BUILDING CODE ANALYSIS

APPLICABLE CODES
2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2017 NATIONAL ELECTRICAL CODE
2009 ICC/ANSI A117.1

SUMMARY OF WORK
NEW SHELL BUILDING. NO C.O. IS REQUESTED WITH THIS SUBMITTAL, JUST A FINAL INSPECTION. SEPARATE TENANT FINISH PLANS WILL BE SUBMITTED AT A LATER DATE.

OCCUPANCY CLASSIFICATION
M (RETAIL), (B) OFFICE, A2 (RESTAURANT)

TYPE OF CONSTRUCTION
V-B, NON - SPRINKLED

FLOOR AREA
TOTAL BUILDING AREA: 4,818 SQ.FT.

OCCUPANT LOAD
TO BE DETERMINED

EXITS REQUIRED
TO BE DETERMINED

EXITS PROVIDED
EIGHT

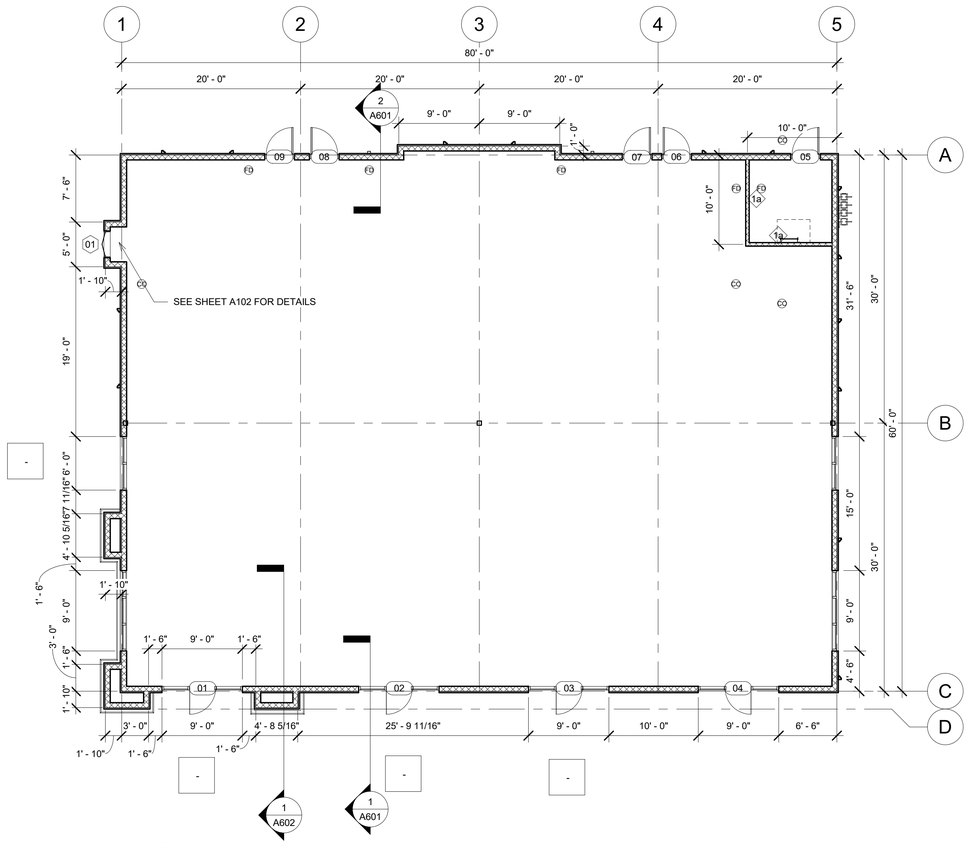
TOILET FACILITIES REQUIRED
TO BE DETERMINED

TOILET FACILITIES PROVIDED
NONE WITH SHELL. TENANT FINISH PLANS WILL SHOW ANY TOILET FACILITIES.

DEFERRED SUBMITTALS TO BE COMPLETED BY OTHERS
ROOF TRUSS PLANS (PLANS BY SUBCONTRACTOR)

EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. (THUMBTURN IS ACCEPTABLE)

PREMISES SHALL BE IDENTIFIED ON ALL EXTERIOR DOORS, WITH NUMBERS AND/OR LETTERS. EACH CHARACTER SHALL BE NOT LESS THAN 6" HIGH WITH A MINIMUM STROKE WIDTH OF 1.0" INCHES. THEY SHOULD BE INSTALLED ON A CONTRASTING BACKGROUND. STREET FACING DOORS SHALL HAVE ADDRESSES THAT ARE PLAINLY LEGIBLE AND VISIBLE FROM THE STREET FRONTING THE PROPERTY. ADDRESS NUMBERS AND/OR LETTERS SHALL BE ARABIC NUMBERS OR ALPHABETIC LETTERS.



1 Floor Plan
1/8" = 1'-0"

Wall Schedule		
Type Mark	Type	Type Comments
1a	Interior Partition - Wood Stud	2x6 Wood studs @ 16" o.c. w/ 6" batt insulation and (1) layer 5/8" gyp. board each side. To roof deck

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NEW BUILDING FOR
DOUGLAS ROAD CENTER Lot 3
NE VICTORIA DRIVE & NE DOUGLAS ST.

J.Jeffry Schroeder Mo. Licence A-4226
Herman Scharhag Co., Arch. Cert. of Authority A-22

STATE OF MISSOURI
J. JEFFRY SCHROEDER
NUMBER A-4226
REGISTERED ARCHITECT
8/20/21

No.	Description	Date
	Revision Schedule	

Floor Plan

Project number	2222
Date	08.20.2021

A101

Scale 1/8" = 1'-0"

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Door Schedule					
Mark	Family	Type	Door Finish	Frame Finish	Hardware type
01	Storefront Entry Single	Store Front Single Door	AL	AL	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
02	Storefront Entry Single	Store Front Single Door	AL	AL	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
03	Storefront Entry Single	Store Front Single Door	AL	AL	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
04	Storefront Entry Single	Store Front Single Door	AL	AL	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
05	Single-Flush Door	36" x 84" Exterior	HM	HM	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
06	Single-Flush Door	36" x 84" Exterior	HM	HM	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
07	Single-Flush Door	36" x 84" Exterior	HM	HM	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
08	Single-Flush Door	36" x 84" Exterior	HM	HM	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep
09	Single-Flush Door	36" x 84" Exterior	HM	HM	Lockset w/ lever handles, strike plate, 1 1/2 pair hinges, closer, drip cap, gasketing, bottom sweep

HM = 16 GA. HOLLOW METAL, PAINTED
WD = SOLID CORE RED OAK, STAINED
AL = ANODIZED ALUMINUM
IRP = IMPACT RESISTANT PLASTIC

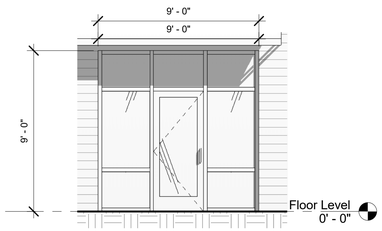
HARDWARE SHALL BE MEDIUM DUTY COMMERCIAL GRADE. DOOR HARDWARE SHALL CONSIST OF BUTTS, LATCHSET OR LOCKSET, SILENCERS, SMOKE GASKETING FOR RATED DOORS, CLOSERS WHERE NOTED, PANIC DEVICES WHERE NOTED. EXTERIOR DOORS SHALL ALSO HAVE THRESHOLD, WEATHERSTRIPPING, SWEEP AND KEYED LOCK. CONTRACTOR SHALL COORDINATE ALL LATCH/LOCK FUNCTIONS AND KEYING OF LOCKS WITH OWNER. MAX. THRESHOLD = 1/2". ALL HARDWARE TO BE LEVER TYPE OR PUSH/PULL. ALL DOORS IN EGRESS PATHWAYS SHALL BE FREE TURNING FOR EXITING. ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. FURTHER, ALL EGRESS DOORS FROM ROOMS AND EXTERIOR EGRESS DOORS, FOR GROUP A AND GROUP E OCCUPANCIES SHALL NOT HAVE A LOCK OR LATCH OTHER THAN PANIC HARDWARE. ALL DOOR THRESHOLDS SHALL BE A MAX. OF ½" ABOVE FLOOR LEVEL AND BOTH SIDES SHALL BE BEVELED AT A SLOPE OF 1:2. SCHLAGE OR EQUAL STANDARD DUTY HARDWARE (SATIN CHROME) WITH LEVERS.

GLASS IN DOORS AND SIDELIGHTS SHALL BE SAFETY GLASS PER IBC SEC. 2406.1

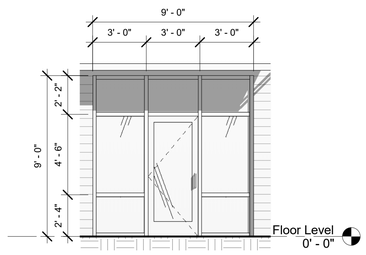
Window Schedule					
Type Mark	Type	Height	Width	Sill Height	Count
01	Drive up Sliding window	6' - 0"	3' - 0"	2' - 6"	1

ALL ALUMINUM ENTRY DOORS TO BE KAWNEER NARROW STYLE 250, SINGLE ACTING, WITH WEATHERSTRIPPING, LCN 4041 CLOSER, MAX. 1/2" THRESHOLD, TYPE 'B' PUSH/PULL AND 1/4" CLEAR TEMPERED DOOR GLASS. DOOR #009 SHALL HAVE HAGAR 4500 SERIES WITH 45NL ARC US26D AND SHALL HAVE EXTERIOR KEYED ACCESS. DOORS FOR THE WEST BUILDING SECTION, THE CENTER BUILDING SECTION AND THE EAST BUILDING SECTION SHALL ALL HAVE DIFFERENT KEYING FOR THREE DIFFERENT TENANTS. DOOR #006 SHALL BE KEYED FOR A FOURTH TYPE OF KEY.

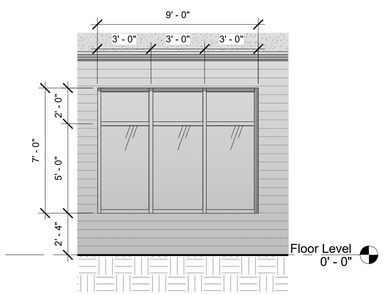
ALL ALUMINUM STOREFRONT AND ENTRY FRAMING WILL BE KAWNEER DARK BRONZE TRIFAB VERSAGLAZE 451T FRAMING SYSTEM WITH 1" INSULATED CLEAR GLAZING. ALL GLAZING WITHIN 18" OF FLOOR OR WITHIN 18" OF ANY DOOR SHALL BE TEMPERED GLAZING



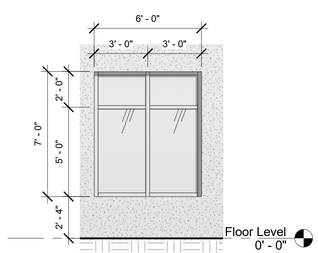
3 East Elevation - Callout 1
1/4" = 1'-0"



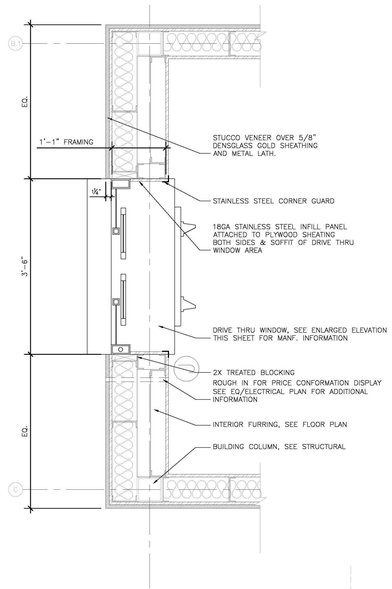
4 East Elevation - Callout 2
1/4" = 1'-0"



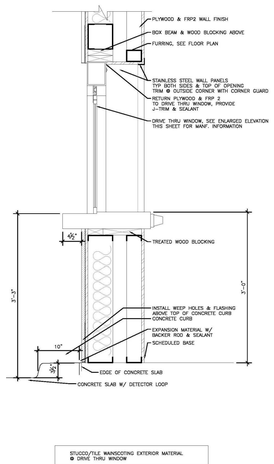
5 North Elevation - Callout 1
1/4" = 1'-0"



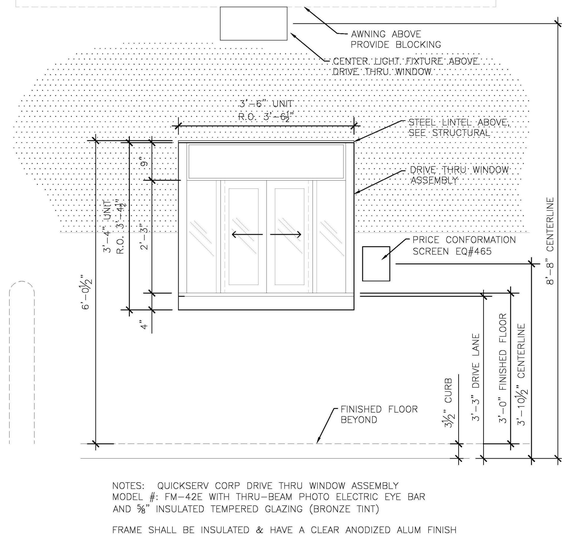
6 North Elevation - Callout 2
1/4" = 1'-0"



GENERAL CONTRACTOR TO COORDINATE MOUNTING HEIGHTS OF BLOCKING FOR AWNINGS/SIGNAGE/GOOSENECK FIXTURES WITH SIGNAGE VENDOR AND ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION



STUCCO/TILE WAINSCOTING EXTERIOR MATERIAL @ DRIVE THRU WINDOW



NOTES: QUICKSERV CORP DRIVE THRU WINDOW ASSEMBLY
MODEL #: FM-42E WITH THRU-BEAM PHOTO ELECTRIC EYE BAR AND ⅝" INSULATED TEMPERED GLAZING (BRONZE TINT)

FRAME SHALL BE INSULATED & HAVE A CLEAR ANODIZED ALUM FINISH

1 Drive Up window Detail
1/2" = 1'-0"

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NEW BUILDING FOR
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Herman Scharhag Co., Arch. Cert. of Authority A-22

STATE OF MISSOURI
J. JEFFREY SCHROEDER
NUMBER A-4226
8/20/21
REGISTERED ARCHITECT

No.	Description	Date
	Revision Schedule	

Architectural Details

Project number	2222
Date	08.20.2021

A102

Scale As indicated

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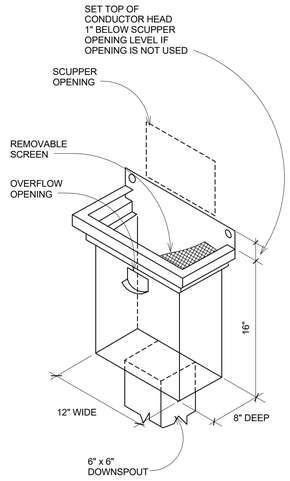
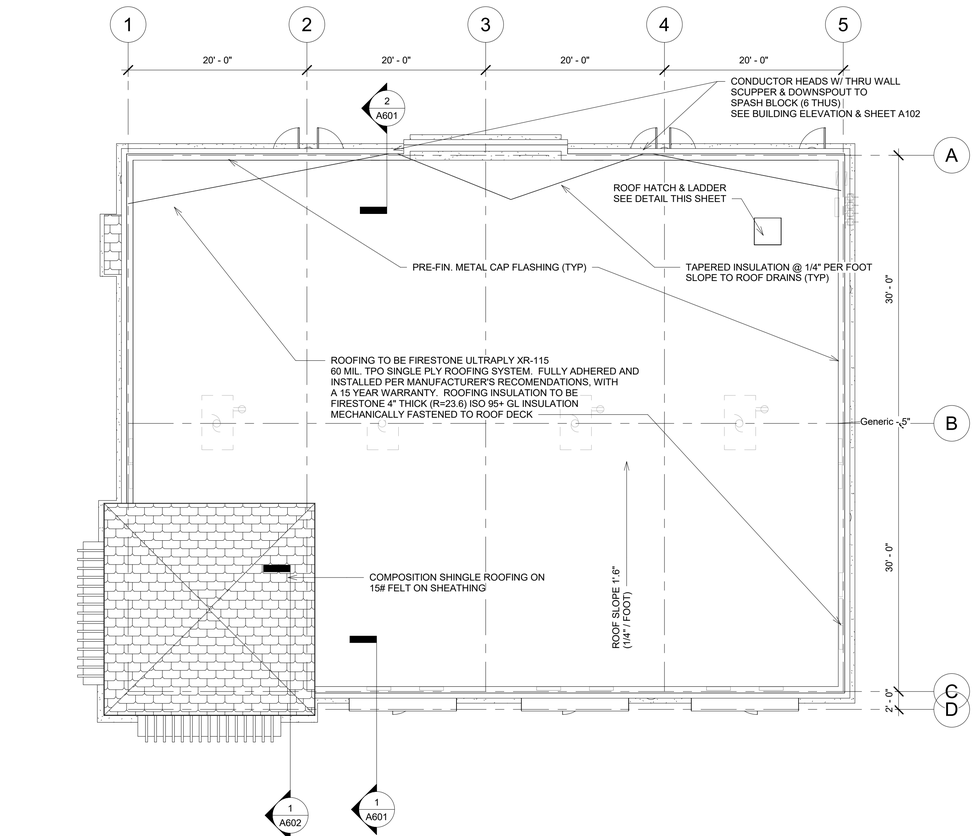


