MERCY HEALTH ARENA - ADA AND STORAGE ENHANCEMENTS

470 W WESTERN MUSKEGON, MI 49440

DESIGN TEAM ISSUED FOR: **BIDS**



160 CALAIS CT, SE Grand Rapids, MI 49546

616.288.4989 www.spark43arch.com CIVIL **ENGINEER & SURVEYOR:**

Westshore 2534 Black Creek Rd Muskegon, MI 49444 Ph: (231) 777-3447

GEO-**TECHNICAL ENGINEER:**

STRUCTURAL/ Soils & Structures 6480 Grand Haven Rd Norton Shores, MI 49441 Ph: (231) 798-4127

MECHANICAL/ **ELECTRICAL**/ **PLUMBING ENGINEER:**

BRIAN INGELLS Ph: (231) 670-5539 **CONSTRUCTION** Coalition Compaines **MANAGER:**

847 Reynard St SE Grand Rapids, MI 49507 Ph (616) 450-3946

OWNER'S REP: NA

PROJ. NO. 2201

MAY 20, 2022



ARCHITECTURAL SYMBOLS

NORTH ARROW

WINDOW NUMBER

SEE SCHEDULE ON SHEET A9.50

ROOM IDENTIFICATION

100'-0" SPOT ELEVATION

____01 - EVENT LEVEL ____ LEVEL NAME LEVEL ELEVATION

Ç — – CENTERLINE

DIMENSION

ALL PLAN DIMENSIONS ARE

UNLESS NOTED OTHERWISE

TO FACE OF STUD FRAMING

OR FACE OF MASONRY

LEVEL DATUM

ROOM NAME

ENLARGED PLAN / DETAIL

DRAWING NUMBER

GRID BUBBLES

GRID NUMBER

GRID NUMBER

SHEET NUMBER

1 — DRAWING NUMBER

INTERIOR ELEVATION

BUILDING SECTION

INTERIOR SECTION **DETAIL REFERENCE**

GENERAL NOTES REFER TO CODE ANALYSIS REPORT FOR A LISTING OF APPLICABLE BUILDING CODES AND STANDARDS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND RESPECTIVE SUBCONTRACTORS TO BUILD TO SATISFY THESE CODES AND CALL FOR ALL NECESSARY INSPECTION. REFER TO PROJECT SPECIFICATIONS FOR FURTHER DEFINITION OF THE WORK THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT THE SITE AND REPORT ALL DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. CONTACT ARCHITECT FOR CLARIFICATION IN THE EVENT OF ANY DISCREPANCY IN THE CONSTRUCTION DOCUMENTS OR ANY AMBIGUITY OF ARCHITECTURAL INTENT. ALL LEGAL EXITS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. ALL PLAN DIMENSIONS ARE TO CENTERLINE OF COLUMN GRID, FACE OF STUD FRAMING FACE OF CONCRETE OR FACE OF CMU UNLESS NOTED OTHERWISE. THE LARGEST SCALE DRAWING SHALL GOVERN OVER ALL OTHER DRAWINGS. "F.V." ON DRAWINGS REFERS TO FIELD VERIFICATION FOR CORRECT DIMENSIONS AND CONDITIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES. DO NOT SCALE DRAWINGS THE GENERAL CONTRACTOR SHALL PREP ALL FLOORS TO RECEIVE FINISHES.

COORDINATE DUCT, FLUE, AND VENT PENETRATIONS WITH MECHANICAL CONTRACTOR

ALL ELEVATIONS SHOWN ON PLANS ARE BUILDING ELEVATIONS (MAIN LEVEL = 100'-0")

OBSTRUCTIONS.

PROTECTED AS REQUIRED IN THE IBC.

LOCATE ALL PLUMBING IN PROTECTED AREAS TO AVOID FREEZING OF PIPES AND TRAPS.

PAINT ALL INTERIOR CONDUIT, DUCTWORK, PIPING, ETC., IN FINISHED SPACES EXPOSED TO PUBLIC

PAINT ALL EXPOSED METAL ON EXTERIOR OF BUILDING WITH HIGH PERFORMANCE PAINT SYSTEM THAT

IS NOT INDICATED TO BE PREFINISHED U.N.O., INCLUDING BUT NOT LIMITED TO CONDUIT, PIPING, GAS

PIPING, FLASHING, MECH. FLUES AND DUCTS, LINTELS, HOLLOW METAL FRAMING AND DOORS, STEEL

PROVIDE TRAPEZE TO SUPPORT SUSPENDED CEILINGS AS REQUIRED BELOW DUCTWORK OR OTHER

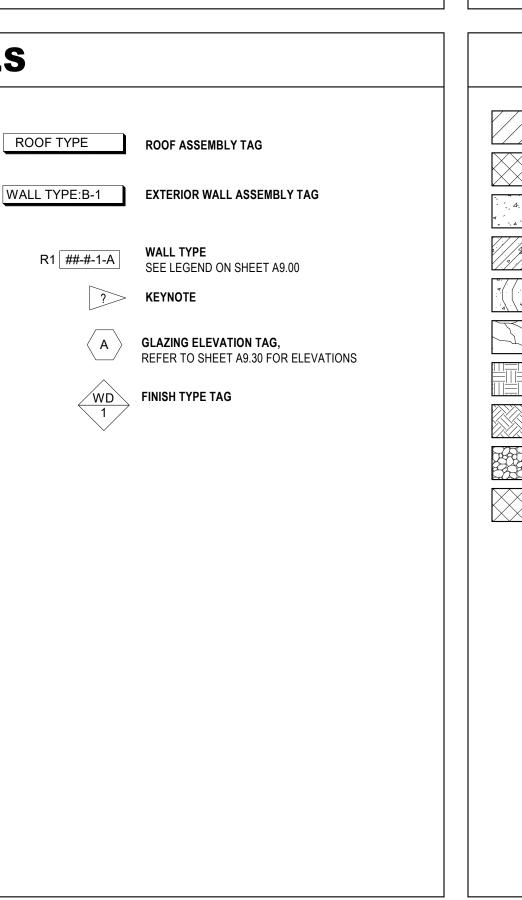
WALL AND CEILING MATERIALS SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATIONS LISTED IN

PROVIDE ACCESS PANELS AT LOCATIONS INDICATED AND AS REQUIRED FOR ACCESS TO EQUIPMENT

AND DEVICES INCLUDING, BUT NOT LIMITED TO MECHANICAL, PLUMBING, AND ELECTRICAL WORK.

PENETRATIONS OF FIRE-RESISTIVE WALLS, FLOOR-CEILINGS AND ROOF-CEILINGS SHALL BE

VICINITY MAP



CAST IN PLACE PLYWOOD/SHEATHING CONCRETE PRECAST CONCRETE ALUMINUM (LARGE CAST STONE CUT STONE GYPSUM BOARD BATT INSULATION / SOUND COMPACTED FILL ATTENUATION BLANKETS UNDISTURBED EARTH RIGID INSULATION ACOUSTICAL WALL PANEL

MATERIAL SYMBOLS

WOOD BLOCKING

FINISH WOOD - CUT

SAFP (SPRAY APPLIED FIRE PROOFING)

NOT TO SCALE

CONCRETE BLOCK

CATWALK DECK

ZONING INFORMATION: ADDRESS: 955 WEST RIVER CENTER DRIVE NE COMSTOCK PARK, MI 49321 ZONED DISTRICT: LIGHT INDUSTRIAL OVERLAY(S): FLOOD ZONE (WITH

<u>SETBACKS</u> FRONT YARD: EXISTING (UNCHANGED) SIDE YARD: EXISTING (UNCHANGED) REAR YARD: EXISTING (UNCHANGED)

ADDITION WILL NOT EXCEED EXISTING BUILDING HEIGHT. REFER TO ELEVATIONS.

CODE REVIEW:

BUILDING CODE: MICHIGAN REHABILITAION CODE 2015, 2015 MBC (BUILDING WAS ORIGINALLY CONSTRUCTED UNDER 1996 BOCA)

PRELIMINARY CODE REVIEW

USE GROUP: S-1 **CONSTRUCTION TYPE: 5B**

ALLOWABLE AREA: 36,000 GSF (MAX.) FIRE AREA 1: 6,525 GSF WAREHOUSE/STORAGE (S-1 USE) FIRE AREA 3: 4,250 GSF OFFICE (B ACCESSORY USE)
BUILDING GROSS SF: 18,872 GSF

OCCUPANT LOAD FACTORS (1003.2.2.2 / 1004.2.12000 MBC):

S-1: 300SF/OCC = 52 OCCUPANTS

B: 100SF/OCC = 43 OCCUPANTS (MAX ALLOWABLE FOR SPACES W/ SINGLE MEANS OF EGRESS = 30 PER 1004.2.1)

ALLOWABLE TRAVEL DISTANCES

FOR S-1 AND B OCCUPANCY: 200 FEET W/O AUTOMATIC SPRINKLER SYSTEM (1004.2.4) COMMON PATH OF TRAVEL EGRESS DOES NOT EXCEED 100 FEET PER 1004.2.5 **EXCEPTION 2 FOR B OCCUPANCY.**

SPECIAL CODE CONSIDERATIONS:

HIGH-PILED COMBUSTIBLE STORAGE:

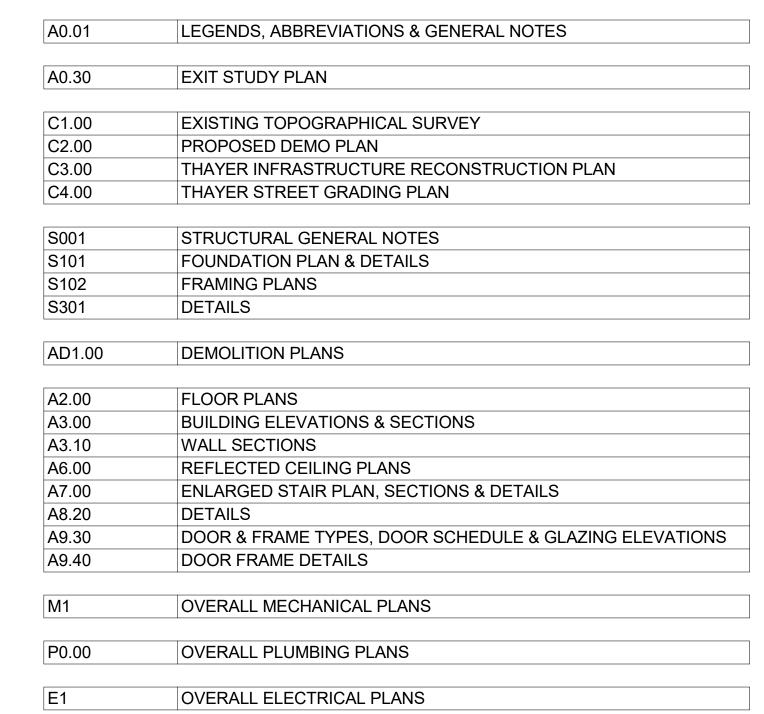
COMMODITIES SHALL BE CLASS I, II, III OR IV. (2015 IFC: 3203) SIZE OF HIGH PILED COMBUSTIBLE STORAGE SHALL NOT EXCEED 2,500 SF (2015

IFC: 3206.2)

STRUCTURAL/MECHANICAL/ELECTRICAL/PLUMBING: MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS ARE TO BE DESIGNED BY THE APPROPRIATE LICENSED DESIGN-BUILD SUBCONTRACTOR.

STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS ARE NOT THE RESPONSIBILITY OF THE ARCHITECT

Sheet Number	Sheet Name							
G0.01	COVER SHEET							
A0.01	LEGENDS, ABBREVIATIONS & GENERAL NOTES							
A0.30	EXIT STUDY PLAN							
C1.00	EXISTING TOPOGRAPHICAL SURVEY							
C2.00	PROPOSED DEMO PLAN							
C3.00	THAYER INFRASTRUCTURE RECONSTRUCTION PLAN							
C4.00	THAYER STREET GRADING PLAN							
S001	STRUCTURAL GENERAL NOTES							
S101	FOUNDATION PLAN & DETAILS							
S102	FRAMING PLANS							
S301	DETAILS							
AD1.00	DEMOLITION PLANS							
A2.00	FLOOR PLANS							
A3.00	BUILDING ELEVATIONS & SECTIONS							
A3.10	WALL SECTIONS							
A6.00	REFLECTED CEILING PLANS							
A7.00	ENLARGED STAIR PLAN, SECTIONS & DETAILS							
A8.20	DETAILS							
A9.30	DOOR & FRAME TYPES, DOOR SCHEDULE & GLAZING ELEVATIONS							
A9.40	DOOR FRAME DETAILS							
M1	OVERALL MECHANICAL PLANS							
M1 P0.00	OVERALL MECHANICAL PLANS OVERALL PLUMBING PLANS							





LEGENDS, **ABBREVIATIONS & GENERAL NOTES**

MERCY HEALTH

STORAGE

470 W WESTERN MUSKEGON, MI 49440

Project No.: 2201

02 ISSUED FOR BIDS

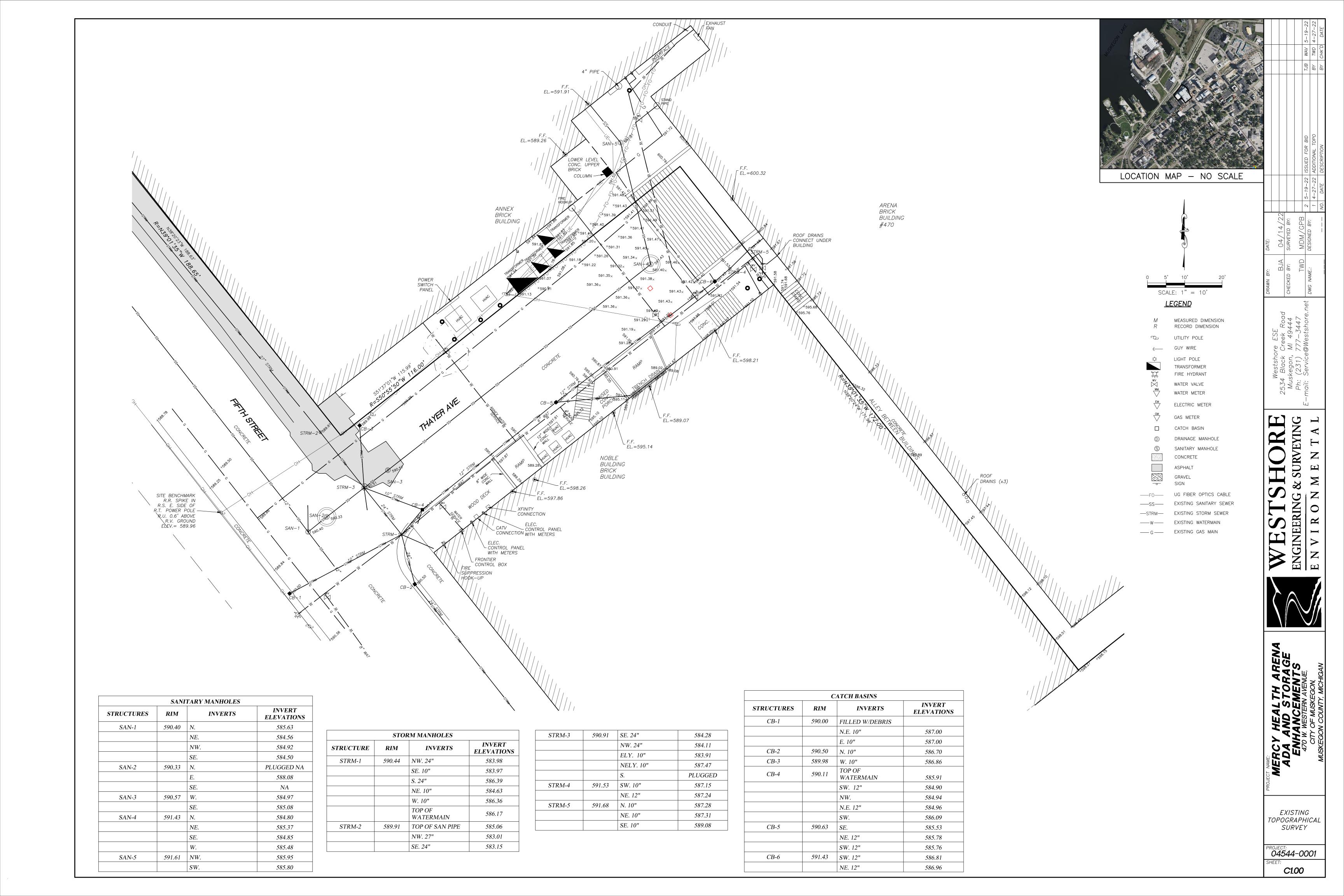
ARENA - ADA AND

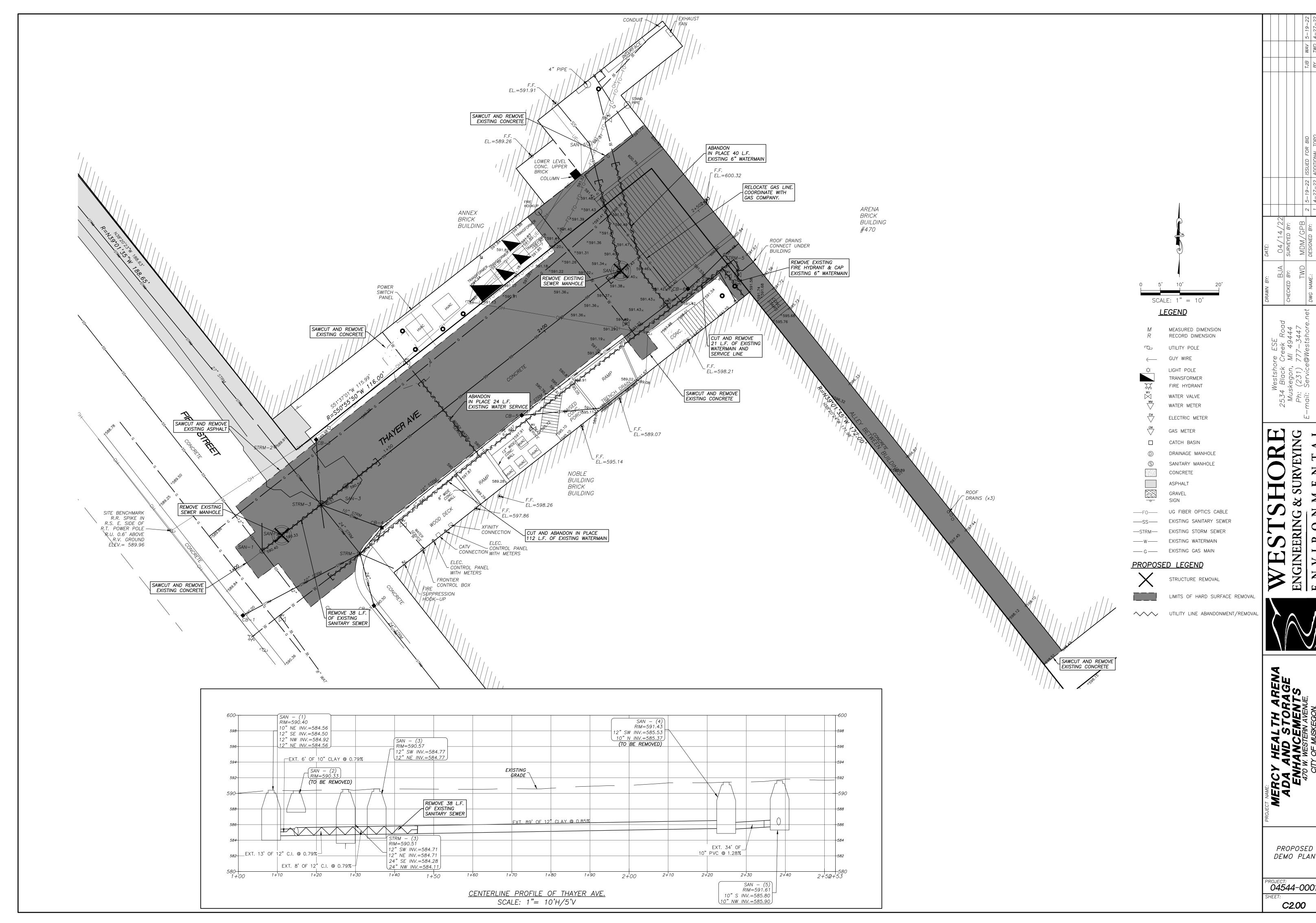
ENHANCEMENTS

All information appearing herein shall not be duplicated, discharged or otherwise

