REGULATORY AGENCIES & UTILITIES

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FIRE DEPARTMENT:	CITY OF LEE'S SUMMIT FIRE DEPARTMENT 207 S.E. DOUGLAS LEE'S SUMMIT, MO 64063 CONTACT: SCOTT READY E: scott.ready@cityofls.net T: (816) 969-1300 F: (816) 969-1313	WATER UTILITY:	CITY OF LEE'S SUMMIT WATER UTILITIES 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081 CONTACT: JOE FROGGE E: joe.frogge@cityofls.net T: (816) 969-1900	SEWER UTILITY:	CITY OF LEE'S SUMMIT WATER UTILITIES 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081 T: (816) 969-1900
NATURAL GAS UTILITY:	SPIRE ENERGY 700 MARKET ST ST. LOUIS, MO 63101 E: spirecustomercare@spireenergy.com T: (800) 582-1234	ELECTRICAL UTILITY:	EVERGY - MISSOURI WEST P.O. BOX 219703 KANSAS CITY, MO 64121 E: evergy.customer.service@evergy.com T: (888) 471-5275	TELEPHONE UTILITY:	AT&T SMALL BUSINESS T: (888) 944-0447

PROJECT INFORMATION

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MECHANICAL ELECTRICAL PLUMBING ENGINEER:	NATIONAL ENGINEERING 4635 TRUEMAN BLVD, SUITE 250 HILLIARD, OH 43026 CONTACT: JOE JONES E: jjones@nationalengineering.com P: (614) 286-6266	STRUCTURAL ENGINEER:	JEZERINAC GEERS & ASSOCIATES 5640 FRANTZ RD DUBLIN, OH 43017 CONTACT: ALAIN KABBARA E: akabbara@jgaeng.com P: (614) 766-0066 F: (614) 481-1223		

GRAPHIC SYMBOLS

EXTERIOR ELEVATION MARKER (1 / A101)

INTERIOR ELEVATION MARKER (1 / A101)

SECTION MARKER (SIM / 1 / A101)

SECTION / DETAIL (SIM / 1 / A101)

VIEW LABEL (1 / A101 View Name, View Scale)

COLUMN GRID LABEL (0)

ROOM NAME & NUMBER (Room name 101)

REVISION NUMBER (1)

DOOR NUMBER (1i)

MISCELLANEOUS EQUIPMENT NUMBER (XX.X)

FURNITURE NUMBER (XX.X)

KITCHEN EQUIPMENT NUMBER (XX.X)

WASHROOM ACCESSORIES NUMBER (X)

WALL TAG (W1)

LEVEL TARGET

NORTH ARROW

DIMENSION TARGET

FINISH TAG (P1)

ABBREVIATIONS

℄	CENTER LINE
(E)	EXISTING CONSTRUCTION
(N)	NEW CONSTRUCTION
@	AT
Ø	DIAMETER OR ROUND
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ARCH	ARCHITECT(URAL)
ASS	ALARM SYSTEM SUPPLIER
BD	BOARD
BLDG	BUILDING
CMU	CONCRETE MASONRY UNIT
CO2	CO2 SUPPLIER
CO2AS	CO2 ALARM SUPPLIER
CS	CHEMICAL SUPPLIER
DIM	DIMENSION(S)
EA	EACH
EL	ELEVATION (VERTICAL HEIGHT)
ELEC	ELECTRIC(AL)
ELEV	ELEVATION
EQ	EQUAL
EXT	EXTERIOR
FC	FOR CONSTRUCTION
FRP	FIBERGLASS REINFORCED PANEL
FRT	FIRE RETARDANT-TREATED
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GYP	GYPSUM
HES	TENANT'S HVAC EQUIPMENT SUPPLIER
HS	HOOD SUPPLIER
HVAC	HEATING AND VENTILATING
ICP	INITIAL COST PROJECTION
IFP	IN FOR PERMIT
INT	INTERIOR
KES	KITCHEN EQUIPMENT SUPPLIER
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MSS	MUSIC SYSTEMS SUPPLIER
N.I.C.	NOT IN CONTRACT
NO	NUMBER
OC	ON CENTER
OSB	ORIENTED STRAND BOARD
POS	POINT OF SALE
PREP	PREPARATION
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RADIUS
RTU	ROOF TOP UNITS
SIM	SIMILAR
SPS	SODA POP SUPPLIER
SS	SUPPORT SIGNAGE
STR	STRUCTURE
T	TENANT
TAB	TENANT'S TEST & BALANCE VENDOR
TBD	TO BE DETERMINED, SEE FIELD REFERENCE MANUAL
TCC	TENANT'S CABLING CONTRACTOR
TDC	TENANT'S DUCT CLEANER
TEMS	TENANT'S ENERGY MANAGEMENT SYSTEM SUPPLIER
THS	TENANT'S HARDWARE SUPPLIER
TLS	TENANT'S LIGHT/LAMP SUPPLIER
TMB	TENANT'S MENU BOARD SUPPLIER
TMS	TENANT'S MILLWORK SUPPLIER
TP	TENANT'S PHONE SUPPLIER
TRS	TENANT'S RAILING SUPPLIER
TS	TENANT'S SAFE SUPPLIER
TSS	TENANT'S SMART SAFE SUPPLIER
TSV	TENANT'S SIGN VENDOR
TUV	TENANT'S UV SUPPLIER
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTED POWER SUPPLY
VAR	VARIES
VIF	VERIFY IN FIELD
W/	WITH
WA	WASHROOM ACCESSORIES
WCS	TENANT'S WALK-IN COOLER SUPPLIER
WHS	WATER HEATER SUPPLIER
WS	TENANT'S WINDOW SHADE SUPPLIER

CADENCE COMMERCIAL REAL ESTATE

SOUTH LEE'S SUMMIT CMG SHELL
1103 SW OLDHAM PARKWAY
LEE'S SUMMIT, MO 64081

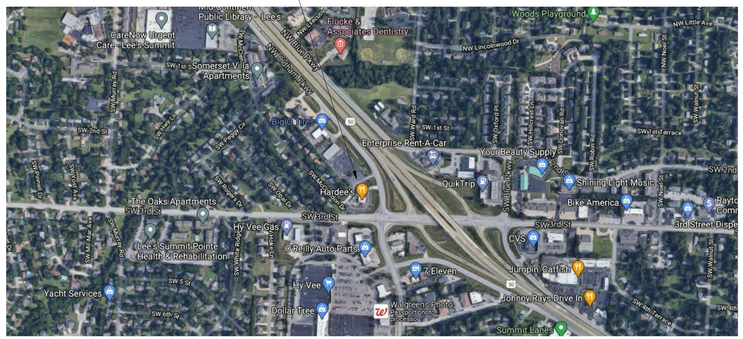
SCOPE OF WORK

LANDLORD TO PROVIDE NEW COLD DARK SHELL BUILDING TO BE BUILT OUT BY TENANT UNDER SEPARATE PERMIT. LANDLORD TO PROVIDE BUILDING WITH ELECTRICAL SERVICE STUBBED IN LOCATION, GREASE INTERCEPTOR AND GAS METER LOCATION. LANDLORD TO ALSO PROVIDE DUMPSTER ENCLOSURE AND PATIO SLAB ALONG WITH OTHER SITE IMPROVEMENTS.

FDP APPLICATION DRAWINGS: PL2021319

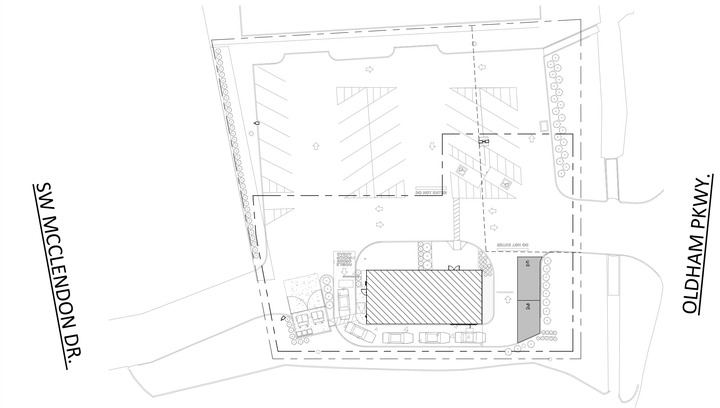
VICINITY MAP

1103 SW OLDHAM PARKWAY



1 / G000 **VICINITY MAP**
N.T.S.

KEY PLAN



TRUE PLAN 2 / G000 **ARCHITECTURAL SITE PLAN**
1" = 40'-0"

DRAWING INDEX AND REVISIONS

SHEET NO.	SHEET NAME	REVISION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
GENERAL																
G000	COVER SHEET															
G001	PROJECT DATA & LIFE SAFETY PLAN															
G002	ACCESSIBILITY REQUIREMENTS															
G010	ARCHITECTURAL SPECIFICATIONS															
G011	ARCHITECTURAL SPECIFICATIONS															
G012	ARCHITECTURAL SPECIFICATIONS															
G013	ARCHITECTURAL SPECIFICATIONS															
G014	ARCHITECTURAL SPECIFICATIONS															
G015	ARCHITECTURAL SPECIFICATIONS															
SITE PLAN																
SP100	ARCHITECTURAL SITE PLAN															
SP102	DUMPSTER PLAN & DETAILS															
ARCHITECTURAL																
A100	ARCHITECTURAL SHELL PLAN	●														
A140	ARCHITECTURAL ROOF PLAN															
A201	REFLECTED CEILING PLAN															
A301	EXTERIOR ELEVATIONS	●														
A401	BUILDING SECTIONS	●														
A402	BUILDING SECTIONS	●														
A403	WALL SECTIONS	●														
A404	WALL SECTIONS	●														
A406	SECTION DETAILS	●														
A407	SECTION DETAILS	●														
A408	EIFS DETAILS															
A409	PLAN DETAILS															
A601	DOOR & HARDWARE SCHEDULE															
A602	STOREFRONT DETAILS	●														
A901	EXTERIOR PERSPECTIVES															
STRUCTURAL																
S000	GENERAL STRUCTURAL NOTES															
S001	SPECIAL INSPECTIONS															
S002	TYPICAL DETAILS															
S100	FOUNDATION PLAN															
S110	ROOF FRAMING PLAN															
S200	FOUNDATION DETAILS															
S201	ROOF FRAMING DETAILS															
S202	FRAMING DETAILS															
PLUMBING																
P010	PLUMBING SPECIFICATIONS															
P100	PLUMBING PLAN															
ELECTRICAL																
E010	ELECTRICAL SPECIFICATIONS															
E105	ELECTRICAL SITE LIGHTING PLAN															
E115	ELECTRICAL SITE POWER PLAN															

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STATE OF MISSOURI
DAVID A. EFAW
NUMBER A-2007020148
8/27/21

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SOUTH LEE'S SUMMIT CMG SHELL
1103 SW OLDHAM PARKWAY
LEE'S SUMMIT, MO 64081

Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

Revisions:

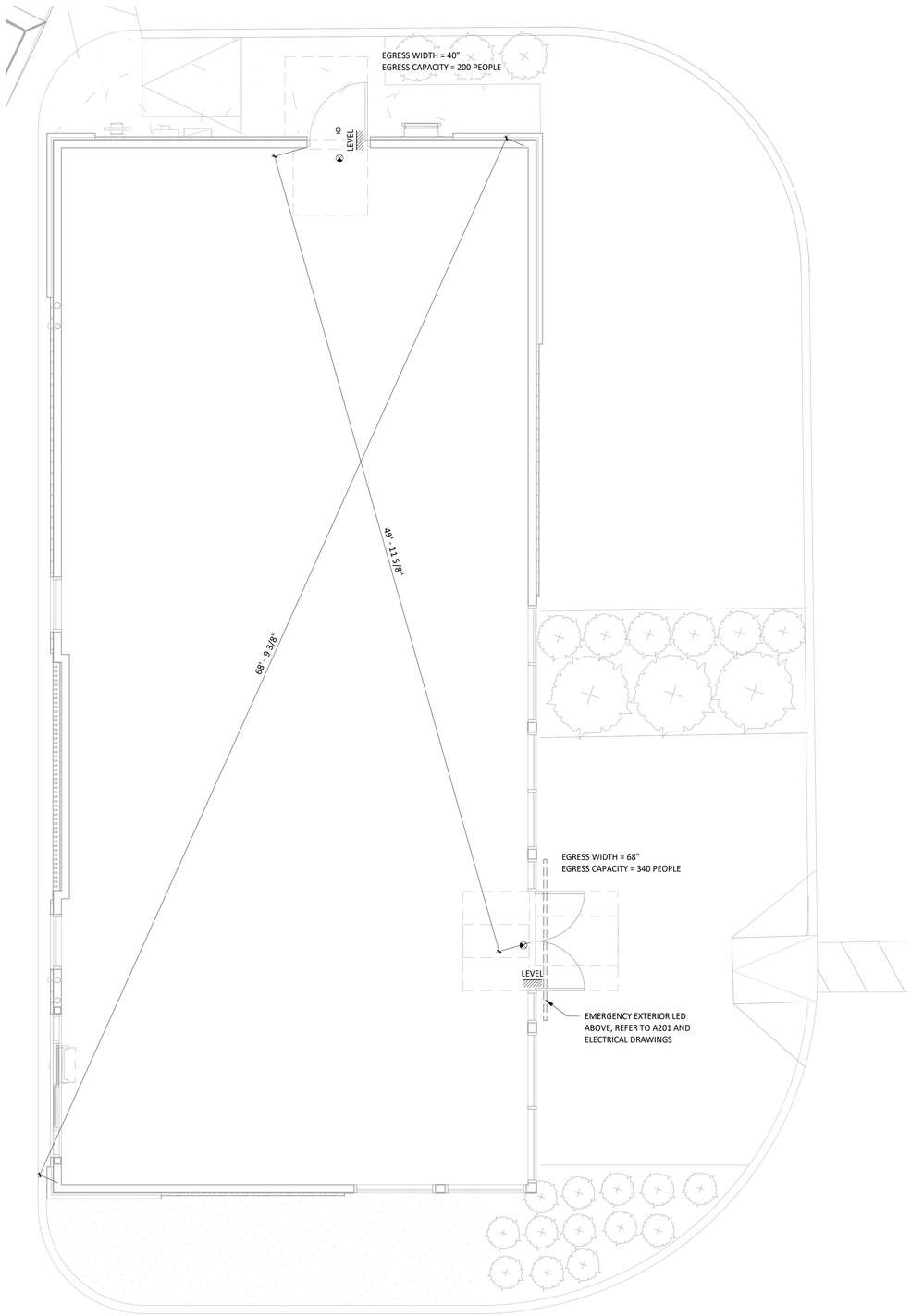
1	07/27/21	P&Z UPDATES

Drawn: CB, JTH
Checked: AA, TC

Project No.
CAC001

Contents:
COVER SHEET

G000



1 G001 **LIFE SAFETY PLAN**
1/4" = 1'-0"

GENERAL NOTES PER IBC 2018

- ☒ 44" REQUIRED EGRESS CORRIDOR WIDTH FOR OCCUPANCIES 50+.
  42" REQUIRED EGRESS AISLE WIDTH FOR OCCUPANCIES 50 AND OVER.
  36" REQUIRED EGRESS WIDTH FOR OCCUPANCIES UNDER 50.
  SECT. 1028.9.1(4)
- ☒ NO DEAD END CORRIDORS OVER 20'-0"
  SECT. 1018.4
- ☒ MAXIMUM EGRESS TRAVEL DISTANCE TO AN EXIT IS 75'-0". MEASURED AS MOST REMOTE POINT ALONG THE NATURAL AND UNOBSTRUCTED PATH OF HORIZONTAL AND VERTICAL TRAVEL TO THE EXIT.
  TABLE 1014.3
- ☒ DISTANCE BETWEEN TWO POINTS OF EGRESS (MEASURED IN A STRAIGHT LINE BETWEEN THE TWO) SHALL NOT BE LESS THAN 1/2 DIAGONAL OF SPACE BEING SERVED FOR EGRESS PATH.
  SECT. 1015.2.1
- ☐ IF FULLY SPRINKLERED DISTANCE BETWEEN TWO POINTS OF EGRESS CAN GO DOWN TO 1/3 OF DIAGONAL.
- ☒ MAXIMUM EXIT ACCESS TRAVEL DISTANCE 200' W/OUT SPRINKLER, 250' W/ SPRINKLER.
  TABLE 1016.2
- ☐ MINIMUM DISTANCE BETWEEN SEATS IS 12" FOR A DISTANCE OF 12'-0" WITH AN ADDITIONAL 1/2" OF WIDTH FOR EACH 1'-0" OR FRACTION THEREOF BEYOND ORIGINAL 12'-0".
  SECT. 1028.10.1.1
- ☐ EGRESS ALONG SEATING IS MEASURED 19" FROM EDGE OF TABLE WHERE MOVEABLE CHAIRS ARE USED, OR FROM THE EDGE OF A FIXED SEAT.
- ☒ DOORS IN FULLY OPEN POSITION SHALL NOT REDUCE A REQUIRED DIMENSION BY MORE THAN 7 INCHES. SECTION 1008.1.6 LANDINGS SHALL HAVE A LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NOT LESS THAN 44 INCHES.
- ☒ DOORS, WHEN FULLY OPENED SHALL NOT REDUCE THE REQUIRED MEANS OF EGRESS WIDTH BY MORE THAN 7 INCHES. DOORS IN ANY POSITION SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN ONE-HALF.
  SECT. 1005.2
- ☐ SPACE BETWEEN TWO DOORS IN A SERIES SHALL BE 48 INCHES MIN. PLUS WIDTH OF A DOOR SWINGING INTO SPACE.
  SECT. 1008.1.8

FIRE EXTINGUISHER NOTES

1. G.C. TO PROVIDE MIN OF (1) FIRE EXTINGUISHER. G.C. TO VERIFY AND COORDINATE LOCATIONS AND QUANTITIES WITH LOCAL FIRE MARSHAL.
2. PER IFC, THE MINIMUM IS A 2A10BC EXTINGUISHER WITHIN 75' OF TRAVEL DISTANCE OF ALL AREAS.
3. NFPA INSPECTION TAGS SHALL BE ATTACHED TO ALL FIRE EXTINGUISHERS.

BUILDING CODE & ZONING DATA

1.	OCCUPANCY GROUP:	B, PER SECTION 303.1.1 BY FUTURE TENANT UNDER SEPARATE PERMIT
	OCCUPANCY SEPARATION:	N/A
2.	TYPE OF CONSTRUCTION:	V-B
3.	USE GROUP:	B, PER SECTION 303.1.1
	ALLOWABLE AREA:	9,000 S.F.
	AREA INCREASE W/ SPRINKLERS:	N/A
	ACTUAL AREA:	1,925 S.F.
4.	ALLOWABLE NO. OF STORIES:	2
	ACTUAL NO. OF STORIES:	1
	ALLOWABLE BUILDING HEIGHT:	40'-0" MAXIMUM HEIGHT
	ACTUAL BUILDING HEIGHT:	20'-4"
5.	MEANS OF EGRESS REQUIRED:	1
	MEANS OF EGRESS PROVIDED:	2
6.	FIRE SPRINKLERS:	NONE
7.	PLUMBING FIXTURES: BY FUTURE TENANT UNDER SEPARATE PERMIT	

CODE AUTHORITIES

BUILDING CODE:	2018 INTERNATIONAL BUILDING CODE
EXISTING BUILDING CODE:	2018 INTERNATIONAL EXISTING BUILDING CODE
MECHANICAL CODE:	2018 INTERNATIONAL MECHANICAL CODE
PLUMBING CODE:	2018 INTERNATIONAL PLUMBING CODE
ENERGY CODE:	2009 INTERNATIONAL ENERGY CONSERVATION CODE
FUEL GAS CODE:	2018 INTERNATIONAL FUEL GAS CODE
ELECTRICAL CODE:	2017 NATIONAL ELECTRIC CODE
FIRE CODE:	2018 INTERNATIONAL FIRE CODE
ACCESSIBLITY:	ICC/ANSI 117.1-2009

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STATE OF MISSOURI
DAVID A. EFAW
NUMBER A-2007020148
REGISTERED ARCHITECT
5/27/21

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Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

Revisions:

Drawn: CB, JTH
Checked: AA, TC

Project No.: CAC001

Contents:

PROJECT DATA & LIFE SAFETY PLAN

G001

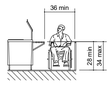
A.D.A.A.G. INTERIOR ACCESSIBILITY COMPONENTS

THIS TENANT SPACE IS REQUIRED TO BE ACCESSIBLE AS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT OF 1994 AND ITS REVISED 2010 STANDARDS FOR ACCESSIBLE DESIGN. MAINTAIN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF THE ACT AND ITS ACCESSIBILITY GUIDELINES (A.D.A.), (A.D.A.A.G.).

TABLEWARE AREAS

1. FOOD SERVICE LINES SHALL HAVE A MINIMUM CLEAR WIDTH OF 36" WITH TRAY SLIDES MOUNTED NO HIGHER THAN 34" ABOVE THE FLOOR. IF SELF-SERVICE SHELVES ARE PROVIDED, AT LEAST 50% OF EACH TYPE MUST BE WITHIN REACH RANGES SPECIFIED IN A.D.A.A.G. SECTION 308.

2. SELF-SERVICE SHELVES AND DISPENSING DEVICES FOR DISHWARE, CONDIMENTS, FOOD AND BEVERAGES SHALL BE INSTALLED TO COMPLY WITH A.D.A.A.G. SECTION 308.



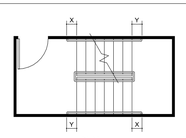
FOOD SERVICE LINES

STAIRS

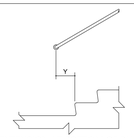
1. ACCESSIBLE STAIRS SHALL COMPLY WITH A.D.A.A.G. SECTION 504.

2. ALL STEPS ON A FLIGHT OF STAIRS SHALL HAVE UNIFORM RISER HEIGHTS TREAD DEPTHS ALONG EACH RUN. RISERS SHALL BE 4" HIGH MIN. AND UNIFORM AND 7" HIGH MAX. TREAD SHALL BE 11" DEEP MIN.

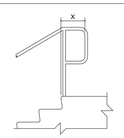
3. THE CLEAR SPACE BETWEEN HANDRAILS AND WALL SHALL BE 1-1/2" MIN. HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS ALONG THEIR LENGTH AND SHALL NOT BE OBSTRUCTED ALONG THEIR TOP AND SIDES. THE TOP OF HANDRAIL GRIPPING SURFACES SHALL BE INSTALLED BETWEEN 34" AND 38" ABOVE STAIR NOSINGS.



PLAN



EXTENSION AT BOTTOM OF RUN



EXTENSION AT TOP OF RUN

NOTE:
X IS THE MINIMUM HANDRAIL EXTENSION REQUIRED AT EACH TOP RISER. X = 12" MIN. Y IS THE MINIMUM HANDRAIL EXTENSION REQUIRED AT EACH BOTTOM RISER. Y IS EQUAL TO OR GREATER THAN THE TREAD DEPTH.

RESTROOMS

1. ELEMENTS OF ACCESSIBLE RESTROOMS SHALL COMPLY WITH A.D.A.A.G. SECTIONS 603, 604, 605, 606, 607, 608, 609 & 610.

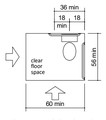
2. ACCESSIBLE URINALS SHALL BE STALL-TYPE OR WALL-HUNG AT A MAXIMUM OF 17" ABOVE FINISH FLOOR. URINALS SHALL HAVE A 30" x 48" CLEAR FLOOR SPACE TO ALLOW A FRONT APPROACH AND THE FLUSH CONTROLS SHALL BE HAND-OPERATED WITH THE CONTROLS INSTALLED ACCORDING TO SECTION 308.

3. HOT WATER LINES AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.

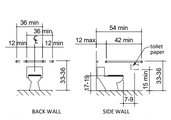
4. IF HAND OPERATED METERING FAUCETS ARE USED, THE FAUCET SHALL REMAIN OPEN FOR0 10 SECONDS MINIMUM.

5. THE SPACE BETWEEN ANY OBSTRUCTION AND THE GRAB BAR SHALL BE 1-1/2". THE GRAB BAR ASSEMBLY SHALL BE CAPABLE OF WITHSTANDING BENDING STRESSES, SHEAR STRESSES, SHEAR FORCES, AND TENSILE FORCES OF UP TO 250 LBF.. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.

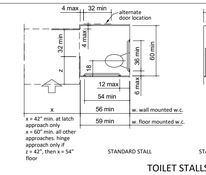
6. MOUNTING HEIGHTS TO OPERATING CONTROLS FOR RESTROOM ACCESSORIES NOT SPECIFICALLY CALLED OUT IN THE A.D.A.A.G. SHALL COMPLY WITH THE REACH RANGES SPECIFIED IN A.D.A.A.G. SECTION 308.



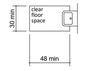
CLEAR FLOOR SPACE AT WATER CLOSETS



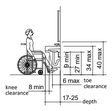
GRAB BARS AT WATER CLOSETS



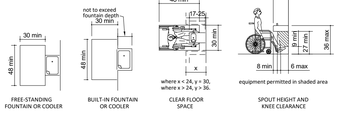
TOILET STALLS



CLEAR FLOOR SPACE AT LAVATORIES



LAVATORY CLEARANCE



DRINKING FOUNTAINS AND WATER COOLERS

DOORS

1. ACCESSIBLE DOORS SHALL COMPLY WITH A.D.A.A.G. SECTION 404.

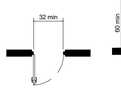
2. THRESHOLD, IF PROVIDED AT DOORWAYS, SHALL BE 1/2" HIGH MAXIMUM. EXISTING OR ALTERED THRESHOLDS 3/4" HIGH MAXIMUM THAT HAVE A BEVELED EDGE ON EACH SIDE WITH A SLOPE NOT STEEPER THAN 1:2 ARE ALSO PERMITTED.

3. DOOR AND GATE HARDWARE. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH 309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.

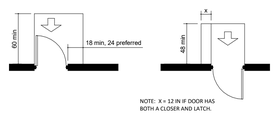
4. DOOR CLOSERS AND GATE CLOSERS. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM. SPRING HINGES. DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR OR GATE SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM.

5. ACCESSIBLE DOORS THAT ARE NOT FIRE DOORS OR EXTERIOR HINGED DOORS SHALL HAVE A MAXIMUM FORCE FOR PUSHING OR PULLING THE DOOR OPEN OF 5 LBF. THIS FORCE DOES NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT MAY HOLD A DOOR IN A CLOSED POSITION.

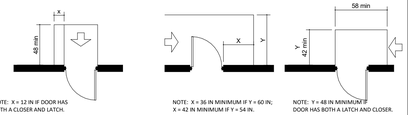
NOTE: ALL DOORS IN ALCOVES SHALL COMPLY WITH THE CLEARANCES FOR FRONT APPROACHES.



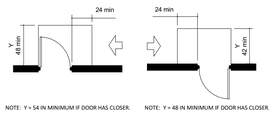
CLEAR DOORWAY WIDTH



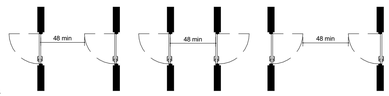
FRONT APPROACHES - SWINGING DOORS



HINGE SIDE APPROACHES - SWINGING DOORS



LATCH SIDE APPROACHES - SWINGING DOORS



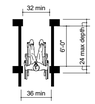
TWO HINGED DOORS IN SERIES

PATH OF TRAVEL

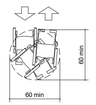
1. ALL WALKS, HALLS, CORRIDORS, AISLES, SKYWALKS, TUNNELS, AND OTHER SPACES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH A.D.A.A.G. SECTION 402 AND ANY OTHER APPLICABLE SECTION OF CH. 4.

2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDING OR FACILITY ENTRANCES WITH ALL ACCESSIBLE SPACES AND ELEMENTS.

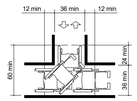
3. AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 1:20 IS A RAMP AND SHALL COMPLY WITH 405. NOWHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:48.



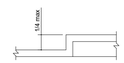
MINIMUM CLEAR WIDTH FOR SINGLE WHEELCHAIR



60-IN DIAMETER SPACE

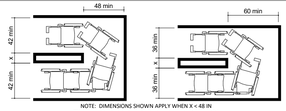


T-SHAPED SPACE FOR 180° TURNS

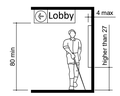


VERTICAL CHANGES IN LEVEL

CHANGES IN LEVEL



NOTE: DIMENSIONS SHOWN APPLY WHEN X < 48 IN
TURN AROUND AN OBSTRUCTION



WALKING PARALLEL TO A WALL

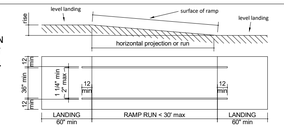
RAMPS

1. ACCESSIBLE RAMPS SHALL COMPLY WITH A.D.A.A.G. SECTION 405.

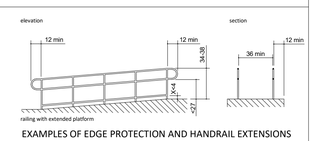
2. IF A RAMP HAS A RISE GREATER THAN 6" OR A HORIZONTAL PROJECTION GREATER THAN 72", THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES. HANDRAILS ARE NOT REQUIRED ADJACENT TO ASSEMBLY SEATING AREAS. CLEAR SPACE BETWEEN A HANDRAIL AND AN ADJACENT WALL SHALL BE 1-1/2" MIN.

3. THE CROSS SLOPE OF RAMP SURFACES SHALL BE NO GREATER THAN 1:48.

4. EXISTING RAMP'S SLOPE SHALL COMPLY WITH SECTION 405.2. FOR A RAMP NOT RISING MORE THAN 3" THE MAXIMUM SLOPE CAN BE 1:8>X>1:10. FOR A RAMP RISING GREATER THAN 3" BUT NOT MORE THAN 6" THE MAXIMUM SLOPE CAN BE 1:10>X>1:12.



COMPONENTS OF A SINGLE RAMP RUN AND SAMPLE RAMP DIMENSIONS



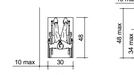
EXAMPLES OF EDGE PROTECTION AND HANDRAIL EXTENSIONS

CONTROLS

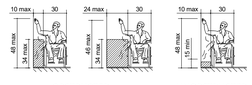
1. CONTROLS & OPERATING MECHANISMS SHALL COMPLY WITH A.D.A.A.G. SECTION 309.

2. ALL CONTROLS & OPERATING MECHANISMS WHICH ARE INTENDED FOR NORMAL USE BY BUILDING OCCUPANTS SHALL BE PROVIDED WITH A.D.A.A.G.-COMPLIANT CLEAR FLOOR SPACES & SHALL COMPLY WITH REACH RANGES IN SECTION 308.

3. REACH RANGES FOR CHILDREN UNDER AGES 12 SHALL COMPLY WITH SECTION 308.1.

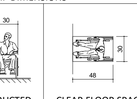


CLEAR FLOOR SPACE PARALLEL APPROACH



OBSTRUCTED HIGH SIDE REACH

UNOBSTRUCTED SIDE REACH



UNOBSTRUCTED SIDE REACH

SIDE REACH

CLEAR FLOOR SPACE FORWARD APPROACH

UNOBSTRUCTED SIDE REACH

OBSTRUCTED HIGH SIDE REACH

FORWARD REACH

SIGNAGE

1. ACCESSIBLE SIGNAGE SHALL COMPLY WITH A.D.A.A.G. SECTION 703.

2. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND A STROKE-WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.

3. CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ. CHARACTER HEIGHT SHALL BE MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8" MIN. AND 2" MAX. BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I"

4. LETTERS AND NUMERALS SHALL BE RAISED 1/32", UPPER-CASE SANS SERIF TYPE, AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" HIGH, BUT NO HIGHER THAN 2". PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6" MINIMUM IN HEIGHT. BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.

5. THE CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND - EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

6. WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT SIDE OF THE RIGHT HAND DOOR.WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18" MIN. BY 18" MIN, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED DOOR AND THE 45 DEGREE OPEN POSITION.

HEIGHT TO FINISH FLOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTAL VIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
40" TO LESS THAN OR EQUAL TO 70"	LESS THAN 72"	5/8"
	72" AND GREATER	5/8" PLUS 1/8"/FT OF VIEWING DISTANCE ABOVE 72"
GREATER THAN 70" TO LESS THAN OR EQUAL TO 120"	LESS THAN 180"	2"
	180 INCHES AND GREATER	2" PLUS 1/8"/FT OF VIEWING DISTANCE ABOVE 180"
GREATER THAN 120"	LESS THAN 21'	3"
	21' AND GREATER	3" PLUS 1/8"/FT OF VIEWING DISTANCE ABOVE 21'


INTERNATIONAL SYMBOL OF ACCESSIBILITY


DISPLAY CONDITIONS - INTERNATIONAL SYMBOL OF ACCESSIBILITY

TABLE SEATING

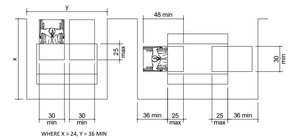
1. WHERE FIXED TABLES (OR DINING COUNTERS WHERE FOOD IS CONSUMED BUT THERE IS NO SERVICE) ARE PROVIDED, AT LEAST 5 %, BUT NOT LESS THAN ONE, OF THE FIXED TABLES (OR A PORTION OF THE DINING COUNTER) SHALL BE ACCESSIBLE AND SHALL COMPLY WITH A.D.A.A.G. SECTION 902.

2. IN ESTABLISHMENTS WHERE SEPARATE AREAS ARE DESIGNATED FOR SMOKING AND NON-SMOKING PATRONS, THE NUMBER OF ACCESSIBLE FIXED TABLES (OR COUNTERS) SHALL BE PROPORTIONALLY DISTRIBUTED BETWEEN THE SMOKING AND NON-SMOKING AREAS.

3. WHERE FOOD OR DRINK IS SERVED AT COUNTERS EXCEEDING 34" IN HEIGHT FOR CONSUMPTION BY CUSTOMERS SEATED ON STOOLS OR STANDING AT THE COUNTER, A PORTION OF THE MAIN COUNTER WHICH IS 60" IN LENGTH MINIMUM SHALL BE PROVIDED IN COMPLIANCE WITH A.D.A.A.G. SECTION 305 OR SERVICE SHALL BE AVAILABLE AT ACCESSIBLE TABLES WITHIN THE SAME AREA.

4. AT LEAST 5% OF ALL TABLE SEATING SHALL BE ACCESSIBLE PER THE REQUIREMENTS OF A.D.A.A.G. SECTION 226.

5. ACCESSIBLE SEATING AT TABLES AND/OR COUNTERS SHALL COMPLY WITH CHAPTER 3.



MINIMUM CLEARANCES FOR SEATING AND TABLES

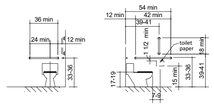
ADDITIONAL ACCESSIBILITY COMPONENTS

IN ADDITION TO ALL A.D.A./A.D.A.A.G. REQUIREMENTS, THIS FACILITY SHALL MEET THE REQUIREMENTS OF THE LOCAL JURISDICTION FOR ACCESSIBILITY AS LISTED BELOW AND SHALL MEET ALL REQUIREMENTS ICC/ANSI A117.1.

* WHERE INFORMATION LISTED/SHOWN IN THIS SECTION CONFLICTS WITH THE A.D.A.A.G. INTERIOR ACCESSIBILITY COMPONENTS, THE MORE RESTRICTIVE OF THE TWO REQUIREMENTS SHALL BE FOLLOWED.

RESTROOMS

1. ELEMENTS OF ACCESSIBLE RESTROOMS SHALL COMPLY WITH ICC/ANSI A117.1 - 2009 SECTIONS 603, 604, 605, 606, AND 609.



GRAB BARS AT WATER CLOSETS

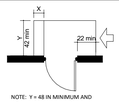
DOORS

1. ACCESSIBLE DOORS SHALL COMPLY WITH ICC/ANSI A117.1 - 2009 SECTION 404.

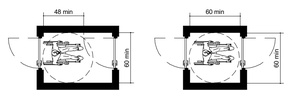
2. THRESHOLD AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES AT DOORWAYS SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.

3. HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. LEVER-OPERATED MECHANISMS, PUSH-TYPE MECHANISMS, AND U-SHAPED HANDLES ARE ACCEPTABLE DESIGNS. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISHED FLOOR AND NOT LOWER THAN 34" ABOVE FINISH FLOOR.

4. IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90°, THE DOOR WILL TAKE AT LEAST 5 SECONDS TO MOVE TO AN OPEN POSITION OF 12°.



HINGE SIDE APPROACHES - SWINGING DOORS



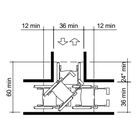
TWO HINGED DOORS IN SERIES

PATH OF TRAVEL

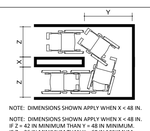
1. ALL WALKS, HALLS, CORRIDORS, AISLES, SKYWALKS, TUNNELS, AND OTHER SPACES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH ICC/ANSI A117.1 - 2009 SECTION 402

2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDING OR FACILITY ENTRANCES WITH ALL ACCESSIBLE SPACES AND ELEMENTS.

3. AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 1:20 IS A RAMP AND SHALL COMPLY WITH ICC/ANSI A117.1 - 2009 SECTION 405. NOWHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:48.



T-SHAPED SPACE FOR 180° TURNS



TURN AROUND AN OBSTRUCTION

SIGNAGE

1. ACCESSIBLE SIGNAGE SHALL COMPLY WITH ICC/ANSI A117.1 - 2009 SECTION 703.

2. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO SUCH THAT THE WIDTH OF AN UPPERCASE 'O' SHALL BE 55% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF AN UPPERCASE 'I'.

3. CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ, TABLE 703.2.4. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER-CASE I. LOWER CASE CHARACTERS ARE PERMITTED. SIGNS INSTALLED OVER 120" ABOVE FINISHED FLOOR SHALL HAVE A MINIMUM CHARACTER HEIGHT OF 3".

4. WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR, INCLUDING DOUBLE-LEAF DOORS. SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHT SHALL BE 60" ABOVE FINISHED FLOOR TO THE BOTTOM OF HIGHEST LINE OF TEXT. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE LOCATED SO THAT A CLEAR FLOOR AREA 18" MINIMUM BY 18" MINIMUM CENTERED ON THE TACTILE CHARACTERS IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSTITION AND 45 DEGREE OPEN POSITION.

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Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

Revisions:

Drawn: CB, JTH
Checked: AA, TC

Project No.
CAC001

Contents:
ACCESSIBILITY REQUIREMENTS

G002

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01100 - SUMMARY

1.1 Contract Documents:

A. Contractor shall use the following Tenant provided documents in the negotiation and execution of the Work. Contact Tenant's office for copies of these documents:
   1. Instructions to Bidders.
   2. Construction Contract for Owner.

B. Definitions:
   1. The term "Owner" used in these documents refers to the building Owner/Landlord.
   2. The term "Tenant" used in these documents refer to the future Tenant.
   3. The term "Contractor" used in these documents refers to the entity responsible for performing the Work under Construction Contract for Owner.

1.2 Scope of Work:

A. The Work shall include construction of the site and building facilities as shown and specified in these Specifications and Drawings.

B. When required and necessary, the Tenant will provide a subsurface exploration report as an attachment the bidding documents.

SECTION 01300 - ADMINISTRATIVE REQUIREMENTS

1.1 Coordination:

A. Immediately inform the Architect of discrepancies between the information indicated in the Contract Documents and existing project conditions, and of discrepancies between information indicated on the architectural, structural, mechanical, plumbing and electrical documents.

B. Prior to fabrication and installation of new components, field verify all existing and new dimensions and installation conditions that may affect the Work. Do not scale the drawings to establish locations of items that are not located using dimensions.
   1. All dimensions are to rough face of stud or centerline of structure, unless otherwise indicated.
   2. Verify that all Subcontractors have reviewed and coordinated locations of their equipment and furnishings exposed to view with the architectural drawings. Review questions with the Architect.

C. Coordinate new work indicated on the Contract Documents with new work that may be provided by the Owner and Tenant under separate contracts.

D. Coordinate the work of Vendors, Contractors and Subcontractors providing fixtures, furniture and equipment identified as "by Tenant" in these drawings and specifications.
   1. Notify the Tenant in timely fashion if any problems develop with the performance of these Vendors, Contractors or Subcontractors.

E. Coordinate the scheduling, sequencing, and the work of all trades and Subcontractors to assure efficient and orderly sequences of installation of interdependent construction elements.

F. Verify that the utility requirement characteristics of operating equipment are compatible with the building utility services. Coordinate work of the various specification sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.

G. Coordinate the installation and physical space requirements of plumbing, mechanical and electrical work that are indicated diagrammatically on the drawings. Follow routing shown for piping, ducts and conduit as closely as practical. Install runs parallel with and perpendicular to the line of the building. Utilize spaces as efficiently as possible to maximize accessibility for other work installation and for maintenance and for repair.
   1. Conceal piping, ducts and conduit within the construction, except as otherwise indicated.
   2. Coordinate locations of registers, fixtures and outlets with finish elements.

H. Coordinate completion and cleanup work of all trades and Subcontractors in preparation for Substantial Completion.

I. To minimize disruption of Tenant's activities after Tenant occupancy of the property, coordinate access to the property with the Tenant's Construction Manager for correction of defective work and work not in accordance with the Contract Documents.

1.2 Submittals:

A. Only when indicated in the specifications or drawings submit shop drawings, product data, and/or samples to the Architect, Design Manager, and Development Analyst for review. All submittals shall be made directly to the Architect by the general contractor. Only submittals for specified products will be accepted unless prior approval has been obtained for a substitution (refer to Section 01630).

   Shop drawings: Submit electronic copies of each sheet of drawings. Shop drawings are original drawings prepared by the subcontractor or vendor for the purpose of conveying information to the Architect and/or Engineer on how a building element or product will be constructed in sufficient detail for the Architect and/or Engineer to determine compliance with the design intent.

   In all cases one copy of the submittal shall be returned to the General Contractor. Electronic submittals for shop drawing or product data in either PDF or DWF format are acceptable for review. All submittals, regardless of format, must bear the General Contractor's stamp indicating the submittal has been reviewed and approved. Any submittal not meeting the requirements set forth will be rejected by the Architect.

   Submittals shall be made with respect to the construction schedule to allow for adequate review time: allow (5) business days for review of submittals for any structural steel, canopies and trusses and allow (3) business days for review of submittals in all other divisions. Review timeline will commence from the time the submittal with General Contractor's approval stamp is received by the Architect, Design Manager, and Development Analyst.

1.3 Requests For Information

A. In the event that the general contractor, or a subcontractor, at any tier, determines that some portion of the drawings, specifications, or other contract documents requires a clarification or interpretation by the architect, the general contractor shall submit a Request For Information in writing to the architect in an electronic copy.

   Requests for Information may only be submitted by the general contractor and may only be submitted to the architect. The general contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed from the architect or the architect's consultants. In the Request for Information, the general contractor shall set forth an interpretation or understanding of the requirement along with an explanation of why such an understanding was reached.

B. The architect will review all Requests for Information to determine whether they are Requests for Information within the meaning of this term. If the architect determines that the document is not a request for information, it will be returned to the general contractor, un-reviewed as to content, for re-submittal in the proper form and in the proper manner.

   Responses to Requests for Information shall be issued upon receipt, but no later that five (5) working days of receipt of the Request from the general contractor; unless the architect determines that a longer amount of time is necessary to provide an adequate response. If a longer amount of time is determined necessary by the architect, the architect will, within five (5) working days of receipt of the Request, notify the general contractor of the anticipated response time. If the general contractor submits a Request for Information on an activity with five (5) working days or less of float on the current project schedule the general contractor shall not be entitled to any time extension due to the time it takes the architect to respond to the Request provided that the architect responds within the parameters set forth above.

C. Responses to Requests for Information from the architect will not change any requirements of the contract documents. In the event that the general contractor believes that a response to a Request For Information will cause a change to the requirements of the contract documents, the general contractor shall immediately give written notice to the architect and the tenant stating that the general contractor considers the response to be a Change Order. Failure to give such written notice immediately shall waive the general contractor's (or any subcontractor's) right to seek additional time or cost under the Administrative Requirements of these contract documents.

SECTION 01400 - QUALITY REQUIREMENTS

1.1 Regulatory Requirements:

A. Perform all work in accordance with applicable local, state, and federal building codes, plumbing codes, mechanical codes, electrical codes, ordinances and rules and regulations governing food service establishments.

B. Comply with local, state and federal requirements governing accessibility.

C. Obtain all required demolition and erosion control permits required by authorities having jurisdiction.

1.2 Quality Control:

A. Maintain quality control over manufacturers, suppliers, products, services, site conditions and workmanship, to produce work of specified quality.

B. Comply with manufacturer's instructions and applicable trade standards.

C. Handle, install, connect, clean, condition and adjust products in strict accordance with manufacturer's instructions and complying with specified requirements.
   1. Request clarification from the Architect before proceeding, where manufacturer's instructions conflict with the Contract Documents.

D. Comply with specified standards as a minimum quality for the Work, except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.

E. Perform work by persons qualified to produce workmanship of the specified quality. Secure products in place with positive anchorage devices designed, sized and installed to withstand stress, vibration, physical distortion or disfigurement.

F. All dimensions shall be considered "hold-to" dimensions unless indicated otherwise (e.g. minimum or maximum dimensions.)

1.3 Testing:

A. Employ and pay for the services of an independent testing laboratory to perform inspections, tests and other services when required.

B. Include inspection and tests as indicated in the specification sections, drawings, and as required by authorities having jurisdiction.
   1. Test concrete in accordance with Section 03300 and drawing requirements.
   2. Test structural steel in accordance with Section 05110 and drawing requirements.

SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

1.1 Provide temporary facilities and controls as shown and specified:

A. Codes and Standards: Provide temporary construction facilities and controls complying with all applicable local, State and Federal local laws, regulations and codes and utility company requirements.

B. Temporary Heating, Ventilating and Cooling:
   1. Provide, pay for and maintain all temporary heating, ventilating and cooling equipment and facilities required during the progress of the work to protect materials, finished work, and equipment against damage from low and high temperatures and humidity.
   2. Provide temporary heating, ventilating and cooling when the outside temperature and humidity is low/high enough to damage or affect in any way the performance or quality of material and product stored in the building, in any temporary storage area, or any material or product incorporated into the work.
   3. Provide temporary heating, ventilating and cooling when the outside temperature and humidity is low/high enough to significantly slow or hamper effectiveness of workers and to provide suitable working conditions.

C. Temporary Electrical Lighting and Power:
   1. Provide, pay for and maintain all temporary electrical service for lighting and power required during the progress of the work. Include all necessary wiring, fuses, disconnect switches, safety devices, junction boxes, panels, ground fault protections, and transformer if required. Include cost for providing temporary electric generators in the Contract Sum, if temporary electric service is not available for use during progress of the work.
   2. Temporary service and lighting and power items and installations shall conform to the requirements of the NFPA National Electric Code and OSHA Occupational Safety and Health Act of 1970.

D. Water: Provide, pay for and maintain all temporary water required during the progress of the work. Include all necessary storage tanks, piping, valves, fittings, hose and hose connections during construction and testing.

E. Temporary Toilets: Provide, pay for and maintain temporary toilet facilities for use by the Contractor, Contractor's employees and all Subcontractors and Subcontractors' employees. Comply with all local requirements for installation, use and maintenance of temporary toilet facilities.

F. Barriers and Enclosures:
   1. Provide temporary construction barriers in accordance with project requirements. Exercise all necessary precautions to protect adjacent properties, outside project contact limits, during progress of the work. Take special precautions to avoid damage to existing overhead and underground utilities and services owned or operated by the Owner or by public or private utility companies.
   2. Provide temporary weather-tight enclosures at exterior openings to provide acceptable working conditions and protection of materials and to allow for temporary heating, ventilating and cooling.

G. Field Office, Telephone and Email:
   1. Provide and maintain a temporary field office at the project site during progress of the work. A designated area within the existing building will be available for use as a temporary field office. Verify area size and location with the Tenant.
   2. Maintain copies of permits, approved shop drawings, specifications, addenda and record documents at field office.
   3. Provide temporary telephone service and internet service with email and photo capabilities to field office throughout progress of the work.
   4. Provide weekly photographic documentation of project progression to Tenant.

H. Safety and Security
   1. Provide and maintain all necessary safety provisions for protection and safety of the project work, workers and general public.
   2. Provide and maintain operable fire extinguishing devices in well-marked, accessible locations throughout the project. Provide types, quantities and locations in compliance with governing codes and ordinances.
   3. Provide all necessary security barriers and enclosures to protect the work and Tenant's operations from unauthorized entry of persons, vandalism and theft. Provide doors, when required, with self-closing hardware and locks.

I. Cleaning
   1. During Construction: Provide an approved on-site container for the use of all Contractors and Subcontractors for the collection of waste materials, debris and rubbish. Execute periodic cleaning to keep the work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations. Remove crates and cartons in which materials, equipment, or fixtures are received to on-site containers daily.
      a. Maintain the property in a clean and orderly condition. Remove waste materials, debris and rubbish from the site on a daily basis and dispose of at legal disposal areas away from the site.
   2. Dust Control:
      a. Remove debris and rubbish from pipe chases, plenums and other similar closed or remote spaces prior to covering or enclosing the space.
      b. Sweep and vacuum clean interior surfaces before start of surface finishing and painting. Continue cleaning on an as-needed basis until finishing and painting is completed.
      c. Cleaning operations shall be acceptable to the Tenant's Construction Manager.

SECTION 01630 - SUBSTITUTIONS

1.1 General:

A. Products, including materials, equipment and systems described in the Contract Documents establish the standards of required function, dimension, appearance, quality and performance of the Work. Base all bids on the "Standards" indicated.

B. Requests by the Contractor for changes in products, manufacturers, fabricators, suppliers, installers, and methods of construction required by the Contract Documents are considered requests for "substitutions:" Substitutions will be considered only under the following conditions:
   1. The indicated "Standard" cannot be provided within the Contract Time
   2. The indicated "Standard" cannot receive necessary approval by the governing authority.
   3. A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit as determined by the Architect.

C. Submit each request for substitution to the Architect. Identify the product, manufacturer, fabricator, supplier, installer or the fabrication or installation method to be replaced in each request. Identify related Specification Section and Drawing numbers. Provide documentation as directed by the Architect.

D. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate written request, when requested directly by subcontractor, manufacturer, fabricator, or supplier, or when acceptance will require substantial revision of the Contract Documents.

E. Substitute products, manufacturers, fabricators, suppliers, and installers shall not be used for the Project without Tenant and Architect's written acceptance.

SECTION 01700 - EXECUTION REQUIREMENTS

1.1 Preparation:

A. Protection of existing construction: Use all necessary care and appropriate means and methods to protect and prevent damage to existing construction and property not part of the Contract Work. Repair and refinish or replace construction an property damaged during construction work, at Contractor's expense.

1.2 Selective Demolition: Provide selective demolition as shown and specified.

A. Preparation:
   1. Coordinate work of this Section with work of various Contractors and Tenant's staff.
   2. Maintain protected access at all times.
   3. Erect and maintain weatherproof closures at exterior openings.
   4. Erect and maintain dust-proof interior partitions to prevent spread of dust or fumes.
   5. Erect and maintain barricades, enclosures, bracing, shoring, lights, warning signs and guards necessary for worker and public safety and protection of property.
   6. Disconnect, remove and cap designated utility services. Identify and mark locations of disconnected and capped utilities at the project site and on Project Record Documents.
   7. Notify and coordinate with the Tenant's Construction Manager and the building Owner for any demolition occurring outside the lease limit.
   8. Coordinate hours of operation and construction access with the Tenant's Construction Manager and the building Owner.

B. Selective Demolition
   1. Remove existing construction to accommodate new construction as indicated.
   2. Perform selective demolition in an orderly, systematic and careful manner with least possible disturbance to public and adjacent property. Use of explosives is prohibited.
   3. Immediately remove from the site and legally dispose of demolished materials, except as indicated otherwise. Do not burn or bury materials on the project site.

1.3 Cleaning

A. Final Cleaning: Perform final cleaning upon completion of project work.
   1. Remove waste and surplus materials, rubbish, tools, equipment and temporary construction facilities from the site.
   2. Clean exterior grounds; remove stains, spills and foreign materials from paved areas, power wash and sweep clean. Rake clean landscaped surfaces of the grounds.
   3. Remove temporary protection and labels not required to remain.
   4. Clean all finished surfaces. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from exposed interior and exterior surfaces.
      a. Clean all plumbing, fire protection and electrical fixtures and equipment including ceiling area elevated ductwork and lighting fixtures.
      b. Clean permanent equipment filters and replace temporary disposable filters in mechanical units used during construction.
      c. Clean ducts, blowers and coils if mechanical units were operated without filters during construction.
   5. Clean interior and exterior glazing and mirrors, polish transparent and glossy surfaces and clean floors with appropriate materials and equipment.
   6. Remove waste, foreign material and debris from roofs, areaways and drainage systems.
   7. Before Tenant occupancy, conduct an inspection, with the Tenant, of exposed interior and exterior surfaces at all work areas, to verify that the entire work is clean.

1.4 Starting and Adjusting:

A. Prior to Substantial Completion, coordinate the start-up, test and balance, placement in operation and adjustment all systems, controls and equipment to verify proper operation. All systems shall be complete and operating prior to final inspection.

1.5 Contract Closeout:

A. Operation and Maintenance Data: Submit one operation and maintenance manual, bound in 8-1/2" x 11" text pages, three D side ring capacity expansion binders with durable plastic covers.
   1. Subdivide the binder contents internally with permanent dividers logically organized as described below. Provide tab titles clearly printed under reinforced laminated plastic tabs.
   2. Provide a table of contents with each product or system description identified.
   3. Provide a directory listing names, addresses, and telephone numbers of the project Architect/Engineer, Contractor, Subcontractors and major equipment suppliers.
   4. Prepare operations and maintenance instructions arranged by system and subdivided by specification section. Identify names, addresses, and telephone numbers of project Subcontractors and suppliers. For each category, identify the following:
      a. Significant design criteria.
      b. List of equipment.
      c. Parts list for each component.
      d. Operating instructions.
      e. Maintenance instructions for each equipment item and systems.
      f. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions for identifying detrimental agents.
   5. Submit operations and maintenance data to the Tenant with final application for payment in accordance with Exhibit C of the Construction Contract.

B. Record/As Built Documents:
   1. Prepare and maintain on site one set of the following record/as built documents:
      a. Contract Documents.
      b. Construction Documents.
      c. Change orders and other modifications to the Contract.
      d. Shop drawings, product data, and samples.
      e. Construction schedule.
   2. Store record/as built documents separate from documents used for construction.
   3. Record actual revisions to the Work, concurrently with construction progress.
   4. Legibly mark and record a description of actual products installed at each specification section, including the following:
      a. Manufacturer's name and product model and number.
      b. Approved product substitutions or alternates utilized.
      c. Changes made by addenda, change orders, and other modifications.
   5. Legibly mark each item to record actual construction, including the following:
      a. Measured depths of foundations in relation to finish first main floor datum.
      b. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
      c. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
      d. Field changes of dimension and detail.
      e. Details not on original Contract Document drawings.
   6. Submit record/as built documents to the Tenant with final application for payment in accordance with Exhibit C of the Construction Contract.

