3 5/8" METAL STUDS AT 16" O.C. WITH 5/8" GYPSUM BOARD BOTH SIDES, 4' TALL, 3/4" PLYWOOD ATTACHED TO WALL ON SHOP SIDE ONLY FOR ELECTRICAL PANEL MOUNTING.
MS9	METAL BUILDING FRAME WALL SYSTEM WITH 1/2" PLYWOOD TO 8'-0" A.F.F ON INTERIOR SIDE. OPEN TO WALL STRUCTURE ABOVE.
MS10	2 1/2" METAL STUDS FURRING WITH 5/8" GYPSUM BOARD. EXTEND PARTITION 4" MIN. ABOVE CEILING (12'-0" A.F.F. IN CUSTOMER SHOWROOM). USE MOISTURE RESISTANT GYPSUM BOARD ON INTERIOR SIDE OF TOILET AREA. FIELD VERIFY EXACT EXTENTS AFTER TAPERED COLUMNS ARE PLACED IN ORDER TO COMPLETELY CONCEAL COLUMNS.
MS11	6" METAL STUDS AT 16" O.C. WITH 5/8" GYPSUM BOARD ON BREAK AREA SIDE AND 1/2" PLYWOOD ON UTILITY AREA OR SERVICE SIDE WITH SOUND ATTENUATION BLANKETS BETWEEN. EXTEND PARTITION AND FINISHES TO DECK (TYPICAL U.N.O.) AT SIM. CONDITION, EXTEND PARTITION 4" MIN. ABOVE CEILING. USE MOISTURE RESISTANT GYPSUM BOARD ON INTERIOR SIDE OF TOILET AND MOP BASIN AREAS.
MS12	2 1/2" METAL STUDS WITH 1/4" PLYWOOD ON OUTSIDE FACE. PAINT.
MS13	METAL BUILDING FRAME WALL SYSTEM WITH 1/2" PLYWOOD TO 12-0" A.F.F ON INTERIOR SIDE. OPEN TO WALL STRUCTURE ABOVE.
MS14	3 5/8" METAL STUDS AT 16" O.C. WITH 5/8" GYPSUM BOARD ON SHOWROOM AND BREAK AREA SIDE AND 1/2" PLYWOOD ON UTILITY AREA OR SERVICE SIDE WITH SOUND ATTENUATION BLANKETS BETWEEN. EXTEND PARTITION TO DECK (TYPICAL U.N.O.) USE MOISTURE RESISTANT GYPSUM BOARD ON INTERIOR SIDE OF TOILET AND MOP BASIN AREAS AND BEHIND DRINKING FOUNTAINS.
MS15	6" METAL STUDS AT 16" O.C. WITH 5/8" GYPSUM BOARD ALL SIDES. EXTEND PARTITION TO DECK (TYPICAL U.N.O.)
FRP	FRP BOARD GLUE EDGE TO EDGE OF SUBSTRATE. REFER TO INTERIOR ELEVATIONS ON SHEET A7 FOR HEIGHTS A.F.F.

ACCESSORIES

MARK	DESCRIPTION
A	42" GRAB BAR WITH WOOD BACKER, WITH 18" VERTICAL BAR AS REQUIRED.
B	36" GRAB BAR WITH WOOD BACKER
C	TOILET TISSUE DISPENSER
D	MIRROR - SEE ELEVATIONS FOR SIZE
E	PAPER TOWEL DISPENSER & DISPOSAL
F	SANITARY NAPKIN DISPOSAL UNIT
G	COAT HOOK
H	HANDICAP SIGN-MOUNT 5'-0" AFF TO CENTER: 8" EDGE TO JAMB EDGE.
I	BABY CHANGING STATION. SEE DETAIL 1/N1
J	6 HALF LOCKER UNIT QTY(2)-(SECURE TO WALL)

NOTES
1. PROVIDE WOOD BLOCKING AS REQUIRED FOR MOUNTING ACCESSORIES
2. ACCESSORY PACKAGE AVAILABLE FROM NATIONAL VENDOR.
3. REFER TO SHEET N1 FOR MOUNTING HEIGHTS, LOCATIONS, ETC OF TOILET ROOM ACCESSORIES.

GENERAL NOTES

1. WALL DIMENSIONS ARE TO FINISH CLEAR DIMENSION. ALL MATERIALS MUST BE FIGURED INTO THE LAYOUT OF THE FRAMING.
2. MASONRY OPENING SHALL BE COORDINATED WITH WINDOW OR DOOR MANUFACTURERS REQUIREMENTS.
3. PLUMBING ROUGH INS ARE CRITICAL FOR ADA CLEARANCES, VERIFY ALL PLUMBING ROUGH INS PRIOR TO INSTALLING ROOM FINISHES.
4. ALL MASONRY DIMENSIONS ARE NOMINAL DIMENSIONS, MASONRY CONTRACTOR TO ADJUST COURSING AS NEEDED.
5. ALL GYP. BRD. WALLS SHALL HAVE LATERAL BRACING AND CONTROL JOINTS AS REQUIRED IN SPECIFICATION SECTION 092900.

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LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
MITCH GARRETT
NUMBER A-007541
ARCHITECT

06/30/2020

Digitally signed by Mitchel Garrett
DN: C=US
E=mgarrett@sgadesigngroup.com,
O=SGA Design Group,
CN=Mitchel Garrett
Date: 2020.06.30 12:35:22 -05'00'

Mitchel Garrett

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

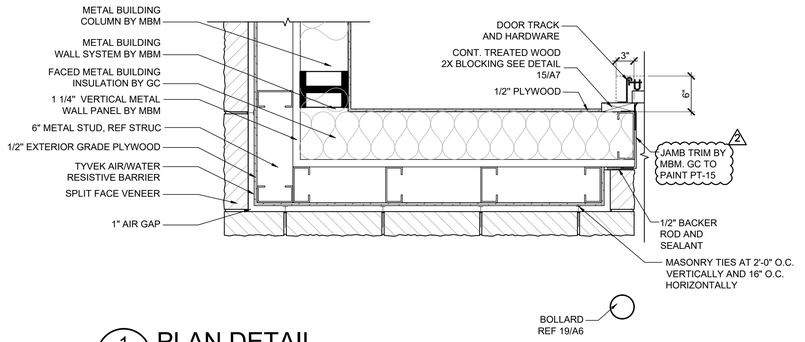
ISSUE BLOCK

1	04/16/20	ADD #1
2	06/30/20	CB#1

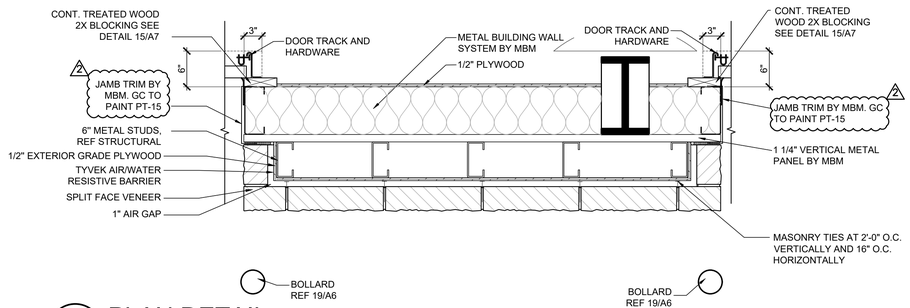
PROPERTY NO.:	160085
6 DIGIT NO.:	906983
4 DIGIT NO.:	78C9
AOR PROJECT NUMBER:	1955B71
TO PERMIT: DATE:	03/26/2020
TO BID: DATE:	###-##
KMP	

SHEET TITLE:
FLOOR PLAN & NOTES

SHEET NUMBER:
A1.1



1 A1.2 PLAN DETAIL
SCALE: 1"=1'-0"



2 A1.2 PLAN DETAIL
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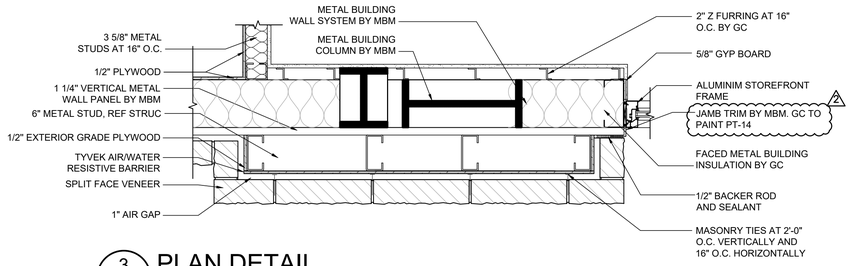
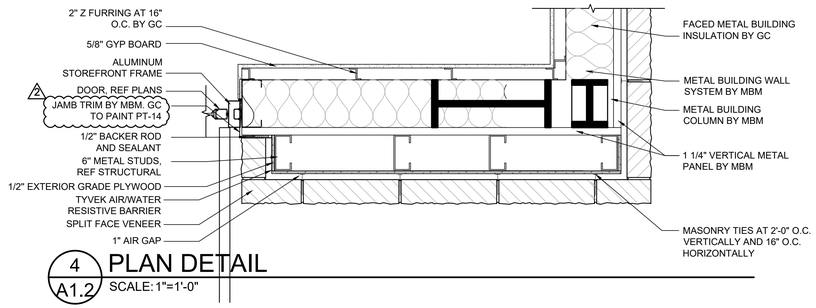


3 A1.2 PLAN DETAIL
SCALE: 1"=1'-0"



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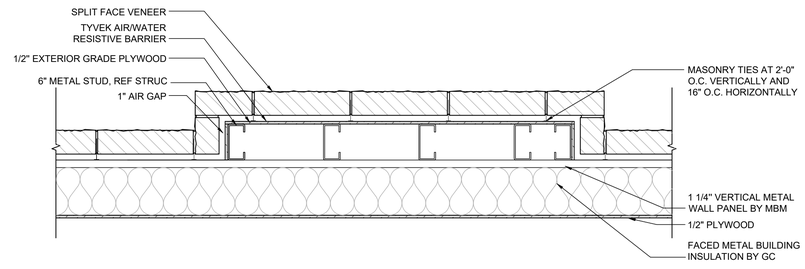

5 A1.2 PLAN DETAIL
SCALE: 1"=1'-0"

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06/30/2020

Digitally signed by Mitchel Garrett
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Date: 2020.06.30 12:05:23-05'00'

Mitchel Garrett

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

ISSUE BLOCK

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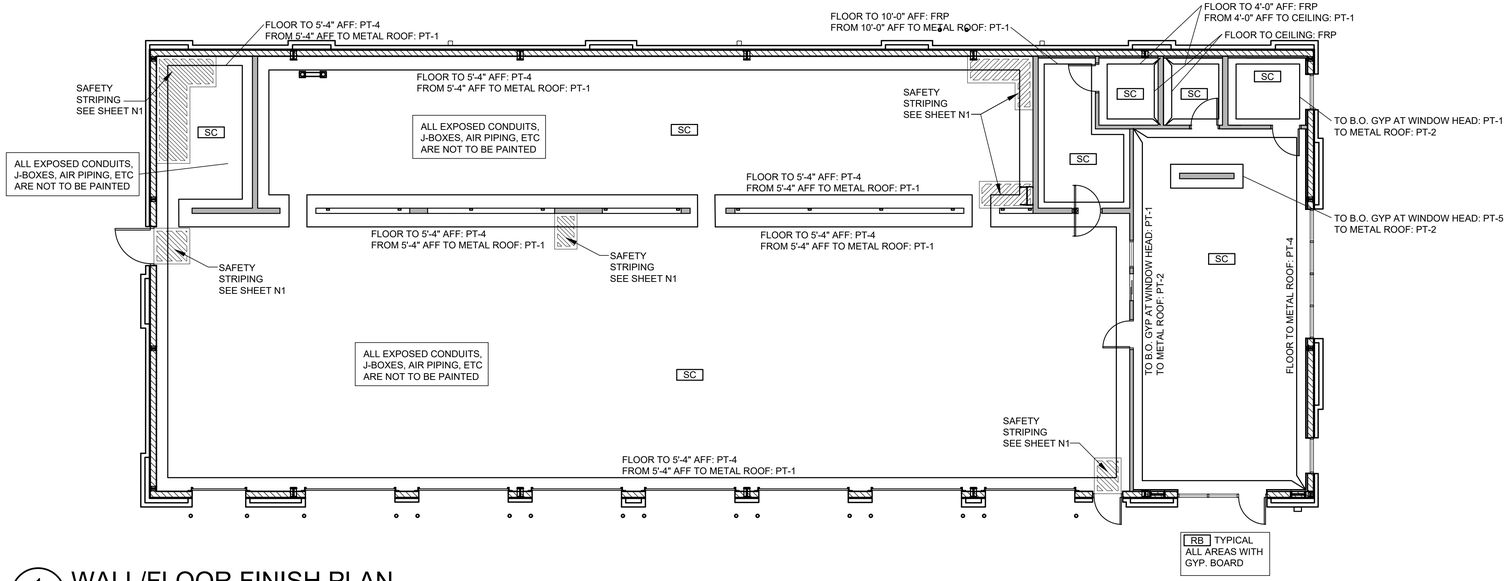
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##
KMP

SHEET TITLE:
ENLARGED PLAN DETAILS

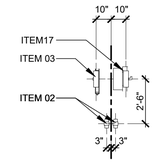
SHEET NUMBER:
A1.2



1 A2 WALL/FLOOR FINISH PLAN

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

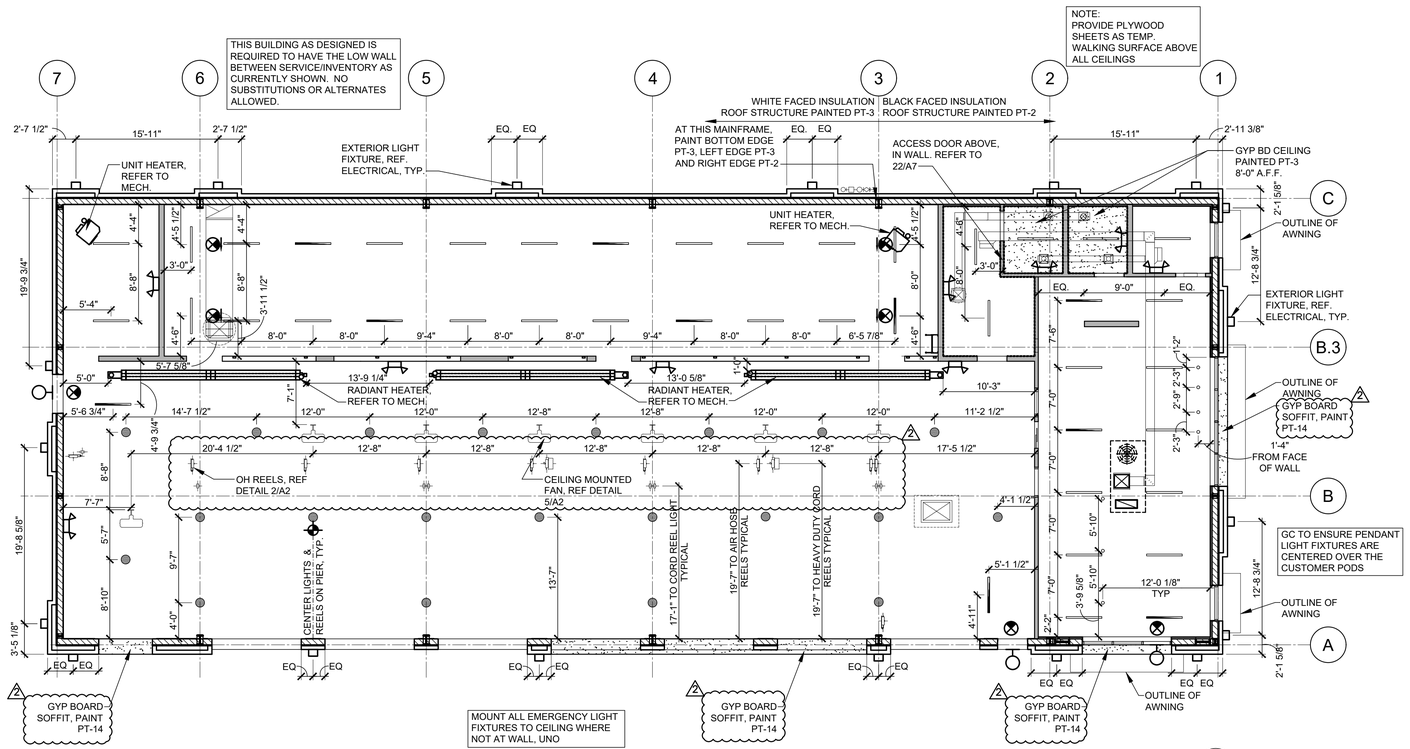
FLOOR FINISH KEY
NOTE: SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR, UNLESS OTHERWISE NOTED.
SC: SEALED CONCRETE, REFER TO SPECIFICATION
RB: RESILIENT BASE: 6" WALL BASE (BLACK)



2 A2 ENLARGED EQUIPMENT DETAIL

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

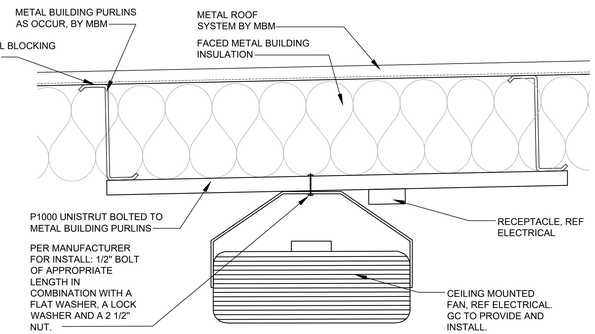
REFLECTED CEILING PLAN NOTES:
1. LOCATE LIGHT FIXTURES CENTERED IN THE ROOM OR OVER DOOR AS APPLIES, UNLESS DIMENSIONS NOTE OTHERWISE.
2. SEE MECHANICAL AND ELECTRICAL SHEETS FOR SYMBOL SPECIFICATION.



16 A2 REFLECTED CEILING PLAN

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

NORTH



5 A2 CEILING MOUNTED FAN

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

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Date: 2020.06.30 12:05:23 -05'00'

Mitchel Garrett

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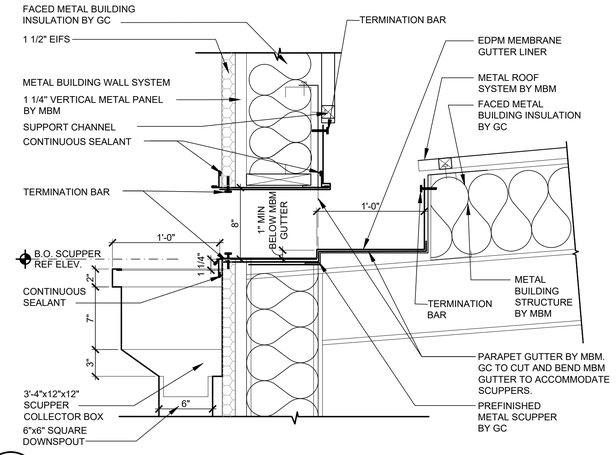
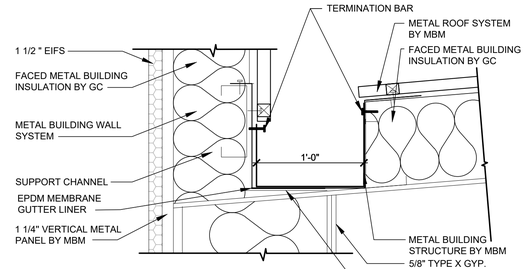
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: #####
KMP

SHEET TITLE:
REFLECTED CEILING & FINISH PLAN

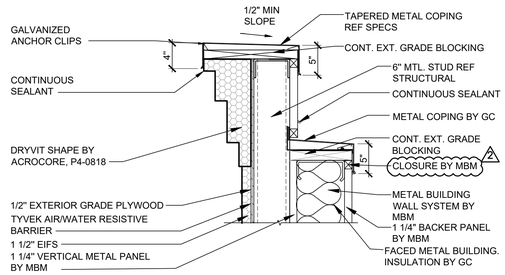
SHEET NUMBER:
A2



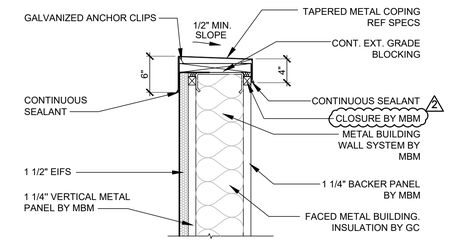
3 A3 SCUPPER/GUTTER DETAIL
SCALE: 1 1/2"=1'-0"



4 A3 GUTTER DETAIL
SCALE: 1 1/2"=1'-0"



5 A3 PARAPET DETAIL
SCALE: 1"=1'-0"



6 A3 PARAPET DETAIL
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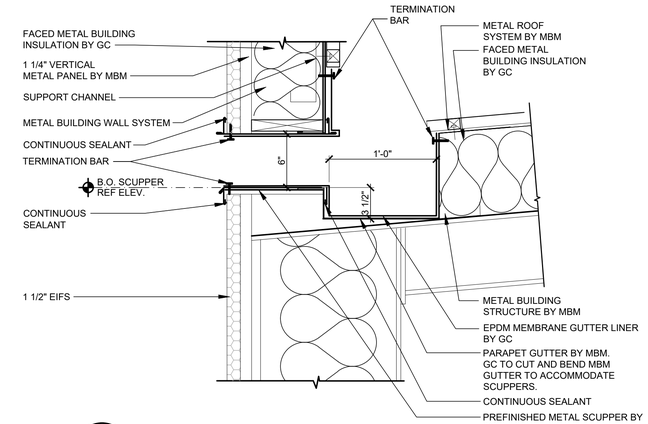
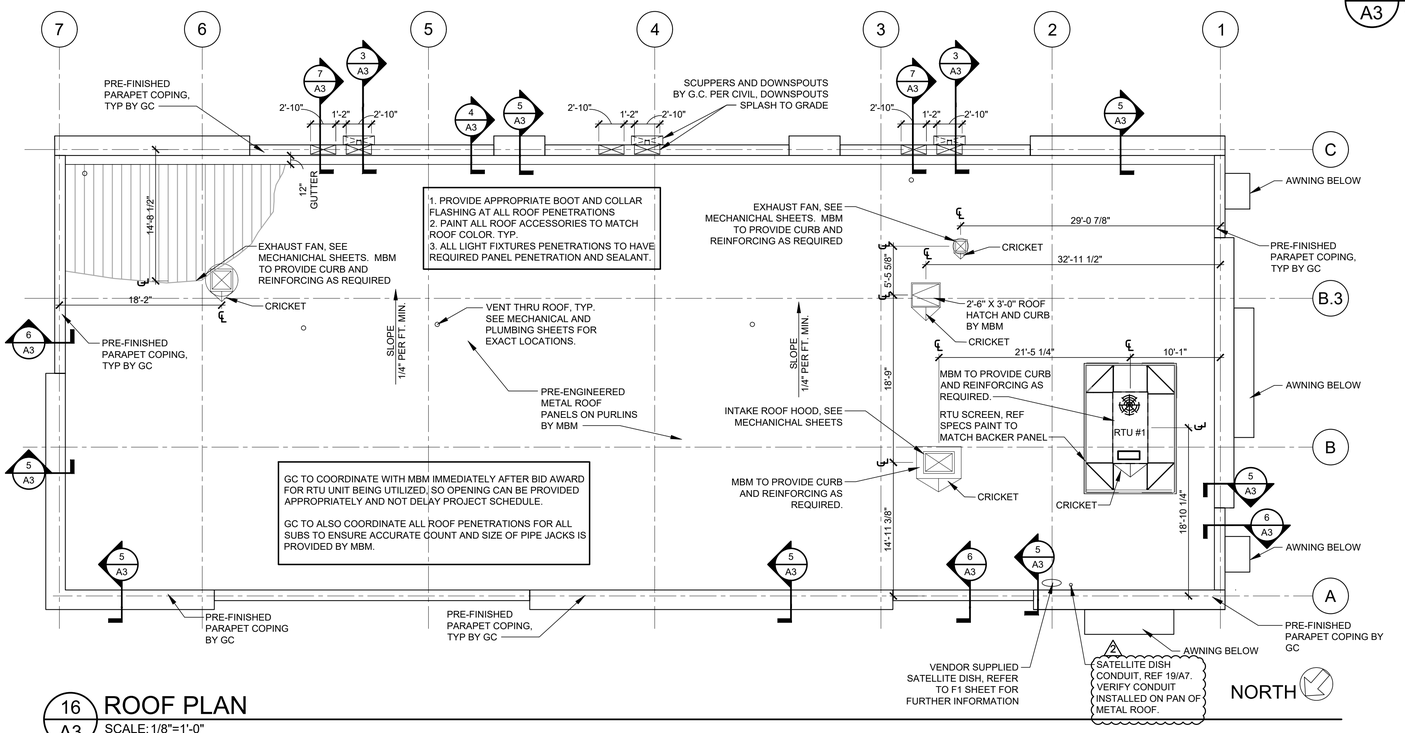


7 A3 OVERFLOW SCUPPER
SCALE: 1 1/2"=1'-0"



16 A3 ROOF PLAN
SCALE: 1/8"=1'-0"

GC TO PROVIDE "PIPE PROP" APS-1 WITH SADDLE SUPPORT FOR ALL GAS PIPING ON ROOF. SUPPORT TO BE INSTALLED MINIMUM EVERY 2'-0" OC. INSTALL TO ROOF WITH MASTIC PER ROOFING MANUFACTURER'S RECOMMENDATION. INSTALL SUPPORT PER MANUFACTURER'S INSTALLATION REQUIREMENTS.

ROOF DRAINAGE CALCULATIONS
PRIMARY AND SECONDARY DRAINS
Based on 2018 IPC table 1106.3, 6" downspouts

ZONE	AREA (SQ FT)	ACTUAL GPM CAPACITY	CAPACITY OF 6" DOWNSPOUT IN GPM PER TABLE 1106.2
ZONE 1	2221	272	538
ZONE 2	2221	252	538
ZONE 3	2221	275	538

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ISSUE BLOCK

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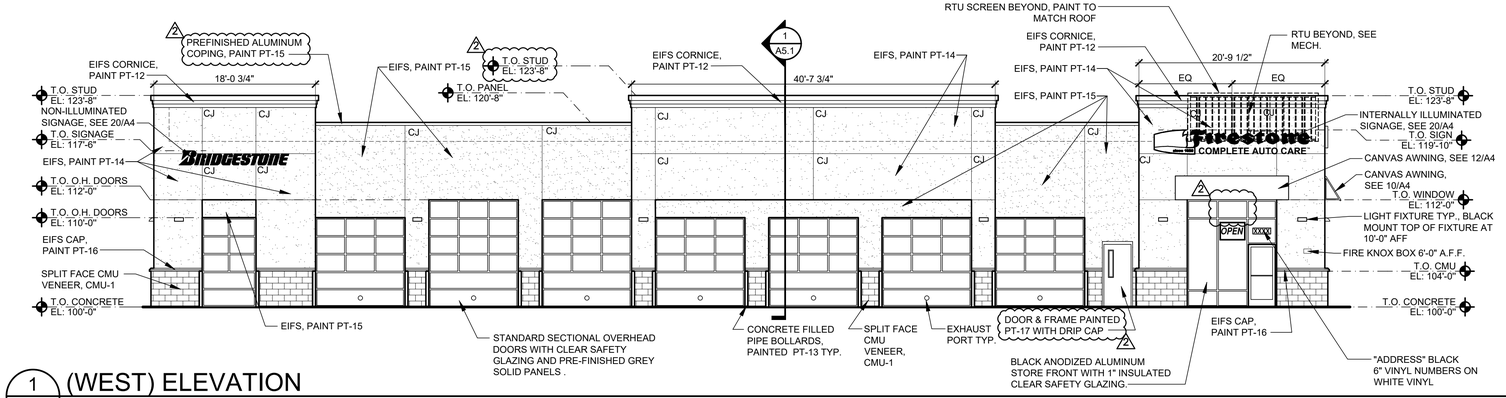
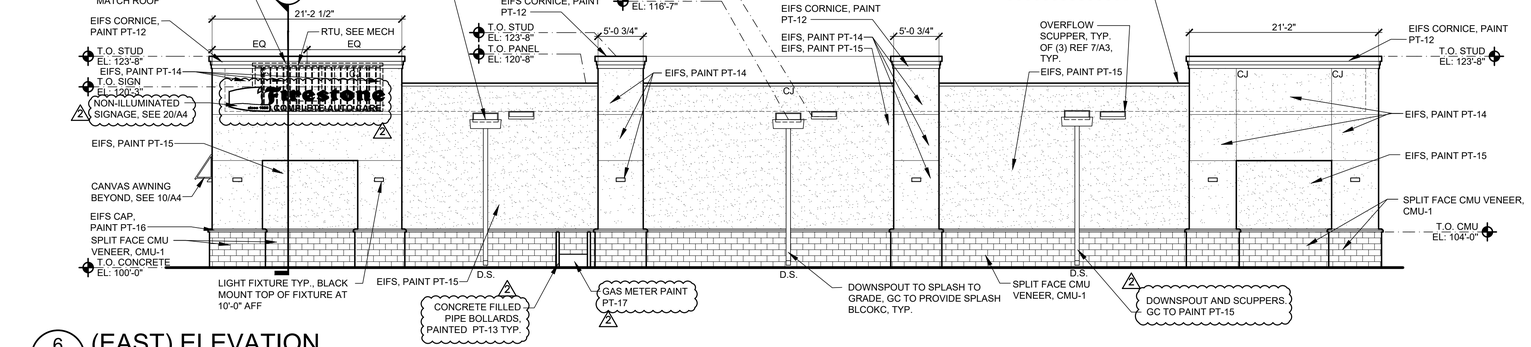
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ####-##
KMP

SHEET TITLE:
ROOF PLAN & DETAILS

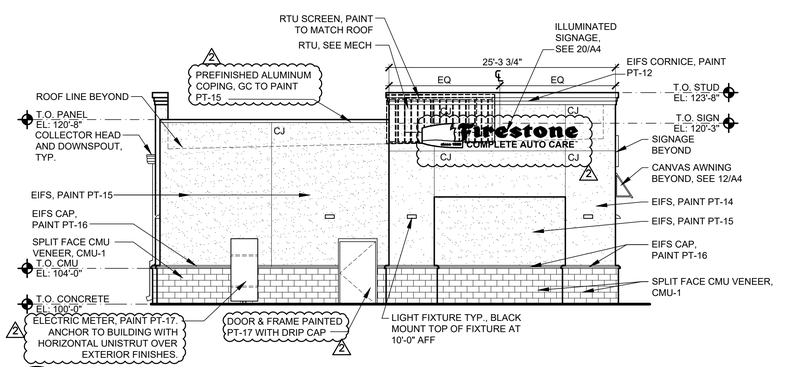
SHEET NUMBER:
A3



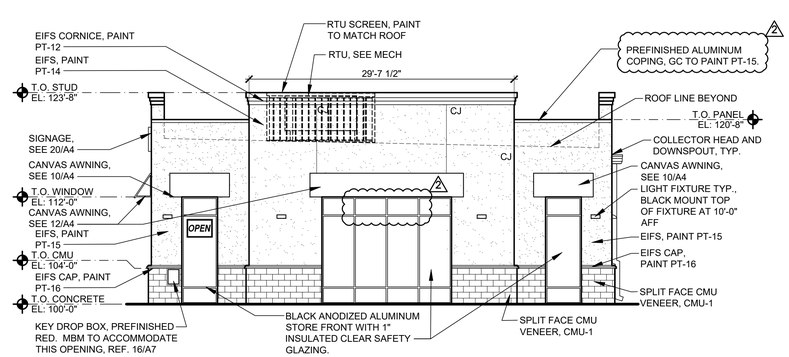
1/A4 (WEST) ELEVATION
SCALE: 1/8"=1'-0"



6/A4 (EAST) ELEVATION
SCALE: 1/8"=1'-0"



11/A4 (NORTH) ELEVATION
SCALE: 1/8"=1'-0"



16/A4 (SOUTH) ELEVATION
SCALE: 1/8"=1'-0"

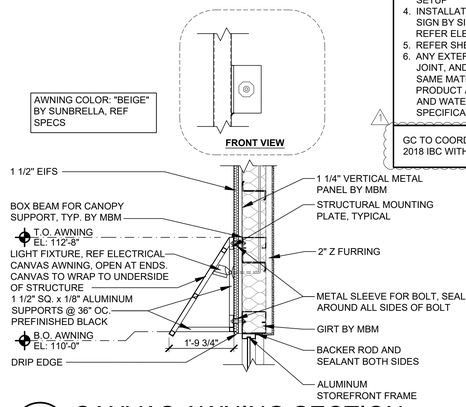
MATERIAL KEY:

CMU-1: ECHELON SPLIT FACE VENEER (OR EQUAL) "ASH"

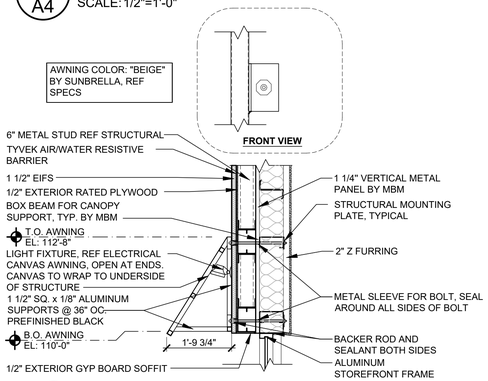
GENERAL NOTES:

1. PROVIDE DRIP CAP OVER ALL MAN DOORS SEE DETAIL 1C/A8
2. PAINT ALL EXPOSED LINTELS & JAMBS TO MATCH ADJACENT BUILDING COLOR.
3. SEE ELECTRICAL FOR SIGNAGE OPERATING TIME SETUP.
4. INSTALLATION OF BUILDING SIGNS AND STREET SIGN BY SIGN VENDOR, G.C. TO PROVIDE WIRING. REFER ELECTRICAL.
5. REFER SHEET A8 FOR PAINT COLOR KEY.
6. ANY EXTERIOR CONSTRUCTION JOINT, EXPANSION JOINT, AND CRACK OF ABUTTING DISSIMILAR OR SAME MATERIALS MUST HAVE APPROPRIATE PRODUCT APPLIED TO PROVIDE AN AIR, MOISTURE, AND WATER TIGHT EXTERIOR. REFER TO SPECIFICATION SECTION 079200 FOR PRODUCTS.