01 ISSUED FOR COORDINATION

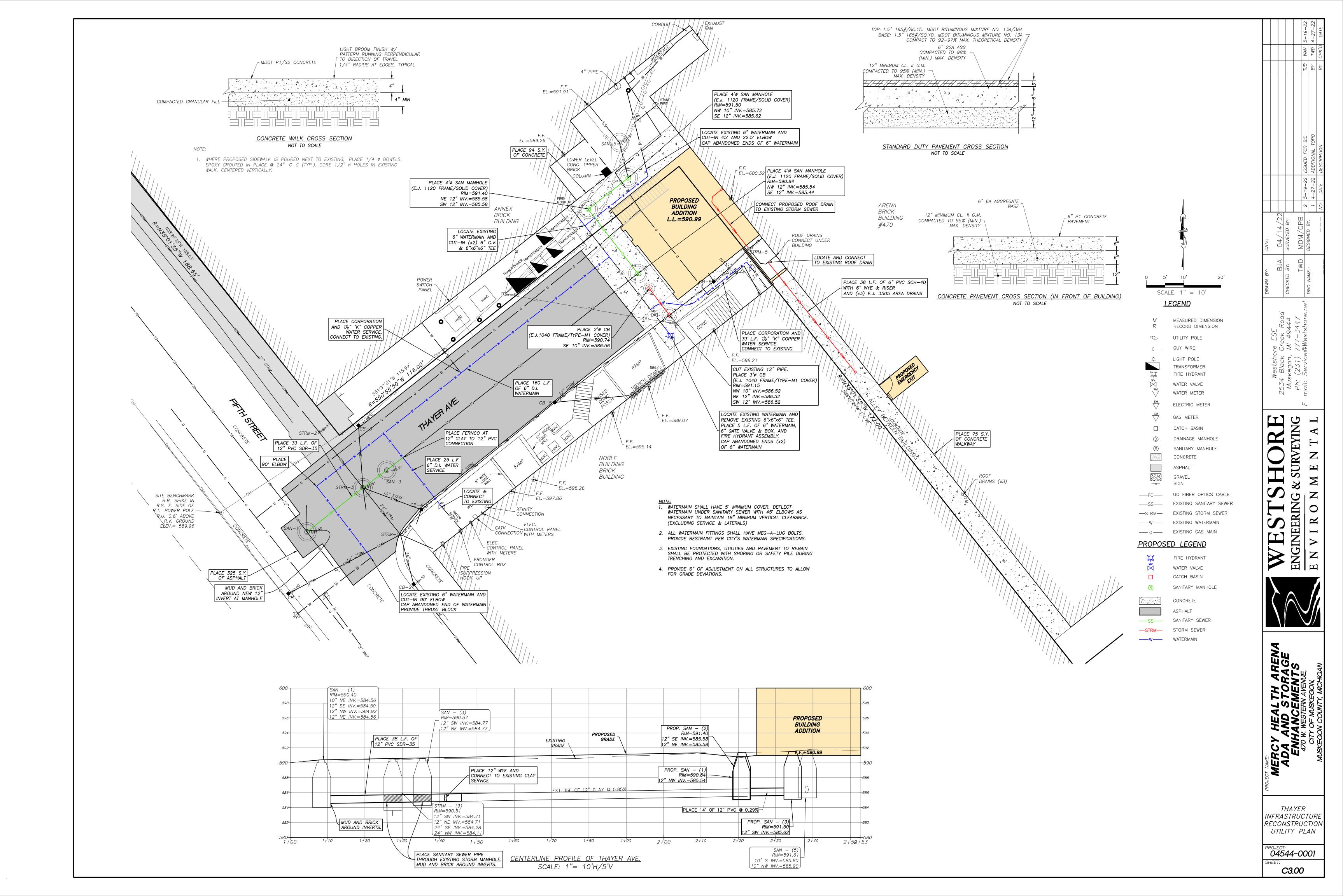
A0.01

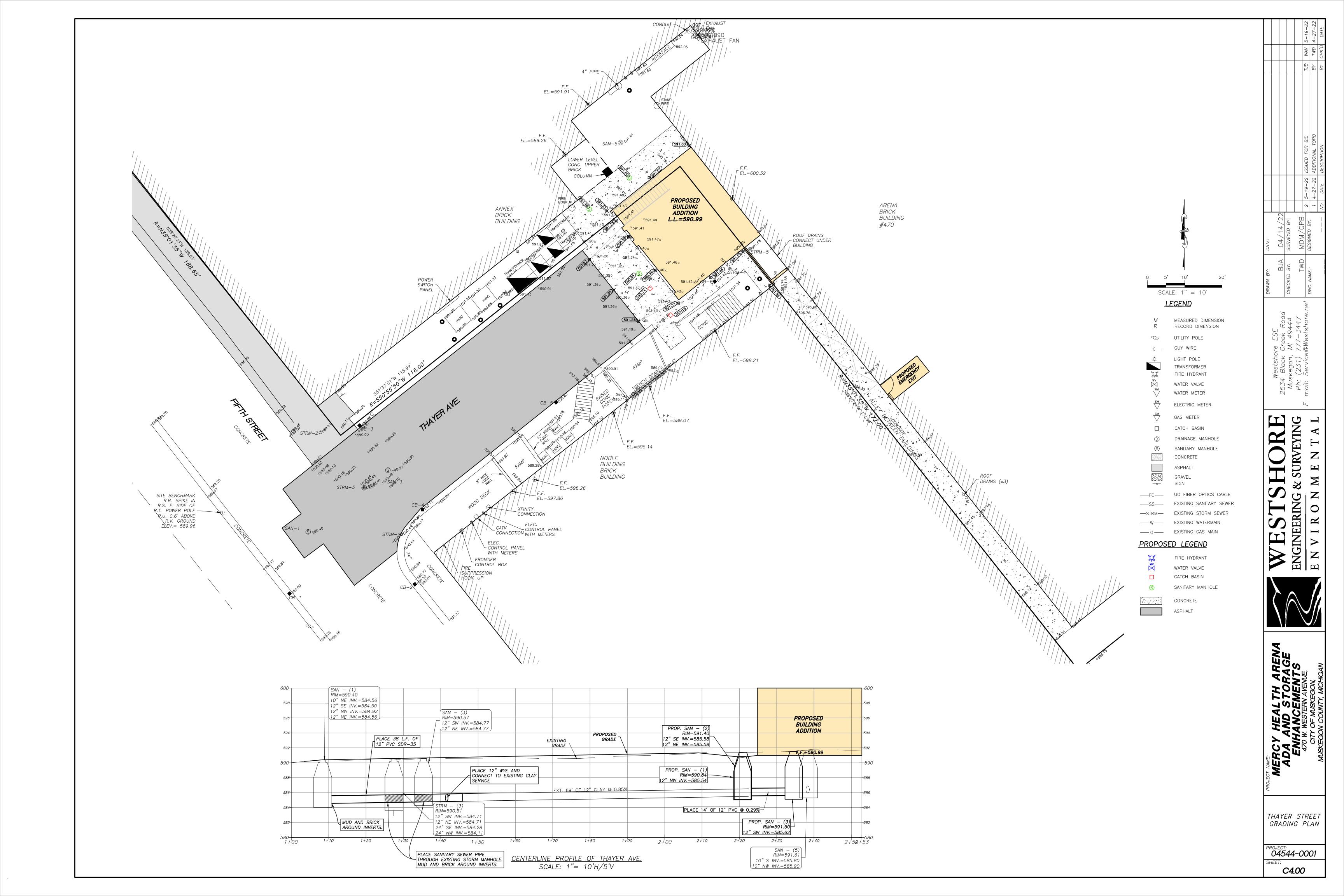




DEMO PLAN

PROJECT: **04544-0001**





GENERAL NOTES

1. THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE

2. FOUNDATIONS HAVE BEEN DESIGNED UTILIZING RECOMMNEDATIONS IN THE FOLLOWING SOIL REPORT:

a. SOILS AND STRUCTURES: 2022.0276

ALLOWABLE SOIL BEARING CAPACITY = 3000PSF

THE FOLLOWING (ASCE7-10) STRUCTURAL LOADS HAVE BEEN USED FOR DESIGN:

 a. <u>BUILDING DESIGN CATEGORY</u> b. SNOW LOADS

v. FLAT ROOF SNOW LOAD (Pf)

 GROUND SNOW LOAD (Pg) ii. SNOW EXPOSURE FACTOR (Ce) iii. SNOW LOAD IMPORTANCE FACTOR (Is) iv. THERMAL FACTOR (Ct)

c. WIND LOADS

 BASIC WIND SPEED (V) 115MPH WIND IMPORTANCE FACTOR (Iw) WIND EXPOSURE CATEGORY INTERNAL PRESSURE COEFFICIENT (GCpi) +/- 0.18

d. LIVE LOAD

 FLOOR LIVE LOAD e. <u>DEAD LOADS</u>

ROOF

ii. FLOOR 108PSF (HOLLOW CORE + 3" TOPPING)

50.4PSF

100PSF

1.0

.042g

.067g

f. SEISMIC LOAD

 SEISMIC IMPORTANCE FACTOR (Ie) ii. MAPPED SPECTRAL RESPONSE COEEFICIENTS:

 SHORT PERIOD (Ss) 1 SECOND PERIOD (S1)

iii. SPECTRAL RESPONSE COEFFICIENTS: SHORT PERIOD (Sds)

1 SECOND PERIOD (Sd1)

iv. SEISMIC SITE CLASS v. BASIC SEISMIC FORCE RESISTING SYSTEM:

 ORDINARY PLAIN MASONRY SHEAR WALLS vi. RESPONSE MODIFICATION FACTOR vii. SEISMIC RESPONSE COEFFICIENT (CS) viii. SEISMIC DESIGN CATEGORY

ix. DESIGN BASE SHEAR (V) 5000LBS x. ANALYSIS PROCEDURE

AND PENETRATIONS.

ALL SPECIAL INSPECTIONS AND STRUCTURAL TESTS SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 17 OF THE 2018 INTERNATIONAL BUILDING CODE (SEE STATEMENT OF SPECIAL INSPECTIONS THIS SHEET).

6. SOILS AND STRUCTURES SHALL BE PROVIDED ALL STRUCTURAL SHOP DRAWINGS RELATED TO CONCRETE REINFORCING AND MIX DESIGN SUBMITTALS FOR REVIEW PRIOR TO CONSTRUCTION.

4. CONTRACTOR SHALL COORDIANTE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL OPENINGS

CONCRETE NOTES

- ALL CONCRETE HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN ACCORDANCE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318.
- CONCRETE COMPRESSIVE STRENGTH:
 - a. FOOTINGS: NORMAL WEIGHT CONCRETE
 - MINIMUM COMPRESSIVE STRENGTH = 3000PSI @ 28DAYS
 - ii. MAXIMUM W/C = N/A
 - iii. AIR CONTENT = N/A
 - SLABS ON GRADE: NORMAL WEIGHT CONCRETE
 - MINIMUM COMPRESSIVE STRENGTH = 4000PSI @ 28DAYS MAXIMUM W/C = 0.45
 - iii. AIR CONTENT = 6 +/- 1.5%
- THE USE OF CHLORIDE ACCELERATORS IN ANY CONCRETE MIX IS PROHIBITED. 4. ALL REINFORCING STEEL BARS TO BE ASTM A615 GRADE 60 DEFORMED AND ALL WELDED
- WIRE FABRIC TO BE ASTM A185.
- 5. CONCRETE COVER FOR REINFORCING AND SPACING BETWEEN BARS SHALL BE IN ACCORDANCE WITH ACI 318.
- ALL NEW CONCRETE SHALL BE CURED IMMEDIALTELY AFTER FINISHING OR REMOVING FORMWORK.CURING SHALL BE EITHER A MOIST CURE METHOD OR A CURING COMPOUND SHALL BE USED.
- PROVIDE CORNER BARS THAT MATCH CONTINUOS WALL REINFORCEMENT SIZE AND QUANTITY AT ALL INTERSECTIONS AND CORNERS OF WALLS AND FOOTINGS.
- 8. FOOTINGS SHALL BE PLACED ON SOLID BEARING REGARDLESS OF THE ELEVATION SHOWN ON THE DRAWINGS. IF SOIL CONDITIONS ARE QUESTIONABLE AT THE BEARING ELEVATION INDICATED ON THE DRAWINGS THE GEOTECHNICAL ENGINEER SHALL BE
- ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 36, WITH "UNC" CLASS 2A THREADS, HEAVY HEX NUTS AND STANDARD CUT WASHERS.
- 10. ALL EXPOSED EXTERNAL CORNERS OF FOUNDATIONS ARE TO BE CHAMFERED 3/4" BY 45 DEGREES UNLESS NOTED OTHERWISE.
- 11. EARTH RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL THE CONCRETE HAS
- 12. ALL FILL REQUIRED SHALL BE COMPACTED TO 95% OF ITS MAXIMIUM DENSITY AS DETERMINED BY ASTM D1557.

STEEL NOTES

1. ALL STEEL HAS BEEN DESIGNED AND SHALL BECONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC STEEL CONSTRUTION MANUAL.

ALL STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

 a. W-SHAPES ASTM A992 GRADE 50

 b. PLATE AND BAR ASTM A36 ASTM A500 Gr. C (Fy = 50KSI)

 c. HSS RECT. TUBES d. MISC. STEEL ASTM A36

 e. STRUCTURAL BOLTS ASTM A325

f. PIPE ASTM A53 GRADE B ASTM A108 TYPE B 65KSI g. HEADED STUD ANCHORS

3. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF AWS D1.1. ALL WELD ELECTRODES SHALL BE E70XX LOW HYDROGEN.

COORDINATE PAINT AND FIREPROOFING REQUIREMENTS WITH THE ARCHITECT.

5. ALL HSS TUBE OR PIPE COLUMNS SHALL HAVE A 1/8" COVER PLATE UNLESS NOTED

ALL BOLTS SHALL BE TIGHTENED TO AN AISC SNUG TIGHT CONDITION UNLESS NOTED

STRUCTURAL MEMBERS TO BE GALVANIZED SHALL BE IN ACCORDANCE WITH ASTM A123. BOLTS AND NUTS TO BE GALVANIZED SHALL BE IN ACCORDANCE WITH ASTM A153.

8. ANY DAMAGE TO GALVANIZING SHALL BE TOUCHED UP WITH VOIGHT AND SCHWEITZER LZ09 ZINC PASTE OR AN APPROVED EQUAL.

MASONRY NOTES

 ALL MASONRY HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN ACCORDANCE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 530.

2. MASONRY TO HAVE A COMPRESSIVE STRENGTH (f'm) OF 2000PSI USING THE UNIT

MASONRY GROUT SHALL CONFORM TO ASTM C476 AND SHALL HAVE A 28DAY

REINFORCING BARS SHALL BE ASTM A615, GRADE 60.

MASONRY UNITS SHALL CONFORM WITH ASTM C90.

MORTAR CEMENT SHALL BE TYPE S CONFORMING TO ASTM C270.

COMPRESSIVE STRENGTH OF 2500PSI.

7. GROUT SHALL BE MECHANICALLY VIBRATED TO ENSURE COMPLETE FILLING OF THE CORES. IF HIGH LIFT GROUTING IS USED, CLEANOUTS SHALL BE PROVIDED AT THE BASE OF EACH REINFORCED CELL AND AT INTERVALS PER ACI 530.

8. REINFORCING STEEL IN MASONRY WALLS SHALL BE CENTERED IN THE WALL UTILIZING BAR POSITIONERS SPACED AT 48"O.C. VERTICALLY.

ALL POST INSTALLED ANCHORS AND CAST-IN-PLACE ANCHORS SHALL BE PLACED INTO FULLY GROUTED CORES. ANCHORS CANNOT BE PLACED WITHIN HEAD JOINTS UNLESS THE HEAD JOINT IS FULLY GROUTED.

10. ALL BARS SPLICED BY NON-CONTACT LAPS SHALL NOT BE SPACED TRANSVERSELY FURTHER APART THAN 6 INCHES.

MORTAR CANNOT BE USED AS A SUBSTITUTE FOR GROUT.

STATEMENT OF SPECIAL INSPECTIONS

THE FOLLOWING SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH IBC SECTION 1704.

CONCRETE CONSTRUCTION – ALL ARE PERIODIC U.O.N.

a. INSPECT PLACEMENT OF REINFORCING STEEL TO VERIFY COMPLIANCE WITH CONSTRUCTION DOCUMENTS (CD'S).

 VERIFY USE OF CORRECT GRADE OF REINFORCEMENT. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS. PERFORM SLUMP, AIR AND TEMPERATURE

TEST OF THE CONCRETE. FREQUENCY OF TESTING AND QUANTITY OF TEST SPECIMENS SHALL BE IN ACCORDANCE WITH ACI 318 - SECTION 26.12.2.

for each test in item c above verification of the Mix design shall be performed.

e. INSPECT COLUMN ANCHOR BOLTS AND VERIFY COMPLIANCE WITH CD'S.

 INSPECT PLACEMENT OF ANY POST INSTALLED ANCHORS. VERIFY TYPE AND LOACTION TO COMPLY WITH CD'S. g. VERIFY USE OF HOT AND COLD WHEATER CONCRETE PROCEDURES.

INSPECT FORMWORK FOR CORRECT DIMENSIONS.

2. SOIL TESTING AND/OR INSPECTIONS – ALL ARE PERIODIC U.O.N

 VERIFY EXCAVATIONS HAVE EXTENDED TO THE PROPER DEPTH AND HAVE REACHED THE PROPER MATERIAL. PERFORM COMPACTION TESTING AT THE BASE OF FOUNDATIONS AND AT THE BASE OF EXCAVATIONS PRIOR TO START OF FILL

DURING FILL OPERATIONS VERIFY PROPER MATERAIL IS BEING USED AS WELL AS THE RECOMMENDED LIFT HEIGHT IS NOT

BEING EXCEEDED. d. DURING FILL OPERATIONS COMPACTION TESTING SHALL BE PERFORMED.

STEEL CONSTRUCTION INSPECTIONS (ON-SITE QUALITY ASSURANCE) – ALL ARE PERIODIC U.O.N.

- WELDING AND BOLTING QUALITY ASSURANCE IS REQUIRED IN ACCORDANCE WITH AISC 360 CHAPTER N AS FOLLOWS:
- INSPECTION TASKS PRIOR TO WELDING (TABLE N5.4-1)
- INSPECTION TASKS DURING WELDING (TABLE N5.4-2)
- INSPECTION TASKS AFTER WELDING (TABLE N5.4-3)
- INSPECTION TASKS PRIOR TO BOLTING (TABLE N5.6-1)
- INSPECTION TASKS DURING BOLTING (TABLE N5.6-2) vi. INSPECTION TASKS AFTER BOLTING (TABLE N5.6-3)
- EMBEDDED PLATES AND ANCHOR RODS SHALL BE OBSERVED TO VERIFY COMPLIANCE. THIS WILL REQUIRE OBSERVANCE PRIOR
- TO INSTALLATION TO VERIFY EMBEDMENT DEPTH.

FABRICATED STEEL AND/OR ERECTED STEEL FRAME WILL NEED TO BE INSPECTED TO VERIFY COMPLANCE WITH THE DETAILS

SHOWN ON THE CD'S. 4. STEEL CONSTRUCTION INSPECTIONS (FABRICATION) a. IF THE FABRICATOR IS NOT APPROVED TO PERFORM FABRICATION WITHOUT SPECIAL INSPECTIONS THEN PERIODIC

INSPECTIONS WILL BE REQUIRED DURING FABRICATION OF THE STRUCTURAL STEEL ELEMENTS. INSPECTIONS SHALL VERIFY STEEL ELEMENTS HAVE BEEN FABRICATED IN ACCORDANCE WITH THE APPROVED STEEL SHOP DRAWINGS. IF THE FABRICATOR IS APPROVED TO PERFORM FABRICATION WITHOUT SPECIAL INSPECTION THEN THE SPECIAL INSPECTION REQUIREMENT CAN BE WAIVED. IT WILL BE THE RESPONSIBILITY OF THE APPROVED SPECIAL INSPECTOR TO OBTAIN A COPY OF

THE FABRICATORS CERTIFICATE PRIOR TO COMMNECEMENT OF FABRICATION ACTIVITIES. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE OWNERS AUTHORIZED AGENT FOR SUBMITTAL TO THE BUILDING OFFICIAL STATING THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED

CONSTRUCTION DOCUMENTS. 5. MASONRY CONSTRUCTION (LEVEL B QUALITY ASSURANCE)- ALL ARE PERIODIC U.O.N

 a. AS MASONRY CONSTRUCTION BEGINS VERIFY THE FOLLOWING ARE IN COMPLIANCE: PROPORTIONS OF SITE PREPARED MORTAR

ii. CONSTRUCTION OF MORTAR JOINTS

 LOCATION OF REINFORCEMENT AND CONNECTORS. PRIOR TO GROUTING, VERIFY THE FOLLOWING ARE IN COMPLIANCE:

GROUT SPACE

GRADE, TYPE AND SIZE OF REINFORCEMENT iii. PLACEMENT OF REINFORCEMENT ALONG WITH BAR POSITIONERS

iv. PROPORTIONS OF SITE PREPARED GROUT

v. CONSTRUCTION OF MORTAR JOINTS c. VERIFY THE FOLLOWING DURING CONSTRUCTION:

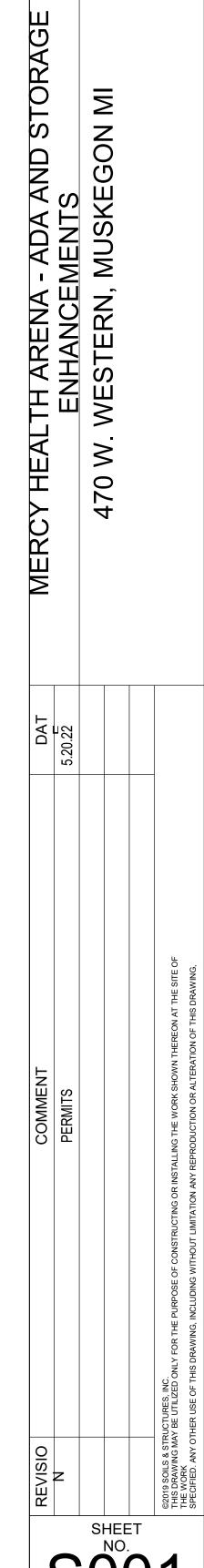
 TYPE, SIZE AND LOCATION OF ANCHORS UTILIZED FOR ATTACHING TO MASONRY. HOT WEATHER CONSTRUCTION PROCEDURES.