C. Warranties and Bonds:
   1. Compile warranties and bonds required by the Contract Documents.
   2. Submit duplicate copies of warranties and bonds to the Tenant with final application for payment in accordance with Exhibit C of the Construction Contract.

D. Maintenance Materials and Spare Parts:
   1. Provide extra maintenance materials and spare parts in quantities indicated in the specification sections.
   2. Place in location as directed by the Tenant's Construction Manager.

DIVISION 2 - SITE CONSTRUCTION

1.1 General: Provide site construction work, including services, utilities, earthwork, paving and landscaping in accordance with the site construction work drawings and details.

DIVISION 3 - CONCRETE

SECTION 03300 - CAST-IN-PLACE CONCRETE

1.1 General: Provide cast-in-place concrete work in accordance with the General Structural Notes, structural drawing and details. Follow shell building documents for specifications, joints and geotech.

A. Standards: Materials and construction shall conform to the following:
   1. ACI 117 "Standard Tolerances for Concrete Construction and Materials."
   2. ACI 301 "Structural Concrete for Buildings."
   3. ACI 305R "Recommended Practice for Hot Weather Concreting."
   4. ACI 306R "Recommended Practice for Cold Weather Concreting."
   5. ACI 315 "Details and Detailing of Concrete Reinforcement."
   6. ACI 318 "Building Code Requirements for Reinforced Concrete."

2.1 Materials:

A. Under Slab Vapor Retarder: Stego Industries LLC, 877-464-7834, internet www.stegoindustries.com high density polyethylene Stego Wrap (10 mil) Vapor Barrier meeting or exceeding ASTM E1745 performance criteria for Class C vapor retarders.
   1. Seam Tape: High density polyethylene tape with pressure sensitive adhesive.
   2. Pipe boots: Shop or site fabricated from vapor retarder material and seam tape.

B. Concrete:
   1. Portland Cement: ASTM C150, Type I
   2. Aggregate: ASTM C33.
   3. Water: Clean and potable.
   4. Reinforcement: When required, comply with drawings reinforcement requirements.
   5. Compressive Strength: Minimum 3000 psi at 28 days.
   6. Admixtures: All admixtures shall be approved by the Tenant's Construction Manager prior to placement in the concrete mix.

C. Topping Concrete: When required to suit installation conditions, Ardex Diama-Top of Ardex Engineered Cements (888) 512-7339, internet www.ardex.com
   1. ULTRAFLOR ARDEX DIAMA-TOP, self-leveling concrete repair material.
   2. Any pinholes that need to be filled shall be filled with ARDEX DIAMA-FILL filling compound for polished concrete, concrete terrazzo and other cementitious wear surfaces applied at the appropriate time during the polishing process.
   3. The primer for areas to receive ARDEX DIAMA-TOP will be ARDEX EP 2000 Substrate Preparation Epoxy.
   4. Installation shall be performed by factory-trained professional applicators in strict accordance with manufacturer's installation instructions.

3.1 Installation

A. Vapor Retarder: Place, protect and repair vapor retarder sheets in accordance with ASTM E1643 and manufacturer's installation instructions.
   1. Provide a single layer of vapor retarder material over level compacted slab base.
   2. Lap joints and seams 6 inches and seal with seam tape.
   3. Seal all penetrations and repair damaged areas before concrete placement.

B. Reinforcement Place and inspect all reinforcing steel before concrete is placed.

C. Concrete Placement:
   1. Place cast-in-place concrete in accordance with ACI 301 and ACI 305R and 306R recommended practices for hot weather and cold weather concreting. Do not place concrete when temperature is below 40 degrees F.
   2. Wet cure concrete in accordance with ACI 301, using moist curing or moisture-retaining covers

D. Finish: Except where additional floor finish is scheduled, provide a smooth steel trowel finish.
   1. Exposed concrete used as a finish floor surface shall have a smooth finished surface, uniform in texture and appearance and free of trowel marks and other defects affecting ease of maintenance.
   2. Grind smooth surface defects as directed by the Tenant's Construction Manager.

E. Testing: When required, comply with drawings and specification sections testing requirements.

F. Topping Concrete: Prepare concrete floor slab substrate surfaces, prime substrate surfaces, mix, install and finish topping concrete in accordance with manufacturer's application instructions.

DIVISION 4 - MASONRY

SECTION 04810 - UNIT MASONRY ASSEMBLIES

1.1 General: Provide unit masonry assemblies as shown and specified.

A. Standards: Materials and construction shall conform to the following:
   1. ACI 530.1-02/ASCE 6-02/TMS 602-02 "Specifications for Masonry Structures."
   2. NCMA "TEK Bulletins."
   3. BIA "Technical Notes on Brick Construction."

2.1 Materials:

A. Concrete Masonry Units (CMU): Size and thickness as shown on drawings.
   1. ASTM C 90, load-bearing, normal weight, natural color CMU, properly cured at time of delivery, linear shrinkage not to exceed 0.065%.
   2. Provide special shapes where required.
   3. Provide exterior wall CMU containing an integral polymeric water-repellent admixture.
      a. Manufacturer: W. R. Grace "Dry-BlockR System Block Admix ".

B. Face Brick:
   1. Manufacturer:
      a. Endicott, (402) 729-3315, www.endicott.com (Iron Spot Brick), or as approved by architect
      b. Belden Brick Company, (330) 451-2031, www.beldenbrick.com (White Brick), or as approved by architect
   2. Type: "Face Brick C216" complying with ASTM C216, Grade SW, Type FBS. No efflorescence when tested in accordance with ASTM C67.
   3. Size: Modular size, laying three courses to 8" vertically.
   4. Color: "Alaska White Veloour" or "Magnese Ironspot, Velour" as noted on Exterior Elevations
   5. Provide special shapes where required.

C. Mortar Materials:
   1. Portland cement: ASTM C150, Type I or III, natural color.
   2. Masonry cement: ASTM C91, Type indicated, natural color.
   3. Aggregate: ASTM C144, clean masonry sand.
   4. Water: Clean, fresh and potable.
   5. Provide all exterior wall masonry mortar containing an integral polymeric water-repellent admixture.
      a. Manufacturer W. R. Grace, "Dry-BlockR Integral Water-Repellent Mortar Admixture".

D. Unit Masonry Mortar Mixes: ASTM C270 proportions by volume.
   1. Face brick: Type N mortar.
   2. Dye:
      a. SGS #60A "White" by Solomon Grind Services (White)
      b. SM #750 "Silverstone" by Spec Mix (Iron Spot)

E. Reinforced Unit Masonry Grout Mixes
   1. Concrete fill: ASTM C94 3,000 psi concrete.

Consultant:
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DAVID A. EFAW
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08/25/21	PERMIT SET

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Checked: AA, TC

Project No. CAC001

Contents: ARCHITECTURAL SPECIFICATIONS

G010

F. Joint Reinforcement, Wall Ties And Anchors: Finish, ASTM A-153 hot-dip galvanized
1. Manufacturer: Hohman & Barnard, INC.
2. Horizontal joint reinforcement: Welded ladder type with matching corners and Tee units.
a. Single Wythe masonry: Standard single 9 gage side and cross rods. H&B - #220 Ladder-Mesh.
3. Anchoring devices: Provide strap anchors, inserts, bolts and rods of type and size indicated.
a. CMU to CMU: Strap anchors 1/4" x 1-1/4" x 24" steel with bent ends.
b. CMU to structural steel: H&B - VBT - Vee Byne-Tie With Plain Steel (Tie) Used In Conjunction With H&B #359 Weld-on Ties (Anchor Rods).
4. Masonry Veneer To Woof Framing: H&B - DW-10HS Veneer Anchor, With Adjustable 3/16" Cold-Drawn Steel Wire Tie Sections and 14 GA. Screw-On Attachment Plate.
a. Fasteners: Self-Drilling, Self-Tapping Screws, 1-1/4" X #10, Corrosion-Resistant Coated. Provide Two (2) Screw Fasteners for each Attachment Plate.
5. Seismic Masonry Veneer to Wood Framing: (When Required) H&B Seismic Plate Pintle HB-213S with HB-213 (T-Lok Tie)
a. Fasteners: Seld-Drilling, Self-Tapping Screws, 1-1/4" X #10, Corrosion-Resistant Coated. Provide Two (2) Screw Fasteners For Each Attachment Plate.

G. Concealed Masonry Through-Wall Flashing: W. R. Grace "Perm-A-Barrier" self-adhering modified bituminous sheet, 40 mils thick.
1. Termination Mastic: W.R. Grace "Bituthene Mastic."
2. Primer: W.R. Grace "Bituthene P-300 Primer."
3. Termination bars: Extruded aluminum or stainless steel, 1" wide and .098" thick pre-punched at 6" on center, secured with stainless steel drive pins.

H. Accessories
1. Reinforcing bars: ASTM A615, Grade 60, deformed billet steel bars of sizes indicated.
2. Wall weeps: Dur-O-Wal D/A 1006 "Cell Vent", clear flexible polypropylene co-polymer.
3. Compressible joint material: Dur-O-Wal "Rapid Soft-Joint" D/A 2010.
4. Bond breaker strips: ASTM D226 No. 15 asphalt saturated roofing felt.
5. Cleaning agents:
a. Face Brick and CMU: ProSoCo, Inc., "Sure Klean New Masonry Cleaners."
b. ACMU: ProSoCo, Inc., "Sure Klean Burnished Custom Masonry Cleaner."
6. Expansion/Control joint sealants: Polyurethane-based, elastomeric joint sealant complying with ASTM C920 and Section 07900 requirements. Color matched to adjacent surfaces.

3.1 Installation

A. Preparation
1. Wet absorbent face brick masonry units requiring wetting, in accordance with BIA recommendations.
2. Lay concrete masonry units dry.
3. Establish, lines, levels and coursing. Ensure ties, anchors and flashing are correctly installed
4. Mix mortar cementitious materials and aggregate in a mechanical mixer. Add water in amount to provide satisfactory workable consistency of mortar. Retemper mortar as required within two hours of mixing to replace water lost be evaporation. Discard mortar after two and one-half hours of initial mixing. Do not use mortar after it has started to set.

B. Installation - General:
1. Build walls and other masonry construction to the full thickness shown. Build single wythe walls to the actual thickness of the masonry units, using units of nominal thickness shown.
2. Cut masonry units using motor-driven masonry saws to provide clean, sharp edges. Cut units to fit adjoining work neatly. Provide 100% solid units where cores would be exposed.
3. Cold weather construction, hot weather construction, and masonry construction tolerances: Comply with unit masonry standard ACI 530.1/ASCE 6/TMS 602 requirements.

C. Laying Masonry
1. Layout walls in advance to ensure accurate spacing of surface bond patterns, with uniform joint widths, and to properly locate openings, movement type joints, returns and offsets. Do not use less than half-size units at corners, jambs and other locations.
2. Lay up walls plumb and true to comply with ACI 530.1 tolerances. Provide square corners and angles, except as otherwise indicated, with courses level, accurately spaced and coordinated with other work.
3. Pattern bond: Running bond. Do not use units with less than 4" of horizontal face dimensions at corners or jambs.
4. Lay hollow CMU/ACMU with full mortar coverage on horizontal and vertical face shells. Bed CMU webs in mortar in starting courses. Maintain uniform 3/8" joint widths.
5. Lay face brick and solid CMU/ACMU with completely filled bed and head joints. Do not slush head joints. Maintain uniform 3/8" joint widths.
6. Compress and cut joints flush for masonry walls below grade or covered by other materials.
7. Tool joints in all exposed masonry work to a concave joint.
8. Provide interlocking masonry bond in each course at corners and intersecting walls.
9. As the work progresses, build in masonry accessories and related items. Fill in solidly with masonry around built-in items.
a. Bed hollow metal frame anchors in mortar and fill space between hollow metal frames and masonry solid with fine mortar grout.
b. Provide solid masonry bearing for all lintels, beams, joists, plates and load-bearing members.
c. Take particular care to embed all conduits and pipes within concrete masonry without fracturing exposed shells and to fit units around switch, receptacle and other boxes set in walls. Where electric conduit, outlets, switch boxes and similar items occur, grind and cut units before building in services.
d. Install anchors, plates and related work built into masonry work.
e. Install reinforcing steel and concrete fill where indicated. Comply with drawing details.
10. Horizontal joint reinforcing: Provide continuous joint reinforcing at all concrete masonry walls as follows:
a. In every second block course, 16" on center vertically, full height of wall and every block course where shown on the drawings.
b. Lap reinforcement a full width at the corners and at intersections or use special fabricated sections.
c. Fully embed side rods in mortar.
11. Anchoring masonry work: Provide anchoring devices of the type indicated or required.
12. Provide vertical expansion, control and isolation joints in masonry where indicated.
a. When not indicated, at maximum 30'-0" on center.
b. Locate control joints at points of natural weakness in masonry and acceptable to Architect.
c. Joint sealant color shall match masonry materials sealed.
13. Lintels: Install loose steel lintels furnished under structural steel work where shown. Set lintels in full bed of mortar.
14. Flashing and weeps:
a. Install concealed through wall masonry flashing at all wall sills, masonry openings in exterior walls with masonry above head, over all horizontal steel members built into masonry and elsewhere as indicated. Provide "drainage wall system" masonry construction.
b. Provide end dams and positive slope to drain. Extend flashing vertically at least 8" and built into or anchor to back-up with a termination bar for a complete watertight installation.
c. Flexible Membrane Flashing:
1.) Install membrane flashing in accordance with manufacturer's installation instructions.
2.) Fully adhere flashing to substrate.
3.) Lap flashing joints a minimum of 6", seal and roll with a hand roller.
4.) Trim bottom edge 1/4" back from exposed face of masonry.
5.) Seal edges, seams, cuts and penetrations with manufacturer's recommended mastic.
15. Install weeps in head joints of final course of exterior masonry wythe above flashing. Space weeps maximum of 24" on center horizontally and located to avoid door openings. Install weeps at head joints with outside face of weep material held 1/8" from the finish face of masonry unit.
16. Install compressible joint material at lintels and horizontal steel members. Build in joint fillers and seal with elastomeric joint sealant.

D. Masonry Veneer Walls:
1. Metal framed walls: Tie exterior masonry veneer wythe to back-up wall with individual metal ties screwed to metal stud framing.
2. Space ties 16" on center vertically and horizontally.
3. Maintain veneer wall cavity free of mortar droppings during masonry installation.

E. Parging:
1. Dampen masonry walls prior to parging.
2. Scarify each parging coat to ensure full bond to subsequent coat.
3. Parge masonry walls in two uniform coats of mortar to a total thickness of 3/4 inch (19mm).
4. Steel trowel surface smooth abs flat with a maximum surface variation of 1/8 inch per foot (1mm/meter).

F. Architectural Concrete Masonry Units: Install ACMU in accordance with the manufacturer's installation instructions and the following:
1. Draw ACMU from more than one pallet at a time during installation.

G. Reinforced Concrete Masonry
1. Reinforce and fill CMU/ACMU wall and column masonry where indicated. Fill all cores solid with concrete fill. Comply with NCMA TEK Bulletins 3-2, 3-3A and 14-2 recommendations.
a. Comply with drawing details for reinforcing steel size and spacing.
2. Install bond beams where indicated. Reinforce and fill units solid with concrete fill. Comply with drawing details for reinforcing steel size and spacing.

H. Repair, Pointing and Cleaning
1. In process cleaning: Wipe off excess mortar as the work progresses. Dry brush with bristle brushes exposed masonry at the end of each day's work. Remove mortar spatters and joint ridges.
2. Clean all exposed masonry. Cleaning agents subject to Architect's approval. Before applying any cleaning agent to the entire wall, clean a sample wall area of approximately 20 square feet in a location acceptable to the Architect. Do not proceed with final cleaning until the sample area has been allowed to dry a minimum of 3 days and the test area cleaning approved. Protect all windows, doors, louvers, metal lintels and other corrodible parts. Damaged materials and work replaced at Contractor's expense.
3. Dry clean exposed surfaces to remove large particles of mortar using hardwood wood paddles and scrapers. Metal tools not acceptable.
4. Presoak exposed masonry surfaces by saturating with water and flush off loose mortar and dirt.
5. Apply cleaning solutions and clean masonry in accordance with the cleaning material manufacturer's cleaning instructions.
6. Muriatic acid cleaning of masonry not permitted.

I. Architectural Concrete Masonry:
1. Keep ACMU walls clean during installation. Remove excess mortar on daily basis using brushes, rags or burlap squares.
2. Clean completed walls with detergent masonry cleaner recommended by the ACMU manufacturer. Acid cleaning agents, abrasive cleaners, tools or powders and metal cleaning tools and brushes are not permitted.
3. After final clean down and when walls are dry, apply ACMU acrylic finish coating in accordance with ACMU manufacturer's application instructions.

DIVISION 5 - METALS

SECTION 05120 - STRUCTURAL STEEL

1.1 General: Provide structural steel in accordance with the General Structural Notes and structural drawings and details.

A. Standards: Materials and construction shall conform to following:
1. AISC "Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings."
2. AISC "Code of Standard Practice."
3. AWS "Structural Welding Code, D1.1-Steel."

2.1 Materials:

A. Materials compliance: When requested, submit acceptable data documenting materials compliance for each type of material required.

B. Structural Shapes: ASTM A36/A36M, 36 ksi steel.

C. Tubular Steel: ASTM A500, 46 ksi yield strength steel, cold-formed welded and seamless.

D. Structural pipe: ASTM A53, type and grade selected by the fabricator as required for design loading, standard finish, standard weight (Schedule 40) except as otherwise indicated.

E. Grout: ASTM C1107, pre-mixed, shrinkage resistant, non-metallic, non-corrosive, non-staining grout.

F. Shop paint primer: Refer to Section 09900 - Paints and Coatings.

G. Fabrication: Fabricate structural steel in accordance with AISC "Specification - Structural Steel for Buildings" and "Code of Standard Practice." Provide welded or bolted connections in accordance with the Structural Drawings connection requirements.
1. Welding: Conform to AWS welding standards. Provide only continuous welds, spot welding is not acceptable. Grind all exposed welds smooth.
2. Splicing: Material, if spliced, shall have maximum one splice per structural member. Perform splicing by full penetration butt-welding using AWS qualified welders and welding methods.
3. Shop painting: Shop paint structural metal members, except members or portions of members to be embedded in concrete or masonry, surfaces and edges to be field welded and galvanized surfaces. Refer to Section 09900 - Paints and Coatings.

3.1 Installation:

A. Erection: Erect structural steel in accordance with AISC "Specification - Structural Steel for Buildings" and "Code of Standard Practice".
1. Plumb, level and align base plates for structural members with steel shims.
2. Grout structural steel base plates solid that bear on concrete or masonry surfaces.

B. Testing: When required, comply with drawings testing requirements.

SECTION 05400 - COLD-FORMED METAL FRAMING

1.1 General: Provide cold-formed metal framing in accordance with the General Structural Notes and structural drawings and details.

A. Standards: Materials and construction shall conform to following:
1. AISI SG02.2-01 "Design of Cold-Formed Steel Structural Members."
2. AWS "Structural Welding Codes, D1.3-Sheet Steel."

2.1 Materials:

A. Materials compliance: When requested, submit acceptable data documenting materials compliance for each type of material required.

B. Load-Bearing Cold-Formed Metal Framing: ASTM A1003, Gage, Grade and Type indicated.
1. Components: Provide sizes and shapes indicated.
2. Finish: Galvanized complying with ASTM A653, minimum G60 coating.

C. Fabrication:
1. Cold-formed metal framing may be prefabricated into panels before erection. Fabricate panels plumb, square, true to line and braced against racking with joints welded.
a. Provide one-piece full-length cold-formed metal framing members. Splicing not permitted.
2. Attach and join other components by welding or screw fasteners, as indicated. Wire tying of framing components is not permitted.
3. Cut framing to fit squarely for attachment to perpendicular members or as required for angular fit against abutting members. Hold members securely in position until properly fastened.
4. Saw cut field cut framing. Torch cutting not acceptable.

3.1. Installation:

A. Erection: Erect cold-formed metal framing members of gage and at spacing indicated on the Structural Drawings. Align and secure studs to top and bottom runner tracks by welding or screw fasteners at both inside and outside flanges.

B. Tolerance Acceptance: Install cold-formed metal framing member as indicated on the plans. Install to 1/16" tolerance.

DIVISION 6 - WOOD AND PLASTICS

SECTION 06100 - ROUGH CARPENTRY

1.1 General: Provide rough carpentry work as shown and specified.

A. Standards: Materials and construction shall conform to following:
1. NIST PS-1-95 "Construction and Industrial Plywood."
2. NIST PS-2-95 "Performance Standards for Wood-Based Structural-Use Panels."
3. NIST PS-20-99 "American Softwood Lumber Standard."
4. NF&PA NDS-97 "Wood Construction and Supplement."
5. AWPA "Wood Treatment Standards."

2.1 Materials:

A. Lumber: Factory grade-marked, dressed, seasoned dimension lumber, S4S, air-dried, maximum 19% moisture content complying with PS-20, dimensions indicated.
1. Blocking, nailers and similar members: Standard Grade Western Dimension Lumber or Southern Pine species.
a. Provide preservative treated lumber, where indicated.

B. Plywood: Factory grade-marked, complying with PS-1, square edge, 5/8" thick.
1. APA-RATED SHEATHING EXP1.
a. Provide Exterior Grade (EXT) plywood, where indicated.
b. Provide fire-retardant treated plywood, where required by Building Code.

C. Oriented Strand Board (OSB): Factory grade-marked, complying with PS-2, square edge, 5/8" thick

2.2 Wood Treatment:

A. Preservative Treatment: Comply with applicable requirements of AWPA Standards C2 (Lumber).
1. Pressure preservative treat lumber with water-borne preservatives, acceptable to authorities having jurisdiction, to a minimum retention of 0.25 pcf.
2. Treat wood blocking, nailers and similar members in connection with roofing and flashing.
3. Treat wood plates, blocking, furring and similar concealed members in contact with masonry or concrete.

B. Fire-Retardant Treatment: Comply with applicable requirements of AWPA Standards C27 (Plywood). Identify "fire-retardant-treated plywood" with appropriate UL classification marking.
1. Treated materials shall meet "Interior Type A" FR-S ratings of not more than 25 for flame spread, smoke developed and fuel contributed when tested in accordance with UL 723 or ASTM E84, with no increase in flame spread and evidence of significant progressive combustion upon continuation of test for additional 30 minutes.

C. Kiln-dry all treated lumber and plywood materials after treatment to maximum 15% moisture content.

3.1 Installation:

A. Lumber: Provide wood blocking, nailers and similar members where shown and where required for attachment of other work and surface applied items. Attach to substrate as required to support applied loading.
1. Use only sound, seasoned materials of longest practical lengths and sizes to minimize joints.
2. Use materials free of warp. Make tight connections between members.

SECTION 06210 - FINISH CARPENTRY AND MILLWORK

1.1 General: Provide finish carpentry and millwork as shown and specified.

A. Standards: Materials and construction shall conform to the following:
1. AWI "Architectural Woodwork Quality Standards - 1999."

B. Doors and door hardware: Install all door hardware furnished under Division 8 specification Sections.

C. Submit shop drawings for designated millwork.
1. Include complete details, materials lists and drawings showing fabrication of typical units, unit assemblies, locations and installation details.
2. List proposed cabinet hardware to suit indicated unit use or function.
3. Identify materials required to complete work ready for installation.
4. Obtain shop drawing approval before starting fabrication.

2.1 Materials:

A. Plywood: AWI Section 200
1. Concealed use substrates: D-3 Paint Grade hardwood plywood, with aspen veneer core, 5/8" thick.
2. Exposed to view finishes: Random plank matched or slip and swing matched spalted maple veneer on 3/4" Baltic birch core, with mill option sound grade hardwood backer. Spalted maple grain to run horizontally .5 sheen matte clear waterborne finish. Panels to be provided at 47" height, with widths varying from 24" to 96".

B. Millwork: Materials and construction as detailed on the Drawings.

C. Fabrication:
1. Millwork design and fabrication details shown on the drawings indicate design intent. Unless otherwise indicated, provide manufacturer's standard fabrication methods. Indicate all proposed variations from the drawing design and fabrication details on shop drawings.
2. Fabricate millwork in accordance with AWI "Custom Grade" requirements. Where details are not shown, comply with applicable Quality Standards or with alternate details acceptable to Architect as fabricator's option.
3. Fabricate finished work properly framed, closely fit and accurately set to required lines and levels and rigidly secured in place.
4. Fabricate work straight, plumb, level and in true alignment; neatly and accurately fit, scribed and thoroughly secured. Plane and sand miters and other joints. Ease all square edges. Provide millwork clean and free from warp, twist, open joints and other defects.
5. Provide finished woodwork dressed and sanded free from machine and tool marks, abrasions, raised grain or other defects on surfaces exposed to view in finished work.

D. Finish: Sayerlack Hydroplus Waterborne Clear, 5 sheen.

3.1 Installation

A. Install finish carpentry and millwork products plumb, level, true and straight with no distortion. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level (including countertops) and with 1/16" maximum offset in flush adjoining surfaces, 1/8" maximum offsets in revealed adjoining surfaces.
1. Scribe and cut finish carpentry and millwork products to fit adjoining work.
2. Anchor finish carpentry and millwork items to built-in place blocking, furnished under Section 06100, or directly attach to substrate framing. Secure to grounds, blocking and nailers with countersunk, concealed fasteners and blind nailing as required for a complete installation.
3. For installation of prefinished millwork wall panels, use finish nails for exposed nailing, installed with pneumatic nailer as per the following guidelines:
a. Nailer to be set for countersunk head approximately 1/8" on the face.
b. Use 16 ga straight finish nails in 2" length
c. Provide "dab" of construction adhesive on backside of panels at regular intervals.
d. Random placement preferred, do NOT group nails together.
e. No nails closer than 2" from any edge.
f. All nails to be no greater than 16-18" apart in any direction.
4. Touch-up shop finished millwork materials marred or damaged during delivery, storage and installation with custom blended polyurethane to equal Minwax "Wipe on Poly".

B. Install casework without distortion so that doors and drawers will fit openings properly and be accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation.

C. Install plastic laminate countertops, shelving and trim. Provide work level, true to alignment, accurately fit to wall conditions and securely fastened to base units and other support systems as indicated.

SECTION 07210 - BUILDING INSULATION

1.1 General: Provide building insulation as shown and specified.

2.1 Materials:

A. Extruded polystyrene foam rigid board insulation: Dow Chemical Co., 866-583-2583, internet www.dowbuildingmaterials.com
1. Type: Dow "Styrofoam" Type IV, 1.6 pcf minimum density, 25 psi compressive strength complying with ASTM C 578, R-value equal 5 per inch of thickness. Provide lengths and widths as required to coordinate with space insulated.
2. Perimeter foundation walls: Styrofoam SE, R-value indicated.

B. Glass fiber batt/blanket insulation: Owens Corning Corp., (800) 438-7465, internet www.owenscorning.com.
1. Type: Owens Corning " Thermal Batt" Type I unfaced glass fibers and binders formed into flexible blankets or batts complying with ASTM C665,. Provide lengths and widths required to coordinate with spaces insulated.
2. Exterior walls: Unfaced, R-value/thickness indicated

C. Vapor barrier membrane: Polyethylene, minimum 6 mils thick, complying with ASTM D 4397, maximum permeance rating of 0.13 perm.
1. Joint tape: Pressure sensitive tape designed for sealing joints and penetrations of above and below grade vapor barrier sheets.
2. Mounting tape: Double-faced pressure sensitive tape suitable for mounting vapor barriers to steel framing.

3.1 Installation:

A. General:
1. Install insulation in accordance with manufacturer's recommendations for conditions of installation indicated. Install insulation in single layer of required thickness over entire area to be insulated. Cut and fit tightly around obstructions. Fill all voids.
2. Install exterior wall insulation continuous behind electrical boxes, conduit, piping and ductwork.

B. Foundation perimeter walls and slabs:
1. Install rigid foam insulation vertically from top of slab to frost line or horizontally under slabs, extending a minimum 36" in from exterior walls.
2. Protect insulation from displacement and damage during backfilling and slab placement

C. Exterior Walls:
1. Install batt/blanket insulation full height at exterior wall framing. Use blanket widths and lengths that fill cavities formed by framing members and provide a friction fit between edges of insulation and metal framing members.
2. Provide galvanized wire mesh or metal strapping to provide supplementary support when required to maintain insulation in permanent proper location.

D. Vapor Barriers:
1. Install a single layer of vapor barrier membrane over the interior of exterior metal wall framing after installation of insulation. Secure with double faced tape at wall framing.
2. Provide single unspliced material height. Horizontal joints not acceptable. Minimize vertical joints. Lap vertical joints and secure in place with joints taped. Provide tape sealed contact with door frames, window frames, piping, conduit, ductwork, registers and the vapor barrier.
3. Seal all cuts and penetrations of vapor barrier membrane with tape before installing surface finishes.

SECTION 07240 -EXTERIOR INSULATION AND FINISH SYSTEM (PB)

1.1 General: Provide the exterior insulation and finish system (EIFS) as shown and specified.

A. Standards: Materials and construction shall conform to the following:
1. EIMA (EIFS Industry Members Association) Standards and Publications.
a. 101.01, 101.02, 101.03, 101.86, 105.01, 200.02.
b. EIMA "Guideline Specification for Expanded Polystyrene (EPS) Insulation board."

B. Quality Assurance:
1. System components:
a. Produced by a single manufacturer or by manufacturers approved by the EIFS system manufacturer.
b. Fire performance: Flame spread of 25 or less, smoke developed of 450 or less when tested in accordance with ASTM E84.
2. Installer Qualifications: Performed by the system manufacturer or an applicator trained and approved by the system manufacturer. During application, the work shall be inspected by system manufacturer's representative.

C. Environmental conditions: Comply with manufacturer's requirements. Do not install materials during wet or freezing weather.

2.1 Materials

A. Manufacturer: STO Corp., (800) 221-2397, internet www.stocorp.com

B. Exterior insulation and finish system: Sto Class PB "Essence NExt" EIFS.
1. Air/Moisture barrier: Sto Guard system.
a. Sto Gold Fill Joint compound for rough opening protection, sheathing joints and inside and outside corners.
b. Sto Guard Mesh: Coated glass fiber fabric reinforcing mesh.
c. Sto Gold coat: Waterproof coating for wall sheathing.
2. Primer/adhesive and base coat: Sto Primer/Adhesive-B, one-component, polymer modified, cement -based factory blended primer/adhesive used to attach insulation board to prepared sheathing substrates and as a base coat in Essence claddings.
3. Insulation board: ASTM C578 Type 1, nominal 1.0 lb/ft² expanded polystyrene meeting EIMA Guideline specifications for EPS insulation board.
4. Finish coating: Sto Essence DPR, ready-mixed 100% acrylic-based, textured wall coating.
a. Medium/Fine Sand Finish.
b. Color as indicated on the Architectural drawings from manufacturer's full color range or match custom color.
5. System warranty: 10 year labor and material.

C. Portland cement: ASTM C150, Type I or II, white or gray in color.

D. Water: Clean, potable and free of foreign matter.

E. Reinforcing mesh: Sto open-weave glass fiber fabric with alkaline resistant coating.
1. Standard mesh: Sto Mesh, nominal 4.5 oz/yd² fabric.
2. Ultra-High impact mesh: Sto Armor Mat, nominal 15 oz/yd² ultra-high impact fabric.
3. Specialty mesh:
a. Sto Detail Mesh, nominal 4.2 oz/yd² flexible, symmetrical, interlaced glass fiber fabric.
b. Sto Corner Mat, nominal 7.8 oz/yd² pre-creased, heavy-duty, glass fiber fabric.

F. Joint sealants: Polyurethane base elastomeric joint sealant complying with ASTM C920 and Section 07900 requirements.
1. Adhesion: Evaluated in accordance with ASTM C1382.
2. Color: Matching EIFS finish coating color, and visually acceptable to the Architect.

G. Accessories: Provide plastic stops and trim where indicated. Materials shall be compatible with EIFS materials and acceptable to EIFS manufacturer.
1. Starter Track: Rigid PVC plastic track with weepholes and drip edge.

3.1 Mixing

A. Mix materials in accordance with manufacturer's published instructions.
1. Mix with a clean, rust-free high speed mixer to a uniform consistency.
2. No rapid binder, anti-freeze or accelerator additives permitted.

4.1 Installation

A. Preparation:
1. Coordinate installation of roofing membrane, windows, doors and other wall penetrations to provide a continuous exterior wall air/moisture barrier.
2. Coordinate installation of windows, doors and window and door flashing to provide a continuous exterior wall air/moisture barrier.
3. Install copings and joint sealants immediately after installation of the EIFS, when EIFS coatings are dry.

B. Installation: Install Sto Guard air/moisture barrier system and exterior insulation and finish system (EIFS) in strict accordance with manufacturer's installation instructions, complying with governing regulations and industry standards applicable to the work.
1. Back wrap exposed board edges with mesh.
2. Provide double wrap or corner mat reinforcing at all inside and outside corners.
3. Provide expansion joints in accordance with manufacturer's recommendations for type of substrates and systems required, and visually acceptable to the Architect.
4. Provide drainable starter track horizontal edge trim as base of wall, above windows and doors openings and beneath windows with concealed flashing.

C. Insulation and adhesive application:
1. Install insulation board with long edge horizontal using running bond pattern. Off set insulation joints with substrate joints. Stagger joints and interlock joints at corners.
2. Apply adhesive to insulation board with a stainless steel trowel notched trowel, providing vertical uniform ribbons of adhesive when board is installed. Mount insulation board on substrate. Level, align and tamp insulation in place. Provide uniform contact and bond with joints tightly butted. Rasp edges and high areas as required to produce a level, plane surface.

D. Base coat and reinforcing mesh application:
1. Apply detail mesh at corners of windows, doors, and all penetrations through the EIFS.
2. Standard mesh: Apply base coat over insulation board to a uniform 1/8 inch thickness, including high impact mesh where indicated. Embed standard reinforcing mesh into wet adhesive, lap edges at seams. Smooth surface until mesh is not visible. Allow to base coat to dry.
3. Ultra-High impact mesh: Apply base coat over insulation board to a uniform 1/8 inch thickness. Fully embed ultra-high impact reinforcing mesh into wet adhesive, butt edges at seams. Smooth surface until mesh is not visible. Allow to base coat to dry. Locate at 4'-0" wide perimeter of the rear service door to 6'-0" above grade and as indicated on Architectural drawings.

E. Apply finish coating continuously in one operation to the entire wall surface Provide a uniform finished appearance. Level and texture to the specified finish texture.

F. Install joint sealants at perimeter joints and joints within the system using elastomeric joint sealants, in accordance with drawing details and sealant manufacturer's recommendations.

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ARCHITECTURAL SPECIFICATIONS

G011

SECTION 07250 - WEATHER BARRIERS

1.1 Section Includes

A. Weather barrier membrane
B. Seam Tape
C. Flashing
D. Fasteners

1.2 References

A. ASTM International
1. ASTM C920; Standard Specification for Elastomeric Joint Sealants
2. ASTM C1193; Standard Guide for Use of Joint Sealants
3. ASTM D882; Test Method for Tensile Properties of Thin Plastic Sheeting
4. ASTM D1117; Standard Guide for Evaluating Non-woven Fabrics
5. ASTM E84; Test Method for Surface Burning Characteristics of Building Materials
6. ASTM E96; Test Method for Water Vapor Transmission of Materials
7. ASTM E1677; Specification for Air Retarder Material or System for Framed Building Walls.
8. ASTM E2178; Test Method for Air Permeance of Building Materials

B. AATCC - American Association of Textile Chemists and Colorists
1. Test Method 127 Water Resistance: Hydrostatic Pressure Test

C. TAPPI
1. Test Method T-410; Grams or Paper and Paperboard (Weight per Unit Area)
2. Test Method T-460; Air Resistance (Gurley Hill Method)

1.3 Quality Assurance

A. Qualifications
1. Installer shall have experience with installation of commercial weather barrier assemblies under similar conditions.
2. Installation shall be in accordance with weather barrier manufacturer's installation guidelines and recommendations.
3. Source Limitations: Provide commercial weather barrier and accessory materials produced by single manufacturer.

1.4 Delivery, Storage and Handling

A. Refer to Section 01400 Quality Requirements.
B. Deliver weather barrier materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
C. Store weather barrier materials as recommended by weather barrier manufacturer.

1.5 Scheduling

A. Review requirements for sequencing of installation of weather barrier assembly with installation of windows, doors, louvers and flashings to provide a weather-tight barrier assembly.
B. Schedule installation of weather barrier materials and exterior cladding within nine months of weather barrier assembly installation.

2.1 Manufacturer

A. DuPont Building Innovations; 4417 Lancaster Pike, Chestnut Run Plaza 721, Wilmington, D19805; 1.800.44TYVEK (8-9835); http://constructiontyvek.com

2.2 Materials

A. Basis of Design: Hi-performance, spunbonded polyolefin, non-woven, non perforated, weather barrier is based upon DuPont Tyvek CommercialWrap and related assembly components.

B. Performance Characteristics:
1. Air Penetration: 0.001 CFM/feet squared at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677.
2. Water Vapor Transmission: 28 perms, when tested in accordance with ASTM E96 Method B.
3. Water Penetration Resistance: 280 cm when tested in accordance with AATCC Test Method 127.
4. Basis Weight: 2.7 oz/yard squared, when tested in accordance with TAPPI Test Method T-410.
5. Air Resistance: Air infiltration at >1500 seconds, when tested in accordance with TAPPI Test Method T-460.
6. Tensile Strength: 38/35 lbs/inch, when tested in accordance with ASTM D882, Method A.
7. Tear Resistance: 12/10 lbs., when tested in accordance with ASTM D1117.
8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E 84. Flame Spread: 10, Smoke Developed: 10.

2.3 Accessories

A. Seam Tape: 3 inch wide, DuPont Tyvek Tape for commercial applications.

B. Fasteners:
1. For steel frame construction - DuPont Tyvek Wrap Cap Screws, as manufactured by DuPont Building Innovations: 1-5/8" rust resistant screw with 2-inch diameter plastic cap or manufacturer approved 1-1/4" or 2" metal gasketed washer.
2. For wood frame construction - Tyvek Wrap Caps, as manufactured by DuPont Building Innovations: #4 nails with large 1-inch plastic cap fasteners.
3. For masonry construction - masonry tap-con fasteners with Tyvek Wrap Caps as manufactured by DuPont Building Innovations: 2 inch diameter plastic cap fasteners.

C. Adhesives:
1. Provide adhesive recommended by weather barrier manufacturer.
2. Products:
a. Liquid Nails LN-109
b. Polyglaze SM 5700
c. Denso Butyl Liquid
d. 3M High Strength 90
e. SIA 665
f. Adhesives recommended by the weather barrier manufacturer.

D. Primers:
1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.
2. Product:
a. 3M High Strength 90
b. Denso Butyl Spray
c. SIA 655
d. Permagrip 105
e. ITW TACC Sta' Put SPH
f. Primers recommended by the flashing manufacturer.

E. Flashing:
1. DuPont FlexWrap, as manufactured by DuPont Building Innovations: flexible membrane flashing materials for window openings and penetrations.
2. DuPont Straightflash, as manufactured by DuPont Building Innovations: straight flashing membrane materials for flashing windows and doors and sealing penetrations such as masonry ties, etc.
3. DuPont Straightflash VF, as manufactured by DuPont Building Innovations: dual-sided straight flashing membrane materials for brick mold and non-flanged windows and doors.

3.1 Examination
A. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 Installation - Weather Barrier
A. Install weather barrier per regional requirements in accordance with manufacturer recommendations.
B Install weather barrier prior to installation of windows and doors.
C. Start weather barrier installation at a building corner, leaving 6-12 inches of weather barrier extended beyond corner to overlap.
D. Install weather barrier in a horizontal manner starting at the lower portion of the wall surface with subsequent layers installed in a shingling manner to overlap lower layers. Maintain weather barrier plumb and level.
E. Sill Plate Interface: Extend lower edge of weather barrier over sill plate interface 3-6 inches. Secure to foundation with elastomeric sealant as recommended by weather barrier manufacturer.
F. Window and Door Openings: Extend weather barrier completely over openings.
G. Overlap weather barrier
1. Exterior corners: minimum 12 inches.
2. Seams: minimum 6 inches.
H. Weather barrier Attachment:
1. For steel or wood frame construction - Attach weather barrier to studs through exterior sheathing. Secure using weather barrier manufacturer recommended fasteners, space 12-18 inches vertically on center along stud line, and 24 inch on center, maximum horizontally.
2. For masonry construction - Attach weather barrier to masonry. Secure using weather barrier manufacturer recommended fasteners, spaced 12-18 inches vertically on center and 24 inches maximum horizontally. Weather barrier may be temporarily attached to masonry using recommended adhesive, placed in vertical strips spaced 24 inches on center, when coordinated on the project site.
I. Apply 4 inch by 7 inch piece of DuPont StraightFlash to weather barrier membrane prior to the installation cladding anchors.

3.3 Seaming

A. Seal seams of weather barrier with seam tape at all vertical and horizontal overlapping seams.
B. Seal any tears or cuts as recommended by weather barrier manufacturer.

3.4 Opening Preparation (for use with non-flanged windows - all cladding types)

A. Flush cut weather barrier at edge of sheathing around full perimeter of opening.
B. Cut a head flap at 45-degree angle in the weather barrier at window head to expose 8 inches of sheathing. Temporarily secure weather barrier flap away from sheathing with tape.

3.5 Flashing (for use with non-flanged windows - all cladding types)

A. Cut 9-inch wide DuPont FlexWrap a minimum of 12 inches longer than width of sill rough opening. Apply primer as required by manufacturer.
B. Cover horizontal sill by aligning DuPont FlexWrap edge within side edge of sill. Adhere to rough opening across sill and up jambs a minimum of 6 inches. Secure flashing tightly into corners by working in along the sill before a adhering up the jambs.
C. Fan DuPont FlexWrap at bottom corners onto face of wall. Firmly press into place. Mechanically fasten fanned edges.
D. Apply 9-inch wide strips of DuPont StraightFlash at jambs. Align flashing with interior edge of jamb framing. Start DuPont StraightFlash at head of opening and lap sill flashing down to the sill. Spray-apply primer to top 6 inches of jambs and exposed sheathing.
E. Install DuPont FlexWrap at opening head using same installation procedures used at sill. Overlap jamb flashing a minimum of 2 inches.
F. Coordinate flashing with window installation.
G. On exterior, install backer-rod in joint between window frame and flashed rough framing. Apply sealant at jambs and head. leaving sill unsealed. Apply sealants in accordance with sealant manufacturer's instructions and ASTM C 1193.
H. Position weather barrier head flap across head flashing. Adhere using 4-inch wide DuPont StraightFlash over the 45-degree seams.
I. Tape top of window in accordance with manufacturer recommendations.
J. On interior, install backer rod in joint between frame of window and flashed rough framing. Apply sealant around entire window to create air seal. Apply sealant in accordance with sealant manufacturer's instructions and ASTM C 1193.

3.6 Protection
A. Protect installed weather barrier from damage.

SECTION 07540 - THERMOPLASTIC MEMBRANE (PVC) ROOFING

1.1 General: Provide the thermoplastic membrane (PVC) roofing system as shown and specified.

A. Standards: Materials and construction shall conform to following:
1. ASTM D5036 "Application of Adhered Poly(Vinyl Chloride) Sheet Roofing."
2. FM 1-29 Loss Prevention Data Adhered or Mechanically Attached Single Ply Membrane Roof Systems."
3. NRCA "Single-Ply Roofing Membrane."
4. UL "790 - Tests for Fire Resistance of Roof Covering Materials."

B. Installer Qualifications: An experienced roofing installer approved by roofing system manufacturer and with not less than five years of successful experience installing membrane roofing systems similar to those required for this project.

C. Deliver, store and handle roof system materials in accordance with manufacturer's recommendations to avoid damage and deterioration.
1. Comply with manufacturer's recommendations for handling and protection during installation.

D. Install roofing work only when weather conditions are in compliance with manufacturer's specific environmental requirements and conditions will permit work to be performed in accordance with manufacturer's recommendations and warranty requirements.
1. Protect adjacent materials and surfaces from damage and soiling during roofing system installation.
2. Provide special protection on completed roofing work.
3. Protect paving and structure walls adjacent to hoists before starting work.
4. Do not overload the building structure with storage of materials or installation equipment on the substrate decking.

E. Warranty
1. Contractor and roof system installer shall jointly warrant roofing materials and installation for a period of two years from the date of Substantial Completion. Warranty shall include roofing membrane, flashing, roof insulation, roofing accessories and sheet metal work provided under Section 07600.
2. Manufacturer's warranty: Submit executed copy of roofing system manufacturer's 15 year total system warranty, including labor and materials for the entire roof system. Including perimeter edge metal, Section 07600 Flashing & Sheet Metal

2.1 Materials

A. Manufacturer: Duro-Last Roofing, Inc, (614) 370-5569, Mike Suman, www.duro-last.com
B. Thermoplastic single ply membrane roofing system: DL Membrane (PVC) fully adhered, smooth surface, UL Class A fire-rated single ply membrane roofing system.
1. Thermoplastic membrane: DL Membrane, thermoplastic fiber reinforced PVC membrane, not less than 40 mils (.040), complying with ASTM D4434 and membrane manufacturer's published physical properties.
C. The roof covering design must resist a wind load of 100 mph, Exposure C and shall resist impact damage based on results of tests based on the results of tests conducted in accordance with ASTM D 3746, ASTM D 4272, CGSB 37-GP-52M or FM 4470
1. Insulation cover board: Georgia-Pacific Corp. (800) 284-5347, internet www.gp.com, "Dens-Deck" nonstructural fiberglass- faced, silicone-treated gypsum core panels, 1/2"" thickness.
2. Roof insulation: Rigid closed cell polyisocyanurate boards approved by the membrane manufacturer; complying with ASTM C1289, Type II, minimum 20 psi compressive strength, aged R-value equal 5.6 per inch of thickness.
a. Provide a double layer installation. Minimum total R-value as indicated on plans.
b. Specified perimeter edge metal shall be compliant with International Building Code ANSI / SPRI ES-1, ER2 testing requirements.
3. Flashing: Roof system manufacturer's standard sheet flashing of same material, type, and color as sheet membrane. Specified perimeter edge metal will be compliant with International Building Code ANSI / SPRI ES-1, RE2 testing requirements.
4. Membrane Bonding Adhesive: Roof system manufacturer's standard membrane bonding adhesive.
5. Insulation and Cover Board Adhesive: Dow Chemical Company, (888) 868-1183, internet www.flexibeproducts.com, "INSTA-STIK Professional Roof Insulation Adhesive", a single component, moisture cured polyurethane adhesive.
6. Fasteners: Roof system manufacturer's standard fasteners for project conditions indicated.
7. Accessories: Roof system manufacturer's recommended pourable sealers, preformed penetration flashing, preformed corner flashing, seam caulk, termination bars and other accessories required for substrate surfaces and installation conditions indicated.
8. Traffic walkways: Duro-Last Roof Track II walkway pads.3.1Installation

3.1 Installation

A. Preparation:
1. Clean substrate surfaces of debris and other substances detrimental to roofing installation.
2. Correct unsatisfactory conditions before starting roofing. Roof deck surface conditions shall comply with manufacturer's requirements and be acceptable to the roofing system installer.

B. Installation:
1. General: Provide roofing system materials and installation complying with roofing system manufacturer's instructions and governing codes and regulations.
a. Mix and apply roof insulation and cover board adhesive in strict accordance with the adhesive manufacturer's installation instructions. Dispense adhesive at manufacturer's recommended application rate using approved dispensing equipment.
2. Roof insulation.
a. Extend insulation full thickness over entire surface to be insulated. Cut and fit around obstructions; fill all voids with insulation. Provide saddles and tapered edges as required to provide positive proper drainage.
b. Install and secure in place with insulation adhesive, a double layer of insulation units of the required thickness. Run long joints of insulation in continuous straight lines, perpendicular to roof slope, with end joints staggered between rows. Stagger joints of each layer of insulation. Butt edges to moderate contact. Limit joints between adjacent units to maximum 1/4".
3. Insulation cover board: Install and secure in place with insulation adhesive a single layer of insulation cover board on installed roof insulation. Secure cover board in accordance with membrane manufacturer's recommendations. Stagger joints with joints of roof insulation.
4. Thermoplastic membrane: Comply with membrane manufacturer's instructions and recommendations for handling and installing single ply membrane roofing.
a. Unroll and position roofing sheet membrane without stretching. Align top sheet with pr-marked lines on bottom sheet. Allow membrane to "relax" for at least 30 minutes before adhering, splicing and flashing.
b. Adhere membrane to insulation cover board with bonding adhesive. Broom bonded membrane to achieve maximum contact.
c. Join membrane seams using approved heat welding equipment. Check all splices for voids and repair voids with heat gun and roller.
d. When required, mechanically fasten membrane at roof perimeter, curb flashing and similar penetrations in accordance with manufacturer's installation instructions.
e. Flash and make weathertight all equipment curbs, pipes, conduits, drains and other penetrations or projections through sheet roofing using roofing system manufacturer's recommended flashing materials, accessories and procedures.
5. Install roof accessories and traffic walkways in accordance with manufacturer's instructions.
6. Install sheet metal work furnished under section 07600.

SECTION 07600 - FLASHING AND SHEET METAL

General:

A. Standards: Materials and construction shall conform to following:
1. SMACNA "Architectural sheet Metal Manual- 1993."
B. Installation: Performed under Section 07540 work.

1.1 Pre-manufactured perimeter edge metal and accessories

Manufacturer: Duro-Last Roofing / Exceptional Metals, Inc, (800) 248-0280, Jason Dark, www.Duro-Last.com

A. Duro-Last / Exceptional Metals Snap Coping made of 24-gauge galvalume, cover provided with Kynar architectural finish providing a 35 year finish warranty. Meets ANSI/SPRI ES-1 2003 method RE-2 testing requirements. (Color - Refer to Exterior Elevations)
B. Duro-Last / Exceptional Metals Vinyl backed scupper. Scupper profile & size indicated Fig 1-20.

1.2 General: Miscellaneous sheet metal

A. Standards: Materials and construction shall conform to following:
1. SMACNA "Architectural sheet Metal Manual- 1993."
B. Installation: Performed under Section 07540 work.

2.1 Materials:

A. Galvanized steel: ASTM A653 commercial quality sheet steel with 0.2% copper, G90 hot-dip galvanized. Gage indicated.
1. Scuppers: Minimum 16 gage.
2. Coping/Wall caps: Minimum 18 gage.
B. Aluminum sheet: ASTM B209 alloy 3003, temper as required for forming and performance. Thickness indicated.
1. Conductor Boxes: Minimum 0.040"thickness.
2. Downspouts: Minimum 0.025"thickness.
C. Joint sealers: One-component silicone elastomeric joint sealant complying with ASTM C920. Color matched to sheet metal finish.
D. Metal accessories: Provide sheet metal fasteners, clips, straps, anchoring devices and similar accessory units as required for installation of work, matching or compatible with material installed, non-corrosive, size and gage as required for performance and acceptable to the Architect.
E. Fabrication: Shop fabricate sheet metal work to comply with profiles and sizes indicated and to comply with standard industry standards as shown by SMACNA in the "Architectural Sheet Metal Manual."
1. Conductor boxes: SMACNA Chapter 1 - Roof Drainage Systems. Profile and size indicated Fig 1-25.
2. Scuppers: SMACNA Chapter 1 - Roof Drainage Systems. Profile and size indicated Fig 1-20.
3. Downspouts: SMACNA Chapter 1 - Roof Drainage Systems. Profile and size indicated. Installation Fig. 1-31 with strap hanger Fig. 1-35.
4. Formed coping/wall caps: SMACNA Chapter 3 - Copings. Design Fig 3-1. Profile and size indicated with Fig. 3-3 butt joints and concealed back-up plates. Install formed copings with continuous cleat fasteners similar to Fig 3-1 at exposed face and screw fasteners with washers space maximum 24" on center at roof side.

3.1 Installation:

A. Preparation: Coordinate sheet metal work with other work for the correct sequencing of items which make up the entire roof system of weatherproofing and rain drainage:
B. Installation: Comply with SMACNA "Architectural Sheet Metal Manual" recommendations, drawing details and approved shop drawings for installation of the work.
1. Anchor sheet metal items securely in place by methods indicated, providing for thermal expansion. Conceal fasteners and expansion provisions whenever possible. Install joint sealants where required.
2. Set units true to lines and levels indicated. Install work with sealed laps, joints and seams that will be permanently watertight and weatherproof. Bed flanges of sheet metal work in thick coat of roofing cement or sealant compatible with roofing membrane.
3. Separate sheet metal work from dissimilar metals and treated wood materials. Provide rosin-sized paper slipsheet over treated wood.
4. Fabricate, support and anchor conductor boxes and downspouts to withstand thermal expansion, stresses and full loading by ice or water without damage, deterioration or leakage.

SECTION 076113 - SHEET METAL WALL PANELS

1.1 General:

A. Standards:
1. Furnish all labor, material, tools, equipment and services for all preformed fascia and wall panels as indicated, in accord with provisions of Contract Documents.
2. Completely coordinate with work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

B. Related work specified elsewhere:

1. Structural steel: Section 05100
2. Steel joists: Section 05200 or 05400
3. Flashing and sheet metal: Section 07600

1.2 Quality Assurance:

A. Applicable standards:
1. SMACNA: "Architectural Sheet Metal Manual" Sheet Metal and Air Conditioning Contractors National Association, Inc.
2. AISC:"Steel Construction Manual" American Institute of Steel Construction.
3. AISI: "Cold Form Steel Design Manual: American Iron and Steel Institute.
4. ASTM A792-83-A250: Specifications for steel sheet, aluminum-zinc alloy coated (galvanized) by the hot dip process, general requirements (Galvalume).

B. Manufacturer's qualifications:
1. Manufacturer has a minimum of three years experience in manufacturing metal wall systems of this nature. Panels specified in this section shall be produced in a factory environment (not job site roll formed) with fixed base roll forming equipment assuring the highest level of quality control. A letter from the manufacturer certifying compliance will accompany the product material submittals.

1.3 Product Delivery, Storage and Handling

A. Delivery: Deliver metal wall system to job site properly packaged to provide protection against transportation damage.
B. Handling: Exercise extreme care in unloading, storing and erecting metal wall system to prevent bending, warping, twisting and surface damage.
C. Storage: Store all materials and accessories above ground on well skidded platforms. Store under waterproof covering. Provide proper ventilation of metal wall system to prevent condensation build up between each panel or trim/ flashing component.