NOTE:

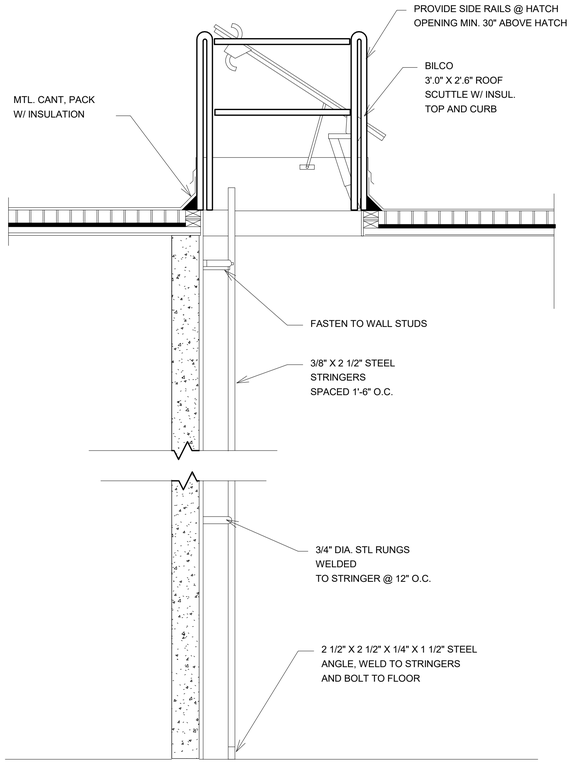
CONDUCTOR HEADS AND DOWNSPOUTS SHOULD BE FABRICATED OF 24 GA. PRE-FINISHED METAL

SCUPPER DETAIL AT PARAPET WALL

NOT TO SCALE



2 Roof Plan
1/8" = 1'-0"



ALL ROOF PARAPETS ARE MIN. 30" ABOVE ROOF AND WILL ACT AS FALL PROTECTION.

3 Roof hatch w/ guard rail
1" = 1'-0"

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STATE OF MISSOURI
J. JEFFREY SCHROEDER
NUMBER A-4226
8/20/21
REGISTERED ARCHITECT

No.	Description	Date
	Revision Schedule	

Roof Plan

Project number	2222
Date	08.20.2021

A103

Scale: As indicated

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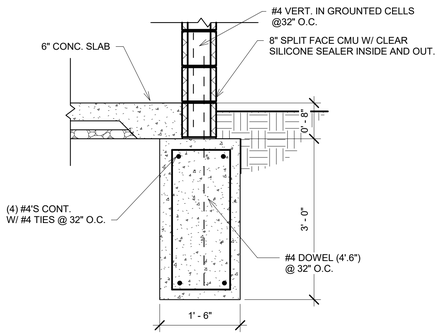
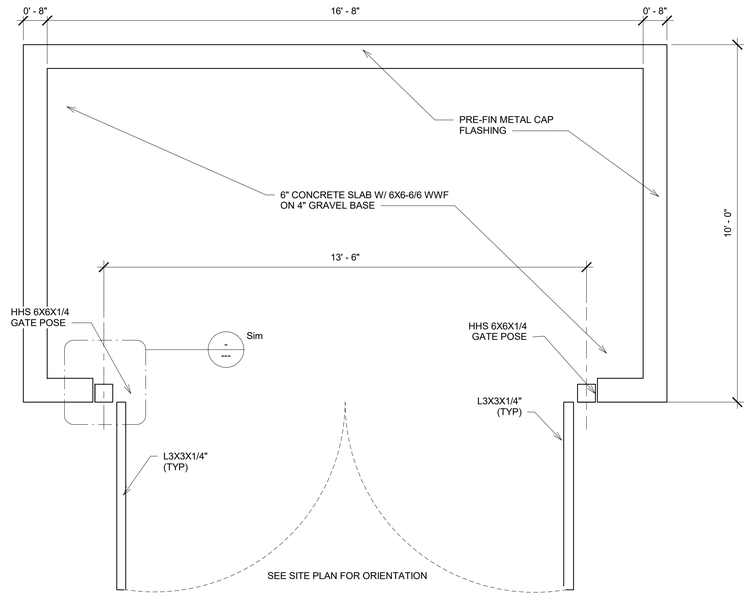
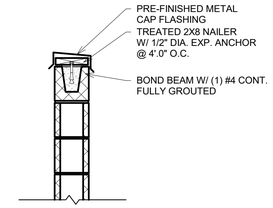


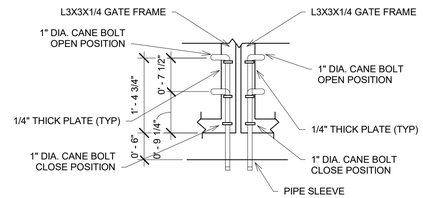
4 Trash Dumpster Detail Wall Section
3/4" = 1'-0"



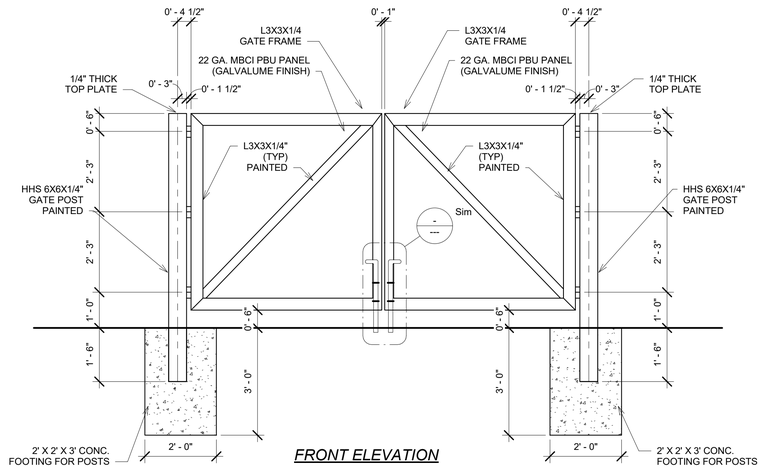
PLAN VIEW



5 Cap Flashing Detail Copy 1
3/4" = 1'-0"



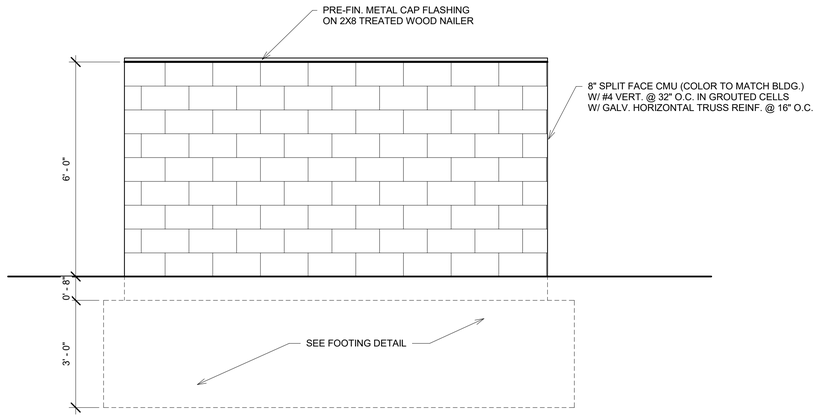
2 Trash Dumpster Detail - Hinge Detail 1
3/4" = 1'-0"



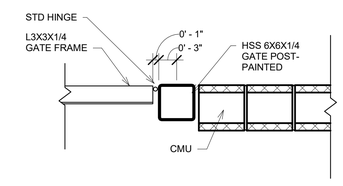
FRONT ELEVATION

ALL STEEL TO BE PAINTED
ALL CMU TO BE RECEIVE CLEAR SILICONE SEALANT @ EXTERIOR

1 Trash Dumpster Detail
1/2" = 1'-0"



SIDE ELEVATION



3 Hinge Detail Plan 12x18
1" = 1'-0"

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NEW BUILDING FOR
DOUGLAS ROAD CENTER Lot 3
NE VICTORIA DRIVE & NE DOUGLAS ST.

JOSEPH A. TOWNS MO. LIC. E 22017
LORAC DESIGN GROUP

STATE OF MISSOURI
JEFFREY SCHROEDER
NUMBER A-4998
REGISTERED ARCHITECT
8/20/21

No.	Description	Date
	Revision Schedule	

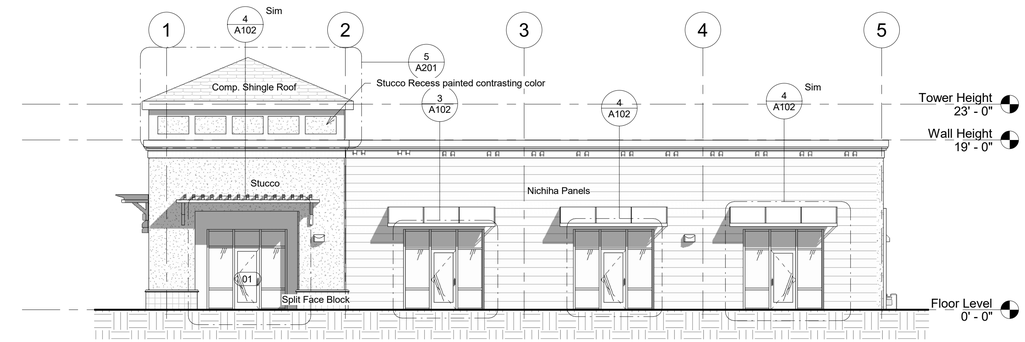
Trash Dupster Details 12x18

Project number 2222
Date 08.20.2021

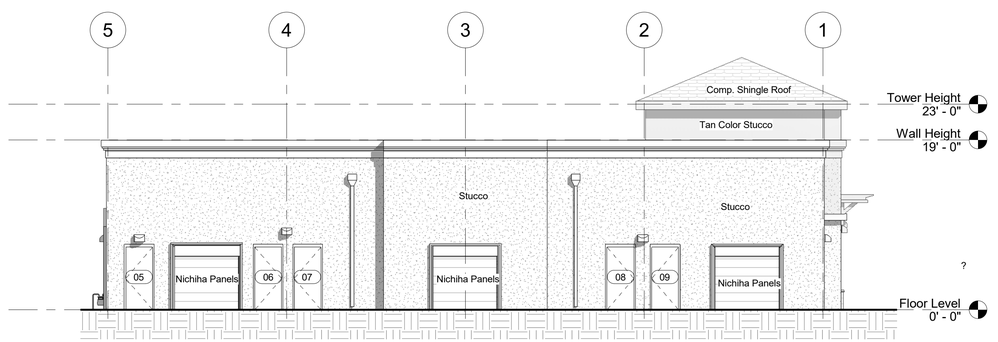
A104

Scale As indicated

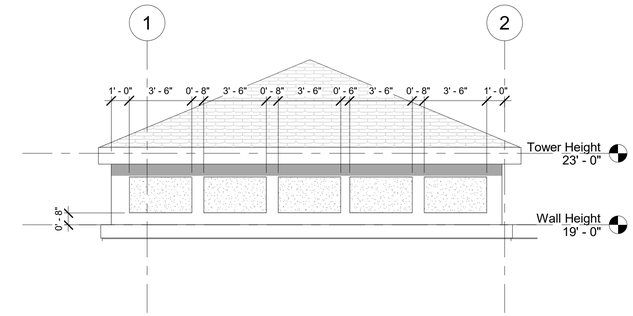
8/27/2021 11:08:12 AM



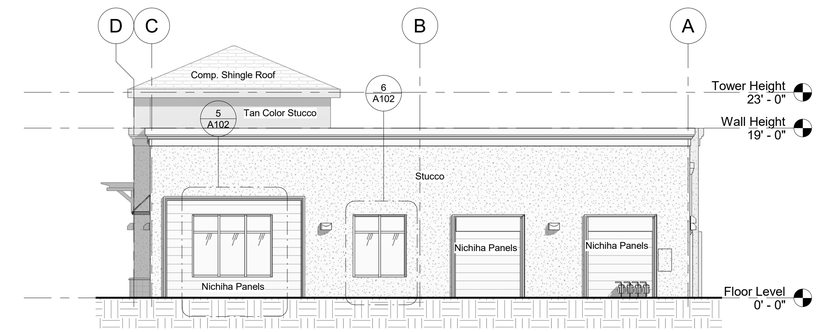
1 East Elevation
1/8" = 1'-0"



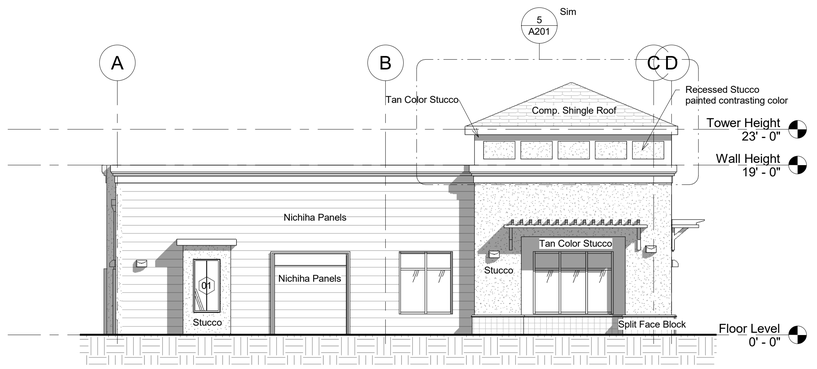
4 West Elevation
1/8" = 1'-0"



5 Tower Detail
1/4" = 1'-0"



2 North Elevation
1/8" = 1'-0"



3 South Elevation
1/8" = 1'-0"

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NEW BUILDING FOR

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J. Jeffry Schroeder Mo. Licence A-4226
Herman Scharhag Co., Arch. Cert. of Authority A-22