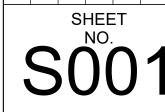
PRECAST CONCRETE (HOLLOW CORE) – ALL ARE PERIODIC U.O.N

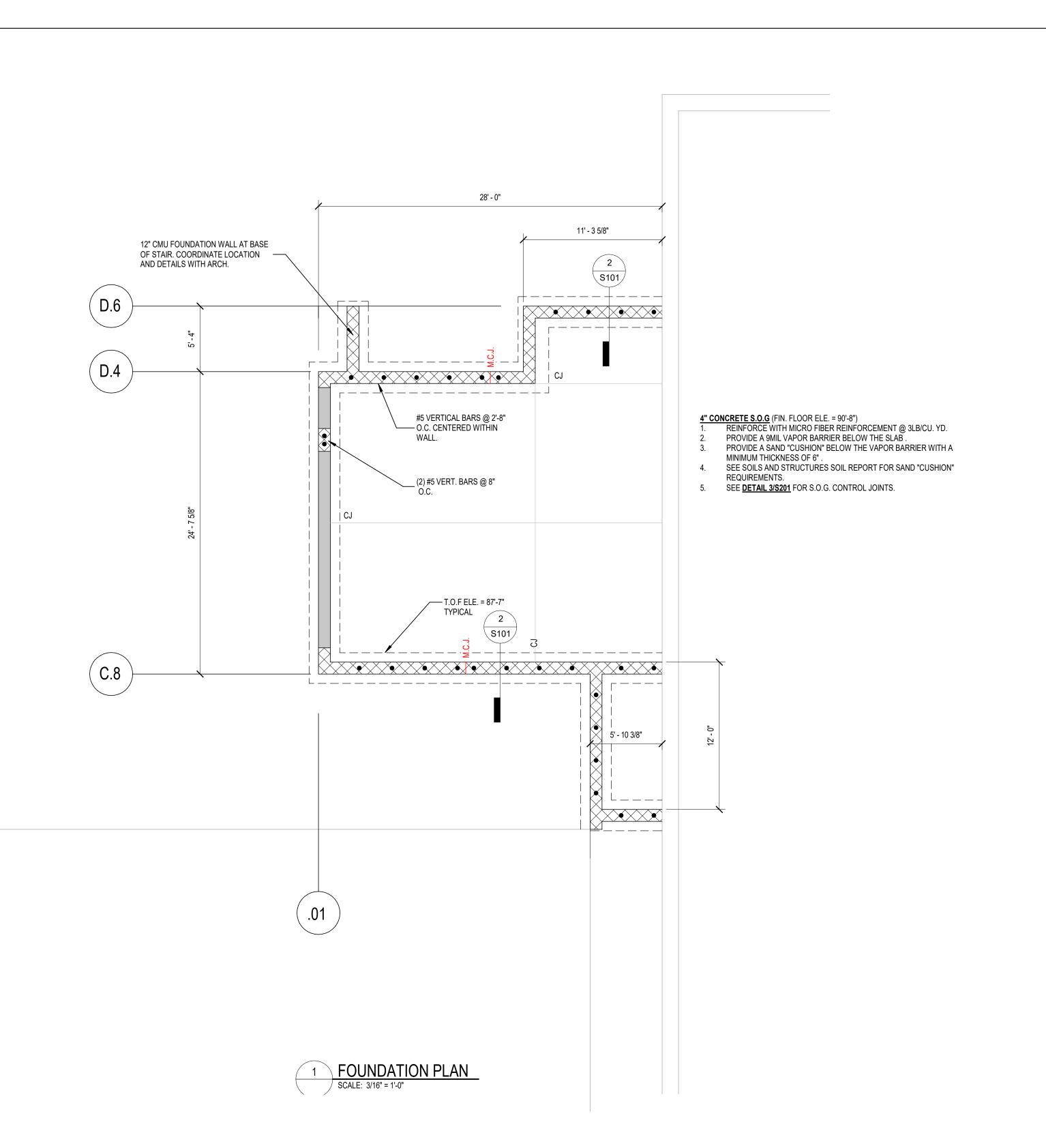
 VERIFY THICKNESS OF PRECAST ELEMENTS COINCIDE WITH CONTRACT DRAWINGS. VERYIFY BEARING LENGTH OF PRECAST ON STEEL AND MASONRY.

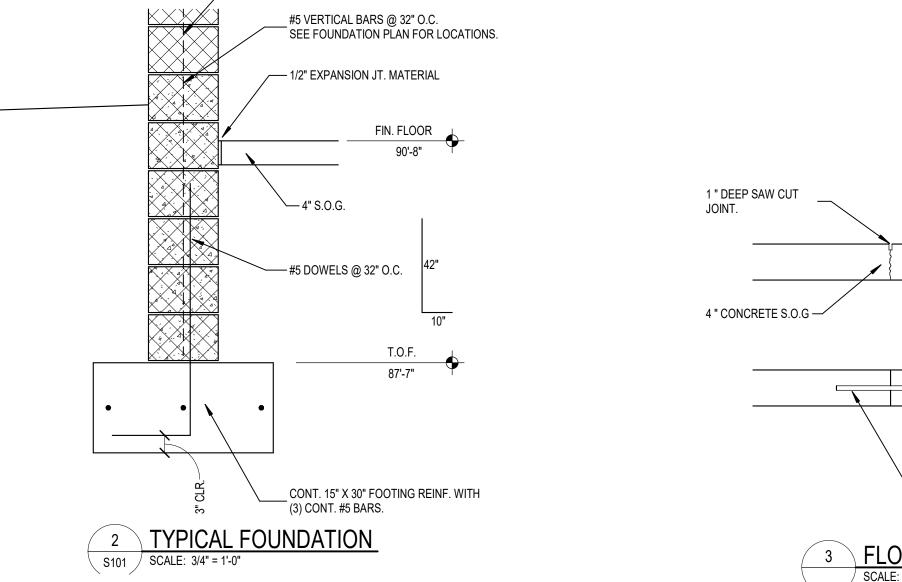
 VERIFY INSTALLATION OF BENT BAR DOWELS IN GROUTED KEYWAYS. d. VERIFY WELDING TO ALL PRECAST EMBEDDED PLATES.



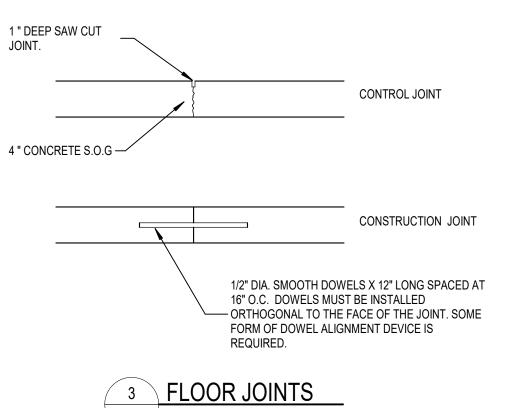








__ 12" CMU GROUT SOILD BELOW 91'-7"



DAT MERCY HEALTH ARENA - ADA EAUSE

5.20.25

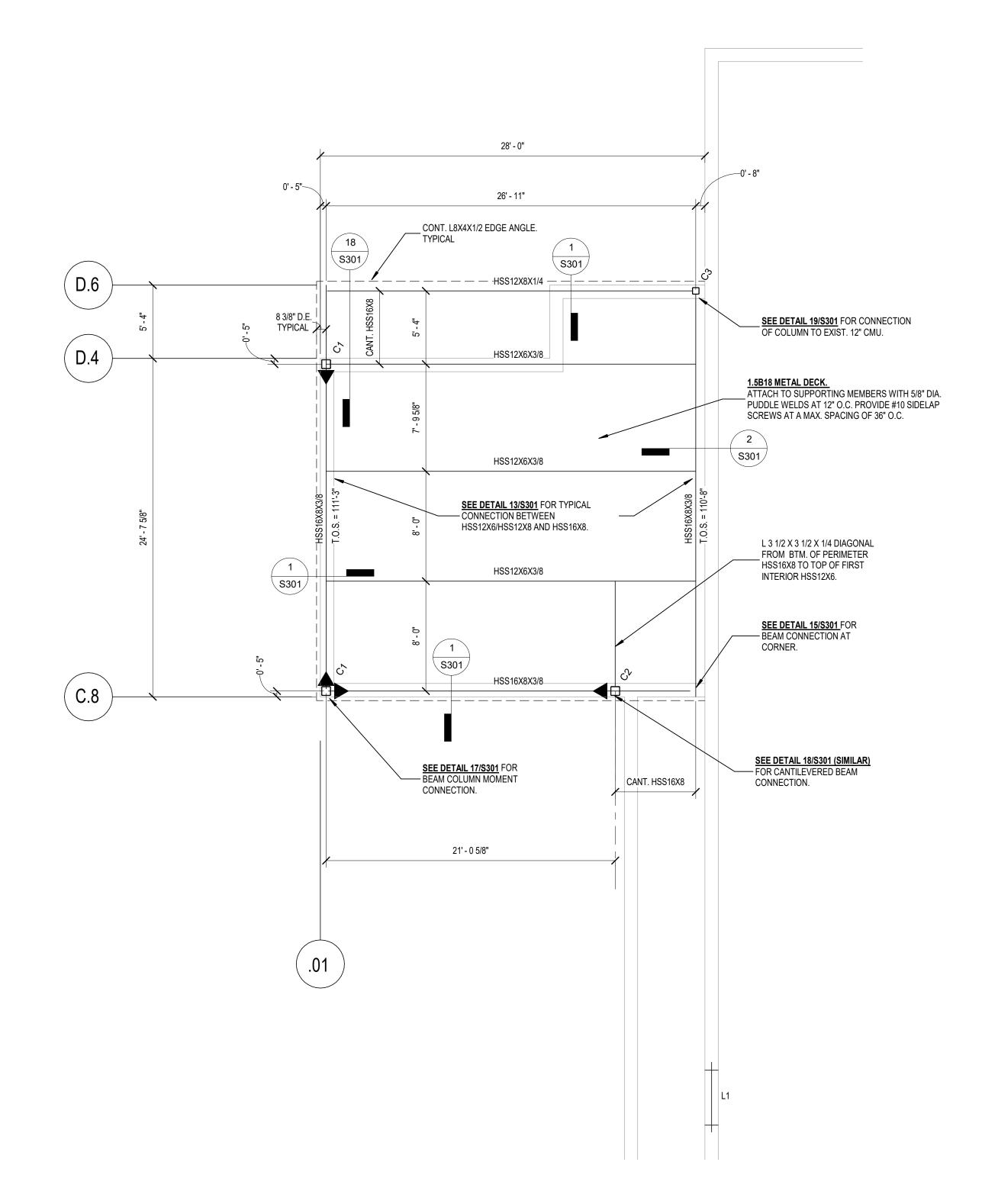
470 W. WESTERN, MUSK

DAT 5.20.22

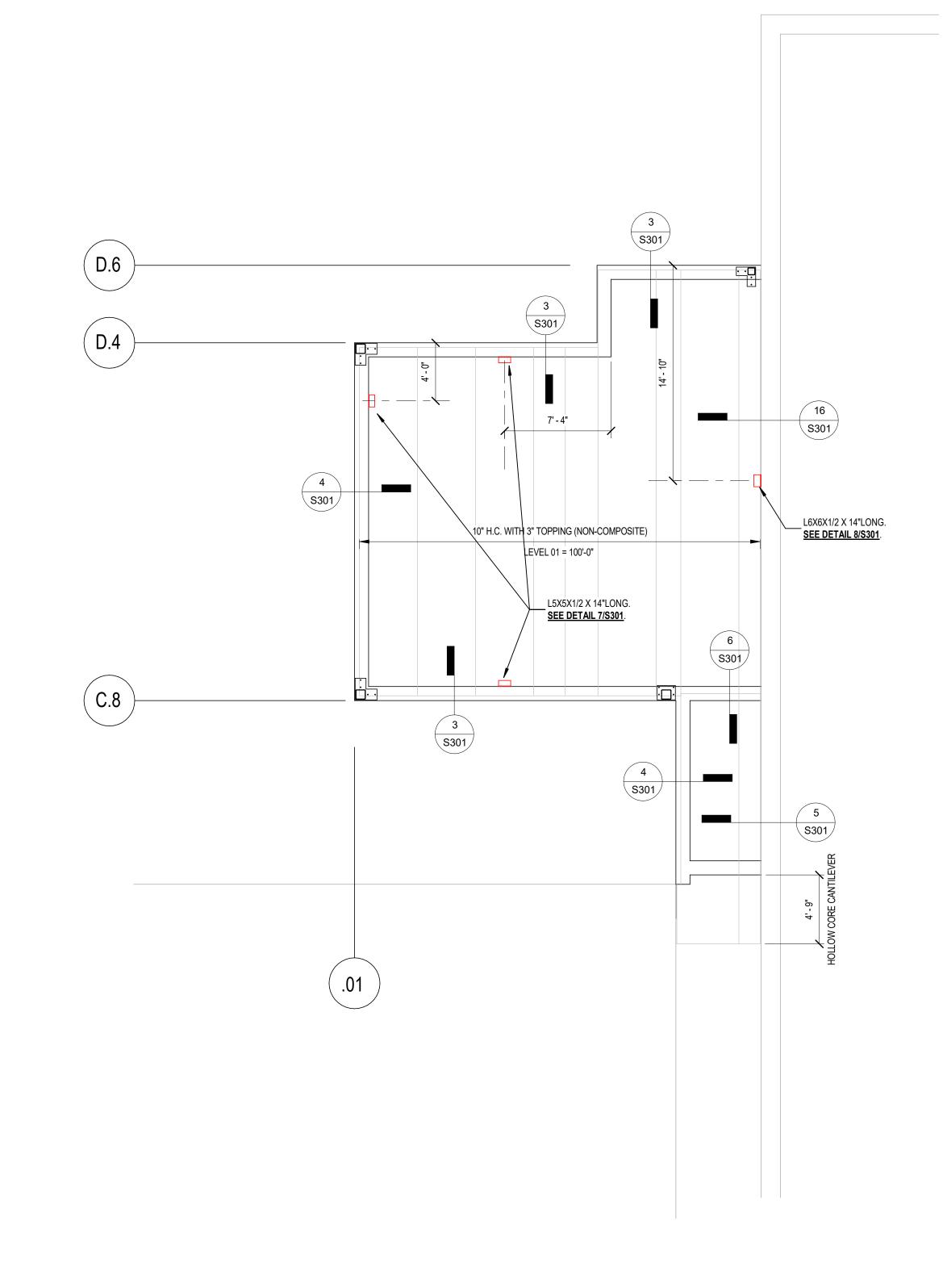
COMM
PER INC

SHEET NO. S1020

BRIAN MURPHY ENGINEER No. 41011



1 ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"



2 FLOOR FRAMING PLAN
SCALE: 3/16" = 1'-0"

SIZE BAS BASEPLATE DETAIL 9/S301 HSS8X8X3/8 10/S301 HSS8X8X3/8 HSS6X6X3/8 11/S301

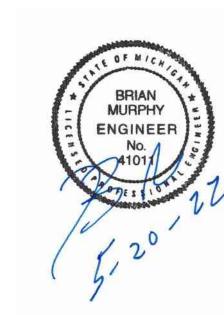
BOTTOM OF BASEPLATE ELEVATION TO BE 100' – 1 ½" (U.O.N).

	LINTEL SCHEDULE							
MARK	SIZE	BEARING DETAIL						
	W8X10 WITH CONT.							
L1	11 ½" X ¼" BTM.	14/\$301						
	PLATE							

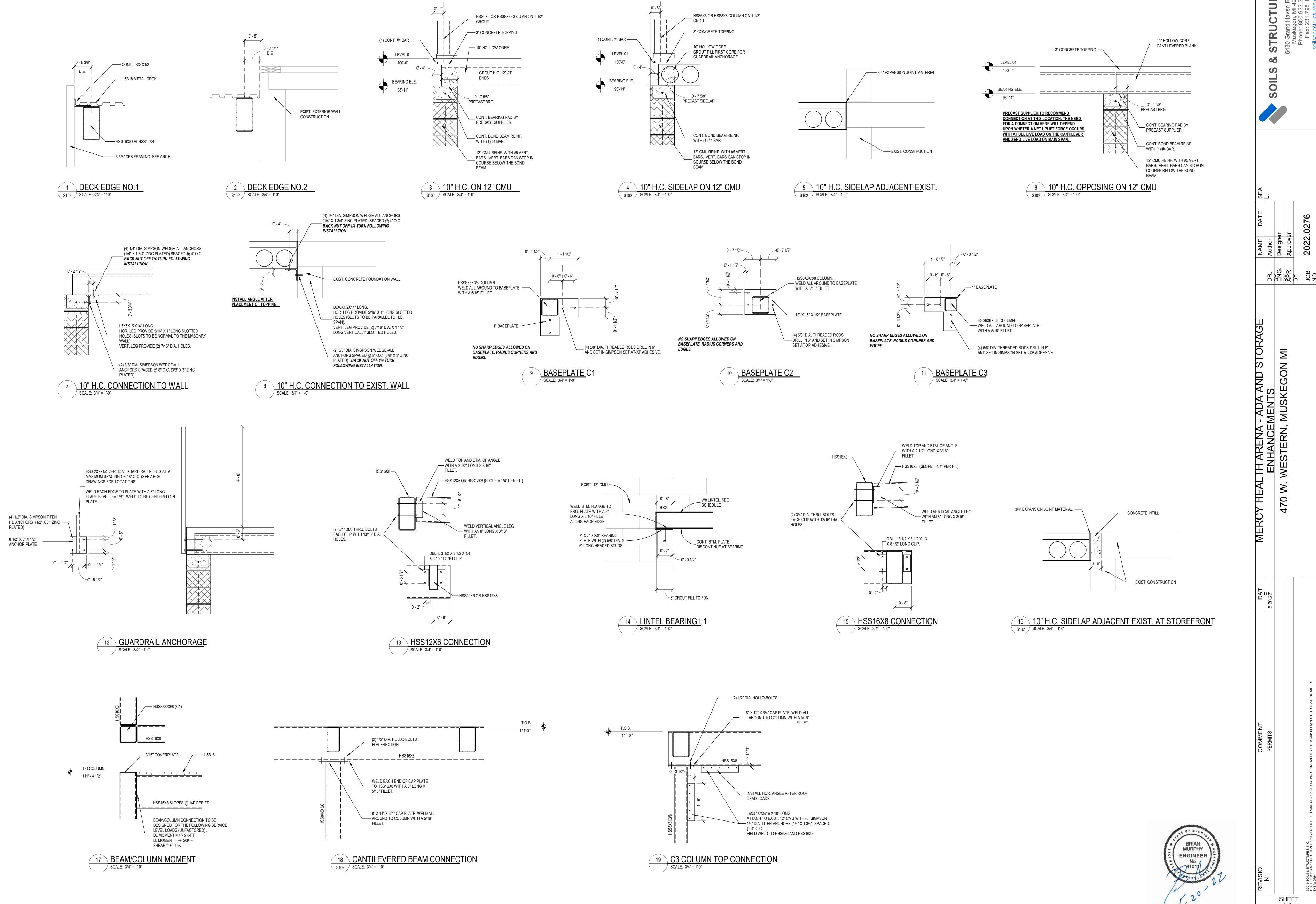
TOPPING SLAB CONSTRUCTION

- 1. TOPPING SLAB SHALL HAVE A THICKNESS OF 3INCHES AND SHALL BE REINFORCED WITH NOVOMESH 950 MACRO/MICRO SYNTHECTIC BLEND AT A DOSAGE RATE OF 5LBS/CU. YD.
- 2. CONCRETE SHALL HAVE A 28DAY COMPRESSIVE STRENGTH OF 4000PSI.