2.1 Materials

A. Metal wall system profile:
1. Shadow Rib: 3 inch deep x 16 inch width with 1 1/2 inch deep x 5 1/4 inch wide fluting
B. Metal wall system style:
1. Fluted face
2. Concealed fasteners
C. Gauge: 24 gauge
D. Substrate: Per Plans
E. Texture: Smooth
F. Finish: Premium thermoset silicone polyester (20 year warranty)
G. Color: Polar White, to be painted per Exterior Elevations
H. Acceptable Manufacturer: MBCI Houston, Texas (281) 445-8555.

3.1 Surface Conditions

A. Examination:
1. Inspect installed work of other trades and verify that such work is complete to a point where this work may continue.
2. Verify that installation may be made in accordance with approved shop drawings and manufacturer's instructions.

3.2 Installation

A. Install metal wall system system so that it is weathertight, without waves, warps, buckles, fastening stresses or distortion.
B. Install metal wall system in accordance with manufacturer's instructions and shop drawings.
C. Provide concealed anchors at all panel attachment locations.
D. Install panels plumb, level and straight with seams parallel, conforming to design as indicated.

3.3 Cleaning, Protection

A. Dispose of excess materials and remove debris from site.
B. Clean work in accordance with manufacturer's recommendations.
C. Protect work against damage until final acceptance. Replace or repair to the satisfaction of the architect and work that becomes damaged prior to final acceptance.
D. Touch up minor scratches and abrasions.

3.4 Field Painting

A. Refer to section 09900 on G017
B. Follow manufacturer's technical bulletin for Precoated Signature 200 MBCI wall panels.

Consultant:
r e d
architecture + planning
589 w. nationwide blvd.
suite b
columbus, ohio 43215
tel: 614.487.8770
fax: 614.487.8777

STATE OF MISSOURI
DAVID A. EFAW
NUMBER A-2007020148
REGISTERED ARCHITECT
8/27/21

CADENCE
COMMERCIAL REAL ESTATE
CADENCE COMMERCIAL REAL ESTATE
INTERNET: WWW.CADENCEKC.COM

SOUTH LEE'S SUMMIT CMG SHELL
1103 SW OLDHAM PARKWAY
LEE'S SUMMIT, MO 64081

Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

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Drawn: CB, JTH
Checked: AA, TC

Project No.
CAC001

Contents:
ARCHITECTURAL SPECIFICATIONS

G012

Section 07900 – JOINT SEALERS

1.1 General: Provide joint sealers as shown and specified.

A. Standards:Comply with ASTM C 920 requirements.

B. Application: Performed by skilled, experienced joint sealer applicators.

2.1 Materials:

A. Poly urethane sealants:
1. Tremco Commercial Sealants (800) 321-7906, internet www.tremcosealants.com,
   a. "Dymonic FC" One component, fast skinning, Low Modulus Polyurethane.
   b. "Dymeric 240 FC" Multi Component, gun grade, chemically curing, tintable fast setting polyurethane sealant.
2. Sonneborn, (724) 756-9582, internet www.sonneborn.com
   a. Color pack for polyurethane multi component, gun grade chemically curing sealant.

B. Silicone Sealants:
1. General Electric Silicones, (800) 295-2392, internet www.gesilicones.com
   a. "SCS1700 Sanitary – Mold/Mildew Resistant Silicone", one component 100% silicone, fungicidal based sealant.
   b. "SCS2700 Silprul Silicone" one component medium modulus, natural cure silicone all purpose sealant.
   c. "Silglaze II SCS2800- Glazing Sealant" one component, 100% silicone based sealer.
   d. "GE Paintable Silicone" one component paintable silicone.
   e. "SCS1009 Silicone Sealant" one-component acetoxy silicone for general purpose sealing and bonding
2. Dow Corning Silicones, (989)496-4000, www.dowcorning.com
   a. "Dow 795" – one component, medium modulus, natural cure silicone.

C. Firestopping Sealants: 3M Fire Protection Products, (800) 328-1687, internet www.3M.com/firstop
1. "3M Fire Barrier CP 25WB+ Caulk" or approved equal

D. Joint backing: Non-absorptive, non-staining compressible, non-gassing, polyethylene foam backer rod compatible with joint sealants.

3.1 Installation:

A. Preparation: Clean and prepare joints prior to installing sealers:
1. Wipe shipping oils from surfaces to be sealed. Remove protective films and/or install joint backer rod if joint is larger than ¼" in width.

B. Installation: Install joint sealant materials in strict accordance with manufacturer's installation instructions.
1. Apply sealants in a uniform, continuous bead without gaps or air pockets. Hand tool and finish all joints so that a smooth, small, lip free uniform line is created along the substrate being shot. Remove any excess materials from tooled edges and ends of joint.
2. Install joint sealants to a depth no more than ½ the width of the joint.
3. Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths which allow optimum sealant movement capability.
4. Immediately, after sealant application, and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents which discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.
5. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealers and of products in which joints occur.

4.1 Sealant Schedule:

A. Exterior Joints:
- Provide a continuous bead of Tremco Dymeric limestone urethane sealant at the following locations:
  1. Sidewalk/concrete expansion joints.

- Provide a continuous bead of Dow 795 silicone or Tremco Dymeric 240 FC at the following locations:
  1. Hollow metal door frames.
  2. EIFS to abutting services.
  3. Penetrations in EIFS.
  4. Face brick or block control joints.
  5. Perimeter of Aluminum Storefronts.

  *Colors to be determined per store to match adjacent material colors. Verify with Chipotle Construction Manager and Architect.
  - For "Fog" EIFS use Tremco - "Natural White"
  - For "Knight's Armor" EIFS use Sonneborn - "Charcoal Gray" #276-U
  - For white brick use Tremco - "China White"
- Provide a continuous bead of aluminum GE SCS1009 silicone at the following location:
  1. CO2 fill port stainless box.
  2. Faucet for hose. (Please note: color to be determined per store. Verify with Chipotle Construction Manager and Architect).

DIVISION 8 - DOORS AND WINDOWS

SECTION 08110 - STEEL DOORS AND FRAMES

1.1 General: Tenant to provide steel doors and frames as shown and specified.

A. Standards: Materials and construction shall conform to the following:
1. ANSI A250.8-2009 "Specifications for Standard Steel Doors and Frames."
2. ANSI A250.11-01 "Erection Instructions for Steel Frames."
3. SDI 122-99 " Installation for Standard Steel doors and Frames.

B. Manufacturer: A member of the Steel Door Institute (SDI).

2.1 Materials:

A. Steel Doors:
1. Interior: Heavy-duty Level 2, physical performance B, Model 2 seamless construction, ASTM A1008, 18 gage cold-rolled steel face sheets, manufacturer's standard core.

2. Exterior: Extra heavy-duty Level 3, physical performance A, Model 2 seamless construction, ASTM A1008, 16 gage cold-rolled steel face sheets; tops and bottoms closed with flush galvanized steel caps, manufacturer's standard plastic foam insulating core.

B. Steel Frames: ASTM A1008, 16 gage cold-rolled steel.
1. Provide combination buck, jamb and trim type frames for 1-3/4" thick doors, unless otherwise indicated.
2. Interior and exterior frames: Set-up welded type with mitered corners, reinforced, fully seam welded with exposed welds ground smooth.

C. Door and frame fabrication:
1. Provide cutouts for mortised hardware, accurately located and made to fit hardware. Provide closer reinforcement for all doors with surface mounted door closers.
2. Punch frames and factory install rubber door silencers.
3. Provide minimum three anchors of suitable design for each jamb.
4. Provide floor clip on bottom of each jamb. Provide angle spreaders at bottom of each set-up frame.

D. Shop painting: Clean and paint exposed surfaces of steel door and frame units. Apply one baked-on shop coat of rust-inhibitive prime paint in accordance with ANSI A250.10, unless doors and frames are used at the restrooms or as indicated on door hardware and finish schedule. Provide a uniformly finished surface ready to receive finish paint.

3.1 Installation:

A. Install frames plumb, level, rigid, and in true alignment as recommended in ANSI A250.11.

B. Install doors plumb and in true alignment and fastened to achieve the maximum operational effectiveness and appearance as recommended in SDI 122.

SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

1.1 General: Provide aluminum entrances and storefronts as shown and specified.

1.2 Related Documents:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this section.

B. Standards: Materials and construction shall conform to the following:
1. AAMA SFM-1-87 "Aluminum Storefront and Entrance Manual."

1.3 Summary:

A. Section Includes:
1. Kawneer Architectural Aluminum Storefront Systems, including perimeter trims, stools, accessories, shims and anchors, and perimeter sealing of storefront units.
   a. Types of Kawneer Aluminum Storefront include:
      (1.) Trifab 601T Storefront System - 2" x 6" nominal dimension; Thermal; Center-Set
      (2.) Trifab VG 451T Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set

2. Kawneer Aluminum Entrances, glass and glazing, and components
   a. Types of Kawneer Aluminum Entrances include:
      (1.) 500 Swing Door; Wide stile, 5" vertical face dimension, 1-3/4" depth, high traffic applications or as indicated on Drawings.

3. Kawneer Tube for Feature Exterior Slat Wall

4. Alternate Storefront Systems only when approved by Arch PM and Chipotle DM.
   a. YKK
      (1.) YES 60 TU Storefront System - 2" x 6" nominal dimension; Thermal
      (2.) YES 45 TU Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
   b. Oldcastle
      (1.) Series 6000XT Storefront System - 2" x 6" nominal dimension; Thermal
      (2.) Series 3000 Thermal MultiPlane Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
   c. US Aluminum
      (1.) Series FT601 - 2" x 6" nominal dimension; Thermal
      (2.) Series FT451 - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
   d. EFCO
      (1.) Series 406 (T) Storefront System - 2" x 6-1/2" nominal dimension; Thermal
      (2.) Series 403 (T) Storefront System - 2" x 4-1/2" nominal dimension; Thermal
   e. Wausau
      (1.) TU24650 Storefront System - 2" x 6-1/2" nominal dimension; Thermal
      (2.) TU24000 Storefront System - 2" x 4-1/2" nominal dimension; Thermal

1.4 Performance Requirements:

A. General Performance: Aluminum-framed storefront system shall withstand the effects of the following performance requirements without exceeding performance criteria or failure due to defective manufacture, fabrication, installation, or other defects in construction;
1. Design Wind Loads: Determine design wind loads applicable to the Project from basic wind speed indicated in miles per hour, according to ASCE 7, Section 6.5, "Method 2-Analytical Procedure," based on mean roof heights above grade indicated on Drawings.
   a. Basic Wind Speed (MPH): Determine to meet local codes listed on A000
   b. Importance Factor: (1.00)
   c. Exposure Category (A, B, C, D): Determine to meet local codes listed on A000

B. Storefront System Performance Requirements:
1. Wind loads: Provide storefront system; include anchorage, capable of withstanding inward and outward wind load design pressures meeting local codes listed on sheet A000.
2. Air Infiltration:
   a. Air Infiltration for storefront frame system: The test specimen shall be tested in accordance with ASTM E 283. Air infiltration rate shall not exceed 0.06 cfm/ft. sq. at a static air pressure differential of 6.24 psf.
   b. Air Infiltration for storefront entrances: For single acting offset pivot or butt hung entrances in the closed and locked position, the test specimen shall be tested in accordance with ASTM E 283 at a pressure differential of 6.24 psf (300 Pa) for single doors and 1.567 psf (75 PA) for pairs of doors. A single 3'0" x 7'0" entrance door and frame shall not exceed 0.50 cfm per square foot. A pair of 6'0" x 7'0" entrance doors and frame shall not exceed 1.0 cfm per square foot.
3. Water Resistance: The test specimen shall be tested in accordance with ASTM E 331. There shall be no leakage at a minimum static air pressure differential of 8 psf as defined in AAMA 501.
4. Uniform Load: A static air design load of 20 psf shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no defection in excess of L/175 of the span of any framing member. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.
5. Thermal Transmittance (U-factor): When tested to AAMA Specification 1503, the thermal transmittance (U-factor) shall be not more than:
   a. Glass to Exterior - 0.47 (low-e)
6. Condensation Resistance (CRF): When tested to AAMA Specification 1503, the condensation resistance factor shall not be less than:
   a. Glass to Exterior - 70 frame and 69 glass (low-e)
7. Sound Transmission Class (STC) and Outdoor-Indoor Transmission Class (OITC): When tested to AAMA Specification 1801 and in accordance with ASTM E1425 and ASTM E90, the STC and OITC Rating shall not be less than:
   a. Glass to Exterior - 38 (STC) and 31 (OITC)

1.5 Submittals:

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, hardware, finishes, and installation instructions for each type of aluminum frame storefront system and storefront entrance doors indicated.

B. Shop Drawings: Include plans, elevations, sections, details, hardware, and attachments to work, operational clearances and installation details.

C. Samples for Initial Selection: For units with factory-applied color finishes including samples of hardware and accessories involving color section.

1.6 Quality Assurance

A. Installer Qualifications: An installer which has had successful experience with installation of the same or similar units required for the project and other projects of similar size and scope

B. Manufacturer Qualifications: A manufacturer capable of providing aluminum framed storefront system that meet or exceed performance requirements indicated and of documenting this performance by inclusion of rest reports, and calculations.

C. Source Limitations: Obtain aluminum framed storefront system and storefront entrance doors through one source from a single manufacturer.

D. Product Options: Drawings indicate size, profiles, and dimensional requirements of aluminum framed storefront system and are based on the specific system indicated. Do not modify size and dimensional requirements.
1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

1.7 Project Conditions:

A. Field Measurements: Verify actual dimensions of a aluminum framed storefront openings by field measurements before fabrication and indicate field measurements on Shop Drawings.

1.8 Warranty

A. Manufactures Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty.
1. Warranty Period: Two (2) years from Date of Substantial Completion of the project provided however that the Limited Warranty shall begin in no event later than six months from date of shipment by manufacturer.

2.1 Manufacturers:

A. Manufacturer: Kawneer Company Inc., Contact: Cheryl Wilkerson, Phone: 317-771-9263; email:cheryl.wilkerson@arconic.com

1. Basis-of-Design Product Storefront Framing:
   a. Trifab 601T (thermal) Storefront System
      i. 2" x 6" System Dimensions
      ii. Glass: Exterior (Center-Set)
   b. Trifab 451T (thermal) Storefront System
      i. 2" x 4-1/2" System Dimensions
      ii. Glass: Exterior (Front-Set)

2. Basis-of-Design Product Storefront Entrances:
   a. The door stile and rail face dimensions of the 500-Wide Stile entrance door will be as follows or as indicated on Drawings: Door: 500; Vertical Stile: 5"; Top Rail: 5"; Bottom Rail: 10"
   b. Major portions of the door members to be 0.125" nominal in thickness and glazing molding to be 0.05" thick.
   c. Glazing gaskets shall be either EPDM elastometric extrusions or a thermoplastic elastomer.
   d. Provide adjustable glass jacks to help center the glass in the door opening.

3. Basis-of-Design Product Feature Exterior Slat Wall:
   a. Kawneer Tube #027881 (1" x 3"), capped at top and bottom
      i. Alternate Exterior Slat Wall only when approved by Arch PM and Chipotle DM.
         1. Architechural Fabrication

B. Alternate Storefront Systems only when approved by Arch PM and Chipotle DM.
1. YKK
   a. YES 60 TU Storefront System - 2" x 6" nominal dimension; Thermal
   b. YES 45 TU Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
2.. Oldcastle
   a. Series 6000XT Storefront System - 2" x 6" nominal dimension; Thermal
   b. Series 3000 Thermal MultiPlane Storefront System - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
3.. US Aluminum
   a. Series FT601 - 2" x 6" nominal dimension; Thermal
   b. Series FT451 - 2" x 4-1/2" nominal dimension; Thermal; Front-Set
4. EFCO
   a. Series 406 (T) Storefront System - 2" x 6-1/2" nominal dimension; Thermal
   b. Series 403 (T) Storefront System - 2" x 4-1/2" nominal dimension; Thermal
5. Wausau
   a. TU24650 Storefront System - 2" x 6-1/2" nominal dimension; Thermal
   b. TU24000 Storefront System - 2" x 4-1/2" nominal dimension; Thermal

2.2 Materials:

A. Provide aluminum entrances and storefront matching the existing building aluminum entrances and storefronts, unless otherwise indicated.

B. Aluminum Frame Extrusions: Alloy and temper recommended by aluminum storefront manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.070" wall thickness at any location for the main frame and complying with ASTM B 221: 6063-T6 alloy and temper.

C. Aluminum Storefront Entrance Extrusions:Alloy and temper recommended by aluminum-framed glass door manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.090" wall thickness at any location for the main frame and sash members.

D. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum window and door members, trim hardware, anchors, and other components.

E. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions, or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated.

F. Reinforcing Members: Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating; provide sufficient strength to withstand design pressure indicated.

G. Sealant: For sealants required within fabricated storefront system, provide permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

H. Tolerances: Reference to tolerances for wall thickness and other cross-section dimensions of storefront members are nominal and in compliance with AA Aluminum Standard Data.

2.3 Storefront Framing System:

A. Thermal Barrier: Thermal Break shall be designed in accordance with AAMA TIR-A8 and tested in accordance with AAMA 505.
1. Kawneer IsoLock Thermal Break with a 1/4" separation consisting of a two-part chemically curing, high-density polyurethane, which is mechanically and adhesively joined to aluminum storefront sections.

B. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with non-staining, nonferrous shims for aligning system components.

C. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bearing fasteners and accessories compatible with adjacent materials. Where exposed shall be stainless steel.

D. Perimeter Anchors: When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

E. Packing, Shipping, Handling and Unloading: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

F. Storage and Protection: Store materials protected from exposure to harmful weather conditions. Handle storefront material and components to avoid damage. Protect storefront material against damage from elements, construction activities, and other hazards before, during and after storefront installation.

2.4 Glazing Systems:

A. Glazing: As specified in Section 08800 - Glazing.

B. Glazing Gaskets: Manufacturer's standard compression types; replaceable, extruded EPDM rubber.

C. Spacers and Setting Blocks: Manufacturer's standard elastomeric type.

D. Bond-Breaker Tape: Manufacturer's standard TFE-fluorocarbon or polyethylene material to which sealants will not develop adhesion.

E. Glazing Sealants: For structural-sealant-glazed systems, as recommended by manufacturer for joint type, and as follows:
1. Structural Sealant: ASTM C 1184, single-component neutral-curing silicone formulation that is compatible with system components with which it comes in contact, specifically formulated and tested for use as structural sealant and approved by a structural-sealant manufacturer for use in aluminum-framed systems indicated.
   a. Color: Black
2. Weatherseal Sealant: ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and O; single-component neutral-curing formulation that is compatible with structural sealant and other system components with which it comes in contact; recommended by structural-sealant, weatherseal-sealant, and aluminum-framed-system manufacturers for this use.
   a. Color: Matching structural sealant.

2.5 Entrance Door Systems:

A. Entrance Door Hardware: As specified in Section 08710 Door Hardware.

2.6 Accessory Materials:

A. Joint Sealants: For installation at perimeter of aluminum-framed systems, as specified in section 07900 - Joint Sealers

2.7 Storefront Framing Fabrication:

A. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
1. Profiles that are sharp, straight, and free of defects or deformations.
2. Accurately fit joints; make joints flush, hairline and weatherproof.
3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
4. Physical and thermal isolation of glazing from framing members.
5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
6. Provisions for field replacement of glazing.
7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

B. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.

C. Structural-Sealant-Glazed Framing Members: Include accommodations for using temporary support device to retain glazing in place while structural sealant cures.

D. Storefront Framing: Fabricate components for assembly using manufacturers standard installation instructions.

E. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.8 Storefront Entrance Door Fabrication:

A. Fabricate aluminum-framed glass entrance doors in sizes indicated. Include a complete system for assembling components and anchoring doors.

B. Fabricate aluminum-framed glass doors that are reglazable without dismantling perimeter framing.
1. Door corner construction shall consist of mechanical clip fastening, SIGMA deep penetration plug welds and 1-1/8" long fillet welds inside and outside of all four corners. Glazing stops shall be hook-in type with EPDM glazing gaskets reinforced with non-stretchable cord.
2. Accurately fit and secure joints and corners. Make joints hairline in appearance.
3. Prepare components with internal reinforcement for door hardware.
4. Arrange fasteners and attachments to conceal from view.

C. Weather Stripping: Provide weather stripping locked into extruded grooves in door panels or frames as indicated on manufactures drawings and details.

2.9 Aluminum Finishes:

A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. Factory Finishing:
1. Kawneer Permafluor (70% PVDF), AAMA 2605, Fluoropolymer Coating (Color: Charcoal or as noted on Drawings)
2. Finishing for alternate storefront specifications to be verified by Arch PM and Chipotle DM
   a. YKK "Charcoal" UC99477, Superior Painted Finishes
   b. All others to be verified with samples and submittals to Arch PM

2.10 Brake Metal Trim:

A. Shop Drawings: Show layout and elevations, dimensions and thickness of panels, connections, details and location of joints, sealants and gaskets, method of anchorage, number of anchors, supports, reinforcement, trim, flashings, and accessories.
1. Show actual field measurements on shop drawings.
2. Differentiate between shop and field fabrication.
3. Indicate substrates and adjacent work with which the fabrications must be coordinated.
4. Include large-scale details of anchorages and connecting elements.
5. Include large-scale or schematic exploded or isometric diagrams to fully explain flashing at a scale of not less than 1-1/2 inches per 12 inches (1:10)

2.11 Formed Metal Fabrications - General:

A. Shop assembly: Preassemble items to greatest extent possible. Minimize field splices and field assembly. Disassemble only as necessary for transportation and handling. Mark items clearly for assembly and installation.

B. Coordinaton: Match dimensions and attachement of formed metal items to adjacent construction. Produce integrated assembles. Closely fit joints; align edges and flat surfaces unless indicated otherwise.

C. Forming: Profiles indicated. Maximize lenghts. Fold exposed edges to form hem indicated or ease edges to radius indicated with cocealed stiffener. Provide flat, flush surfaces without cracking or grain seperation at bends.

D. Reinforcement: Increase metal thickness; use concealed stiffeners, backing materials or both. Provide stretcher leveled standard of flatness and stiffness required to maintain flatness and hold adjacent items in flush alignment.

E. Anchors: Straps, plates and anchors as required to support and anchor items to adjacent construction.

F. Supports: Miscellaneous framing, mounting, clips, sleeves, fasteners and accessories required for installation.

G. Welding and brazing: Weld or braze joints continuously. Grind smooth, fill or dress to produce smooth, flush, exposed surfaces. Do not discolor metal. Grind Smooth, polish, and restore damaged finishes to required condition.
1. Ease exposed edges to small uniform radius.
2. Welded joints.
   a. Carbon Steel: Perform welding in accordance with AWS D1.1/D1.1M.
   b. Stainless Steel: Perform welding in accordance with AWS D1.6/D1.6M
3. Brass/Bronze Brazed Joints:
   a. Perform torch brazing in accordance with AWS C3.4M/C3.4
   b. Perform induction brazing in accordance with AWS C3.5M/C3.5
   c. Perform resistance brazing in accordance with AWS C3.9M/C3.9

H. Performance requirements;
1. Thermal Movements:
   a. Allow for thermal movements in exterior metal fabrications due to temperature changes. Prevent buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.
   b. Temperature Change Range: 120 degrees F (67 degrees C), ambient; 180 degrees F (100 degrees C), on material surfaces.
2. Corrosion: Prevent galvanic action and other forms of corrosion by isolating metals and other materials from direct contact with incompatible materials.

2.12 Formed Metal Fabrications - Sheet Metal

A. Closures, Trim, and Fill Panels:
1. Form Closures from type and thickness of metal indicated.
2. Conceal fasteners when possible.
3. Drill and tap holes for securing to other surfaces.
4. Provide gaskets where indicated or needed for continuous seal at adjacent surfaces.
5. Miter or cope at corners and reinforce with bent metal plate. Form tigh joints.

2.13 Materials

A. Genaral: Provide sheet metal without pitting, seam marks, roller marks, stains, discolorations, or other imperfections exposed to view on finished units.
B. Galvanized Steel Sheet: ASTM A653/A653M, G90 (Z275) coating. 14 gauge min. thick base material.
C. Anchors, Clips, and Accessories: Use one of the following:
1. Stainless steel complying with ASTM A276/A276M, ASTM A480/A480M, or ASTM A666.
2. Steel complying with ASTM A36/A36M and hot-dipped galvanized to ASTM A153/A153M.
3. Steel complying with ASTM A36/A36M and hot-dipped galvanized to ASTM A123/A123M Coating Grade 35
4. Interior locations: Carbon steel; zinc coated in accordance with ASTM B633 or ASTM F1941/F1941M, Class Fe/Zn 5.
5. Exterior Locations or in contact with Stainless Steel:
   a. Bolts: Stainless steel; ASTM F593, Group 1 (A1)
   b. Nuts: Stainless steel; ASTM F594.
6. Structural Anchors: Provide anchors where work is indicated to comply with design loads.
   a. Type: Provide chemical or torque controled expansion anchors.
   b. Capacity: When tested according to ASTM E488/E488M; four times the load imposed when installed in concrete.
7. Nonstructural Anchors: Provide powder-actuated fasteners where work is not indicated to comply wit design loads. Provide size and number required for load, installation, and as recommended by manufacturer, unless indicated otherwise.
D. Fasteners, General: Same basic metal and alloy as formed metal sheet unless indicated otherwise. Do not use metals incompatible with the materials joined.
E. Gaskets: As required to seal joints in decorative formed metal and remain airtight; as recommended in writing by decorative formed metal manufacturer.

Consultant:

r e d

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ARCHITECTURAL SPECIFICATIONS

G013

2.14 Finishes

A. Finishes, General: Comply with NAAMM AMP 500-06
   1. Complete mechanical finishes befor fabrication. After fabrication, finish joints, bends, abrasions and surface blemishes to match sheet.
   2. Protect mechanical finishes on exposed surfaces from damage.
   3. Apply organic and anodic finishes to formed metal after fabrication unless indicated otherwise.
   4. Appearance: Limit variations in appearance of adjacent to one-half the range represented in approved samples. noticeable variations in the same piece are not acceptable. Install components in the range of approved samples to minimize contrast.
B. Galvanized Steel Finishes:
   1. Repair Galvanized Surfaces: Clean welds and abraded areas and repair galvanizing to comply with ASTM A780/A780M
   2. Color: As shown on the drawings.
   3. Factory Prime: Apply shop primer to pepared surfaces of items where field painting after installation indicated, unless indicated otherwise. Comply with requirements in SSPC-PA1
   4. High Performance Organic Coatings: AAMA 2604; multiple coats, thermally cured fluoropolymer system.

3.1 Examination:

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight framed aluminum storefront system installation.
   1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
   2. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches of opening.
   3. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
   4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 Installation:

A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing aluminum framed storefront system, aluminum swing storefront entrance doors, accessories, and other components.

B. Install aluminum framed storefront system and storefront doors level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.

C. Set sill members and door threshold in bed of sealant or with gaskets, as indicated, for weather tight construction.

D. Install aluminum framed storefront system and components to drain condensation, water penetrating joints, and moisture migrating within sliding door to the exterior. Refer to section 07900 - Joint Sealers.

E. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

F. Install aluminum storefront framing system glass and glazing, in accordance with section 08800 and the manufacturer's requirements.

3.3 Adjusting, Cleaning, and Protection:

A. Clean aluminum surfaces immediately after installing aluminum framed storefronts. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Clean glass immediately after installation. Comply with glass manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.

C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

SECTION 085619 - PASS-THRU WINDOW

1.1 General: Provide door hardware as shown and specified.

A. Standards: Materials and installation shall conform to the following:
   1. ASTM A240 - Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels.
   2. ASTM A653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   3. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.
   4. ASTM B221 - Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
   5. ASTM B580 - Standard Specification for Anodic Oxide Coatings on Aluminum.
   6. ASTM B680 - Standard Test Method for Seal Quality of Anodic Coatings on Aluminum by Acid Dissolution.
   7. ASTM C1048 - Heat-Treated Flat Glass--Kind HS, Kind FT Coated and Uncoated Glass.
   8. ASTM C1172 - Standard Specification for Laminated Architectural Flat Glass.
   9. ASTM E774 - Standard Specification for Sealed Insulating Glass Units.
   10. Aluminum Association AA DAF-45 - Designation System for Aluminum Finishes.

B. Quality Assurance:
   1. Manufacturer Qualifications: Minimum of 25 years successful experience continuously manufacturing pass-thru windows.
   2. Installer Qualifications: Installer shall have five years experience manufacturing and fabricating windows of similar type and scope as those specified in this section.
   3. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
      a. Finish areas designated by Architect.
      b. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
      c. Refinish mock-up area as required to produce acceptable work.

2.1 Materials:

A. Acceptable Manufacturer: Quikserv; Toll Free: 1.800.388.8307; Email: sales@quikserv.com; Web: https://www.quikserv.com/;

B. No substitutions allowed. Requirements for manufacturer, design, grade, function, finish, size and other distinctive qualities of each type of door hardware are indicated on the drawings.

2.2 In-Line Side Sliding Automatic Window and Air Curtain

A. Custom Side Sliding Window (Model: SS-4035-E-CHIPOTLE): 65"W x 43-1/2"H window with 16" transom height and (2) sidelights at 19 1/2"W x 43-1/2"H; Complete Unit Size 104"W x 59-1/2"H
   1. Service Opening: 28"W x 31-1/2"H
   2. Finish: Dark Bronze Anodized
   3. Glass: 1" Clear Tempered unit + Low E (Solarban 60e) for fixed & moving panel, sidelights and transom
   4. 'CHIPOTLE' package includes pre-wired air curtain with relay to sync operation with window.
      a. Arch PM to verify if heated or ambient air curtain is required.
         i. Heated Air Curtain: Model: QSV1025EJ-040-BK
         ii. Ambient Air Curtain: Model: QSK1025AA-BK
            • Mount to transom
   5. See elevation for direction of opening. Refer to sliding direction from inside of building when ordering.

B. Alternate California Code Option: Model: SS-4035-E-CHIPOTLE-CALI, same as above except as noted.
   1. Service Opening: 28"W x 15-3/8"H, limits opening size to meet California code.
   2. 'CHIPOTLE' package includes pre-wired air curtain with relay to sync operation with window.
      a. Ambient Air Curtain: Model: QSK1025AA-BK
      ii. Mount to transom

C. Alternate Impact-Resistant and Florida Product Approved Option: Miami Dade Horizontal Bi-Parting Impact Slider, Model: BP-7241E-IP-CHIPOTLE, Complete Unit Size: 72"W x 41"H.
   1. Service Opening: 27"W x 27"H
   2. Rough Opening: 72-1/2"W x 41-1/2"H
   3. Glass: Impact Resistant Glass
   4. 'CHIPOTLE' package includes ambient air curtain
      a. Ambient Air Curtain: Model: QSK1025AA-BK, Part Number: 9345.
      b. Do not mount directly to window, mount on wall above.
         i. Miami-Dade NOA #18-0814.01

2.3 Electrical Requirements

A. Electrical Windows: 120V / 60 Hz, 20 amp branch circuit, single phase. Power supplied through base of window. Conforms to UL Standard 325 – Certified to CAN/CSA C22.2 NO. 247. Confirm with Electrical Drawings.
   1. Heated Air Curtain for Custom Side Sliding Window (Model: SS-4035-E-CHIPOTLE)
      a. Separate 230V circuit required. Power Supply for heated air curtain. Air curtain pre-wired through window frame with power supply routed to base of window. Confirm with Electrical Drawings.
   2. Ambient Air Curtain for Custom Side Sliding Window (Model: SS-4035-E-CHIPOTLE) and Alternate California Code Option: Model: SS-4035-E-CHIPOTLE-CALI
      a. Separate circuit not required. Window pre-wired to power and sync operation with air curtain.
   3. Ambient Air Curtain for Alternate Impact-Resistant and Florida Product Approved Option (Model: BP-7241E-IP-CHIPOTLE):
      a. Connect to main control board on window to power and synchronize operation with opening and closing of window.

3.1 Installation

A. Install in accordance with manufacturer's instructions.
B. Install pass-thru windows plumb, level, square, true to line, and without warp or rack. Maintain dimensional tolerances and alignment with adjacent Work.
C. Install thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
D. Install pass-thru window components weathertight.
E. Anchor pass-thru windows securely in place to supports. Use attachment methods permitting adjustment for construction tolerances, irregularities, alignment, and expansion and contraction.
F. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect.
G. Coordinate installation of related sheet metal flashing as specified in Section 07 62 00 - Sheet Metal Flashing and Trim.
H. Install perimeter joint sealants as specified in Section 07 91 23 - Backer Rods.

SECTION 08710 - DOOR HARDWARE

1.1 General: Provide door hardware as shown and specified.

A. Standards: Materials and installation shall conform to the following:
   1. ANSI A117.1-2009 Accessible and Usable Buildings and Facilities.
   2. ANSI/BHMA A156 Series Builders Hardware

B. Quality Assurance:
   1. Codes and standards: Provide hardware complying with local Building Code requirements and the Tenant's standards for keying and security systems.
   2. Project scheduling: Performed by an Architectural Hardware Consultant (AHC).
   3. Package each item of hardware and each lockset, complete with all screws, anchors, installation instructions and templates. Identify package indexing with corresponding item number of the hardware schedule.
   4. After hardware schedule acceptance, provide necessary templates or physical hardware to required trades for cutting, reinforcing, or preparing their products to receive hardware. Furnish templates to metal door manufacturer's.

2.1 Materials:

A. No substitutions allowed. Requirements for manufacturer, design, grade, function, finish, size and other distinctive qualities of each type of door hardware are indicated on the drawings.

B. Review the keying system with the Tenant and provide the type required.

3.1 Installation

A. Install each hardware item in strict accordance with manufacturer's installation instructions and recommendations. Securely fasten all attached parts. Fit faces of mortised parts snug and flush. Verify operating parts move freely and smoothly without binding or sticking, without excessive clearance.

B. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as required for proper installation and operation. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

C. Mount hardware units at heights indicated in DHI "Recommended Locations for Builders Hardware", unless otherwise required to comply with requirements of governing codes and regulations. Conform to ANSI A117.1 and ADAGG guidelines for accessibility.
   1. Top Butts: 5 inches; top of butt from head of frame.
   2. Middle Butts: 3'-2", centerline from finish floor.
   3. Bottom Butts: 5 inches; finish floor to bottom of butt.
   4. Locks: centerline from finish floor per hardware schedule.
   5. Knobs: 3'-2", centerline from finish floor.
   6. Pulls: centerline from finish floor per hardware schedule.
   7. Pushes: centerline from finish floor per hardware schedule.

SECTION 08800 - GLAZING

1.1 General: Provide glass and glazing as shown and specified.

A. Standards: Materials and installation shall conform to the following:
   1. CPSC 16 CFR Part 1201 (1-91)"Safety Standard for Architectural Glazing Materials."
   2. GANA "Glazing Manual - 1990."

B. Quality Assurance:
   1. Codes and standards: Provide type of glass and glazing products that comply with ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for category II materials. Comply with all applicable codes, standards and regulations that control safety glazing materials and installation.
   2. System Performance: Provide glass and glazing that has been produced, fabricated and installed to withstand normal thermal movement, wind loading and, where applicable, impact loading, without failure including loss or breakage of glass, failure of glazing sealants or gaskets to remain watertight and airtight, deterioration of glass and glazing materials and other defects in the work.
   3. Installation: Performed only by experienced glaziers.

C. Warranty:
   1. Insulating glass: Five years from date of installation against defects that materially obstruct vision through the glass or affect thermal and physical integrity.

2.1 Materials:

A. Glass:
   1. Float Glass (FG): 1/4" thick clear float glass.
   2. Tempered Glass (TG): 1/4" and 1/2" thick clear, tempered safety glass, free-of-tong marks.
   3. Insulating Glass (IGL): 1" thick clear, low-e tempered sealed glass; 1/4" thick interior and exterior glass lites with 1/2" aluminum desiccated dual sealed air space; with the following characteristics:
      a. Low-emissivity coating on #2 surface.
      b. Visible Light Transmittance: 64% - 70%
      c. Visible Light Reflectance - Outdoors: 9%-11%
      d. Solar Energy Transmittance: 32%-34%
      e. Solar Energy Reflactance-Outdoors: 30%-34%
      f. U-Value - Winter Night: 0.29
      g. U-value - Summer days: 0.28
      h. Solar Heat gain Coefficient: 0.25-0.39
      i. Shading Coefficient: 0.43-0.45
      j. Manufacturers/Products:
         i. AGC/Comfort Ti-AC40, or similar to meet code
         ii. Sun Guard/SN-68, or similar to meet code
         iii. PPG/Solarban 60, or similar to meet code
         iv. Viracon/VE1-2M, or similar to meet code
   4. Frosted Glass (SG) 1/4" thick, Spandrel Ceramic Glass, (Color: GrayBlack or as noted on drawings) by Old Castle Building Envelope (419) 666-2000, Contact: Doug Dewar

B. Glazing Materials:
   1. Glazing Sealants: Provide elastomeric glazing sealants suitable for applications indicated; compatible with one another and with other materials they will contact, complying with ASTM C920.
   2. Glazing Tape: Provide preformed, non-staining and non-migrating elastomeric tape, as recommended by tape and glass manufacturers for application indicated, complying with ASTM C 1281.
   3. Glazing gaskets: Provide manufacturer's standard snap-on aluminum stops and neoprene, vinyl or EPDM glazing gaskets.
   4. Provide setting blocks, spacers and edge blocks of material, size, and shape complying with referenced glazing standard, and compatible with surfaces contacted in installation.

C. Fabrication: Factory fabricate and size all glass.

3.1 Installation

A. Preparation:
   1. Field verify measurements and conditions of installation.
   2. Examine all details. Provide proper fitting to details indicated.
   3. Glazing channel dimensions shown are intended to provide for necessary bite on glass, minimum edge clearance and adequate glazing materials thickness, with reasonable tolerances. Adjust as required by job conditions at time of installation.

B. Install glass and glazing in accordance with the GANA "Glazing Manual" and glass manufacturer's recommendations.
   1. Install insulating glass units to comply with recommendations by Sealed Insulating Glass Manufacturers Association (SIGMA).

C. Install setting blocks of proper size at quarter points of sill rabbet. Provide spacers as required.

D. Install glazing sealants, tapes and gaskets in accordance with manufacturer's recommendations. Set glass without springing and install securely to prevent rattling or breakage.

E. Protect glass from breakage during remaining construction. Do not remove non-permanent labels until final acceptance.

DIVISION 9 -- FINISHES

SECTION 09260 - GYPSUM BOARD SYSTEMS

1.1 General: Provide gypsum board systems as shown and specified.

A. Standards: Materials and installation shall conform to the following:
   1. GA 214-90 "Levels of Gypsum Board Finish."
   2. GA-216 "Specifications for Application and Finishing of Gypsum Board."
   3. USG "SA923 Drywall/Steel Framed Systems."

2.1 Materials:

A. Manufacturer: United States Gypsum Co. (USG), (800) 874-4968, internet www.usg.com.

B. Metal framing: Comply with ASTM C 754 and ASTM C 645 for materials and sizes.
   1. Partition metal framing:
      a. Studs: Galvanized steel, C-shaped, sizes indicated, 20 gage "ST20"
      b. Runners: Match studs, type recommended by stud manufacturer for floor and ceiling support of studs. Provide flexible ceiling runners for full height metal stud framed partitions continuous from floor to underside of structural members or deck above.

C. Ceiling and Soffit metal framing/suspension systems:
   1. Small areas: Metal stud framing of appropriate size and gage for spans indicated.
   2. Large areas: Furring channel "Grillage" or "Direct Suspension System" designed for concealed support of gypsum board ceilings, of proper type for use indicated.
   3. Furring members: 20 gage, galvanized steel screw type, hat-shaped furring.

D. Gypsum board panels: USG "Sheetrock" complying with ASTM C1396, tapered edge face panels, 48" wide, in maximum lengths available to minimize end joint conditions, 5/8" thick.
   1. General use panels: Sheetrock Regular panels.
   2. Fire rated panels: Sheetrock Firecode Core panels.
   3. Water-resistant: panels: Sheetrock HUMITEK panels.

E. Cement board: USG DUROCK Cement Board, 5/8" thick x manufacturer's standard width, complying with ANSI A118.9, and in maximum lengths available to minimize end-to-end butt joints.

F. Fasteners: USG Type "S" bugle head screws for metal framing, USG Type "W" bugle head screws for wood framing, manufacturer's recommended length for panel thickness indicated.

G. Trim: Galvanized steel with knurled and perforated flanges. USG Dur-A-Bead corner bead, No. 200B casing bead metal trim, No. 093 Control Joint.

H. Joint treatment: USG Joint Treatment System, utilizing "Sheetrock Brand Joint Tape", and "Sheetrock Brand Setting-Type (DURABOND)" compound for tape bedding and topping.

I. Adhesives: USG "Sheetrock Brand Setting-Type (DURABOND) 210 or 90" compound for tape bedding and topping.

J. Acoustical sealant: USG Sheetrock Acoustical Sealant, water-base type, gunnable sealant for sealing sound-rated gypsum board systems.

K. Sound attenuation insulation: USG Thermafiber unfaced 3-1/2" thick, mineral fiber insulating batts/blankets; standard lengths and widths required to coordinate with spaces insulated.

3.1 Installation

A. Install metal wall and partition framing and ceiling suspension/ support systems in accordance with USG Bulletin SA 923 and complying with ASTM C754.
   1. Ceiling suspension/ support systems: Metal furring system/direct suspension or steel stud framing system.
   2. Wall and partition framing:
      a. Install steel studs per schedule or at spacing indicated with bottom and top runner tracks anchored to substrates. Provide flexible ceiling runner tracks at full height partitions.
      b. Terminate partition stud system 4" above ceilings, except where indicated to be extended to structural support or roof deck above. Brace tops of partition framing to structure or roof deck at maximum 4'-0" on center spacing.
      c. Frame openings more than 2'-0" wide with two 20 gage studs at each jamb.
      d. Coordinate the installation of supplementary blocking and nailers, provided under Section 06100 work, to support shelving, millwork, toilet accessories, and similar work that cannot be adequately supported by gypsum board alone.

B. Application and Finishing: Install and finish gypsum board to comply with ASTM C 840 and Gypsum Association GA 216 "Recommended Specifications for the Application and Finishing of Gypsum Board."
   1. Screw fasten all gypsum board panels.
   2. Metal Trim: Install metal corner beads at external corners of gypsum board work and metal trim wherever edge of gypsum board would be exposed. Use longest practical lengths.
   3. Control Joints: Locate and install control joints in accordance with USG Bulletin SA923 "Good Design Practice" recommendations.

C. Acoustical Treatment:
   1. Where sound-attenuation insulation is indicated, seal gypsum board construction at perimeters, control joints, junction boxes, openings and penetrations with a continuous bead of acoustical sealant including a bead at both faces of partitions.
   2. Install sound attenuation insulation at scheduled partitions and ceilings. Install insulation in single layer of required thickness. Extend full thickness over entire area to be insulated. Cut and fit tight around obstructions. Fill all voids.
   3. At openings and cutouts, fill open spaces between edges of gypsum board and fixtures, cabinets, ducts, and other flush or penetrating items, with continuous bead of acoustical sealant.
   4. Seal sides and backs of electrical boxes to completely close up openings and joints with a bead of acoustical treatment.

D. Finishing:
   1. Comply with manufacturer's instructions for mixing, handling, and application of materials. Apply treatment at joints both directions, at flanges of trim accessories, penetrations of gypsum board (electrical boxes, piping, and similar work), fastener heads, surface defects, and elsewhere as indicated. Apply in manner that will result in each of these items being concealed when applied decoration has been completed.
   2. Apply joint tape at joints between gypsum boards, except where trim accessories are indicated.
   3. Interior Exposed Gypsum Board Finish: Level 5 Finish.
      a. Locations: Typical for all walls and ceilings, unless otherwise indicated
      b. Finish interior gypsum board by applying the following joint compounds in four coats (not including prefill of openings in base), and sand between coats and after last coat:
      c. Embedding and First Coat: Setting-type joint or taping compound.
      d. Fill (Second) Coat: Setting-type topping compound.
      e. Fill (Third) Coat: Setting-type topping compound.
      f. Finish (Fourth) Coat: Skim coat entire surface.
      g. Interior Concealed Gypsum Board: Level 3 Partial Finishing.
         a. Finish concealed gypsum board construction that requires finishing same as exposed gypsum board construction, except the third coat and sanding can be omitted.

E. Cement Board: Install cement board as a 16" high base at all kitchen and kitchen cook line wall types as indicated on drawings.

SECTION 09900 - PAINTS AND COATINGS

1.1 General: Provide paints and coatings as shown and specified.

A. Provide surface preparation, prime, intermediate and finish coatings for interior and exterior and existing scheduled surfaces and items.

B. Provide Tenant-selected finishes and colors for all exposed surfaces, unless otherwise indicated.

1.2 Related Documents:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.

1.3 Summary:

A. This section includes surface preparation and field painting of the following:
   1. Exposed exterior items and surfaces.
   2. Exposed interior items and surfaces.
   3. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.

1.4 Quality Assurance:

A. Applicator Qualifications: Engage an experienced applicator that has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.

B. Source Limitations: Obtain block fillers, primers and undercoat materials for each coating system from the same manufacturer as the finish coats.

C. Provide lead free prime and finish coatings. All top coatings shall be mold and mildew resistant.

1.5 Delivery, Storage and Handling:

A. Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
   1. Product name or tile of material.
   2. Product description (generic classification or binder type).
   3. Manufacturer's stock number and date of manufacture.
   4. Contents by volume, for pigment and vehicle constituents.
   5. Thinning instructions.
   6. Application instructions.
   7. Color name and number.
   8. VOC content

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F (7 degrees C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.
   1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing and application.

1.6 Project Conditions

A. Apply water-based paints only when the temperatures of surfaces to be painted and surrounding air temperatures are between 50 and 90 degrees F (10 and 32 degrees C) unless otherwise stated on the technical data bulletin.

B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 degrees F (7.2 and 35 degrees C).

C. Do not apply paint in snow, rain, fog, or mist, or when the relative humidity exceeds 85 percent, or at temperatures less than 5 degrees F (3 degrees C) above the dew point, or to damp or wet surfaces.
   1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

2.1 Manufacturers:

A. Products: Subject to compliance with requirements, provide one of the products in the paint schedules.

B. Manufacturers Names: The following manufacturer is referred to in the paint schedule by use of shortened versions of the name, which is shown below:
   1. PPG Industries, Inc.
   2. Materials - No substitutions allowed.

2.2 Paint Materials, General

A. Material Compatibility: Provide block fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Material Quality: Provide manufacturer's best-quality "professional" paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

Colors: Color guided selected by owner and will be strictly adhered too, unless otherwise noted.

C. Exterior Coatings:

Exterior Ferrous Metals:

Preparation: Remove all visible oil, grease, soil, rust and all other soluble contaminates from steel surface. Uniformly roughen surface with 150-grit paper. Remove all dust before solvent cleaning by the use of stiff bristle brush.
Prime: (1) coat PPG; 4020PF Series Pitt-Tech Plus Int/Ext DTM Acrylic Industrial Primer (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Finish: (2) coats PPG; 4216 Plus HP Series Pitt-Tech Plus Semi-Gloss DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Application: Conventional or HVLP (high volume low pressure)

Exterior and Interior Gas Piping:

Preparation: Remove all visible oil, grease, soil, rust and all other soluble contaminates from pipe surface. Remove all dust before solvent cleaning by the use of stiff bristle brush.
Prime: (1) Coat PPG; 4020PF Series Pitt-Tech Plus Int/Ext DTM Acrylic Industrial Primer (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Finish: (2) Coats PPG; 4216 Plus HP Series Pitt-Tech Plus Semi-Gloss DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils
Application: Conventional or HVLP (high volume low pressure)

Consultant:

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STATE OF MISSOURI
DAVID A. EFAW
NUMBER A-2000720148
REGISTERED ARCHITECT
8/27/21

CADENCE
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SOUTH LEE'S SUMMIT CMG SHELL
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LEE'S SUMMIT, MO 64081

Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

Revisions:

Drawn: CB, JTH
Checked: AA, TC

Project No.
CAC001

Contents:
ARCHITECTURAL SPECIFICATIONS

G014

Exterior Patio Railing:

Preparation: Remove all visible oil, grease, soil, loose paint, rust and all other soluble contaminates from steel surface. Remove all dust before solvent cleaning SSPC-SP1 by the use of stiff bristle brush. SSPC-SP3 may be required as a more aggressive preparation to remove loose mill scale, loose rust, loose paint and other loose detrimental foreign matter from the surface. Performance is better with more aggressive preparation.
Prime: (1) coat PPG; 95-3300 Durathane DTM Urethane Mastic (250 g/L VOC): Applied at a dry film thickness of not less than 3.0 to 5.0 mils.
Finish: (1) coat PPG; 95-3300 Durathane DTM Urethane Mastic (250 g/L VOC): Applied at a dry film thickness of not less than 3.0 to 5.0 mils.
Application: Conventional or HVLP (high volume low pressure) be done with conventional spray or airless equipment or brush or roller.

Exterior Prefinished Metal Wall Panels:

Preparation: Before applying primer or other surface treatments, clean galvanized metal surface to SSPC-SP1 that could impair bond of the various coatings. Remove oil, grease and soap film before priming use of Krud Kutter Metal Clean & Etch may be required on bare or new galvanized. Surface must be clean, dry and free of contaminants, including salt deposits. Additional prep may be needed to SSPC-SP2. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

Note: Some selected areas of bare concrete surfaces will require (1) coat of Perma Crete 4-603XI Alkali Resistant Concrete Primer before steel installation over all concrete surfaces.

Owner Option 1:
Prime: (1) coat XIM Primer Bond - Applied at a dry film thickness of not less than 1.5 to 2.0 mils.
Finish: (2) coats PPG; 90-1110 Series Pitt-Tech Satin DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 2:
Prime: (1) coat PPG; 97-245 Pitt-Guard DTR Epoxy Mastic Primer (263 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 7.0 mils.
Finish: (2) coats PPG; 95-3300 Durathane Urethane Mastic (240 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 3 (Low VOC):
Prime: (1) coat PPG; Amerlock 2 Fast Dry VOC Compliant Epoxy (84 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 6.0 mils.
Finish: (2) coats PPG; Amershield VOC Aliphatic Urethane (84 g/L VOC): Applied at a dry film thickness of not less than 5.0 to 8.0 mils.

Application: Conventional or HVLP (high volume low pressure) be done with conventional spray or airless equipment or brush or roller.

Exterior Galvanized Metal:

Preparation: Before applying primer or other surface treatments, clean galvanized metal surface to SSPC-SP1 that could impair bond of the various coatings. Remove oil, grease and soap film before priming use of Krud Kutter Metal Clean & Etch may be required on bare or new galvanized. Surface must be clean, dry and free of contaminants, including salt deposits. Additional prep may be needed to SSPC-SP2. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

Note: Some selected areas of bare concrete surfaces will require (1) coat of Perma Crete 4-503 Concrete Primer before steel installation over all concrete surfaces.

Owner Option 1:
Prime: (1) coat PPG; 6-209 SpeedHide Galvanized Metal Primer (400 g/L VOC): Applied at a dry film thickness of not less than 3.0 to 5.0 mils.
Finish: (2) coats PPG; 4216 Plus HP Series Pitt-Tech Plus Semi-Gloss DTM Industrial Enamels (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 2:
Prime: (1) coat PPG; 97-245 Pitt-Guard DTR Epoxy Mastic Primer (263 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 7.0 mils.
Finish: (2) coats PPG; 95-3300 Durathane Urethane Mastic (240 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.

Owner Option 3 (Low VOC):
Prime: (1) coat PPG; Amerlock 2 Fast Dry VOC Compliant Epoxy (84 g/L VOC): Applied at a dry film thickness of not less than 4.0 to 6.0 mils.
Finish: (2) coats PPG; Amershield VOC Aliphatic Urethane (84 g/L VOC): Applied at a dry film thickness of not less than 5.0 to 8.0 mils.

Application: Conventional or HVLP (high volume low pressure) be done with conventional spray or airless equipment or brush or roller.

Exterior CMU Primer:

CMU Preparation: Mortar should cure for at least 30 days and preferably 90 days prior to priming. Fill block with an appropriate block filler. Surfaces previously coated with water thinned cement-based paint must be prepared with extra care. If the material appears to be adhering tightly, a masonry sealer may be applied to seal the surface. Check adhesion by applying a piece of masking tape. If the sealer peels off and has loose particles, remove all chalking or crumbling material, re-seal and re-check adhesion.

Field Preparation: Surfaces to be coated must be dry, clean, sound, and free from all contamination including loose and peeling paint, dirt, grease, oil, wax, concrete curing agents and bond breakers, chalk, efflorescence, mildew, rust, product fines, and dust. Remove loose paint, chalk, and efflorescence by wire brushing, scraping, sanding, and/or pressure washing. Putty all nail holes and caulk all cracks and open seams. Sand all glossy, rough, and patched surfaces. Feather back all rough edges to sound surface by sanding.

Prime: (2) Coats PPG; Speedhide Interior/Exterior Masonry Hi Fill Latex Block Filler

Application: Brush, Roll or Spray

Exterior Stucco/EIFS Surfaces (including wet areas):

Preparation: Remove all visible oil, grease, soil and all other foreign substances with cleaning solutions and/or scrapers. Allow to dry and sand all areas that need smoothing and dust off.
Prime: (1) coat PPG; 4-603 Perma-Crete Alkali Resistant Primer (100 g/L VOC): Applied at a dry film thickness of not less than 1.2 to 1.9 mils.
Finish: (2) coats PPG; 4-22 Perma-Crete Hi-Build Acrylic (100 g/L VOC): Applied at a dry film thickness of not less than 3.2 to 5.8 mils.
Application: Airless spray with back roll using 3/4" nap roller.

Exterior Wood:

Preparation: Remove all visible oil, grease, soil and all other foreign substances with cleaning solutions and or scrapers. Allow to dry and sand all areas that need smoothing and dust off.
Prime: (1) coat PPG; 17-921 Seal Grip Primer Sealer (100 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils.
Finish: (2) coats PPG; 70-501 Manor Hall Exterior Semi-Gloss or PPG Acri-Shield Semi-Gloss PP649 (50 g/L VOC): Applied at a dry film thickness of not less than 1.5 to 3.0 mils.
Application: Brush, Roll or Spray

D. Interior Coatings:

Interior Metals: (Doors, door frames, where indicated)
Preparation: Remove all visible rust, oil, grease, soil and all other foreign substances with cleaning solutions and/or scrapers. Allow to dry and sand all areas that need smoothing and dust off.
Prime: (1) coat PPG; 4020PF Series Pitt-Tech Plus Int/Ext DTM Acrylic Industrial Primer (90 g/L VOC): Applied at a dry film thickness of not less than 2.0 to 4.0 mils. (Repaints only require spot prime on bare metal surfaces.)
Finish: (2) coats PPG; V-50-410 Breakthrough Semi-gloss Sheen Acrylic (250 g/L VOC): Applied at a dry film thickness of not less than 1.4 to 2.0 mils.
Application: Conventional spray, HVLP or Airless spray. Touch-ups shall be done with conventional spray or airless equipment or brush or roller.