GC TO COORDINATE ADDRESS IDENTIFICATION PER 2018 IBC WITH THE FIRE MARSHAL.



10/A4 CANVAS AWNING SECTION
SCALE: 1/2"=1'-0"

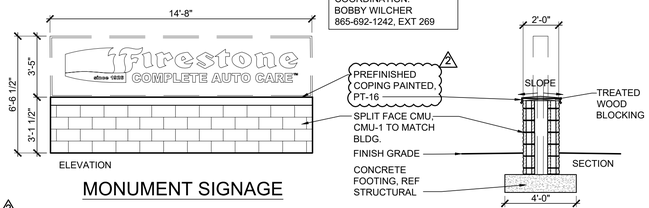


12/A4 CANVAS AWNING SECTION
SCALE: 1/2"=1'-0"

ALL SIGNS AND NECESSARY SUPPORT(S) BY SIGN VENDOR.

CONTACT AGI SIGNS FOR COORDINATION: BOBBY WILCHER 865-692-1242, EXT 269

MONUMENT SIGN BASE AND POWER FOR SIGN BY GENERAL CONTRACTOR.



MONUMENT SIGNAGE

BUILDING SIGNAGE

20/A4 SIGNAGE DETAIL
SCALE: 1/4"=1'-0"

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MITCHEL RAY GARRETT - ARCHITECT
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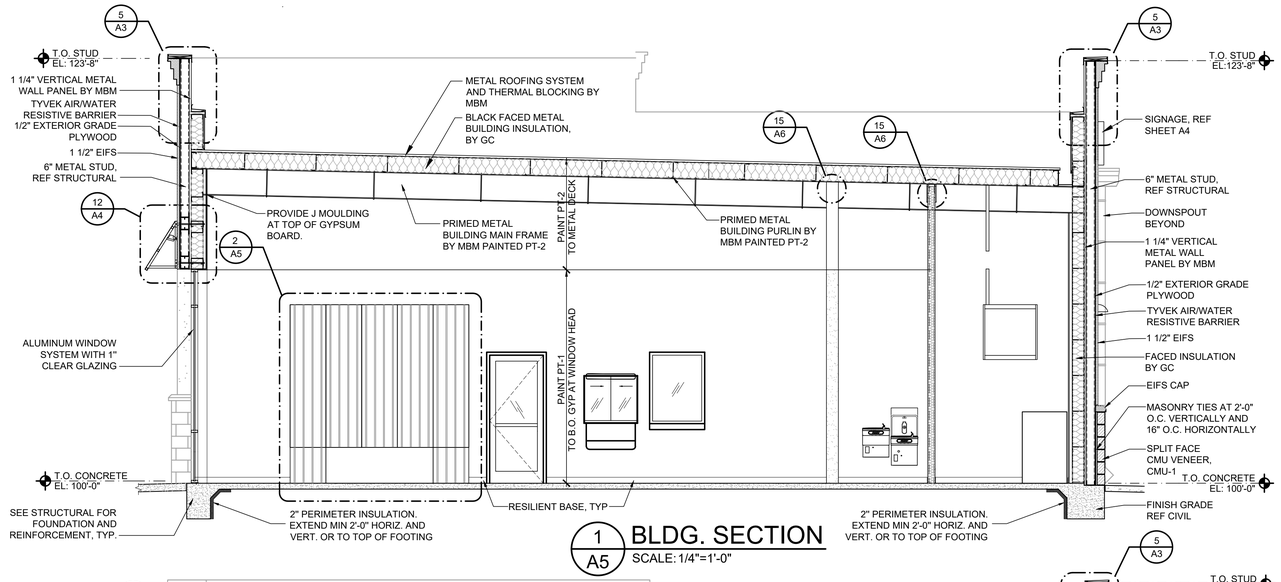
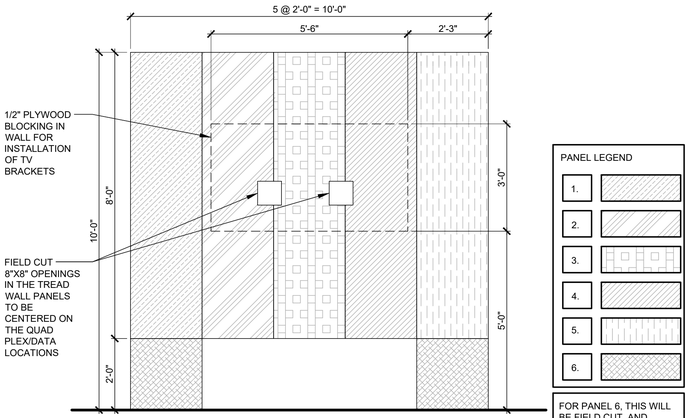
KMP

SHEET TITLE:
EXTERIOR ELEVATIONS & DETAILS

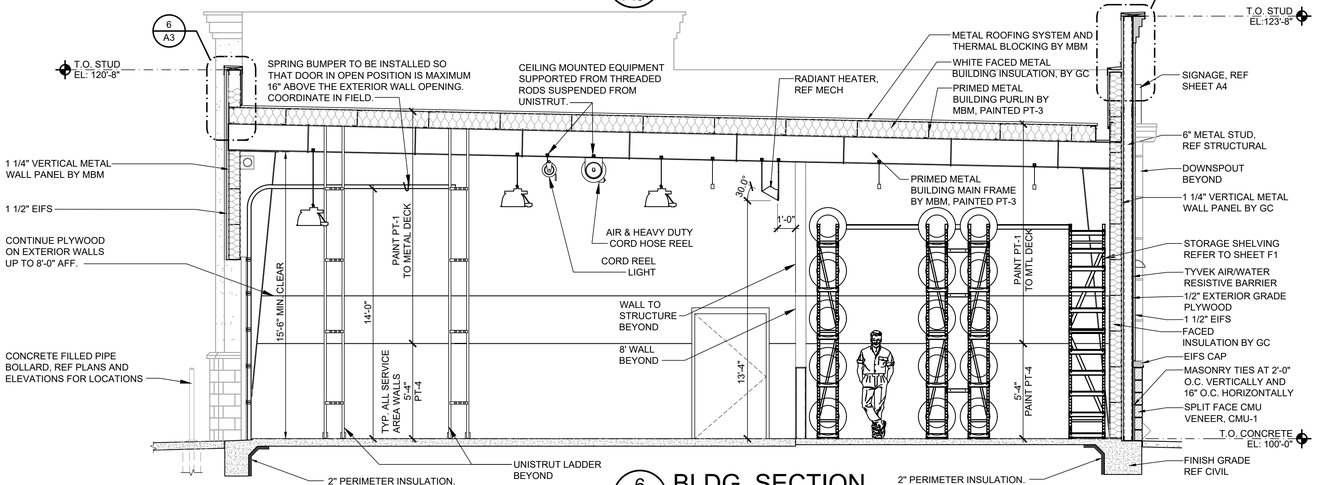
SHEET NUMBER:
A4



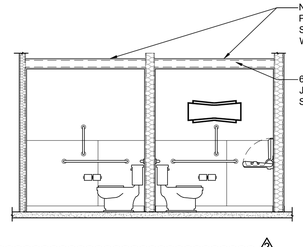
1 A5 **BLDG. SECTION**
SCALE: 1/4"=1'-0"



2 A5 **TREAD WALL DETAIL**
SCALE: 1/2"=1'-0"



6 A5 **BLDG. SECTION**
SCALE: 1/4"=1'-0"



8 A5 **BLDG. SECTION**
SCALE: 1/4"=1'-0"

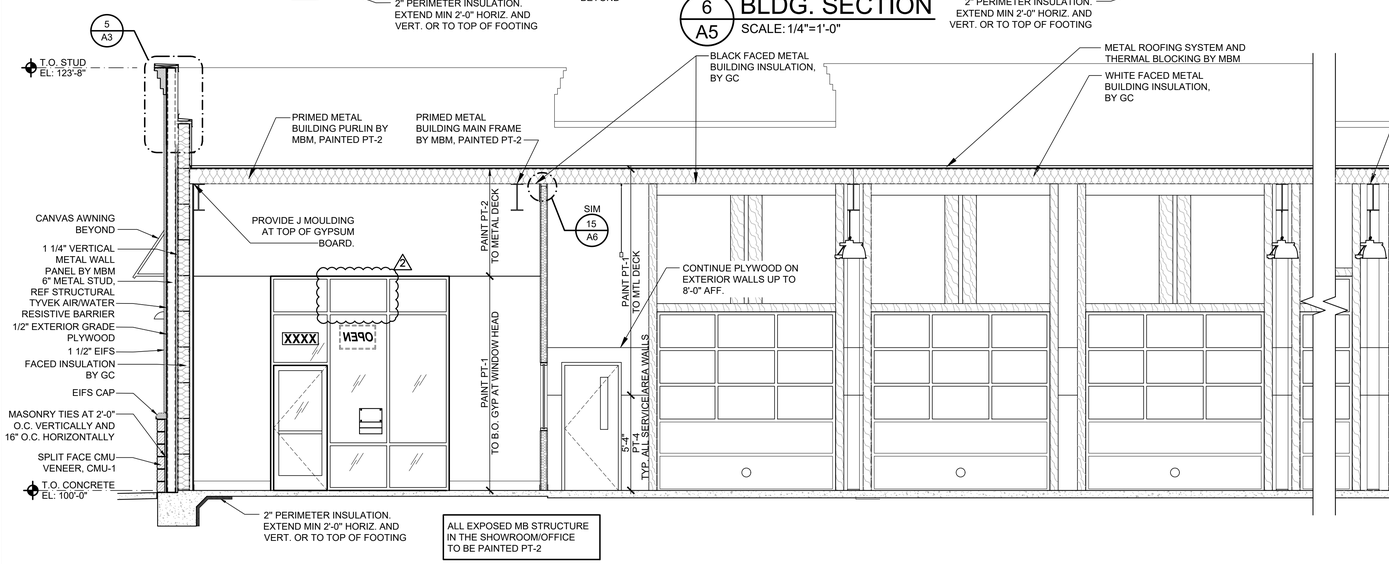
MECHANICAL NOTE:

SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DUCT WORK, PIPING, LIGHT FIXTURES, ETC.

SEE FIXTURE PLAN, REFLECTED CEILING, AND ELECTRICAL PLANS FOR ALL DIMENSIONS.

VERIFY LOCATIONS WITH M.E.P. SHEETS.

VERIFY LOCATIONS WITH EQUIPMENT MANUFACTURERS.



ALL EXPOSED MB STRUCTURE IN THE SHOWROOM/OFFICE TO BE PAINTED PT-2

10 A5 **BLDG. SECTION**
SCALE: 1/4"=1'-0"

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STATE OF MISSOURI
MITCH GARRETT
NUMBER A-007541
ARCHITECT
06/30/2020

Mitchel Garrett
Digitally signed by Mitchel Garrett
DN: cn=Mitchel Garrett, o=SGA Design Group, PC, ou=Architect, email=mitchg@sgadesigngroup.com, c=US
Date: 2020.06.30 12:09:25 -05'00'

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

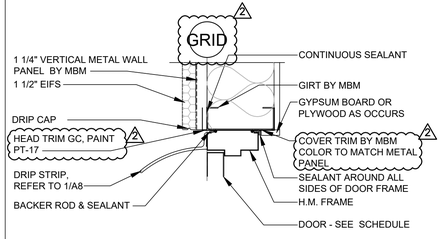
ISSUE BLOCK

1	04/16/20	ADD #1
2	06/30/20	CB#1

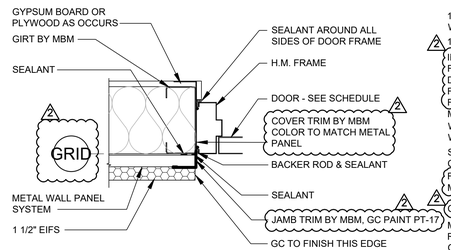
PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ###-##
KMP

SHEET TITLE:
BUILDING SECTIONS & DETAILS

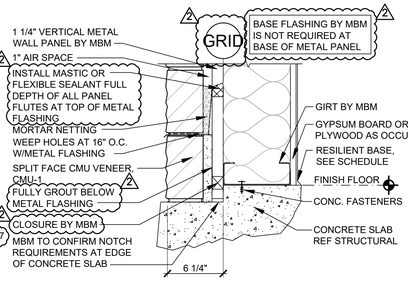
SHEET NUMBER:
A5



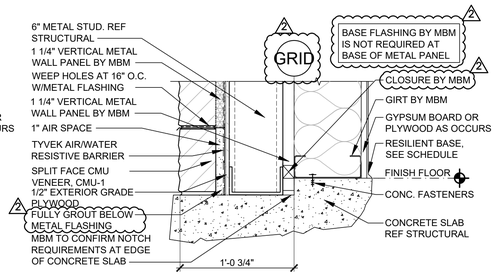
1 A6 DOOR HEAD DETAIL
SCALE: 1 1/2"=1'-0"

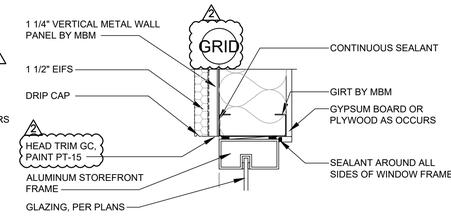


2 A6 DOOR JAMB DETAIL
SCALE: 1 1/2"=1'-0"

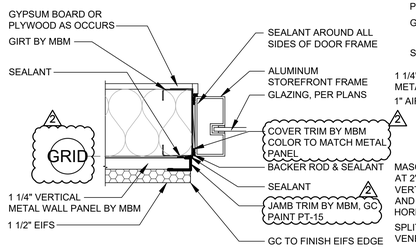


3 A6 METAL PANEL BASE DETAIL
SCALE: 1 1/2"=1'-0"

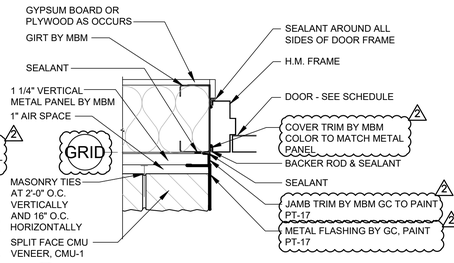




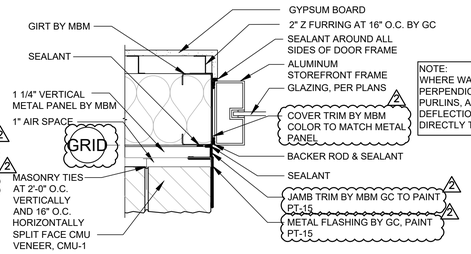
4 A6 WINDOW HEAD DETAIL
SCALE: 1 1/2"=1'-0"



5 A6 WINDOW JAMB DETAIL
SCALE: 1 1/2"=1'-0"

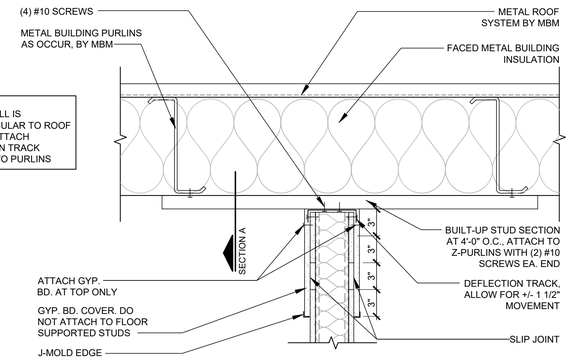


11 A6 DOOR JAMB DETAIL
SCALE: 1 1/2"=1'-0"

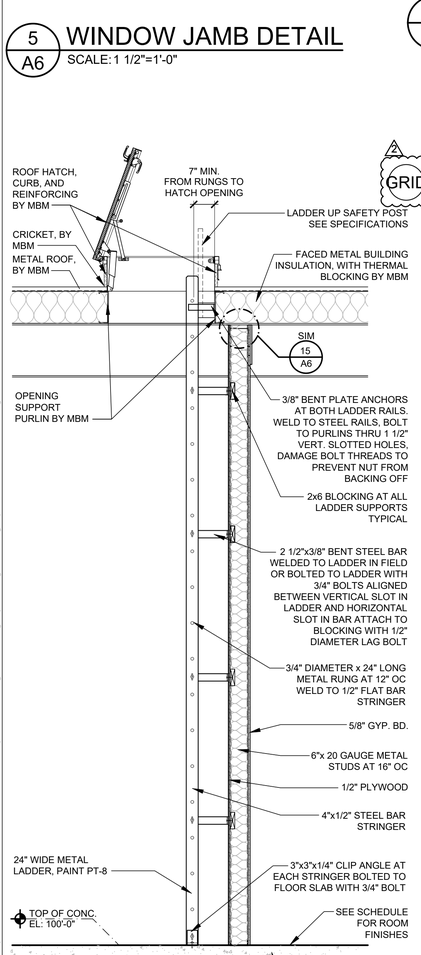


NOTE:
WHERE WALL IS PERPENDICULAR TO ROOF PURLINS, ATTACH DEFLECTION TRACK DIRECTLY TO PURLINS

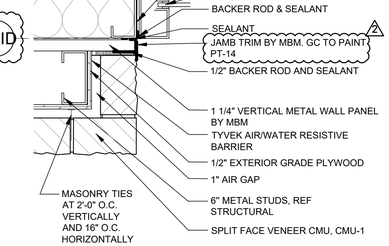
12 A6 WINDOW JAMB DETAIL
SCALE: 1 1/2"=1'-0"



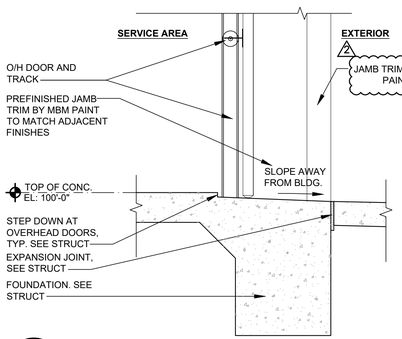
FULL HEIGHT WALL W/ GYP BOARD



10 A6 WALL SECTION
SCALE: 1/2"=1'-0"

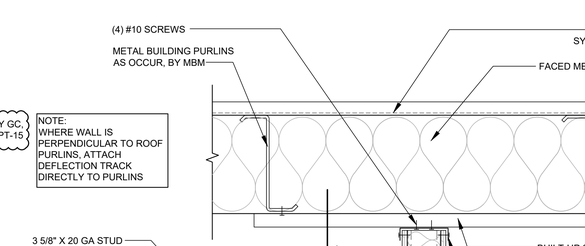


13 A6 WINDOW JAMB DETAIL
SCALE: 1 1/2"=1'-0"



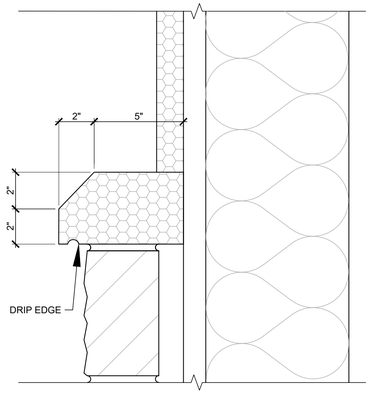
14 A6 O.H. DOOR THRESHOLD
SCALE: 1"=1'-0"

NOTE:
WHERE WALL IS PERPENDICULAR TO ROOF PURLINS, ATTACH DEFLECTION TRACK DIRECTLY TO PURLINS

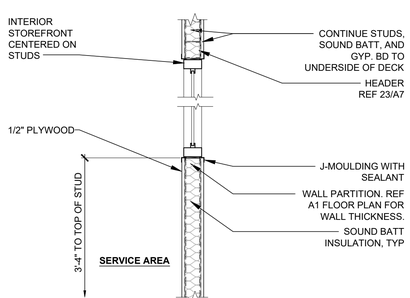


15 A6 SECTION @ T.O. WALL
SCALE: 1 1/2"=1'-0"

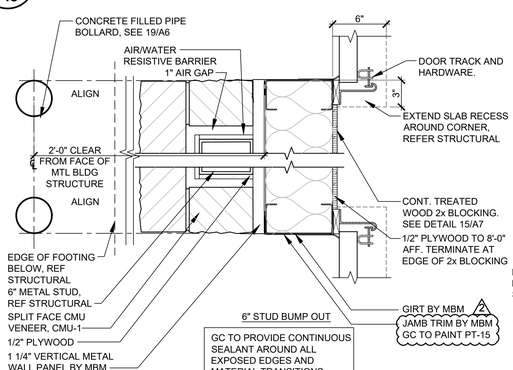
FULL HEIGHT WALL W/ PLYWOOD



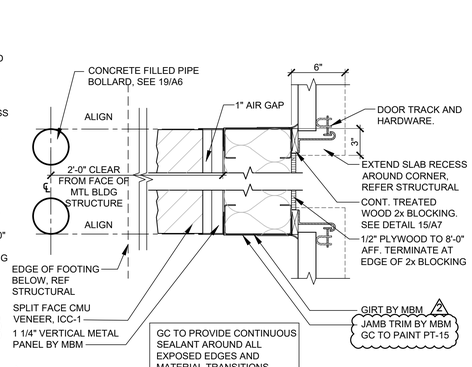
20 A6 EIFS CAP DETAIL
SCALE: 3"=1'-0"



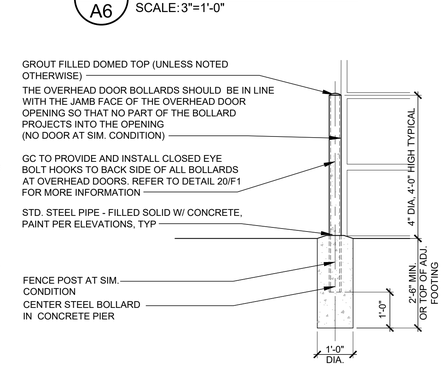
16 A6 SECTION AT WINDOW
SCALE: 3/4"=1'-0"



17 A6 OVERHEAD DOOR PIER
SCALE: 1 1/2"=1'-0"



18 A6 OVERHEAD DOOR PIER
SCALE: 1 1/2"=1'-0"



19 A6 BOLLARD DETAIL
SCALE: 1/2"=1'-0"

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STATE OF MISSOURI
MITCH GARRETT
NUMBER A-007541
ARCHITECT

06/30/20

Mitchel Garrett
Digitally signed by Mitchel Garrett
DN: C=US, E=mitchg@sgadesigngroup.com, O=SGA Design Group, CN=Mitchel Garrett
Date: 2020.06.30 12:35:25-05'00'

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

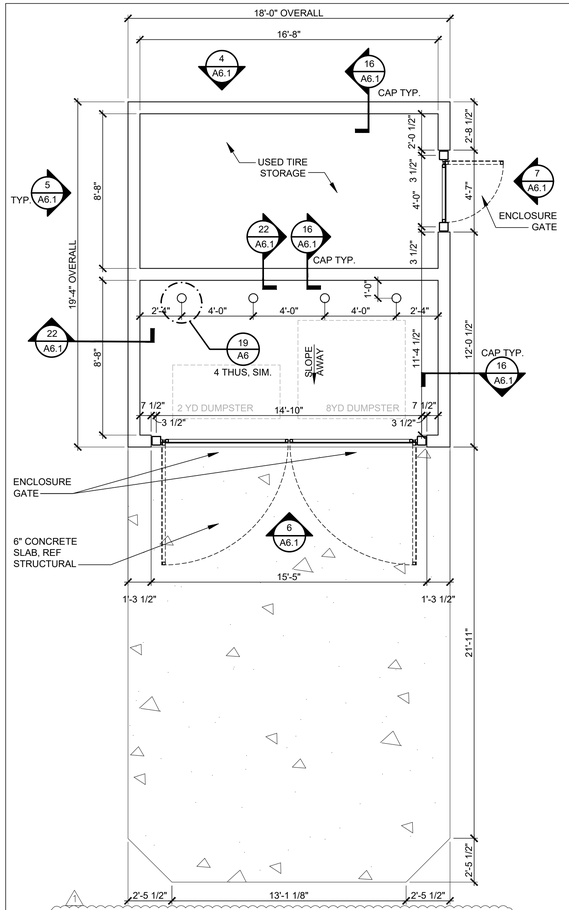
ISSUE BLOCK

1	04/16/20	ADD #1
2	06/30/20	CB#1

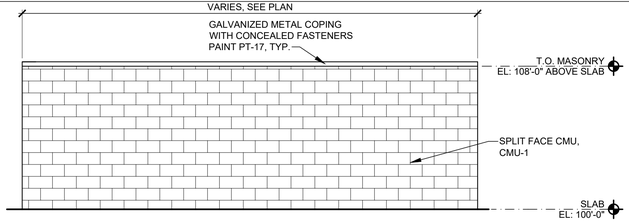
PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-###-##
KMP

SHEET TITLE:
WALL SECTIONS & DETAILS

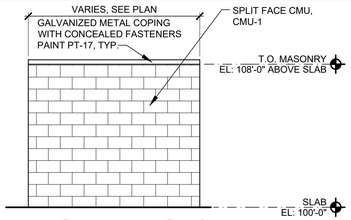
SHEET NUMBER:
A6



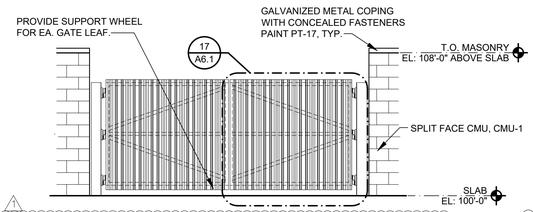
1 A6.1 TRASH/TIRE ENCLOSURE PLAN
SCALE: 1/4"=1'-0"



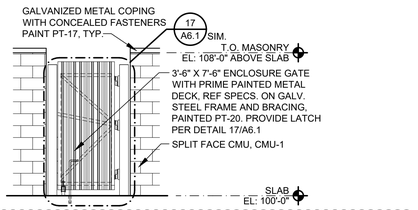
4 A6.1 TRASH/TIRE ENCLOSURE ELEV.
SCALE: 1/4"=1'-0"



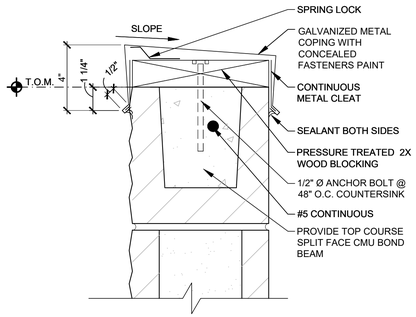
5 A6.1 TYPICAL TRASH/ TIRE ENCLOSURE ELEV.
SCALE: 1/4"=1'-0"



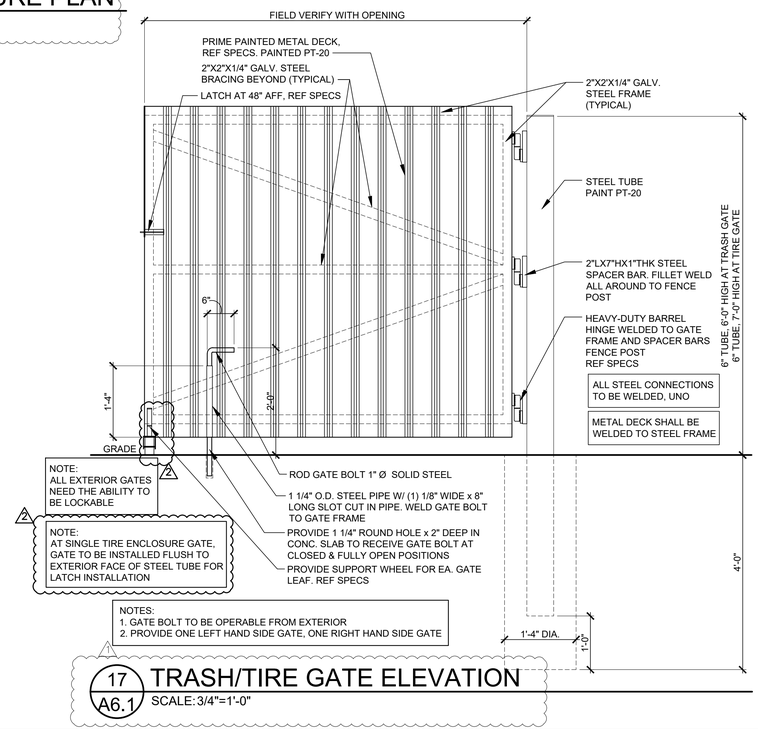
6 A6.1 TRASH/TIRE ENCLOSURE ELEV.
SCALE: 1/4"=1'-0"



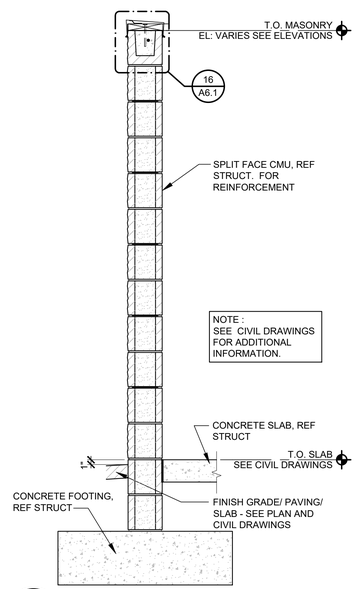
7 A6.1 TRASH/TIRE ENCLOSURE ELEV.
SCALE: 1/4"=1'-0"



16 A6.1 TRASH ENCLOSURE MASONRY CAP DETAIL
SCALE: 3"=1'-0"



17 A6.1 TRASH/TIRE GATE ELEVATION
SCALE: 3/4"=1'-0"



22 A6.1 MASONRY SECTION
SCALE: 3/4"=1'-0"

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Date: 2020.06.30 12:35:26-05'00'

MITCHEL RAY GARRETT - ARCHITECT
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ISSUE BLOCK		
1	04/16/20	ADD #1
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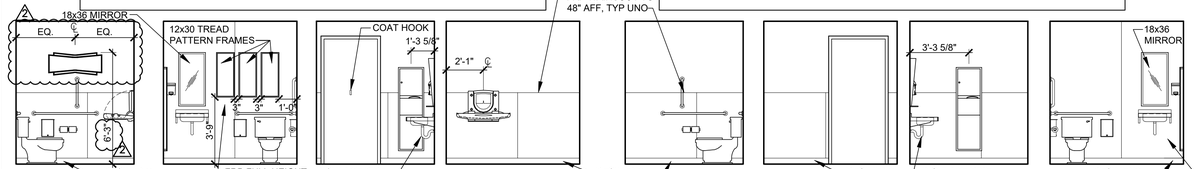
TO BID: DATE:	##-##-##
KMP	

SHEET TITLE:
TRASH/TIRE ENCLOSURE DETAILS

SHEET NUMBER:
A6.1

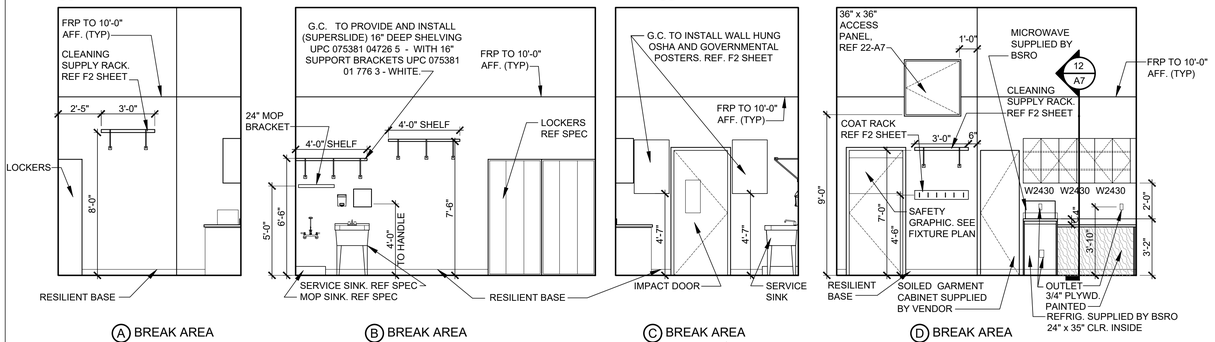
GENERAL NOTES:

1. SEE SHEET N1 FOR ALL CLEARANCE REQUIREMENTS AND MOUNTING HEIGHTS FOR ACCESSORIES
2. INSTALL WOOD BLOCKING AS REQUIRED FOR MOUNTING ACCESSORIES
3. COUNTERSINK ALL CABINET MOUNTING SCREWS



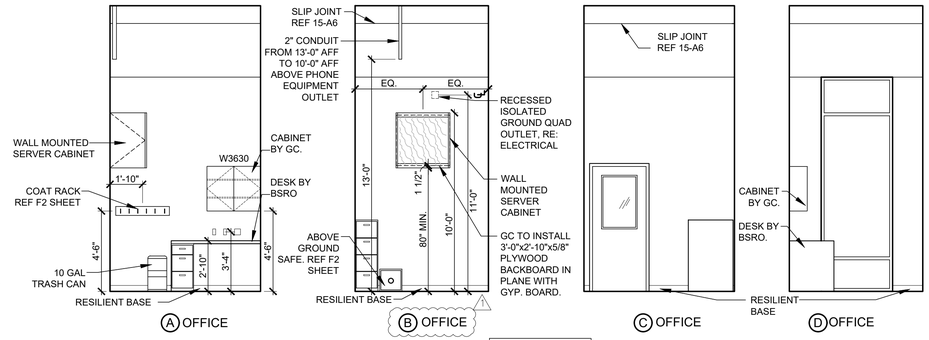
A CUSTOMER TOILET | B CUSTOMER TOILET | C CUSTOMER TOILET | D CUSTOMER TOILET | A SHOP TOILET | B SHOP TOILET | C SHOP TOILET | D SHOP TOILET

1 / A7 INTERIOR ELEVATIONS
SCALE: 1/4"=1'-0"



A BREAK AREA | B BREAK AREA | C BREAK AREA | D BREAK AREA

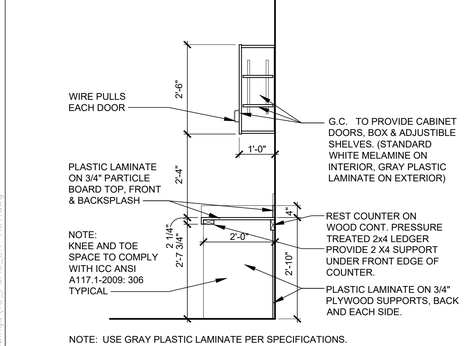
3 / A7 INTERIOR ELEVATIONS
SCALE: 1/4"=1'-0"



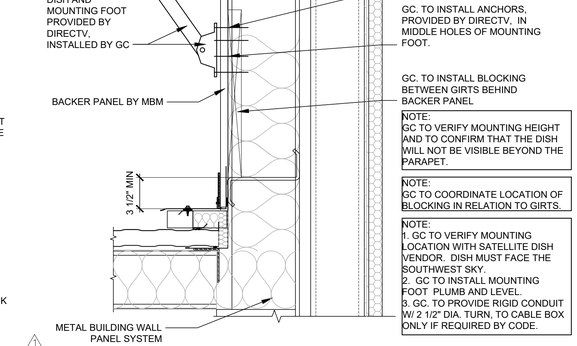
4 / A7 INTERIOR ELEVATIONS
SCALE: 1/4"=1'-0"

PAINT 2" CONDUITS TO MATCH ADJACENT WALL

6 / A7 INTERIOR ELEVATIONS
SCALE: 1/4"=1'-0"



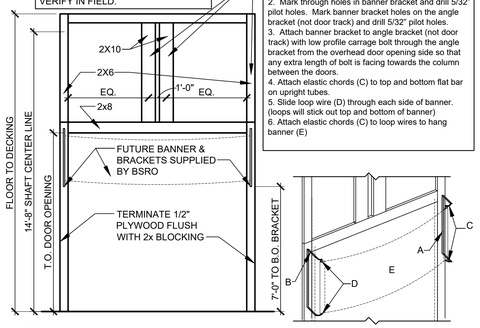
12 / A7 CABINET SECTION
SCALE: 1/2"=1'-0"



14 / A7 SATELLITE MOUNTING DETAIL
SCALE: 1 1/2"=1'-0"

NOTE: G.C. TO VERIFY LOCATION OF WOOD SUPPORTS WITH INSTALLER PRIOR TO DOOR INSTALLATION; WOOD TO BE TREATED LUMBER, PAINTED TO MATCH WALL, PLYWOOD AND METAL BUILDING WALL SYSTEM.

