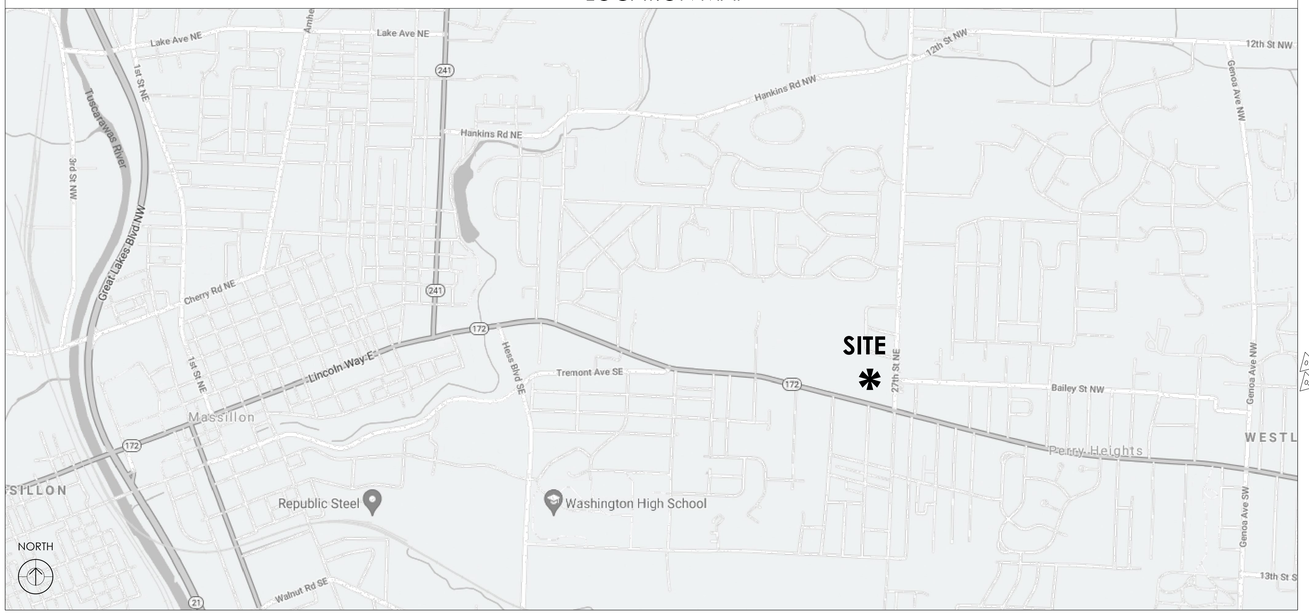
SPACE SHOP SELF STORAGE
MASSILLON, OHIO

2600 LINCOLN WAY E - MASSILLON, OHIO 44646

LOCATION MAP



SYMBOLOGY / LEGEND

- ELEVATION NUMBER / SHEET NUMBER
- DETAIL, SECTION OR OR PLAN NUMBER
- WALL SECTION NUMBER, BUILDING SECTION LETTER
- SHEET NUMBER
- DETAIL NUMBER
- SHEET NUMBER
- NOTE NUMBER
- WINDOW NUMBER
- DOOR NUMBER
- REVISION NUMBER
- INTERIOR FINISH NUMBER
- WALL/PARTITION TYPE
- ROOM NAME / ROOM NUMBER (ROOM / XXX)
- 116'-0" TRUSS BRG
- ELEV. DATUM POINT
- COLUMN GRID NUMBER OR LETTER

ABBREVIATIONS

AB	ANCHOR BOLT
AC	AIR CONDITIONING
ACT	ACOUSTIC CEILING TILE
ADA	AMERICAN DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AL/ALUM	ALUMINUM
ANG	ANGLE
APPROX	APPROXIMATE
ASPH	ASPHALT
BD	BOARD
BOT	BOTTOM
CA	CONSTRUCTION ADMINISTRATOR
CD	CEILING DIFFUSER
CJ	CONTROL JOINT
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CPT	CARPET
CT	CERAMIC TILE
C/L	CENTER LINE
CU	CONDENSING UNIT
DBL	DOUBLE
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DS	DOWN SPOUT
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV/EL	ELEVATION
EQ	EQUAL
EWC	ELECTRICAL WATER COOLER
EXIST	EXISTING
EXP	EXPOSED/EXPANSION
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FIN	FINISH(ED)
FF	FINISH FLOOR
FRMG	FRAMING
GA	GAGE
GALV	GALVANIZED
GYP	GYPSUM
HC	HANDICAPPED
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSEPOWER
HVAC	HEAT, VENTILATION, AIR CONDITION
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
JB	JUNCTION BOX
JT	JOINT
KW	KILOWATT
M	MIRROR
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MFGR/MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MTL	METAL
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OA	OUTSIDE AIR
OPG	OPENING
OPP	OPPOSITE
OPT	OPTION(AL)
PCS	PIECES
PL	PLATE
PLYWD	PLYWOOD
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PT	PAINT / PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER/PAINTED
QT	QUARRY TILE
R	RISER/RADIUS
REBAR	REINFORCING BAR
REF	REFERENCE
REINF	REINFORCE
REQ'D	REQUIRED
RO	ROUGH OPENING
ROOF'G	ROOFING
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SIM	SIMILAR
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STS	SELF TAPPING SCREWS
STOR	STORAGE
TELE	TELEPHONE
TTD	TOILET TISSUE DISPENSER
TYP	TYPICAL
VB	VINYL BASE/VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
WC	WATER CLOSET
WD	WOOD
WP	WATERPROOF
WWM	WELDED WIRE MESH
W/	WITH
WH	WATER HEATER
WTF	WET TROWEL FINISH

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE RENOVATION OF AN EXISTING VACANT MERCANTILE STRUCTURE (FORMER KMART) TO CONVERT ITS USE TO A CLIMATE CONTROLLED SELF STORAGE FACILITY. PROJECT WILL BE A 'CHANGE OF USE' FROM MERCANTILE TO STORAGE. EXISTING EXTERIOR SHELL STRUCTURE IS TO REMAIN. EXISTING GARDEN CENTER STRUCTURE IS TO BE REMOVED DOWN TO EXISTING SLAB AND REPLACED WITH NEW STRUCTURE MEETING CURRENT CODES. SCOPE OF WORK INCLUDES NEW INTERIOR PARTITIONS, LIGHTING, HVAC, PLUMBING, AND FINISHES. NEW TOILETS AND A NEW RETAIL SALES OFFICE (UNDER 1,000 GSF) ARE TO BE CONSTRUCTED WITHIN THE EXISTING BUILDING'S FOOTPRINT.

PROJECT SUMMARY

JURISDITION/AUTHORITY:	CITY OF MASSILLON, OHIO
CODE DESIGN STANDARDS:	
BUILDING	OHIO BUILDING CODE, 2017 ED
MECHANICAL	OHIO MECHANICAL CODE, 2017 ED
PLUMBING	OHIO PLUMBING CODE, 2017 ED
ELECTRICAL	NATIONAL ELECTRICAL CODE (NFPA 70), 2017 ED
FUEL GAS	INTERNATIONAL FUEL GAS CODE, 2015 ED
FIRE	OHIO FIRE CODE, 2017 ED
LIFE SAFETY	NFPA 101 LIFE SAFETY CODE, 2015 EDITION
ACCESSIBILITY	ICC A117.1-2009 ACCESSIBLE AND USEABLE BUILDINGS & FACILITIES
ENERGY CODE	OHIO ENERGY CODE, 2017 ED
BUILDING CONSTRUCTION CLASSIFICATION	TYPE IIB, UNPROTECTED
CLIMATE ZONE	5A
SPRINKLER SYSTEM	SPRINKLERED (NFPA 13)
BUILDING GROUP/AREA CLASSIFICATION	S-1 (STORAGE)
GROSS BUILDING AREA	108,591 GSF*
NUMBER OF STORIES	ONE (EXISTING)
MAX. BUILDING HEIGHT	29'-8" (EXISTING)

01/02 PER AGREEMENT ON 10/13/21 WITH THE CITY OF MASSILLON THE EXISTING BUILDING WILL BE CONSIDERED AN UNLIMITED AREA BUILDING WITH THE FOLLOWING STIPULATIONS:
FIRE LANE MAINTAINED AROUND ENTIRE BUILDING PERIMTER, REAR WALLS OF EXISTING STRUCTURE TO BE 3 HR RATED, 28' PERMANENT EASEMENT ADDED TO TWO CENTRAL OUTPARCELS TO MAINTAIN MIN. 60' OPEN AREA, CORNER OUTPARCEL TO HAVE CITY ADMINISTERED RESTRICTIONS ON THE 20' SETBACK TO ALLOW FOR 60' OPEN AREA. ALL OTHER AREAS OF THE BUILDING TO HAVE MINIMUM 60' TO PROPERTY LINE.

OCCUPANT LOAD BY USE: (SELF STORAGE)
(NOTE STORAGE USE IN STORAGE OCCUPANCIES ARE NOT COUNTED AS OCCUPIED SPACE)

SELF STORAGE:	23,326 SF / 500	47 PERSONS
MERCANTILE:	972 SF / 60	16 PERSONS
TOTAL OCCUPANT LOAD:		63 PERSONS
#EXITS REQUIRED / PROVIDED		2 REQUIRED / 7 PROVIDED
EGRESS WIDTH REQUIRED / PROVIDED		63 PERSONS * 0.2" = 12.6" REQ'D / 350" PROVIDED

MINIMUM PLUMBING FACILITIES:

USE	AREA	SF/OCC	TOTAL OCC	MEN	WOMEN
STORAGE	23,326SF	500	47	23.5	23.5
MERCANTILE	972 SF	60	16	08	08

USE	WATER CLOSETS		LAVATORIES		SERVICE SINKS
	MEN	WOMEN	MEN	WOMEN	
STORAGE (S-1)	1/100	1/100	1/75	1/75	1
47 (23.5M/23.5W)	0.24	0.24	0.31	0.31	
MERCANTILE(M)	1/500	1/500	1/750	1/750	1
16 (8M/8W)	.016	.016	.011	.011	
TOTAL REQ	(0.26) 1	(0.26) 1	(0.32) 1	(0.32) 1	1
TOTAL PROV	1	1	1	1	1

THIS TABLE IS PROVIDED TO EXPLAIN THE PLUMBING FACILITIES DESIGNED TO SERVE THE SITE AS A GENERAL WHOLE. NOTE: BOTTLED WATER IS PROVIDED FREE OF CHARGE TO THE GENERAL PUBLIC DURING ALL OPERATING HOURS

GENERAL PROJECT NOTES

1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND REGULATIONS
2. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO BIDDING
3. ALL MATERIALS INDICATED ARE NEW AND SHALL BE PROVIDED BY CONTRACTOR UNLESS OTHERWISE NOTED
4. DURING THE COURSE OF CONSTRUCTION, IF THE CONTRACTOR UNCOVERS ANY CODE VIOLATION KNOWN TO HIM OR ANY DISCREPANCY WITH THE DESIGN, CONTRACTOR SHALL NOTIFY THE ARCHITECT OF SUCH IMMEDIATELY
5. CONTRACTOR SHALL ASSEMBLE AND INSTALL MATERIALS/ PRODUCTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRIAL/ASSOCIATION STANDARDS.

MINIMUM SUBMITTAL REQUIREMENTS

THE FOLLOWING LIST OF ITEMS ARE THE REQUIRED MINIMUM SUBMITTALS ASSOCIATED WITH THIS PROJECT TO BE SUBMITTED FOR REVIEW BY THE GENERAL CONTRACTOR. ALL SUBMITTALS ARE REQUIRED TO HAVE PRIOR REVIEW, STAMP AND SIGNOFF BY THE G.C. PRIOR TO ANY SUBSEQUENT REVIEWS BEING PERFORMED. THE LIST OF ITEMS BELOW DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING ANY ADDITIONAL SUBMITTALS AS REQUIRED BY THE LOCAL JURISDICTION AND/OR ANY SPECIAL INSPECTIONS. THE LIST BELOW IS INTENDED TO BE USED AS A GENERAL GUIDE FOR THE ITEMS TO BE REVIEWED BY THE ARCHITECT OR ANY ENGINEER OF RECORD. THE EXPECTED REVIEW TIME FOR ANY SUBMITTAL SHALL BE 10 WORKING DAYS. SEE CIVIL ENGINEERING DRAWINGS FOR A LIST OF SUBMITTALS AS REQUIRED BY THAT SCOPE OF WORK.

REQUIRED (Y/N)	DESCRIPTION	*TYPE*
Y	CAST IN PLACE CONCRETE (FOUNDATION, FOUNDATION WALLS, SLAB ON GRADE, SLAB ON METAL DECK)	PRODUCT DATA & CONCRETE MIX DESIGNS
Y	MASONRY (I.E. CMU, BRICK AND STONE VENEER TYPES)	PRODUCT DATA & PHYSICAL SAMPLES
Y	MASONRY ACCESSORIES (I.E. MASONRY TIES, FLASHING, CONTROL JOINTS, MORTAR MIX, DAMPPROOFING)	PRODUCT DATA
Y	CONCRETE FLOOR FINISHES (I.E. SEALER / POLISHED CONCRETE)	PRODUCT DATA
Y	ANCHOR BOLTS	SHOP DRAWINGS
Y	STRUCTURAL STEEL	SHOP DRAWINGS
N	STEEL STAIR, GUARD AND HANDRAIL	ENGINEERED SHOP DRAWINGS
Y	ROOF LADDER	SHOP DRAWINGS
Y	MILLWORK	SHOP DRAWINGS & FINISH SAMPLES
Y	CABINET HARDWARE	PRODUCT DATA
Y	BELOW GRADE WATERPROOFING	PRODUCT DATA
Y	MEMBRANE ROOFING	PRODUCT DATA
Y	METAL ROOFING	PRODUCT DATA & PHYSICAL COLOR CHART
Y	METAL PARAPET COPING / SPECIAL TY FLASHING / GUTTERS & DOWNSPOUTS	PRODUCT DATA, PHYSICAL COLOR CHART & SHOP DRAWINGS
Y	INSULATION	PRODUCT DATA
Y	EIFS / SYNTHETIC / HARDCOAT STUCCO	PRODUCT DATA & PHYSICAL SAMPLES
N	HARDCOAT STUCCO REVEALS AND INSTALLATION ACCESSORIES	PRODUCT DATA
N	EXTERIOR METAL PANELS & TRIM	PRODUCT DATA & PHYSICAL COLOR CHART
Y	DOOR, FRAME, & HARDWARE	PRODUCT DATA
Y	STOREFRONT WINDOWS & ENTRANCES	PRODUCT DATA & ENGINEERED SHOP DRAWINGS
Y	AUTOMATIC SLIDING DOORS	PRODUCT DATA & SHOP DRAWINGS
Y	GLAZING	PRODUCT DATA
Y	TOILET ACCESSORIES (GRAB BARS, MIRRORS, ETC)	PRODUCT DATA
Y	FIRE EXTINGUISHERS & CABINETS	PRODUCT DATA
Y	METAL CANOPIES	PRODUCT DATA, PHYSICAL COLOR CHART & ENGINEERED SHOP DWGS
N	FABRIC OR STANDING SEAM AWNINGS	PRODUCT DATA, PHYSICAL COLOR CHART & SHOP DRAWINGS
N	ELEVATOR, INCLUDING CAB FINISHES	PRODUCT DATA, FINISH SAMPLES & SHOP DRAWINGS
Y	HVAC SYSTEMS	PRODUCT DATA
Y	HVAC ACCESSORIES (EXHAUST FANS, FIRE DAMPERS, LOUVERS, ETC.)	PRODUCT DATA
N	DEHUMIDIFIER	PRODUCT DATA
Y	PLUMBING FIXTURES	PRODUCT DATA
Y	GEAR / DISTRIBUTION PANELS / MISC. ELECTRICAL EQUIP.	PRODUCT DATA
Y	LIGHTING FIXTURES	PRODUCT DATA
Y*	STORAGE UNIT SYSTEM	PRODUCT DATA & SHOP DRAWINGS
Y*	LOW VOLTAGE / SECURITY	PRODUCT DATA & SHOP DRAWINGS
*PRODUCT DATA AND SHOP DRAWINGS TO BE SUBMITTED TO OWNER / TENANT FOR REVIEW SUBMIT COPIES TO ARCHITECT FOR PROJECT RECORD - ARCHITECT DOES NOT REVIEW SYSTEMS ENGINEERED BY OTHERS		
Y**	FIRE ALARM	PRODUCT DATA & ENGINEERED SHOP DRAWINGS
Y**	SPRINKLER SYSTEMS	PRODUCT DATA & ENGINEERED SHOP DRAWINGS
** ENGINEERED SHOP DRAWINGS TO BE SUBMITTED TO LOCAL JURISDICTION FOR PERMIT / REVIEW, SUBMIT COPIES TO ARCHITECT FOR PROJECT RECORD - ARCHITECT DOES NOT REVIEW SYSTEMS ENGINEERED BY OTHERS		

PROJECT DIRECTORY

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BUILDING 700
NORCROSS, GA 30092
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CONTACT: JEN DUCHAC
jen@peiatl.com

SHEET INDEX

SHT. NO.	DESCRIPTION	SHT. NO.	DESCRIPTION
A0.0	COVER SHEET	M0.1	GENERAL
A0.1	LIFE SAFETY PLANS	M0.2	DETAILS AND COMPLIANCE REPORT
A0.2	LIFE SAFETY UL DETAILS	M0.3	SCHEDULES
A1.0	EXISTING / DEMOLITION FLOOR PLAN	M1.1	FLOOR PLAN (MECHANICAL)
A1.1	FLOOR PLAN	M2.1	ENLARGED FLOOR PLAN (MECHANICAL)
A1.2	PLAN DETAILS		
A1.3	ROOF PLAN	P0.1	GENERAL
A2.1	EXTERIOR ELEVATONS	P0.2	DETAILS & SCHEDULES
A3.1	WALL SECTIONS	P1.1	OVERALL FLOOR PLAN (PLUMBING)
A3.2	WALL SECTIONS	P1.2	OVERALL ROOF PLAN (PLUMBING)
A4.0	ENLARGED FLOOR PLANS	P2.1	ENLARGED FLOOR PLAN (PLUMBING)
A4.1	INTERIOR ELEVATIONS		
A4.2	MILLWORK DETAILS	E0.1	GENERAL
A5.1	DOOR AND WINDOW SCHEDULES	E0.2	SCHEDULES & ONE LINE DIAGRAM
		E0.3	SCHEDULES
S0.1	GENERAL NOTES	E0.4	COMPLIANCE REPORT
S0.2	GENERAL NOTES	E1.1	FLOOR PLAN (ELECTRICAL)
S1.0	DEMOLITION PLAN	E1.2	LIGHTING CONTROL
S1.1	NEW ROOF PLANS	E1.3	LIGHTING CONTROL DETAIL
S1.2	FOUNDATION & ROOF FRAMING PLANS	E2.1	ENLARGED FLOOR PLAN (ELECTRICAL)
S3.1	SECTIONS AND DETAILS		
S3.2	SECTIONS AND DETAILS		CIVIL PLAN (REFERENCE ONLY)
		C3.0	SITE PLAN
		C4.0	GRADING PLAN
		C9.0	NOTES AND DETAILS

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION
01	09/17/2021	PERMIT COMMENTS

the SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
KEVIN JOHN MAHER
1215639
REGISTERED ARCHITECT

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404.549.4499 (p)

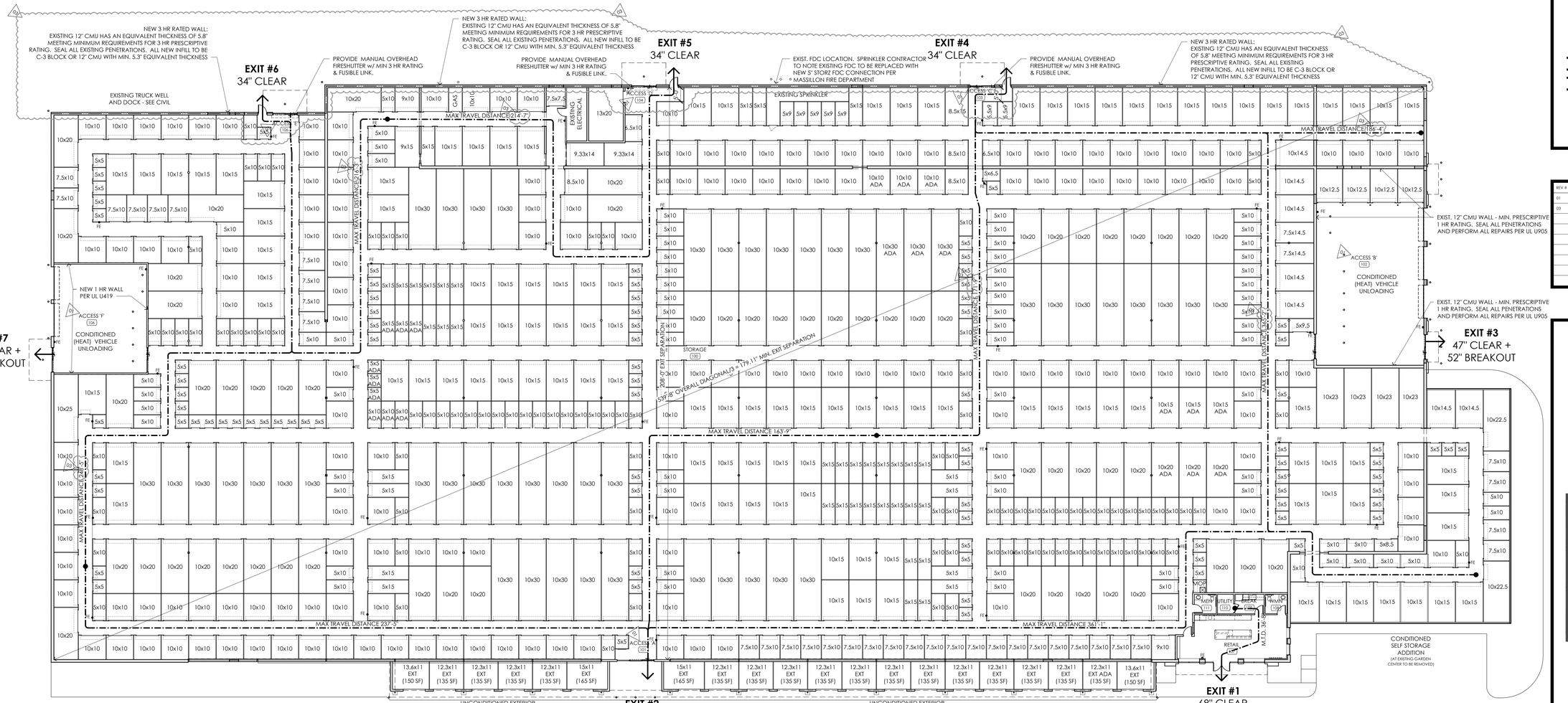
ISSUE DATE	08/17/2022
DRAWN BY	BJK
CHECKED BY	KJM
PM/D PROJ #	20052

SHEET TITLE

COVER

SHEET #

A0.0



N

01 LIFE SAFETY PLAN
A0.1 SCALE: 1/16" = 1'-0"

ACCESIBLE STORAGE UNIT NOTES:

A MINIMUM OF 18 ACCESSIBLE UNITS ARE REQUIRED TO MEET SECTION 1108.3 OF THE 2015 OBC.
759 INTERIOR ACCESSED UNITS + 20 EXTERIOR ACCESSED UNITS = 779 TOTAL UNITS
779 UNITS = 10, + 2% OF THE TOTAL NUMBER OF UNITS OVER 200 = 10 + [579 x 0.02]= 21.6 = 22 TOTAL REQ'D

21 INTERIOR ACCESSED UNITS TO BE PROVIDED & 1 EXTERIOR ACCESSED UNIT TO BE PROVIDED. UNITS ARE DISPERSED AMONG THE DIFFERENT SIZE UNITS. SEE FLOOR PLANS FOR LOCATIONS

PROVIDE SELECTED STORAGE UNIT MANUFACTURER'S STANDARD ADA KITS AT LOCATIONS SPECIFIED ON THE PLANS. ADA KITS SHALL MODIFY THE ACCESSIBLE UNITS SO THAT THE REACH RANGES AND OPERABLE PARTS COMPLY WITH ICC A117.1, SECTIONS 308 AND 309 - SEE TYPICAL DETAILS ON SHEET A4.1

MINIMUM REQUIRED MODIFICATIONS:
- A PULL MUST BE INSTALLED ON THE DOOR EXTERIOR NO LOWER THAN 15" AND NO HIGHER THAN 48"
- PULL MUST HAVE A LOOP LARGE ENOUGH FOR A FIST TO FIT INTO
- A NYLON ROPE MUST BE INSTALLED ON THE BOTTOM BAR WHICH HANGS 15" – 48" INCHES WHEN DOOR IS OPEN
- ROPE MUST ALSO CONTAIN A LOOP LARGE ENOUGH TO FIT A FIST & REPLACES THE TRADITIONAL ROPE
- AN ACCESSIBILITY PLAQUE WITH BRAILLE MUST BE CLEARLY DISPLAYED OUTSIDE OF UNIT
- DOOR MUST BE TENSIONED AT 5LBS. MAXIMUM FORCE AS IT PERTAINS TO THE CONTINUOUS APPLICATION OF FORCE NECESSARY TO FULLY OPEN A DOOR, NOT THE INITIAL FORCE NEEDED TO OVERCOME THE INERTIA OF THE DOOR.

EMERGENCY SERVICES RADIO NOTE

EMERGENCY RESPONDER RADIO COVERAGE TESTING SHALL BE CONDUCTED AS REQUIRED BY IFC SECTION 510 AT 50% AND 80% COMPLETION TO ENSURE THAT THE CERTIFICATE OF OCCUPANCY IS NOT HELD. INSTALLATION OF AN EMERGENCY RESPONDER RADIO COVERAGE SYSTEM MAY BE REQUIRED TO COMPLY WITH IFC 510. LOCATE EQUIPMENT IN 2-HR FIRE RATED ENCLOSURE. ERRS TO BE LOCATED WITHIN ELECTRICAL ROOM.

LIFE SAFETY GENERAL NOTES

1. BUILDING IS COMPLETELY SPRINKLERED
2. FIRE ALARM SHALL BE PROVIDED
   - ALARM ACTIVATION OR LOSS OF POWER SHALL RELEASE ANY ELECTRIC LOCKS OR ACCESS CONTROL DEVICES INCLUDING EXTERIOR VEHICULAR GATES.
3. ACCORDING NFPA 101 (2012 EDITION) TABLES 42.2.5 & 42.2.6
   DEAD END CORRIDOR LIMIT = 100'-0" [SPRINK] 54'-0" ACTUAL MAX
   MAXIMUM TRAVEL DISTANCE = 400'-0" [SPRINK] 365'-2" ACTUAL MAX

FIRE EXTINGUISHER NOTE

FIRE EXTINGUISHERS ARE TO BE LOCATED PER NFPA 10 REQUIREMENTS. TRAVEL DISTANCE CANNOT EXCEED 75'. THERE IS TO BE A MINIMUM OF (1) EXTINGUISHER FOR EVERY 3,000 S.F.

MINIMUM OF (37) REQUIRED.

COORDINATE FINAL AND ANY ADDITIONAL LOCATIONS WITH FIRE MARSHAL HAVING JURISDICTION.

PROVIDE MIN. 2A:10B:C EXTINGUISHERS AND INSTALL AT A MAXIMUM OF 48" ABOVE THE FINISHED FLOOR TO THE TOP OF THE HANDLE.

STORAGE SYSTEM SUBCONTRACTOR TO PROVIDE SEMI-RECESSED FIRE EXTINGUISHER BOXES AS REQUIRED.

OCCUPANCY / EGRESS CALCS

OCCUPANT LOAD BY USE: (SELF STORAGE - BUILDING 1)

SELF STORAGE:		23,326 SF / 500	47 PERSONS
MERCANTILE:	(RETAIL SALES)	972 SF / 60	16 PERSONS
TOTAL OCCUPANT LOAD:			63 PERSONS

#EXITS REQUIRED / PROVIDED 2 REQUIRED / 7 PROVIDED
EGRESS WIDTH REQUIRED / PROVIDED 63 PPL * 0.2" = 12.6" REQUIRED
(311" PROVIDED(+ 156" BREAKOUT))

*NOTE:
STORAGE USE IN STORAGE OCCUPANCIES (i.e. STORAGE UNIT INTERIORS) ARE NOT COUNTED IN OCCUPANCY CALCULATIONS.

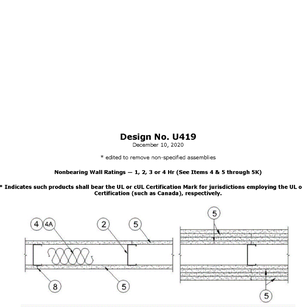
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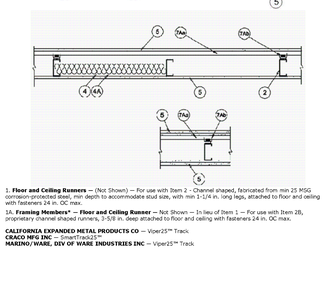
December 10, 2020

* edited to remove non-specified assemblies

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5K)

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





1. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max

1A. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track
CRACO MFG INC — SmartTrack25™
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track

1B. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1C. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — In lieu of Item 1 - Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System
UNITED METAL PRODUCTS INC — Type SUPREME Framing System

1D. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. **Framing Members* — Floor and Ceiling Runners —** (Not Shown), as an alternate to Item 1) — For use with Items 2E, 5F or 5G or SI only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTrak
DMPCWBS L L C — ProSTrak
MSA METAL FRAMING — ProSTrak
RAM SALES L L C — Ram ProSTrak
STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTrak

1F. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

SUPER STUD BUILDING PRODUCTS — The Edge

1G. **Framing Members* - Floor and Ceiling Runner —** For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.

STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track vT100.

1I. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.

TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

TELLING INDUSTRIES L L C — Viper25™ Track

1K. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

TELLING INDUSTRIES L L C — Viper20™ Track

1L. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 - For use with Item 2N, Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.

BAILEY METAL PRODUCTS LTD — Type FLATNUM PLUS

1M. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

RONDO BUILDING SERVICES PTY LTD — Rondo Wall Track

2. **Steel Studs —** Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Steel Studs —** (As an alternate to Item 2, For use with Items 5B, 5F, 5H, 5I and 5K) Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. **Framing Members* - Steel Studs —** (As an alternate to Item 2, For use with Items 5C, 5I or 5K) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTrak
DMPCWBS L L C — ProSTrak
MSA METAL FRAMING — ProSTrak
RAM SALES L L C — Ram ProSTrak
STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTrak

2C. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

2D. **Framing Members* — Steel Studs —** (In lieu of Item 2 - Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System
UNITED METAL PRODUCTS INC — Type SUPREME Framing System

2E. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) —For use with Items 5F or 5G or 5I ok only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (mm bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 1/4 in. less than assembly height.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD
MSA METAL FRAMING — ProSTUD
RAM SALES L L C — Ram ProSTUD
STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2F. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (mm bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.

SUPER STUD BUILDING PRODUCTS — The Edge

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 - proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.

STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) – fabricated from min. 0.015 in. (mm bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

TELLING INDUSTRIES L L C — TRUE-STUD™

2I. **Framing Members* — Steel Studs —** (As an alternate to Item 2, For use with Items 5C or 5I, or 5K) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.

TELLING INDUSTRIES L L C — Viper25™

2J. **Framing Members* — Metal Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

TELLING INDUSTRIES L L C — Viper20™

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

EB MetAL INC — EB Stud

2L. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

OLMAR SUPPLY INC — PRIMESTUD

2M. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (mm bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 1/4 in. less than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2N. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1L, channel shaped, min 3-5/8 in. wide, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

BAILEY METAL PRODUCTS LTD — Type FLATNUM PLUS

2O. **Framing Members* — Steel Studs —** As an alternate to Item 2 – proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.

RONDO BUILDING SERVICES PTY LTD — Rondo Loped Wall Stud

3. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 Only.) — (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) comprying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets* —** (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min non thickness as indicated under Item 5. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

4A. **Batts and Blankets* —** (Optional) – Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

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

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud space on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	3-1/2	1 layer, 1/2 in. thick	3 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layer, 1/2 in. thick	Optional
2	1-5/8	2 layer, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC, 3/4 in. thick Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, WRX, IP-AR, AR, AR/DD, WRC, IPX-1, IP-AR, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL ZAMAWAY DRYWALL S L C SPZ — 1/2 in. Type C; 5/8 in. Types C, SCX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

6. **Fasteners —** (Not Shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Two layer systems:** First layer - 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer below. **Three-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 3/4 in. thick panels, spaced 24 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Fourth layer- 2-1/4 in. long for 1/2 in., thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels —** (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A and 5E.

8. **Joint Tape and Compound —** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads on all panel layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are applied with a square edge.

9. **Siding, Brick or Stucco —** (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. **Caulking and Sealants* —** (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.

UNITED STATES GYPSUM CO — Type AS

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

Design No. U905

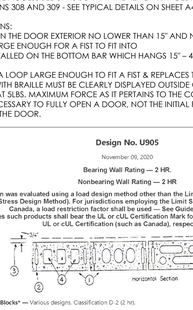
November 09, 2020

Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide RIUV or RIUV7.

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



1. **Concrete Blocks* —** Various designs. Classification D 2-12 hr).

See **Concrete Blocks** category for list of eligible manufacturers.

2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2- 1/4 and not more than 3- 1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to classification If used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1- 1/2 hr. Attached to concrete blocks (Item 1).

4. **Loose Masonry Fill —** If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. **Foamed Plastic* —** (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro
CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE
DUPONT DE NEMOURS, INC. — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax Flat Line Panel, Thermax Heavy Duty Flat Line Panel, Thermax Heavy Duty Ply Insulation (HDP), TUFF R™ ci Insulation, Thermax Butler Stywall Insulation Board and Thermax Morton Heavy Duty Insulation Board
FIRESTONE BUILDING PRODUCTS CO L L C — Tenergy™ CI Foil Exterior Wall Insulation" and "Tenergy™ CI Glass Exterior Wall Insulation"
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci Class A", "Xci Foil (Class A)", "Xci 286"
RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX 450S", "ECOMAXI FR", "TSX 451S", "ECOMAX xi FR White", "ECOMAXi", "ECOMAXi FR Air Barrier", "Thermasheath-X5", "Thermasheath", "Duralhealth", "Thermasheath-3", "Duralheath-3"
JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"
5A. **Building Units* —** As an alternate to Items 5, min. 1-in. (nb) polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — "Xci NB", "Xci Ply".
RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath 5i", "ECOBASSi", "ThermaBase Ci", "ECOMAXi FR Ply", "ECOMAXi Ply".

KEVIN J. MAHER AIA

REV # | DATE | DESCRIPTION
01 | 09/17/2021 | PERMIT COMMENTS
03 | 10/21/2021 | PERMIT COMMENTS

the SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E. - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
KEVIN JOHN MAHER
1215636
REGISTERED ARCHITECT
This document and all information contained within it is copyrighted by Kevin J. Maher, AIA and may not be copied or used without permission.

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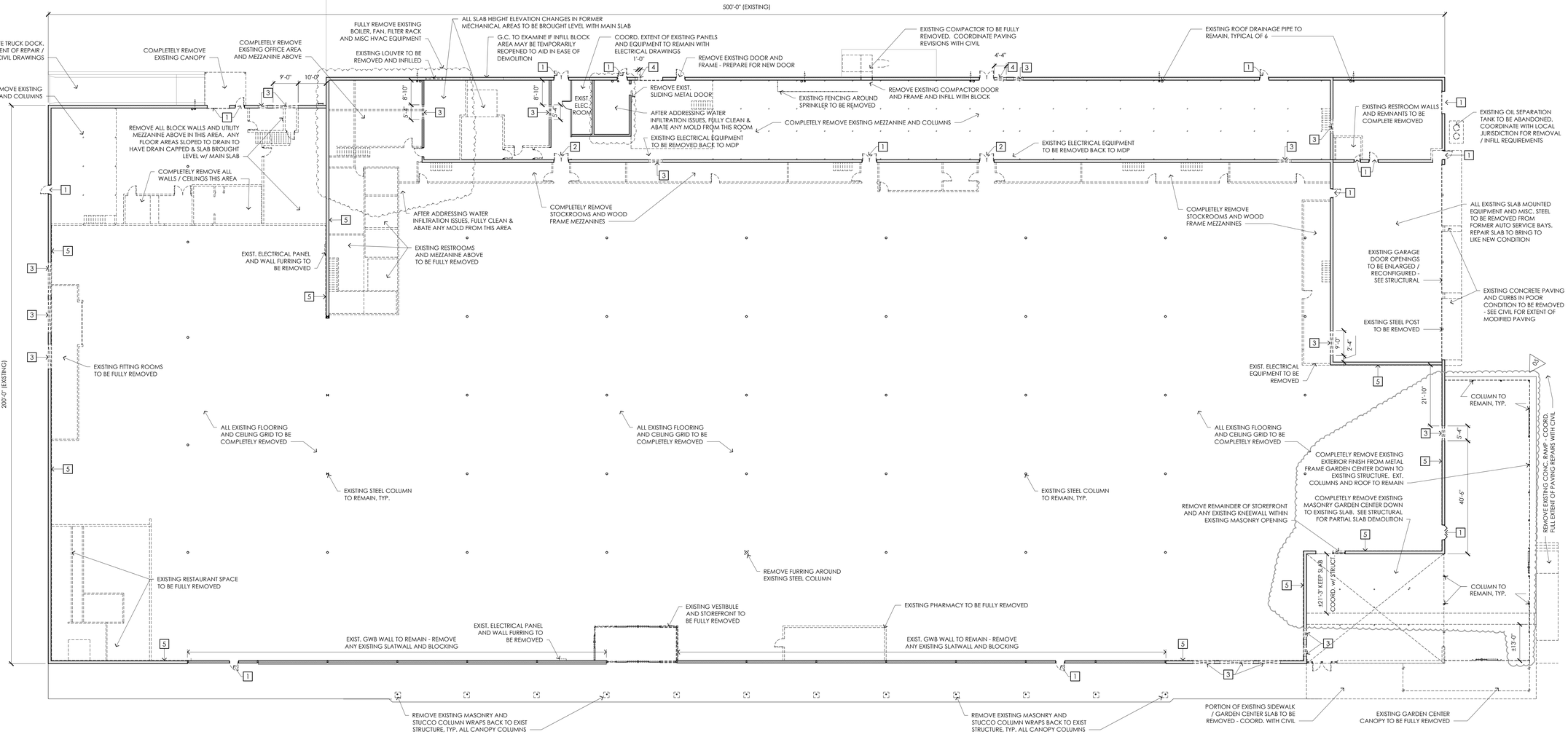
ISSUE DATE	09/17/2021
DRAWN BY	BJK
CHECKED BY	KJM
PWD PROJ #	20002

SHEET TITLE

LIFE SAFETY PLAN

SHEET #

A0.1



N

01 / A1.0 DEMOLITION PLAN
SCALE: 1/16" = 1'-0"

DEMOLITION KEYNOTES

1. COMPLETELY REMOVE DOOR AND FRAME AND PREPARE OPENING TO BE INFILLED TO MATCH EXISTING ADJACENT CONSTRUCTION.
2. COMPLETELY REMOVE EXISTING DOOR AND FRAME - PATCH AND REPAIR ANY NEWLY EXPOSED CMU CORES WITH GROUT. MASONRY OPENING TO REMAIN.
3. NEW OPENING IN EXISTING MASONRY WALL. SEE CONSTRUCTION DRAWINGS.
4. EXISTING MASONRY OPENING TO BE ENLARGED. FULLY REMOVED EXISTING DOOR AND FRAME AND SEE CONSTRUCTION DRAWINGS FOR NEW OPENING SIZE.
5. COMPLETELY REMOVE ALL EXISTING FURRING AND WALL FINISH BACK TO FACE OF EXISTING CMU.

GENERAL DEMOLITION NOTES

1. GENERAL CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY DESIGNER OF ANY DISCREPANCIES PRIOR TO COMMENCING DEMOLITION.
2. GENERAL CONTRACTOR SHALL HIRE ELECTRICIAN AND PLUMBER TO EXAMINE EXISTING CONDITIONS AND MAKE BUILDING SAFE FOR SCHEDULED DEMOLITION PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES BY DISCONNECTING APPROPRIATE POWER, GAS AND WATER LINES.
3. GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO FINISHES OR COMPONENTS NOT SCHEDULED FOR DEMOLITION. CONTRACTOR SHALL REPLACE ANY DAMAGED ITEMS OR REPAIR TO MEET OR EXCEED FORMER CONDITIONS.
4. GENERAL CONTRACTOR TO CONSULT WITH OWNER REGARDING THE SALVAGE OF ANY REMOVED ITEM TO BE SAVED FOR RE-USE IN THE FUTURE
5. GENERAL CONTRACTOR MUST COMPLY TO ALL BUILDING OWNERS GUIDELINES AND SHALL TAKE MEASURES AS NECESSARY TO MINIMIZE NOISE, DIRT, AND DISRUPTION TO OCCUPIED SPACES ADJACENT TO AREAS OF DEMOLITION.
6. AFTER DEMOLITION HAS BEEN COMPLETED, ENTIRE PROJECT TO BE CLEANED AS FOLLOWS:
   - EXTERIOR TO BE PRESSURE WASHED AND SCRAPED TO REMOVE DIRT, MINERAL BUILD-UP AND FLAKING PAINT PRIOR TO ANY NEW FINISHES BEING APPLIED. ALL SURFACES TO BE PREPPED AS REQUIRED FOR APPROPRIATE FINISH

DEMOLITION SCOPE

THE SCOPE OF DEMOLITION OF THE EXISTING SPACE SHALL COVER:

- ALL ITEMS AS INDICATED ON DEMOLITION PLANS - ALSO SEE DEMOLITION ELEVATIONS ON A2.1
- ANY REMAINING PREVIOUS TENANT FIXTURES NOT MARKED FOR SALVAGE.
- NON STRUCTURAL INTERIOR PARTITIONS, DOORS AND FRAMES SHOWN DASHED.
- ALL INTERIOR WALL AND FLOOR FINISHES.
  - CERAMIC / PORCELAIN FLOOR TILE REMOVAL SHALL INCLUDE HAVING ANY MORTAR REMOVED OR GROUND DOWN TO PROVIDE A SMOOTH SLAB CONDITION SUITABLE FOR NEW FINISH
  - ANY CARPET OR VCT REMOVAL SHALL INCLUDE HAVING ANY ADHESIVE REMOVED OR GROUND DOWN PROVIDE A SMOOTH SLAB CONDITION SUITABLE FOR NEW FLOOR FINISH
  - WALL FINISH REMOVAL AT CMU WALLS SHALL INCLUDE ALL WOOD PANELING, FRP, TILE, SLATWALL, SHELVING STANDARDS AND FURRING BACK TO FACE OF EXISTING CMU.
  - AT EXISTING GYPSUM BOARD WALLS NOTED TO REMAIN REMOVE ALL FINISHES & FIXTURES BACK TO FACE OF GYP BD. AND PREPARE TO BE GENERALLY FLUSH TO RECEIVE NEW LINER PANEL FINISH.
- REMOVE ALL EXISTING ACT AND GYPSUM BOARD CEILINGS, UNLESS NOTED OTHERWISE.
- REMOVE ALL EXISTING FURNITURE AND EXISTING MILLWORK, UNLESS NOTED OTHERWISE.
- ALL EXISTING KITCHEN EQUIPMENT, INCLUDING BUT NOT LIMITED TO HOODS, EXHAUST FANS, COOLERS, THREE COMPARTMENT SINKS, ARE TO BE COMPLETELY REMOVED.
- REMOVE EXISTING HVAC GRILLES INSTALLED IN CEILINGS / WALLS, AND ALL EXISTING DUCTWORK.
- REMOVE ALL EXISTING GAS LINES AND ELECTRIC SERVICE TO RESTAURANT EQUIPMENT FROM WALLS AND CEILINGS TO BE REMOVED BACK TO SOURCE CONNECTION.
- ALL ELECTRICAL ITEMS IN WALLS SCHEDULED FOR DEMOLITION TO BE REMOVED BACK TO EXISTING PANEL.
- COMPLETELY REMOVE EXISTING LOW VOLTAGE SYSTEMS.
- ALL EXISTING PLUMBING FIXTURES SHALL BE REMOVED UNLESS SPECIFICALLY NOTED. COORD. WITH PLUMBING DRAWINGS.
- COORDINATE PLUMBING VENT REQUIREMENTS WITH PLUMBING DRAWINGS. REUSE EXISTING VENT THROUGH ROOF WHERE FEASIBLE. REMOVE ANY UNNEEDED PENETRATIONS THROUGH THE ROOF AND PATCH PRIOR TO RE-ROOFING STRUCTURE.
- SAW CUT EXISTING CONCRETE SLAB AND TRENCH FOR NEW UNDERSLAB SANITARY PLUMBING WORK. SEE FLOOR PLAN AND PLUMBING DRAWINGS.
- ALL EXISTING SUPPLY PLUMBING NOT SCHEDULED FOR REUSE SHALL BE REMOVED COMPLETELY. COORDINATE WITH PLUMBING DRAWINGS.
- ALL EXISTING WASTE PLUMBING NOT SCHEDULED FOR REUSE SHALL BE REMOVED AND CUT DOWN TO THE SLAB AND CAPPED. COORDINATE EXTENT OF REUSE WITH PLUMBING DRAWINGS.
- EXISTING ELECTRICAL SERVICE TO BE REMOVED COMPLETELY BACK TO EXISTING MAIN DISTRIBUTION PANELS EXCEPT FOR SIGNAGE AREA POWER AND MISC. LIGHT LOCATIONS AS NOTED.- COORDINATE FULL EXTENT WITH ELECTRICAL DRAWINGS.
- ALL EXISTING ELECTRICAL DEVICES AND LIGHTING INCLUDING ASSOCIATED WIRING NOT SCHEDULED FOR REUSE SHALL BE REMOVED BACK TO PANEL LOCATIONS. COORDINATE REUSE OF EXISTING WIRING CONDUITS WITH PROPOSED NEW WORK. REUSE WHERE FEASIBLE / COST EFFECTIVE.
- ALL EXISTING EXTERIOR DOORS AND WINDOWS TO BE REMOVED BACK TO THEIR ORIGINAL ROUGH OPENING.
- GENERAL CONTRACTOR TO COORDINATE WITH ALL ENVIRONMENTAL GUIDELINES REGARDING CONTAMINATED ITEMS. SEE OWNER SUPPLIED PRE-DEMOLITION ASBESTOS SURVEY DATE 04/09/2021 FOR ALL KNOWN ITEMS. ADDITIONAL CONTAMINATED ITEMS MAY BE PRESENT WITHIN WALLS OR HIDDEN WITHIN FURRING. SEE REPORT FOR LIMITATIONS. G.C. SHALL HIRE A LICENSED ASBESTOS ABATEMENT COMPANY TO PREPARE AN ASBESTOS ABATEMENT WORKPLAN AND REMOVE AND/OR ENCAPSULATE ALL CONTAMINATED ITEMS REQUIRING ABATEMENT PER OHIO EPA REQUIREMENTS PRIOR TO FULL DEMOLITION ACTIVITIES OCCURRING.

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION
03	10/21/2021	PERMIT COMMENTS
05	02/14/2022	COORDINATION

the SPACE SHOP SELF STORAGE

MASSILLON STORAGE

2600 LINCOLN WAY E - MASSILLON, OH 44646

STEIN INVESTMENT GROUP

STATE OF OHIO
KEVIN JOHN MAHER
1215639
REGISTERED ARCHITECT

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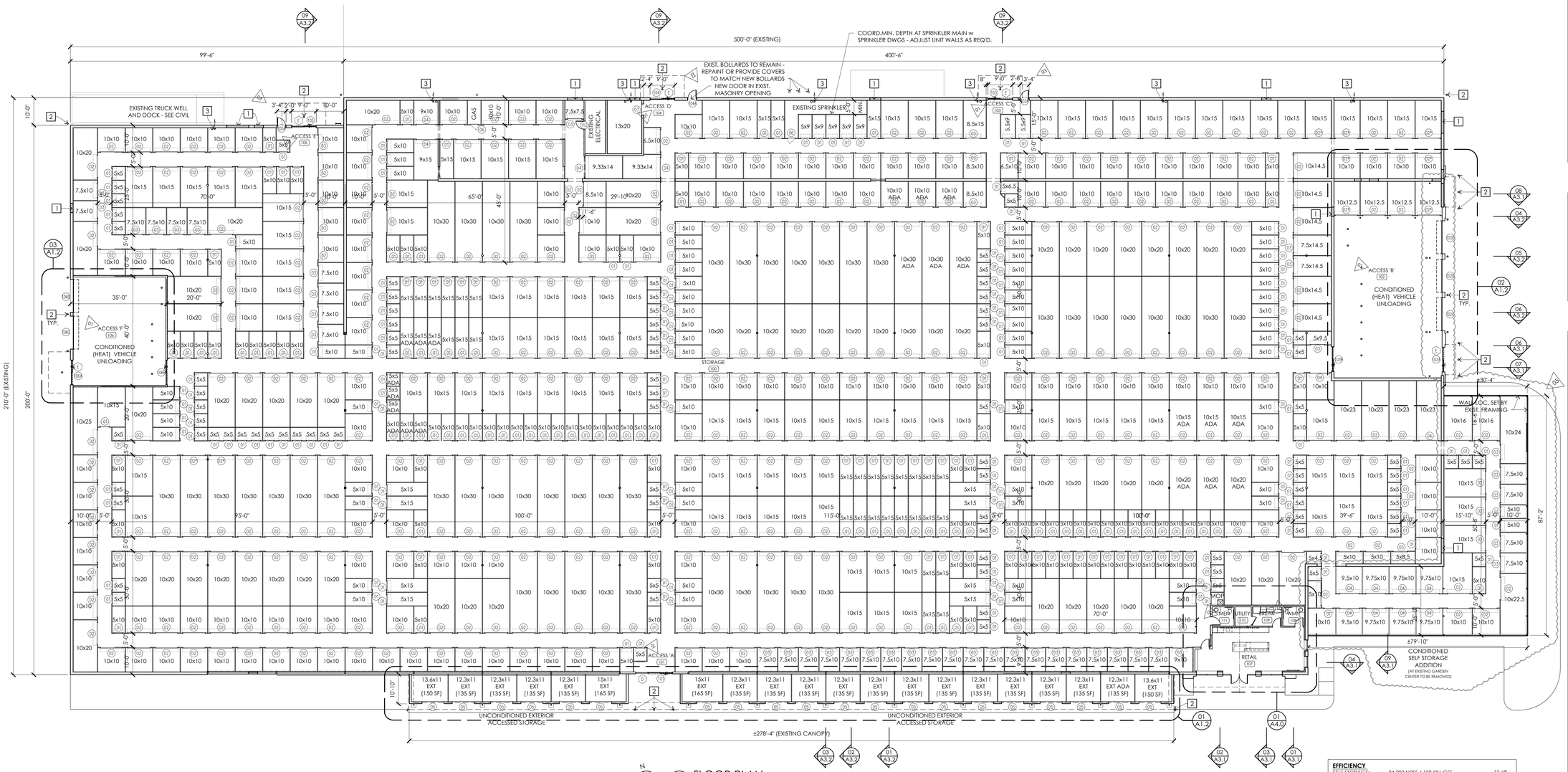
ISSUE DATE	08/17/2021
DRAWN BY	BJK
CHECKED BY	KJM
PMD PROJ #	20052

SHEET TITLE

DEMOLITION PLAN

SHEET #

A1.0



N

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

EFFICIENCY

SELF STORAGE:	84,293 NRSF / 108,591 GSF	77.6%

FLOOR PLAN KEYNOTES

1. EXISTING OPENING TO BE INFILLED TO MATCH EXISTING ADJACENT CONSTRUCTION.
2. NEW CONC. FILLED BOLLARD WITH PLASTIC PROTECTIVE COVER - COORDINATE WITH CIVIL DRAWINGS AND TENANT FOR EXACT LOCATIONS
3. NEW OVERFLOW ROOF DRAINS AT EXISTING ROOF DRAIN LOCATIONS - SEE PLUMBING DRAWINGS. ALSO COORDINATE EXTENT OF BRAKE METAL TRIM NEEDED TO PROTECT ANY PIPING WITHIN STORAGE UNITS.

STORAGE UNIT SCOPE NOTES

REFER TO THIRD PARTY DRAWINGS FOR STORAGE UNIT WALLS & STORAGE UNIT DOORS.

STORAGE HALL AND DOOR STANDARDS:

- ALL WHITE ON WHITE
- 8'-0" TALL SYSTEM WITH 6'-8" TALL DOORS
- DUMMY DOORS AT DISPLAY AREAS (APPLE LIME COCKTAIL)
- CORRUGATED HEADERS
- CORRUGATED HALL PANELS
- MESH OVER ALL UNITS AT 8'-0" A.F.F.
- STANDARD SILVER LATCH
- ADA KITS (PER CODE) SEE NOTES THIS SHEET AND LOCATIONS ON FLOOR PLANS
- FRAME WRAPS (12" TALL DIAMOND PLATE WRAPPING PIERS BETWEEN UNITS)
- 4'x4'x1/8"x48" ALUM. DIAMOND PLATE CORNER GUARDS
- PROVIDE DIAMOND PLATE TO 48" AFF IN ENTRY / LOAD LOBBIES, AT ALL STORAGE ENTRY POINTS & CASED OPENINGS / DOORWAYS. SCREW DIRECTLY OVER LINER PANEL AT METAL WALLS, SEE DETAIL ON A4.2 FOR ALL EXPOSED GYP. BD. WALLS IN STORAGE
- PROVIDE WHITE SEMI-RECESSED FIRE EXTINGUISHER BOXES AS REQUIRED. REFER TO LIFE SAFETY PLANS & FIRE MARSHAL HAVING JURISDICTION FOR EXACT LOCATIONS, TYP.
- PROVIDE BRAKE METAL TRIM OVER ALL VERTICAL PIPING RUNNING VERTICALLY WITHIN STORAGE UNITS (IE LINESETS, CONDENSATE DRAINS,M ETC.) FROM FLOOR TO 2" ABOVE SECURITY MESH TO PROTECT PIPING FROM DAMAGE. NO HORIZONTAL PIPING ALLOWED WITHIN UNITS BELOW MESH.