E. Color Guide: Refer to Finish Plan and drawings for exact location of all colors.

WHERE	WHAT	COLOR	SHEEN	FINISH TAG
Exterior Galvanized Metal Flashing and Prefinished Metal Wall Panels	PPG Pitt-Tech Plus Satin Acrylic Finish 90-1110 Series	PPG 1001-6 "Knight's Armor"	Satin	N/A
Exterior (Roof Mounted) Gas Piping	PPG Pitt-Tech Plus Semi-Gloss Acrylic Finish 4216 Plus HP Series	Yellow	Semi-Gloss	N/A
Exterior and Interior Gas Piping, Where Exposed	PPG Pitt-Tech Plus Semi-Gloss Acrylic Finish 4216 Plus HP Series	Match surrounding finishes/verify with architect	Semi-Gloss	N/A
Exterior CMU Primer	PPG Speedhide Interior/Exterior Masonry Hi Fill Latex Block Filler	White	Flat	N/A
Exterior CMU	PPG Pitt-Tech Plus Semi-Gloss Acrylic Finish 4216 Plus HP Series	PPG 1001-6 "Knight's Armor"	Semi-Gloss	N/A
Exterior Ferrous Metals	PPG Pitt-Tech Plus Semi-Gloss Acrylic Finish 4216 Plus HP Series	PPG 1001-6 "Knight's Armor"	Semi-Gloss	N/A
Exterior Wood	PPG Manor Hall Acrylic Semi-Gloss 70-501 Series or PPG Acri-Shield Acrylic Semi-Gloss PP649 Series	PPG 1001-6 "Knight's Armor"	Semi-Gloss	N/A
Exterior Stucco and EIFS Patio and Wet Areas	PPG Perma-Crete High Build Acrylic Topcoat 4-22 Series	PPG 1001-6 "Knight's Armor"	Flat	N/A
Exterior Stucco and EIFS Patio and Wet Areas	PPG Perma-Crete High Build Acrylic Topcoat 4-22 Series	PPG 1010-2 "Fog"	Flat	N/A
Exterior Stucco and EIFS Patio and Wet Areas	PPG Perma-Crete High Build Acrylic Topcoat 4-22 Series	PPG 1058-7 "Autumn Ridge"	Flat	N/A
Interior Doors, Door Frames, Rails and Rail Frames, Where Specified	PPG Breakthrough 50 Acrylic Satin	PPG V51-90 Black	Satin	D1
Interior Ferrous Metals, Where Specified	PPG Breakthrough 250 Acrylic Eggshell V50-410 Series	PPG 1013-5 "Victorian Pewter"	Eggshell	N/A
Interior Metal Roof Deck and Metal Columns	PPG Pitt-Tech Plus Satin Acrylic Finish 90-1110 Series	PPG 1013-5 "Victorian Pewter"	Satin	C1
Patio Railing	Durethane DTM Urethane 95-3300 Series	PPG 1001-6 "Knight's Armor"	Gloss	N/A

3.1 Installation:

A. Examination:
1. Verify that site environmental conditions are appropriate for application of coatings specified.
2. Immediately prior to coating application, ensure that surfaces to receive coatings are dry.
3. Ensure that moisture-retaining substrates to receive coatings have moisture content within tolerances allowed by coating manufacturer, using moisture measurement techniques recommended by coating manufacturer.
4. Immediately prior to coating application, examine surfaces to receive coatings for surface imperfections and for contaminants which could impair performance or appearance of coatings, including but not limited to, loose primer, rust, scale, oil, grease, mildew, algae, or fungus, stains or marks, cracks, indentations, or abrasions.
5. Correct the above conditions and any other conditions which could impair performance or appearance of coatings in accordance with specified surface preparation procedures before proceeding with coating application.

B. Preparation:
1. Do not start work until surfaces to be finished are in proper condition to produce finished surfaces of uniform, satisfactory appearance.
2. Stains and Marks: Remove completely, if possible, using materials and methods recommended by coating manufacturer; seal with shellac or other coating acceptable to paint manufacturer stains and marks that might bleed through paint finishes which cannot be completely removed.
3. Remove or protect hardware, electrical plates, mechanical grilles and louvers, lighting fixture trim, and other items not indicated to receive coatings which are adjacent to surfaces to receive coatings.
4. Remove mildew from impervious surfaces by scrubbing with solution of disodium phosphate and bleach. Rinse with clean water and allow substrate to thoroughly dry.
5. For specific substrate preparation, see individual specifications.
6. Provide necessary staging, ladders, shield, protective coverings and drop cloths. Protect floors, walls and adjacent work and materials. Remove and properly replace temporary protection and coverings removed from any part of the work or finish. Repair damage at Contractor's expense.

C. Application:
1. General: Mix, prepare and apply paint according to manufacturer's written instructions.
   a. Use applicators and techniques best suited for substrate and type of material being applied.
   b. Do not apply high-performance coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
   c. Coating surface treatments, and finishes are indicated in the coating system descriptions.
   d. Provide finish coats compatible with primers used.
   e. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, grilles, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
2. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
   a. The number of coats and film thickness required is the same regardless of application method.
   b. Completed Work: Match approved Samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements as directed by Tenant. Paints and coatings work is subject to acceptance by the Tenant.
   c. Keep brushes and rollers clean, free from contamination and suitable for the finish required.
   d. Unless otherwise indicated, allow exterior paints to dry for 48 hours and interior paints to dry for 24 hours between coats.
   e. Sand lightly and remove dust between coats to achieve required finish.
   f. Finished surfaces shall be uniform in finish and color and free of brush marks, sagging, holidays, corduroy and other imperfections. Coverage and hide shall be complete.
   g. Edges of paint or finish adjoining other materials or colors shall be sharp and clean without overlapping. Cut paint in neatly around glass or other edges.
   h. Paints and coatings work is subject to acceptance by the Tenant. Correct unsatisfactory work not complying with these specifications as directed by the Tenant.

D. Cleaning:
1. After completing painting, clean glass and paint spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

E. Protection:
1. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect / Tenant.
2. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
3. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

F. Maintenance: Furnish extra paint materials from the same production run as the materials applied in the quantities described below. Package paint materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Tenant.
1. Provide one gallon of paint and wood stain of each type and color required for maintenance purposes. Provide original, unopened, labeled containers with color samples and a list of project use.

DIVISION 10 - SPECIALTIES

SECTION 10522 - PORTABLE FIRE EXTINGUISHES

1.1 General: Provide portable fire extinguishers as shown and specified.

A. Standards: Materials and installation shall conform to the following:
1. NFPA 10 "Standard for Portable Fire Extinguishers.

2.1 Materials:

A. Provide minimum 10 lb. capacity fire extinguishers in quantity and type complying with local code and fire regulations requirements.
1. Provide new fire extinguishers fully loaded, tested, UL and FM labeled and listed and ready for use.
2. Provide manufacturer's recommended mounting brackets and hardware.

3.1 Installation:

A. Install fire extinguishers in accordance with manufacturer's installation instructions, at heights and locations acceptable to the local fire regulations enforcement authority

DIVISION 10 - SPECIALTIES

SECTION 10700 - EXTRUDED ALUMINUM CANOPY

1.1 General: Provide canopies as shown and specified.

A. Standards: Materials and installation shall conform to the following:
1. AWS, D1.1 - Structural Welding Code - Steel
2. AMMA, Aluminum Finishes AAMA 2604 (FGIA 2604) - Powder Coat

B. Quality Assurance
1. Shop Drawings: To be created under the guidance of a professional engineer. Site Specific stamped drawing may be required by the manufacturer based on location. Drawings must indicate size, material and finish. Include plan, elevations and sections to clearly outline the canopy locations. Include installation procedures, details of joints, attachments and clearances.
   a. Submit within 15 days after contract award.
2. Color charts showing manufacturer's full range of colors from standard line including Chipotle's custom "charcoal" color match to prototypical window mullion system.

2.1 Manufacturers:

A. Architectural Fabrication, Inc. – Manufacturer is located at 2100 E. Richmond Avenue, Fort Worth, TX 76104. P: (800) 962-8027. E: chipotle@arch-fab.com, W: www.arch-fab.com
B. Substitutions are acceptable assuming they comply with this specification, are submitted based on Quality Assurance and Division1 - Section 01100 requirements and have minimum 10 years experience, and only when approved by Arch PM and Chipotle DM.
1. Awnex, Contact: Katie Dicks, P: 770-704-7140 x151, E: katie@awnexinc.com
2. Uni-Structures, Contact: Dana Fredericks, P: 678-974-1773
3. API, Contact: Jade Moore-Esposito, P: 813-925-0144, E: jesposito@americanproducts.com

2.2 Materials:

A. Specifications are based on Architectural Fabrication, Inc. - Helios Canopy Patent #9,976,310
1. Framing: Gutter fascia, tube, angles: 6063-T6 alloy extruded aluminum. Gutter to be notched in the back to allow steel support arms to pass through.
2. Decking: Extruded aluminum 8" wide deck pan in 6063-T6 or 6063-T5 alloy (Roll form is not acceptable)
3. Steel Support Arms: 3" x 3" x .250" Steel tube support arms w/ 8" w x 5"h x 1/2" thick steel plate welded to the back. Must manufacture steel arm in manner to leave room for LED enclosure at back of canopy.
4. Hardware and Fasteners: Nuts, bolts, washers, clevis pins, screws, anchors and pipe spacers to be zinc plated or galvanized steel required to suit application and per pre-engineered canopy load requirements. Typical wall anchors are minimum ½" diameter. Touch up paint must be provided for each canopy to allow for potential repairs in the field.
5. Flashing: Shall be minimum 0.040-inch aluminum, fabricated to prevent leakage and sealed with Novaflex metal roof sealant in custom color match. Another equivalent sealant is acceptable.
6. LED Enclosure: Each canopy is to have a preformed aluminum LED enclosure along the back edge of the canopy finished in the same powder coat as the canopy. 1" nominal inside width, and a minimum aluminum sheet thickness of .063".
7. Scuppers: Drainage for canopy is (2) aluminum scuppers located at the front of the canopy per drawings. See finish below for details.
8. Finish: All aluminum shall be powder coat finish per FGIA 2604 (aka AAMA 2604). Steel shall be commercially blasted, then coated with a zinc rich primer, and finally the top coat of super polyester powder (2604 compliant) applied.

3.1 Installation:

1. Install canopies per manufacturer's written instructions and videos, and as indicated on architectural drawings
2. Locate and place canopies level, plumb and at indicated alignment with adjacent work.
3. Use concealed anchors where possible.
4. Repair damaged finishes so no evidence remains of corrective work. Return items to the factory that cannot be refinished in the field. Make required alterations and refinish entire unit or provide new units.
5. Protect galvanized and nonferrous-metal surfaces from corrosion or galvanic action by applying a coating of bituminous paint or elastomeric coating on surfaces that will be in contact with concrete, masonry or dissimilar metals.

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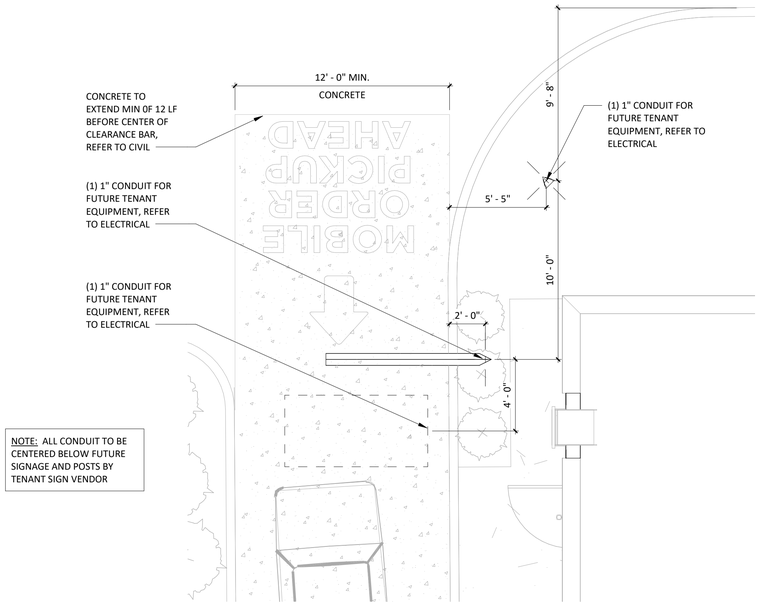
GENERAL NOTES

STENCILS FOR PARKING MARKINGS AVAILABLE FROM PAVEMENT STENCIL COMPANY, PHONE: (800) 250-5547, EMAIL: STENCILS@PAVEMENTSTENCIL.COM

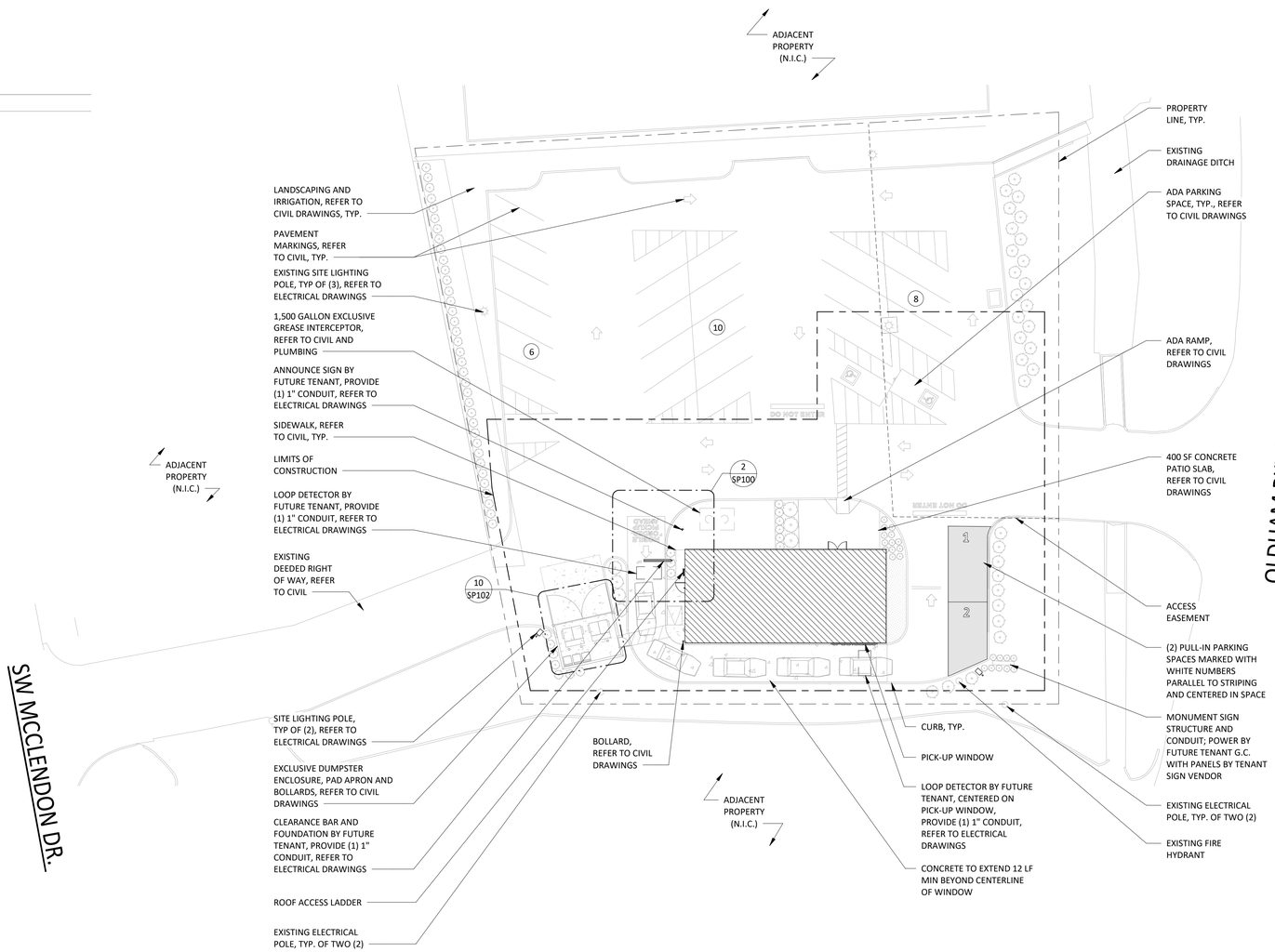
ARCHITECTURAL SITE PLAN IS SHOWN FOR REFERENCE ONLY. GC TO BUILD FROM CIVIL DRAWINGS. IF THERE ARE DISCREPENCIES BETWEEN ARCHITECTURE AND CIVIL, CONTACT ARCHITECT PM.



NOTE: ALL CONDUIT TO BE CENTERED BELOW FUTURE SIGNAGE AND POSTS BY TENANT SIGN VENDOR

2 / SP100 ARCHITECTURAL SITE PLAN DIMENSIONED

1/4" = 1'-0"



1 / SP100 ARCHITECTURAL SITE PLAN

3/64" = 1'-0"

Consultant:

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STATE OF MISSOURI
DAVID A. EFAW
NUMBER A-2007020148
ARCHITECT
8/27/21

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SOUTH LEE'S SUMMIT CMG SHELL
1103 SW OLDHAM PARKWAY
LEE'S SUMMIT, MO 64081

Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

Revisions:

Drawn: CB, JTH
Checked: AA, TC

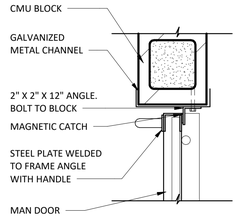
Project No.
CAC001

Contents:
ARCHITECTURAL SITE PLAN

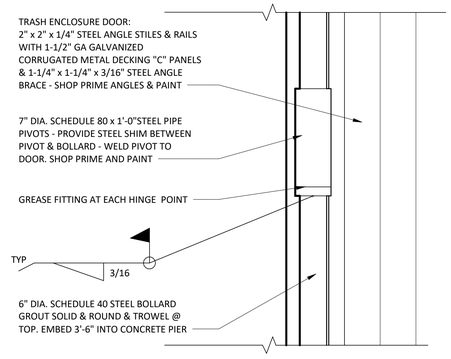
SP100

DUMPSTER ENCLOSURE FINISH SCHEDULE

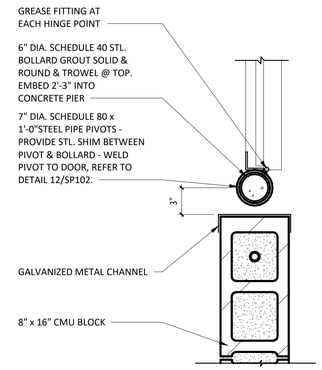
MATERIAL	COLOR/FINISH
CMU - PRIMER	REFER TO PAINT SPECIFICATIONS, COLOR 'WHITE'
CMU	REFER TO PAINT SPECIFICATIONS
METAL COPING	PREFINISHED TO MATCH PAINTED CMU
CORRUGATED METAL & DOOR FRAMES	PAINTED 'KNIGHTS ARMOR' PPG 1001-6



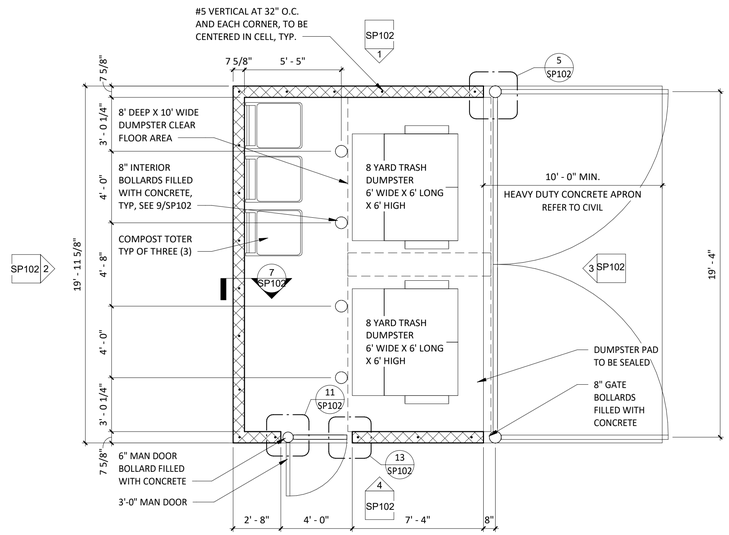
13 SP102 **MAN DOOR LATCH DETAIL**
1 1/2" = 1'-0"



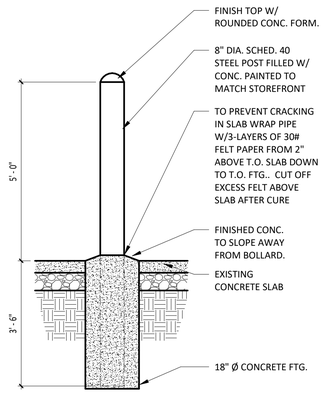
12 SP102 **MAN DOOR PIVOT**
1 1/2" = 1'-0"



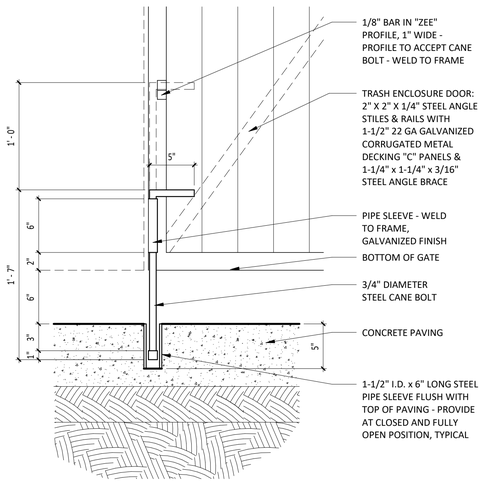
11 SP102 **MAN DOOR PIVOT DETAIL**
1 1/2" = 1'-0"



10 SP102 **DUMPSTER PLAN**
1/4" = 1'-0"



9 SP102 **TYP. BOLLARD DETAIL**
1/2" = 1'-0"



8 SP102 **TYPICAL CANE BOLT DETAIL**
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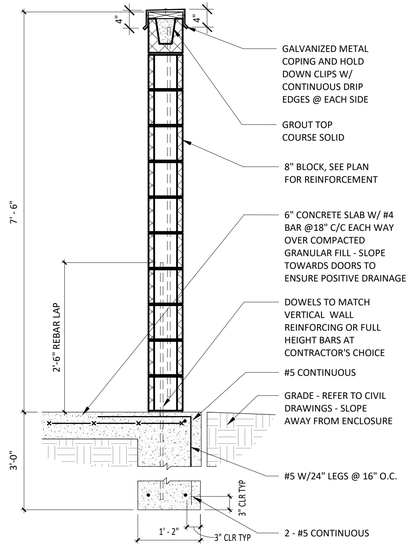
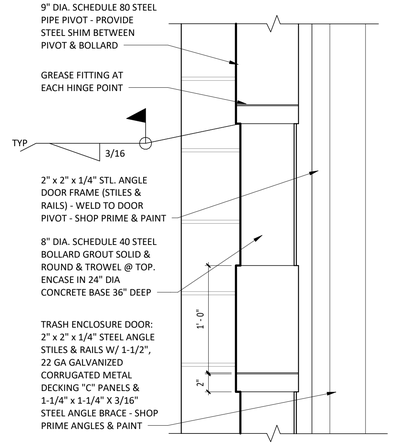
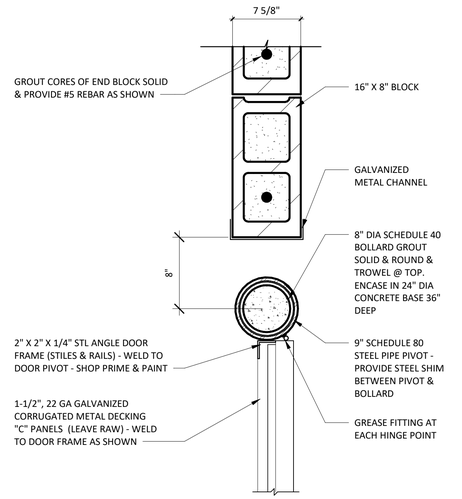


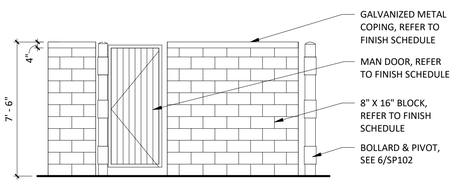
7 SP102 **DUMPSTER DETAIL**
3/4" = 1'-0"



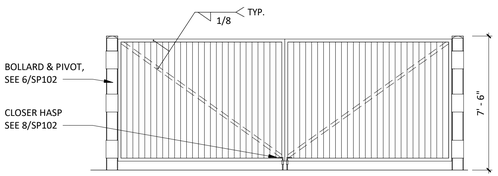
6 SP102 **DUMPSTER DOOR PIVOT**
1 1/2" = 1'-0"



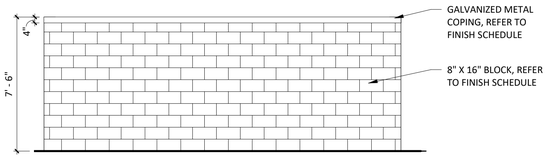
5 SP102 **DUMPSTER WALL DETAIL**
1 1/2" = 1'-0"



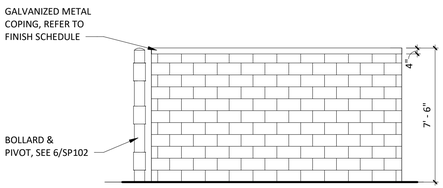
4 SP102 **DUMPSTER ELEVATION**
1/4" = 1'-0"



3 SP102 **DUMPSTER ELEVATION**
1/4" = 1'-0"



2 SP102 **DUMPSTER ELEVATION**
1/4" = 1'-0"



1 SP102 **DUMPSTER ELEVATION**
1/4" = 1'-0"

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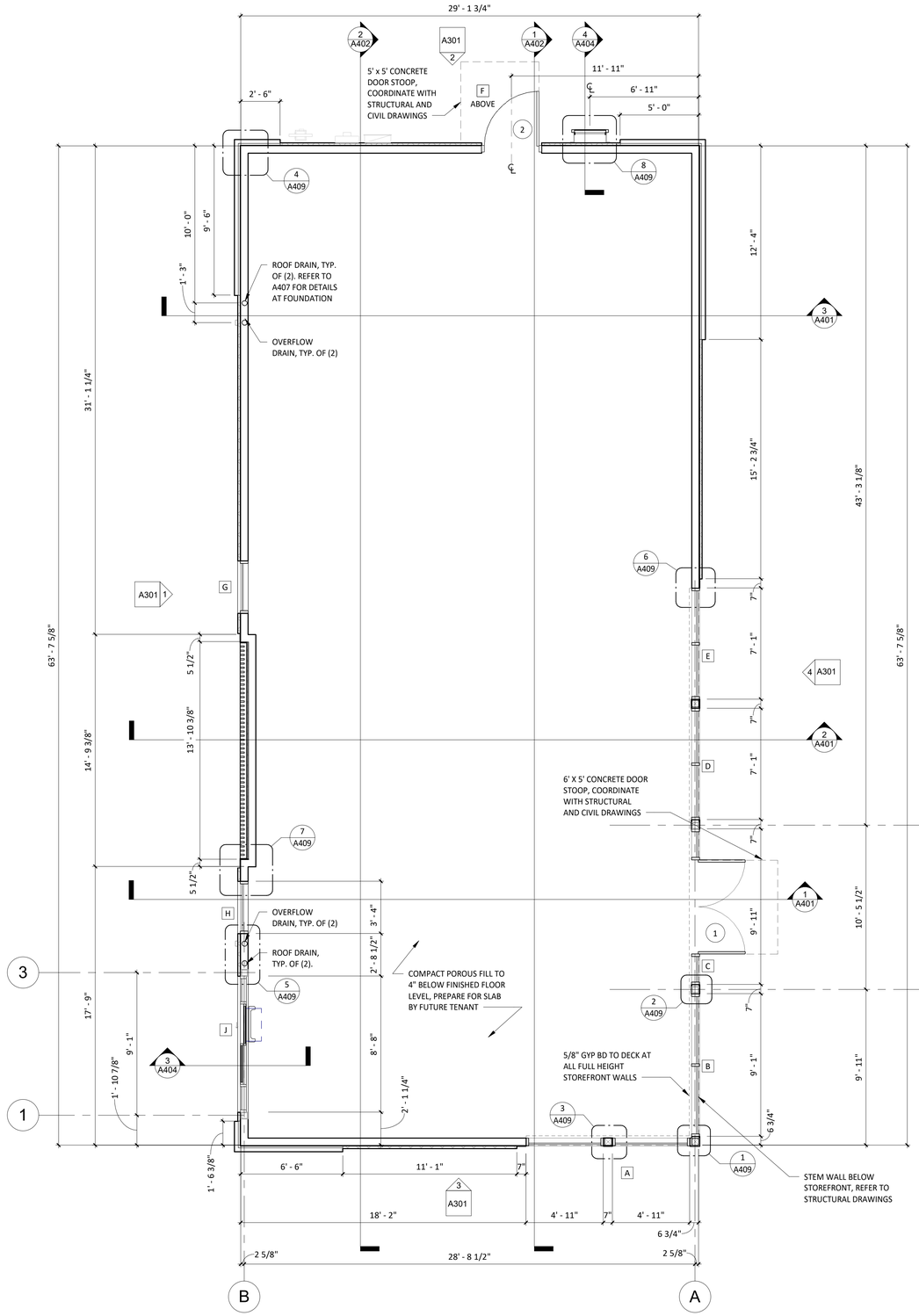
Contents:
DUMPSTER PLAN & DETAILS

SP102

CONSTRUCTION NOTES

1. REFER TO A601 FOR DOOR INFORMATION & A602 FOR STOREFRONT DIMENSIONS.
2. ALL DIMENSIONS ARE TO FACE OF FRAMING (STUD WALL) OR CENTERLINE OF STRUCTURE UNLESS NOTES OTHERWISE.
3. SEE STRUCTURAL SHEETS FOR ALL STUD FRAMING CONFIGURATIONS, SIZES, SPACING AND GAUGES.
4. ALL EXTERIOR WOOD BLOCKING TO BE MOISTURE RESISTANT PRESERVATIVE TREATED (P.T.)
5. TAPE SEALANT AT ALL ANCHOR LOCATIONS.
6. ALL FLASHING AND SEAMS BETWEEN SHEATHING IN COMPOSITE WOOD STUD WALL CONSTRUCTION CONDITIONS TO BE TAPED AND SEALED WITH TAPE SEALANT.
7. LAP ALL WEATHER RESISTANT BARRIERS AND THRU-WALL FLASHING IN A WATER SHEDDING FASHION. TAPE ALL EXPOSED EDGES.
8. EXTEND ALL THRU-WALL FLASHING TO 1/4 INCH PAST THE EXTERIOR FACE OF WALL.
9. PROVIDE CONTINUOUS ANCHORAGE FOR ALL THRU-WALL FLASHING.
10. EXTEND FLASHING VERTICALLY A MINIMUM OF 8 INCHES ABOVE THE BASE OF THE FLASHING.
11. APPLY SEALANT TO ALL SHEATHING JOINTS AND FASTENER PENETRATIONS.
12. PROVIDE FULLY ADHERED FLASHING AT ALL WINDOW AND DOOR OPENING HEADS, SILLS AND JAMBS.



ARCHITECTURAL SHELL PLAN

1/4" = 1'-0"

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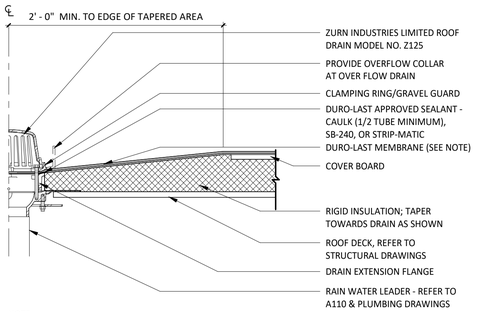
Contents:
ARCHITECTURAL SHELL PLAN

A100

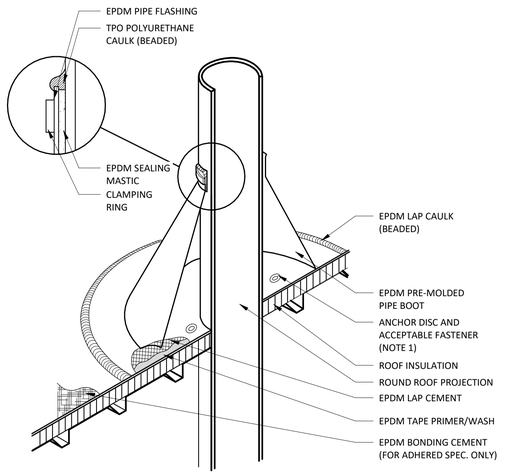
GENERAL NOTES

1.	SEE STRUCTURAL DRAWINGS FOR LOCATIONS AND SIZE OF STRUCTURAL ROOF REINFORCEMENTS.
2.	SEE MECHANICAL PLANS FOR ROOF TOP EQUIPMENT.
3.	COORDINATE ALL ROOF PENETRATIONS, FLASHING, AND REPAIR W/ TENANT ROOF TOP EQUIPMENT PRIOR TO COMMENCEMENT OF WORK.
4.	DIMENSIONS FOR ROOF TOP EQUIPMENT WITH CURBS IS TO THE OUTSIDE FACE OF THE CURB. DIMENSIONS FOR EQUIPMENT WITHOUT CURBS ARE TO THE CENTER OF THE UNIT. ALL DIMENSIONS ARE FOR REFERENCE ONLY. ROOFING CONTRACTOR TO ADJUST AS NECESSARY IN FIELD. CONTACT ENGINEERING CONSULTANTS FOR ANY MAJOR MODIFICATIONS TO LAYOUT.
5.	JOISTS FOR SHELL BUILDING ARE TO BE DESIGNED FOR THE RTU WEIGHTS AND PLACEMENT EXHIBITED. IF LOCATION OR ORIENTATION OF A UNIT MUST CHANGE, NOTIFY ARCHITECT IMMEDIATELY.



NOTE:
DURO-LAST MEMBRANE MUST EXTEND BEHOND THE INSIDE OF THE CLAMPING RING. BE SURE THE OPENING WHERE WATER PASSES THROUGH THE MEMBRANE IS NOT SMALLER THAN THE OPENING OF THE DRAIN.

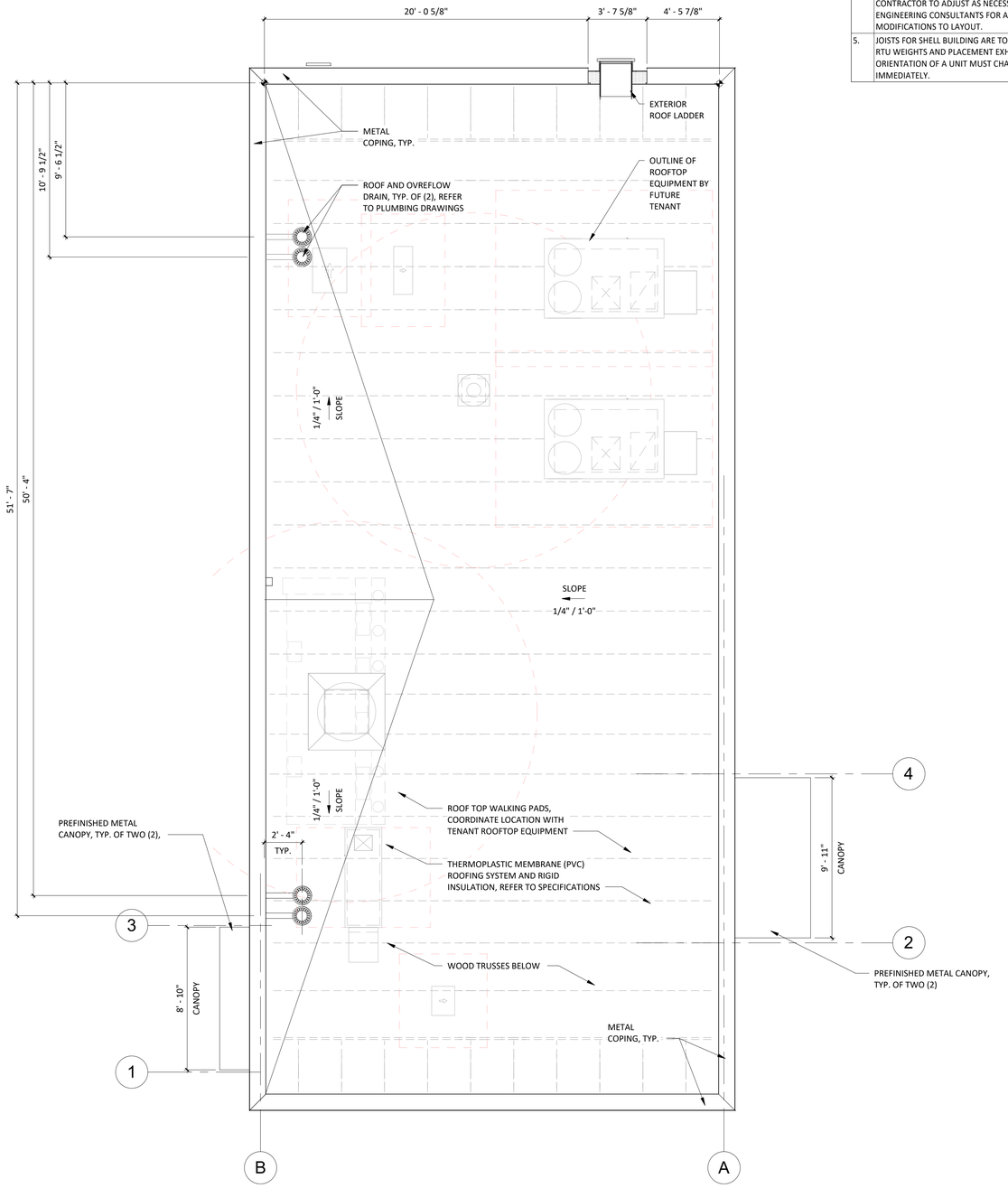
3 A140 **ROOF DRAIN DETAIL**
1 1/2" = 1'-0"



NOTE:

1. WITH MECHANICALLY FASTENED OR BALLASTED SPECIFICATIONS, MEMBRANE MUST BE MECHANICALLY ATTACHED WITH 2" (50 mm) ANCHOR DISC AND ACCEPTABLE FASTENERS (MINIMUM OF 4 PER PIPE).
2. DO NOT OVERLAP THE FLANGES FROM ADJACENT PIPE FLASHINGS.
3. ANY SEAM UNDER BOOT FLANGE TO BE TREATED AS T-JOINT.
4. BOTH SURFACES TO BE MATED MUST BE CLEANED WITH TAPE PRIMER/WASH. EPDM TAPE PRIMER/WASH MUST BE COMPLETELY DRY AND TACK FREE BEFORE APPLYING EPDM LAP CEMENT.

2 A140 **BOOT DETAIL**
1/2" = 1'-0"



1 A140 **ROOF PLAN**
1/4" = 1'-0"

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Contents:
ARCHITECTURAL ROOF PLAN

A140

GENERAL NOTES

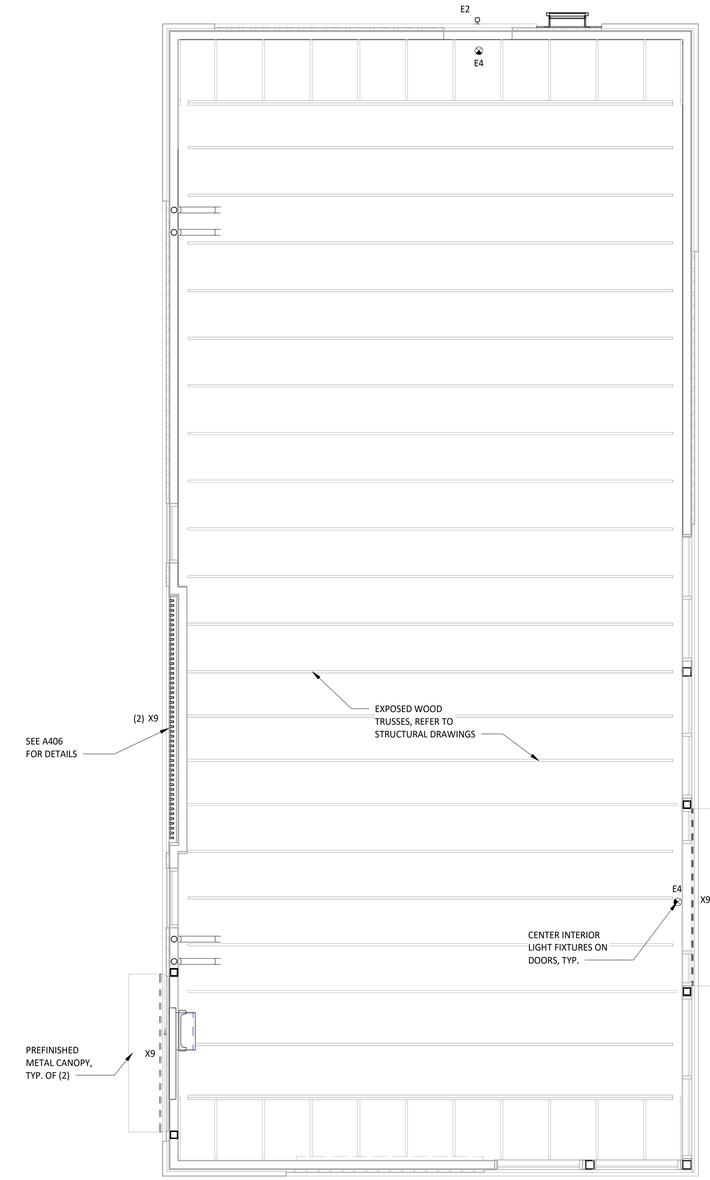
1.	ALL INTERIOR LIGHT FIXTURES AND LAMPS PROVIDED BY OWNER'S LIGHT/LAMP SUPPLIER.
2.	ALL INTERIOR LIGHT FIXTURES AND LAMPS INSTALLED BY GC. CAREFULLY REVIEW LIGHTING FIXTURE SCHEDULE ON SHEET E10S.
3.	ALL WATER LINES AND EXPOSED PCV SHALL BE INSTALLED UP IN TRUSSES AND PAINTED VICTORIAN PEWTER.
4..	ALL DIMENSIONS ARE TO FACE OF FRAMING, OR CENTERLINE OF FIXTURE UNLESS NOTED OTHERWISE.
5.	ALL EMERGENCY FIXTURES, LIGHTS AND STROBES SHALL BE ALIGNED OR CENTERED ON WALLS.
6.	ALL CONDUIT AND AND WATER LINES SHALL BE INSTALLED TIGHT TO THE B.O. DECK AND LEFT UNPAINTED
7.	ALL EXTERIOR PARKING LOT LIGHT FIXTURES AND LAMPS PROVIDED BY AND INSTALLED BY G.C. CAREFULLY REVIEW LIGHTING FIXTURE SCHEDULE ON SHEET E100.
8.	ALL EXTERIOR BUILDING MOUNTED AND PATIO LIGHT FIXTURES AND LAMPS INSTALLED BY G.C. CAREFULLY REVIEW LIGHTING FIXTURE SCHEDULE ON SHEET E100.

CONDUIT GUIDELINES

SEE ELECTRICAL DRAWINGS FOR CONDUIT REQUIREMENTS. METAL CLAD CABLE AND FLEXIBLE METAL CONDUIT SHALL NOT BE INSTALLED IN AREAS EXPOSED TO VIEW UNLESS SPECIFICALLY NOTED OTHERWISE.

LIGHT FIXTURE SCHEDULE

ITEM #	QTY	MOUNT	DESCRIPTION	REMARKS
E2	1	VARIOUS	EMERGENCY LIGHT - SINGLE HEAD	SEE SHEET E100
E4	2	VARIOUS	WHITE EXIT LIGHT - STANDARD RED LETTERS	SEE SHEET E100
X9	4	SURFACE	LED CHANNEL LIGHT	SEE SHEET E100



NOTE: PLYWOOD DECK AND WOOD TRUSSES ARE EXPOSED IN THE DINING AREA AND NEED TO BE FREE AND CLEAR OF MARKINGS

1 A201 **REFLECTED CEILING PLAN**
1/4" = 1'-0"

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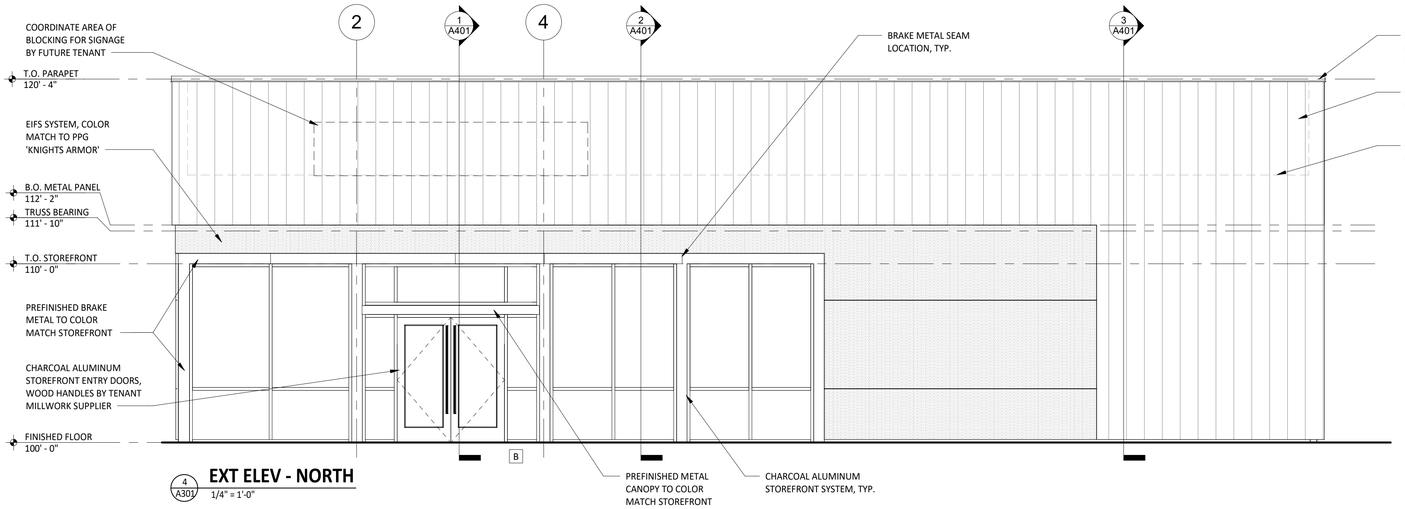
CAC001

Contents:
REFLECTED CEILING PLAN

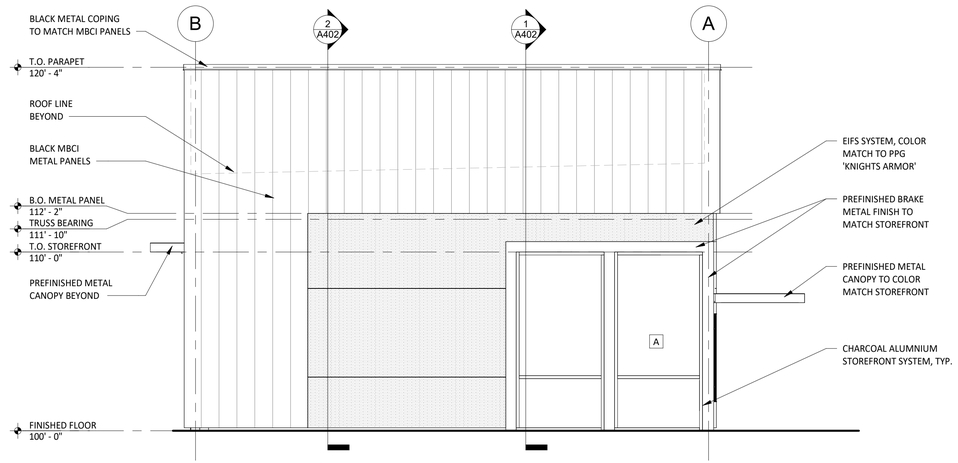
A201

GENERAL NOTES

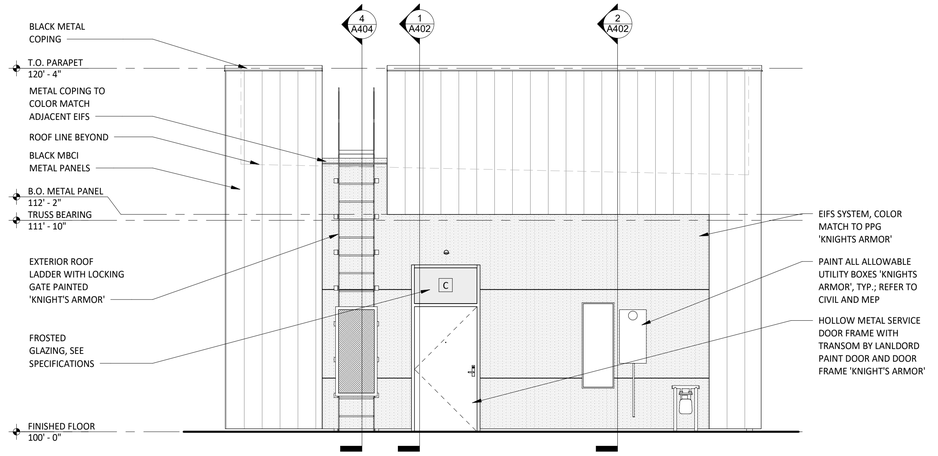
1. FUTURE SIGNAGE PROVIDED BY TSV AND INSTALLED BY TSV. COORDINATE BLOCKING.