STATE OF MISSOURI
J. JEFFREY SCHROEDER
NUMBER A-4226
REGISTERED ARCHITECT
8/20/21

No.	Description	Date
	Revision Schedule	

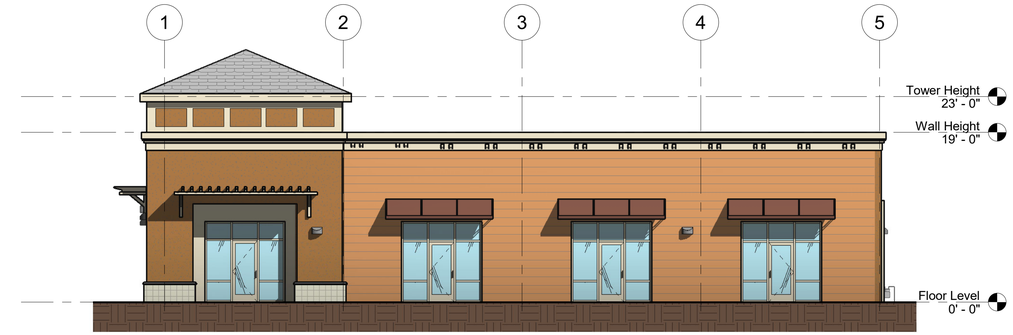
Elevations

Project number	2222
Date	08.20.2021

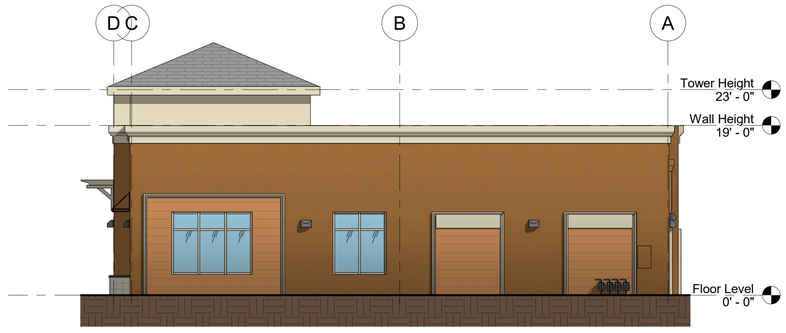
A201

Scale As indicated

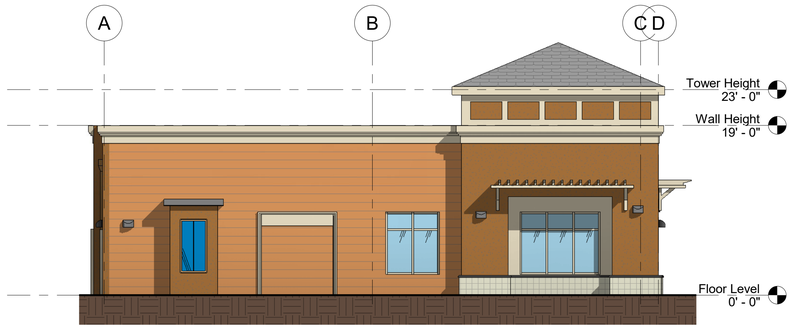
8/27/2021 11:08:14 AM



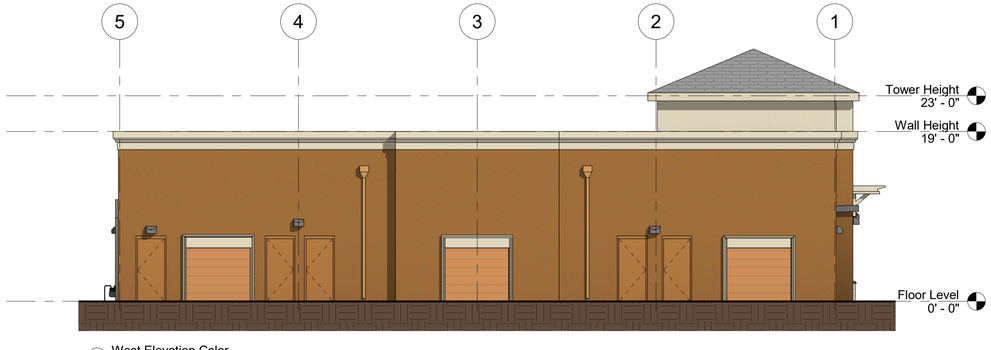
1 East Elevation Color
1/8" = 1'-0"



2 North Elevation Color
1/8" = 1'-0"



3 South Elevation Color
1/8" = 1'-0"



4 West Elevation Color
1/8" = 1'-0"

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NEW BUILDING FOR

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STATE OF MISSOURI
J. JEFFRY SCHROEDER
NUMBER A-4226
REGISTERED ARCHITECT
8/20/21

No.	Description	Date
	Revision Schedule	

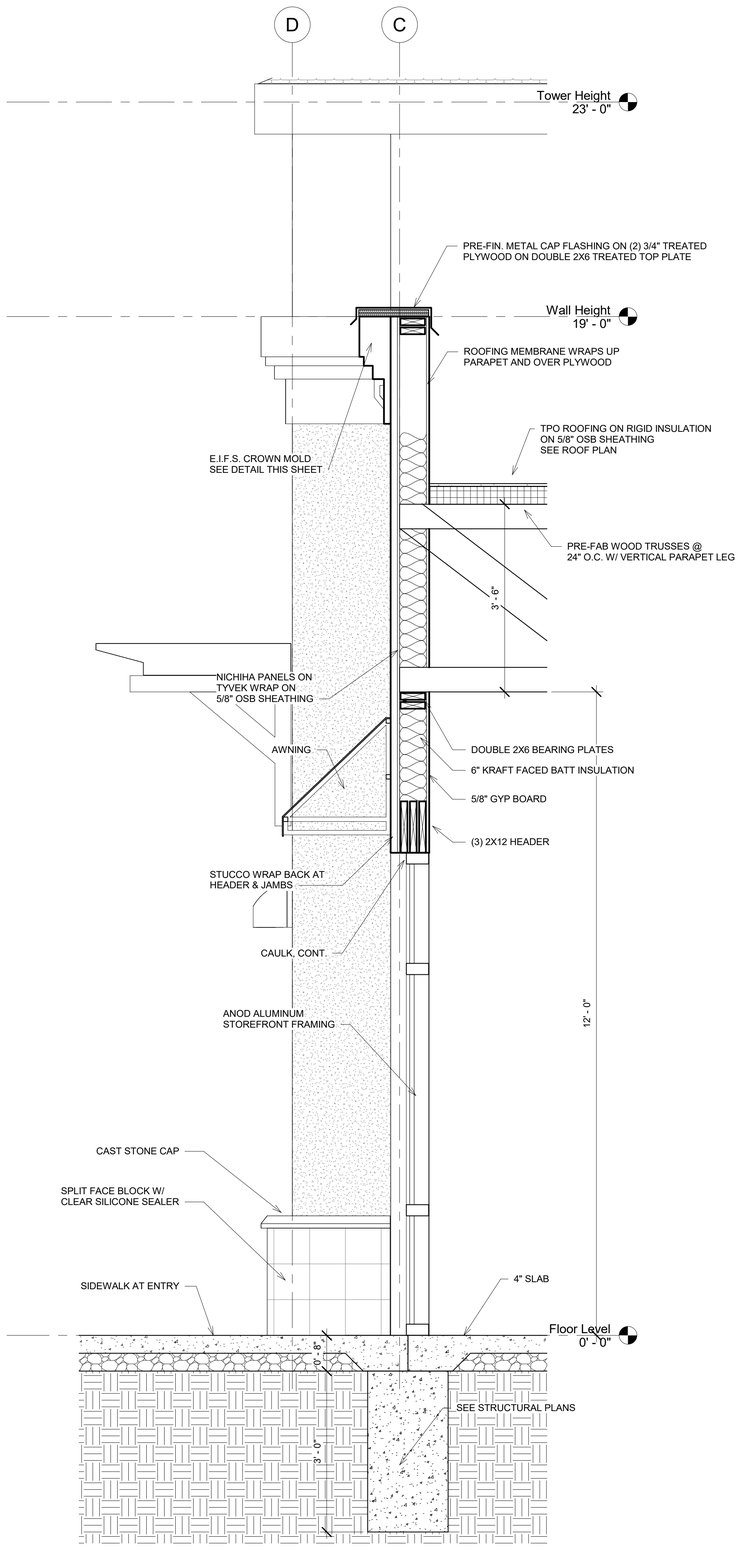
Colored Elevations

Project number	2222
Date	08.20.2021

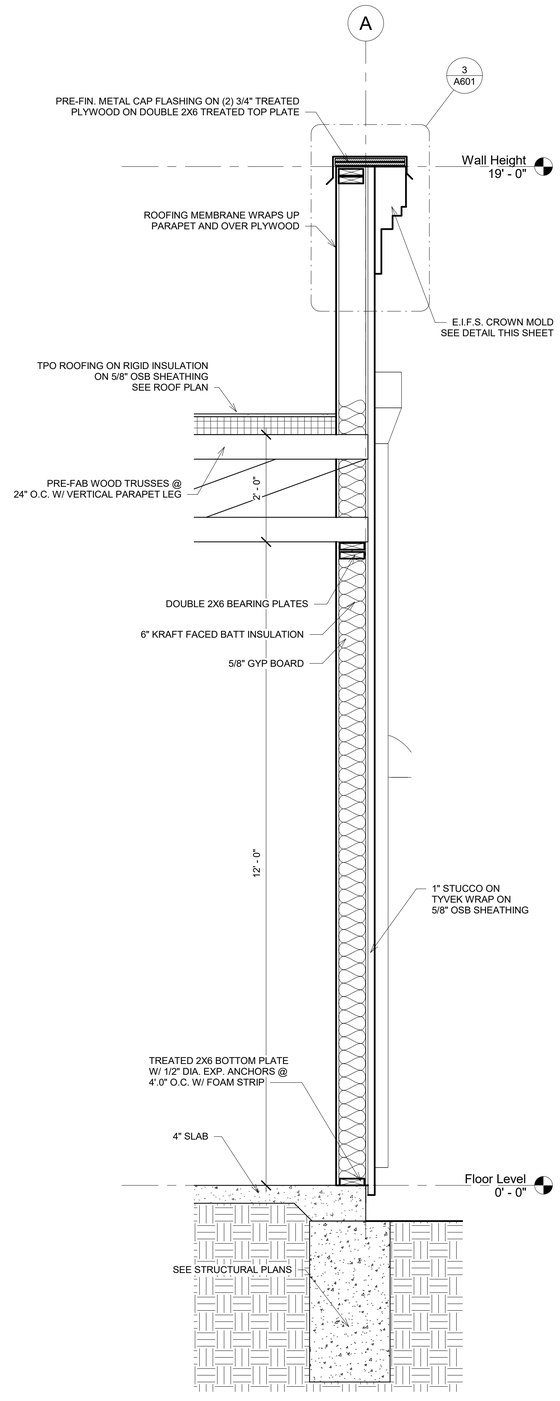
A202

Scale 1/8" = 1'-0"

8/27/2021 11:08:17 AM



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



2 Section 2
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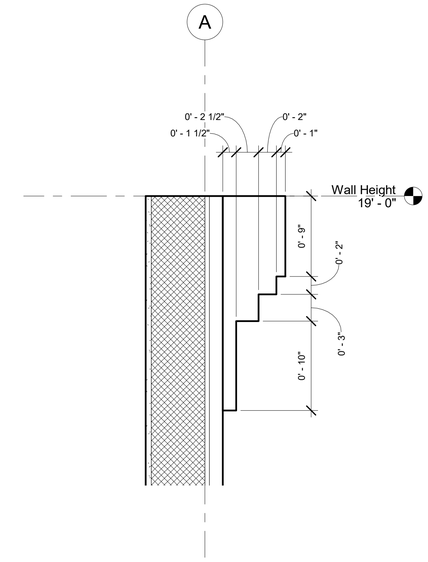

3 Section 2 - Callout 1
1 1/2" = 1'-0"

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STATE OF MISSOURI
J. JEFFREY SCHROEDER
NUMBER A-4226
REGISTERED ARCHITECT
8/20/21

No.	Description	Date
	Revision Schedule	

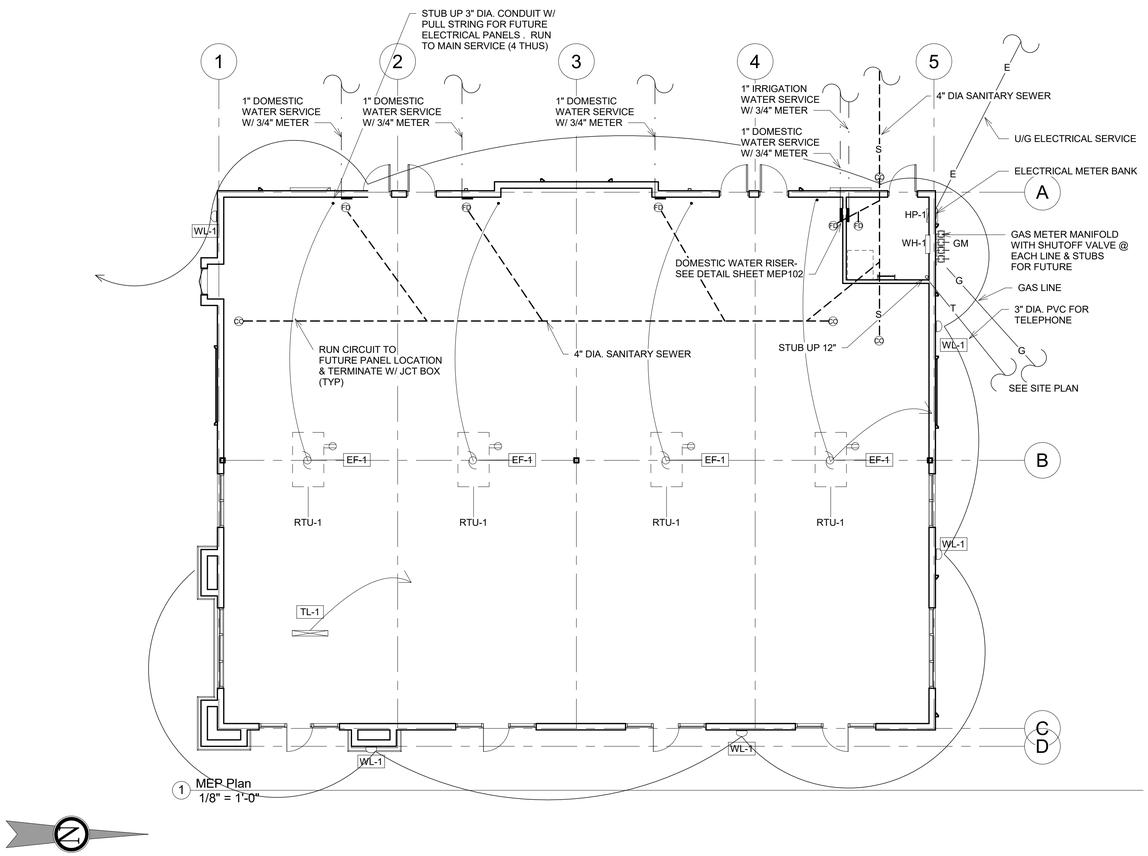
Wall Sections

Project number	2222
Date	08.20.2021

A601

Scale As indicated

8/27/2021 11:08:18 AM



1 MEP Plan
1/8" = 1'-0"

Plumbing Fixture Schedule		
Type Mark	Type	Description
C.O.	Clean Out	Ancon #CO-200-R Universal floor clean out w/ lacquered all cast iron body. Neoprene secondary "O" ring and adjustable satin nickel bronze combined access cover and plug
FD	Floor Drain	Anco #FD-1000-ER. Extended rim drain w/ lacquered allcast iron body. serrated clamping flange w/ integral double drainage weep holes and adjustable satin nickel brone strainer w/ extended rim. provide "P" trap size as shown on plans.

Mechanical Equipment Schedule			
Type Mark	Type	Type Comments	Count
RTU-1	New RTU	5 Ton electric cooling and gas heat 1,900 CFM w/ roof curb, economizer, and thermostat	4
WH-1	Wall Heater	5 KW Electric heater w/ thermostat	1

Electrical Fixture Schedule		
Type	Description	Count
Fan	for RTU	4
Outlet	for RTU	4

Lighting Fixture Schedule			
Type Mark	Type	Type Comments	Count
TL-1	Lithonia LED strip Light	CDSL48 MVOLT DM 40K 80CRI w/ two lamps	1
WL-1	Lithonia Exterior Wall Mounted LED Fixture	WSQ LED 40KP3 MVOLT DDBXD, 40W	10

scharhag
HERMAN A. SCHARHAG COMPANY, ARCHITECTS
6247 Brookside Blvd. #204 Kansas City, Mo 64113
Phone: 816-656-5055 Scharhagarch@gmail.com

NEW BUILDING FOR
DOUGLAS ROAD CENTER Lot 3
NE VICTORIA DRIVE & NE DOUGLAS ST.

