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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

04/23/2021

COMMISSION # 19651.00

ISSUED FOR CONSTRUCTION

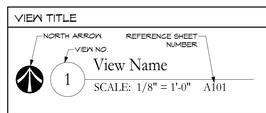

Plump Clarence T
Hunter Ramona
PROJECT LOCATION
Dayton Metro Library
Trotwood Branch
St Margaret's
Episcopal Church
E Main St
E Main St
Wolf Creek Pike
Wolf Creek Pike
Wolf Creek
Wolf Creek Pike
Wolf Creek
Wolf Creek Pike
Wolf Creek Pike
Olive Rd
Olive Rd
Dry Run
Dry Run
Recovery Ct
Duncan Ct
Duncan Ct
Mulberry Ct
Mulberry Ct
Hollyhock Dr
Hollyhock Dr
Hollyhock Dr

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ABBREVIATIONS

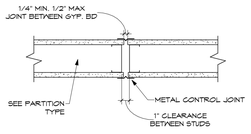
&	AND
∠	ANGLE
@	AT
A/C	AIR CONDITIONING
A/V	AUDIO/VISUAL OR AV
AAP	ATTIC ACCESS PANEL
AC, CLG	ACOUSTIC CEILING
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFP	ACOUSTICAL FOLDING PARTITION
ALUM	ALUMINUM
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT/ARCHITECTURAL
AWT	ACOUSTICAL WALL TREATMENT
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BENCHMARK/BEAM
BOS or BOT	BOTTOM OF STEEL
BRK	BRICK
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
C	CENTERLINE
CAB	CABINET
CAR	CARPET
CAT	CATALOGUE
CB	CATCH BASIN
CFM	CHALK BOARD
CH	CABINET HEATER
CI	CAST IRON
CJ	CONTROL JOINT
CL	CLOSET
CLG	CEILING
CMP	CORRUGATED METAL PIPE
CMT	CERAMIC MOSAIC TILE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONT	CONTINUOUS/CONTINUE
CORG	CORRUGATED
CORR	CORRIDOR/CORRUGATED
CTBR	COUNTER BORE
CTSK	COUNTER SINK
CU FT	CUBIC FEET
CU IN	CUBIC INCHES
CU YD	CUBIC YARDS
CWF	CONTINUOUS WOOD FIBER
D	DEGREE
DP	DEPTH/DEEP
d	PENNY (NAILS ECT.)
DBL	DOUBLE
DEMO	DEMOLISH/DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DS	DOWNSPOUT
DT	DRAPERY TRACK
DTL	DETAIL
DW	DRY WALL
DWG	DRINKING WATER COOLER
DWG	DRAWING
E	EAST
EA	EACH
EF	EXHAUST FAN
EIFS	EXTERIOR INSULATED FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATOR
ELEC	ELECTRIC
ELEV	ELEVATION
ENGR	ENGINEER
EP	ELECTRIC PANEL BOARD
EQUIP	EQUIPMENT
ERR	ELASTIC SHEET ROOFING
EW	EACH WAY
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR / EXTENSION
F.D.	FLOOR DRAIN
F.H.	FIRE HYDRANT
FACT	FACTORY BUILT
FNDT	FOUNDATION
FRACT	FRACTIONAL
FT or '	FEET
FTG	FOOTING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GHM	GALVANIZED HOLLOW METAL
GL	GLASS
GNB	GYPSUM WALL BOARD
GYP	GYPSUM
H	HEIGHT / HIGH
HB	HOSE BIBB
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HTG	HEATING
HVAC	HEATING / VENTILATION / COOLING
HW	HOT WATER
HWY	HIGHWAY
ID	INSIDE DIAMETER
IN. or "	INCHES
INCL	INCLUDED / INCLUDING
INFO	INFORMATION
INSUL	INSULATION / INSULATE
INTR	INTERIOR
INV	INVERT
JB	JOIST BEARING
JS	JOIST SUBSTITUTE
JT	JOINT
KIT	KITCHEN
L	LENGHT / LONG
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
LB OR #	POUND
LKR	LOCKER
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LM	LONG MAY
LVR	LOUVER
M	METER / THOUSAND
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MB	MASONRY BEARING
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIL	.001
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILLIMETER
MO	MASONRY OPENING
MTL	METAL
N	NORTH
N.I.C.	NOT IN CONTRACT
NO. or #	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OPNG	OPENING
OPP	OPPOSITE/OPPOSITE HAND
OW	OPERABLE WALL
OZ	OUNCE
P	PROPERTY LINE
PA	PUBLIC ADRESS
PAT	PATENT
PL	PLATE
PLAS	PLASTER
PLASLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PREFAB	PREFABRICATED
PRVT	PRIVATE
PS	PROJECTION SCREEN
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSS	PENCIL SHARPENER SUPPORT
PT	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RISER
RA	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RCP	REINFORCED CONCRETE PIPE
RCPT	RECEPTACLE
RD	ROOF DRAIN
REFR	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCED/REINFORCEMENT
REQD	REQUIRED
REV	REVISION(S)
RM	ROOM
RO	ROUGH OPENING
ROW or R/W	RIGHT OF WAY
S	SOUTH
SA	SUPPLY AIR
SAC	SUSPENDED ACOUSTICAL CEILING
SCH	SCHEDULE
SCHD	SOLID CORE WOOD
SD	STORM DRAIN
SECT	SECTION
SF or SQFT	SQUARE FEET
SHT	STRUCTURAL GLAZED FACING TILE
SIM	SIMILAR
SLV	SHORT LEG VERTICAL
SPEC(S)	SPECIFICATION(S)
SPKR	SPEAKER
SQ	SQUARE
SS	STAINLESS STEEL
STL	STEEL
STM	STORM SEWER
STO	STORAGE
STRUCT	STRUCTURE
SUSP	SUSPENDED
SW	SHORT WAY
SYM	SYMMETRY / SYMMETRICAL
SYN	SYNTHETIC
T or TR	TREAD
T&B	TOP & BOTTOM
T&G	TOUNGE & GROOVE
TA	TOILET ACCESSORY(IES)
TB	TACK BOARD
TEL	TELEPHONE
TERR	TERRAZZO
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TRANS	TRANSFORMER
TV	TELEVISION
TWB	TACKABLE WALL SERVICE
TYP	TYPICAL
U.L.	UNDERWRITER'S LABORATORY
UON or UNO	UNLESS OTHERWISE NOTED
UR	URINAL
VV	UNIT VENTILATOR
V. RET	VAPOR RETARDER
VC	VENT STACK
VCGNB	VINYL COVERED GYPSUM WALLBOARD
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VIT	VITREOUS
VOL	VOLUME
VRB	VENTED RESILIENT BASE
VS	VERSUS
VT	VINYL TILE
VTR	VENT THROUGH ROOF
W	WEST
W/	WITH
W/O	WITHOUT
WA	WARDROBE ACCESSORIES
WB	WOOD BASE
WC	WATER CLOSET
WCOL	WIND COLUMN
WD	WOOD
WH	WATER HEATER
WP	WORKING POINT
WR	WATER RESISTANT
WSNK	WALL SERVICE SINK
WWF	WELDED WIRE FABRIC
WWM	WOVEN WIRE MESH
YD	YARD / YARD DRAIN

VIEW TITLE

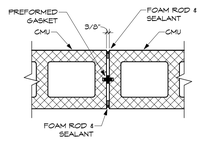


SYMBOL NAME	SYMBOL MARK
CALLOUT (PLAN / DETAIL)	AREA OF CALLOUT → A1 / A101 SIM
SECTION (BUILDING)	DIRECTION OF VIEW → A1 / A101; VIEW NO. / SHEET NO.
SECTION (GENERAL)	DIRECTION OF VIEW → A1 / A101 SIM; VIEW NO. / SHEET NO.
SECTION (DETAIL)	DIRECTION OF VIEW → A1 / A101 SIM; VIEW NO. / SHEET NO.
ELEVATION (EXTERIOR)	VIEW NO. A1; DIRECTION OF VIEW → A101 SIM; SHEET NO.
ELEVATION (INTERIOR)	VIEW NO. A1; DIRECTION OF VIEW → A101 SIM; SHEET NO.
ELEVATION (ALUM. FRAME)	DIRECTION OF VIEW → ALUM. FRAME NO. AF##
ELEVATION (KEYPLAN ONLY)	DIRECTION OF VIEW → A1/A101; VIEW NO. / SHEET NO.

SYMBOL NAME	SYMBOL MARK
WALL TAG	M1 ← PARTITION TYPE
WINDOW TAG	W-01 ← MARK NO.
CEILING TAG	RR-RR ← CEILING HEIGHT
INTERIOR FINISH MATERIAL TAG	- ← MATERIAL CODE; ADDITIONAL REMARKS
SPECIALTY EQUIPMENT TAG	EQ-01 ← MARK NO.
PLUMBING FIXTURE TAG	PL-01 ← MARK NO.
CASEWORK TAG	A-01 ← MARK NO.
FURNITURE TAG	F-01 ← MARK NO.
DOOR TAG	9 ← DOOR NO.
ROOM TAG	ROOM NAME; ROOM NAME ← ROOM NAME; #### ← CONSTRUCTION ROOM NO.; #### ← OWNER ROOM NO.; 150 SF ← SQUARE FOOTAGE
LEVEL REFERENCE	FIRST FLOOR EL. 100'-0" ← LEVEL; ← BENCHMARK HEIGHT
EXISTING GRIDLINE	1 ← GRIDLINE INDICATOR
NEW GRIDLINE	1 ← GRIDLINE INDICATOR
KEYED NOTE	08 ← KEYNOTE NUMBER
MATCHLINE	1/A101 1/A102 ← VIEW NO. / SHEET NO.
REVISION	1 ← REVISION NUMBER; ← AREA OF REVISION

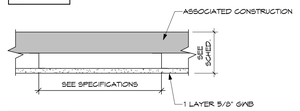


6 TYPICAL CONTROL JOINT - NON-RATED
SCALE: 1 1/2" = 1'-0"

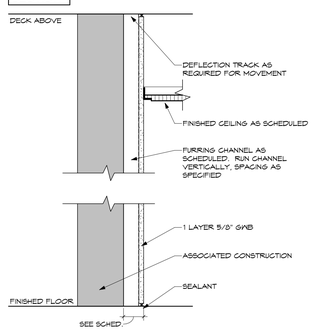


5 NON-RATED CONTROL JOINT, INTERIOR
SCALE: 1 1/2" = 1'-0"

PLAN



SECTION



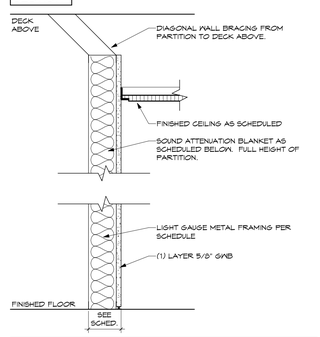
WALL TYPE F FURRED PARTITION					
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
F1	7/8" HC	1-1/2"	NONE	N/A	
F2	1-1/2" HC	2-1/8"	NONE	N/A	
F3	1" Z	1-5/8"	NONE	N/A	
F4	1-1/2" Z	2-1/8"	NONE	N/A	
F5	2" Z	2-5/8"	NONE	N/A	
F6	2-1/2" Z	3-1/8"	NONE	N/A	

4 WALL TYPE F

PLAN



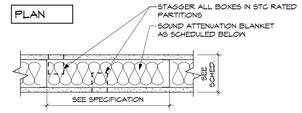
SECTION



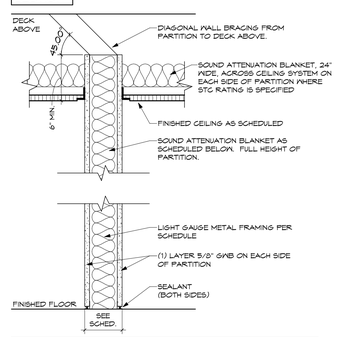
WALL TYPE R NON-RATED LIGHT GAUGE METAL PARTITION - PARTIAL HEIGHT (SINGLE FINISH SIDE)					
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
R1	2-1/2"	3-1/0"	NONE	N/A	
R2	3-5/0"	4-1/4"	3-1/2"	N/A	
R3	4"	4-5/0"	3-1/2"	N/A	
R4	6"	6-5/0"	3-1/2"	N/A	

3 WALL TYPE R

PLAN



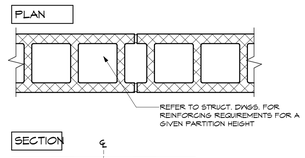
SECTION



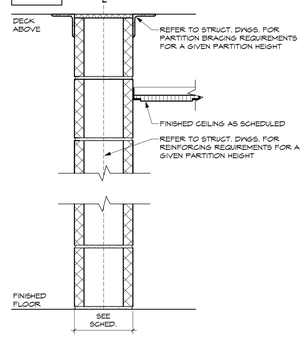
WALL TYPE E NON-RATED LIGHT GAUGE METAL PARTITION					
TYPE	STUD SIZE	PARTITION THICKNESS	SOUND ATTN. BLANKET	STC RATING	
E1	3-5/0"	4-7/0"	NONE	N/A	
E2	3-5/0"	4-7/0"	3-1/2"	49	
E3	4"	5-1/4"	NONE	N/A	
E4	4"	5-1/4"	3-1/2"	49	
E5	6"	7-1/4"	NONE	N/A	
E6	6"	7-1/4"	3-1/2"	49	

2 WALL TYPE E

PLAN



SECTION



WALL TYPE M MASONRY PARTITION					
TYPE	CMU SIZE	PARTITION THICKNESS		STC RATING (@ 125# PCF)	
M1	4"	3-5/0"		44 HOLLOW / 47 SOLID	
M2	6"	5-5/0"		45 HOLLOW / 52 SOLID	
M3	8"	7-5/0"		48 HOLLOW / 51 GROUTED	
M4	10"	9-5/0"		50 HOLLOW / 60 GROUTED	
M5	12"	11-5/0"		52 HOLLOW / 63 GROUTED	

1 WALL TYPE M

SHEET NOTES:

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
3	ADDENDUM #3	2021/05/28
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

GENERAL SYMBOLS AND DETAILS

STATE OF OHIO — JOHN CHARLES FABELO — 71170 — REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No. 19651.00	Date 2021/04/23
Drawn DJB	Drawing No. G001
Checked ES/WK	

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Code Summary: Trotwood Municipal Courts

The Trotwood Municipal Courts building is a new structure of 19,662 s.f. that contains two court related spaces and the associated offices and support functions normal to this type of occupancy. It also includes a sallyport and hold rooms for transporting and detaining individuals that are present for appearance in court. No detainees are held in this location for more than 6 hours and none are held overnight. Holding cells are categorized as "Temporary Holding Cells" per State of Ohio, Department of Rehabilitation and Correction.

Chapter 3: Use and Occupancy
303.4 Assembly Group A-3, Courtrooms
304.1 Business Group B, Offices and professional services
308.5 Institutional Group I-3, Detention for more than 5 people (accessory use)
308.5.1.3 Condition 3: Free movement restricted. Staff controlled manual release

Chapter 4: Special Requirements Based on Use and Occupancy
408 Group I-3 provisions
408.2 Portions of I-3 occupancies permitted to be classified as another occupancy
408.3 Means of Egress, Group I-3
408.3.7 Sallyports shall be permitted in a means of egress where there are provisions for continuous and unobstructed passage through the sallyport during emergency egress condition.
408.4 Locks - Egress doors are permitted to be locked in accordance with applicable use conditions. Keys to unlock exterior doors shall be available at all times and able to operate both sides of the door
408.6 Exception 3: Smoke barrier is not required when there is a direct exit to a secure yard.
408.10 Fire Alarm System - Provide in accordance with 907.2.6.3.
408.11 Automatic Sprinkler System - I-3 shall be equipped throughout with an automatic sprinkler system per 903.2.6.

Chapter 5: Heights and Areas
Table 506.2 for sprinklered building of Type IIB construction

A-3	30,000 s.f.
B	76,000 s.f.
I-3	30,000 s.f.

Building area falls into any of these three categories.
508.3 Non-Separated Mixed Use - This facility will be a non-separated mixed use with the primary occupancy as Group A-3.
508.3.1 The most restrictive I-3 provisions of Chapter 9 apply to the total area
508.3.2 The most restrictive area and height limitations apply to the total facility

Chapter 6: Construction Types
602.3 Type III - Exterior walls of non-combustible construction and interior elements of any permitted materials.
Table 601 - Fire Resistance of Building Elements

Primary structural frame	0 hours
Bearing walls, exterior	0 hours per table 602, greater than 30' separation
Bearing walls, interior	0 hours
Non-bearing walls, exterior	0 hours
Non-bearing walls, interior	0 hours
Roof construction/secondary	0 hours

Chapter 7: Fire Rated Construction N/A

Chapter 8: Interior Finishes
Table 803.11, sprinklered

	A-3	B	I-3
Exit enclosures/passageways	Class B	Class B	Class A
Corridors	Class B	Class C	Class A
Rooms and enclosed spaces	Class C	Class C	Class C

Chapter 9: Fire Protection
903.2.1 Group A - Automatic sprinkler system shall be provided throughout
903.2.1.3 Group A-3 Sprinkler in A-3 and intervening rooms when fire area exceeds 12,000 s.f. and occupant load exceeds 300 in the Fire area.
903.2.6 Group I - Automatic sprinkler system shall be provided throughout a building with a Group I fire area
907 - Fire Alarm and Detection Systems
907.2.1 Group A requires a manual fire alarm system that activates occupant notification system per Section 907.5 in group A where occupant load due to the assembly occupancy is greater than 300 Exception: Manual fire alarm boxes not required in buildings with sprinkler
907.2.6.3 Group I requires a manual fire alarm system and automatic smoke detection system for alerting staff.
907.2.6.3.1 System initiation by actuation of sprinkler system, manual fire alarm box, or fire detector.
907.2.6.3.2 Manual Fire alarm boxes can be at staff-attended location having direct supervision of area
907.2.6.3.2.1 Manual fire alarm boxes in detainee areas may be locked provide staff are present and have keys readily available
907.2.6.3.2.2 Automatic smoke detection system required throughout (detention) area.
Exception: Detectors may be inside of ducts when susceptible to tampering

Chapter 10: Means of Egress
1004 Occupant Load

Assembly - fixed seats	Number of seats or 15" per occup. at benches
Business	100 sf/occupant, gross
Courtrooms other than fixed seats	40 sf/occupant, net

1004.3 Assembly spaces to have occupant capacity posted
1005.3.2 Egress components width, 0.15"/occupant in sprinklered building
1006.2.1.1 3 exits with occupant load 501 to 1000

Table 1006.2.1

	Max. for one exit	Common path of egress travel
A-3	48	75'
B	48	100'
I-3	10	100'

1009 Accessible means of egress - At least two with continuous route to public way
1010.1.9.7. Delayed egress is being provided at two locations due to the nature of the facility and controlling detainees while in court. The first is at door 156B. This serves B and I-3 occupancies and is not an exit for the Group A occupancy Jury Court 141. The second is at door 121B which serves as an exit from group A occupancy Court 121. A variance will be requested as has been done on other Montgomery County Courts facilities.
Table 1017.2 Exit Access Travel distance in sprinklered building

A-3	250'
B	300'
I-3	200'

Table 1020.1 Corridor Fire-Resistive Rating in sprinklered building

A-3	0 hours
B	0 hours
I-3	0 hours

1029 - Assembly
1029.4.1 Minimum aisle width
42" for level aisle with seats on both sides
36" for level aisle with seats on both sides and less than 50 seats
36" for level aisle with seats on one side
30" for level aisle with seats on one side and serves 14 or less seats

Chapter 11: Accessibility - Complying with ICC A117.1
1109.2.1 Assistive Listening Systems: Each Courtroom shall have an assistive listening system installed as part of the Owner's Technology package, under a separate contract from the General Construction Contract.

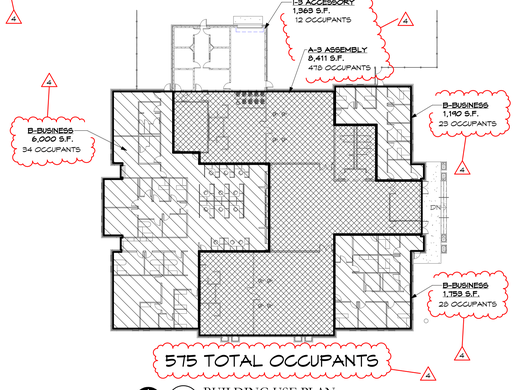
Chapter 13: Energy Code - Complying with ASHRAE 90.1 - 2007

Chapter 29: Plumbing
Table 2902.1

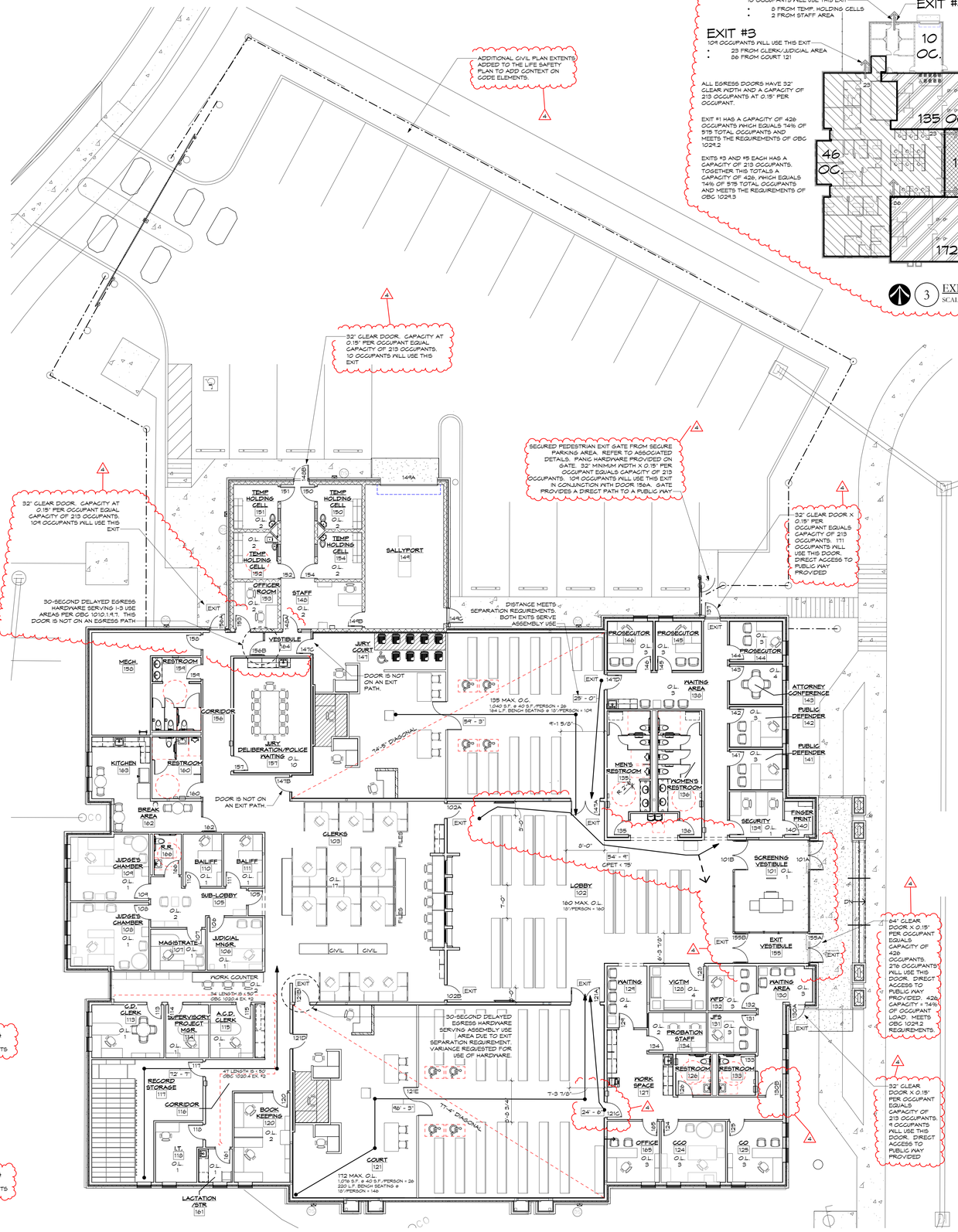
A-3 occupancy (478 occupants)	Ratio	Required	Provided
Water Closet, Male	1:125	2	4
Water Closet, Female	1:65	4	4
Lavatories	1:200	2ea	2ea
Drinking Fountains	1:500	1	2
Service Sink	1	1	1 in Group B
B occupancy (85 occupants)	**Ratio**	**Required**	**Provided**
Water Closet, Male	1:50ea	1ea	3*
Water Closet, Female	1:50ea	1ea	3*
Lavatories, Male	1:80	1	1*
Lavatories, Female	1:80	1	2*
Drinking Fountains	1:100	1	1 water cooler
Service Sink	1	1	

Uni-sex RR provided, per *OBC 2902.2, in the following areas with occupant loads less than 15: Work Space 127 + associated offices, Waiting Area 130 + associated offices and Sub-Lobby 105 + associated offices.

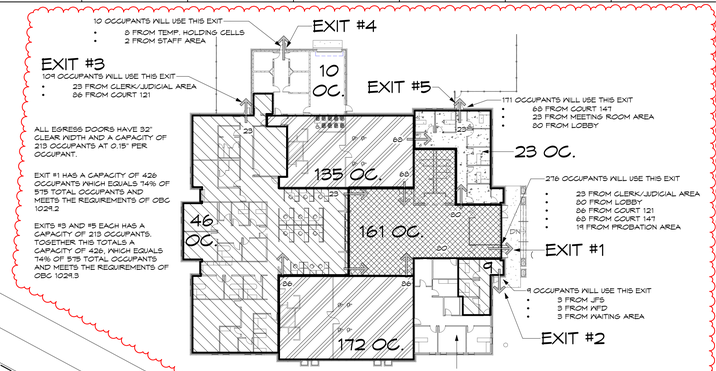
I-3 occupancy	Ratio	Required	Provided
Water Closet	1:15	1	1
Lavatories	1:15	1	1
Service Sink	1	1	1 in Group B



2 BUILDING USE PLAN
SCALE: 1" = 30'-0"



1 LIFE SAFETY PLAN
SCALE: 1" = 10'-0"



3 EXITING PLAN
SCALE: 1" = 30'-0"

SHEET NOTES:

A VARIANCE REQUEST IS SUBMITTED AS PART OF THIS REVIEW RELATED TO THE INSTALLATION OF DELAYED EGRESS HARDWARE ON DOOR #121B WHICH SERVES AS AN EGRESS DOOR FROM AN A-3 ASSEMBLY OCCUPANCY (COURTROOM 141).

DOOR #121B SERVES AS THE SECOND REQUIRED EXIT FROM THE COURTROOM AND HAS DIRECT ACCESS TO THE SECURE STAFF SIDE OF THE COURT FACILITY. DUE TO FREE EGRESS REQUIREMENTS FOR EXITING, IF DELAYED EGRESS IS NOT PERMITTED, ANYONE WITHIN THE COURTROOM HAS FREE ACCESS TO THE JUDICIAL AND CLERK OF COURT STAFF AREAS. THE DELAYED EGRESS HARDWARE IS REQUEST TO ALERT COURT STAFF THAT AN UNAUTHORIZED PERSON IS ABOUT TO ENTER THE SECURE SIDE OF THE COURT AND TAKE APPROPRIATE ACTION. JUDICIAL AND CLERK STAFF WILL HAVE THE ABILITY TO TEMPORARILY DEACTIVATE THE ALARM AND FREELY MOVE BETWEEN THE COURTROOM AND SECURE AREA BY PRESENTING THE PROPER CREDENTIALS INSTALLED ON EACH SIDE OF THE OPENING.

THE DELAYED EGRESS HARDWARE SHALL MEET THE FOLLOWING REQUIREMENTS AS REQUIRED BY OBC 1010.1.9.7:

1. THE LOCKING SYSTEM SHALL DEACTIVATE UPON ACTIVATION OF THE AUTOMATIC FIRE SUPPRESSION SYSTEM, ALLOWING IMMEDIATE, FREE EGRESS.
2. THE LOCKING SYSTEM SHALL DEACTIVATE UPON LOSS OF POWER TO THE LOCKING MECHANISM, ALLOWING IMMEDIATE, FREE EGRESS
3. THE LOCKING SYSTEM SHALL HAVE THE CAPABILITY TO BE DEACTIVATED FROM A SIGNAL FROM SECURITY #139 OR STAFF #140 IN THE TEMPORARY HOLDING CELL AREA
4. AN ATTEMPT TO EGRESS, WITHOUT PRESENTING THE PROPER CREDENTIAL, WILL INITIATE AN IRREVERSIBLE PROCESS THAT WILL ALLOW EGRESS IN EITHER 15 OR 30 SECONDS (IF APPROVED) AND AN AUDIBLE SIGNAL SHALL SOUND IN THE VICINITY OF THE DOOR. ONCE THE DELAY HAVE BEEN DEACTIVATED, THE ELECTRONICS MUST BE RESET MANUALLY.
   A. THE COUNTY IS REQUESTING A 30-SECOND DELAY
5. THE EGRESS PATH FROM DOOR #121B WILL NOT PASS THROUGH AN ADDITIONAL DELAYED EGRESS INSTANCE BEFORE EXITING THE BUILDING.
6. SIGNAGE SHALL BE PROVIDED ON EACH SIDE OF THE DOOR, WITHIN 12" OF THE DOOR HARDWARE. SIGNAGE SHALL READ AS FOLLOWS:
   A. ON THE EGRESS SIDE OF THE DOOR: "PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 30 SECONDS"
   B. ON THE NON-EGRESS SIDE OF THE DOOR "PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 30 SECONDS"
   C. SIGNAGE SHALL COMPLY WITH THE REQUIREMENTS OF ICC A117.1
7. EMERGENCY LIGHTING SHALL BE PROVIDED ON THE EGRESS SIDE OF THE DOOR.
8. THE DELAYED EGRESS HARDWARE SHALL BE UL294 COMPLIANT
9. THE PROCEDURES FOR THE OPERATION OF THE UNLOCKING SYSTEM SHALL BE DESCRIBED AND APPROVED AS PART OF THE EMERGENCY PLANNING AND PREPAREDNESS AS STIPULATED IN CHAPTER 4 OF THE FIRE CODE.
10. ALL COURT SECURITY PERSONNEL SHALL HAVE THE KEYS/CODES/OTHER MEANS NECESSARY TO OPERATE THE LOCKING DEVICES.

DOOR #156B LIES ON THE EXIT PATH OF VESTIBULE #164. AS THIS VESTIBULE IS UTILIZED AS PART OF THE I-3 USE GROUP OCCUPANTS BEING MOVED TO THE COURTROOM FOR LEGAL PROCEEDINGS, THIS DOOR IS UTILIZING DELAYED EGRESS HARDWARE TO PREVENT THOSE UNDER COURT CONTROL FROM OVERPOWERING A LAW ENFORCEMENT OFFICER AND ESCAPING USING STANDARD PANG HARDWARE. THE HARDWARE AT THIS LOCATION WILL MEET THE 10 CRITERIA LISTED ABOVE AS #4.

GENERAL NOTES:

A. REFER TO SPECIFICATION SECTION 087100 FOR INFORMATION ON DOOR HARDWARE.
B. REFER TO SPECIFICATION SECTION 101423.16 FOR INFORMATION ON CODE REQUIRED SIGNAGE
C. SEATING IN ASSEMBLY AREAS IS SHOWN TO DOCUMENT OCCUPANT LOAD AND EGRESS CAPACITY. FINAL SEATING QUANTITY AND ARRANGEMENT MAY VARY FROM WHAT IS SHOWN ON THESE PLANS AS THAT SCOPE IS BEING ADDRESSED IN A SEPARATE CONTRACT AND PROCUREMENT PACKAGE. FINAL COUNTS WILL NOT EXCEED THE COUNTS SHOWN FOR A GIVEN SPACE.

O.L. OCCUPANT LOADS ADDED TO ROOMS
X PER CODE OFFICIAL REQUEST

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

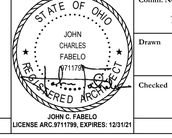
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875 E. MAIN STREET
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LIFE SAFETY PLAN



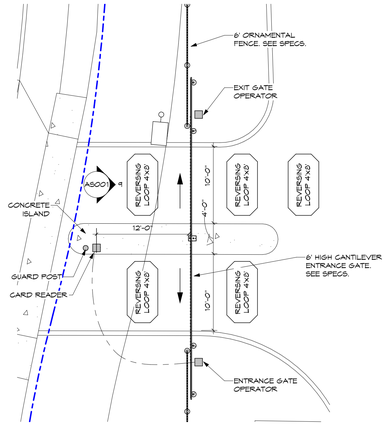
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: G002
Checked: ES/WK	

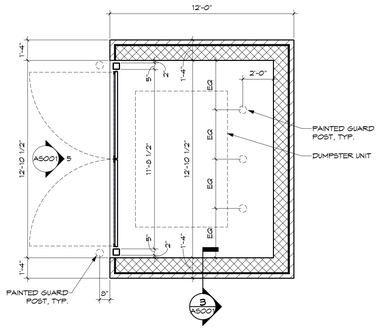
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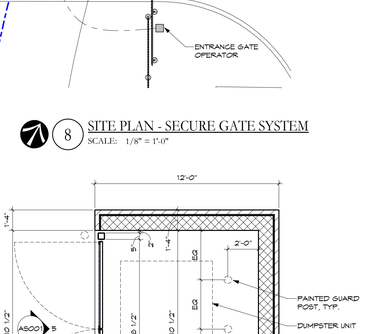


8 SITE PLAN - SECURE GATE SYSTEM
SCALE: 1/8" = 1'-0"

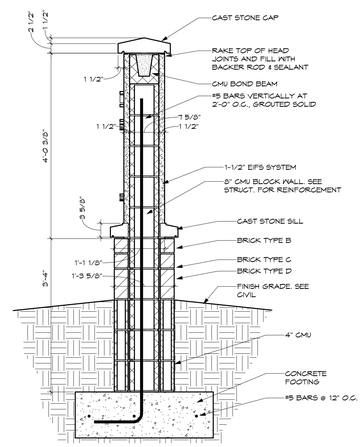


7 ENLARGED DUMPSTER ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"

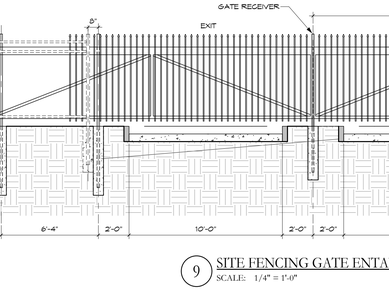
5 DUMPSTER ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"



3 DUMPSTER ENCLOSURE WALL SECTION
SCALE: 1/2" = 1'-0"



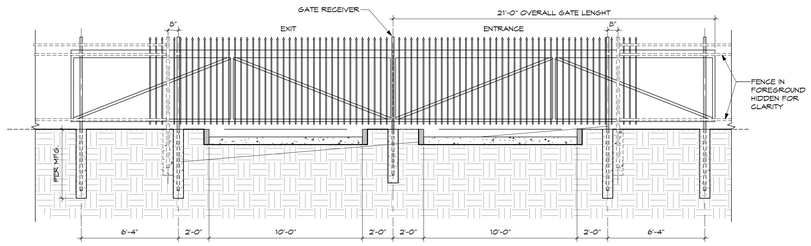
6 SITE SIGN SECTION
SCALE: 3/4" = 1'-0"



4 SITE SIGN ELEVATION (BOTH SIDES)
SCALE: 1/2" = 1'-0"

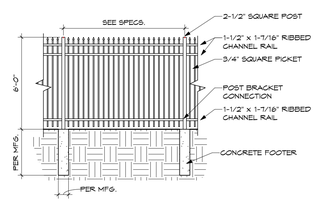
2 SITE SIGN PLAN TOP VIEW
SCALE: 1/2" = 1'-0"

NOTE:
CONFIRM ALL DIMENSIONS WITH FENCING AND GATE MANUFACTURER.

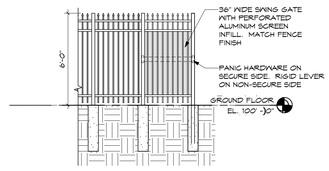


9 SITE FENCING GATE ENTANCE
SCALE: 1/4" = 1'-0"

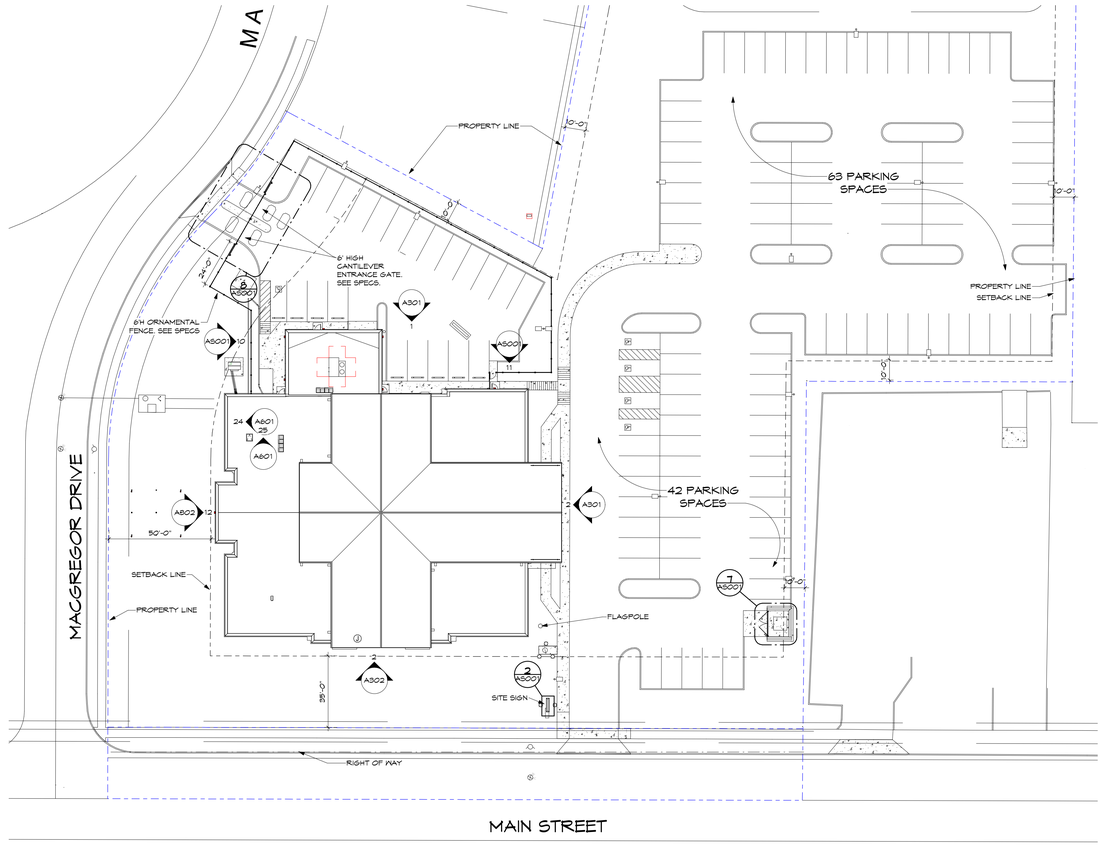
NOTE:
CONFIRM ALL DIMENSIONS WITH FENCING AND GATE MANUFACTURER.