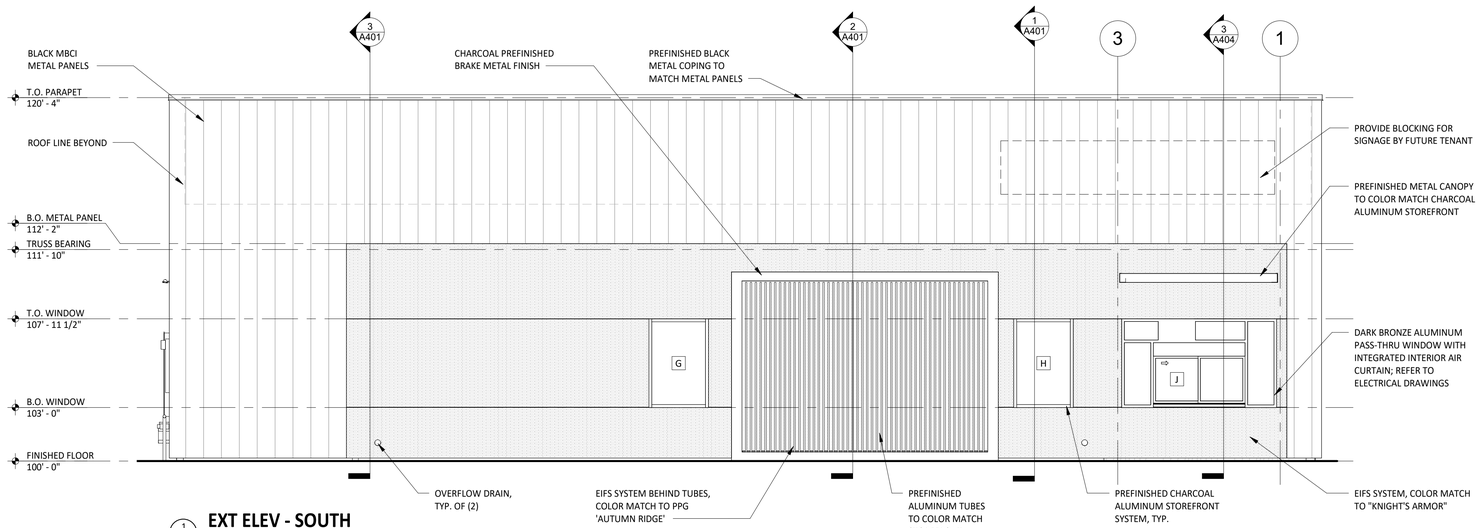
4 A301 **EXT ELEV - NORTH**
1/4" = 1'-0"



3 A301 **EXT ELEV - EAST**
1/4" = 1'-0"



2 A301 **EXT ELEV - WEST**
1/4" = 1'-0"



1 A301 **EXT ELEV - SOUTH**
1/4" = 1'-0"

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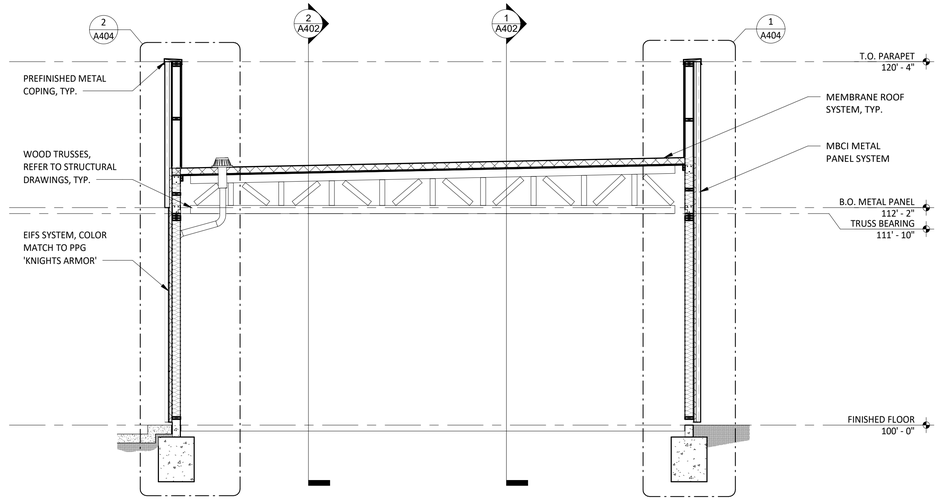
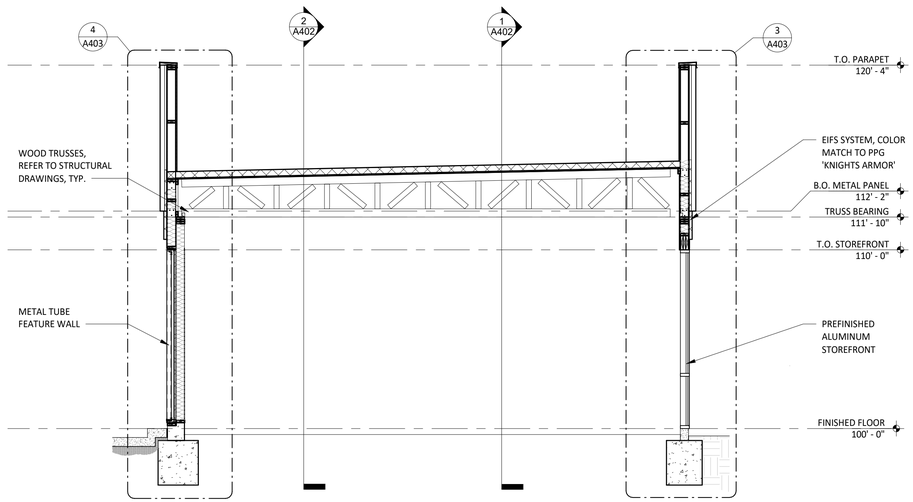
Contents:
EXTERIOR ELEVATIONS

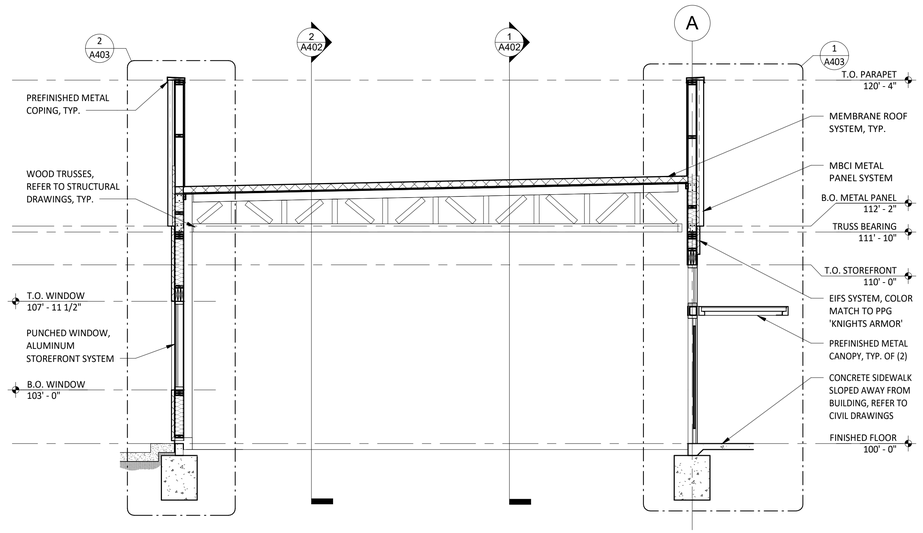
A301



3 A401 **BUILDING SECTION**
1/4" = 1'-0"



2 A401 **BUILDING SECTION**
1/4" = 1'-0"



1 A401 **BUILDING SECTION**
1/4" = 1'-0"

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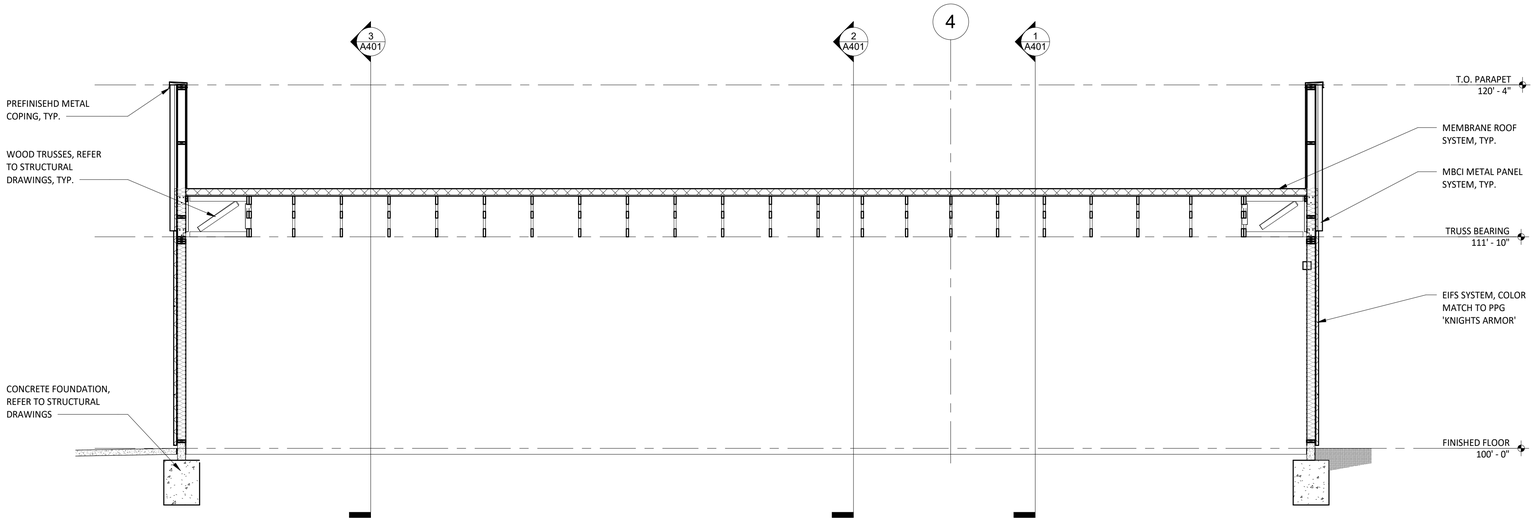
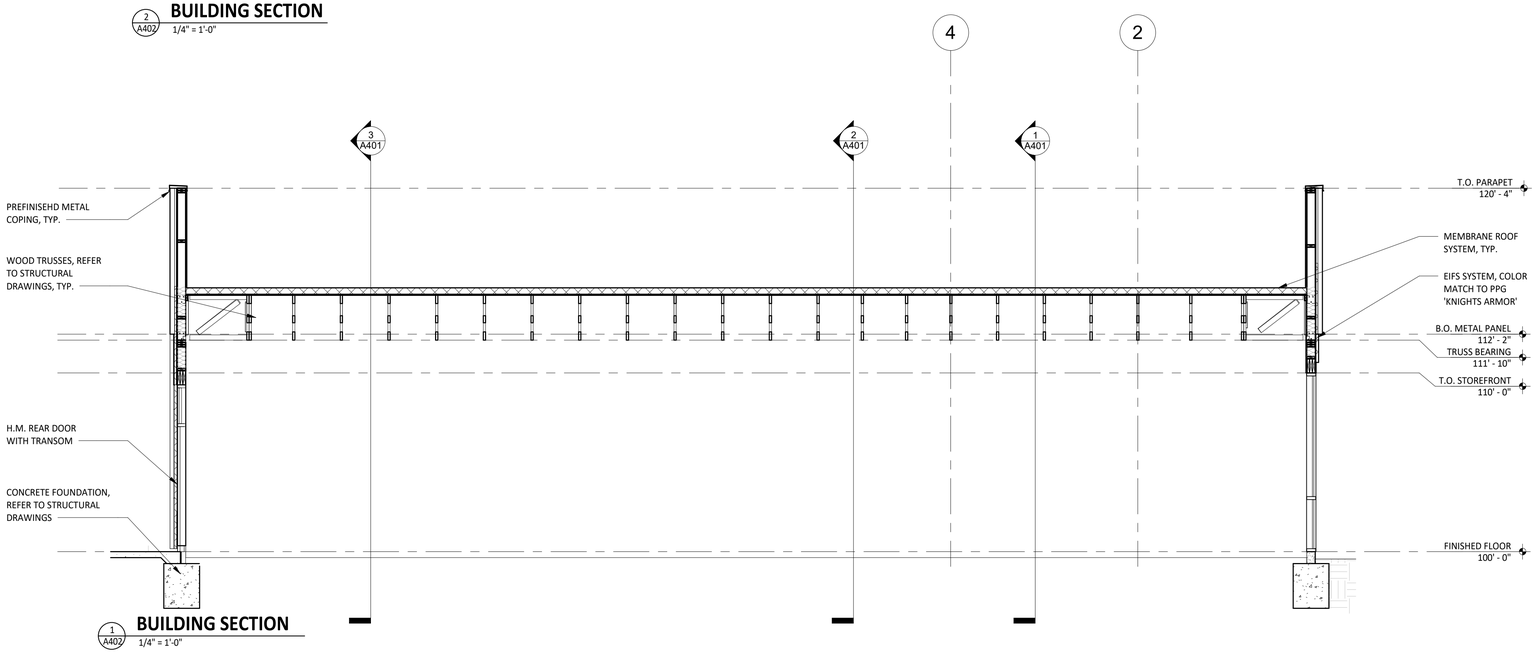


2 A402 **BUILDING SECTION**
1/4" = 1'-0"



1 A402 **BUILDING SECTION**
1/4" = 1'-0"

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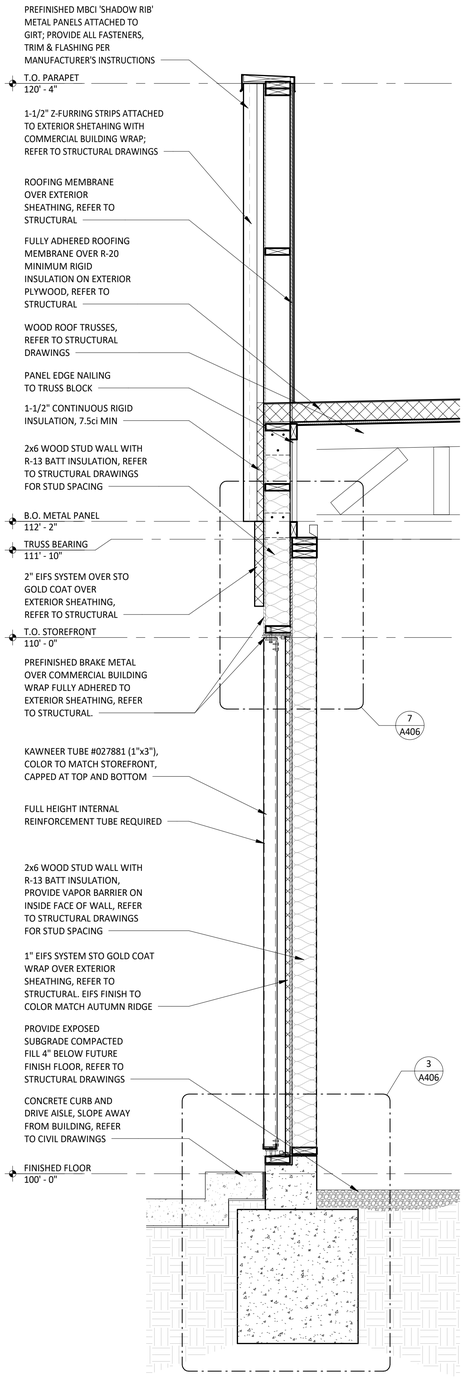
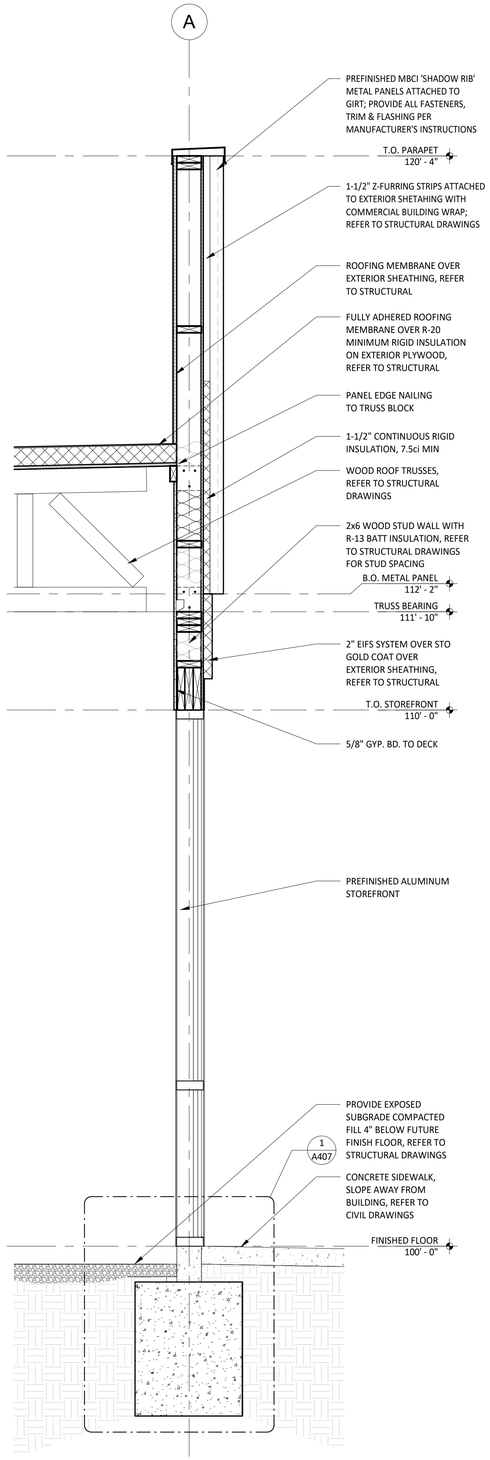
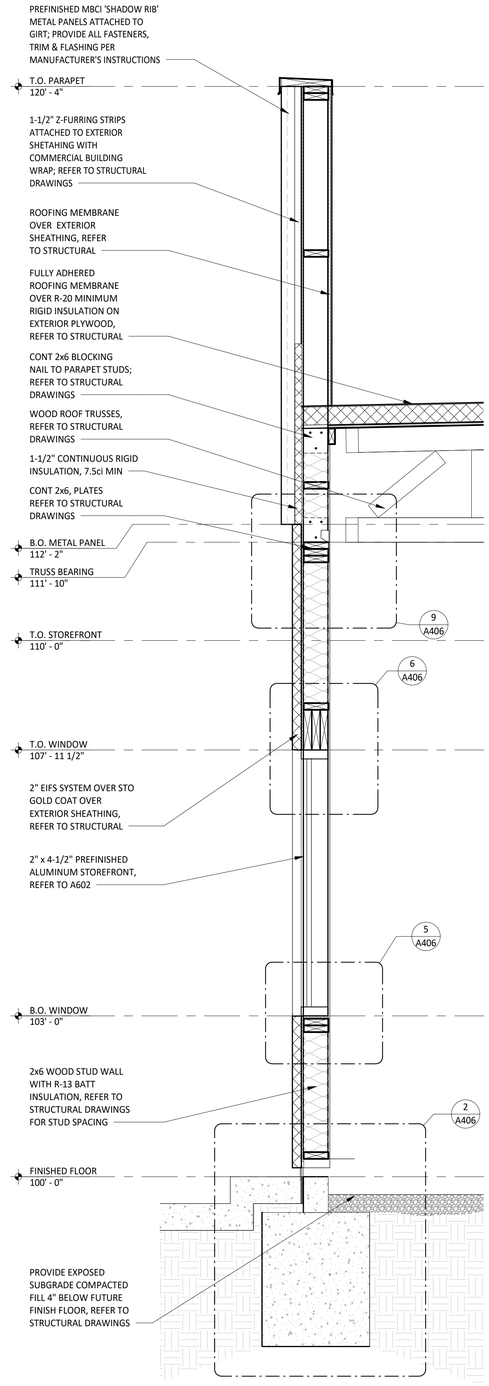
A402



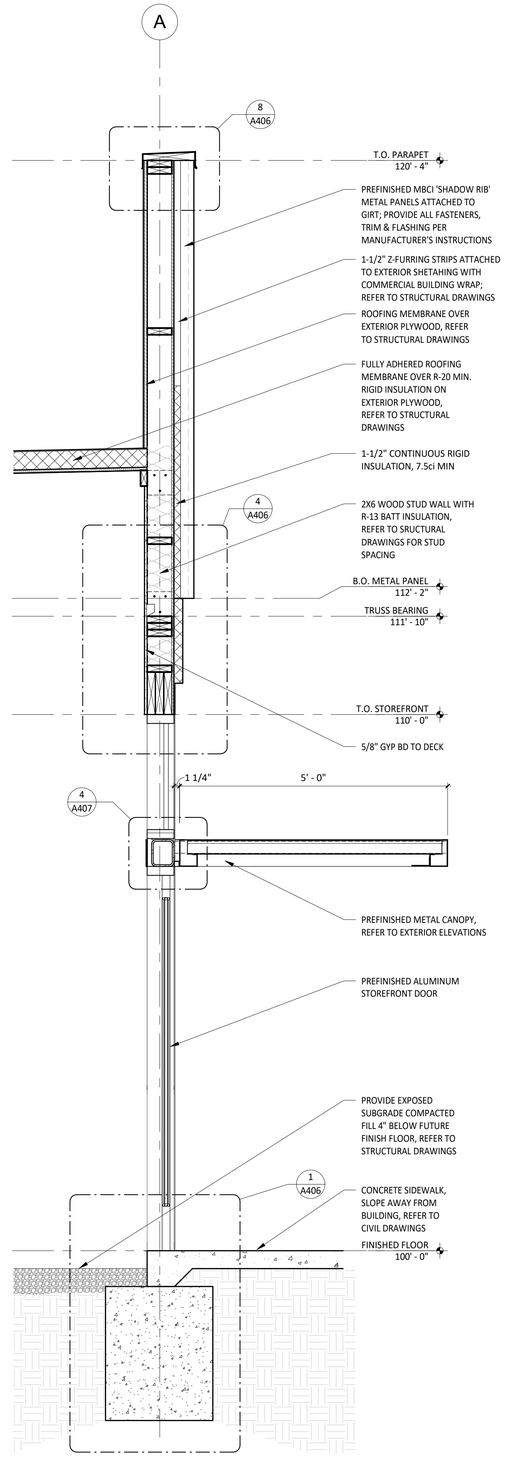
4 A403 **WALL SECTION**
3/4" = 1'-0"



3 A403 **WALL SECTION**
3/4" = 1'-0"



2 A403 **WALL SECTION**
3/4" = 1'-0"



1 A403 **WALL SECTION**
3/4" = 1'-0"

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STATE OF MISSOURI
DAVID A. EFAW
NUMBER A-2007020148
PROFESSIONAL ENGINEER
8/27/21

CADENCE
COMMERCIAL REAL ESTATE

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INTERNET: WWW.CADENCEKC.COM

SOUTH LEE'S SUMMIT CMG SHELL
1103 SW OLDHAM PARKWAY
LEE'S SUMMIT, MO 64081

Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

Revisions:

1	07/27/21	P&Z UPDATES

Drawn: CB, JTH
Checked: AA, TC

Project No.
CAC001

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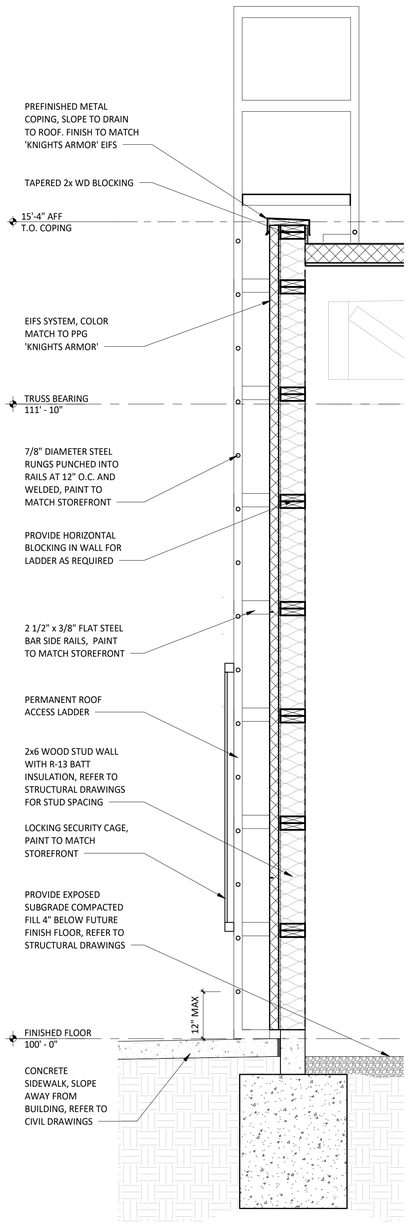
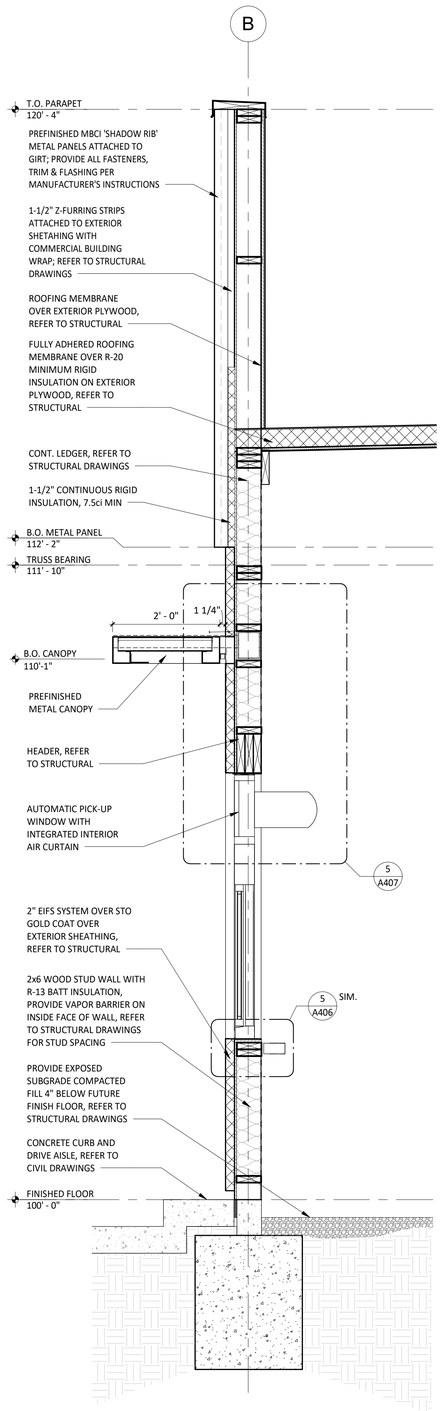
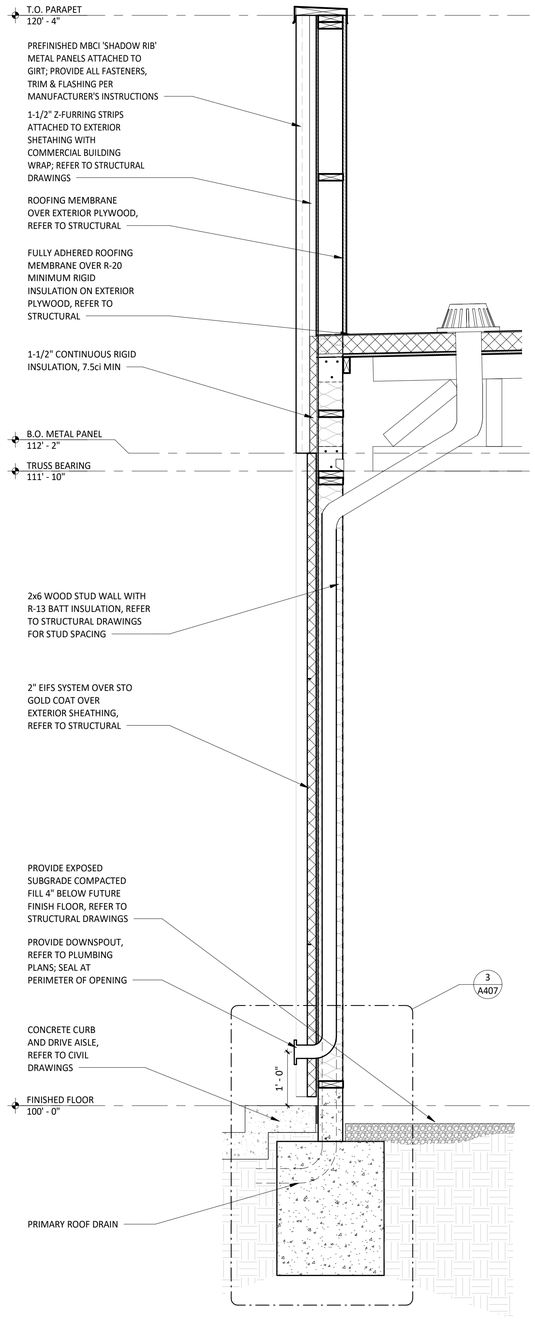
A403



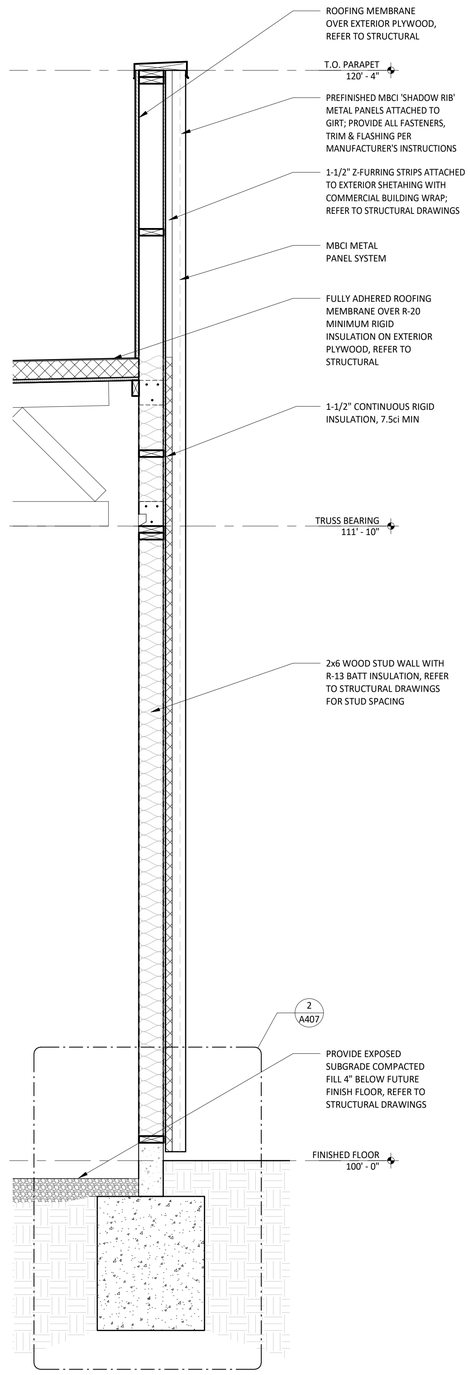
4 A404 **WALL SECTION @ ROOF LADDER**
3/4" = 1'-0"



3 A404 **WALL SECTION**
3/4" = 1'-0"



2 A404 **WALL SECTION**
3/4" = 1'-0"



1 A404 **WALL SECTION**
3/4" = 1'-0"

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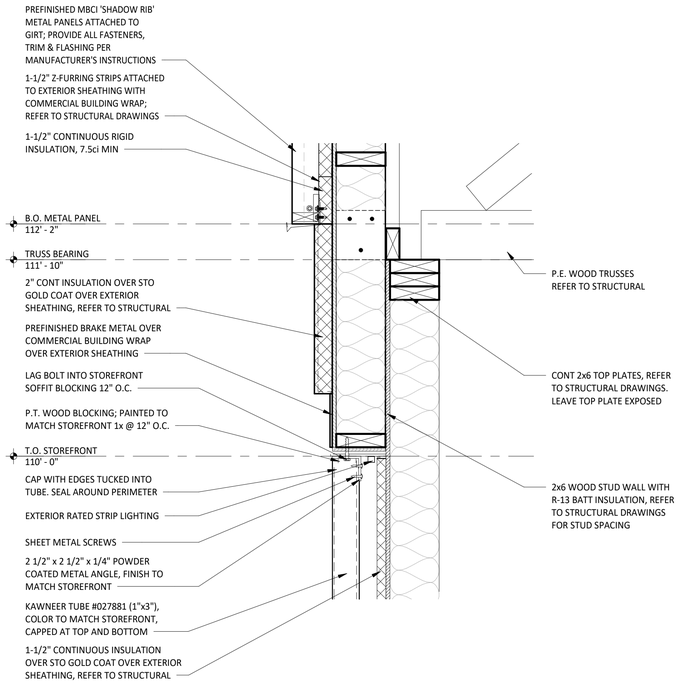
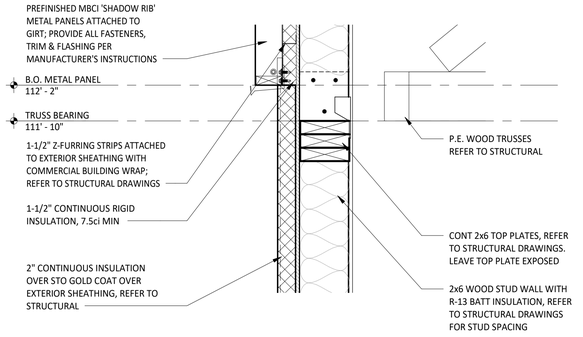


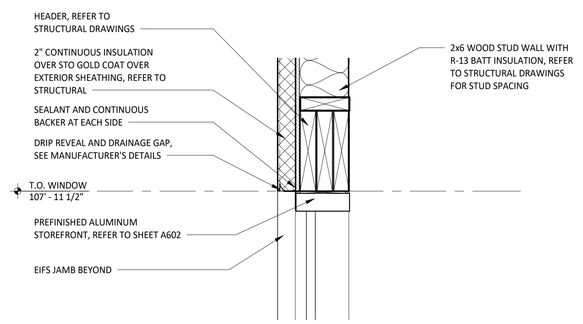
7 A406 SOFFIT DETAIL @ TUBE WALL

1 1/2" = 1'-0"



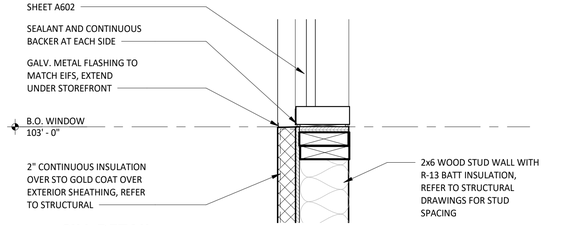
9 A406 SOFFIT DETAIL @ EIFS

1 1/2" = 1'-0"



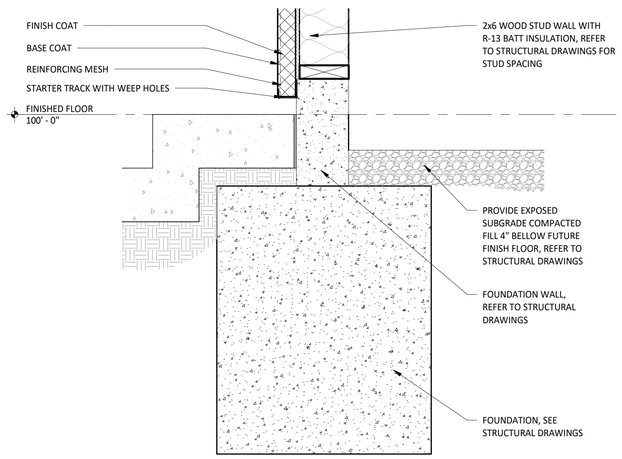
6 A406 HEADER DETAIL

1 1/2" = 1'-0"



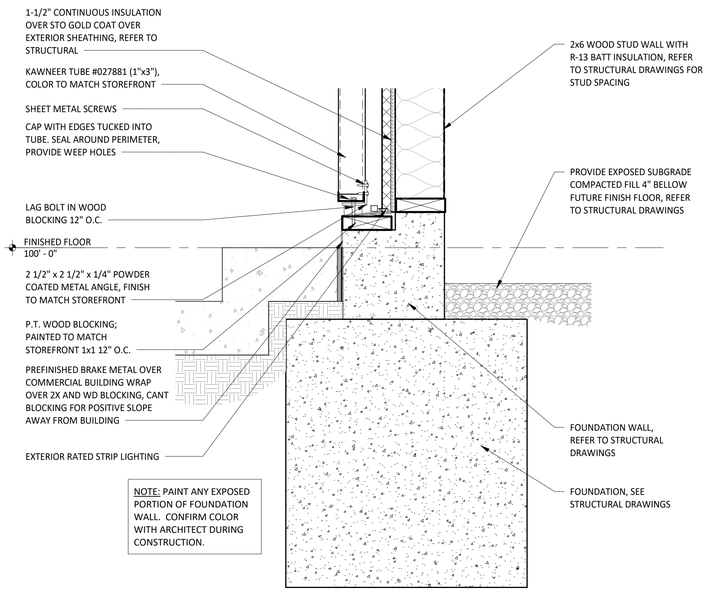
5 A406 SILL DETAIL

1 1/2" = 1'-0"



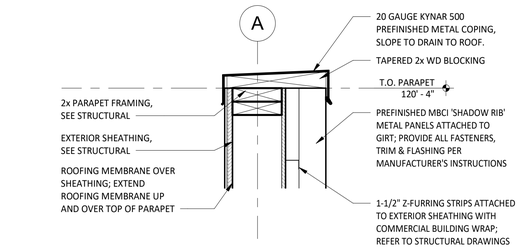
2 A406 FOUNDATION DETAIL @ EIFS

1 1/2" = 1'-0"



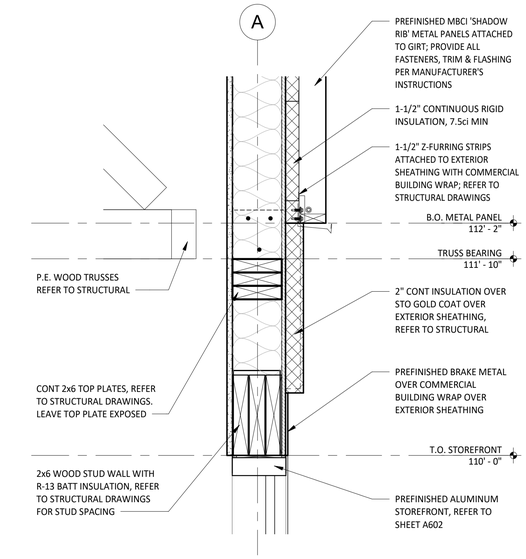
3 A406 FOUNDATION DETAIL @ TUBE WALL

1 1/2" = 1'-0"



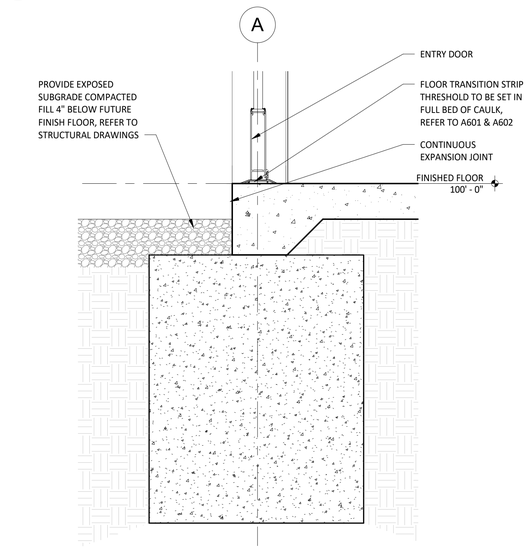
8 A406 PARAPET DETAIL

1 1/2" = 1'-0"



4 A406 SOFFIT DETAIL @ STOREFRONT

1 1/2" = 1'-0"



1 A406 FOUNDATION DETAIL @ STOREFRONT DOOR

1 1/2" = 1'-0"

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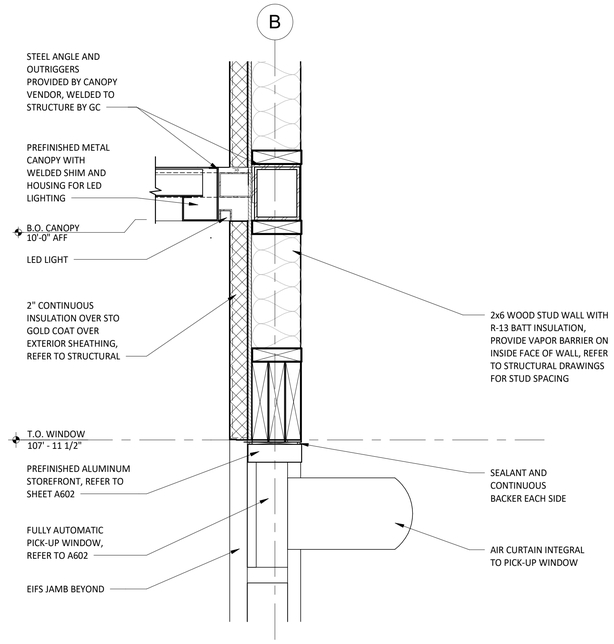
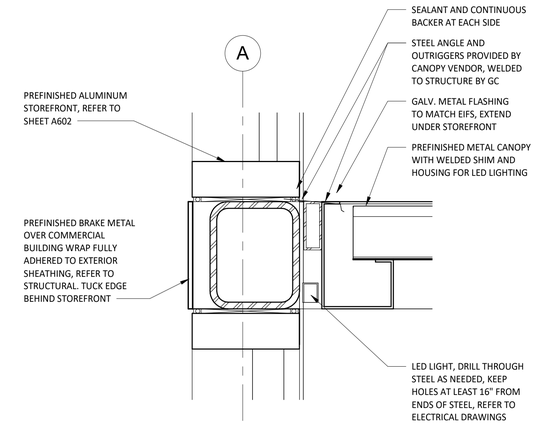
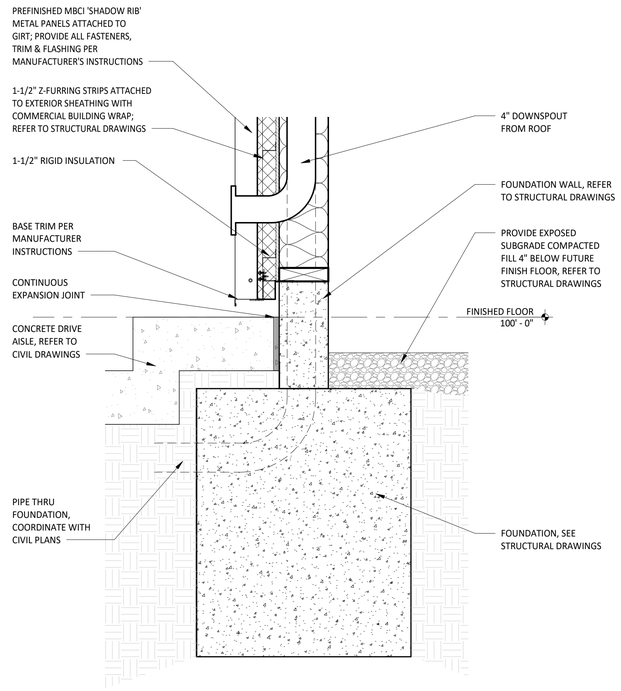


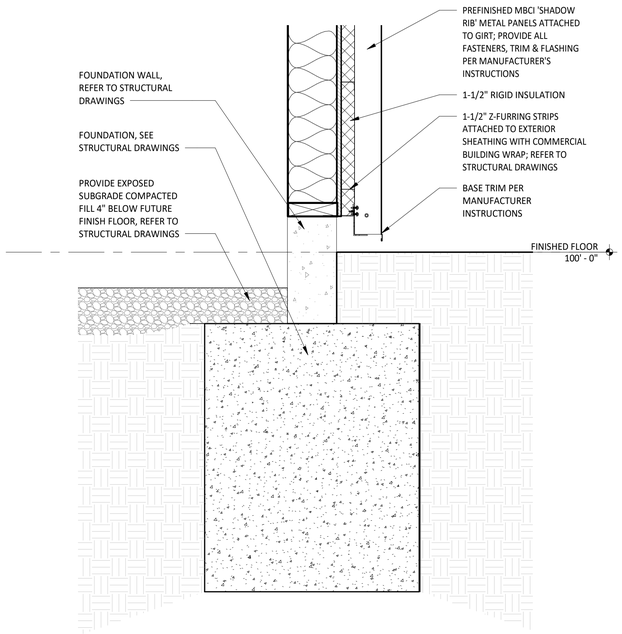
5 A407 **HEAD DETAIL - PICK-UP WINDOW**
1 1/2" = 1'-0"



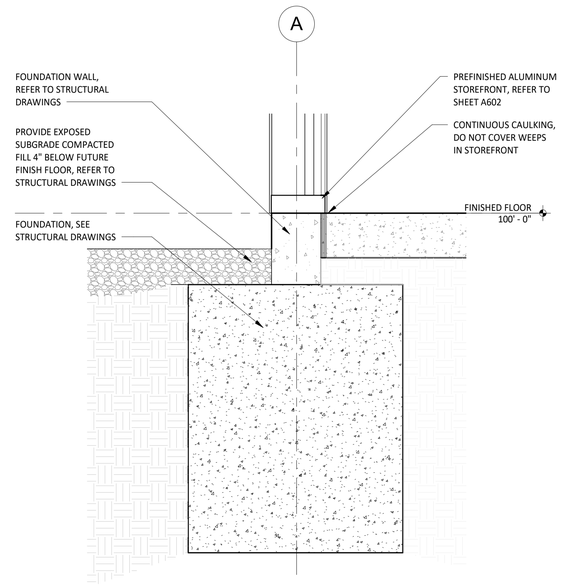
4 A407 **CANOPY DETAIL**
3" = 1'-0"



3 A407 **FOUNDATION DETAIL**
1 1/2" = 1'-0"



2 A407 **FOUNDATION DETAIL @ METAL PANELS**
1 1/2" = 1'-0"



1 A407 **FOUNDATION DETAIL @ STOREFRONT**
1 1/2" = 1'-0"

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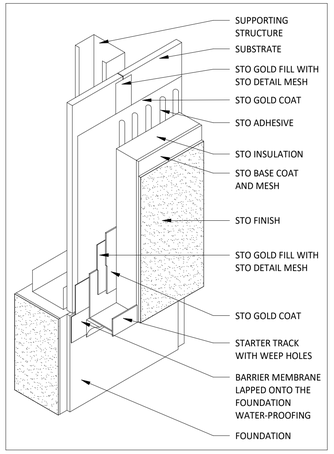


Notes:

1) Protect wall assembly from rising damp.
2) Terminate system a minimum of 8" (200mm) above grade or as required by code.
3) Direct sprinklers away from the wall.
4) Protect the wall from dirt accumulation by covering exposed earth where back splash may occur.
5) Provide ulra-high impact resistance (Sto Detail 1.00b) to a minimum height of 6'-0" (1.8m) above finished grade at areas accessible to pedestrian traffic and other areas exposed to abnormal stress or impact.

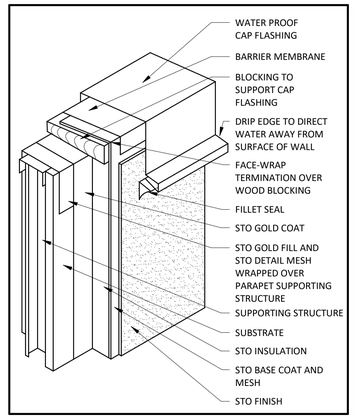
Detail No: 10.10B

Date: September 2007

™ Sto Gold Coat and Sto Gold Fill are registered trademarks of Sto Corp.

4 A408 EIFS TERMINATION AT GRADE

1 1/2" = 1'-0"



Notes:

1) Provide a barrier membrane over the parapet and integrate it with the roofing or deck waterproofing assembly. This provides air barrier continuity over the parapet and secondary weather protection under the cap flashing.
2) Provide minimum 2.5" (65mm) overlap of flashing over face of EIFS. Increase overlap with building height.
3) Install Sto Guard System over parapet supporting structure lapping onto compatible sheathing.

Detail No: 10.42

Date: September 2001

™ Sto Gold Coat and Sto Gold Fill are registered trademarks of Sto Corp.

3 A408 EIFS TERMINATION AT PARAPET

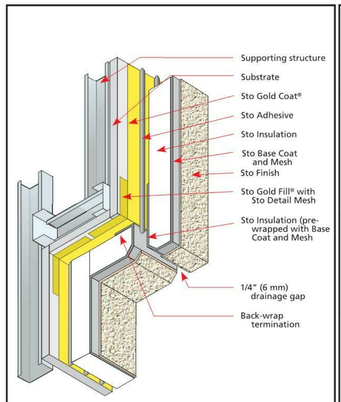
1 1/2" = 1'-0"

sto

StoTherm™ NExT
Unvented Insulated Soffit (without Starter Track)

Detail No.: 10.33

Date: October 2007



Notes:

1. Where wall/soffit are subject to differential movement provide a joint at the inside corner.
2. For multi-story buildings of noncombustible construction, verify conformance of detail with fire testing criteria.
3. Install EIFS on soffit with back wrap edge in line with fascia substrate.
4. Prewrap fascia insulation to provide a minimum of 2.5" (65 mm) of base coat and mesh contact area with the substrate.
5. Limit fascia insulation overhang to 2" (50 mm) maximum.
6. Install insulation with vertical ribbons of adhesive to provide 1/4" (6 mm) +/- drainage gap.
7. Sealant with weeps at drainage opening is optional, depending on project conditions.

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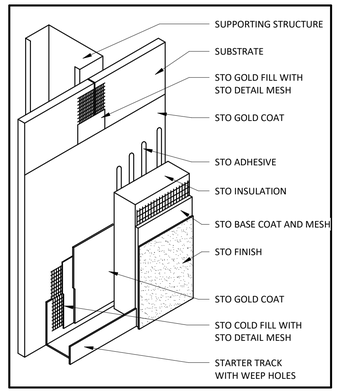
2 A408 EIFS UNVENTED INSULATED SOFFIT (WITHOUT STARTER TRACK)

1 1/2" = 1'-0"



Notes:

Details show the components of a Sto Exterior Insulation Finish System (EIFS) with Gold Guard Moisture Protection ™

Sto Gold Guard™

1) Sto Gold Fill with Sto Detail Mesh
2) Sto Gold Coat

Sto EIFS:

1) Sto adhesive
2) Sto insulation
3) Sto base coat
4) Sto mesh
5) Sto finish

™ STO GOLD COAT AND STO GOLD FILL ARE REGISTER TRADEMARKS OF STO CORP.

1 A408 EIFS SYSTEM COMPONENTS

1 1/2" = 1'-0"

sto

Sto EIFS NExT

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Sto details are illustrations of construction. They are guidelines, intended for use by the design/construction professional, to assist in developing project specific details. They should be modified where necessary to accomodate individual project conditions. Refer to appropriate Sto specification for design requirements. Refer to local building code for any special requirements.

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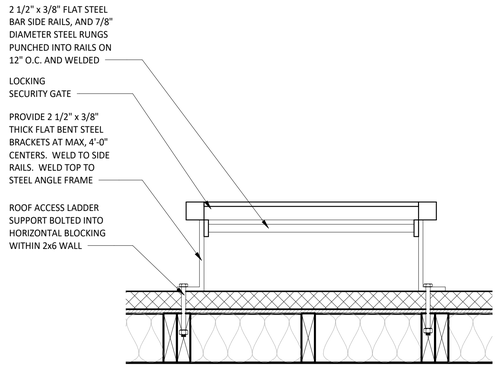
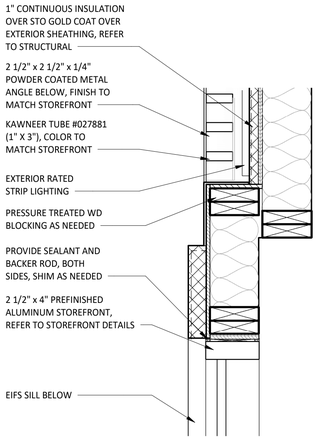
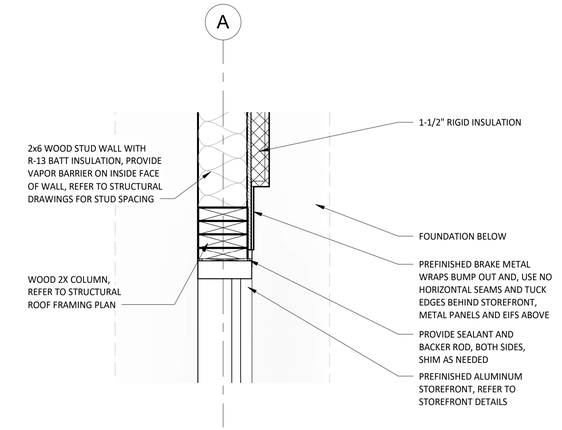


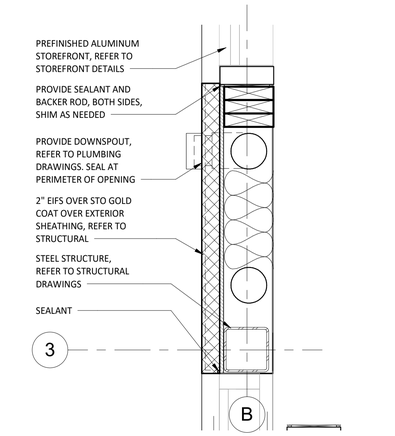
8 A409 **PLAN DETAIL - EXTERIOR ROOF LADDER**
1 1/2" = 1'-0"



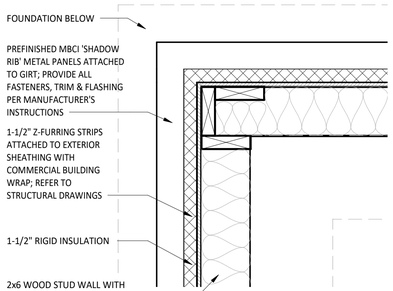
7 A409 **PLAN DETAIL**
1 1/2" = 1'-0"



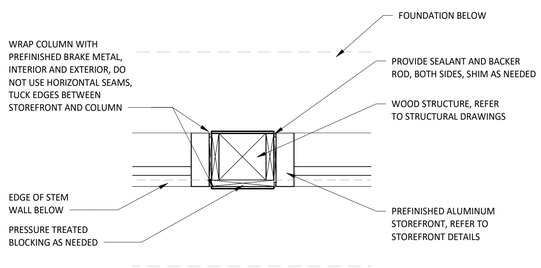
6 A409 **PLAN DETAIL**
1 1/2" = 1'-0"



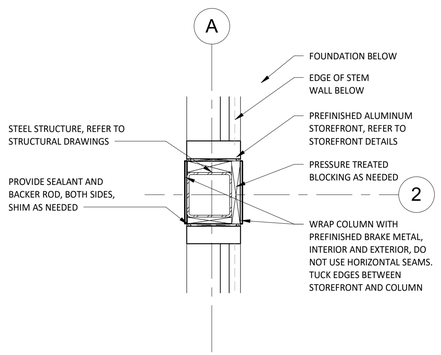
5 A409 **PLAN DETAIL**
1 1/2" = 1'-0"



4 A409 **PLAN DETAIL**
1 1/2" = 1'-0"



3 A409 **PLAN DETAIL**
1 1/2" = 1'-0"



2 A409 **PLAN DETAIL**
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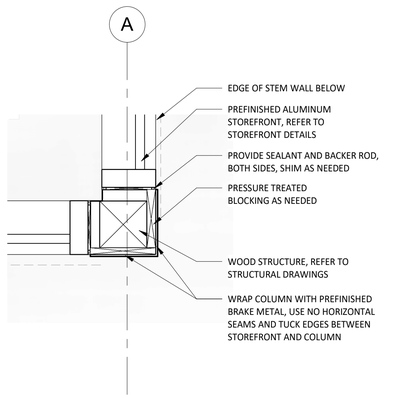

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DOOR SCHEDULE

TAG	DOOR STATUS *	FRAME STATUS	DOOR DESCRIPTION	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	STILE	HARDWARE SET	HARDWARE STATUS*	FIRE RATING	REMARKS
1	NEW	NEW	DOUBLE STOREFRONT (WIDE STILE, WOOD PULL/PUSH)	6' - 0"	7' - 0"	0' - 1 3/4"	A	SEE A301	STOREFRONT	ALUM	WIDE (5")	1	NEW		1,2,4,5
2	NEW	NEW	HM REAR KITCHEN (STANDARD)	3' - 6"	7' - 0"	0' - 1 3/4"	D	D1/D2 (SEE A120)	2	H.M.	-	3	NEW		1,4,7

REMARK NOTES

1.	DOORS WITH REMARK #1 TO BE KEYED THE SAME
2.	EXIT INDICATOR ARRIVES WITH SIGNS STATING "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS" AND "THIS DOOR TO REMAIN UNLOCKED WHEN THE BUILDING IS OCCUPIED". VERIFY REQUIRED SIGN WORDING WITH LOCAL JURISDICTION PRIOR TO INSTALLATION. ONE SIGN IS TO BE PLACED IN A VISIBLE LOCATION ABOVE THE DOORS.
3.	THERE IS TO BE NO EXTERIOR HOLE OR CYLINDER
4.	USE NON-SHRINK STRUCTURAL GROUT BED UNDER THRESHOLD
5.	BLACK DOOR SWEEP TO BE USED WITH CHARCOAL, BLACK OR BRONZE STOREFRONT.
6.	REAR KITCHEN DOOR TO BE PAINTED 'KNIGHT'S ARMOR'.