GENERAL CONSTRUCTION NOTES (ALL FLOORS)

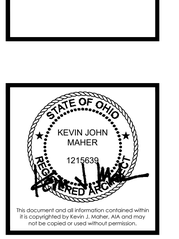
1. DO NOT SCALE OFF DRAWINGS.
2. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O.
3. PARTITION FLOOR TRACK METAL STUD SYSTEM SHALL BE BUTT JOINTED
4. TO ENSURE STRUCTURAL STABILITY, PROVIDE BLOCKING PER AWI CUSTOM GRADE STANDARDS IN PARTITIONS AT ALL LOCATIONS WHERE MILLWORK OR MISC. ITEMS ARE SUPPORTED BY PARTITION.
5. ALL GYP. BD. WALLS TO BE TAPED, MUDDED, SANDED SMOOTH AND PAINTED, U.N.O. SEE FINISH SCHEDULE AND FINISH NOTES ON A5.1
6. INSULATING MATERIALS WHEN INSTALLED IN BUILDINGS OF ANY TYPE CONSTRUCTION SHALL COMPLY WITH THE LOCAL JURISDICTION & CODE. INSULATING MATERIALS, WHEN EXPOSED AS INSTALLED IN BUILDINGS OF ANY TYPE CONSTRUCTION, SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 (AS PER CODE).
7. UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL CLEAN THE WORK SITE. DUST, DEBRIS, OILS, STAINS, FINGERPRINTS AND LABELS (EXCEPT UL FIRE LABELS) SHALL BE REMOVED FROM ALL EXPOSED SURFACES

KEVIN J. MAHER AIA

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01	09/17/2021	PERMIT COMMENTS
02	10/04/2021	PERMIT COMMENTS
03	10/21/2021	PERMIT COMMENTS
05	03/14/2022	COORDINATION

the SPACE SHOP SELF STORAGE

MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP



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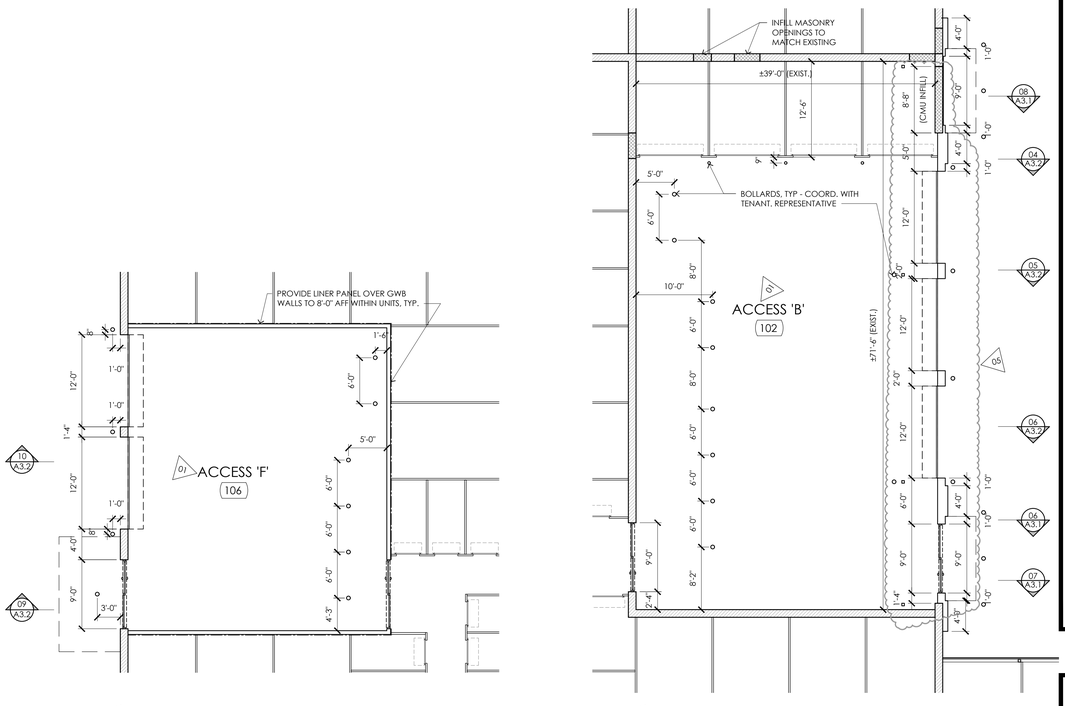
KEVIN J. MAHER, AIA
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404.549.4499 (p)

ISSUE DATE	08/17/2021
DRAWN BY	BJK
CHECKED BY	KJM
PMD PROJ #	20052

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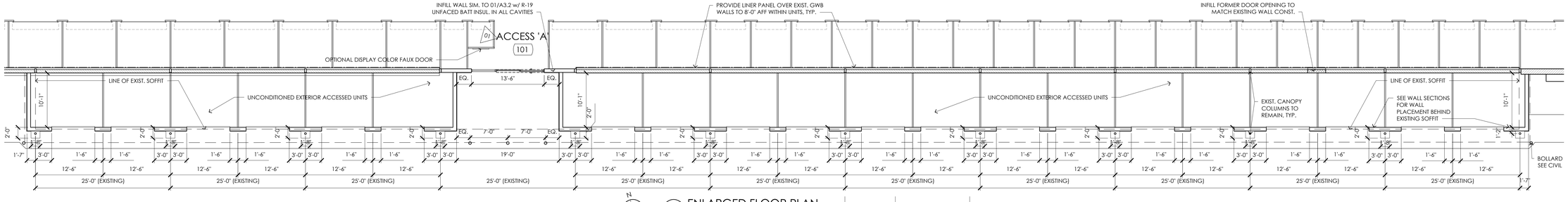
FLOOR PLAN

SHEET # **A1.1**



N 02 A1.2 ENLARGED FLOOR PLAN
SCALE: 1/8" = 1'-0"

N 03 A1.2 ENLARGED FLOOR PLAN
SCALE: 1/8" = 1'-0"



N 01 A1.2 ENLARGED FLOOR PLAN
SCALE: 1/8" = 1'-0"

KEVIN J. MAHER AIA

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SPACE SHOP SELF STORAGE

MASSILLON STORAGE

2600 LINCOLN WAY E - MASSILLON, OH 44646

STEIN INVESTMENT GROUP

STATE OF OHIO
KEVIN JOHN MAHER
1215639
REGISTERED ARCHITECT

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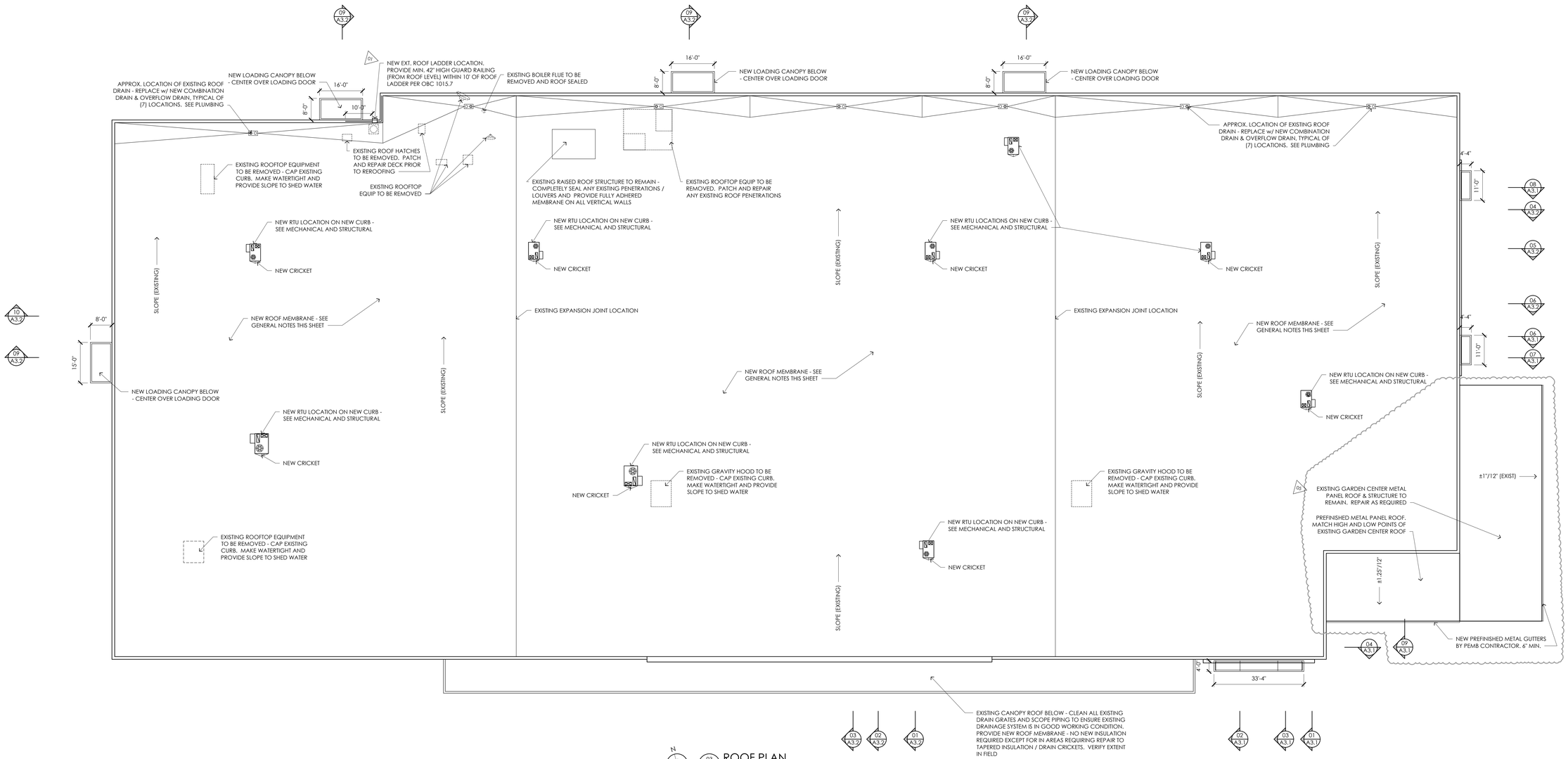
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SHEET TITLE

PLAN DETAILS

SHEET #

A1.2



03 A1.3 ROOF PLAN
SCALE: 1/16" = 1'-0"

ROOF PLAN GENERAL NOTES

- EXISTING ROOF IS TO BE FULLY RE-ROOFED WITH NEW 60 mil EPDM MEMBRANE. REMOVE ANY EXISTING EQUIPMENT AND PENETRATIONS NO LONGER USED AND PATCH / REPAIR EXISTING ROOF ASSEMBLY TO MATCH EXISTING PRIOR TO ADDING NEW INSULATION, COVER BOARD AND MEMBRANE. COORDINATE WITH STRUCTURAL FOR INFILL.
- 02 ALL NEW ROOFING TO BE MIN. 60 mil FULLY ADHERED EPDM ROOF OVER NEW FIRE RESISTANT TREATED WOOD FIBERBOARD, SECUROCK, OR DENSDECK COVER BOARD OVER MIN. R-25 RIGID INSULATION AND EXISTING ROOF STRUCTURE.
- ALL PARAPET CAPS AND BACKS TO BE BE FULLY ADHERED 60 mil EPDM ROOFING MEMBRANE. - SEE SECTIONS.
- NEW INSULATION (APPROX. 6" OF EPS OR 4.4" OF POLYISO INSULATION) WILL REQUIRE NEW ROOF EDGE METAL AROUND ENTIRE PERIMETER OF EXISTING ROOF - SEE SECTIONS FOR TYPICAL EDGE PROFILES AND ELEVATIONS FOR FINISH COLOR.
- ROOFING SYSTEM TO BE INSTALLED BY A QUALIFIED CONTRACTOR/INSTALLER, APPROVED BY MANUFACTURER TO INSTALL MANUFACTURER'S PRODUCTS.
- ALL PRODUCTS, COMPONENTS AND ACCESSORIES FOR THE ROOFING SYSTEM TO BE OBTAINED FROM AN APPROVED ROOFING SYSTEM MANUFACTURER
- ROOFING SYSTEM TO BE INSTALLED IN STRICT ACCORDANCE WITH THE ROOFING SYSTEM MANUFACTURER'S WRITTEN TECHNICAL SPECIFICATIONS.
- ALL EXISTING ROOF DRAIN PIPES ARE TO BE EXAMINED AND CLEANED OUT AS REQUIRED TO BRING TO FULL WORKING ORDER.

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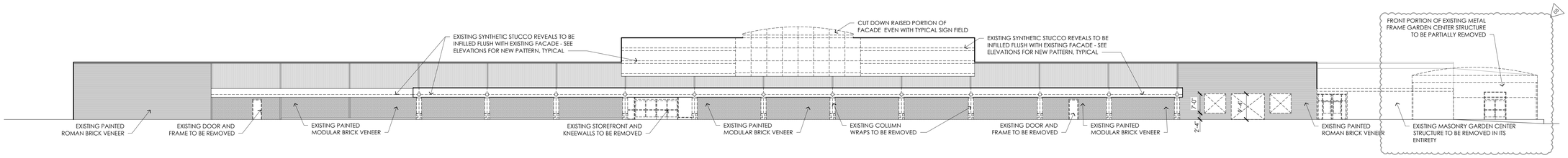
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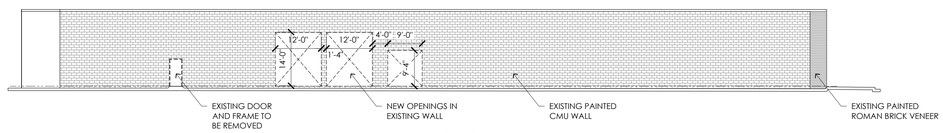
ROOF PLAN

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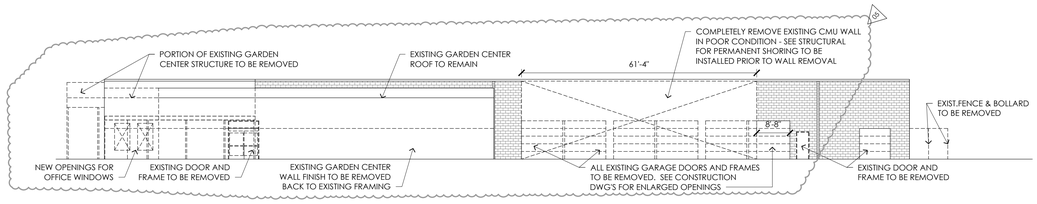
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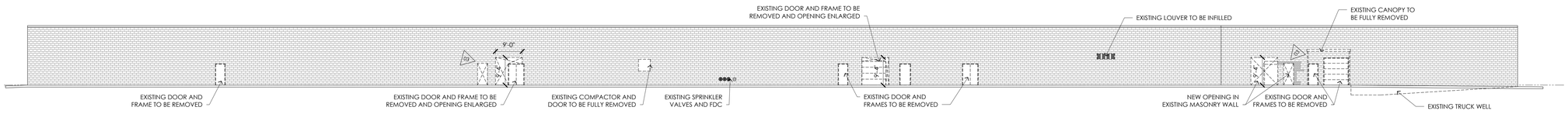
01 A2.1 DEMO EXTERIOR ELEVATION - (LINCOLN WAY)
SCALE: 1/16" = 1'-0"



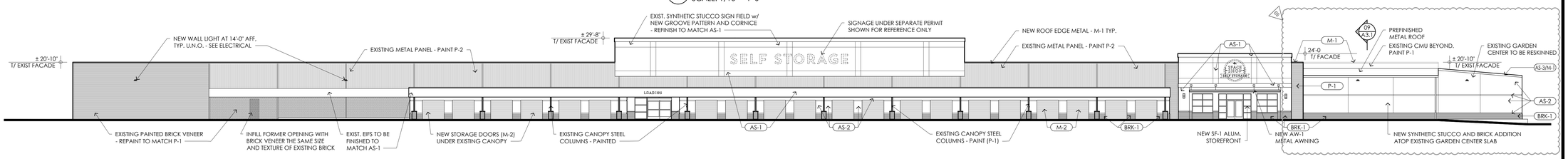
02 A2.1 DEMO EXTERIOR ELEVATION (WEST)
SCALE: 1/16" = 1'-0"



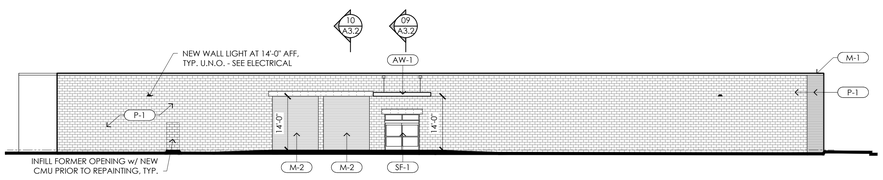
03 A2.1 DEMO EXTERIOR ELEVATION (27TH ST NE)
SCALE: 1/16" = 1'-0"



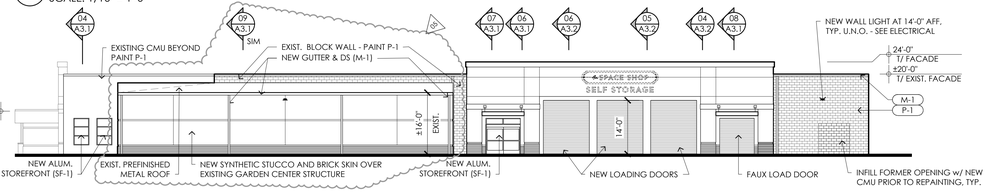
04 A2.1 DEMO EXTERIOR ELEVATION - (REAR / NORTH)
SCALE: 1/16" = 1'-0"



05 A2.1 EXTERIOR ELEVATION - (LINCOLN WAY)
SCALE: 1/16" = 1'-0"

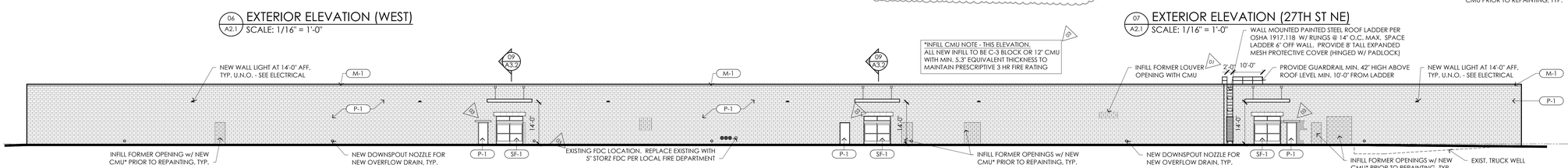


06 A2.1 EXTERIOR ELEVATION (WEST)
SCALE: 1/16" = 1'-0"

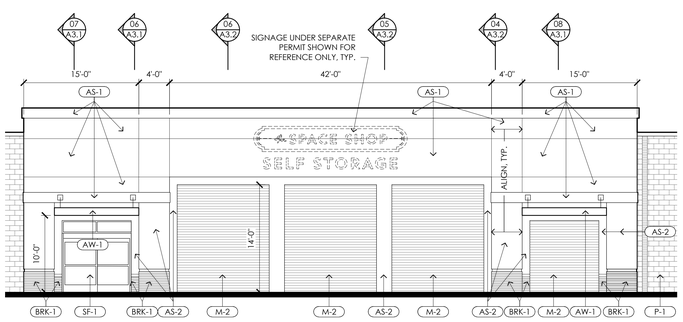


07 A2.1 EXTERIOR ELEVATION (27TH ST NE)
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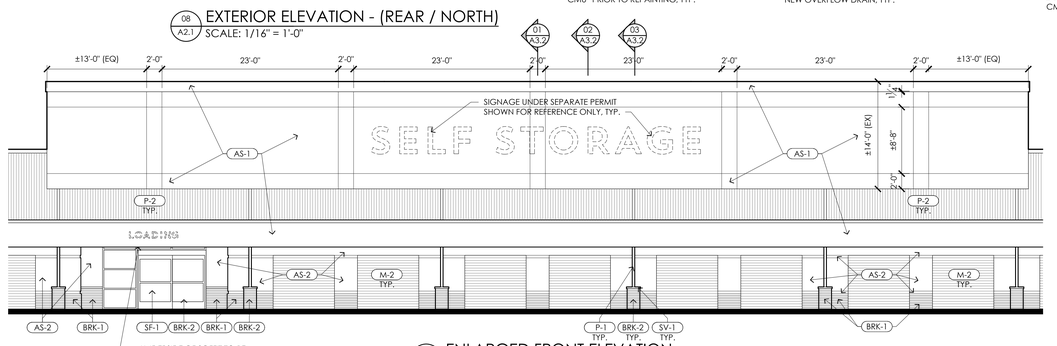
MATERIAL SCHEDULE	
BRK-1	PAINTED BRICK VENEER - MODULAR WIRE CUT BRICK w/ CONCAVE MORTAR JTS PAINT TO MATCH P-3 (SATIN)
BRK-2	PAINTED BRICK VENEER - MODULAR WIRE CUT BRICK w/ CONCAVE MORTAR JTS PAINT TO MATCH P-4 (SATIN)
AS-1 / P-1	ACRYLIC STUCCO VENEER COLOR TO MATCH SHERWIN WILLIAMS SW 7626 'ZURICH WHITE' FINE SAND FINISH (PROVIDE HIGH IMPACT MESH IF WITHIN 24" OF GRADE)
AS-2 / P-2	ACRYLIC STUCCO VENEER COLOR TO MATCH SHERWIN WILLIAMS SW 7533 'KHAKI SHADE' FINE SAND FINISH (PROVIDE HIGH IMPACT MESH IF WITHIN 24" OF GRADE AND TO MIN. 8'-0" AFF AT VEHICLE LOADING DOORS)
AS-3 / P-3	ACRYLIC STUCCO VENEER COLOR TO MATCH SHERWIN WILLIAMS SW 7026 'GRIFFIN' FINE SAND FINISH
P-4	PAINT COLOR TO MATCH SHERWIN WILLIAMS SW 7535 'SANDY RIDGE'
AW-1	PREFINISHED ALUMINUM CANOPY COLOR TO MATCH JANUS 'APPLE-LIME COCKTAIL' (CUSTOM COLOR - PMS 368C / R:120 G:190 B:32)
M-1	PREFINISHED METAL COPING & ROOF EDGE TRIM COLOR TO MATCH PAC CLAD 'MUSKET GRAY'
M-2	PREFINISHED METAL OVERHEAD COILING DOORS COLOR TO MATCH JANUS 'APPLE-LIME COCKTAIL' (CUSTOM COLOR - PMS 368C / R:120 G:190 B:32)
SF-1	ALUMINUM STOREFRONT SYSTEM CLEAR ANODIZED



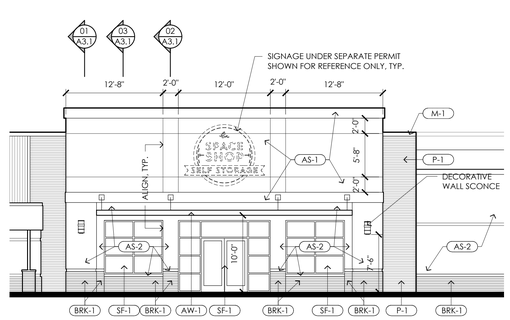
08 A2.1 EXTERIOR ELEVATION - (REAR / NORTH)
SCALE: 1/16" = 1'-0"



09 A2.1 ENLARGED EAST ELEVATION (27TH)
SCALE: 1/8" = 1'-0"



10 A2.1 ENLARGED FRONT ELEVATION
SCALE: 1/8" = 1'-0"



11 A2.1 ENLARGED FRONT ELEVATION AT OFFICE
SCALE: 1/8" = 1'-0"

KEVIN J. MAHER AIA

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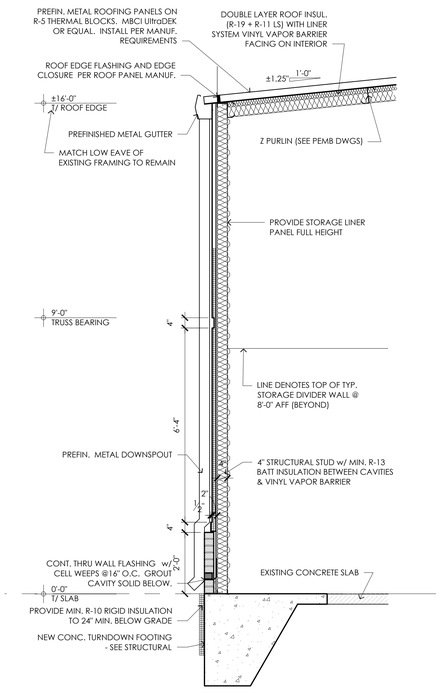
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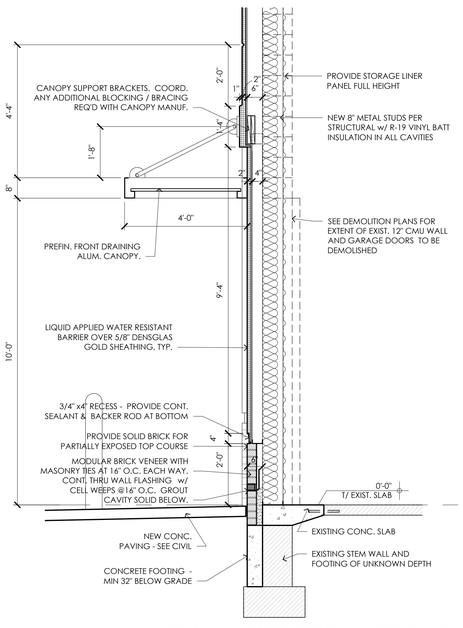
EXTERIOR ELEVATIONS

SHEET # A2.1

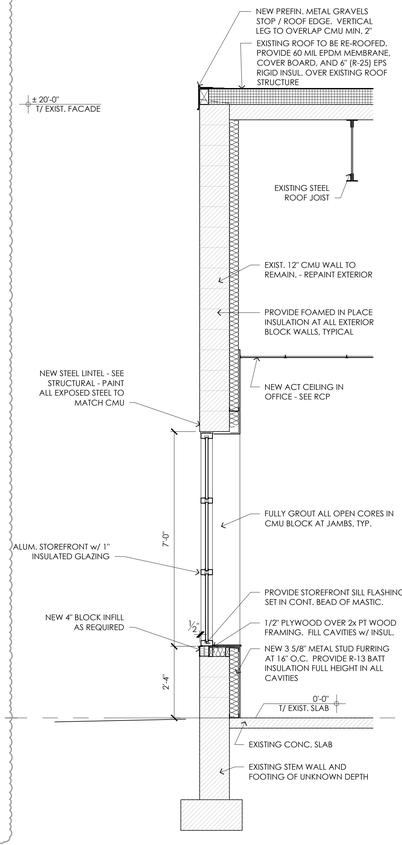
NOTE: DETAILS SHOW MIN. STUD AND BLOCKING LOCATIONS. ADDITIONAL STUDS MAY BE REQUIRED FOR BLOCKING AND PROPER FINISH ATTACHMENT, ETC.



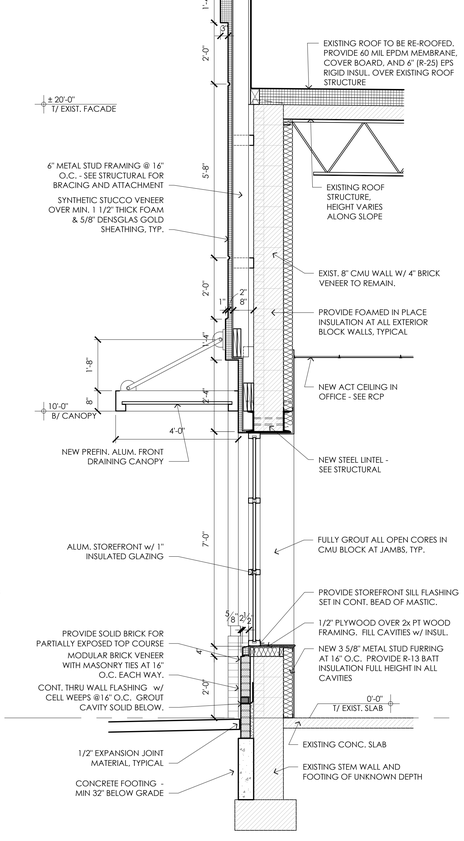
05 / 09 A3.1 WALL SECTION
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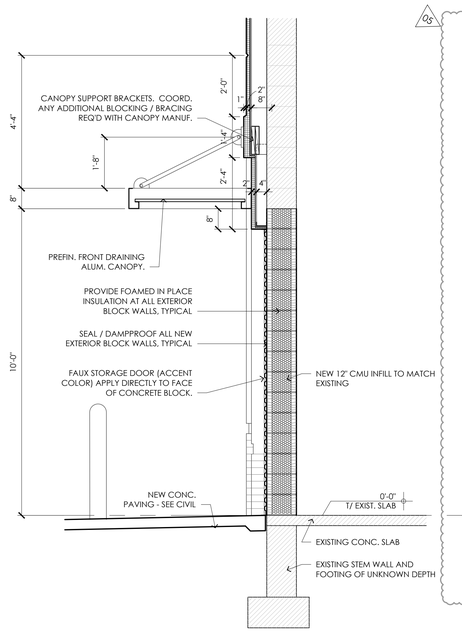
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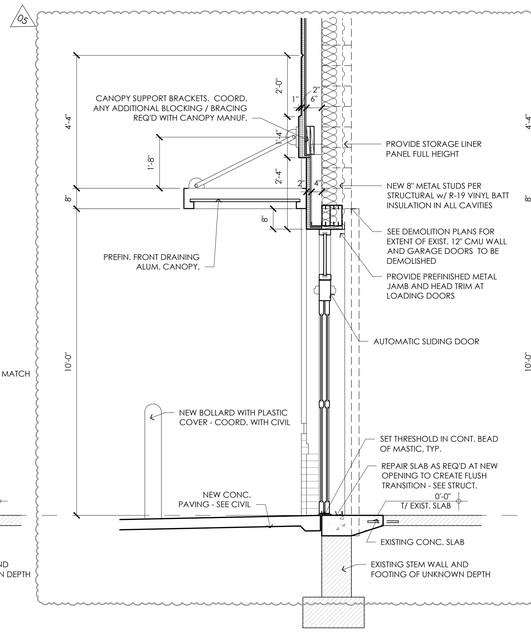
04 / A3.1 WALL SECTION
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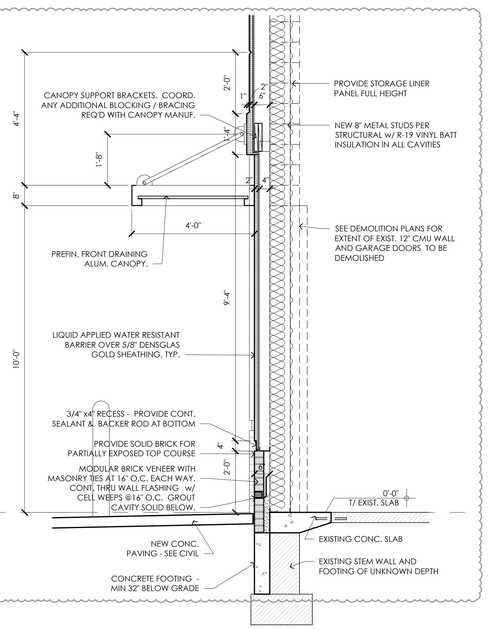
03 / A3.1 WALL SECTION
SCALE: 1/2"=1'-0"



02 / A3.1 WALL SECTION
SCALE: 1/2"=1'-0"



01 / A3.1 WALL SECTION
SCALE: 1/2"=1'-0"

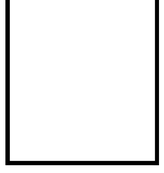


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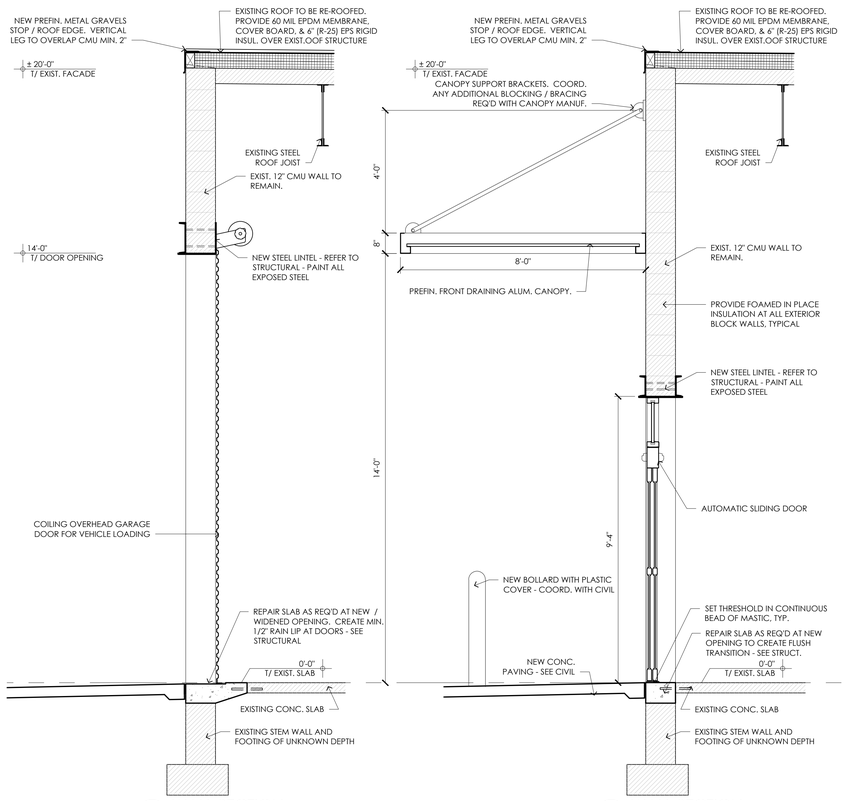
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WALL SECTIONS

SHEET #

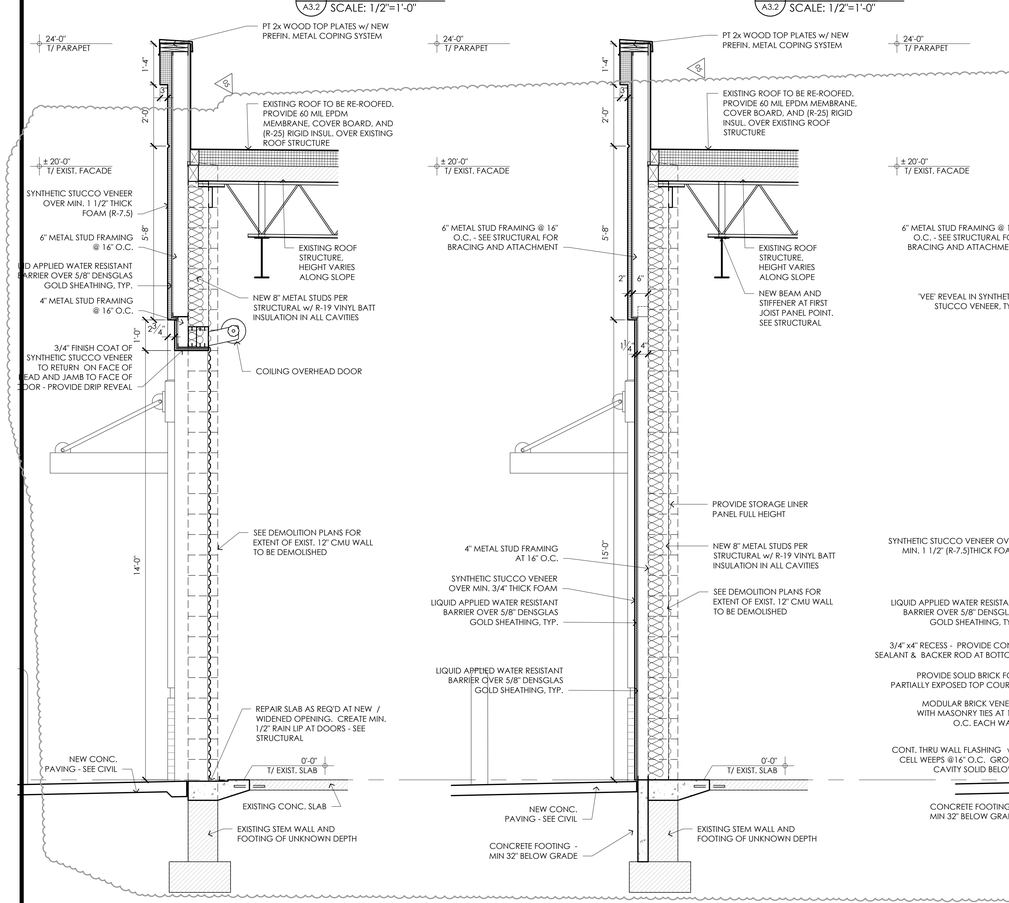
A3.1

NOTE: DETAILS SHOW MIN. STUD AND BLOCKING LOCATIONS. ADDITIONAL STUDS MAY BE REQUIRED FOR BLOCKING AND PROPER FINISH ATTACHMENT, ETC.



10 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"

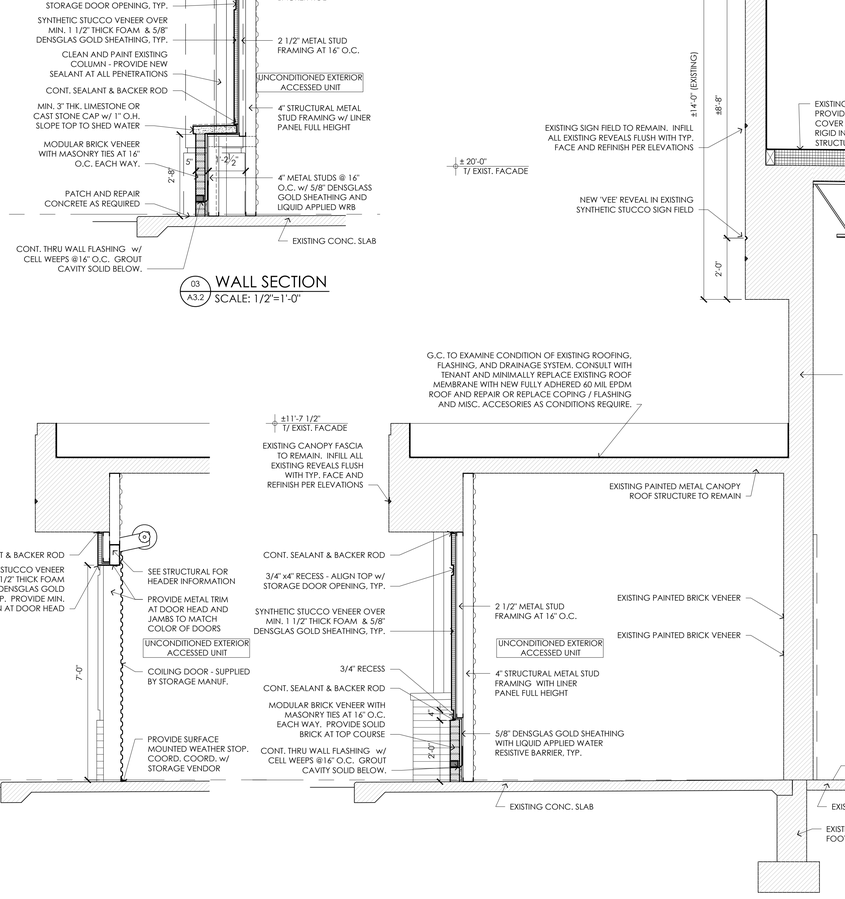
09 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"



06 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"

05 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"

04 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"



03 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"

02 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"

01 A3.2 WALL SECTION
SCALE: 1/2"=1'-0"

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SUITE 400
ATLANTA, GEORGIA 30339
404.549.4499 (p)

ISSUE DATE	08/17/2021
DRAWN BY	BJK
CHECKED BY	KJM
PM'D PROJ #	20057

SHEET TITLE
WALL SECTIONS

SHEET #
A3.2

LIGHTING SYMBOL LEGEND

SALES COUNTER LIGHT
MILLENNIUM LIGHTING: RWHC14-SG, WAREHOUSE PENDANT
14" Ø STD, SHADE (SATIN GREEN) - SEE ELEVS FOR BOTTOM OF SHADE

WALL MOUNTED TELEVISION. COORDINATE MOUNTING HEIGHT w/ TENANT AND ELEVATIONS. TELEVISION PROVIDED BY TENANT, G.C. TO INSTALL (INCLUDING BLOCKING).

TRACK LIGHTING MOUNTED DIRECTLY TOCEILING.
TRACK AND FIXTURE HEADS TO BE WHITE UNLESS NOTED OTHERWISE

24"X24" LAY-IN LED LIGHT

BATHROOM VANITY LIGHT - CENTER OVER SINK & MIRROR (SEE INTERIOR ELEVATIONS FOR ALIGNMENT AND HEIGHT)

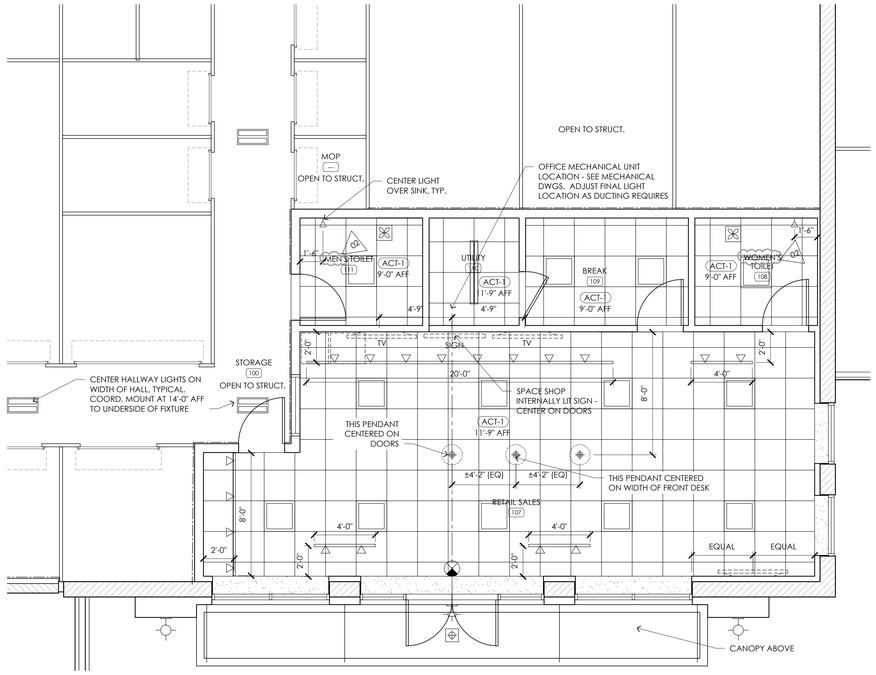
BATHROOM EXHAUST FAN

DECORATIVE EXTERIOR WALL SCONCE
HINKLEY 'SATURN' 20" TALL LARGE WALL MOUNT LANTERN #1905 SS
PROVIDE 100w EQUIVALENT LED BULB
SEE EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT

LED EXIT SIGN (SHADED PORTION POINTS TO EXIT DIRECTION)

REFLECTED CEILING PLAN NOTES

1. CEILING SYSTEMS TO BE AS FOLLOWS (UNLESS NOTED OTHERWISE ON A5.1)
   - SUSPENSION SYSTEM - USG DONN DX 15/16" - COLOR "WHITE"
   - ACOUSTICAL TILES - USG RADAR 24'x24'x5/8" SQUARE EDGE LAY-IN TILE - COLOR "WHITE"
2. PROVIDE AND INSTALL CEILING TILE, MAIN TEES, CROSS TEES, WALL MOLDINGS AND ALL OTHER ACCESSORIES NECESSARY TO COMPLETE THE SCOPE OF WORK
3. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS IN CONJUNCTION WITH ANY DRAWINGS.
4. GENERAL CONTRACTOR SHALL COORDINATE AND FIELD VERIFY ALL FIXTURE LOCATIONS PRIOR TO INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, COORDINATION OF HVAC, LIGHTING, AND GC CONTRACTED SPRINKLER DESIGN WITH STRUCTURE AND EACH OTHER. ANY CONFLICT WITH FIELD CONDITIONS, DRAWINGS AND/OR TRADES SHALL BE REPORTED TO THE DESIGNER IMMEDIATELY UPON DISCOVERY FOR CLARIFICATION PRIOR TO PROCEEDING WITH ASSOCIATED WORK.
5. PROVIDE AND INSTALL ILLUMINATED EXIT LIGHTING PER CODE.
6. PROVIDE AND INSTALL EMERGENCY LIGHTING PER CODE TO MAINTAIN ILLUMINATION OF THE MEANS OF EGRESS (NOT LESS THAN ONE (1) FOOT CANDLE FOR A PERIOD OF 1 1/2 HOURS) IN THE EVENT OF POWER FAILURE OF NORMAL LIGHTING. SEE ELECTRICAL PLANS FOR EMERGENCY LIGHTING LOCATIONS
7. ALL ADJACENT LIGHT SWITCHES SHALL BE GANGED WITH A SINGLE FACEPLATE.
8. ALL NEW SPRINKLER HEADS IN GYPSUM BOARD TO BE RECESSED, IF APPLICABLE.
9. COORDINATE ANY DIRECTIONAL FIXTURE AIMING IN FIELD WITH TENANT REPRESENTATIVE.
10. GENERAL CONTRACTOR WILL ENSURE THAT SHADES AND LENSES IN LIGHTING FIXTURES ARE CLEAN AND FREE OF DUST, DIRT, AND SMUDGES. PLASTIC AND LABELS SHALL BE REMOVED FROM ALL LIGHT FIXTURES AT PROJECT COMPLETION.



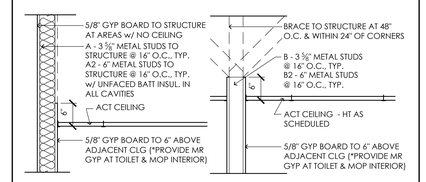
N

02 A4.0 OFFICE AREA REFLECTED CEILING PLAN
SCALE: 1/4" = 1'-0"

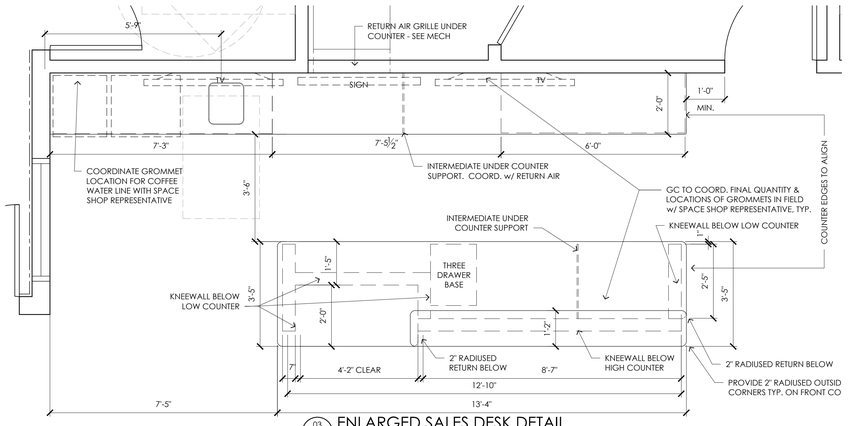
GENERAL CONSTRUCTION NOTES (APPLIES TO RETAIL / OFFICE)

1. DO NOT SCALE OFF DRAWINGS.
2. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O.
3. PARTITION FLOOR TRACK METAL STUD SYSTEM SHALL BE BUTT JOINTED
4. TO ENSURE STRUCTURAL STABILITY, PROVIDE BLOCKING PER AWI CUSTOM GRADE STANDARDS IN PARTITIONS AT ALL LOCATIONS WHERE MILLWORK OR MISC. ITEMS ARE SUPPORTED BY PARTITION.
5. ALL GYP. BD. WALLS IN RETAIL / OFFICE AREA TO BE TAPED, MUDDED, SANDED SMOOTH, PRIMED AND FINISHED PER THE FINISH SCHEDULE ON A5.1
6. INSULATING MATERIALS WHEN INSTALLED IN BUILDINGS OF ANY TYPE CONSTRUCTION SHALL COMPLY WITH THE LOCAL JURISDICTION & CODE. INSULATING MATERIALS, WHEN EXPOSED AS INSTALLED IN BUILDINGS OF ANY TYPE CONSTRUCTION, SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 (AS PER CODE).
7. UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL CLEAN THE WORK SITE. DUST, DEBRIS, OILS, STAINS, FINGERPRINTS AND LABELS (EXCEPT UL FIRE LABELS) SHALL BE REMOVED FROM ALL EXPOSED SURFACES

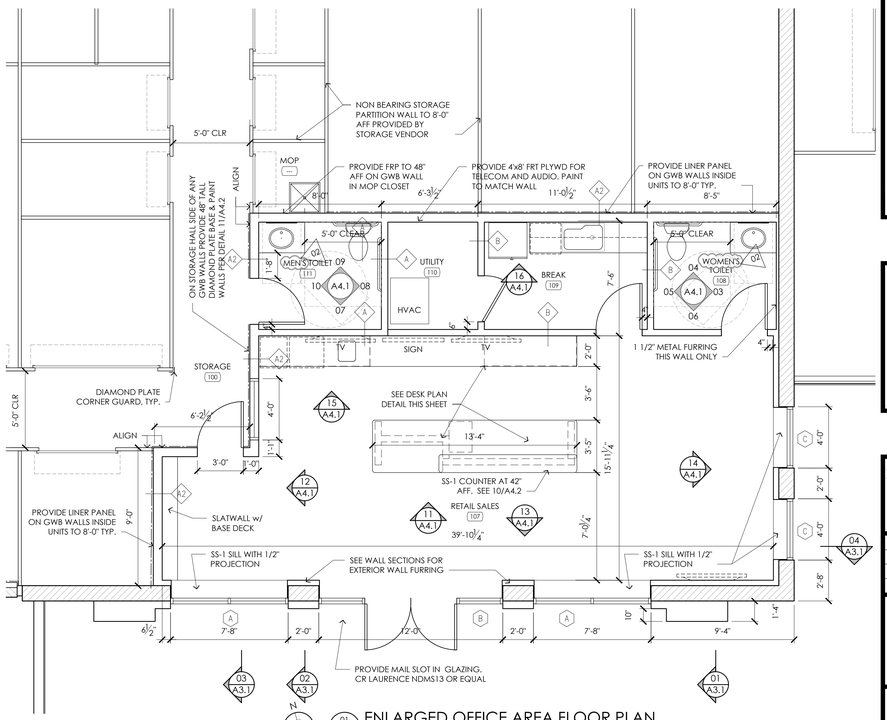
WALL TYPE LEGEND



CARRY GYPSUM BOARD TO UNDERSIDE OF STRUCTURE IF NO ACT CEILING, TYPICAL



03 A4.0 ENLARGED SALES DESK DETAIL
SCALE: 1/2" = 1'-0"



N

01 A4.0 ENLARGED OFFICE AREA FLOOR PLAN
SCALE: 1/4" = 1'-0"

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION
02	10/04/2021	PERMIT COMMENTS

the SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
KEVIN JOHN MAHER
1215639
REGISTERED ARCHITECT

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SUITE 400
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404.549.4499 (p)

ISSUE DATE	08/17/2021
DRAWN BY	BJK
CHECKED BY	KJM
PM/D PROJ #	20052

SHEET TITLE

ENLARGED FLOOR PLANS

SHEET # A4.0

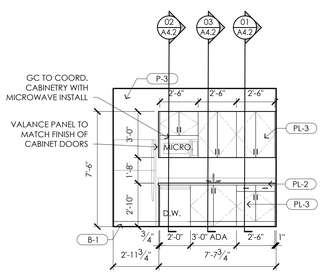
TOILET & CAB. ACCESSORIES

ITEM	MANUFACTURER	MODEL #
42" GRAB BAR	BOBRICK	B5806x42
36" GRAB BAR	BOBRICK	B5806x36
18" GRAB BAR	BOBRICK	B5806x18
SOAP DISPENSER	BOBRICK	B-8226
MIRROR - FRAMED RECT.	GATCO	5239S
BREAK ROOM: 4" WIRE PULLS (FLAT BLACK)	LIBERTY	P604DC-FB-C
COFFEE: 4" WIRE PULLS (POLISHED CHROME)	LIBERTY	P604DC-PC-C1
GROMMET WITH SLOTTED CAP	MOCKETT	EDP-3 (95) WHITE

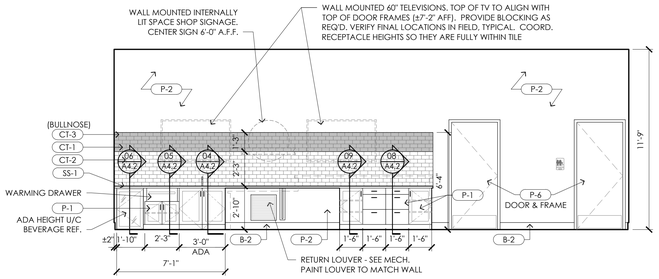
APPLIANCE SCHEDULE

ITEM	MANUFACTURER	MODEL #
REFRIGERATOR	WHIRLPOOL	WRT519SZDB
DISHWASHER (ADA HEIGHT)	GENERAL ELECTRIC	GDT225GLBB
MICROWAVE	WHIRLPOOL	WMH31017HB
WARMING DRAWER	KITCHENAID	KOWT107ESS
GLASS FRONT ADA UNDERCOUNTER HEIGHT BEVERAGE CENTER	HAIER	HBCN05FVS

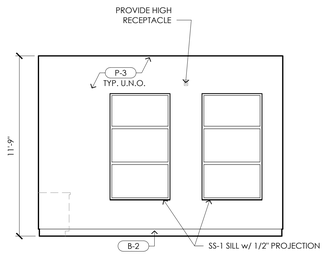
- ALL APPLIANCES TO BE SUPPLIED AND INSTALLED BY G.C.
- SUBSTITUTIONS OR EQUAL PRODUCTS ARE ALLOWED IF SUBMITTED TO ARCHITECT FOR REVIEW.