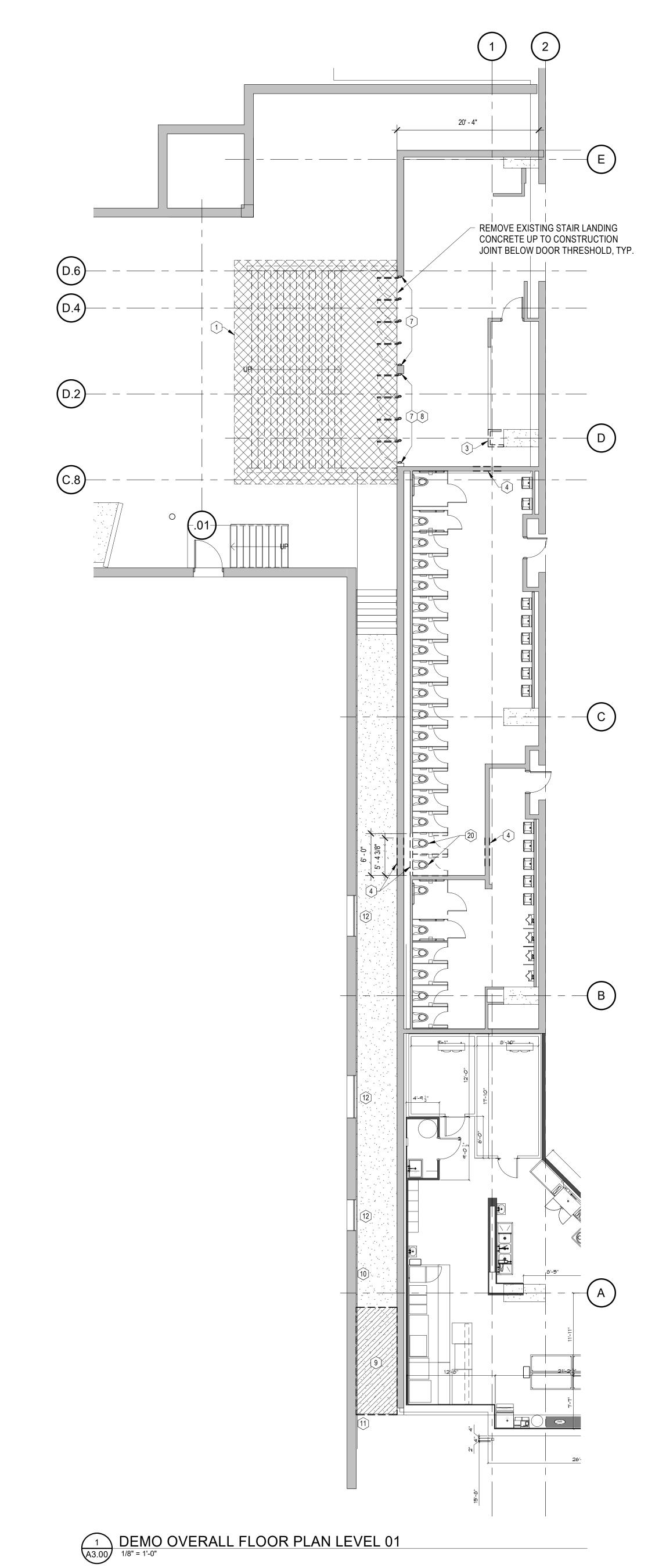
۷.	CONCRETE SHALL HAVE A 20DAT COMPRESSIVE STRENGTH OF 400
3.	SEE ARCH, DRAWINGS FOR WATERPROFFING REQUIREMENTS.



470



SHEET NO.



DEMO. GENERAL NOTES

1. FIELD VERIFY DEMOLITION CONDITIONS AT PRE-DEMOLITION MEETING TO BE SCHEDULED WITH PROJECT TEAM PRIOR TO COMMENCEMENT OF WORK.

2. OWNER HAS FIRST RIGHT OF SALVAGE FOR ALL DEMOLISHED PLUMBING/ELECTRICAL FIXTURES, HARDWARE, EQUIPMENT, ETC.

3 RECYCLE CONSTRUCTION WASTE

4. COORDINATE REMOVAL OF GAS, ELECTRICAL, TELE/DATA AND CABLE.

TEAM IMMEDIATELY.

PROVIDE TEMPORARY SERVICE TO THE EXISTING BUILDING DURING CONSTRUCTION.

5. COORDINATE ALL DEMOLITION OF ALL SITE WORK AND M.E.P. ITEMS W/ CONSULTANT DEMO SHEETS. IF A DISCREPANCY IS FOUND NOTIFY THE DESIGN

DEMOLITION KEY NOTES

- REMOVE ALL EXISTING CONSTRUCTION WITHIN AREA INDICATED.
- REMOVE ALL EXISTING CONSTRUCTION, MATERIALS, AND EQUIPMENT FROM SLAB TO STRUCTURE ABOVE WITHIN AREA INDICATED. UNLESS OTHERWISE NOTED (SEE SITE
- REMOVE EXISTING WALL (AND DOOR IF SHOWN) TO STRUCTURE ABOVE.

DEMO. FOR SITE EXTENTS.)

ELEVATIONS

- REMOVE EXISTING WALL TO HEIGHT/WIDTH INDICATED.

 COORDINATE NEW LINTEL (IF REQ'D) W/ STRUCT. RE:
- REMOVE EXISTING STAIR INCLUDING HAND RAILS.
- 7 REMOVE EXISTING DOOR, FRAME, AND HARDWARE TO ROUGH OPENING.
- 8 REMOVE EXISTING EXIT SIGN ABOVE DOOR.
- 9 REMOVE EXISTING WALL TO THE EXTENT NECESSARY TO INSTALL NEW GEO-FOAM AND NEW CONCRETE WALKWAY

REMOVE EXISTING WALL MOUNTED EXHAUST FAN, PATCH AND INFILL WITH BRICK TO MATCH ADJACENT

- 11 REMOVE EXISTING STEEL PIPE
- REPLACE MISSING GLASS PANES AT LOCATIONS THAT PREVIOUSLY HAD WINDOWN AIR CONDITIONERS
- 18 REMOVE EXISTING CEILINGS AND ASSOCIATED EQUIPMENT
- REMOVE EXISTING FIXTURES AND TOILET PARTITIONS AS INDICATED WITHIN INDICATED AREA.

DEMOLITION LEGEND

EXISTING ELEMENTS TO BE REMOVED

FLOOR, CEILING OR ROOF TO BE REMOVED, SEE KEYNOTES

DEMOLITION KEYNOTES

REMOVE ALL EXISTING CONSTRUCTION WITHIN THE INDICATED AREA

Project No.: 22

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STORAGE

470 W WESTERN MUSKEGON, MI 49440

MERCY HEALTH

ARENA - ADA AND

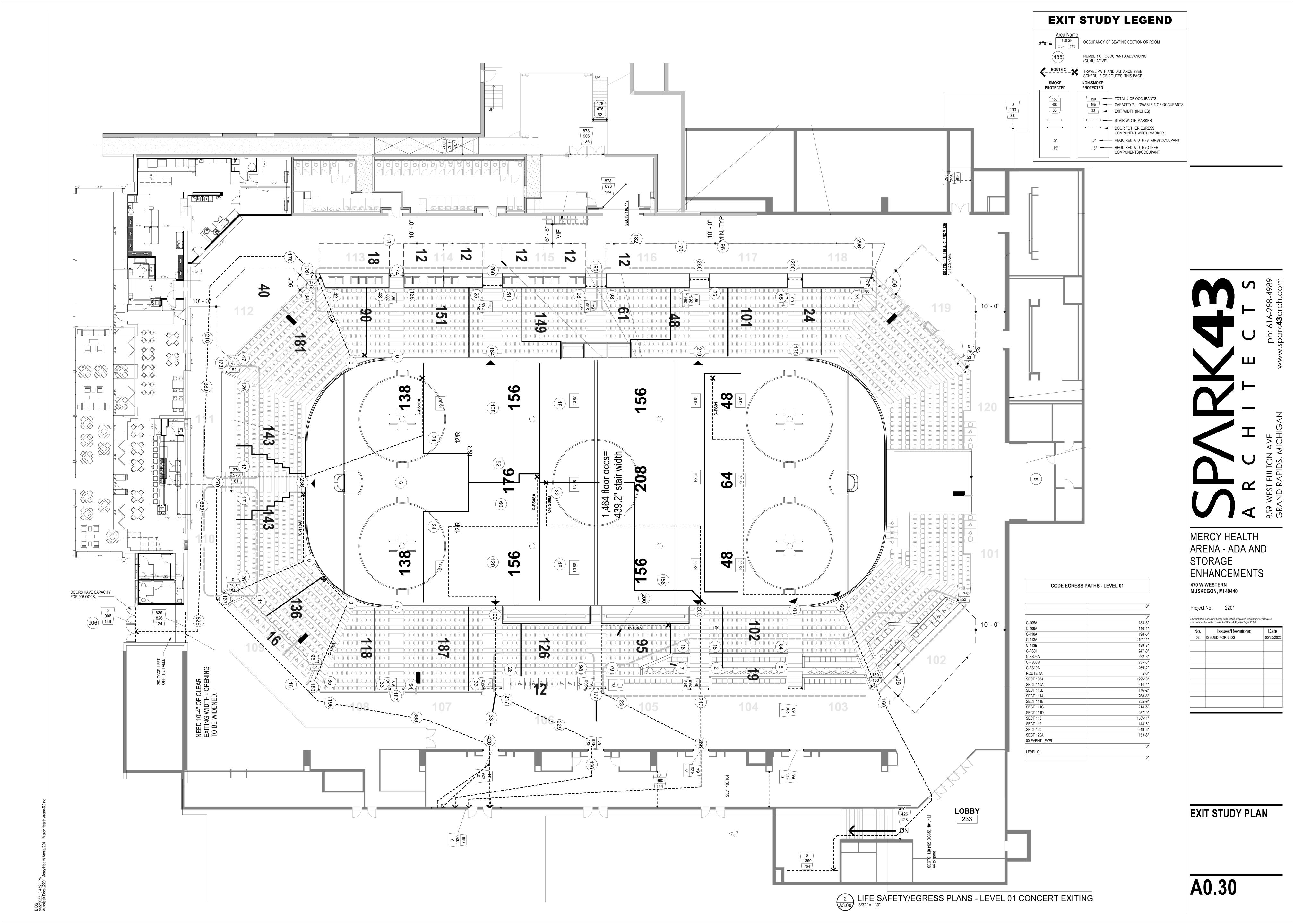
ENHANCEMENTS

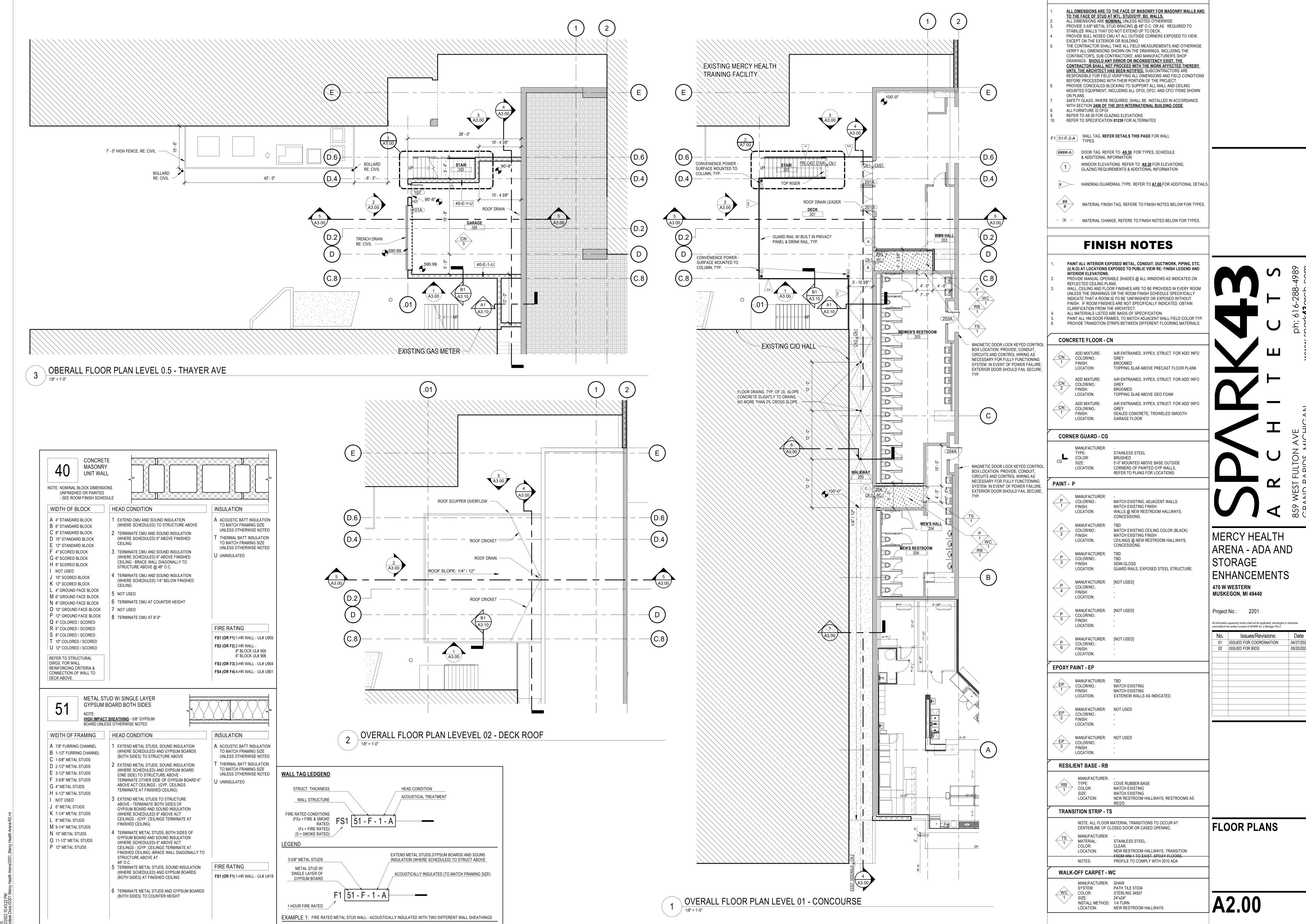
No. Issues/Revisions:

01 ISSUED FOR COORDINATION
02 ISSUED FOR BIDS

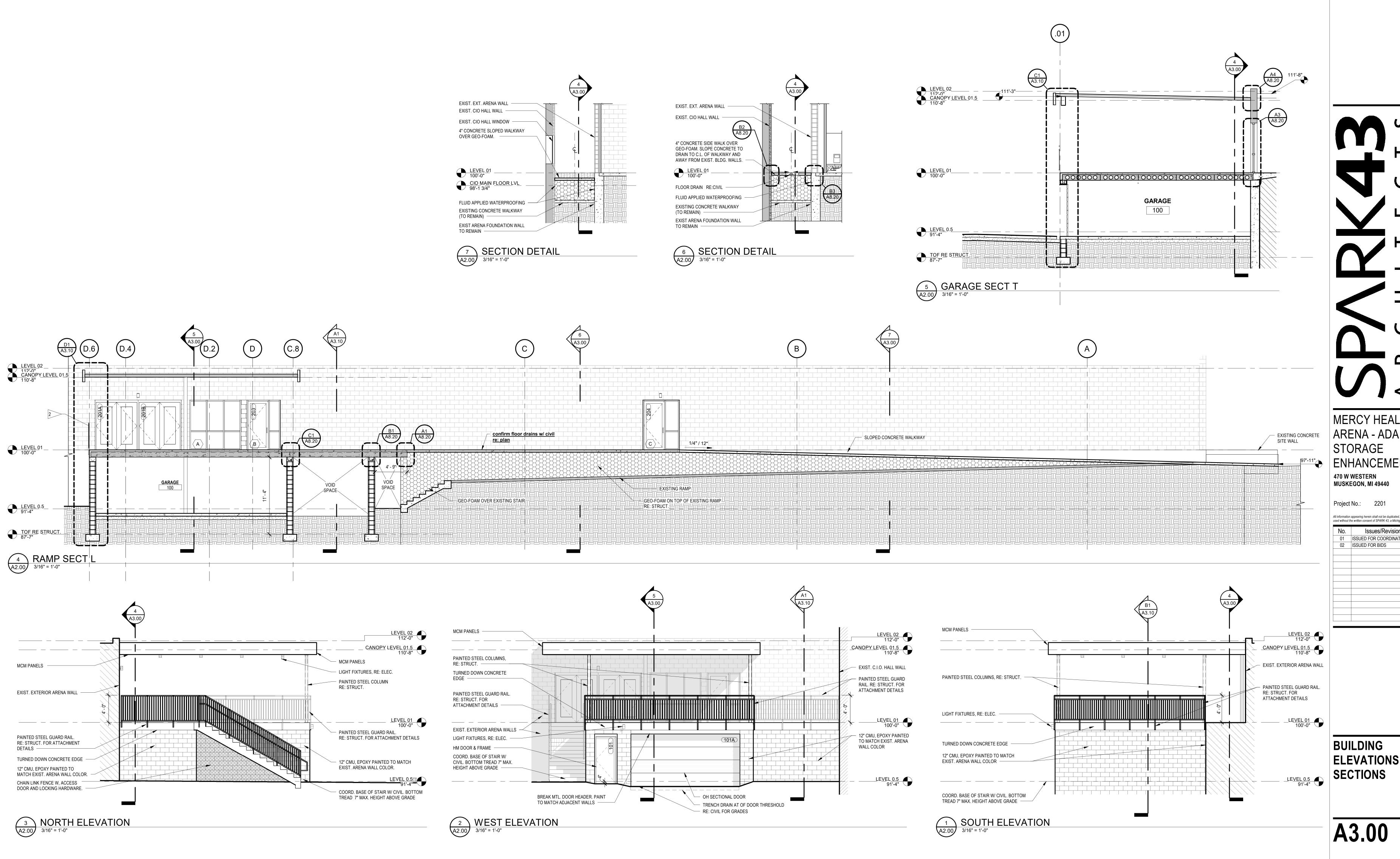
DEMOLITION PLANS

AD1.00





GENERAL NOTES

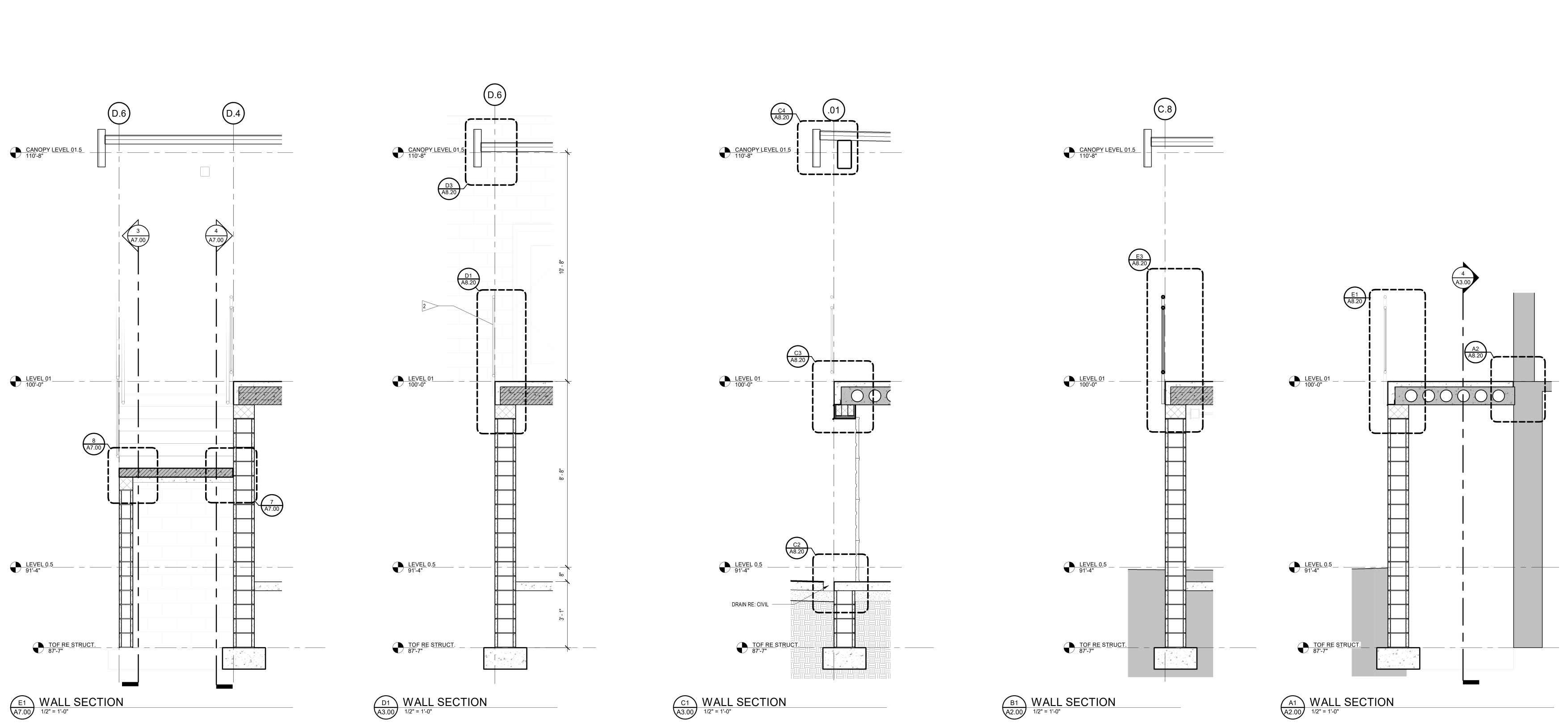


MERCY HEALTH ARENA - ADA AND STORAGE ENHANCEMENTS 470 W WESTERN MUSKEGON, MI 49440

02 ISSUED FOR BIDS

BUILDING **ELEVATIONS &**

A3.00



MERCY HEALTH

ARENA - ADA AND STORAGE ENHANCEMENTS 470 W WESTERN MUSKEGON, MI 49440

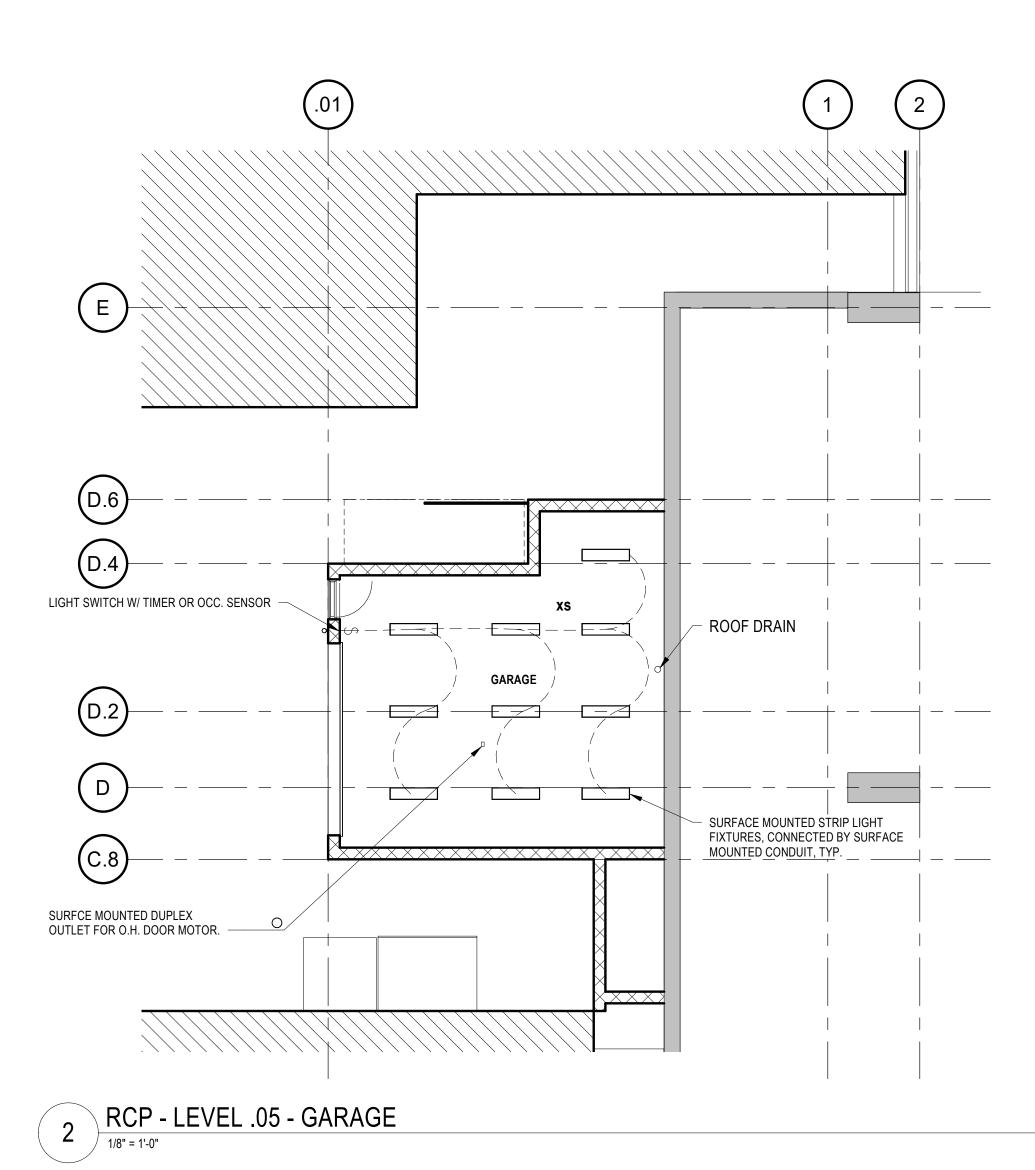
No. Issues/Revisions:

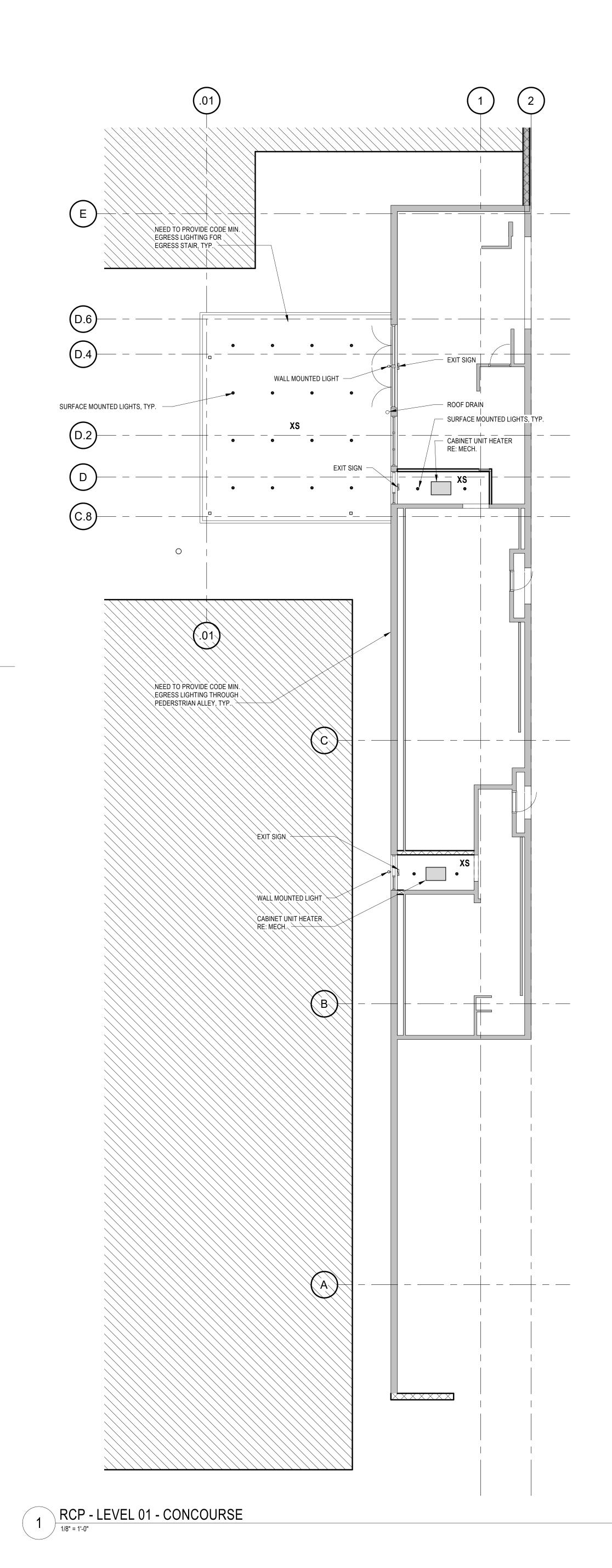
01 ISSUED FOR COORDINATION

02 ISSUED FOR BIDS

WALL SECTIONS

A3.10





RCP GENERAL NOTES

- 1. EXPOSED STRUCTURE, MECHANICAL EQUIPMENT, DUCTWORK, CONDUIT, JUNCTION BOXES, ETC. IS TO BE PAINTED BLACK, TYP.
- 2. SEE ELECTRICAL AND MECHANICAL PLANS FOR FIXTURE AND

EQUIPMENT TYPES AND QUANTITIES.

- 3. PROVIDE ARCHITECT WITH CEILING COORDINATION DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION OF CEILINGS
- ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE PAINTED U.N.O.
 ALL EXPOSED CEILINGS OR EXPOSED STRUCTURAL SYSTEM ABOVE
- TO BE PAINTED U.N.O.

'-0" ACT INDICATES CEILING HEIGHT ABOVE FINISH FLOOR

100'-0"

INDICATES CEILING HEIGHT RELATIVE TO OVERALL BUILDING DIMENSIONS

XS

EXPOSED STRUCTURAL SYSTEM ABOVE. TO BE PAINTED U.N.O.

EX: 8'-0" XS

1' X 4' LINEAR FLOUR LIGHT FIXTURE SEE ELECTRICAL DWGS FOR FIXTURE TYPE

RECESSED CAN DOWNLIGHT SEE ELECTRICAL DWGS FOR FIXTURE TYPE

CAN DOWNLIGHT SEE ELECTRICAL DWGS FOR FIXTURE TYPE

○ WALL MOUNTED LIGHT SEE ELECTRICAL DWGS FOR FIXTURE TYPE

WALL MOUNTED LIGHT SEE ELECTRICAL DWGS FOR FIXTURE TYPE



MERCY HEALTH
ARENA - ADA AND
STORAGE
ENHANCEMENTS
470 W WESTERN
MUSKEGON, MI 49440

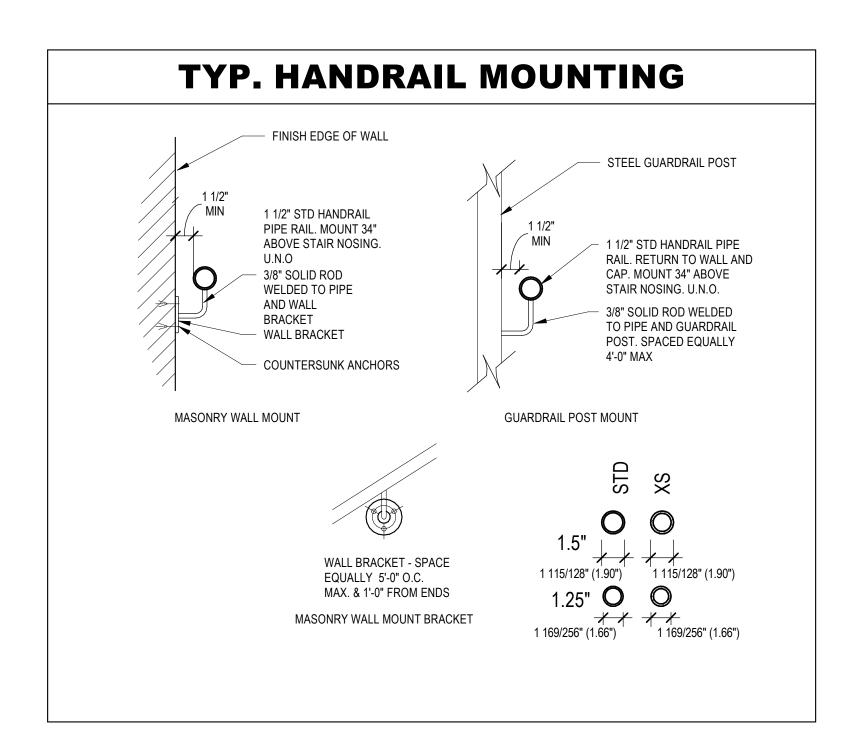
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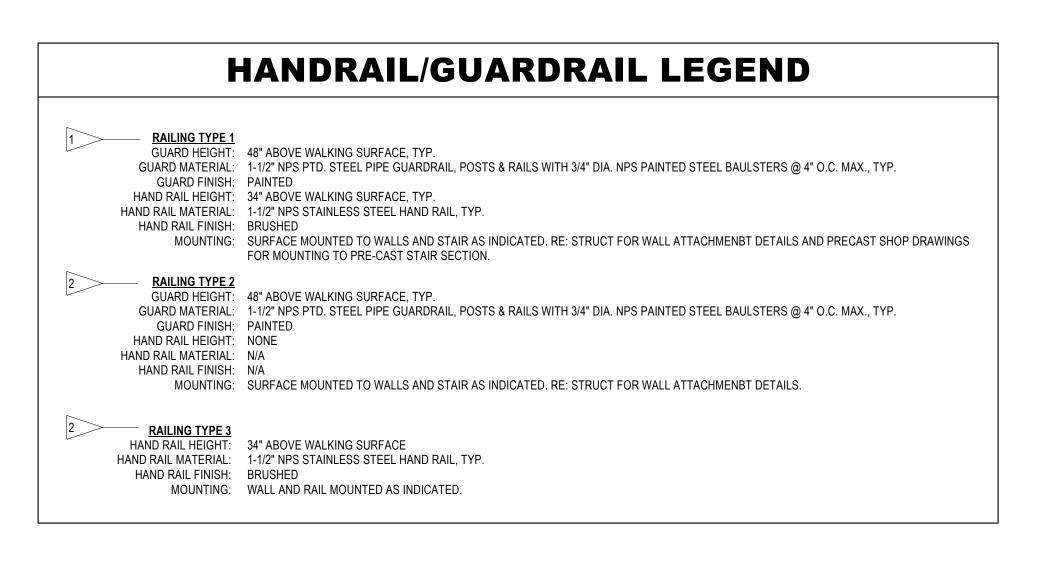
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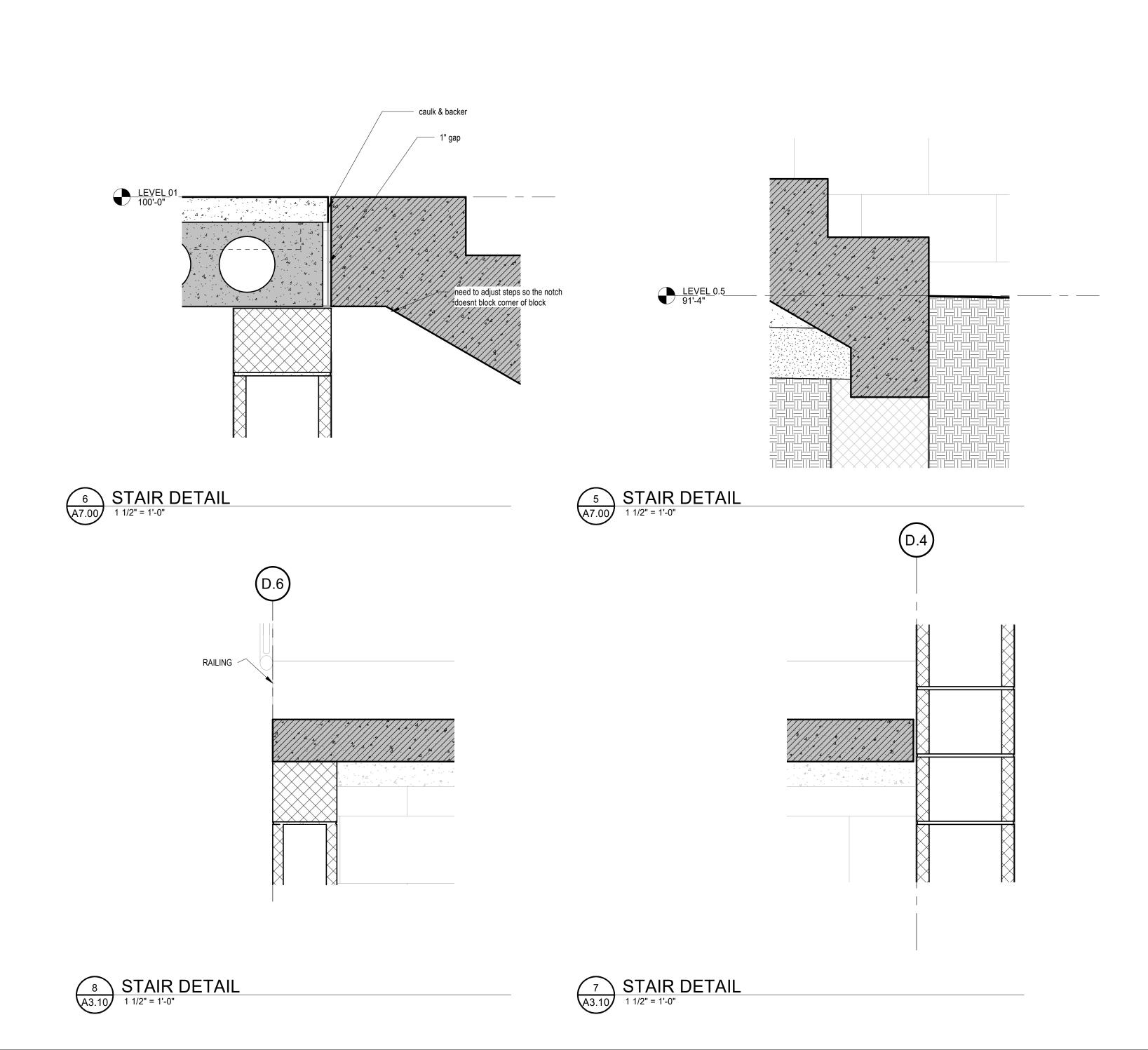
	appearing nerein snail not be duplicated, discharged or o le written consent of SPARK 43, a Michigan PLLC	inerwise
No.	Issues/Revisions:	Date
02	ISSUED FOR BIDS	05/20/2022