HARDWARE SETS

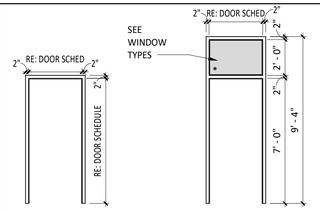
SET 1 - MAIN ENTRY - PAIR - WOOD PULL/PUSH		
(2)	HINGE	HAGER, MODEL 780-224HD-83"-CLR
(2)	MORTISE CYLINDER	SCHLAGE, MODEL 80-103, BRUSHED CHROME; C.O. CYLINDER AT 34" MIN. FROM BOTTOM OF DOOR
(2)	TEMP CORE	SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE, (BRUSHED CHROME)
(2)	PUSH HARDWARE	PROVIDED BY FUTURE TENANT
(2)	PULL HARDWARE	PROVIDED BY FUTURE TENANT
(1)	DEADBOLT	ADAMS RITE, MODEL MS1850S-310-628
(1)	EXIT INDICATOR	ADAMS RITE, MODEL 4089-00-130
(1)	HEADER BOLT	ADAMS RITE, MODEL 4016-30-01
(1)	THRESHOLD BOLT	ADAMS RITE, MODEL 4015-18-18
(2)	CLOSER	DORMA, MODEL 8916-AF89P-689 (TOP JAMB), (ALUMINUM)
(2)	DOOR STOP	IVES, MODEL FS18S (ALUMINUM)
(2)	OVERHEAD STOP	GLYNN-JOHNSON, MODEL 454S-SP28 (ALUMINUM)
(2)	CLOSER BACK PLATE	DORMA, MODEL BP89, ALUMINUM
(1)	THRESHOLD	REESE, MODEL S239A-72 (SIZE 72")
(2)	SMOKE SEAL	REESE, MODEL 797B-21
(2)	DOOR SWEEP	PEMKO, MODEL SFSC-200-36 (36" DOOR),OWNER FURNISHED

SET 3 - REAR EXIT - SINGLE		
(1)	HINGE	HAGER, MODEL 780-224HD-83"-CLR
(1)	PUSH HARDWARE	FALCON, MODEL 25-R-EO-4'-US28 (SIZE 42")
(1)	PULL HARDWARE	FALCON, MODEL 510L-DANE-LHR-US26D, ALUMINUM (EXTERIOR SIDE)
(1)	RIM CYLINDER	GLS, MODEL RCIC-7-LZ-626
(1)	TEMP CORE	SCHLAGE, MODEL 80-035 INTERCHANGEABLE CORE (FINISH: BRUSHED CHROME)
(1)	CLOSER	DORMA, MODEL 8916-AF89P-689 (TOP JAMB), ALUMINUM
(1)	CLOSER BACK PLATE	DORMA, MODEL BP89, ALUMINUM
(1)	THRESHOLD	REESE, MODEL S239A-42, (SIZE 42")
(1)	WEATHERSTRIP	REESE, MODEL D575C-4070
(1)	DOOR SWEEP	PEMKO, MODEL SFSC-200-42 (42" DOOR) (BLACK) OWNER FURNISHED
(1)	DOOR VIEWER	IVES, MODEL U698B26D, C.O. VIEWER AT 60" FROM BOTTOM OF DOOR
(1)	EXIT ALARM	TRINE, MODEL 206-3
(1)	DOOR SILENCERS	IVES, MODEL SR64
(1)	DOOR BUZZER	TRINE, MODEL 240
(1)	KICKPLATE	HIAWATHA, MODEL KP834-US32D

DOOR NOTES

1.	ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
2.	LATCHES, HANDLES, PANIC BARS AND ALL DOOR HARDWARE WILL COMPLY WITH SECTION 7.2 OF NFPA 101 PER THE SPECIFICATIONS.
3.	ALL DOORS TO REMAIN UNLOCKED DURING BUSINESS HOURS.
4.	MAXIMUM EFFORT TO OPERATE EXTERIOR OR INTERIOR DOORS WITH CLOSERS SHALL NOT EXCEED 5 POUNDS. THIS MAY BE INCREASED TO 15 POUNDS FOR FIRE-RATED DOORS.
5.	ALL FRAMES, DOORS AND HARDWARE TO BE FURNISHED BY TENANT HARDWARE SUPPLIER AND INSTALLED BY TENANT G.C. CALL PETE KLIMEK WITH TWIN CITY HARDWARE AT 763-535-4660 TO ARRANGE DELIVERY. STOREFRONT DOOR HARDWARE PROVIDED BY GC
6.	THE BOTTOM 10 INCHES OF ALL DOORS SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
7.	ALL HARDWARE SHALL MATCH STOREFRONT, VERIFY WITH ARCHITECT PRIOR TO ORDERING

DOOR FRAMES



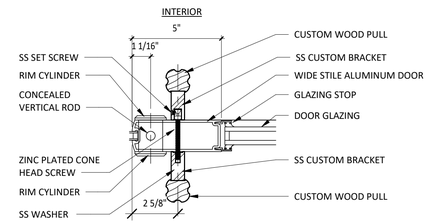
1

NOTE: GC TO VERIFY THE WALL THICKNESS PRIOR TO ORDERING DOOR FRAMES.

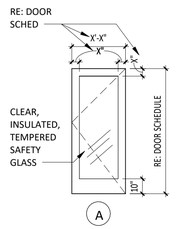
2

NOTE: GC TO VERIFY THE WALL THICKNESS PRIOR TO ORDERING DOOR FRAMES.

CUSTOM WOOD PULL BY FUTURE TENANT

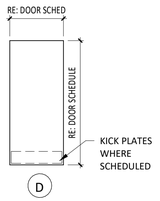


DOOR TYPES



A

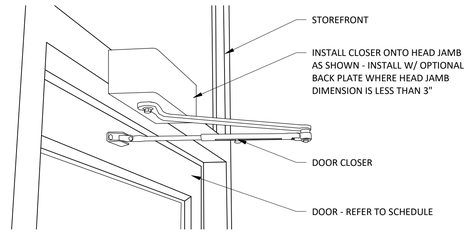
ALUMINUM DOOR W/ TEMPERED GLAZING



D

INSULATED HOLLOW METAL DOOR

DOOR CLOSER



TOP JAMB MOUNT INSTALLATION. (NOTE THAT BACKPLATE IS MISSING IN THIS INSTALLATION BECAUSE HEAD JAMB IS OF ADEQUATE HEIGHT TO RECEIVE ALL MOUNTING SCREWS WITHOUT IT.) WHEN IN DOUBT ABOUT THE HEAD JAMB DIMENSION OR STABILITY, ORDER THE BACKPLATE.

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Issue Record:

05/24/21	90% LL BID SET
08/25/21	PERMIT SET

Revisions:

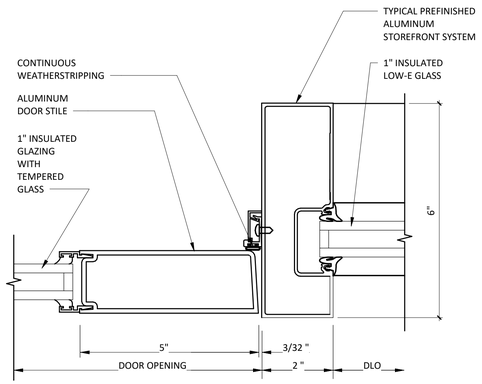
Drawn: CB, JTH
Checked: AA, TC

Project No.
CAC001

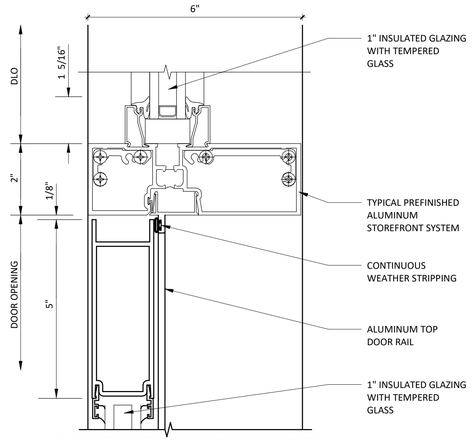
Contents:
DOOR & HARDWARE SCHEDULE

A601

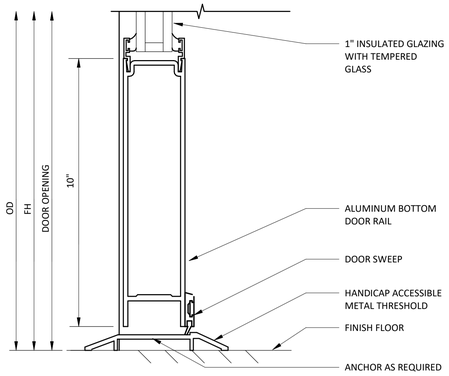
STOREFRONT DETAILS



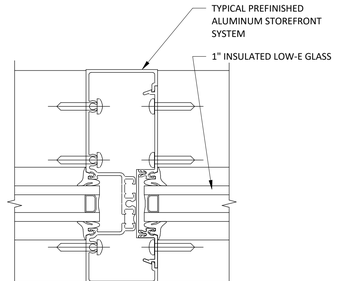
9 A602 **STOREFRONT DOOR JAMB DETAIL**
6" = 1'-0"



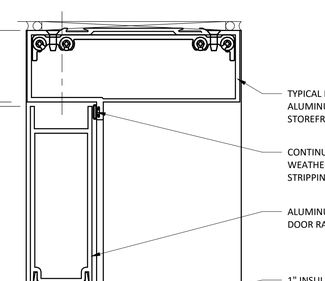
8 A602 **STOREFRONT TRANSOM BAR DETAIL**
6" = 1'-0"



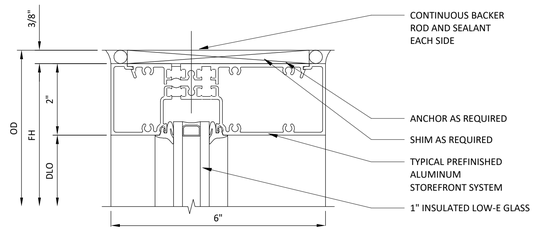
7 A602 **STOREFRONT THRESHOLD DETAIL**
6" = 1'-0"



6 A602 **STOREFRONT DOOR JAMB DETAIL**
6" = 1'-0"



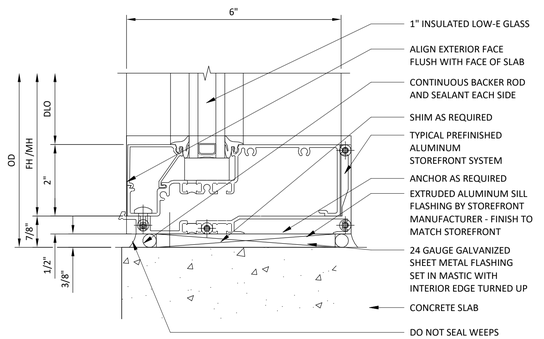
5 A602 **STOREFRONT JAMB DETAIL**
6" = 1'-0"



4 A602 **STOREFRONT HEAD DETAIL**
6" = 1'-0"

3 A602 **STOREFRONT MULLION DETAIL**
6" = 1'-0"

2 A602 **STOREFRONT TRANSOM BAR DETAIL**
6" = 1'-0"



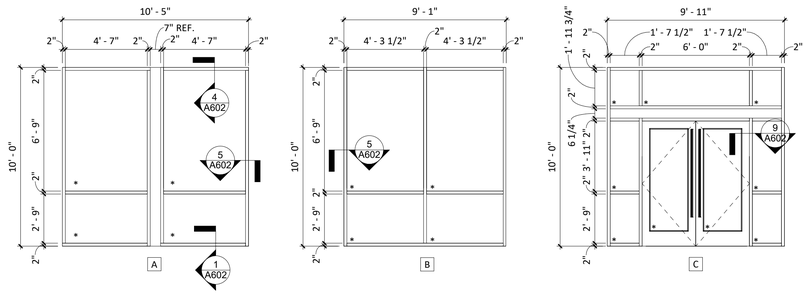
1 A602 **STOREFRONT SILL DETAIL**
6" = 1'-0"

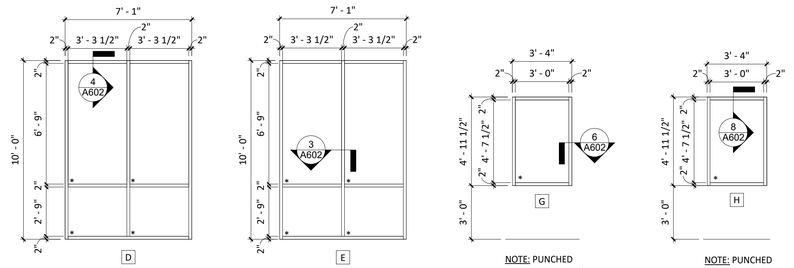
GENERAL NOTES

1. ALL WINDOW AND DOOR GLAZING IS TO BE CLEAR / INSULATED UNLESS NOTED OTHERWISE.
2. WINDOW AND DOOR GLAZING TO BE TEMPERED AT LOCATIONS INDICATED WITH "*".
3. NEW STOREFRONT FRAMING SYSTEM TO BE SUPPLIED BY TENANT G.C. TENANT G.C. TO VERIFY FRAMING OPENING SIZES AND MATERIALS WITH ARCHITECT AND/OR CHIPOTLE CONSTRUCTION MANAGER PRIOR TO FABRICATION.
4. STOREFRONT GLAZING DESIGN IS BASED ON KAWNEER PREFINISHED ALUMINUM STOREFRONT WITH 1" INSULATED GLAZING, REFER TO SPECIFICATIONS.
5. STOREFRONT SYSTEM IS 2" x 6" NOMINAL DIMENSION, U.N.O.; REFER TO SPECIFICATIONS

STOREFRONT TYPES

NOTE: ALL VIEWS FROM THE EXTERIOR



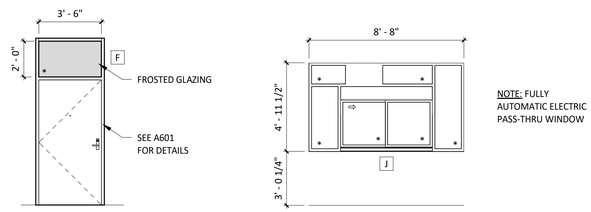


NOTE: PUNCHED WINDOW FRAME IS 2" x 4 1/2" NOMINAL DIMENSION

NOTE: PUNCHED WINDOW FRAME IS 2" x 4 1/2" NOMINAL DIMENSION

WINDOW TYPES

NOTE: ALL VIEWS FROM THE EXTERIOR



NOTE: FULLY AUTOMATIC ELECTRIC PASS-THRU WINDOW

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08/25/21	PERMIT SET

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1	07/27/21	P&Z UPDATES

Drawn: CB, JTH
Checked: AA, TC

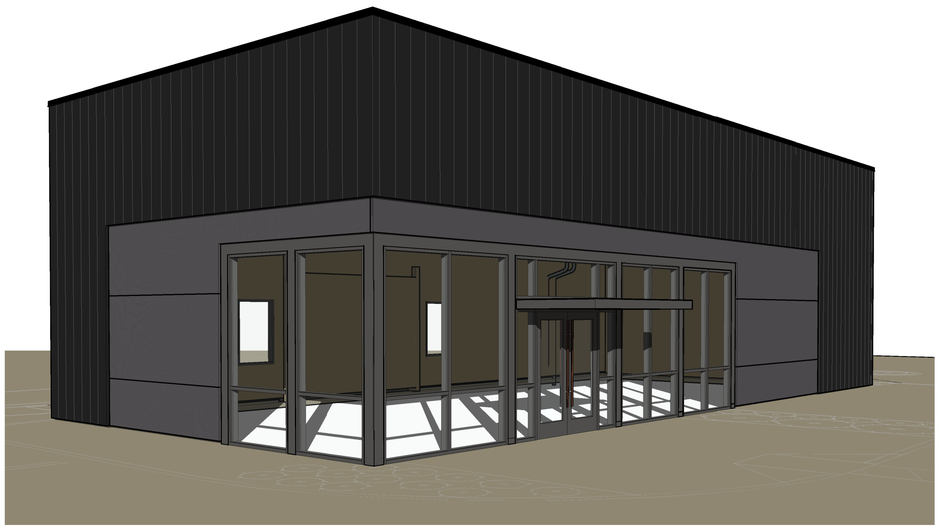
Project No.
CAC001

Contents:
STOREFRONT DETAILS

A602

4 A901 **EXTERIOR PERSPECTIVE**

3 A901 **EXTERIOR PERSPECTIVE**



2 A901 **EXTERIOR PERSPECTIVE**

1 A901 **EXTERIOR PERSPECTIVE**

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Contents:
EXTERIOR PERSPECTIVES

A901

ABBREVIATIONS

AB	ANCHOR BOLT
ADD'L	ADDITIONAL
ALUM	ALUMINUM
ARCH	ARCHITECTURAL
B/	BOTTOM OF
BFB	BOTTOM FLANGE BRACE
BLDG	BUILDING
BM	BEAM
BOT	BOTTOM
CFMF	COLD-FORMED METAL FRAMING
CFMT	COLD-FORMED METAL TRUSS
CJ	CONTROL OR CONSTRUCTION JOINT
CLR	CLEAR
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
COORD	COORDINATE
CY	CUBIC YARD
DBL	DOUBLE
DEMO	DEMOLISH OR DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
ENGR	ENGINEER
EW	EACH WAY
EXP	EXPANSION
FDN	FOUNDATION
FIN	FINISH OR FINISHED
FLR	FLOOR
FTG	FOOTING
FRTW	FIRE-RETARDANT TREATED WOOD
FV	FIELD VERIFY
GA	GAGE
GALV	GALVANIZE
GC	GENERAL CONTRACTOR
HC	HOLLOW CORE
HORIZ	HORIZONTAL
ID	INSIDE DIMENSION
IF	INSIDE FACE
INT	INTERIOR
JST	JOIST
JT	JOINT
L	ANGLE
LGMF	LIGHT GAGE METAL FRAMING
LLBB	LONG LEG BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAS	MASONRY
MAX	MAXIMUM
MIN	MINIMUM
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPP	OPPOSITE
OPNG	OPENING
OSB	ORIENTED STRAND BOARD
PAF	POWDER ACTUATED FASTENERS
PC	PRECAST
PEMB	PRE-ENGINEERED METAL BUILDING
PERP	PERPENDICULAR
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
REINF	REINFORCING OR REINFORCED
REQ'D	REQUIRED
SCH	SCHEDULE
SECT	SECTION
SER	STRUCTURAL ENGINEER OF RECORD
SF	SQUARE FOOT
SL	SLOPED
SLBB	SHORT LEG BACK-TO-BACK
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
SY	SQUARE YARD
SYM	SYMMETRICAL
T/	TOP OF
T&B	TOP AND BOTTOM
TEMP	TEMPORARY OR TEMPERATURE
T&G	TONGUE AND GROOVE
TYP	TYPICAL
UN	UNLESS NOTED
UNO	UNLESS NOTED OTHERWISE
VB	VAPOR BARRIER
VERT	VERTICAL
W	WIDE FLANGE
W/O	WITHOUT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
YD	YARD

GENERAL STRUCTURAL NOTES

GENERAL

1. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS, OR TIEDOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL IS TO REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.
2. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
3. MECHANICAL EQUIPMENT LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR.
4. DO NOT SCALE THE DRAWINGS WHERE DIMENSIONS ARE NOT SPECIFICALLY GIVEN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO AUGMENT, NOR SUPERSEDE THOSE SHOWN ON THE ARCHITECTURAL DRAWINGS.
5. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY WHERE CONFLICTS EXIST WITHIN THE DRAWINGS OR BETWEEN THE DRAWINGS AND FIELD CONDITIONS.
6. THROUGHOUT THESE PLANS, THE TERM "PROVIDE" IS DEFINED AS "SUPPLY AND INSTALL".
7. SHOP DRAWINGS ARE TO BE SUBMITTED BY COMPLETE ERECTION PHASE OR SEQUENCE. LIMITS OF EACH INDIVIDUAL ERECTION PHASE OR SEQUENCE ARE TO BE CLEARLY INDICATED ON THE PLANS. INCOMPLETE OR PIECEMEAL SHOP DRAWINGS WILL BE RETURNED PRIOR TO REVIEW. RESUBMITTALS ARE TO HAVE REVISIONS CLEARLY MARKED OR IDENTIFIED. THE CONTRACTOR SHALL REVIEW AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. ALL SHOP DRAWINGS MUST BEAR THE APPROVAL STAMP OF THE CONTRACTOR PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER.
8. PREFABRICATED ITEMS SHOWN ON THE STRUCTURAL DRAWINGS ARE REFERENCED FOR GENERAL COORDINATION PURPOSES ONLY, AND MAY INCLUDE BUT NOT BE LIMITED TO: STAIRS, HANDRAILS, CURTAIN WALLS, STOREFRONT SYSTEMS, AWNINGS, COLD-FORMED METAL FRAMING, AND PREFABRICATED FRAMING MEMBERS. THESE SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS. JEZERINAC GEERS WILL REVIEW THE DESIGN METHODOLOGY, LOADS, AND INSTALLATION DETAILS AS PART OF THE SHOP DRAWING REVIEW PROCESS, AND MAY REQUEST A SEALED CALCULATION PACKAGE FOR REVIEW.
9. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION WILL GOVERN.
10. CODE INFORMATION

- GOVERNING CODE:	2018 INTERNATIONAL BUILDING CODE
- BUILDING RISK CATEGORY:	CATEGORY II
ROOF LIVE LOADS	
- ORDINARY FLAT, PITCHED, AND CURVED ROOFS	20 PSF
- FABRIC AWNINGS AND CANOPIES	5 PSF
SNOW LOADS	
- GROUND SNOW LOAD (Pg)	20 PSF
- FLAT ROOF SNOW LOAD (Pf)	20 PSF
- SNOW EXPOSURE FACTOR (Ce)	1.0
- SNOW LOAD IMPORTANCE FACTOR (Is)	1.0
- THERMAL FACTOR (Ct)	1.0
- SNOW DRIFTING	SEE PLAN
WIND LOADS	
- WIND IMPORTANCE FACTOR	1.0
- BASIC ULTIMATE WIND SPEED (V ult)	115 MPH
- BASIC ALLOWABLE WIND SPEED (V asd)	90 PSF
- SITE EXPOSURE CATEGORY	C
- INTERNAL PRESSURE COEFFICIENT	+/- 0.18
SEISMIC LOADS:	
- SEISMIC IMPORTANCE FACTOR	1.0
- MAPPED SPECTRAL RESPONSE ACCELERATION (Ss)	0.100
- MAPPED SPECTRAL RESPONSE ACCELERATION (S1)	0.068
- SEISMIC SITE CLASS	C
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sds)	0.080
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sd1)	0.077
- SEISMIC DESIGN CATEGORY	B
- RESPONSE MODIFICATION COEFFICIENT (R)	6.5
- SEISMIC RESPONSE COEFFICIENT (Cs)	0.012
- SEISMIC DESIGN BASE SHEAR (V)	1.8 K
- ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
- BASIC SEISMIC FORCE-RESISTING SYSTEM:	LIGHT FRAMED WALL SYSTEMS WITH WOOD SHEARWALLS
SPECIAL LOADS	
- INTERIOR WALLS & PARTITIONS	5 PSF HORIZONTAL
- HANDRAIL LOADS (ANY DIRECTION)	50 PLF/200# CONC.
GEOTECHNICAL:	
- GEOTECHNICAL ENGINEER:	ALPHA-OMEGA GEOTECH
- REFERENCE REPORT I.D. OR NUMBER:	AOG 21-109E
- REFERENCE REPORT DATE:	05/12/2021
- ALLOWABLE DESIGN BEARING PRESSURE:	2,000 PSF
- FOUNDATION TYPE:	SHALLOW SPREAD FOOTING

REINFORCED CONCRETE

1. SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI-301-16, "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
2. MATERIALS:
   A. STRUCTURAL CONCRETE:

MIX USAGE	f'c (PSI)	MAX w/cm	AIR CONTENT
LEAN CONCRETE	1,500	---	---
FOOTINGS & INTERIOR COLUMN PIERS	3,500	0.55	---
INTERIOR SLABS ON GRADE WHICH RECEIVE MOISTURE-SENSITIVE FLOOR COVERINGS	4,000	0.45	---
EXTERIOR FOUNDATION STEMWALLS & EXTERIOR UNREINFORCED SLABS ON GRADE	4,500	0.45	5%-7%

   B. ALL DEFORMED REINFORCING BARS: FY = 60,000 PSI.
   C. CEMENT: PORTLAND CEMENT, ASTM C150, TYPE 1. ALL CEMENT FOR CONCRETE EXPOSED TO VIEW IS TO BE FROM THE SAME MILL.
   D. AGGREGATES: ASTM C33, USE SIZE NO. 57 FOR ALL MIXES UNLESS NOTED OTHERWISE.
   E. ADMIXTURES:
      1. WATER-REDUCING, LOW AND MID RANGE: ASTM C494, TYPE A OR D.
      2. HIGH-RANGE WATER REDUCING, SUPERPLASTICIZER: ASTM C494, TYPE F OR G.
   F. AIR-ENTRAINING: ASTM C260.
   G. FLY-ASH: ASTM C618, TYPE C OR F.
   H. NON-CHLORIDE, NON-CORROSIVE ACCELERATOR: ASTM C494, TYPE C OR E.
   I. VAPOR RETARDER SHALL CONFORM TO ASTM E1745 "STANDARD SPECIFICATION FOR PLASTIC WATER VAPOR RETARDERS USED IN CONTACT WITH SOIL OR GRANULAR FILL UNDER CONCRETE SLABS", CLASS A.
   J. VAPOR RETARDER SHALL BE INSTALLED IN ACCORDANCE WITH ASTM E1643 "STANDARD PRACTICE FOR INSTALLATION OF WATER VAPOR RETARDERS USED IN CONTACT WITH EARTH OR GRANULAR FILL UNDER CONCRETE SLABS. THE VAPOR RETARDER/BARRIER SHALL BE A MINIMUM OF 10 MILS THICK AND PLACED DIRECTLY ON THE GRANULAR FILL, BELOW THE CONCRETE FLOOR SLAB. LAP JOINTS A MINIMUM OF 6 INCHES AND SEAL WITH MANUFACTURER'S RECOMMENDED TAPE OR ADHESIVE.
3. FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, SP-15 IN THE FIELD OFFICE AT ALL TIMES.
4. SUBMITTALS:
   A. SUBMIT A MIX DESIGN FOR EACH MIXTURE USAGE REQUIRED FOR THE PROJECT. CONCRETE PROPORTIONS ARE TO BE ESTABLISHED ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL MIXTURES.
   B. SUBMIT PLACING DRAWINGS FOR ALL REINFORCING. INDICATE STRENGTH, SIZE, AND DETAILS OF ALL BAR REINFORCING.
   C. SUBMIT PRODUCT LITERATURE FOR ADMIXTURES AND CURING COMPOUNDS PROPOSED FOR USE.
   D. SUBMIT REPORTS OF ALL REQUIRED TESTING AND INSPECTIONS.
5. CONTINGENCIES:
   A. PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR ACCIDENTAL OVER EXCAVATION, SOFT SPOTS, AND UTILITY TRENCHES.
6. FOOTINGS:
   A. PROVIDE CORNER BARS AT WALL AND FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING. MINIMUM LENGTH OF EACH LEG - 36 BAR DIAMETERS.
7. SPLICES:
   A. LAP SPLICE REINFORCING BARS AS SCHEDULED. MINIMUM LAP = 36 DIAMETERS.
8. CONSTRUCTION JOINTS:
   A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER.
9. FINISHES:
   A. PER ACI 117, SURFACES OF INTERIOR SLABS ON GRADE ARE TO BE FINISHED TO THE FOLLOWING TOLERANCES: FLOOR FLATNESS F(f)=30 AND LEVELNESS F(l)=20 UNLESS NOTED OTHERWISE IN SPECIFICATIONS.
   B. TYPICAL INTERIOR FLOOR AREAS TO RECEIVE CARPET, RESILIENT FLOOR COVERING, OR TO REMAIN EXPOSED - TROWELED FINISH.
   C. INTERIOR FLOOR AREAS TO RECEIVE QUARRY TILE OR CERAMIC TILE - FLOATED FINISH.
   D. EXTERIOR SLABS - BROOM FINISH.
10. CURING:
   A. CURING IS TO COMMENCE IMMEDIATELY AFTER CONCRETE PLACEMENT AND CONTINUE FOR AT LEAST 7 DAYS. DO NOT ALLOW CURING TO BE DELAYED OVERNIGHT.
   B. INTERIOR SLABS TO RECEIVE QUARRY TILE OR CERAMIC TILE ARE TO BE MOIST-CURED WITHOUT THE USE OF A CURING COMPOUND.
   C. ALL OTHER SLABS MAY BE EITHER MOIST-CURED OR RECEIVE AN APPLICATION OF CURING COMPOUND.
11. FIELD QUALITY CONTROL:
   A. OBTAIN CONCRETE FOR REQUIRED TESTS AT POINT OF PLACEMENT. IF CONCRETE IS PUMPED, OBTAIN CONCRETE AT DISCHARGE END.
   B. FOR EACH CLASS OF CONCRETE, OTHER THAN LEAN CONCRETE, PERFORM ONE STRENGTH TEST FOR EACH 50 YARDS, OR FRACTION THEREOF, FOR ONE DAY PLACEMENT.
   C. DETERMINE SLUMP FOR EACH STRENGTH TEST.
   D. DETERMINE AIR CONTENT FOR EACH STRENGTH TEST OF EXTERIOR EXPOSED CONCRETE.
   E. MAINTAIN RECORDS OF ALL TESTS INDICATING EXACT LOCATION OF THE STRUCTURE REPRESENTED BY EACH TEST.

STRUCTURAL STEEL

1. MATERIALS:
   A. STRUCTURAL STEEL CHANNELS, ANGLES, ETC.: ASTM A36, Fy = 36 KSI
   B. STRUCTURAL STEEL PLATES: UNLESS NOTED OTHERWISE - ASTM A36, Fy = 36 KSI; ASTM A529 OR A572, Fy = 50 KSI, WHERE NOTED
   C. HIGH STRENGTH BOLTS: ASTM A325 OR A490
   D. ANCHOR RODS: ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE
   E. ELECTRODES: SERIES E70
   F. RECTANGULAR HSS: ASTM A500, GRADE C, FY = 50 KSI
2. SPECIFICATIONS:
   A. WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION TO BE GOVERNED BY THE LATEST REVISIONS OF:
      1. AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
      2. AISC CODE OF STANDARD PRACTICE.
      3. STRUCTURAL WELDING CODE, AWS D1.1 OF THE AMERICAN WELDING SOCIETY.
      4. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
3. SUBMITTALS:
   A. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL WHICH INCLUDE ERECTION PLANS, CONNECTION DETAILS, AND SHOP DETAILS INDICATING CUTS, COPES, CAMBERS, CONNECTIONS, HOLES, THREADED FASTENER TYPES AND SIZES, AND SIZES AND LENGTHS OF WELDS.
   B. INDICATE MATERIAL SPECIFICATIONS, STRENGTHS, AND FINISHES.
4. CONNECTIONS:
   A. FIELD CONNECTIONS ARE TO BE BOLTED, EXCEPT AS INDICATED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED.
   B. CONNECTIONS ARE TO BE DESIGNED BY THE FABRICATOR TO DEVELOP EITHER 100% OF THE FULL UNIFORM LOAD CAPACITY OF THE MEMBER, OR THE FORCES SHOWN ON THE PLANS. COMPOSITE BEAM CONNECTIONS ARE TO BE DESIGNED FOR 150% OF THE UNIFORM LOAD CAPACITY OF THE MEMBER, OR THE FORCES SHOWN ON THE PLANS. MINIMUM CONNECTION CAPACITY TO BE 15 KIPS. FOLLOW INSTRUCTIONS ON DRAWINGS FOR GENERAL ARRANGEMENT OR PARTICULAR DETAILS.
5. COATINGS:
   A. DO NOT PAINT STEEL OR ANCHOR RODS WHICH WILL BE ENCASED IN CONCRETE OR MASONRY, NOR ANY STEEL WHICH IS SCHEDULED TO RECEIVE SPRAY-APPLIED OR INTUMESCENT-MASTIC FIREPROOFING.
   B. PAINT ALL INTERIOR EXPOSED STEEL (INCLUDING INTERIOR LINTELS) WITH TWO COATS OF RED-OXIDE PRIMER.
   C. PROVIDE A FIELD-APPLIED COAT OF ASPHALT-MASTIC PAINT FOR ALL BELOW-GRADE STEEL (INCLUDING ANCHOR RODS, NUTS, WASHERS, BASE PLATES, AND THE BELOW-GRADE PORTION OF COLUMNS) WHICH IS NOT FULLY ENCASED IN CONCRETE.
   D. INTERIOR NON-EXPOSED STEEL NEED NOT BE PRIME PAINTED.
6. MISCELLANEOUS:
   A. PROVIDE HOLES FOR OTHERS. IF OPENING IS NOT SHOWN ON THE STRUCTURAL DRAWINGS, OBTAIN PRIOR APPROVAL.
   B. STEEL SUPPORTING OR CONNECTING TO MECHANICAL AND OTHER EQUIPMENT AND ROOF OPENINGS AS SHOWN ON ARCHITECTURAL, MECHANICAL AND/OR ON STRUCTURAL DRAWINGS IS SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO RECONCILE EXACT SIZE AND LOCATION WITH MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THIS WORK.
   C. GROUT UNDER BEARING PLATES TO BE NON-METALLIC, NON-SHRINKING TYPE.
   D. STEEL BELOW GRADE TO BE PROTECTED BY A MINIMUM OF 3" OF CONCRETE, 4" OF SOLID MASONRY, OR A FIELD-APPLIED COAT OF ASPHALT-MASTIC PAINT.
   E. PROVIDE 1/4" THICK SETTING PLATES FOR ALL BEAMS AND BEAM LINTELS BEARING ON MASONRY OR CONCRETE WHICH DO NOT REQUIRE A THICKER BEARING PLATE.
   F. PROVIDE HEAVY PLATE WASHERS AT ALL ANCHOR RODS.
   G. FINISH ENDS OF ALL COLUMNS, STIFFENERS AND ALL OTHER MEMBERS IN DIRECT BEARING.
   H. PROVIDE BOLT HOLES FOR WOOD NAILERS AND JOISTS BOLTED TO BEAMS.
   I. STEEL IN CONTACT WITH PRESSURE-TREATED LUMBER IS TO BE PROTECTED FROM CORROSION FROM PRESERVATIVE CHEMICALS WITH A 20 MIL (MIN.) VAPOR BARRIER. BOLTS AND SCREWS THROUGH PRESSURE-TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316.
   J. SEE ARCHITECTURAL SECTIONS AND DETAILS FOR ALL MISCELLANEOUS STRUCTURAL STEEL NOT OTHERWISE INDICATED IN THE STRUCTURAL DRAWINGS.
7. FIELD QUALITY CONTROL:
   A. INSPECTION AGENCY IS TO PERFORM INSPECTION OF BOLTED CONNECTIONS PER THE REQUIREMENTS OF AISC SPECIFICATION FOR STRUCTURAL JOINTS.
8. CONTINGENCY:
   A. PROVIDE AND ERECT 1 TONS OF STRUCTURAL AND/OR MISCELLANEOUS STEEL (STRUCTURAL SHAPES, ANGLES, PLATES, ETC.) TO BE USED AS DIRECTED BY THE ARCHITECT/ENGINEER. CONNECTIONS TO BE FIELD-WELDED IF REQUIRED.

STRUCTURAL LUMBER

1. MATERIALS:
   A. STRUCTURAL LUMBER: ALL DESIGN VALUES PER 2015 NFPA NATIONAL DESIGN SPECIFICATION. ANY SUBSTITUTIONS ARE TO MEET MINIMUM DESIGN VALUES OF ABOVE MEMBERS. UNLESS NOTED OTHERWISE FRAMING MATERIALS SHALL BE:
      1) BEAMS, HEADERS, JOISTS, AND RAFTERS - SPRUCE-PINE-FIR NO.1/NO.2
      2) WALL STUDS 2x6 - SPRUCE-PINE-FIR "NO.1/NO.2 GRADE.
      3) MICRO=LAM (M=L) OR LAMINATED VENEER LUMBER (LVL): Fb = 2,600 PSI, Fv = 285 PSI, Fc (PERP.) = 750 PSI, E = 1,900 KSI.
      4) PARALLAM OR PARALLEL STRAND LUMBER (PSL)
         a. BEAMS: Fb = 2,900 PSI, Fv = 290 PSI, Fc (PERP.) = 750 PSI, E = 2,000 KSI.
         b. COLUMNS: Fb = 2,400 PSI, Fv = 190 PSI, Fc (PERP.) = 545 PSI, E = 1,800 KSI.
      5) LAMINATED STRAND LUMBER (LSL) BEAMS: Fb = 2360 PSI, Fv = 410, Fc (PERP.) = 875 PSI, E = 1,550 KSI.
      6) DECKING AND SHEATHING:
         ROOFS: 23/32 (3/4" NOMINAL) APA RATED SHEATHING, 32/16, EXPOSURE 1 (PLYWOOD ONLY)
         WALL SHEATHING: 7/16" APA RATED SHEATHING, WALL-24, EXPOSURE 1 (OSB OR PLYWOOD)
   B. ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY, GROUND/SOIL, OR USED IN CONDITIONS WITH MOISTURE PRESENT, IS TO BE PRESSURE-TREATED TO RESIST DECAY. PRESERVATIVES USED FOR PRESSURE TREATMENT ARE TO BE ALKALINE COPPER QUAT, ACQ-C OR ACQ-D. OTHER PRESERVATIVES PROPOSED FOR USE ARE TO BE SUBMITTED FOR REVIEW PRIOR TO ERECTION OR INSTALLATION ON THE PROJECT.
2. SPECIFICATIONS:
   A. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION ARE TO BE GOVERNED BY THE LATEST REVISIONS OF:
      1. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION.
      2. U.S. PRODUCT STANDARD PS-1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD.
      3. APA PS 2-18, PERFORMANCE STANDARD FOR WOOD STRUCTURAL PANELS.
      4. APA DESIGN/CONSTRUCTION GUIDE - RESIDENTIAL AND COMMERCIAL.
3. CONNECTIONS:
   A. CONNECTIONS FOR WOOD MEMBERS SHALL BE MINIMALLY FASTENED AS PRESCRIBED IN TABLE 2304.10.1 OF THE REFERENCED BUILDING CODE UNLESS DETAILED OTHERWISE. ALL NAILS ARE TO BE COMMON WIRE NAILS, UNLESS SPECIFICALLY NOTED OTHERWISE.
   B. FOUNDATION PLATES ON CONCRETE OR MASONRY WALLS SHALL BE PRESSURE TREATED LUMBER, SYP #2 GRADE MINIMUM. SILLS SHALL BE ANCHORED TO CONCRETE OR MASONRY WITH 5/8" DIAMETER x 6" LONG SIMPSON TITEN HD ANCHORS SPACED AT 48" O.C. MAXIMUM, UNLESS NOTED OTHERWISE. THERE SHALL BE A MINIMUM OF 3 BOLTS PER SILL PIECE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH PIECE. DO NOT PROVIDE A SILL PLATE SPLICE UNDER ANY POST OR STUD. SEE SHEARWALL SCHEDULE AND DETAILS FOR ADDITIONAL REQUIREMENTS.
   C. JOISTS TO BEAMS OR JOISTS TO TRUSSES - 16 GA. STD. JOIST HANGERS, UNLESS SHOWN OTHERWISE. BEAMS TO BEAMS - 16 GA. BEAM HANGERS, UNLESS SHOWN OTHERWISE.
   D. ALL HANGERS, STRAPS, CAPS, BASES, HOLDOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE BATCH/POST HOT DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316.
   E. ALL FASTENERS INCLUDING NAILS, ANCHOR RODS, POWDER ACTUATED FASTENERS, SCREWS, BOLTS, AND THREADED RODS, IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT DIPPED GALVANIZED, DO NOT MIX MATERIALS.
   F. ALL MECHANICAL ANCHORS INCLUDING WEDGE ANCHORS AND SLEEVE ANCHORS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316.
   G. SHEATHING TO FRAMING:
      1. ROOFS - USE 10d NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (UNO).
      2. STUD WALLS - USE 8d COMMON OR GALVANIZED BOX NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS (UNO). SEE SHEARWALL SCHEDULES FOR ADDITIONAL FASTENING REQUIREMENTS.
      3. GYPSUM-SHEATHED WALLS - USE 6d COOLER OR No. 6 x 1-1/4" TYPE S OR W SCREWS AT 7" ON CENTER AT PANEL EDGES AND 7" ON CENTER AT INTERMEDIATE SUPPORTS (UNO).
   H. TRUSS TO WALL OR RAFTERS TO WALL - STANDARD HURRICANE ANCHORS AT EACH BEARING POINT. ADDITIONAL ANCHORS MAY BE REQUIRED BASED UPON FINAL LAYOUT AND DESIGN BY THE TRUSS MANUFACTURER DURING THE SHOP DRAWING PROCESS.
4. MISCELLANEOUS:
   A. PROVIDE ONE LINE OF SOLID BLOCKING OR CROSS BRIDGING AT 8'-0" O/C MAX. FOR ALL FLOOR JOISTS. USE SOLID BLOCKING AT ALL JOIST AND RAFTER BEARINGS.
   B. PROVIDE SOLID BLOCKING AT MID-HEIGHT OF WALLS FOR EACH OF THE FOLLOWING CONDITIONS: EXTERIOR STUD WALLS, INTERIOR BEARING PARTITIONS, AND ALL WALL FRAMING WHICH IS NOT SHEATHED ON EACH SIDE WITH GYPSUM OR WOOD SHEATHING.
   C. USE SINGLE JACK STUDS UNDER BEAM AND HEADER BEARINGS FOR ROUGH OPENINGS UP AND INCLUDING 4'-0", AND DOUBLE JACK STUDS UNDER BEAM AND HEADER BEARINGS FOR SPANS GREATER THAN 4'-0", UNLESS SHOWN OTHERWISE.
   D. APPLY CONTINUOUS BEAD OF GLUE ON JOISTS AND GROOVE OF TONGUE-AND-GROOVE PANELS.
   E. EACH MEMBER OF MULTIPLE MEMBER BEAMS AND COLUMNS ARE TO BE NAILED TOGETHER WITH 2 ROWS OF 10d NAILS AT 6" ON CENTER, STAGGERED, THE FULL LENGTH OF THE MEMBER. FOR MULTIPLE MEMBER LVL OR LSL PRODUCTS, FOLLOW MINIMUM FASTENING REQUIREMENTS OF THE MANUFACTURER.

ENGINEERED WOOD TRUSSES

1. MATERIALS:
   A. LUMBER: AS REQUIRED BY THE TRUSS MANUFACTURER. MINIMUM GRADE TO BE SYP NO. 2 KD 15 PERCENT MC, EXCEPT FOR WEBS, WHICH MAY BE MINIMUM GRADE OF SYP NO. 3, KD 15 PERCENT MC.
   B. MEMBER SIZES: THE FOLLOWING MEMBERS SHALL BE OF A MINIMUM SIZE SPECIFIED:
      1. TOP CHORD: 2X6
      2. BOTTOM CHORD: 2X6
      3. END VERTICALS: 2X6
   C. CONNECTIONS: ALL INTERNAL TRUSS CONNECTIONS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER. CONNECTORS ARE TO BE DEFORMED PLATE TYPE, OF MINIMUM 20 GAUGE GALVANIZED STEEL SHEET. ALL JOINTS ARE TO BE DESIGNED USING METHODS AS SET FORTH IN TPI STANDARDS.
   D. ALL HANGERS, STRAPS, CAPS, BASES, HOLDOWNS, TIES OR OTHER CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER ARE TO BE BATCH/POST HOT DIPPED GALVANIZED PER ASTM A123 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316.
   E. ALL FASTENERS INCLUDING NAILS, ANCHOR RODS, POWDER ACTUATED FASTENERS, SCREWS, BOLTS, AND THREADED RODS, IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT DIPPED GALVANIZED, DO NOT MIX MATERIALS.
   F. SPECIFICATIONS AND REFERENCE STANDARDS: UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION, ERECTION, HANDLING AND BRACING REQUIREMENTS ARE TO BE GOVERNED BY THE LATEST REVISIONS OF:
      1. NATIONAL DESIGN SPECIFICATIONS FOR STRESS-GRADE LUMBER AND ITS FASTENINGS.
      2. TIMBER CONSTRUCTION STANDARDS.
      3. DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES.
      4. TRUSS PLATE INSTITUTE PUBLICATION-BTW BRACING WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS EXCEPT AS NOTED BELOW.
2. DESIGN:
   A. ALL TRUSSES ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER FOR THE FOLLOWING LOADS:

ROOFS:	
- TOP CHORD DEAD LOAD:	10 PSF + MECHANICAL SHOWN
- TOP CHORD LIVE LOAD:	20 PSF + DRIFT
- BOTTOM CHORD DEAD LOAD:	10 PSF
- BOTTOM CHORD LIVE LOAD:	0 PSF
LIVE LOAD DEFLECTION LIMIT:	L/360

   SNOW LOADS:
   IN ACCORDANCE WITH ASCE 7-10 USING THE CRITERIA DEFINED IN THE "DESIGN LOADS" SECTION OF THE GENERAL STRUCTURAL NOTES. SNOW LOADS ARE TO INCLUDE THE EFFECTS OF "UNBALANCED SNOW LOADS FOR HIP AND GABLE ROOFS".

   WIND LOADS:
   IN ACCORDANCE WITH ASCE 7-10 USING THE CRITERIA DEFINED IN THE "DESIGN LOADS" SECTION OF THE GENERAL STRUCTURAL NOTES. TRUSSES ARE TO BE DESIGNED FOR "COMPONENTS AND CLADDING" WIND LOADS UNLESS NOTED OTHERWISE.

   OTHER LATERAL LOADS:
   SEE PLANS AND DETAILS FOR DRAG STRUT LOCATIONS AND LOADING REQUIREMENTS.

   SPECIAL LOADS:
   SEE PLANS AND ELEVATIONS FOR ADDITIONAL LOADS TO BE CONSIDERED IN THE TRUSS DESIGN.

   B. WHERE TRUSSES ARE REQUIRED TO FRAME INTO OTHER TRUSSES, DESIGN OF THE CONNECTIONS ARE TO BE THE RESPONSIBILITY OF THE TRUSS SUPPLIER. THE TRUSS SUPPLIER IS TO MAKE NECESSARY PROVISIONS IN THE SUPPORTING TRUSS TO ACCEPT THE TYPE OF HANGER REQUIRED.
   C. THE DESIGN OF ALL WEB MEMBER PERMANENT BRACING REQUIRED FOR THE STRUCTURAL ADEQUACY OF THE TRUSSES, IS TO BE THE SOLE RESPONSIBILITY OF THE TRUSS SUPPLIER.
   D. ADDITIONAL PERMANENT BRACE SIZES AND CONNECTIONS, NOT PROVIDED BY THE SHEATHING SHOWN ON THE CONSTRUCTION DRAWINGS, ARE TO BE THE SOLE RESPONSIBILITY OF THE TRUSS SUPPLIER. THIS BRACING CAN INCLUDE, BUT IS NOT LIMITED TO, TOP CHORD BRACING FOR TRUSSES WITH PIGGY-BACKS, AND INTERMEDIATE BRACES FOR GABLE TRUSS WEB MEMBERS.
3. SUBMITTALS:
   A. TRUSS DESIGNS ARE TO BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. TRUSS SUBMITTAL IS TO INCLUDE THE FOLLOWING INFORMATION:
      1. DESIGN INFORMATION FOR EACH TYPE OF TRUSS SUPPLIED.
      2. LAYOUT DRAWING INDICATING LOCATION OF EACH SPECIFIC TRUSS TYPE AND ANY PERMANENT HORIZONTAL BRACING MEMBERS.
      3. PERMANENT MEMBER BRACE LOCATIONS, BRACE SIZES, AND CONNECTIONS.
      4. TRUSS HANGER TYPE AND LOCATION, FOR ALL TRUSSES FRAMING INTO TRUSSES.
      5. TRUSS DESIGNS AND LAYOUT DRAWING STAMPED BY A REGISTERED PROFESSIONAL ENGINEER, IN THE STATE OF PROJECT LOCATION.
   B. SUBMITTALS WHICH DO NOT INCLUDE THE ABOVE LISTED INFORMATION WILL BE RETURNED TO THE CONTRACTOR PRIOR TO REVIEW.
4. MISCELLANEOUS:
   A. ALL GIRDER TRUSSES ARE TO BE 2-PLY MINIMUM.
   B. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE APPROVED TRUSS SHOP DRAWINGS, ALL MEMBERS OF MULTIPLE TRUSSES ARE TO BE NAILED TOGETHER WITH 10d COMMON NAILS AT 8" O.C., FOR DOUBLE TRUSSES, OR WITH 16d COMMON NAILS AT 8" O.C. FROM EACH SIDE, FOR TRIPLE TRUSSES.

POST-INSTALLED ANCHOR SYSTEMS

1. GENERAL:
   A. LISTED ANCHOR PRODUCTS PROVIDED BELOW ARE NOT TO BE USED AS INTERCHANGEABLE PRODUCTS. EACH ANCHOR HAS DEFINED CAPACITIES BASED UPON TESTED PERFORMANCE WITH APPLICABLE SAFETY FACTORS AND WILL VARY ACROSS MANUFACTURERS. TYPES OF ANCHORS INDICATED THROUGHOUT THE DESIGN DOCUMENTS ARE DETAILED FOR THEIR SPECIFIC PURPOSE AND CAPACITY. SUBSTITUTION OF ANCHORS FROM THOSE SPECIFIED ARE ONLY ALLOWED AFTER ENGINEER REVIEW AND APPROVAL OR AMENDMENT FROM WRITTEN REQUEST BY THE CONTRACTOR.
   B. PROVIDE ANCHORAGE MATCHING MANUFACTURER, TYPE, DIAMETER, EMBEDMENT, AND BASE MATERIAL AS INDICATED IN THE DOCUMENTS.
   C. ALL POST-INSTALLED ANCHORS TO BE HAMMER DRILLED. FOLLOW ALL HOLE CLEANING AND INSTALLATION INSTRUCTIONS AS STIPULATED BY THE ANCHOR MANUFACTURER. FOLLOW ALL OSHA GUIDELINES FOR CONCRETE DRILLING AS IT PERTAINS TO SILICA DUST.
   D. INSTALLATION OF ADHESIVE ANCHORS MUST BE PERFORMED BY PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS THROUGH MANUFACTURER TRAINING PROGRAMS.
   E. INSTALLATION OF ADHESIVE ANCHORS IN THE HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND WHERE SUPPORTING SUSTAINED TENSION LOADS SHALL BE INSTALLED BY CERTIFIED PERSONNEL BY ACI/CRSI INSTALLATION PROGRAMS.
   F. MINIMUM CONCRETE AGE FOR POST-INSTALLED ADHESIVE ANCHORS SHALL BE NOT LESS THAN 28 DAYS.
   G. ALL ANCHORS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT DIPPED GALVANIZED, DO NOT MIX MATERIALS.
2. ANCHORAGE TO CONCRETE
   A. ACCEPTABLE MECHANICAL EXPANSION ANCHORAGE SYSTEMS:
      1. DEWALT POWER STUD +SDI WEDGE EXPANSION ANCHOR
      2. HILTI KWIK BOLT 3 EXPANSION ANCHOR
      3. HILTI KWIK BOLT TZ EXPANSION ANCHOR
      4. SIMPSON STRONG-BOLT 2 WEDGE EXPANSION ANCHOR
   B. ACCEPTABLE MECHANICAL SLEEVE ANCHORAGE SYSTEMS: (MAY NOT BE USED TO SECURE MAIN BUILDING FRAME COMPONENTS)
      1. DEWALT LOK-BOLT AS SLEEVE ANCHOR
      2. HILTI HLC SLEEVE ANCHOR
      3. SIMPSON SLEEVE-ALL SLEEVE ANCHOR
   C. ACCEPTABLE MECHANICAL SCREW ANCHORAGE SYSTEMS:
      1. DEWALT SCREW-BOLT+
      2. HILTI KWIK HUS-EZ SCREW ANCHOR
      3. SIMPSON TITEN HD SCREW ANCHOR
   D. ACCEPTABLE ADHESIVE ANCHORAGE SYSTEMS:
      1. DEWALT AC200+ ADHESIVE FOR REINFORCING BAR
      2. DEWALT PURE50+ ADHESIVE FOR THREADED ROD AND REINFORCING BAR
      3. DEWALT PURE110+ ADHESIVE FOR THREADED ROD AND REINFORCING BAR
      4. HILTI HIT-HY 200 ADHESIVE FOR THREADED ROD, REINFORCING BAR, AND HILTI SPECIFIC ROD AND INSERT SYSTEMS.
      5. HILTI HIT-RE 500 ADHESIVE FOR THREADED ROD AND REINFORCING BAR.
      6. HILTI HIT-RE 100 ADHESIVE FOR THREADED ROD AND REINFORCING BAR.
      7. SIMPSON AT-XP ADHESIVE FOR THREADED ROD AND REINFORCING BAR.
3. ANCHORAGE TO CONCRETE MASONRY OR BRICK MASONRY AS INDICATED:
   A. FOLLOW ALL MANUFACTURERS INSTALLATION INSTRUCTIONS IN REGARD TO LOCATION OF ANCHORS AWAY FROM HEAD JOINTS, MINIMUM EDGE DISTANCES, AND MINIMUM ANCHOR SPACING.
   B. ACCEPTABLE MECHANICAL EXPANSION ANCHORAGE SYSTEMS:
      1. DEWALT POWER STUD +SDI WEDGE EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
      2. HILTI KWIK BOLT 3 EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
      3. SIMPSON STRONG-BOLT 2 WEDGE EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
   C. ACCEPTABLE MECHANICAL SLEEVE ANCHORAGE SYSTEMS: (MAY NOT BE USED TO SECURE MAIN BUILDING FRAME COMPONENTS)
      1. DEWALT LOK-BOLT AS SLEEVE ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY, AND SOLID BRICK MASONRY
      2. HILTI HLC SLEEVE ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY, AND SOLID BRICK MASONRY
      3. SIMPSON SLEEVE-ALL SLEEVE ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
   D. ACCEPTABLE MECHANICAL SCREW ANCHORAGE SYSTEMS:
      1. HILTI KWIK HUS-EZ SCREW ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
      2. DEWALT SCREW-BOLT+ SCREW ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY AND BRICK MASONRY
      3. SIMPSON TITEN HD SCREW ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY
   E. ACCEPTABLE ADHESIVE ANCHORAGE SYSTEMS:
      1. DEWALT AC100+ GOLD FOR THREADED ROD AND REINFORCING BAR IN GROUT FILLED MASONRY CONSTRUCTION. USE WITH SCREEN TUBES IN HOLLOW MASONRY CONSTRUCTION.
      2. HILTI HIT-HY 270 ADHESIVE FOR THREADED ROD, REINFORCING BAR, AND HILTI SPECIFIC ROD AND INSERT SYSTEMS IN GROUT FILLED OR SOLID CONCRETE MASONRY CONSTRUCTION. USE WITH SCREEN TUBES IN HOLLOW MASONRY, MULIT-WYTHE MASONRY, OR BRICK WITH HOLES CONSTRUCTION.
      3. SIMPSON SET-XP ADHESIVE FOR THREADED ROD AND REINFORCING BAR IN GROUT FILLED, SOLID, AND HOLLOW CONCRETE MASONRY.

COMPONENTS AND CLADDING ULTIMATE WIND LOAD PRESSURES

TRIBUTARY AREA			
WALL ELEMENTS			
TRIBUTARY AREA	POSITIVE PRESSURE (PSF)	NEGATIVE PRESSURE (PSF)	PRESSURE WITHIN 10 FT. OF CORNERS (PSF)
10 SQ. FT.	28	30	37
25 SQ. FT.	26	28	33
50 SQ. FT.	25	27	31
100 SQ. FT.	24	26	30
200 SQ. FT.	22	25	26
≥ 500 SQ. FT.	21	23	23
ROOF ELEMENTS			
TRIBUTARY AREA	UPLIFT PRESSURE (PSF)	UPLIFT WITHIN 10 FT. OF EDGES (PSF)	UPLIFT WITHIN 10 FT. OF CORNERS (PSF)
10 SQ. FT.	30	50	75
25 SQ. FT.	29	43	58
50 SQ. FT.	28	38	45
≥ 100 SQ. FT.	28	33	33
PARAPETS OR SCREEN WALL ELEMENTS			
TRIBUTARY AREA	EDGE PRESSURE (PSF)	PRESSURE WITHIN 10 FT. OF CORNERS (PSF)	
10 SQ. FT.	77	102	
25 SQ. FT.	69	84	
50 SQ. FT.	62	70	
≥ 100 SQ. FT.	56	56	

C. & C. PRESSURE SCHEDULE NOTES:
1. LINEAR INTERPOLATION IS ACCEPTABLE FOR TRIBUTARY AREAS BETWEEN THOSE...
2. LOADS GIVEN ARE ULTIMATE LOADS OBTAINED FROM ASCE 7-10. MULTIPLY VALUES BY 0.6 TO OBTAIN SERVICE-LEVEL LOADS.