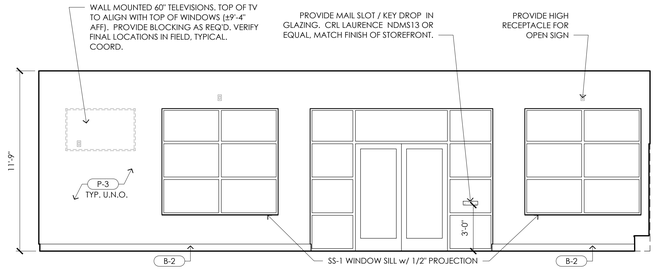
16 A4.1 OFFICE CABINETRY
SCALE: 1/4" = 1'-0"



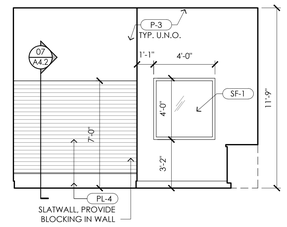
15 A4.1 RETAIL SALES ELEVATION
SCALE: 1/4" = 1'-0"



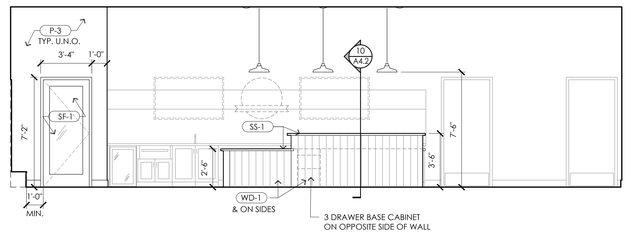
14 A4.1 RETAIL SALES ELEVATION
SCALE: 1/4" = 1'-0"



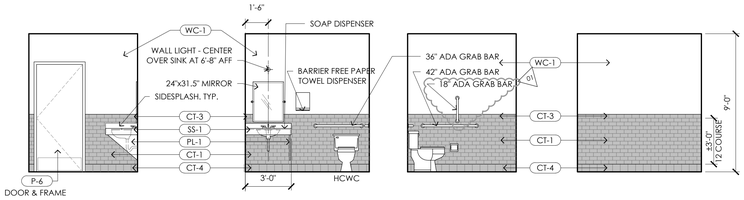
13 A4.1 RETAIL SALES ELEVATION
SCALE: 1/4" = 1'-0"



12 A4.1 RETAIL SALES ELEVATION
SCALE: 1/4" = 1'-0"



11 A4.1 RETAIL SALES ELEVATION
SCALE: 1/4" = 1'-0"

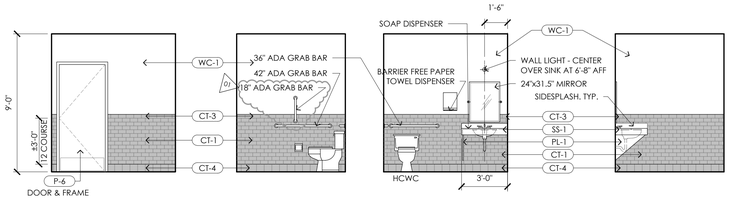


10 A4.1 TOILET #111
SCALE: 1/4" = 1'-0"

09 A4.1 TOILET #111
SCALE: 1/4" = 1'-0"

08 A4.1 TOILET #111
SCALE: 1/4" = 1'-0"

07 A4.1 TOILET #111
SCALE: 1/4" = 1'-0"

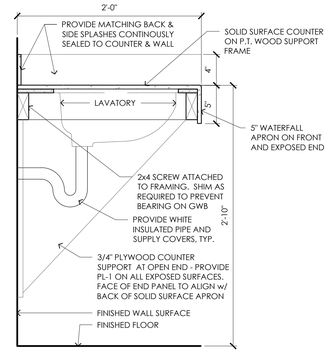


06 A4.1 TOILET #108
SCALE: 1/4" = 1'-0"

05 A4.1 TOILET #108
SCALE: 1/4" = 1'-0"

04 A4.1 TOILET #108
SCALE: 1/4" = 1'-0"

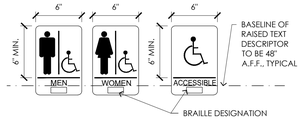
03 A4.1 TOILET #108
SCALE: 1/4" = 1'-0"



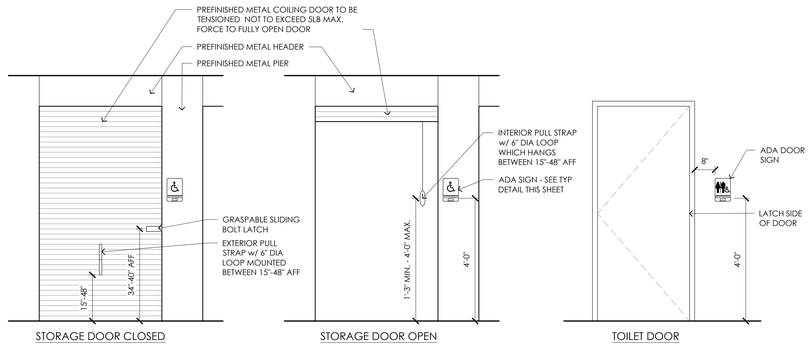
02 A4.1 TYP. LAVATORY COUNTER
SCALE: 1 1/2" = 1'-0"

SIGNAGE MOUNTING LOCATIONS AND HEIGHT:

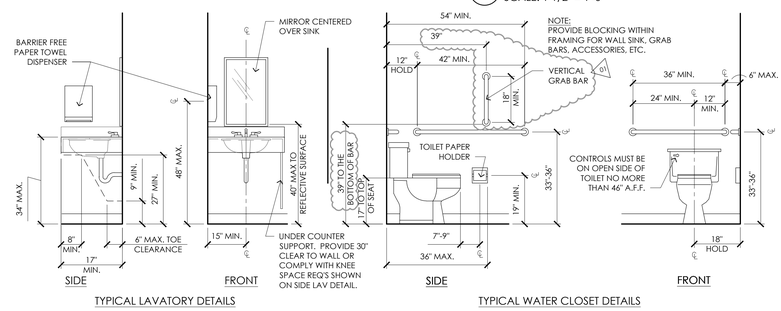
- WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. AT DOUBLE LEAF DOORS, SIGNS SHALL BE LOCATED ON THE INACTIVE LEAF OR, IF BOTH LEAFS ARE ACTIVE, TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF THE WALL OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL.
- MOUNTING HEIGHT SHALL BE 48" ABOVE FINISH FLOOR MEASURED TO THE BASELINE OF THE LOWEST LINE OF TEXT.
- SIGNS SHALL BE LOCATED SO THAT A MINIMUM CLEAR SPACE OF 18"x18", CENTERED ON THE SIGN, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING (FROM CLOSED POSITION TO 45 DEGREE OPEN)



1. SIGNS SHALL MEET AND BE MOUNTED IN COMPLIANCE WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, SECTION 703. THESE NOTES ARE ONLY A BRIEF OVERVIEW.
2. SIGN SHALL BE PLASTIC WITH NON-GLARE FINISH AND INCLUDE A 6" TALL (MIN.) PICTOGRAM, SYMBOL OF ACCESSIBILITY, AND RAISED TEXT DESCRIPTORS IN A CONTRASTING COLOR TO THE BACKGROUND AND A BRAILLE DESIGNATION.



01 A4.1 TYPICAL ADA INSTALLATION DETAILS
SCALE: 1/2" = 1'-0"



KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION
01	09/17/2021	PERMIT COMMENTS

the SPACE SHOP SELF STORAGE

MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
KEVIN JOHN MAHER
1215633
REGISTERED ARCHITECT

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ISSUE DATE	08/17/2021
DRAWN BY	BJR
CHECKED BY	KJM
PWD PROJ #	20053

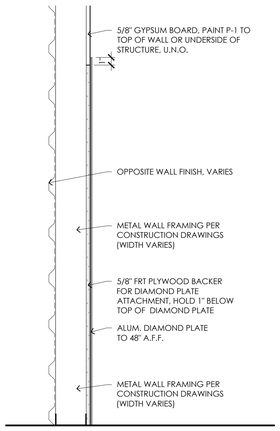
SHEET TITLE

INT. ELEV'S & ADA DETAILS

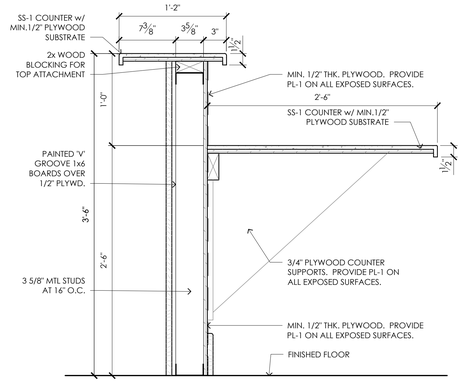
SHEET # **A4.1**

MILLWORK GENERAL NOTES:

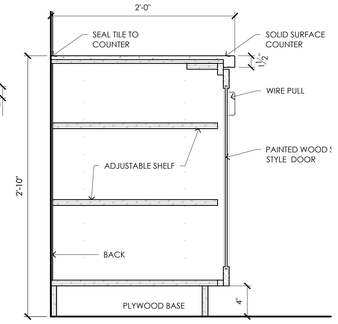
1. PLAM CABINETS TO BE AWI CUSTOM GRADE, FLUSH OVERLAY CONSTRUCTION, PF-32 PLASTIC LAMINATE, AND HARDWARE COMPLYING WITH ANSI/BHMA A156.9, U.O.N.
2. PLAM COUNTERTOPS TO BE AWI CUSTOM GRADE, PF-4B PLASTIC LAMINATE, WITH 4" BACKSPLASH AND SIDE SPLASHES, U.N.O.
3. SOLID SURFACE COUNTERTOPS TO COMPLY WITH ISFA-2-01, STANDARD TYPE, MINIMUM 1/2" THICKNESS WITH SUBTOP WHERE REQUIRED, PENCIL ROLL EDGES, WITH 4" TALL x MINIMUM 1/4" THICK BACKSPLASH AND SIDE SPLASHES



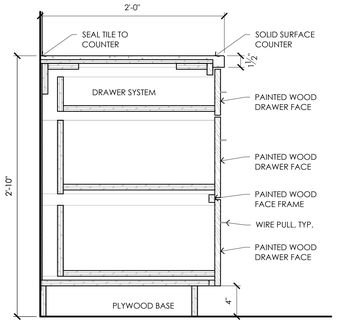
11 A4.2 DIAMOND PLATE DETAIL
SCALE: 1 1/2" = 1'-0"



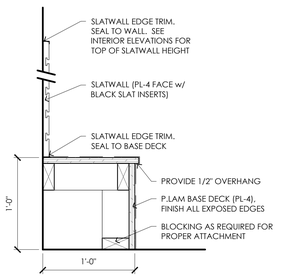
10 A4.2 FRONT DESK DETAIL
SCALE: 1 1/2" = 1'-0"



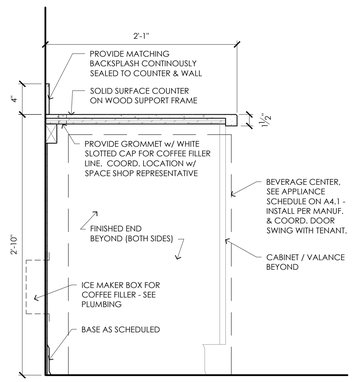
09 A4.2 CAB. SECT. @ DOOR BASE
SCALE: 1 1/2" = 1'-0"



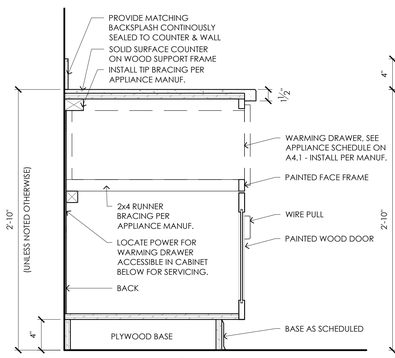
08 A4.2 CAB. SECT. @ FILE BASE
SCALE: 1 1/2" = 1'-0"



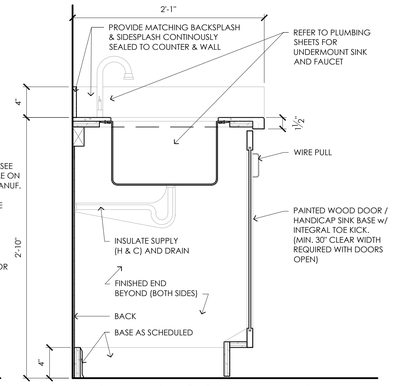
07 A4.2 SLATWALL / BASE DECK SECTION
SCALE: 1 1/2" = 1'-0"



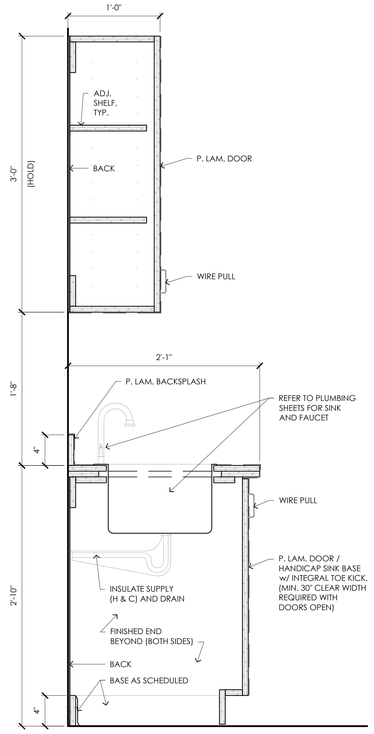
06 A4.2 CAB. SECT. @ BEVERAGE CENTER
SCALE: 1 1/2" = 1'-0"



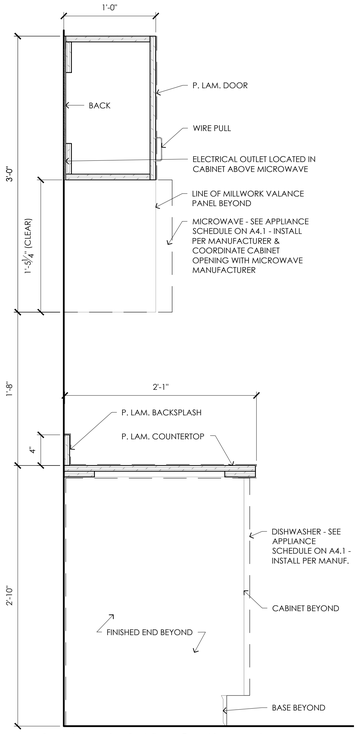
05 A4.2 CAB. SECT. @ WARMING DRAWER
SCALE: 1 1/2" = 1'-0"



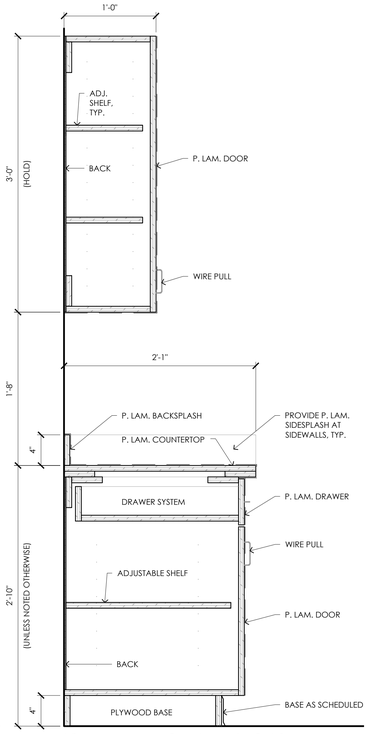
04 A4.2 CAB. SECT. @ COFFEE ADA SINK
SCALE: 1 1/2" = 1'-0"



03 A4.2 CABINET SECTION @ ADA SINK
SCALE: 1 1/2" = 1'-0"



02 A4.2 CABINET SECTION @ DISHWASHER
SCALE: 1 1/2" = 1'-0"



01 A4.2 TYPICAL P. LAM. CABINET SECTION
SCALE: 1 1/2" = 1'-0"

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION

the SPACE SHOP
SELF STORAGE

MASSILLON STORAGE
2600 LINCOLN WAY E. - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
KEVIN JOHN MAHER
1215639
REGISTERED ARCHITECT

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404.549.4499 (p)

ISSUE DATE	08/17/2021
DRAWN BY	BJK
CHECKED BY	KJM
PMD PROJ #	20052

SHEET TITLE
MILLWORK DETAILS

SHEET #
A4.2

DESIGN:

BUILDING CODE: INTERNATIONAL BUILDING CODE 2017 OHIO BUILDING CODE

WIND:

V_{ULT} = 115 MPH
V_{ASD} 90 MPH
EXPOSURE CATEGORY C
COMPONENTS AND CLADDING: COMPONENTS AND CLADDING ELEMENTS NOT SPECIFICALLY DESIGNED ON THESE DRAWINGS SHALL BE DESIGNED ACCORDING TO THE WIND PRESSURES STIPULATED BY OBC 2017 FOR THE TRIBUTARY AREA OF THE SPECIFIC COMPONENT.

MIN DESIGN PRESSURE = 23 PSF (WALLS, 100 SQ FT, NON-END ZONE)

BASE SHEAR: Vx = 20 KIPS
Vy = 20 KIPS

SNOW:

GROUND SNOW LOAD = 20 PSF
Is = 1.0
FLAT ROOF SNOW LOAD = 14 PSF
SNOW EXPOSURE FACTOR Ce = 0.9 SNOW THERMAL FACTOR Ct = 1.0

SEISMIC:

RISK CATEGORY II
IE = 1.0 IP = 1.0
SDS = 0.115 SD1 = 0.078
SITE CLASS = D
SEISMIC DESIGN CATEGORY = B
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

SEISMIC RESISTING SYSTEM:

LIGHT-FRAME (COLD FORMED STEEL) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
R = 6.5 Ω0 = 3 CD = 4

BASE SHEAR: Vx = 2 KIPS
Vy = 2 KIPS

SHEET INDEX:

S0.1 GENERAL NOTES
S0.2 GENERAL NOTES
S1.0 DEMO PLAN
S1.1 ROOF FRAMING PLANS
S1.2 FOUNDATION AND ROOF FRAMING PLANS
S3.1 SECTIONS & DETAILS
S3.2 SECTIONS & DETAILS

MISCELLANEOUS:

1. THE FOLLOWING NOTES APPLY TO ALL PROJECT RELATED STRUCTURAL DRAWINGS. THIS INCLUDES THESE DRAWINGS, FIELD SKETCHES AND RESPONSES TO REQUESTS FOR INFORMATION (RFIS), UNLESS OTHERWISE INDICATED.
2. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS.REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS.
4. NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
5. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
6. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DESIGN, ADEQUACY, SAFETY AND STABILITY OF TEMPORARY BRACING AND SHORING THAT MAY BE REQUIRED AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURAL FRAMING. APPLIED CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF ANY STRUCTURAL BUILDING ELEMENT.
7. THE CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION LIFECYCLE.
8. DO NOT SCALE THESE DRAWINGS; USE DIMENSIONS. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE ARCHITECTURAL DRAWINGS.
9. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD, REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
10. WHERE A SECTION OR DETAIL IS CUT ON THE PLAN, IT IS UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
11. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECT'S OR ENGINEER'S PRESENCE AT THE JOB SITE OR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH OSHA REGULATIONS.
12. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION, SIZES, AND EXTENT OF CHASES, INSERTS, RECESSES, RIDGES, FINISHES, DEPRESSIONS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.
13. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF RECORD IN WRITING OF ALL CONDITIONS ENCOUNTERED IN THE FIELD THAT ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
14. STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.
15. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AND PUBLISHED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.
16. SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPE, AND LOCATION OF DEPRESSED FLOOR AREAS. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.
17. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. OPENINGS 1'-4" IN WIDTH OR LENGTH (AND LESS) ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL REQUIRED OPENINGS. ALL MECHANICAL OPENING LOCATIONS, UNIT OPERATING WEIGHTS, AND SIZES SHALL BE VERIFIED WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES IN ORDER TO COMPLY WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

SUBMITTALS:

1. STRUCTURAL DRAWINGS GIVE REPRESENTATIVE DETAILS AND ARE NOT INTENDED TO SHOW ALL CONDITIONS THAT MAY BE PRESENT. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS AS INDICATED IN THE PROJECT DOCUMENTS.
2. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTAL DATES TO ARCHITECT AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL. FAILURE TO SUBMIT DRAWINGS ON DESIGNATED DATE MAY IMPACT REVIEW SCHEDULE.
3. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIALS OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
   A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
   B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE ICC-ES REPORT IS SUBMITTED WITH THE REQUEST. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE CONSIDERED.
4. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
5. COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL FABRICATED AND SPECIALTY BUILDING COMPONENTS INCLUDING (BUT NOT LIMITED TO) WINDOW SYSTEMS, CANOPY SYSTEMS, AND METAL STAIRS. SHOP DRAWINGS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OHIO.
6. ALL APPROVED SUBMITTALS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, SHALL BE MADE AVAILABLE ON THE JOBSITE FOR REVIEW BY THE INSPECTOR.
7. REPRODUCTION OF CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS IS NOT PERMITTED.

FOUNDATIONS:

1. FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING AN ASSUMED NET ALLOWABLE BEARING PRESSURE OF 1.5 KSF FOR INDIVIDUAL COLUMN FOOTINGS AND 1.5 KSF FOR CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE LIVE AND DEAD LOAD.
2. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH CIVIL DRAWINGS AND PROJECT SPECIFICATIONS. A GEOTECHNICAL INVESTIGATION HAS NOT BEEN PERFORMED ON THIS SITE PRIOR TO THE ISSUANCE OF THESE DRAWINGS. A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY ALL ASSUMPTIONS AND REPORT ANY VARIATIONS OR DISCREPANCIES TO THE ENGINEER.
3. THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARING. HOWEVER, IF ADEQUATE BEARING CAPACITY IS NONEXISTENT AT THESE ESTIMATED ELEVATIONS, THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESCRIBED SAFE BEARING CAPACITY EXISTS (AS RECOMMENDED BY A QUALIFIED GEOTECHNICAL ENGINEER).
4. FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
5. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.
6. IN AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED. ANY CUT AND FILL REQUIREMENTS SPECIFIED BY CIVIL SHALL BE AS INSTALLED PURSUANT TO THE GEOTECHNICAL REPORT NOTED IN ITEM 2 OF THIS SECTION.
7. FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. IF THE BEARING SURFACE IS ALLOWED TO BECOME DISTURBED IN ANY WAY, IT SHALL BE REWORKED TO THE SATISFACTION OF AN INDEPENDENT TESTING AGENCY PRIOR TO CASTING OF THE CONCRETE.
8. ALL EXCAVATIONS AND STRUCTURE BEARING PADS SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL.
9. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-6" BELOW FINAL GRADE FOR FROST PROTECTION.
10. NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (2 HORIZONTAL TO 1 VERTICAL) TO A FOOTING. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.
11. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
12. BACKFILL AGAINST WALLS SHALL BE PLACED IN 8" LIFTS AND SHALL BE DEPOSITED EVENLY AGAINST EACH SIDE OF WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDENT UPON TOP AND BOTTOM SLABS/FOUNDATION FOR SUPPORT UNTIL SUCH SLABS HAVE ATTAINED MINIMUM SUFFICIENT BRACING AND SHORING FOR ALL WORK DURING THE CONSTRUCTION PROCESS. RETAINING WALLS ARE NOT DESIGNED TO CANTILEVER AT ANY TIME UNLESS EXPLICITLY NOTED ON DRAWINGS.
13. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE DRAINAGE SYSTEM FOR ALL BACKFILL CONDITIONS PER CIVIL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
14. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHIC WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION.
15. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT PRIOR WRITTEN APPROVAL FROM ENGINEER.

CONCRETE:

1. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-14.
2. CEMENT USED SHALL BE TYPE I OR II CONFORMING TO ASTM C-150. CONCRETE SHALL DEVELOP A MINIMUM 28 DAY STRENGTH AND DENSITY AS FOLLOWS:

	STRENGTH (PSI)	DENSITY (PCF)
FOOTINGS, 4" SLAB ON GRADE	3000	145 - 150

3. AGGREGATE SHALL BE WELL GRADATED AND SHALL CONFORM TO THE FOLLOWING:

ALL ELEMENTS	1" COARSE AGGREGATE
(DENSITY 145 - 150 PCF)	(ASTM C-33)

4. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS BY EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO. RESULTS OF ALL COMPRESSIVE STRENGTH TEST SHALL BE MADE AVAILABLE AT THE JOB SITE FOR REVIEW BY THE INSPECTOR.
5. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.
6. NO ADDITIONAL WATER SHALL BE ADDED TO CONCRETE AT THE JOB SITE.
7. MINIMUM CONCRETE COVER UNLESS NOTED OTHERWISE:
   A. #11 BARS AND SMALLER: 3/4 INCHES
   B. UNFORMED SURFACE IN CONTACT WITH THE GROUND: 3 INCHES
   C. C. BASEMENT WALLS: 2 INCHES EXTERIOR; 3/4 INCHES INTERIOR
   D. FORMED SURFACES EXPOSED TO EARTH OR WEATHER:
      #6 BARS AND LARGER: 2 INCHES
      #5 BARS AND SMALLER: 1 1/2 INCHES
   E. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER:
      BEAMS, GIRDERS AND COLUMNS: 1 1/2 INCHES
      JOISTS, WALLS, AND SLABS: 3/4 INCHES
8. SLAB-ON-GRADE SHALL BE SAW CUT NO MORE THAN 12 HOURS AFTER CONCRETE HAS BEEN FINISHED. CONTRACTOR TO SUBMIT LAYOUT AND CONSTRUCTION SCHEDULE (SOFT-CUT INTERNATIONAL OR SIM.)
9. PLACEMENT OF CONCRETE, COLD WEATHER AND HOT WEATHER PRECAUTIONS, MATERIAL AND PROPORTIONING REQUIREMENTS, REBAR COVER AND DETAILING SHALL CONFORM TO REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI) 318-14.
10. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR SLAB FINISHES, SLAB DEPRESSIONS, ELEVATIONS AND ENCASED OR EMBEDDED ITEMS.
11. PIPES AND CONDUITS EMBEDDED IN CONCRETE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   A. NO MATERIAL HARMFUL TO CONCRETE (SUCH AS , BUT NOT LIMITED TO, ALUMINUM) IS PERMITTED.
   B. NO EMBEDMENT OR PENETRATION WHICH IMPAIRS THE STRUCTURAL STRENGTH OR INTEGRITY IS PERMITTED.
   C. CONDUITS AND PIPES SHALL NOT HAVE A DIAMETER THAT EXCEEDS 1/3 THE OVERALL THICKNESS OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE EMBEDDED.
   D. MINIMUM CENTER TO CENTER SPACING SHALL NOT BE CLOSER THAN 3 DIAMETERS OR WIDTHS.
   E. PLACEMENT SHALL OCCUR ABOVE BOTTOM LAYER OF REINFORCEMENT AND BELOW TOP LAYER OF REINFORCEMENT AND SHALL NOT CAUSE REINFORCEMENT TO BE CUT, BENT OR DISPLACED IN ANY MANNER.
   F. PLACEMENT SHALL MAINTAIN A MINIMUM CLEARANCE FROM REINFORCEMENT OF 3 REINFORCING BAR DIAMETERS OR 3/4" FROM WELDED WIRE FABRIC REINFORCEMENT.
   G. PLUMBING AND ELECTRICAL CONDUITS SHALL BE PLACED BELOW SLAB ON GRADE.
12. UNLESS NOTED OTHERWISE, PROVIDE CONTROL JOINTS IN SLABS ON GRADE NOT TO EXCEED 15 FEET ON CENTER IN EACH DIRECTION, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER.
13. FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.
14. NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER.
15. REINFORCING SHALL CONFORM TO ASTM A615, GR60 UNLESS NOTED OTHERWISE.
16. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 GRADE 60.
17. REINFORCING STEEL AND ACCESSORIES SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 (MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES) AND CRSI MSP-1 (MANUAL OF STANDARD PRACTICE), LATEST EDITION.
18. ALL 'CONTINUOUS' REINFORCEMENT SHALL HAVE MINIMUM LAP OF 'B' TYPE (ACI 318-14, SECTION 25.5.2) AT SPLICES UNLESS NOTED OTHERWISE.
19. PROVIDE REINFORCING CHAIRS FOR ALL SLAB-ON-GRADE REINFORCING.
20. SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
21. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH CRSI 'MANUAL OF STANDARD PRACTICE' (27TH EDITION).
22. WHERE WELDED WIRE FABRIC REINFORCEMENT IS SPECIFIED IN SLABS ON GRADE PLACEMENT SHALL BE 1" BELOW TOP OF SLAB, OVERLAP EACH REINFORCING SHEET TWO FULL PANELS AND TIE CROSS WIRES ON EACH SIDE.
23. SCHEDULED OR DETAILED REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL AND/OR SPLICES ARE PERMITTED ONLY WHERE SHOWN ON DRAWINGS. WHERE WELDING IS PERMITTED IT SHALL CONFORM TO AWS D1.4, STRUCTURAL WELDING CODE - REINFORCING STEEL.
24. BASE PLATES, ANCHOR RODS, SUPPORT ANGLES, ETC. BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 4" OF CONCRETE.
25. WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL:

DESIGN CODE:
AMERICAN INSTITUTE OF STEEL CONSTRUCTION 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - AISC 360-16

1. STEEL SHALL CONFORM TO THE FOLLOWING GRADES:

STRUCTURAL W-SHAPES	ASTM A992 (Fy=50ksi)
ALL CHANNELS, ANGLES, PLATES, ETC. (UNO)	ASTM A36 (Fy=36ksi)
STRUCTURAL TUBES	ASTM A500 GRADE C (Fy=50ksi)
STEEL PIPE	ASTM A53 (Fy=35ksi)
ANCHOR RODS	ASTM F1554 (Fy=55ksi)
HIGH STRENGTH BOLTS	ASTM A325
HEX NUTS - GRADE A	ASTM A563
WELDING ELECTRODES	E70xx HARDENED STEEL
WASHERS - TYPE I	ASTM F436

2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (AISC 2016) EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.
3. THE STEEL STRUCTURE IS A NON-SELF-SUPPORTING STEEL FRAME AND IS DEPENDENT UPON DIAPHRAGM ACTION OF THE METAL ROOF DECK AND ATTACHMENT TO THE MASONRY WALLS AND METAL STUD SHEAR WALLS FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THESE ELEMENTS ARE COMPLETE AND ARE CAPABLE OF PROVIDING THIS SUPPORT.
4. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS. CONNECTIONS SHOWN ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. CONNECTION DETAILS INDICATED ON THE DRAWINGS SHALL BE INCORPORATED INTO FABRICATORS CONNECTION DESIGN ONLY AS THEY ARE DEEMED APPROPRIATE AND ADEQUATE. BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH AISC 14TH EDITION 'SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS'.
5. SPLICING OF STEEL MEMBERS UNLESS SHOWN ON THE DRAWINGS IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.
6. NO HOLES SHALL BE CUT IN ANY STEEL ELEMENT UNLESS THEY ARE DETAILED ON THE DRAWINGS.
7. UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR 8" MINIMUM ON CONCRETE OR MASONRY. ANCHOR BEAMS TO MASONRY WITH TWO 5/8" DIAMETER ANCHOR RODS WITH 1'-0" EMBEDMENT INTO GROUT FILLED MASONRY.
8. WHERE BEAMS INTERSECT AT THE TERMINATING ELEVATION OF A COLUMN, THE BEAM WITH THE GREATEST REACTION SHALL BEAR ON TOP OF THE COLUMN UNLESS NOTED OTHERWISE ON DRAWINGS. WHERE BEAMS INTERSECT AT THE INTERMEDIATE ELEVATION OF A COLUMN, THE FRAMING BEAMS SHALL BE CONNECTED TO THE COLUMNS WITH A WT CONNECTION. FIN PLATE CONNECTIONS ARE NOT PERMITTED.
9. CONNECTIONS FOR NON-COMPOSITE BEAMS WHICH CANNOT CONFORM TO AISC TYPICAL CONNECTION DETAILS SHALL BE DETAILED IN ACCORDANCE WITH THE FOLLOWING:
   A. WHERE BEAM REACTIONS ARE NOT SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE MAXIMUM UNIFORM LOAD WHICH THE BEAM WILL SUPPORT (AS SIMPLE SPAN) FOR THE SPAN SHOWN ON THE DRAWINGS. (TABLE 3-6, AISC 15TH EDITION)
   B. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
   C. WHERE CONNECTIONS SUPPORT BEAMS WHICH ARE SUBJECT TO CONCENTRATED LOADS, SUCH CONCENTRATED LOADS SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION.
   D. BOLTED CONNECTIONS SHALL BE BEARING TYPE WITH A325 BOLTS. MINIMUM DIAMETER OF ALL BOLTS SHALL BE 3/4", MAX. DIA. 1 1/8". PROVIDE AT LEAST 2 BOLTS PER CONN. TIGHTENED 'SNUG TIGHT'.
   E. END CONNECTIONS OF FLOOR MEMBERS SHALL ACCOMMODATE END ROTATIONS OF SIMPLE, UNRESTRAINED BEAMS. FOR THIS PURPOSE, INELASTIC ACTION IN THE CONNECTION IS PERMITTED.
   F. COPED OR CUT ENDS OF MEMBERS SHALL BE REINFORCED WHERE REQUIRED TO SUSTAIN THE SPECIFIED REACTIONS.
   G. TENSILE CONNECTIONS SHALL BE DESIGNED FOR A FORCE RESULTING FROM MULTIPLYING THE GROSS AREA BY 20 KSI.
10. FABRICATE AND ERECT MEMBERS WITH NATURAL CAMBER UP.
11. STRUCTURAL STEEL CONTRACTOR TO PROVIDE DECK SUPPORT ANGLES AS REQ'D (L3x3x$\frac{1}{4}$ MINIMUM, UNO). THE CONTINUOUS ANGLE AT THE ROOF PERIMETER SHALL BE SPLICED SUCH THAT THE FULL TENSION FORCE THAT CAN BE DEVELOPED BY THE ANGLE WILL BE TRANSFERRED THROUGHOUT THE SPLICE.
12. UNLESS OTHERWISE SHOWN ON DRAWINGS, SIZE OF WELDS SHALL NOT BE SMALLER THAN 3/16". ALL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.
13. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL ADDITIONAL STEEL CONNECTIONS, GUYING, ETC. REQUIRED FOR ERECTION.
14. OBTAIN ALL FIELD MEASUREMENTS REQUIRED FOR PROPER FABRICATION AND INSTALLATION OF WORK PRIOR TO DETAILING. PRECISE MEASUREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
15. PROVIDE STIFFENERS FINISHED TO BEAR UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS, ON ALL MEMBERS FRAMING OVER COLUMNS, AT BEAM COLUMN JOINTS (AS REQUIRED BY THE AISC SPECIFICATIONS) AND WHERE SHOWN ON THE DRAWINGS.
16. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND ELEVATIONS OF LOOSE LINTELS.
17. THE FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND FOR THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.
18. WELDING INSPECTION SHALL MEET REQUIREMENTS AS STATED IN THE SCHEDULE OF SPECIAL INSPECTIONS.
19. ALL STRUCTURAL STEEL NOT RECEIVING FIRE PROOFING SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PRIMER.

COLD FORM METAL FRAMING (METAL STUDS):

1. METAL STUDS SHALL BE FABRICATED AND ERECTED PER 2016 AISI 'NORTH AMERICAN SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS'.
2. UNLESS NOTED OTHERWISE, TRACKS SHALL BE SAME DEPTH AS STUDS AND EQUAL OR THICKER GAUGE THAN STUDS. TRACKS SHALL BE CONNECTED TO SUPPORTS AT 16" OC MAX.
3. ALL 43 MIL MATERIAL (AND LESS) SHALL HAVE A MINIMUM YIELD OF 33,000 PSI (UNLESS NOTED OTHERWISE). ALL 54 MIL MATERIAL (AND GREATER) SHALL HAVE A MINIMUM YIELD OF 50,000 PSI (UNLESS NOTED OTHERWISE).
4. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING:
   A. SHOP DRAWINGS FOR ALL COMPONENTS AND INSTALLATIONS NOT FULLY DIMENSIONED OR DETAILED IN MANUFACTURER'S PRODUCT DATA.
   B. PRODUCT CATALOG WITH SECTION AND MATERIAL PROPERTIES OF ALL MATERIAL.
5. ALL STUDS AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A HOT-DIPPED, GALVANIZED COATING MEETING ASTM A653 G60 AND C955, U.N.O.
6. INSTALLATION:
   A. TRACKS:
      INSTALL CONTINUOUS TRACKS SIZED TO MATCH STUDS. ALIGN TRACKS ACCURATELY TO LAYOUT AT BASE AND TOPS OF STUDS. PROVIDE FASTENERS AT CORNERS AND END OF TRACKS. ALL TRACK BUTT JOINTS SHALL BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, OR THEY SHALL BE BUTT WELDED OR SPLICED TOGETHER.
   B. WALL STUDS:
      SECURE STUDS TO TOP AND BOTTOM RUNNER TRACKS BY SCREW FASTENING AT BOTH INSIDE AND OUTSIDE FLANGES. ATTACH STUDS WITH SLIP-TRACK CONNECTION TO UNDERSIDE OF BEAMS TO ALLOW 1" VERTICAL DEFLECTION OF STEEL BEAM (NOT APPLICABLE IN LOAD BEARING APPLICATIONS). AT LOAD BEARING APPLICATIONS, SLIP-TRACK CONNECTION SHALL ACCOMMODATE A DEFLECTION OF BEAM SPAN DIVIDED BY 240.
   C. SUPPLEMENTARY FRAMING:
      PROVIDE BLOCKING AND BRACING IN METAL FRAMING SYSTEM WHEREVER WALL OR PARTITIONS ARE INDICATED TO SUPPORT FIXTURES, EQUIPMENT, SERVICE CASEWORK, HEAVY TRIM AND FURNISHINGS, AND SIMILAR WORK REQUIRING ATTACHMENT TO THE WALL OR PARTITION. WHERE TYPE OF SUPPLEMENTARY SUPPORT IS NOT OTHERWISE INDICATED, COMPLY WITH STUD MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY STANDARDS IN EACH CASE, CONSIDERING WEIG

VERIFICATION AND SPECIAL INSPECTION:

1. THE PROJECT OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PERFORM INSPECTIONS AND TESTING DURING CONSTRUCTION FOR THE TYPES OF WORK INDICATED BY IBC SECTIONS 1704, 1705, 1706, AND 1707. SUBMIT DOCUMENTATION THAT SUMMARIZES THE QUALIFICATIONS AND CREDENTIALS OF EACH SPECIAL INSPECTOR AND DEMONSTRATES COMPETENCE FOR THE BUILDING INSPECTOR FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

2. APPROVED SPECIAL INSPECTORS SHALL FURNISH INSPECTION AND TESTING REPORTS TO THE OWNER, ARCHITECT AND BUILDING OFFICIAL AND STRUCTURAL ENGINEER OF RECORD WHICH INDICATES THE WORK INSPECTED WAS DONE IN CONFORMANCE WITH APPROVED CONSTRUCTION DOCUMENTS. REPORTS WHICH DOCUMENT THE RESULTS OF THE SPECIAL INSPECTIONS SHALL BE SUBMITTED PERIODICALLY AT A FREQUENCY APPROVED BY THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION. A FINAL REPORT DOCUMENTING ALL THE WORK HAS BEEN PERFORMED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS SHALL BE SUBMITTED AT THE END OF THE PROJECT.

3. SPECIAL INSPECTION REPORTS AND A FINAL REPORT IN ACCORDANCE WITH SECTION 1704.2.4 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO THE TIME THAT PHASE OF THE WORK IS APPROVED FOR OCCUPANCY.

4. SEE THE PROJECT SPECIFICATIONS AND SECTION 1704 OF THE BUILDING CODE FOR FULL CRITERIA AND EXCEPTIONS FOR INSPECTION REQUIREMENTS.

DEFINITIONS:
1. SPECIAL INSPECTION, PERIODIC: A PART-TIME OR INTERMITTENT OBSERVATION WORK BEING PERFORMED REQUIRING A PRESENCE WHEN THE WORK IS BEING PERFORMED AND AFTER COMPLETION OF THE WORK PRESENCE AT THE JOB SITE SHALL BE WEEKLY AT MINIMUM OR GREATER AS REQUESTED BY THE OWNER.
2. SPECIAL INSPECTION, CONTINUOUS: A FULL-TIME OBSERVATION OF WORK REQUIRING CONTINUOUS JOBSITE PRESENCE WHEN AND WHERE THE WORK IS BEING PERFORMED.

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERODIC SPECIAL INSPECTION	REFERENCED STANDARD [A]	IBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	—	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706; B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND C. INSPECT ALL OTHER WELDS.	— X	X X X	AWS D1.4 ACI 318: 26.6.4	—
3. INSPECT ANCHORS CAST IN CONCRETE.	—	X	ACI 318: 17.8.2	—
4. INSPECTING ANCHORS POST-INSTALLED IN HARDENED CONCRETE [B] MEMBERS. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATION TO RESIST SUSTAINED TENSION LOADS. B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	 X —	 X	 ACI 318: 17.8.2.4 ACI 318: 17.8.2	—
5. VERIFY USE OF REQUIRED DESIGN MIX.	—	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	—	ASTM C172 ACI 318: 26.5, 26.12 ACI 318: 26.5, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	—	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	—	X	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES; AND B. GROUTING OF BONDED PRESTRESSING TENDONS.	X X	—	ACI 318: 26.10	—
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	—	X	ACI 318: 26.9	—
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUTURAL SLABS.	—	X	ACI 318: 26.11.2	—
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	—	X	ACI 318: 26.11.2(B)	—

FOR SI: 1 INCH = 25.4MM

A. WHERE APPLICABLE, SEE SECTION 1705.12, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.
B. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

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

REQUIRED VERIFICATION AND INSPECTION OF STRUCTURAL STEEL CONSTRUCTION
(PURSUANT TO AISC 360-16 QUALITY CONTROL AND QUALITY ASSURANCE - CHAPTER 'N')

INSPECTIONS TASKS PRIOR TO WELDING	QA		QC		REFERENCED STANDARD
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS		X	X		AISC 360-10 TABLE N5.4-1
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	X		X		
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X		X		
MATERIAL IDENTIFICATION (TYPE/GRADE)		X		X	
WELDER IDENTIFICATION SYSTEM		X		X	
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACE) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)		X		X	
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y-, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACE) • TACKING (TACK WELD QUALITY AND LOCATION)		X	X		
CONFIGURATION AND FINISH OF ACCESS HOLES		X		X	
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACE) • TACKING (TACK WELD QUALITY AND LOCATION)		X		X	
CHECK WELDING EQUIPMENT			X		

THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED, STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.

INSPECTIONS TASKS DURING WELDING	QA		QC		AISC 360-10 TABLE N5.4-2
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL		X		X	
NO WELDING OVER CRACKED TACK WELDS		X		X	
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE		X		X	
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH)		X		X	
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS		X		X	
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X		X		

INSPECTIONS TASKS AFTER WELDING	QA		QC		AISC 360-10 TABLE N5.4-3
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
WELDS CLEANED		X		X	
SIZE, LENGTH AND LOCATION OF WELDS	X		X		
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	X		X		
ARC STRIKES	X		X		
K-AREA[X]	X		X		
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES[Y]	X		X		
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X		X		
REPAIR ACTIVITIES	X		X		
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X		X		
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR		X		X	

[X] WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. (75mm) OF THE WELD.
[Y] AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1C) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.1D) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.

REQUIRED VERIFICATION AND INSPECTION OF STRUCTURAL STEEL CONSTRUCTION
(PURSUANT TO AISC 360-16 QUALITY CONTROL AND QUALITY ASSURANCE - CHAPTER 'N')

INSPECTIONS TASKS PRIOR TO BOLTING	QA		QC		REFERENCED STANDARD
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
MANUFACTURERS CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	X			X	AISC 360-10 TABLE N5.6-1
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		X		X	
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)		X		X	
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL		X		X	
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS		X		X	
PRE-INSTALLATION VERIFICATION, TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED		X	X		
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS		X		X	

INSPECTIONS TASKS DURING BOLTING	QA		QC		ASC 360-10 TABLE N5.6-2
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED		X		X	
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION		X		X	
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING		X		X	
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES		X		X	

INSPECTIONS TASKS AFTER BOLTING	QA		QC		ASC 360-10 TABLE N5.6-3
	CONTINUOUS	PERIODIC	CONTINUOUS	PERIODIC	
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X		X		

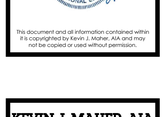
REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTR (LEVEL 1 AND 2)

INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODIC DURING TASK LISTED	NOTES
MINIMUM VERIFICATION REQUIREMENTS			
1. PRIOR TO CONSTRUCTION, VERIFICATION OF COMPLIANCE OF SUBMITTALS		PRIOR TO CONSTRUCTION	SUBMITTAL REVIEW
2. PRIOR TO CONSTRUCTION - VERIFICATION OF FM		PRIOR TO CONSTRUCTION	TESTING BY UNIT STRENGTH METHOD OR PRISM TEST METHOD
3. DURING CONSTRUCTION, VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF-CONSOLIDATING GROUT IS DELIVERED TO PROJECT SITE.		X	TESTING BY UNIT STRENGTH METHOD OR PRISM TEST METHOD
MINIMUM SPECIAL INSPECTION REQUIREMENTS			
1. AS MASONRY CONSTRUCTION BEGINS VERIFY THE FOLLOWING:			
A. PROPORTIONS OF THE SITE PREPARED MORTAR		X	FIELD INSPECTION
B. GRADE, TYPE, AND SIZE OF REINFORCEMENT, ANCHOR BOLTS AND ANCHORAGES.		X	FIELD INSPECTION
C. SAMPLE PANEL CONSTRUCTION.		X	FIELD INSPECTION
2. PRIOR TO GROUTING VERIFY THAT THE FOLLOWING ARE IN:			
A. GROUT SPACE		X	FIELD INSPECTION
B. PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHOR BOLTS.		X	FIELD INSPECTION
C. PROPORTIONS OF SITE PREPARED GROUT.		X	FIELD INSPECTION
3. VERIFY THE FOLLOWING DURING CONSTRUCTION:			
A. MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS		X	FIELD INSPECTION
B. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION		X	FIELD INSPECTION
C. SIZE AND LOCATION OF STRUCTURAL MEMBERS		X	FIELD INSPECTION
D. TYPE, SIZE, LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.		X	FIELD INSPECTION
E. WELDING OF REINFORCEMENT.			NOT PERMITTED
F. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F)		X	FIELD INSPECTION
G. PLACEMENT OF GROUT	X		FIELD INSPECTION
4. OBSERVE PREPARATION OF GROUT SPECIMENS MORTAR SPECIMENS, AND/OR PRISMS		X	FIELD INSPECTION

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION

SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP



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ISSUE DATE	08/25/2021
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CHECKED BY	WJP
PMD PROJ #	20052

SHEET TITLE

GENERAL NOTES

SHEET #

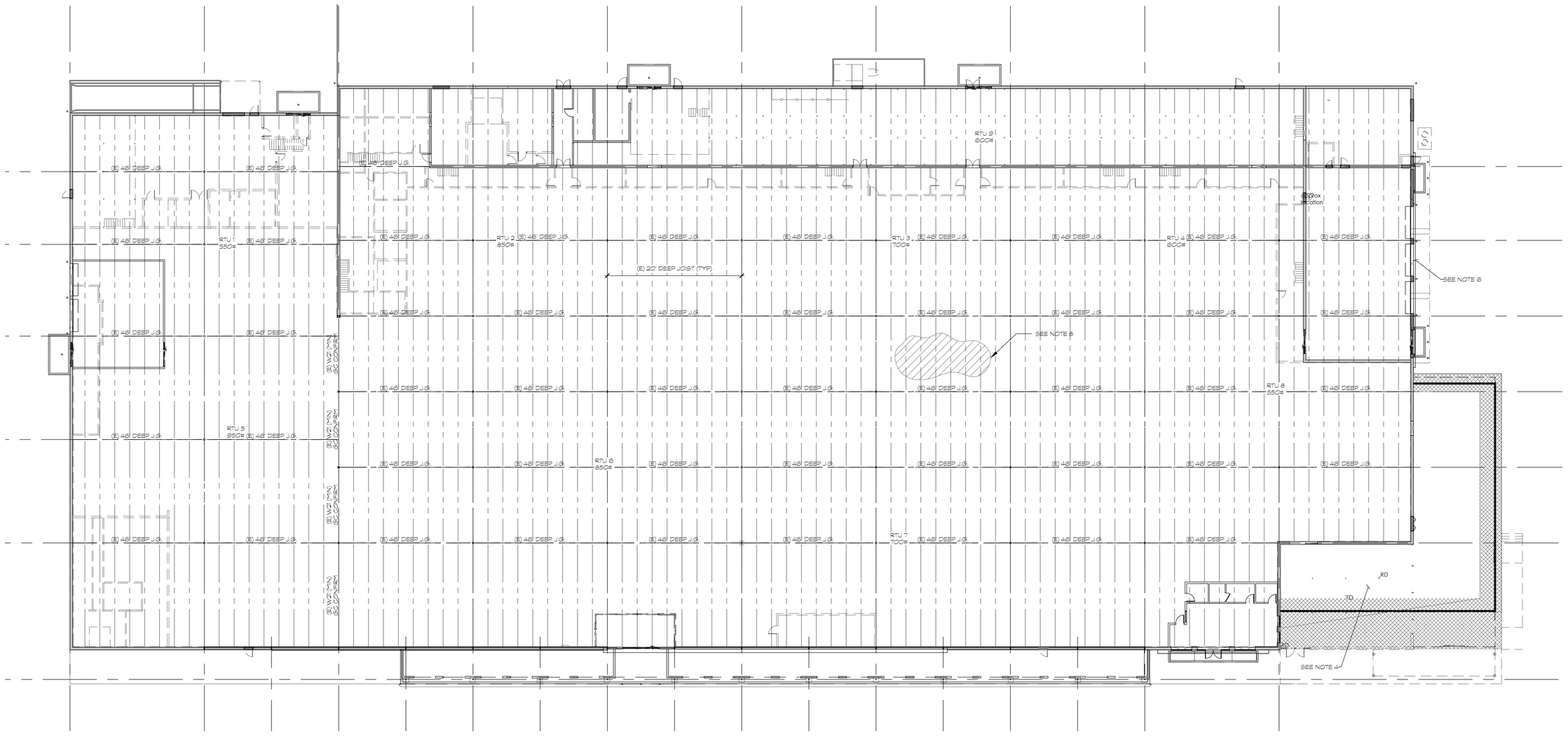
S0.2

DEMOLITION NOTES:

1. (N) INDICATES NEW
2. (E) INDICATES EXISTING
3. J.G. INDICATES STEEL TRUSS GIRDER
4. ALL STRUCTURE IN THE GARDEN CENTER TO BE DEMO'D DOWN TO SLAB - GC COORD W/ ARCH'L DWGS FOR EXTENTS.
5. INDICATES LOCALIZED WALL SLAB AND FOUNDATION DEMO AT GARDEN CENTER FOR NEW TURNDOWN AND NEW THICKENED SLABS ELEMENTS UNDER LOAD BEARING WALLS.
6. GC COORD LOCALIZED WALL DEMOLITION AND FILL-IN FOR NEW AND EXISTING DOORS AND WINDOWS WITH ARCH'L DWGS.
7. GC TO COORD ALL DIMENSIONS W/ ARCHITECTURAL DRAWINGS
8. INDICATES DETERIORATED ROOFING THAT REQUIRES REPAIR. LOCALIZED DEMOLITION OF ROOFING SHALL BE REQUIRED WHERE IT IS DETERIORATED. BETWEEN 10-20% OF THE ROOF SHALL BE REPAIRED/REPLACED - SEE 6/S3.2 FOR MORE INFORMATION
9. ANYTHING THAT DEVIATES FROM WHAT IS SHOWN SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER OF RECORD.

EXISTING CONDITIONS DISCLAIMER:

1. ASSUMPTIONS ON THE EXISTING STRUCTURE (NOTED AS '(E)' ON THE STRUCTURAL DRAWINGS) MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO EXECUTING WORK INCLUDED IN THIS SCOPE OF STRUCTURAL CONTRACT DOCUMENTS. THESE VERIFICATIONS MAY REQUIRE THE ALTERATION, DAMAGE, OR DESTRUCTION OF DESIRABLE OR OTHERWISE SERVICEABLE BUILDING COMPONENTS. ALTERATION, DAMAGE, OR DESTRUCTION OF SAID COMPONENTS SHALL NOT CONSTITUTE A BASIS OF CLAIMS AGAINST WILLIAM J. PELTIER AND ASSOCIATES. THE OWNER AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS WILLIAM J. PELTIER AND ASSOCIATES FROM ALL SUCH CLAIMS. DISCOVERY OF VARIATIONS FROM THESE ASSUMPTIONS MAY REQUIRE ADDITIONAL DESIGN SERVICES BY WILLIAM J. PELTIER AND ASSOCIATES WHICH WILL BE BILLED AT THE HOURLY RATE PER RATE SCHEDULE INCLUDED IN THE CONTRACT.
2. THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES BETWEEN ASSUMPTIONS AND ACTUAL FIELD CONDITIONS TO THE ENGINEER.