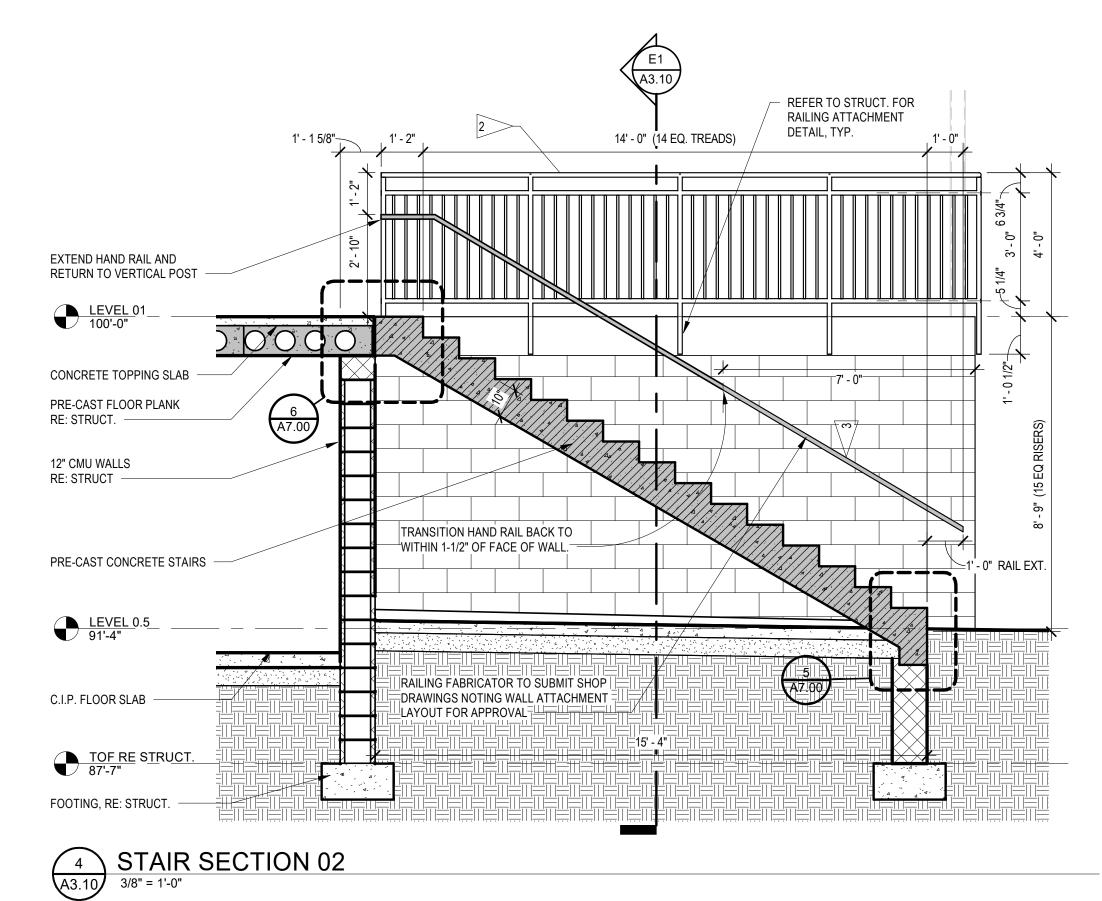
REFLECTED CEILING PLANS

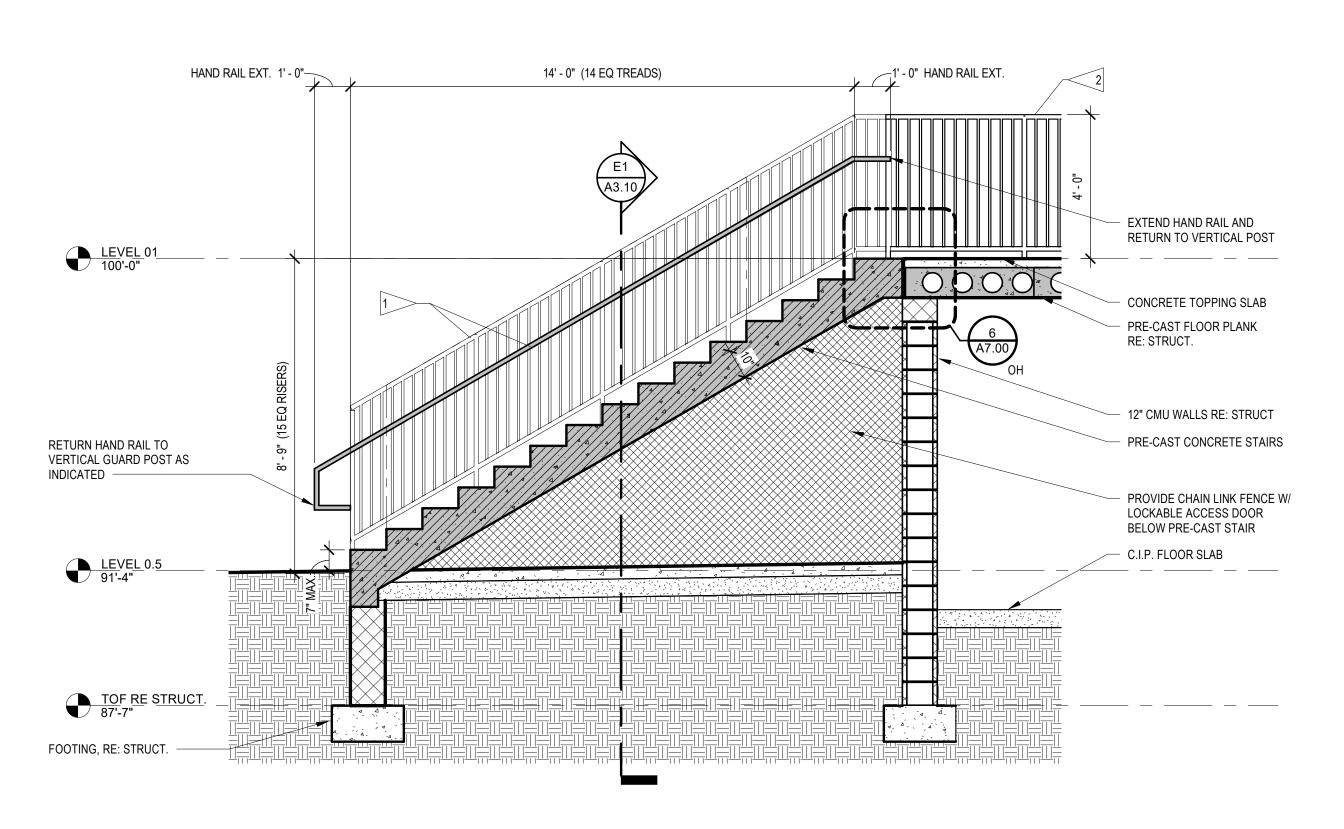
A6.00

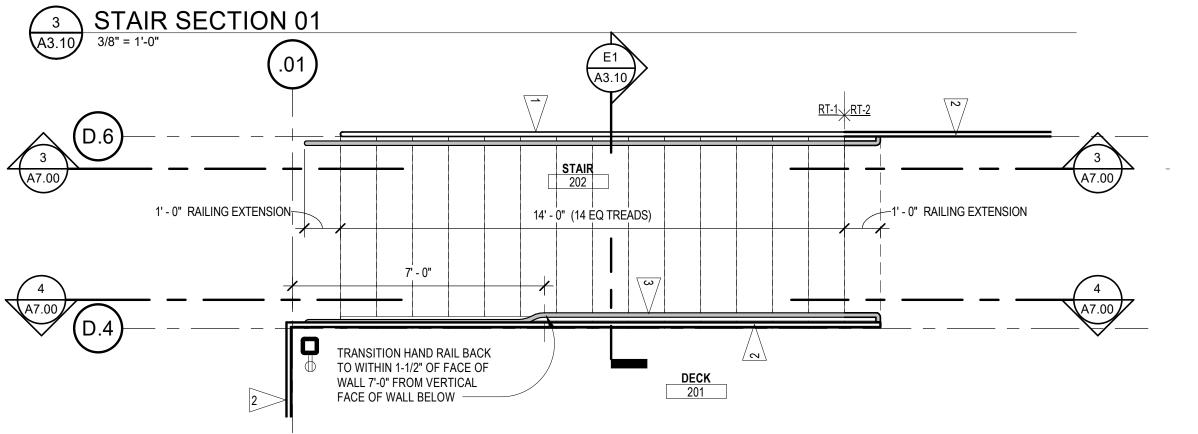


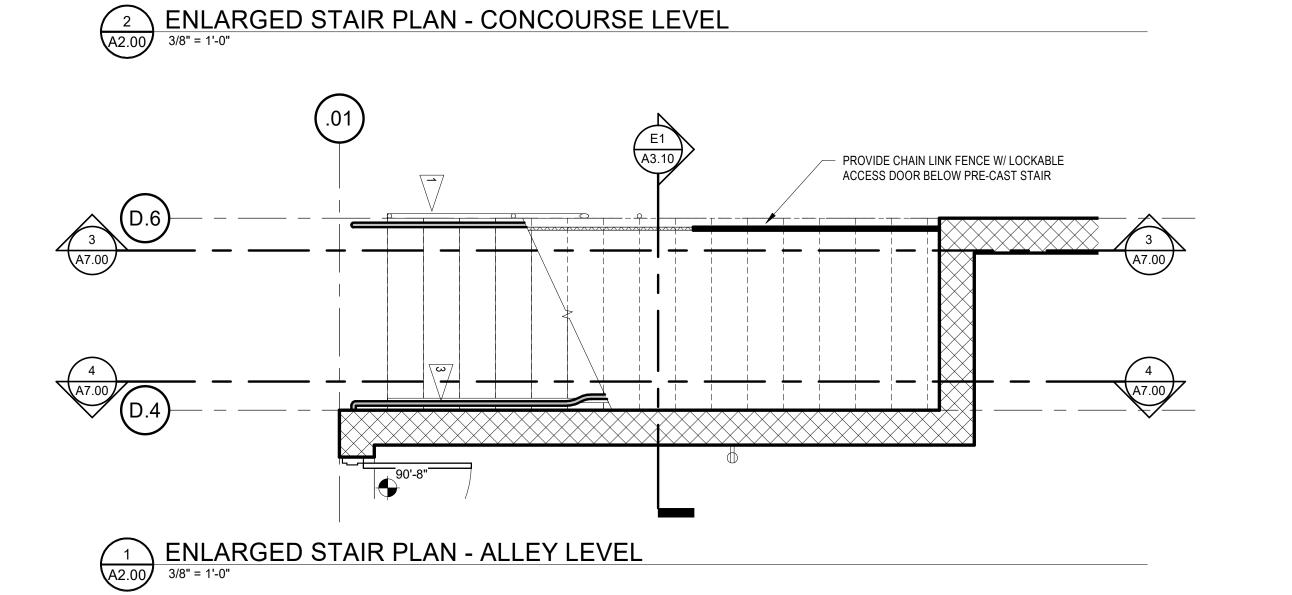












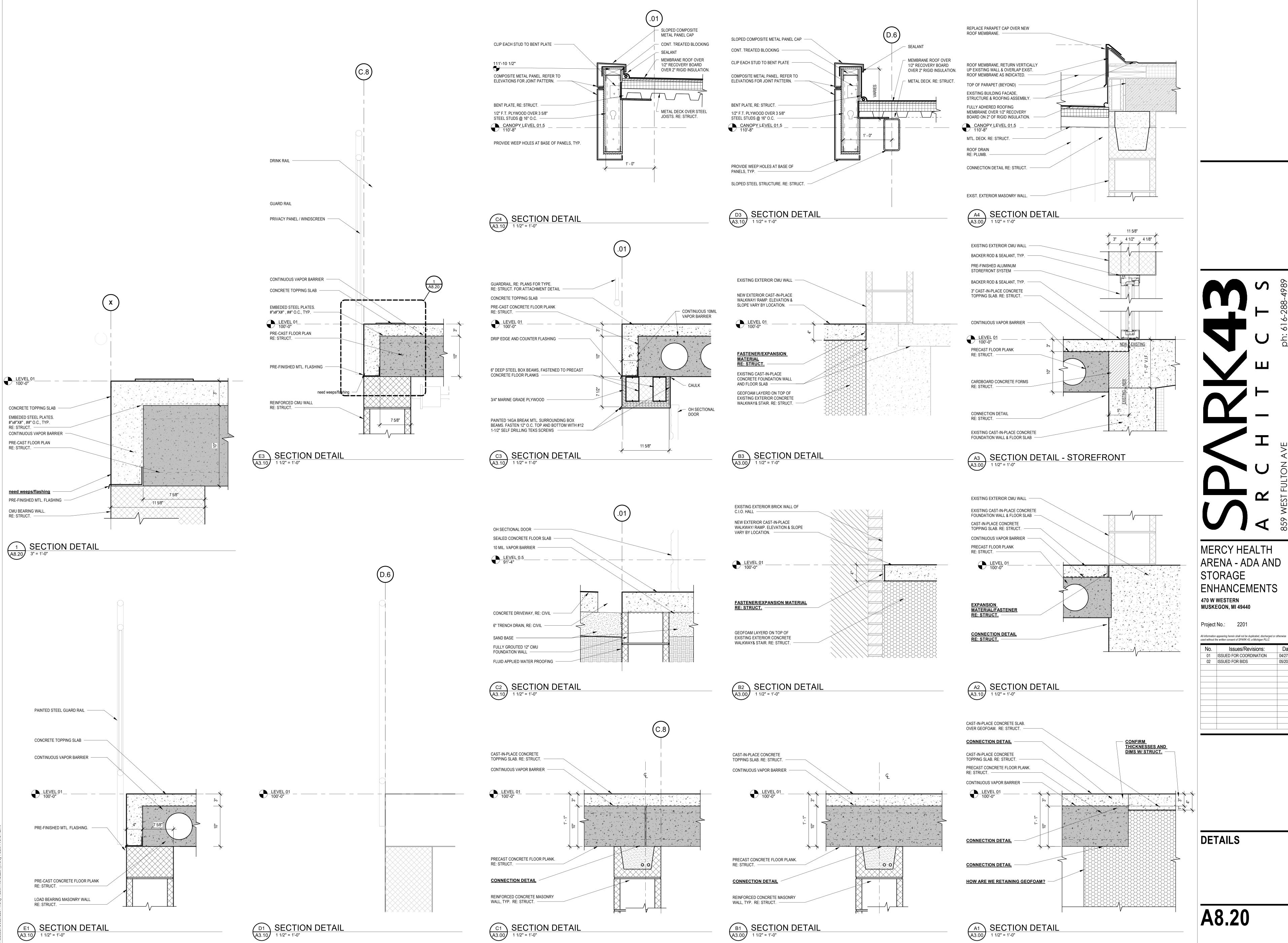
MERCY HEALTH

ARENA - ADA AND STORAGE **ENHANCEMENTS** 470 W WESTERN MUSKEGON, MI 49440

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ENLARGED STAIR PLAN, SECTIONS & **DETAILS**

A7.00



MERCY HEALTH ARENA - ADA AND STORAGE **ENHANCEMENTS** 470 W WESTERN Muskegon, MI 49440

A. FIXED AND SLIDING PANELS IN SWINGING DOORS. WINDOWS WITHIN 24" OF DOORS IN ANY POSITION NOT MORE THAN 60" ABOVE WALKING SURFACE. INDIVIDUAL FIXED OR OPERABLE PANELS, OTHER THAN THOSE LOCATIONS DESCRIBED ABOVE, THAT MEET ALL OF THE FOLLOWING CONDITIONS:

PROVIDE TRANSLUCENT SECURITY FILM, AT ALL GLAZING IN ELEVATIONS "B" AND "C"

IIG-2

IG-2

 $\langle \mathsf{A} \rangle$

EXISTING OPENING, V.I.F.

EXPOSED BOTTOM EDGE IS LESS THAN 18 INCHES ABOVE THE FLOOR, AND;

a. EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQUARE FEET, AND; EXPOSED TOP EDGE IS GREATER THAN 36 INCHES ABOVE THE FLOOR, AND; ONE OR MORE WALKING SURFACES ARE WITHIN 36" HORIZONTALLY OF THE PLANE OF THE GLAZING.

204

 $\langle C \rangle$

GREATER THAN 9 SF, WITH THE TOP EDGE GREATER THAN 36" ABOVE FINISHED FLOOR AND THE BOTTOM EDGE LESS THAN 18" BELOW FINISHED FLOOR, ETC. SHALL BE TEMPERED GLASS PER 2015 MBC SECTION 2406.4 HAZARDOUS LOCATIONS. WINDOW AND DOOR DIMENSIONS SHOWN ARE NOMINAL. ACTUAL DIMENSIONS SHALL BE BASED ON REQUIREMENTS OF THE HEAD,

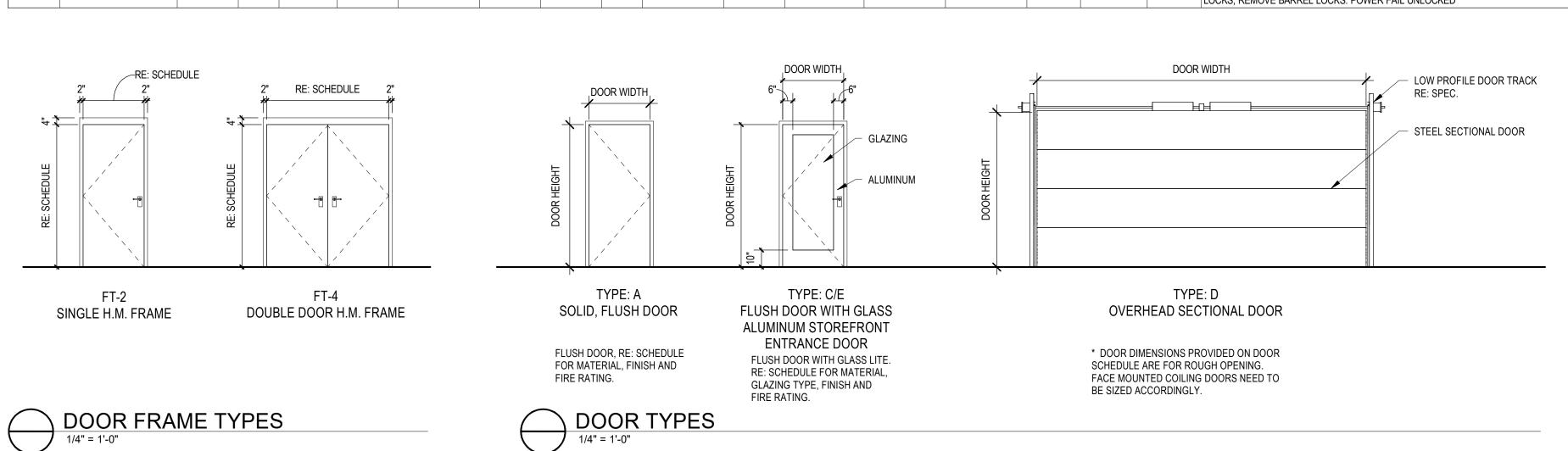
JAMB, AND SILL DETAILS AND FIELD VERIFICATION OF BUILT ROUGH REFERENCE DOOR SCHEDULE FOR ADDITIONAL FRAME REFERENCES AT DOOR OPENINGS. REFERENCE WALL SECTIONS AND RELATED DETAILS FOR ADDITIONAL FRAME DETAILS.

GLAZING TYPES:

IG-1 1" INSULATED VISION GLASS PER SPECIFICATION IG-2 1" SAME AS IG-1 EXCEPT FULLY TEMPERED.

G-1 1/4" CLEAR FLOAT GLASS - INSULATED GLASS PANEL G-2 1/4" CLEAR FLOAT GLASS, TEMPERED G-3 1/4" TRANSUCENT FLOAT GLASS, TEMPERED G-4 1/4" WIRED GLASS

DOOR AND FRAME SCHEDULE DOOR LEAF NOMINAL SIZE DETAIL SECTION GLAZING TYPE HARDWARE FIRE DOOR # TYPE FINISH MATERIAL WIDTH HEIGHT TYPE MATERIAL JAMB HEAD THRESHOLD I.D. SIGN SET RATING REMARKS FINISH 100 GARAGE 201 DECK ALUM 201 DECK ALUM. ALUM ANNO. ALUM. POWER FAIL LOCKED ALUM 203 WOMEN'S RESTROOM EXISTING DOOR TO REMAIN - UPDATE HARDWARE TO INCLUDE KEYED MAGNETIC LOCKS, REMOVE BARREL LOCKS. POWER FAIL UNLOCKED 7'-2" EXIST ANNO. 7'-0" EXIST EXIST 204 MEN'S HALL ALUM. EXIST ALUM INTERLOCKED WITH INTERIOR DOOR. POWER FAIL LOCKED. ANNO. EXIST EXISTING DOOR TO REMAIN - UPDATE HARDWARE TO INCLUDE KEYED MAGNETIC 3'-0" 204 MEN'S RESTROOM LOCKS, REMOVE BARREL LOCKS. POWER FAIL UNLOCKED



NOTES:

 FIELD VERIFY OPENINGS PRIOR TO MAKING GLASS AND FABRICATING FRAMES. ALL INTERIOR GLASS DOOR LITES, GLASS SIDE LITES, AND GLAZING

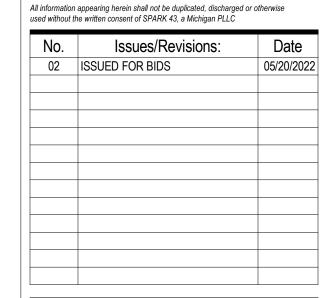
> STORAGE **ENHANCEMENTS 470 W WESTERN** MUSKEGON, MI 49440

Project No.: 2201

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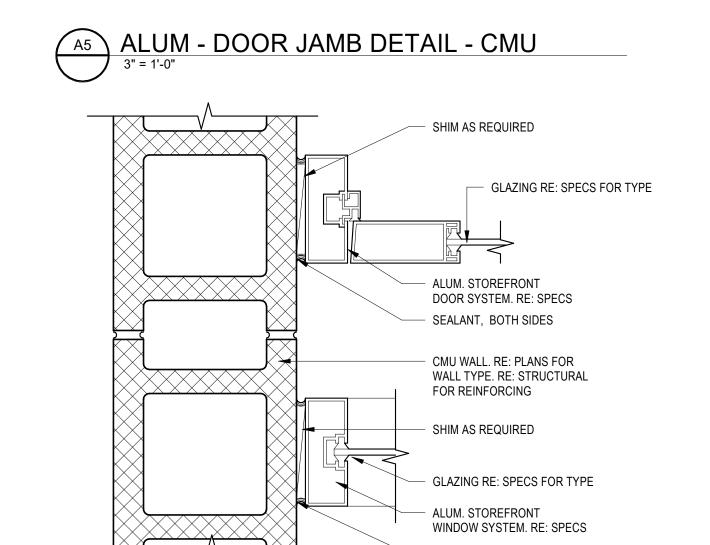
MERCY HEALTH

ARENA - ADA AND

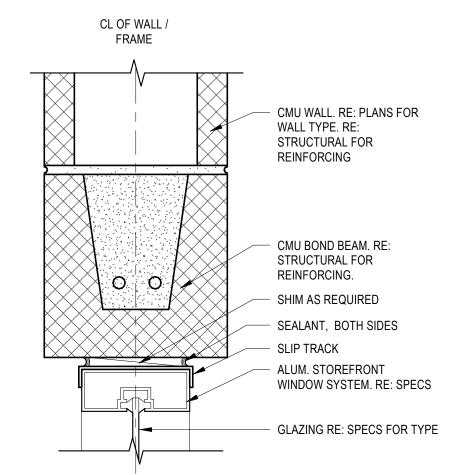


DOOR & FRAME TYPES, DOOR SCHEDULE & **GLAZING ELEVATIONS**

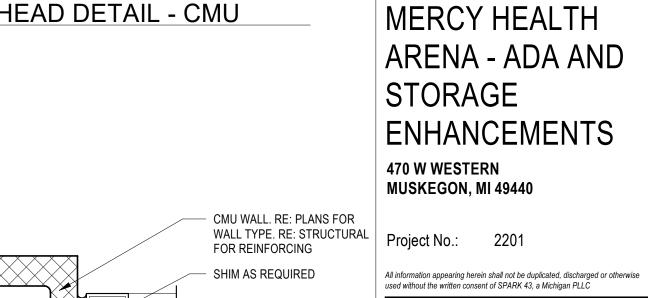
A9.30



A4 ALUM - GLAZING JAMB DETAIL - CMU SIDE WALL
3" = 1'-0"

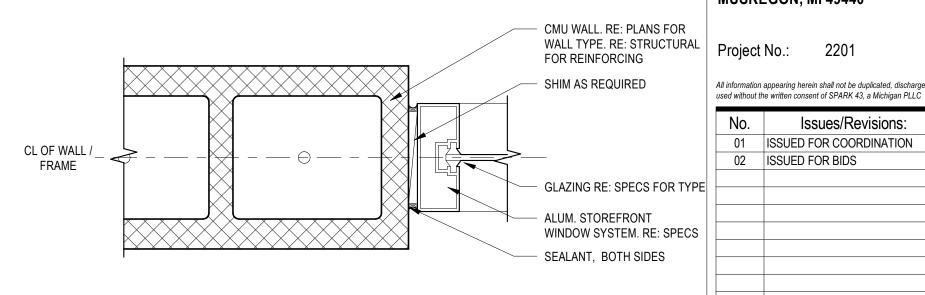


A3 ALUM - GLAZING HEAD DETAIL - CMU

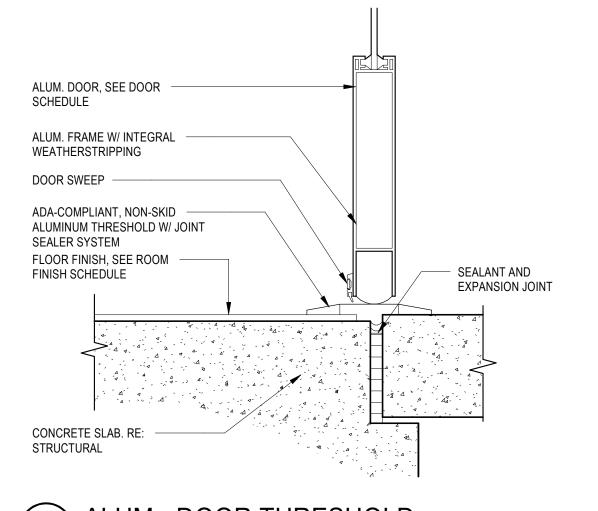


DOOR FRAME

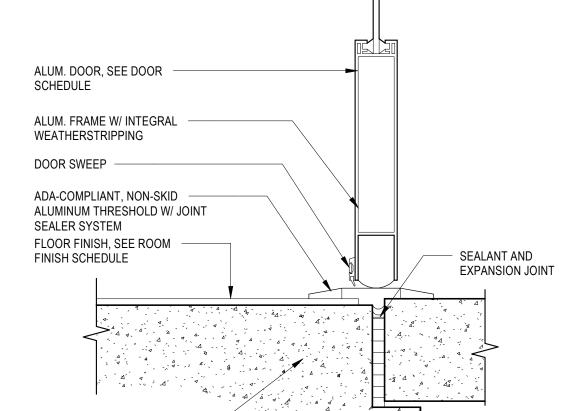
DETAILS







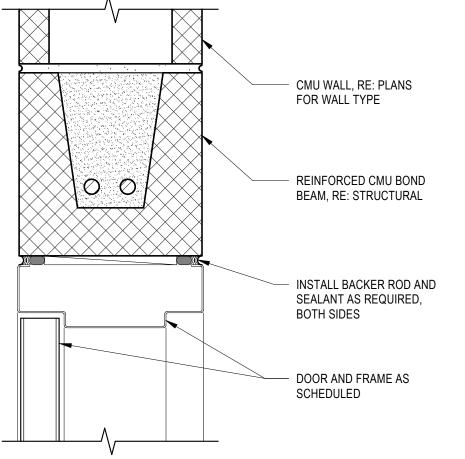
A1 ALUM - DOOR THRESHOLD



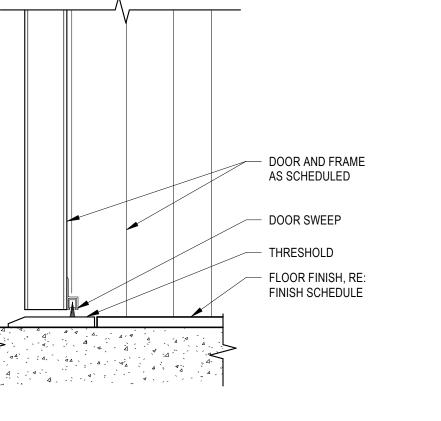
A9.40

- CMU WALL, RE: PLANS FOR WALL TYPE, RE: STRUCTURAL FOR REINFORCING INSTALL BACKER ROD AND SEALANT AS REQUIRED, BOTH SIDES MASONRY ANCHOR,RE: SPECS - 4 - 4 - X DOOR FRAME AS SCHEDULED, GROUT SOLID - DOOR AS SCHEDULED