10 TYP. FENCING PANEL SECTION
SCALE: 1/4" = 1'-0"



11 SECURE GATE ELEVATION
SCALE: 1/4" = 1'-0"



1 SITE PLAN
SCALE: 1" = 30'-0"

SHEET NOTES:

GENERAL NOTES:

A. REFER TO SPECIFICATIONS FOR REQUIREMENTS & PARAMETERS ASSOCIATED W/ ADJACENT RESIDENTIAL PROPERTIES.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
3	ADDENDUM #3	2021/05/28
5	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

ARCHITECTURAL SITE PLAN

JOHN CHARLES FABELO 71179 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: AS001
Checked: ES/WK	

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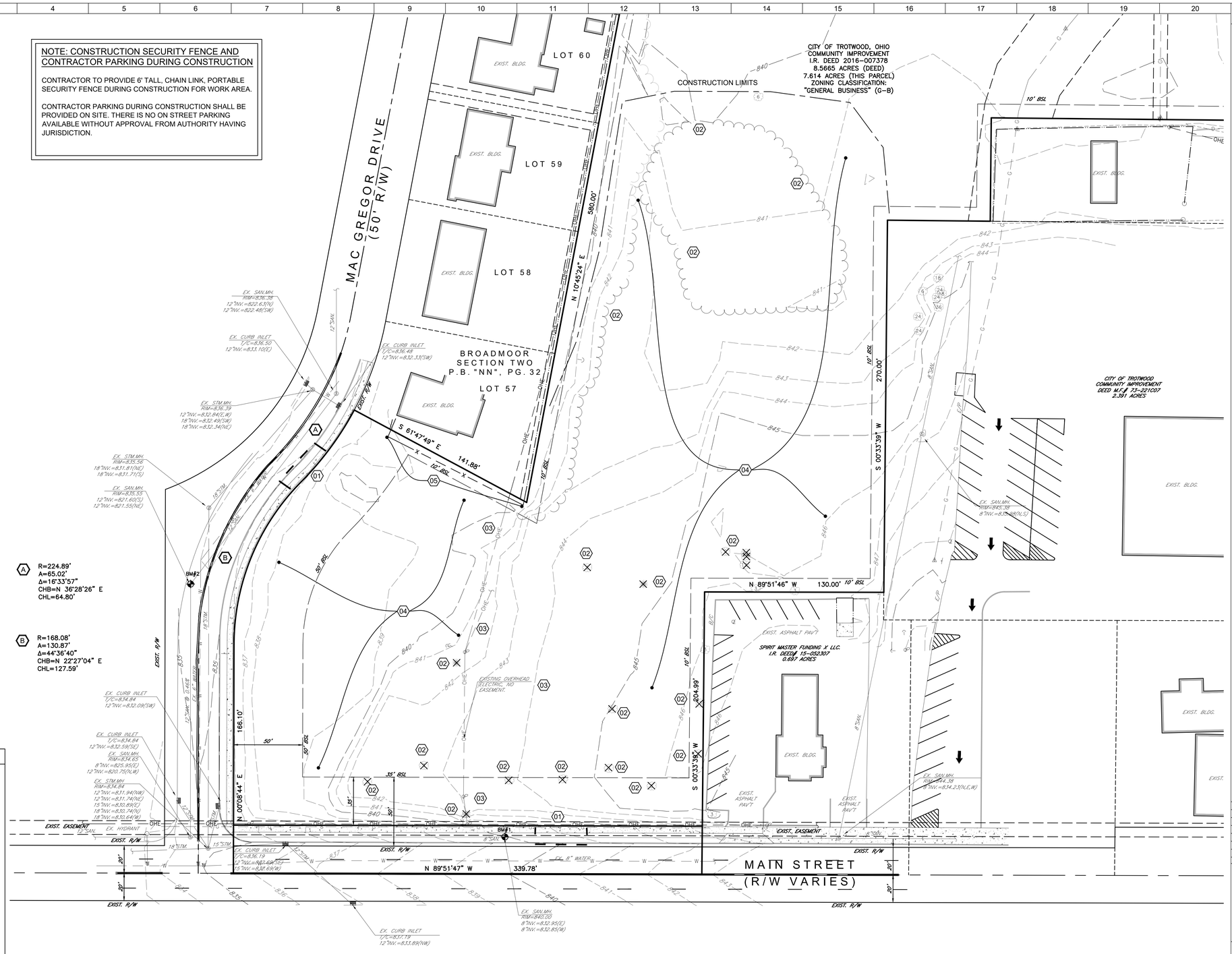
GENERAL DEMOLITION NOTES

1. Within the subject property, the intent is to have a clean, clear site, free of all existing items noted to be removed in order to allow for the construction of the new project.
2. All items noted to be removed shall be done as part of the contract for general construction.
3. Remove and dispose of any materials requiring removal from the work area in an approved off-site landfill.
4. The Contractor shall secure all permits for demolition and disposal of demolition material to be removed from the site. The Contractor shall post all bonds and pay all permit fees as required.
5. The Contractor shall cut and plug, or arrange for the appropriate utility company to cut and plug service piping at the property line or at the main (as required). All services may not be shown on this plan.
6. For all items noted to be removed, remove not only above ground elements, but all underground elements as well, including, but not necessarily limited to: foundations, slabs, gravel fills, tree roots, pipes, wires, unsuitable materials, etc.
7. The Contractor shall sawcut existing pavement and concrete to provide a clean edge between existing pavement to remain and existing pavement to be removed. Sawcut shall be made at the nearest existing joint.
8. Limits of removal shown on demolition plan are approximate only. Actual quantities may vary due to construction activities. Contractor is responsible for all demolition, removal and restoration work necessary to allow for the construction of the new project.
9. Backfill excavations resulting from demolition work to meet the requirements for fill outlined in the Geotechnical / Soils Report.
10. Ensure that clear access is maintained to all existing fire hydrants along all adjacent access routes.
11. Clean all dirt, mud, and debris tracked onto adjacent parking lots and roadways immediately.
12. Prior to beginning any proposed work, all permits required for site work shall be obtained by contractor from regulating authorities.
13. Do not disturb any property line iron pins, survey monuments, or established benchmarks. If disturbed, these items shall be reset by a professional licensed surveyor at the disturbing contractor's expense.
14. No site work or demolition work shall begin until the construction manager has approved the general contractor's submitted schedule and phasing plan. All demolition activities shall be performed at the times indicated in the approved schedule and phasing plan.
15. Backfill all excavations resulting from removal of below grade materials per the Geotechnical Report.

NOTE: CONSTRUCTION SECURITY FENCE AND CONTRACTOR PARKING DURING CONSTRUCTION

CONTRACTOR TO PROVIDE 6' TALL, CHAIN LINK, PORTABLE SECURITY FENCE DURING CONSTRUCTION FOR WORK AREA.

CONTRACTOR PARKING DURING CONSTRUCTION SHALL BE PROVIDED ON SITE. THERE IS NO ON STREET PARKING AVAILABLE WITHOUT APPROVAL FROM AUTHORITY HAVING JURISDICTION.



EXISTING CONDITIONS LEGEND

- RAILROAD SPIKE FOUND
- IRON PIN FOUND
- SANITARY SEWER MANHOLE
- LIGHT POLE
- UTILITY POLE
- WATER SERVICE VALVE
- FIRE HYDRANT
- FLAG POLE
- PINE TREE
- STORM SEWER MANHOLE
- DRIP INLET
- TREE (WITH SIZE)
- POLE
- GAS MAIN VALVE
- SIGN
- ADA PARKING SPACE
- BUS CHARGING STATION
- PROPERTY LINE
- CLEANOUT

E/P = EDGE OF PAVEMENT
E/G = EDGE OF GRAVEL
B/C = BACK OF CURB

- EX. CONTOUR
- EX. FENCE
- EX. WATER LINE
- EX. GAS LINE
- EX. UNDERGROUND ELECTRIC
- EX. OVERHEAD ELECTRIC
- EX. UNDERGROUND TELEPHONE
- EX. CONCRETE

Know what's below. Call before you dig.

SITE BENCHMARKS

BM#1 Sanitary Manhole
Main Street (Tree Lawn)
Elev: 840.00 (Rim)

BM#2 Sanitary Manhole
Mac Gregor Drive (Roadway)
Elev: 835.55 (Rim)

UTILITY CONTACT INFORMATION:

WATER / SANITARY SEWER / STORM WATER
City of Trotwood Public Works Department
Contact: Johnny McCluskey, Operations Supervisor
Telephone: 937.837.1702
Email: jmccluskey@trotwood.org

GAS
Vectren Gas Distributions
Contact: Chad Campbell
Telephone: 937.312.2521
Email: cecampbell@vectren.com

ELECTRIC
Dayton Power & Light Company
Contact: Construction Control Center
Telephone: 937.331.4860
Email: constructioncontrol@dplinc.com

TELECOM
Spectrum
Contact: Spectrum Business Solutions
Telephone: 855.504.4925

CONTRACTOR TO REFER TO CBC ENGINEERS GEOTECHNICAL REPORT DATED AUGUST 21, 2019 FOR REMOVAL , COMPACTION AND RE-USE OF EXISTING SOILS.

CONTRACTOR IS RESPONSIBLE TO VERIFY THAT EXCAVATED SOILS TO BE RE-USED MEET THE REQUIREMENTS LISTED IN CBC ENGINEERS GEOTECHNICAL REPORT.

UNDERGROUND UTILITIES ARE DEPICTED BASED ON OBSERVED EVIDENCE, UNDERGROUND UTILITY LOCATION SERVICES, AND RECORD DRAWINGS. LOCATIONS ARE APPROXIMATE AND NOT ALL UNDERGROUND UTILITIES MAY BE SHOWN ON THIS SURVEY. CONTRACTOR SHALL NOTIFY OHIO UTILITY PROTECTION SERVICE A MINIMUM OF 2 DAYS IN ADVANCE OF BEGINNING ANY EXCAVATION WORK.

GRAPHIC SCALE
30 0 15 30
1 inch = 30 ft.

SHEET NOTES:

DEMOLITION KEYNOTES

01 SAWCUT EXISTING CURB & GUTTER AND SIDEWALK. REMOVE CURB & GUTTER AND SIDEWALKS IN AREAS OF NEW DRIVES. SAWCUT SHALL BE MADE AT THE NEAREST EXISTING JOINT.
-SEE SHEET C-2.0 FOR DETAILS

▬ ▬ SAWCUT LINE

02 REMOVE EXISTING TREE (INCLUDING STUMP)

⊠ TREE REMOVAL

03 CONTRACTOR TO COORDINATE RELOCATION OF POWER POLES AND UTILITY LINES WITH DAYTON POWER & LIGHT AND THE CITY OF TROTWOOD.

04 STRIP AND STOCKPILE EXISTING TOPSOIL. TREAT UNSUITABLE MATERIALS PER CBC ENGINEERS GEOTECHNICAL REPORT DATED AUGUST 21, 2019.

05 NEIGHBOR'S FENCE AND LANDSCAPE AREAS ENCROACH ONTO CITY'S PROPERTY. THESE ITEMS WILL NEED TO BE REMOVED/RELOCATED TO ALLOW FOR CONSTRUCTION OF DP&L'S NEW OVERHEAD ELECTRIC LINE. CONTRACTOR TO COORDINATE THIS WORK WITH PROPERTY OWNER AND CITY.

No.	Revisions / Submissions	Date
	ISSUED FOR CONSTRUCTION	2021/04/23
4	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

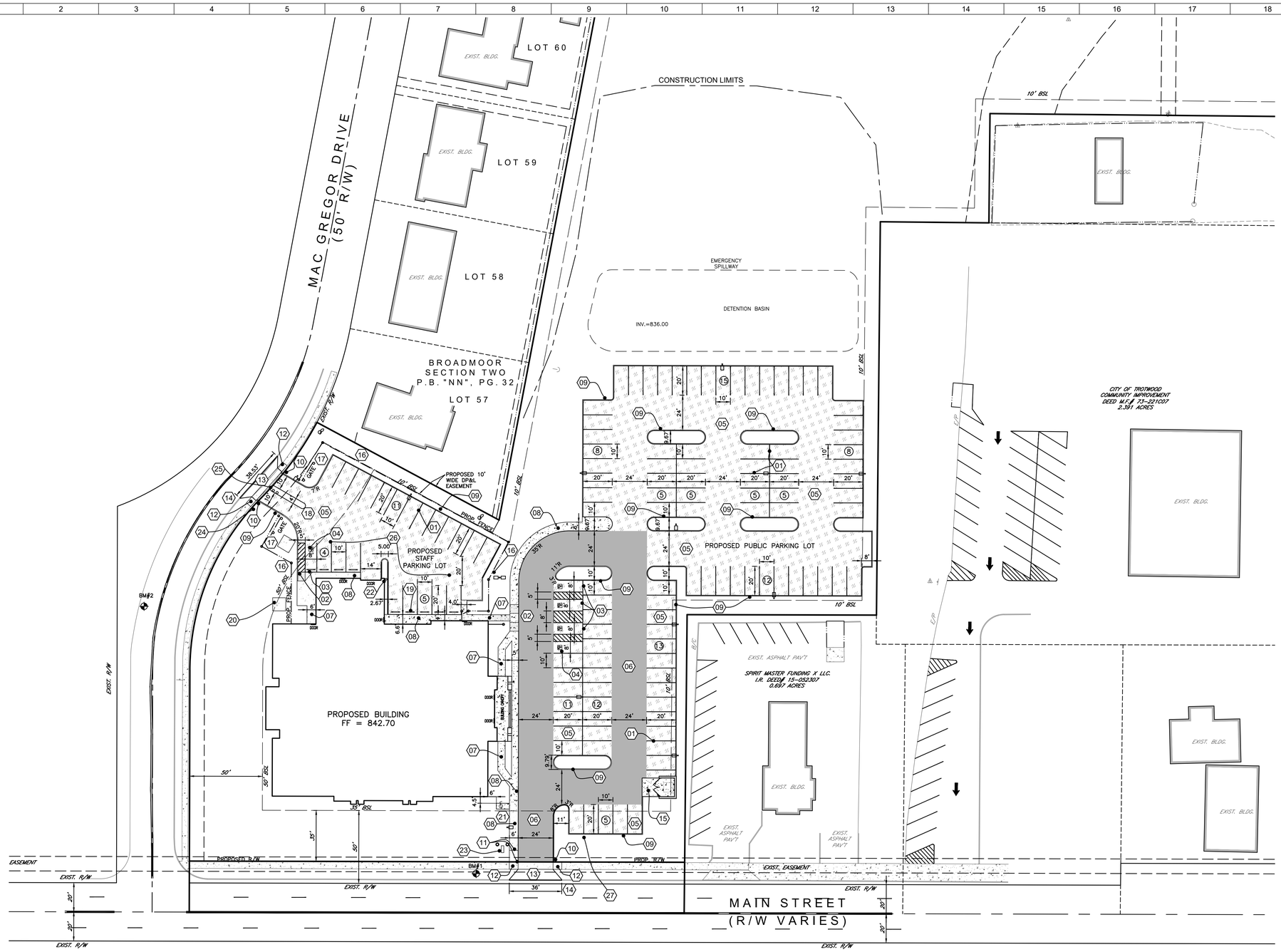
875 E. MAIN STREET
TROTWOOD, OH 45426

EXISTING CONDITIONS AND DEMOLITION PLAN

STATE OF OHIO KURT M. ZIESSLER E-62910 REGISTERED PROFESSIONAL ENGINEER
2021/06/18

Comm. No.	19651.00
Date	2021/06/18
Drawn	RRT
Drawing No.	C-1.0
Checked	KMZ

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OFF-STREET PARKING & DESIGN STANDARDS PER CITY OF TROTWOOD ORDINANCE 1181.03

REQUIRED PARKING SPACE DIMENSIONS: 10' x 20'

REQUIRED ACESS DRIVE WIDTH: MINIMUM 20'

REQUIRED SETBACKS:
FRONT: MINIMUM 35' FROM EXISTING & FUTURE R/W
SIDE AND REAR: MINIMUM 5' FROM PROPERTY LINE

Know what's below. Call before you dig.

SITE BENCHMARKS

BM#1 Sanitary Manhole
Main Street (Tree Lawn)
Elev: 840.00 (Rim)

BM#2 Sanitary Manhole
Mac Gregor Drive (Roadway)
Elev: 835.55 (Rim)

PERMITTING CONTACT INFORMATION:

PLANNING AND ZONING
City of Trotwood - Planning & Development Dept.
Contact: Debbie McDonnell
Planning & Development Director
Phone: 937.854.7216
Email: dmcdonnell@trotwood.org

ROADS, ACCESS & RIGHT-OF-WAY
City of Trotwood - Public Works Dept.
Contact: Johnny McCluskey
Operations Supervisor
Phone: 937.837.1702
Email: jmccluskey@trotwood.org

GENERAL SITE NOTES

1. Building dimensions shown on the Civil Engineering Plans are for reference purposes only.
2. All site and radii dimensions are referenced to the face of curbs or edge of paving unless otherwise noted.
3. All dimensions to the building are referenced to the outside face of the structure's facade.
4. All sidewalks, curb and gutter, street paving, curb cuts, driveway approaches, handicap ramps, etc. constructed outside the property line in the right-of-way shall conform to all Local and/or State specifications and requirements.
5. All proposed handicap ramps, parking areas, and accessible routes shall strictly comply with current Local, State, and Federal regulations, including but not necessarily limited to the ADA Accessibility Guidelines (ADAAG).
6. All ADA accessible routes shall have detectable warnings installed as required by the ADAAG. Detectable warnings shall consist of raised truncated domes which contrast visually with the adjoining surfaces, either light-on-dark, or dark-on-light.
7. Contractor shall sawcut existing pavement and concrete to provide a clean, straight joint where new pavement meets existing pavement and ensure positive drainage.
8. All concrete pavement shall have joints in accordance with ACI 330R-08, Section 3.7 and Appendix C. Contraction joints shall be 1/4 of the slab thickness. Isolation joints shall be placed between pavement and foundations, inlets, and other fixed structures. Contraction joints shall be tool finished and spaced as follows:
   Curbing: 10'-0" (max) spacing.
   Sidewalks: 5'-0" (max) spacing.
   Vehicular Traffic Areas: 24 x Concrete Pavement Thickness (feet), 15'-0" (max) spacing.

SITE AND PAVEMENT LEGEND

- (#) NUMBER OF PARKING SPACES
- PARKING SIGNAGE
- CONCRETE
- HEAVY–TRAFFIC PAVEMENT
- LIGHT–TRAFFIC PAVEMENT
- BUILDING FACADE/AWNING/OVERHANG
- O/O CONCRETE FOUNDATION
- ADA PARKING SYMBOL
- PROP. LIGHT POLE
- PROP. FENCE

GRAPHIC SCALE
30 0 15 30
1 inch = 30 ft.

SHEET NOTES:

SITE KEYNOTES

01 PARKING STRIPE / HATCH
- 4" WIDE PAINTED STRIPES. ADA HATCHING TO BE AT 45° AND 2'-0" O.C.
- STRIPING ON ASPHALT PAVEMENT TO BE PAINTED WHITE.
- STRIPING ON CONCRETE PAVEMENT TO BE PAINTED YELLOW

02 ADA ACCESSIBLE RAMP
- PER DETAIL / SHEET C-5.0

03 ADA PARKING SIGNAGE
- PER DETAIL / SHEET C-5.0

04 ADA PARKING SYMBOL
- PER DETAIL / SHEET C-5.0

05 LIGHT-TRAFFIC ASPHALT "PARKING AREA" PAVEMENT
- PER PAVEMENT SECTION / SHEET C-5.0

LIGHT–TRAFFIC PAVEMENT

06 HEAVY-TRAFFIC ASPHALT "DRIVEWAY AREA" PAVEMENT
- PER PAVEMENT SECTION / SHEET C-5.0

HEAVY–TRAFFIC PAVEMENT

07 CONCRETE WALK
-PER DETAIL / SHEET C-5.0

08 CONCRETE WALK WITH INTEGRAL CURB
-PER DETAIL / SHEET C-5.0

09 CONCRETE BARRIER CURB
-PER DETAIL / SHEET C-5.0

10 CURB END TAPER FROM 6" TO 1.5"
-PER DETAIL / SHEET C-5.0

11 CURB/SIDEWALK HEIGHT GOES FROM 6" TO 0" OVER 8'

12 ADA RAMP AT DRIVES INSIDE RIGHT OF WAY
-PER DETAIL / SHEET C-5.0

13 CONCRETE DRIVEWAY APPROACH IN PUBLIC RIGHT-OF-WAY WITH PUBLIC SIDEWALK
- PER CITY OF TROTWOOD STANDARDS

14 DEPRESSED CONCRETE CURB IN PUBLIC RIGHT-OF-WAY
- PER CITY OF TROTWOOD STANDARDS

15 TRASH ENCLOSURE
-SEE ARCHITECTURAL PLANS FOR DETAILS

16 FENCE
-SEE ARCHITECTURAL PLANS FOR DETAILS

17 CANTILEVERED SLIDE GATE WITH CARD READER OPENER (ENTRY LANE) AND DETECTOR LOOP (EXIT LANE)
-SEE ARCHITECTURAL PLANS FOR DETAILS

18 CONCRETE ISLAND WITH CARD READER
-SEE ARCHITECTURAL PLANS FOR DETAILS

19 CONCRETE WHEEL STOP
-PER DETAIL / SHEET C-5.0

20 DP&L TRANSFORMER PAD. PAD TO BE PER DP&L REQUIREMENTS INCLUDING BOLLARDS.

21 FLAGPOLE WITH A 9' X 4' CONCRETE BASE/WALK.

22 BOLLARD
-PER DETAIL/ SHEET C-5.0

23 MONUMENT SIGN
-SEE ARCHITECTURAL PLANS FOR DETAILS

24 RESTRICTED PARKING SIGN FACING MAC GREGOR DRIVE.

25 SIGN AT CARD READER WITH PARKING RESTRICTIONS AND INTERCOM INSTRUCTIONS.

26 ASSIGNED PARKING SPACE NUMBERS (EIGHT SPACES) PAINTED ON EIGHT STAFF SPACES THAT FACE THE BUILDING.

27 ELECTRIC VEHICLE CHARGING STATION AND SIGNAGE. SEE SHEET EU101.

No.	Revisions / Submissions	Date
	ISSUED FOR CONSTRUCTION	2021/04/23
4	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

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TROTWOOD, OH 45426

SITE PLAN

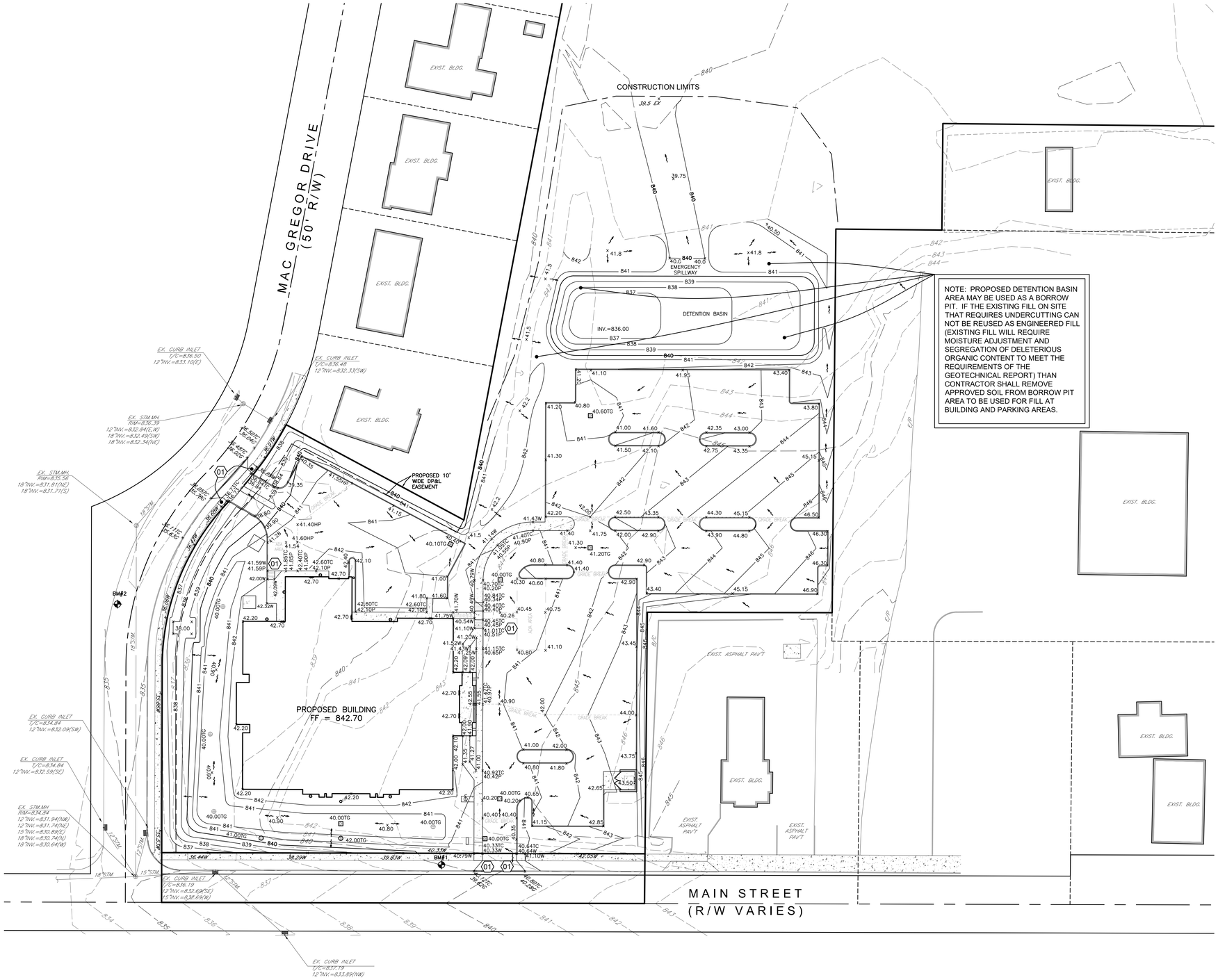
STATE OF OHIO KURT M. ZIESSLER E-64910 REGISTERED PROFESSIONAL ENGINEER
2021/06/18

Comm. No.	Date
19651.00	2021/06/18
Drawn: RRT	Drawing No.: C-2.0
Checked: KMZ	

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GENERAL GRADING, EARTHWORK & DRAINAGE NOTES

1. All spot elevations indicated in pavement areas are at bottom face of curb and/or finished pavement grade unless noted otherwise. All spot elevations indicated in grass or landscape areas are finished grade unless noted otherwise.
2. The Contractor shall be responsible for the removal and disposal of all vegetation and organic materials from the site that results from clearing & grubbing activities.
3. The Contractor shall be responsible for stripping and removal of all excess topsoil from the site. All topsoil that cannot be used on site shall be removed from the site at the Contractor's expense. The Contractor may dispose of excess topsoil by burying topsoil in landscape areas only at the direction of the Owner or the Owner's Representative.
4. The Contractor will be responsible for all safety requirements and for the protection of all existing and proposed utilities or structures during earthwork procedures.
5. The Contractor shall be responsible for the import of structural fill materials if suitable material is not available on site. The Contractor shall be responsible for the export and disposal of all excess or unsuitable materials.
6. The Contractor shall provide construction dewatering as necessary to complete construction as outlined in plans.
7. The Contractor shall exercise extreme care in establishing all grades and slopes in pavement areas, ramps and sidewalks in the vicinity of handicap parking and access areas and shall comply with Federal, State, and Local Codes.
8. In areas where sheet drainage flows from grass or landscape areas onto paved areas, the finished grade in grass or landscape areas shall be 1/2 inch above the top of curb or above the pavement in areas without curb. In areas where sheet drainage flows from pavement to grass or landscaped areas, the finished grade in grass or landscape areas shall be 1/2 inch below the pavement.
9. The Contractor shall provide positive drainage in all areas and away from all buildings.
10. All pavement shall be laid on a straight, even, and uniform grade with a minimum of 1:100 (1.0%) slope toward the collection points unless otherwise specified on plans. Cut or fill slopes in unpaved areas shall not exceed 3:1 (33.3%) maximum grade unless otherwise noted on plans.
11. ADA accessible areas shall not exceed the following slopes:
    - Ramps - 1:13 (7.7%) max.
    - Routes - 1:21 (4.8%) max.
    - Parking - 1:64 (1.56%) max.
    - Cross Slopes - 1:64 (1.56%) max.
12. The Contractor shall adjust tops/lids/grates of all cleanouts, manholes, inlets, valves, etc. to match final grade.
13. Following grading of subsoil to subgrade elevations, the Contractor shall provide 4" of topsoil (minimum) in all disturbed areas which are not to be paved. Final grades should be smoothly finished to surrounding areas and ensure positive drainage. Stockpiled topsoil shall be screened prior to respreading and should be free of subsoil, debris, and stones.
14. The Contractor shall be responsible for determining exact quantities of cut and/or fill for estimating and construction and should alert the Engineer of any excessive cut and/or fill, especially if additional cut and/or fill will be required due to poor existing soil conditions discovered during earthwork operations.
15. Refer to the Architectural and Structural Plans for information regarding any perimeter foundation drains.
16. The Contractor shall obtain a copy of the Geotechnical / Soils Report and become thoroughly familiar with site and subgrade information and fully implement recommendations given therein.



GRADING LEGEND

INV	INVERT
TG	TOP–OF–GRATE
TC	TOP–OF–CURB
W	TOP–OF–SIDEWALK
G	GUTTER FLOWLINE
HP	HIGH POINT FOR PAVEMENT DIRECTION OF FLOW
+00.00	PROP. SPOT ELEVATION (ADD 800)
+00.00	EXIST. SPOT ELEVATION (ADD 800)
880	PROP. CONTOUR
888	EXISTING CONTOUR
	PROP. CATCH BASIN
	PROP. YARD DRAIN

*ASSUME ELEVATIONS IN PAVEMENT ARE FOR TOP OF PAVEMENT UNLESS OTHERWISE NOTED

Know what's below. Call before you dig.

SITE BENCHMARKS

BM#1 Sanitary Manhole
Main Street (Tree Lawn)
Elev: 840.00 (Rim)

BM#2 Sanitary Manhole
Mac Gregor Drive (Roadway)
Elev: 835.55 (Rim)

CONTRACTOR TO REFER TO CBC ENGINEERS GEOTECHNICAL REPORT DATED AUGUST 21, 2019 FOR REMOVAL , COMPACTION AND RE-USE OF EXISTING SOILS.

CONTRACTOR IS RESPONSIBLE TO VERIFY THAT EXCAVATED SOILS TO BE RE-USED MEET THE REQUIREMENTS LISTED IN CBC ENGINEERS GEOTECHNICAL REPORT.

UNDERGROUND UTILITIES ARE DEPICTED BASED ON OBSERVED EVIDENCE, UNDERGROUND UTILITY LOCATION SERVICES, AND RECORD DRAWINGS. LOCATIONS ARE APPROXIMATE AND NOT ALL UNDERGROUND UTILITIES MAY BE SHOWN ON THIS SURVEY.

GRAPHIC SCALE
30 0 15 30
1 inch = 30 ft.

SHEET NOTES:

GRADING KEYNOTES

01 ADA ACCESSIBLE RAMP
- PER DETAIL / SHEET C-5.0

No.	Revisions / Submissions	Date
	ISSUED FOR CONSTRUCTION	2021/04/23
4	ISSUED FOR RE–BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

GRADING PLAN

STATE OF OHIO KURT M. ZIESSLER E-67910 REGISTERED PROFESSIONAL ENGINEER
2021/06/18

Comm. No.	19651.00
Date	2021/06/18
Drawn	RRT
Drawing No.	C-3.0
Checked	KMZ

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STORM SEWER NOTES:

All storm sewer shall be reinforced concrete pipe (ASTM C76 - Class III, minimum) or high-density polyethylene pipe (ADS N-12 or equivalent), unless otherwise noted on plans. All pipe shall be installed according to manufacturer's specifications.

Contractor to verify that all downspouts are tied into the downspout collection system (storm sewer). Contractor shall verify the downspouts are tied to the storm sewer system. No clean water connections to the sanitary sewer system shall be allowed.

Catch basins in pavement areas (as noted) shall have finger drains installed. See detail, sheet C-5.0.

Storm sewer connection, permit and construction to be coordinated with the City of Trotwood.

GAS NOTES:

Coordinate any gas service work with Vectren and Owner.

ELECTRIC NOTES:

Coordinate any electric service work with DP&L and Owner.

Coordinate site lighting, signage wiring, conduit locations, connections, etc. with electrical plans. Notify Engineers of any potential conflicts.

SANITARY SEWER NOTES:

Contractor to provide 6" (min.) sanitary sewer service line from building to public sewer main. Install tap, cleanouts and other appurtenances as required by the local utility provider. Coordinate building connection with plumbing plans.

All sanitary sewer pipe shall be P.V.C. SDR 35, ASTM D-3034 with joints conforming to ASTM 3212. All pipe shall be installed in accordance with the manufacturer's recommended procedures and shall maintain a minimum slope of 2.08%.

Sanitary sewer clean-outs shall be installed at all sewer pipe bends, angles, and junctions, unless a manhole is indicated. All cleanouts in pavement areas shall be installed with traffic bearing lids and concrete collars. Cleanout spacing should not exceed 100'. Cleanout per detail / Sheet C-5.0.

Sanitary sewer service connection, permit and construction to be coordinated with the City of Trotwood.

WATER NOTES:

Contractor to provide fire and domestic water service from public water main to building. Contractor to provide new public fire hydrants as shown, according to City of Dayton and City of Trotwood and Trotwood Fire Department specifications. Install tap, valves, meter, backflow preventer, thrust blocks, and other appurtenances as required by the utility provider and applicable codes. Fire service line to be designed by Others (Fire Protection Engineer). Coordinate building connection with plumbing plans.

Water service connection, meter, permit and construction to be coordinated with City of Trotwood Water Department and City of Dayton.

Fire Department Connection is to be a 4" Locking Stortz connection per Trotwood Fire Department Requirements. FDC is on a 30 degree down angle.

Fire hydrants are per City of Dayton and City of Trotwood Water requirements. Hydrants to have a 4" Steamer connection with two 2-1/2" hose outlets. Both of the proposed fire hydrants shall be public hydrants, barrels shall be painted yellow with white bonnets.

WATER DISTRIBUTION SYSTEM NOTES:

1. Water mains, bends and fittings shall be ductile cast iron pipe and conform to ANSI A-21.51 (AWWA C151), class 51 (unless otherwise noted) from public water main connection through meter pit. After meter pit water service lines may be ductile iron, C-900 or C-909 .
2. Thrust Blocks are required at all fittings.
3. Water mains shall have a minimum cover of 4 feet, 6 inches. Water mains shall have a minimum of 10 feet horizontal separation (out-to-out) from any storm or sanitary sewer.
4. Water main crossing any and all sewers shall have a minimum vertical separation of 18 inches between the outside of pipes (out to out). Also, one full length of water main pipe shall be centered at the point of crossing such that both joints will be of equal distant and as far from the sewer as possible. If water main crosses below sanitary sewers, the sanitary sewer must be water main material for that span.
5. Only City personnel shall operate main line valves.
6. The contractor shall be advised that any closure pieces or sleeves required to connect sections of the concrete main or ductile iron connections, other than those specifically shown on the construction drawings, shall be at their expense.
7. All taps to existing water mains will be made by the City at the contractor's expense. This work will include furnishing and installing the tapping sleeve and valve and making the tap. All othe work including excavation, backfilling, and restoration over the tapped main shall be by the contractor.
8. No water service branch shall be laid in the same trench with a sanitray sewer lateral.
9. Fire hydrants shall be located 3-feet from the face of curb or edge of pavement and 4-inch opening to face the street. Fire hydrants located within the walk must comply with ADA regulations.
10. No additions, deletions, or revisions to the water main are to be made without written approval by the City.
11. Department of Water personnel will inspect the water main installation.