1 DEMO PLAN
S1.0 SCALE: 1/8" = 1'-0"

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION
1	9-17-21	PERMIT COMMENTS

the SPACE SHOP

MASSILLON SELF STORAGE

2600 LINCOLN WAY E - MASSILLON, OH 44646

STEIN INVESTMENT GROUP

STATE OF OHIO
WILLIAM JOHN PELTIER
76354
REGISTERED PROFESSIONAL ENGINEER

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SHEET TITLE

DEMO PLAN

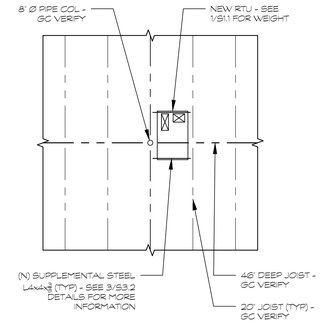
SHEET # S1.0

ROOF FRAMING NOTES:

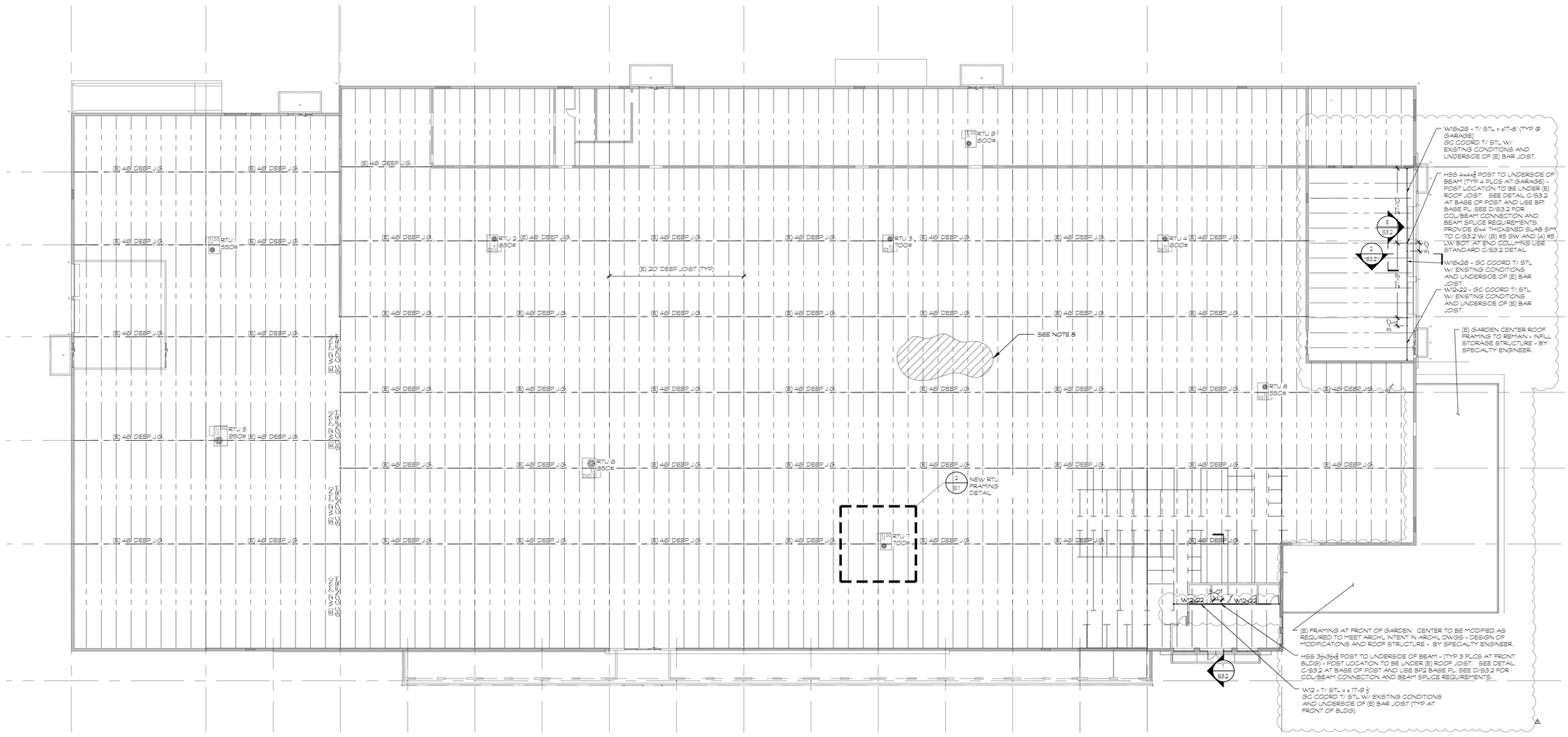
1. (N) INDICATES NEW
2. (E) INDICATES EXISTING
3. J.G. INDICATES STEEL JOIST GIRDER
4. GC TO COORD ALL DIMENSIONS W/ ARCHITECUTRAL DRAWINGS
5. INDICATES DETERIORATED ROOFING THAT REQUIRES REPAIR. LOCALIZED DEMOLITION OF ROOFING SHALL BE REQUIRED WHERE IT IS DETERIORATED - REPLACE WITH LIKE MATERIAL AND FASTENING. - SEE S1.1/S3.2 FOR MORE INFORMATION. △
6. ANYTHING THAT DEVIATES FROM WHAT IS SHOWN SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER OF RECORD.

EXISTING CONDITIONS DISCLAIMER

1. ASSUMPTIONS ON THE EXISTING STRUCTURE (NOTED AS '(E)' ON THE STRUCTURAL DRAWINGS) MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO EXECUTING WORK INCLUDED IN THIS SCOPE OF STRUCTURAL CONTRACT DOCUMENTS. THESE VERIFICATIONS MAY REQUIRE THE ALTERATION, DAMAGE, OR DESTRUCTION OF DESIRABLE OR OTHERWISE SERVICEABLE BUILDING COMPONENTS. ALTERATION, DAMAGE, OR DESTRUCTION OF SAID COMPONENTS SHALL NOT CONSTITUTE A BASIS OF CLAIMS AGAINST WILLIAM J. PELTIER AND ASSOCIATES. THE OWNER AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS WILLIAM J. PELTIER AND ASSOCIATES FROM ALL SUCH CLAIMS. DISCOVERY OF VARIATIONS FROM THESE ASSUMPTIONS MAY REQUIRE ADDITIONAL DESIGN SERVICES BY WILLIAM J. PELTIER AND ASSOCIATES WHICH WILL BE BILLED AT THE HOURLY RATE PER RATE SCHEDULE INCLUDED IN THE CONTRACT.
2. THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES BETWEEN ASSUMPTIONS AND ACTUAL FIELD CONDITIONS TO THE ENGINEER.



2 / S1.1 PARTIAL FRAMING PLAN
SCALE: 1/8" = 1'-0"



1 / S1.1 ROOF FRAMING PLAN
SCALE: 1/16" = 1'-0"

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION
△	9-17-21	PERMIT COMMENTS
△	2-14-22	COORDINATION

the SPACE SHOP SELF STORAGE

MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO WILLIAM JOHN PELTIER 76354 REGISTERED PROFESSIONAL ENGINEER 10/21/22

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SHEET TITLE

NEW ROOF PLANS

SHEET # S1.1

SLAB & FOUNDATION NOTES:

1. SOG — SLAB ON GRADE SHALL BE 4" CONC SLAB (3000 PSI) ON CLASS B - 10 MIL (MIN) VAPOR RETARDER ON 4" FLOOR SLAB BASE MATERIAL W/ (1) LAYER 6X6-W1.4xW1.4 WWF 1" FROM TOP OF SLAB, UNO ON PLAN. ALL SLOPES TO DRAINS SHALL BE ACCOMMODATED BY SLOPING BOTTOM AND TOP OF SLAB AT THE SAME RATE SEE 3/S3.1
2. T/ SOG TO MATCH (E) SOG EL - GC TO COORD
3. ⊕ INDICATES FLOOR DRAIN - FOR EXACT LOCATION SEE PLUMBING DRAWINGS.
5. 'CJ' INDICATES CONTROL/CONSTRUCTION JOINTS IN SLAB. SEE GENERAL NOTES FOR MORE INFORMATION REGARDING THE LAYOUT OF JOINTS. PROPOSED JOINT LAYOUT SHALL BE SUBMITTED AS A SHOP DRAWING FOR ARCHITECT APPROVAL PRIOR TO SLAB PLACEMENT - SEE SPECIFICATIONS.
6. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN.

NOTES TO CONTRACTOR:
THE CONTRACTOR SHALL REFER TO THE PLUMBING, MECHANICAL, & ELECTRICAL DRAWINGS AND NOTE THE LOCATION OF ALL UNDERGROUND OR UNDER FLOOR PIPING & CONDUITS. THE CONTRACTOR SHALL INCORPORATE ALL FOOTING STEPS NECESSARY PER THE REQUIREMENTS OF ALL UNDERGROUND OR UNDER FLOOR PLUMBING, MECHANICAL, AND ELECTRICAL PIPING. THE CONTRACTOR SHALL REFER TO THE TYPICAL FOUNDATION DETAILS A6/S3.1 WHEN PERFORMING THIS WORK. LOCATION OF ALL STEPPED FOOTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL STEP FOOTING LOCATIONS SHALL BE SHOWN ON THE FOUNDATION SHOP DRAWINGS AND REVIEWED BY THE SEOR PRIOR TO INSTALLATION.

EXISTING CONDITIONS DISCLAIMER:

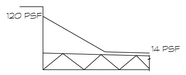
1. ASSUMPTIONS ON THE EXISTING STRUCTURE (NOTED AS '(E)' ON THE STRUCTURAL DRAWINGS) MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO EXECUTING WORK INCLUDED IN THIS SCOPE OF STRUCTURAL CONTRACT DOCUMENTS. THESE VERIFICATIONS MAY REQUIRE THE ALTERATION, DAMAGE, OR DESTRUCTION OF DESIRABLE OR OTHERWISE SERVICEABLE BUILDING COMPONENTS. ALTERATION, DAMAGE, OR DESTRUCTION OF SAID COMPONENTS SHALL NOT CONSTITUTE A BASIS OF CLAIMS AGAINST WILLIAM J. PELTIER AND ASSOCIATES. THE OWNER AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS WILLIAM J. PELTIER AND ASSOCIATES FROM ALL SUCH CLAIMS. DISCOVERY OF VARIATIONS FROM THESE ASSUMPTIONS MAY REQUIRE ADDITIONAL DESIGN SERVICES BY WILLIAM J. PELTIER AND ASSOCIATES WHICH WILL BE BILLED AT THE HOURLY RATE PER RATE SCHEDULE INCLUDED IN THE CONTRACT.
2. THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES BETWEEN ASSUMPTIONS AND ACTUAL FIELD CONDITIONS TO THE ENGINEER.

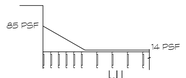
ROOF FRAMING NOTES:

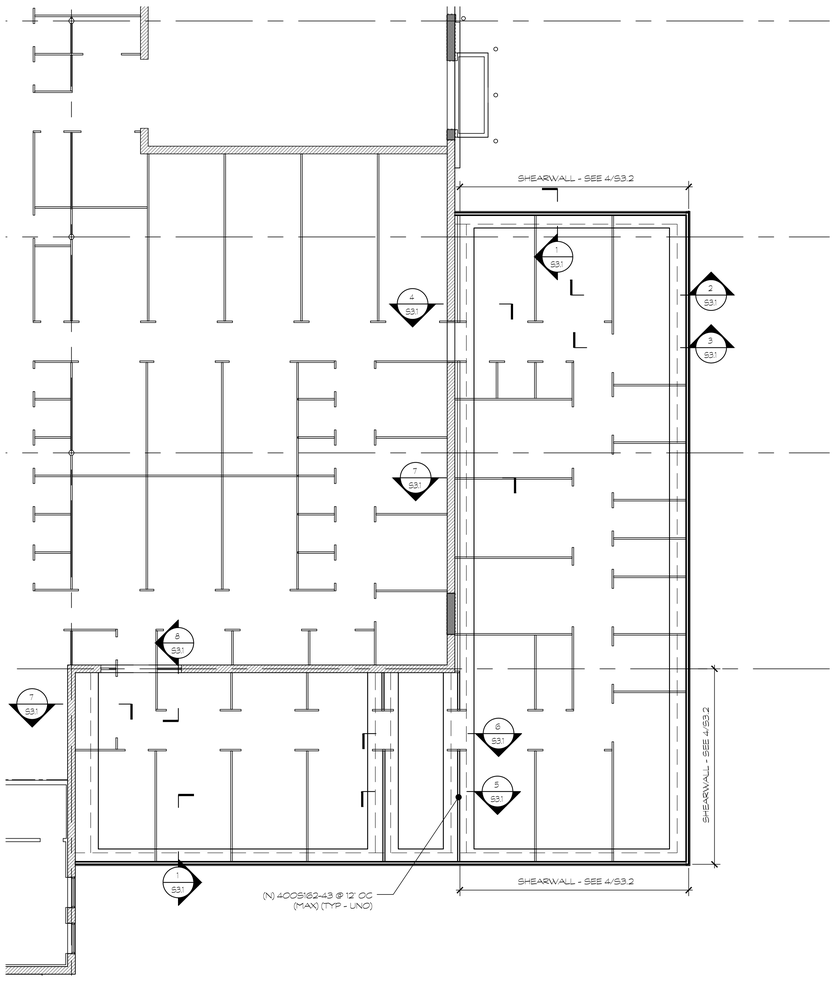
1. INDICATES SPAN OF 1 1/2", 22 GA WIDE RIB METAL ROOF DECK. FASTEN TO ALL SUPPORTS WITH #10 TEK SCREWS ON A 36/5 PATTERN. FASTEN SIDE LAPS W/ (4) EVENLY SPACED #10 TEK SCREWS BETWEEN SUPPORTS. FASTEN AT PERIMETER WITH #10 TEK SCREWS AT 6" OC.
2. JBE = INDICATES JOIST BEARING ELEVATION = T/ WALL.
2. BOT/ EL HEADERS/BEAMS @ INTERIOR WALLS = 8'-2" (TYP) - UNO
3. HN INDICATES LIGHT GAGE BOX BEAM HEADER - SEE PLAN AND ELEVATION ON S4.1

ROOF LOADS:

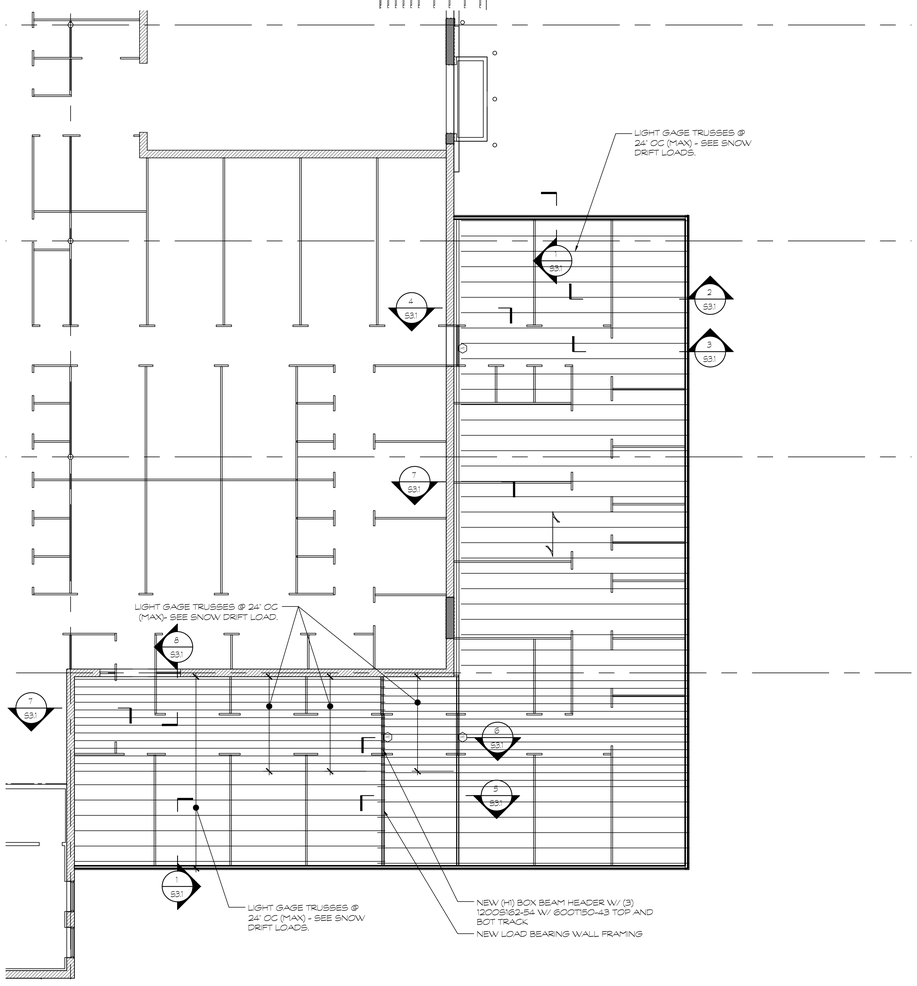
DEAD LOAD	15 PSF
LIVE LOAD	20 PSF
SNOW LOAD	20 PSF - UNO







1/S1.2 PARTIAL FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



2/S1.2 PARTIAL FRAMING PLAN
SCALE: 1/8" = 1'-0"

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION

SPACE SHOP SELF STORAGE

MASSILLON STORAGE

2660 LINCOLN WAY E - MASSILLON, OH 44646

STEIN INVESTMENT GROUP

STATE OF OHIO
WILLIAM JOHN PELTIER
76384
REGISTERED PROFESSIONAL ENGINEER

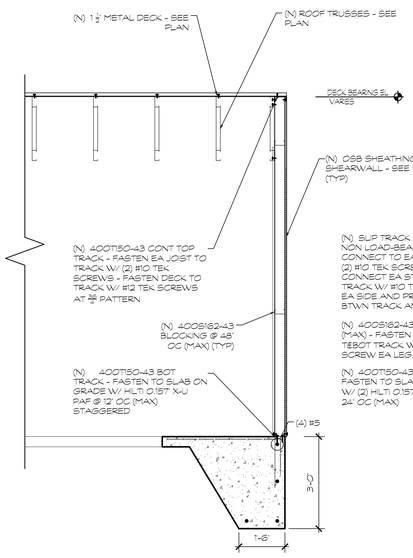
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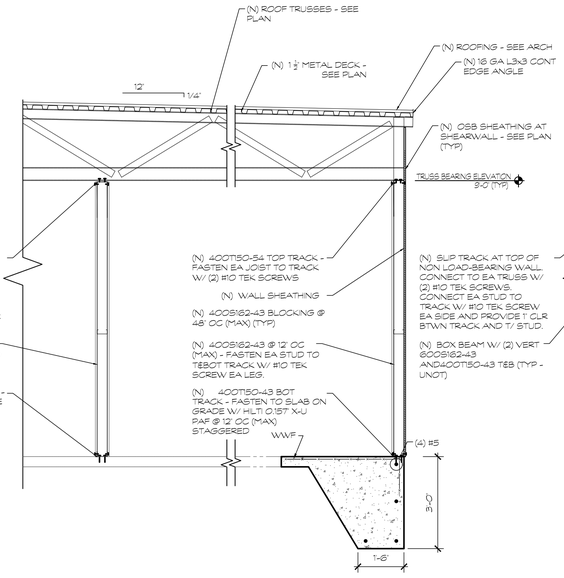
ISSUE DATE	08/25/2021
DRAWN BY	MJ
CHECKED BY	WJP
FMD PROJ #	20052

SHEET TITLE
FOUNDATION AND ROOF FRAMING PLANS

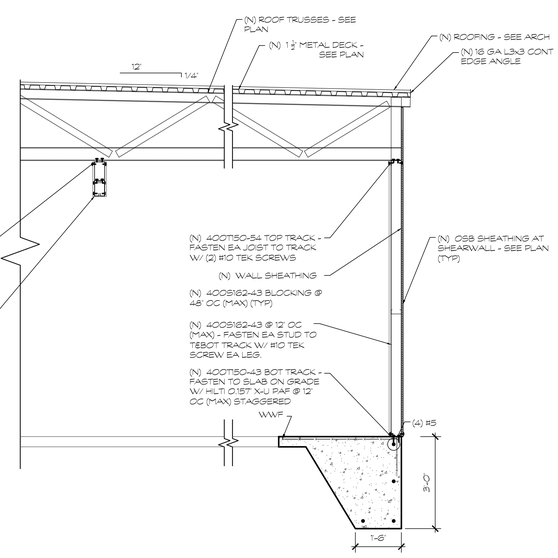
SHEET #
S1.2



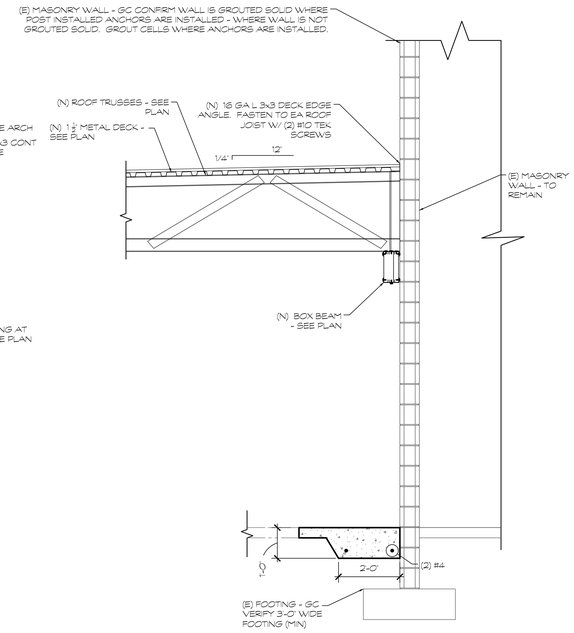
1 / S3.1 SECTION
SCALE: 1/2" = 1'-0"



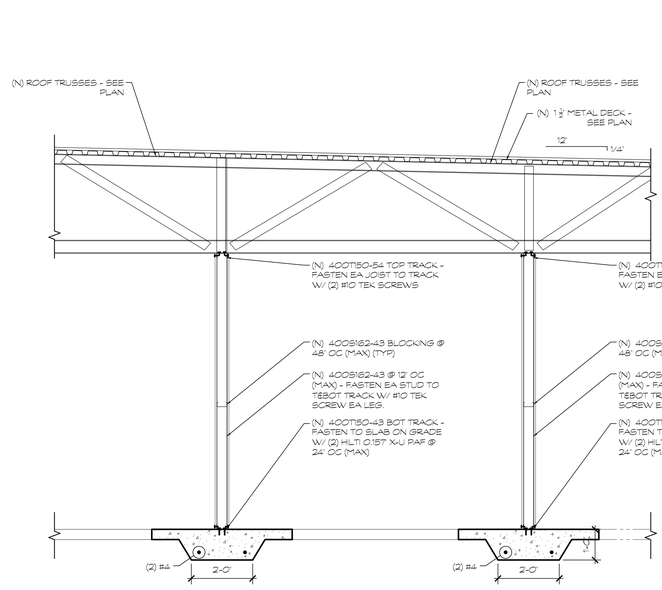
2 / S3.1 SECTION
SCALE: 1/2" = 1'-0"



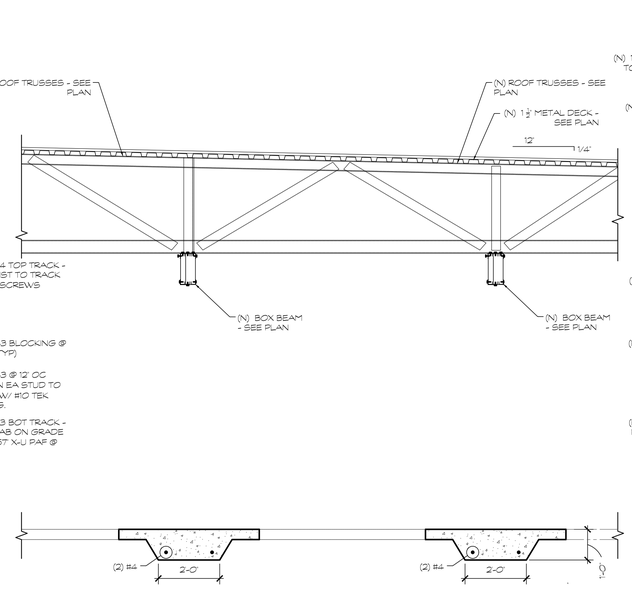
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SCALE: 1/2" = 1'-0"



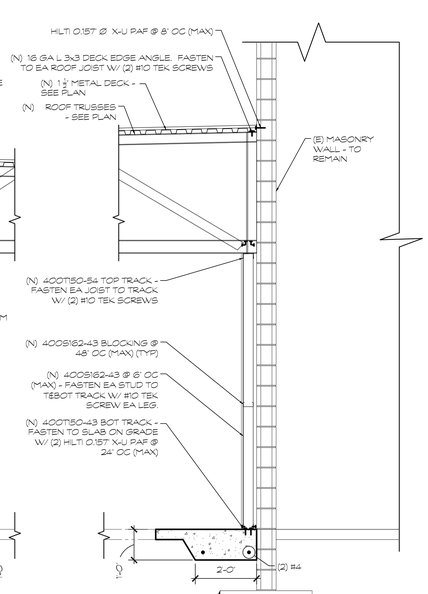
4 / S3.1 SECTION
SCALE: 1/2" = 1'-0"



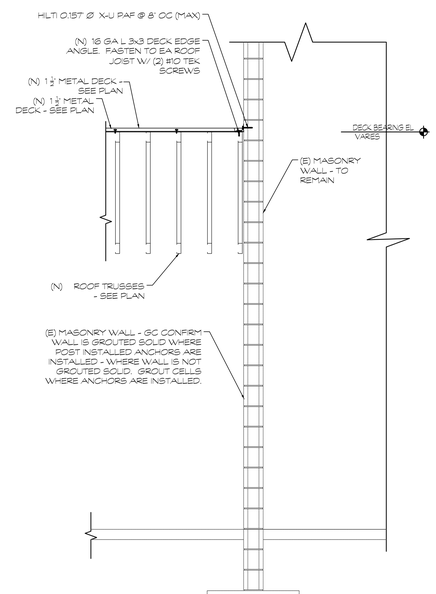
5 / S3.1 SECTION
SCALE: 1/2" = 1'-0"



6 / S3.1 SECTION
SCALE: 1/2" = 1'-0"



7 / S3.1 SECTION
SCALE: 1/2" = 1'-0"



8 / S3.1 SECTION
SCALE: 1/2" = 1'-0"

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION

the SPACE SHOP SELF STORAGE

MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
WILLIAM JOHN PELTIER
79384
REGISTERED PROFESSIONAL ENGINEER

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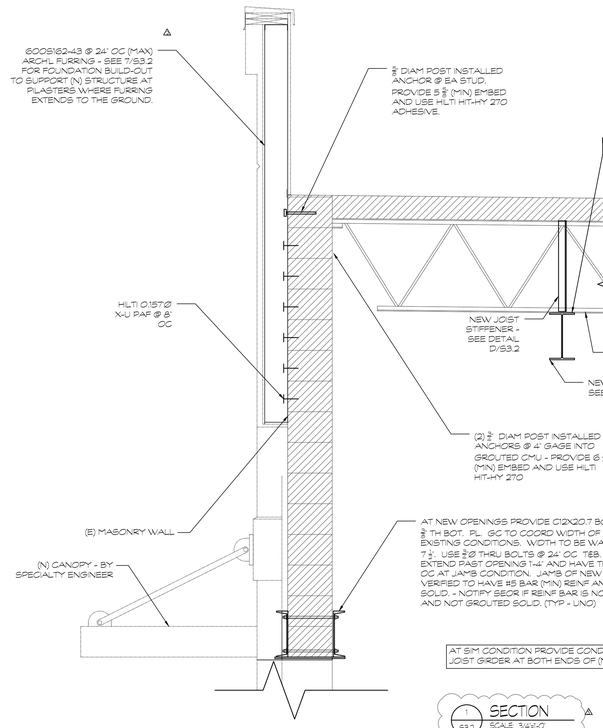
KEVIN J. MAHER, AIA
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404.549.4499 (p)

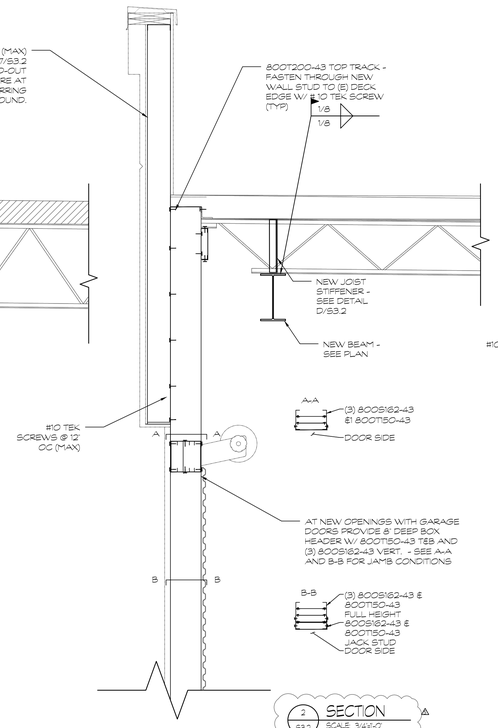
ISSUE DATE	08/25/2021
DRAWN BY	MJL
CHECKED BY	WJP
PMD PROJ #	20052

SHEET TITLE

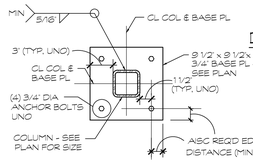
SECTIONS AND DETAILS

SHEET # **S3.1**

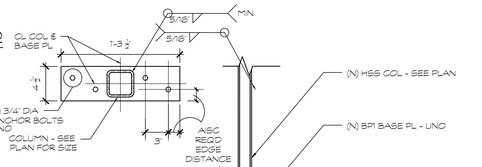


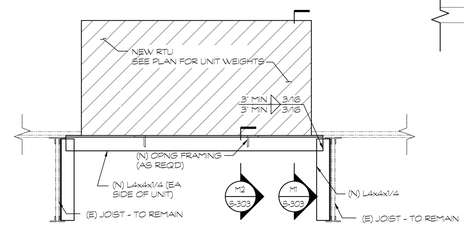


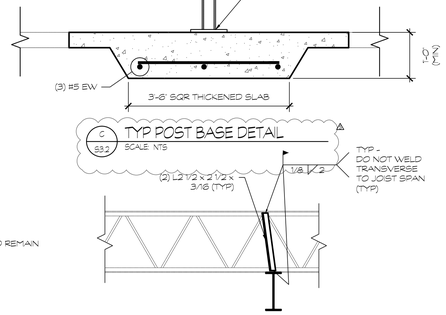
DETAIL BP1



DETAIL BP2

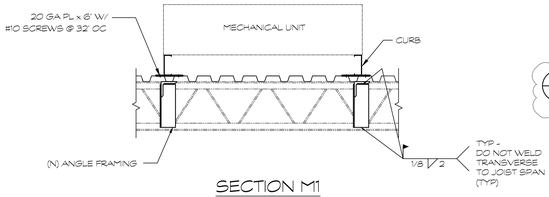






C S3.2 TYP POST BASE DETAIL
SCALE: NTS

D S3.2 TYP JOIST REINFORCING DETAIL
SCALE: NTS

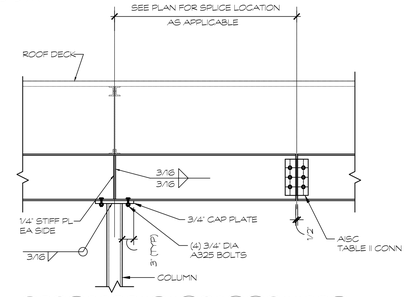


SECTION M1

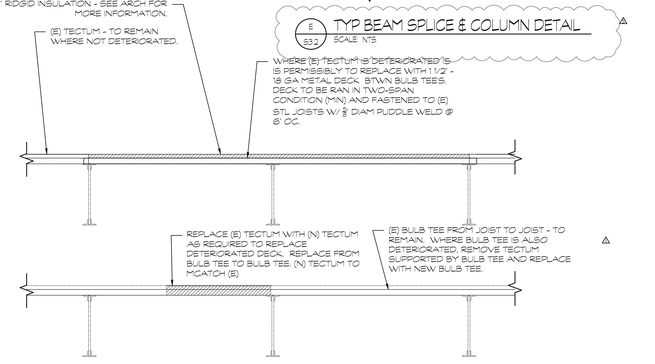


SECTION M2

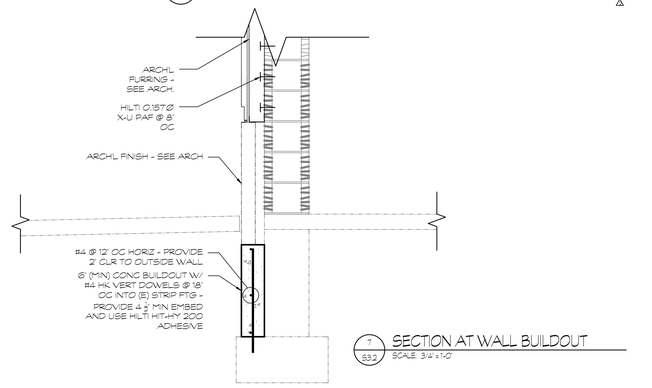
3 S3.2 TYP MECHANICAL UNIT SUPPORT FRAMING DETAILS
SCALE: NTS



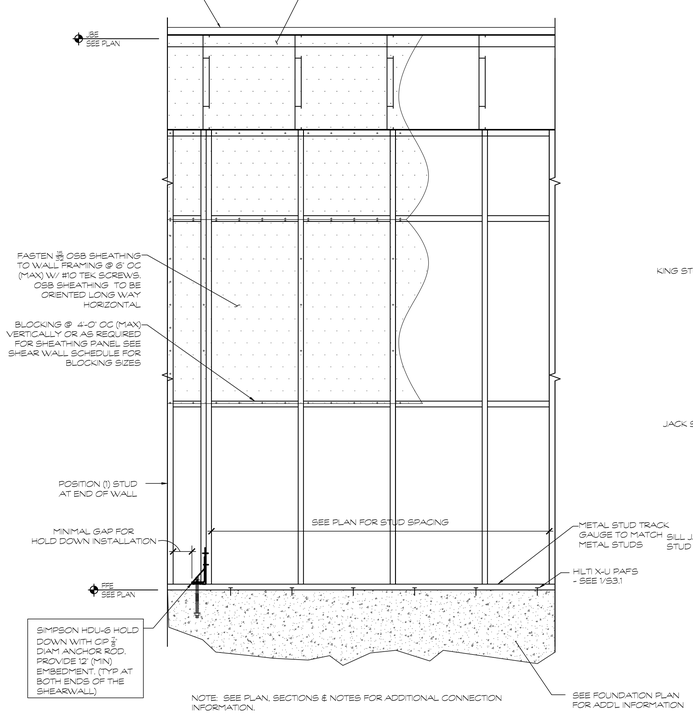
E S3.2 TYP BEAM SPLICE & COLUMN DETAIL
SCALE: NTS



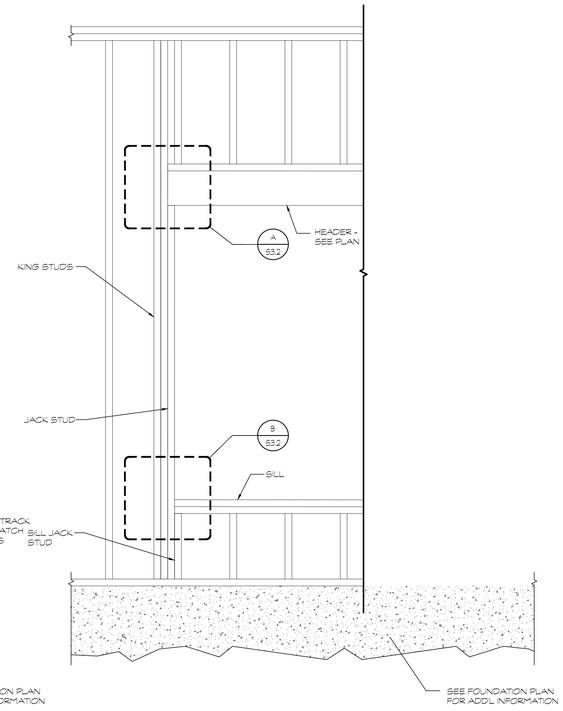
B S3.2 SECTION AT DETERIORATED DECK
SCALE: 3/4" = 1'-0



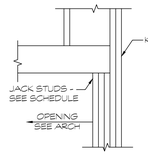
7 S3.2 SECTION AT WALL BUILDOUT
SCALE: 3/4" = 1'-0



4 S3.2 TYP SHEAR WALL ELEVATION
SCALE: NTS



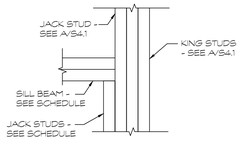
5 S3.2 SECTION
SCALE: 3/4"=1'-0



*UNLESS OTHERWISE NOTED ON PLAN

NOTE:
WHERE STUD PACK IS INDICATED ON PLAN AT JAMB CONDITION, 1/2 OF SCHEDULED KING STUDS SHALL BE ADDED TO NUMBER OF SCHEDULED STUDS IN STUD PACK.

A S3.2 HEADER SECTION
SCALE: 3/4"=1'-0



B S3.2 SILL SECTION
SCALE: 3/4"=1'-0

KEVIN J. MAHER AIA

REV #	DATE	DESCRIPTION
1	9-17-21	PERMIT COMMENTS
2	9-23-21	BID #1
3	2-14-22	COORDINATION

the SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO WILLIAM JOHN PELTIER 78354 REGISTERED PROFESSIONAL ENGINEER 2/14/22
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ISSUE DATE	08/25/2021
DRAWN BY	M.E.
CHECKED BY	W.P.
PMD PROJ #	20052

SHEET TITLE

SECTIONS AND DETAILS

SHEET #

S3.2

LEGEND

SYMBOLS	DESCRIPTION
X1 / X2	DIFFUSER, GRILLE, REGISTER OR LOUVER TAG X1 = TYPE, X2 = CFM
	POSITIVE PRESSURE (AIR GOES OUT) DIFFUSER OR REGISTER, 4-WAY AIR PATTERN (UNLESS OTHERWISE NOTED)
	NEGATIVE PRESSURE (AIR GOES IN) GRILLE
	POSITIVE PRESSURE AIRFLOW (TYP. SUPPLY)
	NEGATIVE PRESSURE AIRFLOW (TYP. RETURN/EXHAUST)
	FLEXIBLE DUCT
	MANUAL VOLUME DAMPER (MVD)
	BACKDRAFT DAMPER (BDD)
FD	VERTICAL (TYP. WALL) FIRE DAMPER
FSD	VERTICAL (TYP. WALL) COMBINATION FIRE/SMOKE DAMPER
FD	HORIZONTAL (TYP. FLOOR/CEILING) FIRE DAMPER
FSD	HORIZONTAL (TYP. FLOOR/CEILING) COMBINATION FIRE/SMOKE DAMPER
T	THERMOSTAT
H	HUMIDISTAT
S	REMOTE TEMPERATURE SENSOR
	INTERNALLY LINED DUCT
	DUCT UP
	DUCT UP
	DUCT DOWN
	SUPPLY DUCT
UNIT #	EQUIPMENT TYPE EQUIPMENT NUMBER. WHERE A LETTER IS USED, THERE ARE MULTIPLE INSTANCES.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	M	MOTOR
BDD	BACKDRAFT DAMPER	MA	MAKE-UP AIR
AHU	AIR HANDLING UNIT	MAU	MAKE-UP AIR UNIT
CO2	CARBON DIOXIDE	MAV	MANUAL AIR VENT
CU	CONDENSING UNIT	MBH	1,000 BTU PER HR
D	CONDENSATE DRAIN	MFCU	MINI FAN COIL UNIT
DB	DRY BULB	MHP	MINI HEAT PUMP
DH	DEHUMIDIFIER	MVD	MANUAL VOLUME DAMPER
EA	EXHAUST AIR	NC	NORMALLY CLOSED
EAT	ENTERING AIR TEMPERATURE	NO	NORMALLY OPEN
EDH	ELECTRIC DUCT HEATER	OA	OUTSIDE AIR
EF	EXHAUST FAN	OBD	OPPOSED BLADE DAMPER
ESP	EXTERNAL STATIC PRESSURE	PIU	POWER INDUCTION UNIT
EWH	ELECTRIC WALL HEATER	RA	RETURN AIR
F	DEGREES FAHRENHEIT	RH	RELIEF HOOD
FCU	FAN COIL UNIT	RTU	ROOFTOP UNIT
FD	FIRE DAMPER	SA	SUPPLY AIR
FSD	COMBINATION FIRE/SMOKE DAMPER	SP	STATIC PRESSURE
FURN	FURNACE	U.N.O	UNLESS NOTED OTHERWISE
H	HUMIDISTAT	UC	UNDER CUT DOOR
IH	INTAKE HOOD	VAV	VARIABLE AIR VOLUME
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LWT	LEAVING WATER TEMPERATURE	WL	WALL LOUVER

SPECIFICATIONS

APPLICABLE CODES:

INTERNATIONAL FIRE CODE (IFC), 2017 EDITION
2020 IFC OH AMENDMENTS
INTERNATIONAL PLUMBING CODE (IPC), 2017 EDITION
2020 IPC OH AMENDMENTS
INTERNATIONAL MECHANICAL CODE (IMC), 2017 EDITION
2020 IMC OH AMENDMENTS
INTERNATIONAL FUEL GAS CODE (IFGC), 2015 EDITION
2020 IFGC OH AMENDMENTS
INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2017 EDITION
2020 SUPPLEMENTS AND AMENDMENTS

EXISTING CONDITIONS:

CONTRACTOR SHALL VISIT THE SITE AND UNDERSTAND JOB CONDITIONS BEFORE SUBMITTING A PROPOSAL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS AND SIZES OF ALL EXISTING UTILITY SERVICES PRIOR TO SUBMITTING HIS PROPOSAL. NO CONSIDERATION WILL BE GIVEN TO CLAIMS FOR EXTRA COST ARISING FROM CONTRACTOR'S FAILURE TO BE FULLY COGNIZANT OF JOB OR SITE CONDITIONS EXISTING AT TIME OF ACCEPTANCE OF BID.

ACTIVE SERVICES: WHEN ENCOUNTERED IN WORK, PROTECT, BRACE, SUPPORT EXISTING ACTIVE SEWERS, GAS AND OTHER SERVICES REQUIRED FOR PROPER EXECUTION OF WORK. IF EXISTING ACTIVE SERVICES ARE ENCOUNTERED THAT REQUIRE RELOCATION, RELOCATE AS APPROVED. DO NOT PREVENT OR DISTURB OPERATION OF ACTIVE SERVICES THAT ARE TO REMAIN.

INACTIVE SERVICES: WHEN ENCOUNTERED IN WORK, REMOVE, CAP OR PLUG INACTIVE SERVICES, AS INDICATED.

INTERRUPTION OF SERVICES: WHERE WORK MAKES TEMPORARY SHUT-DOWNS OF SERVICES UNAVOIDABLE, SHUT DOWN AT NIGHT, OR AT SUCH TIMES AS APPROVED BY OWNER, WHICH WILL CAUSE LEAST INTERFERENCE WITH ESTABLISHED OPERATING ROUTINE. ARRANGE WORK TO ASSURE THAT SERVICES WILL BE SHUT DOWN ONLY DURING TIME ACTUALLY REQUIRED TO MAKE NECESSARY CONNECTION TO EXISTING WORK.

WHERE EXISTING WALLS, CEILINGS, FLOORS, ETC., ARE CUT OR OTHERWISE DAMAGED DURING CONSTRUCTION, REPAIR ALL SURFACES TO THEIR ORIGINAL CONDITION.

SHOP DRAWINGS:

SUBMIT SHOP DRAWINGS FOR REVIEW. PDF FILES PREFERRED. SHOP DRAWINGS SHALL BE BOUND INTO VOLUMES (FILES), WITH EACH VOLUME (FILE) CONTAINING ONE COPY OF ALL SHOP DRAWINGS. ALL SHOP DRAWINGS SHALL BE SUBMITTED SIMULTANEOUSLY; NO SHOP DRAWINGS WILL BE CHECKED UNTIL ALL HAVE BEEN SUBMITTED.

SUBMITTALS SHALL BE SUPPORTED BY DESCRIPTIVE MATERIAL, SUCH AS CATALOG CUTS, DIAGRAMS, PERFORMANCE CURVES AND CHARTS PUBLISHED BY THE MANUFACTURER, TO SHOW CONFORMANCE TO SPECIFICATION AND DRAWING REQUIREMENTS; MODEL NUMBERS ALONE WILL NOT BE ACCEPTABLE. ALL LITERATURE SHALL CLEARLY INDICATE THE SPECIFIED MODEL NUMBER, DIMENSIONS, ARRANGEMENT, RATING AND CHARACTERISTICS OF THE PROPOSED EQUIPMENT. CAPACITIES AND RATINGS SHALL BE BASED ON CONDITIONS INDICATED OR SPECIFIED HEREIN. ANY DEVIATIONS FROM SPECIFIED EQUIPMENT (PARTICULARLY THOSE WHICH REQUIRE COORDINATION WITH OTHER TRADES) SHALL BE CLEARLY NOTED IN A CONCISE LIST ON A SEPARATE SHEET.

TEST AND BALANCE:

THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT TEST AND BALANCE AGENCY THAT IS INDEPENDENT OF ANY CONTRACTOR, SUB-CONTRACTOR, OR MANUFACTURER TO PERFORM THE TESTING AND BALANCING AND PREPARE REPORTS TO THE GENERAL CONTRACTOR. THE INDEPENDENT TEST AND BALANCE AGENCY SHALL HAVE A CERTIFIED MEMBER OF THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB).

TEST AND BALANCE SHALL ALSO PROVIDE QUOTE TO PERFORM BALANCING FOR COMFORT SIX MONTHS AFTER THE SPACE IS OCCUPIED.

P-TAB.COM OR EQUIVALENT.

GUARANTEE:

GUARANTEE THAT EACH PIECE OF APPARATUS SHALL BE OF THE CUSTOMARY STANDARD AND QUALITY FURNISHED BY THE DESIGNED MANUFACTURER FOR THAT CATALOG NUMBER.

GUARANTEE THAT THE AIR SYSTEMS SHALL OPERATE WITHOUT AERODYNAMIC NOISE GENERATED FROM THE FAULTY INSTALLATION OF DUCT WORK OR ANY COMPONENT OF THE AIR DISTRIBUTION SYSTEM.

GUARANTEE THAT ALL SYSTEMS AND COMPONENTS SHALL BE PROVIDED WITH A ONE YEAR WARRANTY FROM THE TIME OF DATE OF SUBSTANTIAL COMPLETION. THE WARRANTY SHALL COVER ALL MATERIALS AND WORKMANSHIP. DURING THIS WARRANTY PERIOD, ALL DEFECTS IN MATERIALS AND WORKMANSHIP SHALL BE CORRECTED BY REPAIR OR REPLACEMENT WITHOUT INCURRING ADDITIONS TO THE CONTRACT.

GENERAL NOTES:

REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED EQUIPMENT.

ALL DUCT DIMENSIONS INDICATED IN THESE DOCUMENTS ARE INSIDE-CLEAR DIMENSIONS.

PORTIONS OF DUCTWORK OR PIPING VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK. PAINT BLACK BEHIND ALL GRILLES.

ALL WIRING IN THE CEILING PLENUM SHALL BE PLENUM RATED CABLE.

MOUNTING FRAME OF CEILING MOUNTED AIR DISTRIBUTION DEVICES SHALL BE COMPATIBLE WITH CEILING TYPE. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPE.

ALL FIRE SEPARATIONS MUST BE PROTECTED WHEN APPLICABLE.

PROVIDE NEW FILTERS (MERV 7 OR BETTER PER OWNER) FOR ALL APPLICABLE HVAC EQUIPMENT AT THE END OF CONSTRUCTION.

ALL MATERIAL IN PLENUM MUST MEET FIRE AND SMOKE SPREAD AS REQUIRED BY NFPA 90A.

ALL ROOF PENETRATIONS TO BE 12" APART AND AT LEAST 12" AWAY FROM CURBS, WALLS, AND DRAIN SUMPS TO PROVIDE ROOFING CONTRACTOR WITH SUFFICIENT ACCESS FOR FLASHING EACH ROOF PENETRATION.

SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ARCHITECT PRIOR TO BID SUBMISSION.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.

THE CONTRACTOR SHALL REFERENCE THE FULL SET OF CONSTRUCTION DOCUMENTS DURING PRICING AND CONSTRUCTION FOR COORDINATION BETWEEN DISCIPLINES RELATIVE TO THE MECHANICAL SCOPE.

CEILING FAN:

CEILING MOUNTED EXHAUST FANS SHALL BE OF THE CENTRIFUGAL DIRECT DRIVE TYPE. THE FAN HOUSING SHALL BE CONSTRUCTED OF STEEL. THE PLASTIC DUCT COLLAR SHALL BE A TAPERED SLEEVE FOR EASE OF CONNECTION TO 3 IN AND 4 IN ROUND DUCTWORK AND SHALL INCLUDE A BACKDRAFT DAMPER. THE GRILLE SHALL BE CONSTRUCTED OF NON-YELLOWING HIGH STRENGTH POLYMER AND ATTACHED TO THE HOUSING WITH TORSION SPRINGS. THE WHEELS SHALL BE CONSTRUCTED OF HIGH STRENGTH POLYMER. THE ACCESS FOR WIRING SHALL BE EXTERNAL. THE MOTOR DISCONNECT SHALL BE INTERNAL AND OF THE PLUG IN TYPE.

ALL FANS SHALL BEAR THE AMCA CERTIFIED RATINGS SEALS FOR SOUND AND AIR PERFORMANCE AND SHALL BE U.L. LISTED.

SPECIFICATIONS

DIFFUSERS, GRILLES, & REGISTERS:

LOUVERED FACE DIFFUSERS:

CEILING DIFFUSERS SHALL BE OF THE SIZES AND MOUNTING TYPES SHOWN ON THE PLANS AND OUTLET SCHEDULE. A UNIFORM FACE SIZE AND APPEARANCE WHEN DIFFERENT NECK SIZES ARE USED IN THE SAME AREA. ALL CONES SHALL BE ONE PIECE PRECISION DIE-STAMPED; THE BACK CONE SHALL ALSO INCLUDE AN INTEGRALLY DRAWN INLET (WELDED-IN INLETS AND CORNER JOINTS ARE NOT ACCEPTABLE). THE TWO INNER CONES SHALL BE CONSTRUCTED AS A SINGLE, REMOVABLE INNER CONE ASSEMBLY FOR EASY INSTALLATION AND CLEANING. THE INNER CONE ASSEMBLY MUST HAVE A HOLE WITH REMOVABLE PLUG IN THE CENTER TO ALLOW QUICK ADJUSTMENT OF AN OPTIONAL INLET DAMPER WITHOUT REMOVING THE INNER CONE ASSEMBLY. DIFFUSERS SHALL BE CONSTRUCTED OF 24-GAUGE STEEL OR 0.040 ALUMINUM.

THE FINISH SHALL BE #26 WHITE. THE FINISH SHALL BE AN ANODIC ACRYLIC PAINT, BAKED AT 315°F FOR 30 MINUTES. THE PENCIL HARDNESS MUST BE HB TO H. THE PAINT MUST PASS A 100-HOUR ASTM B117 CORROSIVE ENVIRONMENTS SALT SPRAY TEST WITHOUT CREEPAGE, BLISTERING OR DETERIORATION OF FILM. THE PAINT MUST PASS A 250-HOUR ASTM D870 WATER IMMERSION TEST. THE PAINT MUST ALSO PASS THE ASTM D2794 REVERSE IMPACT CRACKING TEST WITH A 50-INCH POUND FORCE APPLIED.

OPTIONAL ROUND DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL. DAMPER MUST BE OPERABLE FROM THE FACE OF THE DIFFUSER. OPTIONAL SECTORIZING BAFFLES SHALL BE AVAILABLE TO RESTRICT THE DISCHARGE AIR IN CERTAIN DIRECTIONS.

OPTIONAL MOLDED INSULATION BLANKET SHALL BE AVAILABLE. THE INSULATION WILL BE R-6, FOIL-BACKED AND PROVIDED AN ADDITIONAL 1-INCH GAP AROUND THE NECK TO INSTALL INSULATED FLEX DUCT.

THE MANUFACTURER SHALL PROVIDE PUBLISHED PERFORMANCE DATA FOR THE SQUARE DIFFUSER. THE DIFFUSER SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-2006.