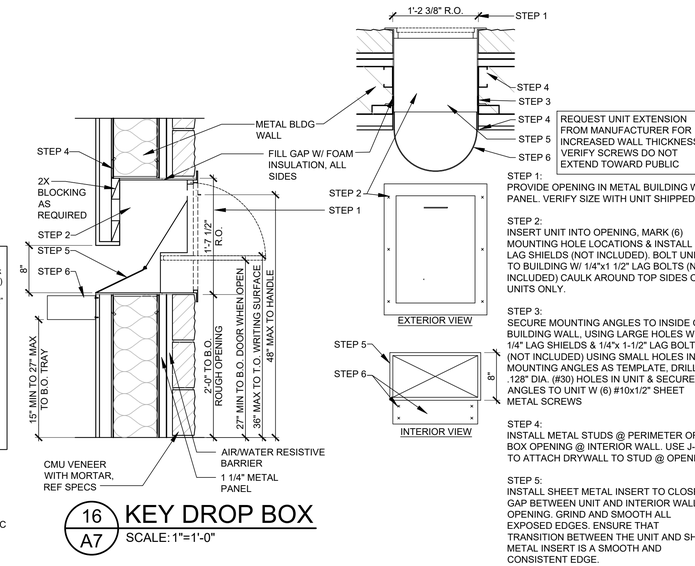
2X10 SUPPORTS TO BE RUN VERTICALLY FROM O.H. DOOR HEAD AND TO BE SECURED AT MINIMUM 3 HORIZONTAL GIRTS AS OCCURS. VERIFY IN FIELD.



15 / A7 OH DOOR SUPPORT DETAIL
SCALE: 1/4"=1'-0"

MBM TO INSTALL STEEL ANGLE TO GIRT AS REQUIRED TO PROVIDE NECESSARY ATTACHMENT OF 2X10s. VERIFY IN FIELD.

BANNER INSTALLATION INSTRUCTIONS:
1. Place banner bracket adjacent to outside of the overhead door angle bracket supporting the door track (A) with the flat side of the angle on the top and leg (B) extending into the building past the door track.
2. Mark through holes in banner bracket and drill 5/32" pilot holes. Mark banner bracket holes on the angle bracket (not door track) and drill 5/32" pilot holes.
3. Attach banner bracket to angle bracket (not door track) with low profile carrage bolt through the angle bracket from the overhead door opening side so that any extra length of bolt is facing towards the column between the doors.
4. Attach elastic chords (C) to top and bottom flat bar on upright tubes.
5. Slide loop wire (D) through each side of banner. (loops will stick out top and bottom of banner)
6. Attach elastic chords (C) to loop wires to hang banner (E)



REQUEST UNIT EXTENSION FROM MANUFACTURER FOR INCREASED WALL THICKNESS. VERIFY SCREWS DO NOT EXTEND TOWARD PUBLIC

STEP 1:
PROVIDE OPENING IN METAL BUILDING WALL PANEL. VERIFY SIZE WITH UNIT SHIPPED.

STEP 2:
INSERT UNIT INTO OPENING, MARK (6) MOUNTING HOLE LOCATIONS & INSTALL 1/4" LAG SHIELDS (NOT INCLUDED). BOLT UNIT TO BUILDING W/ 1/4"x1 1/2" LAG BOLTS (NOT INCLUDED) CAULK AROUND TOP SIDES OF UNITS ONLY.

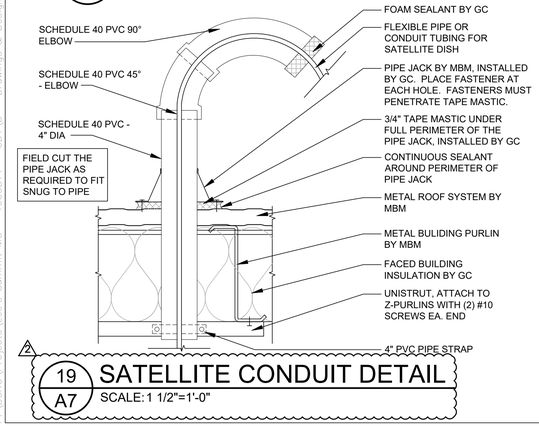
STEP 3:
SECURE MOUNTING ANGLES TO INSIDE OF BUILDING WALL, USING LARGE HOLES W (6) 1/4" LAG SHIELDS & 1/4"x 1-1/2" LAG BOLTS. (NOT INCLUDED) USING SMALL HOLES IN MOUNTING ANGLES AS TEMPLATE, DRILL .128" DIA. (#30) HOLES IN UNIT & SECURE ANGLES TO UNIT W (6) #10x1/2" SHEET METAL SCREWS

STEP 4:
INSTALL METAL STUDS @ PERIMETER OF BOX OPENING @ INTERIOR WALL. USE J-CLIP TO ATTACH DRYWALL TO STUD @ OPENING.

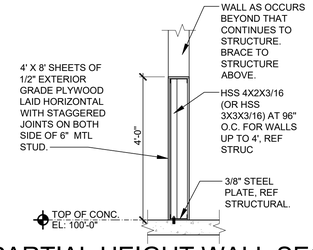
STEP 5:
INSTALL SHEET METAL INSERT TO CLOSE GAP BETWEEN UNIT AND INTERIOR WALL OPENING. GRIND AND SMOOTH ALL EXPOSED EDGES. ENSURE THAT TRANSITION BETWEEN THE UNIT AND SHEET METAL INSERT IS A SMOOTH AND CONSISTENT EDGE.

STEP 6:
ATTACH TRAY TO INTERIOR WALL W/ (4) #10 X 1/2" SHEET METAL SCREWS

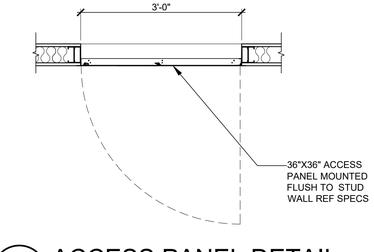
16 / A7 KEY DROP BOX
SCALE: 1"=1'-0"



19 / A7 SATELLITE CONDUIT DETAIL
SCALE: 1 1/2"=1'-0"

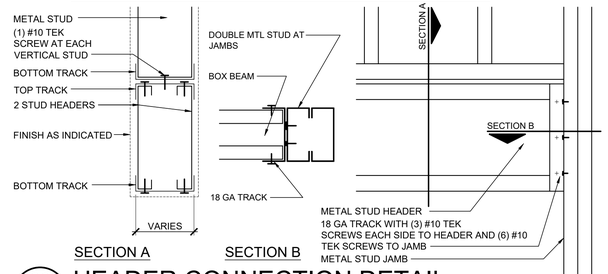


20 / A7 PARTIAL HEIGHT WALL SECTION
SCALE: 1/2"=1'-0"



22 / A7 ACCESS PANEL DETAIL
SCALE: 3/4"=1'-0"

INTERIOR NON-LOAD BRG PARTITION HEADER SCHEDULE		
HEADER LENGTH	HEADER MEMBERS	MINIMUM EFFECTIVE PROPERTIES PER STUD
2' TO 6'	(2) 6" x 18 GAUGE	Ix = 2.042 Sx = 0.670
6' TO 8'	(2) 6" x 16 GAUGE	Ix = 2.518 Sx = 0.839
8' TO 10'	(2) 6" x 14 GAUGE	Ix = 3.094 Sx = 1.031



23 / A7 HEADER CONNECTION DETAIL
SCALE: 1 1/2"=1'-0"

SGA Design Group, P.C.
1437 South Boulder, Suite 550
Tulsa, Oklahoma 74119-3609
p: 918.587.8600
f: 918.587.8601
www.sgadesigngroup.com
Certificate of Authority #A-2006031944
Architecture

Firestone COMPLETE AUTO CARE

STIPULATION OF REUSE:
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NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
MITCH GARRETT
NUMBER A-007541
ARCHITECT

06/30/2020

Mitchel Garrett
Digitally signed by Mitchel Garrett
DN: cn=Mitchel Garrett, o=SGA Design Group, ou=SGA Design Group, email=mitchg@sgadesigngroup.com, c=US
Date: 2020.06.30 10:35:28 -05'00'

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

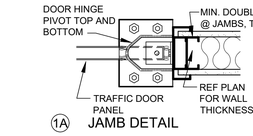
ISSUE BLOCK

1	04/16/20	ADD #1
2	06/30/20	CB#1

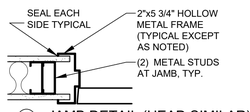
PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##
KMP

SHEET TITLE:
INTERIOR ELEVS, SECTIONS & DETAILS

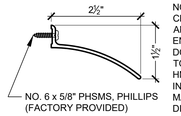
SHEET NUMBER:
A7



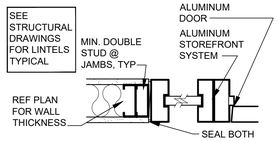
1A JAMB DETAIL



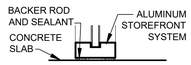
1B JAMB DETAIL (HEAD SIMILAR)



1C DRIP CAP DETAIL
INSTALLED OVER ALL EXTERIOR MAN DOORS



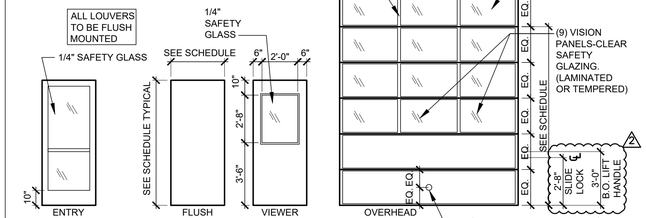
1D JAMB DETAIL (HEAD SIMILAR)

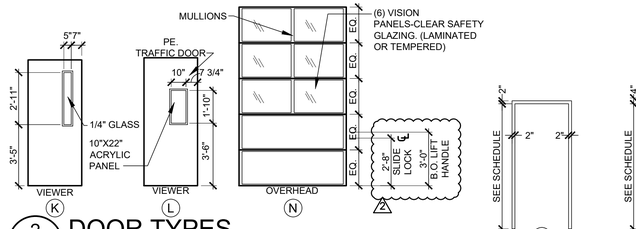


1E SILL DETAIL

1 A8 DOOR DETAILS
SCALE: NOT TO SCALE

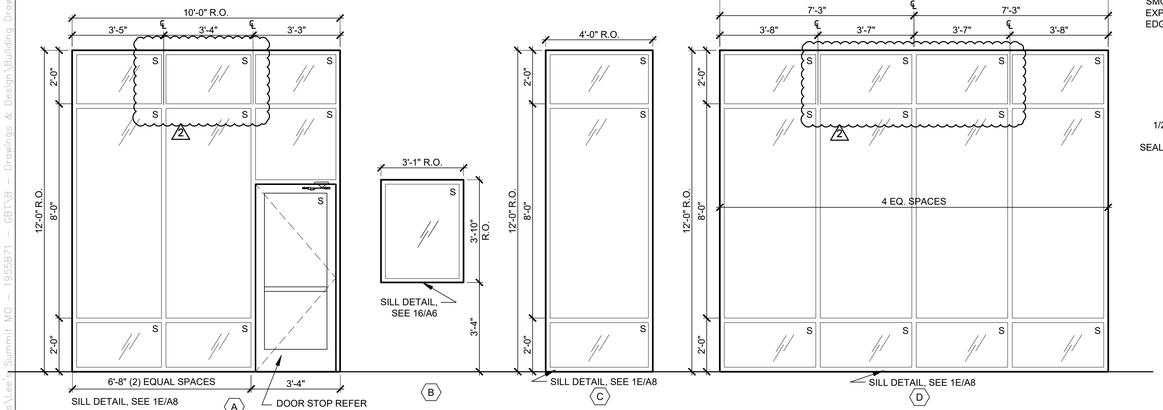
GENERAL NOTES:
1. DIMENSIONS FOR O.H. DOORS ARE FROM INSIDE LOOKING OUT (ISLO).





2 A8 DOOR TYPES
SCALE: 1/4"=1'-0"

3 A8 FRAMES TYPES
SCALE: 1/4"=1'-0"



4 A8 WINDOWS TYPES
SCALE: 3/8"=1'-0"

GENERAL NOTES:
1. ALL STOREFRONT & INTERIOR WINDOWS ARE TO BE FIELD VERIFIED PRIOR TO INSTALLATION BY G.C.
2. PROVIDE DOUBLE PANE INSULATED GLASS FOR ALL STOREFRONT LOCATIONS.
3. "S"-INDICATES SAFETY GLASS REQUIRED. GC TO CONFIRM SAFETY GLAZING IS LABELED PER CODE.

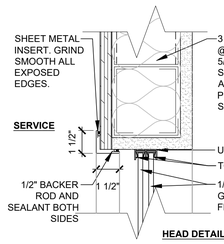
DOOR SCHEDULE

NOTE: CONTRACTOR TO FURNISH AND INSTALL ALL DOORS, DOOR FRAMES, SIGNS AND HARDWARE.

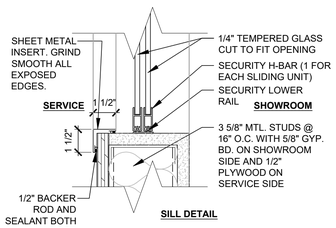
DOOR							FRAME			LABEL	SIGN	DETAIL	REMARKS
MARK	ROOM NAME	TYPE	QTY	SIZE W xH xT	MAT'L	FINISH	MAT'L	FINISH	TYPE	"UL"			
01	CUSTOMER SHOWROOM	F	1	3'-0" X 7'-0" X 1 3/4"	AL	BLACK ANODIZED	AL	BLACK ANODIZED	P	-	EXIT	5/A6	SEE-D04, D14, D15 & D17
02	CUSTOMER SHOWROOM	F	1	3'-0" X 7'-0" X 1 3/4"	AL	BLACK ANODIZED	AL	BLACK ANODIZED	P	-	-	1-D/A8	SEE-D04
03	OFFICE	H	1	3'-0" X 7'-0" X 1 3/4"	HM	PT-4 (SHOWROOM) PT-1 (OFFICE)	HM	PT-4 (SHOWROOM) PT-1 (OFFICE)	P	-	OFFICE	1-B/A8	SEE-D06, D13 & D15
04	UNISEX TOILET	G	1	3'-0" X 7'-0 X 1 3/4"	HM	PT-4 (SHOWROOM) PT-1 (TOILET)	HM	PT-4 (SHOWROOM) PT-1 (TOILET)	P	-	REST ROOM	1-B/A8	SEE-D10, D13 & D15
05	BREAK AREA	L	1	3'-0" X 7'-0" - TRAFFIC	PE	MANUFACTURER'S GRAY	HM NO STOP	PT-1 (BREAK AREA) PT-4 (SERVICE BAYS)	P	-	BREAKROOM	1-A/A8	SEE-D06, D07, D08, D09, & D15
06	SHOP TOILET	G	1	3'-0" X 7'-0" X 1 3/4"	HM	PT-1	HM	PT-1	P	-	SHOP REST ROOM	1-B/A8	SEE- D10 & D15
07	SERVICE BAY	K	1	3'-0" X 7'-0" X 1 3/4"	HM	PT-4 (SERVICE BAYS) EXTERIOR - SEE A4	HM	PT-4 (SERVICE BAYS) EXTERIOR - SEE A4	M	-	EXIT	1/A6 & 2/A6	SEE-D01, D06, & D13
08	SERVICE BAY	J	1	10'-0" X 10'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
09	SERVICE BAY	J	1	10'-0" X 10'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
10	SERVICE BAY	J	1	10'-0" X 10'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
11	SERVICE BAY	J	1	10'-0" X 10'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
12	SERVICE BAY	J	1	10'-0" X 12'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
13	SERVICE BAY	J	1	10'-0" X 12'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
14	SERVICE BAY	J	1	10'-0" X 10'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
15	SERVICE BAY	N	1	6'-0" X 10'-0" X 1 3/4"	-	PRE-FINISHED	-	-	-	-	-	15/A7	SEE-D01, D02, D03, D04 & D09
16	SERVICE BAY	G	1	4'-0" X 7'-0" X 1 3/4"	HM	PT-4 (SERVICE BAYS) EXTERIOR - SEE A4	HM	PT-4 (SERVICE BAYS) EXTERIOR - SEE A4	M	-	EXIT	1/A6 & 2/A6	SEE-D01 & D13

ROOM FINISH SCHEDULE

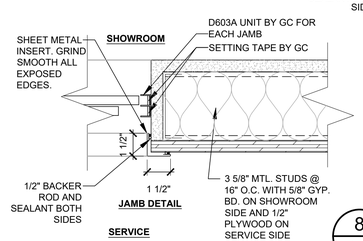
ROOM NO.	ROOM NAME	FLOOR		WALLS												CEILING			NOTES
		MAT'L	FIN.	LEFT	FIN.	BASE	TOP	FIN.	BASE	RIGHT	FIN.	BASE	BOTTOM	FIN.	BASE	MAT'L	FIN.	HEIGHT	
100	CUSTOMER SHOWROOM	CONC.	SEALED	GYP. BD.	SEE F2	RB	GYP. BD.	SEE F2	RB	GYP. BD.	SEE F2	RB	GYP. BD.	SEE F2	RB	O.T.S.	PT-2	-	SEE RF2, RF3, RF8
101	UNISEX TOILET	CONC.	SEALED	GYP. BD./ FRP	SEE A2	RB	GYP. BD./ FRP	SEE A2	RB	GYP. BD./ FRP	SEE A2	RB	GYP. BD./ FRP	SEE A2	RB	GYP. BD.	PT-3	8'-0"	SEE RF2, RF4, RF6, RF8
102	OFFICE	CONC.	SEALED	GYP. BD.	SEE A2	RB	GYP. BD.	SEE A2	RB	GYP. BD.	SEE A2	RB	GYP. BD.	SEE A2	RB	O.T.S.	PT-2	-	SEE RF2, RF3, RF8
103	SHOP TOILET	CONC.	SEALED	GYP. BD./ FRP	SEE A2	RB	GYP. BD./ FRP	SEE A2	RB	GYP. BD./ FRP	SEE A2	RB	GYP. BD./ FRP	SEE A2	RB	GYP. BD.	PT-3	8'-0"	SEE RF2, RF4, RF6, RF8
104	BREAK AREA	CONC.	SEALED	GYP. BD. / FRP	SEE A2	RB	GYP. BD. / FRP	SEE A2	RB	GYP. BD. / FRP	SEE A2	RB	GYP. BD. / FRP	SEE A2	RB	O.T.S.	PT-2	-	SEE RF2, RF3, RF6, RF8
105	SERVICE BAYS	CONC.	SEALED	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	O.T.S.	PT-2 PT-3	-	SEE RF1, RF3, RF5, RF7, RF8
106	INVENTORY	CONC.	SEALED	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	OPEN	-	-	PLYWD.	SEE A2	-	O.T.S.	PT-2 PT-3	-	SEE RF3, RF7, RF8
107	UTILITY AREA #1	CONC.	SEALED	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	O.T.S.	PT-3	-	SEE RF3, RF5, RF7
108	UTILITY AREA #2	CONC.	SEALED	OPEN	-	-	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	PLYWD.	SEE A2	-	O.T.S.	PT-2 PT-3	-	SEE RF5, RF7, RF8



HEAD DETAIL



SILL DETAIL



PASS THRU WINDOW TO BE C.R. LAURENCE S710A36 PRECUT UNIT.
S710A36 PRECUT UNIT SHOULD BE PROVIDED WITH:
- (1) UPPER DOUBLE CHANNEL (CATALOG #D603A)
- (1) SECURITY LOWER RAIL (CATALOG #S702A)
- (1) SECURITY H-BAR (CATALOG #710A)
- (12) WHEEL ASSEMBLY (CATALOG #TA20)
- (12) TOP GUIDES (CATALOG #D652)
- GLAZING VINYL (CATALOG #SDV732C)
- (1) KEYED LOCK FOR #S710 (CATALOG #TA11)

FOR SIDE JAMBS GC WILL NEED TO ORDER (2) CATALOG #D603A UNITS ALONG WITH CRL SEALSTRIP RUBBER GLASS SETTING TAPE (CATALOG #A4261) FOR COMPLETE INSTALLATION OF JAMBS.

8 A8 PASS THRU DETAIL
SCALE: NTS

DOOR SCHEDULE NOTES

GC PACKAGE AVAILABLE FROM NATIONAL VENDOR - DH PACE, INC. (417)831-5585

GENERAL NOTES:
1. ALL THRESHOLDS AT EXTERIOR DOORS TO BE SET IN FULL BED OF MASTIC.
2. ALL HARDWARE SHALL CONFORM WITH ICC A117.1 AND GOVERNING CODES.

D01. INSULATE EXTERIOR DOORS AS REQUIRED BY CRITERIA IN SPECIFICATIONS.
D02. TRACK AND HARDWARE BY O.H. DOOR MANUFACTURER.
D03. ACTUAL DOOR SIZE IS 2" WIDER AND 1" HIGHER THAN DOOR OPENING (PROVIDE FOR 1" LAP AT HEAD AND JAMBS)
D04. HARDWARE BY DOOR MANUFACTURER REFER TO SPECIFICATIONS.
D05. ELECTRIC OPERATOR
D06. PROVIDE DOOR LITE REFER DOOR TYPES.
D07. GC. TO FIELD VERIFY DOOR SIZE PRIOR TO ORDERING DOOR.
D08. DOOR COLOR GRAY.
D09. BRUSH EDGE SEALS BY DOOR MANUFACTURER.
D10. UNDERCUT DOOR 1/2".
D11. PREP GATE FOR ELECTRIC STRIKE (REMOTE BUZZER TO BE LOCATED AT MVS DESK.)
D13. DOOR & FRAME TO BE PAINTED TO MATCH ADJACENT WALL UNO.
D14. LOCKING HARDWARE ON ENTRY DOOR TO HAVE KEYED ACCESS FROM THE EXTERIOR AND THUMB TURNS ON INTERIOR.
D15. GC. TO PROVIDE TACTILE DOOR SIGNAGE AS NOTED TO COMPLY WITH ADA.
D16. VERIFY HARDWARE QUANTITIES FOR PER LEAF (EA. LEAF).
D17. PROVIDE PLATE REINFORCEMENT FOR HOLD OPEN AT DOOR FRAME AND ON THE EXTERIOR OF THE ALUMINUM DOORS WITH THROUGH BOLTS FOR CRASH CHAIN.
D18. G.C. TO PROVIDE SIGN ON DOOR - "REQUEST STORE MANAGER TO DISABLE ALARM PRIOR TO OPENING DOOR".
D19. G.C. TO PROVIDE & INSTALL SLIDING DOORS , FRAME, TRIM, AND HARDWARE. COORDINATE WITH DOOR HARDWARE SPECIFICATIONS.
D20. NO KICK PLATE OR PLYWOOD REQUIRED.
D21. PROVIDE DOOR SILENCERS (3)

DOOR SCHEDULE MATERIAL KEY

MARK	DESCRIPTION
AL	ALUMINUM
CL	CHAIN LINK
HM	HOLLOW METAL
PE	POLYETHYLENE
WD	WOOD

ROOM FINISH REMARKS

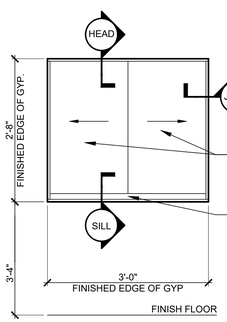
RF1. SERVICE AREA PAINT SCHEME
- ALL GIRTS, COLUMNS, PURLINS AND METAL BUILDING STRUCTURE TO BE PRIMED BY METAL BUILDING MANUFACTUER
- PAINT FROM DIMENSION: FLOOR TO 5'-4" AFF PT-4
- PAINT FROM DIMENSION: 5'-4" AFF TO STRUCTURE PT-1

RF2. PAINT ALL EXPOSED CONDUITS, J-BOXES AND EXPOSED SURFACES VISIBLE TO PUBLIC VIEW. PIPING FOR AIR, AND SPRINKLER SYSTEMS ARE NOT TO BE PAINTED. DUCT WORK TO BE PAINT PT-2.
RF3. ALL EXPOSED GIRTS, COLUMNS, GIRTS AND METAL BUILDING STRUCTURE TO BE PRIMED. PAINT EXPOSED STRUCTURE AS NOTED ON SHEET A2.
RF4. USE SHERWIN WILLIAMS WATER BASED CATALYZED EPOXY FOR WALLS. THIS IS A 2-PART PAINT WITH (PART A# / PART B#) = (B70W0211 w/ epoxy hardener B60V25)
RF5. PROVIDE YELLOW SAFETY STRIPING AS SHOWN ON PLANS.
RF6. FRP COLOR: VIK #1276 SATIN LINEN TEXTURE FINISH (WALL PRIMER REQUIRED)
RF7. PROVIDE WHITE FACED INSULATION AT ROOF DECK TO COMPLY WITH 2018 IECC.
RF8. PROVIDE BLACK FACED INSULATION AT ROOF DECK TO COMPLY WITH 2018 IECC.

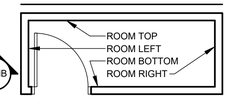
ROOM SCHEDULE MATERIAL KEY

MARK	DESCRIPTION
CONC.	CONCRETE
SEALED	CONCRETE WITH APPLIED SEALER
GYP. BD.	GYPSUM BOARD
O.T.S.	OPEN TO STURUCTURE

SHEET METAL INSERT TO BE UNPAINTED.