UTILITY CONTACT INFORMATION:

WATER / SANITARY SEWER / STORM WATER
City of Trotwood Public Works Department
Contact: Johnny McCluskey, Operations Supervisor
Telephone: 937.837.1702
Email: jmccluskey@trotwood.org

GAS
Vectren Gas Distributions
Contact: Chad Campbell
Telephone: 937.312.2521
Email: cecampbell@vectren.com

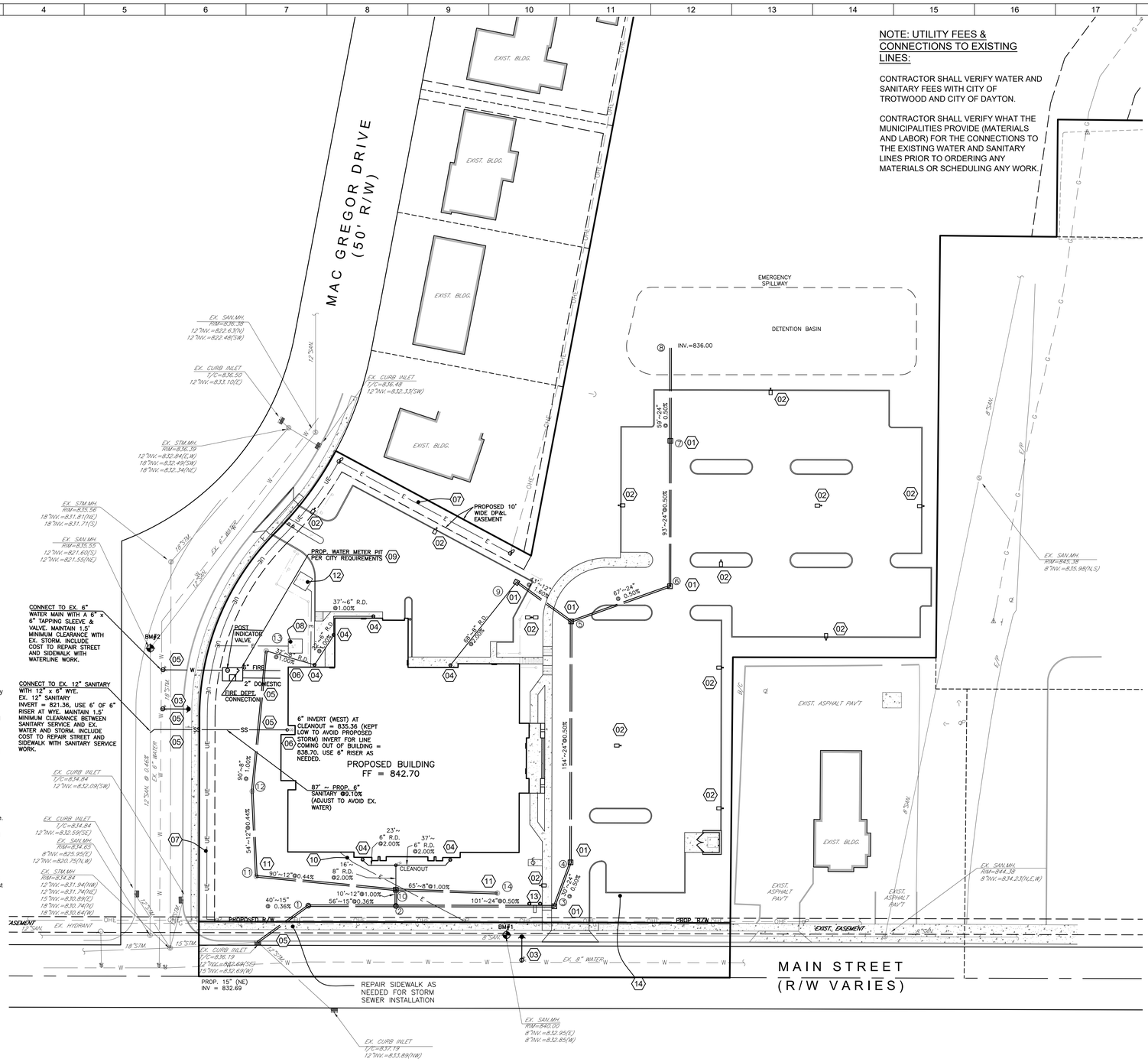
ELECTRIC
Dayton Power & Light Company
Contact: Construction Control Center
Telephone: 937.331.4860
Email: constructioncontrol@dplinc.com

811 Know what's below. Call before you dig.

SITE BENCHMARKS

BM#1 Sanitary Manhole
Main Street (Tree Lawn)
Elev: 840.00 (Rim)

BM#2 Sanitary Manhole
Mac Gregor Drive (Roadway)
Elev: 835.55 (Rim)



NOTE: UTILITY FEES & CONNECTIONS TO EXISTING LINES:

CONTRACTOR SHALL VERIFY WATER AND SANITARY FEES WITH CITY OF TROTWOOD AND CITY OF DAYTON.

CONTRACTOR SHALL VERIFY WHAT THE MUNICIPALITIES PROVIDE (MATERIALS AND LABOR) FOR THE CONNECTIONS TO THE EXISTING WATER AND SANITARY LINES PRIOR TO ORDERING ANY MATERIALS OR SCHEDULING ANY WORK.

PROPOSED STORM STRUCTURES

1. BIO CLEAN SciCLONE
TOP OF CASTING = 841.00
15" INV (SW&E) = 832.83
SEE DETAIL ON SHEET C-5.1

2. OUTLET CONTROL MANHOLE
TOP OF CASTING = 842.00
24" INV (E) = 833.03
15" INV (W) = 833.03
12" INV (N) = 836.00
SEE DETAIL ON SHEET C-7.0

3. 2-3 CATCH BASIN
TOP OF CASTING = 840.00
24" INV (NE) = 833.61
24" INV (W) = 833.54
PROP. 4" UD INV (N,S&E) = 838.00

4. 2-3 CATCH BASIN
TOP OF CASTING = 840.00
24" INV (N) = 833.88
24" INV (SW) = 833.76
PROP. 4" UD INV (N,S,W&E) = 838.00

5. 2-3 CATCH BASIN
TOP OF CASTING = 840.00
12' INV (W) = 835.00
24" INV (E) = 834.75
24" INV (S) = 834.65
PROP. 4" UD INV (N,S,W&E) = 838.00

6. 2-3 CATCH BASIN
TOP OF CASTING = 841.20
24" INV (N) = 835.18
24" INV (W) = 835.08
PROP. 4" UD INV (N,S,W&E) = 839.20

7. 2-3 CATCH BASIN
TOP OF CASTING = 840.50
24" INV (N) = 835.71
24" INV (S) = 835.61
PROP. 4" UD INV (N,S,W&E) = 838.50

8. FULL HEIGHT HEADWALL
24" INV (S) = 836.00
10'(L) x 5'(W) X 1.5'(D) TYPE "C" RCP
SEE DETAIL ON SHEET C-5.1

9. 2-2 CATCH BASIN
TOP OF CASTING = 840.10
8" INV (SW) = 836.02
12" INV (E) = 835.69
PROP. 4" UD INV (N,S,W&E) = 838.30

10. 2-2 CATCH BASIN
TOP OF CASTING = 840.00
8" INV (N&E) = 836.43
12" INV (W&S) = 836.10

11. YARD DRAIN
TOP OF CASTING = 840.00
12" INV (N) = 836.50
12" INV (E) = 836.50
4" INV (NE) FOR FOUNDATION DRAIN = 837.17

12. YARD DRAIN
TOP OF CASTING = 840.00
8" INV (N) = 836.73
12" INV (E) = 836.73

13. YARD DRAIN
TOP OF CASTING = 840.00
8" INV (S&E) = 837.63

14. YARD DRAIN
TOP OF CASTING = 840.00
8" INV (W) = 837.08
4" INV (N) FOR FOUNDATION DRAIN = 837.25

NOTE: FOUNDATION DRAIN TILES:

CONTRACTOR SHALL CONNECT FOUNDATION DRAIN TILES INTO THE STORM SEWER SYSTEM. CONNECT DRAIN TILES INTO PROPOSED YARD DRAINS #11 AND #14.

GENERAL UTILITY NOTES:

1. All utilities shown are approximate locations only and have been compiled from the latest available mapping. The exact location of all underground utilities shall be verified by the Contractor prior to the start of construction.
2. Contractor to coordinate with the local utility companies for all locations and connections. A preconstruction meeting with the various utility companies may be required prior to the start of any construction activity.
3. The Contractor shall visit the site and verify the location, elevation, and condition of all existing utilities by various means prior to beginning any excavation. Test pits shall be dug at all locations where existing and proposed utility lines cross, and the horizontal and vertical locations of the utilities shall be determined. The Contractor shall contact the Engineer in the event of any unforeseen conflicts between existing and proposed utilities so that an appropriate modification may be made.
4. The Contractor shall ensure that all utility companies and local standards for materials and construction methods are met. The Contractor shall perform proper coordination with the respective utility company. The Contractor shall coordinate work to be performed by the various utility companies and shall pay all fees for connections, disconnection, relocations, inspections, and demolition.
5. This plan details pipes up to 5' from the building face. Refer to the building drawings for building connections. Supply and install pipe adapters as necessary.
6. All valve boxes and curb boxes shall be adjusted to the final grades and located in grassed areas unless indicated otherwise on the plans.
7. The Contractor shall provide traffic bearing concrete collars and lids for all cleanouts, manholes, inlets, valves, etc. which are located in paved areas.
8. All existing pavement within the rights-of-way where utility piping is to be installed shall be saw cut and replaced in kind or directionally bored in accordance with Local and/or State requirements. Existing pavement shall be repaired as necessary.
9. All utility lines and trenches shall be installed, bedded and backfilled according to manufacturer's specifications and to the satisfaction of Local and State Authorities.
10. Sanitary sewer laterals shall maintain (10' min. horizontal, 1.5' min. vertical) separation distance from water lines unless otherwise shown, or additional protection measures will be required. Where water line crosses above sanitary lateral by less than 2' vertical, a concrete encasement shall be installed, Contractor shall center one joint of pipe at crossing.
11. Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.

UTILITY LEGEND

CO	PROP. INLET/MANHOLE/CLEANOUT
DS	PROP. DOWNSPOUT @ BUILDING
SS — SS	PROP. SANITARY SEWER SERVICE
W — W	PROP. WATER SERVICE
	PROP. STORM SEWER
G — G	PROP. GAS SERVICE
E — E	PROP. ELECTRIC SERVICE
UE — UE	PROP. DP&L RELOCATION
T — T	PROP. TELECOM SERVICE
	PROP. LIGHT POLE
	PROP. ROOF DRAIN LINE

GRAPHIC SCALE
30 0 15 30
1 inch = 30 ft.

SHEET NOTES:

UTILITY KEYNOTES

01 THE STORM STRUCTURES IN THE PARKING AREAS ARE TO HAVE 4" UNDERDRAINS INSTALLED AND CONNECTED TO THE STORM STRUCTURES (ONE 10' LONG UNDERDRAIN IN EACH DIRECTION THAT WOULD EXTEND INTO PAVEMENT).
-SEE SHEET C-5.0 FOR UNDERDRAIN DETAIL.

02 POLE MOUNTED LIGHT FIXTURE
-SEE LIGHTING PLAN FOR DETAILS

03 FIRE HYDRANT, COMPLETE. THIS INCLUDES TAPPING SLEEVE AND VALVE TO CONNECT TO EXISTING WATERLINE, 6" WATERLINE TO HYDRANT, HYDRANT VALVE AND FIRE HYDRANT. INCLUDE COST TO REPAIR ROAD AND SIDEWALK WITH WATERLINE WORK. CONTRACTOR TO COORDINATE WITH CITY OF TROTWOOD, CITY OF DAYTON AND MONTGOMERY COUNTY PRIOR TO ORDERED MATERIALS OR SCHEDULING WORK.

04 STORM SEWER DOWNSPOUT BOOT TO BE SUPPLIED BY THE PLUMBING CONTRACTOR. SITE CONTRACTOR TO PICK UP ROOF DRAIN LINES FROM THAT POINT AND CONNECT TO THE STORM SEWER.

05 MAINTAIN 1.5' VERTICAL CLEARANCE BETWEEN WATER LINES, STORM SEWERS AND SANITARY SEWERS.

06 COORDINATE LOCATION OF UTILITY SERVICES COMING INTO BUILDING WITH MEP PLANS.

07 PROPOSED DP&L MAIN LINE RELOCATION. ON THIS SHEET FOR REFERENCE ONLY. CONSTRUCTION PER DP&L PLANS.

08 DP&L TRANSFORMER & PAD. REFERENCE ELECTRICAL PLANS.

09 METER PIT PER CITY OF TROTWOOD REQUIREMENTS. METER PIT TO HAVE POST INDICATOR VALVE AND FIRE DEPARTMENT CONNECTION.

10 PROPOSED INTERNET SERVICE. REFERENCE SHEET EU101.

11 FOUNDATION DRAIN CONNECTION INTO YARD DRAIN.

12 FUTURE GENERATOR PAD AND CONDUIT.

13 LIGHTING FOR SIGN
-SEE LIGHTING PLAN FOR DETAILS

14 ELECTRIC VEHICLE CHARGING STATION.

No.	Revisions / Submissions	Date
	ISSUED FOR CONSTRUCTION	2021/04/23
4	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

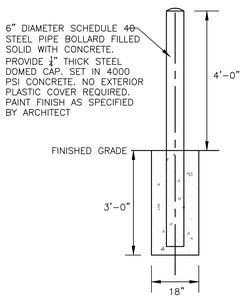
875 E. MAIN STREET
TROTWOOD, OH 45426

UTILITY PLAN

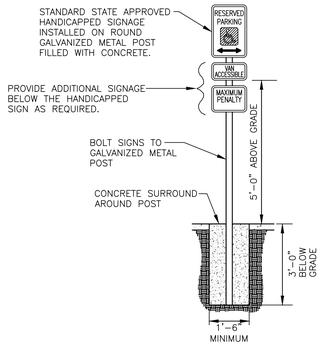
STATE OF OHIO KURT M. ZIESSLER E-62910 REGISTERED PROFESSIONAL ENGINEER
2021/06/18

Comm. No.	Date
19651.00	2021/06/18
Drawn: RRT	Drawing No.: C-4.0
Checked: KMZ	

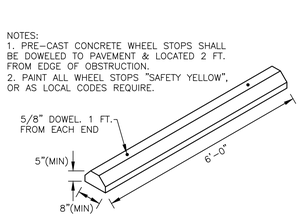
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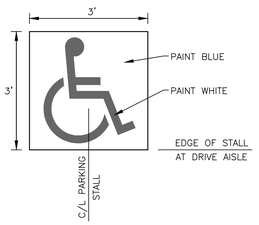
PIPE BOLLARD
NOT TO SCALE



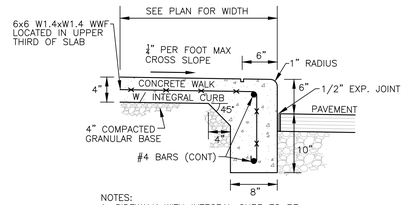
ADA PARKING SIGNAGE
NOT TO SCALE



CONCRETE WHEEL STOP
NOT TO SCALE

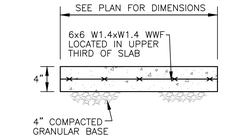


ADA PARKING SYMBOL
NOT TO SCALE



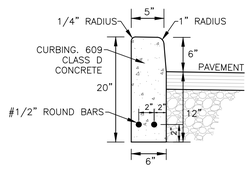
NOTES:
1. SIDEWALK WITH INTEGRAL CURB TO BE CONSTRUCTED OF 3500 PSI CONCRETE (MIN.).
2. SIDEWALK TO HAVE JOINTS NOT EXCEEDING 5 FT. SPACING IN ANY DIRECTION.

CONCRETE SIDEWALK WITH INTEGRAL CURB
NOT TO SCALE



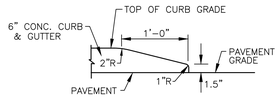
NOTES:
1. SIDEWALK TO BE CONSTRUCTED USING 3500 PSI CONCRETE.
2. SIDEWALK TO HAVE TOOLED CONTROL JOINTS NOT EXCEEDING 5 FT. SPACING IN ANY DIRECTION.

CONCRETE SIDEWALK PAVEMENT SECTION
NOT TO SCALE

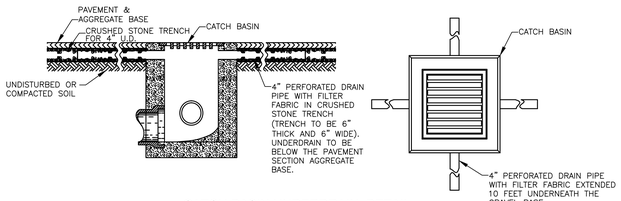


NOTES:
1. CURB TO BE CONSTRUCTED OF 3500 PSI CONCRETE.
2. PROVIDE A SMOOTH AND EVEN FINISH PLUS ROUNDED EDGING TO ALL EXPOSED SURFACES.

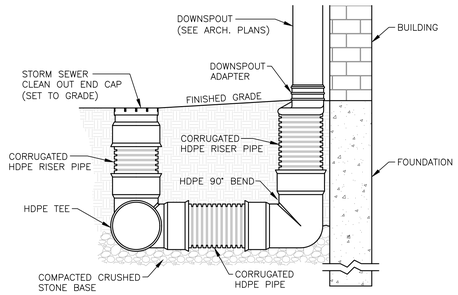
BARRIER CURB DETAIL
NOT TO SCALE



CURB END TAPER DETAIL
NOT TO SCALE

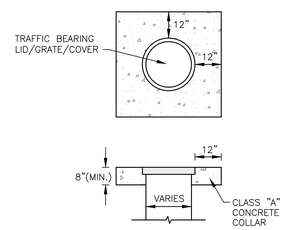


CATCH BASIN UNDERDRAIN DETAIL
NOT TO SCALE
TO BE USED FOR CATCH BASINS IN PAVEMENT AREAS



NOTES:
1. HDPE PIPE MAY BE SUBSTITUTED WITH PVC PIPE.
2. ALL JOINTS ARE TO BE WATERTIGHT.
3. CLEAN OUT TO HAVE TRAFFIC BEARING LID AND CONCRETE COLLAR IF INSTALLED IN PAVEMENT AREAS.

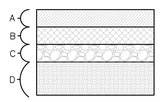
DOWNSPOUT COLLECTION DETAIL
NOT TO SCALE



NOTE: COLLAR TO BE INSTALLED AROUND ALL STORM INLETS, MANHOLES, CLEANOUTS, PULL BOXES, VALVES, ETC. WHICH ARE LOCATED IN PAVEMENT AREAS.

CONCRETE COLLAR
NOT TO SCALE

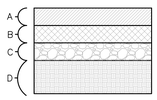
KEY
A – 1–1/2" ODOT ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG64–22
B – 2" ODOT ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
C – 6" ODOT ITEM 304, AGGREGATE BASE
D – ODOT ITEM 204 SUBGRADE COMPACTION AS PER GEOTECH SPECIFICATIONS



REFERENCE GEOTECHNICAL REPORT PROVIDED BY CBC ENGINEERS, DATED AUGUST 21, 2019 FOR PAVEMENT SUBGRADE AND SITE PREPARATION INFORMATION. PAVEMENT SECTION TO BE OWNER APPROVED. NO TESTING OR DESIGN WAS PERFORMED BY CIVIL ENGINEER IN SELECTING THIS SECTION. APPLY TACK COAT IN ACCORDANCE WITH ODOT SPECIFICATIONS.

LIGHT-DUTY PAVEMENT SECTION
NOT TO SCALE

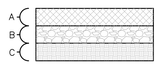
KEY
A – 1–1/2" ODOT ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG64–22
B – 4" ODOT ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), TWO EQUAL LIFTS
C – 8" ODOT ITEM 304, AGGREGATE BASE
D – ODOT ITEM 204 SUBGRADE COMPACTION AS PER GEOTECH SPECIFICATIONS



REFERENCE GEOTECHNICAL REPORT PROVIDED BY CBC ENGINEERS, DATED AUGUST 21, 2019 FOR PAVEMENT SUBGRADE AND SITE PREPARATION INFORMATION. PAVEMENT SECTION TO BE OWNER APPROVED. NO TESTING OR DESIGN WAS PERFORMED BY CIVIL ENGINEER IN SELECTING THIS SECTION. APPLY TACK COAT IN ACCORDANCE WITH ODOT SPECIFICATIONS.

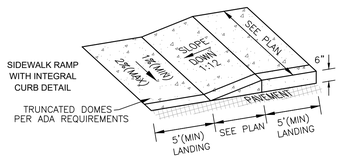
HEAVY-DUTY PAVEMENT SECTION
NOT TO SCALE

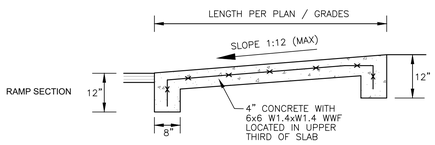
KEY
A – 8.0" PORTLAND CEMENT CONCRETE ODOT ITEM 452, 4,000 PSI. REINFORCED WITH 6x6–W4xW4, PLACED 2" BELOW CONCRETE SURFACE.
B – 6.0" AGGREGATE BASE ODOT ITEM 304
C – COMPACTED/PREPARED SUBGRADE, PER GEOTECH RECOMMENDATIONS



REFERENCE GEOTECHNICAL REPORT PROVIDED BY CBC ENGINEERS, DATED AUGUST 21, 2019 FOR PAVEMENT SUBGRADE AND SITE PREPARATION INFORMATION. PAVEMENT SECTION TO BE OWNER APPROVED. NO TESTING OR DESIGN WAS PERFORMED BY CIVIL ENGINEER IN SELECTING THIS SECTION.

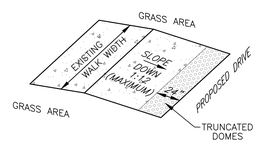
CONCRETE PAVEMENT SECTION
NOT TO SCALE





NOTES:
1. SEE SITE PLAN AND GRADING PLAN FOR LAYOUT AND ELEVATIONS
2. RAMPS TO COMPLY WITH ACCESSIBILITY/ADA STANDARDS

CONCRETE RAMP DETAILS
NOT TO SCALE



NOTES:
1. HANDICAP RAMP TO BE INSTALLED PER ADA REQUIREMENTS.
2. TRUNCATED DOMES TO BE CAST IN PLACE PER MANUFACTURER'S SPECIFICATIONS. ADA SOLUTIONS, ARMOR–TILE, OR EQUIVALENT.

ADA ACCESSIBLE RAMP AT DRIVE INSIDE RIGHT OF WAY DETAIL MAIN STREET & MAC GREGOR DRIVE ENTRANCE
NOT TO SCALE

811 Know what's below. Call before you dig.

SHEET NOTES:

GENERAL NOTES:

No.	Revisions / Submissions	Date
	ISSUED FOR CONSTRUCTION	2021/04/23
4	ISSUED FOR RE–BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

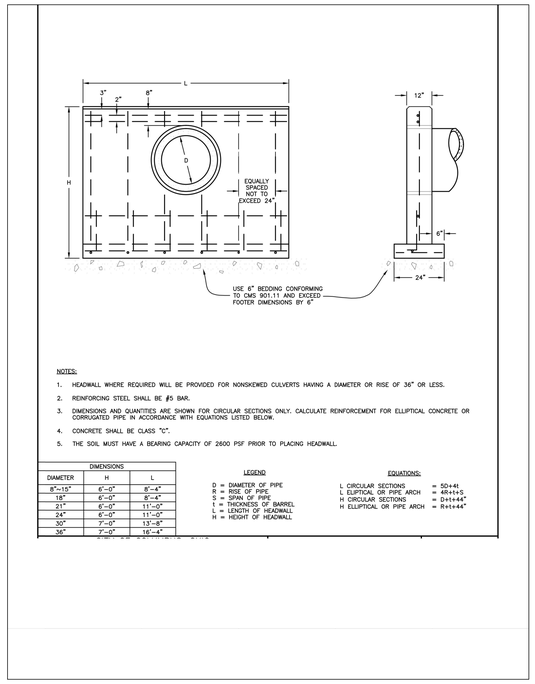
875 E. MAIN STREET
TROTWOOD, OH 45426

SITE DETAILS

STATE OF OHIO KURT M. ZIESSLER P-E-62910 PROFESSIONAL ENGINEER
2021/06/18

Comm. No.	Date
19651.00	2021/06/18
Drawn: RRT	Drawing No.: C-5.0
Checked: KMZ	

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NOTES:

1. HEADWALL WHERE REQUIRED WILL BE PROVIDED FOR NONSKEWED CULVERTS HAVING A DIAMETER OR RISE OF 36" OR LESS.
2. REINFORCING STEEL SHALL BE #5 BAR.
3. DIMENSIONS AND QUANTITIES ARE SHOWN FOR CIRCULAR SECTIONS ONLY. CALCULATE REINFORCEMENT FOR ELLIPTICAL CONCRETE OR CORRUGATED PIPE IN ACCORDANCE WITH EQUATIONS LISTED BELOW.
4. CONCRETE SHALL BE CLASS "C".
5. THE SOIL MUST HAVE A BEARING CAPACITY OF 2600 PSF PRIOR TO PLACING HEADWALL.

DIMENSIONS		
DIAMETER	H	L
8"–15"	6'–0"	8'–4"
18"	6'–0"	8'–4"
21"	6'–0"	11'–0"
24"	6'–0"	11'–0"
30"	7'–0"	13'–8"
36"	7'–0"	16'–4"

LEGEND

D = DIAMETER OF PIPE
R = RISE OF PIPE
S = SPAN OF PIPE
t = THICKNESS OF BARREL
L = LENGTH OF HEADWALL
H = HEIGHT OF HEADWALL

EQUATIONS:

L CIRCULAR SECTIONS = 5D+4t
L ELIPTICAL OR PIPE ARCH = 4R+t+S
H CIRCULAR SECTIONS = D+t+44"
H ELLIPTICAL OR PIPE ARCH = R+t+44"

FULL HEIGHT HEADWALL DETAIL, STORM STRUCTURE #8
NOT TO SCALE

SITE SPECIFIC DATA*			
PROJECT NUMBER	19.152	.	
PROJECT NAME	MUNICIPAL COURT		
PROJECT LOCATION	CITY OF TROTWOOD		
STRUCTURE ID	SC-5-F		
WATER QUALITY FLOW RATE (CFS)	1.09		
PEAK FLOW RATE (CFS)	4.00 CFS		
PEAK STORM DURATION (YEARS)	100 YEAR		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INFLOW PIPE 1	832.83	.	15"
OUTFLOW PIPE 1	832.83	.	15"
RIM ELEVATION	841.00	.	
SUMP ELEVATION	827.61	.	
SURFACE LOADING REQUIREMENT			HS20
FRAME AND COVER			(1) Ø30"
SKIMMER WALL HEIGHT	835.32		STANDARD
KNOWN GROUNDWATER ELEVATION			NA
NOTES: CONCEPT ONLY, NOT FOR CONSTRUCTION.			
*PER ENGINEER OF RECORD			

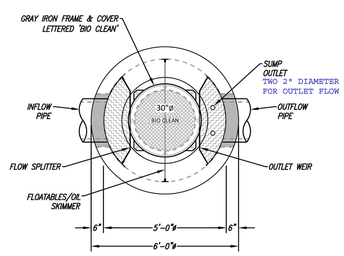
PERFORMANCE DATA	
TREATMENT FLOW RATE (CFS)	1.09
TSS REMOVAL EFFICIENCY	80%
HYDRAULIC GRADE LINE	.

SUMP CHAMBER CAPACITY			
DIAMETER (FT)	AREA (SF)	HEIGHT (FT)	TOTAL (CF)
5	19.63	5.21	102.2

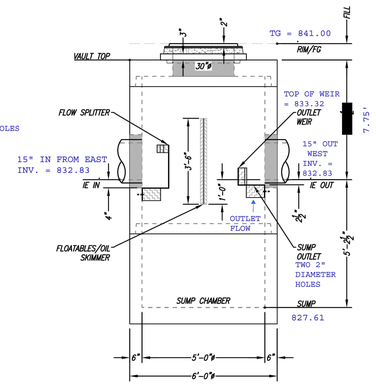
INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SCICLONE UNIT AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. MANUFACTURER RECOMMENDS A 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH).
4. ALL GAPS AROUND PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT PER MANUFACTURER'S STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS AND MANHOLES. ALL COVERS SHALL BE SHIPPED LOOSE. CONTRACTOR TO GROUT ALL MANHOLES TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.

1:30 SCALE



PLAN VIEW



ELEVATION VIEW

GENERAL NOTES

1. BIO CLEAN TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS, AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS, AND ACCESSORIES PLEASE CONTACT BIO CLEAN.

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS: 15/720,140; 10,344,466; 9–00320; RELATED FOREIGN PATENTS OR OTHER PATENTS PENDING.

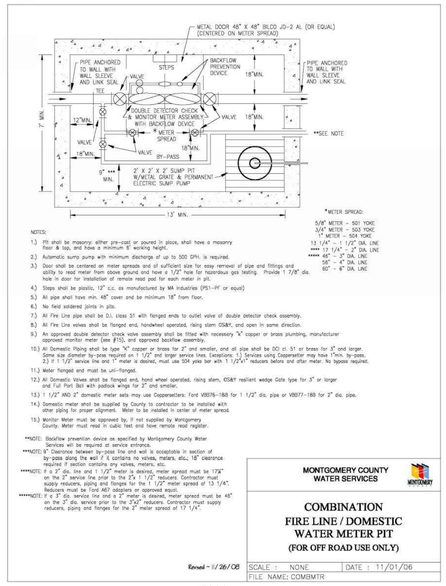
PROPRIETARY AND CONFIDENTIAL:

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE SOLE PROPERTY OF FONTERRA AND ITS COMPANIES. THIS DOCUMENT, NOR ANY PART THEREOF, MAY BE USED, REPRODUCED OR MODIFIED IN ANY MANNER WITH OUT THE WRITTEN CONSENT OF FONTERRA.

Bio Clean — A Fonterra Company

SCICLONE SC-5-F
HYDRODYNAMIC SEPARATOR
STANDARD DETAIL

STORMWATER WATER QUALITY UNIT DETAIL, STORM STRUCTURE #1
NOT TO SCALE



*METER SPREAD.
5/8" METER – 601 YOKE
3/4" METER – 503 YOKE
1" METER – 504 YOKE
13 1/4" – 1 1/2" DIA. LINE
**** 13 1/4" – 2" DIA. LINE
***** 48" – 2" DIA. LINE
58" – 4" DIA. LINE
65" – 6" DIA. LINE

NOTES:

1.) Pit shall be masonry: either pre-cast or poured in place, shall have a masonry floor & top, and have a minimum 6' working height.
2.) Automatic sump pump with minimum discharge of up to 500 GPH. is required.
3.) Door shall be centered on meter spreads and of sufficient size for easy removal of pipe and fittings and ability to read meter from above ground and have a 1/2" hole for hazardous gas testing. Provide 1 7/8" dia. hole in door for installation of remote read pad for each meter in pit.
4.) Steps shall be plastic, 12" s.c. as manufactured by M4 Industries (PS1-PF or equal)
5.) All pipe shall have min. 48" cover and be minimum 18" from floor.
6.) No field soldered joints in pits.
7.) All Fire Line pipe shall be D.I. class 51 with flanged ends to outlet valve of double detector check assembly.
8.) All Fire Line valves shall be flanged end, handwheel operated, rising stem OS&Y, and open in same direction.
9.) An approved double detector check valve assembly shall be fitted with necessary "X" copper or brass plumbing, manufacturer approved monitor meter (see #15), and approved backflow assembly.
10.) All Domestic Piping shall be type "K" copper or brass for 2" and smaller, and ch pipe shall be DCI cl. 51 or brass for 3" and larger. Same size diameter by-pass required on 1 1/2" and larger service lines. Exceptions: 1.) Services using Coopersetter may have 1"min. by-pass. 2.) If 1 1/2" service line and 1" meter is desired, must use SDR yoke bar with 1 1/2"x1" reducers before and after meter. No bypass required.
11.) Meter flanged end must be uni-flanged.
12.) All Domestic Valves shall be flanged end, hand wheel operated, rising stem, OS&Y resilient wedge Gate type for 3" or larger and Full Port Ball with padlock wings for 2" and smaller.
13.) 1 1/2" AND 2" domestic meter sets may use Coopersetters: Ford VB076–1BB for 1 1/2" dia. pipe or VB077–1BB for 2" dia. pipe.
14.) Domestic meter shall be supplied by County to contractor to be installed with other piping for proper alignment. Meter to be installed in center of meter spread.
15.) Monitor Meter must be approved by, if not supplied by Montgomery County. Meter must read in cubic feet and have remote read register.

***NOTE: Backflow prevention device as specified by Montgomery County Water Services will be required at service entrance.

****NOTE: 8" Clearance between by-pass line and wall is acceptable in section of by-pass along the wall if it contains no valves, meters, etc.; 18" clearance required if section contains any valves, meters, etc.

*****NOTE: If a 2" dia. line and 1 1/2" meter is desired, meter spread must be 17¾" on the 2" service line prior to the 2"x 1 1/2" reducers. Contractor must supply reducers, piping and flanges for the 1 1/2" meter spread of 13 1/4". Reducers must be Ford A67 adaptors or approved equal.

******NOTE: If a 2" dia. service line and a 2" meter is desired, meter spread must be 48" on the 2" dia. service prior to the 2"x2" reducers. Contractor must supply reducers, piping and flanges for the 2" meter spread of 17 1/4".

MONTGOMERY COUNTY WATER SERVICES

COMBINATION FIRE LINE / DOMESTIC WATER METER PIT
(FOR OFF ROAD USE ONLY)

Revised – 11/26/08

SCALE : NONE DATE : 11/01/06
FILE NAME: COMBMTR

15099

METER PIT DETAIL
NOT TO SCALE

Know what's below. Call before you dig.