EGGCRATE GRILLE:

RETURN GRILLES SHALL BE TITUS MODEL 50F FOR THE SIZES AND MOUNTING TYPES AS SHOWN ON THE PLANS AND OUTLET SCHEDULE. RETURN GRILLES MUST PROVIDE A FREE AREA OF AT LEAST 90%. OUTER BORDERS SHALL BE CONSTRUCTED OF HEAVY EXTRUDED ALUMINUM WITH A THICKNESS OF 0.040-0.050 INCH AND SHALL HAVE COUNTERSUNK SCREW HOLES FOR A NEAT APPEARANCE. BORDER WIDTH SHALL BE 1¼ INCHES ON ALL SIDES AND SHALL BE INTERLOCKED AT THE FOUR CORNERS AND MECHANICALLY STAKED TO FORM A RIGID FRAME. CHOICE OF THREE SIZES OF ALUMINUM GRID: ½ X ½ X ½ INCH, ½ X ½ X 1 INCH, OR 1 X 1 X 1 INCH SHALL BE AVAILABLE.

OPTIONAL OPPOSED-BLADE VOLUME DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL OR ALUMINUM. DAMPER MUST BE OPERABLE FROM THE FACE OF THE GRILLE.

DOUBLE DEFLECTION REGISTERS:

ALUMINUM SUPPLY GRILLES SHALL BE OF THE SIZES AND MOUNTING TYPES SHOWN ON THE PLANS AND OUTLET SCHEDULE. THE DEFLECTION BLADES SHALL BE AVAILABLE PARALLEL TO THE LONG OR SHORT DIMENSION OF THE GRILLE OR REGISTER. CONSTRUCTION SHALL BE OF ALUMINUM WITH A 1¼-INCH WIDE BORDER ON ALL SIDES. SIZES 24 X 24 INCHES AND BELOW SHALL HAVE ROLL-FORMED BORDERS WITH A MINIMUM THICKNESS OF 0.032 INCH. LARGER SIZES SHALL BE CONSTRUCTED USING CONTINUOUS ALUMINUM EXTRUSIONS WITH A NOMINAL THICKNESS OF 0.040 THROUGH 0.050 INCH AND SHALL BE INTERLOCKED AT THE FOUR CORNERS AND MECHANICALLY STAKED TO FORM A RIGID FRAME. SCREW HOLES SHALL BE COUNTERSUNK FOR A NEAT APPEARANCE.

DEFLECTION BLADES SHALL BE CONTOURED TO A SPECIFICALLY DESIGNED AND TESTED CROSS-SECTION TO MEET PUBLISHED TEST PERFORMANCE DATA. BLADES SHALL BE SPACED ON ¾-INCH CENTERS. BLADES SHALL HAVE FRICTION PIVOTS ON BOTH SIDES TO ALLOW INDIVIDUAL BLADE ADJUSTMENT WITHOUT LOOSENING OR RATTLING OR BE INSERTED THROUGH THE FRAME AND HELD TIGHT WITH STEEL FRICTION WIRE INTERLOCKED TO THE FRAME ON BOTH ENDS OF EACH SIDE. PLASTIC BLADE PIVOTS ARE NOT ACCEPTABLE.

OPTIONAL OPPOSED BLADE VOLUME DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL OR ALUMINUM. DAMPER MUST BE OPERABLE FROM THE FACE OF THE GRILLE.

THE GRILLE FINISH SHALL BE #26 WHITE. THE FINISH SHALL BE AN ANODIC ACRYLIC PAINT, BAKED AT 315°F FOR 30 MINUTES. THE PENCIL HARDNESS MUST BE HB TO H. THE PAINT MUST PASS A 100-HOUR ASTM B117 CORROSIVE ENVIRONMENTS SALT SPRAY TEST WITHOUT CREEPAGE, BLISTERING OR DETERIORATION OF FILM. THE PAINT MUST PASS A 250-HOUR ASTM D870 WATER IMMERSION TEST. THE PAINT MUST ALSO PASS THE ASTM D2794 REVERSE IMPACT CRACKING TEST WITH A 50-INCH POUND FORCE APPLIED.

THE MANUFACTURER SHALL PROVIDE PUBLISHED PERFORMANCE DATA FOR THE GRILLE. THE GRILLE SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-2006.

PLAQUE DIFFUSERS:

ARCHITECTURAL SQUARE PANEL CEILING DIFFUSERS SHALL BE OF THE SIZES AND MOUNTING TYPES SHOWN ON THE PLANS AND OUTLET SCHEDULE. THE FACE PANEL IS REMOVABLE BY MEANS OF FOUR HANGER BRACKETS. THE EXPOSED SURFACE OF THE FACE PANEL SHALL BE SMOOTH, FLAT, AND FREE OF VISIBLE FASTENERS.
THE BACK OF THE FACE PANEL SHALL HAVE AN AERODYNAMICALLY SHAPED, ROLLED EDGE TO ENSURE A TIGHT HORIZONTAL DISCHARGE PATTERN. CEILING DIFFUSERS WITH A 24 X 24-INCH FULL FACE SHALL HAVE NO LESS THAN AN 18 X 18-INCH FACE PANEL SIZE. CEILING DIFFUSERS WITH A 12 X 12-INCH FULL FACE SHALL HAVE NO LESS THAN A 9 X 9-INCH FACE PANEL SIZE.

THE BACKPAN SHALL BE ONE PIECE PRECISION DIE-STAMPED AND SHALL INCLUDE AN INTEGRALLY DRAWN INLET. THE DIFFUSER NECK SHALL HAVE A MINIMUM OF 1¼-INCH DEPTH AVAILABLE FOR DUCT CONNECTION.

THE FINISH SHALL BE #26 WHITE. THE FINISH SHALL BE AN ANODIC ACRYLIC PAINT, BAKED AT 315°F FOR 30 MINUTES. THE PENCIL HARDNESS MUST BE HB TO H.

THE PAINT MUST PASS A 100-HOUR ASTM B117 CORROSIVE ENVIRONMENTS SALT SPRAY TEST WITHOUT CREEPAGE, BLISTERING OR DETERIORATION OF FILM. THE PAINT MUST PASS A 250-HOUR ASTM D870 WATER IMMERSION TEST. THE PAINT MUST ALSO PASS THE ASTM D2794 REVERSE IMPACT CRACKING TEST WITH A 50-INCH POUND FORCE APPLIED.

OPTIONAL ROUND DAMPER SHALL BE CONSTRUCTED OF HEAVY GAUGE STEEL. DAMPER MUST BE OPERABLE FROM THE FACE OF THE DIFFUSER. OPTIONAL DIRECTIONAL BLOW CLIPS SHALL BE AVAILABLE TO RESTRICT THE DISCHARGE AIR IN CERTAIN DIRECTIONS.

OPTIONAL MOLDED INSULATION BLANKET SHALL BE AVAILABLE. THE INSULATION WILL BE R-6, FOIL-BACKED, AND PROVIDE AN ADDITIONAL 1-INCH GAP AROUND THE NECK TO INSTALL INSULATED FLEX DUCT.

THE MANUFACTURER SHALL PROVIDE PUBLISHED PERFORMANCE DATA FOR THE SQUARE PANEL DIFFUSER. THE DIFFUSER SHALL BE TESTED IN ACCORDANCE WITH ANSI/ASHRAE STANDARD 70-1991.

DUCTWORK AND ACCESSORIES:

INDUSTRY STANDARDS: COMPLY WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION) HVAC DUCT CONSTRUCTION STANDARDS, RECOMMENDATIONS FOR FABRICATION, GAUGES, CONSTRUCTION AND DETAILS, AND INSTALLATION PROCEDURES, EXCEPT AS OTHERWISE INDICATED.

COMPLY WITH ASHRAE (AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS) FUNDAMENTALS HANDBOOK RECOMMENDATIONS, EXCEPT AS OTHERWISE INDICATED.

DUCTWORK METAL AND GAUGES: EXCEPT AS OTHERWISE INDICATED, FABRICATE DUCTWORK FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A527, LOCKFORMING QUALITY, WITH ASTM A525 G90 ZINC COATING, MILL PHOSPHATIZED. GAUGES TO COMPLY WITH SMACNA STANDARDS.

DUCT SEALANT: NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT (TYPE APPLICABLE FOR THE FABRICATION/INSTALLATION DETAIL) AS COMPOUNDED AND RECOMMENDED BY THE MANUFACTURER SPECIFICALLY FOR SEALING JOINTS AND SEAMS IN DUCTWORK.

DUCTWORK SUPPORT MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE UPPER ATTACHMENT, HANGERS OF GALVANIZED STEEL STRAPS, OR STEEL RODS AND LOWER ATTACHMENT FOR SUPPORT OF DUCTWORK. HANGING/SUPPORT SYSTEMS SHALL BE IN ACCORDANCE WITH SMACNA REQUIREMENTS.

UNLESS NOTED OTHERWISE, EXPOSED DUCTWORK WITHIN THE STORAGE AREAS SHALL BE SINGLE-WALL GALVANIZED STEEL PIPE OR RECTANGULAR DUCT AS SHOWN ON THE FLOOR PLANS. DUCTWORK SHALL BE EXTERNALLY WRAPPED PER THE PARAGRAPH 'DUCT INSULATION' BELOW.

UNLESS NOTED OTHERWISE, EXPOSED DUCTWORK IN THE OFFICE/ADMINISTRATIVE AREA SHALL BE SINGLE-WALL SPIRAL PIPE WITH PAINT GRIP FINISH. ALL EXPOSED DUCTWORK IN THIS AREA SHALL BE INTERNALLY LINED IN LIEU OF WRAPPED. DUCT LINER THERMAL RESISTANCE SHALL MEET THE MINIMUM VALUES SPECIFIED IN PARAGRAPH 'DUCT INSULATION' BELOW.

DUCT INSULATION:

R-6 SUPPLY, OUTSIDE AND RETURN AIR DUCT INSULATION IN UNCONDITIONED SPACES
R-8 SUPPLY AND RETURN AIR DUCT INSULATION OUTSIDE THE BUILDING
R-8 INSULATION BETWEEN DUCTS AND THE BUILDING EXTERIOR WHEN DUCTS ARE PART OF A BUILDING ASSEMBLY

SPECIFICATIONS

ROOFTOP UNITS:

GENERAL
OUTDOOR, ROOFTOP MOUNTED, ELECTRICALLY CONTROLLED, HEATING AND COOLING UNIT UTILIZING A FULLY HERMETIC SCROLL COMPRESSOR(S) FOR COOLING DUTY AND GAS COMBUSTION FOR HEATING DUTY.
FACTORY ASSEMBLED, SINGLE PIECE HEATING AND COOLING ROOFTOP UNIT, CONTAINED WITHIN THE UNIT ENCLOSURE SHALL BE ALL FACTORY WIRING, PIPING, CONTROLS, AND SPECIAL FEATURES REQUIRED PRIOR TO FIELD START-UP.
UNIT SHALL USE ENVIRONMENTALLY SOUND, PUROM® REFRIGERANT.
UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
UNIT MUST BE SELECTED AND INSTALLED IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL CODES.

UNIT CABINET
UNIT CABINET SHALL BE CONSTRUCTED OF GALVANIZED STEEL, AND SHALL BE BONDERIZED AND COATED WITH A PRE-PAINTED BAKED ENAMEL FINISH ON ALL EXTERNALLY EXPOSED SURFACES.

STANDARD HEAT EXCHANGER CONSTRUCTION
HEAT EXCHANGER SHALL BE OF THE TUBULAR-SECTION TYPE CONSTRUCTED OF A MINIMUM OF 20-GAUGE STEEL COATED WITH A NOMINAL 1.2 MIL ALUMINUM-SILICONE ALLOY FOR CORROSION RESISTANCE.
BURNERS SHALL BE OF THE IN-SHOT TYPE CONSTRUCTED OF ALUMINUM-COATED STEEL.
BURNERS SHALL INCORPORATE ORIFICES FOR RATED HEAT OUTPUT UP TO 2000 FT (610M) ELEVATION. ADDITIONAL ACCESSORY KITS MAY BE REQUIRED FOR APPLICATIONS ABOVE 2000 FT (610M) ELEVATION, DEPENDING ON LOCAL GAS SUPPLY CONDITIONS.
EACH HEAT EXCHANGER TUBE SHALL CONTAIN MULTIPLE DIMPLES FOR INCREASED HEATING EFFECTIVENESS.

STANDARD ALUMINUM/COPPER COILS:
STANDARD EVAPORATOR AND CONDENSER COILS SHALL HAVE ALUMINUM LANCED PLATE FINS MECHANICALLY BONDED TO SEAMLESS INTERNALLY GROOVED COPPER TUBES WITH ALL JOINTS BRAZED.
EVAPORATOR COILS SHALL BE LEAK TESTED TO 150 PSIG, PRESSURE TESTED TO 450 PSIG, AND QUALIFIED TO UL 1995 BURST TEST AT 1775 PSIG.
CONDENSER COILS SHALL BE LEAK TESTED TO 150 PSIG, PRESSURE TESTED TO 650 PSIG, AND QUALIFIED TO UL 1995 BURST TEST AT 1980 PSIG.

COMPRESSORS
UNIT SHALL USE FULLY HERMETIC, SCROLL COMPRESSOR FOR EACH INDEPENDENT REFRIGERATION CIRCUIT.

FILTER SECTION
FILTERS ACCESS IS SPECIFIED IN THE UNIT CABINET SECTION OF THIS SPECIFICATION.
FILTERS SHALL BE HELD IN PLACE BY A PIVOTING FILTER TRAY, FACILITATING EASY REMOVAL AND INSTALLATION.
SHALL CONSIST OF FACTORY-INSTALLED, LOW VELOCITY, THROW-AWAY 2-IN. THICK FIBERGLASS FILTERS.
FILTERS SHALL BE STANDARD, COMMERCIALLY AVAILABLE SIZES.

EVAPORATOR FAN AND MOTOR
EVAPORATOR FAN MOTOR;
SHALL HAVE PERMANENTLY LUBRICATED BEARINGS.
SHALL HAVE INHERENT AUTOMATIC-RESET THERMAL OVERLOAD PROTECTION OR CIRCUIT BREAKER.
SHALL HAVE A MAXIMUM CONTINUOUS BHP RATING FOR CONTINUOUS DUTY OPERATION; NO SAFETY FACTORS ABOVE THAT RATING SHALL BE REQUIRED.
BELT-DRIVEN EVAPORATOR FAN:
BELT DRIVE SHALL INCLUDE AN ADJUSTABLE-PITCH MOTOR PULLEY.
SHALL USE SEALED, PERMANENTLY LUBRICATED BALL-BEARING TYPE.
BLOWER FAN SHALL BE DOUBLE-INLET TYPE WITH FORWARD-CURVED BLADES.
SHALL BE CONSTRUCTED FROM STEEL WITH A CORROSION RESISTANT FINISH AND DYNAMICALLY BALANCED.

CONDENSER FANS AND MOTORS
CONDENSER FAN MOTORS:
SHALL BE A TOTALLY ENCLOSED MOTOR.
SHALL USE PERMANENTLY LUBRICATED BEARINGS.
SHALL HAVE INHERENT THERMAL OVERLOAD PROTECTION WITH AN AUTOMATIC RESET FEATURE.
SHALL USE A SHAFT-DOWN DESIGN ON 04 TO 12 MODELS AND SHAFT-UP ON 14 SIZE WITH RAIN SHIELD.
CONDENSER FANS:
SHALL BE A DIRECT-DRIVEN PROPELLER TYPE FAN.
SHALL HAVE ALUMINUM BLADES RIVETED TO CORROSION-RESISTANT STEEL SPIDERS AND SHALL BE DYNAMICALLY BALANCED.

ACCESSORIES: REFER TO THE EQUIPMENT SCHEDULE FOR A COMPLETE LISTING OF REQUIRED ACCESSORIES.

SMOKE DETECTORS:
SHALL BE A FOUR-WIRE CONTROLLER AND DETECTOR.
SHALL BE ENVIRONMENTAL COMPENSATED WITH DIFFERENTIAL SENSING FOR RELIABLE, STABLE, AND DRIFT-FREE SENSITIVITY.
SHALL USE MAGNET-ACTIVATED TEST/RESET SENSOR SWITCHES.
SHALL HAVE TOOL-LESS CONNECTION TERMINAL ACCESS.
SHALL HAVE A RECESSED MOMENTARY SWITCH FOR TESTING AND RESETTING THE DETECTOR.
CONTROLLER SHALL INCLUDE:
(1.) ONE SET OF NORMALLY OPEN ALARM INITIATION CONTACTS FOR CONNECTION TO AN INITIATING DEVICE CIRCUIT ON A FIRE ALARM CONTROL PANEL.
(2.) TWO FORM-C AUXILIARY ALARM RELAYS FOR INTERFACE WITH ROOFTOP UNIT OR OTHER EQUIPMENT.
(3.) ONE FORM-C SUPERVISION (TROUBLE) RELAY TO CONTROL THE OPERATION OF THE TROUBLE LED ON A REMOTE TEST/RESET STATION.
(4.) CAPABLE OF DIRECT CONNECTION TO TWO INDIVIDUAL DETECTOR MODULES.
(5.) CAN BE WIRED TO UP TO 14 OTHER DUCT SMOKE DETECTORS FOR MULTIPLE FAN SHUTDOWN APPLICATIONS

THERMOSTATS:
ELECTRIC, SOLID-STATE, MICROCOMPUTER-BASED ROOM THERMOSTAT.
AUTOMATIC SWITCHING FROM HEATING TO COOLING.
PREFERENTIAL RATE CONTROL TO MINIMIZE OVERSHOOT AND DEVIATION FROM SET POINT.
SET UP FOR FOUR SEPARATE TEMPERATURES PER DAY.
INSTANT OVERRIDE OF SET POINT FOR CONTINUOUS OR TIMED PERIOD FROM 1 HOUR TO 31 DAYS.
SHORT-CYCLE PROTECTION.
PROGRAMMING BASED ON EVERY DAY OF WEEK.
SELECTION FEATURES INCLUDE DEGREE F DISPLAY, 12- OR 24-HOUR CLOCK, KEYBOARD DISABLE, REMOTE SENSOR, AND FAN ON-AUTO.
BATTERY REPLACEMENT WITHOUT PROGRAM LOSS.
THERMOSTAT DISPLAY FEATURES INCLUDE THE FOLLOWING:
TIME OF DAY.
ACTUAL ROOM TEMPERATURE.
PROGRAMMED TEMPERATURE.
PROGRAMMED TIME.
DURATION OF TIMED OVERRIDE.
DAY OF WEEK.
SYSTEM MODE INDICATIONS INCLUDE "HEATING," "OFF," "FAN AUTO," AND "FAN ON."

ELECTRIC HEAT:
HEATER ELEMENT OPEN COIL RESISTANCE WIRE, NICKEL-CHROME ALLOY, 0.29 INCHES INSIDE DIAMETER, STRUNG THROUGH CERAMIC INSULATORS MOUNTED ON METAL FRAME. COIL ENDS ARE STAKED AND WELDED TO TERMINAL SCREW SLOTS.

HEATER ASSEMBLIES ARE PROVIDED WITH INTEGRAL FUSING FOR PROTECTION OF INTERNAL HEATER CIRCUITS NOT EXCEEDING 48 AMPS EACH. AUTO RESET THERMO LIMIT CONTROLS, MAGNETIC HEATER CONTACTORS (24 V COIL) AND TERMINAL BLOCK ALL MOUNTED IN ELECTRIC HEATER CONTROL BOX (MINIMUM 18 GA GALVANIZED STEEL) ATTACHED TO END OF HEATER ASSEMBLY.

SPECIFICATIONS

HEAT PUMP:

EQUIPMENT
— FACTORY ASSEMBLED, SINGLE PIECE, AIR-COOLED HEAT PUMP UNIT. CONTAINED WITHIN THE UNIT ENCLOSURE IS ALL FACTORY WIRING, PIPING, CONTROLS, COMPRESSOR, REFRIGERANT CHARGE OF R-410A, AND SPECIAL FEATURES REQUIRED PRIOR TO FIELD START-UP.

UNIT CABINET
— UNIT CABINET WILL BE CONSTRUCTED OF GALVANIZED STEEL, BONDERIZED, AND COATED WITH A POWDER COAT PAINT.

FANS
— CONDENSER FAN WILL BE DIRECT-DRIVE PROPELLER TYPE, DISCHARGING AIR UPWARD.
— CONDENSER FAN MOTORS WILL BE TOTALLY ENCLOSED, 1-PHASE TYPE WITH CLASS B INSULATION AND PERMANENTLY LUBRICATED BEARINGS.
— SHAFTS WILL BE CORROSION RESISTANT.
— FAN BLADES WILL BE STATICALLY AND DYNAMICALLY BALANCED.
— CONDENSER FAN OPENINGS WILL BE EQUIPPED WITH STEEL WIRE SAFETY GUARDS.

COMPRESSOR
— COMPRESSOR WILL BE HERMETICALLY SEALED.
— COMPRESSOR WILL BE MOUNTED ON RUBBER VIBRATION ISOLATORS.
CON

COMcheck Software Version 4.1.5.1

Mechanical Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	Massilon Storage
Location:	Massillon, Ohio
Climate Zone:	5a
Project Type:	New Construction

Construction Site: 2600 Lincoln Way E, Massillon, OH 44646 | Owner/Agent: | Designer/Contractor:

Additional Efficiency Package(s)

Unspecified

Mechanical Systems List

Quantity	System Type & Description
1	RTU-1 & 8 (Single Zone): Heating: 1 each - Duct Furnace, Gas, Capacity = 65 kBtu/h Proposed Efficiency = 82.00% Ec, Required Efficiency: 80.00 % Ec Cooling: 1 each - Single Package DX Unit, Capacity = 48 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER Fan System: RTU-4 TON -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 1 Supply, Constant Volume, 1600 CFM, 1.0 motor nameplate hp, 0.7 fan efficiency grade
1	RTU-2 & 6 (Single Zone): Heating: 1 each - Duct Furnace, Gas, Capacity = 125 kBtu/h Proposed Efficiency = 82.00% Ec, Required Efficiency: 80.00 % Ec Cooling: 1 each - Single Package DX Unit, Capacity = 90 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: RTU-7.5 TON -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 2 Supply, Constant Volume, 3000 CFM, 1.7 motor nameplate hp, 0.7 fan efficiency grade
1	RTU-3 & 7 (Single Zone): Heating: 1 each - Duct Furnace, Gas, Capacity = 90 kBtu/h Proposed Efficiency = 82.00% Ec, Required Efficiency: 80.00 % Ec Cooling: 1 each - Single Package DX Unit, Capacity = 72 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: RTU-6 TON -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 3 Supply, Constant Volume, 2400 CFM, 2.9 motor nameplate hp, 0.7 fan efficiency grade
1	RTU-4 (Single Zone): Heating: 1 each - Duct Furnace, Gas, Capacity = 65 kBtu/h Proposed Efficiency = 82.00% Ec, Required Efficiency: 80.00 % Ec Cooling: 1 each - Single Package DX Unit, Capacity = 60 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 14.10 SEER, Required Efficiency: 14.00 SEER Fan System: RTU-5 TON LOW -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 4 Supply, Constant Volume, 1990 CFM, 1.0 motor nameplate hp, 0.7 fan efficiency grade

Quantity	System Type & Description
1	RTU-9 (Single Zone): Heating: 1 each - Duct Furnace, Gas, Capacity = 90 kBtu/h Proposed Efficiency = 82.00% Ec, Required Efficiency: 80.00 % Ec Cooling: 1 each - Single Package DX Unit, Capacity = 60 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 14.10 SEER, Required Efficiency: 14.00 SEER Fan System: RTU-5 TON MID -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 5 Supply, Constant Volume, 1990 CFM, 1.5 motor nameplate hp, 0.7 fan efficiency grade
1	RTU-5 (Single Zone): Heating: 1 each - Duct Furnace, Gas, Capacity = 125 kBtu/h Proposed Efficiency = 82.00% Ec, Required Efficiency: 80.00 % Ec Cooling: 1 each - Single Package DX Unit, Capacity = 102 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: RTU-8.5 TON -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 6 Supply, Constant Volume, 3400 CFM, 1.7 motor nameplate hp, 0.7 fan efficiency grade
1	FCU-1 (Single Zone): Heating: 1 each - Duct Furnace, Electric, Capacity = 33 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Split System, Capacity = 36 kBtu/h, Air-Cooled Condenser, Unknown Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: FCU-1 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 7 Supply, Constant Volume, 1200 CFM, 0.5 motor nameplate hp, 0.7 fan efficiency grade
1	FCU-2 (Single Zone): Heating: 1 each - Duct Furnace, Electric, Capacity = 42 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Split System, Capacity = 36 kBtu/h, Air-Cooled Condenser, Unknown Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: FCU-2 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 8 Supply, Constant Volume, 1400 CFM, 0.8 motor nameplate hp, 0.7 fan efficiency grade
1	FCU-3 & 4 (Single Zone): Heating: 1 each - Duct Furnace, Electric, Capacity = 13 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Split System, Capacity = 18 kBtu/h, Air-Cooled Condenser, Unknown Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: FCU-1.5 TON -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 9 Supply, Constant Volume, 600 CFM, 0.3 motor nameplate hp, 0.7 fan efficiency grade
1	UH-1 (Single Zone): Heating: 1 each - Unit Heater, Gas, Capacity = 31 kBtu/h Proposed Efficiency = 80.00% Ec, Required Efficiency: 80.00 % Ec Fan System: UH-30 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 10 Supply, Constant Volume, 505 CFM, 0.1 motor nameplate hp, 0.7 fan efficiency grade
1	UH-2 (Single Zone): Heating: 1 each - Unit Heater, Gas, Capacity = 46 kBtu/h Proposed Efficiency = 80.00% Ec, Required Efficiency: 80.00 % Ec Fan System: UH-45 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 11 Supply, Constant Volume, 720 CFM, 0.1 motor nameplate hp, 0.7 fan efficiency grade

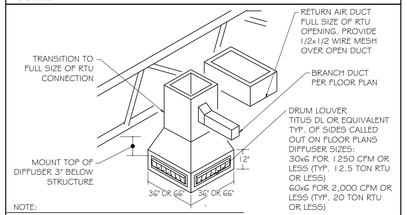
Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Paul Kenney - PE — Name - Title
Signature
8/17/2021 — Date

DROP BOX DETAIL

NO SCALE



NOTE:

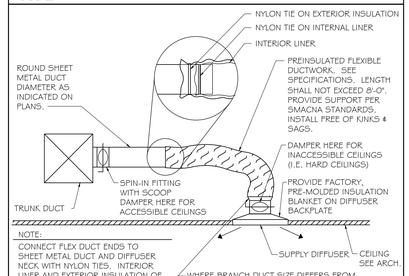
SUPPLY AIR DROP BOX ASSEMBLY SHALL BE CONSTRUCTED OF 18-GAUGE GALVANIZED SHEET AND SHIPPED TO CONSTRUCTION SITE COMPLETE WITH 1" TOP FLANGE, 1" ACOUSTICAL DUCT LINER INSULATION, AIR DIVERTER PYRAMID, ADJUSTABLE DOUBLE DEFLECTION DRUM LOUVERS, AND MOUNTING BRACKETS FOR FIELD INSTALLATION. THE CONTRACTOR SHALL PROVIDE DUCT TRANSITION AS REQUIRED TO COMPLETE CONNECTION TO RTU.

DROP BOX SHALL BE SHOP PRIMED AND FINISHED TO MATCH THE COLOR OF THE STRUCTURE. SEE ARCHITECTURAL.

DROP BOX SHALL BE SHIPPED WITH A SCHEDULE REFERENCING EACH DROP BOX WITH ITS ASSOCIATED RTU.

DIFFUSER TAKE-OFF DETAIL

NO SCALE

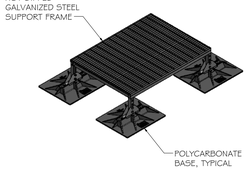


NOTE:

CONNECT FLEX DUCT ENDS TO SHEET METAL DUCT AND DIFFUSER NECK WITH NYLON TIES. INTERIOR LINER AND EXTERIOR INSULATION OF FLEX DUCT TO BE TIED INDIVIDUALLY. INSTALL USING TENSIONING TOOL AS PER MANUFACTURER'S RECOMMENDATIONS.

ROOFTOP CONDENSING UNIT/HEAT PUMP STAND

NO SCALE



ROOFTOP CONDENSING UNIT / HEAT PUMP STAND:
ROOFTOP CONDENSING UNITS AND HEAT PUMPS SHALL BE SUPPORTED BY PREFABRICATED SYSTEMS.

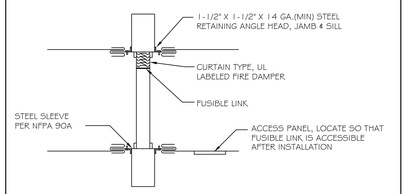
SYSTEM SHALL BE SIZED AND CUSTOM DESIGN BY MANUFACTURER.

PREFABRICATED SYSTEM SHALL BE MODEL HD BY MIRO INDUSTRIES OR EQUIVALENT.

SUPPORTS SHALL BE SPACED 7 INTERVALS SO AS TO ALLOW PROPER INSTALLATION AND OPERATION OF SUPPORTED EQUIPMENT.

FIRE DAMPER (FD) - TYPE A MOUNTING DETAIL

NO SCALE

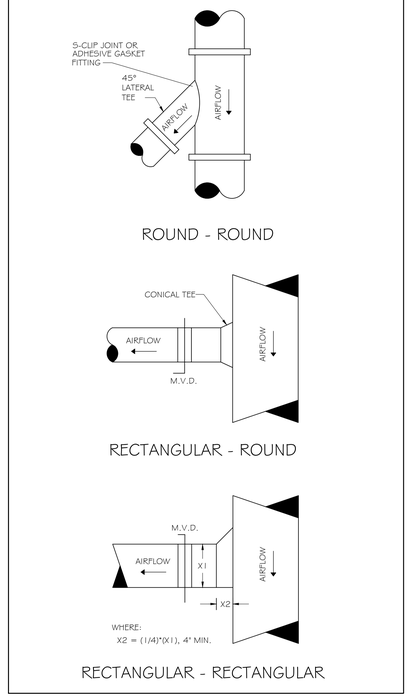


NOTES:

1. FOR AIR TRANSFER ONLY, OMIT DUCT.
2. INSTALL FIRE DAMPER PER MANUFACTURER'S INSTRUCTIONS AS TESTED BY U.L.
3. ALL CONNECTIONS TO DUCT SHALL CONFORM TO UL 555 & NFPA 90A
4. LENGTH OF SLEEVE OR FRAME EXTENDING BEYOND WALL OPENING SHALL NOT EXCEED 6 INCHES ON EACH SIDE (PER U.L. 555)

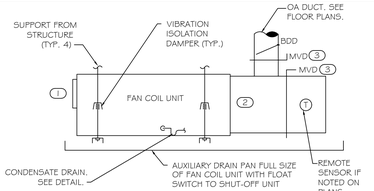
DUCTWORK DETAILS

NO SCALE



HORIZONTAL FAN COIL UNIT DETAIL

NO SCALE

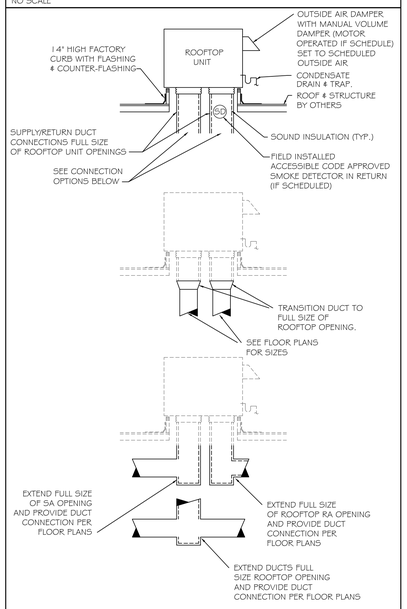


KEY NOTES:

1. SUPPLY AIR DISCHARGE. PROVIDE FLEXIBLE CONNECTION AND TRANSITION TO SUPPLY AIR DUCT SIZE SHOWN ON FLOOR PLANS.
2. RETURN AIR PLENUM FULL SIZE OF RETURN AIR OPENING. SEE FLOOR PLAN(S) FOR DUCT CONNECTIONS.
3. PROVIDE MOTOR OPERATED DAMPERS WHERE ECONOMIZER OR DEMAND VENTILATION IS SCHEDULED.

ROOFTOP UNIT DETAIL

NO SCALE

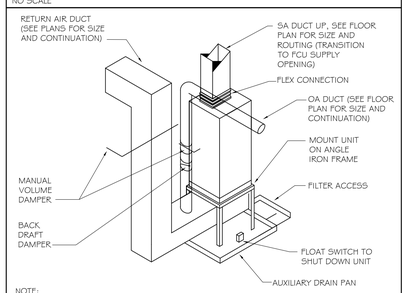


NOTES:

1. REFER TO FLOOR PLANS TO DETERMINE WHICH CONNECTION SHALL BE INSTALLED.
2. COORDINATE EXACT LOCATION OF ROOF OPENING WITH ARCHITECT AND STRUCTURAL.
3. WHERE SUPPLY AIR BY-PASS IS SCHEDULED, PROVIDE BY-PASS IN ROOF CURB WITH MANUAL VOLUME DAMPER ACCESSIBLE FROM ROOF.

VERTICAL FAN COIL UNIT DETAIL

NO SCALE

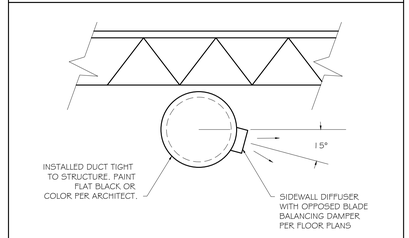


NOTE:

ROUTE PRIMARY CONDENSATE LINE TO HUB DRAIN, SEE PLMB. DWGS.

DIFFUSER DETAIL FOR EXPOSED DUCT

NO SCALE

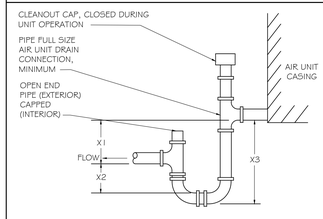


NOTE:

CURVED DIFFUSERS MOUNTED TO SPIRAL ACCEPTABLE ALTERNATIVE.

CONDENSATE TRAP (DRAW THROUGH UNIT)

NO SCALE



WHERE:

X1 =1" PLUS MAXIMUM NEGATIVE STATIC PRESSURE
X2 =HALF OF X1
X3 =X1+X2+PIPE Ø+INSULATION

NOTES:

1. LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING.

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REV #	DATE	DESCRIPTION

SPACE SHOP SELF STORAGE

MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
JOHN PAUL KENNEY
E-77213
REGISTERED
PROFESSIONAL ENGINEER

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ISSUE DATE	08/17/2021
DRAWN BY	NF/NC/DS
CHECKED BY	PK/BA
PMD PROJ #	20052

SHEET TITLE

DETAILS AND COMPLIANCE REPORT

SHEET # **M0.2**

DUCTLESS SPLIT DIRECT EXPANSION (DX) EQUIPMENT

INDOOR UNIT						OUTDOOR UNIT				COMBINED CAPACITIES	
MARK	SERVES	TYPE	MODEL/SERIES	NOMINAL TONS	CFM	MARK	MIN. SEER	MIN. HSPF	MODEL/SERIES	COOLING TOTAL (MBH)	HEATING @ 47°F (MBH)
MFCU-1	ELECTRICAL	WALL-MOUNTED, HEAT PUMP	40MAQB12B--3	1.00	210/300/360/380	MHP-1	22.5	12.0	38MAQB12R--3	12.0	11.8

NOTES (APPLY TO ALL):

A. BASIS OF DESIGN: CARRIER. EQUAL PRODUCTS: DAIKIN, LENNOX, SAMSUNG, LG, SANYO, MITSUBISHI, JCIYORK.
B. SINGLE POWER CONNECTION AT OUTDOOR UNIT. DISCONNECT SWITCHES PROVIDED AT THE INDOOR AND OUTDOOR UNITS BY ELECTRICAL SUBCONTRACTOR. REFER TO THE ELECTRICAL DOCUMENTS.
C. R-410A REFRIGERANT.
D. FACTORY CONDENSATE PUMP OR CONDENSATE LIFT MECHANISM.
E. WALL MOUNTED WIRED REMOTE CONTROLLER.
F. INVERTER DRIVEN COMPRESSOR.
G. MOUNT MHP ON ROOF.
H. REFRIGERANT LINE SET TOTAL EQUIVALENT LENGTH SHALL NOT EXCEED 82 FEET. SHOULD AN ALTERNATE MANUFACTURER BE USED, CONTRACTOR SHALL COMPLY WITH ALTERNATE MANUCAFTURER LINE SET LIMITATIONS.

UNIT HEATER - GAS

MARK	FAN						BASIS OF DESIGN	MAX. WEIGHT (LBS)
	AIRFLOW (CFM)	MOTOR (HP)	MIN. OUTPUT (MBH)	MIN. INPUT (MBH)	GAS TYPE	MIN. EFF.		
UH-1	505	1/15	24.6	30.8	NATURAL	80%	MODINE - HD 30	55.0
UH-2	720	1/15	36.9	46.1	NATURAL	80%	MODINE - HD 45	60.0

NOTES: (APPLICABLE TO ALL)

A. SUPPORT FROM ABOVE WITH VIBRATION ISOLATION DAMPERS
B. THERMOSTAT SET TO MAINTAIN 50° F (ADJUSTABLE).
C. ADJUSTABLE VERTICAL & HORIZONTAL AIR PATTERN DISCHARGE
D. HIGH LIMIT SAFETY CONTROL, DIFFERENTIAL PRESSURE SWITCH FOR PROOF OF VENTING, GAS CONTROL STEP DOWN TRANSFORMER WITH 24V GAS CONTROLS, FAN DELAY TIMER.

DEHUMIDIFIER SCHEDULE

MARK	SERVES	REFRIGERANT	MINIMUM PERFORMANCE		BLOWER		BASIS OF DESIGN MODEL	REMARKS					
			WATER REMOVAL (PINTS / DAY)	EFFICIENCY (PINTS / KWH)	CFM	ESP		1	2	3	4	5	6
DH-A	BASEMENT FCUS	R-410A	205.0	5.7	495	0.2	ULTRA-AIRE XT205H	X	X	X			

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL PLANS FOR POWER CHARACTERISTICS.
B. DESIGN IS BASED ON PRODUCTS BY ULTRA-AIRE. ACCEPTABLE ALTERNATES SHALL BE BY APRILAIRE, LENNOX, HONEYWELL.
C. MINIMUM PERFORMANCE SCHEDULED IS BASED ON 80°F DB , 60% RELATIVE HUMIDITY ENTERING AIR CONDITIONS.

REMARKS (APPLY AS SCHEDULED):

1. MERV-11 FILTER.
2. POWER CORD WITH GROUND.
3. DIGITAL CONTROL.

FAN SCHEDULE

MARK	DUTY	TYPE	CFM	E.S.P. (IN WG)	MOTOR (W / hp)	DRIVE	MAX. NOISE (SONES)	CONTROL BY	BASIS OF DESIGN MODEL	REMARKS					
										1	2	3	4	5	6
EF-A	EXHAUST	CEILING CABINET	70	0.5	100	DIRECT	2.0	SWITCHED WITH LIGHTS	GREENHECK SP	X	X	X			X
EF-1	EXHAUST	ROOF CENTRIFUGAL	1000	0.25	1/6	DIRECT	10.5	TOXIC GAS SENSORS	GREENHECK G	X	X	X	X	X	
EF-2	EXHAUST	ROOF CENTRIFUGAL	70	0.25	1/60	DIRECT	3.6	CONTINUOUS	GREENHECK G	X	X	X	X		
EF-3	EXHAUST	ROOF CENTRIFUGAL	2100	0.25	3/4	DIRECT	15.6	TOXIC GAS SENSORS	GREENHECK G	X	X	X	X	X	
EF-4	EXHAUST	ROOF CENTRIFUGAL	140	0.25	1/6	DIRECT	4.6	CONTINUOUS	GREENHECK G	X	X	X	X		

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL PLANS FOR POWER CHARACTERISTICS
B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY LOREN-COOK, TWIN-CITY, PENN BARRY.

REMARKS (APPLY AS SCHEDULED):

1. FAN SPEED CONTROLLER.
2. FACTORY DISCONNECT SWITCH/PLUG.
3. GRAVITY BACKDRAFT DAMPER.
4. FACTORY INSULATED ROOF CURB.
5. WALL MOUNTED CARBON MONOXIDE & NITROGEN DIOXIDE SENSOR. SENSOR SHALL ENERGIZE FAN WHEN CO LEVELS REACH 25 PPM (ADJ.) OR NO2 LEVELS REACH 5 PPM (ADJ.). SENSOR SHALL INCLUDE AUDIBLE AND VISUAL ALARM TO ALERT OCCUPANTS. CARBON MONIXIDE SENSOR SHALL BE INSTALLED 12 INCHES ABOVE FLOOR LEVEL NITROGEN DIOXIDE SENSOR SHALL BE INSTALLED 1 FOOT BELOW CEILING LEVEL.
6. FACTORY FLOURESCENT LIGHT

DIFFUSER, GRILLE, AND REGISTER SCHEDULE

CALLOUT	DESCRIPTION	FACE SIZE (IN)	INLET SIZE (IN)	NOISE CRITERIA @ MAX CFM	MODEL
RC2424	EGGCRATE GRILLE	24x24	24x24	25	TITUS 50F
RCP06	RETURN CEILING PLAQUE DIFFUSER	24x24	6Ø	25	TITUS OMNI
R5 12 12	EGGCRATE GRILLE	12x12	12x12	25	TITUS 50F
SCP06	SUPPLY CEILING PLAQUE DIFFUSER	24x24	6Ø	25	TITUS OMNI
SCP08	SUPPLY CEILING PLAQUE DIFFUSER	24x24	8Ø	25	TITUS OMNI
SS2412	DOUBLE DEFLECTION SUPPLY	26x14	24x12	25	TITUS 300FS
SSD1808	DRUM LOUVER	20x10	18x8	0	TITUS DL

A. AIR DEVICE (I.E. DIFFUSERS, REGISTERS AND GRILLES) COLOR SELECTION SHALL BE MADE BY ARCHITECT. CONTRACTOR SHALL SUBMIT COLOR/FINISH CHARTS FOR ARCHITECTURAL REVIEW AND SELECTION.
B. THE CONTRACTOR SHALL COORDINATE AIR DEVICE FRAME AND/OR SUSPENSION TYPE WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

ROOFTOP DIRECT EXPANSION (DX) EQUIPMENT

MARK	TOTAL S.A. (CFM)	O.A. (CFM)	E.S.P. (IN WG)	GAS: MINIMUM AFUE%	GAS: MBTU'S HEAT IN	GAS: MBTU'S HEAT OUT	GAS: MIN. STAGES	MIN. SEER *EER	REFR.	CARRIER BASIS OF DESIGN	WEIGHT (LBS.)	NOMINAL TONNAGE	MINIMUM COOLING CAPACITY: TOTAL (MBH)	SENS (MBH)	LAT (MBH)	Ent. Tdb (°F)	Ent. Twb (°F)	Lvg. Tdb (°F)	Lvg. Twb (°F)	REMARKS: 1	2	3	4	5	6	7	8	9
RTU-1	1,600	135	0.50	82%	90	73	1	14.0	R-410a	48FCDA05	543	4.0	46.8	23.5	23.3	69.9	64.9	56.0	55.0	X	X	X	X	X	X			△1
RTU-2	3,000	205	0.50	82%	125	103	1	*11.00	R-410a	48TCDD08	835	7.5	90.1	44.6	45.5	69.5	64.8	55.5	54.5	X	X	X	X	X	X	X		
RTU-3	2,400	150	0.50	82%	130	106	1	*11.00	R-410a	48TCDA07	652	6.0	74.7	36.7	38.1	69.4	64.7	55.0	54.0	X	X	X	X	X	X	X		
RTU-4	1,990	110	0.50	82%	90	73	1	14.1	R-410a	48FCDA06	556	5.0	61.5	30.1	31.4	69.2	64.6	55.0	54.0	X	X	X	X	X	X	X		
RTU-5	3,400	325	0.50	82%	160	148	1	*11.00	R-410a	48TCDD09	930	8.5	100.8	50.8	49.9	70.1	65.1	56.0	55.0	X	X	X	X	X	X	X		
RTU-6	3,000	210	1.50	82%	125	103	2	*11.00	R-410a	48TCDD08	835	7.5	90.2	44.7	45.5	69.5	64.8	55.5	54.5	X	X	X	X	X	X	X		
RTU-7	2,400	225	2.50	82%	130	106	3	*11.00	R-410a	48TCDA07	652	6.0	71.0	35.8	35.2	70.1	65.0	56.0	55.0	X	X	X	X	X	X	X		
RTU-8	1,600	165	3.50	82%	90	73	4	14.0	R-410a	48FCDA05	543	4.0	47.8	24.2	23.7	70.3	65.1	56.0	55.0	X	X	X	X	X	X			△1
RTU-9	1,990	165	4.50	82%	90	73	5	14.1	R-410a	48FCDA06	556	5.0	58.1	29.2	28.9	69.8	64.9	56.0	55.0	X	X	X	X	X	X	X		

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL POWER INFORMATION.
B. SUBMITTED UNIT CAPACITIES SHOULD BE WITHIN +/-10% OF SCHEDULED CAPACITIES.
C. DESIGN IS BASED ON PRODUCTS BY CARRIER. ACCEPTABLE ALTERNATES SHALL BE BY TRANE, LENNOX, DAIKIN, OR JCI. SHOULD AN ALTERNATE MANUFACTURER BE PROVIDED, THE MECHANICAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COORDINATING EQUIPMENTS ELECTRICAL CHARACTERISTICS WITH THE ELECTRICAL CONTRACTOR.
D. ALL UNITS SHALL BE INSTALLED WITH AN ELECTRONIC WATER LEVEL DETECTOR IN THE PRIMARY DRAIN PAN. THE WATER WATER LEVEL DETECTOR SHALL BE INSTALLED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE AND LOWER THAN THE DRAIN PAN OVERFLOW RIM. THE WATER LEVEL DETECTOR SHALL BE WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER.

REMARKS (APPLY AS SCHEDULED):

1. NON POWERED WEATHER PROOF GFCI RECEPTACLE.
2. FACTORY DISCONNECT SWITCH.
3. AIRSIDE ENTHALPY ECONOMIZER WITH MOTORIZED RETURN AND OUTDOOR AIR DAMPERS.
4. POWERED EXHAUST. POWERED EXHAUST SHALL RUN ONLY WHEN UNIT IS IN ECONOMIZER MODE.
5. FACTORY INSULATED ROOF CURB.
6. 2 STAGE COOLING.
7. FIELD PROVIDED AND FIELD INSTALLED SMOKE DETECTOR. SMOKE DETECTOR SHALL BE MOUNTED IN THE RETURN DUCT, UPSTREAM OF THE OUTDOOR AIR INTAKE.

SPLIT DIRECT EXPANSION (DX) EQUIPMENT

MARK	INDOOR UNIT: TOTAL S.A (CFM)	O.A (CFM)	E.S.P. (IN WG)	MOTOR (hp)	AUXILIARY HEATER (kW @ 480v)	WEIGHT (LBS)	BASIS OF DESIGN	OUTDOOR UNIT: MIN. SEER	WEIGHT (LBS)	BASIS OF DESIGN	NOMINAL TONNAGE (TONS)	COMBINED COOLING CAPACITIES: COOLING TOTAL (MBH)	SENS (MBH)	LAT (MBH)	Ent. Tdb (°F)	Ent. Twb (°F)	Lvg. Tdb (°F)	Lvg. Twb (°F)	REMARKS: 1	2	3	4	5	6	7
FCU-1 / HP-1	1,200	95	0.50	1/2	14.4	96.0	RHIT3617STANDA	14.0	171.0	RP143GAD1NA	3.0	34.4	23.2	11.2	76.5	64.9	58.0	55.0	X	X	X	X	X	X	X
FCU-2 / HP-2	1,400	190	0.50	3/4	14.4	128.0	RHIT4821STANDA	14.0	166.0	RP144AD1NA	3.5	42.8	28.6	14.2	77.6	65.5	58.0	55.0	X	X	X	X	X	X	X

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
B. SUBMITTED UNIT CAPACITIES SHOULD BE WITHIN +/-10% OF SCHEDULED CAPACITIES.
C. BASIS OF DESIGN: RHEEM. REFER TO SPECIFICATIONS. ACCEPTABLE ALTERNATES: JCIYORK, TRANE, DAIKIN/MCQUAY, LENNOX, CARRIER
D. ALL EVAPORATORS AND COOLING COILS LOCATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE INSTALLED WITH AN AUXILIARY CONDENSATE DRAIN PAN UNDER THE UNIT. PROVIDE AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT OPON DETECTION OF WATER IN THE AUXILIARY DRAIN PAN.
E. AS AN ALTERNATIVE TO THE AUXILIARY CONDENSATE DRAIN PAN, AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER MAY BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE OR THE EQUIPMENT SUPPLIED DRAIN PAN. THE WATER LEVEL DETECTOR SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.

REMARKS (APPLY AS SCHEDULED):

1. PROGRAMMABLE THERMOSTAT.
2. LOW AMBIENT PACKAGE.
3. DISPOSABLE FILTER.
4. ANTI-SHORT CYCLE TIMER.
5. INDOOR FAN DELAY KIT.
6. DISCONNECT SWITCH PROVIDED BY THE ELECTRICAL SUBCONTRACTOR AT BOTH THE INDOOR AND OUTDOOR UNIT. REFER TO THE ELECTRICAL DOCUMENTS.
7. MOUNT OUTDOOR CONDENSING UNIT ON ROOF

SPLIT DIRECT EXPANSION (DX) EQUIPMENT

MARK	INDOOR UNIT: TOTAL S.A. (CFM)	O.A. (CFM)	E.S.P. (IN WG)	MOTOR (hp)	AUXILIARY HEATER (kW)	WEIGHT (LBS)	BASIS OF DESIGN	OUTDOOR UNIT: MIN. SEER	MIN. HSPF	WEIGHT (LBS)	BASIS OF DESIGN	NOMINAL TONNAGE (TONS)	COMBINED COOLING CAPACITIES: COOLING TOTAL (MBH)	SENS (MBH)	LAT (MBH)	Ent. Tdb (°F)	Ent. Twb (°F)	Lvg. Tdb (°F)	Lvg. Twb (°F)	REMARKS: 1	2	3	4	5	6	7	8
FCU-3 / HP-3	600	25	0.50	1/3 ECM	6.0	112.0	FB4CNF018	14.0	8.2	138.0	25HCE418	1.5	16.4	12.4	4.0	75.8	64.5	56.0	55.0	X		X	X	X	X	X	X
FCU-4 / HP-4	600	20	0.50	1/3 ECM	6.0	112.0	FB4CNF018	14.0	8.2	138.0	25HCE418	1.5	16.3	12.3	4.0	75.6	64.4	56.0	55.0	X		X	X	X	X	X	X

NOTES (APPLY TO ALL):

A. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
B. SUBMITTED UNIT CAPACITIES SHOULD BE WITHIN +/-10% OF SCHEDULED CAPACITIES.
C. BASIS OF DESIGN: CARRIER. REFER TO SPECIFICATIONS. ACCEPTABLE ALTERNATES: JCIYORK, TRANE, DAIKIN/MCQUAY, LENNOX
D. ALL EVAPORATORS AND COOLING COILS LOCATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE INSTALLED WITH AN AUXILIARY CONDENSATE DRAIN PAN UNDER THE UNIT. PROVIDE AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER IN THE AUXILIARY DRAIN PAN.
E. AS AN ALTERNATIVE TO THE AUXILIARY CONDENSATE DRAIN PAN, AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER MAY BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE OR THE EQUIPMENT SUPPLIED DRAIN PAN. THE WATER LEVEL DETECTOR SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.

REMARKS (APPLY AS SCHEDULED):

1. PROGRAMMABLE THERMOSTAT.
2. LOW AMBIENT PACKAGE
3. DISPOSABLE FILTER.
4. ANTI-SHORT CYCLE TIMER.
5. INDOOR FAN DELAY KIT.
6. DISCONNECT SWITCH PROVIDED BY ELECTRICAL SUBCONTRACTOR AT BOTH THE INDOOR AND OUTDOOR UNIT. REFER TO THE ELECTRICAL DOCUMENTS.
7. MOUNT OUTDOOR HEAT PUMP ON ROOF
8. PROVIDE RAWAL DEVICE, MODEL APR-410-1, FOR PART LOAD CONTROL.

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PROJECT # 121425

REV #	DATE	DESCRIPTION
01	09-17-21	PERMIT COMMENTS

the SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2400 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
JOHN PAUL KENNEY
E-77213
REGISTERED
PROFESSIONAL ENGINEER

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ISSUE DATE	08/17/2021
DRAWN BY	NF/MC/DB
CHECKED BY	PK/BA
PMD PROJ #	20052

SHEET TITLE
SCHEDULES

SHEET #
M0.3

GENERAL NOTES

A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.

B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER. GENERAL CONTRACTOR SHALL COORDINATE AND FIELD VERIFY ALL PROPOSED LOCATIONS OF SPRINKLER PIPING, LIGHT FIXTURES, AND OTHER EQUIPMENT PRIOR TO HVAC INSTALLATION. ALL CONFLICTS SHALL BE REPORTED TO THE OWNER AND DESIGNER IMMEDIATELY UPON DISCOVERY FOR CLARIFICATION PRIOR TO PROCEEDING WITH ASSOCIATED WORK.

C. DEMOLISH AND REMOVE FROM SITE EXISTING ROOFTOP UNITS AND ALL ASSOCIATED DUCTWORK AND DIFFUSERS. SEAL EXISTING ROOF OPENINGS WEATHERTIGHT.

D. STORAGE FCUs SHALL BE HELD AS HIGH AS POSSIBLE. BOTTOM OF DUCT SHALL BE MINIMUM 9'-4" ABOVE FINISHED FLOOR. OWNER REQUESTS GENERAL CONTRACTOR TO COORDINATE SPRINKLER PIPING TO ROUTE AROUND FCUs AND DUCTWORK WHENEVER POSSIBLE TO MAXIMIZE INSTALLED HEIGHT OF HVAC EQUIPMENT..