ROOM ORIENTATION KEY



PAINT COLOR SCHEDULE:

NOTE: ALL COLOR NAMES INDICATED ARE FOR SELECTION PURPOSES ONLY. SEE PAINT SPECS FOR SPECIFIC REQUIREMENTS

DESCRIPTION: (ALL "SHERWIN / WILLIAMS" NUMBERS 'SW' & 'CC'-CUSTOM COLORS)

KEY:	COLOR:	S.W. #
PT-1	"REFLECTION"	-SW7661
PT-2	"CAVIAR"	-SW6990
PT-3	"PURE WHITE"	-SW7005
PT-4	"IRON ORE"	-SW7069
PT-5	"SAFETY RED"	-CUSTOM COLOR
PT-6	"ANTIQUE WHITE"	-SW6119
PT-7	"BLACK"	-SW4090
PT-8	"SAFETY YELLOW"	-SW4084
PT-9	"ROW HOUSE TAN"	-SW7689
PT-10	"LATTE"	-SW6108
PT-11	"WARM STONE"	-SW7032
PT-12	"SANDY RIDGE"	-SW7535
PT-13	"SAFETY RED"	-SW4301
PT-14	"ANTIQUE WHITE"	-SW6119
PT-15	"ROWHOUSE TAN"	-SW7689
PT-16	"LAZY GRAY"	-SW6254
PT-17	"CLASSIC FRENCH GREY"	-SW0077
PT-20	"MORNING FOG"	-SW6255
PT-21	"CROSSROADS"	-SW3521
PT-22	"EMPIRE GOLD"	-SW0012

PT-5 "SAFETY RED" CUSTOM MATCH

CCE	COLORANT	OZ	32	64	128
R4	NEW RED	10	63	1	1

ONE GALLON: K43R00058 EXTERIOR RESILIENCE SATIN
PRIMARY RED: 650097140

SGA Design Group, P.C.
1437 South Boulder, Suite 550
Tulsa, Oklahoma 74119-3609
p: 918.587.8600
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www.sgadesigngroup.com
Certificate of Authority #A-2006031944
Architecture

Firestone COMPLETE AUTO CARE

NEW FCAC STORE
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3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
MITCH GARRETT
NUMBER A-007541
ARCHITECT

06/30/2020

Mitchel Garrett
Digitally signed by Mitchel Garrett
DN: C=US, E=mitch@sgadesigngroup.com, O=SGA Design Group, OU=Architect
Date: 2020.06.30 12:35:26-05'00'

MITCHEL RAY GARRETT - ARCHITECT
MO# A-007541

ISSUE BLOCK

1	04/16/20	ADD #1
2	06/30/20	CB#1

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: #####
KMP

SHEET TITLE:
ROOM FINISH & DOOR SCHEDULES

SHEET NUMBER:
A8

BUILDING DESIGN DATA

GOVERNING BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE (IBC)

1. ROOF DEAD LOADS
   - A. FRAMING AND ROOF PANEL WEIGHT — BY BLDG. MFR.
   - B. OTHER DEAD LOAD — =8 PSF
2. MINIMUM ROOF LIVE LOADS, Lr — = 20.0 PSF
3. ROOF SNOW LOADS, S
   - A. GROUND SNOW LOAD, Pg — = 20 PSF
   - B. SNOW EXPOSURE FACTOR, Ce — = 1.0
   - C. SNOW LOAD IMPORTANCE FACTOR, Is — = 1.0
   - D. THERMAL FACTOR, Ct — = 1.0
   - E. ALL APPLICABLE EFFECTS DUE TO SNOW DRIFTING
4. WIND LOADS, W
   - A. BASIC WIND SPEED (3 SECOND GUST), V — = 110 MPH
   - B. WIND LOAD IMPORTANCE FACTOR, Iw — = 1.0
   - C. BUILDING CATEGORY: — BY BUILDING MFR.
   - D. OVERALL EXPOSURE CATEGORY: — = C
   - E. HEIGHT AND EXPOSURE ADJUSTMENT COEFFICIENT, Kh — BY BUILDING MFR.
   - F. INTERNAL PRESSURE COEFFICIENT, GCpi — BY BUILDING MFR.
   - G. WIDTH OF EDGE/CORNER ZONE, a — BY BUILDING MFR.
   - H. COMPONENT AND CLADDING WALL DESIGN PRESSURES — BY BUILDING MFR.
   - I. COMPONENT AND CLADDING ROOF DESIGN PRESSURES (NET) — BY BUILDING MFR.
5. SEISMIC DESIGN DATA
   - A. OCCUPANCY CATEGORY — = II
   - B. MAPPED SPECTRAL RESPONSE COEFFICIENTS
     - Ss — = 0.101
     - S1 — = 0.069
   - C. SITE CLASS — = C
   - D. SPECTRAL RESPONSE COEFFICIENTS
     - SDS — = 0.086
     - SD1 — = 0.068
   - E. SEISMIC DESIGN CATEGORY — = B
   - F. BASIC SEISMIC-FORCE-RESISTING SYSTEM: — BY BUILDING MFR.
   - G. RESPONSE MODIFICATION COEFFICIENT, R — BY BUILDING MFR.
   - H. ANALYSIS PROCEDURE: — BY BUILDING MFR.
   - I. SEISMIC RESPONSE COEFFICIENT, Cs — BY BUILDING MFR.
   - J. BASE SHEAR: V — BY BUILDING MFR.
6. FOUNDATION DESIGN DATA
   - A. ALLOWABLE BEARING PRESSURE — = 3000 PSF (NET)
   - B. MINIMUM BEARING DEPTH — = 36 IN
   - C. FREEZE-THAW EXPOSURE SEVERITY: — SEVERE
   - D. SLAB SUBGRADE REACTION MODULUS — = 140 PCI

FOUNDATIONS, SLAB-ON-GRADE - GENERAL

1. THE FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT BY PROFESSIONAL SERVICE INDUSTRIES, INC. DATED JULY 24, 2019 (PROJECT No. 03381947)
2. SPREAD FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING AN ALLOWABLE BEARING PRESSURE AS NOTED ABOVE FOR FOOTINGS UNDER FULL SERVICE DEAD AND LIVE LOADS.
3. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.
4. FOOTINGS MAY BE POURED INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
5. THE TOP OF EXTERIOR FOOTING ELEVATION SHALL BE SET A MINIMUM OF 8" BELOW LOWEST FINAL ADJACENT EXTERIOR GRADE AND A MINIMUM OF 8" BELOW FINISH FLOOR. THE BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR AT MINIMUM BEARING DEPTH BELOW LOWEST FINAL ADJACENT EXTERIOR GRADE.
6. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE, OR UNTIL THE CONCRETE OR MASONRY HAS ATTAINED ITS FULL COMPRESSIVE STRENGTH FOR CANTILEVER WALLS.
7. WHERE FOUNDATION WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, PLACE FILL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL.
8. VERIFY THE USE AND EXTENT OF PERIMETER INSULATION WITH THE ARCHITECTURAL DRAWINGS PRIOR TO THE INSTALLATION OF FOUNDATIONS. INSTALL PERIMETER INSULATION AS REQUIRED.
9. STANDARD PROCEDURES OF FROST PROTECTION FOR FOUNDATIONS AND EXCAVATIONS SHALL BE EMPLOYED FOR WINTER CONSTRUCTION. BACK FILLING OF EXCAVATIONS SHALL BE DONE AS SOON AS POSSIBLE TO PROTECT FOUNDATIONS FROM FROST.
10. HORIZONTAL BARS IN FOOTINGS AND CONCRETE WALLS SHALL BE CONTINUOUS. PROVIDE CORNER BARS AT ALL CORNERS AND INTERSECTIONS, UNO.
11. FOUNDATION PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE ARCHITECT/ENGINEER. PENETRATIONS SHALL BE FOUNDATION STEM WALL OR 6" CLEAR BELOW FOOTING.

CONCRETE

1. ALL CONCRETE SHALL BE NORMAL-WEIGHT (DENSITY=145 PCF) AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF AS NOTED IN THE FOLLOWING TABLE:

CONCRETE USE	SPECIFIED COMPRESSIVE STRENGTH (PSI)	MAXIMUM W/C RATIO
COLUMN FOOTINGS	3,000 PSI	PER SPECIFICATIONS
EXTERIOR STRUCTURAL CONCRETE	4,500 PSI	PER SPECIFICATIONS
INTERIOR SLAB ON GRADE AND PERIMETER BEAM/FOOTING	4,000 PSI	PER SPECIFICATIONS
EXTERIOR SLAB ON GRADE	4,500 PSI	PER SPECIFICATIONS
SIDEWALKS	3,500 PSI	PER SPECIFICATIONS

2. FOR ALL OTHER CONCRETE PROPERTIES SEE THE PROJECT SPECIFICATIONS.
3. ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED PER ACI-318, LATEST EDITION, BASED ON FREEZE-THAW EXPOSURE SEVERITY AND AGGREGATE SIZE.
4. ALL REINFORCED CONCRETE WORK SHALL BE PER "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI 318, LATEST EDITION.
5. THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW A MINIMUM OF TWO WEEKS PRIOR TO THE PLACEMENT OF ANY CONCRETE. THE CONCRETE MIX DESIGNS SHALL INCLUDE ALL DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS.
6. CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
7. CONCRETE REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
8. HOOK ENDS OF BARS INTERRUPTED BY OPENINGS. HOOK TOP BARS AT ALL EDGES. AT ALL WALL AND SLAB OPENINGS, PROVIDE 2 - #5BARS x OPENING WIDTH PLUS 4 FEET(EACH SIDE) EACH FACE UNLESS SHOWN OTHERWISE.
9. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL.
10. ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".
11. THE MINIMUM CONCRETE CLEAR COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE:
    - UNFORMED SURFACE IN CONTACT WITH THE GROUND..........................3 IN.
    - FORMED SURFACES EXPOSED TO EARTH OR WEATHER:
      - #6 BARS AND LARGER..2 IN.
      - #5 BARS AND SMALLER...1 1/2 IN.
    - FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER:
    - BEAMS, GIRDERS, AND COLUMNS..1 1/2 IN.
    - SLABS, WALLS, AND JOISTS:
      - #11 BARS AND SMALLER...3/4 IN.
      - #14 AND #18 BARS...1 1/2 IN.
12. ALL LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE, UNLESS NOTED OTHERWISE.

CONCRETE REINFORCING LAP SPLICE SCHEDULE

	TENSION SPLICES (IN.)	
BAR SIZE	TOP BARS	OTHER BARS
#3	16	16
#4	20	16
#5	25	19
#6	29	23

-COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS LAP
-WELDED WIRE FABRIC: ONE SPACING OF CROSS WIRES PLUS 2" LAP

15. LEAN CONCRETE - MIN 2 1/2 SACKS PORTLAND CEMENT PER CUBIC YARD.

REINFORCED MASONRY

1. MASONRY WALLS HAVE BEEN DESIGNED TO SPAN VERTICALLY, AS SIMPLE SPANS, FROM FOUNDATION TO ROOF, AND ARE DEPENDENT UPON THE COMPLETED ROOF STRUCTURE, ROOF SHEATHING, AND COMPLETION OF ALL MASONRY WALLS FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ALL NECESSARY BRACING AS REQUIRED FOR STABILITY, RESISTANCE OF CONSTRUCTION LOADS, AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THE ENTIRE STRUCTURE IS COMPLETE. THE SHORING SHALL NOT RELY ON ANY MOMENT RESISTANCE CAPACITY OF THE FOOTINGS.
2. REINFORCED MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, f'm = 2000 PSI. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90, GRADE N, TYPE 1, AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2800 PSI. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. PORTLAND CEMENT TYPE 1 OR 2, LOW ALKALI PER ASTM C150 NON AIR ENTRAINED OR HYDRATED LIME PER ASTM C207 TYPES. GROUT SHALL CONFORM TO ASTM C476 AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2000 PSI. GROUT SHALL BE MECHANICALLY CONSOLIDATED USING A VIBRATOR WITH A MAXIMUM 3/4" DIAMETER HEAD.
3. PROVIDE VERTICAL CONTROL JOINTS IN MASONRY WALLS AT LOCATIONS NOTED ON PLANS HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. JOINT REINFORCING SHALL BE STOPPED EITHER SIDE OF VERTICAL CONTROL JOINTS.
4. MORTAR SHALL MEET THE PROPORTION SPECIFICATIONS OF ASTM C270 TYPE "S" MORTAR. MASONRY CEMENT SHALL NOT BE USED FOR MORTAR.
5. MASONRY REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
6. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS OR LADDER TYPE FORMED FROM 9 GAUGE COLD-DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS.
7. ALL REINFORCED CELLS AND ALL CELLS BELOW THE FINISHED FLOOR ELEVATION SHALL BE GROUTED SOLID. CONCRETE MASONRY BELOW FINISHED FLOOR SHALL BE NORMAL WEIGHT UNITS. CONCRETE MASONRY UNITS ABOVE FINISHED FLOOR SHALL BE LIGHT WEIGHT OR NORMAL WEIGHT.
8. GROUTING SHALL BE STOPPED 1 1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.
9. GROUTING OF MASONRY BEAMS AND LINTELS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
10. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION. COORDINATE LOCATIONS OF EMBEDDED STEEL ITEMS FOR OVERHEAD DOORS WITH DOOR MANUFACTURER.
11. ALL REINFORCING LAP SPLICES SHALL BE PER THE FOLLOWING TABLE , UNLESS NOTED OTHERWISE.

MASONRY REINFORCING LAP SPLICE SCHEDULE

BAR SIZE	SPLICE (IN.)
#3	20
#4	26
#5	32
#6	39
#7	45

12. USE OPEN KNOCK OUT BOND BEAM BLOCK. DO NOT USE TROUGH TYPE BLOCKS FOR BOND BEAMS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING GRADES:
   - ALL CHANNELS, ANGLES, PLATES, ETC. (U.N.O.)..................A36 (Fy=36 KSI)
   - ALL WIDE FLANGES (U.N.O.)..A992 (Fy=50 KSI)
   - HOLLOW STRUCTURAL SECTIONS (SHAPED)........................A500 GRADE B (Fy=46 KSI)
   - HOLLOW STRUCTURAL SECTIONS (ROUND).........................A500 GRADE B (Fy=42 KSI)
   - STEEL PIPE...A53 GRADE B (Fy=35 KSI)
   - BOLTS...A325 (U.N.O.)
   - ANCHOR RODS..F1554 (GRADE 36)
   - WELDING ELECTRODES..E70XX, LOW HYDROGEN
2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE, EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.
3. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY "STRUCTURAL WELDING CODE" AWS D1.1. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS. ALL WELDING SHALL BE TO CLEAN BARE STEEL.
4. SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER -OF-RECORD.
5. PROVIDE SUB-FRAMING FOR EQUIPMENT SUPPORTED ON OR SUSPENDED FROM THE STRUCTURE. ALL SHALL BE SHOP COATED WITH PRIME PAINT AS SPECIFIED. MASK SURFACES TO BE WELDED AND AT BOLT HOLES IN FAYING SURFACES OF FRICTION CONNECTIONS.

DEFERRED STRUCTURAL SUBMITTALS

1. THE FOLLOWING STRUCTURAL COMPONENTS SHALL BE DESIGNED AND SUBMITTED BY OTHERS FOR APPROVAL IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
   A. PRE-MANUF. METAL BUILDINGS.
2. DOCUMENTS FOR DEFERRED STRUCTURAL SUBMITTAL ITEMS SHALL BE DESIGNED, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL AS REQUESTED WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED.
3. STRUCTURAL FOUNDATION DESIGN WAS BASED ON FOUNDATION REACTIONS FROM ONE PRE-MANUF. BUILDING MANUFACTURER. ALTERATIONS MAY BE NECESSARY IF A DIFFERENT BUILDING MANUFACTURER IS SELECTED OR DIFFERENT REQUIREMENTS ARE PROVIDED IN THE BUILDING SUBMITTAL. BASED ON THE EXTENT OF THE CHANGES, ADDITIONAL SERVICES FOR STRUCTURAL REDESIGN AND COSTS OF ADDITIONAL OR MODIFIED FOUNDATIONS MAY BE REQUIRED. DURING SELECTION OF BUILDING SUPPLIER, GENERAL CONTRACTOR SHALL INCLUDE A CONTINGENCY TO COVER THESE FEES AND COSTS. COSTS OF THE DESIGN AND CONSTRUCTION REVISIONS SHALL BE BORNE BY THE CONTRACTOR.

PRE-MANUF. METAL BUILDING

1. PRE-MANUF. METAL BUILDING ELEMENTS SHALL BE DESIGNED BY THE MANUFACTURER AND SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL BUILDING CODES AS LISTED IN "BUILDING DESIGN DATA" AND THE METAL BUILDING MANUFACTURERS' ASSOCIATION DESIGN MANUAL. IN ADDITION, THE METAL BUILDING ELEMENTS SHALL BE DESIGNED FOR ALL LOADS INDICATED ON THE DRAWINGS.
2. THE METAL BUILDING MANUFACTURER IS RESPONSIBLE FOR PROVIDING THE MATERIAL TYPE, DIAMETER, AND LOCATION OF ANCHOR BOLTS FOR THE METAL BUILDING COLUMNS.
3. THE METAL BUILDING COLUMNS SHALL BEAR AS INDICATED ON PLANS.
4. REFER TO 1-S1 FOR DEFLECTION LIMITS.
5. SHOP DRAWING SUBMITTALS (INCLUDING DRAWINGS AND CALCULATIONS) SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. INCLUDE FOUNDATION REACTIONS OF ALL FRAMING MEMBERS ON THE SHOP DRAWINGS FOR ALL LOAD COMBINATIONS. INDICATE WHETHER THESE LOADS ARE ULTIMATE OR SERVICE LOADS. INDICATE WHICH LOAD COMBINATION APPLIES THE LARGEST LOAD TO FOUNDATIONS.
6. FOUNDATIONS PROVIDING SUPPORT TO THE METAL BUILDING FRAMES OF THE BUILDING HAVE BEEN DESIGNED FOR PINNED TYPE CONNECTIONS ONLY. DO NOT FIX THE BASE OF THE COLUMNS.
7. A 1/3 INCREASE IN ALLOWABLE STRESS SHALL NOT BE USED FOR DESIGN. HOWEVER, A LOAD REDUCTION SHALL BE ALLOWED IN ACCORDANCE WITH ASCE-7 WHEN TWO OR MORE TRANSIENT LOADS IN COMBINATION WITH DEAD LOADS ARE APPLIED.
8. METAL BUILDING MANUFACTURER SHALL PROVIDE ROOF BRACING, WALL BRACING AND/OR PORTAL FRAMES AS REQUIRED TO ADEQUATELY RESIST WIND AND SEISMIC LOADS. THEIR LOCATIONS AND SIZES SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND INTENT.
9. METAL BUILDING MANUFACTURER SHALL BE RESPONSIBLE FOR ALL FRAMING ABOVE SLAB. THIS INCLUDES, BUT IS NOT LIMITED TO, WIND GIRTS AND COLUMNS, EXTERIOR JAMBS AND LINTELS, A AND MECHANICAL/ELECTRICAL EQUIPMENT SUPPORT. ALL SUPPLEMENTAL FRAMING SHALL MEET OR EXCEED THE LOAD AND DEFLECTION REQUIREMENTS OF THE MANUFACTURER.
10. THE METAL BUILDING MANUFACTURER IS RESPONSIBLE FOR COORDINATING METAL BUILDING ELEMENTS WITH THE CONSTRUCTION DRAWINGS AND INTENT.
11. NO OVERSTRESS OF METAL BUILDING MEMBERS IS ALLOWED.

MISCELLANEOUS

1. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING REQUIREMENTS FROM SUCH DRAWINGS INTO THEIR SHOP DRAWINGS AND WORK.
3. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL-OF-RECORD.
4. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL-OF-RECORD.
5. DO NOT SCALE THESE DRAWINGS. USE SPECIFIED DIMENSIONS.
6. STEEL FRAMING IS NON-SELF SUPPORTING AND REQUIRES INTERACTION WITH OTHER ELEMENTS NOT CLASSIFIED AS STRUCTURAL STEEL TO PROVIDE THE REQUIRED STABILITY AND RESISTANCE TO LATERAL FORCES.
7. THE STEEL FRAMING AND ALL CONCRETE AND CMU WALLS SHALL BE TEMPORARILY BRACED UNTIL ALL STEEL BRACING, FLOOR AND ROOF DECKS, AND CONCRETE AND CMU WALLS HAVE BEEN INSTALLED AND ALL CONNECTIONS BETWEEN THESE ELEMENTS HAVE BEEN MADE.

SPECIAL INSPECTIONS

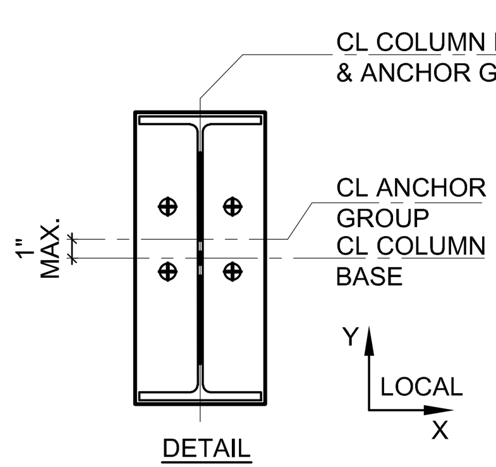
1. THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   - A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
   - B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL-OF-RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL-OF-RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
   - C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.
4. SPECIAL INSPECTIONS SHALL BE REQUIRED FOR THE FOLLOWING GENERAL AREAS. REFERENCE THE FOLLOWING TABLE FOR MORE DETAILED INSPECTION REQUIREMENTS IN EACH AREA.
   - A. INSPECTION OF FABRICATORS: PER IBC SECTION 1704.2.
   - B. STEEL CONSTRUCTION: PER IBC SECTION 1704.3 AND IBC TABLE 1704.03.
   - C. CONCRETE: PER IBC SECTION 1704.4 AND IBC TABLE 1704.4.
   - D. MASONRY CONSTRUCTION: PER IBC SECTION 1704.5. AND IBC TABLE 1704.5.1.
   - E. SOILS: PER IBC SECTION 1704.7 AND THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
5. STRUCTURAL OBSERVATION (AS DEFINED IN CHAPTER 17 OF THE BUILDING CODE) IS NOT REQUIRED, UNLESS SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL.

MAXIMUM DEFLECTION AND DRIFT LIMITS

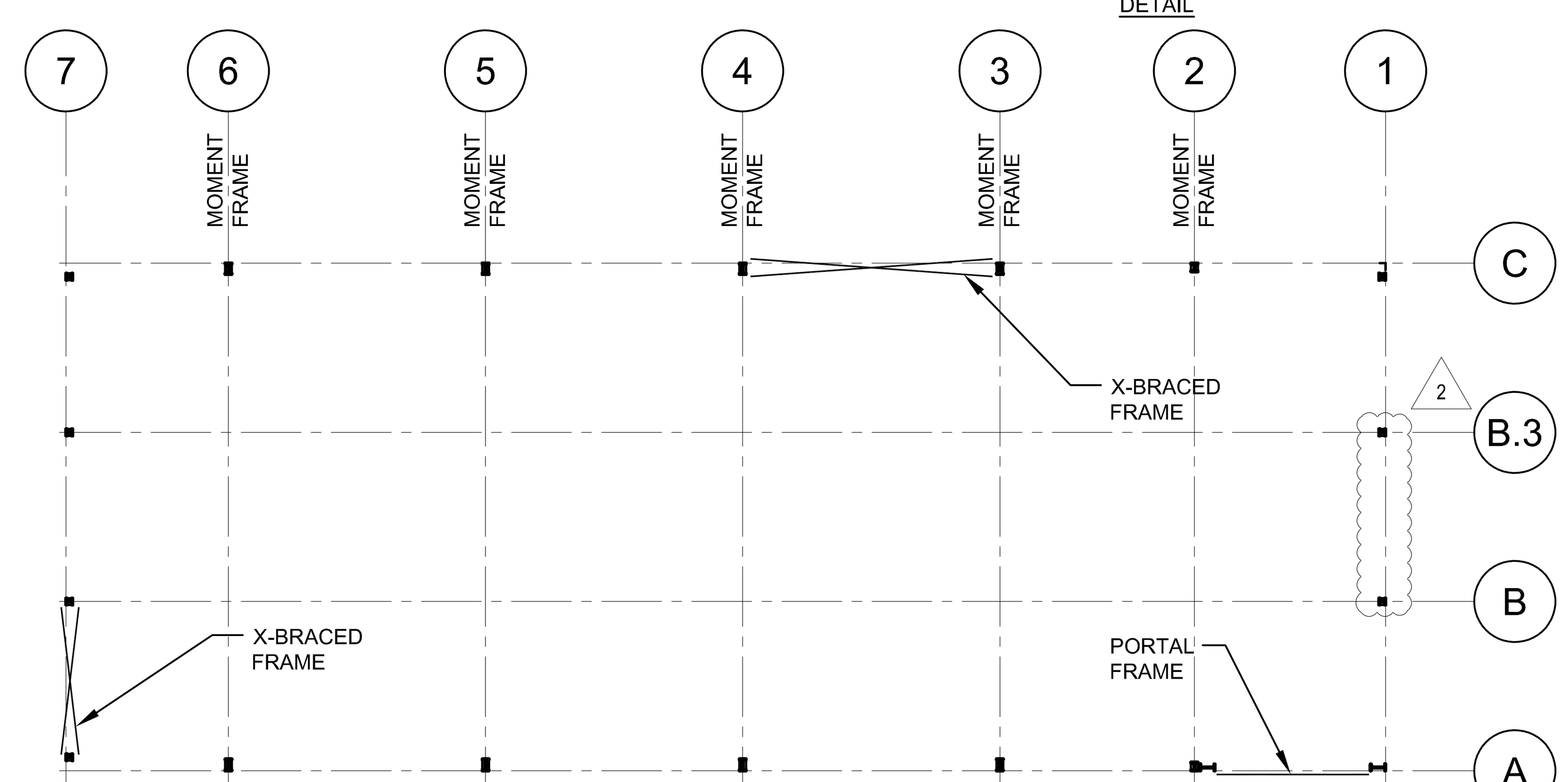
MEMBER	VERTICAL DEFLECTION	HORIZONTAL DEFLECTION
PURLINS	L/240	---
RAFTERS	L/240	---
METAL ROOF PANELS	L/240	---
METAL WALL PANELS	---	L/240
GIRTS	---	L/240

1. DESIGN SECONDARY-FRAMING SYSTEM TO ACCOMMODATE DEFLECTION OF PRIMARY FRAMING AND CONSTRUCTION TOLERANCES AND TO MAINTAIN CLEARANCES AT OPENINGS.
2. LATERAL DRIFT: MAXIMUM OF L/200 OF BUILDING HEIGHT.
3. L = MEMBER SPAN

1. BLDG. MFR. TO PROVIDE FRAMES & BRACING IN LOCATIONS NOTED BELOW
2. SEE ARCH FOR CLEARANCES & SPECIAL COLUMN DEPTH LIMITATIONS.
3. CENTER LINE OF ANCHOR BOLT GROUP SHALL BE NO MORE THAN 1" FROM CENTER LINE OF COLUMN SECTION AT THE BASE IN THE LOCAL Y-DIRECTION AND SHALL MATCH IN THE LOCAL X-DIRECTION. SEE DETAIL.



DETAIL



1/S1 BUILDING FRAME SCHEMATIC PLAN
SCALE: 1/16" = 1'-0"

SPECIAL INSPECTIONS SCHEDULE		
SPECIAL INSPECTION	FREQ.	REFERENCED STANDARD(S)
SOILS:		
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	PERIODIC	IBC 1705.6
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	PERIODIC	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	PERIODIC	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	CONT.	
5. PRIOR TO THE PLACEMENT OF COMPACTED FILL, OBSERVE SUBGADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.	PERIODIC	
CONCRETE (NOT APPLICABLE TO ISOLATED SPREAD FOOTINGS OR NON-STRUCTURAL SLABS ON GROUND):		
1. INSPECTION OF REINFORCING STEEL, SIZE AND PLACEMENT	PERIODIC	ACI 318: 3.5, 7.1-7.7
2. VERIFYING USE OF REQUIRED DESIGN MIX	PERIODIC	ACI 318: Ch. 4, 5.2-5.4
3. SAMPLING FRESH CONCRETE AND PERFORMING SLUMP, AIR CONTENT, AND DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING SPECIMENS FOR STRENGTH TESTS.	CONT.	ASTM C 172; ASTM C 31; ACI 318: 5.6, 5.8
4 INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	CONT.	ACI 318: 5.9, 5.10
5. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	PERIODIC	ACI 318: 5.11-5.13
STEEL CONSTRUCTION:		
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS, HIGH-STRENGTH BOLTING:		APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360, SEC. A3.4
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	PERIODIC	
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	PERIODIC	
2. INSPECTION OF BEARING-TYPE CONNECTIONS	PERIODIC	AISC LRFD Sec. M2.5
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD FORMED METAL DECK:		
A. FOR STRUCTURAL STEEL IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	AISC 360, SEC. M5.5; ASTM A-6 OR ASTM A-568
B. FOR OTHER STEEL, IDENTIFICATION MARKING TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	---	APPLICABLE ASTM MATERIAL STANDARDS
C. MANUFACTURER'S CERTIFIED MILL TEST REPORTS REQUIRED		
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS	PERIODIC	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	PERIODIC	
5. INSPECTION OF WELDING:		
A. SINGLE-PASS FILLET WELDS ≤ 5/16"	PERIODIC	AWS D1.1
B. ROOF DECK WELDS	PERIODIC	AWS D1.3
MASONRY CONSTRUCTION		
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
A. PROPORTIONS OF SITE PREPARED MORTAR.	PERIODIC	ACI 530.1/ASCE 6/TMS 602: Art. 2.6A
B. CONSTRUCTION OF MORTAR JOINTS.		ACI 530.1/ASCE 6/TMS 602: Art. 3.3B
C. LOCATION OF REINFORCEMENT AND CONNECTORS.		ACI 530.1/ASCE 6/TMS 602: Art. 3.4, 3.6A
D. VERIFICATION OF f'm.		ACI 530.1/ASCE 6/TMS 602: Art. 1.5
2. DURING CONSTRUCTION THE INSPECTION PROGRAM SHALL VERIFY:		
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	PERIODIC	ACI 530.1/ASCE 6/TMS 602: Art. 3.3F
B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.		ACI 530/ASCE 5/TMS 402: Sec. 1.2.2(e), 1.16.1
C. SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT AND ANCHOR BOLTS		ACI 530.1/ASCE 6/TMS 402: Sec. 1.15; ACI 530.1/ASCE 6/TMS 602: Art. 2.4, 3.4
E. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F)		ACI 530.1/ASCE 6/TMS 602: Art. 1.8C, 1.8D IBC SECTION 2104.3:2104.4
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
A. GROUT SPACE IS CLEAN.	PERIODIC	ACI 530.1/ASCE 6/TMS 602: Art. 3.2D
B. PLACEMENT OF REINFORCEMENT AND CONNECTORS.		ACI 530/ASCE 5/TMS 402: Sec. 1.13; ACI 530.1/ASCE 6/TMS 602: Art. 3.4
C. PROPORTIONS OF SITE PREPARED GROUT.		ACI 530.1/ASCE 6/TMS 602: Art. 2.6B
D. CONSTRUCTION OF MORTAR JOINTS.		ACI 530.1/ASCE 6/TMS 602: Art. 3.3B
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	CONT.	ACI 530.1/ASCE 6/TMS 602: Art. 3.5
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS SHALL BE OBSERVED.	PERIODIC	IBC SECTION 2105.2.2, 2105.3 ACI 530.1/ASCE 6/TMS 602: Art. 1.4
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	PERIODIC	ACI 530.1/ASCE 6/TMS 602: Art. 1.5
ADHESIVE ANCHORS/REINFORCEMENT:		
1. DURING PLACEMENT OF ADHESIVE ANCHORS OR REINFORCEMENT EMBEDDED WITH ADHESIVE (AS SPECIFIED ON THE CONSTRUCTION DOCUMENTS) IN MASONRY AND CONCRETE:		
A. SIZE AND EMBEDMENT OF ANCHORS/REINF.	CONTINUOUS	MANUFACTURERS INSTALLATION INSTRUCTIONS
B. ANCHORS/REINFORCEMENT INSTALLED PER MANUFACTURERS RECOMMENDATIONS.	CONTINUOUS	

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STATE OF MISSOURI
CARRIE J. JOHNSON
NUMBER PE-2008005213
PROFESSIONAL ENGINEER
2020.06.29 15:24:39-05'00'

ISSUE BLOCK

1	ADD #1	04/16/20
2	CB#1	06/30/20

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
S1

Jun 29, 2020 – 3:06pm – USER Colby Brown
\\Struct-Server\Volume\BSRO\1912865 – Lee's Summit, MO\Struct_ER_L_S1.dwg

FOUNDATION PLAN NOTES

1. SEE SHEET S1 FOR GENERAL NOTES AND S3 FOR TYPICAL DETAILS

2. ALL ELEVATIONS BASED ON FINISH FLOOR ELEVATION = 100'-0" FOR REFERENCE ONLY. SEE SITE PLAN FOR ACTUAL FINISH FLOOR ELEVATIONS.

3. SEE PLAN AND GENERAL STRUCTURAL NOTES FOR TOP OF EXTERIOR FOOTING ELEVATIONS. THE GENERAL CONTRACTOR SHALL COORDINATE ALL TOP OF FOOTING ELEVATIONS WITH THE CIVIL ENGINEERING DRAWINGS AND SITE CONDITIONS.

4. PROVIDE CORNER BARS IN ALL CORNERS AND INTERSECTIONS PER 5-S3. LAP SPLICE FOOTING CORNER BAR REINFORCING PER TABLE ON SHEET S1.

5. REFER TO MECHANICAL DRAWINGS FOR ALL DRAIN LOCATIONS AND SLOPES TO DRAINS.

SLAB SCHEDULE

LOCATION	THICKNESS* AND REINFORCING	REMARKS
4" INTERIOR SLAB ON GRADE	4" CONCRETE SLAB ON GRADE REINFORCED WITH 6 x 6 - W1.4 x W1.4 W.W.F. - CENTER	15 MIL VAPOR RETARDER OVER COMPACTED GRANULAR SUBBASE PER THE GEOTECHNICAL REPORT
5" INTERIOR SLAB ON GRADE	5" CONCRETE SLAB ON GRADE REINFORCED WITH 6 x 6 - W2.9 x W2.9 W.W.F. - CENTER	15 MIL VAPOR RETARDER OVER COMPACTED GRANULAR SUBBASE PER THE GEOTECHNICAL REPORT
6" EXTERIOR SLAB ON GRADE	6" CONCRETE SLAB ON GRADE REINFORCED WITH 6 x 6 - W2.9 x W2.9 W.W.F. - CENTER	COMPACTED SUBBASE PER THE GEOTECHNICAL REPORT
SIDEWALK	4" CONCRETE SLAB ON GRADE REINFORCED WITH 6 x 6 - W1.4 x W1.4 W.W.F. - CENTER	COMPACTED SUBBASE PER GEOTECHNICAL REPORT - SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION

* THICKNESS OF SLABS AS SPECIFIED IN SCHEDULE ARE MINIMUMS. THERE SHALL BE NO TOLERANCE FOR SLABS THINNER THAN THOSE SPECIFIED IN SCHEDULE.