SHEET NOTES:

No.	Revisions / Submissions	Date
	ISSUED FOR CONSTRUCTION	2021/04/23
4	ISSUED FOR RE–BID	2021/06/18

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434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

STANDARD DRAWINGS

STATE OF OHIO · KURT M. ZIESSLER · E-62910 · REGISTERED PROFESSIONAL ENGINEER

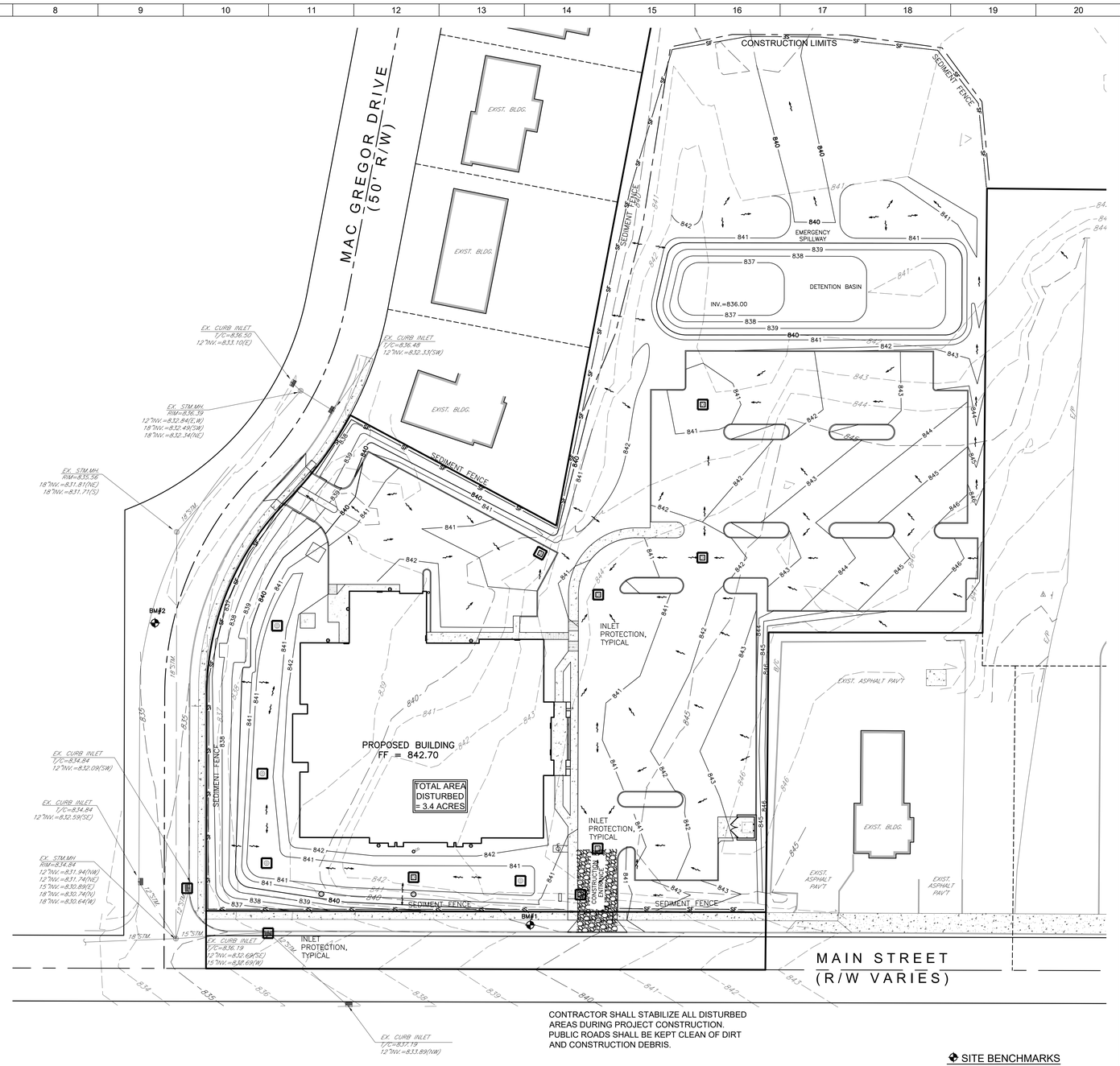
2021/06/18

Comm. No.	Date
19651.00	2021/06/18
Drawn: RRT	Drawing No.: C-5.1
Checked: KMZ	

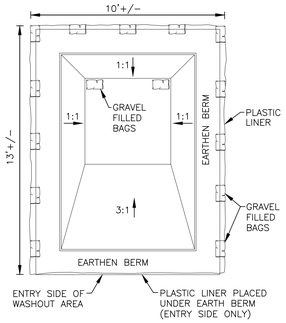
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GENERAL STORMWATER POLLUTION PREVENTION NOTES

1. All erosion and sediment control practices must conform to the standards and specifications set forth by the Local, State, and Federal Authorities.
2. Construction activities shall be scheduled such that a minimum area of the site is disturbed at a time. Construction operation shall be scheduled and performed so that preventative soil erosion control measures are in place prior to excavation in critical areas and temporary stabilization measures are in place immediately following backfilling operations. Contractor shall reduce effects of storm water by using and/or maintaining grassed swales, infiltration structures, or water diversions.
3. Special precautions will be taken in the use of construction equipment to prevent situations that promote erosion.
4. Cleanup will be done in a manner to ensure that erosion control measures are not disturbed.
5. The soil erosion controls are to be inspected once a week and within 24 hours of a 0.50 inch or greater rain event. A written log of these inspections and improvements to controls shall be kept on site. The logs shall include the date of inspection, name of the inspector, weather conditions, actions taken to correct any problems and the date corrective actions were taken.
6. Temporary soil stabilization shall occur within 7 days after rough grading if the area will remain idle longer than 14 days. Any disturbed area that is not going to be worked for 365 days or more must be permanently stabilized (seeded and mulched) within 7 days of most recent disturbance.
7. Trenches for underground utility lines and pipes shall be temporarily stabilized within 7 days if they are to remain inactive for 14 days. Trench dewatering devices shall discharge in a manner that filters soil-laden water before discharging it to a receiving drainage ditch or pond. If seeding, mulching or other erosion and sediment control measures were previously installed; these protective measures shall be reinstalled. Pipelines with joints that allow a manufactured length of pipe to be placed in the trench with the pipe joint assembled/made in the trench require an open pipeline trench that is only slightly longer than the length of pipe being installed. The total length of excavated trench open at any time should not be greater than the total length of pipeline/utility that can be placed in the trench and backfilled in one working day. No more than 50 linear feet of open trench should exist when pipeline/utility line installation ceases at the end of the work day.
8. Soil stockpiles shall be stabilized or protected to prevent soil loss.
9. All disturbed areas shall be permanently stabilized within 7 days of final grading. Further, soil erosion control measures shall be maintained until permanent stabilization is complete, at which time temporary measures will be removed. Permanent vegetation is a ground cover dense enough to cover 80% of the soil surface and mature enough to survive winter weather conditions.
10. Silt fence to be 2' minimum from property lines in areas where work is near adjacent properties.
11. The Contractor shall establish a permanent on-site benchmark prior to clearing, grubbing and/or demolition.
12. Haul Routes - The Contractor shall be responsible for the cleanup of any mud, dirt, or debris deposited on haul roads as a result of his operations. Soil shall be removed from roads and paved surfaces at the end of each day in such a manner that does not create off-site sedimentation in order to ensure safety and abate off-site soil loss. Collected sediments shall be placed in a stable location on site or taken off-site to a stable location. Contractor shall use State Routes (and shortest distance non-state routes) for project haul route.
13. No solid or liquid waste shall be discharged into storm water runoff.
14. Disposal of solid, sanitary and toxic waste - Solid, sanitary and toxic waste must be disposed of in a proper manner in accordance with local, state and federal regulations. It is prohibited to burn, bury or pour out onto ground or into storm sewer any solvents, paint, stains, gasoline, diesel fuel, used motor oil, hydraulic fluid, antifreeze, cement curing compounds and other such toxic or hazardous waste.
15. Wash out of cement trucks should occur in the designated area where the washing can collect and be disposed of properly when it hardens.
16. If a concrete washout area, and/or a stockpile area are needed, a delineated area for each must be provided and maintained for them. Areas can be located in an alternate location than that shown on the plans if necessary due to construction operations and other field considerations.
17. No fuel storage is permitted on-site.
18. All storm sewers, infiltration, detention, and retention areas shall be cleared of construction sediment upon completion of construction.
19. The General Contractor shall be responsible for submitting a Notice of Intent (NOI) and Notice of Termination (NOT) as required by the Ohio EPA.
20. The General Contractor is responsible for ensuring that all soil erosion and sediment control practices comply with the Ohio EPA's General Permit for Construction No. OHC000005 and follow the best practices set forth in the ODNR Rainwater and Land Development Manual.
21. Dumpsters shall be provided for the disposal of debris, trash, hazardous and petroleum waste. All containers must be covered and leak proof.
22. All construction and demolition debris waste will be disposed of in an OEPA approved C&DD landfill as required by Ohio Revised Code 3714.
23. Any areas that will be used for mixing or storing fertilizers, lime, asphalt or concrete or used for vehicle fueling shall be designated and these areas should be kept away from any watercourses or storm sewers.
24. A Spill Prevention Control and Countermeasures (SPCC) Plan shall be developed if the site has one above ground storage tank of 660 gallons or more, total above ground tank storage of 1330 gallons, or below ground storage of 42,000 gallons of fuel.
25. All contaminated soils must be treated and/or disposed in OEPA approved soild waste management facilities or hazardous waste treatment, storage or disposal facilities (TSDFs).
26. In the event of a large release of petroleum waste (25 gallons or more) contractor shall contact OEPA at 1-800-282-9378, the local fire department and the local emergency planning committee (LEPC) within 30 minutes of spill.
27. Protected storage areas for industrial or construction materials shall be used to minimize exposure of such materials to storm water.
28. If the Contractor uses pumps to assist in construction dewatering efforts, the water must be filtered prior to discharging it into the municipal storm sewer system, ensuring that no soil, silt or sediment enters the system.
29. Contractor to review and determine the best locations for construction entrance, concrete washout, dumpsters, and other SWPPP elements. All dirt and sediment is to be kept off public streets.

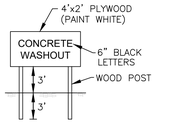


CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS DURING PROJECT CONSTRUCTION. PUBLIC ROADS SHALL BE KEPT CLEAN OF DIRT AND CONSTRUCTION DEBRIS.

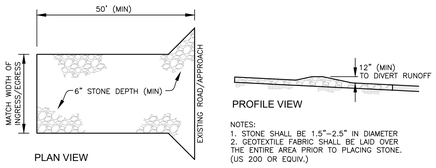


NOTES:
1. PLASTIC LINER SHALL BE ANCHORED WITH GRAVEL-FILLED BAGS.
2. CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10' OF THE CONCRETE WASHOUT AREA.

CONCRETE WASHOUT AREA
NOT TO SCALE
PLACE ON SITE AS NEEDED



CONSTRUCTION WASHOUT SIGN
NOT TO SCALE

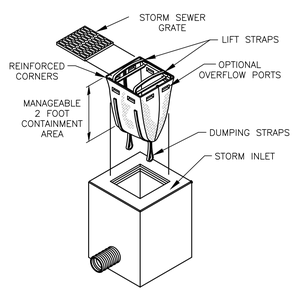


NOTES:
1. STONE SHALL BE 1.5"-2.5" IN DIAMETER
2. GEOTEXTILE FABRIC SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. (US 200 OR EQUIV.)

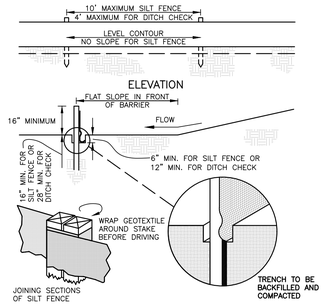
CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

NOTE: THE LOCATION OF THE CONSTRUCTION ENTRANCE MAY NEED TO BE RELOCATED AS THE PROJECT MOVES FORWARD. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING DIRT AND DEBRIS OFF PUBLIC ROADS AND MAINTAINING ENTRANCES TO THE FACILITY PER THE OWNER.

811 Know what's below. Call before you dig.



DANDY SACK™ DETAIL
NOT TO SCALE



SILT FENCE & SILT DITCH CHECK DETAIL
NOT TO SCALE

SOIL EROSION CONTROL SEQUENCE OF CONSTRUCTION
1. Stone tracking pad atop geotextile liner. Install inlet protection on existing storm inlets.
2. Install silt fence and protection fencing.
3. Initial clearing, grubbing, and demolition.
4. Strip and stockpile top soil.
5. Rough grade and balance site, including detention basin.
6. Install underground utilities (i.e. Sanitary, Storm & Water)
7. Place inlet filters on all storm inlets.
8. Install franchise utilities (i.e. Gas, Electric, Telephone & Cable TV).
9. Final grade site.
10. Install pavement, curb, and other hardscape structures/surfaces.
11. Stabilize ditches, detention basin, common areas and slopes.
12. Establish permanent vegetation for all disturbed areas.
13. Remove all temporary erosion and sediment control devices.
14. Clean out storm sewer system and site upon completion.

SOIL EROSION CONTROL MAINTENANCE
- Inlet protection devices and barriers shall be repaired or replaced if they show signs of undermining or deterioration.
- All seeded areas shall be checked regularly to see that a good stand is maintained. Areas should be fertilized, watered, and reseeded as necessary.
- Silt fences shall be repaired to their original conditions if damaged. Sediment shall be removed from the silt fences when it reaches one-half the height of the silt fence.
- The construction entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way.

SOIL EROSION CONTROL NOTES
All stormwater inlets shall be protected with Geotextile Inlet Protection or Inlet Filters (Dandy Products, Flexstorm, or equivalent).

INSPECTION NOTES:

Inspections shall be made weekly and within 24 hours after a rain event of 0.5 inches within a 24 hour period.

Only qualified inspection personnel shall perform inspections.

Inspection checklist shall be completed and signed by the inspector after every inspection.

The inspection records are to be kept 3 years after termination of construction activity.

Non sediment pond BMPs are to be repaired 3 days after inspections and sediment ponds to be repaired or cleaned out within 10 days after inspection.

If a BMP is not functioning like it was intended to it shall be replaced within 10 days of inspection.

For missing BMPs they shall be installed within 10 days of inspection.

SITE BENCHMARKS
BM#1 Sanitary Manhole
Main Street (Tree Lawn)
Elev: 840.00 (Rim)

BM#2 Sanitary Manhole
Mac Gregor Drive (Roadway)
Elev: 835.55 (Rim)

SOIL EROSION CONTROL LEGEND
- SILT FENCE
- INLET PROTECTION / DANDY SACK
- CONSTRUCTION ENTRANCE

GRAPHIC SCALE
30 0 15 30
1 inch = 30 ft.

SHEET NOTES:

SWPPP NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SWPPP.
CONTRACTOR'S ON SITE CONTACT IS _____ AT TELEPHONE NUMBER _____.

No.	Revisions / Submissions	Date
	ISSUED FOR CONSTRUCTION	2021/04/23
4	ISSUED FOR RE-BID	2021/06/18

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434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

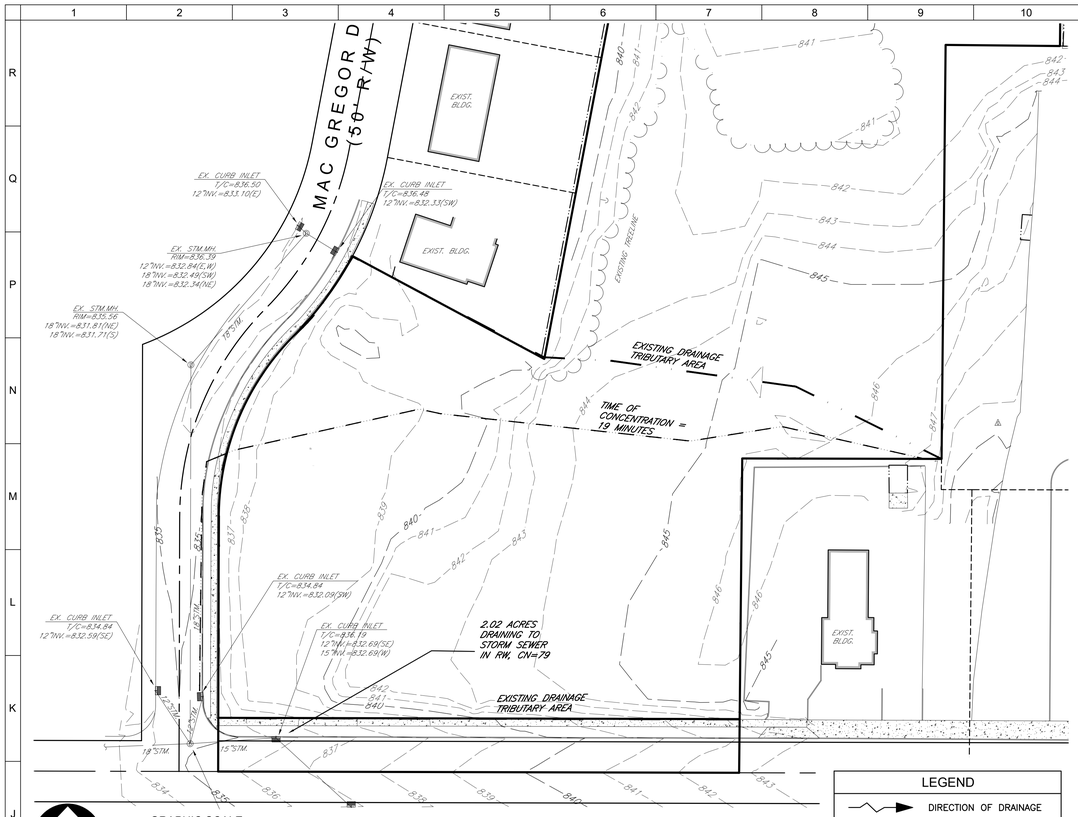
875 E. MAIN STREET
TROTWOOD, OH 45426

EROSION CONTROL PLAN

STATE OF OHIO KURT M. ZIESSLER E-62901 REGISTERED PROFESSIONAL ENGINEER
2021/06/18

Comm. No.	19651.00
Date	2021/06/18
Drawn	RRT
Drawing No.	C-6.0
Checked	KMZ

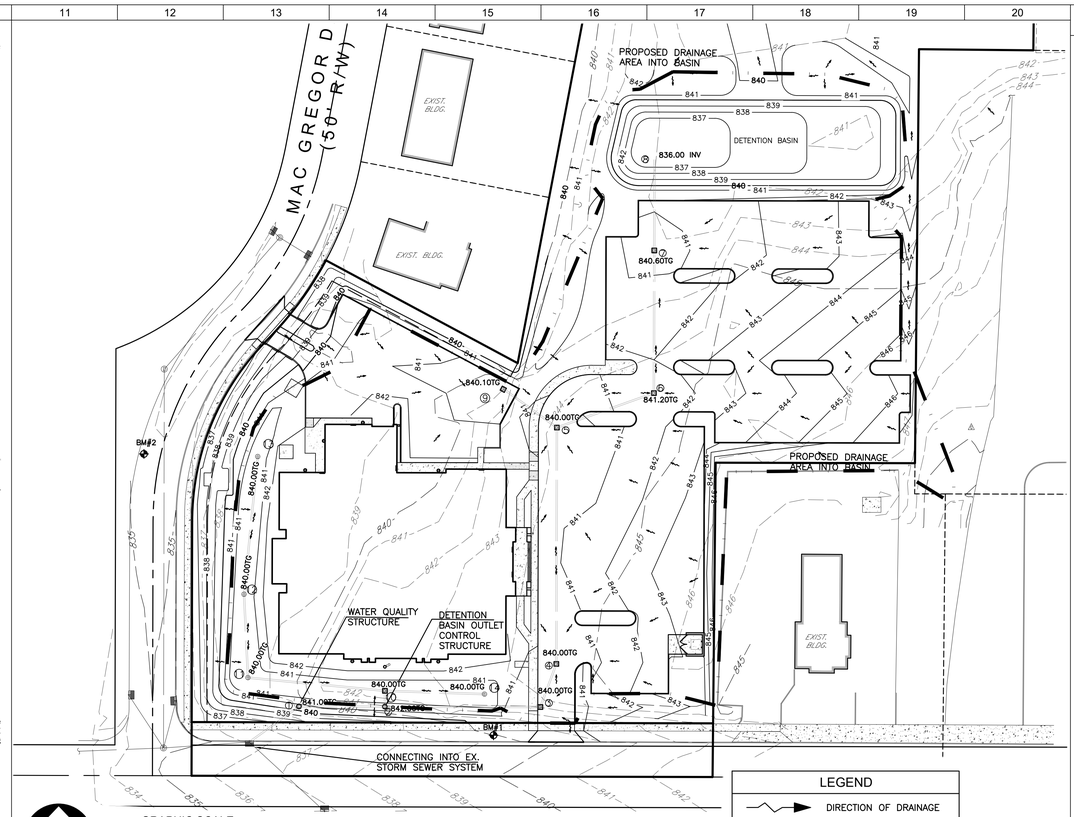
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GRAPHIC SCALE
40 0 20 40
1 inch = 40 ft.

EXISTING CONDITIONS

LEGEND
- DIRECTION OF DRAINAGE
- DRAINAGE AREA BOUNDARY
- Tc FLOWPATH



GRAPHIC SCALE
40 0 20 40
1 inch = 40 ft.

PROPOSED CONDITIONS

LEGEND
- DIRECTION OF DRAINAGE
- DRAINAGE AREA BOUNDARY

SHEET NOTES:

STORMWATER MANAGEMENT KEYNOTES

SITE OVERVIEW:

NATURE OF CONSTRUCTION ACTIVITY: Project consists of constructing a new building and parking lot. Mass grading will be performed as necessary to construct the project and we anticipate that grading efforts will not require a significant amount of soil imports or exports. The existing storm water runoff enters the City of Trotwood municipal storm sewer system at the corner of main Street and Olive Street. Soil erosion control measures will be implemented throughout construction to prevent soil, silt, and other debris from entering the public storm sewer system.

TOTAL AREA TO BE DISTURBED: Approximately 3 acres will be disturbed.

EXISTING SOILS: Site consists of Miamian-Urban soil and Crosby-Urban Land Complex (Hydrologic Soil Group "C")

EXISTING LAND USE: The existing property is currently vacant. Property is not known to have had hazardous or solid waste.

NAME OF SURFACE WATER: Site drains into the public storm sewer in Main Street which ultimately drains into Wolf Creek, a tributary of the Great Miami River.

WETLANDS: There are no wetlands in the work area.

STORMWATER MANAGEMENT

Reference Materials and Methodology for Calculations:
USDA - Urban Hydrology for Small Watersheds - Technical Release 55
USDA - Web Soil Survey
City of Trotwood Stormwater Regulations
Ohio EPA Permit No 0OHC000005
ODNR Rainwater and Land Development Manual
NOAA Altas 14, Volume 2, Version 3

Runoff Control Requirements:
Provide detention as necessary to reduce post-construction runoff rates to pre-development rates in accordance with the Critical Storm Method.

Critical Storm Method Calculations

Pre-Development Conditions (Description of Area)
- Area = 2.02 acres
- CN = 82 (grass and gravel areas)
- Tc = 19.0 minutes (TR-55 Tc Method)

Post-Development Conditions (Description of Area)
- Area = 3.15 acres
- Composite CN = 89
  - 1.90 acres of Pavement/Building (CN=98x)
  - 1.25 acres of Open Space in Good Condition (CN=74)
- Tc = 15 minutes

Pre-developed 1 year storm runoff volume = 6209 cu-ft
Post-developed 1 year storm runoff volume = 14582 cu-ft
135% increase in runoff volume
Critical Storm = 25 year

24-hour Rainfall Depths for Trotwood, OH
1 year - 2.29"
2 year - 2.74"
5 year - 3.35"
10 year - 3.83"
25 year - 4.47"
50 year - 4.99"
100 year - 5.51"

Storm Water Quality Requirements:
Provide post-construction water quality volume per Ohio EPA Permit No OHC000005 and the Ohio Rainwater and Land Development Manual. A hydrodynamic separator (see detail on sheet C-5.1) has been selected as the post construction BMP for our site.

Water Quality Volume Calculations

Water Quality will be achieved by using "Bio Clean Sciclone SC-5-F Unit" (Structure #1).
Drainage area going through Bio Clean unit = 2.85 acres.
Treated flow = 1.09 cfs with a TSS removal efficiency = 80%.
Bio Clean unit is downstream of manhole #2 (detention basin outlet control structure).

DETENTION BASIN PERFORMANCE SUMMARY

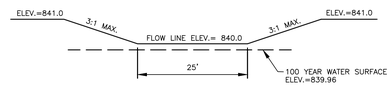
* Allowable Rate is the Pre-Development Rate for the 2.02 acres.
Post developed area is for 2.85 acres that drain into basin and 0.30 acres that direct discharge into streets (3.15 acres total).

Detention Areas - Storage - Discharge Table

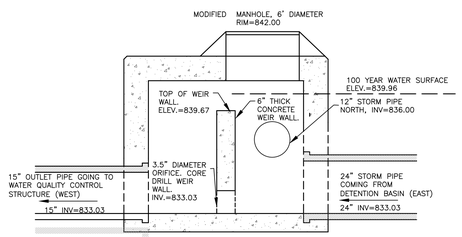
Event (YR)	Pre-Developed Discharge * (CFS)	Post-Developed Discharge (CFS)	Allowable Peak Discharge (CFS)	Basin Discharge (CFS)	Direct Discharge (CFS)	Total Developed Discharge (CFS)	Basin-Elevation (FT)	Basin Volume (CubicFt)	
1	1.93	5.44	1.93	0.71	0.28	0.99	838.19	5,027	
2	2.73	7.08	1.93	0.73	0.42	1.15	838.52	7,083	
5	3.89	9.34	1.93	0.76	0.63	1.39	839.00	10,060	
10	4.83	11.14	1.93	0.78	0.81	1.59	839.28	12,567	
25	6.12	13.53	1.93	0.86	1.05	1.91	839.66	16,001	-Critical Storm
50	7.19	15.49	7.19	1.92	1.26	3.18	839.81	17,406	
100	8.26	17.44	8.26	3.92	1.47	5.39	839.96	18,719	

-AutoDesk 2020 Hydraflow Hydrographs used for storm water calculations and detention modeling.

Critical Storm = 25 year storm



EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



MANHOLE #2
DETENTION BASIN
OUTLET STRUCTURE DETAIL
NOT TO SCALE

SITE BENCHMARKS

BM#1 Sanitary Manhole
Main Street (Tree Lawn)
Elev: 840.00 (Rim)

BM#2 Sanitary Manhole
Mac Gregor Drive (Roadway)
Elev: 835.55 (Rim)

811 Know what's below. Call before you dig.

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MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

STORMWATER MANAGEMENT N PLAN

STATE OF OHIO · KURT M. ZIESSLER · E-62900 · REGISTERED PROFESSIONAL ENGINEER
2021/06/18

Comm. No.	19651.00
Date	2021/06/18
Drawn	RRT
Drawing No.	C-7.0
Checked	KMZ

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LANDSCAPE CODE SITE DATA

BUFFERYARD REQUIREMENTS:
DECIDUOUS TREES SHALL HAVE A MINIMUM CALIPER OF AT LEAST 2½ INCHES & EVERGREEN TREES SHALL BE A MINIMUM OF SIX FEET (6') IN HEIGHT AT THE TIME OF PLANTING. EVERGREEN PLANTINGS SHALL BE DESIGNED TO PROVIDE AN EFFECTIVE, DENSE SCREEN WITHIN FOUR (4) YEARS OF PLANTING.

ADJACENT TO RESIDENTIAL - STAGGERED DOUBLE ROW OF 6' HT. EVERGREEN TREES AT 15' OC AND ALSO A CONTINUOUS 6' HEDGE (AFTER 4 YEARS GROWTH)
MEETS REQUIREMENT AS SHOWN WITH EVERGREEN TREE ROWS & HEDGES

ZONED GB ADJACENT TOZONED GB - NONE REQUIRED

PUBLIC STREET FRONTAGE: ONE (A) TREE @ 25'-35' O.C.2 + SCREENING SHRUBS @ 3' O.C.
MEETS REQUIREMENT AS SHOWN WITH TREES & SCREENING SHRUBS

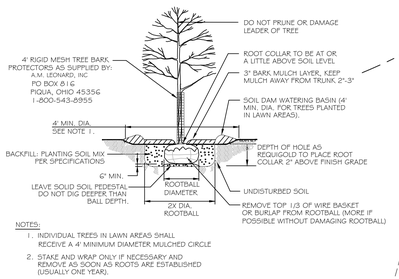
10% OF TOTAL FRONT YARD AREA MUST BE LANDSCAPED WITH TREES, SHRUBS, PLANTING BEDS, AND/OR PERENNIALS IN A MOTIF DESIGNED BY THE OWNER. THIS IS IN ADDITION TO OTHER REQUIRED LANDSCAPING.
MEETS REQUIREMENT AS SHOWN

INTERIOR PARKING LANDSCAPE REQUIREMENTS:
A 1 3/4" DIAMETER TREE FOR MEDIUM AND LARGE TREES AND 1 1/4" DIAMETER TREE FOR SMALL TREES (AS MEASUGOLD 6 INCHES ABOVE GROUND) SHALL BE PLANTED FOR EACH 5,000 SQ. FT. OF TOTAL GROUND COVERAGE, STRUCTURES AND PAVEMENT FOR VEHICULAR USE.

VEHICULAR USE AREA 47,786± SF + BUILDING 20,348 SF = 72,134/ 5,000 = 14.43 or 15 TREES REQUIRED
16 TREES AS SHOWN

PERIMETER LANDSCAPING FOR PARKING LOTS PARKING LOTS SHALL HAVE PERIMETER BUFFER ZONES OF A MINIMUM WIDTH OF 6½ FEET CONTAINING EVERGREEN PLANT MATERIAL THAT WILL ACHIEVE AN EFFECTIVE, DENSE SCREEN OF A HEIGHT OF AT LEAST THREE FEET AT THE TIME OF INSTALLATION. PERIMETER BUFFER ZONE SHALL ALSO CONTAIN DECIDUOUS TREES.
MEETS REQUIREMENTS AS SHOWN WITH TREES & SCREENING SHRUBS

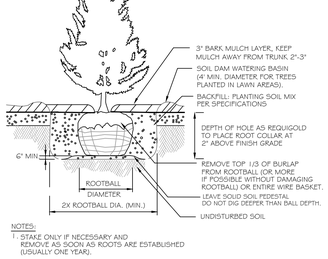
PLANT INSTALLATION DETAILS



NOTES:
1. INDIVIDUAL TREES IN LAWN AREAS SHALL RECEIVE A 4' MINIMUM DIAMETER MULCHED CIRCLE
2. STAKE AND WRAP ONLY IF NECESSARY AND REMOVE AS SOON AS ROOTS ARE ESTABLISHED (USUALLY ONE YEAR).

SHADE TREE PLANTING DETAIL

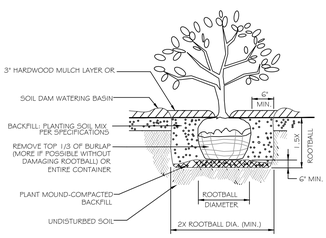
NTS



NOTES:
1. STAKE ONLY IF NECESSARY AND REMOVE AS SOON AS ROOTS ARE ESTABLISHED (USUALLY ONE YEAR).

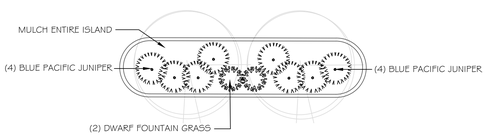
EVERGREEN TREE PLANTING DETAIL

NTS



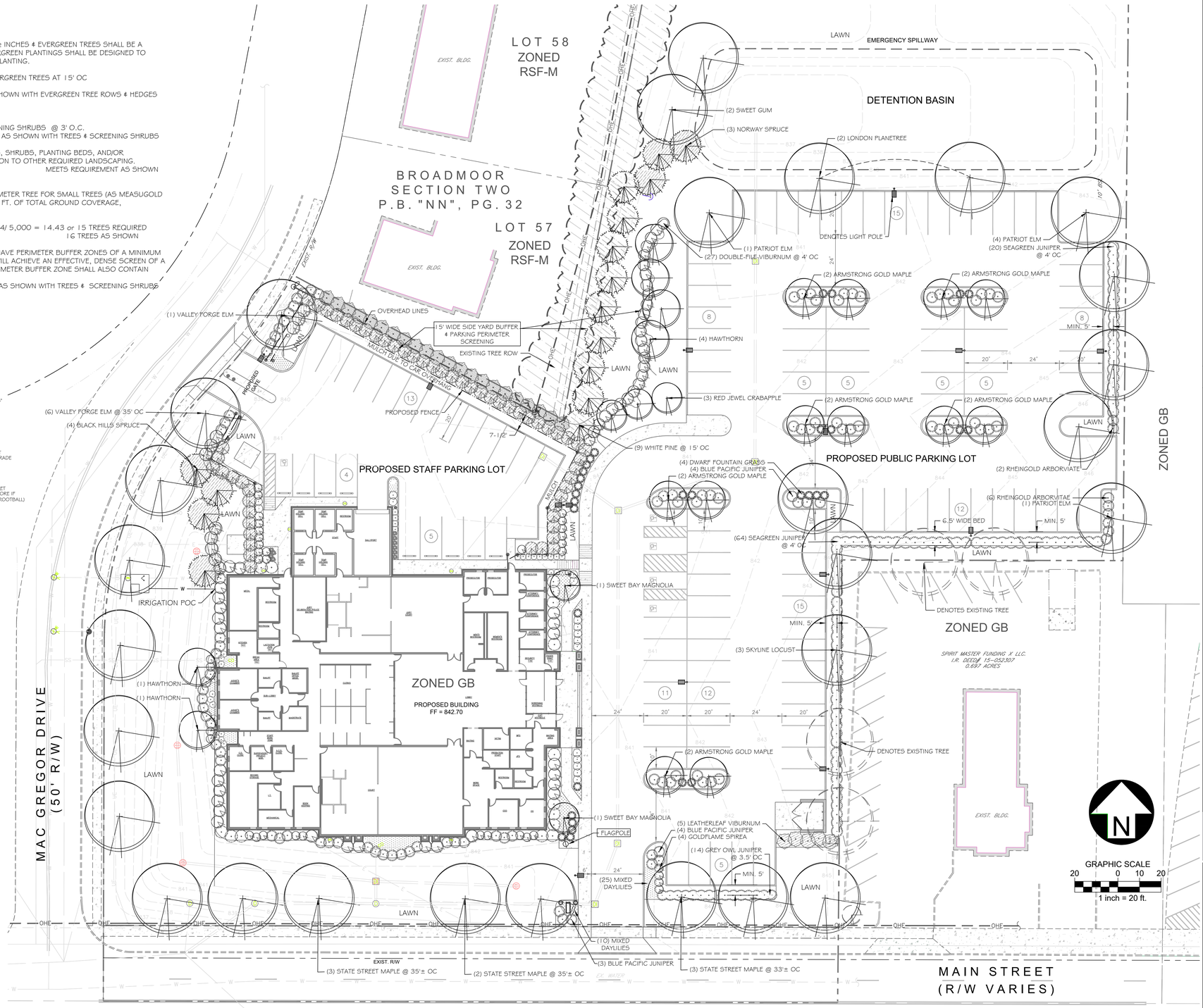
SHRUB PLANTING DETAIL

NTS



TYPICAL PARKING LOT END ISLAND LANDSCAPE PLAN

1 inch = 10 ft. REPEAT TOTAL OF 6 (SIX) TIMES



PLANT MATERIALS LIST - This Sheet Only **DENOTES OHIO NATIVE PLANT MATERIAL

	QTY	CANOPY TREES	MIN. INSTALLED SIZE
**	12	ARMSTRONG GOLD MAPLE - Acer rubrum 'Armstrong Gold'	1-1/2" cal. B/B -5' ht. Clear Trunk
	8	STATE STREET MAPLE - Acer miyabei 'Morton'	2-1/2" cal. B/B -6' ht. Clear Trunk
**	3	SKYLINE LOCUST - Gleditsia tracanthos 'Skyline'	1-1/2" cal. B/B -5' ht. Clear Trunk
**	2	SWEET GUM - Liquidambar styraciflua	1-1/2" cal. B/B
	2	LONDON PLANETREE - Platanus × acerifolia	1-1/2" cal. B/B
**	6	PATRIOT ELM - Ulmus americana 'Patriot'	1-1/2" cal. B/B -5' ht. Clear Trunk
**	7	VALLEY FORGE ELM - Ulmus americana 'Valley Forge'	2-1/2" cal. B/B -6' ht. Clear Trunk
		ORNAMENTAL TREES	
**	6	WASHINGTON HAWTHORN - Crataegus phaenopyrum	6'-7' HT. B/B Bush Form
	2	SWEET BAY MAGNOLIA - Magnolia virginiana	6'-7' HT. B/B Matched
	3	RED JEWEL CRABAPPLE - Malus x 'Red Jewel'	1-1/2" cal. B/B

	QTY	EVERGREEN TREES	MIN. INSTALLED SIZE
**	9	WHITE PINE - Pinus strobus	6' HT. B/B
	3	NORWAY SPRUCE - Picea abies	6' HT. B/B
	4	BLACK HILLS SPRUCE - Picea glauca 'Densata'	6' HT. B/B
		SHRUBS	
	84	SEAGREEN JUNIPER - Juniperus chinensis 'Sea Green'	# 3 cont.
	59	BLUE PACIFIC JUNIPER - Juniperus conferta 'Blue Pacific'	# 3 cont.
**	14	GREY OWL JUNIPER - Juniperus virginiana 'Grey Owl'	# 3 cont.
	4	GOLDFLAME SPIREA - Spirea bumalda 'Goldflame'	# 3 cont.
**	8	RHEINGOLD ARBORVITAE - Thuja occidentalis 'Rheingold'	36" HT. B/B
	27	DOUBLEFILE VIBURNUM - Viburnum plicatum f. tomentosum 'Mariesii'	36" HT. B/B
	5	LEATHERLEAF VIBURNUM - Viburnum rhytidophyllum	36" HT. B/B
	16	DWARF FOUNTAIN GRASS - Pennsetum alopecuroides 'Hamelin'	# 2 cont.
		PERENNIALS	
	35	MIXED DAYLILIES - Hemerocallis x Various colors	# 1 cont.

GENERAL LANDSCAPE REQUIREMENTS:

1. DIAMETERS OF PLANT MATERIALS AS DRAWN ARE REPRESENTATIVE OF PLANTS AT OR NEAR MATURITY RATHER THAN AT INITIAL PLANTING.
2. THE PLANT LIST IS INTENDED AS A GUIDE FOR THE LANDSCAPE CONTRACTOR. IN THE EVENT OF DISCREPANCY BETWEEN THE NUMBER OF PLANTS ON THE PLANT LIST AND ON THE DRAWING, THE GREATER NUMBER SHALL APPLY.
3. TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE APPROVED AND BE HEALTHY AND VIGOROUS PLANTS, FREE FROM DEFECTS, DECAY, DISFIGURING ROOTS, SUN SCALD, INJURIES, ABRASIONS OF THE BARK, PLANT DISEASES, INSECT PEST EGGS, BORERS AND ALL FORMS OF INFESTATIONS OF OBJECTIONABLE DISFIGUREMENTS. PLANTS SHALL BE IN ACCORDANCE WITH THE CURRENT AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS AND CONFORM IN GENERAL TO REPRESENTATIVE SPECIES.
4. LANDSCAPE CONTRACTOR SHALL COORDINATE PLANT INSTALLATION SEQUENCE WITH IRRIGATION CONTRACTOR.
5. ADJUSTMENTS IN LOCATIONS OF PLANT MATERIALS MAY BE NECESSARY DUE TO NEW OR EXISTING UTILITIES OR SITE OBSTRUCTIONS. ADVISE ARCHITECTS REPRESENTATIVE BEFORE ADJUSTMENTS ARE MADE.
6. ALL SHRUBS OCCURRING IN CONTINUOUS ROW OR FORMAL ARRANGEMENT SHALL HAVE UNIFORM HEIGHT, SPREAD AND HABIT OF GROWTH. FOR PERENNIAL LOCATIONS, FILL AREA WITH QUANTITY OF PLANTS DESIGNATED; EVENLY SPACED.
7. A MINIMUM OF 6" DEPTH OF NEW TOPSOIL SHALL BE PLACED IN ALL BED AREAS BY LANDSCAPE CONTRACTOR PRIOR TO PLANT INSTALLATION. BACKFILL ALL SHRUBS AND TREES WITH BACKFILL MIX OF ONE PART COMPOST AND TWO PARTS TOPSOIL.
8. MULCH TREES AND SHRUBS WITH MIN. 3" DEPTH OF SHGOLDDED HARDWOOD MULCH. MULCH PERENNIALS WITH 2" DEPTH OF MULCH. MULCH SHALL EXTEND IN A CONTINUOUS LAYER WITHIN PLANTING BEDS FROM FACE TO FACE OF SITE STRUCTURES - WALKS, BUILDING, CURBS, OR OTHER PLANT BED LIMITS.
9. ALL BED EDGES SHALL BE SPADE-CUT AND CLOSELY ALIGN AS POSSIBLE WITH EDGES AS SHOWN ON DRAWING. KEEP MULCH A MIN. 1/2" BELOW ADJACENT PAVED SURFACES.
10. SEED ALL LAWN DISTURBED AREAS WITHIN PROJECT LIMITS AS NOTED ON CIVIL DRAWINGS; INCLUDING OUT TO PAVEMENT EDGES. REFER TO CIVIL DRAWINGS AND VERIFY EXTENT WITH PROJECT ARCHITECT'S REPRESENTATIVE.
11. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE-YEAR FROM DATE OF OF ACCEPTANCE. PRIOR TO END OF WARRANTY PERIOD CONTRACTOR SHALL REPLACE ALL TREES, SHRUBS OR PLANTINGS NOT ALIVE OR IN A HEALTHY GROWING CONDITION.