E. THERMOSTATS FOR STORAGE FCUs SHALL BE PASSWORD PROTECTED AND HAVE AUTO CHANGE-OVER. INSTALL THERMOSTATS IN TAMPER PROOF CAGES.

F. TRAP AND ROUTE 1" CONDENSATE DRAIN LINE TO SPLASH BLOCK ON GRADE FOR EACH FCU & MFCU. COORDINATE TERMINATION LOCATION SO THAT IT DOES NOT CREATE A NUISANCE.

KEYNOTES

(1) OUTSIDE AIR DUCT TO EXTERIOR WALL CAP WITH INTEGRAL BACKDRAFT DAMPER AND INSECT SCREEN. WALL CAP COLOR AND FINISH SHALL BE SELECTED BY ARCHITECT.

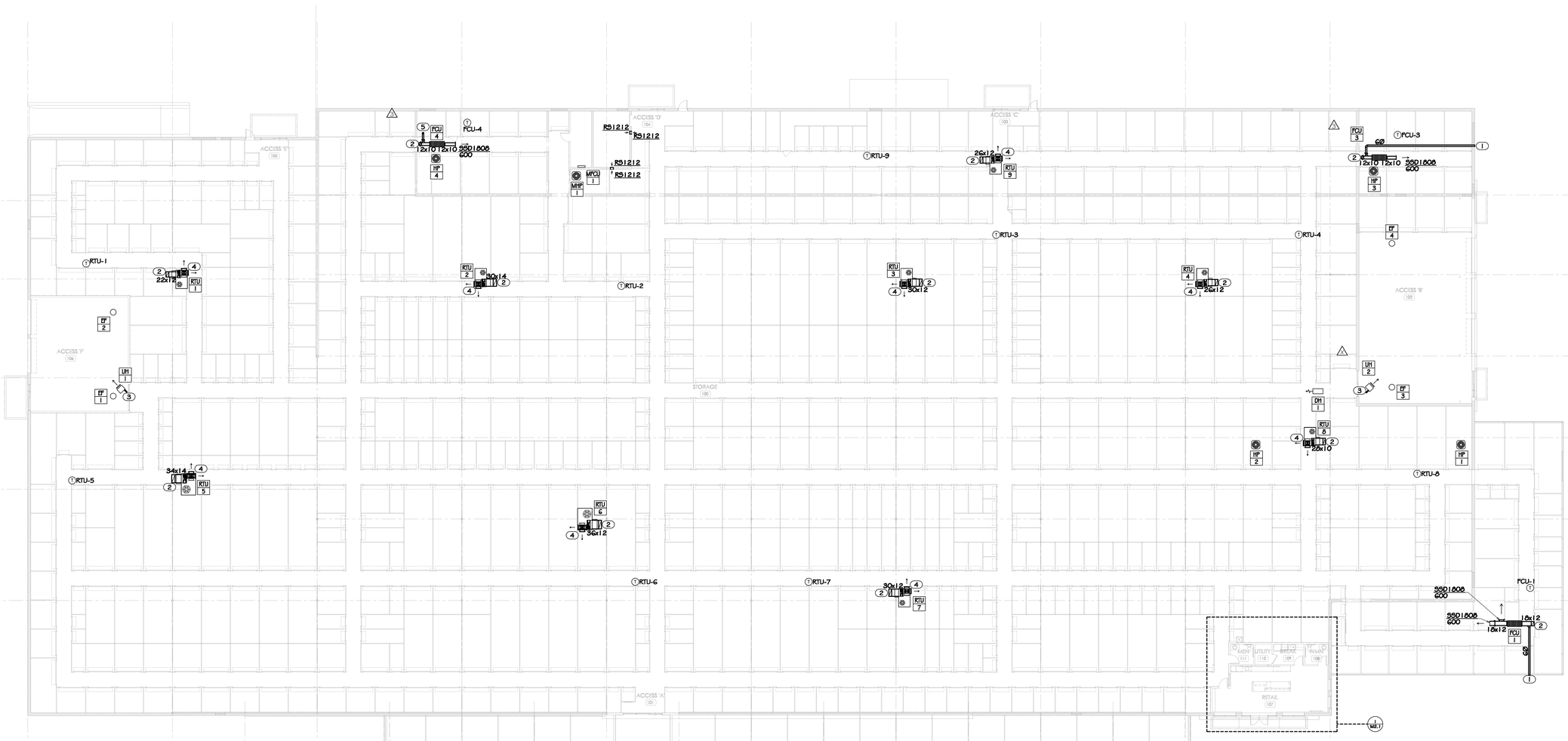
(2) ELBOW RETURN DUCT UPWARDS AND TERMINATE OPEN ENDED WITH WIRE MESH.

(3) TERMINATE VENT THROUGH ROOF IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

(4) PROVIDE DROP BOX. REFER TO DETAIL FOR MORE INFORMATION.

(5) ROUTE OUTSIDE AIR DUCT UP TO ROOF CAP WITH INSECT SCREEN.

REV #	DATE	DESCRIPTION
01	09-17-21	PERMIT COMMENTS
03	10-21-21	PERMIT COMMENTS
04	11-12-21	REVISION 04
05	02-14-22	REVISION 05



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

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PROJECT # 121425

the SPACE SHOP SELF STORAGE

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SHEET TITLE

FLOOR PLAN

SHEET #

M1.1

GENERAL NOTES

A. EACH SUPPLY DIFFUSER/REGISTER RUNOUT SHALL BE PROVIDED WITH A VOLUME DAMPER. REFER TO THE DIFFUSER TAKE-OFF DETAIL FOR ADDITIONAL INFORMATION.

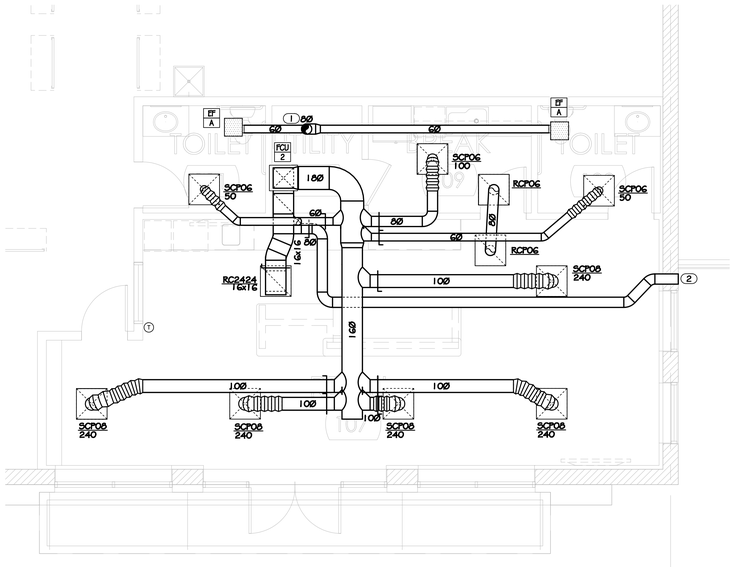
B. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC. SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE OWNER.

C. TRAP AND ROUTE 1" CONDENSATE DRAIN LINE TO SPLASH BLOCK ON GRADE FOR EACH FCU & MFCU. COORDINATE TERMINATION LOCATION SO THAT IT DOES NOT CREATE A NUISANCE.

KEYNOTES

(1) COMBINE (2) 6"Ø EXHAUST DUCTS INTO (1)8"Ø AND CONTINUE TO EXTERIOR ROOF CAP WITH INSECT SCREEN.

(2) OUTSIDE AIR DUCT TO EXTERIOR WALL CAP WITH INTEGRAL BACKDRAFT DAMPER AND INSECT SCREEN. WALL CAP COLOR AND FINISH SHALL BE SELECTED BY ARCHITECT.



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

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SHEET TITLE

ENLARGED FLOOR PLAN

SHEET #

M2.1

FIRE PROTECTION SPECIFICATIONS

EXISTING SPRINKLER SYSTEM SHALL BE MODIFIED AS NECESSARY TO COORDINATE WITH NEW CEILINGS, WALLS AND ARCHITECTURAL FEATURES SUCH AS SOFFITS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, CONNECTIONS AND ANY OTHER FEES ASSOCIATED WITH THE INSTALLATION OF THE FIRE PROTECTION SYSTEM.

THE CONTRACTOR SHALL FULLY COORDINATE ALL PHASES OF WORK WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO AND DURING THE COURSE OF THE INSTALLATION IN ITS ENTIRETY. PIPING INSTALLATION AND THE PLACEMENT OF SPRINKLER HEADS AND SYSTEM DEVICES MUST BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN, MECHANICAL DUCTWORK AND EQUIPMENT, ELECTRICAL CONDUIT AND DEVICES, PLUMBING PIPING, AND THE STRUCTURAL CONSTRAINTS OF THE BUILDING.

ALL ELEMENTS OF THE FIRE PROTECTION SYSTEM SHALL BE U.L. LISTED. ALL ELEMENTS OF THE FIRE PROTECTION SYSTEM SHALL CONFORM TO REQUIREMENTS OF THE FOLLOWING, AS APPLICABLE: NFPA 13, 14, 20 AND 24; ALL LOCAL, COUNTY AND STATE REGULATIONS; LOCAL FIRE MARSHAL; OWNERS INSURANCE UNDERWRITER.

WET TYPE PENDENT SPRINKLERS SHALL BE INSTALLED IN ALL AREAS, UNLESS OTHERWISE NOTED. INSTALL UPRIGHT SPRINKLERS IN AREAS WITH UNFINISHED CEILINGS. PENDENT-TYPE SEMI-RECESSED OR CONCEALED SPRINKLERS SHALL BE INSTALLED IN FINISHED CEILINGS. INSTALL SIDEWALL SPRINKLERS AS NEEDED FOR FULL COVERAGE. PROVIDE SPRINKLERS BY RELIABLE, VIKING OR TYCO.

ALL AREAS OF THE BUILDING SHALL BE COMPLETELY SPRINKLERED USING THE APPROPRIATE SPRINKLER HEADS, INCLUDING STAIRWELLS (AT TOP AND BELOW THE LOWEST LANDING), TELEPHONE ROOMS, ELECTRICAL ROOMS, ELEVATOR SHAFTS, ELEVATOR MACHINE ROOMS, AND LAUNDRY CHUTES. SPRINKLER PIPING MAY EXTEND INTO, BUT NOT PASS THROUGH, THESE AREAS.

ANY DISCREPANCIES ENCOUNTERED BY THE CONTRACTOR IN THE REPRESENTATION OF THESE DRAWINGS OR SPECIFICATIONS SHALL IMMEDIATELY BE COORDINATED WITH THE ARCHITECT.

SPRINKLER SPACING SHALL BE NO MORE THAN 15' (225 SQFT PER HEAD MAXIMUM FOR LIGHT HAZARD AND 130 SQFT PER HEAD MAXIMUM FOR ORDINARY HAZARD). SYSTEM TO BE HYDRAULICALLY CALCULATED ACCORDING TO THE FOLLOWING: LIGHT HAZARD OCCUPANCIES (I.E. PUBLIC SPACES, OFFICES, RESTAURANT SEATING AREAS, GUESTROOMS), 0.10 GPM PER SQUARE FOOT OVER THE HYDRAULICALLY MOST REMOTE 1,500 SQUARE FEET WITH A 100 GPM HOSE ALLOWANCE. ORDINARY HAZARD GROUP 1 (I.E. MECHANICAL ROOMS, COMMERCIAL LAUNDRIES, GARAGES, FOOD SERVICE AREAS), 0.15 GPM PER SQUARE FOOT OVER THE HYDRAULICALLY MOST REMOTE 1,500 SQUARE FEET WITH A 250 GPM HOSE ALLOWANCE.

PIPE PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS SHALL HAVE EQUIVALENTLY RATED SLEEVES AND SHALL BE SEALED AND FIRE CAULKED WITH A U.L. LISTED FIRE STOPPING SYSTEM INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LISTED DETAILS AND SPECIFICATIONS.

FIELD VERIFY THERE IS AN EXISTING ALARM TEST CONNECTION (INSPECTORS TEST CONNECTION) FOR EACH SPRINKLER ZONE, NOT LESS THAN 1" DIA. IN ACCORDANCE WITH NFPA 13, 16.14.1.1, AND INSTALL AS NECESSARY.

AS APPLICABLE, COORDINATE WITH ELECTRICAL CONTRACTOR FOR WIRING OF DEVICES REQUIRING INTERLOCK TO THE FIRE ALARM SYSTEM, SUCH AS TAMPER SWITCHES AND FLOW SWITCHES.

FIELD VERIFY THERE IS AN EXISTING REMOTE SYSTEM DRAIN. PROVIDE NEW AS NECESSARY & COORDINATE EXACT LOCATION WITH ARCHITECT.

A CABINET SHALL BE PROVIDED CONTAINING A SUPPLY OF AT LEAST SIX SPARE SPRINKLERS (OF EACH INSTALLED TYPE) IN AN AREA THAT WILL AT NO TIME EXCEED 100°F. A LIST OF INSTALLED SPRINKLERS SHALL BE POSTED IN THE CABINET.

FIRE PROTECTION PIPING LOCATED IN NON-HEATED SPACES SHALL BE PROTECTED FROM FREEZING. FIRE PROTECTION SHOP DRAWINGS SHALL INCLUDE ALL NECESSARY FREEZE PROTECTION.

WHERE A DRY PIPE SPRINKLER SYSTEM IS PROVIDED, THE AIR COMPRESSOR SHALL BE BY VIKING CORPORATION OR GENERAL AIR PRODUCTS (OR EQUAL) AND LISTED FOR FIRE PROTECTION USE.

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE	IMB	ICE MACHINE BOX
A/C	ABOVE CEILING	IE	INVERT ELEVATION
A/F	ABOVE FLOOR	IWH	INSTANTANEOUS WATER HEATER
AFF, A/FG	ABOVE FINISHED FLOOR/GRADE	L, LAV	LAVATORY
B/F, B/G	BELOW FLOOR/GRADE	MBH	1000 BTU/HR
BFP	BACKFLOW PREVENTER	MS	MOP SINK
CD	CONDENSATE DRAIN	MV	MIXING VALVE
CONT	CONTINUATION	O/H	OVERHEAD
CW	COLD WATER	G	NATURAL GAS
DN	DOWN	PD	PUMPED DISCHARGE
ET	EXPANSION TANK	PRV	PRESSURE REDUCING VALVE
EWC	ELECTRIC WATER COOLER	RP	RECIRCULATION PUMP
ex.	EXISTING	S, SAN	SANITARY
FCO	FLOOR CLEANOUT	SH	SHOWER
FD	FLOOR DRAIN	SK	SINK
FHB	FREEZEPROOF HOSE BIBB	TP	TRAP PRIMER
FS	FLOOR SINK	TYP	TYPICAL
FRH	FREEZEPROOF ROOF HYDRANT	UR	URINAL
FWH	FREEZEPROOF WALL HYDRANT	V	VENT
GCO	GRADE CLEANOUT	VTR	VENT THROUGH ROOF
GI	GREASE INTERCEPTOR	WC	WATER CLOSET
HB	HOSE BIBB	W.C.	WATER COLUMN
HD	HUB DRAIN	WCO	WALL CLEANOUT
HW	HOT WATER	WHA	WATER HAMMER ARRESTER
HWR	HOT WATER RETURN	WMB	WASHING MACHINE BOX

LEGEND

— - - — - - —	COLD WATER PIPE
— - - — - - —	HOT WATER PIPE
— - - — - - —	HOT WATER RETURN PIPE
——— S ———	SANITARY PIPE
- - - - - - - -	VENT PIPE
——— G ———	NATURAL GAS PIPE
——— GW ———	GREASE WASTE PIPE
——— F ———	FIRE SPRINKLER PIPE
——— ST ———	STORM PIPE
——— EST ———	EMERGENCY STORM PIPE
——— IW ———	INDIRECT WASTE PIPE
——— PD ———	PUMPED DISCHARGE
——— FW ———	FILTERED WATER PIPE
	PIPE UP / PIPE DOWN
	PIPE TEE FROM TOP / TEE FROM BOTTOM
	PIPE CAP / PIPE CONTINUATION
	DIRECTIONAL FLOW ARROW
	BALL VALVE / CHECK VALVE
	MIXING VALVE / PRESSURE REDUCING VALVE
	BACKFLOW PREVENTER ASSEMBLY
	WALL HYDRANT / HOSE BIBB
	FLOOR DRAIN / FLOOR SINK
	WATER HAMMER ARRESTOR
	GAS COCK / GAS SOLENOID VALVE
oc	P-TRAP
@c	HUB DRAIN
	TRAP PRIMER
⊙	FLOOR CLEANOUT / GRADE CLEANOUT
⊗	VENT THROUGH ROOF
	PIPE CLEANOUT / WALL CLEANOUT

SPECIFICATIONS

GENERAL
ALL WORK SHALL COMPLY WITH ALL STATE, CITY AND LOCAL CODES, RULES AND REGULATIONS. CONTRACTOR SHALL SECURE ALL REQUIRED PERMITS AND INSPECTIONS ASSOCIATED WITH THIS WORK, AND SHALL PAY ALL COSTS AND FEES INVOLVED.

ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE BEST RECOGNIZED PRACTICE IN THE FIELD CONCERNED. MANUFACTURED ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED DIRECTIONS, SPECIFICATIONS AND RECOMMENDATIONS.

CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR EQUIPMENT INSTALLATION PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS. ALL EQUIPMENT AND DEVICES SHALL BE INSTALLED SUCH THAT THEY ARE EASILY ACCESSIBLE AND SERVICABLE. THIS EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: PLUMBING FIXTURES, WATER HEATERS, EXPANSION TANKS, PUMPS, BACKFLOW PREVENTERS, VALVES, MIXING VALVES, THERMOMETERS, GAUGES, TRAP PRIMERS AND CLEANOUTS.

THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE FULL SET OF CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL & ELECTRICAL DRAWINGS (AS APPLICABLE) TO ENSURE ALL PLUMBING WORK IS COORDINATED WITH PHYSICAL CONDITIONS AND ALL OTHER TRADES.

THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE ARCHITECTURAL DRAWINGS TO ENSURE THERE IS ADEQUATE WALL THICKNESS SUCH THAT ALL PIPING, FIXTURE CARRIERS, WALL CLEANOUTS, WALL BOXES, WALL HYDRANTS AND ACCESS PANELS WILL FIT IN THE WALL SPACE. CONTRACTOR SHALL NOTIFY THE ARCHITECT IF WALL SPACE IS INADEQUATE PRIOR TO COMMENCING WORK.

THE CONTRACTOR SHALL OBTAIN EXACT WALL, FIXTURE, AND LAYOUT DIMENSIONS FROM THE ARCHITECTURAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ROUGH-IN AND INSTALLATION DRAWINGS FOR ALL PLUMBING FIXTURES, KITCHEN EQUIPMENT AND OWNER FURNISHED EQUIPMENT (AS APPLICABLE), AND SHALL COORDINATE THE PLUMBING INSTALLATION PRIOR TO COMMENCING THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL NECESSARY VALVES, CONNECTIONS, TRAPS, ACCESS PANELS, UNIONS, ESCUTCHEONS, WATER HAMMER ARRESTORS, VACUUM BREAKERS, RELIEF VALVES, PIPE INSULATION, AND EQUIPMENT SPECIALTY DEVICES AS REQUIRED TO FACILITATE COMPLETE AND OPERATIONAL CONDITIONS WHICH ARE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

THESE DRAWINGS ARE DIAGRAMMATIC AND DO NOT REFLECT ALL POSSIBLE PHYSICAL CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND EXACT LOCATIONS OF EQUIPMENT AND FIXTURES. PROVIDE NECESSARY PIPING OFFSETS TO COORDINATE WITH THE BUILDING STRUCTURE, WORK OF OTHER TRADES, AND CONNECTION TO SITE UTILITIES (AS APPLICABLE).

COORDINATE THE ELECTRICAL REQUIREMENTS AND CHARACTERISTICS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ISSUING SUBMITTALS OR PURCHASING EQUIPMENT.

UNLESS NOTED OTHERWISE, ALL DRAINAGE PIPING SHALL BE SLOPED AT A MINIMUM OF ¼" PER FOOT. 2" SANITARY PIPING AND ALL GREASE WASTE PIPING SHALL BE SLOPED AT ½" PER FOOT.

DOMESTIC WATER PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.

ALL DOMESTIC WATER PIPING, SANITARY P-TRAPS AND GREASE WASTE PIPING SUBJECT TO FREEZING SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. CONDENSATE PIPING SUBJECT TO FREEZING WITHIN WALK-IN FREEZERS SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. PIPING INSTALLED IN EXTERIOR WALLS SHALL BE WRAPPED IN 1" THICK PIPE INSULATION AND BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING INSULATION. IF INSTALLED IN EXTERIOR BLOCK WALLS, INTERSTITIAL SPACES SHALL BE FILLED WITH FOAM INSULATION.

IN CONCEALED LOCATIONS WHERE PIPING, OTHER THAN CAST-IRON OR GALVANIZED STEEL, IS INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, OR SIMILAR MEMBERS LESS THAN 1½" FROM THE NEAREST EDGE OF MEMBER, PIPE SHALL BE PROTECTED BY STEEL SHIELD PLATES IN ACCORDANCE WITH IPC 305.6.

PIPE PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS SHALL HAVE EQUIVALENTLY RATED SLEEVES AND SHALL BE SEALED AND FIRE CAULKED WITH A U.L. LISTED FIRE STOPPING SYSTEM INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LISTED DETAILS AND SPECIFICATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE REQUIREMENTS OF THE COUNTY HEALTH DEPARTMENT AND OTHER LOCAL AUTHORITIES HAVING JURISDICTION REGARDING GREASE CONNECTION CONTROL OR OBTAINING A FOOD SERVICE PERMIT (AS APPLICABLE). REPORT ANY OBSERVED DISCREPANCIES TO THE ARCHITECT OR ENGINEER PRIOR TO COMMENCING WITH THE WORK.

CONTRACTOR SHALL CONFIRM PLUMBING FIXTURE FINISHES WITH THE ARCHITECTURAL SCHEDULES & DETAILS (AS APPLICABLE).

SUBMITTALS
FURNISH SHOP DRAWINGS FOR MANUFACTURED PRODUCTS. ALL ITEMS SHALL BE CLEARLY MARKED TO MATCH EQUIPMENT MARKS ON THE PLUMBING DRAWINGS. ALL OPTIONS MUST BE CLEARLY MARKED ON THE SUBMITTAL SHEET. A MODEL NUMBER LISTING ON A COVER SHEET IS NOT AN ACCEPTABLE SUBSTITUTE FOR MARKING THE ACTUAL SUBMITTAL SHEET. ELECTRICAL DATA FOR POWERED EQUIPMENT MUST BE INDICATED ON THE SUBMITTAL SHEET FOR THAT ITEM.

ALL ITEMS MUST BE SUBMITTED IN ONE PACKAGE AT THE SAME TIME, IN ELECTRONIC PDF FORMAT. SEPARATE SUBMITTALS FOR FIXTURES AND EQUIPMENT IS NOT ACCEPTABLE.

SUBMITTAL REVIEW IS CONSIDERED A GENERAL ACCEPTANCE OF THE BASIC APPLICABILITY OF THE EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND/OR ALTERNATE ARRANGEMENT OF THE EQUIPMENT WITHIN A GIVEN SPACE. WHEN SUBSTITUTED EQUIPMENT IS INSTALLED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION OR ADDITIONAL COST BROUGHT ON BY THE USE OF THIS EQUIPMENT.

HANGERS AND SUPPORTS
HANGERS SHALL BE COMPLETE WITH RODS AND SUPPORTS PROPORTIONED TO THE SIZE OF PIPE TO BE SUPPORTED, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SIZE HANGERS FOR INSULATED PIPING TO BEAR ON OUTSIDE OF INSULATION. PROVIDE INSULATION PROTECTORS AT HANGERS BEARING ON THE OUTSIDE OF INSULATION. PROVIDE A RIGID INSERT OR RIGID INSULATION AT EACH INSULATION PROTECTOR.

WHERE SEVERAL PIPES 2½" AND SMALLER RUN PARALLEL AND IN THE SAME PLANE, THEY MAY BE SUPPORTED ON GANG OR MULTIPLE HANGERS. LARGER PIPING SHALL BE INDEPENDENTLY HUNG, RUN PARALLEL AND BE EQUALLY SPACED.

PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH IPC SECTION 308, AND SPACING OF HANGERS SHALL NOT EXCEED THE LIMITS SET FORTH IN TABLE 308.5. PIPES SHALL BE SUPPORTED WITHIN 1'-0" OF EACH ELBOW.

VERTICAL PIPE SUBJECT TO MOVEMENT SHALL BE SUPPORTED FROM THE WALL BY MEANS OF A PIPE CLAMP.

SUPPORT DOMESTIC WATER PIPING IN SPACES BEHIND PLUMBING FIXTURES BY BRACKETS AND U-BOLTS SECURED TO WASTE AND VENT STACKS. SIZE U-BOLTS TO BEAR ON THE PIPING.

AFTER HANGER RODS ARE INSTALLED IN FINISHED CONCRETE CEILING, FILL THE REMAINING OPENING WITH CEMENT SO THAT NO HOLE SHOWS AT THE CEILING.

WHERE COPPER PIPING IS USED, NONFERROUS METAL SUPPORT(S) OR PROPER ISOLATION BETWEEN DISSIMILAR MATERIALS SHALL BE PROVIDED.

PIPE HANGERS AND SUPPORTS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS SET FORTH IN MANUFACTURER'S STANDARDIZATION SOCIETY STANDARD PRACTICES NO. SP-69 AND SP-58.

SLEEVES
SLEEVES SHALL BE PROVIDED WHERE PIPES PASS THROUGH WALLS, FLOORS AND ROOFS.
PROVIDE STANDARD WEIGHT STEEL SLEEVES IN CONCRETE AND MASONRY CONSTRUCTION, PROVIDE 26GA GALVANIZED SHEET METAL SLEEVES IN INTERIOR DRYWALL CONSTRUCTION. SLEEVES SHALL BE THE FULL THICKNESS OF WALLS AND SHALL ALLOW FOR THE FULL THICKNESS OF PIPE INSULATION, WHERE APPLICABLE.

SLEEVES MAY BE OMITTED WHEN OPENINGS ARE CORE DRILLED FOR CONCEALED VERTICAL AND HORIZONTAL PIPING. SLEEVES ARE NOT REQUIRED AT INDIVIDUAL PLUMBING FIXTURES OR IN CONCRETE FLOOR SLABS ON GRADE, UNLESS OTHERWISE NOTED.

SLEEVES FOR ALL PIPING PENETRATING FIRE RATED WALLS AND FLOORS SHALL BE PROVIDED WITH 3M PIPE BARRIER NO. CP-25 FIRE PROOFING CAULKING, OR EQUAL, IN ANNULAR SPACE BETWEEN SLEEVE AND PIPING. CONTRACTOR SHALL VERIFY THE RATING OF THE WALL AND CONFIRM THE PENETRATION PROTECTION PROVIDED MEETS THAT RATING.

PENETRATIONS THROUGH OUTSIDE WALLS SHALL BE WATERTIGHT. CAULK BETWEEN PLUMBING PIPE AND SLEEVE. PACK WITH FIBERGLASS AND CAULK, 1" DEEP AT EACH FACE WITH NON-HARDENING SEALANT BETWEEN PIPE AND SLEEVE.

WASTE AND VENT PIPING SYSTEMS AND ACCESSORIES
SANITARY PIPING SHALL BE PVC SCHEDULE 40 SOLID WALL PIPE AND DWV FITTING SYSTEM.

PIPE AND FITTINGS SHALL BE MANUFACTURED FROM PVC COMPOUND WITH A CELL CLASS OF 12454 PER ASTM D-1784 AND CONFORM WITH NATIONAL SANITATION FOUNDATION (NSF) STANDARD 14. PIPE SHALL BE IRON PIPE SIZE (IPS) CONFORMING TO ASTM D-1785 AND ASTM D-2665. INJECTION MOLDED FITTINGS SHALL CONFORM TO ASTM D-2665. FABRICATED FITTINGS SHALL CONFORM TO ASTM F-1866. SOLVENT CEMENTS SHALL CONFORM TO ASTM D-2564. PRIMER SHALL CONFORM TO ASTM F-656. BURIED PIPE SHALL CONFORM TO ASTM D-2321.

WASTE AND VENT PIPING SHALL BE TESTED IN ACCORDANCE WITH THE GOVERNING CODES. AT A MINIMUM, WASTE PIPING SHALL BE TESTED WITH AT LEAST 10 FOOT OF WATER HEAD PRESSURE APPLIED.

ALL VENTS THROUGH ROOF SHALL BE LOCATED AT LEAST 10'-0" AWAY FROM ANY AIR INTAKE, EVAPORATIVE COOLER, OR ANY OTHER DEVICE THAT WOULD DRAW AIR FROM THE VENT. FLASH AROUND ALL PIPES PENETRATING THROUGH ROOF WITH STANDARD MANUFACTURED FLASHINGS. FLASHING SHALL BE SHEET METAL WITH RUBBER GASKETS AND SHALL EXTEND INTO ROOFING AND UP PIPE DISTANCES IN ACCORDANCE WITH THE LOCAL CODE.

NO DOUBLE COMBINATION FITTINGS MAY BE UTILIZED IN THE HORIZONTAL.

SPECIFICATIONS

WASTE AND VENT PIPING SYSTEMS AND ACCESSORIES (CONTD)
WHERE TWO HORIZONTAL PIPES (BACK-TO-BACK WATER CLOSETS OR TWO SANITARY BRANCHES) COMBINE IN THE VERTICAL, A DOUBLE COMBINATION WYE EIGHTH BEND FITTING SHALL BE INSTALLED. DOUBLE SANITARY TEE OR SANITARY CROSS IS NOT ACCEPTABLE.

WHERE DRAWINGS REQUIRE CONNECTION TO EXISTING SANITARY SEWER PIPING IN BUILDING, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD DETERMINE EXACT LOCATION, DEPTH AND DIRECTION OF FLOW PRIOR TO COMMENCING WORK. CONTRACTOR SHALL ALERT ARCHITECT/ENGINEER IF THERE IS A POTENTIAL ISSUE MAINTAINING PROPER SLOPE IN CONNECTING TO EXISTING, OR IF THERE IS A MORE DIRECT CONNECTION POSSIBLE. CONTRACTOR SHALL CONFIRM THAT ANY EXISTING PIPING TO BE REUSED IS CLEAN, FREE OF DEFECTS, ADEQUATELY SLOPED (¼"/FT MINIMUM) AND THAT THERE ARE NO DIPS THAT COULD HOLD WATER. PROVIDE CAMERA SCOPING TO DOCUMENT THIS INFORMATION. CONTRACTOR SHALL ALERT ARCHITECT/ENGINEER OF ANY DEFICIENCIES.

DOMESTIC WATER SYSTEMS AND ACCESSORIES
WATER PIPING ABOVE SLAB: TYPE 'L' HARD DRAWN COPPER TUBING, ASTM B88, WROUGHT SOLDER JOINTS, ANSI B16.22.

WATER PIPING BELOW SLAB: TYPE 'K' SOFT DRAWN COPPER TUBING, WITH NO JOINTS BELOW SLAB, ASTM B88.

ALL DOMESTIC HOT WATER PIPING SHALL HAVE A MINIMUM PRESSURE RATING OF 100PSI AT 180°F.

DOMESTIC WATER PIPING SHALL BE TESTED IN ACCORDANCE WITH ALL GOVERNING CODES. PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.

BALL VALVES SHALL BE TWO-PIECE BRONZE BODY, LARGE PORT WITH SOLID, SMOOTH BORE CHROME PLATED BRASS BALL. SEATS SHALL BE REINFORCED TFE WITH TEFLON PACKING RING AND THREADED ADJUSTABLE PACKING NUT. PROVIDE STEM EXTENSION AS NEEDED TO PROVIDE HANDLE ON OUTSIDE OF PIPE INSULATION. VALVES SHALL BE APOLLO 70 OR EQUAL.

BACKFLOW PREVENTERS SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS FOR EASE OF TESTING AND SERVICING. FOR BACKFLOW PREVENTERS WITH VENT CONNECTIONS, ROUTE VENT LINE TO NEAREST DRAIN AND DISCHARGE WITH AIR GAP. BACKFLOW PREVENTERS SHALL BE TESTED IN ACCORDANCE WITH IPC 312.10.2. CONTRACTOR SHALL PROVIDE CERTIFICATIONS THAT STATE DEVICES HAVE BEEN TESTED AND APPROVED.

THERMOMETERS SHALL BE 9" ADJUSTABLE ANGLE, 30°-180°F RANGE (TRERICE BX9 OR EQUAL). PRESSURE GAUGES SHALL BE 4½" DIAL SIZE, 0-100PSI (TRERICE 600CB OR EQUAL).

CONTRACTOR SHALL FIELD VERIFY INCOMING DOMESTIC WATER PRESSURE TO CONFIRM ADEQUATE PRESSURE TO SERVE THE DOMESTIC WATER SYSTEM. CONTRACTOR SHALL ALERT ENGINEER TO A POTENTIAL LOW PRESSURE CONDITION. WHERE PRESSURE EXCEEDS 80PSI, PROVIDE PRESSURE REGULATING VALVE (WATTS LF223) AND UPSTREAM STRAINER (WATTS LSF777).

CONTRACTOR SHALL FIELD COORDINATE LOCATION OF ACCESSIBLE ISOLATION VALVES ON DOMESTIC HOT & COLD WATER SUPPLIES TO FIXTURES OR GROUPS OF FIXTURES SUCH THAT THEY MAY BE SHUT OFF FOR SERVICING. SERVICE AND HOSE BIBB VALVES SHALL BE IDENTIFIED. ALL OTHER VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE(S) SHALL BE IDENTIFIED, INDICATING THE FIXTURE(S) SERVED.

RETURN AIR PLENUMS
ALL EXPOSED MATERIALS WITHIN RETURN AIR PLENUMS SHALL BE NONCOMBUSTIBLE OR HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50, AS DETERMINED IN ACCORDANCE WITH ASTM E84/UL723. COPPER AND CAST IRON PIPING IS APPROVED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL RETURN AIR PLENUM LOCATIONS WITH THE MECHANICAL CONTRACTOR.

INSULATION
INSULATE ALL DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING IN ACCORDANCE WITH IECC TABLE C403.2.10. PIPE UP TO 1¼": 1" THICK INSULATION. PIPE 1½" OR LARGER: 1½" THICK INSULATION

INSULATE ALL HORIZONTAL COLD WATER PIPING LOCATED ABOVE CEILING, VERTICAL PIPING LOCATED IN AN EXTERIOR WALL, EXPOSED PIPING (I.E. MECH ROOMS). PIPE UP TO 1"-½" THICK. PIPING 1½" AND OVER: 1" THICK INSULATION. ALL WATER AND DRAINAGE PIPING INSTALLED IN EXTERIOR WALLS SHALL BE WRAPPED IN 1" THICK PIPE INSULATION AND BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING INSULATION. IF INSTALLED IN EXTERIOR BLOCK WALLS, INTERSTITIAL SPACES SHALL BE FILLED WITH FOAM INSULATION.

ALL JOINTS SHALL BE SEALED WITH MATCHING VAPOR BARRIER TAPE.

INSULATION SHALL HAVE A K-FACTOR (AVERAGE THERMAL CONDUCTIVITY) NOT TO EXCEED 0.27 BTU-IN/HR x SQFT x °F.

PROTECTION OF PIPING
PIPING PASSING UNDER FOOTINGS OR THROUGH FOUNDATION WALLS SHALL BE PROVIDED WITH A SLEEVE TWICE THE DIAMETER OF THE PIPE. OPEN ENDS OF SLEEVES SHALL BE SEALED. PIPING PASSING THROUGH CONCRETE OR CINDER WALLS AND FLOORS OR OTHER CORROSIVE MATERIAL SHALL BE PROTECTED IN ACCORDANCE WITH IPC 305.1. ALL PIPING INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, RAFTERS OR SIMILAR MEMBERS SHALL BE PROTECTED BY STEEL SHIELD PLATES IN ACCORDANCE WITH IPC 305.6. VERTICAL STACKS IN WOOD CONSTRUCTION SHALL BE PROTECTED FROM BUILDING SETTLING WITH COMPRESSION/EXPANSION FITTINGS AND PIPE CLAMPS INSTALLED PER MANUFACTURER'S RECOMMENDATIONS (FERNCO XJ SERIES OR EQUAL).

NATURAL GAS SYSTEMS AND ACCESSORIES
IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LOCAL GAS UTILITY PROVIDER TO CONFIRM THE AVAILABILITY OF THE INDICATED DESIGN DELIVERY PRESSURE PRIOR TO COMMENCING WORK.

ALL GAS PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE INTERNATIONAL FUEL GAS CODE AND NFPA 54.

GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL (ASTM A53/A53M). FITTINGS SHALL BE ASME B16.3 MALLEABLE IRON OR ASTM A234/A234M WROUGHT STEEL WELDING TYPE. JOINTS SHALL BE THREADED OR WELDED TO ASME B31.1.

SHUTOFF VALVES SHALL BE PROVIDED AND LOCATED IN PLACES SO AS TO PROVIDE ACCESS FOR OPERATION AND SHALL BE INSTALLED SO AS TO BE PROTECTED FROM DAMAGE.

ALL GAS FIRED APPLIANCES ARE PROVIDED WITH A GAS PRESSURE OF 7"W.C. AT FINAL EQUIPMENT CONNECTION. IF 7"W.C. EXCEEDS EQUIPMENT'S SPECIFIC INLET PRESSURE REQUIREMENT, CONTRACTOR SHALL PROVIDE APPROPRIATE PRESSURE REGULATING VALVE.

GAS PIPING ON ROOF SURFACES SHALL BE ELEVATED NO LESS THAN 36" INCHES ABOVE ROOF SURFACE AND SHALL BE CLAMPED TO RUBBER CHANNEL SUPPORTS (MIFAB C10 SERIES OR EQUAL). PROVIDE SUPPORT AT EVERY ELBOW. THE MAXIMUM SPACING OF SUPPORTS SHALL BE: ½" PIPE: 5'-0", ¾" TO 1¼" PIPING: 6'-0", 1½" AND LARGER: 12'-0". VERTICAL PIPING SHALL BE SUPPORTED AT BASE, TOP AND AT 10' INTERVALS (MINIMUM).

ALL EXTERIOR GAS PIPING ON ROOF SHALL BE PRIMED AND PAINTED O.S.H.A. YELLOW. GAS PIPING RUNNING ON EXTERIOR WALLS SHALL BE PRIMED AND PAINTED TO MATCH BUILDING WALL.

EXPOSED GAS PIPING SHALL BE IDENTIFIED BY A YELLOW LABEL MARKED 'GAS' IN BLACK LETTERS. ALL PIPING GREATER THAN 7"W.C. SERVICE PRESSURE SHALL BE IDENTIFIED BY A YELLOW LABEL WITH BLACK LETTERS INDICATING THE PIPING SYSTEM PRESSURE. THE SYSTEM SHALL BE MARKED AT THE BEGINNING, ALL ENDS AND AT INTERVALS NOT EXCEEDING 5 FEET ALONG ITS EXPOSED LENGTH.

BALL VALVES: THREE PIECE BODY, FULL PORT, CHROME PLATED BALL, BLOWOUT PROOF STEM, TFE SEATS, UL LISTED FOR FLAMMABLE LIQUIDS, 600 PSI WOG, THREADED ENDS.

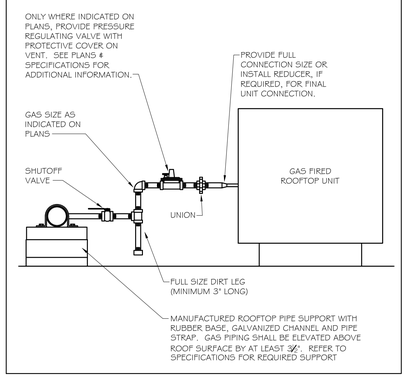
PRESSURE REGULATOR VALVE: SINGLE STAGE AND SUITABLE FOR NATURAL GAS, STEEL JACKET AND CORROSION RESISTANT COMPONENTS, THREADED FOR REGULATORS NPS 2 AND SMALLER. PROVIDE SHUTOFF VALVE IMMEDIATELY AHEAD OF REGULATOR, AND INSTALL TEST PORTS ON EITHER SIDE REGULATOR, WITH UPSTREAM TEST PORT DOWNSTREAM OF SHUTOFF VALVE. REGULATORS SHALL BE INSTALLED PER IFGC SECTION 410. FOR 2PSI INLET, PROVIDE MAXITROL 325-L' SERIES. PROVIDE VENT PROTECTOR FOR EXTERIOR APPLICATIONS. FOR INTERIOR APPLICATIONS, VENT SHALL BE PIPED TO THE EXTERIOR WITH TURNDOWN AND SCREEN PROTECTOR (REGULATOR EQUIPPED WITH FACTORY PROVIDED VENT LIMITER IS ACCEPTABLE WHERE APPROVED BY THE LOCAL JURISDICTION).

SHUTOFF VALVES SHALL BE PROVIDED IN ACCORDANCE WITH IFGC 409. INSTALL MANUAL GAS SHUTOFF VALVE FOR EACH GAS APPLIANCE AHEAD OF CORRUGATED STAINLESS STEEL TUBING OR COPPER CONNECTOR. SHUTOFF SHALL BE WITHIN 6' OF APPLIANCE.

INSTALL UNIONS IN PIPES NPS 2 AND SMALLER, ADJACENT TO EACH VALVE, AT FINAL C

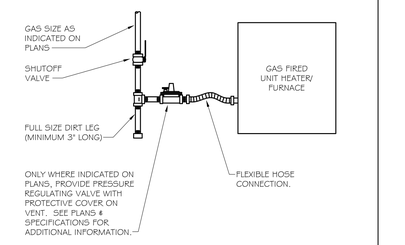
ROOFTOP UNIT GAS CONNECTION

NO SCALE



UNIT HEATER/FURNACE GAS CONNECTION

NO SCALE



PLUMBING FIXTURE SCHEDULE

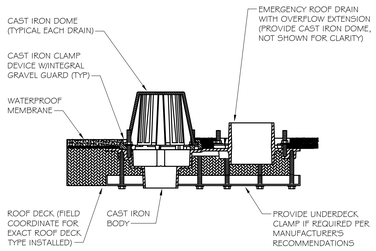
MARK	DESCRIPTION	WASTE RUNOUT	WASTE CONN.	VENT	WATER RUNOUT		WATER CONN.		SPECIFICATION
					CW	HW	CW	HW	
L-1	LAVATORY (ADA) - UNDERMOUNT	2"	1 1/2"	2"	1/2"	1/2"	3/8"	3/8"	UNDERMOUNT LAVATORY (AMERICAN STANDARD "OVALYN," 0496.221) AND 0.5GPM SINGLE HANDLE FAUCET WITH POLISHED CHROME FINISH (DELTA 501LF-HGMHDF). HANDICAP DRAIN OFFSET W/GRID DRAIN (ZURN B746-PC) AND CHROME PLATED P-TRAP (ZURN Z8701-PC). CHROME PLATED BRASS ANGLE SUPPLY STOPS WITH 12" LONG X 3/8" FLEX SUPPLIES (MCGUIRE M1G5). WHERE NOT CONCEALED BY COUNTER SHROUD, INSULATE OFFSET, TRAP AND SUPPLY LINES (TRUEBRO "LAVGUARD," #103 E-Z). PROVIDE THERMOSTATIC MIXING VALVE TO TEMPER HOT WATER TO 110 DEGREES (LEONARD 170-LF). LEAD FREE, ASSE 1070.
WC-1	WATER CLOSET (ADA) - PRESSURE ASSIST TANK TYPE	4"	3"	2"	1/2"	---	1/2"	---	FLOOR MOUNTED, ADA TANK TYPE WATER CLOSET (AMERICAN STANDARD "CADET FLOWISE RIGHT HEIGHT," 2467.100), 1.1 GPF, WHITE VITREOUS CHINA, PRESSURE ASSISTED FLUSH ACTION. TOP OF RIM AT 16.5" AFF. PROVIDE ALTERNATE TANK CONFIGURATION WITH TRIP LEVER ON RIGHT HAND SIDE IF NECESSARY TO HAVE LEVER ON OPEN SIDE OF WATER CLOSET. HEAVY DUTY OPEN FRONT SEAT, LESS COVER, WITH SELF-SUSTAINING CHECK HINGE (BEMIS 1055SSC). CHROME PLATED BRASS ANGLE SUPPLY STOP WITH 12" LONG X 3/8" FLEX SUPPLY (MCGUIRE M166).
SK-1	STAINLESS STEEL SINK, UNDERMOUNT, SINGLE BOWL (ADA)	2"	1 1/2"	2"	1/2"	1/2"	3/8"	3/8"	STAINLESS STEEL SINGLE BOWL UNDERMOUNT SINK (ELKAY ELUHAD13155PD). BOWL DIMENSIONS: 13.5" L, 16" W, 5.5" D. ADA COMPLIANT 1.5 GPM FAUCET (DELTA 101-DST), SINGLE HOLE MOUNTING. MCGUIRE CHROME PLATED P-TRAP W.C.O., CHROME PLATED BRASS ANGLE SUPPLY STOPS, 12" LONG X 3/8" FLEX SUPPLIES.
SK-2	STAINLESS STEEL SINK, DROP-IN, SINGLE BOWL	2"	1 1/2"	2"	1/2"	1/2"	3/8"	3/8"	STAINLESS STEEL SINGLE BOWL DROP-IN SINK KIT WITH FULL-DOWN FAUCET (AMERICAN STANDARD RALEIGH 2058.3322.ICO75), 1 HOLE. BOWL DIMENSIONS: 29.5" L, 18.5" W, 9" D. MCGUIRE CHROME PLATED P-TRAP W/C.O., CHROME PLATED BRASS ANGLE SUPPLY STOPS, 12" LONG X 3/8" FLEX SUPPLIES. PROVIDE BASKET STRAINER (ZURN Z8741-S5).
MS-1	MOP SINK	3"	3"	2"	1/2"	1/2"	1/2"	1/2"	24"X24" FLOOR BASIN (FIAT MSB-2424) AND SERVICE FAUCET WITH VACUUM BREAKER, INTEGRAL STOPS, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT (830-AA). PROVIDE HOSE AND BRACKET (832-AA), MOP HANGER (888-CC), STAINLESS STEEL BUMPERGUARD (E-88-AA) AND STAINLESS STEEL WALL GUARD (MSG2424).
ET-1	POTABLE WATER EXPANSION TANK	---	---	---	3/4"	---	3/4"	---	LEAD-FREE POTABLE WATER EXPANSION TANK (WATTS PLT-5). 2.1 GALLONS TOTAL VOLUME, 0.8 GALLONS MAXIMUM ACCEPTANCE VOLUME. TANK SHALL BE PRE-CHARGED TO THE SYSTEM PRESSURE PRIOR TO INSTALLATION (CONTRACTOR TO FIELD-VERIFY).
IMB-1	ICE MAKER/REFRIGERATOR BOX	---	---	---	1/2"	---	1/2"	---	ICE MAKER CONNECTION BOX (OATEY #385xx/386xx SERIES), 6"X6". LOW LEAD, 1/4 TURN BRASS VALVE WITH INTEGRAL FACTORY INSTALLED WATER HAMMER ARRESTOR. WHERE BOX IS TO BE INSTALLED IN FIRE RATED WALL, PROVIDE OATEY 391xx SERIES. PROVIDE BACKFLOW PREVENTER IN SUPPLY LINE (WATTS "SD3," ASSE 1022).
WHA-X	WATER HAMMER ARRESTOR	---	---	---	see plan	---	see plan	---	WATER HAMMER ARRESTOR, ASSE 1010 (J.R. SMITH SERIES 5005-5050), 'X' IN 'WHA-X' REFERS TO PDI SIZE INDICATED ON DRAWINGS.
RD/ERD-1	COMBINATION ROOF DRAIN / OVERFLOW DRAIN ASSEMBLY	---	---	---	---	---	---	---	COMBINATION MAIN ROOF AND OVERFLOW DRAIN ASSEMBLY WITH DUAL ROOF DRAINS AND SILHOUETTE DOMES WITH DOUBLE TOP-SET DECK PLATE (ZURN Z164). PROVIDE UNDERDECK CLAMP AND/OR OTHER ACCESSORIES AS NEEDED FOR COORDINATION WITH DECK SURFACE. SEE PLANS FOR CONNECTION SIZE.
DSN-1	DOWNSPOUT NOZZLE	---	---	---	---	---	---	---	STORM DRAINAGE DOWNSPOUT NOZZLE WITH WALL FLANGE (J.R. SMITH 1770). REFER TO PLANS FOR SIZE.
WCO	WALL CLEANOUT	4"	4"	---	---	---	---	---	CLEANOUT PLUG AND COVER TO BE INSTALLED ON SANITARY TEE (J.R. SMITH 4472). CAST BRONZE TAPERED THREAD PLUG WITH STAINLESS STEEL ROUND COVER.

ELECTRIC WATER HEATER SCHEDULE

MARK	TANK CAPACITY	RECOVERY	SETPOINT	ELECTRICAL	BASIS	TYPE
WH-1	20 GAL	15 GPH @ 80° RISE	120°	3.0 KW	A.O. SMITH DEL-20	LOWBOY
PRIOR TO SUBMITTAL OR PURCHASE, THE PLUMBING CONTRACTOR SHALL VERIFY THE APPROPRIATE ELECTRICAL CHARACTERISTICS OF THE SELECTED WATER HEATER. COORDINATE DIRECTLY WITH THE ELECTRICAL CONTRACTOR AND THE POWER PANEL SCHEDULES ON THE ELECTRICAL DRAWINGS.						

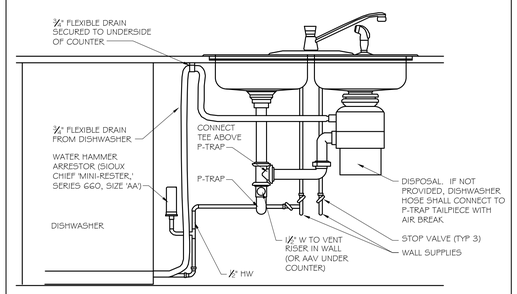
COMB. ROOF DRAIN & OVERFLOW ASSEMBLY

NO SCALE



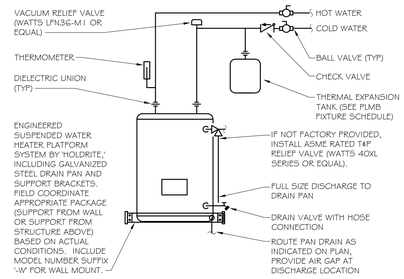
DISHWASHER CONNECTIONS

NO SCALE



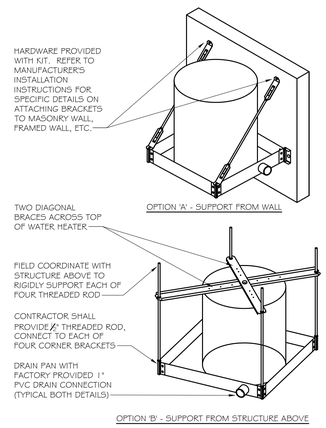
PLATFORM MOUNTED ELECTRIC WATER HEATER

NO SCALE



PROVIDE APPROPRIATE 'HOLDRITE' MODEL BASED ON SCHEDULED WATER HEATER VOLUME AND WATER HEATER DIAMETER

PRODUCT	GALLONS	MAXIMUM WEIGHT	PAN SIZE
#40 SWHP	6 to 20	375	21.25" X 21.25"
#50 SWHP	30 to 50	600	26.5" X 26.5"



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PROFICIENT ENGINEERING
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404.330.9798
PROJECT # 121425

REV #	DATE	DESCRIPTION

SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
JOHN PAUL KENNEY
E-77213
REGISTERED
PROFESSIONAL ENGINEER

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ISSUE DATE	08/17/2021
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PMD PROJ #	20052

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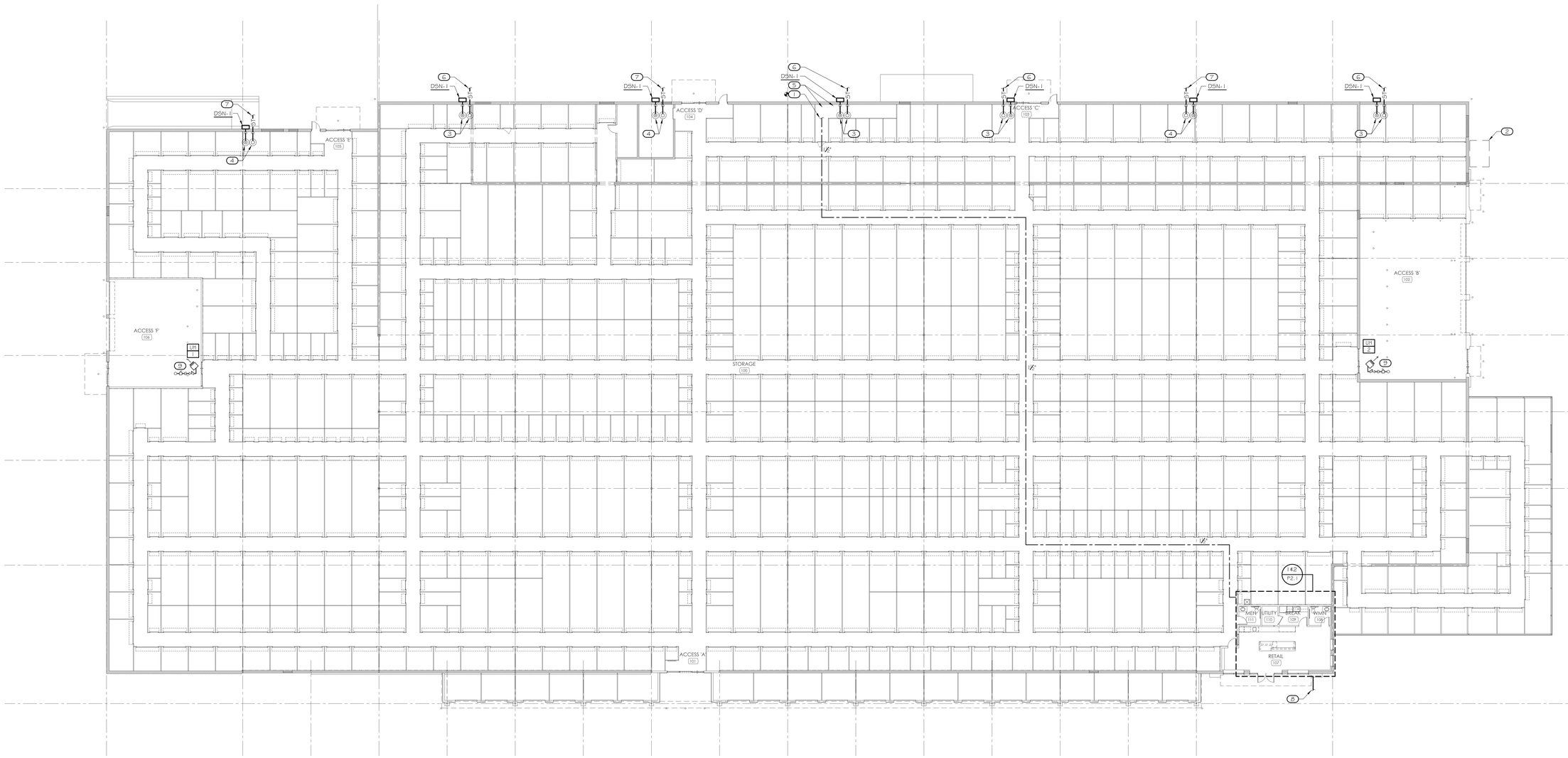
DETAILS & SCHEDULES

SHEET #

P0.2

KEYNOTES

1. 1½" CW A/C & CONNECT TO EXISTING WATER PIPING, FIELD VERIFY SIZE AND EXACT LOCATION.
2. EXISTING OIL/WATER SEPARATOR SHALL BE ABANDONED IN PLACE.
3. 8" RD-1/ERD-1 ABOVE, OFFSET 8" PRIMARY & 8" EMERGENCY STORM DRAINAGE OVERHEAD AND DN ALONG INTERIOR WALL. TRANSITION 8" PRIMARY DRAINAGE B/G & DISCHARGE 8" EMERGENCY DRAINAGE THROUGH EXTERIOR WALL WITH DOWNSPOUT NOZZLE.
4. 10" RD-1/ERD-1 ABOVE, OFFSET 10" PRIMARY & 10" EMERGENCY STORM DRAINAGE OVERHEAD AND DN ALONG INTERIOR WALL. TRANSITION 10" PRIMARY DRAINAGE B/G & DISCHARGE 10" EMERGENCY DRAINAGE THROUGH EXTERIOR WALL WITH DOWNSPOUT NOZZLE.
5. EXISTING SPRINKLER SERVICE AND ASSOCIATED PIPING TO REMAIN.
6. 8" ST PIPING B/G & CONNECT TO EXISTING STORM UTILITIES ON SITE. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO COMMENCING WORK.
7. 10" ST PIPING B/G & CONNECT TO EXISTING STORM UTILITIES ON SITE. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO COMMENCING WORK.
8. 4" S B/G & CONNECT TO SITE SANITARY SEWER UTILITY. FIELD VERIFY EXACT LOCATION, DEPTH, AND DIRECTION OF FLOW PRIOR TO COMMENCING WORK.
9. NATURAL GAS CONNECTION TO UNIT HEATER W/SHUTOFF VALVE, PRESSURE REDUCING VALVE, DIRT LEG & UNION (SEE DETAIL).