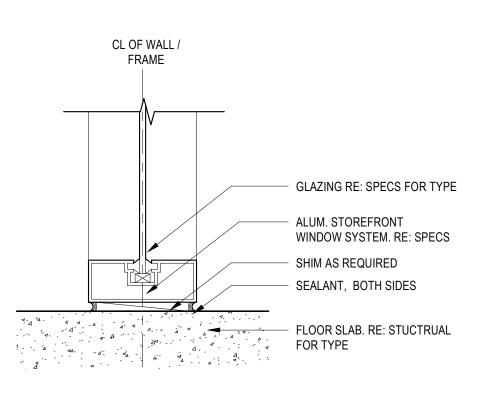






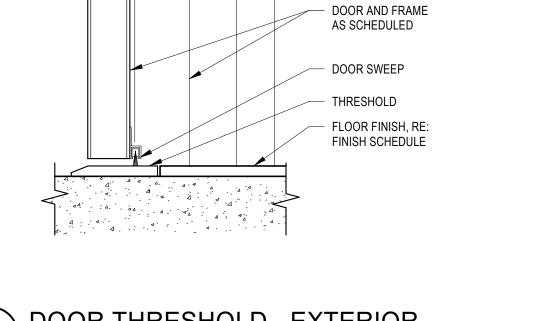


C1 DOOR THRESHOLD - EXTERIOR



3/8" @ SINGLE DOORS -1/4" @ DOUBLE DOORS ESTOOMS AND JANITOR C DOOR THRESHOLD - INTERIOR

3" = 1'-0"



METAL STUD ANCHOR, RE: SPECS - DOOR AND FRAME AS SCHEDULED 6 HM - JAMB DETAIL - STUD WALL
3" = 1'-0"

ALUM - GLAZING SILL DETAIL - SOG

GYP. BD ON METAL STUDS, RE: PLANS FOR

SEALANT, BOTH SIDES

OUBLE STUDS, BOTH SIDES OF FRAME

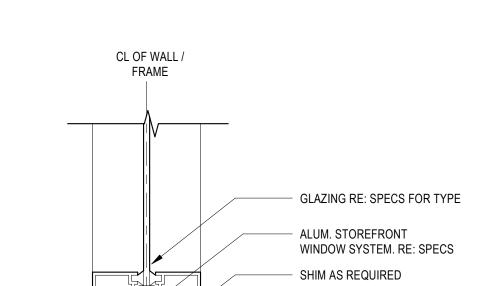
- DOOR AND FRAME

AS SCHEDULED

- FLOOR FINISH, RE:

FINISH SCHEDULE





19 ALUM - DOOR HEAD DETAIL - GLAZING

ALUM - DOOR JAMB DETAIL - GLAZING

- GLAZING RE: SPECS FOR

ALUMINUM STOREFRONT

ALUMINUM STOREFRONT

GLAZING RE: SPECS FOR

DOOR SYSTEM. RE: SPECS

TYPE

STOP AND GASKET

FRAMING

- ALUMINUM STOREFRONT DOOR SYSTEM. RE: SPECS

- ALUMINUM STOREFRONT

STOP AND GASKET

FRAMING

<u>INTERIOR</u>

GLAZING RE: SPECS FOR TYPE

DIVISION 15 - MECHANICAL

SECTION 15000 - GENERAL MECHANICAL PROVISIONS

PART 1 - PROVISIONS

1.1 General

A. The work in this division consists of furnishing all labor and materials, accessories, equipment, transportations, supervision, start—up services, instructions, permits and incidentals, and related items necessary to complete installation and successfully test, start—up and operate, in a practical and efficient manor, all mechanical work and systems indicated on the drawings and described in each Section of this Division. The work shall also include any items which, while not specifically included in these specifications or drawings, are reasonable and properly inferable therefrom or are accepted trade practice or necessary for the proper completion of this System.

1.2 Codes, Ordinances, Permits, Fees Or Assessments

A. All work and materials shall be installed in accordance with the standards as described by local and state codes or ordinance and with the prevailing rules and regulations pertaining to adequate protection and guarding of any moving parts or otherwise hazardous locations.

B. All labor, materials and equipment shall be guaranteed by the Contractor and/or warranted by the manufacturer for one (1) calendar year after date of final acceptance, except where specific, longer periods are specified. Make all necessary alterations, repairs, adjustments and replacements during guarantee period as directed by Engineer to comply with drawings and specifications. Such work shall be at no cost to the owner.

1.3 Tests

A. In addition to any tests which may be required by the Plumbing Inspectors, the Plumbing Contractor shall make the following tests:

1. Domestic water piping shall be closed and tested with water to pressure 50% in excess of the maximum working pressure and found tight.

2. All gas piping shall be tested at 50 psi air pressure without loss of more than 5 psi at the end of one hour. Use soap bubbles to detect leaks.

3. In the event leaks are found, they shall be repaired and the test repeated until satisfactory results are obtained. All piping to be covered shall be tested before covering.

This Contractor shall make all tests and adjustments hereinafter specified in the various divisions of the work.

B. To obtain Owner acceptance, demonstrate in the presence of the Architect/Engineer that the completely installed and tested systems are complete, comply with the drawings and specifications, and function properly under actual operating conditions.

SECTION 15080 - MECHANICAL INSULATION

PART 1 - INSULATION

1.1 Scope of Work

A. The Insulation Contractor shall furnish all materials, labor and equipment necessary to insulate the following, in the manner specified below:

Domestic Hot and Cold Water Piping
 PART 2 - MATERIALS

2.1 Domestic Hot and Cold Water

A. Domestic water piping shall be covered with 1/2" thick, 4 lb./cu. ft. fine glass fiber pipe covering with a high density, white kraft bonded to aluminum foil fiberglass yarn reinforced cover with laps

B. Insulate all fittings with 1/2" thick pre—cut fiberglas inserts with Zeston 2000 PVC covers installed with a mastic vapor retarder between the straight piping insulation jacket and the fitting cover. Cover the joint between the fitting cover and the straight piping insulation with pressure sensitive Z—Tape.

SECTION 15100 - BASIC MATERIALS AND METHODS

PART 1 — GENERAL

1.1 Materials and Meth

A. The Contractor shall furnish all labor and materials required for the work and as required to make complete systems. Materials shall be new, of first—class quality and shall be furnished complete including delivery, erection, finish and connections. Where a product is not named to establish quality or kind, the Contractor shall obtain approval of the Engineer prior to use of a product. All products shall be installed per manufacturer's instructions.

1.2 Expansion, Contraction, Vibration

A. Piping, duct work machinery and other equipment subject to shock, vibration or expansion and contraction are to be install in such a manner that such equipment will not be subject to undue strains or vibrations; either self—imposed by remote parts of same or other installations.

1.3 Operating and Maintenance Instructions

A. Before Owner acceptance of the work, provide detailed verbal instructions, for a period of one (1) day at two (2) hours per day, to the Owner's operating personnel regarding the installed systems.

B. Furnish to the Owner two (2) sets of neatly bound and indexed operating and maintenance

manuals for mechanical work consisting of the following:

1. Complete instruction manuals, including a description of operation for each piece of equipment.

2. Complete maintenance information, including when and where to lubricate, type of lubricant, when

to change filters, etc.

3. Wiring diagrams.

Parts lists.
 Control wiring diagrams.

6. Manufacturer's literature on all equipment and systems.
7. Shop drawings for each piece of equipment.

8. As-built drawings (two sets).

8. As—built drawings (two sets).

1.4 Existing Services

A. Where existing sewers, domestic and heating piping, gas, electrical or other services are encountered, each affected contractor shall take adequate steps to protect such services.

B. If such existing services require relocation, costs involved shall be negotiated.

1.5 Record Drawings

A. As—built drawings shall be maintained as work on the building progresses and marked drawings shall be delivered to the Owner immediately after completion of the job.

1.6 Chlorination

A. Before being placed in service, water distribution lines shall be chlorinated after operating the circulating pumps and flushing water through the lines.

B. The rate of gas—water mixture flow shall be such that the proportion of gas—water flow to water entering the system shall yield a chlorine dosage throughout the piping of at least 50 parts per million.

C. During chlorination, all valves and other devices shall be operated.

D. Chlorinated water shall be held in the system for not less than 8 hours following which the entire system shall be flushed with fresh water.

PART 2 - PIPING MATERIALS AND METHODS

2.1 General

A. Hangers, Anchors, and Supports: All insulated piping shall be supported in such a way as to prevent crushing of the insulation and to allow for pipe expansion. Further, all cold piping shall be supported in such a way as to protect and maintain the insulation vapor barrier. All hangers coming in contact with copper piping shall be copper plated.

B. Piping shall be installed such that access and required maintenance clearance is allowed for all

new and existing equipment.

C. Provide dielectric unions between cooper and steel piping.

D. All valves shall be located 2' or less above suspended ceilings for accessibility.

2.2 Plumbing — Piping and Fittings

A. Domestic Water Piping1. Domestic hot and cold water piping shall be Type L hard drawn copper with wrought copper sweat fitting in sizes up through 2", ASTM B75, B88 and B251, unless noted as PEX on the plans.

B. Storm, Sanitary and Vent pipingStorm, Sanitary and Vent piping shall be Schedule 40 PVC with integral bell and spigot joints,

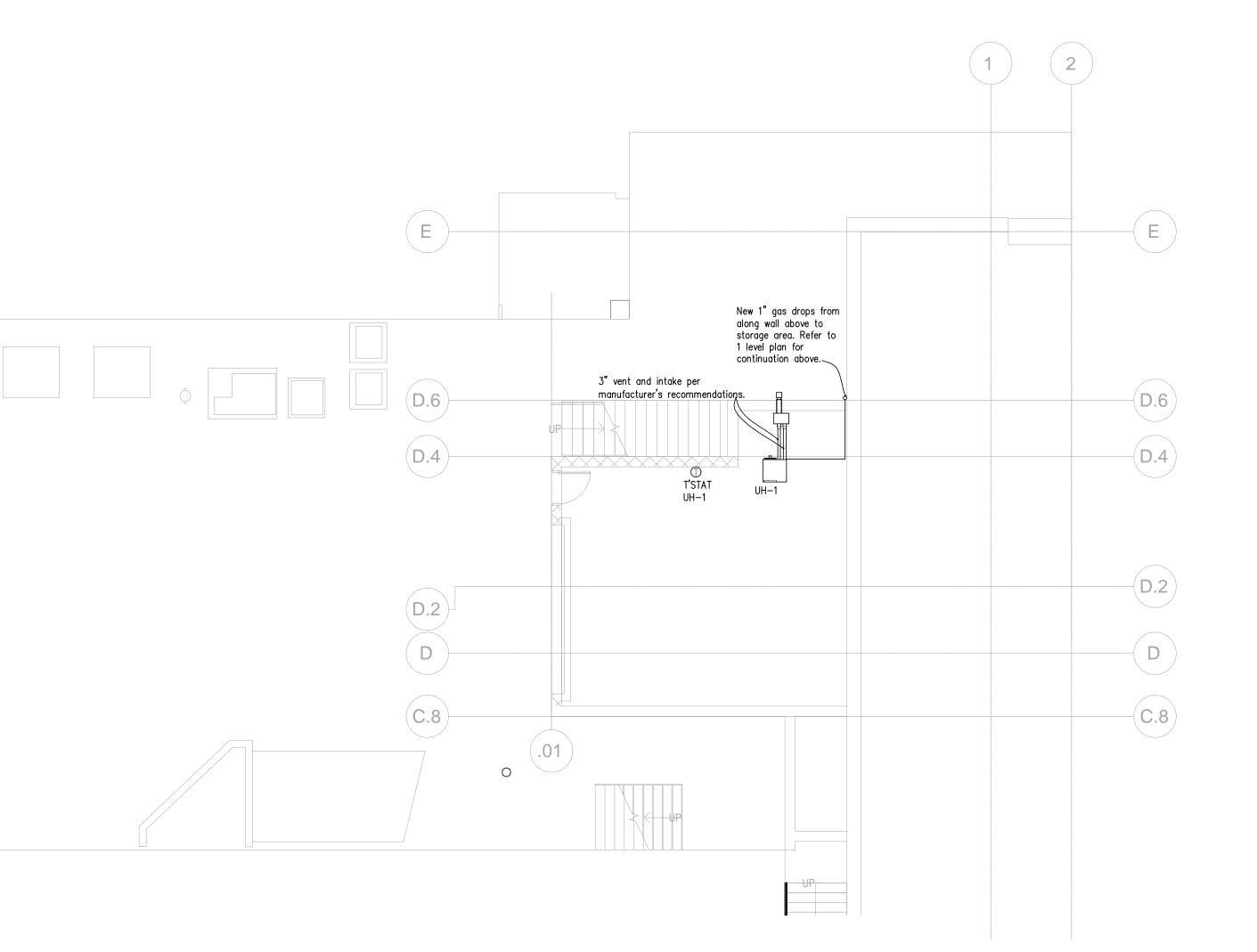
SECTION 15990 — TESTING ADJUSTING AND BALANCING

PART 1 – GENERAL

1.1 Domesitc Hot Water System Testing and Balancing

A. The following tests for the system shall be done and recorded:

Test and record full load amperes and voltages of electric water heaters.
 Verify hot water to each fixture with hot water piped to it.



LEVEL 0.5 HVAC PLAN

Symbol CFM HEATING INPUT(MBH) OUTPUT(MBH) EAT LAT Voltage/ phase Model/ Remarks UH-1 759 45 36.9 50 95.9 120/1 Reznor model UB7-45	UNIT HEATER (GAS HEAT)									
UH-1 759 45 36.9 50 95.9 120 / 1 Reznor model UB7-45	Symbol	CFM			EAT	LAT	Voltage/ phase	Model/ Remarks		
	UH-1	759	45	36.9	50	95.9	120/1	Reznor model UBZ-45		

Provide with 316 stainless heat exchanger.
 Provide with hanger kit.

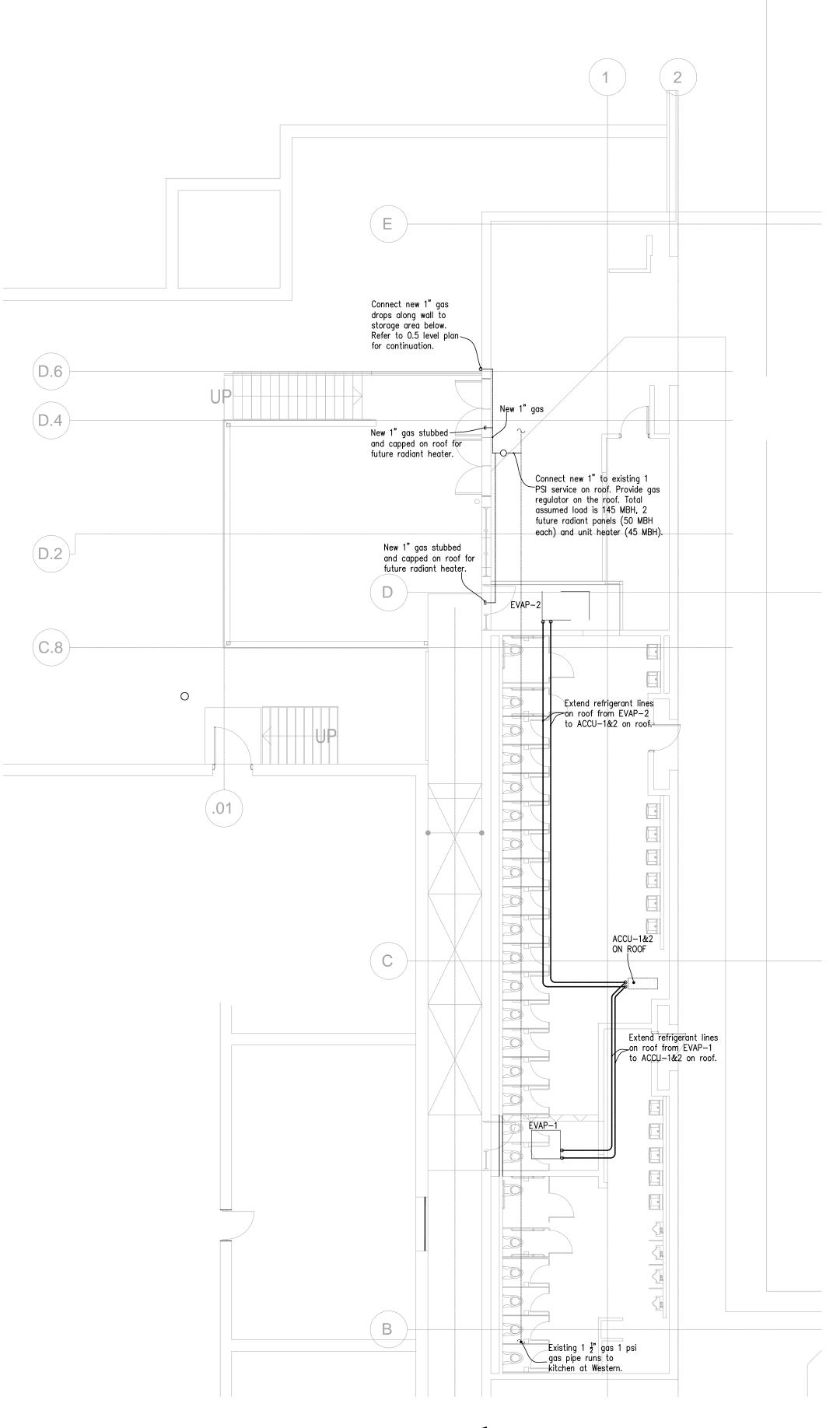
5. Provide 7—day programmable thermostat.

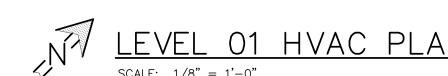
3. Provide with shutoff valve.4. Provide integrated vertical louver.