DESIGN/BUILD IRRIGATION REQUIREMENTS:

1. THE IRRIGATION CONTRACTOR SHALL DESIGN, FURNISH AND INSTALL AN UNDERGROUND IRRIGATION SYSTEM INCLUDING ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES FOR A COMPLETE AND OPERABLE SYSTEM. SHRUB BEDS AND LAWN AREAS MUST BE ON SEPARATE ZONES PROVIDING A MINIMUM OF 95% COVERAGE. VERIFY EXTENT OF IRRIGATION WITH PROJECT MANAGER. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.
2. IRRIGATION CONTRACTOR SHALL VERIFY CONTROLLER LOCATIONS WITH PROJECT MANAGER.
3. THE IRRIGATION CONTRACTOR WILL BE RESPONSIBLE FOR THE EXCAVATION AND BACK FILL FOR THE SYSTEM INSTALLATION; INCLUDING ANY SETTLING THAT MAY OCCUR.
4. THE IRRIGATION CONTRACTOR SHALL FURNISH AN AS-BUILT DRAWING TO THE OWNER UPON COMPLETION AND ACCEPTANCE OF THE WORK.
5. RELATED WORK BY OTHERS: THE FOLLOWING ITEMS ARE TO BE FURNISHED AND INSTALLED BY OTHERS:
   VERIFY WITH THE GENERAL CONTRACTOR.
   - ELECTRICAL STUB OUT FOR CONTROLLER BY ELECTRICAL CONTRACTOR.
   - WATER TAP AND STUB OUT BY PLUMBING CONTRACTOR.
6. IRRIGATION CONTRACTOR TO DETERMINE LOCATIONS FOR PROPOSED SLEEVES UNDER PAVEMENTS. SLEEVES SHALL BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR.

No.	Revisions / Submissions	Date
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1	ADDENDUM #2	2021/05/21
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4	ISSUED FOR RE-BID	2021/06/18

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937.223.6500

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TROTWOOD, OH 45426

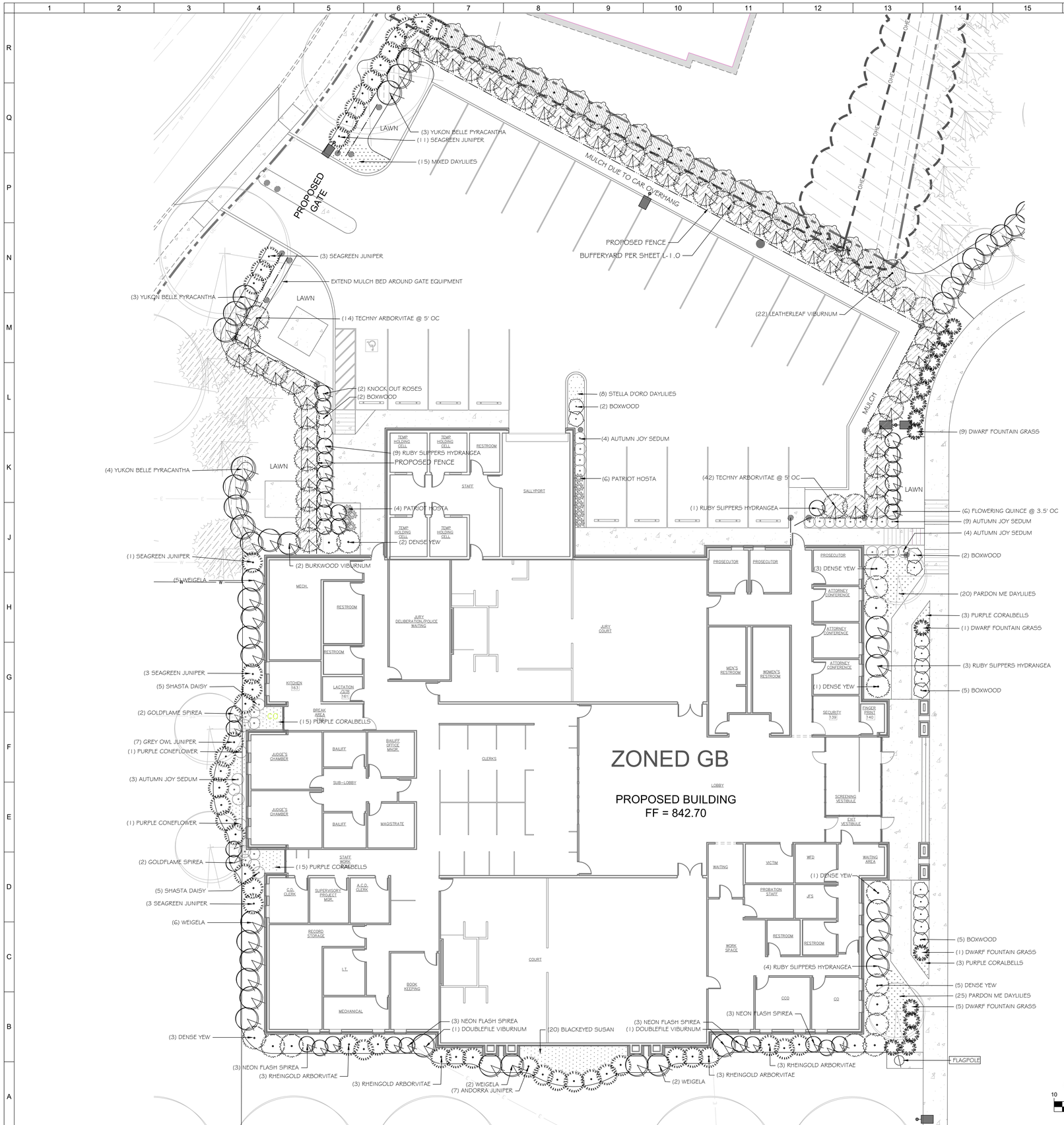
SITE LANDSCAPE PLAN

LANDSCAPE ARCHITECT:
YELLOW SPRINGS DESIGN
PO Box 472 205 PARK MEADOWS DR.
YELLOW SPRINGS, OHIO 45387
(O) 937.767.8199 (M) 937.654.8199
yellowspringsdesign@bizwoh.rr.com
LICENSED IN: OH, KY, MI, PA, IN, IL, MS, VA, TX, OK, AZ, CO & UT

STATE OF OHIO ROGER E. BEAL 443 REGISTERED LANDSCAPE ARCHITECT
NAME: ROGER E. BEAL
REGISTRATION NO. LA. 8100433

Comm. No.	19.152
Date	2021/4/23
Drawn	REB
Drawing No.	L001
Checked	REB

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PLANT MATERIALS LIST - This Sheet Only

★★ DENOTES OHIO NATIVE PLANT MATERIAL

	QTY	SHRUBS AND ORNAMENTAL GRASSES	MIN. INSTALLED SIZE
	16	BOXWOOD - Buxus x 'Green Velvet'	# 3 cont.
	6	FLOWERING QUINCE - Chaenomeles x superba 'Texas Scarlet'	# 3 cont.
**	17	RUBY SLIPPERS OAKLEAF - Hydrangea quercifolia 'Ruby Slippers'	# 3 cont.
	21	SEAGREEN JUNIPER - Juniperus chinensis 'Sea Green'	# 3 cont.
**	7	GREY OWL JUNIPER - Juniperus virginiana 'Grey Owl'	# 3 cont.
	7	YOUNGSTOWN ANDORRA JUNIPER - Juniperus horizontalis 'Youngstown'	# 3 cont.
	10	YUKON BELLE PYRACANTHA - Pyracantha angustifolia 'Monon'	# 3 cont.
	2	KNOCKOUT ROSE - Rosa x 'Radwhite'	# 3 cont.
	4	GOLDFLAME SPIREA - Spirea bumalda 'Goldflame'	# 3 cont.
	12	NEON FLASH SPIREA - Spirea bumalda 'Neon Flash'	# 3 cont.
	15	DENSE YEW - Taxus media densiformis	24" spd. B/B
**	12	RHEINGOLD ARBORVITAE - Thuja occidentalis 'Rheingold'	# 3 cont.
**	56	TECHNY ARBORVITAE - Thuja occidentalis 'Techny'	6' HT. B/B
	2	BURKWOOD VIBURNUM - Viburnum burkwoodii 'Mohawk'	30" spd. B/B
	2	DOUBLEFILE VIBURNUM - Viburnum plicatum f. tomentosum 'Maneisi'	36" HT. B/B
	22	LEATHERLEAF VIBURNUM - Viburnum rhytidophyllum	36" HT. B/B
	15	WEIGELA - Weigela florida 'Alexandra'	# 3 cont.
	16	DWARF FOUNTAIN GRASS - Pennisetum alopecuroides 'Hameln'	# 3 cont.
		PERENNIALS	
**	2	PURPLE CONEFLOWER - Echinacea purpurea	# 1 cont.
	45	PARDON ME RED DAYLILIES - Hemerocallis x 'Pardon Me'	# 1 cont.
	8	STELLA D'ORO DAYLILIES - Hemerocallis x 'Stella d'Oro'	# 1 cont.
	15	MIXED DAYLILIES - Hemerocallis x Various colors	# 1 cont.
	36	PURPLE CORALBELLS - Heuchera 'Purple Palace'	# 1 cont.
	10	PATRIOT HOSTA - Hosta x 'Patriot'	# 2 cont.
**	10	SHASTA DAISY - Leucanthemum x superbum	# 2 cont.
**	20	BLACKEYED SUSAN - Rudbeckia hirta	# 1 cont.
	20	AUTUMN JOY SEDUM - Sedum 'Autumn Joy'	# 1 cont.

GRAPHIC SCALE

10 0 5 10

1 inch = 10 ft.

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CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

LANDSCAPE ARCHITECT:
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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

BUILDING LANDSCAPE PLAN

STATE OF OHIO ROGER E. BEAL 443 REGISTERED LANDSCAPE ARCHITECT

NAME: ROGER E. BEAL
REGISTRATION NO: LA 8100433

Comm. No.	19.152
Date	2021/4/23
Drawn	REB
Drawing No.	L002
Checked	REB

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6/16/2021 11:56:17 AM

DESIGN CRITERIA NOTES

REFERENCED DESIGN CODE: **OHIO BUILDING CODE (2017)**

ENVIRONMENTAL LOADS:

ROOF SNOW LOAD:
- GROUND SNOW LOAD, P_g = 20 PSF
- FLAT ROOF SNOW LOAD, P_f = 20 PSF
- SNOW EXPOSURE FACTOR, C_e = 1.0
- SNOW LOAD IMPORTANCE FACTOR, I_s = 1.1
- THERMAL FACTOR, C_t = 1.0

WIND LOAD:
- BASIC WIND SPEED (3 SECOND GUST) = 115 MPH
- RISK CATEGORY = II
- WIND EXPOSURE = C
- INTERNAL PRESSURE COEFFICIENT = +/- 0.18
- COMPONENT AND CLADDING TO BE USED FOR ALL ITEMS NOT SPECIFICALLY DESIGNED BY ENGINEER OF RECORD **(0.6W , SERVICE)**:

ROOFS = +20 PSF (ALL ZONES)
- ZONE 1 = - 21 PSF
- ZONE 2 = - 24 PSF (-35 PSF flat roof)
- ZONE 3 = - 24 PSF (-52 PSF flat roof)

WALLS = +22 PSF (ALL ZONES)
- ZONE 4 = - 22 PSF
- ZONE 5 = - 28 PSF

(EFFECTIVE WIND AREA OF C&C = 10 SF)

EARTHQUAKE LOAD:
- SEISMIC IMPORTANCE FACTOR, I_E = 1.00
- MAPPED SPECTRAL ACCELERATION, S_s = 0.157 ; S_1 = 0.073
- SITE CLASS = D
- DESIGN SPECTRAL ACCELERATION, SD_S = 0.167 ; SD_1 = 0.116
- SEISMIC DESIGN CATEGORY, SDC = B
- BASIC SEISMIC FORCE-RESISTING SYSTEM (RESPONSE MODIFICATION FACTOR) = [Reference: ASCE 7-10 Table 12.2-1]
  - A18 LIGHT FRAME (COLD FORM STEEL) WALL SYSTEMS USING FLAT STRAP BRACING (R=4.0)
  - H STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE (R=3.0)
- SEISMIC RESPONSE COEFFICIENT, C_S = 0.0558
- ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE PROCEDURE

DESIGN UNIFORM LOADS:

DEAD LOAD: REFER TO DEAD LOAD TABULATION TABLES

ROOF LIVE LOAD: 20 PSF (MINIMUM PER OBC SECTION 1607.12.2.1)

SPECIAL LOADS:
- SEE PLAN FOR SPECIAL LOADING CONDITIONS

UNIFORM FLOOR LIVE LOAD [CONCENTRATED LOAD] :
1. REFER TO OBC 1607.4 FOR CONCENTRATED LOAD APPLICATION AREA
2. MINIMUM CONCENTRATED LOAD NOTED IN BRACKETS BELOW [ ]
3. ADD 15 PSF FOR PARTITIONS AS NOTED BELOW (+15 PSF)
4. LIVE LOAD REDUCTION - ***NOT USED*** FOR COLUMNS AND FOOTINGS PER 1607.9
5. IMPACT LOADS - PER OBC 1607.9 AND 1607.13

LIGHT COMMERCIAL / OFFICE		
MINIMUM FLOOR LIVE LOAD, U.N.O.	80 PSF	
OFFICE	50 PSF (+ 15 PSF)	[2000 LBS]
ACCESS FLOOR SYSTEMS		
OFFICE USE	50 PSF (+ 15 PSF)	[2000 LBS]
COMPUTER USE	100 PSF	[2000 LBS]
CORRIDORS, FIRST FLOOR	100 PSF	[2000 LBS]
CORRIDORS, ABOVE FIRST FLOOR	80 PSF	[2000 LBS]
STORAGE, LIGHT	125 PSF	
STORAGE, HEAVY	250 PSF	
STAIRS AND EXITWAYS	100 PSF	[300 LBS]
MECHANICAL	150 PSF	
ELECTRICAL/SWITCHGEAR	300 PSF	
ELEVATOR ROOM (SEE 1607.9)	150 PSF	[300 LBS]
RESTROOMS	60 PSF (+15 PSF)	
ASSEMBLY (FIXED SEAT)	60 PSF	
ASSEMBLY (MOVEABLE)	100 PSF	
LOBBIES	100 PSF	[2000 LBS]

DESIGN DEAD LOADS

STEEL ROOF JOIST DESIGN LOADS	
Fully Adhered Roof Membrane	1 PSF
4" Rigid Insulation (EPS - 0.22 PSF / in. thickness) polyisocyanurate	0.9 PSF
1 1/2" - 20 Ga. Steel Roof Deck	2.5 PSF
Roof Cover Board	1.2 PSF
Steel Joist Self Weight	4 PSF
Suspended Acoustical Ceiling (Including Tile)	2 PSF
Mechanical Ducts, Piping, Lighting, etc.	5 PSF
Miscellaneous/Collateral	3.4 PSF
TOTAL DESIGN DEAD LOAD	**20 PSF**

METAL TRUSS DESIGN LOADS	
TOP CHORD DEAD LOAD	
Ashpalt Shingle Roof and Paper	2.5 PSF
Nailbase + 4" Insulation	2.25 PSF
1 1/2" - 20 Ga. Metal Roof Deck	2.5 PSF
4" chord member	1.5 PSF
Mechanical Allowance	3.75 PSF
Miscellaneous/Collateral	1.5 PSF
TOTAL TOP CHORD DESIGN DEAD LOAD	**14 PSF**
BOTTOM CHORD DEAD LOAD	
4" chord member	1.5 PSF
5/8" Gyp. Board (1 Layers)	2.8 PSF
Ceiling	3 PSF
Mechanical Allowance	3 PSF
Miscellaneous/Collateral	2.7 PSF
TOTAL BOTTOM CHORD DESIGN DEAD LOAD	**13 PSF**
ADD AT EIFS SOFFIT LOCATIONS AT EXTERIOR	***5 PSF***
TOTAL BC DL AT TRUSSES SUPPORTING EIFS	**18 PSF**

PRECAST DESIGN DEAD LOADS (UNIFORM)	
Roof Membrane	1 PSF
Nailbase + Insulation	3 PSF
No Concrete Topping	0 PSF
8" precast plank	65 PSF
Mechanical Ducts, Piping, etc.	5 PSF
Miscellaneous/Collateral	2 PSF
TOTAL DESIGN DEAD LOAD	**75 PSF**

GENERAL STRUCTURAL NOTES

GENERAL (ALL TRADES)
1. IN ACCORDANCE WITH SECTION 1704 OF THE OHIO BUILDING CODE, SPECIAL INSPECTIONS WILL BE REQUIRED FOR THIS PROJECT. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE "SPECIAL INSPECTION REQUIREMENTS" SCHEDULE. ALL FABRICATORS SHALL SATISFY THE "FABRICATOR APPROVAL" PROVISIONS IN SECTION 1704.2.5.1 WHICH REQUIRES THE FABRICATOR TO MAINTAIN AN AGREEMENT WITH A BOARD RECOGNIZED INDUSTRY TRADE ASSOCIATION CERTIFICATION PROGRAM OR A BOARD RECOGNIZED FABRICATOR INSPECTION AGENCY PER 4101:7-6-01 OF OHIO ADMINISTRATIVE CODE.
2. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND REPORT ANY CONDITIONS SUBSTANTIALLY DIFFERENT THAN THOSE SHOWN TO THE ENGINEER.
3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DISCIPLINES. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
4. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. SHELL + MEYER ASSOCIATES, INC. SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES, AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK.

POST INSTALLED ANCHORS
1. INSTALL ALL ANCHORS PER THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII).
2. WHERE NOT INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI, INC.
3. ***CONCRETE SUBSTRATE*** - U.N.O. USE 3/4" DIAM. HILTI 'HAS' THREADED RODS OR HIT-Z ANCHOR RODS WITH HIT-HY 200 SAFE SET SYSTEM, ICC ESR-3187. MINIMUM EMBEDMENT 0'-6 3/4".
4. ***REINFORCING INTO CONCRETE*** - U.N.O. USE HILTI HIT-RE 500 V3 EPOXY, ICC ESR-3814. MINIMUM EMBEDMENT INTO CONCRETE 44 x BAR DIAMETER U.N.O.
5. ***GROUTED CONCRETE MASONRY*** (INSTALLED IN WALL FACE) MIN. 8" GROUT AROUND ALL ANCHORS - U.N.O. USE 3/4" DIAM. HILTI KWIK BOLT 3 ANCHORS, ICC-ES ESR-1385. MINIMUM EMBEDMENT 0'-4 3/4".
6. ***GROUTED CONCRETE MASONRY*** (INSTALLED VERTICALLY IN TOP COURSE OF WALL) - U.N.O. USE 3/4" DIAM. HILTI KWIK HUS EZ SCREW ANCHORS, ICC-ES ESR-3056. MINIMUM EMBEDMENT 0'-6 1/4".
7. ***UNGROUTED CONCRETE MASONRY*** - USE THE HILTI HIT HY-270 ADHESIVE SYSTEM ICC-ES ESR-2682. U.N.O. STEEL ANCHORS SHALL BE 1/2" DIAM. HILTI 'HAS-E' CONTINUOUSLY THREADED ROD x1'-4" MINIMUM EMBEDMENT. USE TWO APPROPRIATELY SIZED MESH SLEEVES PER ANCHOR.

DIVISION 3 - FOUNDATIONS AND CONCRETE
1. ALLOWABLE NET SOIL BEARING CAPACITY = ***2,000 PSF ; REF. SOILS REPORT DATED AUGUST, 21, 2019 BY CBC REPORT NO. 22600D-0819-02***
2. ALL EXCAVATIONS SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
3. CONCRETE WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST "AMERICAN CONCRETE INSTITUTE" INCLUDING THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". CONCRETE MIXES SHALL BE DESIGNED PER ACI 301, USING PORTLAND CEMENT CONFORMING TO ASTM C150 OR C595, AGGREGATE CONFORMING TO ASTM C33, AND ADMIXTURES CONFORMING TO ASTM C494, C1017, C618, C989 AND C260. CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.
4. HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
5. CONCRETE SHALL ATTAIN THE FOLLOWING ULTIMATE 28 DAY COMPRESSIVE STRENGTHS:
   - A. 3,000 P.S.I. FOR FOOTINGS AND DRILLED PIERS
   - B. 3,500 P.S.I. FOR FLOOR SLABS ON DECK
   - C. 4,000 P.S.I. FOR INT. SLABS ON GRADE, WALLS, WALL PIERS, BEAMS AND COLUMNS
   - D. 4,500 P.S.I. FOR EXT. SLABS ON GRADE
   - E. SLUMP SHALL BE 4" ± 1"
6. ALL CONCRETE TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED (4.5 TO 7.5%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C260. MAXIMUM W/C RATIO = 0.45
7. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR ASTM A996, GRADE 60.
8. TOP OF FOOTING ELEVATIONS SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAXIMUM AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE PER THE GEOTECHNICAL ENGINEER'S SPECIFICATION. REFER TO SCHEDULES AND DETAILS FOR MINIMUM FOOTING THICKNESSES.
9. ALLOWANCE - CONTRACTOR SHALL PROVIDE 1500# OF ADDITIONAL REINFORCING BARS (#4, #5 AND #6'S) FOR JOB SITE USE, TO FILL ANY VOIDS IN FORMS. THE DESIGN ENGINEER IS TO DIRECT PLACEMENT OF REINFORCING STEEL.

PRECAST HOLLOW PLANK NOTES

1. THE DESIGN, FABRICATION & ERECTION OF ALL PRECAST/PRESTRESSED HOLLOW CORE CONCRETE SLABS SHALL BE THE RESPONSIBILITY OF THE PRECAST MANUFACTURER.
2. PRECAST MEMBERS SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE LATEST ACI 318 AND PCI MNL-116, FOR THE LOADS INDICATED PER THE "GENERAL STRUCTURAL NOTES", AS WELL AS FOR ALL HANDLING AND ERECTION LOADINGS.
3. THE PRECAST MANUFACTURER SHALL BE A PCI CERTIFIED PLANT AND SHALL MAINTAIN DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES AS REQUIRED TO SATISFY THE EXCEPTION IN OBC 2017, SECTION 1704.2.2.
4. THE PRECAST MANUFACTURER SHALL SUBMIT CALCULATIONS AND SHOP DRAWINGS, BEARING THE SIGNED AND DATED SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO, FOR ALL PRECAST PLANKS, INSERTS, BEARING PADS/PLATES, OPENINGS AND ANCHORS.
5. ALL PRECAST CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI. MINIMUM COMPRESSIVE STRENGTH AT TRANSFER OF PRESTRESSING FORCE SHALL BE 3500 PSI.
6. ALL NONSHRINK GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7500 PSI AND SHALL CONFORM TO ASTM C 1107.
7. CONCRETE TOPPINGS : NOT REQUIRED
8. UNLESS GREATER STRENGTH IS REQUIRED BY THE PRECAST MANUFACTURER, ALL REINFORCING MATERIALS SHALL CONFORM TO THE FOLLOWING:

REINFORCING	ASTM	MIN. STRENGTH	PRESTRESSING STRAND
(UNCOATED 7 WIRE, STRESS RELIEVED)	A 416		270 KSI (ULT)
REINFORCING BARS	A 615	60 KSI	
WELDED WIRE FABRIC	A 185	70 KSI	

9. THE PRECAST MANUFACTURER SHALL PROVIDE MINIMUM CLEAR COVER TO REINFORCING IN ACCORDANCE WITH ACI 318.
10. MINIMUM BEARING ON MASONRY WALLS = 4" ; MINIMUM BEARING ON STRUCTURAL STEEL = 3 1/2" (NOTE REDUCED BEARING ON INTERIOR CMU WALL)
11. ALL WELD PLATES, INSERTS, ANCHOR BOLTS, WELDING, LIFTING HARDWARE, GROUT SLEEVES, ETC. SHALL BE DESIGNED AND PROVIDED BY THE PRECAST MANUFACTURER. UNLESS OTHERWISE NOTED, ALL CONNECTIONS EXPOSED TO EARTH OR WEATHER SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A 153.
12. THE PRECAST LAYOUT SHOWN ON THE STRUCTURAL PLANS IS CONCEPTUAL. THE PRECAST MANUFACTURER SHALL PROVIDE THE REQUIRED FILLER UNITS AND PROPER QUANTITY OF STANDARD 48" WIDE UNITS. ALL QUANTITIES TO BE DETERMINED BY THE SUPPLIER.
13. COORDINATE ALL ROOF OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.
14. OPENINGS FOR MECHANICAL AND ELECTRICAL ITEMS SHALL BE CORE DRILLED THROUGH HOLLOW CELLS ONLY, IN ACCORDANCE WITH THE PRECAST MANUFACTURER'S RECOMMENDATIONS. ADDITIONAL REINFORCEMENT SHALL BE PROVIDED AS REQUIRED BY THE PRECAST MANUFACTURER.
15. ALL PRECAST UNITS SUPPORTED BY MASONRY OR CONCRETE SHALL BEAR ON 1/8" CONTINUOUS STRIPS OF NEOPRENE.
16. THE CONTRACTOR SHALL PROVIDE HOLES OR OTHER PROTECTIVE MEANS TO ALLOW THE HOLLOW CELLS TO DRAIN ANY WATER ACCUMULATION THAT MAY OCCUR DURING THE PROCESS OF CONSTRUCTION.

DIVISION 4 - MASONRY
1. MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602-13)", PUBLISHED BY THE MASONRY SOCIETY.
2. HOLLOW LOAD BEARING MASONRY UNITS SHALL CONFORM TO ASTM C90. COMPRESSIVE STRENGTH OF THE BLOCK SHALL BE A MINIMUM 2650 PSI.
3. FILL ALL BOND BEAMS AND REINFORCED CELLS SOLIDLY WITH GROUT. GROUT SHALL CONFORM TO ASTM C476 AND SHALL OBTAIN A MINIMUM 28 DAY NET COMPRESSIVE STRENGTH OF 2500 P.S.I. UNDER NO CIRCUMSTANCES SHALL MASONRY MORTAR BE USED IN LIEU OF GROUT.
4. ALL MORTAR SHALL MEET THE "PROPORTION SPECIFICATION" OF ASTM C-270 AND BE MADE WITH PORTLAND CEMENT/LIME (NON AIR-ENTRAINED). THE USE OF MASONRY CEMENT MORTAR IS STRICTLY PROHIBITED. USE TYPE 'S' FOR WALLS BELOW GRADE AND TYPE 'N' FOR ALL OTHER WALLS.
5. THE MINIMUM 28 DAY NET COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLY (f ' m) SHALL BE 2000 P.S.I., AS DETERMINED BY THE UNIT STRENGTH METHOD OF TMS 602.
6. PROVIDE STEEL JOIST AND BEAM BEARING PLATES AND OTHER ACCESSORIES AS INDICATED. PROVIDE (3) COURSES OF SOLIDLY GROUTED CMU OVER A WIDTH OF 2'-8" BELOW ALL BEAM BEARINGS.
7. HOOK VERTICAL BARS INTO CONTINUOUS BOND BEAMS AT TOP OF WALLS (BELOW JOIST/TRUSS BEARING)
8. ALLOWANCE - CONTRACTOR SHALL PROVIDE 800# OF ADDITIONAL REBAR (#4, #5 AND # 6'S) FOR JOB SITE USE. THE DESIGN ENGINEER IS TO DIRECT PLACEMENT OF REINFORCING STEEL.

DIVISION 5 - METALS
STRUCTURAL STEEL
1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC RECOMMENDATIONS AND CONFORM TO ANSI/AISC 360-10 AND AISC 303-10 INCLUDED IN THE 14TH EDITION OF THE "STEEL CONSTRUCTION MANUAL".
2. STEEL FABRICATORS SHALL BE AN AISC CERTIFIED SHOP AND SHALL SATISFY THE 'GENERAL (ALL TRADES)' NOTE 1 ON THIS SHEET. OTHERWISE SHOP SPECIAL INSPECTIONS WILL BE REQUIRED.
3. UNLESS NOTED OTHERWISE, ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING ASTM SPECIFICATIONS:
   - A. WIDE FLANGE SECTIONS AND TEES ASTM A992 (50 KSI) ;
   - B. STRUCTURAL HSS TUBING A500 Gr.C (50 KSI) ;
   - C. STEEL PIPE A500 Gr.C (46 KSI);
   - D. OTHER ROLLED PLATE/SHAPES A36 (36 KSI)
4. UNLESS NOTED OTHERWISE, BASE PLATE ANCHOR RODS SHALL BE ASTM F1554 (36 KSI) ; USE NONSHRINK GROUT C1107 (8000 PSI).
5. STRUCTURAL STEEL CONNECTIONS SHALL CONSIST OF 3/4" DIAM. HIGH STRENGTH ASTM F-1852 BOLTS AND/OR WELDS WITH E70-XX ELECTRODES. USE SHEAR TYPE CONNECTIONS SELECTED BY THE FABRICATOR FOR THE ***UNFACTORED*** SHEAR FORCES INDICATED ON PLAN IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR ***ALLOWABLE STRESS DESIGN***, U.N.O. USE 5/16" THICK DOUBLE ANGLE CONNECTIONS, (AS DETAILED IN THE AISC "MANUAL OF STEEL CONSTRUCTION"), U.N.O. ON STRUCTURAL DRAWINGS.
6. UNLESS NOTED OTHERWISE, PROVIDE CONTINUOUS 1/4 FILLET WELDS PER AISC REQUIREMENTS.
7. TYPICAL LINTELS FOR MASONRY OPENINGS SHALL BE AS FOLLOWS, U.N.O. ON PLANS:
   - A. L3 1/2 x 3 1/2 x 5/16" ANGLES, EACH 4" WALL WIDTH, 4'-0" OPENINGS OR LESS (8" MINIMUM END BEARING, TYP. EACH END);
   - B. L5 x 3 1/2 x 5/16" ANGLES, L.L.V., EACH 4" WALL WIDTH, 4'-1" TO 6'-8" OPENINGS (8" MINIMUM END BEARING, TYP. EACH END);
   - C. W8X18 WITH 5/16" PLATE CONTINUOUS (EXTEND PLATE TO END OF BEAM), 6'-9" TO 12'-0" CMU OPENINGS. 12" MIN. BRG. E.E.
8. UNLESS NOTED OTHERWISE, ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER, INCLUDING ALL BRICK LINTEL ANGLES AND PLATES, SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.
9. COORDINATE ALL ROOF AND FLOOR OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. FRAME OPENINGS WITH L3x3x1/4" ANGLES TYPICAL U.N.O. CONTRACTOR TO VERIFY UNIT SIZES, WEIGHTS, AND LOCATIONS BEFORE ERECTION.
10. ALLOWANCE:
    - A. FABRICATOR/ERECTOR SHALL ALLOW FOR 1500# OF ADDITIONAL MISC. METAL FOR JOB SITE USE, IN PLACE, WHICH INCLUDES PLATES, ANGLES, ETC. TO COVER CORRECTIONS MADE ON THE SHOP DWGS. AND STEEL ADDED BY THE STRUCTURAL ENGINEER DURING FIELD OBSERVATIONS.
    - B. FABRICATOR/ERECTOR SHALL ALLOW FOR 1500# OF ADDITIONAL STRUCTURAL STEEL FOR JOB SITE USE, IN PLACE, WHICH INCLUDES BEAMS, COLUMNS, ETC. TO COVER CORRECTIONS MADE ON THE SHOP DWGS. AND STEEL ADDED BY THE STRUCTURAL ENGINEER DURING FIELD OBSERVATION.

STEEL JOISTS
1. ALL STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH SJI STANDARD SPECIFICATIONS, 2010 EDITION AND DESIGNED FOR THE FOLLOWING:
   - A. "BEND CHECK" = 200# TOP & BOTTOM CHORD, U.N.O. ;
   - B. JOIST SHOE ROLL OVER (K-LH SERIES JOISTS) = 300 PLF
     = 250 PLF FOR CFMF TRUSSES
1. UNLESS NOTED AS AN 'SP' JOIST, THE SNOW DRIFT LOADS INDICATED ON PLAN HAVE BEEN INCLUDED IN THE JOIST SIZE USING THE EQUIVALENT UNIFORM LOAD METHOD.
2. JOIST BRIDGING SHALL CONFORM TO SJI SPECIFICATIONS. PROVIDE DIAGONAL BRIDGING AT ALL BEAMS AND END BAYS. FIELD WELD BRIDGING AT ENDS AND INTERSECTIONS. ALL JOISTS FORTY (40) FEET AND LONGER REQUIRE A ROW OF BOLTED CROSS BRIDGING TO BE IN PLACE BEFORE SLACKENING OF HOISTING LINES.
   - A. X-BRIDGING WHERE SHOWN ON PLAN IS IN EXCESS OF THE MINIMUM REQUIRED BY SJI. THIS IS TO ACCOUNT FOR ERECTION SEQUENCING, LIMITING END ANCHORAGE FORCES, MEP COORDINATION, AND FUTURE FLEXIBILITY. BAR JOIST SUPPLIER SHALL NOT OMIT THESE ADDITIONAL X-BRIDGES.
3. PROVIDE AN ADDITIONAL ROW OF CONTINUOUS HORIZONTAL BOTTOM CHORD BRIDGING AT THE FIRST PANEL POINT LOCATION AT EACH END OF ALL ROOF JOISTS (TO RESIST WIND UPLIFT). UPLIFT BRIDGING SHALL TERMINATE WITH DIAGONAL BRIDGING AT ALL END BAYS. MAX NET UPLIFT = 15 PSF U.N.O.

STEEL DECK
1. STEEL ROOF DECK SHALL BE 1-1/2" - 20 GA. WR TYPE B GALVANIZED G90 PER ASTM A653, U.N.O.
2. WELD DECK TO SUPPORTS WITH MINIMUM 5/8 INCH PUDDLE WELDS AT 12" o.c. (36/4) AND PROVIDE No.10 TEK SCREW SIDELAP FASTENERS AT 36" O.C., UNLESS SUPERCEDED BY SPECIFICATION OR A TYPICAL DECK ATTACHMENT DETAIL.

DIVISION 5 - METALS
COLD FORM STEEL FRAMING (CFS)
1. DESIGN, FABRICATION, AND ERECTION OF ALL COLD FORMED STEEL FRAMING MEMBERS SHALL CONFORM TO THE "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" (AISI S100-12).
2. ALL CFS MEMBERS AND ACCESSORIES SHALL BE FORMED FROM STEEL CONFORMING TO ASTM A1003 WITH A MINIMUM YIELD STRENGTH AS FOLLOWS:
   - A. 54 mils (16 Ga.) AND HEAVIER MEMBERS Fy= 50 KSI (GRADE ST50H) ;
   - B. 43 mils (18 Ga.) AND LIGHTER MEMBERS Fy= 33 KSI (GRADE ST33H)
3. ALL MEMBERS SHALL BE GALVANIZED WITH A COATING MEETING THE REQUIREMENTS OF ASTM A653. USE G90 OR EQUIVALENT FOR STUDS WITH A BRICK VENEER, G60 FOR ALL OTHER FRAMING MEMBERS AND ACCESSORIES.
4. CFS LINTELS SHALL BE UNPUNCHED
5. PROVIDE BRIDGING FOR STUDS AT A MAXIMUM SPACING NOT TO EXCEED 4'-0" AND PER MFR. REQUIREMENTS FOR JOISTS AND RAFTERS. ALL BRIDGING SHALL BE INSTALLED PRIOR TO THE ADDITION OF ANY LOADING. CONNECT BRIDGING TO EACH MEMBER BY WELDING, CLIP ANGLES OR OTHER APPROVED METHOD PER THE MANUFACTURER'S REQUIREMENTS.

CFS TRUSSES
1. COLD FORMED STEEL TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE OHIO BUILDING CODE, ASCE 7-10 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", AND AISI S214-12 "NORTH AMERICAN STANDARD FOR COLD FORMED STEEL FRAMING-TRUSS DESIGN".
2. COLD FORMED METAL TRUSSES SHALL BE DESIGNED BY THE TRUSS MFR. TO SUPPORT THE FOLLOWING LOADS:
   - TOP CHORD LIVE LOAD: 25 PSF (SNOW LOAD)
   - TOP CHORD DEAD LOAD: 14 PSF (+ 5 PSF VALLEY SETS FOR OVERFRAMING)
   - BOTTOM CHORD LIVE LOAD: 0 PSF
   - BOTTOM CHORD DEAD LOAD: 13 PSF (+5 PSF at EIFS SOFFITS)

   TRUSS BLOCKING TO BE DESIGNED FOR 250 PLF SERVICE WIND LOAD (0.6W)
3. ALL TRUSS MEMBERS SHALL BE UNPUNCHED AND SHALL BE MINIMUM 43 mils (18 Ga.) GALVANIZED STEEL.
4. CONTRACTOR SHALL SUPPLY THE TRUSS MFR. WITH THE "DESIGN CRITERIA NOTES" FOR THE REQUIRED DESIGN LOADS AND CODE FACTORS. DESIGNS THAT DO NOT INCLUDE THE PROPER DESIGN LOADS OR FACTORS WILL BE REJECTED AND REQUIRE A RESUBMITTAL.
5. SUPPLIER OF THE PREFABRICATED STEEL TRUSSES SHALL ENGAGE A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO TO PROVIDE THE STRUCTURAL DESIGN OF ALL TRUSSES AND COLD FORMED METAL ROOF FRAMING INCLUDING CONNECTIONS AND BRACING. CALCULATIONS SHALL BE SEALED.
6. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION AND PERFORMANCE OF THE TRUSSES.
7. COLD FORMED STEEL TRUSSES SHALL BE INSTALLED IN ACCORDANCE WITH THE TRUSS MANUFACTURER'S REQUIREMENTS AND THE GUIDELINES SET FORTH IN THE LATEST WTCA/CFSC JOINT PUBLICATION OF CFSBCSI "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING AND BRACING OF COLD-FORMED STEEL TRUSSES" AS A MINIMUM REQUIREMENT. THE TRUSS SUPPLIER SHALL HAND DELIVER A COPY OF THIS DOCUMENT TO THE ERECTOR AT THE SITE BEFORE TRUSSES ARE ERECTED.
8. TRUSS INSTALLATION SHALL BE DONE BY A QUALIFIED AND EXPERIENCED CONTRACTOR. TRUSS INSTALLATION BY AN INEXPERIENCED OR UNQUALIFIED CONTRACTOR CAN RESULT IN TRUSS COLLAPSE AND/OR SERIOUS INJURY AND DAMAGE.
9. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, SPLICED, OR OTHERWISE ALTERED WITHOUT THE APPROVAL OF A REGISTERED DESIGN PROFESSIONAL.