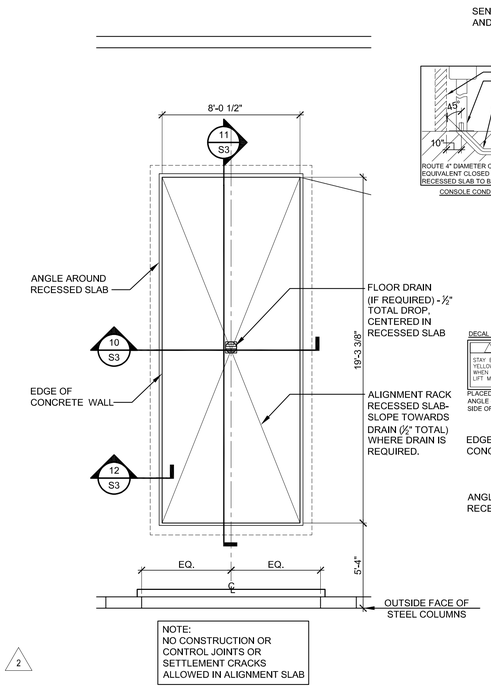
* COORDINATE LOCATIONS AND EXTENTS OF EXTERIOR CONCRETE SLAB WITH ARCH. AND CIVIL DRAWINGS.

* SEE ARCH AND SPECIFICATIONS FOR SLAB FINISH REQUIREMENTS.

* CONTRACTOR SHALL OBTAIN FLOOR FLATNESS AND LEVELNESS TESTING (FF & FL) AND PROVIDE FINAL REPORT TO OWNER, SEE SPECIFICATIONS.

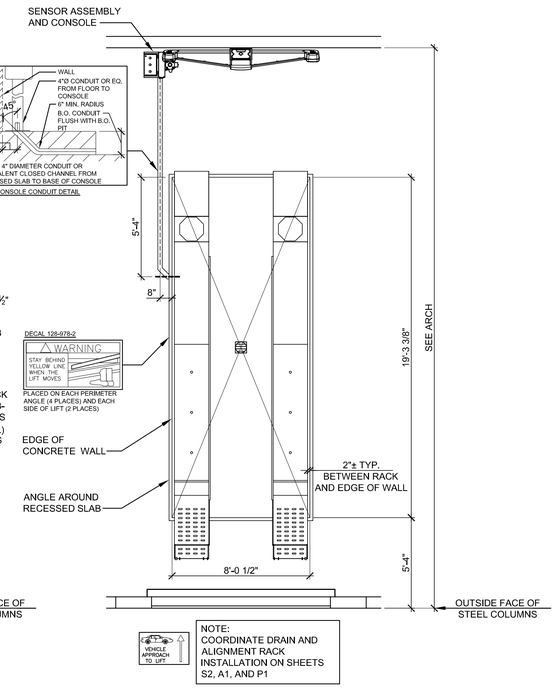
FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F1	★ 4'-0" x 4'-0" x 1'-0"	(4) #5 - EACH WAY, BOTTOM
F2	★ 5'-0" x 5'-0" x 1'-0"	(5) #5 - EACH WAY, BOTTOM
F3	★ 6'-0" x 6'-0" x 1'-0"	(6) #5 - EACH WAY, BOTTOM



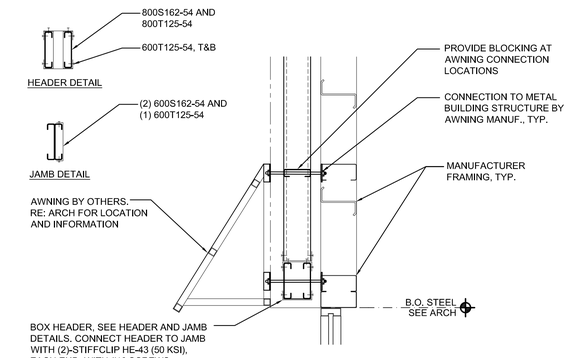
NOTE:
NO CONSTRUCTION OR CONTROL JOINTS OR SETTLEMENT CRACKS ALLOWED IN ALIGNMENT SLAB

2 S2 ALIGNMENT SLAB PLAN
SCALE: 1/4" = 1'-0"

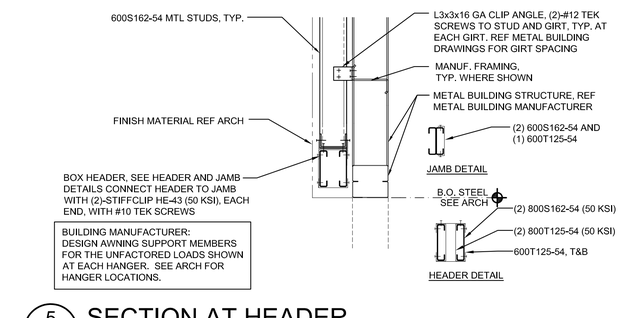


NOTE:
COORDINATE DRAIN AND ALIGNMENT RACK INSTALLATION ON SHEETS S2, A1, AND P1

3 S2 ALIGNMENT RACK PLAN
SCALE: 1/4" = 1'-0"

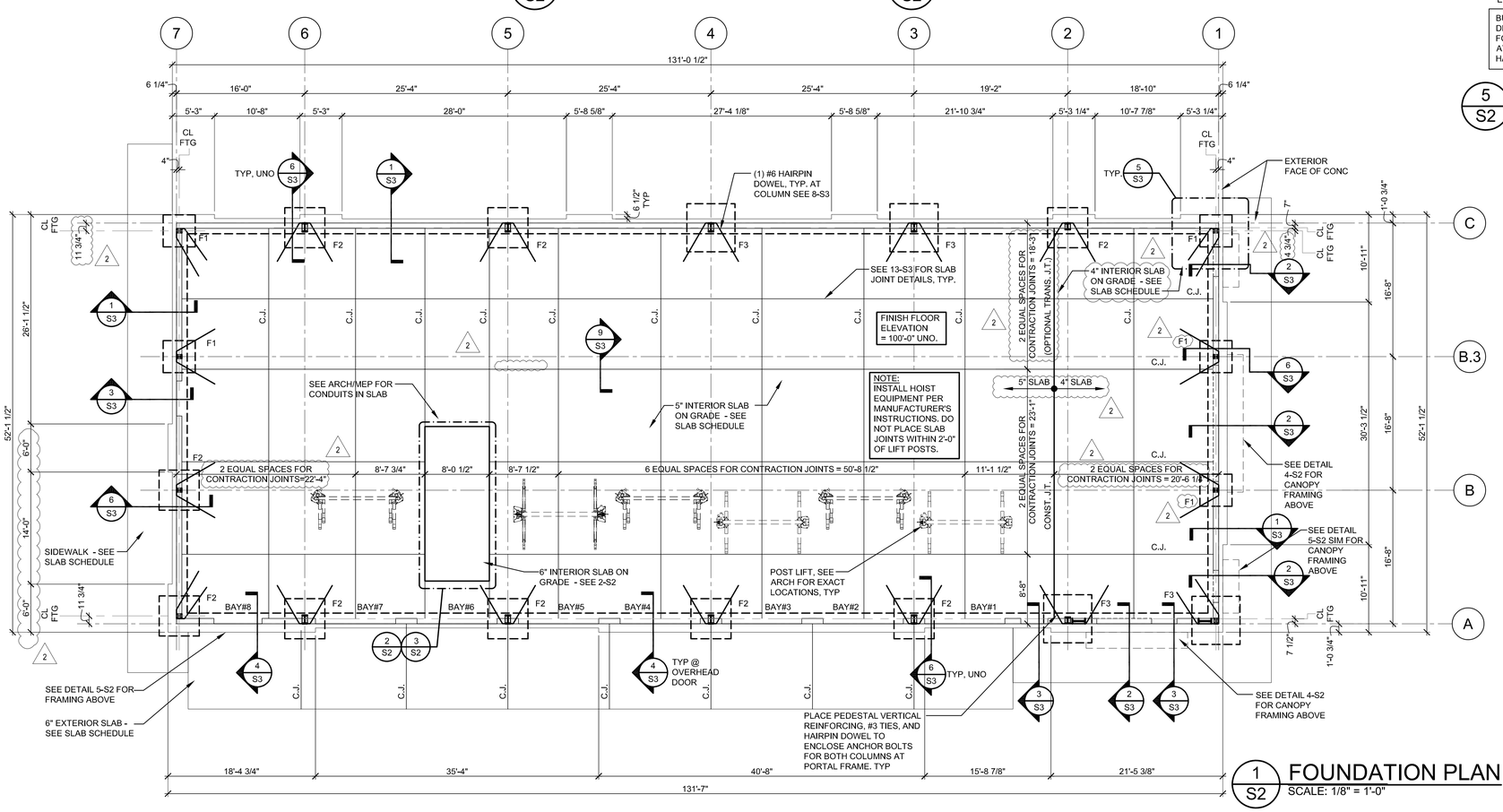


4 S2 SECTION AT AWNING
SCALE: 3/4"=1'-0"



BUILDING MANUFACTURER:
DESIGN AWNING SUPPORT MEMBERS FOR THE UNFACTORED LOADS SHOWN AT EACH HANGER. SEE ARCH FOR HANGER LOCATIONS.

5 S2 SECTION AT HEADER
SCALE: 3/4" = 1'-0"



1 S2 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

REF 15/S3 FOR LIGHT POLE FOUNDATION. REF ARCH FOR LOCATION AND CONFIGURATION

REF 16/S3 FOR MONUMENT SIGN WALL/FOOTING. REF ARCH FOR LOCATION AND CONFIGURATION

REF 14/S3 FOR TRASH ENCLOSURE WALL/FOOTING. REF ARCH FOR LOCATION AND CONFIGURATION

EXTERIOR LIGHT GAGE STUDS SHALL BE 600S162-54 AT 16" OC. TYP, UNO. REF ARCH FOR LOCATIONS. STUDS SHALL BE ATTACHED TO EACH METAL BUILDING GIRT WITH 16 GA CLIP ANGLES WITH (2) #10 SCREWS EACH LEG.

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ISSUE BLOCK

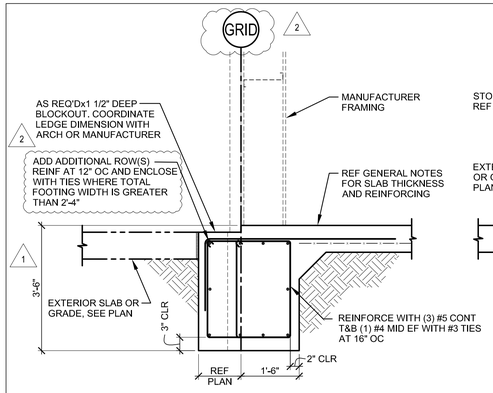
1	ADD #1	04/16/20
2	CB#1	06/30/20

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##

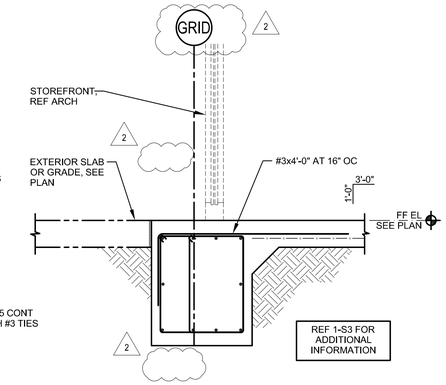
SHEET TITLE:
FOUNDATION PLAN AND NOTES

SHEET NUMBER:
S2

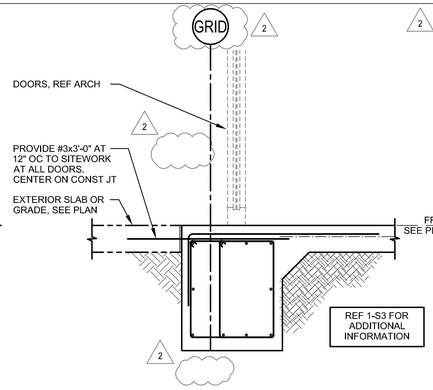
Jun 30, 2020 - 10:31am - USER Colby Brown
\\Struct-Server\Volume\BSRO\1912865 - Lee's Summit, MO\Struct_ER_L_S2.dwg



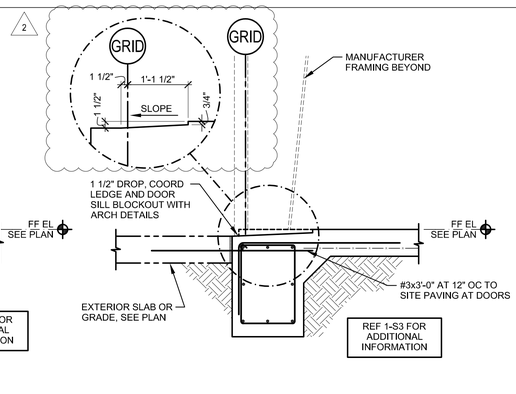
1 S3 EXTERIOR FOOTING DETAIL
SCALE: 3/4" = 1'-0"



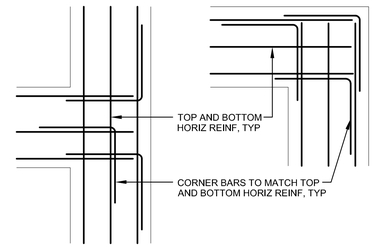
2 S3 EXTERIOR FOOTING DETAIL
SCALE: 3/4" = 1'-0"



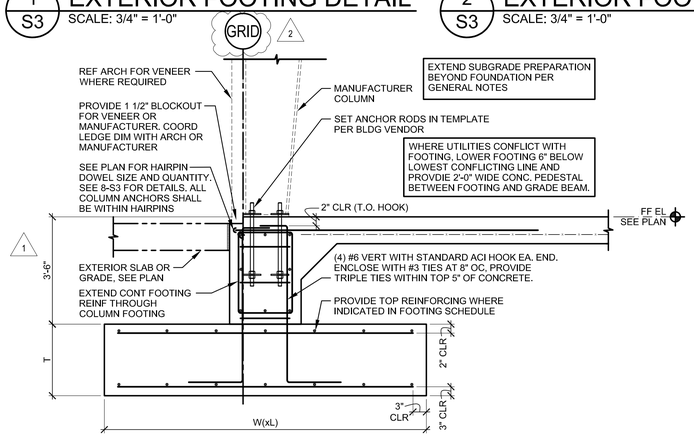
3 S3 DOOR SECTION
SCALE: 3/4" = 1'-0"



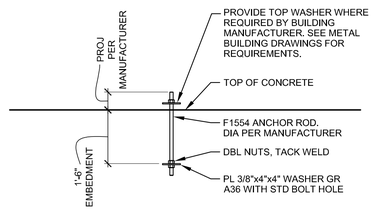
4 S3 OVERHEAD DOOR SECTION
SCALE: 3/4" = 1'-0"



5 S3 CORNER BAR REINFORCING
SCALE: 3/4" = 1'-0"



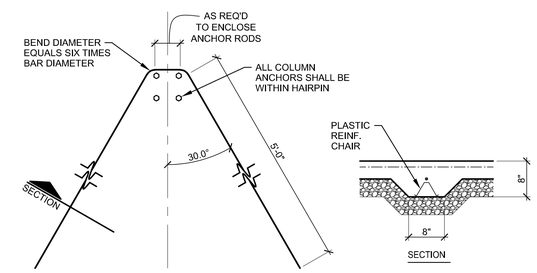
6 S3 SECTION AT PERIMETER COLUMN FOOTING
SCALE: 3/4" = 1'-0"



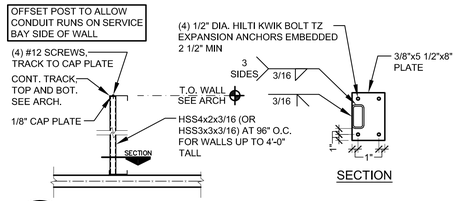
NOTES:

1. COORDINATE/VERIFY COL LOCATIONS AND ANCHOR RODS WITH ARCH AND MANUFACTURER.
2. PROVIDE QUANTITY OF ANCHOR RODS TO MATCH BASE PLATE CONFIGURATION FURNISHED BY MANUFACTURER.
3. SET ANCHOR RODS WITH TEMPLATE PROVIDED BY MANUFACTURER.

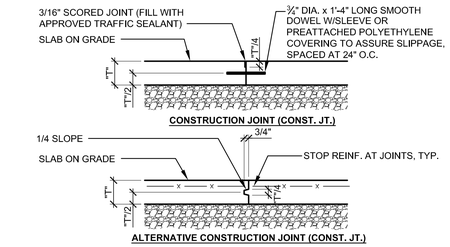
7 S3 TYPICAL ANCHOR RODS
SCALE: 3/4" = 1'-0"



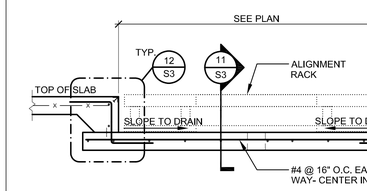
8 S3 TYPICAL HAIRPIN DETAIL
SCALE: 3/4" = 1'-0"



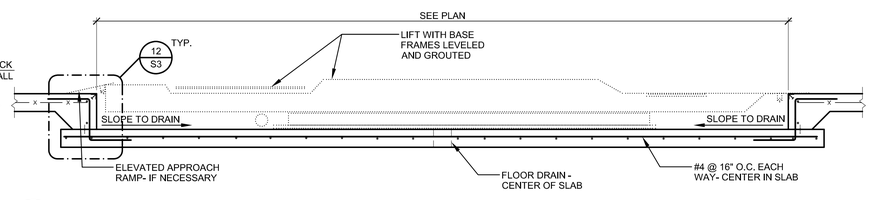
9 S3 KNEE WALL SECTION
SCALE: 1/2" = 1'-0"



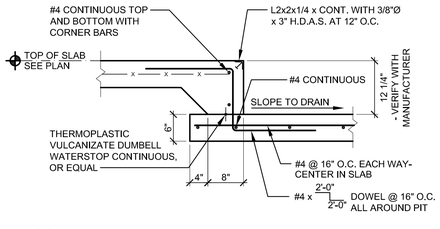
13 S3 TYP. SLAB JOINT DETAILS
SCALE: 1" = 1'-0"



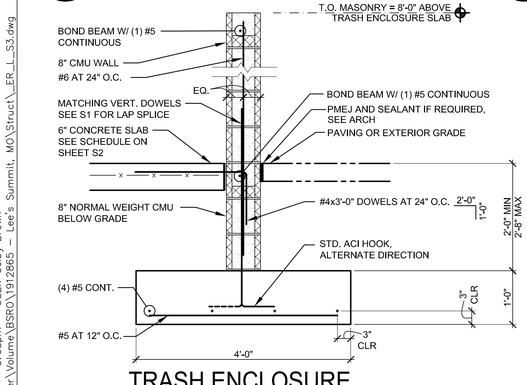
10 S3 SECTION AT ALIGNMENT SLAB
SCALE: 1/2" = 1'-0"



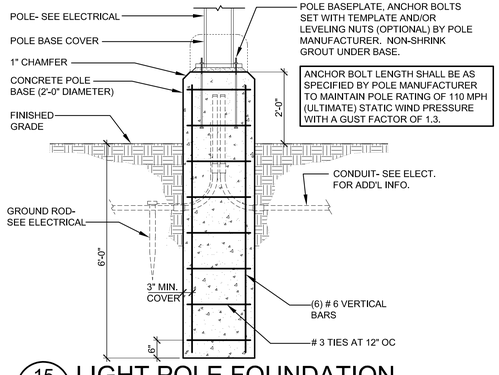
11 S3 SECTION AT ALIGNMENT SLAB
SCALE: 1/2" = 1'-0"



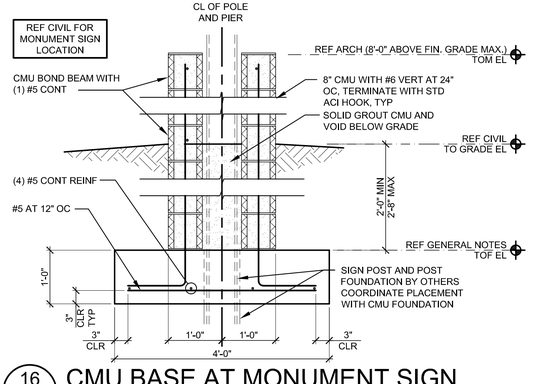
12 S3 SECTION DETAIL
SCALE: 3/4" = 1'-0"



14 S3 TRASH ENCLOSURE SCREEN WALL SECTION
SCALE: 3/4" = 1'-0"



15 S3 LIGHT POLE FOUNDATION
SCALE: 1/2" = 1'-0"



16 S3 CMU BASE AT MONUMENT SIGN
SCALE: 3/4" = 1'-0"

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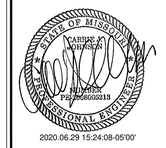

2020.06.29 15:24:08-05'00'

ISSUE BLOCK

1	ADD #1	04/16/20
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PROPERTY NO.: 160085
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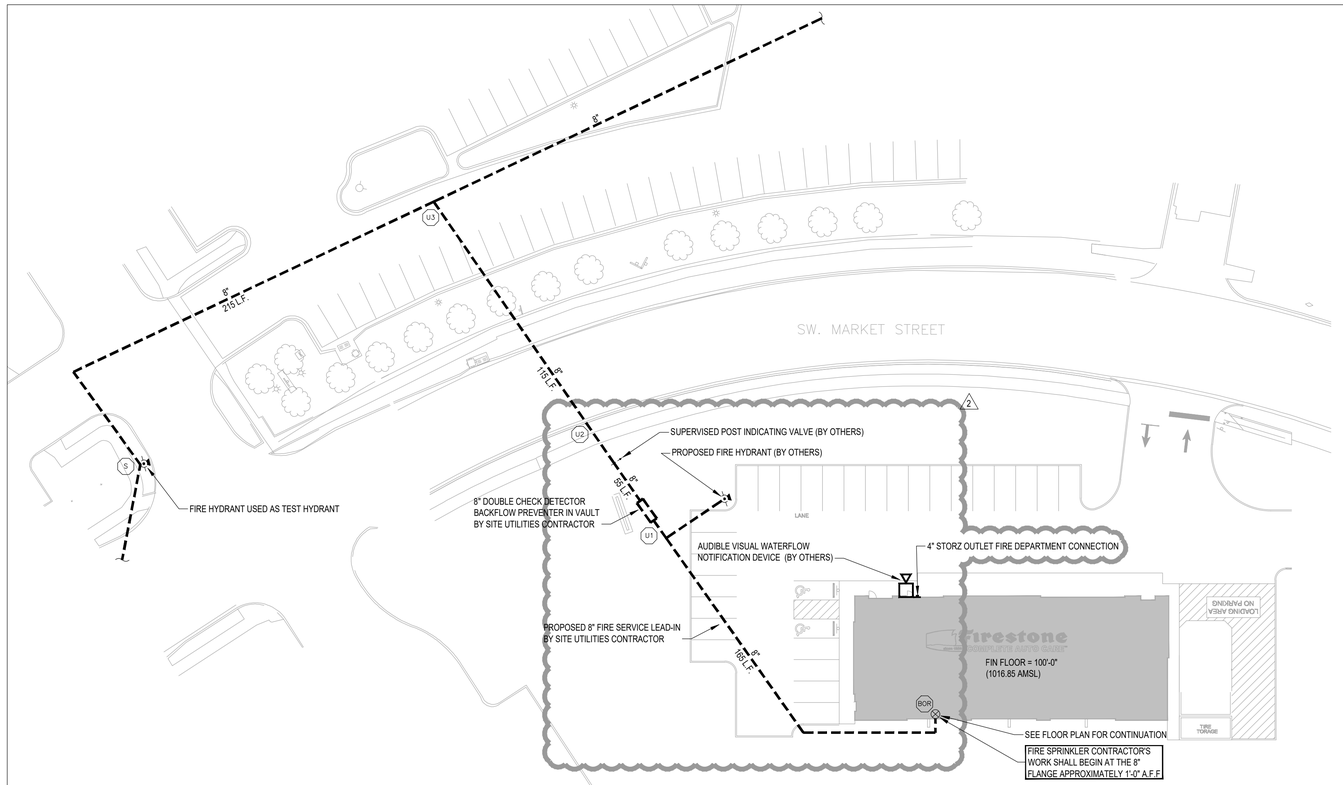
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##

SHEET TITLE:
FOUNDATION DETAILS

SHEET NUMBER:
S3

Jun 29, 2020 - 3:08pm - USER Colby Brown
\\Struct-Server\Volume\BSRO\1912865 - Lee's Summit, MO\Struct_ER_JL_S3.dwg



FIRE PROTECTION SITE PLAN

SCALE 1" = 30'- 0" FFE: 1,016.85 FT AMSL

UNDERGROUND PIPING NOTE

ALL UNDERGROUND PIPING, VALVES, FITTINGS, DIMENSIONS, ETC. ARE SHOWN FOR REFERENCE ONLY. REFER TO CIVIL DRAWINGS FOR EXACT LOCATIONS, TYPES, AND SIZES OF ALL COMPONENTS IN ADDITION TO DETAILS OF CONSTRUCTION.

FIRE SPRINKLER CONTRACTOR (FSC) BIDDING AND INSTALLATION TIMELINE

1. FIRE SPRINKLER CONTRACTORS SHALL PREPARE SPRINKLER BID BASED ON THESE CONTRACT DOCUMENTS (CDS). THE FSC SHALL DELIVER THEIR SHOP DRAWING SUBMITTAL (SDS) TO ARCHITECT FOR REVIEW NO MORE THAN TWO (2) WEEKS PRIOR TO THE START OF THE FSC'S WORK. SEE SPECIFICATION FOR ADDITIONAL DETAILS REGARDING THE FSC'S SDS.
2. THE ELECTRONIC VERSIONS (AUTOCAD) AND HYDRAULIC CALCULATION FILES WILL BE MADE AVAILABLE TO THE SUCCESSFUL FIRE SPRINKLER CONTRACTOR (FSC) FOR USE IN PREPARING THE SHOP DRAWING SUBMITTAL. THE FSC'S REQUEST SHALL BE MADE WITHIN TWO (2) WEEK OF SPRINKLER CONTRACT AWARD. ELECTRONIC DATA FILES WILL BE ELECTRONICALLY TRANSMITTED TO THE FSC UPON RECEIPT OF SIGNED ELECTRONIC RELEASE FORM. NOTE: THE FSC MAY UTILIZE OTHER HYDRAULIC CALCULATION PROGRAMS TO PRODUCE SHOP DRAWING SUBMITTAL.
3. AFTER SATISFACTORY REVIEW OF THE SDS, THE FSC SHALL SUBMIT TO ALL AUTHORITIES HAVING JURISDICTION FOR INSTALLATION PERMIT APPROVAL. WHERE APPLICABLE, THE FSC SHALL ALSO SUBMIT TO THE INSURANCE UNDERWRITER FOR INSURANCE PURPOSES. SUBMITTALS MAY OCCUR CONCURRENTLY WHERE SCHEDULES REQUIRE, BUT FIRE PROTECTION ENGINEER OF RECORDS REVIEW SHALL TAKE PRECEDENCE OVER ALL OTHER SUBMITTAL REVIEWS (NO EXCEPTIONS).
4. THE FSC SHALL BE RESPONSIBLE FOR RESPONDING, IN WRITING, TO ANY COMMENTS FROM ALL AUTHORITIES HAVING JURISDICTION WITHIN TEN (10) WORKING DAYS AFTER THE RECEIPT OF THEIR COMMENTS. COPIES OF THE RESPONSE SHALL BE SENT TO FIRE PROTECTION ENGINEER OF RECORD, ARCHITECT AND OWNER REPRESENTATIVES.
5. THE FSC SHALL COMPLETE ALL PRELIMINARY TESTING PROCEDURES PRIOR TO FINAL TESTING. SEE SPECIFICATION FOR ADDITIONAL DETAILS ON PRELIMINARY AND FINAL TESTING.
6. THE FSC SHALL COMPLETE AND SUBMIT ALL CONTRACTOR'S MATERIAL AND TEST CERTIFICATES (INCLUDE UNDERGROUND PIPING CERTIFICATE WHERE APPLICABLE) TO OWNER REPRESNTATIVE, PRIOR TO FINAL SYSTEM ACCEPTANCE.
7. THE FSC SHALL SUBMIT ALL PROJECT CLOSE-OUT DOCUMENTS TO OWNER REPRESENTATIVE, PRIOR TO FINAL SYSTEM ACCEPTANCE, IN ACCORDANCE WITH PROJECT REQUIREMENTS IN HARD COPY AND ELECTRONIC FILE FORMAT INCLUDING THE FOLLOWING ITEMS:
   - OPERATING AND MAINTENANCE INSTRUCTIONS.
   - AS-BUILT DOCUMENTS.
   - WARRANTY INFORMATION.