STATE OF MISSOURI
JOHN WOOD SCHARHAG
NUMBER E-14378
PROFESSIONAL ENGINEER
8/20/21

No.	Description	Date
1	Owner Changes	6.16

Revision Schedule

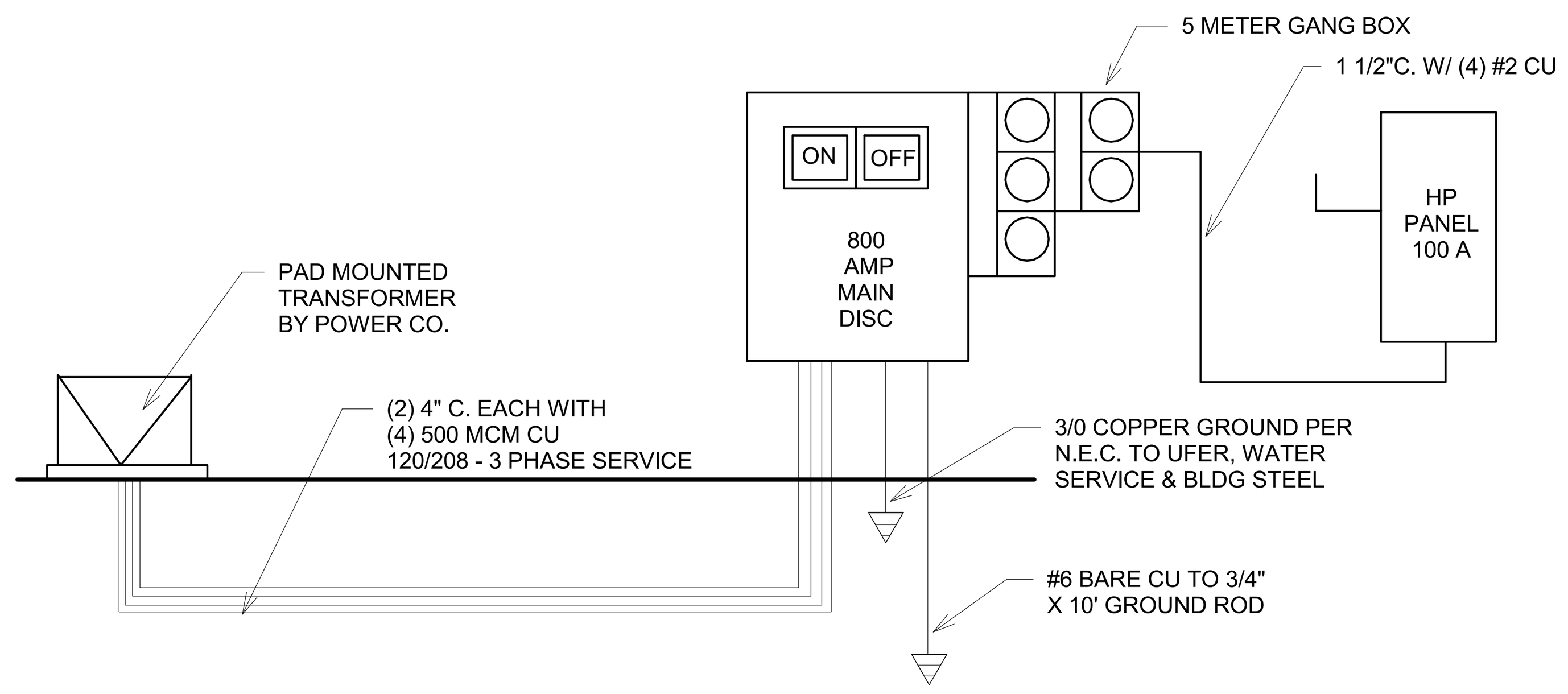
MEP Plan

Project number 2222
Date 08.20.2021

MEP101

Scale 1/8" = 1'-0"

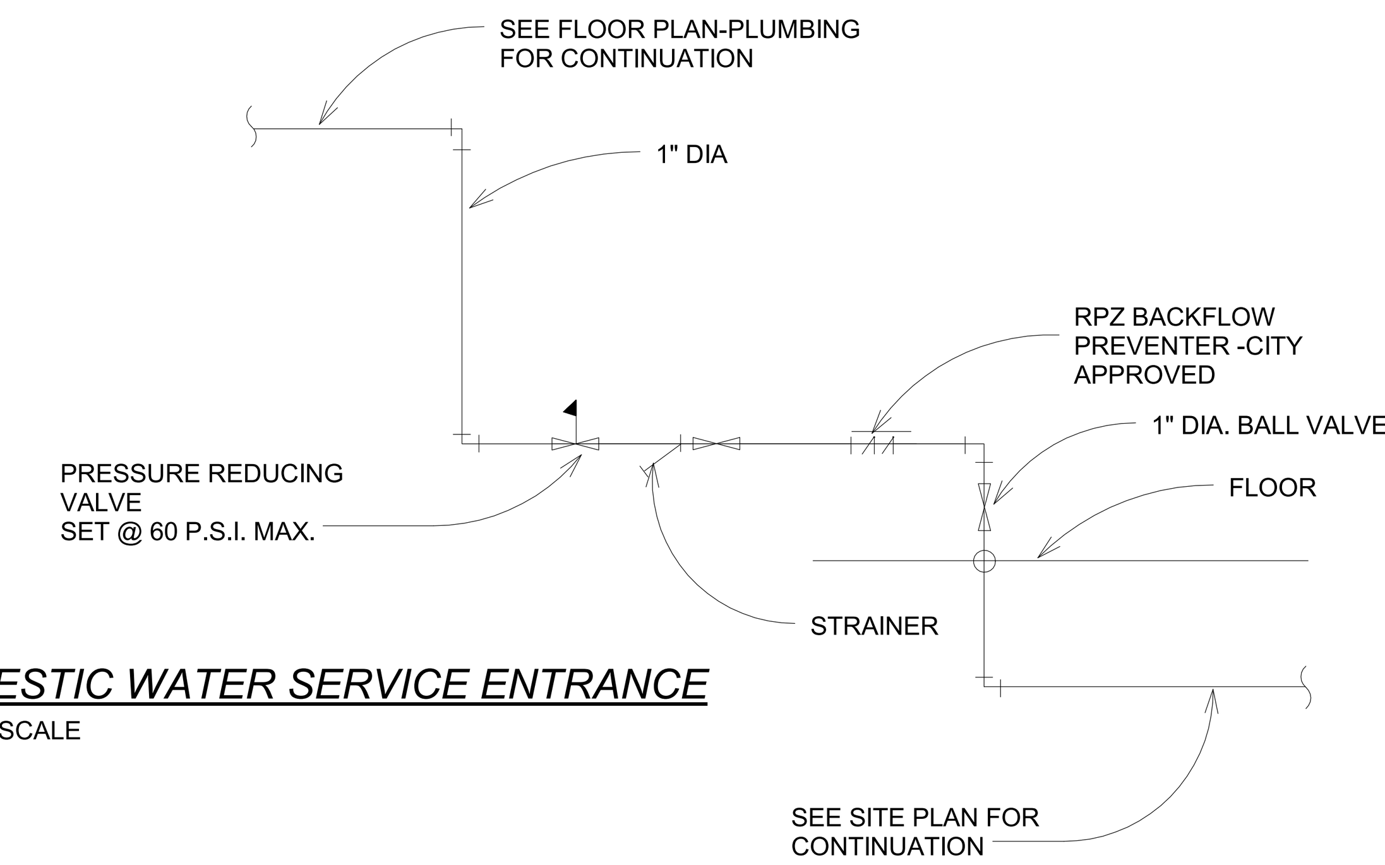
8/27/2021 11:08:18 AM



MULTI-TENANT ELECTRIC RISER

MAXIMUM ANTICIPATED LOAD = 800 AMPS, 120/208V., 3 PHASE

GROUNDING AND BONDING SHALL BE IN COMPLIANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE, GROUND CONNECTION AT THE MAIN SERVICE EQUIPMENT SHALL BE MADE TO THE METALLIC WATER SERVICE AND TO A COPPER CLAD ROD 3/4" DIA. BY 10' LONG. WHEN AVAILABLE BOND TO A METAL UNDERGROUND WATER PIPE, THE METAL FRAME OF THE BUILDING, A CONCRETE ENCASED ELECTODE, GROUND RING, AND ANY MADE ELECTRODE. MAXIMUM RESISTANCE OF THE GROUNDING SYSTEM IS FIVE (5) OHMS.



DOMESTIC WATER SERVICE ENTRANCE

NOT TO SCALE

PLUMBING NOTES:

PIPING DRAWINGS ARE SCHEMATIC ONLY. PLUMBING CONTRACTOR TO DETERMINE EXACT ROUTING AND LOCATIONS OF ALL PIPING ON JOB SITE IN COMPLETE COORDINATION WITH ALL OTHER TRADES INVOLVED. HE SHALL ALSO VERIFY EXACT FLOOR PLAN LAYOUT, FIXTURE LOCATIONS, STRUCTURAL CONDITIONS AND ALL DIMENSIONS ON ARCHITECTURAL DRAWINGS.

PROVIDE ALL FIXTURES SHOWN ON THE DRAWINGS, COMPLETE WITH HOT AND COLD WATER, WASTE AND VENT CONNECTIONS AS REQUIRED. EACH FIXTURE SHALL HAVE SHUTOFF VALVES FOR HOT AND COLD WATER. HOT AND COLD WATER LINES TO HAVE WATER HAMMER ARRESTOR CONFORMING TO ASSE 1010. PIPING SHALL BE INSTALLED PROPERLY TO ELIMINATE CROSS CONTAMINATION OR SIPHONING OF WASTE MATERIAL INTO THE SUPPLY WATER SYSTEM. PIPING SHALL BE PITCHED TO VENT AND/OR DRAIN. VERIFY EXACT LOCATIONS AND REQUIREMENTS BEFORE BEGINNING THE INSTALLATION.

ALL VENTS SHALL BE INCREASED TO A MIN. OF 3" BEFORE PASSING THROUGH THE ROOF.

THOROUGHLY CLEAN ALL ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL FOR SANITARY JOINT.

TEST WATER SYSTEM UNDER 150 PSIG HYDROSTATIC PRESSURE FOR FOUR HOURS MINIMUM. ALL WORK SHALL BE IN ACCORDANCE WITH CURRENT CODE.

PIPING MATERIALS:

DOMESTIC WATER BELOW GRADE: TYPE 'K' SOFT TEMPER COPPER WITH FLARE FITTING CONNECTIONS, EXCEPT NO FITTINGS TO BE USED BELOW FLOOR SLAB. USE LONG RADIUS BENDS ONLY.

DOMESTIC WATER BELOW SLAB: TYPE 'K' SOFT TEMPER COPPER WITH FLARE FITTING CONNECTIONS, EXCEPT NO FITTINGS TO BE USED BELOW FLOOR SLAB. USE LONG RADIUS BENDS ONLY.

DOMESTIC WATER ABOVE SLAB: TYPE 'L' HARD TEMPER COPPER WITH SWEAT SOLDER CONNECTIONS. USE NO-LEAD TYPE SOLDER. PEX MAY BE USED IF ALLOWED BY JURISTICTION.

ALL WATER LINES ABOVE SLAB SHALL BE INSULATED WITH EXPANDED CELL OR MOLDED SECTIONAL FIBEROUS GLASS WITH FACTORY APPLIED UL LISTED VAPOR BARRIER JACKET. FLAME SPREAD FOR INSULATION SHALL BE 25 OR LESS.

SANITARY WASTE AND VENT: CAST IRON NO-HUB CONNECTIONS ABOVE SLAB. CAST IRON WITH SLIP CONNECTIONS BELOW SLAB. SCHEDULE 40 PVC PIPING MAY BE USED IN ALL LOCATIONS WHERE PERMITTED BY LOCAL AUTHORITIES, HOWEVER PVC MAY NOT BE USED IN ABOVE CEILING PLENUM RETURN AREAS.

GAS PIPING TO BE TYPE 'S' SEAMLESS GRADE B SCHEDULE 40 BLACK OR ASTM A53 STEEL PIPE, TYPE 'E' ELECTRIC RESISTANT WELDED. WHERE INSTALLED BELOW GRADE, PIPE MUST BE COATED AND WRAPPED AND HAVE CATHODIC PROTECTION. ALL CAST IRON PIPE THAT IS OVER 3" DIAMETER AND NOT EXPOSED, MUST BE WELDED PIPE

ELECTRICAL NOTES:

ALL ELECTRICAL LIGHT AND POWER WIRE SHALL NOT BE SMALLER THAN #12 AWG. ALL LIGHTING AND POWER WIRING #10 AWG AND SMALLER SHALL BE SOLID. ALL CONDUCTORS SHALL BE COPPER ONLY. NO ALUMINUM IS ALLOWED

ALL CONDUITS SHALL BE SIZED IN ACCORDANCE WITH THE LATEST NEC TABLES. MINIMUM CONDUIT SIZES SHALL BE ¾". ALL CONDUIT IN AND UNDER FLOOR SLAB SHALL BE SCHEDULE 40 PVC

ALL POWER WIRING IN ALL AREAS SHALL BE IN EMT CONDUIT, BOTH IN WALLS AND THROUGH EXPOSED JOISTS. MC CABLE AND ARMORED CABLE ARE ALSO ALLOWABLE IN AREAS WHERE CONDUITS ARE NOT EXPOSED

ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT, FOR WORK DESIGNATED AS HIS RESPONSIBILITY, ALL WIRE, WIRE WAY, CONDUIT, CONNECTORS, OUTLETS, ETC. NECESSARY TO ACHIEVE A COMPLETE ELECTRICAL INSTALLATION. WHERE AN ELECTRICAL DEVICE IS REQUIRED BY CODE BUT NOT SHOWN, IT SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR AS THOUGH FULLY SHOWN AND SPECIFIED. ALL LABOR, TOOLS, MATERIALS, EQUIPMENT SHALL BE PROVIDED AS NECESSARY TO PROVIDE AND INSTALL A COMPLETE SYSTEM. ALL WORK SHALL BE PER CURRENT CODE. COORDINATE ALL WORK WITH OTHER TRADES

ELECTRICAL CONTRACTOR SHALL CIRCUIT FIXTURES AND SHALL PROVIDE AND INSTALL CIRCUIT DIRECTORY WITH TYPED CIRCUIT DESIGNATION CARD UNDER PLASTIC COVER ON THE INSIDE OF EACH PANEL DOOR. ELECTRICAL CONTRACTOR SHALL ALSO FURNISH AND INSTALL NAMEPLATES ON ALL DISCONNECT SWITCHES AND PANEL BOARDS

ALL CONDUIT, JUNCTION BOXES, ETC. ABOVE CEILINGS SHALL BE SUPPORTED FROM STRUCTURE

ELECTRICAL CONTRACTOR SHALL PROVIDE ALL POWER WIRING, ALL CONTROL WIRING AND ALL STARTERS, DISCONNECTS AND THERMAL OVERLOAD SWITCHES NOT SUPPLIED WITH THE EQUIPMENT

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NEW BUILDING FOR
DOUGLAS ROAD CENTER Lot 3
NE VICTORIA DRIVE & NE DOUGLAS ST.