Jezerinac Geers
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Contents:
GENERAL STRUCTURAL NOTES

S000

IN ACCORDANCE WITH CHAPTER 17 OF THE REFERENCE BUILDING CODE, THE OWNER SHALL EMPLOY INSPECTION AGENCIES TO PERFORM SPECIAL INSPECTIONS DURING CONSTRUCTION INCLUDING INSPECTIONS OF SHOP FABRICATED ITEMS WHEN APPLICABLE. ALL INSPECTION AGENCIES, INCLUDING FABRICATION FACILITIES, WHEN REQUIRED, SHALL BE QUALIFIED AND APPROVED BY THE BUILDING OFFICIAL. REFER TO OTHER DISCIPLINES FOR SPECIAL INSPECTIONS OF NON-STRUCTURAL SYSTEMS.

TABLE 1 STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL DISCIPLINE

REQUIRED SPECIAL INSPECTIONS AND TESTS FOR SOILS		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	---	X
2. REINFORCING BAR WELDING:		
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	---	X
B. INSPECT SINGLE PASS FILLET WELDS, MAXIMUM 5/16".	---	X
C. INSPECT ALL OTHER WELDS.	X	---
3. INSPECT ANCHORS CAST IN CONCRETE.	---	X
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.		
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	---
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4A.	---	X
5. VERIFY USE OF REQUIRED DESIGN MIX.	---	X
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X

REQUIRED SPECIAL INSPECTIONS AND TESTS OF WOOD CONSTRUCTION		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. FABRICATED LOAD BEARING ASSEMBLIES (TRUSSES/COMPOSITE I-JOISTS) CONDUCTED ON THE PREMISES OF THE FABRICATORS SHOP.	---	X

TABLE 2 STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL DISCIPLINE

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL CONSTRUCTION		
TYPE	PERFORM	OBSERVE
1. INSPECTION TASKS PRIOR TO WELDING:		
A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.	---	X
B. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE.	X	---
C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	X	---
D. MATERIAL IDENTIFICATION (TYPE/GRADE)	---	X
E. WELDER IDENTIFICATION SYSTEM.	---	X
F. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY):		
• JOINT PREPARATIONS.	---	X
• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL.	---	X
• CLEANLINESS (CONDITION OF STEEL SURFACES).	---	X
• TACKING (TACK WELD QUALITY AND LOCATION).	---	X
• BACKING TYPE AND FIT (IF APPLICABLE).	---	X
G. FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y-, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY):		
• JOINT PREPARATIONS.	---	X
• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL.	---	X
• CLEANLINESS (CONDITION OF STEEL SURFACES).	---	X
• TACKING (TACK WELD QUALITY AND LOCATION).	---	X
H. CONFIGURATION AND FINISH OF ACCESS HOLES.	---	X
I. FIT-UP OF FILLET WELDS:		
• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL.	---	X
• CLEANLINESS (CONDITION OF STEEL SURFACES).	---	X
• TACKING (TACK WELD QUALITY AND LOCATION).	---	X
2. INSPECTION TASKS DURING WELDING:		
A. CONTROL AND HANDLING OF WELDING CONSUMABLES.		
• PACKAGING	---	X
• EXPOSURE CONTROL	---	X
B. NO WELDING OVER CRACKED TACK WELDS.	---	X
C. ENVIRONMENTAL CONDITIONS:		
• WIND SPEED WITHIN LIMITS	---	X
• PRECIPITATION AND TEMPERATURE	---	X
D. WPS FOLLOWED:		
• SETTINGS ON WELDING EQUIPMENT	---	X
• TRAVEL SPEED	---	X
• SELECTED WELDING MATERIALS	---	X
• SHIELDING GAS TYPE/FLOW RATE	---	X
• PREHEAT APPLIED	---	X
• INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.)	---	X
• PROPER POSITION (F, V, H, OH)	---	X
• TRAVEL SPEED	---	X
E. WELDING TECHNIQUES		
• INTERPASS AND FINAL CLEANING	---	X
• EACH PASS WITHIN PROFILE LIMITATIONS	---	X
• EACH PASS MEETS QUALITY REQUIREMENTS	---	X
F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X	---
3. INSPECTION TASKS AFTER WELDING:		
A. WELDS CLEANED.	---	X
B. SIZE, LENGTH, AND LOCATION OF WELDS	X	---
C. WELDS MEET VISUAL ACCEPTANCE CRITERIA:		
• CRACK PROHIBITION	X	---
• WELD-BASE-METAL FUSION	X	---
• CRATER CROSS SECTION	X	---
• WELD PROFILES	X	---
• WELD SIZE	X	---
• UNDERCUT	X	---
• POROSITY	X	---
D. ARC STRIKES.	X	---
E. K-AREA	X	---
F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES.	X	---
G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	X	---
H. REPAIR ACTIVITIES.	X	---
I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER.	X	---
J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	---	X
K. NON-DESTRUCTIVE TESTING FOR COMPLETE-JOINT-PENETRATION (CJP) WELDS:		
• UT SHALL BE PERFORMED ON ALL CJP JOINTS IN MATERIAL 5/16" AND GREATER.	X	---
4. INSPECTION TASKS AFTER BOLTING:		
A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	X	---
5. ANCHOR ROD PLACEMENT		
A. INSPECTION DURING PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS (ANCHOR DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDED ITEM AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE) PRIOR TO PLACEMENT OF CONCRETE.	---	X
6. INSPECTION OF THE FABRICATED STEEL OR ERECTED STEEL FRAME IN COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS.	---	X

STRUCTURAL STEEL INSPECTION NOTES:
1. "PERFORM" — THESE TASKS SHALL BE PERFORMED FOR EACH WELDED/BOLTED JOINT OR MEMBER
2. "OBSERVE" — THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE.

CONCRETE REINFORCING CLEARANCES/COVER
(#3 - #11 BARS)

EXPOSURE CONDITION	MIN. COVER U.N.O.	TOLERANCE
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"	-3/8", + 1"
EXPOSED TO EARTH OR WEATHER: #5 AND SMALLER BARS #6 AND LARGER BARS	1 1/2" 2"	-1/4", +1/2" -1/4", +1/2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, BEAMS, COLUMNS, PIERS - TO TIES & STIRRUPS	3/4" 1 1/2"	-1/4", +3/8" -1/4", +1/2"

"-" INDICATES TOLERANCE DECREASE TOWARDS MEMBER FACE.
"+" INDICATES AWAY FROM MEMBER FACE

LAP SPLICE SCHEDULE FOR CONCRETE REINFORCING
3,000 psi & 3,500 psi CONCRETE UNCOATED REINFORCING BARS

BAR SIZE	3/4" CLR.		1 1/2" CLR. AND GREATER	
#4	3'-1"	2'-4"	3'-1"	2'-4"
#5	3'-10"	3'-0"	3'-10"	3'-0"
#6	4'-8"	3'-7"	4'-8"	3'-7"
#7	7'-6"	5'-9"	6'-9"	5'-2"
#8	9'-3"	7'-1"	7'-9"	5'-11"
#9	11'-2"	8'-7"	8'-8"	6'-8"
#10	13'-6"	10'-4"	9'-10"	7'-6"
#11	15'-10"	12'-2"	10'-11"	8'-4"

LAP SPLICE SCHEDULE FOR CONCRETE REINFORCING
4,000 psi & 4,500 psi CONCRETE UNCOATED REINFORCING BARS

BAR SIZE	3/4" CLR.		1 1/2" CLR. AND GREATER	
#4	2'-8"	2'-1"	2'-8"	2'-1"
#5	3'-4"	2'-7"	3'-4"	2'-7"
#6	4'-0"	3'-1"	4'-0"	3'-1"
#7	6'-6"	5'-0"	5'-10"	4'-6"
#8	8'-0"	6'-2"	6'-8"	5'-2"
#9	9'-8"	7'-6"	7'-6"	5'-10"
#10	11'-8"	9'-0"	8'-6"	6'-6"
#11	13'-8"	10'-6"	9'-5"	7'-3"

1. TOP BARS / OTHER BARS — TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
2. BAR SPACING TO BE A MINIMUM OF THREE DIAMETERS UNLESS NOTED OR SCHEDULED OTHERWISE.
3. APPLICABLE ONLY FOR 60 KSI STEEL AND NORMAL WEIGHT CONCRETE.
4. IN LIEU OF LAP SPLICING, BARS MAY BE SPLICED BY MECHANICAL MEANS WHICH DEVELOP AT LEAST 125% OF THE BAR'S SPECIFIED YIELD STRENGTH.

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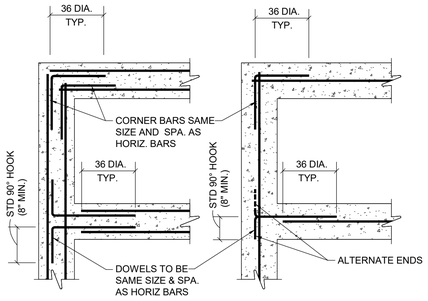
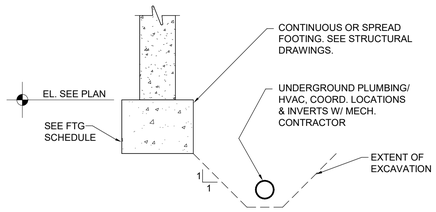
Contents:
SPECIAL INSPECTIONS

S001



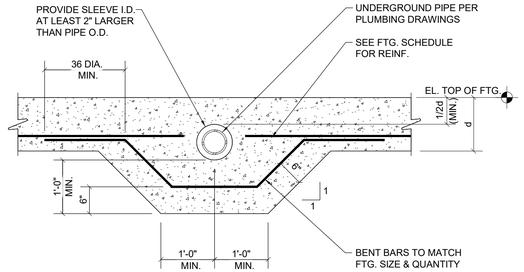
TYP. CORNER BARS FOR CONCRETE WALL AND FOOTING CONSTRUCTION

SECTION 1 — 3/4" = 1'-0"

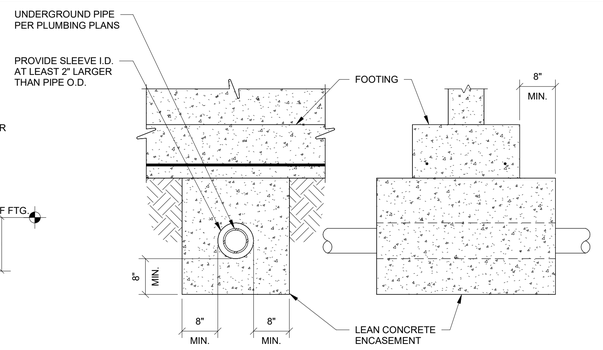


TYPICAL EXCAVATION CLEARANCE REQUIREMENTS

SECTION 2 — 3/4" = 1'-0"



SECTION 3 — 3/4" = 1'-0"



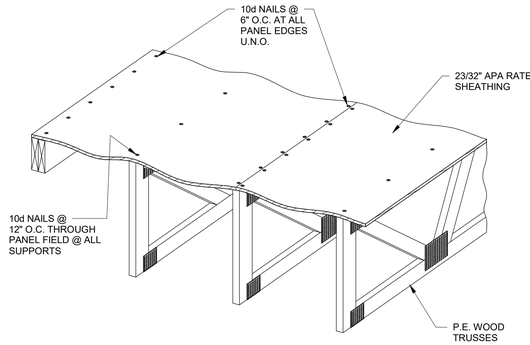
TYPICAL PLUMBING UNDER FOOTING DETAIL

DETAIL 4 — 3/4" = 1'-0"

TYPICAL FLOOR CONSTRUCTION JOINT

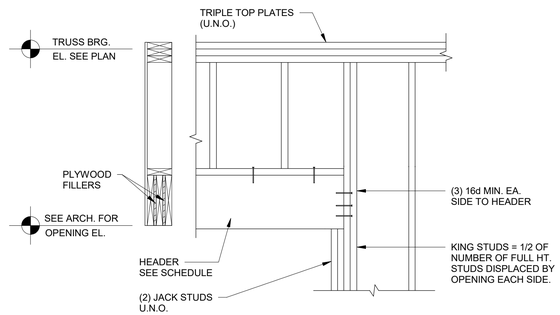
TYPICAL FLOOR CONTROL JOINT

SECTION 5 — 3/4" = 1'-0"



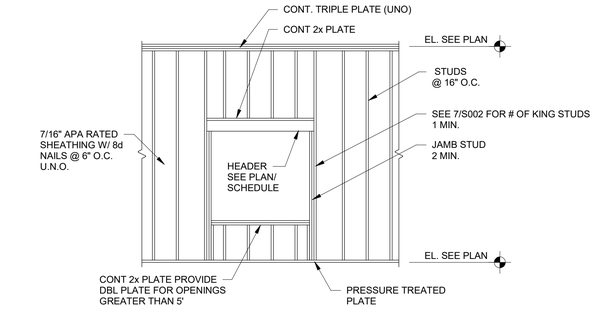
TYPICAL DIAPHRAGM NAILING

SECTION 6 — 3/4" = 1'-0"



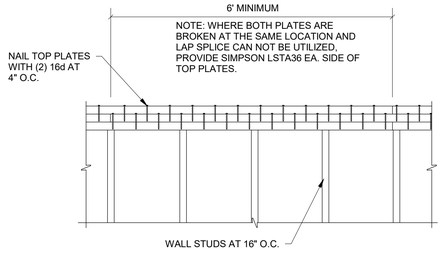
TYPICAL WOOD HEADER CONSTRUCTION

SECTION 7 — 3/4" = 1'-0"



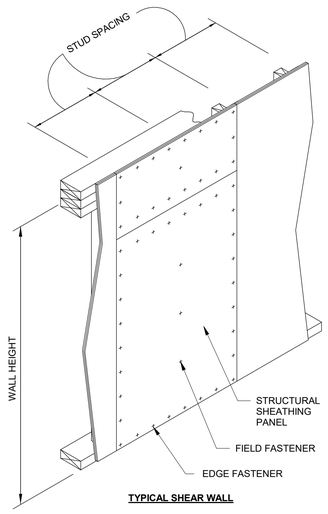
TYPICAL WALL AND OPENING CONSTRUCTION

SECTION 8 — 3/4" = 1'-0"



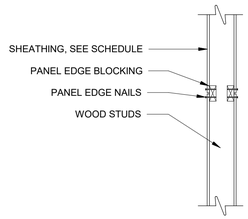
TYPICAL SHEARWALL - TOP PLATE SPLICE

SECTION 9 — 3/4" = 1'-0"



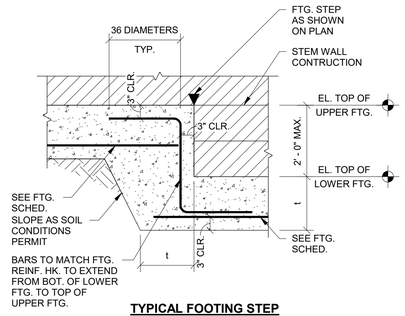
TYPICAL SHEAR WALL

SECTION 10 — 3/4" = 1'-0"



TYPICAL SHEARWALL - PANEL EDGE BLOCKING

SECTION 11 — 3/4" = 1'-0"



TYPICAL FOOTING STEP

SECTION 12 — 3/4" = 1'-0"

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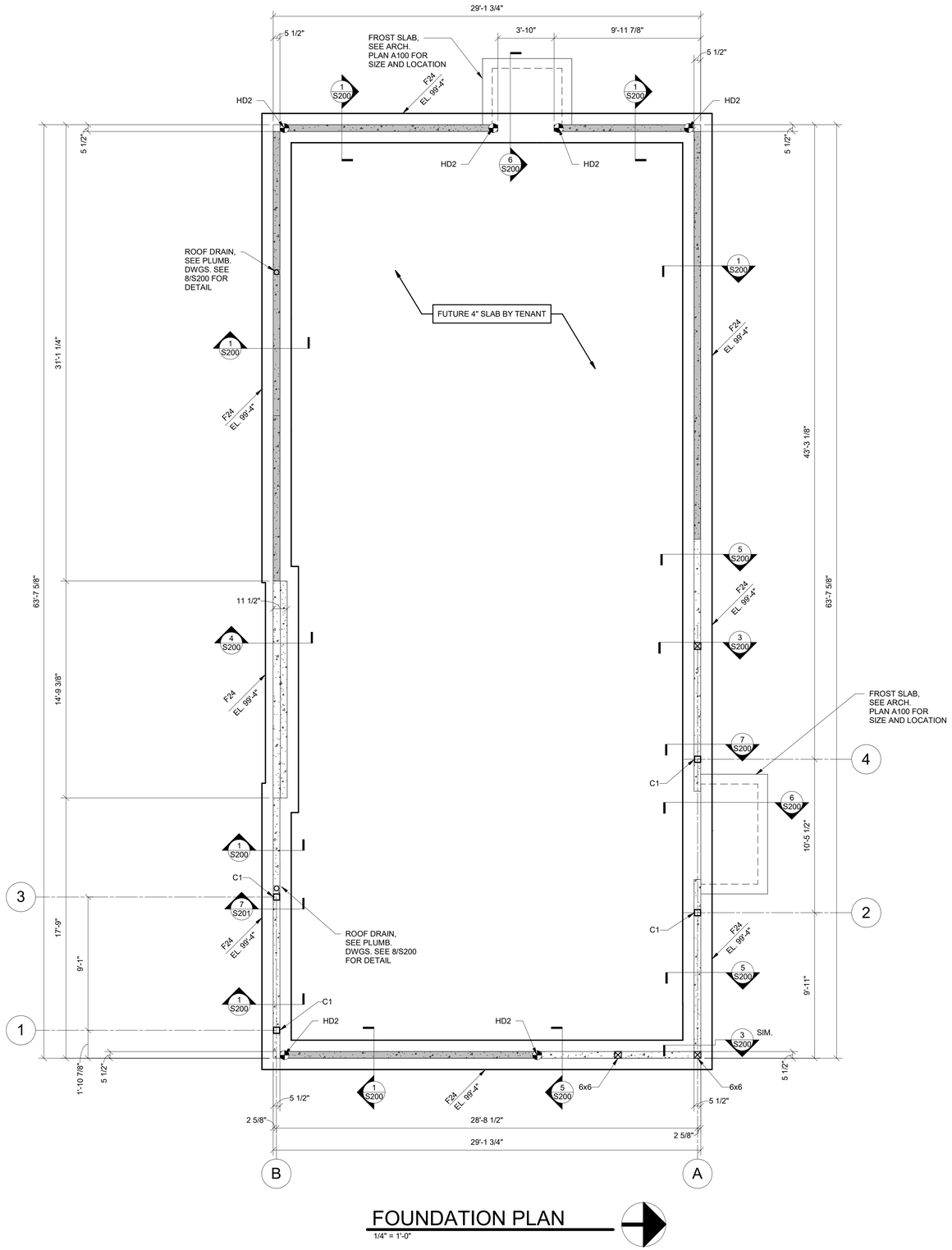
TYPICAL DETAILS

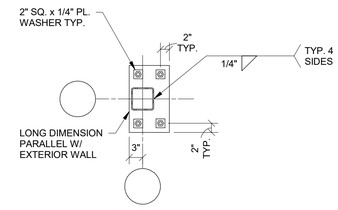
S002



FOUNDATION PLAN

1/4" = 1'-0"

COLUMN SCHEDULE			
MARK	SIZE	BASE PLATE	ANCHOR BOLT
C1	HSS5x5x1/4	1" x 10" x 10"	(4)1"Ø x 18 LG. W/ DBL. NUT BOTTOM



COLUMNS C1

SHEARWALL HOLDOWN SCHEDULE		
MARK	HOLDOWN (LOCATE EA. END)	SHEARWALL BOUNDARY...
HD1	HDU4-SDS2.5	2
HD2	HDU8-SDS2.5	6x6

SHEARWALL SCHEDULE NOTES:

1. ALL HOLDOWNS INDICATED ARE MANUFACTURED BY SIMPSON STRONG TIE®. FOLLOW ALL MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS.
2. 'BOUNDARY END STUDS' ARE STUD PACKS OR COLUMNS LOCATED AT THE EACH END OF SHEARWALLS. STUDS SHALL BE OF SAME SIZE AND MATERIAL WITH THE WALL THEY ARE INTEGRAL WITH. SEE GENERAL STRUCTURAL NOTES FOR MINIMUM 'PSL' MATERIAL STANDARDS.
3. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL LENGTHS OF ALL WALLS INDICATED AS SHEARWALLS. LOCATE BOUNDARY END STUDS/POSTS AT THE END OF WALLS MARKED AS SHEAR WALLS. SEE DETAIL BLOW UPS OF WALL INTERSECTIONS AND LOCATION OF STUD/POSTS.

CONT. WALL FOOTING SCHEDULE			
MARK	WIDTH	THICKNESS	REINFORCING
F24	2'-0"	2'-6"	(2) #5 CONT. TOP & BOTTOM

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2000 PSF. SEE S000 FOR REFERENCE SOILS REPORT INFORMATION. REFERENCE THIS REPORT FOR ANY REQUIRED SITE BUILDING PAD PREPARATION PRIOR TO FOUNDATION AND/OR SLAB-ON-GRADE CONSTRUCTION. FOOTING EXCAVATIONS MAY BE REQUIRED TO EXTEND THROUGH EXISTING FILL REGIONS IN ORDER TO BEAR ON SUITABLE MATERIAL. OVER-EXCAVATIONS ARE TO BE FILLED WITH LEAN CONCRETE UP TO THE PLANNED BOTTOM OF FOOTING ELEVATION. PLACE NO CONCRETE PRIOR TO INSPECTION AND APPROVAL OF BEARING SURFACES BY SOILS ENGINEER.
2. KEEP FOUNDATIONS FREE OF WATER AT ALL TIMES. REPLACE WEAKENED SOIL WITH LEAN CONCRETE OR FLOWABLE FILL.
3. BOTTOM OF FOOTINGS ARE TO BE AT LEAST 36-INCHES BELOW THE ADJACENT EXTERIOR FINISHED GRADE FOR FROST PROTECTION.
4. VERIFY LOCATION, SIZE, AND NUMBER OF FLOOR DEPRESSIONS AND SLOOR SLOPES WITH ARCHITECTURAL AND MEP DRAWINGS.
5. ELEVATIONS SHOWN ON FOOTINGS INDICATE ELEVATION AT TOP OF FOOTING. REFERENCE ELEVATION/TOP OF CONCRETE SLAB ELEVATION AS NOTED ON PLANS. COORDINATE ABSOLUTE ELEVATION OF TOP OF SLAB WITH SITE DRAWINGS.
6. NOT ALL UNDERGROUND UTILITIES ARE SHOWN ON THE STRUCTURAL DRAWINGS. FOUNDATIONS BUILT PRIOR TO THE INSTALLATION OF UNDERGROUND UTILITIES ARE TO BE STEPPED OR DROPPED COMPLETELY BELOW THE UTILITY DEPTH PER SECTION 3/S001. WHERE UNDERGROUND UTILITIES ARE IN PLACE PRIOR TO FOUNDATION CONSTRUCTION, THEY ARE TO BE ENCASED PER SECTION 4/S001. SEE SECTION 2/S001 FOR TRENCH EXCAVATION AND UTILITY PLACEMENT REQUIREMENTS FOR WORK THAT IS LAID ADJACENT TO FOOTINGS.
7. PROVIDE CORNER BARS AT ALL FOOTING AND CONCRETE WALL INTERSECTIONS PER DETAIL 1/S001.
8. "Cx" INDICATES COLUMN TYPE PER COLUMN SCHEDULE.
9. "HDx" INDICATES SHEARWALL HOLDOWN PER HOLDOWN SCHEDULE.
10. SHADED WALL ABOVE DENOTES SHEARWALL LOCATION. SEE S110 FOR SHEARWALL REQUIREMENTS.
11. ▼ DENOTES STEP IN DFOUNDATIONS. SEE DETAIL 12/S002 FOR TYPICAL STEP DETAIL.
12. SEE SHEET S000 FOR GENERAL STRUCTURAL INFORMATION.

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SOUTH LEE'S SUMMIT CMG SHELL
1103 SW OLDHAM PARKWAY
LEE'S SUMMIT, MO, 64081

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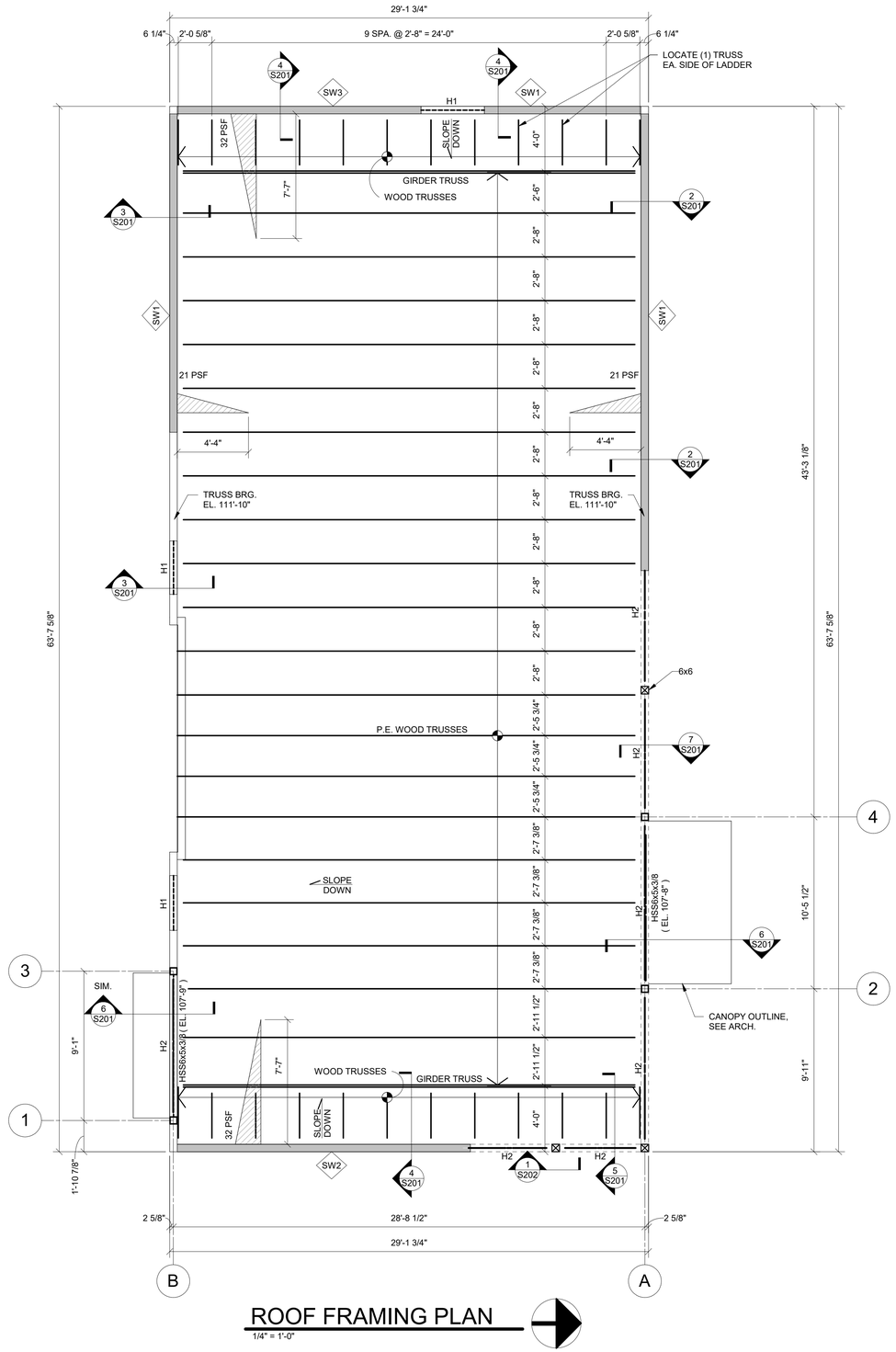
Contents:
FOUNDATION PLAN

S100



ROOF FRAMING PLAN

1/4" = 1'-0"

SHEAR WALL SCHEDULE

MARK	SHEATHING PANEL	PANEL APPLICATION	SHEATHING PANEL FASTENING			SOLE PLATE ANCHORAGE	ADDITIONAL REQUIREMENTS
			FASTENER	PANEL EDGES	PANEL FIELD		
SW1	7/16" APA RATED	ONE SIDE	8d COMMON	6"	12"	5/8"ø ANCHOR BOLTS @ 48" O.C.	
SW2	15/32" APA RATED	ONE SIDE	8d COMMON	3"	12"	5/8"ø ANCHOR BOLTS @ 24" O.C.	
SW3	7/16" APA RATED	ONE SIDE	8d COMMON	3"	12"	5/8"ø ANCHOR BOLTS @ 24" O.C.	(13) ANCHOR BOLTS MIN.

SHEARWALL SCHEDULE NOTES:

1. 'APA RATED' SHEATHING INCLUDES PLYWOOD OR ORIENTED STRAND BOARD (OSB) MATERIALS AS RATED BY THE AMERICAN PLYWOOD ASSOCIATION (APA).
2. ALL PANEL EDGES SHALL BE LOCATED ON STUDS, BLOCKING, BLOCKING LAID FLATWAYS AGAINST SHEATHING, PLATES, OR RIM BOARD.
3. FASTENER SUBSTITUTIONS ARE NOT PERMITTED, UNLESS APPROVED ENGINEER REVIEW IS COMPLETED AT CONTRACTOR'S EXPENSE.
4. PROVIDE SIMPSON BPS5/8-6 PLATE WASHERS AT ALL SILL PLATE ANCHORS ATTACHING BOTTOM OF SHEAR WALL TO FOUNDATION OR CONCRETE SLAB. NEAREST EDGE OF PLATE WASHERS SHALL BE LOCATED NO FARTHER THAN 1/2-INCH FROM INSIDE FACE OF SHEAR WALL SHEATHING.
5. SEE HOLD DOWN SCHEDULE FOR SHEARWALL BOUNDARY STUDS TO BE LOCATED ON EACH END OF WALL.
6. COORDINATE SOLE PLATE ANCHORAGES WITH TYPICAL CONSTRUCTION DETAILS INDICATED THROUGHOUT STRUCTURAL DRAWINGS.
7. ALL SHEARWALL TOP PLATES MUST BE A MINIMUM OF TWO IN NUMBER, HAVE STAGGERED SPLICED LOCATIONS, AND OCCUR OVER STUD LOCATIONS. SEE STRUCTURAL DETAILS FOR TRIPLE TOP PLATE REQUIREMENTS, IF ANY. SEE 9/S002 FOR TYPICAL TOP PLATE SPLICING DETAIL.
8. CAST-IN-PLACE (CIP) ANCHORS SHALL BE EMBEDDED IN CONCRETE A MINIMUM OF 6".

WOOD HEADER SCHEDULE

MARK	SIZE	JACK STUDS	KING STUDS	Remarks
H1	(3) 2x8	(1) 2x	(2) 2x	
H2	(3) 1.75" x 9.25" LVL	(2) 2x	(2) 2x	

HEADER SCHEDULE NOTES:

1. JACK AND KING STUDS SHALL MATCH WALL FRAMING SIZE AND SPECIES OF DESIGNATED STUD WALLS THEY ARE INTEGRAL WITH, U.N.O.
2. SEE GENERAL STRUCTURAL NOTES FOR MINIMUM LUMBER GRADES FOR HEADER FRAMING, U.N.O.
3. SEE SECTION 2/S202 FOR WOOD HEADERS SUPPORTED BY STEEL COLUMNS.
4. SEE GENERAL STRUCTURAL NOTES FOR MINIMUM STRUCTURAL COMPOSITE LUMBER DESIGN VALUES.

ROOF FRAMING NOTES

1. DESIGN LIVE LOADS:

FLAT ROOF LIVE	20 PSF
FLAT ROOF SNOW	20 PSF + DRIFT
WIND (ASD NET UPLIFT)	15 PSF
MECHANICAL LIVE	AS SHOWN

2. ROOF CONSTRUCTION:

   3/4" NOMINAL APA RATED SHEATHING ON PRE-ENGINEERED WOOD TRUSSES OR 2x FRAMING WITH (2) PANEL CLIPS BETWEEN TRUSSES. UNLESS NOTED OTHERWISE, FASTEN SHEATHING TO SUPPORTS AS INDICATED IN THE GENERAL STRUCTURAL NOTES.

3. INDICATES SNOW DRIFT ROOF LOADING. WOOD TRUSSES ARE TO BE DESIGNED TO ACCOMMODATE ADDITIONAL LOADING.
4. INDICATES FUTURE ROOF OPENING. NOT ALL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. NOTIFY THE ARCHITECT BEFORE PROCEEDING IF OPENINGS CANNOT BE FIT BETWEEN FRAMING MEMBERS.
5. INDICATES FUTURE TENANT MECHANICAL LOAD SUPPORTED ON ROOF. COORDINATE FINAL SIZE, WEIGHT, LOCATION, AND OPENING REQUIREMENTS WITH TENANT MECHANICAL CONTRACTOR. TOLERANCE FOR LOCATION OF ACTUAL UNIT IS 3 FEET IN ANY DIRECTION FROM WHERE SHOWN ON THE STRUCTURAL DRAWINGS. WOOD TRUSSES ARE TO BE DESIGNED TO ACCOMMODATE LOADING.
6. TRUSS BEARING ELEVATION = 111'-10" UNLESS NOTED OTHERWISE. REFERENCE ELEVATION 100'-0" = TOP OF FIRST FLOOR SLAB ON GRADE.
7. SEE SHEET S100 FOR COLUMN SCHEDULE.
8. H# — INDICATES WOOD HEADER FOR WALL OPENINGS PER SCHEDULE. SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZES AND DETAILS 7/S002 AND 8/S002 FOR STANDARD HEADER CONSTRUCTION.
9. (4) — INDICATES THE NUMBER OF 2x WOOD STUDS REQUIRED TO CREATE A STUD COLUMN SUPPORT UNDER BEAM OR GIRDER BEARING. PROVIDE A MINIMUM OF (2) 2x STUDS AT ALL BEAMS AND GIRDER TRUSSES, UNLESS NOTED OTHERWISE.
10. INDICATES WOOD FRAMED SHEARWALL PER SCHEDULE.
11. SEE ARCHITECTURAL DRAWINGS FOR ANY DIMENSIONS NOT INDICATED HEREIN.
12. SEE SHEET S001 FOR GENERAL STRUCTURAL INFORMATION.

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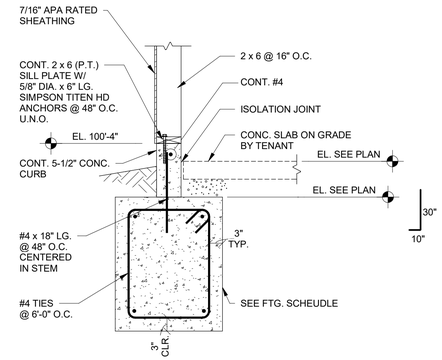
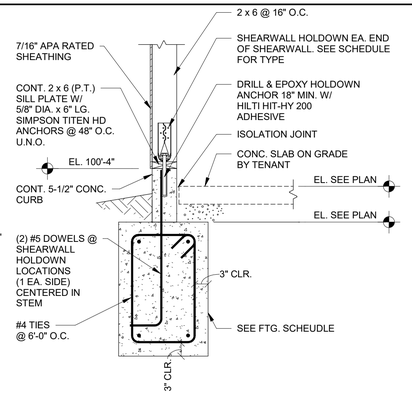
Contents:
ROOF FRAMING PLAN

S110



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



SECTION 2
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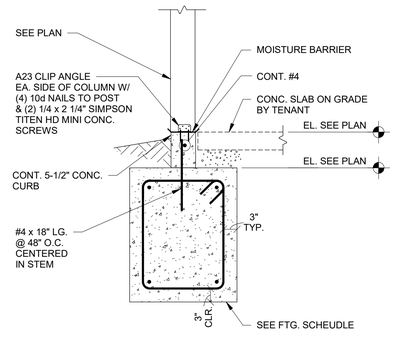

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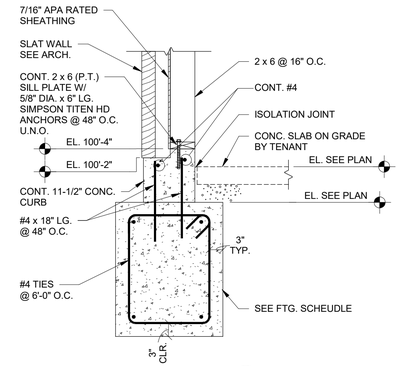
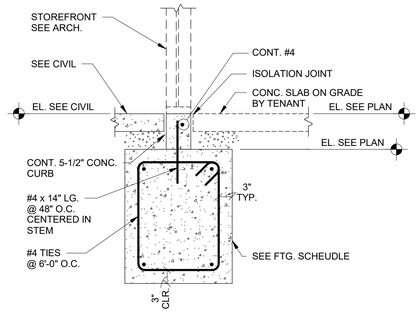


SECTION 4
3/4" = 1'-0"



SECTION 5
3/4" = 1'-0"

SECTION 6
3/4" = 1'-0"

SECTION 7
3/4" = 1'-0"

SECTION 8
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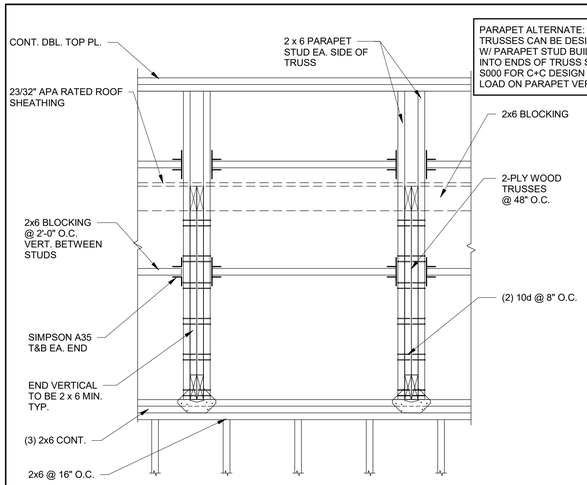
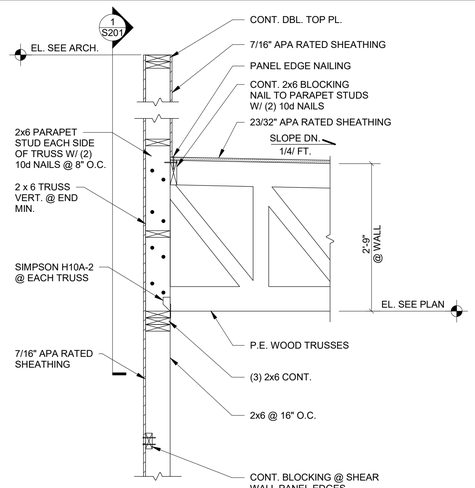
FOUNDATION DETAILS

S200



PARAPET ALTERNATE: TRUSSES CAN BE DESIGNED W/ PARAPET STUD BUILT INTO ENDS OF TRUSS SEE S000 FOR C+C DESIGN WIND LOAD ON PARAPET VERTICAL

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



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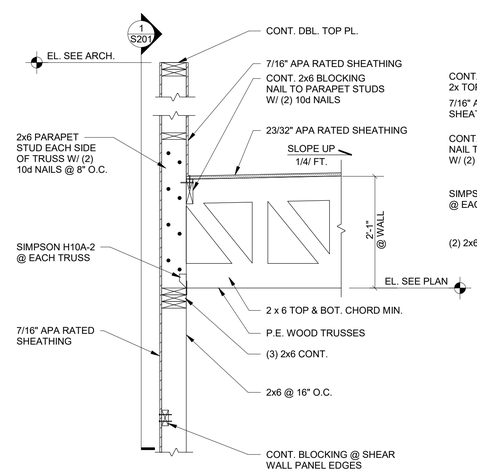

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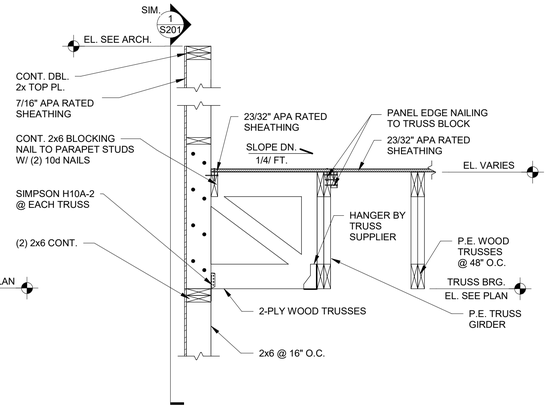
3/4" = 1'-0"



SECTION 4
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SECTION 5
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SECTION 6
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SECTION 7
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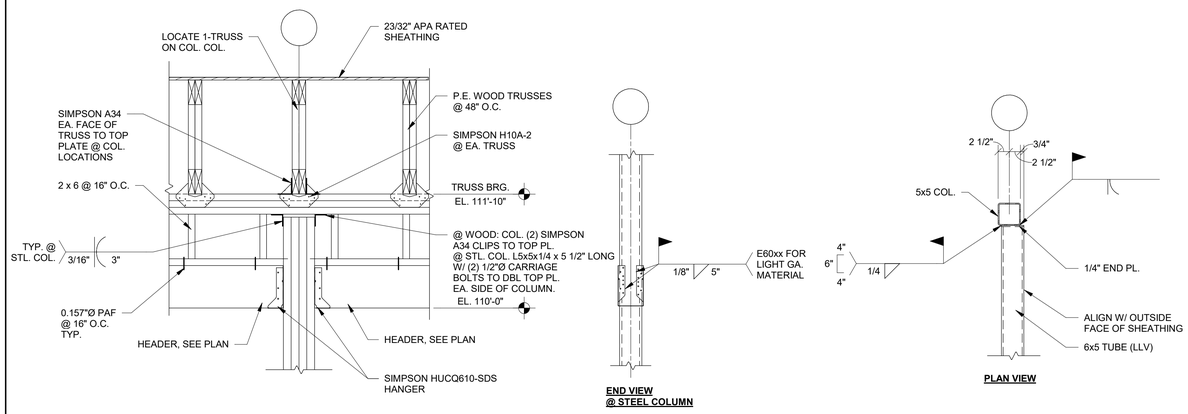
ROOF FRAMING DETAILS

S201



SECTION 1
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SECTION 2
3/4" = 1'-0"

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Contents:
FRAMING DETAILS

S202

SECTION 15055 - COMMON PIPING REQUIREMENTS
PART 1 - GENERAL
A. SECTION REQUIREMENTS
1. Comply with the requirements of the Building Code and the local authority having jurisdiction.
PART 2 - PRODUCTS
2.1 SUPPORTING DEVICES
A. Hanger and Pipe Attachments: Factory fabricated with galvanized coatings; nonmetallic coated for hangers in direct contact with copper tubing.
B. Building Attachments: Powder actuated type, drive pin attachments with pullout and shear capacities appropriate for supported loads and building materials; UL listing and FM approval for fire protection systems.
C. Mechanical Anchor Fasteners: Insert-type attachments with pullout and shear capacities appropriate for supported loads and building materials; UL listing and FM approval for fire protection systems.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install piping free of sags and bends.
B. Install fittings for changes in direction and branch connections.
C. Install sleeves for pipes passing through concrete and masonry walls, gypsum board partitions, and concrete floor and roof slabs.
D. Exterior Wall, Pipe Penetrations: Mechanical sleeve seals installed in steel or cast iron pipes for wall sleeves.
E. Fire Barrier Penetrations: Seal pipe penetrations with through-penetration firestop systems.
F. Install unions adjacent to each valve and at final connection to each piece of equipment.
G. Install dielectric unions and flanges to connect piping materials of dissimilar metals in gas piping.
H. Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals in water piping.
I. Provide full ring escutcheons at plumbing penetrations through walls or ceilings. Tightly seal escutcheons to the adjacent surface.
3.2 HANGERS AND SUPPORTS
A. Install building attachments within concrete or to structural steel. Install additional attachments at concentrated loads, including valves, flanges, guides, strainers, expansion joints, and at changes in direction of piping.
B. Install powder actuated drive pin fasteners in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches thick.
C. Install mechanical anchor fasteners in concrete after concrete is cured. Do not use in lightweight concrete or in slabs less than 4 inches thick.
D. Support fire protection system piping independent of other piping.
E. Load Distribution: Install hangers and supports so piping live and dead loading and stresses from movement will not be transmitted to connected equipment.
END OF SECTION 15055

SECTION 15080 - MECHANICAL INSULATION
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Quality Assurance: Labeled with maximum flame-spread rating of 25 and maximum smoke developed rating of 50 according to ASTM E 84.
PART 2 - PRODUCTS
2.1 PIPE INSULATION
A. Preformed Glass Fiber Pipe Insulation: ASTM C 547, Class 1, with factory applied, all purpose, vapor retarder jacket.
B. Polyolefin Pipe Insulation: Unicellular polyethylene, preformed pipe insulation. Comply with ASTM C 534, Type I, except for density.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install vapor barriers on insulated pipes with surface operating temperatures below 60 deg F.
B. Insulate fittings, valves, and specialties.
C. Seal vapor barrier penetrations for hangers, supports, anchors, and other projections.
D. Coat glass fiber pipe insulation ends with vapor barrier coating.
E. Roof Penetrations: Apply insulation for interior applications to a point even with the top of the roof flashing.
F. Exterior Wall Penetrations: For penetrations of below grade exterior walls, terminate insulation flush with mechanical sleeve seal.
G. Interior Walls and Partitions Penetrations: Apply insulation continuously through walls and partitions, except fire rated walls and partitions.
H. Fire Rated Walls and Partitions Penetrations: Terminate insulation at penetrations through fire rated walls and partitions. Seal around penetration with through penetration firestop systems.
I. Floor Penetrations: Terminate insulation at the underside of the floor assembly and at the floor support at top of floor. Seal around penetration with through penetration firestop systems.
J. Glass Fiber Insulation Installation: Bond insulation to pipe with adhesive. Seal seams and joints with vapor barrier compound.
K. Interior Piping System Applications: Insulate the following piping systems:
1. Domestic cold, hot, and recirculation water pipes.
2. Exposed sanitary drains and water supply pipes for public hand sinks.
3. Refrigerant piping.
L. Do not apply insulation to the following systems, materials, and equipment:
1. Flexible connectors.
2. Fire protection piping systems.
3. Sanitary drainage and vent piping.
4. Chrome plated pipes and fittings, except for plumbing fixtures for the disabled.
5. Piping specialties, including air chambers, unions, strainers, check valves, plug valves, and flow regulators.
M. Pipe Insulation Thickness Application Schedule: Insulate piping with the following materials and thicknesses:
1. Domestic Hot and Recirculation water pipes: 1-inch preformed glass fiber pipe insulation.
2. Domestic Cold Water: 1/2-inch preformed glass fiber pipe insulation.
3. P-Trap and Fixture Supplies for public hand sinks: ADA-compliant pre-formed insulation.
END OF SECTION 15080

SECTION 15110 - VALVES
PART 1 - GENERAL (Not Applicable)
PART 2 - PRODUCTS
2.1 GENERAL DUTY VALVES
A. End Connections: Threads shall comply with ANSI B1.20.1. Flanges shall comply with ANSI B16.1 for cast iron valves and ANSI B16.24 for bronze valves. Solder-joint connections shall comply with ANSI B16.18.
B. Ball Valves: Rated for 150 psig saturated steam pressure, 400 psig WOG pressure; 2 piece construction; with bronze body, standard (or regular) port, chrome plated brass ball, replaceable "Teflon" or "TFE" seats and seals, blowout proof stem, and vinyl covered steel handle.
C. Plug Valves: Rated at 150 psig WOG; bronze body, with straightaway pattern, square head, and threaded ends.
D. Swing Check Valves: Class 125, cast bronze body and cap; with horizontal swing, Y-pattern, and bronze disc.
E. Valves for Copper Tube: Solder ends, except provide threaded ends for heating hot water and low pressure steam service.
F. Valves for Steel Pipe: Threaded ends.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Use gate and ball valves for shutoff duty and ball for throttling duty.
B. Locate valves for easy access and provide separate support where necessary.
C. Install accessible valves for each fixture and item of equipment.
D. Install valves in horizontal piping with stem at or above center of pipe.
E. Install valves in a position to allow full stem movement.
F. Install check valves for proper direction of flow in horizontal position with hinge pin level.
END OF SECTION 15110

SECTION 15140 - DOMESTIC WATER PIPING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Performance Requirements: Unless otherwise indicated minimum pressure requirements for water piping are as follows:
1. Service Entrance Piping: 100 psig.
2. Domestic Water Piping: 80 psig.
B. Comply with NSF 14 "Plastic Piping Components and Materials."
C. Comply with NSF 61 "Drinking Water System Components -- Health Effects."
PART 2 - PRODUCTS
2.1 PIPES AND TUBES (See Material Schedule on sheet P010 for where these materials are to be used)
A. Hard Copper Tube: ASTM B 88, Types L and M, water tube, drawn temper.
2.2 FITTINGS
A. Wrought Copper, Solder Joint Pressure Fittings: ASME B 16.22.
B. Cast Copper Alloy, Solder Joint Pressure Fittings: ASME B 16.18.
C. Bronze Flanges: ASME B 16.24, Classes 150 and 300.
D. Copper Unions: ASME B 16.18, cast copper alloy body, hexagonal stock, with ball and socket joint, metal to metal seating surfaces, and solder joint, threaded, or solder joint and threaded ends. Threads complying with ASME B 1.20.1.
E. Copper and Copper Alloy Press-Connect Pressure FittingsCopper Press Fittings: ASME B16.51
2.3 JOINING MATERIALS
A. Solder Filler Metal: ASTM B 32, lead free.
B. Brazing Filler Metals: AWS A5.8, alloys to suit system requirements.
C. Solvent Cements: As recommended by manufacturer.
D. Plastic Pipe Seals: ASTM F 477, elastomeric gasket.
PART 3 - EXECUTION
3.1 VALVE APPLICATIONS
A. Install gate valves close to main on each branch and riser serving two or more plumbing fixtures or equipment connections and where indicated.
B. Install gate or ball valves on inlet to each plumbing equipment item, on each supply to each plumbing fixture not having stops on supplies, and elsewhere as indicated.
C. Install drain valve at base of each riser, at low points of horizontal runs, and where required to drain water distribution piping system.
D. Install swing check valve on discharge side of each pump and elsewhere as indicated.
E. Install ball valves in each hot water circulating loop and discharge side of each pump.
3.2 PIPING INSTALLATIONS
A. Install hangers and supports at intervals indicated in the applicable plumbing code and as recommended by pipe manufacturer.
B. Support vertical piping at each floor.
3.3 INSPECTING AND CLEANING
A. Inspect and test piping systems following procedures of authorities having jurisdiction.
B. Clean and disinfect water distribution piping following procedures of authorities having jurisdiction.
END OF SECTION 15140

SECTION 15150 - SANITARY WASTE AND VENT PIPING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Minimum Pressure Requirement for Soil, Waste and Vent: 10 feet head.
B. Comply with NSF 14 "Plastic Piping Components and Related Materials".
PART 2 - PRODUCTS
2.1 PIPES AND TUBES
A. PVC Plastic, DWV Pipe: ASTM D 2665, Schedule 40, plain ends.
2.2 FITTINGS
A. PVC Plastic, DWV Pipe Fittings: ASTM D 2665, made to ASTM D 3311; socket type; drain, waste, and vent pipe patterns.
PART 3 - EXECUTION
3.1 PIPING INSTALLATION
A. Install cleanout and extension to grade at connection of building sanitary drain and building sanitary sewer.
B. Locate drainage piping runouts as close as possible to bottom of floor slab supporting fixtures or drains.
3.2 INSPECTION
A. Inspect and test piping systems following procedures of authorities having jurisdiction.
END OF SECTION 15150

SECTION 15198 - NATURAL GAS PIPING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Quality Assurance: Comply with NFPA 54 and the Plumbing Code.
PART 2 - PRODUCTS
2.1 PIPE, TUBE, AND SPECIALTIES
A. Steel Pipe: ASTM A 53, Type S (Seamless), Grade B, Schedule 40, plain ends.
B. Fittings:
a. Malleable Iron Threaded Fittings: ASME B16.3, Class 150.
b. Cold Press Mechanical Joint Fitting System: Viega MegaPress
C. Manual Valves: Comply with standards listed or, if appropriate, to ANSI Z21.15.
D. Gas Stops: AGA certified, bronze-body, plug type with bronze plug, for 2-psig or less natural gas. Include AGA stamp, flat or square head or lever handle, and threaded ends complying with ASME B1.20.1.
E. Gas Valves: 150-psig WOG, cast-iron or bronze body, bronze plug, straightaway pattern, square head, tapered-plug type.
F. Gas Pressure Regulators: ANSI Z21.18, single stage, steel jacketed, corrosion resistant pressure regulators. Include atmospheric vent, elevation compensator. Regulator pressure ratings, inlet and outlet pressures, and flow volume in cubic feet per hour of natural gas at specific gravity are as indicated.
G. Line Gas Pressure Regulators: Inlet pressure rating not less than system pressure.
H. Flexible Connectors: ANSI Z21.24, copper alloy.
I. Strainers: Bronze body, Y-pattern, full size of connecting piping. Include stainless-steel screens with 3/64 inch perforations and a pressure rating of 125-psig- minimum, WOG working pressure.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Close equipment shutoff valves before turning off gas to premises or section of piping. Perform leakage test as specified to determine that all equipment is turned off in affected piping section.
B. Install shutoff valve, downstream from gas meter, outside building at gas service entrance.
C. Install gas stops for shutoff to appliances with NPS 2" or smaller low pressure gas supply.
D. Drips and Sediment Traps: Install drips at points where condensate may collect. Include outlets of gas meters. Locate where readily accessible to permit cleaning and emptying. Do not install where condensate would be subject to freezing.
E. Install gas piping at uniform slope of 0.1 percent upward toward risers.
F. Connect branch piping from top or side of horizontal piping.
G. Install strainers on supply side of each control valve, gas pressure regulator, solenoid valve, and elsewhere as indicated.
H. Install valves in accessible locations, protected from damage.
I. Install gas valve upstream from each gas pressure regulator. Where two gas-pressure regulators are installed in series, valve is not required at second regulator.
J. Connect gas piping to equipment and appliances with shutoff valves and unions. Install gas valve upstream from and within 36 inches of each appliance using gas. Install union or flanged connection downstream from valve.
K. Inspect, test, and purge piping according to NFPA 54, Part 4, "Gas Piping Inspection, Testing, and Purging", and requirements of authorities having jurisdiction.
END OF SECTION 15198

PLUMBING SYMBOLS

ELBOW UP
ELBOW DOWN
DOMESTIC COLD WATER
GAS
GAS (ON ROOF)
SANITARY WASTE
GREASE WASTE
SANITARY VENT
PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
CONNECT TO EXISTING
REDUCED PRESSURE ZONE BACKFLOW PREVENTER
WATER METER
GAS METER
EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET P600 FOR EQUIPMENT INFORMATION
VALVE
CLEANOUT

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
(E)	EXISTING
EXT'G	EXISTING
FCO	FLOOR CLEANOUT
GCO	GRADE CLEANOUT
GC	GENERAL CONTRACTOR

PLUMBING GENERAL NOTES

A GENERAL NOTES APPLY TO PLUMBING SHEETS.
B PLUMBING WORK SHALL BE DONE IN ACCORDANCE WITH THE PLUMBING CODE, LOCAL HEALTH DEPARTMENT STANDARDS, AND THE AUTHORITY HAVING JURISDICTION. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
C PIPING LAYOUTS ON DRAWINGS ARE SCHEMATIC. EXACT LOCATIONS ARE TO BE COORDINATED WITH THE EXISTING CONDITIONS AND THE WORK OF OTHER TRADES.
D CONCEAL PIPING UNLESS NOTED OTHERWISE. WATER SUPPLY PIPES SHALL BE INSTALLED LEVEL.
E PIPING IN EXTERIOR WALLS SHALL BE INSTALLED BETWEEN THE INSULATION AND THE INTERIOR WALL FINISHING MATERIAL.
F PLUMBING FIXTURES, ACCESSORIES, AND MATERIALS PROVIDED FOR DOMESTIC WATER SHALL BE LEAD FREE.
G THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
H PRIOR TO CONNECTION TO ANY EXISTING SEWER SYSTEM PERFORM A DIE TEST TO VERIFY THE TYPE OF SYSTEM AND THE DIRECTION OF FLOW. REPORT ANY DEVIATION FROM THE CONSTRUCTION DOCUMENTS TO THE TENANT'S CONSTRUCTION MANAGER.
I PROVIDE SANITARY AND GREASE WASTE PIPES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.