DELEGATED DESIGN ITEMS

A. ENGAGE A QUALIFIED PROFESSIONAL ENGINEER LEGALLY LICENSED IN THE STATE OF OHIO TO DESIGN AND DETAIL THE ELEMENTS NOTED BELOW.
B. DELEGATED DESIGN ENGINEER SHALL DESIGN MEMBERS, CONNECTION DETAILS AND DETERMINE FASTENER TYPES AND SIZES.
C. CONNECTIONS ARE NOT TO IMPOSE ECCENTRIC LOADING, NOR INDUCE TWISTING OR WARPING TO SUPPORTING STRUCTURE.
D. DESIGN CONNECTIONS TO ACCOMODATE POTENTIAL AND ACTUAL MISALIGNMENT OF ADJACENT WORK WITHIN TOLERANCES SPECIFIED IN OTHER SECTIONS.
E. SUBMIT ENGINEERING CALCULATIONS DEMONSTRATING COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND OF THE AUTHORITIES HAVING JURISDICTION.
F. PROVIDE LEGIBLE CALCULATIONS THAT INCORPORATE SUFFICIENT CROSS REFERENCES TO SHOP DRAWINGS TO MAKE CALCULATIONS READILY UNDERSTANDABLE AND REVIEWABLE.
G. STRUCTURAL CALCULATIONS SHALL INCLUDE THE FOLLOWING: ANALYSIS OF FRAMING MEMBERS, ANALYSIS OF ANCHORS INCLUDING ANCHORS EMBEDDED IN CONCRETE OR MASONRY WITH ALL APPLICABLE LOAD REDUCTIONS CONSIDERED, AND SIGNATURE AND SEAL OF THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND LICENSED IN THE STATE OF OHIO.
H. TEST REPORTS ARE NOT ACCEPTABLE AS A SUBSTITUTE FOR CALCULATIONS

STRUCTURAL COMPONENTS, ASSEMBLIES, AND SYSTEMS DELEGATED TO THE CONTRACTOR INCLUDE THE FOLLOWING:
1. PRECAST CONCRETE FRAMING
2. COLD-FORMED STEEL FRAMING (STUDS, LINTELS, JAMBS, SILLS, BRACING AND BRIDGING)
3. COLD-FORMED STEEL TRUSSES, INCLUDING GABLE END BRACING
4. STOREFRONT AND ITS CONNECTIONS TO THE PRIMARY STRUCTURAL SYSTEM
5. CURTAIN WALL SYSTEM AND ITS CONNECTIONS TO THE PRIMARY STRUCTURAL SYSTEM

Sheet List	
Sheet Number	Sheet Name
S000	STRUCTURAL NOTES
S001	SPECIAL INSPECTIONS
S101	FOUNDATION PLAN
S201	FOUNDATION SECTIONS
S301	ROOF FRAMING PLAN
S400	TYPICAL STEEL DETAILS
S401	FRAMING SECTIONS
S402	FRAMING SECTIONS
S403	FRAMING SECTIONS
S404	FRAMING SECTIONS
S405	STEEL DECK DETAILS
S500	TYP. MASONRY DETAILS
S501	COLD FORM STUDS
S502	COLD FORM STUDS
S503	CFS TRUSS/PRECAST DETAILS
S600	BRACE FRAME ELEVATIONS

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No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Rich

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SPECIAL INSPECTION REQUIREMENTS

1. The OWNER shall employ one or more special inspectors to provide inspections during construction on the types of work itemized below. These inspections are in addition to the inspections identified in Section 108.
2. Only the required STRUCTURAL Special Inspections have been listed on this sheet. Please refer to architectural drawings and/or specifications for required non-structural Special Inspections, if applicable. (i.e. Fire Resistant Materials and Coatings, EIFS, Smoke Control Systems)
3. Fabricator approval (OBC 1704.2.5) - Special Inspections required by OBC Section 1704 are not required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.
4. The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the building official, for inspection of the particular type of construction or operation requiring special inspection.
5. Upon request, Shell + Meyer can provide a list of local agencies providing these services. Shell + Meyer does not provide Special Inspection services.
6. Numbered and lowercase subletterred inspections indicate referenced OBC requirements
7. Some numbered or lettered special inspection items may not be listed. These items are not required on this project.
8. Additional information regarding inspections and tests may be found in the project specifications, on the drawings, and in the building code and referenced standards. The contractor and special inspector shall review all documents to determine the special inspections and testing necessary for this project.
9. The Special Inspections table and other contract documents indicate the special inspections anticipated at the time the documents were approved by the Building Official. Changes in scope, materials, or unanticipated existing conditions may require additional inspections.
10. Special inspection and site observation personnel are not responsible for job site safety or means and methods of construction unless noted specifically in the contract.
11. CONTINUOUS INSPECTION: Inspector shall be on site during the entire process of the work being inspected.

GEOTECHNICAL (Section 1705.6)

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	OBC REFERENCE	REMARKS
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	—	●	Section 1705.6 and TABLE 1705.6	The approved FINAL geotechnical report and construction documents, including any addendums, shall be used to determine compliance
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	—	●		
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	—	●	Section 1803	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	●	—		During fill placement, the Special Inspector shall determine that proper materials and procedures are used in accordance with the provisions of the approved geotechnical report.
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	—	●		

CONCRETE CONSTRUCTION

* Reference to ACI 318 shall refer to the 2014 edition

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD*	OBC REFERENCE	REMARKS
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT	—	●	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" c. INSPECT ALL OTHER WELDS	— — ●	● ● —	AWS D1.4 ; ACI318: 26.6.4		
3. INSPECT ANCHORS CAST IN CONCRETE	—	●	ACI318: 17.8.2		
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	SEE BELOW				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	●	—	ACI318: 17.8.2.4		
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a.	—	●	ACI318: 17.8.2		
5. VERIFY USE OF REQUIRED DESIGN MIX	—	●	ACI318: Ch.19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	Tests and submittals per specifications
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	●	—	ASTM C172, ASTM C31, ACI318: 26.4, 26.12	1908.10	Tests and submittals per specifications
7. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	●	—	ACI318: 26.5	1908.6, 1908.7, 1908.8	Confirm placement conforms to ACI 301
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	—	●	ACI318: 26.5.3-26.5.5	1908.9	
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	—	●	ACI318: 26.11.1.2(b)		Forms shall result in a final structure that conforms to shape lines, and dimensions of the members as required by the contract documents.

PRECAST CONCRETE CONSTRUCTION

* Reference to ACI 318 shall refer to the 2014 edition

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD*	OBC REFERENCE	REMARKS
10. ERECTION OF PRECAST CONCRETE MEMBERS	—	●	ACI 318: Ch. 26.8		

STRUCTURAL STEEL

STRUCTURAL STEEL SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIRMENTS OF AISC 360-10 (CHAPTER N)
IF STRUCTURAL STEEL SPECIFICATIONS ARE INCLUDED IN THE CONSTRUCTION DOCUMENTS REFER TO **SECTION 051200 "STRUCTURAL STEEL FRAMING"**

Exception: Special inspection of the steel fabrication process shall not be required where the fabricator does not perform any welding, thermal cutting or heating operation of any kind as part of the fabrication process. In such cases, the fabricator shall be required to submit a detailed procedure for material control that demonstrates the fabricator's ability to maintain suitable records and procedures such that, at any time during the fabrication process, the material specification, and grade for the main stress-carrying elements are capable of being determined. Mill test reports shall be identifiable to the main stress-carrying elements when required by the approved construction documents.

OPEN WEB STEEL JOISTS

* Reference to SJI Specifications shall refer to the 2010 edition

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD*	OBC REFERENCE	REMARKS
1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND GIRDERS					
a. END CONNECTIONS - WELDED OR BOLTED		●	SJI Specification listed in 2207.1	1705.2.3	
b. BRIDGING - HORIZONTAL OR DIAGONAL					
1. STANDARD BRIDGING		●	SJI Specification listed in 2207.1	1705.2.3	
2. BRIDGING THAT DIFFERS FROM SJI SPECS		●			

COLD FORMED STEEL

IF STEEL ROOF DECKING SPECIFICATIONS ARE INCLUDED IN THE CONSTRUCTION DOCUMENTS REFER TO **SECTION 053123 "STEEL ROOF DECKING"** FOR ADDITIONAL INSPECTION REQUIREMENTS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	OBC REFERENCE	REMARKS
1. MATERIAL VERIFICATION OF COLD FORMED STEEL DECK					
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	—	●	APPLICABLE ASTM MATERIAL STANDARDS	TABLE 1705.2.2	Verify compliance of materials (deck and all deck accessories) with Construction Documents, including profiles, material properties, and base metal thickness
b. MANUFACTURER'S CERTIFIED TEST REPORTS	—	●			
A. COLD-FORMED STEEL DECK			AWS D1.3	1705.2.2	**Steel floor and roof deck shall be in accordance with the quality assurance inspection requirements of SDI QA/QC**
B. FABRICATION OF SHOP FABRICATED COLD FORMED STRUCTURAL STEEL ELEMENTS				1704.2.5	Refer to inspection of fabricator requirements
C. COLD FORMED STEEL TRUSSES SPANNING 60 FEET OR GREATER	—	●	Approved truss submittal package AND Cold Formed Steel Building Component Safety Information (CFSBCSI) - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Cold-Formed Steel Trusses	1705.2.4	VERIFY THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACES AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE APPROVED TRUSS SUBMITTAL PACKAGE AND 'CFSBCSI'

MASONRY CONSTRUCTION - Level B

* Reference to TMS 402 / ACI 530 / ASCE 5 & TMS 602 / ACI 530.1 / ASCE 6 shall refer to the 2013 edition.

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	OBC REFERENCE	REMARKS
1. VERIFY COMPLIANCE WITH APPROVED SUBMITTALS	—	●	TMS602 - Art. 1.5		
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					
a. PROPORTIONS OF SITE-PREPARED MORTAR	—	●	TMS602 - Art. 2.1, 2.6A		Visual inspection to confirm proportions
b. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS	—	●	TMS602 - Art. 3.3B		Visual inspection to confirm placement of CMU
d. LOCATION OF REINFORCEMENT, CONNECTORS, AND ANCHORAGES	—	●	TMS602 - Art. 3.4, 3.6A		Confirm size, spacing, and location of reinforcing, connectors, and anchorages INCLUDING mechanical splice connectors
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE					
a. GROUT SPACE IS CLEAN	—	●	TMS602 - Art. 3.2D, 3.2F		Visual inspection to confirm spaces are debris free, cleanout hole provided at base when high-lift grouting is performed
b . GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS	—	●	TMS402 - Sec. 1.15 TMS602 - Art. 2.4, 3.4		
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHORAGES	—	●	TMS402 - Sec. 6.1, 6.2.1 TMS602 - Art. 3.2E, 3.4, 3.6A		Confirm size, spacing, and location of reinforcing, connectors, and anchorages INCLUDING mechanical splice connectors
d . PROPORTIONS OF SITE PREPARED GROUT	—	●	TMS602 - Art. 2.6B, 2.4 G.1.b		
e . CONSTRUCTION OF MORTAR JOINTS	—	●	TMS602 - Art. 3.3B		
4. DURING CONSTRUCTION THE INSPECTION PROGRAM SHALL VERIFY					
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	—	●	TMS602 - Art. 3.3F		Confirm size and location per construction documents
b. TYPE, SIZE, AND LOCATION OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCT. MEMBERS, FRAMES, OR OTHER CONSTRUCTION.	—	●	TMS402 - Sec. 1.2.1(e), 6.1.4.3, 6.2.1		
c. WELDING OF REINFORCEMENT	●	—	TMS402 - Sec. 8.1.6.7.2		
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER OR HOT WEATHER	—	●	TMS602 - Art. 1.8C, 1.8D		Visually confirm according to ACI 530.1 Article 1.8C and 1.8D. Review contractor's written procedures for construction.
f. PLACEMENT OF GROUT	●	—	TMS602 - Art. 3.5		Confirm placement time, pour height, lift height, and consolidation.
5. OBSERVE PREPARATION OF GROUT SPECIMENS	●	—	TMS602 - Art. 1.4	Sec. 2105.2.2.1.2	Visually observe specimen preparations that are used for testing.
A. INSPECTION OF POST-INSTALLED ANCHORS	—	●			Refer to Specification **Section 050519 "POST-INSTALLED ANCHORS"** for a comprehensive description of Special Inspection requirements
TESTS					
VERIFICATION OF f ' m IN ACCORDANCE WITH ARTICLE 1.4B PRIOR TO CONSTRUCTION AND FOR EVERY 5,000 SQUARE FEET DURING CONSTRUCTION	—	●	TMS602 - Art. 1.4B	2105.2.2.1.2	Unit Strength Method: ASTM C476, ASTM C1019, ASTM C90
VERIFICATION OF PROPORTIONS OF MATERIALS IN PREMIXED OR PREBLENDED MORTAR AND GROUT AS DELIVERED TO THE PROJECT SITE.	—	●	TMS602 - Art. 1.5B		
VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH ARTICLE 1.5B.1.b.3	●	—	TMS602 - Art. 1.5B.1.b.3		

POST INSTALLED ANCHORS

POST INSTALLED ANCHORS (i.e. ADHESIVE ANCHORS, SCREW ANCHORS, EXPANSION ANCHORS) ARE PROPRIETARY PRODUCTS AND HAVE SPECIAL INSPECTIONS UNIQUE TO EACH PRODUCT. SPECIAL INSPECTIONS SHALL BE PERFORMED PER THE MANUFACTURER'S CODE ACCEPTED EVALUATION REPORT.

EXPANSION AND WEDGE ANCHORS	CONTINUOUS	PERIODIC	
BEFORE INSTALLATION	—	●	Verify anchor type, anchor dimensions, concrete type, concrete compressive strength, drill-bit type
DURING INSTALLATION	—	●	Verify hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete thickness, anchor embedment, installation torque.
ADHESIVE ANCHORS ("EPOXY" ANCHORS)			
Overhead Adhesive Anchors Designed to Resist Sustained Tension Loads			
DURING INSTALLATION	●	—	1. Required when adhesive anchors are installed overhead and designed to resist sustained tension loads, optional for other installations 2. Use on-site proof-loading program 3. Verify anchor type, adhesive identify and expiration date, anchor dimensions, concrete type, concrete compressive strength, hole drilling method, hole dimensions, hole- cleaning procedures, anchor spacing, edge distances, concrete thickness, anchor embedment, installation torque 4. Verify compliance with proof-loading program: a. Frequency of proof loading based on anchor type, diameter, and embedment b. Proof loads by anchor type, diameter, embedment and location c. Acceptable displacements at proof load d. Remedial action in the event of failure to achieve proof load or excessive displacement
Other Adhesive Anchors			
BEFORE INSTALLATION	—	●	Verify: • anchor type • anchor dimensions • concrete type • concrete compressive strength • adhesive identification • expiration date
DURING INSTALLATION	—	●	Verify: • hole dimensions • hole-cleaning procedures • anchor spacing • edge distances • concrete thickness • anchor embedment • installation torque
			Verify initial installations of each type and size of adhesive anchor. Subsequent installations of the same anchor type and size by the same construction personnel may be performed in the absence of the special inspector. Exception: Any changes in the anchor product being installed or the personnel performing the installation require an initial inspection.
			For ongoing installations over an extended period, regular inspections are made to verify correct handling and installation of the product.

STRUCTURAL OBSERVATIONS

PLEASE CONTACT SHELL + MEYER ASSOCIATES AT LEAST **ONE WEEK** PRIOR TO SCHEDULED FIELD OBSERVATION

STRUCTURAL SYSTEMS TO BE OBSERVED BY SMA
- STRUCTURAL STEEL
- COLD FORM STEEL FRAMING

1. In general, the purpose of Shell + Meyer (SMA) field observations is to observe the progress and quality of the Work completed by the Contractor. Such visits and observation are not intended to be an exhaustive check or a detailed inspection of the Contractor's work but rather are to allow SMA to become generally familiar with the Work in progress and to determine, in general, if the Work is proceeding in accordance with the Contract Documents.
2. Shell + Meyer does not supervise, direct or have control over the Contractor's work nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the Contractor nor for the Contractor's safety precautions or programs in connection with the Work. These rights and responsibilities are solely those of the Contractor in accordance with the Contract Documents.
3. Neither the professional activities of SMA, nor the presence of SMA or its employees and subconsultants at the construction/project site, shall impose any duty on SMA, nor relieve the General Contractor of its obligations, duties and responsibilities.
4. Structural Field Observations provided by Shell + Meyer DOES NOT include or waive the responsibility for the Special Inspections required by the Ohio Building Code.
5. SMA shall not be responsible for any acts or omissions of the Contractor, any subcontractor, any entity performing any portions of the Work or any agents or employees of any of them.
6. SMA does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its Work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.
7. SMA and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The General Contractor shall be solely responsible for jobsite and worker safety.

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No.	Revisions / Submissions	Date
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5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

SPECIAL INSPECTIONS

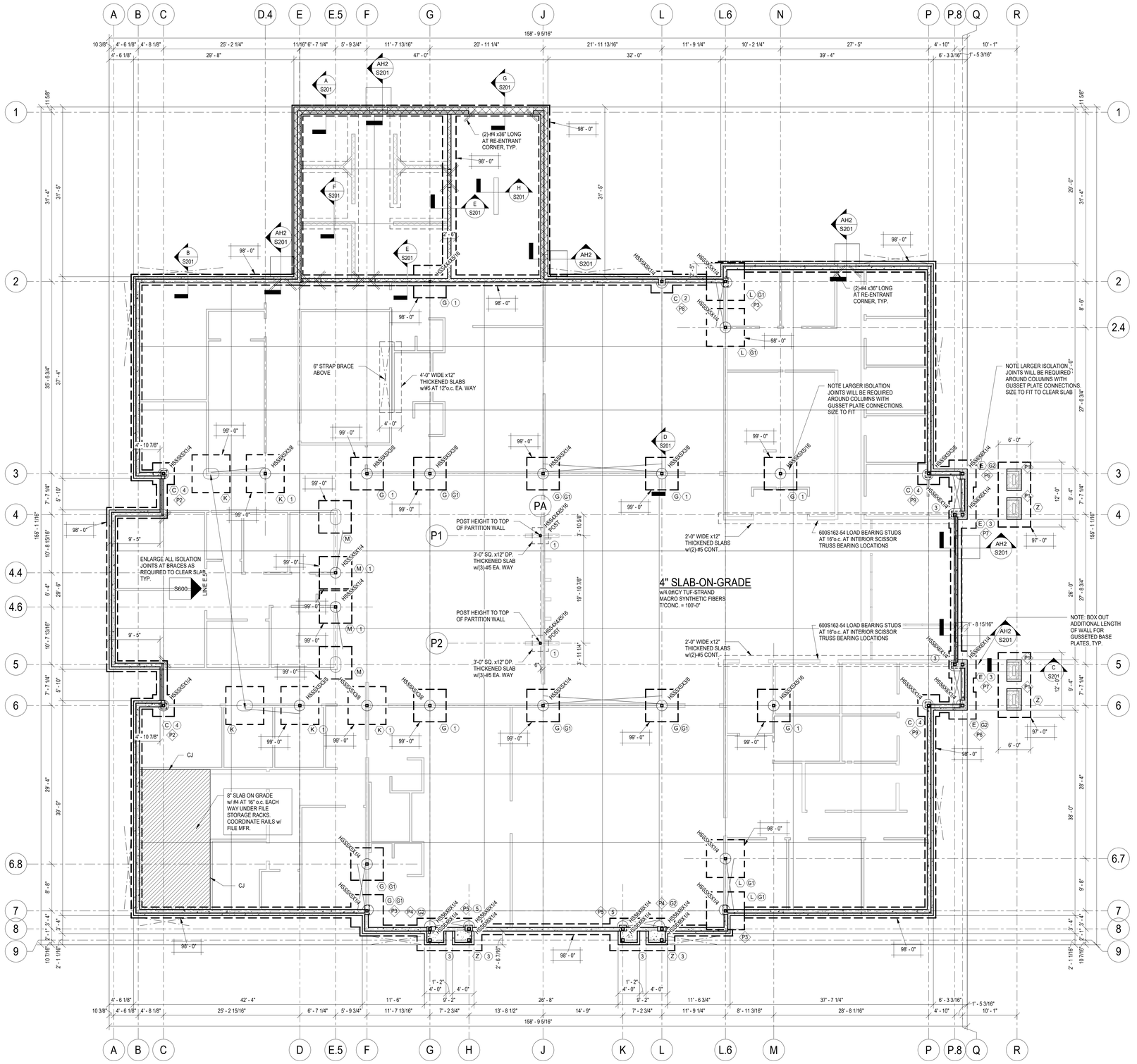
STATE OF OHIO CHRISTOPHER R. MEYER 69172 REGISTERED PROFESSIONAL ENGINEER

Comm. No. 19651.00	Date 2021/4/23
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Checked CRM	

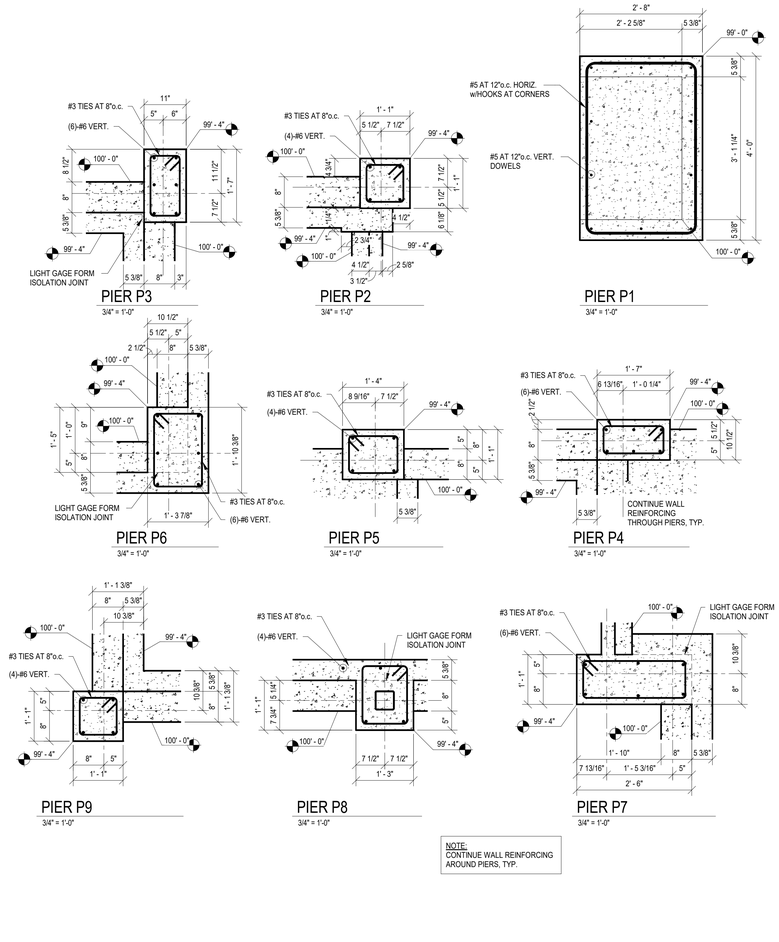
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FOUNDATION PLAN
1/8" = 1'-0"



NOTE:
CONTINUE WALL REINFORCING AROUND PIERS, TYP.

FOOTING SCHEDULE

MARK	SIZE	REINFORCING	NOTES
A	3'-0"SQ. x 12"	(3) - #5 E.W.	
B	3'-6"SQ. x 12"	(3) - #5 E.W.	
C	4'-0"SQ. x 16"	(4) - #5 E.W.	
D	4'-6"SQ. x 12"	(4) - #5 E.W.	
E	5'-0"SQ. x 16"	(5) - #5 E.W.	
F	5'-6"SQ. x 13"	(5) - #5 E.W.	
G	6'-0"SQ. x 16"	(6) - #5 E.W.	
H	6'-6"SQ. x 15"	(7) - #5 E.W.	
K	7'-0"SQ. x 18"	(8) - #5 E.W.	
L	7'-0"SQ. x 24"	(8) - #5 E.W.	
M	6'-0"SQ.x18"	(-) - #- E.W.	
Z	12'-0"x6'-0"x16"	#5 AT 12"o.c. E.W.	

Footnote: Allowable Soil Bearing Capacity = 2000 PSF

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No.	Revisions / Submissions	Date
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4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

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712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

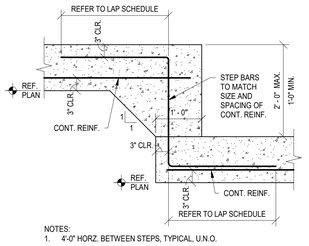
FOUNDATION PLAN

STATE OF OHIO
CHRISTOPHER R. MEYER 69172 REGISTERED PROFESSIONAL ENGINEER

Comm. No.	Date
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Checked: CRM	

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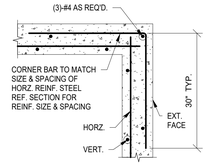
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NOTES:
1. 4'-0" HORZ. BETWEEN STEPS, TYPICAL, U.N.O.

F7 TYPICAL FOOTING STEP DETAILS

SCALE: NTS



F2 TYPICAL CORNER BAR DETAIL

CAST-IN-PLACE CONCRETE SCALE: NTS

CASE	LOCATION	BAR SIZE	COVER (in.)
A	Concrete cast against and permanently exposed to earth[1]	ALL SIZES	3"
B	Concrete exposed to earth or weather	#5 & Smaller	1 1/2"
		#6 thru #18	2"
C	Concrete NOT exposed to weather or in contact with earth		
	Walls, Slabs (0, 1, or 1.5 hr)	#11 & Smaller	3/4"

1 - All foundations cast against earth without using formwork shall use CASE 'A' for reinforcement clearances.

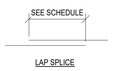
C2 CONCRETE REINFORCING COVER

SCALE: NTS

MINIMUM LAP SPLICE SCHEDULE

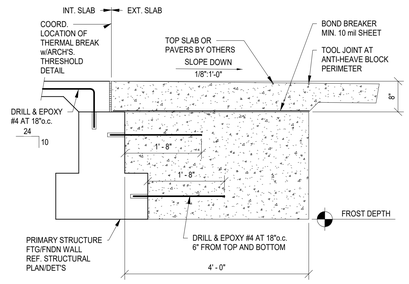
BAR SIZE	LAP LENGTH[1,2]
#3	24"
#4	32"
#5	40"
#6	48"

1 - Increase Lap Length by 33% for Epoxy Coated Reinforcing or Lightweight Concrete
2 - Based on minimum f'_c = 4000 psi



C1 CONCRETE REINFORCEMENT SPLICES

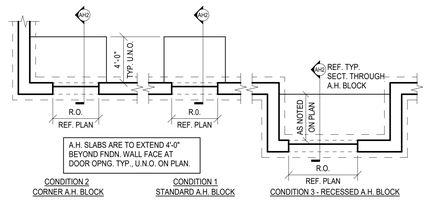
SCALE: NTS



AH2 TYPICAL ANTI-HEAVE BLOCK

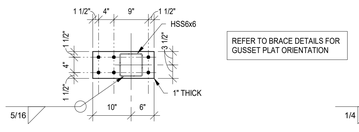
SCALE: 3/4" = 1'-0"

DETAIL NOTES:
1. ANTI-HEAVE BLOCKS TO BE USED AT ALL PRIMARY ENTRANCES AND EMERGENCY EXITS
2. REFERENCE ARCHITECTURAL AND SITE DRAWINGS FOR BLOCK WIDTHS
3. TOP OF ANTI-HEAVE BLOCK MAY BE HELD DOWN 8" MAX. TO ALLOW FOR PAVERS OR OTHER SITE SPECIFIED CONCRETE SLABS.
4. PLACE ANTI-HEAVE SEPARATELY. DRILL & EPOXY ALL HORIZONTAL ANTI-HEAVE FOUNDATION REINFORCING

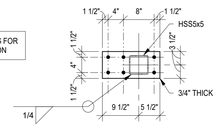


AH TYPICAL ANTI-HEAVE BLOCK TYPES

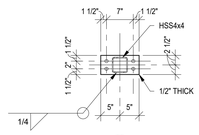
SCALE: NTS



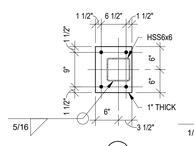
G2
3/4" DIA. A.R.'s



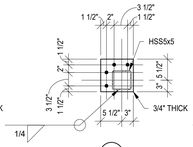
G1
3/4" DIA. A.R.'s



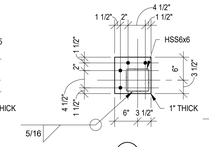
6
5/8" DIA. HILTI KW-EZ SCREW ANCHOR



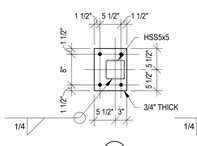
5
3/4" DIA. A.R.'s



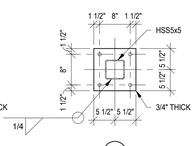
4
3/4" DIA. A.R.'s



3
3/4" DIA. A.R.'s



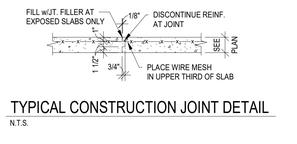
2
3/4" DIA. A.R.'s



1
3/4" DIA. A.R.'s

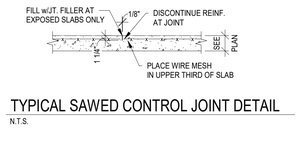
BASE PLATE DETAILS

3/4" = 1'-0"



TYPICAL CONSTRUCTION JOINT DETAIL

N.T.S.

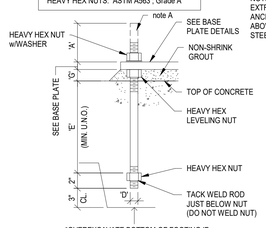


TYPICAL SAWED CONTROL JOINT DETAIL

N.T.S.

PROVIDE ANCHOR TEMPLATES AND PROTECT CAST-IN-PLACE ANCHORS FROM ACCIDENTAL DAMAGE DURING CONSTRUCTION

MATERIAL:
ANCHOR RODS : ASTM F1554 ; Grade 36
HEAVY HEX NUTS: ASTM A563 ; Grade A



*OVEREXCAVATE BOTTOM OF FOOTING IF REQUIRED TO MAINTAIN 3" CLEARANCE FROM BOTTOM OF BOLT TO EDGE OF CONCRETE.

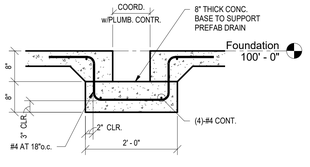
NOTE A: FIELD CUT EXTRA LENGTH OF ANCHOR RODS TO 1" ABOVE NUT AFTER STEEL IS PLUMBED

DIAMETER (inches)	'A' MIN.	'E'	'G'	MINIMUM CONCRETE THICKNESS*
1/2	4"	7"	1"	12"
5/8	4"	7"	1"	12"
3/4	4"	9"	1-1/2"	14"
7/8	4"	10-1/2"	1-1/2"	15-1/2"
1	4"	12"	1-1/2"	17"
1-1/4	5"	15"	2"	20"
1-1/2	5"	18"	3"	23"

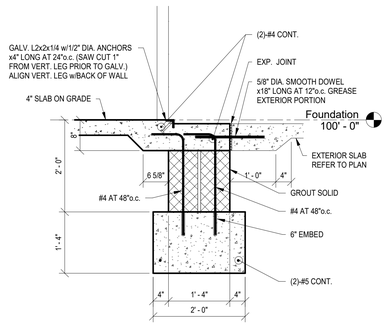
1. SHIMS MAY BE USED IN LIEU OF LEVELING NUT
2. ANCHOR ROD INSTALLER SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THREADS FROM DAMAGE AND ACCUMULATED CONCRETE DEBRIS.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL DESIGN FEES THAT MAY BE INCURRED BY THE CONTRACTOR IF ADDITIONAL SERVICES ARE REQUIRED TO CORRECT DAMAGED OR MISPLACED ANCHOR RODS.
4. REJECTED ANCHORS MAY RESULT IN REPLACEMENT OF THE FOUNDATION WITH NEW ANCHOR RODS PER THE ORIGINAL DESIGN.
5. GALVANIZE EXTERIOR EXPOSED ANCHOR RODS EITHER BY HOT-DIP GALVANIZING (ASTM A153) OR MECHANICAL GALVANIZING (ASTM B695). ALL THREADED COMPONENTS OF THE ANCHOR ROD ASSEMBLY MUST BE GALVANIZED BY THE SAME PROCESS.
6. GALVANIZED ANCHOR RODS AND NUTS SHALL BE PURCHASED FROM THE SAME SUPPLIER AND SHIPPED PREASSEMBLED.

AR ANCHOR ROD SCHEDULE

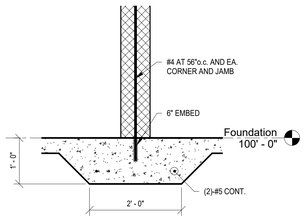
SCALE: NTS



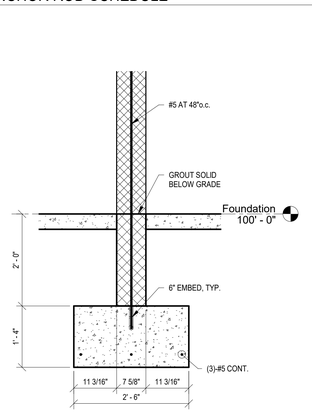
H
S201
3/4" = 1'-0"



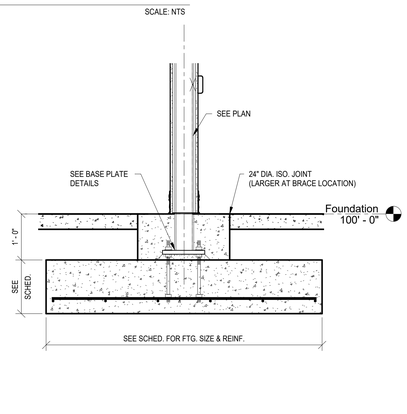
G
S201
3/4" = 1'-0"



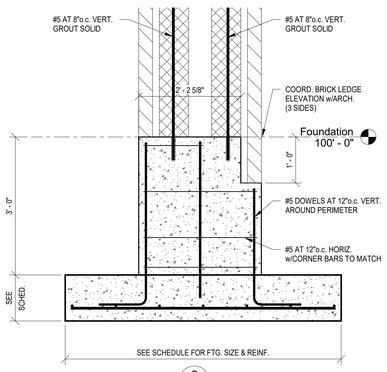
F
S201
3/4" = 1'-0"



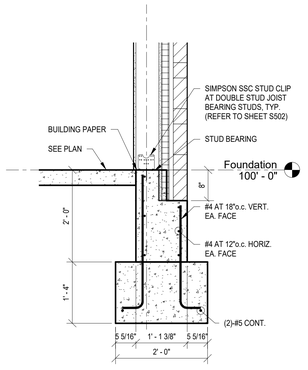
E
S201
3/4" = 1'-0"



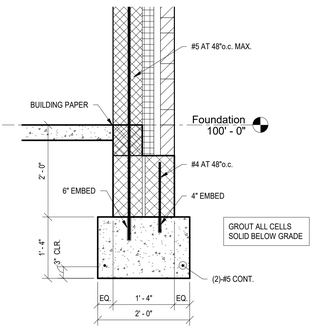
D
S201
3/4" = 1'-0"



C
S201
3/4" = 1'-0"



B
S201
3/4" = 1'-0"



A
S201
3/4" = 1'-0"

SHELL +MEYER ASSOCIATES INC
STRUCTURAL ENGINEERS
2202 E PATTERSON BLVD
DAYTON, OH 45409.1930
PH.937.298.4631
EMAIL@SHELLANDMEYER.COM

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

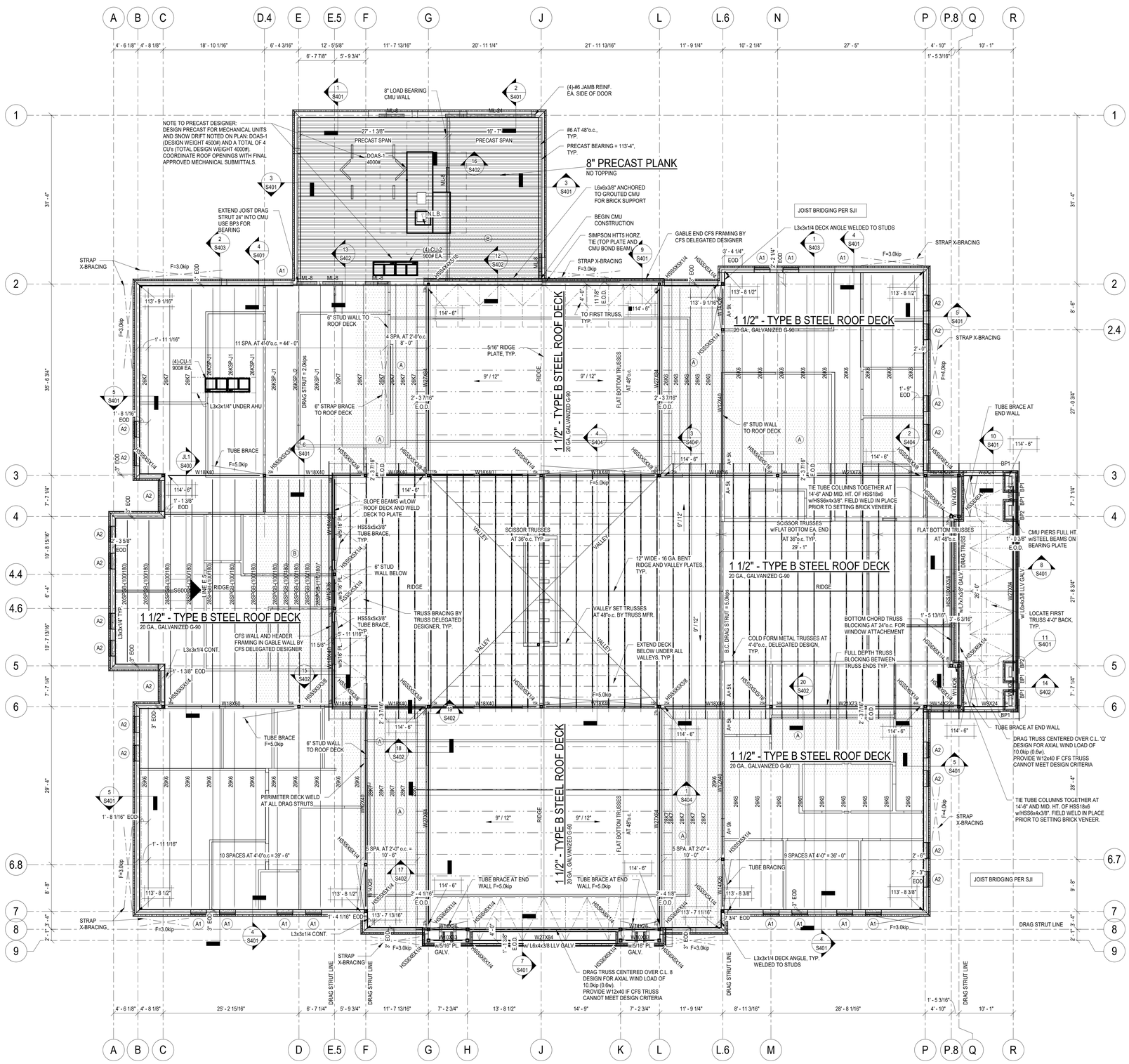
FOUNDATION SECTIONS

STATE OF OHIO CHRISTOPHER R. MEYER 69172 REGISTERED PROFESSIONAL ENGINEER

Comm. No.	Date
19651.00	2021/4/23
Drawn: JEY	Drawing No.: S201
Checked: CRM	

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C:\Users\thomas.ewry\Documents\19651.00 - Trotwood Municipal Court_R20_Struct_tewry.rvt
6/16/2021 11:56:21 AM


8" PRECAST PLANK
NO TOPPING
1 1/2" - TYPE B STEEL ROOF DECK
20 GA., GALVANIZED G-90
1 1/2" - TYPE B STEEL ROOF DECK
20 GA., GALVANIZED G-90
1 1/2" - TYPE B STEEL ROOF DECK
20 GA., GALVANIZED G-90
1 1/2" - TYPE B STEEL ROOF DECK
20 GA., GALVANIZED G-90
NOTE TO PRECAST DESIGNER: DESIGN PRECAST FOR MECHANICAL UNITS AND SNOW DRIFT NOTED ON PLAN: DOAS-1 (DESIGN WEIGHT 4500#) AND A TOTAL OF 4 CU's (TOTAL DESIGN WEIGHT 4000#). COORDINATE ROOF OPENINGS WITH FINAL APPROVED MECHANICAL SUBMITTALS.
8" LOAD BEARING CMU WALL
(4)-#6 JAMB REINF. EA. SIDE OF DOOR
#6 AT 48"o.c., TYP.
PRECAST BEARING = 113'-4", TYP.
27' - 1 3/8" PRECAST SPAN
16' - 7" PRECAST SPAN
DOAS-1 4000#
L6x6x3/8" ANCHORED TO GROUTED CMU FOR BRICK SUPPORT
BEGIN CMU CONSTRUCTION
SIMPSON HTT5 HORZ. TIE (TOP PLATE AND CMU BOND BEAM)
GABLE END CFS FRAMING BY CFS DELEGATED DESIGNER
JOIST BRIDGING PER SJI
L3x3x1/4 DECK ANGLE WELDED TO STUDS
STRAP X-BRACING
F=3.0kip
EXTEND JOIST DRAG STRUT 24" INTO CMU USE 8P3 FOR BEARING
(4)-CU-2 900# EA.
STRAP X-BRACING F=3.0kip
3' - 4 1/4" EOD
2' - 2 1/4" EOD
6" STUD WALL TO ROOF DECK
4 SPA. AT 2'-0"o.c. 8' - 0"
11 SPA. AT 4'-0"o.c. = 44' - 0"
5/16" RIDGE PLATE, TYP.
TO FIRST TRUSS, TYP.
4' - 4"
11 7/8" E.O.D.
114' - 6"
113' - 9 1/16"
113' - 8 1/2"
9" / 12"
RIDGE
FLAT BOTTOM TRUSSES AT 48"o.c.
W27X84
W12X40
W12X65
W18X40
W18X50
W21X73
W8X24
W14X26
W14X22
W14X30
W14X34
W14X38
W14X43
W14X48
W14X53
W14X61
W14X68
W14X74
W14X82
W14X90
W14X99
W14X109
W14X120
W14X132
W14X145
W14X159
W14X176
W14X193
W14X211
W14X233
W14X257
W14X283
W14X311
W14X342
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W14X500
W14X550
W14X605
W14X665
W14X730
W14X808
W14X873
W14X932
W14X1000
W14X1082
W14X1176
W14X1269
W14X1370
W14X1500
W14X1584
W14X1730
W14X1850
W14X1965
W14X2053
W14X2176
W14X2257
W14X2331
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W14X2605
W14X2660
W14X2730
W14X2808
W14X2873
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W14X3000
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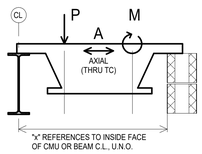
LOADING FOR SPECIAL JOISTS

GENERAL

1. LOADS INDICATED ARE UNFACTORED.
2. WIND LOADS SHALL BE USED IN THE LOAD COMBINATION EQUATIONS WITHOUT REDUCTION, UNLESS NOTED OTHERWISE.
3. DRAWINGS INDICATED ON THIS SHEET ARE FOR CONCEPTUAL PURPOSES ONLY. REFER TO PLANS, SCHEDULES, AND NOTES FOR ADDITIONAL DETAILS REGARDING JOIST SPECIFICATIONS.