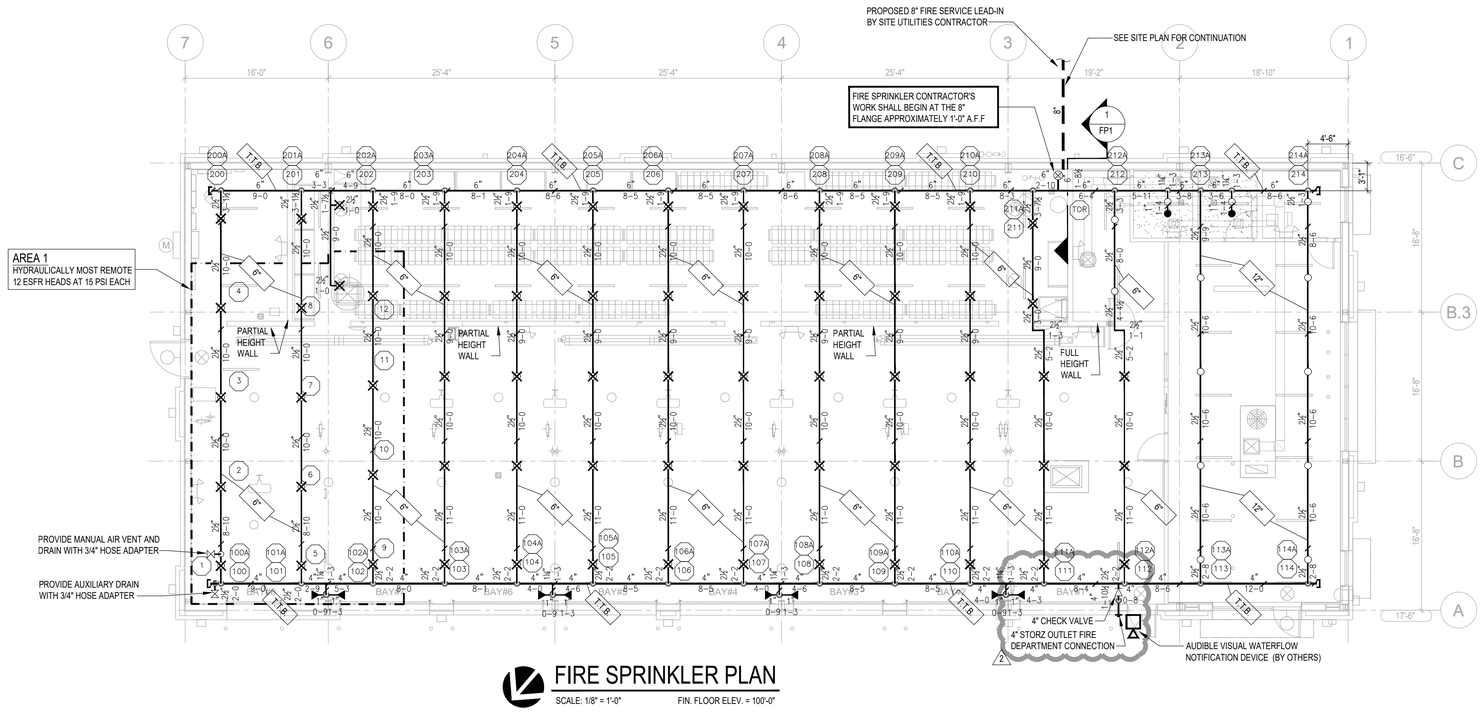
SYMBOL KEY

- NEW PIPING
- CENTER LINE OF SPRINKLER: ALIGN WITH LIGHTS AND/OR OTHER SPRINKLERS: COORDINATE WITH OTHER TRADES.
- RECOMMENDED CENTER LINE ELEVATION OF PIPE TO BE HELD TIGHT TO JOIST AND/OR BELOW METAL DECK (T.T.B. = TIGHT TO BEAM)
- RISE FROM LEFT TO RIGHT AND DROP FROM RIGHT TO LEFT
- CAPPED PIPE
- HYDRAULIC REFERENCE POINT
- GLOBE VALVE
- CHECK VALVE
- STORZ FIRE DEPARTMENT CONNECTION
- PIPE HANGER

SPRINKLER LEGEND

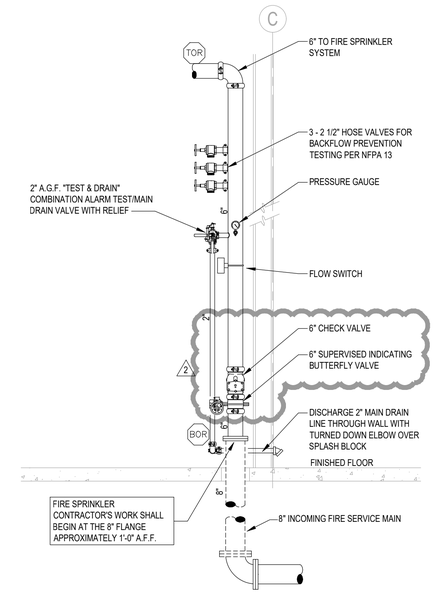
SYMBOL	SPRINKLER TYPE	TEMP.	K	FINISH	RESP.	QTY.
●	CHROME PENDENT WITH 2 PIECE ESCUTCHEON	ORD	5.6	CHROME	QR	2
○	UPRIGHT	INT	5.6	BRASS	QR	13
⊠	ESFR K25.2 PENDENT	INT	25.2	BRASS	ESFR	65
◀	BRASS HORIZONTAL SIDEWALL WITH GUARD	INT	5.6	BRASS	QR	8

ESFR SPRINKLER SYSTEM SHALL COMPLY WITH ALL OBSTRUCTION REQUIREMENTS WITHIN NFPA 13. COORDINATION WITH ALL TRADES WILL BE REQUIRED TO COMPLY



FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0" FIN. FLOOR ELEV. = 100'-0"



FIRE SPRINKLER RISER ELEVATION

1 / FP1 — NOT TO SCALE

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1 NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI — WILLIAM B. SMITH — NUMBER PE-2008019735 — PROFESSIONAL ENGINEER — 06/29/2020

FIRE PROTECTION ENGINEER OF RECORD:
WILLIAM B. SMITH, PE
LICENSE NO. PE-2008019735
CODE CONSULTANTS, INC.
2043 WOODLAND PKWY, SUITE 300
ST. LOUIS, MO 63146-4235
PHONE: 314-991-2633
CORPORATE CERTIFICATE OF AUTHORITY NO. 000419

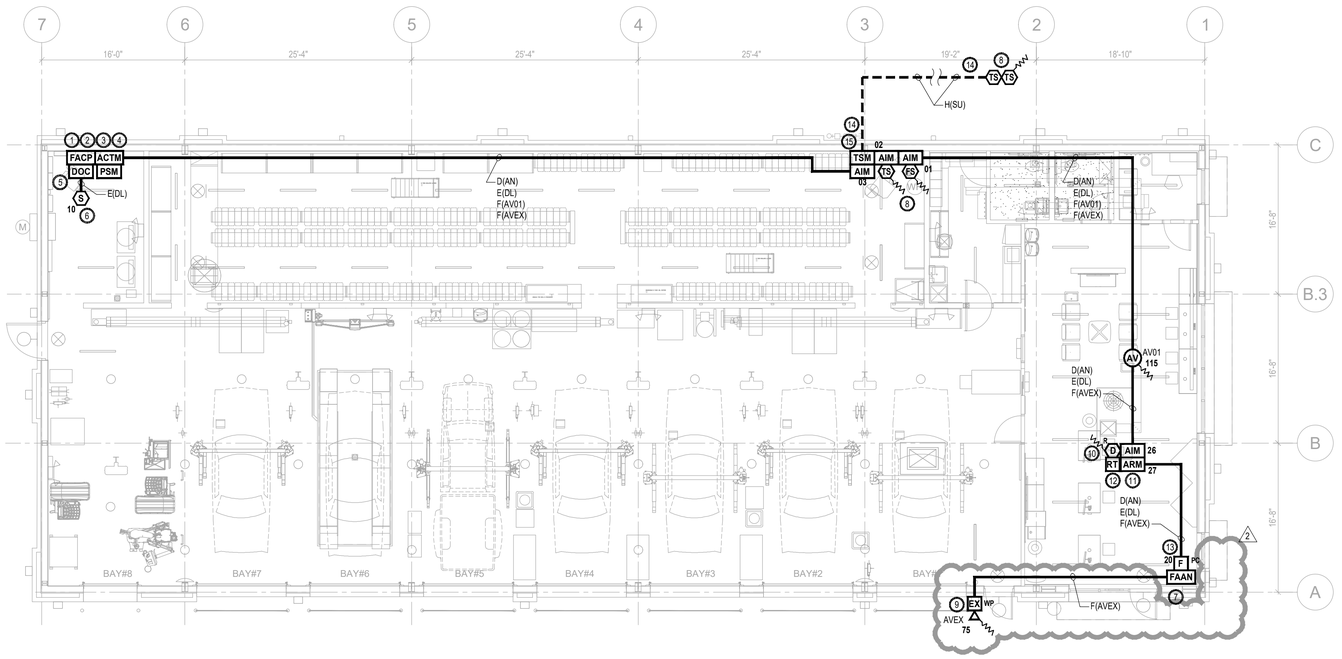
ISSUE BLOCK

1	04/16/20	ADD #1
2	06/30/20	CB #1

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955B71
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##

SHEET TITLE:
FIRE SPRINKLER PLAN

SHEET NUMBER:
FP1



FIRE ALARM PLAN

SCALE 1/8"=1'-0"

2 1 0 4 8

FIRE ALARM MATRIX

	ACTUATES ALARM CONDITION AT FIRE ALARM CONTROL PANEL	ANNUNCIATES ALARM CONDITION AT REMOTE FIRE ALARM ANNUNCIATOR	TRANSMITS GENERAL ALARM SIGNAL TO APPROVED REMOTE SUPERVISING STATION	ACTUATES SUPERVISORY CONDITION AT FIRE ALARM CONTROL PANEL	ANNUNCIATES SUPERVISORY CONDITION AT REMOTE FIRE ALARM ANNUNCIATOR	TRANSMITS GENERAL SUPERVISORY SIGNAL TO APPROVED REMOTE SUPERVISING STATION	ACTUATES TROUBLE CONDITION AT FIRE ALARM CONTROL PANEL	ANNUNCIATES TROUBLE CONDITION AT REMOTE FIRE ALARM ANNUNCIATOR	TRANSMITS GENERAL TROUBLE SIGNAL TO APPROVED REMOTE SUPERVISING STATION	ACTIVATES INTERIOR AUDIBLE/VISUAL NOTIFICATION APPLIANCES	ACTIVATES EXTERIOR NOTIFICATION APPLIANCE	SHUTS DOWN HVAC UNIT
FIRE SPRINKLER SYSTEMS												
- WATERFLOW SWITCHES	●	●	●							●	●	
- CONTROL VALVE TAMPER SWITCHES				●	●	●						
MANUAL PULL STATION												
- ADJACENT TO THE FAAN	●	●	●							●		
SMOKE DETECTION DEVICES												
- ABOVE FACP	●	●	●							●		
- AIR HANDLING UNIT - RETURN SIDE				●	●	●						●
LOSS OF PRIMARY POWER AT THE FACP							●	●	●			
ABNORMAL CIRCUIT (OPEN, GROUND FAULT, SHORT) OR DEVICE							●	●	●			

SCOPE OF WORK

1. A DEDICATED FUNCTION FIRE ALARM SYSTEM SHALL BE PROVIDED THROUGHOUT THE BRIDGESTONE.
2. THE FIRE ALARM SYSTEM SHALL REPORT ALL ALARM, SUPERVISORY, AND TROUBLE SIGNAL TO A REMOTE SUPERVISING STATION.
3. THE FIRE ALARM SYSTEM SHALL CONSIST OF THE FOLLOWING:
   - ONE (1) INTERIOR AUDIBLE/VISUAL WITHIN THE SHOWROOM
   - ONE (1) EXTERIOR AUDIBLE/VISUAL APPLIANCE ABOVE THE FIRE DEPARTMENT CONNECTION
   - ONE (1) MANUAL PULL STATION WITH PROTECTIVE COVER ADJACENT TO THE FAAN
   - ONE (1) SMOKE DETECTOR ABOVE THE FACP
   - DUCT DETECTORS IN THE RETURN SIDE OF THE RTU
   - REMOTE TEST STATIONS FOR THE DUCT DETECTOR
   - SHUTDOWN THE AFFECTED RTU
   - FIRE ALARM ANNUNCIATOR ADJACENT TO THE FRONT ENTRANCE
   - POWER-LIMITED FIRE ALARM CABLING
   - MONITORING OF THE FIRE SPRINKLER CONTROL VALVES AND WATERFLOW SWITCHES
   - MONITORING OF THE EXTERIOR CONTROL VALVES TAMPER SWITCHES

PROJECT INFORMATION

PROJECT NAME:	BRIDGESTONE LEE'S SUMMIT, MISSOURI
LOCATION:	3561 SOUTHWEST MARKET STREET ⚠1 LEE'S SUMMIT, MO 64082
CONSTRUCTION TYPE:	V-B
SQUARE FOOTAGE:	6,262 SQ. FT. 1-STORY
FIRE PROTECTION:	SPRINKLERED
BUILDING OCCUPANCY:	MIXED USE - MERCANTILE (SHOWROOM) S-1 (INVENTORY AND SERVICE AREA)
OCCUPANT LOAD:	42 PERSONS
SYSTEM TYPE:	DEDICATED FUNCTION FIRE ALARM SYSTEM

APPLICABLE CODES

ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REFERENCED DESIGN STANDARDS.

2018 INTERNATIONAL BUILDING CODE

2018 INTERNATIONAL FIRE CODE

2018 INTERNATIONAL MECHANICAL CODE

2017 NATIONAL ELECTRICAL CODE

2016 EDITION NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE

CONFLICTS BETWEEN THE REFERENCE NFPA STANDARDS, FEDERAL OR STATE CODES, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF FIRE PROTECTION ENGINEER (CCI) FOR RESOLUTION.

FIRE ALARM SYMBOL KEY		QTY.
FACP	ADDRESSABLE FIRE ALARM CONTROL PANEL (FIRE-LITE ES-50X) (IN RED ENCLOSURE)	1
FAAN	FIRE ALARM LCD ANNUNCIATOR (FIRE-LITE ANN-80)	1
DOC	DOCUMENTATION CABINET (SPACE AGE ELECTRONIC FAD ACE-11)	1
AIM	ADDRESSABLE INPUT MODULE (FIRE-LITE MMF-300)	4
ARM	ADDRESSABLE RELAY MODULE (FIRE-LITE CRF-300)	1
TSM	TRANSIENT SUPPRESSION MODULE (DITEK DTK-1LVLP-X)	1
ACTM	120 VAC TRANSIENT SUPPRESSION MODULE (DITEK DTK-120HW)	1
PSM	PHONE LINE SUPPRESSION MODULE (ELK-955 OR EQUAL)	1
F PC	ADDRESSABLE DUAL ACTION MANUAL PULL STATION WITH PROTECTIVE COVER AND INTEGRAL SOUNDER (FIRELITE BG-12LX) (STI-1100 STOPPER I WITH SOUNDER)	1
S	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR (FIRE-LITE SD365)	1
D R	DUCT-TYPE PHOTOELECTRIC SMOKE DETECTOR (FACTORY PROVIDED AND POWERED BY RTU) (R = RETURN SIDE)	1
RT	REMOTE TEST STATION / ANNUNCIATOR (SYSTEM SENSOR RTS151KEY)	1
FS	FLOW SWITCH (BY OTHERS)	1
TS	TAMPER SWITCH (BY OTHERS)	4
AV XX	CEILING MOUNTED RED AUDIBLE/VISUAL APPLIANCE (XX = CANDELA RATING) (SYSTEM SENSOR PC2RL)	1
EX WP XX	WALL MOUNTED RED EXTERIOR AUDIBLE/VISUAL APPLIANCE (XX = CANDELA RATING) (WP = WEATHERPROOF) (SYSTEM SENSOR P2RK)	1
———	FIRE ALARM CONDUCTORS (RED IN COLOR)	
- - -	FIRE ALARM CONDUCTORS LISTED FOR WET LOCATION IN UNDERGROUND CONDUIT (1 INCH MINIMUM)	
~vvv	END OF LINE RESISTOR	

FIRE ALARM SHEET INDEX

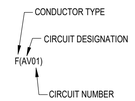
FIRE ALARM WIRING LEGEND

CONDUCTOR TYPE:

D = 18/4 TP
E = 18/2 TP
F = 14/2 TP
G = AS REQ'D BY MANF.
H = 18/2 WET LOCATION
J = 14/2 WET LOCATION

CIRCUIT DESIGNATION:

AN = ANNUNCIATOR KEYPAD CIRCUIT
AV = AUDIBLE/VISUAL NOTIFICATION CIRCUIT
DL = INITIATION DATA CIRCUIT
PW = LOW VOLTAGE POWER CIRCUIT
RC = RELAY CONTROL CIRCUIT
RT = REMOTE TEST STATION POWER
SU = SUPERVISORY CIRCUIT
ZN = INITIATION ZONE CIRCUIT



SHOULD MANUFACTURER OF FIRE ALARM EQUIPMENT REQUIRE A DIFFERENT TYPE OR SIZE OF CABLE THAN HEREIN SPECIFIED, THE LARGER OR MORE STRINGENT TYPE OF CABLE SHALL BE USED.

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Firestone COMPLETE AUTO CARE

⚠1

NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
JACOB P. HEMKE
NUMBER PE-2004000793
PROFESSIONAL ENGINEER
2020-06-29

FIRE PROTECTION ENGINEER OF RECORD:
JACOB P. HEMKE, PE
LICENSE NO. PE-2004000793
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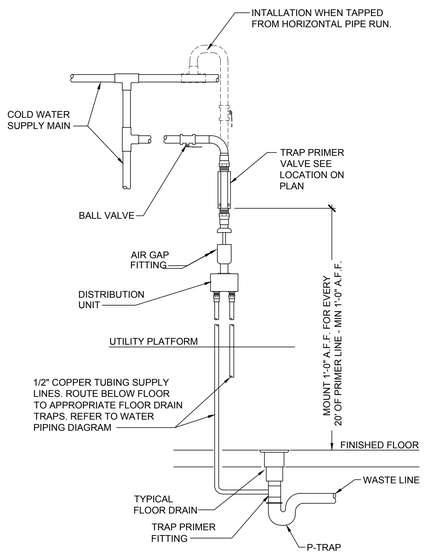
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##/##/##

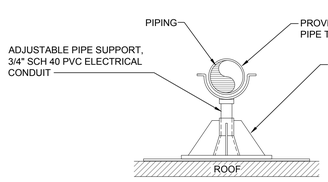
SHEET TITLE:
FIRE ALARM PLAN AND MATRIX

SHEET NUMBER:
FA1



NOTE:
ALL PIPING SHALL BE SECURELY ATTACHED TO WALL

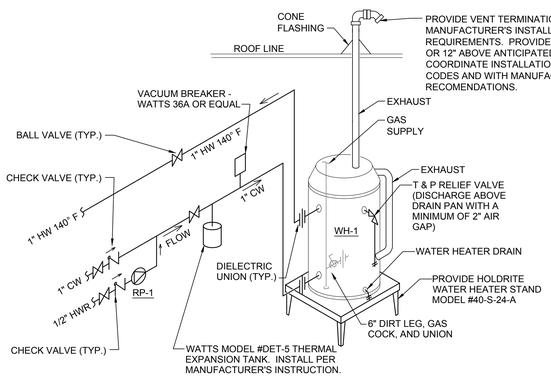
1 P5 TRAP PRIMER DETAIL (TP-1)
SCALE: N.T.S.



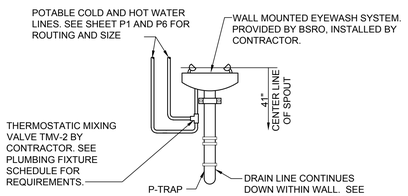
MAXIMUM SPACING FOR PIPE SUPPORTS	
HORIZONTAL PIPING:	SUPPORT SPACING (FEET)
3/4" TO 1-1/4"	2

2 P5 ROOF MOUNTED PIPING SUPPORT DETAIL
SCALE: N.T.S.

NOTES:
1. ROUTE 3/4" DRAIN LINE FROM WATER HEATER TO FLOOR DRAIN.



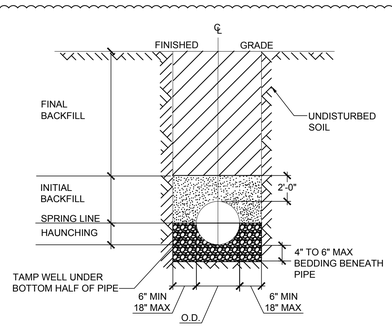
3 P5 GAS FIRED WATER HEATER DETAIL
SCALE: N.T.S.



NOTE:
DETAIL IS FOR REFERENCE. REFER TO FLOOR PLAN AND ISOMETRIC FOR PIPE LOCATIONS AND SIZES.

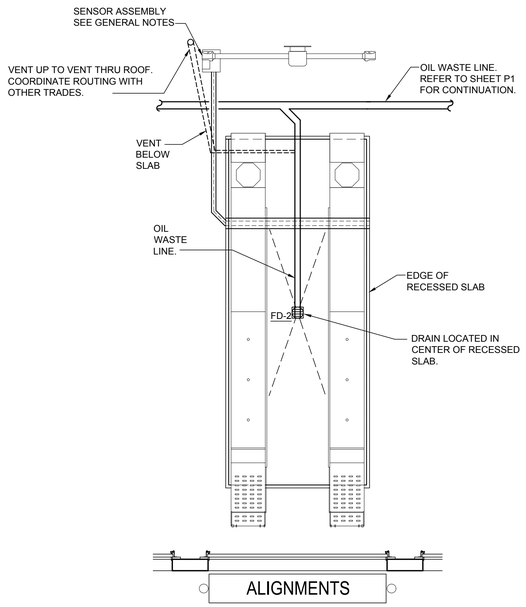
4 P5 EYEWASH PIPING DETAIL
SCALE: N.T.S.

NOTE:
DETAILS SHOWN HERE ARE DIAGRAMMATICAL ONLY AND ARE NOT INTENDED TO SHOW EVERY FITTING AND/OR OFFSET. SEE MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS AND DETAILS. INSTALLATION CONTRACTOR IS TO BE CERTIFIED AND AUTHORIZED BY THE MANUFACTURER.

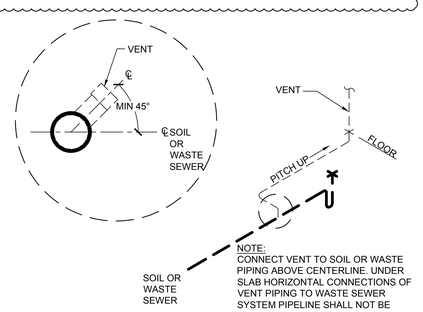


NOTE:
1. BEDDING SHALL BE IN CLASS I-A WORKED BY HAND, IF GROUNDWATER IS ANTICIAPTED, THEN BEDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR
3. INITIAL BACKFILL SHALL BE CLASS 1-A WORKED BY HAND OR CLASS 1-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTE 3.
5. ALL BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH ASTM D 2321.
6. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 6" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS II AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
7. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS, ROCKS, AND ICE LARGER THAN 3"
8. ALL TRENCH EXCAVATIONS SHALL BE SLOPED SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.
9. COORDINATE WITH ALL STATE AND LOCAL CODE RECOMMENDATIONS ON TRENCHING AND BACKFILLING SANITARY PIPE. INSTALL PER ANY LOCAL OR STATE REGULATION THAT SUPERSEDES ABOVE DETAIL OR INFORMATION.

6 P5 SANITARY SEWER BACKFILL DETAIL
SCALE: N.T.S.

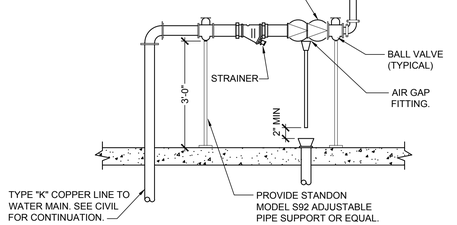


7 P5 ALIGNMENT RACK PIPING DETAIL
SCALE: N.T.S.



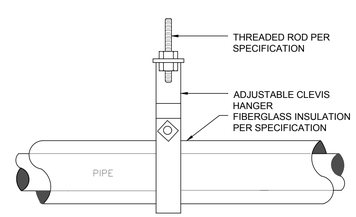
NOTE:
CONNECT VENT TO SOIL OR WASTE PIPING ABOVE CENTERLINE. UNDER SLAB HORIZONTAL CONNECTIONS OF VENT PIPING TO WASTE SEWER SYSTEM PIPELINE SHALL NOT BE ALLOWED.

1 8 P5 VENT PIPING INSTALLATION
SCALE: N.T.S.

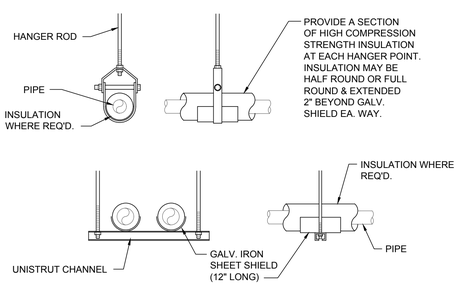


NOTE:
PROVIDE ADEQUATE CLEARANCES AS REQUIRED BY LOCAL CODE FOR DOMESTIC SERVICE.

5 P5 WATER SERVICE DIAGRAM
SCALE: N.T.S.



WATER PIPING (COPPER TYPE "L")				
PIPE SIZE	WEIGHT / FT. WITH WATER (IN LBS.)	MAX SPACING	LOAD / HGR	ROD SIZE
1/2"	.38	6'	2.28	3/8"
3/4"	.66	6'	3.96	3/8"
1"	1.04	6'	6.24	3/8"
1-1/4"	1.43	6'	8.58	3/8"
1-1/2"	1.92	6'	19.2	3/8"
2"	3.09	10'	30.8	3/8"
2-1/2"	4.52	10'	45.2	3/8"



NOTES
1. ATTACH SUPPORTS FOR ALL PIPING SUSPENDED FROM THE STEEL STRUCTURE PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE COPPER OR PLASTIC COATED HANGERS FOR NON-INSULATED COPPER PIPE.

1 9 P5 PIPE SUPPORT DETAIL
SCALE: N.T.S.

ACERTUS CONSULTING GROUP, LLC
14817 West 95th Street ◆ Lenexa, Kansas 66215
P 913.322.5165 ◆ F 913.322.5163
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SHEET TITLE:
PLUMBING DETAILS

SHEET NUMBER:
P5

ELECTRICAL SYMBOLS

NOT ALL SYMBOLS ARE NECESSARILY USED ON DRAWINGS. ALL MOUNTING HEIGHTS ARE TO BE FROM THE CENTER OF THE DEVICE, UNLESS NOTED OTHERWISE.

LIGHTING FIXTURES

- D / LP-21g — 4' LINEAR LIGHT (UPPER CASE LETTER INDICATES FIXTURE TYPES, UPPER CASE LETTERING WITH HYPHEN FOLLOWED BY A NUMBER INDICATES PANEL AND CIRCUIT NUMBER, LOWER CASE LETTER INDICATES SWITCHING).
- HIGH BAY LIGHT
- PENDANT LIGHT
- REMOTE EMERGENCY HEAD
- EXTERIOR WALL PACK
- POLE MOUNTED SITE LIGHT
- 4' LINEAR LIGHT WITH EMERGENCY BATTERY BACKUP
- EMERGENCY LIGHT WITH BATTERY BACK-UP
- EXIT SIGN WITH EMERGENCY BATTERY BACKUP (HATCH INDICATES ILLUMINATED FACE; DIRECTIONAL ARROWS ON SIGN AS INDICATED)

SWITCHES

- ^{n} — SINGLE-POLE SWITCH (MOUNTED AT 48" AFF) (LOWER CASE LETTER INDICATES SWITCHING)
- ^{PL} — SINGLE-POLE SWITCH WITH PILOT LIGHT (MOUNTED AT 48" AFF)
- ^{3} — 3-WAY SWITCH (MOUNTED AT 48" AFF)
- ^{OC} — OCCUPANCY SENSOR SWITCH
- ^{M} — SINGLE-POLE, MOTOR-RATED SWITCH
- M ^{2} — 2-POLE, MOTOR-RATED SWITCH
- SWITCH BANK WITH COVERPLATE

POWER AND CONTROL

- T — TRANSFORMER
- PANEL
- MOTOR
- DISCONNECT SWITCH (NON-FUSED EXCEPT AS NOTED)
- COMBINATION STARTER DISCONNECT SWITCH

MISCELLANEOUS

- J — JUNCTION BOX
- PC — EXTERIOR PHOTOCELL
- nOS — CEILING MOUNTED OCCUPANCY SENSOR (LOWER CASE LETTER INDICATES SWITCHING)
- n — CORNER MOUNTED OCCUPANCY SENSOR (LOWER CASE LETTER INDICATES SWITCHING)
- PUSH BUTTON STATION (MOUNTING HEIGHT 48" AFF)
- TELEPHONE OUTLET BOX, WALL-TYPE WITH 3/4" CONDUIT STUBBED UP IN WALL AND TURNED OUT IN CEILING AREA WITH INSULATED BUSHING. (MOUNTING HEIGHT 18" AFF)
- TELEPHONE/DATA OUTLET BOX, WALL-TYPE WITH 3/4" CONDUIT STUBBED UP IN WALL AND TURNED OUT IN CEILING AREA WITH INSULATED BUSHING. (MOUNTING HEIGHT 18" AFF)
- DATA OUTLET BOX, WALL-TYPE WITH 3/4" CONDUIT STUBBED UP IN WALL AND TURNED OUT IN CEILING AREA WITH INSULATED BUSHING. (MOUNTING HEIGHT 18" AFF)
- EF / 1 — MECHANICAL EQUIPMENT TAG (UPPER HALF INDICATES EQUIPMENT TYPE, BOTTOM HALF INDICATES EQUIPMENT NUMBER) *REFER TO MECHANICAL SCHEDULES ON SHEET M3.

RECEPTACLES*

- SINGLE RECEPTACLE (GROUND TYPE)
- DUPLEX RECEPTACLE (GROUND TYPE)
- DUPLEX RECEPTACLE IG
- DUPLEX RECEPTACLE GFCI
- QUAD RECEPTACLE
- QUAD RECEPTACLE IG
- QUAD RECEPTACLE GFCI
- SPECIAL RECEPTACLE (AS NOTED)

* REFERENCE SHEET E3 FOR SPECIFIC ROOM MOUNTING HEIGHT REQUIREMENTS.

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	GFCI	GROUND FAULT INTERRUPTER	SW	SWITCH
BFC	BELOW FINISHED CEILING	IC	INTERRUPTING CAPACITY	TR	TAMPER RESISTANT
C	CONDUIT	IG	ISOLATED GROUND	TYP	TYPICAL
CB	CIRCUIT BREAKER	MTD	MOUNT OR MOUNTED	UF	UNDER FLOOR
CLG	CEILING	NC (N.C.)	NORMALLY CLOSED	UG	UNDERGROUND
EC	EMPTY CONDUIT	NF	NON FUSED	UNO (U.N.O.)	UNLESS NOTED OTHERWISE
EOL	END OF LINE	NIC	NOT IN CONTRACT	WG	WIRE GUARD
EWL	ELECTRIC WATER COOLER	NL	NIGHT LIGHT	WP	WEATHERPROOF
(G)	GROUND (EQUIPMENT)	NO (N.O.)	NORMALLY OPEN	XFMR	TRANSFORMER

LIGHT FIXTURE SCHEDULE

FIXTURE TAG	MANUFACTURER	MODEL #	LAMP	VOLTAGE	INSTALLATION	DESCRIPTION	WATTS	QUANTITY	NOTES
A	CDS LIGHTING	KIRK-P-USV	LED BULB (50W PAR20 EQUIV)	120V	SUSPENDED	DECORATIVE LED PENDANT	12	7	8
D	CREE	LS4C-40L-35K-10V-FD	LED	120V	CEILING AND SUSPENDED	4' LINEAR STRIP, 4,000 LUMENS, 3500K, 80 CRI	30	33	3,6,9
DE	CREE	LS4C-40L-35K-10V-FD-EB14	LED	120V	CEILING AND SUSPENDED	4' LINEAR STRIP, 4,000 LUMENS, 3500K, 80 CRI WITH EMERGENCY BACKUP	30	10	3,6,9
E	CREE	E-XML1W	LED	120V	SEE NOTES	EMERGENCY DUAL HEAD LIGHTING UNIT	1.8	9	1
EA	CREE	E-XHL2WG	LED	120V	WALL	EMERGENCY EXTERIOR REMOTE DUAL HEAD WET LOCATION LISTED	2	3	2
F	CREE	KBL-A-UV-M-40K-8-UL-10V + ALR16; WG-A; AP-515P	LED	120V	SUSPENDED	HIGH BAY, 20900 LUMENS, 4000K, 80 CRI	142	21	3
K	FURNISHED BY BSRO	FURNISHED BY BSRO	INTEGRAL LED	120V	SUSPENDED	FIRESTONE CORD REEL LIGHT	5	8	5
N	CREE	XSPW-B-WM-3ME-2L-57K-UL	LED	120V	EXTERIOR WALL	EXTERIOR WALL PACK, TYPE III 2490 LUMENS, 5700K	19	19	7
X	CREE	E-XCL2RRCW	LED	120V	SEE NOTES	EXIT SIGN WITH TWO LAMP HEADS REMOTE CAPABILITY (SEE TYPE EA)	3.4	7	4

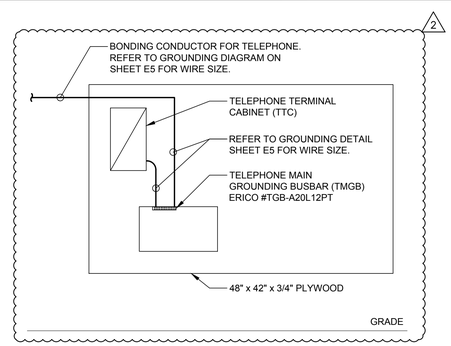
NOTES:
1. FIXTURE MOUNTED 12" BELOW CEILING OR AT 13'-6" AFF IN ALL AREAS WITHOUT A CEILING. MOUNT TO STUDS AT 13'-6" AFF IN UTILITY ROOM.
2. MOUNT ON WALL MINIMUM OF 12" ABOVE DOOR JAMB. CONNECT TO BATTERY SIDE OF EXIT LIGHT.
3. INSTALL LIGHTS AT 13'-0" AFF IN THE SERVICE BAY, UNLESS NOTED OTHERWISE.
4. MOUNT EXIT SIGNS IN SHOWROOM AT 12'-0" AFF TO BOTTOM OF SIGN. IN ALL OTHER AREAS, MOUNT ON WALL 8" ABOVE DOOR OR MOUNT ON CEILING AS APPLICABLE (MAXIMUM 8'-0" AFF). (2)
5. COORDINATE EXACT FIXTURE PLACEMENT WITH ARCHITECTURAL DRAWINGS.
6. INSTALL LIGHTS AT STRUCTURE LEVEL IN THE FOLLOWING AREAS: INVENTORY. INSTALL LIGHTS AT 10'-0" AFF IN THE FOLLOWING AREAS: CUSTOMER SHOW ROOM AND OFFICE. (2) INSTALL LIGHTS AT 8'-0" AFF IN THE FOLLOWING AREAS: UTILITY AREA, BREAK ROOM, SHOP TOILET AND UNISEX TOILET.
7. REFERENCE ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT.
8. FIXTURES ARE TO BE SUSPENDED FROM STRUCTURE AT 80" AFF TO BOTTOM. PROVIDE 10'-6" LONG CORD. SPECIFY CORD LENGHTH TO MANUFACTURER. REFER TO SPECS SECTION 265119-3.3H FOR MORE INFORMATION.
9. FIXTURES ARE TO BE SUSPENDED FROM STRUCTURE WITH ALL-THREADED ROD. REFER TO SPECS SECTION 265119-3.3H FOR MORE INFORMATION.

LIGHTING GENERAL NOTES

1. ALL LIGHTING FIXTURES SHALL BE RATED FOR BUILDING SYSTEM VOLTAGE. CONTRACTOR MUST VERIFY ALL LOCATIONS. CONTRACTOR SHALL FURNISH AND INSTALL EACH LIGHTING FIXTURE COMPLETE WITH PLASTER FRAMES AND ALL OTHER INSTALLATION AND HANGING HARDWARE AS REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION AT EACH FIXTURE LOCATION.
2. VERIFY AND COORDINATE ALL LIGHTING FIXTURE CATALOG NUMBERS AND LOCATIONS WITH THE INTENT OF FIXTURE DESCRIPTIONS LISTED AND VERIFY FIXTURE QUANTITIES. FIXTURE QUANTITIES SHOWN ARE FOR INFORMATION ONLY. ANY DISCREPANCY SHALL BE REPORTED IN WRITING TO THE ARCHITECT PRIOR TO INSTALLATION.
3. ALL FIXTURES SHALL BE U.L. LABELED. ALL LIGHTING FIXTURES EXPOSED TO WEATHER OR MOISTURE SHALL BEAR U.L. "WET LOCATION" LABEL, AND LIGHTING FIXTURES EXPOSED TO DAMPNESS SHALL BEAR U.L. "DAMP LOCATION" LABEL.
4. (2) ALL EXIT SIGNS SHALL BE INSTALLED COMPLETE WITH ALL ACCESSORIES REQUIRED TO PROVIDE AN UNOBSTRUCTED VIEW OF EACH SIGN FACE. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND LOCATION OF ALL EXIT SIGNS WITH LOCAL AUTHORITIES. EXIT SIGNS WILL BE ADJUSTED AS NECESSARY WITHOUT ADDITIONAL COST.
5. FIELD ADJUST AIMING PATTERN OF EXTERIOR LIGHTS AT NIGHT SESSION. BSRO TO DETERMINE TIME AND DATE.
6. ALL EXIT SIGNS AND BATTERY EMERGENCY UNITS MUST BE APPROVED BY LOCAL CODE. MAINTAIN A MINIMUM OF 90 MINUTES OF CONTINUOUS ILLUMINATION, AND SHALL PROVIDE A MINIMUM OF 1 FOOT-CANDLE AT THE WALKING SURFACE LEVEL IN SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS. THE CONTRACTOR WILL FURNISH AND INSTALL ANY ADDITIONAL EMERGENCY UNITS AS REQUESTED BY THE LOCAL AUTHORITY HAVING JURISDICTION AT THE FINAL INSPECTION ANY ADDITIONAL COST TO BE APPROVED BY BSRO.
7. REFER TO APPLICABLE SECTIONS OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LIGHTING FIXTURES.