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

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01	09-17-21	PERMIT COMMENTS
03	10-21-21	PERMIT COMMENTS
04	11-12-21	REVISION 04
05	02-14-22	REVISION 05

the SPACE SHOP
SELF STORAGE

MASSILLON STORAGE

2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

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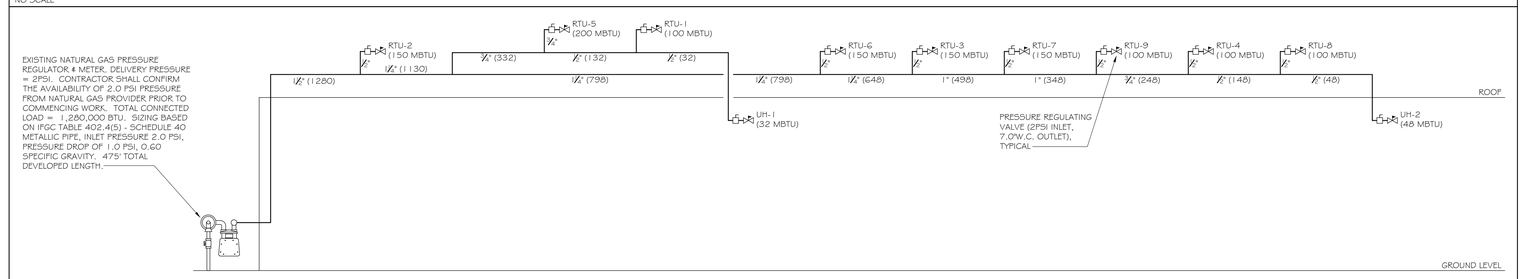
OVERALL FLOOR PLAN

SHEET #

P1.1

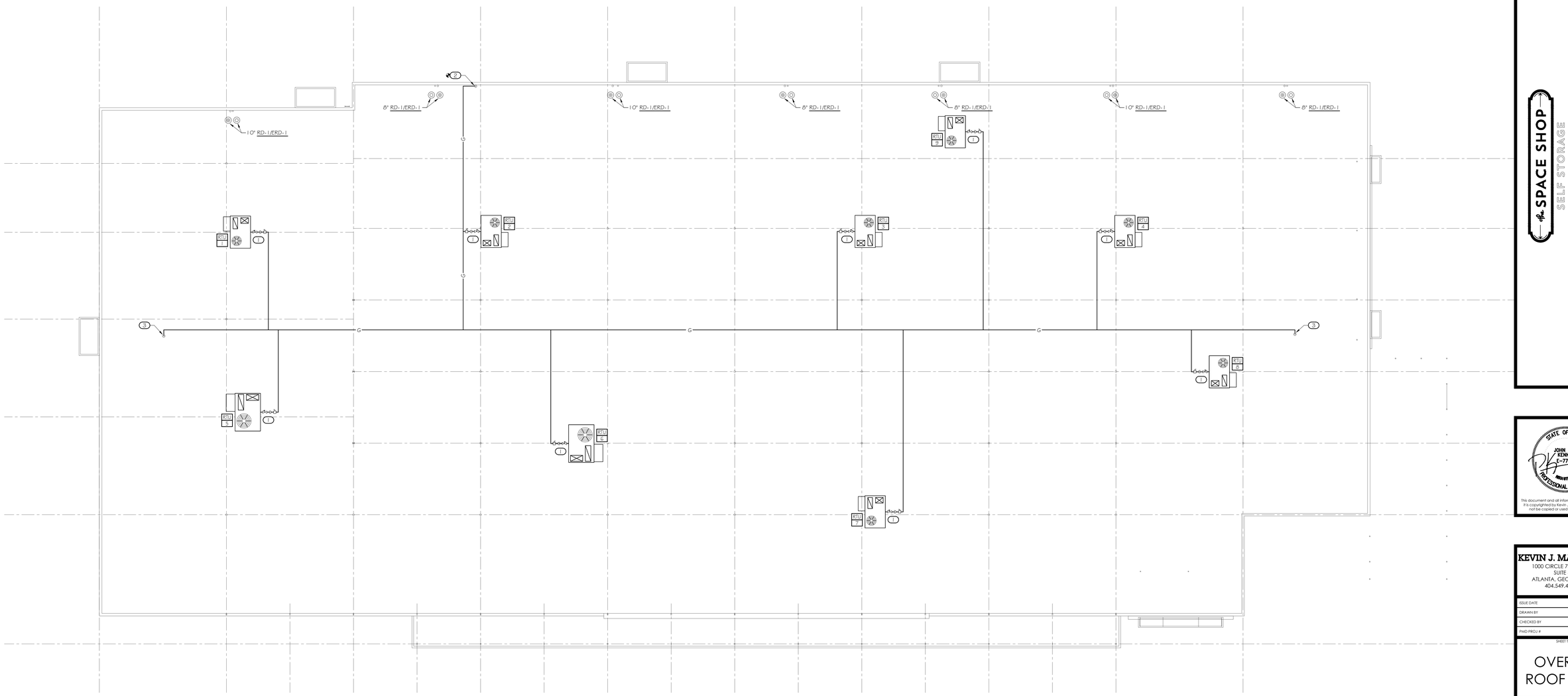
NATURAL GAS RISER DIAGRAM

NO SCALE



KEYNOTES

1. NATURAL GAS CONNECTION TO ROOFTOP UNIT W/SHUTOFF VALVE, DIRT LEG, PRESSURE REDUCING VALVE & UNION (SEE DETAIL).
2. NATURAL GAS DN THROUGH ROOF WITH WATERTIGHT PENETRATION & CONNECT TO EXISTING NATURAL GAS PIPING IN THIS AREA. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO COMMENCING WORK.
3. NATURAL GAS DN THROUGH ROOF WITH WATERTIGHT PENETRATION.



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

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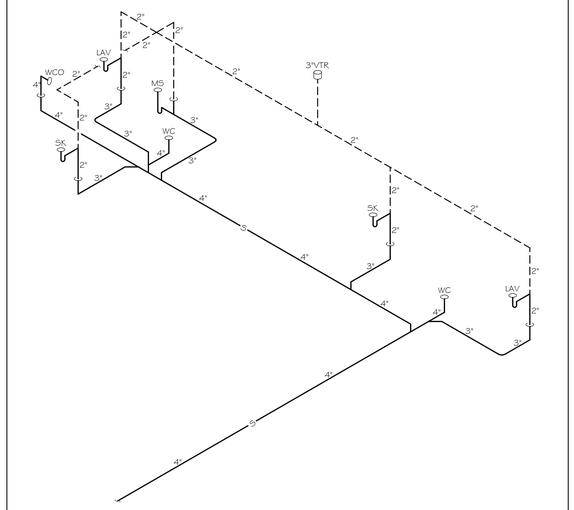
OVERALL ROOF PLAN

SHEET #

P1.2

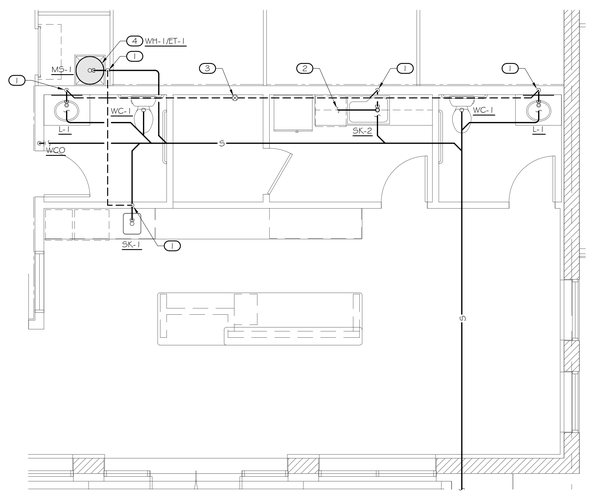
WASTE/VENT ISOMETRIC

NO SCALE



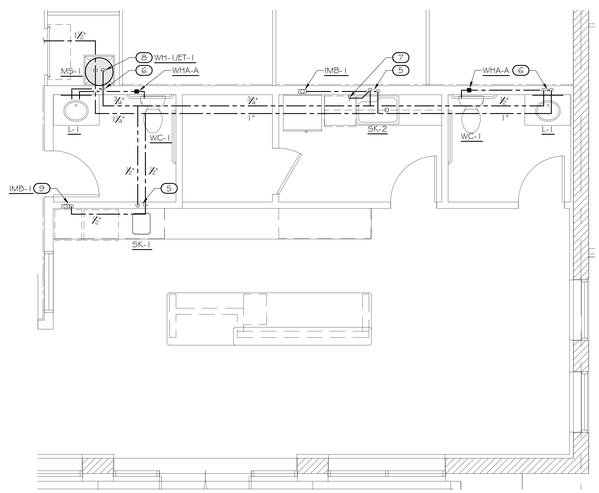
KEYNOTES

1. 2" V DN
2. CONNECT DISHWASHER HOSE TO SINK P-TRAP (OR DISPOSER, AS APPLICABLE) WITH AIR BREAK, SEE DETAIL
3. 3" V UP TO 3" VTR
4. DISCHARGE WATER HEATER PAN DRAIN TO MOP SINK WITH AIR GAP
5. ½" CW & ½" HW DN
6. 1" CW & ½" HW DN
7. ½" VALVED HW TO DW CONNECTION W/WATER HAMMER ARRESTOR (SIOUX CHIEF 'MINI-RESTER,' SERIES 660, SIZE 'AA')
8. 1" CW & 1" HW TO SHELF MOUNTED WATER HEATER, SEE DETAIL.
9. ½" CW DN TO ICE MAKER BOX FOR COFFEE MAKER, FIELD VERIFY EXACT LOCATION PRIOR TO COMMENCING WORK.



1 ENLARGED FLOOR PLAN - WASTE & VENT

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



2 ENLARGED FLOOR PLAN - WATER

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

KEVIN J. MAHER AIA

PROFICIENT ENGINEERING

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Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121425

REV #	DATE	DESCRIPTION

the SPACE SHOP SELF STORAGE

MASSILLON STORAGE

2600 LINCOLN WAY E - MASSILLON, OH 44646

STEIN INVESTMENT GROUP

STATE OF OHIO
JOHN PAUL KENNEY
E-77213
REGISTERED
PROFESSIONAL ENGINEER

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ISSUE DATE	08/17/2021
DRAWN BY	NF/NC/DK
CHECKED BY	PK/SK
PMD PROJ #	20037

SHEET TITLE

ENLARGED FLOOR PLANS

SHEET #

P2.1

SPECIFICATIONS

GENERAL

CONTRACTOR SHALL REFER TO ALL RELATED DOCUMENTS, ARCHITECTURAL, STRUCTURAL, CIVIL AND MEP DRAWINGS, AND FULLY UNDERSTAND THE SCOPE OF WORK AND CONDITION OF CONSTRUCTION.

THE WORK UNDER THIS SPECIFICATIONS AND DRAWINGS SHALL INCLUDE ALL LABOR.

ALL INSTALLATION OF DEVICES AND CONNECTION OF CONDUCTORS SHALL BE PERFORMED BY LICENSED AND SKILLED ELECTRICIAN OR JOURNEYMAN.

ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER. IF ANY PORTION OF THE WORK IS FOUND UNSATISFACTORY BY THE OWNER, IT SHALL BE REMOVED AND REINSTALLED WITHOUT DELAY AT NO COST TO THE OWNER.

THE WORK INCLUDES, BUT NOT LIMITED TO:
- THE COMPLETE ELECTRICAL DISTRIBUTION SYSTEM.
- ROUGH-IN AND FINAL CONNECTIONS TO ALL DEVICES REQUIRING ELECTRICAL POWER, INCLUDING OWNER PROVIDED EQUIPMENT.
- LIGHTING CONTROL
- LIGHTING FIXTURES

EACH CONTRACTOR SHALL OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED BY THE REGULATORY AUTHORITIES. ALL FEES RELATED TO OBTAINING PERMITS AND INSPECTION SHALL BE PAID FOR BY EACH CONTRACTOR IN HIS TRADE.

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH LOCAL, COUNTY, STATE, AND NATIONAL ELECTRICAL CODE 2020, SPECIFICATIONS, UTILITY COMPANY REQUIREMENTS AND ALL INDUSTRY STANDARDS.

ANY DIFFERENCES IN ABOVE MENTIONED REQUIREMENTS, THE MOST STERN SHALL OVERRULE ALL OTHERS.

IN ADDITION TO ABOVE MENTIONED CODES AND SPECIFICATIONS, THE FOLLOWING INDUSTRY STANDARDS SHALL BE COMPLIED IF THEY ARE MORE STRINGENT.
- IEEE
- IES
- IECC 2015
- ASHRAE 90.1
- NFPA
- NEMA
- UL
- ADA

THE MANUFACTURER'S PUBLISHED DIRECTIONS SHALL BE FOLLOWED IN THE DELIVERY, STORAGE, PROTECTION, INSTALLATION AND WIRING OF ALL EQUIPMENT AND MATERIAL.

THE DRAWINGS SHOW DIAGRAMMATICALLY THE LOCATIONS OF THE VARIOUS LINES, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHOD OF CONNECTING AND CONTROLLING THEM. IT IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL AND ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM. THE SYSTEMS SHALL INCLUDE BUT ARE NOT LIMITED TO THE ITEMS SHOWN ON THE DRAWINGS. EXACT LOCATIONS OF THESE ITEMS SHALL BE DETERMINED BY REFERENCE TO THE GENERAL PLANS AND MEASUREMENTS AT THE BUILDING AND IN COOPERATION WITH THE OTHER SUBCONTRACTORS, AND IN ALL CASES, SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE OWNER RESERVES THE RIGHT TO MAKE ANY REASONABLE CHANGE IN THE LOCATION OF ANY PART OF THIS WORK WITHOUT ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL SEEK APPROVAL FROM THE OWNER FOR ANY CHANGES TO THE SPECIFICATIONS OR CONTRACT DOCUMENTS.

ANY EXCEPTIONS, INCONSISTENCIES AND CONFLICTS IN CONTRACT DOCUMENTS, SPECIFICATIONS AND CONTRACT DOCUMENTS BY OTHER TRADE SHALL BE BROUGHT TO ATTENTION TO THE OWNER PRIOR TO BID.

CONTRACTOR SHALL COORDINATE AND VERIFY THE WORK WITH EXISTING CONDITIONS AND THE WORK OF OTHER TRADE PRIOR TO ANY FABRICATIONS OR INSTALLATION. IF THE LAYOUT OF THE DEVICES ON DRAWINGS ARE IMPRACTICAL TO THE CONDITION IN FIELD, CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY PRIOR TO ANY FABRICATION OR INSTALLATION.

ELECTRICAL DEVICES ARE INDICATED ON DRAWINGS AT APPROXIMATE LOCATIONS. THE OWNER RESERVE THE RIGHT TO MAKE REASONABLE CHANGES IN LOCATIONS WITHOUT ADDITIONAL COSTS.

THE LINES INDICATING BRANCH CIRCUITS DO NOT REPRESENT THE ROUTING OF ELECTRICAL CONDUITS. THEY INDICATE THE LAYOUT AND CONTROL OF CIRCUITS.

PRODUCTS AND WORK

MATERIALS FURNISHED SHALL BE NEW AND BY STANDARD MANUFACTURERS AND MUST CONFORM TO THE NATIONAL BOARD OF FIRE UNDERWRITER'S REQUIREMENTS AND BEAR THE UNDERWRITERS LABORATORIES' SEAL OF APPROVAL.

LISTED MANUFACTURERS, MODELS, OR CATALOGUE NUMBERS IN PART OR ALL SHALL ENTAIL TO INCLUDE THE PUBLISHED MANUFACTURER'S DESCRIPTION AND SPECIFICATION.

CONTRACTOR SHALL NOT INTERPRET THAT THE LISTED MANUFACTURERS IN SPECIFICATIONS OR DRAWINGS TO EXCLUDE ALL OTHER MANUFACTURERS

CONTRACTOR SHALL MAKE CERTAIN THAT ALL EQUIPMENT FIT IN THE SPACE DESIGNATED AND DESIGNED FOR THE SURROUNDINGS IT OCCUPIES.

COMPLETE CATALOGUE ILLUSTRATION AND DESCRIPTIONS OF ALL EQUIPMENT SHALL BE SUBMITTED TO THE OWNER PRIOR TO ORDERING ANY EQUIPMENT.

ALL HORIZONTAL RUNS OF CONDUITS SHALL BE SUPPORTED BY MEANS OF APPROVED HANGER FROM THE STRUCTURAL CEILING.

COORDINATE THE WORK UNDER THIS SECTION WITH ALL OTHER TRADES.

CONDUITS AND RACEWAYS:

MANUFACTURERS: SQUARE D, B-LINE, ALLIED TUBE & CONDUIT, HOFFMAN, CARLON ELECTRICAL, WIREMOLD.

OUTDOORS EXPOSED: RIGID STEEL.
OUTDOORS CONCEALED ABOVE GROUND: RIGID STEEL.
OUTDOORS UNDERGROUND: TYPE EPC-40-PVC
OUTDOORS CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND MOTOR DRIVEN EQUIPMENT): LFMC.
BOXES AND ENCLOSURES ABOVE GROUND: NEMA 3R UNLESS NOTED OTHERWISE ON PLANS.
INDOORS EXPOSED NOT SUBJECT TO PHYSICAL DAMAGE: EMT.
INDOORS EXPOSED NOT SUBJECT TO SEVERE PHYSICAL DAMAGE: EMT.
INDOORS EXPOSED SUBJECT TO SEVERE PHYSICAL DAMAGE: RIGID STEEL CONDUIT.
INDOORS CONCEALED IN CEILINGS AND INTERIOR WALLS AND PARTITIONS: EMT.
INDOORS CONNECTION TO VIBRATING EQUIPMENT: FMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS.
INDOORS DAMP OR WET LOCATIONS: IMC.
INDOORS LOW-VOLTAGE CABLES: EMT.

CONDUCTORS:

COPPER CONDUCTORS #10 AND SMALLER:

LABELED PER UL 83, TYPE THHN/THWN, SOLID COPPER 600 VOLT INSULATION, UNIFORM COLOR CODED JACKET WITH JACKET DATA.
METAL CLAD (TYPE MC) CABLE WHERE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 330.

COPPER CONDUCTORS #8 OR LARGER:

LABELED PER UL 83, TYPE THHN/THWN, STRANDED COPPER, 600VOLT INSULATION, UNIFORM COLOR CODED JACKET WITH JACKET DATA.

ACCEPTABLE MANUFACTURERS OF CONDUCTORS:
- PIRELLIE
- SOUTHWIRE
- AETNA
- REPUBLIC
- AFC
- ENCORE WIRE
- KERITE

CONTRACTOR MAY USE ALUMINUM CONDUCTORS FOR #4 AWG OR LARGER IN THE PLACE OF COPPER CONDUCTORS. CONTRACTOR SHALL REFER TO NEC TABLE 310-16 FOR EQUIVALENT AMPACITY AND SHALL COMPENSATE FOR VOLTAGE DROP.

SPECIFICATIONS

MOLDED CASE CIRCUIT BREAKER:

INCLUDE SCHEDULE OF ALL FUSES, RATINGS, TIME COORDINATION DATA, MANUFACTURER'S STANDARD DATA AND TIME-CURRENT CURVES. ALL DATA SHALL BE BASED ON TEST OF STANDARD PRODUCTS.

APPROVED MANUFACTURERS:
- GENERAL ELECTRIC
- CUTLER HAMMER
- SQUARE D
- SIEMENS

THERMAL-MAGNETIC BOLT-IN TYPE CIRCUIT BREAKERS WITH QUICK-MAKE, QUICK-BREAK CONTACTS; TRIP-FREE OPERATION WITH OVER-THE-CENTER TOGGLE HANDLE OR NON-REMOVABLE MONOLITHIC TIE-HANDLE.

MULTI-POLE BREAKERS SHALL HAVE INTERNAL COMMON TRIP AND COMMON RESET WITH A SINGLE TOGGLE HANDLE OR NON-REMOVABLE MONOLITHIC TIE-HANDLE.

TRIP RATINGS SHALL BE MOLDED ON THE HANDLE OR FACE OF BREAKER.

BREAKER TERMINALS SHALL BE RATED TO ACCOMMODATE A MINIMUM OF 75 DEGREE C. CONDUCTORS.

BREAKER SHALL BE RATED FOR MOUNTING AND OPERATION IN ANY POSITION; SHALL ACCOMMODATE AND MATCH THE TYPE OF TERMINATIONS REQUIRED.

SINGLE POLE BREAKERS RATED 15 AND 20 AMPERES SHALL BE UL LABELED AS "SWITCHING BREAKERS" AT THE APPLIED CIRCUIT VOLTAGE.

MULTI-POLE BREAKERS RATED 100 AMPERES AND LARGER SHALL BE MOLDED CASE THERMAL-MAGNETIC BOLT-IN TYPE BREAKER WITH ADJUSTABLE INSTANTANEOUS TRIP.

LIGHTING FIXTURE

SUBMITTAL:

SCHEDULE BY TYPE DESIGNATION ALL LIGHTING FIXTURES, EACH COMPLETE WITH DATA SHEET WITH COMPLETE PHYSICAL, ELECTRICAL AND LIGHTING CHARACTERISTICS, LAMP TYPE AND LAMP DATA.

REFER TO THE "LIGHTING FIXTURE SCHEDULE" \IN THE DRAWINGS FOR INDIVIDUAL FIXTURE DESCRIPTIONS AND MANUFACTURER TYPES.

PROVIDE LAMPS FOR EACH FIXTURE OF QUANTITY, TYPE AND COLOR AS LISTED IN LIGHTING FIXTURE SCHEDULE. GE, SYLVANIA OR PHILIPS ARE ACCEPTABLE.

EACH LIGHTING FIXTURE SHALL BE UL LABELED FOR PROPER OPERATION IN THE TYPE OF CEILING CONSTRUCTION AND FOR THE MOUNTING ARRANGEMENT ON/IN WHICH IT IS INSTALLED.

FIELD VERIFY ACTUAL CEILING SLOPE FOR FIXTURES INSTALLED IN SAME AND ACTUAL FIELD DIMENSIONS AND ANGLES OF CONSTRUCTION FOR ANY FIXTURE CONFORMING THE SHAPE AND LENGTH OF SAME, FOR COORDINATION OF FIXTURE CONSTRUCTION.

PANELBOARD

SUBMITTAL:

INCLUDE SCHEDULE OF EACH PANELBOARD WITH ALL DEVICES AND COMPLETE WITH PHYSICAL AND ELECTRICAL DATA AND WITH RATINGS FOR EACH COMPONENT INCLUDING BREAKER/FUSE OVERLAY CURVES.

LABELED PER UL #67 AND #50, CONFORM WITH NEMA #250 AND PB1, NFPA #70-384 AND 70-373.

ALL JUNCTION BOXES SHALL BE LABELED WITH PANEL AND CIRCUIT DESIGNATION.

PROVIDE TYPED CIRCUIT DIRECTORY WITH EACH CIRCUIT SERVING DEVICES AND AREA IT'S SERVING.

APPROVED MANUFACTURERS:
- GENERAL ELECTRIC
- CUTLER HAMMER
- SQUARE D
- SIEMENS

LIGHTING CONTROL

TIME SWITCHES:

SOLID STATE, PROGRAMMABLE, WITH ALPHANUMERIC DISPLAY; COMPLYING WITH UL 917. 20-A BALLAST LOAD, 120/240VAC.

TWO ON-OFF SET POINTS ON A 24-HOUR SCHEDULE AND ANNUAL HOLIDAY SCHDULE THAT OVERRIDES THE WEEKLY OPERATION ON HOLIDAYS.

ALLOW CONNECTION OF A PHOTOELECTRIC RELAY AS SUBSTITUTE FOR ON-OFF FUNCTION OF A PROGRAM

BATTERY BACKUP FOR NOT LESS THAN SEVEN DAYS RESERVE TO MAINTAIN SCHEDULES AND TIME CLOCK.

INDOOR OCCUPANCY SENSORS:

WALL OR CEILING MOUNTED SOLID-STATE INDOOR OCCUPANCY SENSORS WITH A SEPARATE POWER PACK

ADJUSTABLE TIME-DELAY OVER A RANGE OF 1 TO 30 MINUTES.

SENSOR OUTPUT: CONTACTS RATED TO OPERATE THE CONNECTED RELAY, COMPLYING WITH UL773A. SENSOR IS POWERED FROM POWER PACK.

POWER PACK: DRY CONTACTS RATED FOR 20-A BALLAST LOAD AT 120 OR 277 VAC. AUTOMATIC LIGHT-LEVEL SENSOR: ADJUSTABLE FROM 2 TO 200 FC (21.5 TO 2152 LUX); TURN LIGHTS OFF WHEN SELECTED LIGHTING LEVEL IS PRESENT.

DUAL SENSOR TYPE: DETECT OCCUPANCY AREA USING PIR (PASSIVE INFRA-RED) AND ULTRASONIC DETECTION METHOD.

GROUNDING AND BONDING

ALL GROUNDING AND BONDING SHALL CONFORM TO NEC ARTICLE 250.

COPPER WIRE OR CABLE INSULATED FOR 600V UNLESS REQUIRED BY APPLICABLE CODE OR AUTHORITIES HAVING JURISDICTION.

INSTALL SOLID CONDUCTOR FOR #8 AWG AND SMALLER AND STRANDED CONDUCTORS FOR #6 OR LARGER.

INSTALL INSULATED EQUIPMENT GROUNDING CONDUCTORS FOR ALL EQUIPMENT.

LOW VOLTAGE TRANSFORMERS

SUBMITTALS: PROVIDE PRODUCT DATA FOR EACH TRANSFORMER. INDICATE DIMENSIONS AND WEIGHTS.

PROVIDE CERTIFICATION THAT TRANSFORMERS, ACCESSORIES, AND COMPONENTS WILL WITHSTAND SEISMIC FORCES.

MANUFACTURERS: CUTLER-HAMMER, SIEMENS, GE AND SQUARE D.

INSULATION CLASS: 220 DEG C, UL COMPONENT RECOGNIZED INSULATION SYSTEM WITH MAXIMUM OF 150 DEG C RISE ABOVE 40 DEG C AMBIENT TEMPERATURE.

COMPLY WITH NEMA TP1, CLASS 1 EFFICIENCY LEVELS AND TESTED ACCORDING TO NEMA TP2.

TESTING AND INSPECTION: PERFORM VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA ACCEPTANCE TESTING SPECIFICATION. CERTIFY COMPLIANCE WITH TEST PARAMETERS.

PERFORM AN INFRARED SCAN OF TRANSFORMER CONNECTIONS TWO MONTHS AFTER SUBSTANTIAL COMPLETION, PLUS 2 FOLLOW UP SCANS. ONE AT 4 MONTHS AND THE OTHER AT 11 MONTHS. PROVIDE CERTIFIED REPORT.

ELECTRICAL GENERAL NOTES

THE DESIGN OF THIS SET OF DOCUMENT IS BASED ON NEC 2020.

ELECTRICAL CONTRACTOR SHALL REFER TO ALL OTHER DESIGN DRAWINGS PRIOR TO BID AND RETAIN FULL UNDERSTANDING OF THE SCOPE OF WORK.

FIXTURE TYPE INDICATED BY UPPER CASE CHARACTERS, SWITCHING AND GROUPING DESIGNATED BY LOWER CASE LETTER AND CIRCUIT BY NUMBER (WHERE APPLICABLE).

REFER TO THE ARCHITECTURAL/INTERIORS REFLECTED CEILING PLANS FOR EXACT FIXTURE PLACEMENT AND DIMENSIONS.

REFER TO THE ARCHITECTURAL/INTERIORS DOCUMENTS FOR ACTUAL DEVICE LOCATIONS AND DIMENSIONS.

COORDINATE THE INSTALLATION OF ALL CEILING MOUNTED DEVICES (FIRE ALARM SYSTEM DEVICES AND SPEAKERS, SOUND SYSTEM SPEAKER, ETC.) TO BE SYMMETRICAL ABOUT LIGHT FIXTURES AND SPRINKLER HEADS. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN. TYPICAL.

ALL MOUNTING OF EQUIPMENT IS AS SHOWN UNLESS OTHERWISE NOTED. COORDINATE WITH ARCHITECT THE COLOR/FINISHES OF ALL ELECTRICAL DEVICES, OUTLETS, COVERPLATES AND TRIM.

EMERGENCY BATTERY PACKS AND EXIT SIGNS SHALL BE CONNECTED AHEAD OF ANY SWITCHING DEVICES.

REFER TO MECHANICAL DRAWINGS FOR DUCT SMOKE DETECTOR LOCATIONS AND QUANTITIES OPERATION SHALL INCLUDE DUAL CONTACT BASE WITH LOCAL EQUIPMENT SHUTDOWN AND FIRE ALARM SIGNAL INITIATION.

WHEN CONDUCTOR OR CONDUIT SIZE IS INDICATED FOR BRANCH CIRCUIT HOME RUN, THE CONDUCTOR AND CONDUIT SIZE INDICATED SHALL BE USED FOR THE COMPLETE CIRCUIT.

REFER TO THE APPROPRIATE DRAWINGS FOR THE EXACT LOCATION AND REQUIREMENTS OF EQUIPMENT INSTALLED UNDER OTHER DIVISIONS OF THE DOCUMENTS, WHICH REQUIRE ELECTRICAL SERVICE.

EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL RACEWAYS.

WALL SWITCHES CONTROLLING CIRCUITS OF OPPOSITE PHASES SHALL NOT BE INSTALLED IN COMMON BOX UNLESS PERMANENT BARRIER IS PROVIDED.

ALL HOME RUNS SHALL RUN PARALLEL TO STRUCTURE AS MUCH AS POSSIBLE WHERE CEILING IS EXPOSED.

ALL RACEWAY AND EQUIPMENT SUPPORTS AND HANGERS SHALL BE FULLY COORDINATED WITH STRUCTURAL DRAWINGS TO INSURE LOCATION OF SAME OCCURS WITHIN FOUR (4) INCHES OF PANEL POINT ON BAR JOISTS.

COORDINATE LOCATION OF ALL FLOOR MOUNTED MECHANICAL AND PLUMBING EQUIPMENT IN ORDER TO VERIFY POWER & CONTROL RACEWAY CONCEALED IN SLABS TERMINATED AT PROPER LOCATION.

DISCONNECT SWITCHES, MOTOR STARTERS AND OTHER ELECTRICAL EQUIPMENT INSTALLED ABOVE ACCESSIBLE CEILINGS, AND REQUIRING ACCESS FOR MAINTENANCE, SHALL BE INSTALLED WITH BOTTOM OF DEVICE ONE (1) FOOT ABOVE CEILING TO PROVIDE READY ACCESSIBILITY.

MECHANICAL, PLUMBING, FIRE PROTECTION AND OTHER EQUIPMENT ARE SHOWN ON FLOOR PLAN IN APPROXIMATE LOCATION. COORDINATE WITH M, P, FP AND CONTRACT DRAWINGS/SUBMITTALS FOR EXACT LOCATION OF EQUIPMENT.

GENERAL DIAGRAMATIC RACEWAY INTERCONNECTIONS OF EQUIPMENT, FIXTURES AND DEVICES ARE INDICATED ON FLOOR AND REFLECTED CEILING PLANS, REFER TO STRUCTURAL AND ARCHITECTURAL PLANS FOR ELEVATION CHANGES AND RACEWAY ROUTES.

RACEWAY FOR EXTERIOR LIGHTING MAY BE INDICATED OUTSIDE OF BUILDING FOOTPRINT FOR CLARITY. ROUTE ALL EXTERIOR LIGHTING RACEWAY WITHIN BUILDING STRUCTURE.

POWER AND COMMUNICATIONS/DATA CONDUITS CAN CROSS AT 90°, BUT WHERE PARALLEL, SHALL BE A MINIMUM OF 8" APART.

TELEVISION AND RADIO ANTENNAS CABLES SHALL HAVE SURGE PROTECTION. GROUND ALL MASTS.

PROVIDE SURGE PROTECTION FOR ELECTRICAL AND TELEPHONE SERVICES.

PROVIDE TVSS FOR FIRE ALARM CONTROL PANEL.

FIELD COORDINATE MECHANICAL AND PLUMBING EQUIPMENT ELECTRICAL CHARACTERISTICS WITH DIV. 15 CONTRACTOR PRIOR TO ROUGH-IN. ADJUST ELECTRICAL CONNECTIONS IF NECESSARY TO MATCH ACTUAL EQUIPMENT IN FIELD. FOR EXAMPLE, COORDINATE THE NAMEPLATE OVERCURRENT PROTECTION DEVICE RATING OF MECHANICAL EQUIPMENT AMONG MECHANICAL AND ELECTRICAL SUBCONTRACTORS. ADJUST CIRCUIT BREAKER TO MATCH NAMEPLATE RATING OF EQUIPMENT AT NO ADDITIONAL COST.

FIELD COORDINATE MECHANICAL AND PLUMBING EQUIPMENT REQUIREMENTS FOR ANY SUPPLEMENTAL POWER REQUIREMENTS, INCLUDING BUT NOT LIMITED TO CONTROL CIRCUITS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BRING ALL EQUIPMENT TO ITS INTENDED OPERATIONAL STATUS.

REFER TO FIRE PROTECTION DRAWINGS FOR LOCATIONS OF FLOW AND TAMPER SWITCHES.

EACH PENETRATION OF A FIRE RESISTANT RATED ASSYMBLY BY A PIPE, TUBE WIRE OR CONDUIT SHALL BE PROTECTED BY A THROUGH PENETRATION FIRE STOP SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTME 814 OR E199.

ELECTRIC RECEPTACLES, SWITCHES, OUTLETS, ETC. SHALL NOT BE INSTALLED BACK TO BACK ON FIRE RESISTANCE RATED WALLS. THEY SHALL BE AT LEAST 24-INCHES APART.

LIGHT SWITCHES AND ELECTRICAL OUTLETS, LOCATED IN ROOMS ACCESSIBLE TO THE DISABLED SHALL BE LOCATED NO HIGHER THAN 48 INCHES AND NO LOWER THAN 15 INCHES ABOVE THE FINISHED FLOOR SURFACE. IF THE REACH OR THE CONTROL IS OVER AN OBSTRUCTION, THE MINIMUM HEIGHT SHALL BE REACHED TO 44 INCHES FOR A FORWARD APPROACH OR 46 INCHES FOR A SIDE APPROACH.

REFER TO LOW VOLTAGE CONSULTANT'S DRAWINGS FOR VOICE, DATA AND CATV OUTLET LOCATIONS. REFER TO LV CONSULTANT'S DRAWINGS FOR ANY ADDITIONAL INFORMATION.

CONNECT ALL EXIT SIGNS TO NEAREST UNSWITCHED PORTION OF THE LIGHTING CIRCUIT IN THE AREA.

ELECTRICAL BOXES INSTALLED IN FIRE RATED WALLS SHALL MAINTAIN THE INTEGRITY OF THE RATED WALL.

SUPPORT ALL VERTICAL RACEWAY PER NEC TABLE 300.19(A).

MAKE ELECTRICAL CONNECTIONS TO ELECTRIC WATER COOLERS FROM GFCI PROTECTED OUTLET IN WALL BEHIND COOLER HOUSING. THE OUTLET AND CORD SHALL NOT BE VISIBLE FROM PUBLIC VIEW.

COORDINATE WITH CUTSHEETS OF ALL EQUIPMENT TO BE INSTALLED AND PROVIDE ADDITIONAL CIRCUITS FOR CONTROLS IF REQUIRED BY MANUFACTURER.

FINAL COLOR, FINISH AND OTHER AESTHETIC PORTIONS OF ALL DEVICES SHALL BE COORDINATED WITH ARCHITECT OR OWNER'S REPRESENTATIVE. THIS SET OF DRAWINGS DOES NOT SUPERCEDE ARCHITECTURAL OR INTERIOR DOCUMENTS.

ALL EXPOSED HORIZONTAL RUNS OF CONDUITS SHALL BE EITHER PARALLEL OR PERPENDICULAR TO EXTERIOR WALLS.

PROVIDE PLENUM RATED CABLES IF THE CABLES ARE EXPOSED AND ROUTED THROUGH PLENUM.

FOR ALL FUSES 1200A OR HIGHER, PROVIDE ARC ENERGY REDUCTION PER NEC 240.67.

WHERE HIGHEST TRIP SETTING IN INSTALLED OVERCURRENT DEVICE IS 1200A OR HIGHER, CONTRACTOR TO PROVIDE DOCUMENTATION OF CIRCUIT BREAKER(S) LOCATION AND PROVIDE AT LEAST ONE METHOD TO REDUCE CLEARING TIME VIA ENERGY-REDUCING MAINTENANCE SWITCH, INSTANTANEOUS TRIP SETTING, OR OTHER APPROVED METHOD AS LISTED PER NEC 240.87(B).

LEGEND

SYMBOLS	DESCRIPTION	MOUNTING
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	18" AFF
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	42" AFF OR 6" ABOVE COUNTER TOP
	QUADRAPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	18" AFF
AC	QUADRAPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	42" AFF OR 6" ABOVE COUNTER TOP
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	FLUSH WITH FINISHED FLOOR
	DUPLEX RECEPTACLE, 120V, 20A, NEMA 5-20R	IN CEILING
	SPECIAL RECEPTACLE, CONFIGURATION AND ELECTRICAL CHARACTERISTIC AS NOTED ON DWG	18" AFF
J	JUNCTION BOX FLUSH IN WALL WITH COVER. SIZE PER NEC.	18" AFF
J	JUNCTION BOX FLUSH IN CEILING WITH COVER. SIZE PER NEC.	IN CEILING
J	JUNCTION BOX FLUSH IN FINISHED FLOOR WITH COVER. SIZE PER NEC.	FLUSH WITH FINISHED FLOOR
$	SWITCH	42" AFF
$3 / $3	SWITCH - 3 WAY	42" AFF
¢ / $OS	SWITCH - WALL MTD, INTEGRAL OCCUPANCY SENSOR	42" AFF
$LV	SWITCH - WALL MTD, LOW VOLTAGE, PILOT LIGHT	42" AFF
Ø / $D	SWITCH - WALL MTD, DIMMING	42" AFF
OS	SWITCH - CEILING MOUNTED OCCUPANCY SENSOR	IN CEILING
	TV OUTLET	18" AFF
	TELEPHONE OUTLET	18" AFF
	TELEPHONE OUTLET. SUBSCRIPT: F - FIREMAN'S PHONE, H - HOUSE PHONE, P - PAY PHONE	42" AFF OR 6" ABOVE COUNTER TOP
	TELEPHONE / DATA COMBINATION OUTLET	18" AFF
	TELEPHONE / DATA COMBINATION OUTLET	FLUSH WITH FINISHED FLOOR
	TELEPHONE / DATA COMBINATION OUTLET	42" AFF OR 6" ABOVE COUNTER TOP
	DATA OUTLET	18" AFF
	DATA OUTLET	42" AFF OR 6" ABOVE COUNTER TOP
	DISCONNECT SWITCH. SUBSCRIPT: AMP / # OF POLES / ENCLOSURE	AS INDICATED ON DWG
	FUSED DISCONNECT SWITCH, SUBSCRIPT: AMP / # OF POLES / ENCLOSURE / FUSE	AS INDICATED ON DWG
	ELECTRICAL PANELBOARD. REFER TO PANELBOARD SCHEDULE.	SURFACE MOUNTED ON WALL
	EQUIPMENT AS NOTED ON DRAWING.	SURFACE MOUNTED ON WALL
M	MOTOR	
XX-#	HOME RUN WITH WIRE TICKS. XX - PANEL DESIGNATION, # - CIRCUIT DESIGNATION. WIRE TICKS - (1) NEUTRAL, (3) HOT W & (1) GROUND.	
D / D	SMOKE DETECTOR. CEILING / WALL MOUNTED	
H / H	HEAT DETECTOR. CEILING/WALL MOUNTED	
	FIRE ALARM NOTIFICATION DEVICE. AUDIO AND VISUAL.	80" AFF
	FIRE ALARM NOTIFICATION DEVICE. AUDIO.	80" AFF
	FIRE ALARM NOTIFICATION DEVICE. VISUAL.	80" AFF
	FIRE ALARM INITIATION DEVICE. PULL STATION.	42" AFF

ABBREVIATIONS

AC	6" ABOVE COUNTER SPACE OR 42" AFF	IG	ISOLATED GROUND
AF	AMP FUSE	ISC	SHORT CIRCUIT CURRENT
AFF	ABOVE FINISHED FLOOR	LTG	LIGHTING
AL	ALUMINUM	MTD	MOUNTED
BFC	BELOW FINISHED CEILING	N	NEUTRAL
BKR	BREAKER	NL	NIGHT LIGHT
CND	CONDUIT	NEC	NATIONAL ELECTRICAL CODE
CONN	CONNECTED OR CONNECTION	PNL	PANEL
CTB	CABLE TV TERMINAL BACKBOARD	RECPT	RECEPTACLE
CU	COPPER	TEL	TELEPHONE
DN	DOWN	TTB	TELEPHONE TERMINAL BOARD
EC	EMPTY CONDUIT	TV	TELEVISION
ELEC	ELECTRICAL	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
FACP	FIRE ALARM CONTROL PANEL	TYP	TYPICAL
FAA	FIRE ALARM ANNUNCIATOR PANEL	XFMR	TRANSFORMER
G OR GRND	GROUND	UG	UNDERGROUND
GFCI OR GF	GROUND FAULT CIRCUIT INTERRUPTER	WP	WEATHERPROOF

KEVIN J. MAHER AIA
PROFICIENT ENGINEERING
6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121425

REV #	DATE	DESCRIPTION

SPACE SHOP
SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
BRIAN M. ARMENTA
E-72911
REGISTERED PROFESSIONAL ENGINEER

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KEVIN J. MAHER, AIA
1000 CIRCLE 75 PARKWAY
SUITE 400
ATLANTA, GEORGIA 30339
404.549.4499 (p)

ISSUE DATE	08/17/22
DRAWN BY	NF/NC/DK
CHECKED BY	PK/BA
FMD PROJ #	20052

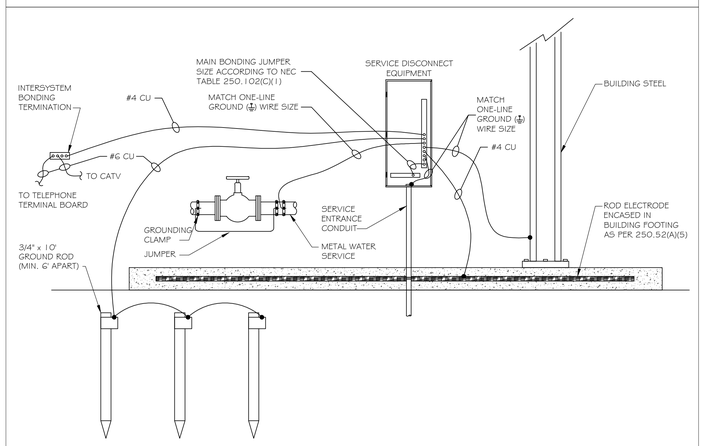
SHEET TITLE

GENERAL

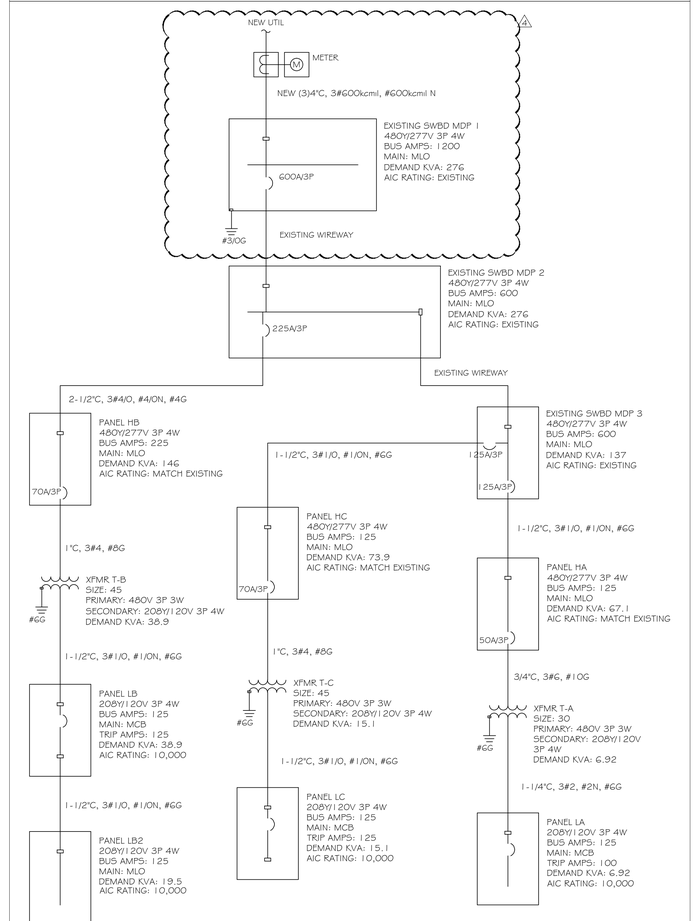
SHEET #

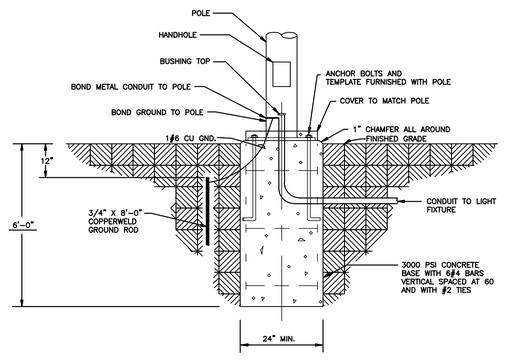
E0.1

GROUNDING AND BONDING DETAIL



ONE LINE DIAGRAM





2	POLE BASE DETAIL
NTS	–

STORAGE LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	LAMP	DESCRIPTION	MODEL	VOLTS
1		(1) 12W LED	LED KEYLESS FIXTURE WITH INTEGRATED MOTION SENSOR	LEVITON 9864-LED	120V 1P 2W
2		(1) 40W LED	LED 4FT CEILING WRAP FIXTURE WITH INTEGRATED MOTION SENSOR	SATCO NUVO 65-1098	120V 1P 2W 277V 1P 2W
A		(2) 18W LED	4' LED	LEGACY LIGHTING C2324MV	277V 1P 2W
AE		(2) 18W LED	4' LED WITH EMERGENCY BATTERY	LEGACY LIGHTING C2324MVEM	277V 1P 2W
B		(2) 11W LED	4' LED STRIP	LEGACY: C132X1	120V 1P 2W 277V 1P 2W
C		(1) 87W LED	LED CANOPY LIGHT	LITHONIA CNY LED P3 40K MVOLT	120V 1P 2W 277V 1P 2W
D		(1) 35W LED	2x2 LED FLAT PANEL	SATCO 65/571	120V 1P 2W
DL		(1) 17W LED	GENERAL PURPOSE LED W/ DARK BRONZE FINISH	LITHONIA OLCFM 15 DDB	120V 1P 2W
H		(1) LED	LED HIGH BAY	LITHONIA COMPACT PRO CPHB 30000LM SEF GCL WD MVOLT GZ10 40K 80CRI	277V 1P 2W
HE		(1) LED	LED HIGH BAY W/ EMERGENCY BATTERY	LITHONIA COMPACT PRO CPHB 30000LM SEF GCL WD MVOLT GZ10 40K 80CRI E15WMCP	277V 1P 2W
RS-3		(1) 570W LED	LED POLE LIGHT WITH 3 LAMP HEADS @ 25FT. POLE TO BE SELECTED BY GC	LITHONIA RSX2 LED P4 40K R4	277V 1P 2W
SA1		(1) 32W LED	LED 28" EXTERIOR SCONCE	HINKLEY SATURN 190595 LARGE WALL MOUNT LANTERN	120V 1P 2W
T		(2) 1.5W LED	EMERGENCY LIGHTING UNIT	LITHONIA ELM2L-LED	120V 1P 2W
TL		(1) 13W LED	LED TRACK LIGHT WITH 5A CURRENT LIMITER; PAR38 LED LAMP FOR TRACK	LAZER TRACK LZR104 WITH LED13WPAR38/FL830K LAMP	120V 1P 2W
W1		(1) 29W LED	EXTERIOR WALL PACK	LITHONIA KAXW LED P1 40K R3 MVOLT	277V 1P 2W
W3		(1) 79W LED	EXTERIOR WALL PACK	LITHONIA KAXW LED P3 40K R4 MVOLT	277V 1P 2W
X		(1) 5W LED	THERMOPLASTIC EXIT SIGN WITH BACKUP BATTERY	LITHONIA LQM-S-W-3-R-120/277-EL-N	120V 1P 2W 277V 1P 2W
XR		(1) INCLUDED	REMOTE LAMP HEAD	LITHONIA ELA-QWP-L0309-SD	120V 1P 2W 277V 1P 2W