PLUMBING MATERIAL SCHEDULE

CATEGORY	APPLICATION	ALLOWABLE MATERIAL
WATER SUPPLY PIPE	ABOVE GRADE	TYPE L COPPER TUBE
NATURAL GAS PIPE	CONCEALED	SCH. 40 STEEL PIPE, MALLEABLE IRON THREADED FITTINGS
	EXPOSED	SCH. 40 STEEL PIPE, MALLEABLE IRON THREADED FITTINGS, PAINTED
SANITARY WASTE & VENT PIPE	ABOVE GROUND, CONCEALED	PVC PLASTIC DWV PIPE AND FITTINGS
	BELOW GROUND	PVC PLASTIC DWV PIPE AND FITTINGS

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Contents: PLUMBING SPECIFICATIONS

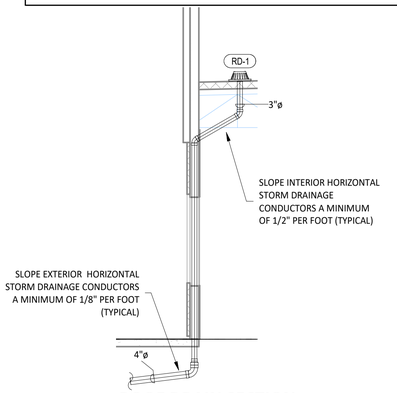
P010

PLUMBING SUPPLY PLAN NOTES

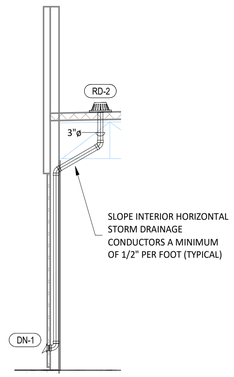
1. SEE CIVIL UTILITY PLANS FOR CONTINUATION OF WATER AND IRRIGATION LINE AND LOCATION OF WATER METER UPSTREAM.
2. PROVIDE A 1,600 MBH NATURAL GAS SERVICE TO A NEW GAS METER ON THE EXTERIOR WALL OF THE BUILDING AT THE LOCATION SHOWN. REFER TO CIVIL DRAWINGS FOR CONTINUATION OF THE GAS LINE TO THE CITY MAIN CONNECTION.
3. PROVIDE A 2-1/2" GAS LINE FROM THE GAS METER THROUGH THE EXTERIOR WALL PER DETAIL 2/THIS SHEET.
4. NATURAL GAS DELIVERY PRESSURE AFTER THE METER SHALL BE 7" W.C. PER TENANT'S WORK LETTER. PROVIDE A NATURAL GAS REGULATOR IF GAS COMPANY CANNOT SUPPLY A DELIVERY PRESSURE OF 7" W.C. TO THE BUILDING. COORDINATE A MUTUALLY AGREEABLE LOCATION FOR THE GAS PRESSURE REGULATOR WITH CHIPOTLE'S CONSTRUCTION MANAGER.
5. PROVIDE A 4" GREASE WASTE LINE WITH A MINIMUM 48" INVERT ELEVATION STUBBED INTO THE BUILDING AS SHOWN.
6. PROVIDE A 4" SANITARY SEWER LINE WITH A MINIMUM 48" INVERT ELEVATION STUBBED INTO THE BUILDING AS SHOWN. REFER TO THE CIVIL UTILITY PLANS FOR CONTINUATION OF THE SANITARY SEWER LINE TO THE MAIN CITY CONNECTION.
7. PROVIDE NEW GI-1. SEE CIVIL UTILITY PLANS FOR EXACT LOCATION OF GREASE INTERCEPTOR.
8. SEE CIVIL UTILITY PLANS FOR CONTINUATION OF SANITARY LINE.
9. PROVIDE A 2" SEWER VENT FROM THE GREASE INTERCEPTOR TO THE BUILDING AS SHOWN.
10. SEE CIVIL UTILITY PLAN FOR CONTINUATION OF 4" STORM SEWER.
11. PROVIDE 3" STORM DRAIN CONDUCTOR FROM PRIMARY ROOF DRAIN RD-1 DOWN IN WALL TO 4" STORM DRAIN BELOW GRADE. INTERIOR HORIZONTAL STORM DRAIN CONDUCTORS SHALL BE SLOPED A MINIMUM OF 1/2" PER FOOT.
12. PROVIDE 3" STORM DRAIN CONDUCTOR FROM SECONDARY ROOF DRAIN RD-2 TO DOWNSPOUT NOZZLE DN-1 MOUNTED AT 24" AFG. INTERIOR HORIZONTAL STORM DRAIN CONDUCTORS SHALL BE SLOPED A MINIMUM OF 1/2" PER FOOT.
13. PROVIDE A 1-1/2" MAIN DOMESTIC WATER SUPPLY LINE AND STUB UP INTO THE BUILDING AT THE LOCATION SHOWN. DOMESTIC WATER LINE SHALL BE CAPABLE OF DELIVERING 45 GPM AT 60 PSI TO THE BUILDING PER TENANT'S WORK LETTER REQUIREMENTS.
14. PROVIDE WATER SERVICE ENTRY PER DETAIL 3/THIS SHEET. CONTAIN ALL WATER SERVICE PIPING AND EQUIPMENT IN HATCHED AREA AS SHOWN.

PLUMBING FIXTURE SCHEDULE

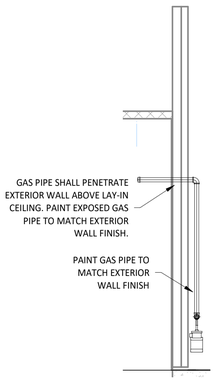
TAG	FIXTURE	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL	DESCRIPTION	QUANTITY	CONNECTION SIZES CW	CONNECTION SIZES WASTE	FIXTURE UNITS (EACH) CW	FIXTURE UNITS (TOTAL) CW
BFP-1	RPZ BACKFLOW PREVENTER	GC	GC	CONBRACO	4ALF-207	LEAD FREE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER WITH AUTOMATIC DIFFERENTIAL RELIEF VALVE AND AIR GAP FITTING	1	1 1/2"		1	1
BFP-2	RPZ BACKFLOW PREVENTER	GC	GC	CONBRACO	4ALF-205	LEAD FREE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER WITH AUTOMATIC DIFFERENTIAL RELIEF VALVE AND AIR GAP FITTING	1	1"		1	1
DN-1	DOWNSPOUT NOZZLE	GC	GC	WATTS	RD-940-NH	CAST NICKEL BRONZE DOWNSPOUT NOZZLE WITH ANCHOR FLANGE, COUNTERSUNK MOUNTING HOLES, AND NO HUB CONNECTION	2		3"		0
GI-1	GREASE INTERCEPTOR	GC	GC	CUSTOM	--	1,500 GALLON PRECAST GREASE INTERCEPTOR	1		4"		0
RD-1	ROOF DRAIN	GC	GC	WATTS	RD-103	EPOXY COATED CAST IRON ROOF DRAIN WITH FLASHING CLAMP WITH INTEGRAL GRAVEL STOP, SELF-LOCKING POLYETHYLENE DOME, AND NO HUB OUTLET	2		3"		0
RD-2	ROOF DRAIN	GC	GC	WATTS	RD-103-W	EPOXY COATED CAST IRON OVERFLOW ROOF DRAIN WITH FLASHING CLAMP WITH INTEGRAL 4 IN. (102MM) HIGH INTERNAL STANDPIPE, SELF-LOCKING POLYTHYLENE DOME, AND NO HUB OUTLET	2		3"		0
							9				2



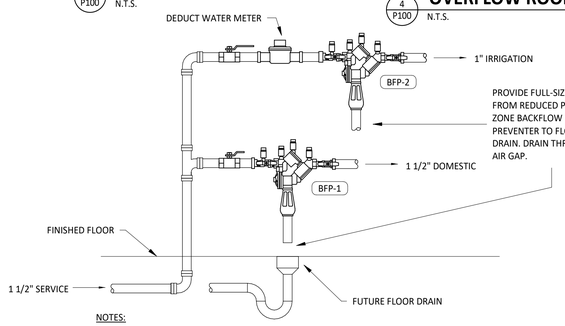
5 / P100 **ROOF DRAIN SECTION** N.T.S.



4 / P100 **OVERFLOW ROOF DRAIN SECTION** N.T.S.

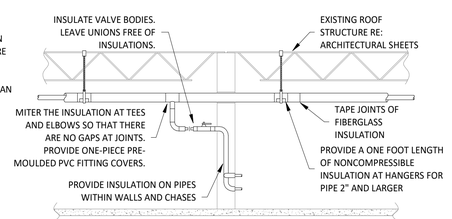


6 / P100 **GAS METER SECTION** 1/4" = 1'-0"



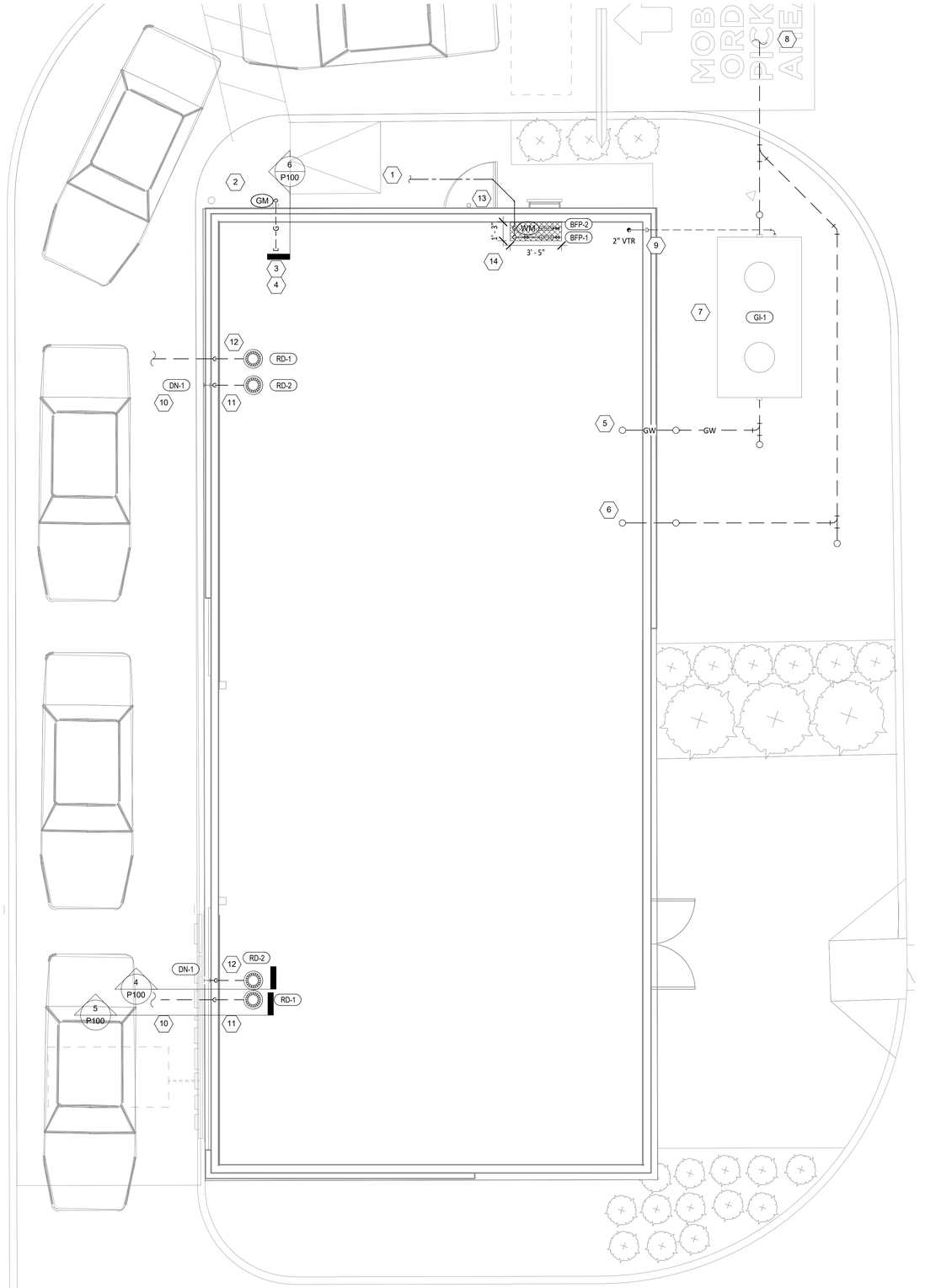
NOTES:
MAKE NECESSARY ARRANGEMENTS WITH WATER COMPANY TO INSTALL NEW WATER SERVICE PER LOCAL CODES & WATER COMPANY REGULATIONS AND PAY ALL CHARGES. SERVICE SHALL BE SIZED PER THE PLUMBING PLAN & INSTALLED IN STRICT ACCORDANCE OF WATER COMPANY REGULATIONS. ANCHOR METER, BACKFLOW PREVENTER, AND PIPING TO THE WALL OR THE FLOOR. CERTIFY THE BACKFLOW PREVENTER PER THE WATER COMPANY'S REQUIREMENTS.

3 / P100 **WATER ENTRY DETAIL** N.T.S.



PROVIDE INSULATION ON INTERIOR COLD AND HOT WATER PIPING, CONDENSATE DRAIN PIPE, AND STORM PIPE. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION REGARDING INSULATION. INSTALL ITEMS PER SPECIFICATIONS AND MANUFACTURER'S INSTRUCTIONS. MAINTAIN VAPOR BARRIER ON COLD WATER AND CONDENSATE PIPING BY MEANS OF SEALANT AND TAPE. FLAME SPREAD AND SMOKE-DEVELOPED INDEXES SHALL NOT EXCEED 25/50. SEAL EXPOSED ENDS OF FIBERGLASS INSULATION WITH ADHESIVE MASTIC. PROVIDE PREFORMED GLASS FIBER PIPE INSULATION WITH PRE-MOLDED PVC JACKETS, SLEEVES, AND FITTING COVERS ON EXPOSED WATER PIPE SO THAT EXPOSED WATER PIPE IS COVERED ENTIRELY WITH PVC INSULATION COVERS.

2 / P100 **PIPE INSULATION DETAIL** N.T.S.



1 / P100 **PLUMBING SUPPLY PLAN** 1/4" = 1'-0"

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Contents:
PLUMBING PLAN

P100

SECTION 16011 TEMPORARY & PERMANENT ELECTRICAL SERVICE
PART 1 GENERAL
1.1 DEFINITIONS
A. GFCI: Ground fault current interrupter.
B. RMS: Root Mean Square
C. SPDT: Single Pole, Double Throw
1.2 USE CHARGES
A. General: Cost or use charges for temporary facilities are not chargeable to Tenant, Architect, or Engineer and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:
1. Tenant's construction forces.
2. Occupants of Project.
3. Architect.
4. Engineer.
5. Testing agencies.
6. Personnel of authorities having jurisdiction.
B. Permanent Service: Coordinate with building Tenant and utility company to establish permanent service upon completion of the project. Contractor shall pay for all permits, aid-to-construction charges, and related fees associated with the new service.
1.3 NOTIFICATION
A. Coordinate with Tenant to provide 72 hour written notification to other tenants of any power interruptions. Notification shall state the estimated time and duration of the electrical outage.
1.4 QUALITY ASSURANCE
A. Standards: Comply with ANSI A10.6, NECA's 'Temporary Electrical Facilities," and NFPA 241.
1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
2. Electric Service: Comply with NECA, NEMA and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
3. Comply with OSHA standards and regulations.
PART 2 PRODUCTS
2.1 MATERIALS
A. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button, and pilot light.
B. Power Distribution System Circuits: Where permitted and overhead and exposed for surveillance, wiring circuits, not exceeding 125-V ac, 20-A rating, and lighting circuits may be nonmetallic sheathed cable.
C. Main panelboard with disconnect.
D. Temporary lighting.
E. 120 volt receptacles with overcurrent protection.
F. Enclosures. NEMA AB 1 and NEMA KS 1 to meet environmental conditions of installed location.
1. Outdoor Locations: NEMA 250, Type 3R.
PART 3 EXECUTION
3.1 INSTALLATION
A. Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, and overload-protected disconnecting means.
1. Install power distribution wiring overhead and rise vertically where least exposed to damage.
B. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.
1. Provide waterproof connectors to connect separate lengths of electrical power cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
2. Provide metal conduit, tubing, or metallic cable for wiring exposed to possible damage. Provide rigid steel conduits for wiring exposed on grades, floors, decks, or other traffic areas.
3. Provide metal conduit enclosures or boxes for wiring devices.
4. Provide 4-gang outlets, spaced so 1 DO-foot (30-m) extension cord can reach each area for power hand tools and task lighting. Provide a separate 125-V ac, 20-A circuit for each outlet.
C. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations and traffic conditions.
1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
2. Provide one 100-W incandescent lamp (or equivalent) every 50 feet (15 m) in traffic areas.
3. Install exterior-yard site lighting that will provide adequate illumination for construction operations, parking and traffic conditions, and signage visibility when the Work is being performed.
END OF SECTION 16011

SECTION 16060 - GROUNDING AND BONDING
PART 1 - GENERAL
1.1 SUMMARY
A. This Section includes grounding of electrical systems and equipment. Grounding requirements specified in this Section may be supplemented by special requirements of systems described in other Sections.
1.2 QUALITY ASSURANCE
A. Testing Agency Qualifications: Testing agency as defined by OSHA in 29 CFR 1910.7 or a member company of the International Electrical Testing Association and that is acceptable to authorities having jurisdiction.
1. Testing Agency's Field Supervisor: Person currently certified by the International Electrical Testing Association to supervise on-site testing specified in Part 3.
B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
1. Comply with UL 467.
PART 2 - PRODUCTS
2.1 GROUNDING CONDUCTORS
A. For insulated conductors, comply with Division 16 Section "Wiring Methods."
B. Material: Copper.
C. Equipment Grounding Conductors: Insulated with green-colored insulation.
D. Grounding Electrode Conductors: Stranded cable.
E. Bare Copper Conductors: Comply with the following:
1. Solid Conductors: ASTM B 3.
2. Assembly of Stranded Conductors: ASTM B 8.
2.2 CONNECTOR PRODUCTS
A. Comply with IEEE 837 and UL 467; listed for use for specific types, sizes, and combinations of conductors and connected items.
PART 3 - EXECUTION
3.1 APPLICATION
A. Use only copper conductors.
B. In raceways, use insulated equipment grounding conductors.
C. Equipment Grounding Conductor Terminations: Use bolted pressure clamps.
D. Grounding Bus: Install in electrical and telephone equipment rooms, in rooms housing service equipment, and elsewhere as indicated.
1. Use insulated spacer; space 1 inch from wall and support from wall 6 inches above finished floor, unless otherwise indicated.
2. At doors, route the bus up to the top of the door frame, across the top of the doorway, and down to the specified height above the floor.
3.2 EQUIPMENT GROUNDING CONDUCTORS
A. Comply with NFPA 70, Article 250, for types, sizes, and quantities of equipment grounding conductors, unless specific types, larger sizes, or more conductors than required by NFPA 70 are indicated.
3.3 INSTALLATION
A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
3.4 CONNECTIONS
A. General: Make connections so galvanic action or electrolysis possibility is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
B. Equipment Grounding Conductor Terminations: For No. 8 AWG and larger, use pressure-type grounding lugs. No. 10 AWG and smaller grounding conductors may be terminated with winged pressure-type connectors.
C. Tighten screws and bolts for grounding and bonding connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A.
D. Compression-Type Connections: Use hydraulic compression tools to provide correct circumferential pressure for compression connectors. Use tools and dies recommended by connector manufacturer. Provide embossing die code or other standard method to make a visible indication that a connector has been adequately compressed on grounding conductor.
END OF SECTION 16060

SECTION 16100 - WIRING METHODS
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Summary: Building wire and cable and associated splices, connectors, and terminations for wiring systems rated 600 V and less, and twisted-pair cable; and raceways and boxes.
PART 2 - PRODUCTS
2.1 WIRES AND CABLES
A. Connectors and Splices: Wiring connectors of size, ampacity rating, material, and type and class for application and for service indicated.
2.2 RACEWAYS
A. Wireways: Screwed cover type, with manufacturers standard finish.
B. Outlet and Device Boxes: Sheet metal boxes, except use cast-metal boxes at exterior, interior exposed, and interior damp locations.
C. Pull and Junction Boxes: Sheet metal boxes, except use nonmetallic boxes with gasketed covers at exterior and interior damp locations.
2.3 ENCLOSURES
A. Hinged-Cover Enclosures: NEMA 250, steel enclosure with continuous hinge cover and flush latch. Finish inside and out with manufacturer's standard enamel.
B. Cabinets: NEMA 250, Type 1, unless otherwise indicated.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install wires and cables according to the NECA's "Standard of Installation.
B. Wiring at Outlets: Install with at least 12 inches of slack conductor at each outlet.
C. Conceal wiring, unless otherwise indicated, within finished walls, ceilings, and floors.
D. Boxes and Enclosures: In damp or wet locations use NEMA 250, Type 4, stainless steel.
E. Use raceway fittings compatible with raceway and suitable for use and location. For intermediate metal conduit, use threaded rigid steel conduit fittings, unless otherwise indicated.
F. Raceways Embedded in Slabs: Install in middle third of the slab thickness where practical, and leave at least 1 -inch concrete cover.
G. Install exposed raceways parallel to or at right angles to nearby surfaces or structural members, and follow the surface contours as much as practical.
H. Join raceways with fittings designed and approved for the purpose and make joints tight. Use bonding bushings or wedges at connections subject to vibration. Use bonding jumpers where joints cannot be made tight. Use insulating bushings to protect conductors.
I. Install pull wires in empty raceways. Use No. 14 AWG zinc-coated steel or monofilament plastic line having not less than 200-lb tensile strength. Leave not less than 18 inches of slack at each end of the pull wire.
J. Install raceway sealing fittings where required by the NEC and at wiring entrances to refrigerated spaces. Locate at suitable, approved, accessible locations and fill them with UL-listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces.
K. Stub-up Connections for Equipment: Extend conductors to equipment with rigid metal conduit; flexible metal conduit may be used 3 inches above the floor.
L. Install a separate green ground conductor in surface metal raceway from the junction box supplying the raceway to receptacle and fixture ground terminals.
3.2 IDENTIFICATION MATERIALS AND DEVICES
A. Install at locations for most convenient viewing without interference with operation and maintenance of equipment.
B. Coordinate names, abbreviations, colors, and other designations used for electrical identification with corresponding designations indicated in the Contract Documents or required by codes and standards. Use consistent designations throughout Project.
C. Identify raceways and cables with color banding as follows:
1. Bands: Pretensioned, snap-around, colored plastic sleeves or colored encircling conduit, and place adjacent bands of two-color markings in contact, side by side.
2. Band Locations: At changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
3. Colors: As follows:
a. Telecommunication System: Green and yellow.
D. Color-code System secondary service, feeder, and branch-circuit conductors throughout the secondary electrical system as follows:

		120/208V	277/480V
1.	Phase A:	Black	Brown
2.	Phase B:	Red	Orange
3.	Phase C:	Blue	Yellow
4.	Neutral:	White	Gray
5.	Ground:	Green	Green

END OF SECTION 16100

SECTION 16140 - WIRING DEVICES
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Comply with NEMA WD 1.
C. Comply with NFPA 70.
PART 2 - PRODUCTS
2.1 DEVICES
A. General: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
B. Color: Per Material Schedule on sheet E010.
C. Receptacles: Heavy- Duty grade, NEMA WD6, Configuration 5-20R unless otherwise indicated.
D. Ground-Fault Circuit Interrupter Receptacles: integral duplex receptacle; for installation in box without an adapter. Feed-through type, with a 2-3/4-inch- deep outlet
E. Isolated-Ground Receptacles: Equipment grounding contacts connected only to the green grounding screw terminal of the device with inherent electrical isolation from mounting strap.
F. Snap Switches: Heavy-duty, quiet type.
G. Wall Plate: Per Material Schedule on sheet E010.
H. Floor Service Fittings: Modular, above-floor, dual-service units suitable for wiring method used.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install devices and assemblies plumb and secure.
B. Mount devices flush with long dimension vertical unless otherwise indicated.
C. Protect devices and assemblies during painting.
D. Install wall plates when painting is complete and paint is cured.
END OF SECTION 16140

SECTION 16442 - PANELBOARDS
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Comply with NFPA 70.
C. Comply with NEMA PB 1.
PART 2 - PRODUCTS
2.1 PANELBOARDS AND LOAD CENTERS
A. Manufacturers: Subject to compliance with requirement, provide products by one of the following:
1. Panelboards, Overcurrent Protective Devices, Controllers, Contactors, and Accessories:
a. Square D Co.
b. Eaton Corp.; Cutler-Hammer Products.
c. General Electric Co.; Electrical Distribution & Control Div.
d. Siemens Energy & Automation.
B. Recessed, NEMA PB 1, Type 1.
1. Load Center Capacity: as shown on drawings.
2. Front: Secured to box with concealed trim clamps.
3. Doors: With concealed hinges, flush catches, and tumbler locks, all keyed alike.
4. Bus: Hard drawn copper of 98 percent conductivity.
C. Molded-Case Circuit Breakers: NEMA AB 1, plug-in type, Single-handle for multipole circuit breakers. Appropriate for application, including Type SWD for repetitive switching lighting loads and Type HACR for heating, air-conditioning, and refrigerating equipment.
D. Contactors: NEMA ICS 2, Class A combination contactors.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install panelboards and accessory items according to NEMA PB 1.1. Provide typed, permantently-mounted English and Spanish circuit directories showing the panel schedules as installed in each panelboard.
B. Mounting Heights: Top of trim 74 inches above finished floor, unless otherwise indicated.
C. Future Circuit Provisions at Flush Panel boards: Stub four empty 3/4-inch conduits from panelboard into accessible or designated ceiling space.
D. Wiring in Panelboard Gutters: Arrange conductors into groups, bundle and wrap with wire ties according to NEC guidelines.
E. Tighten electrical connectors and terminals, including grounding connections, according to manufacturer's published torque-tightening values. Where manufacturer's torque values are not indicated, use those specified in UL 486A.
F. Perform visual and mechanical inspections and electrical tests stated In NETA ATS.
END OF SECTION 16442

SECTION 16500 - LIGHTING
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
B. Fixtures, Emergency Lighting Units, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
C. Coordinate ceiling-mounted luminaires with ceiling construction, mechanical work, and security and fire-prevention features mounted In ceiling space and on ceiling.
PART 2 - PRODUCTS
2.1 FIXTURES AND FIXTURE COMPONENTS, GENERAL
A. Metal Parts: Free from burrs, sharp corners, and edges. Steel, unless otherwise indicated. Form and support to prevent warping and sagging.
B. Doors, Frames, and Other Internal Access: Smooth operating, free from light leakage under operating conditions, and arranged to permit re-lamping without use of tools. Arrange doors, frames, lenses, diffusers, and other pieces to prevent accidental falling during re-lamping and when secured in operating position.
C. Lenses, Diffusers, Covers, and Globes: 100 percent virgin acrylic plastic or annealed crystal glass, unless otherwise indicated.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Set units level, plumb, and square with ceiling and walls, and secure.
B. Support for Recessed and Semirecessed Grid-Type Fluorescent Fixtures: Install ceiling support system rods or wires at a minimum of 4 rods or wires for each fixture, located not more than 6 inches from fixture corners.
C. Support for Suspended Fixtures: Support according to manufacturers' recommendations.
D. Lamping: Where specific lamp designations are not indicated, lamp units according to manufacturer's written instructions.
END OF SECTION 16500

ELECTRICAL MATERIAL SCHEDULE

CATEGORY	APPLICATION	ALLOWABLE MATERIAL
CONDUCTORS	#10 AWG AND SMALLER	SOLID CU, TYPE THHN/THWN OR XHHW
	#8 AWG AND LARGER	STRANDED CU, TYPE THHN/THWN OR XHHW
CONDUITS	INDOOR, EXPOSED	ELECTRICAL METALLIC TUBING U.N.O.
	INDOOR, WITHIN 1-1/2" OF ROOF DECK	INTERMEDIATE METAL CONDUIT
	INDOOR, CONCEALED ABOVE GRADE	ELECTRICAL METALLIC TUBING, FLEXIBLE METAL CONDUIT, OR METAL CLAD CABLE
	CONNECTION TO VIBRATING EQUIPMENT (EXPOSED WET OR DAMP LOCATIONS)	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
	CONNECTION TO VIBRATING EQUIPMENT (EXPOSED INDOOR DRY LOCATIONS)	FLEXIBLE METAL CONDUIT
	OUTDOOR, ABOVE GRADE, EXPOSED OR CONCEALED	INTERMEDIATE METAL CONDUIT
	LOW VOLTAGE, INDOOR, ABOVE GRADE	ELECTRICAL METALLIC TUBING
	LOW OR LINE VOLTAGE, BELOW GRADE	RIGID NONMETALLIC CONDUIT (SCHEDULE 40 PVC)
WIRING DEVICES	IN KITCHEN, OFFICE, OR NON-PUBLIC SPACES	GRAY DEVICE WITH STAINLESS STEEL COVER PLATE
	IG OR IG/GFI RECEPTACLES	GRAY DEVICE WITH STAINLESS STEEL COVER PLATE
	ON DRYWALL IN DINING ROOM	WHITE DEVICE WITH WHITE COVER PLATE
	ON HOT ROLLED STEEL, RICHLITE, OR OTHER BLACK FINISHES	BLACK DEVICE WITH BLACK COVER PLATE
	IN RESTROOMS	WHITE DEVICE WITH WHITE COVER PLATE

ELECTRICAL SYMBOLS

- CONDUIT CONCEALED ABOVE THE CEILING, IN A WALL, OR IN A RACEWAY
- CONDUIT CONCEALED BELOW THE SLAB
- A-6 — HOME-RUN TO PANELBOARD AND CIRCUIT NUMBER SHOWN
- # — PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
- X/Y/Z — DISCONNECT SWITCH: X = SWITCH RATING; Y = FUSE SIZE (NF = NON-FUSED); Z = NUMBER OF POLES
- JUNCTION BOX
- ELECTRIC PANELBOARD
- NEMA 5-20R 1-PLEX RECEPTACLE
- NEMA 5-20R DUPLEX RECEPTACLE
- OTHER RECEPTACLE - SEE PLAN FOR RATING AND TYPE

ELECTRICAL GENERAL NOTES

A GENERAL NOTES APPLY TO ELECTRICAL SHEETS.
B ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE ELECTRICAL CODE AND IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
C WIRING SHALL BE (2)#12, #12 G IN 3/4" C UNLESS NOTED OTHERWISE.
D INDIVIDUAL CONDUIT HOME RUNS SHOWN SHALL NOT BE CONSOLIDATED.
E INSTALL CONDUIT CONCEALED ABOVE THE CEILING, IN WALLS, OR IN RACEWAYS.
F THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
(E)	EXISTING
EXT'G	EXISTING
G	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPT
IG	ISOLATED GROUND
JB	JUNCTION BOX
GC	GENERAL CONTRACTOR

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SOUTH LEE'S SUMMIT CMG SHELL
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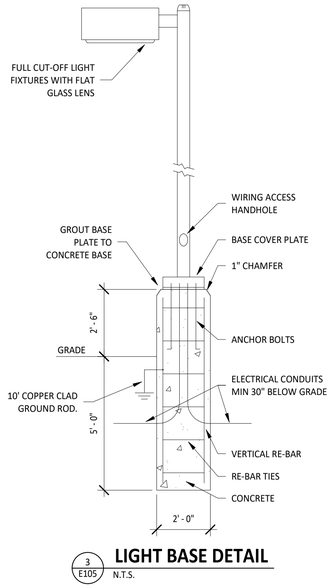
Contents:
ELECTRICAL SPECIFICATIONS

E010



3 E105 **LIGHT BASE DETAIL**
N.T.S.

SITE LIGHTING FIXTURE SCHEDULE

TAG	QUANTITY	NUM. OF FIXTURES PER POLE	LAMP WATTAGE & TYPE	VOLTAGE	DISTRIBUTION	COLOR	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL #	OPTIONS & ACCESSORIES	POLE TYPE	POLE SIZE	POLE HEIGHT	POLE COLOR	POLE MANUFACTURER	POLE MODEL #
PL1	3	1	(1) 205W LED	120 V	TYPE IV	DARK BRONZE	GC	GC	HUBBELL	CIMARRON CL1-90L-5K-2	LAMP	ROUND STRAIGHT STEEL	4"	25' - 0"	DARK BRONZE	HUBBELL	SSS-25-40-100
PL2	1	2	(1) 205W LED	120 V	TYPE IV	DARK BRONZE	GC	GC	HUBBELL	CIMARRON CL1-90L-5K-4	LAMP	ROUND STRAIGHT STEEL	4"	25' - 0"	DARK BRONZE	HUBBELL	SSS-25-40-100

LIGHTING FIXTURE SCHEDULE

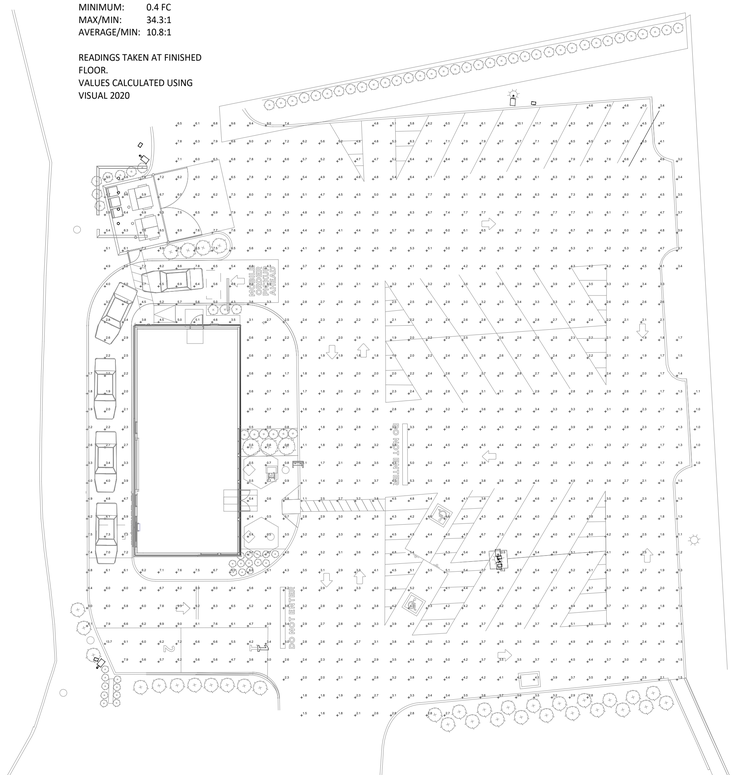
TAG	QUANTITY	TYPE	MOUNT	FURNISHED BY	INSTALLED BY	MANUFACTURER	MODEL	LAMP(S)	VOLTS	WATTS	SPECIAL REQUIREMENTS
E2	1	EXTERIOR REMOTE EMERGENCY LIGHT	VARIOUS	TLS	GC	EXITRONIX	CLED-BL-WP WITH PMC-B-1 MOUNTING PLATE	(1) SPECIAL LED	4	1	LOW VOLTAGE REMOTE EMERGENCY LIGHT POWERED BY REMOTE-CAPABLE EXIT SIGN
E4	2	WHITE EXIT SIGN WITH EMERGENCY LIGHT - STANDARD RED LETTERS	VARIOUS	TLS	GC	EXITRONIX	CLED-U-WH	(1) SPECIAL LED	120	2	90 MINUTE BATTERY BACKUP WITH INTEGRAL EMERGENCY LIGHT, REMOTE HEAD CAPABLE
X9	4	LED CHANNEL LIGHT	SURFACE	TLS	GC	PARADIGM LED	AMC-2410-S W/ OPAL LENS AND END CAPS	FLEXSR-45-30-67-24	120		FURNISHED W/ REMOTE-MOUNTED NEMA 3R LED DRIVER. SEE PLAN FOR LENGTHS.

ELECTRICAL SITE LIGHTING PLAN NOTES

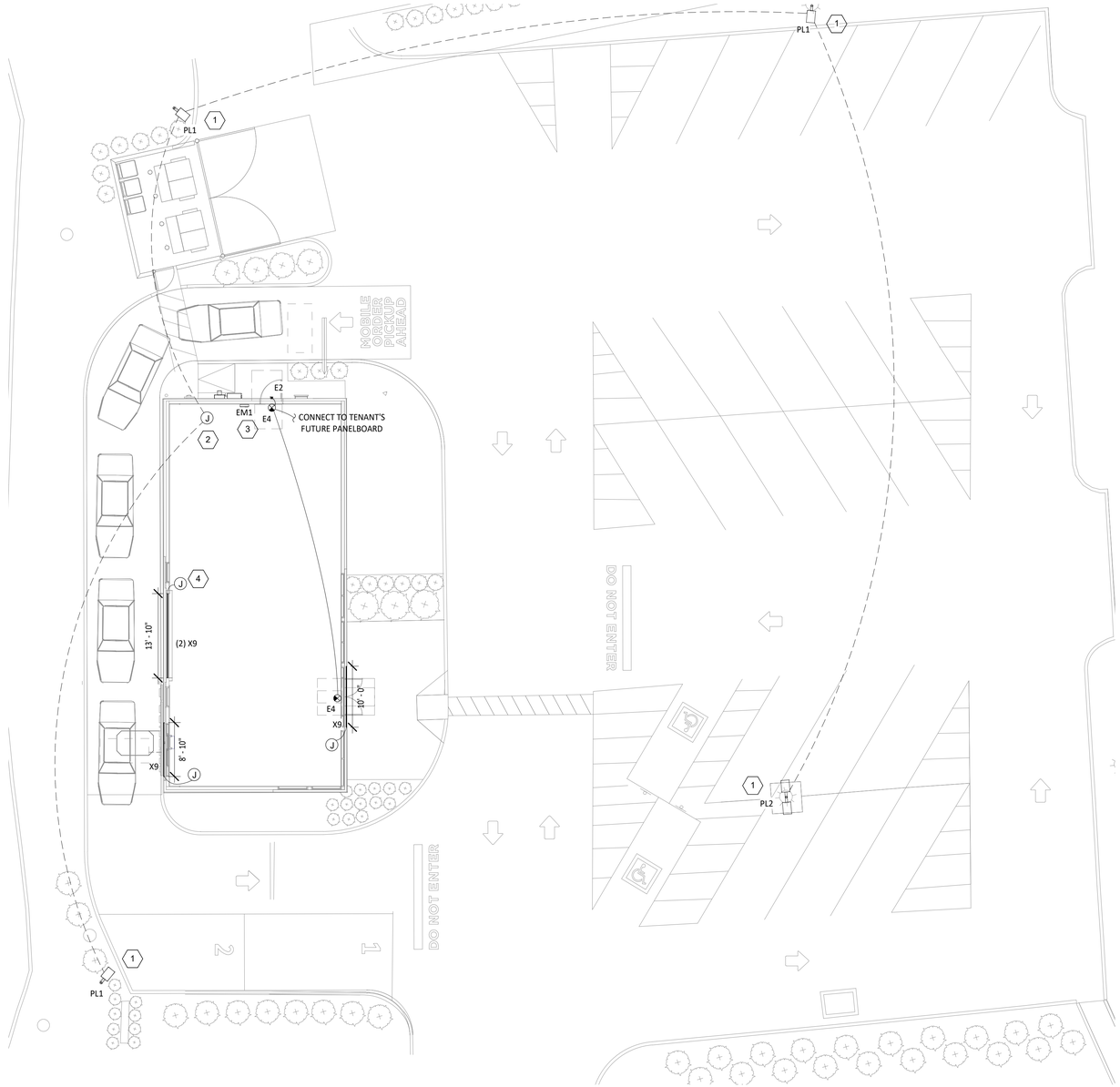
1 PROVIDE SITE LIGHTING PER DETAIL 3/THIS SHEET. TYPICAL.
2 PROVIDE TWO JUNCTION BOXES NEAR FUTURE ELECTRICAL PANEL FOR EXTERIOR LIGHTING CONNECT BY TENANT. PARKING LOT LIGHTS SHALL BE ROUTED TO ONE JUNCTION BOX, THE BUILDING MOUNTED LIGHTS SHALL BE ROUTED TO A SECOND JUNCTION BOX.
3 PROVIDE DUAL-LITE LG125S EMERGENCY LIGHTING MINI INVERTER, EM1, ON WALL 9'-6" AFF. CONNECT X9 FIXTURES OVER DOORS TO EMERGENCY INVERTER.
4 PROVIDE X9 EXTERIOR LIGHT FIXTURE PER THE LIGHTING FIXTURE SCHEDULE. REFER TO TENANT'S ARCHITECTURAL DRAWINGS FOR THE EXACT INSTALLATION LOCATION. WIRING FROM THE LIGHT FIXUTRE TO THE LED DRIVER SHALL BE INSTALLED BY THE TENANT'S GC.

SITE LIGHTING INFORMATION:
AVERAGE: 4.3 FC
MAXIMUM: 13.7 FC
MINIMUM: 0.4 FC
MAX/MIN: 34.3:1
AVERAGE/MIN: 10.8:1

READINGS TAKEN AT FINISHED FLOOR.
VALUES CALCULATED USING VISUAL 2020



2 E105 **SITE PHOTOMETRIC PLAN**
1" = 20'-0"



1 E105 **SITE LIGHTING PLAN**
3/32" = 1'-0"

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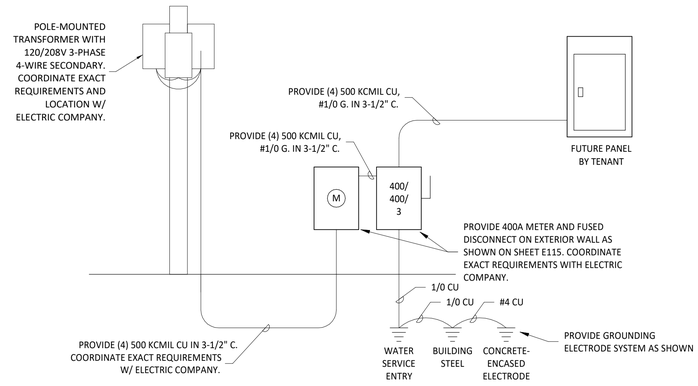
ELECTRICAL SITE LIGHTING PLAN

E105

ELECTRICAL POWER PLAN NOTES

1. PROVIDE A 1" CONDUIT FOR THE VEHICLE DETECTION LOOP AT THIS LOCATION PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHIECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE VEHICLE DETECTION LOOP.
2. PROVIDE INTERIOR J-BOXES AT 11'-0" AFF FOR LINE VOLTAGE AND LOW VOLTAGE SITE WIRING AT THIS LOCATION. SEE DETAIL 2/THIS SHEET FOR MORE INFORMATION.
3. PROVIDE A 1" CONDUIT FOR THE ANNOUNCE BOARD AT THIS LOCATION PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHIECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE ANNOUNCE SIGN.
4. PROVIDE SERVICE CONDUCTORS PER DETAIL 3/THIS SHEET FROM THE 400A MAIN DISCONNECT SWITCH TO TENANT'S FUTURE PANELBOARD LOCATION AS SHOWN. COORDINATE FINAL PANELBBOARD LOCATION WITH TENANT'S CONSTRUCTION MANAGER PRIOR TO ROUGH IN.
5. PROVIDE A 1" CONDUIT FOR THE CLEARANCE BAR AT THIS LOCATION PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE CLEARANCE BAR.
6. PROVIDE A 1" CONDUIT FOR THE MONUMENT SIGN AT THIS LOCATION PER DETAIL 2/THIS SHEET. SEE TENANT'S ARCHIECTURAL DRAWINGS FOR THE EXACT LOCATION OF THE MONUMENT SIGN.
7. PROVIDE A 1" SPARE LOW VOLTAGE CONDUIT AT THIS LOCATION. SEE DETAIL 2/THIS SHEET FOR MORE INFORMATION.
8. PROVIDE A 1" SPARE LINE VOLTAGE CONDUIT AT THIS LOCATION. SEE DETAIL 2/THIS SHEET FOR MORE INFORMATION.
9. PROVIDE A NEW POLE-MOUNTED TRANSFORMER WITH 120/208V 3-PHASE, 4-WIRE SECONDARY. COORDINATE EXACT REQUIREMENTS AND LOCATION W/ELECTRIC COMPANY. SEE CIVIL UTILITY DRAWINGS FOR POWER LINE CONTINUATIONS.
10. PROVIDE TWO 2" CONDUITS FROM TELEPHONE DEMARCATION POINT TO OFFICE. REFER TO THE CIVIL UTILITY PLANS FOR CONTINUATION OF CONDUIT AND EXACT LOCATION OF THE TELEPHONE DEMARCATION. COORDINATE TELEPHONE CONDUIT STUB-IN LOCATION WITH TENANT'S CONSTRUCTION MANAGER.



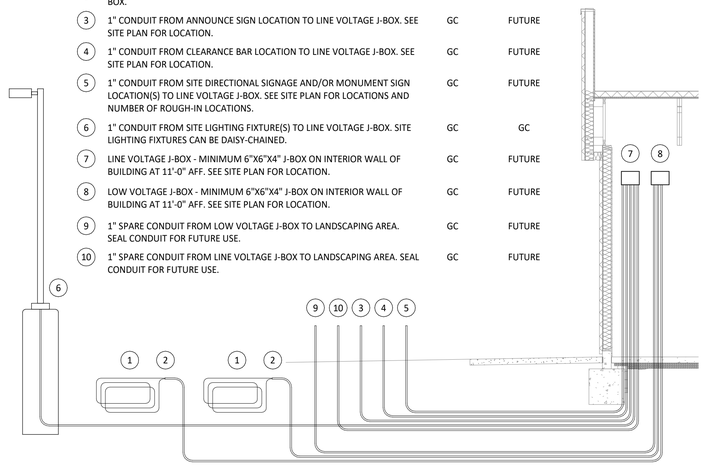
3 E115 MAIN DISTRIBUTION DIAGRAM

N.T.S.

TAG	DESCRIPTION	RESPONSIBILITY: DEVICE OR CONDUIT	RESPONSIBILITY: CONNECTION OR CONDUCTORS
1	VEHICLE DETECTOR LOOP - 6'x4' WITH 4 TURNS (EMX PR-46-XX). VERIFY LENGTH OF LEAD-IN WIRE PRIOR TO ORDERING TO ALLOW WIRE TO REACH VEHICLE DETECTOR WITHOUT SPLICING. SEE SITE PLAN FOR LOCATIONS.	FUTURE	FUTURE
2	1" CONDUIT FROM VEHICLE DETECTOR LOOP LOCATION TO LOW VOLTAGE J-BOX.	GC	FUTURE
3	1" CONDUIT FROM ANNOUNCE SIGN LOCATION TO LINE VOLTAGE J-BOX. SEE SITE PLAN FOR LOCATION.	GC	FUTURE
4	1" CONDUIT FROM CLEARANCE BAR LOCATION TO LINE VOLTAGE J-BOX. SEE SITE PLAN FOR LOCATION.	GC	FUTURE
5	1" CONDUIT FROM SITE DIRECTIONAL SIGNAGE AND/OR MONUMENT SIGN LOCATION(S) TO LINE VOLTAGE J-BOX. SEE SITE PLAN FOR LOCATIONS AND NUMBER OF ROUGH-IN LOCATIONS.	GC	FUTURE
6	1" CONDUIT FROM SITE LIGHTING FIXTURE(S) TO LINE VOLTAGE J-BOX. SITE LIGHTING FIXTURES CAN BE DAISY-CHAINED.	GC	GC
7	LINE VOLTAGE J-BOX - MINIMUM 6"X6"X4" J-BOX ON INTERIOR WALL OF BUILDING AT 11'-0" AFF. SEE SITE PLAN FOR LOCATION.	GC	FUTURE
8	LOW VOLTAGE J-BOX - MINIMUM 6"X6"X4" J-BOX ON INTERIOR WALL OF BUILDING AT 11'-0" AFF. SEE SITE PLAN FOR LOCATION.	GC	FUTURE
9	1" SPARE CONDUIT FROM LOW VOLTAGE J-BOX TO LANDSCAPING AREA. SEAL CONDUIT FOR FUTURE USE.	GC	FUTURE
10	1" SPARE CONDUIT FROM LINE VOLTAGE J-BOX TO LANDSCAPING AREA. SEAL CONDUIT FOR FUTURE USE.	GC	FUTURE

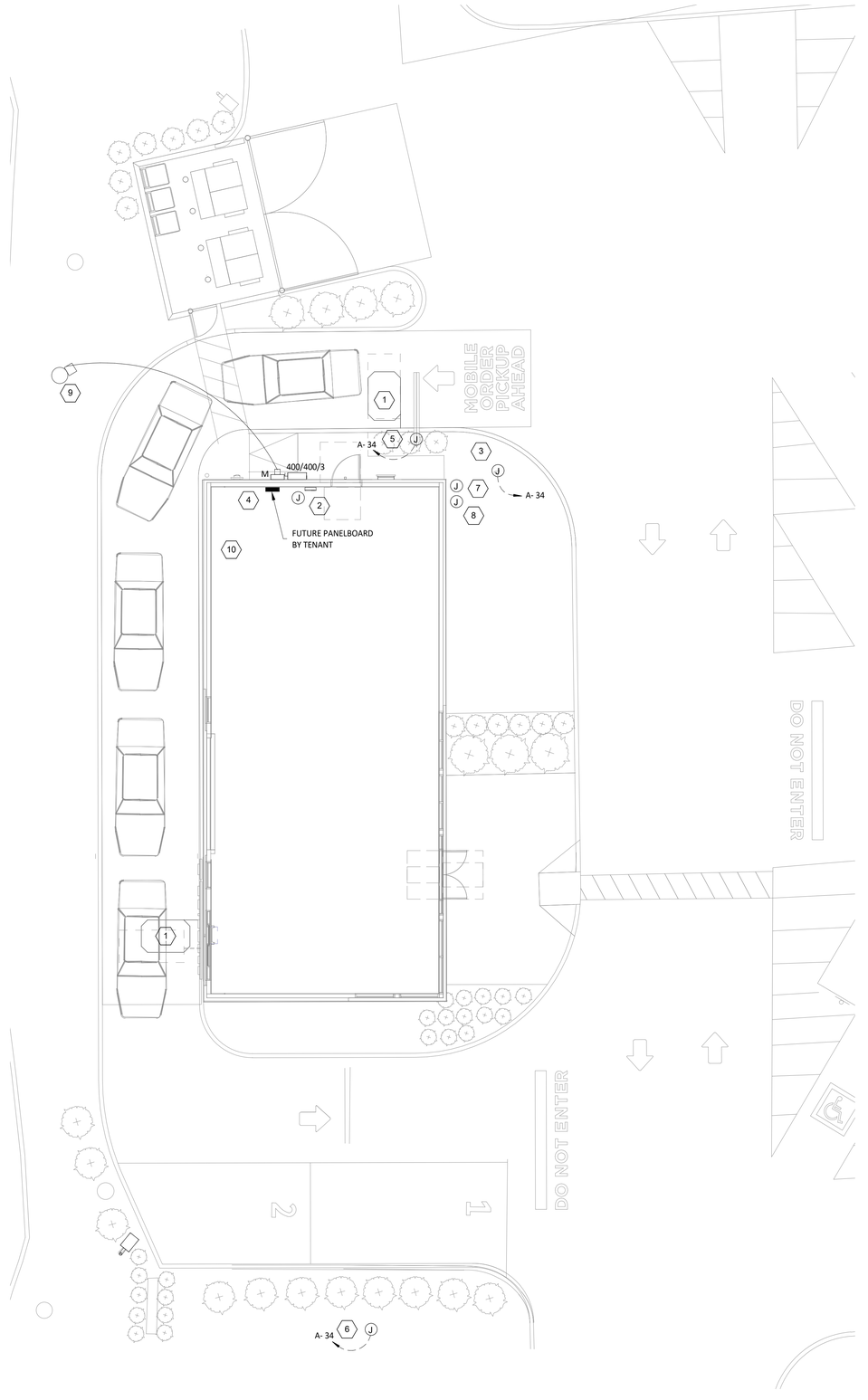
GENERAL NOTES

A. WORK AND MATERIALS SHALL BE COMPLIANT WITH THE NEC AND REQUIREMENTS OF THE AHJ.
B. CONDUCTORS AND CONNECTIONS BELOW GRADE, EVEN WHERE WITHIN CONDUITS OR ENCLOSURES, SHALL BE SUITABLE FOR WET LOCATIONS.
C. PROVIDE PULL STRING IN EMPTY CONDUITS.
D. SEAL ENDS OF CONDUITS STUBBED UP ABOVE GRADE TO PROTECT FROM THE ELEMENTS.



2 E115 SITE CONDUIT DETAIL

N.T.S.



1 E115 POWER SITE PLAN

1/8" = 1'-0"

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