STATE OF MISSOURI
NUMBER
E-14375
PROFESSIONAL ENGINEER
8/20/21

No.	Description	Date
1	Owner Changes	6.16

Revision Schedule

MEP Notes

Project number	2222
Date	08.20.2021

MEP102

Scale	As indicated

8/27/2021 11:08:19 AM

DIVISION 4 - MASONRY

MASONRY

A. IN GENERAL:

1. Includes furnishing, setting and laying of materials for all masonry walls built of face brick, common brick, concrete blocks or combinations, that are shown on the plans.
2. Build in all lintels, flashings, reinforcing, inserts, ties and accessories as required on the plans.

B. MATERIALS:

1. Brick:
a. Face Brick - for veneer of exterior walls and certain interior facings as indicated on the drawings. Brick shall be hard-burned modular sized to match approved samples. Clinkers, warped or underburned bricks will not be accepted. Provide a cash allowance of $500 per M for the purchase and delivery to the job site of all face brick.
b. Exterior 18" walls are to be built of 12" block backup and 4" face brick veneer with a 2" cavity.
2. Concrete Block:
a. Load Bearing Block - shall conform to the Standard Specifications of ASTM C-90, latest edition. (fm = 2250 psi)
b. Aggregate of all blocks to be left exposed to view shall be Haydite. Blocks made with other lightweight aggregate of similar characteristics may be used only with the approval, prior to bidding, of the Architect.
c. All blocks to have nominal 8" x 16" face dimension.
3. Miscellaneous:
a. Galvanized Blok-Mesh Ladder type for bonding face brick veneer to concrete block backup, with drip. Bloc-Mesh selected of proper width for wall to be bonded. Lap all joints and corners.
b. Galvanized adjustable wall ties at min. 18" o.c. each way
c. Reinforcing in grouted cells per plans
4. Mortar for Brick of Concrete Masonry:
a. Materials:
(1) Portland Cement - Standard Spec. of ASTM C-15-Type 1.
(2) Lime-Standard Spec. of the ASTM C-5, latest edition.
(3) Sand - Clean, washed sand, free from lignite, clay, etc. 100% of the sand shall pass a #4 mesh sieve.
(4) Mortar to be type N.
(5) Use type S mortar for all masonry below grade.

1. General Bricks and Blocks:
a. Face brick and blocks have been figured modular sizes. Horizontal joints for block or brick have been figured as follows: 3 courses of brick equal one course of block equals 8" in height. Vertical joints are figured at 3/8".
2. Brick facing:
a. Brick shall be laid in running bond in general. See elevations for pattern work or stack bond on certain walls.
b. Lay all face brick in full mortar beds and butter all head joints fully with mortar to produce a tight, shoved joint.
c. Brick work shall be pointed at time wall is laid up. Face of joints shall be concave.
3. Block Backup:
a. Shall be laid up with progress of facing following parge coat. Facings shall be laid not more than one wall tie ahead of backup.
b. Head joints of blocks shall be buttered fully to produce a tight shoved joint.
4. All outside masonry work shall be covered on top surface at completion of each days work. Use tarpaulins as protection against rain or snow.
5. Masonry walls shall be properly braced against wind damage until proper ties are made integrally with remainder of structure, and the roof deck has been installed and all connections have been completed.
6. Protect work as necessary from the work of the other sections of these specifications.
7. Point all masonry work as required to eliminate holes from string pins and rake out and point any defective joints at completion of work.
8. Clean all masonry work as follows: Brush down all brickwork with Sure-Kleen Solvent by Process Solvent Co., Kansas City, Mo. All washing solution shall be taken that masonry work is not damaged by the cleaning process.

D. SAMPLE:

1. Contractor shall submit brick samples to architect for approval.

E. MASONRY WATER REPELLANT:

1. After masonry is thoroughly cleaned, all exposed surfaces shall be treated with a silicone water repellent material. Surfaces to be thoroughly dry and free of all surface dirt, efflorescence and construction stains. Masonry water repellent shall be Sure Klean "Weather Seal 201-GP" or similar. Application shall be in strict accordance with manufacturer's printed instructions.

DIVISION 6 - WOOD AND PLASTICS

CABINETS & COUNTER TOPS

A. IN GENERAL:

1. Provide all labor, material and equipment required to supply and install all counter tops and cabinets complete with supporting system and related accessories as shown and scheduled on the drawings and specified herein.

B. LAMINATED PLASTIC COUNTER TOPS:

1. Materials:
a. Counter tops surface shall be 1/16" Laminated Plastic, General Purpose Grade - 10 as manufactured by Formica Corporation, Cincinnati, Ohio, or an approved equal. Colors and patterns as selected by the Architect.
b. Laminated Plastic shall be bonded to 3/4" thick particle board or plywood with an approved adhesive under recommended bonding pressures and conditions.
2. Installation:
a. Assembly of components should be accomplished using approved labor, materials and equipment and the workmanship should conform to the industries standard practices, conditions, procedures and recommendations.
b. All toilet room counter tops shall be self-edged with 4" backsplash against all walls and a front apron and side edge per details on the plans. Laminated plastic covered.

C. CABINETWORK:

1. Materials:
a. Counter tops shall be 1/16" high pressure laminate of 3/4" plywood with 1-1/4" reveal at front with 4" backsplash, 3/4" thick. All exposed areas of backsplash to match finish of top.
b. Shelves, sides, and bottom to be 1/2" plywood with hardwood edge.
c. Backs to be 1/4" plywood.
d. Doors and drawer fronts to be 3/4" lipped birch plywood.
e. Drawers to be 1/2" dove tailed plywood with 1/4" tempered masonite bottoms. All drawers shall be equipped with heavy-duty, ball bearing glides.
f. Hardware to be heavy-duty. Doors to have magnetic catches.
g. Face Frames - 3/4" thick x 1-1/2" minimum wide. Hardwood vertical stiles and rails.
h. All interiors shall be melamine laminated.

D. INSTALLATION:

1. Install wall and base cabinets level, plumb and true to line and fasten them to walls and/or floors with suitable devices to securely anchor each unit. Install countertops, accessories and hardware as indicated. Provide closer and filler strips and finish moldings as necessary. Prior to final acceptance, contractor shall align all doors, adjust all hardware and clean all surfaces.
2. Verify dimensions before fabricating cabinets.

E. SHOP DRAWINGS:

1. Shop drawings shall be furnished for all cabinetwork and counter tops.

DIVISION 6 - WOOD AND PLASTICS

CARPENTRY AND MILLWORK

A. IN GENERAL:

1. Furnish materials, complete all rough carpentry work which includes blocking plates, grounds, etc.
2. Furnish and install all finished carpentry, and millwork shown on the drawings and described herein, consisting generally of the following: shelving, interior and exterior wood trim, wood paneling, doors, etc.
3. Coordinate work with the erection and installation of all laminated beams and arches and adjoining wood framing if any.

B. ROUGH CARPENTRY MATERIALS:

1. Provide nails, bolts, screws, and fastenings required to properly support blocking, framing, furrings, etc. required for the completion of finish carpentry and cabinet work.
2. Miscellaneous blocking, plates, etc. required in the support of roof overhangs, cant strips, nailers, for all purposes shall be #1 grade dimensional Douglas Fir.
3. Furring, plaster grounds, etc. shall be #2 grade Douglas Fir or White Pine.
4. Studs, plates, bucks, etc. shall be Douglas Fir Standard grade with fiber stress of 1200 psi (S4S).
5. All plywood shall bear the D.F.P.A. grade and trademark. Secure to wood framing members with 3d common cement coated nails @ 6" o.c. at panel edges and 10" o.c. at intermediate framing members. Or as otherwise noted.
6. Plywood sheathing shall be C-C EXT-DFPA plywood. Or as otherwise noted.
7. Structural Lumber - Flexural 2" thick WD members and all WD studs other than those specifically designated as #1 or better shall be Douglas Fir - larch #2 or better (Fb=1,250 psi, Fv=95 psi, E=1,700,000 psi.)
8. Roofing Deck - Plywood - Roof sheathing shall be 5/8" plywood - Structural 11 with exterior glue, C-C exterior, or better.

C. FINISH MATERIALS:

1. Interior trim shall be as noted on the drawings out of the following materials.
a. Oak Trim - all oak trim as shown on the drawings shall be premium grade white oak.
b. White Pine Trim - all white pine trim as shown on the drawings shall be C select or better.
c. Birch Trim - all birch trim as shown on the drawings shall be clear red birch.
d. Redwood Trim - all redwood trim as shown on the drawings shall be clear all heart redwood.
2. Plywood roof deck shall be thickness shown on the drawings, structural I, C-C EXT-APA with application in accordance with American Plywood Assoc. requirements.

3. Exterior trim shall be clear white pine treated with WOODLIFE PRESERVER. Wood soffits and fascia of extended roofs shall be exterior grade, fir plywood, thickness as noted on the drawings. Erect in lengths as indicated on the drawings with close fitting joints.

D. WORKMANSHIP AND INSTALLATION:

1. Doors shall be fabricated in accordance with details of approved shop drawings. They shall be fitted to the frames so as to leave uniform margins approximately 1/8" at head and jambs and 1/4" at thresholds.
2. Door frames shall be set plumb and true and in line with partition.
3. Interior trim around cabinets, etc. shall be set square and true. Joints shall be lap mitered. Drill pilot holes as necessary to prevent slitting. Nail securely with finish nails and counter sink heads.
4. Exterior trim shall be installed plumb, true and in proper planes. Fascia joints shall be butt mitered, securely nailed with casing nails set below the finish surface.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

CAULKING

A. IN GENERAL:

1. Furnish all labor and materials to complete all caulking work shown on the drawings or specified herein, or both.

B. MATERIALS:

1. Caulking compound shall be a two-part polytremdyne terpolymer sealant with movement capable of 40% extension and 25% compression. Sealant to be "DYMERIC" as manufactured by Tremco Manufacturing Co.
2. Joint Backing shall be closed-cell polethylene joint backing as manufactured by Tremco.

C. INSTALLATION:

1. All joints shall be clean, dry and free from foreign matter.
2. Depth of joint should not exceed width of joint from 1/4" to 1/2". For joints larger than 1/2", the depth of joints should be no more than 50% of the width.
3. Use Tremco backing to control depth of joint to within 1/2" of surface.
4. Mix according to manufacturers instruction (minimum 8 minutes).
5. Apply with conventional caulking equipment, tooling immediately.
6. Tool all exposed joints neatly.
7. Caulk around all exterior windows and doors.
8. Caulk at intersection of 2 dissimilar exterior materials.
9. Set all thresholds in full bed of caulking.
10. Caulk all expansion joints.
11. Caulk all Aluminum Flashing where detailed on the drawings.
12. Caulk at all locations shown on drawings, but not listed here.

DIVISION 7 - THERMAL & MOISTURE PROTECTION

SINGLE MEMBRANE ROOFING SYSTEM

A. IN GENERAL:

1. The scope of work covered by this specification shall include installation of a fully adhered, single-ply roof membrane, complete and in place, including flashings, separation barrier, walkways and associated items to provide the Owner with a watertight roofing system. All installation shall be per manufacturer's instructions.

B. MATERIALS:

1. Roofing system shall be a fully adhered roof membrane. The roofing system shall be Firestone Building Products Ultraply TPO XR with .060 in thickness, white in color.
2. Vapor barrier under base layer of insulation to be woven tri-laminate high density polyethylene top surface factory laminated to SBS modified bitumen tape adhesive.
3. Insulation shall be polyisocyanurate foam board with min. R=30, installed in two layers with staggered joints, with cold adhesive attachment. Provide insulation cover board of high density polyisocyanurate foam board ½" thick, with cold adhesive.
4. Adhesive shall be per manufacturer's requirements.
5. Splicing shall be as directed by manufacturer.
6. Materials shall be delivered in their original, un-opened containers, clearly labled with the manufacturere's brand name, and appropriate identifying numbers. All materials shall be stored between 60 degrees F and 80 degrees F.

C. SHOP DRAWINGS / SAMPLES:

1. Prior to beginning application, contractor shall submit shop drawings covering integral flashings, expansion joints (if any), walkways, separation layer, tapered insulation and any other appropriate items.

E. GUARANTEE:

1. The roofing contracting firm shall have experience with work related to the roofing work and shall be factory trained for installation.
2. Roofing system shall carry a 20 year Red Shield Limited Warranty.

DIVISION 7 - THERMAL & MOISTURE PROTECTION

FLASHINGS & SHEET METAL

A. IN GENERAL:

1. Furnish and install flashings and sheet metal work as indicated on the drawings and specified herein.
2. Includes the following general items: Flashings, metal fascias, gravel stops, cap flashings, thru wall scuppers, gutters, standing seam roofs and downspouts.
3. Coordinate work of flashing with the work of other sections of the specifications.

B. MATERIALS:

1. Counter or cap flashings at intersections of roof and vertical sections or intersections of any horizontal surface with vertical surface to be 28 ga. G.I. made in two sections.
2. Gravel stops and Caps-Berridge 24 ga. or approved equal. Color as selected by Architect.
3. Over all windows and doors in masonry walls, not protected by canopies or extended roofs – 2 oz. Cop-R-Tex by Wasco.
4. Wall window sills – 2 oz. Cop-R-Tex by Wasco

C. FABRICATION & INSTALLATION:

1. Coordinate all flashing and metal work with roofing contractor.
2. All flashings shall be installed in accord with details of the drawings. Where dimensions are not specifically shown, contact the architect for such dimensions.
3. Counter to cap flashings shall be built in with progress of work.
4. Fascia and gravel stops shall be erected square, plumb, true and straight. Provide concealed joint strips as required. No exposed screws or nails shall show on face of metal. Allow expansion and contraction of metal.
5. All window and door flashings shall be built in single pieces

E. GUARANTEE:

1. Full manufacturer's guarantee shall be provided, but in no case shall guarantee be less than one year for parts and labor.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

BELOW GRADE WATERPROOFING

A. IN GENERAL:

1. Provide all below grade waterproofing on exterior side on concrete foundation walls as shown and indicated on the plans and details.

B. MATERIAL:

1. Waterproofing material shall be a single ply of Grace Bituthene System 4000.

C. INSTALLATION:

1. Concrete surface to be clean, dry, and free from dust, with all holes filled and all high spots removed.
2. Apply memebrane waterproofing per manufacturer's recommendations.
3. Care shall be taken to prevent excessive material from showing above grade. Work shall be taken to finish grade line around the building, plus 2".
4. Apply Hydroduct 220 protection and cover board at completion of membrane installation, prior to any back fill.

D. WARRANTY:

1. Contractor shall guarantee system to be waterproof for a period of 2 years from date of substantial completion.

DIVISION 7 – E.I.F.S.