LOAD COMBINATIONS PER ASCE 7-10 (ASD)

1. D
2. D + L
3. D + (Lr or S or R)
4. D + 0.75L + 0.75(Lr or S or R)
5. D + (0.6W)
6. D + 0.75L + 0.75(0.6W) + 0.75(Lr or S or R)
7. 0.6D + 0.6W



DEAD LOADS

BASED ON MAXIMUM JOIST SPACINGS GIVEN ON THIS SHEET THE MAXIMUM AND MINIMUM DEAD LOADS SHALL BE AS FOLLOWS:

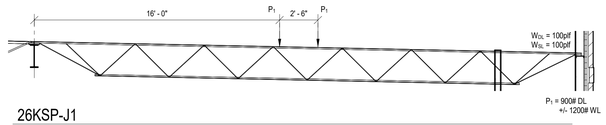
ROOF JOISTS -
MAXIMUM DEAD LOAD = 20 PSF
MINIMUM DEAD LOAD = 13.2 PSF
(MAXIMUM DL SHALL BE USED IN LOAD COMBINATIONS WITHOUT WIND)

LIVE LOADS

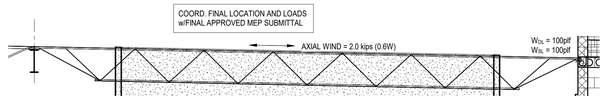
ROOF JOISTS
CHECK JOISTS FOR "REDUCED UNIFORM + DRIFT" LOAD CASE (SEE DIAGRAMS) AND ALSO THE "FULL UNIFORM LOAD CASE" = 25 PSF U.N.O.

STRUCTURAL BRACING LOADS

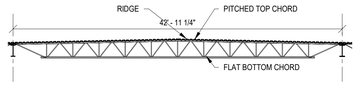
NO SPECIAL BRACING LOADS REQUIRED



26KSP-J1
N.T.S.



26KSP-J2
N.T.S.

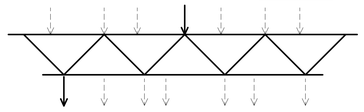


JL1 SPGB JOIST
1/8" = 1'-0"

LOADING CHECKS FOR ALL JOISTS

BEND CHECK

200 lbs.



- ALL JOISTS SHALL BE CHECKED FOR THE FOLLOWING BEND CHECK SO THAT ADDITIONAL STRUT REINFORCING IS NOT REQUIRED IF THE TOTAL ACCUMULATED LOAD BETWEEN ANY ONE PANEL POINT DOES NOT EXCEED THE TOTAL LOAD INDICATED.
- THE BEND CHECK ACTS AS A SINGLE CONCENTRATED LOAD AT ANY ONE LOCATION ALONG THE JOIST CHORD.
- APPLY TO BOTH TOP CHORD AND BOTTOM CHORD

JOIST SHOE ROLLOVER

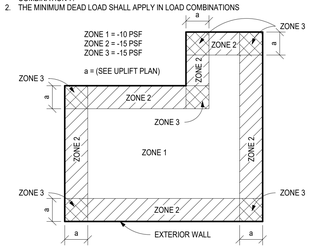


K-SERIES JOISTS

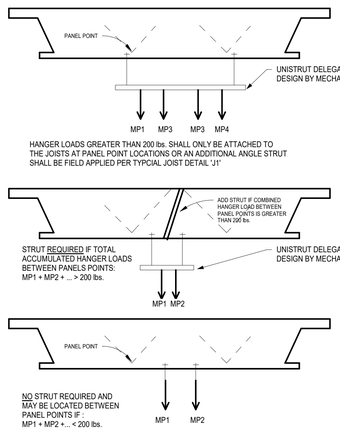
JOIST SPACING	FRO	LOCATION NOTES
4'-0" o.c.	1000 lbs.	LOW ROOF JOISTS

NET UPLIFT

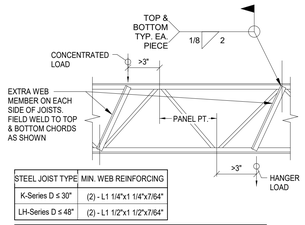
1. NET UPLIFT AS INDICATED BELOW SHALL BE CHECKED BY THE JOIST DESIGNER USING ASCE LOAD COMBINATION 7
2. THE MINIMUM DEAD LOAD SHALL APPLY IN LOAD COMBINATIONS



MECHANICAL PIPE RUN SUPPORTS



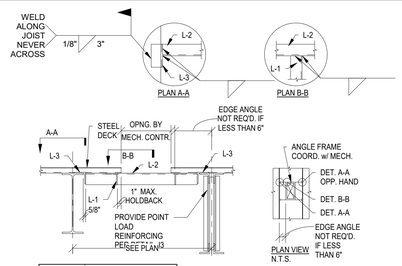
2 JOISTS AS MECHANICAL SUPPORTS
3/4" = 1'-0"



STEEL JOIST TYPE	MIN. WEB REINFORCING
K-Series D ≤ 30"	(2) - L1 1/4"x1 1/4"x7/64"
LH-Series D ≤ 48"	(2) - L1 1/2"x1 1/2"x7/64"

1. FOR ALL CONCENTRATED AND/OR HANGER LOADS GREATER THAN 200# AND LOCATED MORE THAN 3" FROM A PANEL POINT, STRUT ANGLES MUST BE INSTALLED TO DIRECT THE LOAD TO THE OPPOSITE PANEL POINT, AS SHOWN.
2. THIS DETAIL APPLIES TO ALL JOISTS WITH CONCENTRATED LOADS.
3. THE 200# "BEND CHECK" LIMIT IS THE SUM OF ALL CONCENTRATED LOADS BETWEEN ANY PAIR OF BAR JOIST PANEL POINTS.
4. REINFORCING REQUIRED IN ADDITION TO ALL STANDARD S.J.I. SPECIFICATIONS.

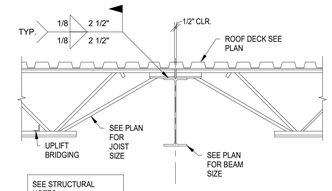
J1 JOIST REINFORCING DETAIL
FOR CONCENTRATED OR HANGER LOADS — SCALE: NTS



MEMBER	SIZE
L-1	L3x3x1/4"
L-2	L3x3x1/4"
L-3	L3x3x1/4" x 0'-6" LONG

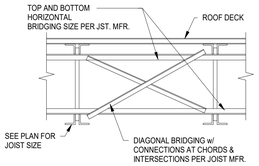
NOTES:
1. ALL WELDS 1/4" FILLET, U.N.O.
2. DECK TO BE FASTENED TO ANGLE FRAME
3. INCREASE HOLDBACK DIM. IF FIREPROOFING IS REQ'D.

$D11 STEEL DECK SUPPORT AT OPENINGS
ROOF DECK BETWEEN JOISTS OR BEAMS — SCALE: NTS

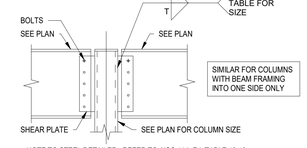


SEE STRUCTURAL NOTES FOR SIZE & SPACING OF HORZ. BRIDGING

J6 JOIST BEARING ON STEEL BEAM
SCALE: NTS



J4 DIAGONAL JOIST BRIDGING
WELDED — SCALE: NTS

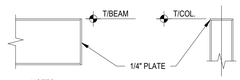


NOTE TO STEEL DETAILER: REFER TO AISC 14th Ed. TABLE 10-10a "DESIGN TABLE DISCUSSION" FOR CONNECTION DIMENSIONS NOT SHOWN

NOMINAL BEAM DEPTH	QTY. OF BOLTS (n) EA. PLATE	BOLT DIAM.	PLATE THICKNES S	PLATE WELD 'T'
W8,W10	2	3/4"	3/8"	1/4"
W12,W14	3	3/4"	3/8"	1/4"
W16	4	3/4"	3/8"	1/4"
W18	5	3/4"	3/8"	1/4"
W18x60	5	1"	1/2"	5/16"
W21	6	1"	1/2"	5/16"
W24	7	1"	1/2"	5/16"
W27	8	1"	1/2"	5/16"

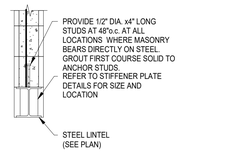
1. Bolts shall be ASTM A325 or F1852, U.N.O.

S1 TYP. SINGLE PLATE SHEAR CONNECTION
WIDE FLANGE BEAMS - HSS COLUMNS — SCALE: NTS

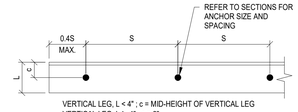


NOTES:
1. PROVIDE 1/4" CLOSURE PLATES ON TOPS AND ENDS OF ALL HSS COLUMNS AND BEAMS.
2. REFER TO MOMENT PLATE DETAILS, WHERE APPLICABLE, FOR SPECIAL CAP PLATE SIZE AND WELDING REQUIRMENTS.

S2 HSS STEEL CLOSURE PLATES
SCALE: NTS



S3 STEEL BEAM SUPPORTING MASONRY
SCALE: NTS

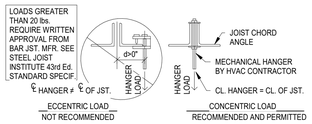


VERTICAL LEG, L < 4" ; c = MID-HEIGHT OF VERTICAL LEG
VERTICAL LEG, L ≥ 4" ; c = 2"

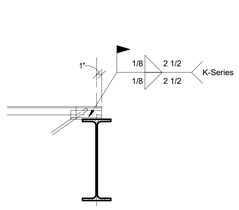
S9 TYPICAL BOLTED CONTINUOUS ANGLE
SPACING REQUIREMENTS — SCALE: NTS

JOIST SPECIFICATIONS

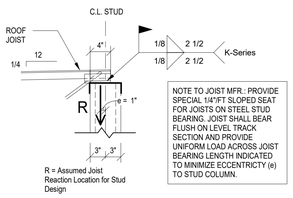
JOIST SPECIFICATION ITEM	NO	YES	ALL JOISTS	AS INDICATED	NOTES
SLOPED END BEARINGS REQUIRED		●		●	AT STUD BEARING LOCATIONS
BOTTOM CHORD CEILING EXTENSIONS REQUIRED	●				
JOIST HEADERS REQUIRED	●				
FIREPROOFING OF STEEL JOISTS REQUIRED	●				
STANDARD SHOP PAINT		●	●		
NON-STANDARD WEB OPENINGS REQUIRED	●				



J2 JOIST HANGERS
SCALE: NTS



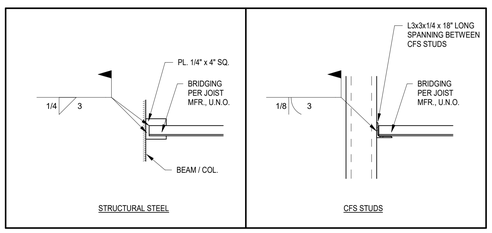
TYP. JOIST TO BEAM DETAIL (ONE SIDE)



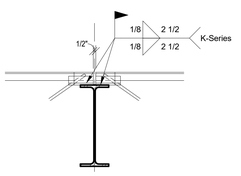
R = Assumed Joist Reaction Location for Stud Design

NOTE TO JOIST MFR.: PROVIDE SPECIAL 1/4"/FT SLOPED SEAT FOR JOISTS ON STEEL STUD BEARING. JOIST SHALL BEAR FLUSH ON LEVEL TRACK SECTION AND PROVIDE UNIFORM LOAD ACROSS JOIST BEARING LENGTH INDICATED TO MINIMIZE ECCENTRICTY (e) TO STUD COLUMN.

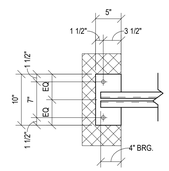
SPECIAL JOIST SHOE ON METAL STUDS



JB1 JOIST BRIDGING TERMINATION
1" = 1'-0"

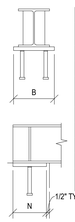


TYP. JOIST TO BEAM DETAIL (TWO SIDES)



TYPICAL SINGLE K-JOIST BEARING PLATE
1/2" x 5" x 10" w/ (2) 1/2" DIA. x 0'-6" LONG STUD ANCHORS AT 7" o.c.

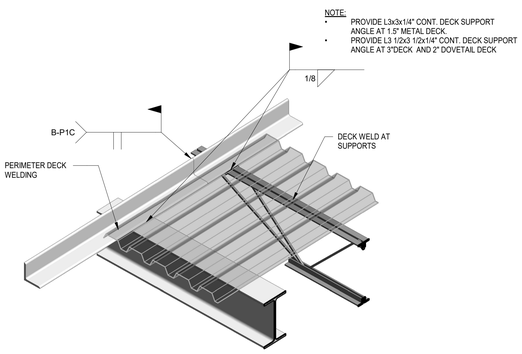
JOIST BEARING PLATE ON CMU
1" = 1'-0"



BEAM BEARING PLATE SCHEDULE			
MARK	PLATE SIZE t x N x B	ANCHORS	MAX. REACTION
BP1	1/2"x7 1/2" SQ.	(1) 5/8" DIA. STUDS x 7" LONG	
BP2	3/4"x18"x10"	(4) 5/8" DIA. STUDS x 12" LONG	
BP3	5/8"x7"x24"	(3) 5/8" DIA. STUDS x 7" LONG	

B = PLATE DIMENSION PERPENDICULAR TO BEAM END
N = PLATE DIMENSION PARALLEL TO BEAM END

BEARING PLATE NOTES:
1. SEE LINTEL BEARING DETAIL FOR ANCHORING REQUIREMENTS FOR LINTELS
2. FIELD WELD BEAMS TO PLATES WITH 1/4" FILLET WELD, 3" LONG, EACH SIDE, U.N.O.
3. USE (2)-3/4" DIA. STUDS x6" LONG FOR PLATES UP TO 16" WIDE, (3)-3/4" DIA. STUDS x8" LONG FOR PLATE UP TO 24" WIDE, AND (4)-3/4" DIA. STUDS x8" LONG FOR PLATES OVER 24" WIDE, OR ANCHORS AS SHOWN WHEN SUPPORTING MASONRY AND BEAM AXIS IS PARALLEL TO BEARING WALL.
4. STUDS SHALL BE LOCATED ALONG THE LONGEST DIMENSION OF THE BEARING PLATE AND SPACED NO MORE THAN 8"o.c. LOCATE STUDS 1" FROM PLATE EDGE WHEN LONGEST PLATE DIMENSION IS LESS THAN 10".
5. IN NO CASE SHALL A PLATE BE ORIENTED ON THE SUPPORTING WALL WITHOUT FULL WALL CONTACT UNDER THE PLATE. CONSULT ENGINEER PRIOR TO SETTING PLATE IF SUCH A CONDITION IS FOUND.
6. BEAMS WITH BEARING PLATES TO HAVE 3/8" STIFF. PLATES FOR BEAM DEPTH W14 TO W21, 1/2" STIFF. PLATES FOR W24 TO W27, AND 5/8" STIFF. PLATES FOR W30 AND LARGER.
7. GROUTING UNDER BEARING PLATES:
   7.1. GROUT WALL SOLID 3 COURSES BELOW BEAM BEARING x 1'-4" WIDE, UNLESS NOTED OTHERWISE ON MASONRY PLANS.
   7.2. GROUT ENTIRE BEARING WALL SEGMENT SOLID IF LESS THAN OR EQUAL TO 2'-0"
   7.3. GROUT WALL PIERS SOLID AS NOTED ON PLANS.
8. STEEL DETAILER SHALL PROVIDE TOP OF PLATE ELEVATIONS ON THE EMBED SHOP DRAWINGS FOR ACCURATE PLACEMENT OF BEAM BEARING PLATES IN MASONRY. REFERENCE ACTUAL BEAM DEPTHS FOR PROPER ELEVATIONS.



5 PERIMETER DECK ANGLE WELDS
3/4" = 1'-0"

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No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

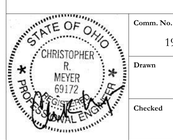
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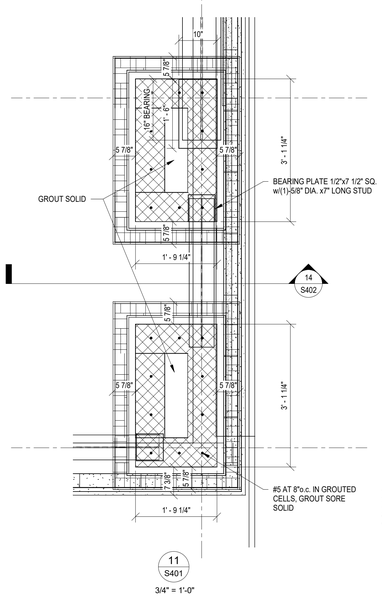
TYPICAL STEEL DETAILS

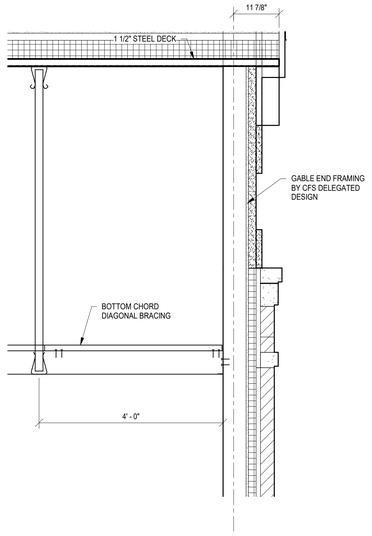


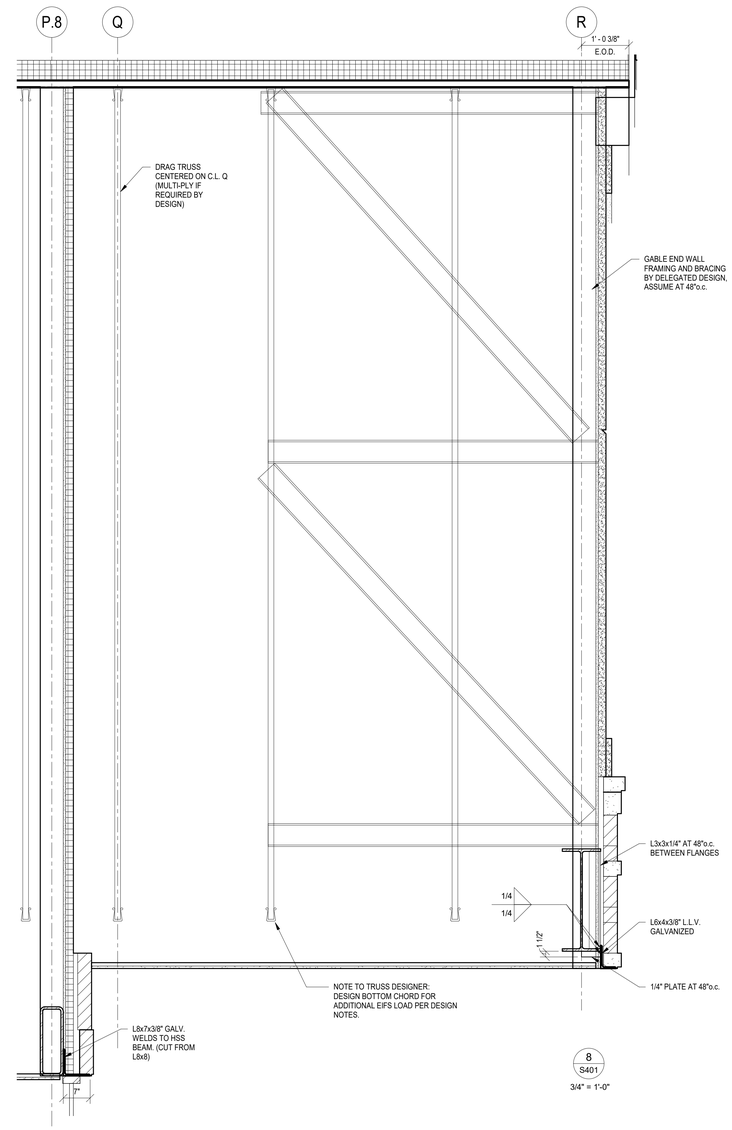
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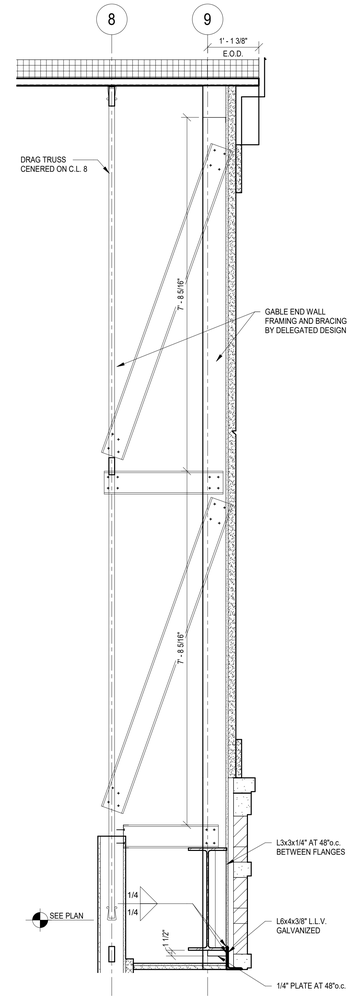
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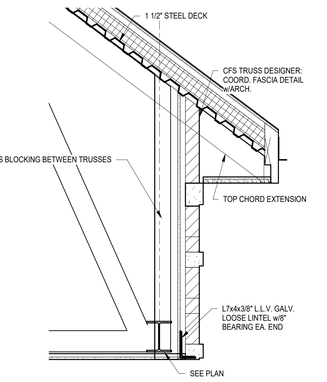
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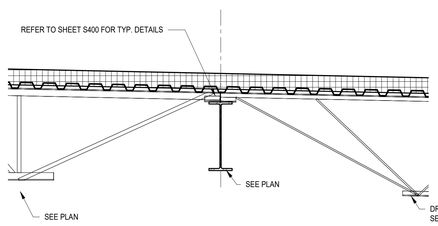


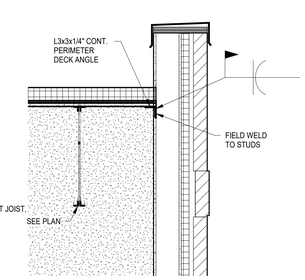


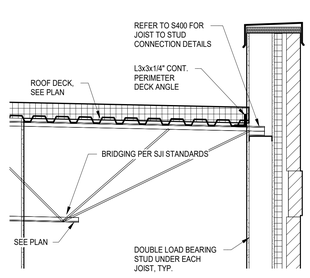


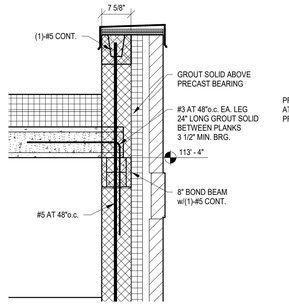


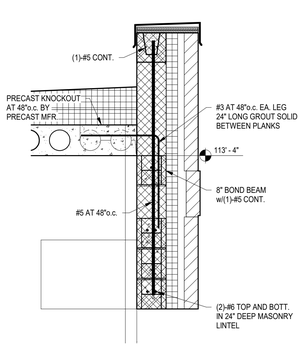


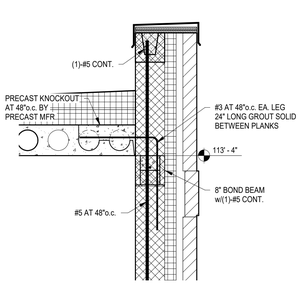












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No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
5	ISSUED FOR RE-BID	2021/06/16

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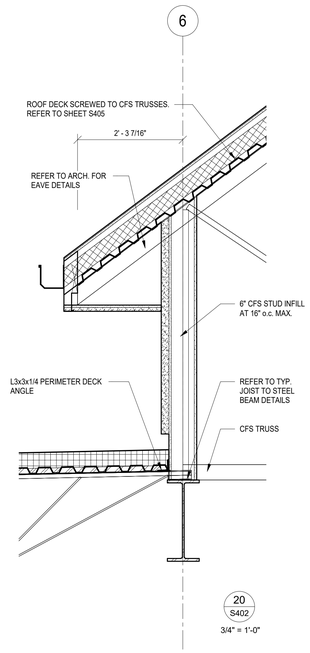
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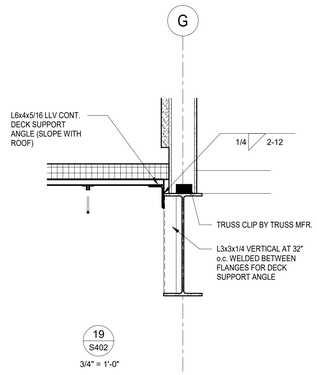
STATE OF OHIO CHRISTOPHER R. MEYER 69172 REGISTERED PROFESSIONAL ENGINEER

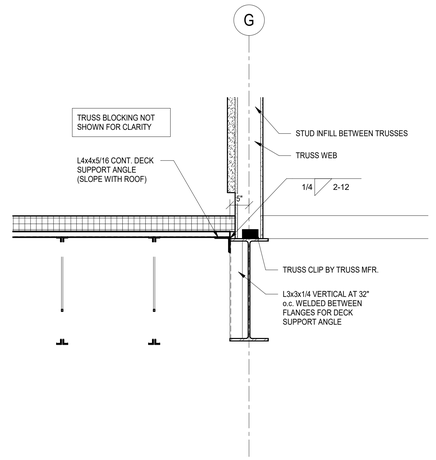
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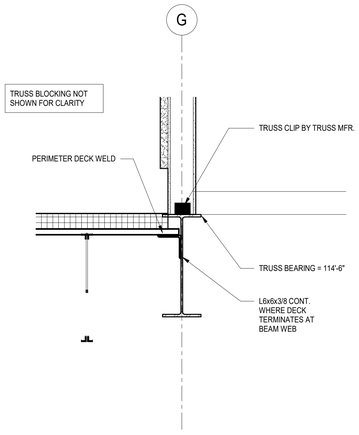
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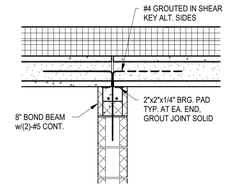




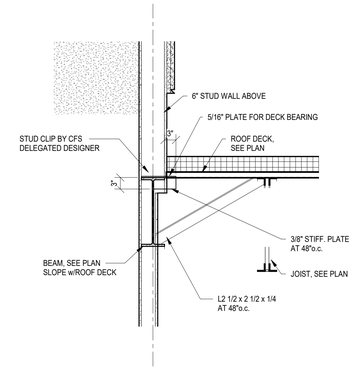
18 TYP. DECK AT BEAM FLANGE
3/4" = 1'-0"



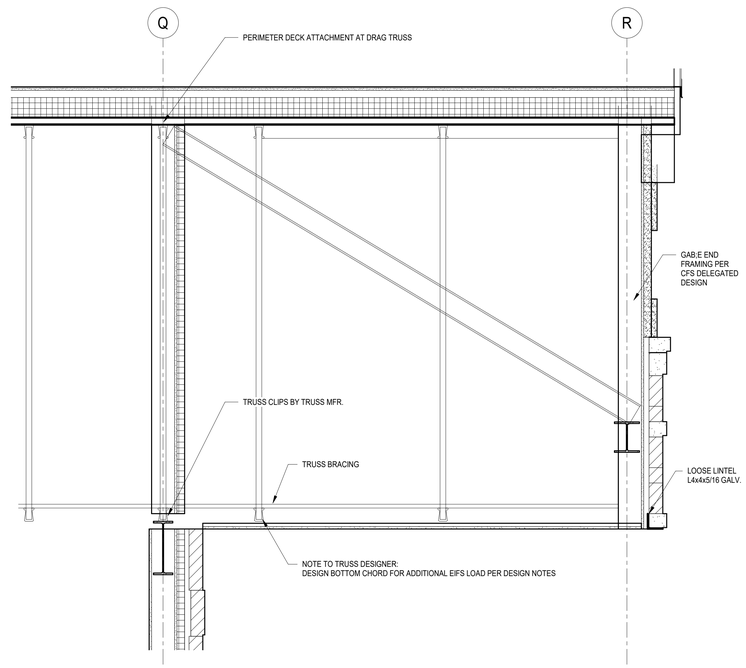
17 TYP. DECK TO BEAM WEB
3/4" = 1'-0"



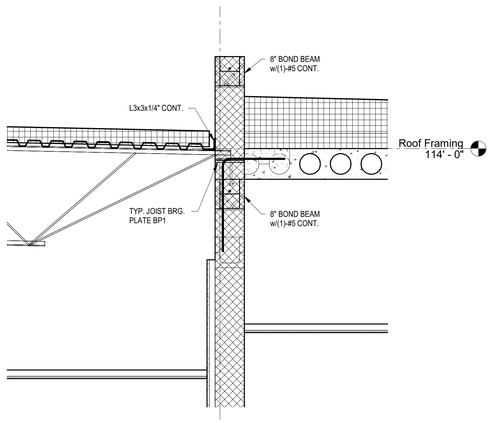
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S402
3/4" = 1'-0"



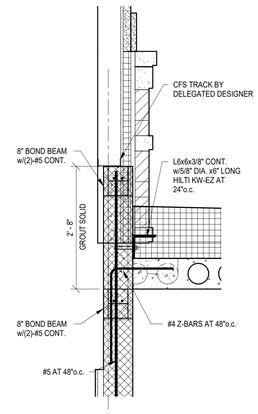
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S402
3/4" = 1'-0"



14
S402
3/4" = 1'-0"



13
S402
3/4" = 1'-0"



12
S402
3/4" = 1'-0"

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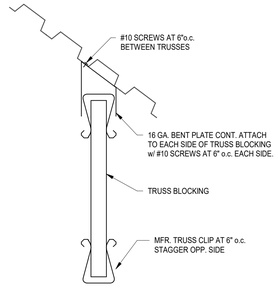
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CHRISTOPHER R. MEYER
69172
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PROFESSIONAL ENGINEER

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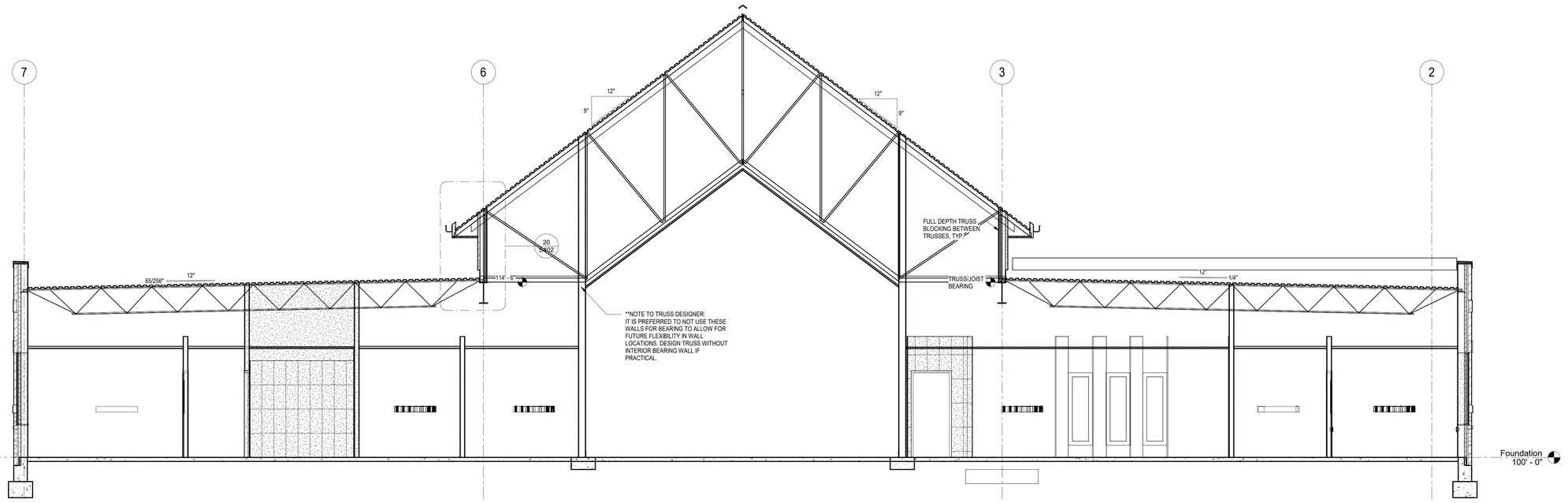
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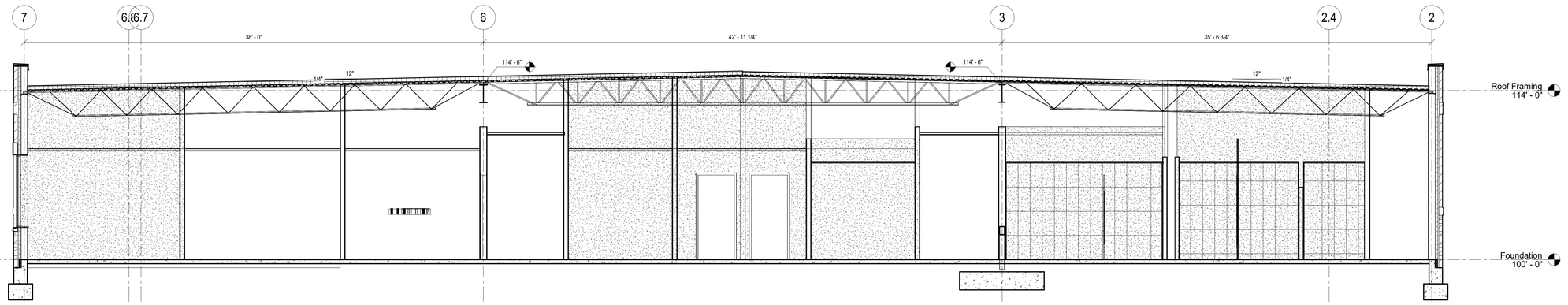
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TYP. TRUSS BLOCKING DETAIL
1 1/2" = 1'-0"