GENERAL ELECTRICAL NOTES

1. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS PROJECT, AND THE WORD "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
2. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL GENERAL NOTES WHICH WILL APPLY HERE.
3. NOTES ON DRAWINGS MAY APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT.
4. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE A.D.A.A.G. (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES).
5. CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL.
6. WHERE SEVERAL DEVICES ARE GANGED TOGETHER, THE COVER PLATE SHALL BE OF THE GANGED STYLE FOR THE NUMBER OF DEVICES USED.
7. THE COLOR OF ALL ISOLATED GROUND RECEPTACLES AND COVER PLATES SHALL MATCH THOSE OF OTHER DEVICES ON THE JOB.
8. BOXES LOCATED ON OPPOSITE SIDES OF NON-FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY. BOXES ON OPPOSITE SIDES OF FIRE RATED WALL SHALL BE OFFSET A MINIMUM OF 24" HORIZONTALLY. "THRU-THE-WALL" BOXES SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
9. VERIFY TOTAL CONNECTED LOADS AND HORSE POWER WITH OTHER TRADE'S CONTRACTORS PRIOR TO WIRING OF ALL EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES OR FEEDER SIZE PER LOCAL ELECTRICAL CODE.
10. ALL TEMPERATURE CONTROL WIRING AND CONDUIT SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL ADJUST CONDUIT ROUTING TO NOT INTERFERE WITH ANY HANGING SIGNS OR BOARDS. COORDINATE ALL CONDUIT LOCATIONS WITH THE FIXTURE PLAN ON SHEET F1 PRIOR TO ROUGH-IN TO ENSURE NO ENCROACHMENT OF CONDUIT OR DEVICE WITH SIGNS OR BOARDS.
11. FIELD VERIFY LOCATION OF AREA SMOKE DETECTORS AND HEAT DETECTORS. DO NOT LOCATE WITHIN 36" OF AN HVAC DIFFUSER (SUPPLY OR RETURN), IN A DIRECT AIR FLOW OR WITHIN 36" OF A SPRINKLER HEAD. COORDINATE LOCATIONS WITH LIGHT FIXTURES.
12. VERIFY ALL FURNITURE, MODULAR FURNITURE AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
13. ONLY IN SERVICE BAY AREA AND INVENTORY AREA CONDUIT SHOULD BE ROUTED 1-1/2" AWAY OR AS TIGHT AS POSSIBLE TO THE UNDERSIDE OF THE STRUCTURE. ROUTE CONDUIT AND UNISTRUT TIGHT TO BOTTOM OF STRUCTURE, IN A CLEAN AND ORDERLY MANNER. ABSOLUTELY NO CONDUITS ARE TO BE ROUTED UNDER OR IN THE BUILDING SLAB.
14. ALL ELECTRICAL WORK AND MATERIALS SHALL COMPLY WITH LATEST NEC AND ALL LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT AMONG REQUIREMENTS THE MORE RESTRICTING SHALL APPLY. ALL WORKING CLEARANCES AROUND THE PANELS SHALL CONFORM TO NEC ARTICLE 110 WHICH INCLUDES ALL TRADES. CONTRACTOR MAY USE PULL BOXES, WIREWAYS ETC. AS NECESSARY TO MANAGE CONDUIT ROUTING CLEAR OF THE WORK SPACE AS DEFINED BY THE NEC. THIS SHALL BE CONSIDERED "MEANS AND METHODS"



1 / E1 TELEPHONE GROUNDING DIAGRAM
SCALE: N.T.S.

NOTES:
1. AT ALL GROUND BARS INCLUDE NONMETALLIC LABEL: "WARNING IF THIS CONNECTOR ON CABLE IS LOOSE OR MUST BE REMOVED PLEASE CALL THE BUILDING MANAGER."
2. RUN CONDUCTOR FROM GROUND TO TELEPHONE TERMINAL CABINET.
3. ALL CONNECTORS TO GROUND BARS SHALL BE 2 HOLE COMPRESSION TYPE.
4. GROUNDING BARS SHALL BE ELECTROLYTIC COPPER, MOUNTED ON FIBERGLASS INSULATORS, AND NEMA BOLT HOLE SIZING AND SPACING.
5. ALL BONDING CONDUCTORS SHALL BE CONTINUOUS AND ROUTED IN THE SHORTEST POSSIBLE STRAIGHT LINE PATH.
6. ROUTE GROUNDING WIRE FROM EACH "TMGB" AND "TTC" TO NEAREST VERTICAL STRUCTURAL STEEL MEMBER AND CADWELD.
7. ROUTE CONDUCTOR FROM "TMGB" AND "TTC" TO RELAY RACK IN IT CLOSET AND CADWELD TO RACK.
8. ALL TELEPHONE CLOSETS WITH MULTIPLE WIRE MANAGEMENT RACKS WILL HAVE BONDING JUMPER INSTALLED.

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NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
RANDALL A. NELSON
NUMBER PE-2007003990
PROFESSIONAL ENGINEER
06/29/2020

ISSUE BLOCK

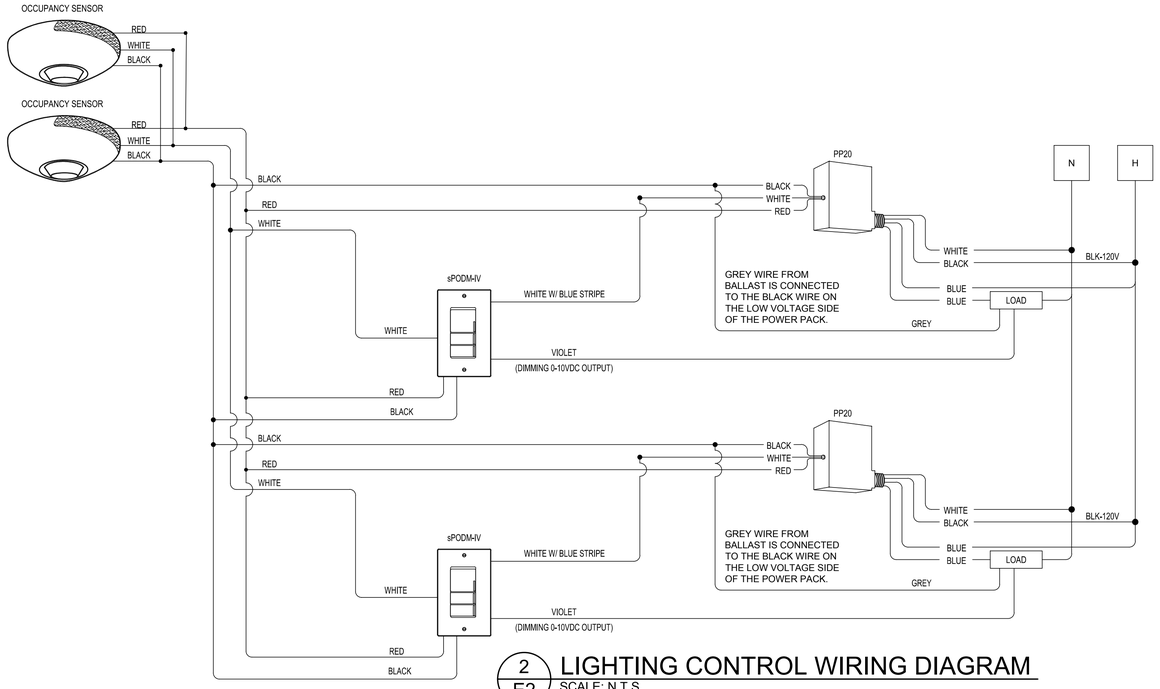
1	04/16/20	ADD #1
2	06/30/20	CB #1

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955871
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##

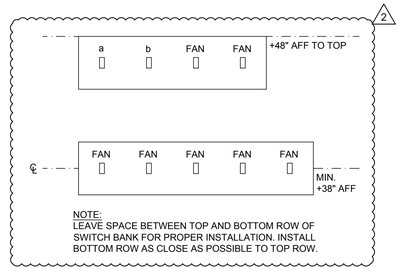
SHEET TITLE: ELECTRICAL SYMBOLS, NOTES, AND SCHEDULES

SHEET NUMBER: E1

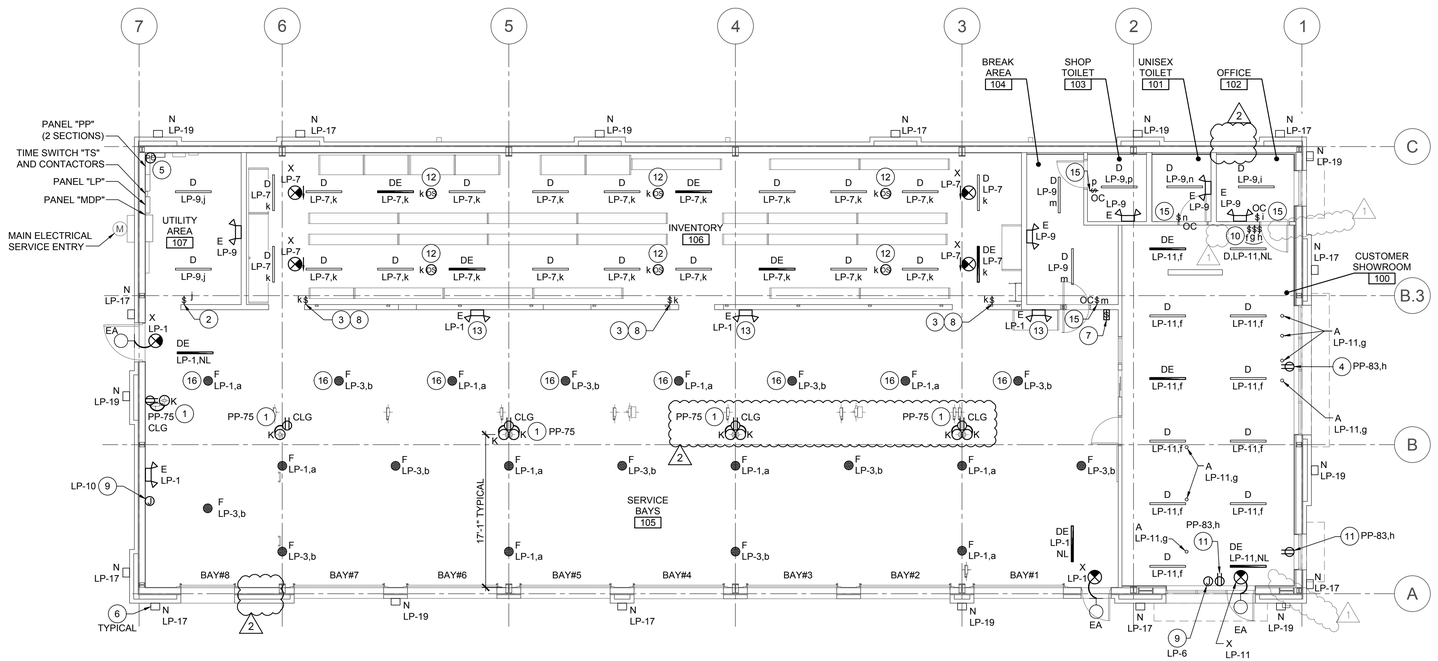
Jun 29, 2020 - 1:50pm - USER AcronAngel
G:\Bridgestone-Firestone (Engineering)\2020075 BSRO - Lee's Summit, MO\Sheets\E1 ELECTRICAL SYMBOLS NOTES AND SCHEDULES.dwg



2 E2 LIGHTING CONTROL WIRING DIAGRAM
SCALE: N.T.S.



3 E2 SWITCH BANK ELEVATION
SCALE: N.T.S.



1 E2 LIGHTING PLAN
SCALE: 1/8" = 1'-0"

LIGHTING PLAN GENERAL NOTES

A. ALL BATTERY EMERGENCY LIGHTING UNITS SHALL BE WIRED AHEAD OF THE SWITCH(ES) WHICH CONTROLS THE LIGHTING WHERE UNIT IS LOCATED. THE UNIT SHALL OPERATE WHEN THE NORMAL LIGHTING FAILS.

B. SEE "ARCHITECTURAL REFLECTED CEILING PLAN" FOR ALL LIGHTING FIXTURES LOCATION DIMENSIONS.

C. SEE "FIXTURE PLAN" SHEET F1 FOR ALL EQUIPMENT LOCATIONS AND QUANTITIES.

D. ALL WIRING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE NEC AND LOCAL CODE AUTHORITIES HAVING JURISDICTION. SEE "GENERAL ELECTRICAL NOTES" ON SHEET E1.

E. FOR MOUNTING HEIGHTS OF ALL LIGHT FIXTURE TYPES SEE "LIGHT FIXTURE SCHEDULE" ON SHEET E1, UNLESS NOTED OTHERWISE.

LIGHTING PLAN KEYNOTES

1. CORD REEL LIGHT (FIXTURE TYPE "K"), MOUNTED TO ROOF STRUCTURE AT LOCATION SHOWN. COORDINATE INSTALLATION TO AVOID CONFLICT WITH OTHER EQUIPMENT. SEE "CORD REEL LIGHT DETAIL" ON SHEET E4 FOR ADDITIONAL INFORMATION AND COORDINATE WITH SHEET F1 FOR EXACT LOCATION.
2. PROVIDE TOGGLE SWITCH FOR MANUAL CONTROL OF LIGHTING FIXTURES AS INDICATED. MANUAL CONTROL IS FOR OCCUPANT SAFETY NEAR ELECTRICAL GEAR.
3. PROVIDE POWERPACK(S) (SENSOR SWITCH #PP20) AS REQUIRED FOR LIGHTING CONTROLS IN THIS AREA. REFER TO DETAIL 2 (THIS SHEET) FOR ADDITIONAL INFORMATION.
4. PROVIDE RECEPTACLE 6" ABOVE SHOW WINDOW TO MEET NEC SHOW WINDOW REQUIREMENTS.
5. PROVIDE PHOTOCELLS. SEE "CONTACTOR DIAGRAM" AND "CONTACTOR NOTES" ON SHEET E5 FOR ADDITIONAL INFORMATION. PHOTOCELL TO FACE NORTH. PROVIDE A WEATHERTIGHT CONDUIT BODY ON INSIDE FACE OF BUILDING PARAPET WITH 1" RIGID CONDUIT TO 36" ABOVE ROOFLINE FOR PHOTOCELL. WHERE PARAPET DOES NOT EXIST, PROVIDE FREESTANDING RIGID CONDUIT WITH WEATHERPROOF ROOF PENETRATION. VERIFY LOCATION AND REQUIREMENTS IN FIELD.
6. ROUTE DESIGNATED CIRCUITS VIA TIME SWITCH "TS" AND CONTACTORS, AS NOTED IN THE "CONTACTOR DIAGRAM" AND "CONTACTOR NOTES" ON SHEET E5.
7. PROVIDE ONE (1) FOUR-GANG BOX AND (1) FIVE-GANG BOX WITH TWO (2) TOGGLE SWITCHES TO CONTROL SWITCH-LEGS (a,b) AND SEVEN (7) TOGGLE SWITCHES FOR THE CONTROL OF SHOP FANS. LABEL ALL SWITCHES TO CORRESPOND WITH THE CONTROLLED SWITCH-LEG OR FAN. PROVIDE MATCHING COVER PLATE. VERIFY SWITCHING ARRANGEMENT IN FIELD. ROUTE CONDUIT UP UP INSIDE FACE OF WALL FOR RECESSED BOX. SEE SWITCH BANK ELEVATION (THIS SHEET) FOR MORE INFO.
8. PROVIDE SWITCH (SENSOR SWITCH SPODM-IV) FOR MANUAL CONTROL OF LIGHTING FIXTURES AS INDICATED.
9. PROVIDE JUNCTION BOX ON BACK SIDE OF PARAPET FOR BUILDING MOUNTED SIGNAGE. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. DISCONNECT IS PROVIDED BY SIGNAGE VENDOR. ROUTE DESIGNATED CIRCUITS VIA TIME SWITCH "TS" AND CONTACTORS, AS NOTED IN THE "CONTACTOR DIAGRAM" AND "CONTACTOR NOTES" ON SHEET E5.
10. PROVIDE THREE (3) RECESSED SINGLE-GANG BOXES WITH (3) TOGGLE SWITCHES FOR (f,g,h): ALL WITH MATCHING COVER PLATES FOR SWITCHES LOCATED IN CUSTOMER SHOWROOM AREA. VERIFY SWITCHING ARRANGEMENT IN FIELD. ROUTE CONDUIT UP INSIDE FACE OF WALL.
11. INSTALL RECEPTACLE 6" ABOVE SHOW WINDOW (TO MEET NEC SHOW WINDOW REQUIREMENTS) FOR "OPEN" SIGN. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN. SEE SHEET F2 FOR ADDITIONAL INFORMATION. SECURE THE SMALL LOW VOLTAGE TRANSFORMER WHICH PLUGS INTO THE RECEPTACLE SO THAT THE TRANSFORMER CAN NOT COME OUT OF THE PLUG VIA GRAVITY.
12. PROVIDE CEILING MOUNTED HIGH BAY AISLE OCCUPANCY SENSOR (SENSOR SWITCH #CM-6) TO CONTROL LIGHTING IN INVENTORY AREA. PENDANT MOUNT ON CONDUIT BETWEEN LIGHT FIXTURES AT STRUCTURE.
13. FIXTURE TO BE PENDANT MOUNTED FROM CONDUIT AT STRUCTURE. SEE LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION.
14. NOT USED
15. PROVIDE OCCUPANCY SENSOR WITH SWITCH (SENSOR SWITCH #WSX-PDT). INSTALL ON WALL 46" AFF (TO TOP) IN ALL LOCATIONS. COORDINATE FINAL LOCATION WITH BSRO. ROOM LAYOUT MUST BE TAKEN INTO ACCOUNT BEFORE INSTALLATION.
16. THESE LIGHT FIXTURES ONLY TO BE MOUNTED AT 14'-6" AFF TO MAINTAIN CLEARANCE FROM RADIANT HEATER OUTPUT.

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Firestone COMPLETE AUTO CARE

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NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
RANDALL A. NELSON
NUMBER PE-2007003990
PROFESSIONAL ENGINEER
06/29/2020

ISSUE BLOCK		
1	04/16/20	ADD #1
2	06/30/20	CB #1

PROPERTY NO.:	160085
6 DIGIT NO.:	906983
4 DIGIT NO.:	78C9
AOR PROJECT NUMBER:	1955871
TO PERMIT:	DATE: 03/26/2020
TO BID:	DATE: ##-##-##

SHEET TITLE:
LIGHTING PLAN

SHEET NUMBER:
E2

Jun 30, 2020 - 10:44am - USER AaronAngel
G:\Bridgestone-Firestone (Engineering)\2020075 BSRO - Lee's Summit, MO\Sheets\E2 LIGHTING PLAN.dwg

ELECTRICAL SHOP EQUIPMENT SCHEDULE

ITEM #	QUANTITY	DESCRIPTION	VOLTS	PHASE	POLE	AMPS	NOTES
9	1	AIR DRYER CHAMPION #CRH35	120	1	1	20	SEE DETAIL ON SHEET E4 FOR ADDITIONAL INFORMATION
10	1	BRAKE SHOP #BL505-AB (INSTALLED BY HUNTER)	120	1	1	20	PROVIDE RECEPTACLE ON UNISTRUT LADDER. RUN CONDUIT DOWN LADDER FROM CEILING.
13A	1	ELECTRONIC WHEEL BALANCER #RFE13 (INSTALLED BY HUNTER)	208	1	2	20	CUT CORD & PLUG FOR HARDWIRED CONNECTION. MOUNT DISCONNECT AT 48" AFF. PLACE DEVICES BEHIND CENTER CONSOLE IN ORDER TO NOT INTERFERE WITH OPENING EQUIPMENT SHROUD.
13B	1	ELECTRONIC WHEEL BALANCER #SWT33 (INSTALLED BY HUNTER)	208	1	2	20	CUT CORD & PLUG FOR HARDWIRED CONNECTION. MOUNT DISCONNECT AT 48" AFF ON UNISTRUT LADDER. RUN CONDUIT DOWN FROM CEILING. PLACE DEVICES BEHIND CENTER CONSOLE IN ORDER TO NOT INTERFERE WITH OPENING EQUIPMENT SHROUD.
17	2	CORD REEL POWER DROP	120	1	1	20	MOUNT TO ROOF STRUCTURE AT LOCATION SHOWN. CIRCUIT WILL HAVE GFCI PROTECTION AT BREAKER. INSTALL TO AVOID CONFLICT WITH OTHER EQUIPMENT. SEE DETAIL ON SHEET E4 FOR ADDITIONAL INFORMATION.
18B	1	TIRE CHANGER #TCR1S (INSTALLED BY HUNTER)	208	1	2	30	PROVIDE NEMA L6-30R ON UNISTRUT LADDER. RUN CONDUIT DOWN LADDER FROM CEILING.
28	2	5 HP AIR COMPRESSOR CHAMPION #VR5-8	208	3	3	30	SEE ONE-LINE DIAGRAM ON SHEET E5 AND DETAIL ON SHEET E4 FOR ADDITIONAL INFORMATION. PROVIDE 30A, 3-POLE, LOCKABLE DISCONNECT WITH LOCK. MAKE ALL FINAL POWER TERMINATIONS ADJACENT TO AIR PIPE MANIFOLD ON COMPRESSOR.

NOTES:

VERIFY ALL ELECTRICAL REQUIREMENTS AND NEMA CONFIGURATIONS TO ACTUAL EQUIPMENT SUPPLIED PRIOR TO ROUGH-IN.

POWER PLAN GENERAL NOTES

A. ALL DEVICES LOCATED IN SERVICE AREA SHALL BE MOUNTED AT 48" AFF TO TOP OF BOX, UNLESS NOTED OTHERWISE.

B. ALL DEVICES LOCATED IN THE FOLLOWING ROOMS: CUSTOMER SHOW ROOM, OFFICE, BREAK AREA, EMPLOYEE TOILET, AND UNISEX TOILET, SHALL BE MOUNTED AT 24" AFF TO CENTER, UNLESS NOTED OTHERWISE.

C. ALL WIRING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE NEC AND LOCAL CODE AUTHORITIES HAVING JURISDICTION.FOR ROUTING OF ALL CONDUITS, SEE "GENERAL ELECTRICAL NOTES" ON SHEET E1.

D. WIRE ALL HVAC CONTROL DEVICES, AND COORDINATE WITH OTHERS, SEE "GENERAL ELECTRICAL NOTES" ON SHEET E1 FOR ADDITIONAL INFORMATION.

DATA REQUIREMENTS

THERE ARE A TOTAL OF EIGHT (8) LINES THAT SERVICE EACH STORE FOR PHONE AND DATA. INTERNET SERVICE VIA LOCAL CABLE SERVICE WILL BE INSTALLED POST OPENING. ALL LINES TERMINATE AT "D-MARC" BOARD IN UTILITY AREA.

PROVIDE ALL POWER AND LOW VOLTAGE CONDUITS, PER CODE, AND THIS INCLUDES OPTIONAL STATE INSPECTIONS EQUIPMENT.

CLEAR ACCESS WILL BE MAINTAINED IN ORDER FOR BSRO "IT" DEPARTMENT TO INSTALL ALL NECESSARY WIRING. BSRO "IT" DEPARTMENT WILL INSTALL ALL WIRING AND EQUIPMENT UNLESS OTHERWISE NOTED.

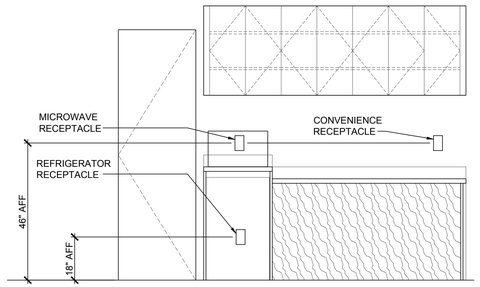
"MVS" STATION REQUIREMENTS IN SERVICE AREA:
INSTALL ONE (1) QUAD RECEPTACLE IN THE MIDDLE OF THE CABINET. THE POWER SHOULD TERMINATE IN A JUNCTION BOX MOUNTED ON THE WALL ADJACENT TO THE STATION. ASSOCIATED DATA BOXES SHOULD TERMINATE IN A JUNCTION BOX ADJACENT TO STATION. CONDUIT ASSOCIATED WITH DATA BOX SHALL BE EXTENDED TO SERVER CABINET. PROVIDE PULL STRINGS IN CONDUIT. COORDINATE WITH OTHER SERVER CONDUITS.

2 "POD" REQUIREMENTS IN CUSTOMER SHOWROOM:
PROVIDE ONE (1) QUAD RECEPTACLE WHICH SHOULD TERMINATE IN A JUNCTION BOX MOUNTED ON THE BACK SIDE OF THE PANEL, BELOW THE LOWEST ADJUSTABLE SHELF AND KNOCK OUT PANEL.

SERVER CABINET POWER REQUIREMENTS:
PROVIDE ONE (1) QUAD RECEPTACLE ON RIGHT SIDE OF SERVER CABINET MOUNTED AT 11'-0" AFF AND CIRCUIT AS SHOWN. REFER TO SHEET A7 FOR ADDITIONAL INFORMATION.

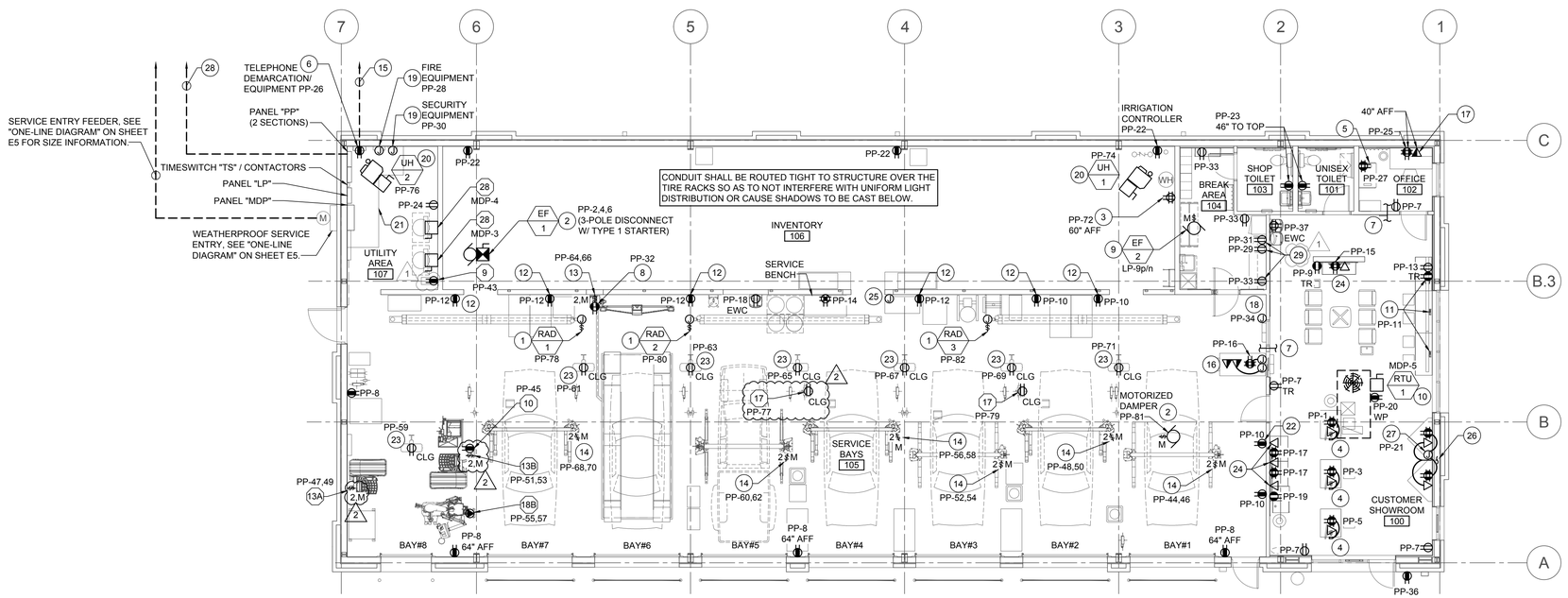
SERVER CABINET LEFT SIDE CONDUIT:
PROVIDE ONE (1) 2" CONDUIT FROM 13'-0" AFF ABOVE THE LEFT SIDE OF SERVER CABINET TO INVENTORY 10'-0" AFF ABOVE TELEPHONE EQUIPMENT RECEPTACLE.

UTILITY ROOM AND EXTERIOR SITE CONDUIT:
PROVIDE SUFFICIENT LENGTH OF 2" CONDUIT AND EXTEND THE ONE (1) 2" CONDUIT FROM THE EXTERIOR TO THE "D-MARC" LOCATION ON THE UTILITY ROOM BOARD. SEE NOTE 15.



NOTE: SEE POWER PLAN FOR CIRCUIT INFORMATION.

2/E3 BREAK COUNTER ELEVATION
SCALE: N.T.S.