DRYVIT OUTSULATION PLUS MD SYSTEM

PART I GENERAL

1.01 SUMMARY
A. This document is to be used in preparing specifications for projects utilizing the Dryvit Outsulation Plus MD System. For complete product description and usage refer to:
1. Dryvit Outsulation Plus MD System Data Sheet, DS445
2. Dryvit Outsulation Plus MD System Application Instructions, DS218
3. Dryvit Outsulation Plus MD System Installation Details, DS110

1.02 SYSTEM DESCRIPTION
A. General: The Dryvit Outsulation Plus MD System is an Exterior Insulation and Finish System (EIFS), Class PB, consisting of an air/water-resistive barrier, an adhesive, expanded polystyrene insulation board, base coat, reinforcing mesh(es) and finish.
B. Methods of Installation:
1. Field Applied: The Outsulation Plus MD System is applied to the substrate system in place.
C. Requirements:
1. Acceptable substrates for the Outsulation Plus MD System shall be:
a. Exterior grade gypsum sheathing meeting ASTM C 1396 (formerly C 79) requirements for water resistant core or Type X core at the time of application of the Outsulation Plus MD System.
b. Exterior sheathing having a water-resistant core with fiberglass mat facers meeting ASTM C 1177.
c. Exterior fiber reinforced cement or calcium silicate boards.
d. APA Exterior or Exposure 1 Rated Plywood, Grade C-D or better, nominal 1/2 in (12.7 mm), minimum, installed with the C face out.
e. APA Exterior or Exposure 1 Fire Retardant Treated (FRT) Plywood, Grade C-D or better, nominal 1/2 in (12.7 mm), minimum, installed with the C face out.
f. APA Exposure 1 Rated Oriented Strand Board (OSB) nominal 1/2 in (12.7 mm), minimum. NOTE: Applications over OSB sheathing requires a minimum of 2 coats of Backstop NT – Smooth or Spray. Backstop NT – Texture is not recommended for the field of wall application over OSB.
g. Unglazed brick, cement plaster, concrete or masonry.
h. Pre-engineered metal building panels with an acceptable substrate as noted in Section 1.04.C.1.a through f.
2. Deflection of the substrate systems shall not exceed 1/240 times the span.
3. The substrate shall be flat within 1/4 in (6.4 mm) in a 4 ft (1.2 m) radius.
4. The slope of inclined surfaces shall not be less than 6:12 (27°) and the length shall not exceed 12 in (305 mm).
5. Expansion Joints:
a. Design and location of expansion joints in the Outsulation Plus MD System is the responsibility of the project designer and shall be noted on the project drawings. As a minimum, expansion joints shall be placed at the following locations:
1) Where expansion joints occur in the substrate system

2) Where building expansion joints occur
3) At floor lines in wood frame construction
4) At floor lines of non-wood framed buildings where significant movement is expected
5) Where the Outsulation Plus MD System abuts dissimilar materials
6) Where the substrate type changes
7) Where prefabricated panels abut one another
8) In continuous elevations at intervals not exceeding 75 ft (23 m)
9) Where significant structural movement occurs, such as changes in roof line, building shape or structural system
6. Terminations:
a. Prior to applying the Dryvit Outsulation Plus MD System, wall openings shall be treated with Dryvit AquaFlash System, Backstop® Flash & Fill or Flashing Tape. Refer to Dryvit Outsulation Plus MD Installation Details, DS110.
b. The Outsulation Plus MD System shall be held back from adjoining materials around openings and penetrations such as windows, doors, and mechanical equipment a minimum of 3/4 in (19 mm) for sealant application. See Dryvit's Outsulation Plus MD System Installation Details, DS110.
c. The system shall be terminated a minimum of 8 in (203 mm) above finished grade.
d. Sealants
1) Shall be manufactured and supplied by others.
2) Shall be compatible with the Outsulation Plus MD System materials. Refer to current Dryvit Publication DS153 for listing of sealants tested by sealant manufacturer for compatibility.
3) The sealant backer rod shall be closed cell.
7. Flashing: Shall be provided at all roof-wall intersections, windows, doors, chimneys, decks, balconies and other areas as necessary to prevent water from entering behind the Outsulation Plus MD System.
8. Site Coated EPS Shapes and Starter Boards: Shall be coated on site utilizing the same materials (EPS, base material mixture, reinforcing mesh, and finish) as specified for the project.
9. Pre Base Coated EPS Shapes and Starter Boards: Shall be supplied by Acrocore or other approved shape manufacturer.

1.03 QUALITY ASSURANCE
A. Qualifications
1. System Manufacturer: Shall be Dryvit Systems, Inc. All materials shall be manufactured or sold by Dryvit and shall be purchased from Dryvit or its authorized distributors.
a. Materials shall be manufactured at a facility covered by a current ISO 9001:2015 and ISO 14001:2015 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
2. Contractor: Shall be knowledgeable in the proper installation of the Dryvit Outsulation Plus MD System and shall be experienced and competent in the installation of Exterior Insulation and Finish Systems. Additionally, the contractor shall possess a current Outsulation Plus MD System Trained Contractor Certificate" issued by Dryvit Systems, Inc.
3. Insulation Board Manufacturer: Shall be listed by Dryvit Systems, Inc., shall be capable of producing the Expanded Polystyrene (EPS) in accordance with the current Dryvit

Specification for Insulation Board, DS131, and shall subscribe to the Dryvit Third Party Certification and Quality Assurance Program.
B. Regulatory Requirements:
1. The EPS shall be separated from the interior of the building by a minimum 15-minute thermal barrier.
2. The use and maximum thickness of EPS shall be in accordance with the applicable building code(s).

1.04 DELIVERY, STORAGE AND HANDLING
A. All Dryvit materials shall be delivered to the job site in the original, unopened packages with labels intact.
B. Upon arrival, materials shall be inspected for physical damage, freezing or overheating. Questionable materials shall not be used.
1. Materials shall be stored at the job site, and at all times, in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Minimum storage temperature shall be as follows:
a. DPR, PMR™, HDP™, Weatherlastic® and E™ Finishes, Color Prime™, Primus®, Genesis® and NCB™,
40 °F (4 °C).
b. For other products, refer to specific product data sheets.
2. Maximum storage temperature shall not exceed 100 °F (38 °C). **NOTE: Minimize exposure of materials to temperatures over 90 °F (32 °C). Finishes exposed to temperatures over 110 °F (43 °C) for even short periods may exhibit skinning, increased viscosity and should be inspected prior to use.**
C. Protect all products from inclement weather and direct sunlight.

1.05 PROJECT CONDITIONS
A. Environmental Requirements
1. Application of wet materials shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are completely dry.
2. At the time of Dryvit product application, the air and wall surface temperatures shall be from 40 °F (4 °C) minimum to 100 °F (38 °C) maximum for the following products:
a. DPR, PMR, HDP, Weatherlastic and E Finishes, Color Prime, Primus, Genesis and NCB.
b. For other products, refer to specific product data sheets.
3. These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of
24 hours (48 hours for Weatherlastic Finishes, Ameristone, TerraNeo and Lymestone) thereafter, or until the products are completely dry. Refer to published product data sheets for more specific information.

1.06 WARRANTY
A. Dryvit Systems, Inc. shall provide a written moisture drainage and limited materials warranty against defective material. Dryvit shall make no other warranties, expressed or implied. Dryvit does not warrant workmanship. Full details are available from Dryvit Systems, Inc.
B. The applicator shall warrant workmanship separately. Dryvit shall not be responsible for workmanship associated with installation of the Outsulation Plus MD System.

2.01 MANUFACTURER
A. All components of the Outsulation Plus MD System shall be supplied or obtained from Dryvit or its authorized distributors. Substitutions or additions of materials other than specified will void the warranty.

2.02 MATERIALS
A. Portland Cement: Shall be Type I or II, meeting ASTM C 150, white or gray in color, fresh and free of lumps.
B. Water: Shall be clean and free of foreign matter.

2.03 COMPONENTS
A. Air/Water-Resistive Barrier Components:
1. Dryvit Backstop NT: A vapor permeable, flexible, polymer-based noncementitious water-resistive and air barrier coating available in Texture, Smooth, and Spray. See DS180 and DS181.
2. Dryvit Backstop NT-VB: A Class 1 vapor retarder, available in trowel and spray versions. When specified, consider having a WVT analysis performed. See DS830 and DS831.
3. Dryvit Grid Tape™: An open weave fiberglass mesh tape with pressure sensitive adhesive available in rolls
4 in (102 mm) wide by 100 yds (91 m) long.
4. Dryvit Backstop DMS: A sprayable single step water-resistive membrane/air barrier and adhesive.
NOTE: Backstop DMS is not approved for use over wood based substrates.
B. Flashing Materials: Used to protect substrate edges at terminations.
1. Liquid Applied: An extremely flexible water-based polymer material, ready for use.
a. Shall be AquaFlash and AquaFlash Mesh
2. Gun Applied: A flexible waterproof material, ready for use.
a. Shall be Backstop Flash & Fill
3. Sheet Type:
a. Shall be Flashing Tape and Surface Conditioner
1) Dryvit Flashing Tape™: A high density polyethylene film backed with a rubberized asphalt adhesive available in rolls 4 in (102 mm), 6 in (152 mm) and 9 in (229 mm) wide by 75 ft (23 m) long.
2) Dryvit Flashing Tape Surface Conditioner™: A water-based surface conditioner and adhesion promoter for the Dryvit Flashing Tape.
C. Dryvit AP Adhesive™: A moisture cure, urethane-based adhesive used to adhere the Dryvit Drainage Strip™ and
Drainage Track.
D. Drainage Track: UV treated PVC "J" channel perforated with weep holes, complying with ASTM D 1784 and
ASTM C 1063. Drainage track usage is limited to the base of the system at finished grade level when installing system in noncombustible construction. All other horizontal terminations shall utilize the Dryvit Drainage Strip as shown in Outsulation Plus MD Installation Details, DS110. Shall be one of the following:
1. Starter Trac STWP – without drip edge by Plastic Components, Inc.
2. Starter Trac STDE – with drip edge by Plastic Components, Inc.
3. Universal Starter Track by Wind-lock Corporation
4. Sloped Starter Strip with Drip by Vinyl Corp.
E. Dryvit Drainage Strip: A corrugated plastic sheet material, which provides drainage.

F. Adhesives: Used to adhere the EPS to the air/water-resistive barrier, shall be compatible with the water-resistive barrier and the EPS.
1. Cementitious: A liquid polymer-based material, which is field mixed with Portland cement.
a. Shall be Primus, or Genesis
2. Ready mixed: A dry blend cementitious, copolymer-based product, field mixed with water.
a. Shall be Primus® DM, Genesis® DM, Genesis® DMS, Rapidry DM 35-50 or Rapidry DM 50-75
G. Insulation Board: Expanded Polystyrene meeting Dryvit Specification for Insulation Board, DS131.
1. Thickness of insulation board shall be minimum 1 in (25 mm).
2. The insulation board shall be manufactured by a board supplier listed by Dryvit Systems, Inc.
H. Machine Coated Dryvit EPS Shapes and Starter Boards: Shall be supplied by Acrocore or other approved manufacturer that subscribes to the Dryvit third party certification and quality assurance program.
I. Base Coat: Shall be compatible with the EPS insulation board and reinforcing mesh(es).
1. Cementitious: A liquid polymer-based material, which is field mixed with Portland cement.
a. Shall be Primus, or Genesis
2. Noncementitious: A factory-mixed, fully formulated, water-based product.
a. Shall be NCB
3. Ready mixed: A dry blend cementitious, copolymer-based product, field mixed with water.
a. Shall be Primus DM, Genesis DM, Genesis DMS, Rapidry DM 35-50 or Rapidry DM 50-75
4. Shieldlt™: A 2-pass base coat used over existing EIFS or a Dryvit reinforced base coat to improve impact resistance against woodpeckers when specified.
J. Reinforcing Mesh: A balanced, open weave, glass fiber fabric treated for compatibility with other system materials.
1. Shall be Standard, Standard Plus, Intermediate, Panzer 15, Panzer 20, Detail and Corner Mesh
2. Shall be colored blue for product identification bearing the Dryvit logo.
K. Finish: Shall be the type, color and texture as selected by the architect/owner and shall be one or more of the following:
1. Standard DPR (Dirt Pickup Resistance): Water-based, acrylic coating with integral color and texture and formulated with DPR chemistry:
a. Quarzputz® DPR: Open-texture

3.01 EXAMINATION
A. Prior to installation of the Outsulation Plus MD System, the contractor shall verify that the substrate:
1. Is of a type listed in Section 1.04.C.1.
2. Is flat within 1/4 in (6.4 mm) in a 4 ft (1.2 m) radius.
3. Is sound, dry, connections are tight; has no surface voids, projections, or other conditions that may interfere with the Outsulation Plus MD System installation or performance.
B. Prior to installation of the Outsulation Plus MD System, the general contractor shall insure that all needed flashings and other waterproofing details have been completed, if such

5

completion is required prior to the Outsulation Plus MD application. Additionally, the Contractor shall ensure that:
1. Metal roof flashing has been installed in accordance with the manufacturer's requirements, Asphalt Roofing Manufacturers Association (ARMA) Standards and Dryvit Outsulation Plus MD Installation Details, DS110, or as otherwise necessary to maintain a watertight envelope.
2. Openings are flashed in accordance with the Outsulation Plus MD System Installation Details, DS110, or as otherwise necessary to prevent water penetration.
3. Chimneys, balconies and decks have been properly flashed.
4. Windows, doors, etc. are installed and flashed per manufacturer's requirements and the Outsulation Plus MD System Installation Details, DS110.
C. Prior to the installation of the Outsulation Plus MD System, the contractor shall notify the general contractor, and/or architect, and/or owner of all discrepancies.

3.02 PREPARATION
A. The Outsulation Plus MD materials shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.
B. Protect adjoining work and property during Outsulation Plus MD installation.
C. The substrate shall be prepared as to be free of foreign materials, such as oil, dust, dirt, form-release agents, efflorescence, paint, wax, water repellants, moisture, frost, and any other condition that may inhibit adhesion.

3.03 INSTALLATION
A. The system shall be installed in accordance with the Dryvit Outsulation Plus MD System Application Instructions, DS218.
B. The overall minimum base coat thickness shall be sufficient to fully embed the mesh. The recommended method is to apply the base coat in two (2) passes.
C. Sealant shall not be applied directly to textured finishes or base coat surfaces. Dryvit Outsulation Plus MD System surfaces in contact with sealant shall be coated with Demandit Smooth or Color Prime.
D. High impact meshes shall be installed as specified at ground level, high traffic areas and other areas exposed to or susceptible to impact damage.

3.04 FIELD QUALITY CONTROL
A. The contractor shall be responsible for the proper storage and application of the Outsulation Plus MD materials.
B. Dryvit assumes no responsibility for on-site inspections or application of its products.
C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
D. If required, the EPS supplier shall certify in writing that the EPS meets Dryvit's specifications.
E. If required, the sealant contractor shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and Dryvit's recommendations.

3.05 CLEANING
A. All excess Outsulation Plus MD System materials shall be removed from the job site by the contractor in accordance with contract provisions and as required by applicable law.

6

B. All surrounding areas, where the Dryvit Outsulation Plus MD System has been applied, shall be left free of debris and foreign substances resulting from the contractor's work.

3.06 PROTECTION
A. The Outsulation Plus MD System shall be protected from inclement weather and other sources of damage until dry and permanent protection in the form of flashings, sealants, etc. are installed.

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NEW BUILDING FOR

DOUGLAS ROAD CENTER Lot 3

NE VICTORIA DRIVE & NE DOUGLAS ST.

J.Jeffry Schroeder Mo. Licence A-4226
Herman Scharhag Co., Arch. Cert. of Authority A-22

STATE OF MISSOURI
JEFFREY SCHROEDER
NUMBER A-4226
REGISTERED ARCHITECT
8/20/21

No.	Description	Date
	Revision Schedule	

Specs

Project number 2222
Date 08.20.2021

SPEC001

Scale As indicated

8/27/2021 11:08:22 AM

DIVISION 8 - DOORS AND WINDOWS

GLASS AND GLAZING

A. IN GENERAL:

1. Furnish and install materials required to complete glass and glazing work shown on the drawings and described herein. Work includes glazing of aluminum frames, wood frames, sidelights, metal doors, mirrors, etc.
2. Consult door schedules, window schedules, exterior elevations and details for specific types of glass to be used.

B. SETTING:

1. Set all glass in aluminum frames in accordance with mfg. recommendations using neoprene glazing gasket and sealant as required.
2. Openings with wood or metal stops - Set glass in bet of putty; apply thin bed of putty stops; set stops with counter-sunk nails or screws as per details.

C. BREAKAGE:

1. Replace all glass broken after setting. Breakage due to imperfect setting or imperfections in the material will be replaced without charge.
2. Breakage due to accidents or carelessness of others will be charged to the trade at fault.

D. CLEANING:

1. At the completion of the work, remove all dirt, stains, putty, etc. and wash and polish all glass.

F. MATERIALS:

1. Aluminum frames, sidelights, and windows, 1" solar bronze, insulating glass 1/4" thick light inside and out with 1/2" air space between. (Tempered where required by I.B.C. or as indicated on drawings.)
2. Aluminum entry doors - 1/4" solar bronze tempered.

DIVISION 8 - DOORS AND WINDOWS

HOLLOW METAL DOORS AND FRAMES

A. IN GENERAL:

1. Furnish and erect hollow metal door frames, shown on the drawings and hereinafter specified. Refer to Door Schedule for types and sizes.