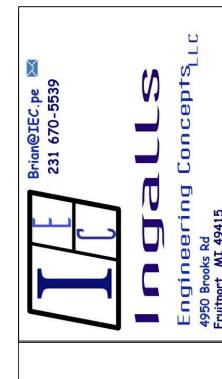
FAN COILS and EVAPORATORS									
Symbol	CFM	ESP (in)	MBH	LDB		HEATING INPUT(MBH)	Voltage/ phase	Model/ Remarks	
EVAP-1	618	0.2	18	55	54	21.0	240/ single	Fujitsu model AUU18RGLX	
EVAP-2	618	0.2	18	55	54	21.0	240/ single	Fujitsu model AUU18RGLX	
EVAP-x	542	0.2	18	55	54	21.6	240/ single	Fujitsu model ASU18RLF	
EVAP-x	542	0.2	18	55	54	21.6	240/ single	Fujitsu model ASU18RLF	
EVAP-x	300	0.2	9	55	54	22	240/ single	Fujitsu model ASU9RLF	
EVAP-x	300	0.2	9	55	54	22	240/ single	Fujitsu model ASU9RLF	
		1	1						

1. ACCU-1&2 is AOU36RLXFZH, for two AUU18RLF evaporators.

2. Field verify location of wired control panel.3. Field verify exact conditions for proper service clearance.









Mercy Health Arena a day and Storage Enhanceme a day western Muskegon, MI 49440

Permits

Revisions

Permits-5/20/2022

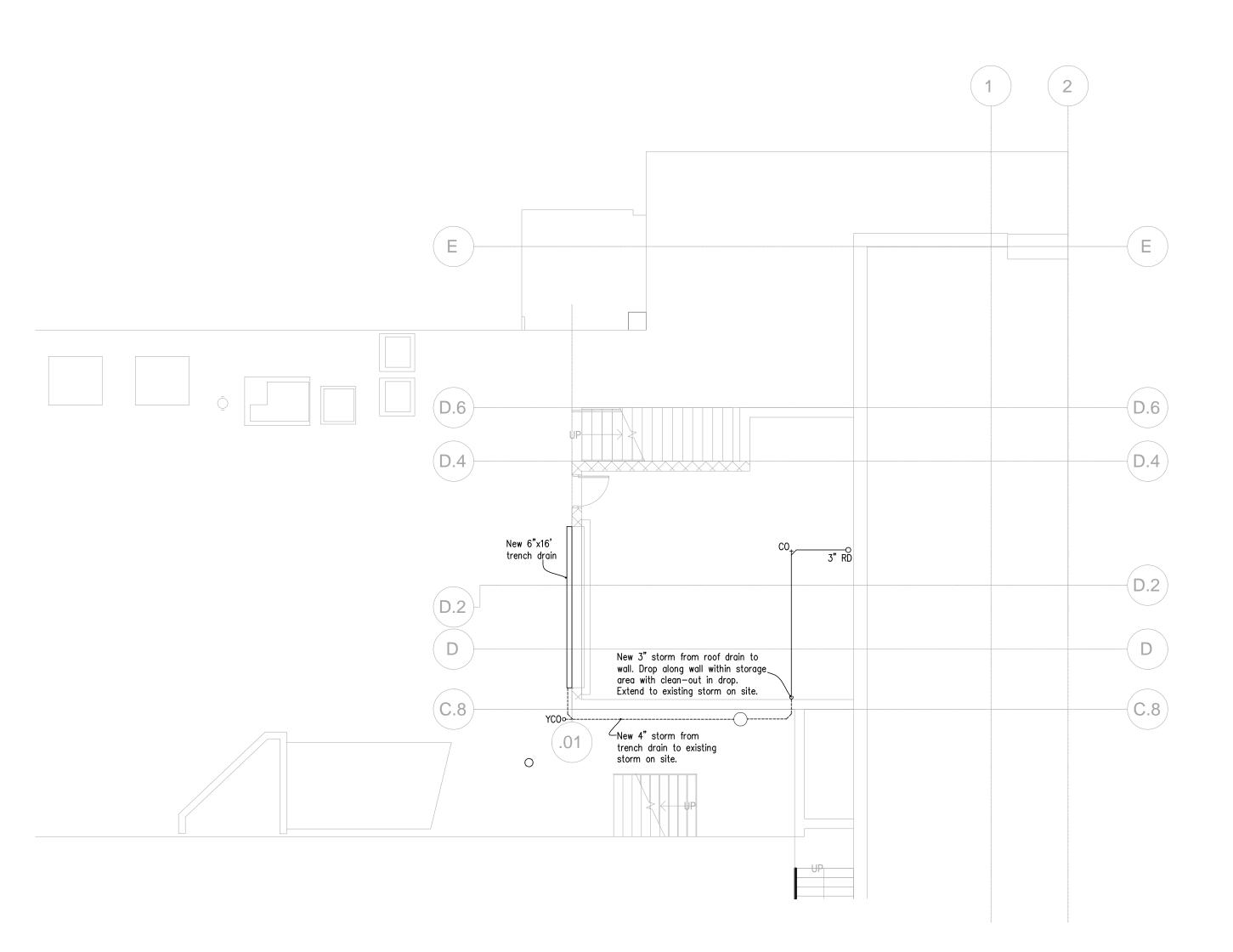
Sheet Title

OVERALL MECHANICAL

Sheet

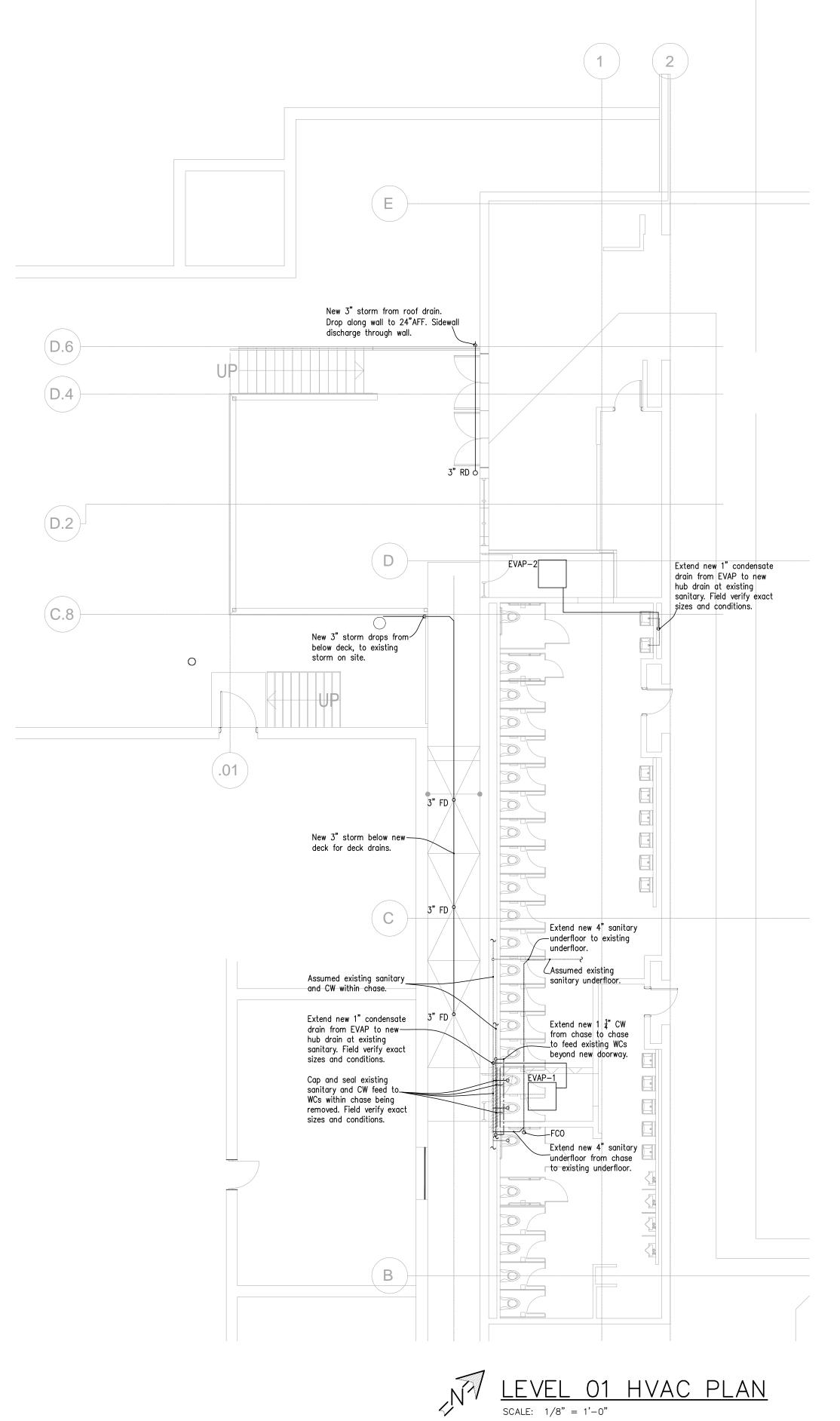
22577

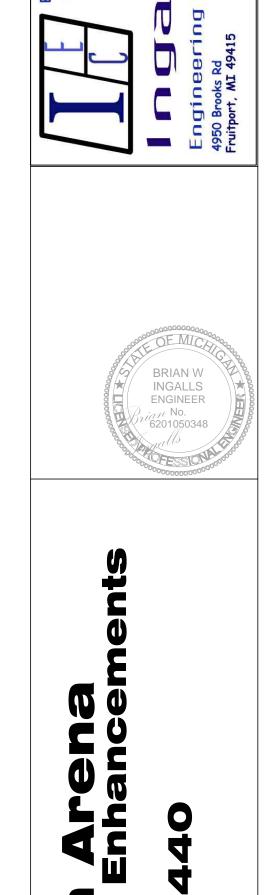
PLANS



LEVEL 0.5 HVAC PLAN

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





Mercy He ADA and Sto 470 W. Wes Muskegon,

Issued For

review

Permits

Revisions

Permits-5/20/2022

Sheet Title

Sheet

P1

22577

OVERALL PLUMBING PLANS

CD

ELECTRICAL SPECIFICATIONS

1. FURNISH AND INSTALL FIRST-CLASS WORKING SYSTEMS, TESTED AND READY FOR OPERATIONS. FIELD VERIFICATION OF ALL WORK AND DIMENSIONS ARE REQUIRED, INCLUDING COORDINATION WITH OTHER TRADES - NOTIFY THE ARCHITECT AND/OR ENGINEER OF ANY DISCREPANCIES.

2. COMPLY WITH THE CURRENT INTERNATIONAL BUILDING CODE (I.B.C.), NATIONAL ELECTRICAL CODE (N.E.C.), PLUS LOCAL OR STATE CODES, LAWS ORDINANCES RULES AND REGULATIONS (INCLUDING O.S.H.A.). OBTAIN ALL PERMITS AND APPROVALS REQUIRED FOR OCCUPANCY RELATED TO THE ELECTRICAL WORK.

3. COMPLETE REQUIRED DEMOLITION, MAINTAINING OPERATION OF EXISTING TO REMAIN (COORDINATE WITH THE GC REGARDING "PHASING" OF THE PROJECT). REWIRE EXISTING CIRCUITS AS REQUIRED.

4. ALL WIRING SHALL BE RUN IN CONCEALED CONDUIT IN THE FINISHED AREAS OF THE BUILDING. CONDUIT MAY BE EXPOSED IN EQUIPMENT ROOMS OR OVERHEAD IN ROOMS WITHOUT CEILINGS.

4. ALL WIRING SHALL BE RUN IN CONCEALED CONDUIT IN THE FINISHED AREAS OF THE BUILDING. CONDUIT MAY BE EXPOSED IN EQUIPMENT ROOMS OR OVERHEAD IN ROOMS WITHOUT CEILINGS.

5. ALL BUILDING CONDUIT WORK TO BE ELECTRICAL METALLIC TUBING (THINWALL -EMT), CONDUIT EXPOSED OUTDOORS TO BE RIGID GALVANIZED CONDUIT (ROC), PLASTIC (PVC) BELOW GRADE OR SLAB AND PVC COATED RGC WHERE CONDUIT PENETRATES GRADE OR EXTERIOR SLAB.

6. ALL CONDUCTORS SHALL BE NEW TYPE THHN OR TWN.

7. EXTEND THE COMPLETE GROUNDING SYSTEM IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE. INCLUDE INSULATED GROUND FOR ALL EXTERIOR AS WELL AS KITCHEN AND TOILET CIRCUITS.

8. CONVENIENCE OUTLETS AND SWITCHES SHALL BE SPECIFICATION GRADE RATED AT 20 AMPERES, 125 VOLTS AND BEAR THE U.L. LABEL OF APPROVAL. COLOR OF DEVICES & COVERPLATES TO BE COORDINATED ON SITE.

9. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL FIXTURES WITH LAMPS, AS SHOWN ON THE DRAWINGS. ALL BALLAST SHALL BE ELECTRONIC AND 20% THD OR LOWER.

10. PROVIDE SYSTEM RACEWAYS, AS INDICATED ON THE DRAWINGS (i.e. TELEPHONE, DATA, ETC.) AND VERIFY PROPER OPERATIONS. OTHERS WILL INSTALL SPECIFIC SYSTEMS, AS DIRECTED BY THE OWNER.

11. RECONNECT AND/OR COMPLETE POWER AND CONTROL WIRING FOR MECHANICAL EQUIPMENT AS REQUIRED ON THE DRAWINGS. VERIFY ALL REQUIREMENTS BEFORE PROCEEDING. ANY CONTRACTOR MAKING CHANGES TO THE ORIGINAL DOCUMENTS SHALL PAY FOR SUBSEQUENT INCREASES REQUIRED BY THE EC.

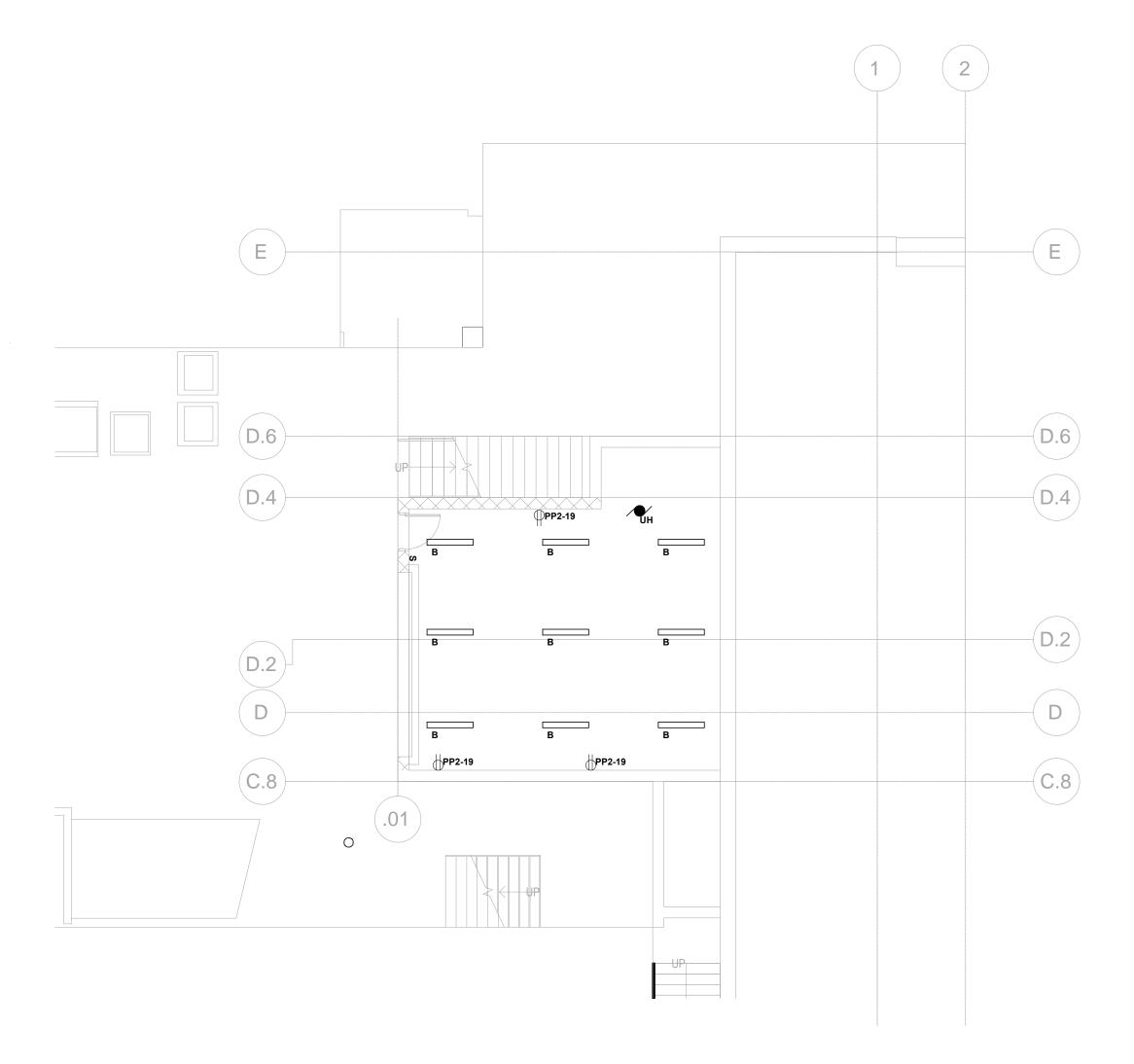
12. ALL BREAKERS TO HAVE COMMON TRIP FOR 2 AND 3 POLE CONFIGURATIONS (15A & 20A SHALL BE "SWD" RATED). "HACR" BREAKERS OR DUAL ELEMENT FUSES SHALL BE USED FOR ALL MOTOR OVERCURRENT PROTECTION.

13. UTILIZE STANDARD PANELBOARDS, LOAD CENTER TYPE PANELBOARDS SHALL NOT BE USED.

14. ALL EQUIPMENT/DEVICES TO BE PROPERLY RATED FOR THE SPECIFIC SPACE (i.e. NEMA "1", "3R", "4", ETC.).

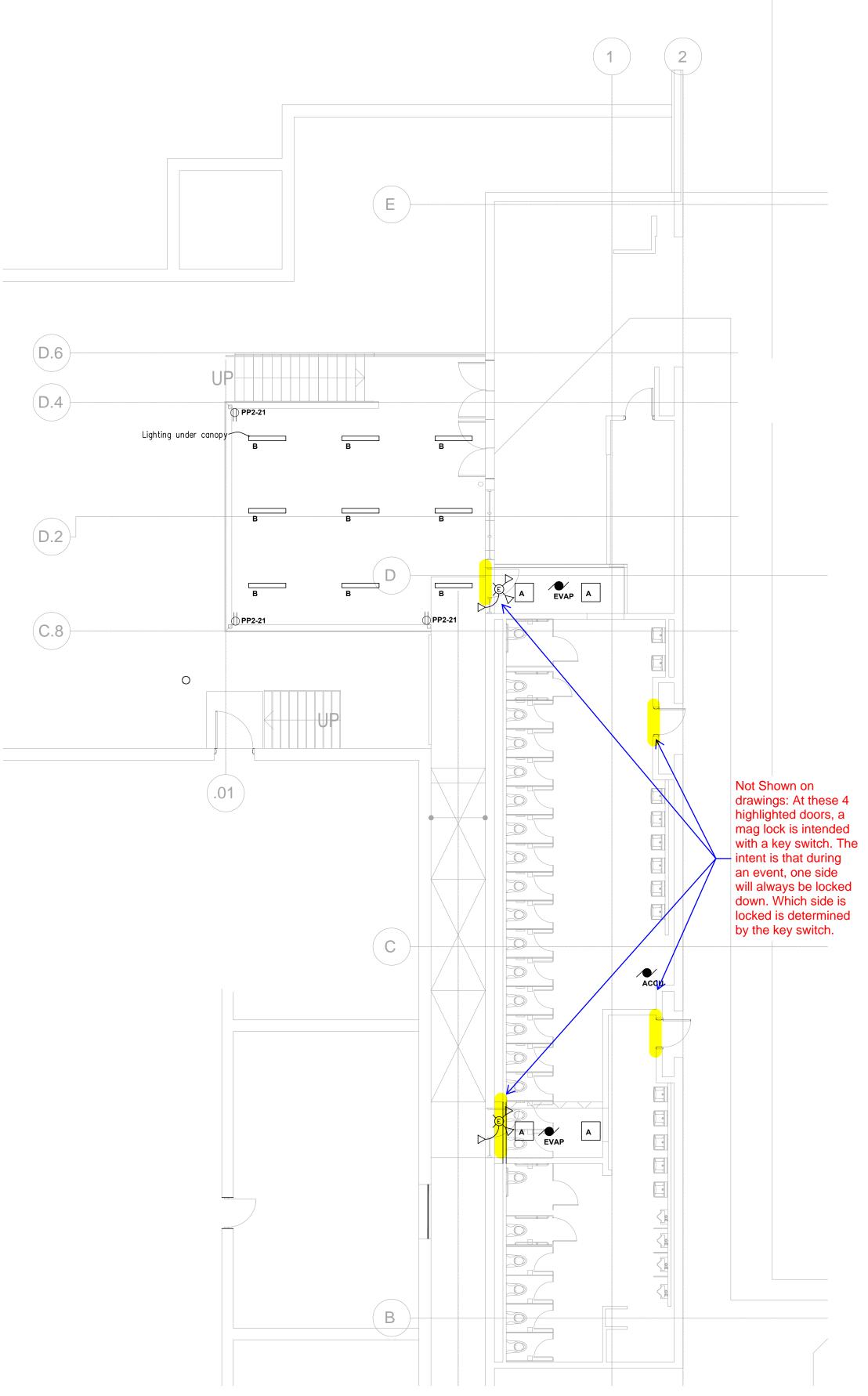
15. ALL EQUIPMENT/LIGHTING/OUTLETS TO BE POWERED FROM EXISTING PANEL BETWEEN CARLISLE AND MENS RESTROOM
GENERAL NOTE

ALL DIMENSIONS ARE TO BE FIELD VERIFIED.

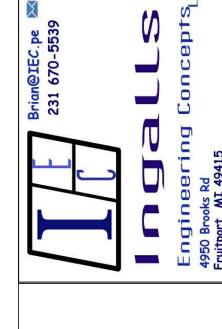




LIGHTING FIXTURE LEGEND								
TYPE	DESCRIPTION	MOUNTING	LAMPS	MANUFACTURER/ CATALOG NO.				
А	2'X2' PANEL	RECESSED	LED	LITHONIA CPX 2X2 400LM 35K M2				
В	4' STRIP	SURFACE	LED	LITHONIA CDS L48 MVOLT DM 40K 80CRI WH				
	EXIT	SURFACE	LED	LITHONIA ECB LED WITH REMOTE HEAD				









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OVERALL ELECTRICAL PLANS