1/E3 POWER PLAN
SCALE: 1/8" = 1'-0"

POWER PLAN KEYNOTES

1. JUNCTION BOX WITH TOGGLE SWITCH DISCONNECT MOUNTED AT CEILING FOR GAS FIRED RADIANT HEAT CONTROLS. PROVIDE ALL REQUIRED DEVICES AND EQUIPMENT TO MAKE A COMPLETE WORKING SYSTEM. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
2. INTERLOCK MOTORIZED DAMPER ON "RH-1" AND "EF-1" SUCH THAT WHEN "EF-1" IS IN RUN MODE, DAMPER IS OPEN. DAMPER AND "EF-1" TO BE CONTROLLED BY TOXALERT SYSTEM.
3. PROVIDE DOUBLE DUPLEX RECEPTACLE FOR "RP-1" AND "WH-1". COORDINATE LOCATION OF "WH-1" AND "RP-1" WITH PLUMBING CONTRACTOR.
4. TELE-POWER POLE. EXTEND POLE FROM SALES POD AND OR DESKS AS SHOWN UP TO STRUCTURE. SEE DETAIL ON SHEET E4 FOR ADDITIONAL INFORMATION. FLEX FROM POLE AND MOUNT AND WIRE DEVICES IN DESKS AS SHOWN. VERIFY REQUIREMENTS WITH MILLWORK VENDOR. COORDINATE EXACT POWER POLE DROP LOCATION PRIOR TO ROUGH-IN.
5. REFER TO "DATA REQUIREMENTS" (THIS SHEET) FOR POWER AND CONDUIT INFORMATION IN SERVER CABINET.
6. PLYWOOD BACKBOARD. SEE "TELEPHONE GROUNDING DIAGRAM" ON SHEET E1.
7. PROVIDE 8" LONG, 2" DIAMETER PVC CONDUIT THRU WALL AS SHOWN. MOUNT CONDUIT AT SAME HEIGHT AS BOTTOM OF STRUCTURE. RUN CONDUIT AS CLOSE AS POSSIBLE TO STRUCTURE. PROVIDE GROMMET ON BOTH ENDS OF PVC. REFER TO ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION.
8. DEDICATED LINE ISOLATED GROUND RECEPTACLE MOUNTED AT 48" ON FULL-HEIGHT WALL FOR WHEEL ALIGNMENT COMPUTER. COORDINATE EXACT LOCATION AND CONNECTION REQUIRED WITH OWNER. REFER TO STRUCTURAL DRAWINGS FOR UNDER SLAB CONDUIT LOCATION FROM THE ALIGNMENT PIT TO THE ALIGNMENT CONTROLLER.
9. RESTROOM EXHAUST FAN. PROVIDE ALL ACCESSORIES AS REQUIRED TO CONTROL EXHAUST FAN FROM OCCUPANCY SENSORS IN RESTROOMS.
10. SEE "ONE-LINE DIAGRAM" ON SHEET E5 FOR ADDITIONAL INFORMATION. PROVIDE POWER CONNECTION TO FACTORY MOUNTED DISCONNECT AND WP/GFCI RECEPTACLE AS SHOWN ON PLAN.
11. ROUTE CORDS FOR POWER STRIPS TO RECEPTACLE SHOWN. CONCEAL ALL CORDS IN NEAT AND CLEAN MANNER.
12. MOUNT RECEPTACLE ON PLYWOOD AT 46" AFF FOR TEMPORARY POWER FOR SMALL HAND TOOL BATTERY RECHARGING.
13. PROVIDE 30A, 2-POLE, NON-FUSED, LOCKABLE (WITH LOCK PROVIDED) DISCONNECT SWITCH (SIEMENS #MMSKG1) FOR ALIGNMENT LIFT EQUIPMENT CONTROL UNIT AT 48" AFF, UNLESS NOT ALLOWED BY AHJ. INSTALL DISCONNECT ON WALL BESIDE ALIGNMENT EQUIPMENT CONSOLE CABINET. PROVIDE ALL POWER AND SIGNAL WIRING AND CIRCUITING. CIRCUIT AS SHOWN. VERIFY ALL REQUIREMENTS WITH VENDOR. ROUTE CONDUIT FROM STRUCTURE TO DISCONNECT DOWN THE SIDE OF THE CABINET. CABINET MUST BE IN PLACE PRIOR TO CONDUIT DROP TO ENSURE CONDUIT ROUTING DOES NOT INTERFERE WITH PROPER EQUIPMENT OPERATION.
14. PROVIDE 30A, 2-POLE, NON-FUSED, LOCKABLE (WITH LOCK PROVIDED) DISCONNECT SWITCH (SIEMENS #MMSKG1) FOR ROTARY LIFT EQUIPMENT CONTROL UNIT, UNLESS NOT ALLOWED BY AHJ. INSTALL DISCONNECT BELOW DECAL ON LIFT POST SO THAT CONDUIT AND DISCONNECT DO NOT OBSCURE ANY SAFETY DECALS. DO NOT USE "THROUGH BOLTS" AS THIS TYPE OF BOLT MAY INTERFERE WITH EQUIPMENT OPERATION. ANCHORS FOR DISCONNECT SHALL BE IN THE CENTER OF THE LIFT POST. PROVIDE ALL POWER, SIGNAL, AND LIFT SAFETY SWITCH WIRING AND CIRCUITING. CIRCUIT AS SHOWN. VERIFY ALL REQUIREMENTS WITH VENDOR. ROUTE CONDUIT FROM STRUCTURE TO DISCONNECT DOWN THE SIDE OF THE EQUIPMENT POST. LIFT EQUIPMENT MUST BE IN PLACE PRIOR TO CONDUIT DROP TO ENSURE CONDUIT ROUTING DOES NOT INTERFERE WITH PROPER EQUIPMENT OPERATION.
15. PROVIDE CONDUIT WITH PULL WIRE FOR TELEPHONE SERVICE. PROVIDE CONDUIT SEAL AT 18" AFF. COORDINATE ROUTING AND TERMINATION POINTS WITH SITE UTILITIES. VERIFY EXACT REQUIREMENTS WITH LOCAL PHONE COMPANY. REFER TO CIVIL PLANS FOR MORE INFORMATION.
16. REFER TO "DATA REQUIREMENTS" (THIS SHEET) FOR POWER AND CONDUIT INFORMATION IN "MVS" STATION.
17. CONDUIT ASSOCIATED WITH DATA BOX SHALL BE EXTENDED TO SERVER CABINET. PROVIDE PULL STRINGS IN CONDUIT.
18. PROVIDE 120V POWER CONNECTION FOR TOXALERT SYSTEM CONTROL PANEL.
19. PROVIDE JUNCTION BOX FOR FIRE ALARM EQUIPMENT AND OPTIONAL SECURITY CONTROL PANEL. VERIFY EXACT ELECTRICAL CONNECTION OF EQUIPMENT IN FIELD AND PROVIDE RECEPTACLE AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH OWNER.
20. PROVIDE POWER TO FACTORY MOUNTED DISCONNECT SWITCH. COORDINATE ALL WORK WITH MECHANICAL CONTRACTOR.
21. MEET ALL ELECTRICAL EQUIPMENT CLEARANCES BOTH HORIZONTALLY AND VERTICALLY IN THIS SPACE.
22. PROVIDE RECEPTACLE FOR "NO LOSS DAYS" SIGN AT 11-0" AFF. VERIFY EXACT LOCATION WITH CONSTRUCTION MANAGER PRIOR TO ROUGH-IN.
23. PROVIDE WORKSTATION FAN (ULINE #H-4092). RECEPTACLE FOR WORKSTATION FAN IS SUSPENDED FROM STRUCTURE. CIRCUIT WILL HAVE GFCI PROTECTION AT BREAKER. SEE SHEET E2 FOR CONTROLS AND SHEET E4 FOR MOUNTING INFORMATION.
24. CONDUIT ASSOCIATED WITH DATA BOX SHALL BE EXTENDED TO SERVER CABINET. PROVIDE PULL STRINGS IN CONDUIT. REFER TO DETAIL ON SHEET E4 FOR INFORMATION ON MOUNTING LOCATION OF DATA BOX AND POWER BEHIND DEVICES IN THIS AREA.
25. PROVIDE JUNCTION BOX FOR TOXALERT INSTALL SENSOR AND PROVIDE WIRING BETWEEN TOXALERT PANEL AND SENSOR. COORDINATE LOCATIONS WITH MECHANICAL CONTRACTOR.
26. PROVIDE JUNCTION BOX FOR DATA CONNECTION AT MRT DISPLAY. MOUNT DATA BOX INSIDE MRT SECTION SO THAT IT IS ACCESSIBLE THROUGH THE MONITOR OPENINGS. EXTEND DATA CABLING FROM JUNCTION BOX IN WALL TO EACH DATA BOX MOUNTED INSIDE MRT CABINET. ROUTE DATA CONDUIT FROM MRT CABINET BACK TO SERVER CABINET LOCATED IN OFFICE.
27. PROVIDE JUNCTION BOX FOR POWER CONNECTION AT MRT DISPLAY. MOUNT RECEPTACLE INSIDE MRT SECTION SO THAT IT IS ACCESSIBLE THROUGH THE MONITOR OPENINGS. EXTEND MC CABLING FROM J-BOX IN WALL TO EACH RECEPTACLE MOUNTED INSIDE MRT CABINET. COORDINATE EXACT CONNECTION MILLWORK PRIOR TO ROUGH IN.
28. PROVIDE MINIMUM 1" CONDUIT WITH PULL WIRE BACK TO PANEL "PP" FOR CONNECTIONS TO EACH OF (2) EXTERIOR HOT BOXES. CONNECT TO SPARE IN PANELBOARD. VERIFY LOCATION WITH ARCHITECT.
29. REFER TO "BREAK COUNTER ELEVATION" (THIS SHEET) FOR MORE INFORMATION. 1

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Firestone COMPLETE AUTO CARE

NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
RANDALL A. NELSON
NUMBER PE-2007003990
PROFESSIONAL ENGINEER
06/29/2020

ISSUE BLOCK			
1	04/16/20	ADD #1	
2	06/30/20	CB #1	

PROPERTY NO.:	160085
6 DIGIT NO.:	906983
4 DIGIT NO.:	78C9
AOR PROJECT NUMBER:	1955B71
TO PERMIT:	DATE: 03/26/2020
TO BID:	DATE: ##-##-##

SHEET TITLE:
POWER PLAN

SHEET NUMBER:
E3

COMMERCIAL LOAD SUMMARY

BUILDING AREA: 6,537 SQ. FT VOLTAGE: 208Y/120V, 3PH, 4W

LOAD DESCRIPTION		CONNECTED LOAD (VA)		DEMAND FACTOR		DEMAND LOAD (VA)
LIGHTING						
	INTERIOR LIGHTING	4,775	x	125%	=	0
	EXTERIOR LIGHTING	768	x	125%	=	960
	SIGNAGE	3,600	x	125%	=	4,500
	MINIMUM GENERAL LIGHTING PER NEC-220 x 125%					19,113
	MINIMUM TRACK LIGHTING/SHOW WINDOW PER NEC-220 x 125%					7,500
POWER & HVAC						
	EXISTING	0	x	100%	=	0
	RECEPTACLES	13,260	x	100%;50%	=	11,630
	MISCELLANEOUS EQUIPMENT	33,120	x	100%	=	33,120
	REFRIGERATION EQUIPMENT	0	x	100%	=	0
	KITCHEN	0	x	100%	=	0
	HVAC - SUMMER	7,926	x	100%	=	7,926
	HVAC - WINTER	0	x	100%	=	0
	SUPP. ELECTRIC HEAT	400	x	100%	=	400
	MOTORS	32,856	x	100%	=	32,856
	LARGEST MOTOR	7,061	x	25%	=	1,765
	SUB-TOTAL (VA)	103,766		SUB-TOTAL (VA)		119,771
	SUB-TOTAL (AMPS)	288		SUB-TOTAL (AMPS)		332
				SERVICE SIZE (AMPS)		400
				SPARE CAPACITY (AMPS)		68

PANELBOARD AFC VALUES ARE BASED ON AN ASSUMED TRANSFORMER AFC VALUE OF 50,000A AND A FEEDER LENGTH OF 90 FT. CONTRACTOR TO FIELD VERIFY ALL ASSUMPTIONS LISTED AND ALERT ENGINEER IF ACTUAL INFORMATION DIFFERS.

SERVICE DISCONNECT SIZED BASED ON LOAD SUMMARY PER THE NEC.

PANELBOARD MDP

BUS AMPS: 400A | LOCATION: UTILITY AREA | GROUND BUS: YES
MAIN SIZE / TYPE: MLO | NEMA RATING: NEMA 1 | ISOL. GROUND BUS: YES
VOLTS/PHASE: 208Y/120V, 3PH, 4W | AFC VALUE: 20,335A | FEED THRU LUGS: NO
MOUNTING: SURFACE | AIC RATING: 22,000 A FULLY RATED | SECTIONS: 1

CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	P	WIRE SIZE	LOAD (VA)	CONNECTED PER PHASE (VA) A	B	C	LOAD (VA)	WIRE SIZE	BREAKER P	BREAKER AMPS	CIRCUIT DESCRIPTION	CKT #
1	PANELBOARD "PP"	OL	3	OL	23,087	26,939			3,852					
					22,319		26,015		3,696	OL	3	OL	PANELBOARD "LP"	2
					20,989			24,080	3,091					
3	5HP AIR COMPRESSOR (HACR BREAKER)	OL	3	OL	1,825	3,651			1,825					
					1,825		3,651		1,825	OL	3	OL	5HP AIR COMPRESSOR (HACR BREAKER)	4
					1,825			3,651	1,825					
5	RTU-1 (HACR BREAKER)	OL	3	OL	3,543	3,543			0					
					3,543		3,543		0				SPACE ONLY	6
					3,543			3,543	0					
	PER PHASE SUB-TOTALS					34,132	33,208	31,273	LEGEND:					

TOTAL CONNECTED PANELBOARD (VA)	98,613	TS - VIA TIME SWITCH	ST - SHUNT TRIP
TOTAL CONNECTED PANELBOARD (AMPS)	274	GF - GROUND FAULT INTERRUPTER	LCK - LOCKING TAB
TOTAL PANELBOARD DEMAND (VA)	110,058	FA - FIRE ALARM / RED / LOCKING TAB	IG - ISOLATED GROUND
TOTAL PANELBOARD DEMAND (AMPS)	305	EM - EMERGENCY LTG. / LOCKING TAB	OL - REFER TO ONE-LINE DIAGRAM

PANELBOARD LP

BUS AMPS: 100A | LOCATION: UTILITY AREA | GROUND BUS: YES
MAIN SIZE / TYPE: MLO | NEMA RATING: NEMA 1 | ISOL. GROUND BUS: NO
VOLTS/PHASE: 208Y/120V, 3PH, 4W | AFC VALUE: 19,077A | FEED THRU LUGS: NO
MOUNTING: SURFACE | AIC RATING: 22,000 A FULLY RATED | SECTIONS: 1

	CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	P	WIRE SIZE	LOAD (VA)	CONNECTED PER PHASE (VA) A	B	C	LOAD (VA)	WIRE SIZE	BREAKER P	BREAKER AMPS	CIRCUIT DESCRIPTION	CKT #	
EM	1	SERVICE AREA / EM LTG	20	1	12	1,488	2,488			1,000	12	1	20	TIME SWITCH AND CONTACTORS	2	LCK
	3	SERVICE AREA LTG	20	1	12	1,562		1,562		0		1	20	SPARE	4	
	5	SPARE	20	1		0			1,200	1,200	12	1	20	BUILDING SIGN	6	TS
EM	7	INVENTORY / UTILITY RM / EM LTG	20	1	12	748	748			0		1	20	SPARE	8	
EM	9	OFFICE / TOILET / BREAK / EM LTG & EF-2	20	1	12	934		2,134		1,200	12	1	20	BUILDING SIGN	10	TS
EM,TS	11	CUSTOMER SHOWROOM / EM LTG	20	1	12	539			539	0		1	20	SPARE	12	GF
TS	13	SITE LIGHTING	20	1	SL	430	430			0		1	20	SPARE	14	
	15	SPARE	20	1		0		0		0		1	20	SPARE	16	
TS	17	EXTERIOR LIGHTING	20	1	12	152			1,352	1,200	SL	1	20	MONUMENT SIGN	18	TS
TS	19	EXTERIOR LIGHTING	20	1	12	186	186			0		1	20	SPARE	20	GF
	21	SPARE	20	1		0		0		0		1	20	SPARE	22	GF
	23	SPARE	20	1		0			0	0		1	20	SPARE	24	GF
	25	SPARE	20	1		0	0			0		1	20	SPARE	26	GF
	27	SPARE	20	1		0		0		0		1	20	SPARE	28	GF
	29	SPARE	20	1		0			0	0		1	20	SPARE	30	GF
		PER PHASE SUB-TOTALS					3,852	3,696	3,091	LEGEND:						

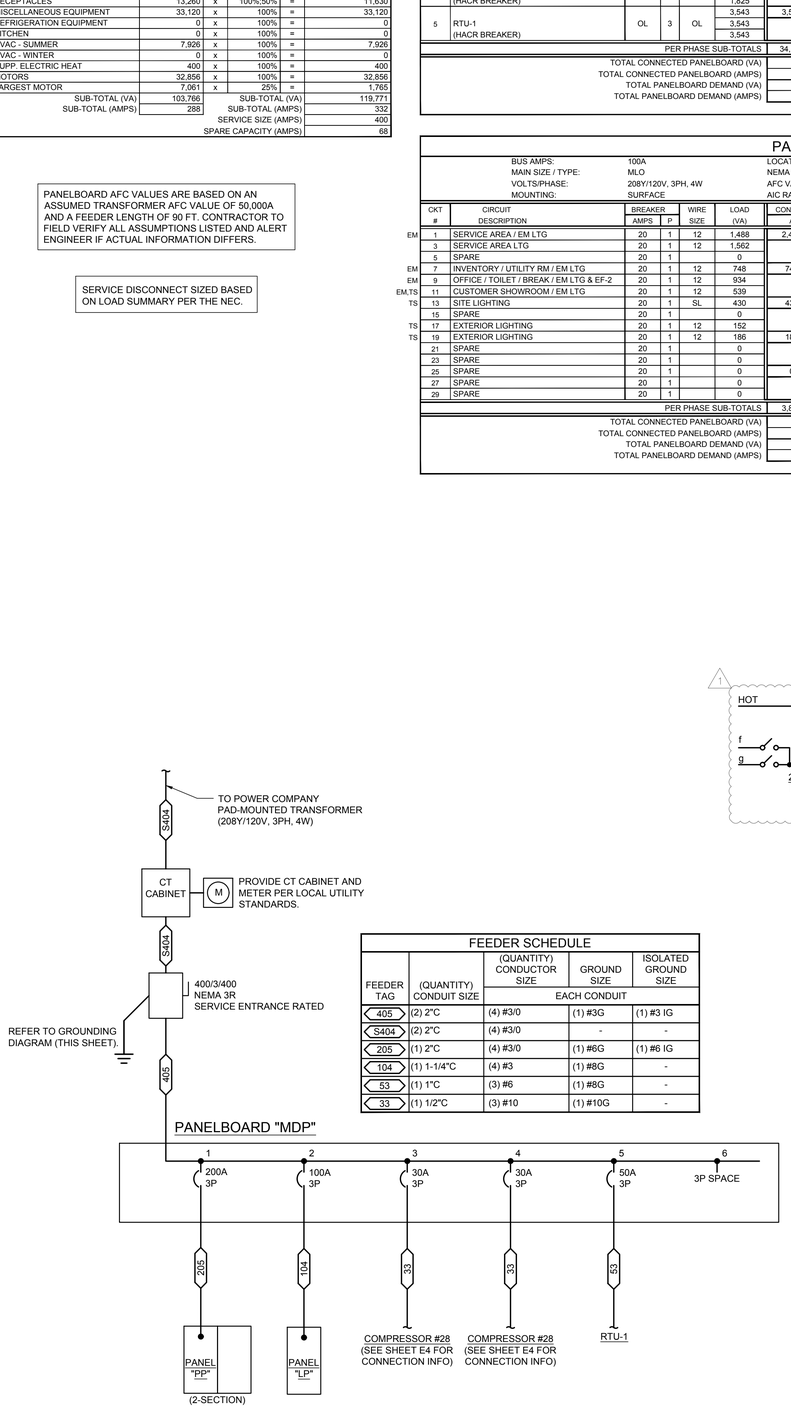
TOTAL CONNECTED PANELBOARD (VA)	10,639	TS - VIA TIME SWITCH	ST - SHUNT TRIP
TOTAL CONNECTED PANELBOARD (AMPS)	30	GF - GROUND FAULT INTERRUPTER	LCK - LOCKING TAB
TOTAL PANELBOARD DEMAND (VA)	13,049	FA - FIRE ALARM / RED / LOCKING TAB	IG - ISOLATED GROUND
TOTAL PANELBOARD DEMAND (AMPS)	36	EM - EMERGENCY LTG. / LOCKING TAB	OL - REFER TO ONE-LINE DIAGRAM
		SL - REFER TO SITE LIGHTING PLAN ESL1	

PANELBOARD PP

BUS AMPS: 200A | LOCATION: UTILITY AREA | GROUND BUS: YES
MAIN SIZE / TYPE: MLO | NEMA RATING: NEMA 1 | ISOL. GROUND BUS: YES
VOLTS/PHASE: 208Y/120V, 3PH, 4W | AFC VALUE: 17,264A | FEED THRU LUGS: YES
MOUNTING: SURFACE | AIC RATING: 22,000 A FULLY RATED | SECTIONS: 2

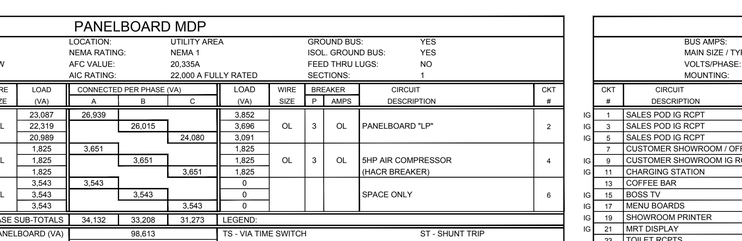
	CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	P	WIRE SIZE	LOAD (VA)	CONNECTED PER PHASE (VA) A	B	C	LOAD (VA)	WIRE SIZE	BREAKER P	BREAKER AMPS	CIRCUIT DESCRIPTION	CKT #	
IG	1	SALES POD IG RCPT	20	1	12	360	1,297			937					2	
IG	3	SALES POD IG RCPT	20	1	12	360		1,297		937	12	3	20	EF-1	4	
IG	5	SALES POD IG RCPT	20	1	12	360			1,297	937					6	
	7	CUSTOMER SHOWROOM / OFFICE RCPTS	20	1	12	720	1,440			720	12	1	20	SERVICE AREA RCPTS	8	
IG	9	CUSTOMER SHOWROOM IG RCPT	20	1	12	180		900		720	12	1	20	SERVICE AREA RCPTS	10	
IG	11	CHARGING STATION	20	1	12	720			1,440	720	12	1	20	SERVICE AREA RCPTS	12	
	13	COFFEE BAR	20	1	12	180	540			360	12	1	20	SERVICE AREA WORK BENCH	14	
IG	15	BOSS TV	20	1	12	500		860		360	12	1	20	MVS DESK IG RCPT	16	IG,GF
IG	17	MENU BOARDS	20	1	12	1,500			2,300	800	12	1	20	SERVICE AREA EWC	18	GF
IG	19	SHOWROOM PRINTER	20	1	12	500	680			180	12	1	20	ROOF CONVENIENCE RCPT	20	
IG	21	MRT DISPLAY	20	1	12	500		1,040		540	12	1	20	INVENTORY RCPT	22	
	23	TOILET RCPTS	20	1	12	360			540	180	12	1	20	UTILTY AREA RCPT	24	
IG	25	OFFICE IG RCPTS	20	1	12	360	720			360	12	1	20	TELEPHONE SERVICE	26	
IG	27	SERVER CABINET IG RCPT	20	1	12	360		720		360	12	1	20	FIRE SERVICE PANEL	28	FA
	29	MICROWAVE	20	1	12	1,200			1,560	360	12	1	20	OPTIONAL SECURITY SYSTEM	30	LCK
	31	REFRIGERATOR	20	1	12	1,000	2,200			1,200	12	1	20	ALIGNMENT COMPUTER	32	IG,GF
	33	BREAK RCPTS	20	1	12	540		740		200	12	1	20	TOXALERT SYSTEM	34	
GF	35	SIGNAGE CONVENIENCE RCPT	20	1	SL	180			360	180	12	1	20	EXTERIOR FRONT RCPT	36	
GF	37	SHOWROOM EWC	20	1	12	500	500			0		1	20	SPARE	38	
GF	39	HOT BOX ON SITE	20	1	SL	200		200		0		1	20	SPARE	40	
	41	SPARE	20	1		0			0	0		1	20	SPARE	42	
	SECTION: 2															
	43	AIR DRYER #9	20	1	12	948	2,548			1,600	10	2	20	SMART LIFT (BAY #1)	44	
	45	BRAKE SHOP #10	20	1	12	1,800		3,400		1,600					46	
	47	ELECTRONIC WHEEL BALANCER	20	2	10	1,200			2,800	1,600	10	2	20	SMART LIFT (BAY #2)	48	
	49	#13A				1,200	2,800			1,600					50	
	51	BALANCER NON-ROAD FORCE	20	2	10	1,200		2,800		1,600	10	2	20	SMART LIFT (BAY #3)	52	
	53	#13B				1,200			2,800	1,600					54	
GF	55	RIM CLAMP TIRE CHANGER	30	2	8	2,760	4,360			1,600	10	2	20	SMART LIFT (BAY #4)	56	
	57	#18B				2,760		4,360		1,600					58	
GF	59	SHOP FAN #42	20	1	12	264			1,864	1,600	10	2	20	SMART LIFT (BAY #5)	60	
GF	61	SHOP FAN #42	20	1	12	264	1,864			1,600					62	
GF	63	SHOP FAN #42	20	1	12	264		2,964		2,700	8	2	30	ALIGNMENT LIFT (BAY #6)	64	
GF	65	SHOP FAN #42	20	1	12	264			2,964	2,700					66	
GF	67	SHOP FAN #42	20	1	12	264	1,864			1,600	10	2	20	SMART LIFT (BAY #7)	68	
GF	69	SHOP FAN #42	20	1	12	264		1,864		1,600					70	
GF	71	SHOP FAN #42	20	1	12	264			664	400	12	1	20	WATER HEATER / RECIRC. PUMP	72	GF
	73	SPARE	20	1		0	414			414	12	1	15	UNIT HEATER UH-1	74	
GF	75	OVERHEAD DROP LIGHTS #2	20	1	12	200		614		414	12	1	15	UNIT HEATER UH-2	76	
GF	77	POWER CORD REEL #17	20	1	10	1,500			1,860	360	12	1	20	RADIANT HEATER RAD-1	78	
GF	79	POWER CORD REEL #17	20	1	10	1,500	1,860			360	12	1	20	RADIANT HEATER RAD-2	80	
	81	MOTORIZED DAMPER	20	1	12	200		560		360	12	1	20	RADIANT HEATER RAD-3	82	
	83	SHOW WINDOW RCPTS	20	1	12	540			540	0		1	20	SPARE	84	
		PER PHASE SUB-TOTALS					23,087	22,319	20,989	LEGEND:						

TOTAL CONNECTED PANELBOARD (VA)	66,394	TS - VIA TIME SWITCH	ST - SHUNT TRIP
TOTAL CONNECTED PANELBOARD (AMPS)	184	GF - GROUND FAULT INTERRUPTER	LCK - LOCKING TAB
TOTAL PANELBOARD DEMAND (VA)	66,164	FA - FIRE ALARM / RED / LOCKING TAB	IG - ISOLATED GROUND
TOTAL PANELBOARD DEMAND (AMPS)	184	EM - EMERGENCY LTG. / LOCKING TAB	OL - REFER TO ONE-LINE DIAGRAM
		SL - REFER TO SITE LIGHTING PLAN ESL1	

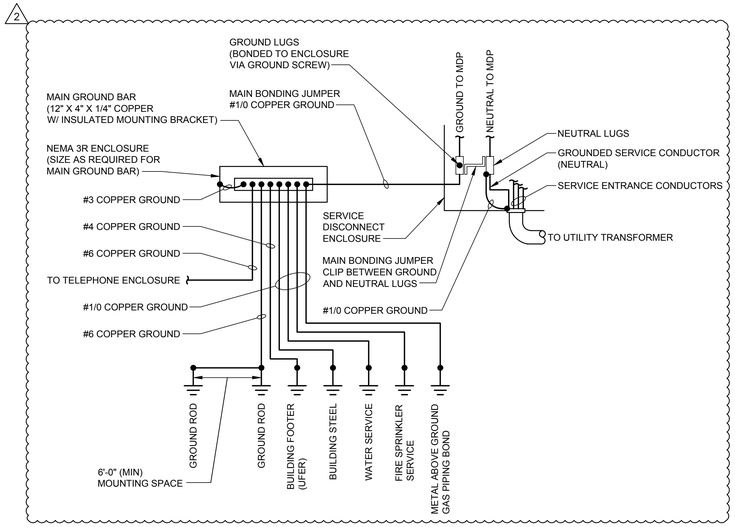


FEEDER SCHEDULE				
FEEDER TAG	(QUANTITY) CONDUIT SIZE	(QUANTITY) CONDUCTOR SIZE	GROUND SIZE	ISOLATED GROUND SIZE
		EACH CONDUIT		
405	(2) 2"C	(4) #3/0	(1) #3G	(1) #3 IG
S404	(2) 2"C	(4) #3/0	-	-
205	(1) 2"C	(4) #3/0	(1) #6G	(1) #6 IG
104	(1) 1-1/4"C	(4) #3	(1) #8G	-
53	(1) 1"C	(3) #6	(1) #8G	-
33	(1) 1/2"C	(3) #10	(1) #10G	-

1 E5 ONE-LINE DIAGRAM
SCALE: N.T.S.



3 E5 CONTACTOR DIAGRAM
SCALE: N.T.S.



2 E5 GROUNDING DIAGRAM
SCALE: N.T.S.

CONTACTOR NOTES

1. ALL CONTACTORS TO BE ELECTRICALLY HELD TYPICAL.
2. ALL CONTACTORS AND TIME SWITCH SHALL BE INSTALLED IN ONE (1) GENERAL PURPOSE CABINET WITH HINGED DOOR, VERIFY CABINET SIZE IN FIELD.
3. PROVIDE AND WALL MOUNT TIME SWITCH "TS", CONTACTORS, AND PHOTOCELLS, TO CONTROL ALL EXTERIOR LIGHTING AND SIGNAGE AS SHOWN IN "CONTACTOR DIAGRAM" THIS SHEET. COORDINATE WITH STORE MANAGER THE HOURS OF OPERATION AND DEMONSTRATE ALL "TIME SWITCH" FUNCTIONS. PROVIDE STORE MANAGER AND BSRO CONSTRUCTION DEPARTMENT WITH COPIES OF ALL OPERATION AND INSTALLATION MANUALS.
4. CONTROL INTENT IS FOR THE SHOWROOM LIGHTING TO BE ON TIME OF DAY CONTROL WITH MANUAL OVERRIDE.
5. PROVIDE PHOTOCELL DOWNSTREAM OF TIMESWITCH TO ALLOW FOR PHOTOCELL OVERRIDE OF TIMESWITCH CONTROLS. CONTROL INTENT IS FOR PARKING LOT LIGHTING, SIGNAGE AND BUILDING SIGN LIGHTING TO BE 'OFF' BETWEEN 2AM AND STORE OPENING TIME. AT STORE OPENING TIME, THE FIXTURES SHOULD BE ON PHOTOCELL CONTROL ONLY TO ALLOW THESE FIXTURES TO ENERGIZE 'ON' DURING DARKER PERIODS THROUGHOUT THE DAY. WALL PACKS SHALL BE ON PHOTOCELL CONTROL ONLY 24 HOURS/DAY.
6. THE CONDUIT WHICH PROVIDES POWER TO THE EXTERIOR SIGN LIGHTING, EXTERIOR LIGHTING, OR OTHER EXTERIOR REQUIREMENTS REQUIRING UNDERGROUND CONDUIT SHOULD COMMENCE UNDERGROUND AT THE INSIDE FACE OF AN EXTERIOR WALL AND EXIT THE BUILDING IMMEDIATELY WITHOUT RUNNING HORIZONTAL UNDER OR IN THE GROUND FLOOR CONSTRUCTION.

ONE-LINE DIAGRAM NOTES

1. ALL METERING EQUIPMENT AND PANELS SHALL BE AS MANUFACTURED PER THE ELECTRICAL SPECIFICATION, AND MEET ALL REQUIREMENTS.
2. GROUNDING CONDUCTORS AND ALL GROUNDING REQUIREMENTS SHALL BE INSTALLED AS DIRECTED BY EQUIPMENT MANUFACTURER AND AS SHOWN ON DRAWINGS.
3. LABEL EACH JUNCTION BOX, PULL OR TAP BOX, DISCONNECT SWITCH ETC., WITH BLACK LETTERING ON AN ORANGE STICKER WITH LETTERING SIZED IN RELATION TO SIZE OF COVER. FOR PANELS SEE SPECIFICATIONS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL REQUIREMENTS WITH THE UTILITY COMPANY. FIELD VERIFY THE AVAILABLE FAULT CURRENT WITH THE UTILITY COMPANY AND CONTACT THE ENGINEER OF RECORD WITH THE DISCREPANCY SO AS TO REVISE THE EQUIPMENT RATINGS AS NEED BE.
5. SIZE ALL BRANCH CIRCUITS NOT TO EXCEED 3% VOLTAGE DROP. ALL WIRE SIZES SHALL BE FOR AMPERAGE REQUIRED PER NEC.
6. PROVIDE MULTI-LAYERED ACRYLIC LABELS PER SPECIFICATION FOR ALL DISTRIBUTION PANELBOARDS, BRANCH CIRCUIT PANELBOARDS, SWITCH GEAR SECTIONS, STARTERS AND INDIVIDUAL SWITCH GEAR FUSED SWITCHES.
7. ALL CONDUIT SHALL BE RIGID GALVANIZED STEEL THROUGHOUT, EXCEPT WHERE OTHERWISE NOTED.
8. SEE ELECTRICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
9. INCLUDE IN CONTRACT ALL ONE TIME TAP CHARGERS AND FEES FROM UTILITY COMPANY, COORDINATE WITH UTILITY COMPANY.
10. ALL ELECTRICAL AND TELEPHONE CONDUITS THAT PENETRATE FIRE RATED WALLS SHALL BE SEALED WITH FIRE STOP MATERIAL TO MEET ALL GOVERNING CODE REQUIREMENTS.
11. CONTRACTOR TO PROVIDE LABEL STATING ARC-FAULT AND AIC RATING ON EACH PANEL

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Firestone COMPLETE AUTO CARE

NEW FCAC STORE
2020 ER
3561 SW MARKET ST
JACKSON COUNTY
LEE'S SUMMIT, MISSOURI 64082

STATE OF MISSOURI
RANDALL A. NELSON
NUMBER PE-2007003990
PROFESSIONAL ENGINEER
06/29/2020

ISSUE BLOCK

1	04/16/20	ADD #1
2	06/30/20	CB #1

PROPERTY NO.: 160085
6 DIGIT NO.: 906983
4 DIGIT NO.: 78C9
AOR PROJECT NUMBER: 1955871
TO PERMIT: DATE: 03/26/2020
TO BID: DATE: ##-##-##

SHEET TITLE:
ONE-LINE DIAGRAM, PANEL SCHEDULES, AND NOTES

SHEET NUMBER:
E5