B. DOORS AND FRAMES:

1. Frames:
a. Made of 16 ga. cold rolled, pickled and annealed steel welded assembly with welds ground smooth for finishing. Exterior frames to be 16 ga. steel.
b. Provide 14 ga. anchors and clips for fastening to masonry jambs and drywall anchors for sheet rock walls.
c. Frames shall be adequately reinforced on inside to support metal doors without sagging.
d. Frames shall be cleaned free from scale, rust and rough spots and receive one coat of rust inhibitive paint before shipment.
e. Frames shall be prepared to receive mortiss-type hardware in accordance with the type of hardware specified. See hardware specifications.
2. Frames are as manufactured by Overly Mfg. Co., Steel Craft or approved equal. See door schedule for types, width, plaster flanges, etc.
3. Template for hardware to be supplied by hardware manufacturers.
4. Doors shall be 16 ga. cold rolled, pickled and annealed steel welded assembly with welds ground smooth.

C. SHOP DRAWINGS:

1. Shop drawings showing all door frames shall be prepared and submitted to Architect for approval.

DIVISION 8 - DOORS & WINDOWS

ALUMINUM GLAZING FRAMES AND DOORS

A. IN GENERAL:

1. Furnish labor and materials for entrance frames including all accessories and related items. Coordinate the work of this section with that of Glass and Glazing as required for the complete installation.

B. MATERIALS:

1. Aluminum entrance frames shall be as manufactured by "Kawneer" or equal.
2. Door frames shall be 4-1/2" deep by 1-3/4", reinforced as required for overall height, with flush glazing.
3. Sections shall be of 6063-T5 extruded aluminum alloy.
4. Finish shall be "Permanodic" anodic color coating and seal per ASTM B-136. Color as selected from standard finishes.
5. Doors shall be narrow style "190", finish to match.
6. Hardware shall be furnished and installed under this section. Hardware includes exposed streamline closer (color anodized), M-S lock, Style "F" push pull, butt hinges, weather stripping, threshold and bottom sweep.

C. ERECTION:

1. Entrance frames shall be installed all in accordance with the manufacturers recommendations. After erection and glazing, this contractor shall check and adjust as required, all items or operating hardware. Coordinate the erection with that of Glass and Glazing. All joint between frames and adjacent framing shall be caulked.

D. PERFORMANCE:

1. The Grid framing system shall not leak when tested in accordance with ASTM E331-68 at test pressure of 7.5 psf.
2. Per ASTM E330, maximum deflection of any member shall not exceed 1/175th of its span and there shall be no permanent deformation or damage upon removal of load. Test for wind loads as required by local building code load requirements.

DIVISION 8 - DOORS AND WINDOWS

WOOD DOORS

A. IN GENERAL:

1. Includes furnishing all wood doors as shown on the Working Drawings and Door Schedule as described herein.

B. MATERIALS:

1. All interior flush doors shall be CUSTOM grade, as defined in the AWI Quality Standards, Section 1300.
2. The interior flush doors shall have red oak veneer to receive stain finish.
3. Solid core doors shall have AWI Type C core.

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STATE OF MISSOURI
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REGISTERED ARCHITECT
8/2021

No.	Description	Date
	Revision Schedule	

Specs

Project number	2222
Date	08.20.2021

SPEC002

Scale 1/16" = 1'-0"

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GENERAL NOTES

A. GENERAL

1. These notes shall be read in conjunction with the Specifications and the Drawings. In the event of a conflict, notify the Architect for clarification.
2. Before executing anything herein shown, examine actual job conditions.Report any discrepancy, dimensional or otherwise, between architectural and structural Drawings and any other error, omission, or difficulty affecting the work to the Architect and to the Structural Engineer for review.
3. The Owner or his Representative reserves the right to inspect any material, fabrication, or workmanship at any time in field or shop for conformance to the Specifications and Drawings.
4. All details and sections are intended to be typical and shall be construed to apply to any similar situation elsewhere, except where a different detail is shown.

B. DESIGN

1. Codes, specifications and standards (latest editions, U.N.O.)
   a. All design and construction shall conform to the International Building Code (currently adopted edition) as amended and adopted by the City of jurisdiction.
   b. All construction shall comply with the provisions of the following codes,specifications and standards, except where noted to the contrary on drawings and specifications or where more stringent requirements are specified or shown:
      ACI 117 "Standard Specifications for Tolerance for Concrete Construction and Materials"
      ACI 301 "Specifications for Structural Concrete for Buildings"
      ACI 318 "Building Code Requirements for Reinforced Concrete"
      ACI 530 "Building Code Requirements for Masonry Structures"
      AISC "Load and Resistance Factor Design (LRFD) Specification for Structural Steel Buildings"
      SDI "Steel Deck Manual for Floor Decks and Roof Decks"
      AWS D1.1 "Structural Welding Code - Steel "
2. Design Loads:
   a. Roof - Snow (incl. rain on snow)
      - Pf = 20 psf
      - Ce = 1.00
      - I = 1.00
      - Ct = 1.00
   b. Wind
      - Basic Wind Speed = 115 mph
      - I = 1.00
      - Wind Exposure B
      - Internal Pressure Coefficient = 0.3
   d. Floor Live Load - Office 50 psf
      - Entrances (exits), stairs 100 psf
      - Light Storage 125 psf
      - Heavy storage 250 psf
   e. Canopy Roof Design Dead Loads:
      - Roof Panels 30 psf
      - Steel Framing 5 psf
      - Roofing 5 psf
      Total 40 psf
3. Foundations are designed for the following net allowable bearing capacities:
   a. Isolated Footings: 2 ksf
   b. Continuous Footings: 2 ksf
4. Foundations and retaining walls have been designed for an equivalent fluid pressure of 100 pcf.

C. CONCRETE

1. Concrete used in the Work shall have the following minimum 28-day ultimate compressive strengths:
   a. Columns 4000 psi
   b. Retaining walls, slabs on grade, and footings 4000 psi
   c. Framed slabs 4000 psi
2. Air entrain all exterior concrete (admixture: ASTM C 260).
3. Do not use calcium chloride admixtures under any circumstances.
4. Reinforcing bars: ASTM A 615 Specifications, Grade 60, deformed. Bend bars cold.
5. Welded wire fabric (WWF): ASTM A 185.
6. Maintain minimum concrete coverage for reinforcing as indicated, unless noted otherwise. Reference details 17/S1.0 and 18/S1.0 for placement of reinforcement in typical framed slabs.
   a. 3 in. clear where concrete is deposited directly against earth.
   b. 2 in. clear where concrete is exposed to earth or weather but poured against forms for bars larger than #5.
   c. 1-1/2 in. clear where concrete is exposed to earth or weather, but poured against forms for bars #5 or smaller.
   d. 3/4 in. clear for slabs and walls formed above grade not exposed to weather.
   e. 1-1/2 in. clear for beam and columns formed above grade and not exposed to weather.
7. Lap all bars at splices in accordance with ACI 318, unless specifically noted otherwise.
8. Top and bottom bars in continuous grade beams shall run continuous through multiple spans, where possible. Otherwise, top bars shall splice within the middle 1/3 span and bottom bars shall splice over supports.
9. Pour columns, walls, and pilasters to be monolithic.
10. All concrete walls shall be properly braced and held in line until supporting slabs or floors are in place.
11. All bar steel and WWF shall be properly supported and held accurately in place as recommended by the Concrete Reinforcing Steel Institute, except that maximum spacing of any bar or mesh support shall be 3 feet.
    a. Support top slab bars with continuous high chairs.
    b. Support beam bars on heavy beam bolsters.
    c. Support footing and grade beam bottom reinforcing on concrete bricks, concrete blocks, or mounds of poured concrete.
    d. Support WWF in slab-on-grade properly at the mid-depth of the slab.Hooking and pulling up mesh after concrete has started to take its initial set is prohibited.
    e. Supports for reinforcement for exposed-to-view concrete surfaces shall have legs that are in contact with forms plastic protected (CRSI, Class 1) or stainless steel (CRSI, Class 2).
12. Where slabs-on-grade make an abrupt change in direction, such as at doors and corners or ends of walls, provide 2-#4 by 4 feet across the reentrant corner.
13. Provide the following minimum concrete cover for fire rating:
    Interior load bearing walls and columns 2 hrs 1 1/2" cover
    Concrete beams 2 hrs 1/2" cover
    Concrete joists 2 hrs 1 1/2" cover
    Floor slab 2 hrs 3/4" cover

D. MASONRY

1. Concrete masonry units (CMU): ASTM C 90, lightweight units (105 pcf or less), with the minimum net area compressive strength of 2200 psi.
2. Mortar: Portland cement and lime, and proportioned in accordance with ASTM C 270 for the following types:
   Type N - for all walls above grade
   Type S - for all walls below grade, in contact with earth
3. f'm = 1500 psi.
4. Provide mortar bed on webs between grouted cells and hollow cells.
5. Grout: ASTM C 476, 3000 psi minimum 28-day compressive strength.
6. Grout all vertical cells and spaces containing reinforcing bars (as detailed) bond beams, and lintels.
7. Vertically reinforce walls as shown on drawings. However, if not indicated on the drawing, reinforce wall as indicated below, at each corner, at ends of 48 inches horizontally throughout the wall, of walls, each side of control joints and openings, and at a maximum spacing unless noted otherwise.
   8" or 6" wall #6
   12" or 10" wall (2) #6
8. Horizontally provide continuous bond beam with 2 #5 minimum for 12" or 10" CMU; 1 #5 minimum for 8" or 6" CMU at floor/roof, near midheight (10'-0 maximum spacing) and top of wall, unless noted otherwise. Provide #5 corner bar for each horizontal bond beam corners.
9. Place reinforcement prior to grouting. Hold vertical reinforcement in position with rebar positioner.
10. Provide horizontal joint reinforcement as indicated on the drawings and specifications, at a minimum provide at 16"o.c.
11. Lap joint reinforcement a minimum of 12 in.
12. In no case shall shores and forms at lintels be removed until it is certain that the masonry has hardened sufficiently to carry its own weight and all other reasonable temporary loads that may be placed on it during construction.
13. Do not wet concrete masonry units.
14. Do not use calcium chloride.
15. Do not use masonry cement.
16. Keep masonry walls shored during construction until the roof deck and floor slabs are in place to provide lateral stability.

E. STEEL

1. Qualifications for Welding Work:
   a. Perform all welding by a certified welder.
   b. Qualify welding processes and welding operators in accordance with AWS "Standard Qualification Procedure".
   c. Provide certifications that welders to be employed in work have satisfactorily passed AWS qualification tests within previous 12 months.
   d. If recertification of welders is required, retesting will be Contractor's responsibility.
2. Erector must examine areas and conditions under which structural steel work is to be installed, and notify Contractor in writing of conditions detrimental to proper and timely completion of Work.Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to the Erector.
3. Submit shop drawings prepared under supervision of a registered professional engineer,including complete details and schedules for fabrication and assembly of structural steel members procedures and diagrams.Include details of cuts, connections, camber, holes, and other pertinent data. Indicate welds by standard AWS symbols, and show size,length, and type of each weld. Show size and type of bolt for all bolted connections.
4. Provide setting drawings, templates, and directions for installation of anchor bolts and other anchorages to be installed by others.
5. Paragraph 4.2.1 of the (AISC) "Code of Standard Practice for Steel Buildings and Bridges" is hereby modified by deletion of the following sentence: "This approval constitutes the owner's acceptance of all responsibility for the design adequacy of any detail configuration of connections developed by the fabricator as a part of his preparation of these shop drawings."
6. If required cut edges of backing strips, extension bars, or run-off plates flush with edge of abutting parts.
7. Where framing members and/or connections for steel stairs are not indicated on either structural or architectural drawings, Design the members and/or connections and submit calculations or supporting data to verify their adequacy.A live load of 125 psf shall be used in the design. Fully detail stair connections, including attachments to supporting members.
8. Structural steel: ASTM A 572 - wide flange sections, ASTM A 36 - angles,channels, and plates, ASTM A 501 - pipes, and ASTM A 500, Grade B - tubes.
9. High Strength Bolts (steel-to-steel connections): ASTM A 325N, with twist-off load indicator type heads.
10. Anchor bolts: ASTM A 307, sizes indicated are based on preliminary reactions and spacing.
11. Welded connections: AWS Standards and Specifications using E70xx electrodes, unless noted otherwise.
12. Expansion Bolts: Stud type expansion anchors...(Hilti Kwik Bolt II).
13. Injection Adhesive: Hilti Dowelling Anchor (HY-150); Rawl/Sika Foil-Fast;Ramset/Redhead Epcon Ceramic 6.
14. Drill holes for anchors using a bit incapable of cutting steel. Do not cut existing concrete reinforcing steel. If, while drilling, reinforcing steel is encountered, notify the Structural Engineer for approval of new location. Cleaned and patch the abandoned hole grout.
15. Ends of beams which have copes to the extent that allowable shear or bending stress of steel is exceeded shall have web plates of sufficient size welded to the beam to reduce such stresses.
16. Provide holes required for securing other work to structural steel framing, and for passage of other work through steel framing members, as shown on final shop drawings.
17. Do not flame cut holes or enlarge holes by burning.
18. Set structural frames accurately to lines and elevations indicated.Align and adjust various members forming apart of a complete frame or structure before permanently fastening.Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
19. Provide temporary shoring and bracing members with connections of sufficient strength to bear imposed loads.Remove temporary members and connections when permanent members are in place and final connections are made. Provide temporary guy line to achieve proper alignment of structure as erection proceeds.
20. Clean bearing surfaces of bond-reducing materials and roughen to improve bond to surfaces. Clean bottom surface of base plates.
21. Grout plates are prohibited. Tighten anchor bolts after supported members have been positioned and plumbed. Do not remove wedges or shims. but if protruding, cut off flush with edge of base plate prior to packing with grout.
22. Nonshrink grout: CRD-621 Type A, premixed, nonmetallic, noncorrosive, nonstaining.
23. Provide open-web joists (K-series), longspan joists (LH-series), and joist girders as indicated on the Drawings and in accordance with specifications of SJI.
    a. Weld K-series joists to supporting steel with 1/8 in. fillet welds in. long, each side, u.n.o.
    b. Weld LH-series joists to supporting steel with 1/4 in. fillet welds 2 in. long, each side, u.n.o.
    c. Bolt joists at or nearest a column to supporting steel in conformance with O.S.H.A.with erection bolts.
    d. Provide continuous horizontal bridging for joists (u.n.o.) and bottom chord braces for joist girders as required by SJI,except where the net uplift loading requires additional bridging.
    e. Provide horizontal bridging to resist 10psf uplift for main roof at service building and main building penthouse.
    f. Extend bottom cord to brace beam bottom flange at mid-span of beams in service building.
24. Form deck: 9/16 in.galvanized deck with the following minimum properties:
    Minimum thickness 0.0295
    Moment of Inertia 0.024 in ^4
    Section Modulus 0.070 in ^3
25. Composite floor deck: 1-1/2 in. galvanized deck with the following minimum properties:
    Minimum thickness 0.0358
    Moment of Inertia 0.195 in ^4
    Section Modulus 0.240 in ^3
26. Roof deck: 1-1/2" painted wide rib deck with the following minimum properties:
    Minimum thickness 0.358
    Moment of Inertia 0.212 in ^4
    Section Modulus 0.234 in ^3
27. Roof deck shall be welded to supports to resist a net uplift of 20 PSF.
28. Provide 2-1/2" x 2-1/2" x 1/4" angles as required to support deck at columns, ends of beams, around openings, etc. Except as noted otherwise.
29. Provide 1,500 # misc. steel for use by Engineer, as needed.