GENERAL SCHEDULE

CALLOUT	SYMBOL	VOLTS	KVA	BREAKER	CIRCUIT	WIRE CALLOUT	DISCONNECT DESCRIPTION
DH-A		120V 1P 2W	1.56	15/1	LB-11	1/2"C,1#12,#12N,#12G	30A/1P/NEMA 1
EF-1		120V 1P 2W	0.7	20/1	LA-6	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-2		120V 1P 2W	0.53	20/1	LA-6	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-3		120V 1P 2W	1.66	20/1	LB-12	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-4		120V 1P 2W	0.53	20/1	LB-14	1/2"C,1#10,#10N,#10G	SWITCHED WITH LIGHTS
EF-5		120V 1P 2W	0.53	20/1	LC-2	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-A		120V 1P 2W	0.1	20/1	LB2-2	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
EF-A		120V 1P 2W	0.1	20/1	LB2-2	1/2"C,1#12,#12N,#12G	SWITCHED WITH LIGHTS
FCU-1		480V 3P 4W	15.31	25/3	HB-26,28,30	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 1
FCU-2		480V 3P 4W	15.73	30/3	HB-33,35,37	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 1
FCU-3		208/120V 2P 3W	6.86	40/2	LB-19,21	3/4"C,2#8,#8N,#10G	60A/3P/NEMA 1
FCU-4		208/120V 2P 3W	6.86	40/2	LC-13,15	3/4"C,2#8,#8N,#10G	60A/3P/NEMA 1
HP-1		480V 3P 4W	6.65	15/3	HB-20,22,24	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R
HP-2		480V 3P 4W	6.65	15/3	HB-14,16,18	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R
HP-3		208/120V 2P 3W	2.29	20/2	LB-15,17	1/2"C,2#12,#12N,#12G	30A/2P/NEMA 3R
HP-4		208/120V 2P 3W	2.29	20/2	LC-9,11	1/2"C,2#12,#12N,#12G	30A/2P/NEMA 3R
MFCU-1		208/120V 2P 3W	0.21	15/2	LC-5,7	1/2"C,2#12,#12N,#12G	30A/2P/NEMA 1
MHP-1		208/120V 2P 3W	1.87	15/2	LC-5,7	1/2"C,2#12,#12N,#12G	30A/2P/NEMA 3R
RTU-1		480V 3P 4W	8.31	15/3	HA-17,19,21	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R
RTU-2		480V 3P 4W	14.96	20/3	HC-16,18,20	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R
RTU-3		480V 3P 4W	14.13	25/3	HC-22,24,26	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 3R
RTU-4		480V 3P 4W	11.64	20/3	HB-27,29,31	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R
RTU-5		480V 3P 4W	15.8	20/3	HA-11,13,15	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R
RTU-6		480V 3P 4W	14.96	20/3	HA-23,25,27	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 3R
RTU-7		480V 3P 4W	14.13	25/3	HB-15,17,19	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 3R
RTU-8		480V 3P 4W	8.31	15/3	HB-21,23,25	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 3R
RTU-9		480V 3P 4W	11.64	20/3	HC-10,12,14	1/2"C,3#10,#10N,#10G	30A/3P/NEMA 3R
UH-1		120V 1P 2W	0.42	20/1	LA-4	1/2"C,1#12,#12N,#12G	30A/1P/NEMA 1
UH-1		120V 1P 2W	0.42	20/1	LB-10	1/2"C,1#12,#12N,#12G	30A/1P/NEMA 1
WH-1		208V 3P 4W	3	20/3	LB2-7,9,11	1/2"C,3#12,#12N,#12G	30A/3P/NEMA 1

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6991 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121425

REV #	DATE	DESCRIPTION
03	09-17-21	PERMIT COMMENTS
03	10-21-21	PERMIT COMMENTS
04	11-12-21	REVISION 04

the SPACE SHOP
SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
BRIAN M. ARMENTA
E-72911
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PROFESSIONAL ENGINEER

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404.549.4499 (p)

ISSUE DATE	08/17/2021
DRAWN BY	NF/NC/DB
CHECKED BY	PK/BA
PMD PROJ #	20052

SHEET TITLE
SCHEDULES & ONE LINE DIAGRAM

SHEET #
E0.2

MDP 1

ROOM
MOUNTING SURFACE
FED FROM UTILITY
NOTE EXISTING

VOLTS 480Y/277V 3P 4W
BUS AMPS 1200
NEUTRAL 100%

AIC EXISTING
MAIN BKR MLO
LUGS STANDARD

CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	FEEDER RACEWAY AND CONDUCTORS
1	600/3	SWITCHBOARD MDP 2	99.6	87.2	81.8	(2)3"C,3#350kcmil,#350kcmil N,#1G
2	20/3	SPACE	0.0	0.0	0.0	
3	20/3	SPACE	0.0	0.0	0.0	
4	20/3	SPACE	0.0	0.0	0.0	
5	20/3	SPACE	0.0	0.0	0.0	
6	20/3	SPACE	0.0	0.0	0.0	
		TOTAL CONNECTED KVA BY PHASE	99.6	87.2	81.8	

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	48.5	60.6	(125%)	KITCHEN EQUIPMENT	1.2	1.2	(100%)
LARGEST MOTOR	15.8	3.9	(25%)	CONTINUOUS	3.0	3.8	(125%)
MOTORS	124.9	124.9	(100%)	NONCONTINUOUS	2.5	2.5	(100%)
RECEPTACLES	28.3	19.2	(50%>10)	HEATING	60.2	60.2	(100%)
				TOTAL LOAD		276.3	
				BALANCED 3-PHASE LOAD		332.3 A	

MDP 2

ROOM
MOUNTING SURFACE
FED FROM MDP 1
NOTE EXISTING

VOLTS 480Y/277V 3P 4W
BUS AMPS 600
NEUTRAL 100%

AIC EXISTING
MAIN BKR MLO
LUGS FEEDTHRU

CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	FEEDER RACEWAY AND CONDUCTORS
1	225/3	PANEL HB	47.8	47.9	46.2	2-1/2"C,3#4/0,#4/0N,#4G
2	20/3	SPACE	0.0	0.0	0.0	
3	20/3	SPACE	0.0	0.0	0.0	
4	20/3	SPACE	0.0	0.0	0.0	
5	20/3	SPACE	0.0	0.0	0.0	
6	20/3	SPACE	0.0	0.0	0.0	
		LUG LOAD: SWITCHBOARD MDP 3	51.8	39.3	35.6	
		TOTAL CONNECTED KVA BY PHASE	99.6	87.2	81.8	

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	48.5	60.6	(125%)	KITCHEN EQUIPMENT	1.2	1.2	(100%)
LARGEST MOTOR	15.8	3.9	(25%)	CONTINUOUS	3.0	3.8	(125%)
MOTORS	124.9	124.9	(100%)	NONCONTINUOUS	2.5	2.5	(100%)
RECEPTACLES	28.3	19.2	(50%>10)	HEATING	60.2	60.2	(100%)
				TOTAL LOAD		276.3	
				BALANCED 3-PHASE LOAD		332.3 A	

MDP 3

ROOM
MOUNTING SURFACE
FED FROM MDP 2
NOTE EXISTING

VOLTS 480Y/277V 3P 4W
BUS AMPS 600
NEUTRAL 100%

AIC EXISTING
MAIN BKR MLO
LUGS STANDARD

CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	FEEDER RACEWAY AND CONDUCTORS
1	125/3	PANEL HA	24.7	19.3	15.6	1-1/2"C,3#1/0,#1/0N,#6G
2	125/3	PANEL HC	27.1	20.0	20.0	1-1/2"C,3#1/0,#1/0N,#6G
3	20/3	SPACE	0.0	0.0	0.0	
4	20/3	SPACE	0.0	0.0	0.0	
5	20/3	SPACE	0.0	0.0	0.0	
6	20/3	SPACE	0.0	0.0	0.0	
		TOTAL CONNECTED KVA BY PHASE	51.8	39.3	35.6	

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	26.1	32.6	(125%)	RECEPTACLES	6.4	6.4	(50%>10)
LARGEST MOTOR	15.8	3.9	(25%)	NONCONTINUOUS	1.0	1.0	(100%)
MOTORS	84.9	84.9	(100%)	HEATING	8.3	8.3	(100%)
				TOTAL LOAD		137.2	
				BALANCED 3-PHASE LOAD		165.0 A	

HA

Panel
ROOM
MOUNTING SURFACE
FED FROM MDP 3
NOTE

VOLTS 480Y/277V 3P 4W
BUS AMPS 125
NEUTRAL 100%

AIC MATCH EXISTING
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	50/3	6.7	XFMR T-A	a	2	20/1	3.6	LIGHTING
3	|			b	4	20/1	0.0	SPACE
5	|			c	6	20/1	0.4	LIGHTING
7	20/1	3.0	LIGHTING	a	8	20/1	2.8	LIGHTING
9	20/1	3.0	LIGHTING	b	10	20/1	1.1	LIGHTING
11	20/3	15.8	RTU-5	c	12	20/1	0.0	SPACE
13	|			a	14	20/1	0.0	SPACE
15	|			b	16	20/1	0.0	SPACE
17	15/3	8.3	RTU-1	c	18	20/1	0.0	SPACE
19	|			a	20	20/1	0.0	SPACE
21	|			b	22	20/1	0.0	SPACE
23	20/3	15.0	RTU-6	c	24	20/1	0.0	SPACE
25	|			a	26	20/1	0.0	SPACE
27	|			b	28	20/1	0.0	SPACE
29	20/1	0.0	SPACE	c	30	20/1	0.0	SPACE
31	20/1	0.0	SPACE	a	32	20/1	0.0	SPACE
33	20/1	0.0	SPACE	b	34	20/1	0.0	SPACE
35	20/1	0.0	SPACE	c	36	20/1	0.0	SPACE
37	20/1	0.0	SPACE	a	38	20/1	0.0	SPACE
39	20/1	0.0	SPACE	b	40	20/1	0.0	SPACE
41	20/1	0.0	SPACE	c	42	20/1	0.0	SPACE

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	14.2	17.8	(125%)	MOTORS	40.7	40.7	(100%)
LARGEST MOTOR	15.8	3.9	(25%)	RECEPTACLES	4.6	4.6	(50%>10)
				TOTAL LOAD		67.1	
				BALANCED 3-PHASE LOAD		80.7 A	
				PHASE A		124%	
				PHASE B		97.2%	
				PHASE C		78.5%	

HB

Panel
ROOM
MOUNTING SURFACE
FED FROM MDP 2
NOTE

VOLTS 480Y/277V 3P 4W
BUS AMPS 225
NEUTRAL 100%

AIC MATCH EXISTING
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	70/3	43.2	XFMR T-B	a	2	20/1	2.7	LIGHTING
3	|			b	4	20/1	2.9	LIGHTING
5	|			c	6	20/1	3.4	LIGHTING
7	20/1	0.8	LIGHTING	a	8	20/1	3.0	LIGHTING
9	20/1	0.5	LIGHTING	b	10	20/1	3.4	LIGHTING
11	20/1	1.1	LIGHTING	c	12	20/1	2.3	LIGHTING
13	20/1	0.0	SPACE	a	14	15/3	6.7	HP-2
15	25/3	14.1	RTU-7	b	16	|		
17	|			c	18	|		
19	|			a	20	15/3	6.7	HP-1
21	15/3	8.3	RTU-8	b	22	|		
23	|			c	24	|		
25	|			a	26	25/3	15.3	FCU-1
27	20/3	11.6	RTU-4	b	28	|		
29	|			c	30	|		
31	|			a	32	20/1	0.0	SPACE
33	30/3	15.7	FCU-2	b	34	20/1	0.0	SPACE
35	|			c	36	20/1	0.0	SPACE
37	|			a	38	20/1	0.0	SPACE
39	20/1	0.0	SPACE	b	40	20/1	0.0	SPACE
41	20/1	0.0	SPACE	c	42	20/1	0.0	SPACE

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	22.4	28.0	(125%)	KITCHEN EQUIPMENT	1.2	1.2	(100%)
LARGEST MOTOR	14.1	3.5	(25%)	CONTINUOUS	3.0	3.8	(125%)
MOTORS	40.0	40.0	(100%)	NONCONTINUOUS	1.5	1.5	(100%)
RECEPTACLES	21.9	15.9	(50%>10)	HEATING	52.0	52.0	(100%)
				TOTAL LOAD		145.8	
				BALANCED 3-PHASE LOAD		175.4 A	
				PHASE A		101%	
				PHASE B		101%	
				PHASE C		97.7%	

HC

Panel
ROOM
MOUNTING SURFACE
FED FROM MDP 3
NOTE

VOLTS 480Y/277V 3P 4W
BUS AMPS 125
NEUTRAL 100%

AIC MATCH EXISTING
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	70/3	14.6	XFMR T-C	a	2	20/1	3.4	LIGHTING
3	|			b	4	20/1	0.4	LIGHTING
5	|			c	6	20/1	2.0	LIGHTING
7	20/1	3.1	LIGHTING	a	8	20/1	2.9	LIGHTING
9	20/1	0.0	SPACE	b	10	20/3	11.6	RTU-9
11	20/1	0.0	SPACE	c	12	|		
13	20/1	0.0	SPACE	a	14	|		
15	20/1	0.0	SPACE	b	16	20/3	15.0	RTU-2
17	20/1	0.0	SPACE	c	18	|		
19	20/1	0.0	SPACE	a	20	|		
21	20/1	0.0	SPACE	b	22	25/3	14.1	RTU-3
23	20/1	0.0	SPACE	c	24	|		
25	20/1	0.0	SPACE	a	26	|		
27	20/1	0.0	SPACE	b	28	20/1	0.0	SPACE
29	20/1	0.0	SPACE	c	30	20/1	0.0	SPACE
31	20/1	0.0	SPACE	a	32	20/1	0.0	SPACE
33	20/1	0.0	SPACE	b	34	20/1	0.0	SPACE
35	20/1	0.0	SPACE	c	36	20/1	0.0	SPACE
37	20/1	0.0	SPACE	a	38	20/1	0.0	SPACE
39	20/1	0.0	SPACE	b	40	20/1	0.0	SPACE
41	20/1	0.0	SPACE	c	42	20/1	0.0	SPACE

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	11.9	14.9	(125%)	RECEPTACLES	1.8	1.8	(50%>10)
LARGEST MOTOR	15.0	3.7	(25%)	NONCONTINUOUS	1.0	1.0	(100%)
MOTORS	44.2	44.2	(100%)	HEATING	8.3	8.3	(100%)
				TOTAL LOAD		73.9	
				BALANCED 3-PHASE LOAD		88.9 A	
				PHASE A		121%	
				PHASE B		89.3%	
				PHASE C		89.5%	

LA

Panel
ROOM
MOUNTING SURFACE
FED FROM T-A
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 125
NEUTRAL 100%

AIC 10,000
MAIN BKR 100
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	1.6	OVERHEAD DOOR	a	2	20/1	0.5	RECEPTACLE
3	20/1	1.6	OVERHEAD DOOR	b	4	20/1	0.4	UH-1
5	20/1	0.7	KEYPAD, RECEPTACLE	c	6	20/1	1.6	EF-1, EF-2, LIGHTING
7	20/1	0.2	VEHICLE GATE	a	8	20/1	0.0	SPACE
9	20/1	0.0	SPACE	b	10	20/1	0.0	SPACE
11	20/1	0.0	SPACE	c	12	20/1	0.0	SPACE
13	20/1	0.0	SPACE	a	14	20/1	0.0	SPACE
15	20/1	0.0	SPACE	b	16	20/1	0.0	SPACE
17	20/1	0.0	SPACE	c	18	20/1	0.0	SPACE
19	20/1	0.0	SPACE	a	20	20/1	0.0	SPACE
21	20/1	0.0	SPACE	b	22	20/1	0.0	SPACE
23	20/1	0.0	SPACE	c	24	20/1	0.0	SPACE
25	20/1	0.0	SPACE	a	26	20/1	0.0	SPACE
27	20/1	0.0	SPACE	b	28	20/1	0.0	SPACE
29	20/1	0.0	SPACE	c	30	20/1	0.0	SPACE
31	20/1	0.0	SPACE	a	32	20/1	0.0	SPACE
33	20/1	0.0	SPACE	b	34	20/1	0.0	SPACE
35	20/1	0.0	SPACE	c	36	20/1	0.0	SPACE
37	20/1	0.0	SPACE	a	38	20/1	0.0	SPACE
39	20/1	0.0	SPACE	b	40	20/1	0.0	SPACE
41	20/1	0.0	SPACE	c	42	20/1	0.0	SPACE

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.4	0.5	(125%)	MOTORS	1.6	1.6	(100%)
LARGEST MOTOR	0.7	0.2	(25%)	RECEPTACLES	4.6	4.6	(50%>10)
				TOTAL LOAD		6.9	
				BALANCED 3-PHASE LOAD		19.2 A	
				PHASE A		105%	
				PHASE B		91.1%	
				PHASE C		104%	

LB

Panel
ROOM
MOUNTING SURFACE
FED FROM T-B
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 125
NEUTRAL 100%

AIC 10,000
MAIN BKR 125
LUGS FEEDTHRU

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	1.2	SIGN	a	2	20/1	1.2	MONUMENT SIGN
3	20/1	1.6	OVERHEAD DOOR	b	4	20/1	0.2	VEHICLE GATE
5	20/1	1.6	OVERHEAD DOOR	c	6	20/1	0.2	LIGHTING
7	20/1	1.6	OVERHEAD DOOR	a	8	20/1	0.5	RECEPTACLE
9	20/1	0.7	KEYPAD, RECEPTACLE	b	10	20/1	0.4	UH-1
11	15/1	1.6	DH-A	c	12	20/1	1.9	EF-3, LIGHTING
13	20/1	0.4	RECEPTACLE	a	14	20/1	1.0	EF-4, LIGHTING
15	20/2	2.3	HP-3	b	16	20/1	0.2	RECEPTACLE
17	|			c	18	20/1	0.0	SPACE
19	40/2	6.9	FCU-3	a	20	20/1	0.0	SPACE
21	|			b	22	20/1	0.0	SPACE
23	20/1	0.0	SPACE	c	24	20/1	0.0	SPACE
25	20/1	0.0	SPACE	a	26	20/1	0.0	SPACE
27	20/1	0.0	SPACE	b	28	20/1	0.0	SPACE
29	20/1	0.0	SPACE	c	30	20/1	0.0	SPACE
31	20/1	0.0	SPACE	a	32	20/1	0.0	SPACE
33	20/1	0.0	SPACE	b	34	20/1	0.0	SPACE
35	20/1	0.0	SPACE	c	36	20/1	0.0	SPACE
37	20/1	0.0	SPACE	a	38	20/1	0.0	SPACE
39	20/1	0.0	SPACE	b	40	20/1	0.0	SPACE
41	20/1	0.0	SPACE	c	42	20/1	0.0	SPACE
		LUG LOAD: 19.8 KVA PANEL LB2						

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	2.1	2.6	(125%)	KITCHEN EQUIPMENT	1.2	1.2	(100%)
LARGEST MOTOR	1.7	0.4	(25%)	CONTINUOUS	3.0	3.8	(125%)
MOTORS	3.7	3.7	(100%)	NONCONTINUOUS	1.5	1.5	(100%)
RECEPTACLES	21.9	15.9	(50%>10)	HEATING	9.8	9.8	(100%)
				TOTAL LOAD		38.9	
				BALANCED 3-PHASE LOAD		108.1 A	
				PHASE A		117%	
				PHASE B		89.9%	
				PHASE C		93.5%	

LB2

Panel
ROOM
MOUNTING SURFACE
FED FROM LB
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 125
NEUTRAL 100%

AIC 10,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	1.2	SIGN	a	2	20/1	0.8	EF-A, LIGHTING
3	20/1	0.4	KEYPAD, RECEPTACLE	b	4	20/1	0.2	LIGHTING
5	20/1	0.4	LIGHTING	c	6	20/1	1.2	PYLON SIGN
7	20/3	3.0	WH-1	a	8	20/1	1.2	SIGN
9	|			b	10	20/1	0.2	RECEPTACLE
11	|			c	12	20/1	0.7	RECEPTACLE
13	20/1	0.9	RECEPTACLE	a	14	20/1	0.5	RECEPTACLE
15	20/1	0.5	RECEPTACLE	b	16	20/1	1.2	WARMING DWR
17	20/1	1.1	RECEPTACLE	c	18	20/1	1.2	BEV
19	20/1	1.2	REFRIGERATOR	a	20	20/1	0.6	SIGN
21	20/1	1.4	DISHWASHER	b	22	20/1	0.4	RECEPTACLE
23	20/1	1.5	MICROWAVE	c	24	20/1	0.0	SPACE
25	20/1	0.0	SPACE	a	26	20/1	0.0	SPACE
27	20/1	0.0	SPACE	b	28	20/1	0.0	SPACE
29	20/1	0.0	SPACE	c	30	20/1	0.0	SPACE
31	20/1	0.0	SPACE	a	32	20/1	0.0	SPACE
33	20/1	0.0	SPACE	b	34	20/1	0.0	SPACE
35	20/1	0.0	SPACE	c	36	20/1	0.0	SPACE
37	20/1	0.0	SPACE	a	38	20/1	0.0	SPACE
39	20/1	0.0	SPACE	b	40	20/1	0.0	SPACE
41	20/1	0.0	SPACE	c	42	20/1	0.0	SPACE

PROVIDE SUBMETERING FOR PYLON SIGN CIRCUIT

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	1.2	1.5	(125%)	RECEPTACLES	12.7	11.3	(50%>10)
LARGEST MOTOR	0.1	0.0	(25%)	KITCHEN EQUIPMENT	1.2	1.2	(100%)
MOTORS	0.2	0.2	(100%)	CONTINUOUS	3.0	3.8	(125%)
				NONCONTINUOUS	1.5	1.5	(100%)
				TOTAL LOAD		19.5	
				BALANCED 3-PHASE LOAD		54.1 A	
				PHASE A		112%	
				PHASE B		79.9%	
				PHASE C		108%	

LC

Panel
ROOM
MOUNTING SURFACE
FED FROM T-C
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 125
NEUTRAL 100%

AIC 10,000
MAIN BKR 125
LUGS FEEDTHRU

CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	0.0	LIGHTING	a	2	20/1	0.6	EF-5, LIGHTING
3	20/1	0.4	KEYPAD, RECEPTACLE	b	4	20/1	0.4	KEYPAD, RECEPTACLE
5	15/2	2.1	MFCU-1, MHP-1	c	6	20/1	0.4	KEYPAD, RECEPTACLE
7	|			a	8	20/1	0.7	RECEPTACLE
9	20/2	2.3	HP-4	b	10	20/1	1.0	TEL BACKBOARD
11	|			c	12	20/1	0.0	SPACE
13	40/2	6.9	FCU-4	a	14	20/1	0.0	SPACE
15	|			b	16	20/1	0.0	SPACE
17	20/1	0.0	SPACE	c	18	20/1	0.0	SPACE
19	20/1	0.0	SPACE	a	20	20/1	0.0	SPACE
21	20/1	0.0	SPACE	b	22	20/1	0.0	SPACE
23	20/1	0.0	SPACE	c	24	20/1	0.0	SPACE
25	20/1	0.0	SPACE	a	26	20/1	0.0	SPACE
27	20/1	0.0	SPACE	b	28	20/1	0.0	SPACE
29	20/1	0.0	SPACE	c	30	20/1	0.0	SPACE
31	20/1	0.0	SPACE	a	32	20/1	0.0	SPACE
33	20/1	0.0	SPACE	b	34	20/1	0.0	SPACE
35	20/1	0.0	SPACE	c	36	20/1	0.0	SPACE
37	20/1	0.0	SPACE	a	38	20/1	0.0	SPACE
39	20/1	0.0	SPACE	b	40	20/1	0.0	SPACE
41	20/1	0.0	SPACE	c	42	20/1	0.0	SPACE

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.1	0.1	(125%)	RECEPTACLES	1.8	1.8	(50%>10)
LARGEST MOTOR	1.9	0.5	(25%)	NONCONTINUOUS	1.0	1.0	(100%)
MOTORS	3.5	3.5	(100%)	HEATING	8.3	8.3	(100%)
				TOTAL LOAD		15.1	
				BALANCED 3-PHASE LOAD		42.0 A	
				PHASE A		120%	
				PHASE B		129%	
				PHASE C		51.1%	

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Peachtree Corners, Georgia 30092
404.330.9798
PROJECT # 121425

REV #	DATE	DESCRIPTION

the SPACE SHOP SELF STORAGE
MASSILLON STORAGE
2600 LINCOLN WAY E - MASSILLON, OH 44646
STEIN INVESTMENT GROUP

STATE OF OHIO
BRIAN M. ARMENTA
E-72911
REGISTERED
PROFESSIONAL ENGINEER

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ISSUE DATE	08/17/2021
DRAWN BY	NF/NC/DK
CHECKED BY	PK/BA
PMD PROJ #	20037

SHEET TITLE

SCHEDULES

SHEET #

E0.3

COMcheck Software Version 4.1.5.3

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: MASSILLON STORAGE
Project Type: New Construction

Construction Site:
2600 LINCOLN WAY E
MASSILLON, OH 44646

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power, 1.0 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Warehouse	109000	0.59	64746
		Total Allowed Watts =	64746

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Warehouse				
LED: 1: LED KEYLESS FIXTURE WITH INTEGR: Other:	1	24	12	288
LED: 2: LED 4FT CEILING WRAP FIXTURE WI: Other:	1	44	40	1760
Linear Fluorescent: A (STORAGE): 4' LED: Other: Electronic:	2	11	36	396
Linear Fluorescent: AE: 4' LED WITH EMERGENCY BATTERY: Other: Electronic:	2	8	36	288
LED: B (STORAGE): 4' LED STRIP: Other:	2	15	22	330
LED: D (STORAGE): 2x2 LED FLAT PANEL: Other:	1	13	35	455
LED: H: 2x4 LED RECESSED TROFFER: Other:	1	132	241	31812
LED: HE: 2x4 LED RECESSED TROFFER: Other:	1	60	241	14460
LED: L: 14"LED WAREHOUSE PENDANT: SATI: Other: Electronic:	1	3	20	60
LED: TL: LED TRACK LIGHT WITH 5A CURRENT: Other:	1	18	13	234
			Total Proposed Watts =	50083

Interior Lighting PASSES: Design 23% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Brian M. Armenta -PE
Name - Title

Signature

08/17/2021
Date

COMcheck Software Version 4.1.5.3

Inspection Checklist

Energy Code: 2015 IECC

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15][1]	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1 [EL18][1]	Occupancy sensors installed in required spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1, C405.2.2.3 [EL23][2]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.1 [EL22][2]	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3 [EL16][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3, C405.2.3.1, C405.2.3.2 [EL20][1]	Primary sidelighted areas are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3, C405.2.3.1, C405.2.3.3 [EL21][1]	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.4 [EL4][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.4 [EL8][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][1]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C408.2.5.1 [FI16][1]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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PROJECT # 121425

REV #	DATE	DESCRIPTION

SPACE SHOP
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STEIN INVESTMENT GROUP

STATE OF OHIO
BRIAN M. ARMENTA
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PROFESSIONAL ENGINEER

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ISSUE DATE	08/17/2021
DRAWN BY	NF/NC/DS
CHECKED BY	PK/BA
PMD PROJ #	20052

SHEET TITLE

COMPLIANCE REPORT

SHEET # E0.4

GENERAL NOTES

REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES.

ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY ARTICLE 250-146.

PROVIDE UNSWITCHED HOT LEG OF CIRCUIT TO EMERGENCY LIGHTING AND EXIT SIGNS.

FIXTURES NOT INDICATED TO BE CONTROLLED BY OCCUPANCY SENSORS SHALL BE PHOTOCELL CONTROLLED.

ALL HALLWAY RECEPTACLES LOCATED AT 8' AFF.

ALL EXTERIOR LIGHTING TO BE CONTROLLED BY PHOTOCELL. COORDINATE EXACT LOCATION WITH ARCH ELEVATIONS.

LIGHTS LABELED 'NL' ARE NIGHT LIGHTS.

LIGHTING IN HALLWAYS TO BE CONTROLLED VIA NLIGHT CONTROL SYSTEM. REFER TO SHEET E1.2 AND E1.3 FOR DIRECTION ON LIGHTING CONTROL.

AUTOMATIC CONTROLS TO SHUT OFF ALL BUILDING LIGHTING INSTALLED IN ALL BUILDINGS. FIELD COORDINATE EXACT REQUIREMENT WITH OWNER'S REPRESENTATIVE FOR THE SHUTOFF OPERATION. TIMECLOCK OR VACANCY SENSORS.

LIGHTING FIXTURES 'A' AND 'AE' IN HALLWAYS ARE 4FT FIXTURES IN TANDEM.

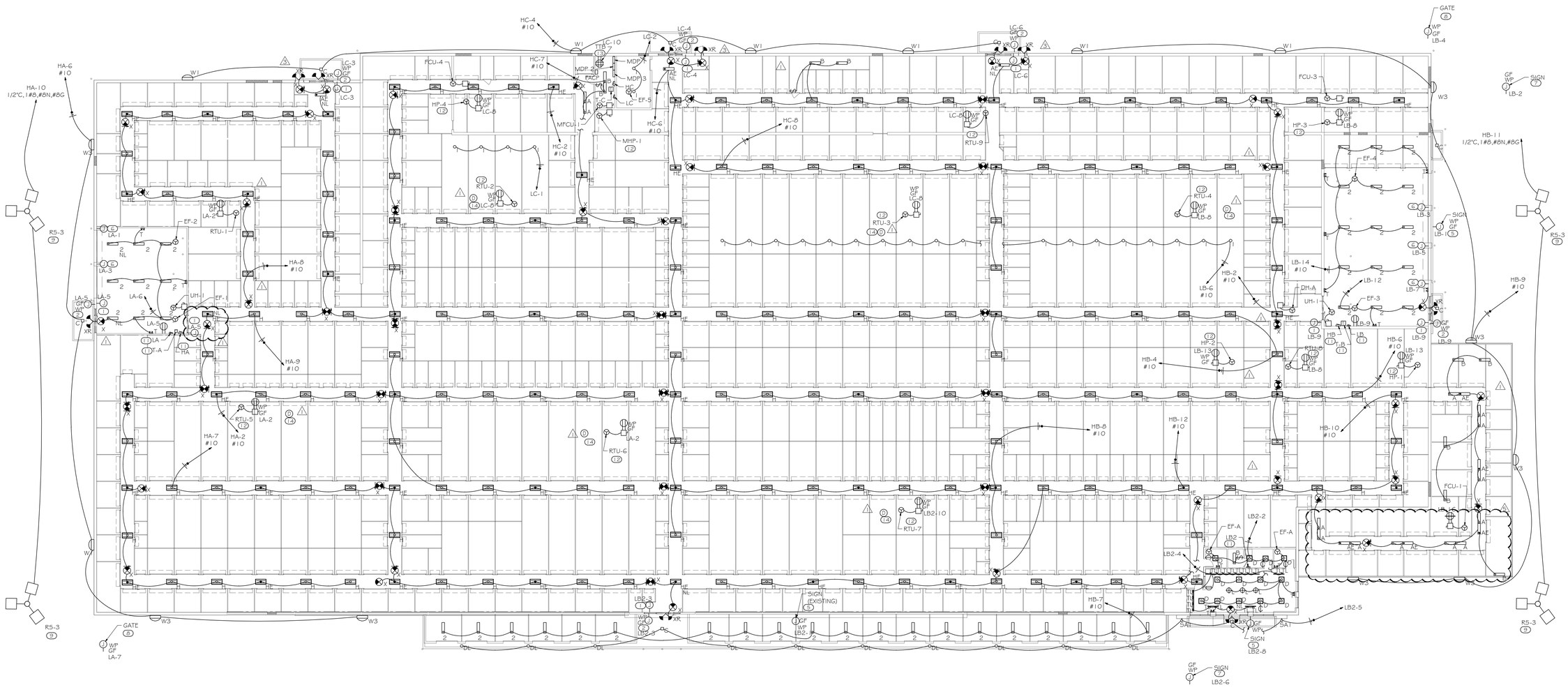
COORDINATE EXACT LOCATION OF HVAC EQUIPMENT WITH MECHANICAL DRAWINGS. FIELD COORDINATE LOCATION OF DISCONNECT SWITCES.

PROVIDE WEATHERPROOF GF RECEPTACLE WITHIN 25FT OF OUTDOOR HVAC EQUIPMENT.

PROVIDE POWER FOR CONDENSATE PUMP NEAR ALL FCU AND DEHUMIDIFIER. COORDINATE EXACT REQUIREMENT WITH ACTUAL EQUIPMENT INSTALLED.

KEYNOTES

1. JUNCTION BOX FOR SLIDING GLASS DOOR. COORDINATE EXACT LOCATION IN FIELD WITH DOOR INSTALLER.
2. PROVIDE JUNCTION BOX FOR POWER TO KEYPAD. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION IN FIELD.
3. MONUMENT SIGNAGE. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH ARCHITECT AND CIVIL ENGINEER. CONTROLLED VIA PHOTOCELL.
4. COORDINATE EXACT LOCATION OF SHUNT TRIP KNOX BOX WITH OWNER/ ARCHITECT.
5. EXTERIOR SIGNAGE. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH ARCHITECT AND CIVIL ENGINEER. CONTROLLED VIA PHOTOCELL.
6. POWER FOR OVERHEAD DOOR. FIELD COORDINATE EXACT LOCATION AND REQUIREMENT WITH ACTUAL EQUIPMENT INSTALLED.
   - PROVIDE PTI KEYPAD FOR OVERHEAD DOOR.
   - PROVIDE LOOP SENSORS AND IR SENSOR TO PREVENT CLOSING ON A VEHICLE BUT WOULD AUTO CLOSE UPON ENTRY, AUTO OPEN ON EXIT BY LOOP SENSOR.
   - ENSURE DOOR HAS RED LIGHT/ GREEN LIGHT ON EXTERIOR ABOVE EACH DOOR INDICATING IF SOMEONE IS OCCUPYING THAT BAY.
7. WEATHERPROOF J-BOX FOR MONUMENT SIGN. COORDINATE IN FIELD WITH SIGN INSTALLER FOR LOCATION AND OTHER REQUIREMENTS. SIGN TO BE CONTROLLED BY LIGHTING CONTACTOR WITH PHOTOCELL AND TIMER.
8. POWER FOR VEHICLE GATE AND FIRE ALARM INTERLOCK. FIELD COORDINATE EXACT LOCATION AND REQUIREMENT WITH ACTUAL EQUIPMENT INSTALLED.
9. POLE LIGHTS NEAR PARKING LOT. FIELD COORDINATE EXACT LOCATION WITH ARCHITECT/ OWNER.
10. EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT.
11. NEW ELECTRICAL DISTRIBUTION EQUIPMENT. FIELD COORDINATE EXACT LOCATION.
12. HVAC EQUIPMENT LOCATED ON ROOF. PROVIDE WEATHERPROOF GFCI RECEPTACLE WITHIN 25FT OF EQUIPMENT.
13. ROUTE (2) 2"C FROM TELEPHONE UTILITY DEMARCATION POINT WITH PULL STRING. △1
14. CONTRACTOR TO PROVIDE SMOKE DETECTOR IN RETURN DUCTS OF RTUS. PLEASE REFER TO MECHANICAL DESIGN DOCUMENTS FOR EXACT REQUIREMENT AND LOCATION. SMOKE DETECTORS TO TIE INTO FIRE ALARM SYSTEM.



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

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PROJECT # 121425

REV #	DATE	DESCRIPTION
01 △1	09-17-21	PERMIT COMMENTS
03 △2	10-21-21	PERMIT COMMENTS
04	11-12-21	REVISION 04
05 △3	02-14-22	REVISION 05

the SPACE SHOP
SELF STORAGE

MASSILLON STORAGE
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STEIN INVESTMENT GROUP

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ISSUE DATE	08/17/2021
DRAWN BY	NF/NC/DB
CHECKED BY	PK/BA
PMD PROJ #	20032

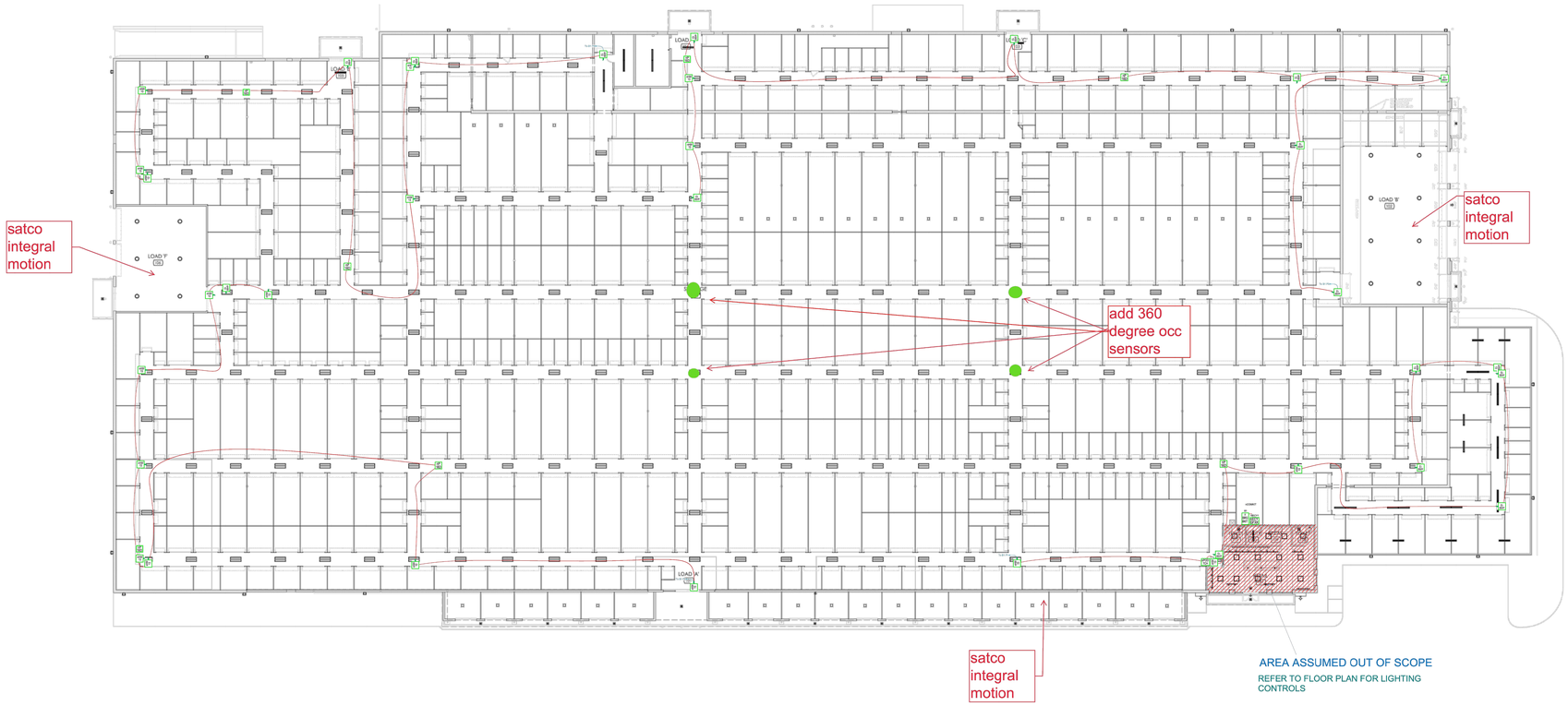
SHEET TITLE

FLOOR PLAN

SHEET #

E1.1

NOTE: THE MAXIMUM SINGLE RUN FOR CAT5e CABLE IS 1500FT.
CONTRACTOR TO FIELD COORDINATE FINAL LOCATION OF NETWORKING DEVICES/ SWITCHES.
CONTRACTOR TO COORDINATE FINAL LIGHTING CONTROL REQUIREMENT WITH OWNER/ ARCHITECT.



A LC 1.0
1/16" = 1'

Created by JKH
LC 1.0
Project: THE SPACE SHOP

1	nPOD TCH	n TCH NPOD TOUCH XX Low Voltage Wallpod, Touchscreen Wall Control
1	n BRG 8KIT	nBG NBRG 8 KIT Bridge, Kit
1	nCOMKIT	nCOMKIT NCOMKIT nLight Commissioning Kit
1	nECY GFXK	nECY GFXK NECY MVOLT ENC GFXK nLight Eclypse, 120-277 VAC, 14 1/4"H x 14 1/4"W x 4"D metal enclosure for ECLYPSE EnergySyte or nLight ECLYPSE., NGWY2 GFX and PS 150 power supply with CAT5 cable
4	nP 16D	nPD NPP16 D EFP Power/Relay Pack, Occupancy Controlled Dimming, External Fault Protection
35	nHW 13	OS1 NHW 13 Low Voltage Hallway, End-of-Hallway Lens

WIRE LEGEND - LC 1.0

CAT5e
CAT5e
Pre-terminated CAT5e cable

Disclaimer
THIS ACUITY CONTROLS LAYOUT IS FOR REFERENCE OF PRODUCT LOCATIONS ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES. PLEASE SEE THE CONSTRUCTION DOCUMENT (E-SHEET) REFERENCED IN THE TITLE BLOCK "DWG REF" SECTION, FOR MORE INFO.

Created in Visual Controls

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PROJECT # 121425

REV #	DATE	DESCRIPTION

THE SPACE SHOP
MASSILLON, OH

Drawing Type: Control Layout
Prepared For: A2 (A413)

Date: 8/2/2021
Scale: AS NOTED
Drawn By: JKH
Project #: 21-23629
DWG Ref: unknown
Sheet: LC1.0

the SPACE SHOP
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STATE OF OHIO
BRIAN M. ARMENTA
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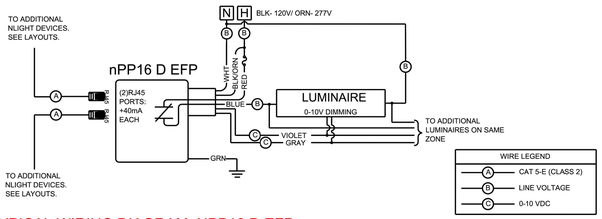
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CHECKED BY	PK/BA
PHD PROJ #	20337

SHEET TITLE
LIGHTING CONTROL

SHEET #
E1.2



TYPICAL WIRING DIAGRAM: NPP16 D EFP

N.T.S.

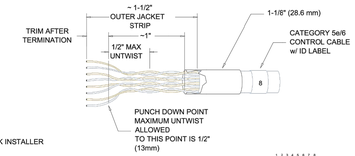
TIA / EIA-568-B CABLING STANDARD TERMINATION

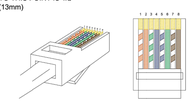
Function	PAIR #	PIN OUT (T568B)	Wire Color
(T1)	1	5	WHITE w/ BLUE
(R1)		4	BLUE
Tx + (T2)	2	1	WHITE w/ ORANGE
Tx - (R2)		2	ORANGE
Rx + (T3)	3	3	WHITE w/ GREEN
Rx - (R3)		6	GREEN
(T4)	4	7	WHITE w/ BROWN
(R4)		8	BROWN

TERMINATION & TESTING OF CAT5 CABLES MUST BE DONE BY A QUALIFIED NETWORK INSTALLER

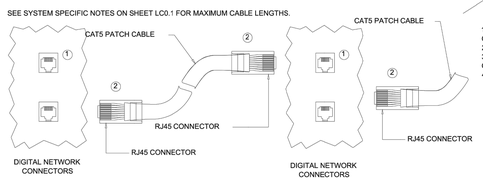
Cable termination requirements :

1. Strip off outer jacket - approximately 1-1/2" (37.8 mm)
2. Terminate approximately 1/2" (12.2 mm) from end of conductors on type 110 punch down block or connector per schedule (t568b) - maximum untwist of conductors to terminations is 1/2" (12.2 mm) - trim excess leads.





SEE SYSTEM SPECIFIC NOTES ON SHEET LC0.1 FOR MAXIMUM CABLE LENGTHS.



Notes:

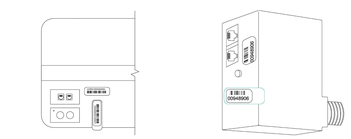
Daisy-chain CAT5 patch cable with RJ45 connectors from digital device to digital device.

Refer to manufacturers instructions for long distance runs between digital devices.

Crimp and test each cable with a LAN circuit tester prior to installation.

CAT5E/6 CABLE TERMINATION

N.T.S.



NOTES:

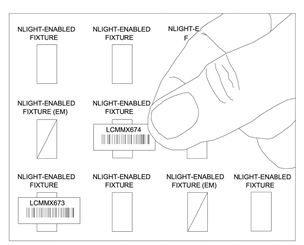
EVERY NLIGHT ENABLED DEVICE (INCLUDING NLIGHT EANABLED FIXTURES) IS FURNISHED WITH (1) PERMANENTLY ADHERED ID TAG AND (1) MATCHING, PARTIALLY ADHERED ID TAG TO BE PLACED ON THE RISER DIAGRAM SHEET PROVIDED AS PART OF AN NLIGHT SUBMITTAL.DURING INSTALLATION AND PRIOR TO FACTORY STARTUP, CONTRACTOR SHALL PLACE EACH ID TAG BELOW EACH CORRESPONDING DEVICE SHOWN ON RISER DIAGRAM TO FACILITATE FACTORY STARTUP. FAILURE TO COMPLY MAY RESULT IN STARTUP DELAYS AND ADDITIONAL COSTS AT THE CONTRACTOR'S EXPENSE. DO NOT PLACE DEVICE ID STICKERS ON FLOOR PLAN UNLESS REQUIRED TO EXECUTE NFLOORPLAN SERVICES, REFERENCE NFLOORPLAN SERVICE NOTES ON THIS SHEET FOR SPECIFIC REQUIREMENTS.

THE SMALL BARCODE LABELS INCLUDED WITH ALL NLIGHT DEVICES AND NLIGHT ENABLED FIXTURES MUST BE PLACED ON A PRINTED PLAN BY THE INSTALLER PRIOR TO ONSITE SYSTEM STARTUP.

THE BARCODE INDICATES THE UNIQUE ID OF EACH NLIGHT DEVICE. THIS ID IS USED DURING SYSTEM STARTUP TO PROGRAM DEVICES WITH THE CORRECT GROUPINGS AND SETTINGS. WITHOUT THIS, SYSTEM STARTUP WILL REQUIRE ADDITIONAL DAYS ON THE JOB TO LOCATE DEVICE IDS.

BARCODE INSTRUCTIONS:

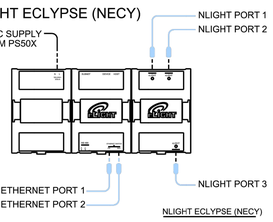
1. PRINT A PLAN OF THE INSTALLATION AREA TO A MINIMUM 0 SIZE (24□X 36□). THE PLAN MAY BE A REFLECTED CEILING PLAN, LIGHTING PLAN, OR ELECTRICAL PLAN. SO LONG AS ALL DEVICES CAN BE LOCATED BY THE FIELD SUPPORT ENGINEER.
2. PLACE THE SMALL BARCODE LABEL (0.875□ LONG) FROM EACH LUMINAIRE AND DEVICE ON THE FLOORPLAN. THE LARGE BARCODE LABEL (1.25□ LONG) CAN BE USED ON THE OUTSIDE OF ANY HOUSING OR JUNCTION BOX THAT OBSCURES THE ID NUMBER SHOWN ON THE DEVICE ITSELF.
3. SAVE THE PLAN AT THE JOB SITE, AND HAND OVER TO ACUITY FIELD SUPPORT ENGINEER OR OTHER PERSONNEL RESPONSIBLE FOR ONSITE SYSTEM STARTUP. IT IS ALSO ACCEPTABLE TO PROVIDE THE BARCODE PLAN AS SCANNED PDF FILES, EMAILED TO YOUR LOCAL LIGHTING AGENCY. IF YOU DO NOT KNOW YOUR LOCAL LIGHTING AGENCY, PLEASE REACH OUT TO TECH SUPPORT AT 1 (800) 535-2465, OPTION 1 FOR NLIGHT. THEY WILL BE ABLE TO IDENTIFY YOUR LOCAL REP.
4. DRAW ON PLAN ANY LOCATION CHANGES FOR A FIXTURE OR DEVICES, IF DIFFERENT THAN SHOWN ON PLAN.



NLIGHT BARCODE INSTRUCTIONS

N.T.S.

NLIGHT ECLYPSE (NECY)



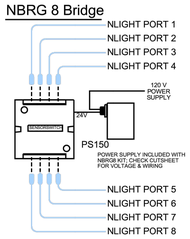
NLIGHT ECLYPSE (NECY)

NECY HAS BEEN SHOWN HERE AS TYPICAL AND INDICATIVE OF CONNECTION TYPES. PLEASE REFER TO THE NECY SPECIFICATION SHEETFOR MODEL SPECIFIC FEATURES. THE NECY HAS THREE NLIGHT PORTS; PORT 1 IS TYPICALLY USED TO HOST THE NLIGHT NETWORK; PORT 2 IS TYPICALLY LEFT SPARE, AND PORT 3 IS TYPICALLY RESERVED FOR AN NGWY2 GFX TOUCHSCREENTWO ETHERNET PORTS ARE AVAILABLE WITH A BUILT-IN ETHERNET SWITCH. THE ETHERNET PORTS MAY BE USED TO CONNECT TO A BUILDING LAN, BUILDING MANAGEMENT SYSTEM, OR A PERSONAL COMPUTER.

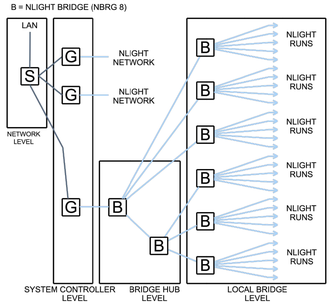
NLIGHT BRIDGE (NBRG 8)

THE NBRG 8 BRIDGE FEATURES 8 NLIGHT PORTS. ONE PORT IS RESERVED FOR UPSTREAM COMMUNICATION, AND ANY NUMBER OF THE REMAINING 7 CAN BE USED FOR DOWNSTREAM COMMUNICATION. ALLOWANCE OF AT LEAST ONE SPARE PORT IS TYPICAL.

NBRG 8 Bridge



SYMBOLS KEY:
S = LAN EQUIPMENT
G = NLIGHT ECLYPSE (NECY)
B = NLIGHT BRIDGE (NBRG 8)



NETWORK LEVEL

ALL NLIGHT GATEWAY DEVICES (NECY) ARE CONNECTED OVER A LOCAL AREA NETWORK. COMPUTERS ON THIS LEVEL MAY CONNECT THROUGH SENSORVIEW AND BUILDING AUTOMATION SYSTEMS MAY ACCESS SYSTEM INFORMATION OVER BACNET/IP WHERE APPLICABLE AND WITH PROPER NECY OPTIONS (SEE NECY SPECIFICATION SHEET FOR MORE INFORMATION).

SYSTEM CONTROLLER LEVEL

NECY ON THIS LEVEL WILL HOST AN NLIGHT NETWORK. DEVICES ON THIS LEVEL SHOULD BE LOCATED ON THE SAME SUB NETWORK (SUBNET).

BRIDGE HUB LEVEL

NLIGHT BRIDGES ON THIS LEVEL FUNCTION AS HUBS IN A STAR TOPOLOGY. THE NLIGHT NETWORK HOSTED BY THE NECY MUST BE ROUTED TO EACH BRIDGE ON THE LOCAL BRIDGE LEVEL. EACH BRIDGE HUB WILL UTILIZE ONE PORT TO RUN UPSTREAM (TOWARDS THE NECY) AND ANY NUMBER OF THE REMAINING 7 PORTS TO FEED DOWNSTREAM RUNS (TOWARDS NLIGHT ZONE). LARGE SYSTEMS WILL OFTEN USE A TIERED APPROACH WITH BRIDGE HUBS RUNNING TO ADDITIONAL BRIDGE HUBS. IN THESE SITUATIONS, THE MAXIMUM NUMBER OF BRIDGE HUB TIERS IS 8.

LOCAL BRIDGE LEVEL

NLIGHT BRIDGES ON THIS LEVEL UTILIZE ONE PORT TO RUN UPSTREAM (TOWARDS BRIDGE HUBS) AND ANY NUMBER OF THE REMAINING 7 PORTS TO FACILITATE NLIGHT ZONES CONSISTING OF CAT5E-DAISY-CHAINED NLIGHT LIGHTING CONTROL DEVICES.

NLIGHT NETWORK RISER

N.T.S.

Created in Visual Controls

AcuityBrands

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PROJECT # 121425

REV #	DATE	DESCRIPTION

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MASSILLON, OH

SPACE SHOP SELF STORAGE
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DRAWN BY	NF/NC/DS
CHECKED BY	PK/BA
PMD PROJ #	20052

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Pegasus Folder: A2 (A413)

Date: 8/2/2021
Scale: NOT TO SCALE
Drawn By: JK+
Project #: 21-23626
DWG Ref:
Sheet: LC0.2

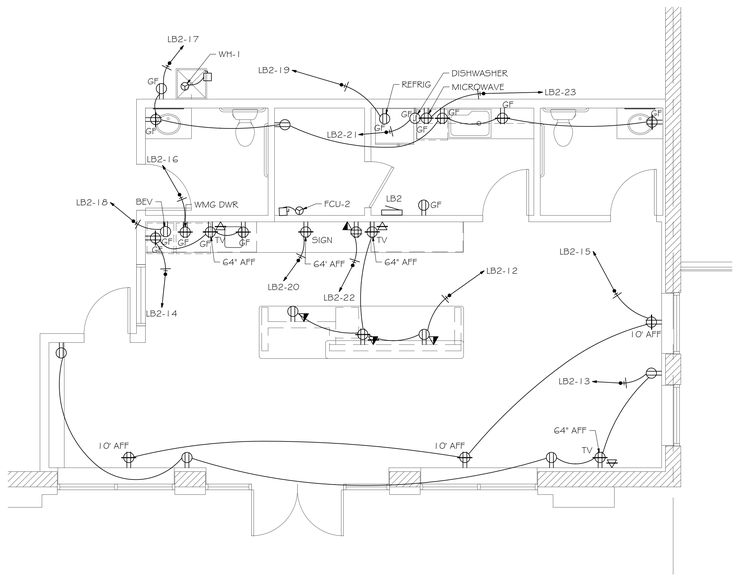
SHEET TITLE
LIGHTING CONTROL DETAIL

SHEET #
E1.3

GENERAL NOTES

REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES.

ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY ARTICLE 250-146.



1 ENLARGED FLOOR PLAN

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

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DRAWN BY	NF/NC/DK
CHECKED BY	PK/BA
PMD PROJ #	20030

SHEET TITLE

ENLARGED FLOOR PLAN

SHEET #

E2.1