E. EPOXY AND MECHANICAL ANCHORS

1. For concrete, grouted CMU, and solid masonry use Hilti HIT HY 150 two-part hybrid adhesive. For hollow CMU and masonry use Hilti HIT HY20 two-part hybrid adhesive with screen tubes. Equivalent adhesives may be used with prior written approval by the Structural Engineer.
2. Thoroughly clean holes with nylon brush and pressurized air per manufacturers instructions.
3. Drill holes to the embedment depths indicated on the drawings. If no depths are indicated, use 9 bolt or bar diameters with HY150 and 12 bolt diameters for HY 20.
4. "Wedge" or "Expansion" anchors shall be Hilti Kwik bolt II expansion anchors. Embed anchor 7 bolt diameters unless noted otherwise. Equivalent anchors may be substituted with prior written approval of the Structural Engineer.

F. METAL STUDS

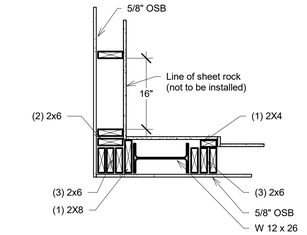
1. Install cold-formed metal studs per drawings and manufacturer's recommendations. See Structural Plan for sizes and gauges.

G. CONSTRUCTION

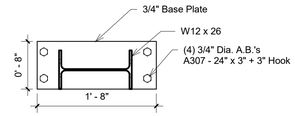
1. See architectural and mechanical requirements for embedded items not shown herein and to verify size and location of all openings.
2. Coordinate the sizes and locations of all miscellaneous metal items required for mechanical and electrical.
3. Requirements for embedded items, sleeves, block outs, duct openings,etc., in the concrete frame shall be submitted (plans and details) to the structural engineer for approval at least two weeks prior to the proposed date of casting concrete. No such items, other than those shown, shall be provided in the structure without the approval of the structural engineer.
4. Provide adequate shoring or bracing during construction to resist forces such as wind and unbalanced loading due to construction.
5. Field verify the location and depth (or height) of all utilities prior to beginning construction in order to provide adequate clearances and to insure noninterruption of service.

STRUCTURAL NOTES

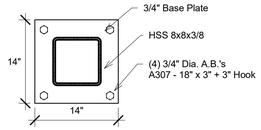
1. TRUSS MANUFACTURER TO FURNISH ALL HOLD DOWNS AND CLIPS FOR WOOD TRUSSES
2. PROVIDE HEAVY DUTY CLIPS AT ALL PANEL EDGES PERPENDICULAR TO TRUSSES AT 2'-0" O.C. STAGGER END OF PANELS AND GAP ALL PANELS 1/16" AT ALL EDGES
3. PROVIDE SIMPSON H1 HOLD DOWN CLIPS FOR EACH TRUSS
4. ROOF SHEATHING TO BE 5/8" EXTERIOR APA PLYWOOD, NAILED WITH 10d NAILS AT 6" O.C. ALL AROUND PLYWOOD EDGES (BLOCKING AS REQUIRED) AND ALL AROUND ROOF PERIMETER WITH 10d NAILS AT 6" O.C. AT ALL INTERMEDIATE SUPPORTS
5. BRACING DESIGN BY TRUSS MANUFACTURER
6. TRUSS MANUFACTURER TO PROVIDE DESIGN DRAWINGS AND CALCULATIONS AND LAYOUT PLAN, SEALED BY REGISTERED ENGINEER, FOR REVIEW, AND FOR APPROVAL BY THE CITY
7. WALL SHEATHING TO BE 5/8" OSB, NAILED WITH 8d NAILS AT 6" O.C. AT ALL STUDS AND FULL PERIMETER OF EACH PLYWOOD SHEET (BLOCKING AS REQUIRED) AND ALL AROUND PERIMETER OF WALL AND AROUND ALL OPENINGS
8. SEE ARCHITECTURAL SHEETS FOR ALL OPENING HEIGHTS AND WIDTHS



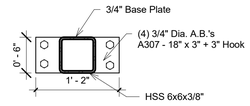
6 Wind Post Detail
3/4" = 1'-0"



BASE PLATE 'A'

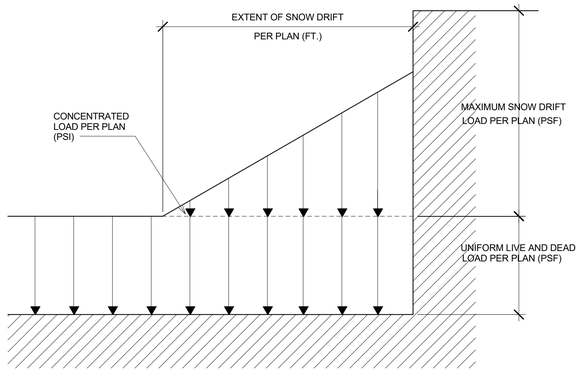


BASE PLATE 'B'

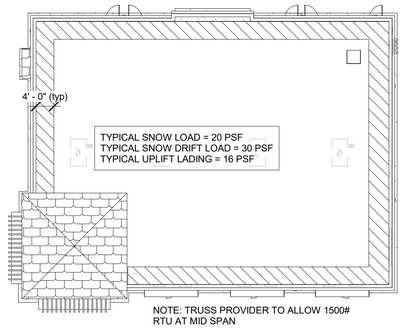


BASE PLATE 'C'

5 Base Plate Details
1" = 1'-0"



2 Snow load
1/2" = 1'-0"



3 Snow Load Plan
1/16" = 1'-0"

scharhag
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Phone: 816-656-5055 Scharhagarch@gmail.com

NEW BUILDING FOR

DOUGLAS ROAD CENTER Lot 3

NE VICTORIA DRIVE & NE DOUGLAS ST.

JOSEPH A. TOWNS MO. LIC. E 22017
LORAC DESIGN GROUP
CERT. OF AUTHORITY E-2005032846-D

STATE OF MISSOURI JOSEPH ALAN TOWNS NUMBER E-22017 REGISTERED PROFESSIONAL ENGINEER

No.	Description	Date
	Revision Schedule	

Structural Notes

Project number 2222
Date 08.20.2021

S100

Scale As indicated

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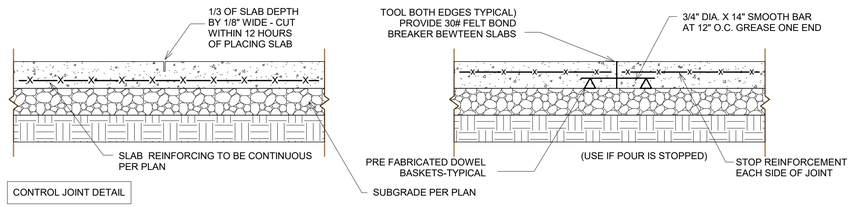
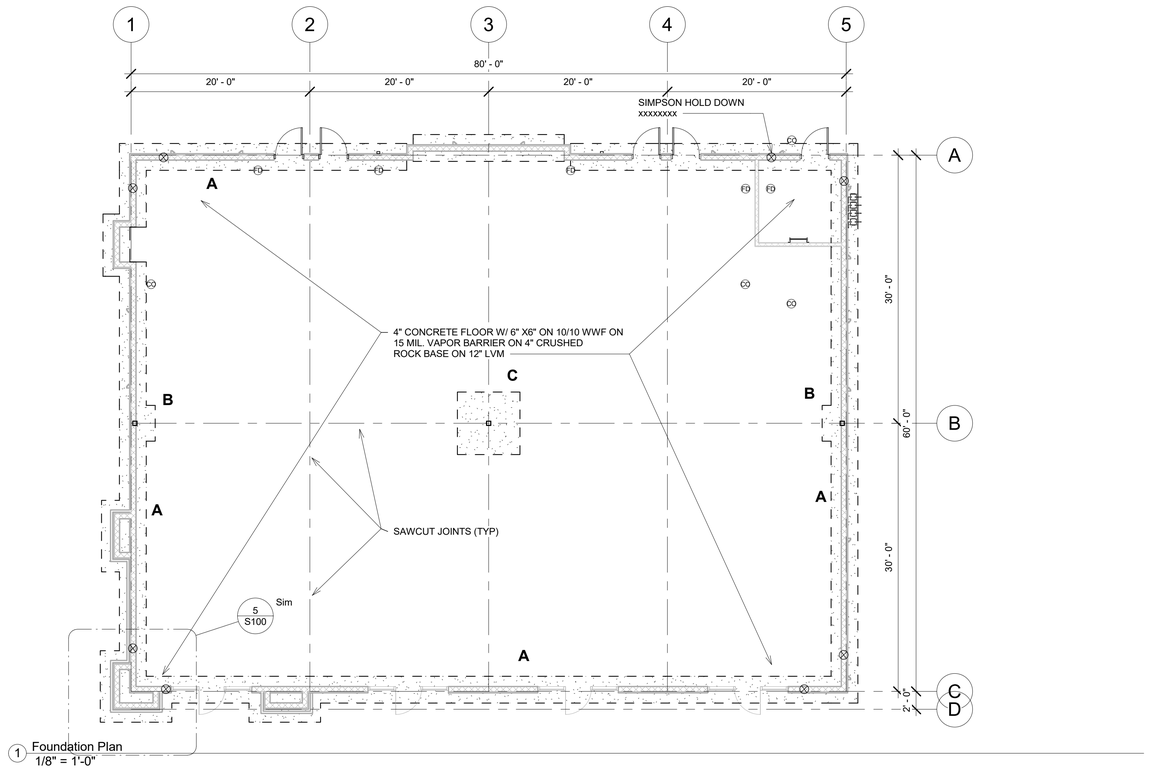
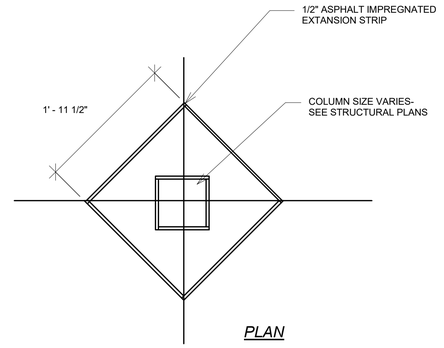


3 Sawcut Floor Slab
3/4" = 1'-0"

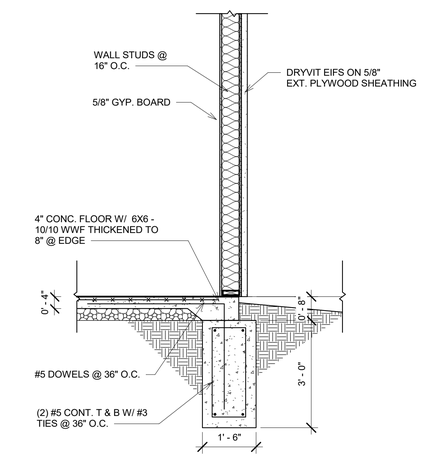
Structural Foundation Schedule		
Type Mark	Type	Type Comments
A	Bearing Footing - 36" x 12"	
B	4' x 4' x 3'.0" deep	(6) #6's Each way at top and bottom w/ (1) #6 @ each corner
C	7' x 7' x 2'.0" deep	(7) #6's each way at bottom



1 Foundation Plan
1/8" = 1'-0"



4 Column Detail
1" = 1'-0"



2 Footing 3
1/2" = 1'-0"

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JOSEPH A. TOWNS MO. LIC. E 22017
LORAC DESIGN GROUP
CERT. OF AUTHORITY E-2005032846-D

No.	Description	Date
Revision Schedule		

Foundation

Project number	2222
Date	08.20.2021

S101

Scale As indicated

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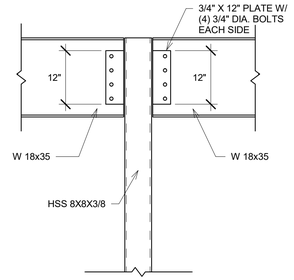
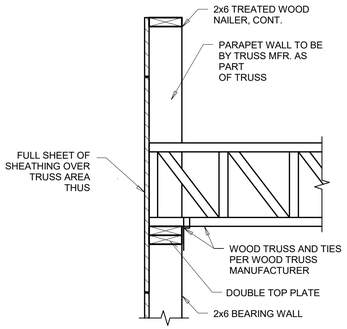
LINTEL SCHEDULE

LINTEL TYPE 'A'	TWO 2X 14 LVL'S
LINTEL TYPE 'B'	THREE 2X 14 LVL'S

PROVIDE (6) 2X6'S BEARING AT EACH END OF LINTELS

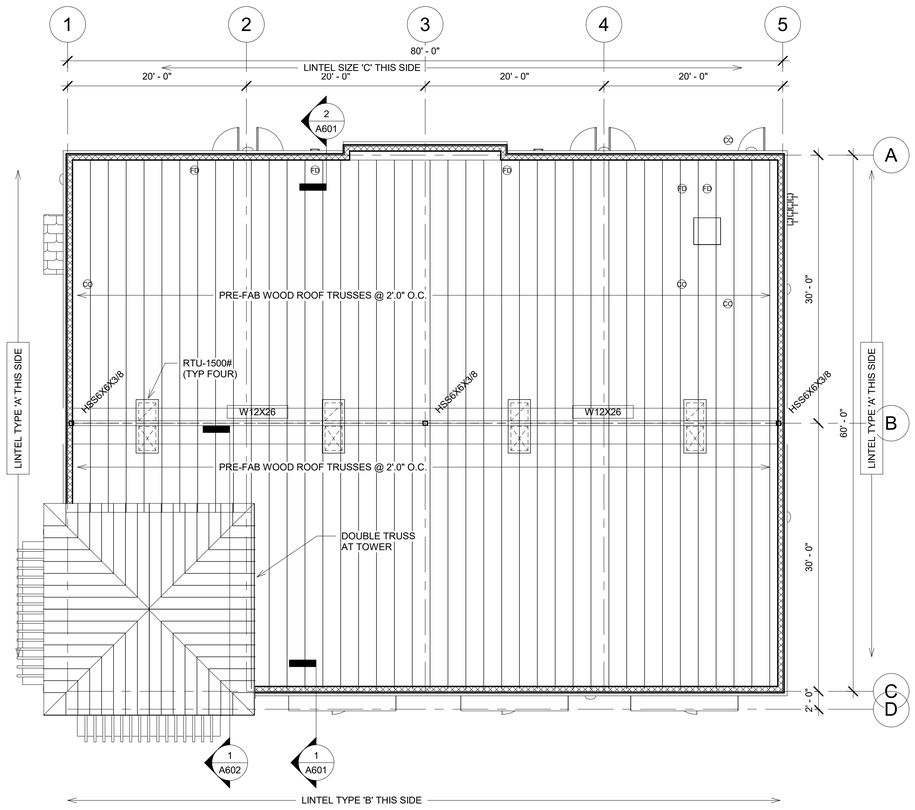


2 Beam Connection Detail
3/4" = 1'-0"

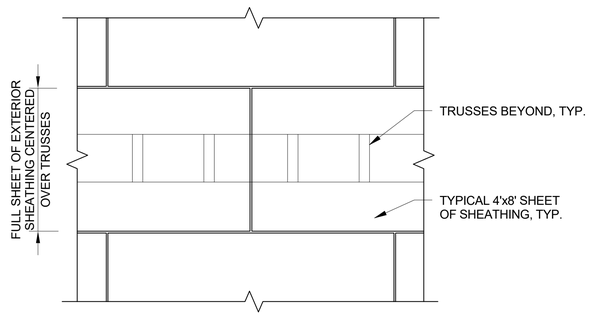


NOTE: FOR TYPICAL SHEATHING DETAIL RE: 1/S001

3 typical section at truss bearing wood
1" = 1'-0"



1 Framing Plan
1/8" = 1'-0"



NOTE: ALL EXTERIOR SHEATHING TO HAVE NAILS @ 4" O.C.
AROUND EDGE AND 6" O.C. INFIELD.

4 Typical Exterior sheathing wood
1/2" = 1'-0"

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STATE OF MISSOURI
JOSEPH
ALAN TOWNS
NUMBER
E-22017
REGISTERED
PROFESSIONAL ENGINEER

No.	Description	Date
	Revision Schedule	

Framing

Project number	2222
Date	08.20.2021

S102

Scale: As indicated

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