1 EAST LOW ROOF BUILDING SECTION
1/4" = 1'-0"



2 WEST LOW ROOF BUILDING SECTION
1/4" = 1'-0"

SHELL +MEYER
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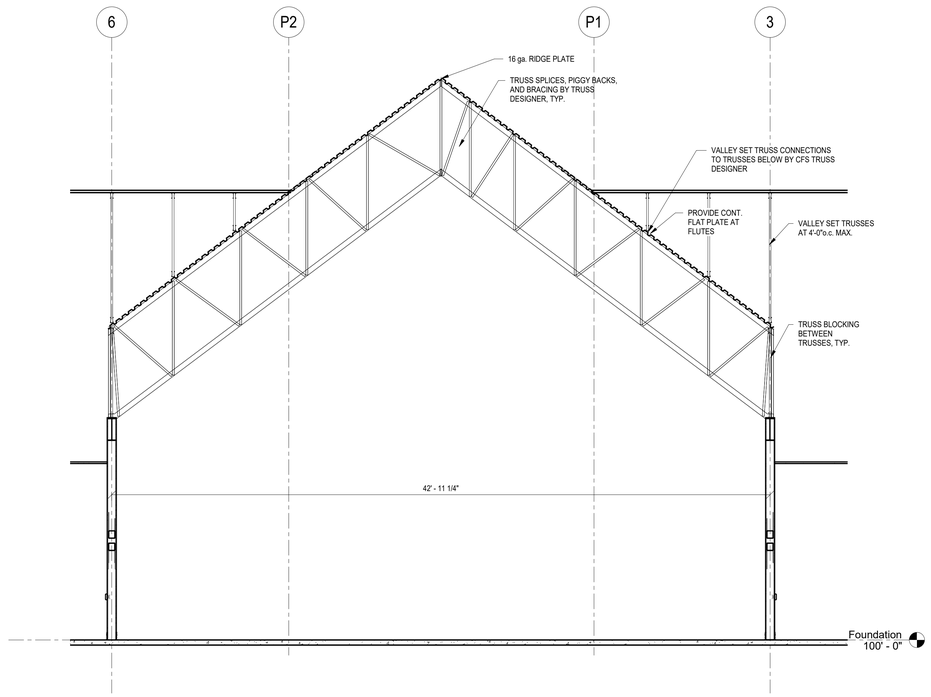
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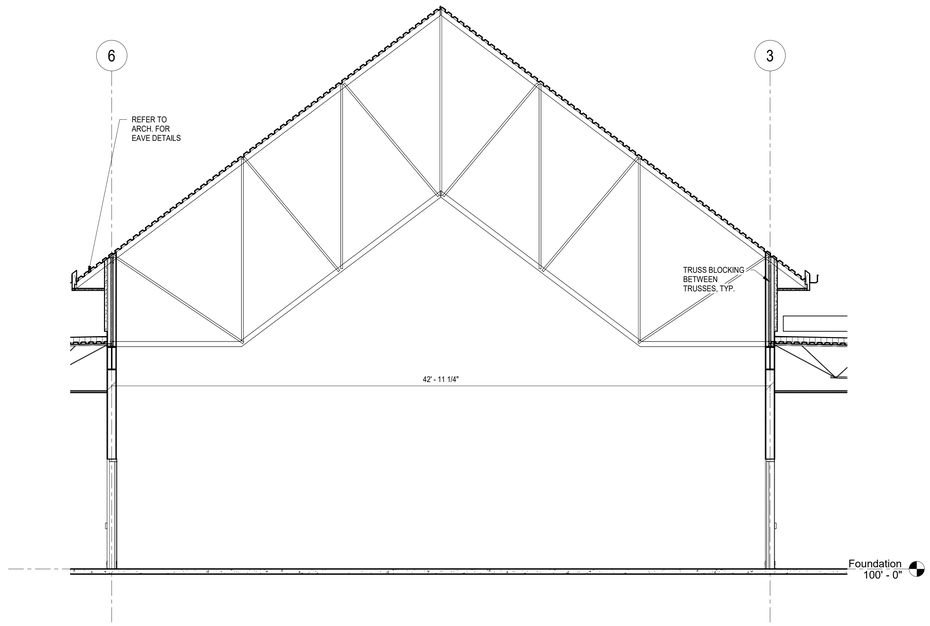
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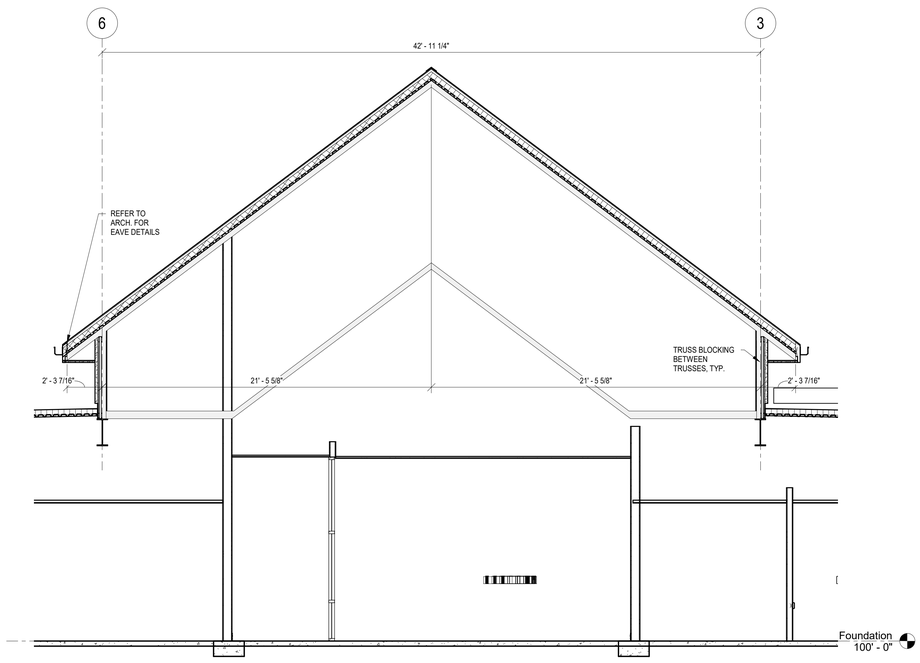
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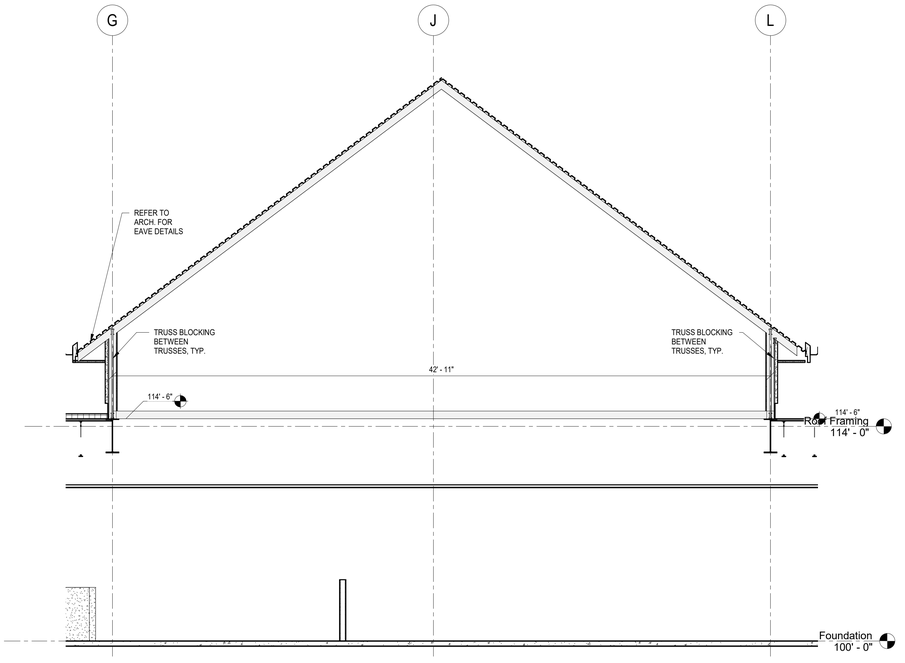
4 NORTH - SOUTH BOTTOM CHORD BEARING 15'-4 5/8"
1/4" = 1'-0"



3 NORTH - SOUTH BOTTOM CHORD BEARING 14'-6"
1/4" = 1'-0"



2 NORTH - SOUTH BOTTOM CHORD BEARING AT 14'-6"
1/4" = 1'-0"



1 EAST - WEST BOTTOM CHORD TRUSS
1/4" = 1'-0"

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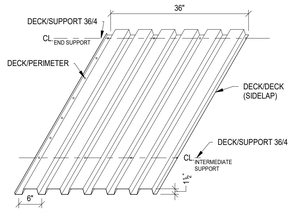
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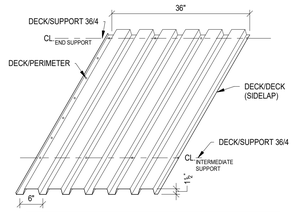
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LOCATION	ATTACHMENT
DECK/SUPPORTS	5/8" WELD
DECK/DECK SIDELAPS	#10 SCREWS AT 24"o.c.
DECK/PERIMETER	HILTI P.A.F. AT 12" o.c.

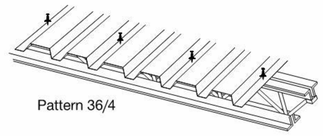
D1 STEEL DECK ATTACHMENT
TYPE 1.5B WIDE RIB - STEEL JOISTS SCALE: NTS



LOCATION	ATTACHMENT
DECK/SUPPORTS	#12 SCREWS
DECK/DECK SIDELAPS	#10 SCREWS (MIN. 3 BETWN. SPANS)
DECK/PERIMETER	#10 SCREWS AT 6"o.c.

D2 STEEL DECK ATTACHMENT
TYPE 1.5B WIDE RIB - COLD FORM STEEL TRUSSES SCALE: NTS

PROVIDE PERIMETER DECK ATTACHMENT TYPE AND SPACING AT DRAG STRUT LOCATIONS



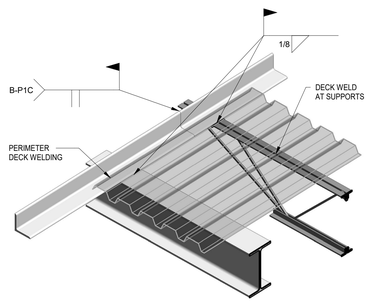
DECK SPECIFICATIONS

DECK SPECIFICATION ITEM	NO	YES		ALL DECK	AS INDICATED	NOTES
ACOUSTICAL DECK		●			●	
GALVANIZED DECK - G90		●		●		
STANDARD SHOP PRIME PAINT BOTTOM		●		●		
FIREPROOFING OF STEEL DECK REQUIRED	●					VERIFY WITH ARCHITECTURAL

MEMBER	SIZE
L-1	L3x3x1/4"
L-2	L3x3x1/4"
L-3	L3x3x1/4" x 0'-6" LONG

NOTES:
1. ALL WELDS 1/4" FILLET, U.N.O.
2. DECK TO BE FASTENED TO ANGLE FRAME
3. INCREASE HOLDBACK DIM. IF FIREPROOFING IS REQ'D.

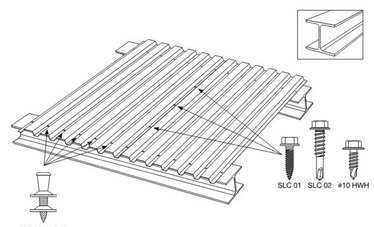
SD11 STEEL DECK SUPPORT AT OPENINGS
ROOF DECK BETWEEN JOISTS OR BEAMS SCALE: NTS

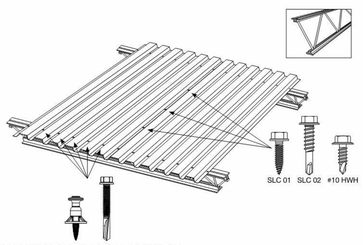


1 PERIMETER ANGLE AND DECK WELD DETAIL
SCALE: NTS

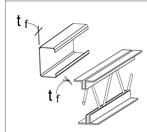
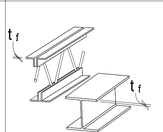
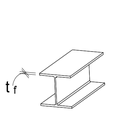
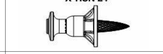
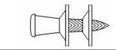
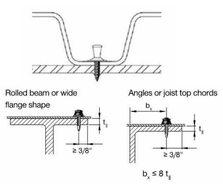
STEEL DECK NOTES:
1. STEEL DECK SHALL CONFIRM TO ASTM A653 AND SDI DESIGN MUNAUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS. STEEL DECK SHALL BE RECOGNIZED UNDER THE LATEST VERSION OF ICC-ES AC43 ACCEPTANCE CRITERIA FOR STEEL DECK, ROOF AND FLOOR SYSTEMS.
2. SHOP DRAWINGS INDICATING STEEL DECK LAYOUT, FASTENING METHOD AND PATTERN SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO STEEL DECK INSTALLATION.
3. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATIONS OF ALL ROOF OPENINGS, ROOF DRAIN DETAILS, SKYLIGHT AND ROOF HATCH DETAILS.
4. BEARING ELEVATIONS SHOWN ON DRAWINGS ARE MEASURED FROM 100'-0" REFERENCED FLOOR ELEV. BELOW TO BOTTOM OF JOIST SHOE.
5. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE STEEL DECK IS NOT DAMAGED PRIOR TO INSTALLATION DURING STORAGE, HANDLING AND ERECTION. DAMAGED STEEL DECK SHALL BE REPLACED.
6. STEEL DECK SHALL BE STORED OFF THE GROUND WITH ONE END ELEVATED TO PROVIDE DRAINAGE AND SHOULD BE PROTECTED FROM THE ELEMENTS WITH A WATERPROOF COVERING VENTILATED TO PREVENT CONDENSATION.
7. STEEL DECK PANELS SHALL BE PLACED STRAIGHT AND TRUE WITH A MAXIMUM 1/4-INCH HORIZONTAL MISALIGNMENT IN 100 FEET LENGTH. STEEL DECK SHALL BE MARKED OVER JOIST CHORDS PRIOR TO FASTENING TO PREVENT WELD BURN THROUGH OR MECHANICAL FASTENER PUNCH THROUGH.
8. STEEL DECK SHALL SPAN A MINIMUM OF 3 SPANS TYPICAL UNLESS NOTED OTHERWISE.
9. ENDLAPS OF STEEL DECK SHALL OVERLAP ADJACENT SHEETS A MINIMUM OF 2 INCHES UNLESS NOTED OTHERWISE.
10. STEEL DECK SHALL BE INSTALLED IN ACCORDANCE WITH FM, UL AND ICC-ES AC43 DESIGNS.
11. ACCESSORIES, RIDGE AND VALLEY PLATES, SUMP PANS AND CLOSURE PIECES SHALL BE OF THE SAME MATERIAL AND COATING AS THE ADJACENT STEEL DECK.
12. FRAMING AROUND TYPICAL OPENINGS SHALL BE IN ACCORDANCE WITH STANDARD PRACTICE DETAILS PROVIDED IN SDI DECK DAMAGE AND PENETRATIONS.
13. CONTRACTOR SHALL VERIFY THE WEIGHTS AND LOCATIONS OF ALL MECHANICAL UNITS SHOWN ON THE DRAWINGS, AND REPORT FINDINGS AND ANY DEVIATIONS TO THE STRUCTURAL ENGINEER OF RECORD.
14. HANGERS OR ACCESSORY POINT LOADS SHALL NOT BE SUPPORTED FROM STEEL DECK WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.
15. WHERE SHOWN ON DRAWINGS, DECK ACCESSORIES SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

MECHANICAL FASTENERS NOTES (DECK TO 'K' AND 'LH' JOISTS):
1. INSTALL POWDER-ACTUATED FASTENERS ACCORDING TO THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII).
2. POWDER-ACTUATED FASTENERS SHALL BE MANUFACTURED FROM AISI 1070 MODIFIED STEEL, AUSTEMPERED TO A ROCKWELL C HARDNESS OF 52-58. FASTENERS SHALL HAVE MINIMUM TENSILE AND SHEAR STRENGTHS OF 285 KSI AND 182 KSI RESPECTIVELY.
3. SCREW FRAME FASTENERS SHALL BE MANUFACTURED FROM GRADE 1010 TO 1022 OR 10B08 TO 10B22 CARBON STEEL PER ASTM A510.
4. POWDER-ACTUATED FASTENERS SHALL HAVE BALLISTIC POINTS, FULL TIP KNURLED SHANKS AND MINIMUM 12-mm DIAMETER STEEL WASHERS.
5. SCREW FRAME FASTENERS SHALL HAVE WAVE FORM CUTTING EDGE SELF-DRILLING TIPS AND HEX WASHER HEADS.
6. POWDER-ACTUATED FASTENERS AND SCREW FRAME FASTENERS SHALL BE ZINC PLATED TO A THICKNESS OF 5mm IN ACCORDANCE WITH ASTM B633, SC. 1, TYPE III.
7. EVALUATIONS:
   A. POWDER-ACTUATED AND SCREW FRAME FASTENERS SHALL BE SDI LISTED FOR DIAPHRAGM DESIGN AND WIND UPLIFT, UL AND FM LISTED FOR FIRE RESISTANCE AND WIND UPLIFT.
   B. POWDER ACTUATED FASTENERS SHALL BE RECOGNIZED BY ICC-ES FOR DIAPHRAGM SHEAR STRENGTH IN ACCORDANCE WITH THE LATEST VERSION OF ICC-ES AC43.
   C. SIDELAP CONNECTORS SHALL BE FM LISTED FOR WIND UPLIFT AND RECOGNIZED BY ICC-ES FOR DIAPHRAGM SHEAR STRENGTH AND STIFFNESS IN ACCORDANCE WITH THE LATEST VERSION OF ICC-ES AC 43.
8. APPROVED FRAME FASTENERS SHALL BE HILTI X-HSN 24 OR X-ENP-19 POWDER-ACTUATED FASTENERS OR HILTI S-MD 12-24X1-5/8 HWH5 SCREW FASTENERS AT LOCATIONS AND SPACING SHOWN ON DRAWINGS.
9. SIDELAP CONNECTORS SHALL BE HILTI S-SLC 01 M HWH OR S-SLC 02 M HWH OR APPROVED EQUAL AT LOCATIONS AND SPACING SHOWN ON DRAWINGS. BUTTON PUNCHES ARE NOT PERMITTED.
10. POWDER-ACTUATED FASTENERS ON EXPOSED ROOF DECKS SHALL BE COVERED WITH STAINLESS STEEL SEALING CAPS CONFORMING TO SAE 316 WITH INTERNAL AND EXTERNAL DIAMETERS OF 7 AND 22 mm RESPECTIVELY AND INTEGRAL BLACK, CLOSED-CELL NEOPRENE WASHERS WITH 0.200 g/cm³ DENSITY.
11. SIDELAP CONNECTORS ON EXPOSED ROOF DECKS SHALL BE HILTI S-MD1/4-14 X 7/8 HWH STITCH KWIK SEAL SIDELAP CONNECTORS WITH INTEGRAL BLACK, CLOSED-CELL NEOPRENE SEALING WASHERS.
12. CONNECTORS OF EQUAL DESIGN CAPACITY FROM SIMPSON STRONG TIE OR POWERS FASTENERS MAY BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL.

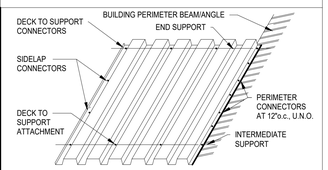




X-HSN 24 or S-MD 12-24 x 1-5/8 M HWH5 (Racing Tip 5)

JOISTS AND COLD FORM STEEL FRAMING	JOISTS AND STEEL BEAMS	STEEL BEAMS
16 Ga. ≤ t_f ≤ 1/8"	1/8" ≤ t_f ≤ 3/8"	t_f ≥ 1/4"
		
S-MD 12-24x1-5/8 M HWH5	**X-HSN 24**	**X-ENP-19 L15**
		
		

DECK TO SUPPORT CONNECTORS



SD1 STEEL DECK ISOMETRIC DETAIL
SCALE: NTS

S-SLC 01 M HWH	S-SLC O2 MHWH
	
18 GA. - 26 GA. STEEL DECK	16 GA. - 22 GA. STEEL DECK

USE OF S-SLC 01 M HWH WITH 18 GA. STEEL DECK IS RECOMMENDED ONLY FOR STANDARD TENSILE STRENGTH (45 KSI ≤ Fu ≤ 65 KSI) STEEL DECK. FOR HIGH TENSILE STRENGTH (Fu > 65 KSI) 18 GA. STEEL DECK, USE S-SLC 02 M HWH.

Hilti #10 HWH Screw



TYPE 'B' DECK, TYPICAL, U.N.O.

SLC-01 and SLC-02 Sidelap Fasteners



TYPE 'B' INTERLOCKING DECK

SIDELAP CONNECTORS

SHELL +MEYER ASSOCIATES INC
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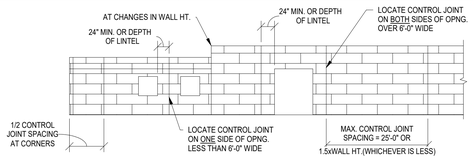
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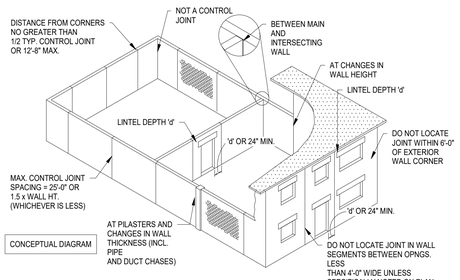
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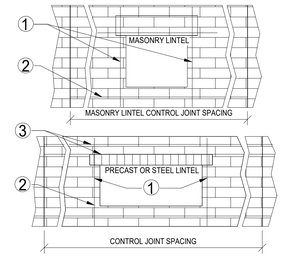
CONCEPTUAL DIAGRAM

GENERAL NOTES:

A. THE CONTROL JOINTS INDICATED APPLY TO STANDARD CONCRETE MASONRY UNITS (CMU) ONLY. SPECIAL BLOCKS (SPLIT FACE, etc.) MAY REQUIRE ADDITIONAL JOINTS.
B. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR BRICK VENEER EXPANSION JOINT LOCATIONS. THE LOCATIONS OF BRICK VENEER EXPANSION JOINTS AND CMU CONTROL JOINTS ARE NOT REQUIRED TO BE ALIGNED, UNLESS SPECIFICALLY NOTED.
C. THE JOINT LOCATIONS NOTED ARE TYPICAL U.N.O. REFER TO STRUCTURAL PLANS OR STRUCTURAL WALL ELEVATIONS FOR LOCATIONS THAT SUPERSEDE THIS DETAIL.
D. LOCATIONS NOTED APPLY TO ALL BLOCK WALLS: INTERIOR AND EXTERIOR, LOAD BEARING AND NON-LOAD BEARING.
E. MINIMUM HORZ. JOINT REINFORCING FOR ALL WALLS SHALL BE 2 x W1.7 (9 Ga.) AT 16"o.c. MAX. U.N.O.
F. THE INTENT OF THE CONTROL JOINT IS TO LIMIT THE QUANTITY AND SIZE CRACKING.
G. LOCATE (1) VERTICAL REINFORCING BAR EACH SIDE OF CONTROL JOINT AND STOP ALL HORIZONTAL JOINT REIFORCING AT JOINTS (EXCEP BOND BEAMS AT ROOF AND/OR FLOOR BEARING). USE PREFORMED GASKET AT CONTROL JOINTS LOCATED IN EXTERIOR WALLS. REFER TO TYPICAL CONTROL JOINT DETAILS ON THIS SHEET FOR ADDITIONAL INFORMATION.
H. HORIZONTAL REINFORCEMENT FOR THE SOLE PURPOSE OF CONTROLLING SHRINKAGE CRACKING, SHALL BE DISCONTINUED AT THE CONTROL JOINT LOCATION. FOR BOND BEAMS LOCATED AT FLOOR AND ROOF LEVELS, THE REINFORCEMENT SHALL BE CONTINUOUS THROUGH THE CONTROL JOINT.
I. WHEN DISCONTINUING HORIZONTAL BOND BEAM REINFORCEMENT AT A CONTROL JOINT, THE CROSS WEBS DIRECTLY ADJACENT TO THE CONTROL JOINT SHALL BE FULLY MORTARED TO PREVENT GROUT FROM SEEPING INTO THE HEAD JOINT AND BONDING THE TWO MASONRY PANELS TOGETHER.

MCJ .....ON PLAN, INDICATES MASONRY CONTROL JOINT LOCATIONS DETERMINED BY STRUCTURAL ENGINEER OF RECORD. THESE LOCATIONS SUPERCEDE PRESCRIPTIVE "NCMA" RECOMMENDATIONS SUMMARIZED IN THIS DETAIL. NON-LOAD BEARING WALLS DO NOT HAVE MCJ INDICATED, BUT STILL REQUIRE JOINTS AS SHOWN HERE.

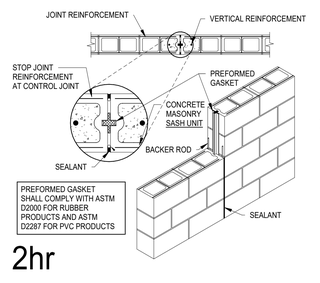
KEYED NOTES:
1. VERTICAL REINFORCING IN GROUTED CELL EACH SIDE OF OPENING (TYP.). ALTERNATIVELY, MAY PLACE REINF. IN SECOND CELL FROM OPENING. HOWEVER, BOTH CELLS ADJACENT TO OPENING SHALL BE GROUTED SOLID.
2. LADDER JOINT REINF. IN FIRST OR SECOND MORTAR JOINT BELOW SILL FROM CONTROL JOINT OR REINFORCED BOND BEAM BELOW SILL.
3. LADDER JOINT REINFORCING IN FIRST TWO JOINTS ABOVE OPENING FROM CONTROL JOINT TO CONTROL JOINT.



CJ TYPICAL CONTROL JOINT LOCATIONS IN CONCRETE MASONRY , U.N.O.

REFERENCE: NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) TEK NOTE 10-2C (2010)

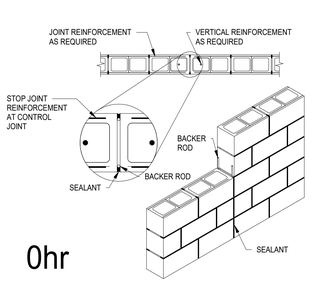
SCALE: NTS



CJ2 PREFORMED GASKET CONTROL JOINT

MAINTAINS 2-HOUR ASSEMBLAGE FIRE RATING. WILL TRANSFER OUT OF PLANE LOADS ACROSS JOINT

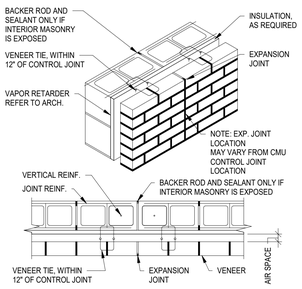
SCALE: NTS



CJ0 BASIC CONTROL JOINT

NO FIRE RATING
WILL NOT TRANSFER OUT OF PLANE LOADS ACROSS JOINT

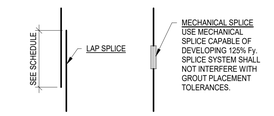
SCALE: NTS



MINIMUM LAP SPLICE SCHEDULE

BAR SIZE	LAP LENGTH[1]
#3	27"
#4	36"
#5	45"
#6 THRU #9	* MECH. SPLICE REQ'D *

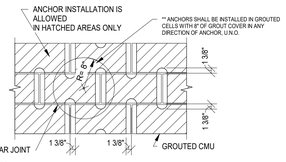
1 - Increase length by 50% for epoxy coated reinforcing
2 - Where lap exceedes 45" use mechanical couplers able to develop 125% F



M4 REINFORCEMENT SPLICES

Reference: OHIO BUILDING CODE 2011, 100% Bar Stress

SCALE: NTS



NOTES:
1. VALUES ARE FOR ANCHORS INSTALLED IN TYPE 1 - GRADE N, LIGHTWEIGHT, MEDIUM-WEIGHT, OR NORMAL-WEIGHT CONCRETE MASONRY UNITS CONFORMING TO UBC STANDARD 21-4. THE MASONRY UNITS MUST BE FULLY GROUTED WITH COARSE GROUT CONFORMING TO UBC STANDARD 21-15, TYPE S, N, OR M. MASONRY PRISM COMPRESSIVE STRENGTH MUST BE AT LEAST 1500psi AT THE TIME OF INSTALLATION WHEN TESTED IN ACCORDANCE WITH UBC STANDARD 21-17.
2. ANCHORS MUST BE INSTALLED A MINIMUM OF 1 3/8" FROM ANY VERTICAL MORTAR JOINT (SEE FIGURE).
3. ANCHOR LOCATIONS ARE LIMITED TO ONE PER MASONRY CELL.
4. EMBEDMENT DEPTH IS MEASURED FROM THE OUTSIDE FACE OF THE CONCRETE MASONRY UNIT.

M5 MASONRY ANCHORS

HEAD JOINT CLEARANCES

SCALE: NTS



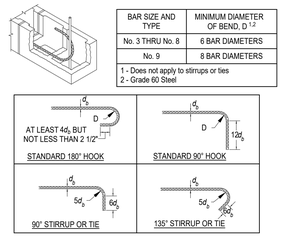
1. PROVIDE BAR POSITIONERS IN ALL MASONRY WALLS.
2. SIZE POSITIONER APPROPRIATELY BASED ON WALL WIDTH, REINF. SIZE, AND SPECIFIED REINFORCING LOCATION WITHIN THE CELL.
3. LOCATE POSITIONERS WITHIN REINFORCED CELLS AS FOLLOWS:

WALL HEIGHTS UP TO 9'-8"
LOCATE POSITIONERS AT TOP OF FIRST COURSE AND ONE COURSE BELOW TOP OF WALL.
WALL HTS. GREATER THAN 9'-8" UP TO 18'-0"
LOCATE POSITIONERS AT TOP OF FIRST COURSE. MID HT. OF WALL AND ONE COURSE BELOW TOP OF WALL.
WALL HTS. GREATER THAN 18'-0"
LOCATE POSITIONERS AT TOP OF FIRST COURSE, ONE COURSE BELOW TOP OF WALL, AND INTERMEDIATELY SPACED SO AS NOT TO EXCEED A VERTICALLY SPACING OF 8'-4"o.c.

SUPPORT REINFORCEMENT TO PREVENT DISPLACEMENT CAUSED BY CONSTRUCTION LOADS OR BY PLACEMENT OF GROUT OR MORTAR, BEYOND THE ALLOWABLE TOLERANCES. Ref: MSJC Specification 3.4.B.1

M6 REINFORCING BAR POSITIONERS

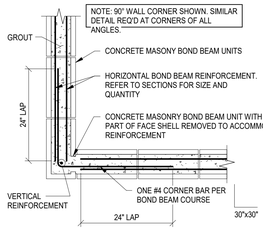
SCALE: NTS



THE TERMINATION OF HORIZONTAL SHEAR REINFORCEMENT SHOULD BE ANCHORED AROUND VERTICAL REINFORCEMENT WITH A STANDARD 180° HOOK AS ILLUSTRATED. SPACE TO ACCOMMODATE THE HOOK IS LIMITED (ESPECIALLY IN SMALLER WYTHES); THEREFORE THE HOOK MAY NEED TO BE PLACED ON AN ANGLE WITHIN THE BOND BEAM AS SHOWN.

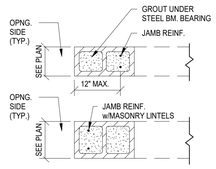
M3 REINFORCING HOOK DETAILS

SCALE: NTS



M10 BOND BEAM CORNER DETAIL

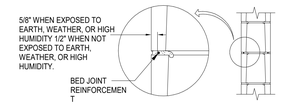
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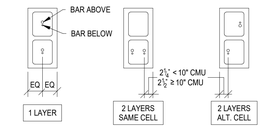
DETAIL NOTES:
1. JAMB REINFORCING SHALL ALWAYS CONSIST OF 2 BARS
2. JAMB REINFORCING SIZE SHALL BE THE GREATER OF THE WALL REINFORCING SIZE OR #5
3. SHIFT JAMB REINF. TO ADJACENT CELL BEYOND BEAM BEARING FOR STEEL LINTELS
4. JAMB REINFORCING FOR MASONRY LINTELS IS TO CONTINUE THROUGH MASONRY LINTEL

M18 JAMB REINFORCING DETAIL

SCALE: NTS



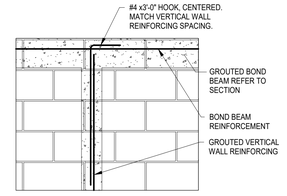
JOINT REINFORCEMENT



BAR REINFORCEMENT

M2 REINFORCEMENT COVER

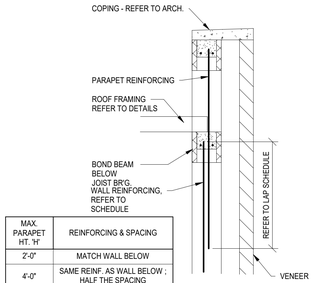
SCALE: NTS



M11 BOND BEAM DETAIL

INTERSECTION OF VERTICAL AND BOND BEAM REINFORCING

SCALE: NTS



MAX. PARAPET HT. 'H'	REINFORCING & SPACING
2'-0"	MATCH WALL BELOW
4'-0"	SAME REINF. AS WALL BELOW ; HALF THE SPACING
6'-0"	(2) #6 AT 16" o.c.

M21 CMU PARAPET DETAIL

SCALE: NTS

Required Net Area Compressive Strength of ASTM C90 Concrete Masonry UNITS

2650 psi

Compressive Design Strength of concrete masonry assembly (including CMU, mortar, grout)

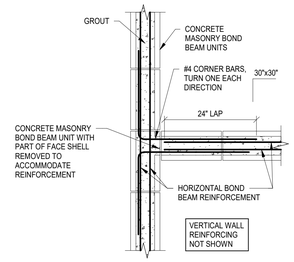
f ' m = 2000 psi

LOCATION	MORTAR TYPE
EXTERIOR, ABOVE GRADE, LOAD BEARING	M or S
AT OR BELOW GRADE	S
INTERIOR, LOAD BEARING	N
SHEARWALLS	N
NON-LOAD BEARING	N

MINIMUM 28 DAY GROUT DESIGN COMPRESSIVE STRENGTH = 2500 psi

M0 MASONRY AND CMU STRENGTHS

SCALE: NTS



M14 BOND BEAM INTERSECTION DETAIL

SCALE: NTS

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DAYTON, OH 45409.1930
PH.937.298.4631
EMAIL@SHELLANDMEYER.COM

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

TYP. MASONRY DETAILS

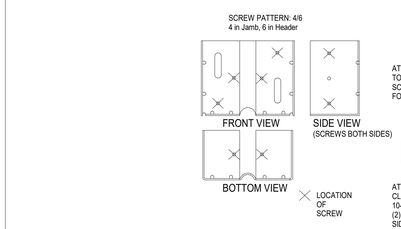
STATE OF OHIO · CHRISTOPHER R. MEYER 69172 · REGISTERED PROFESSIONAL ENGINEER

Comm. No. 19651.00	Date 2021/4/23
Drawn JEY	Drawing No. S500
Checked CRM	

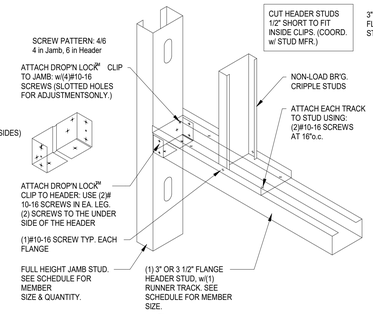
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6/16/2021 11:56:37 AM

NON-LOAD BEARING HEADER AND JAMB DETAILS (CLARK DIETRICH REDHEADER RO ASSEMBLY)

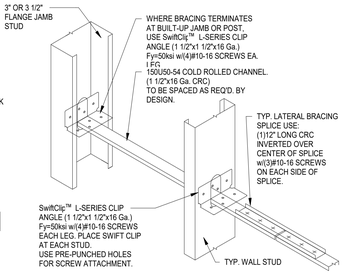


1. USE 14 Ga. (68 mil.) DROP 'N LOCK CLIP WITH A 4/6 SCREW PATTERN.



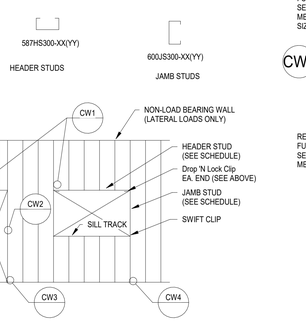
CW1 REDHEADER RO™ CONNECTION

CURTAIN WALL 3" OR 3 1/2" FLANGE HEADER USING:
(1) HEADER STUD w/(1) TRACK

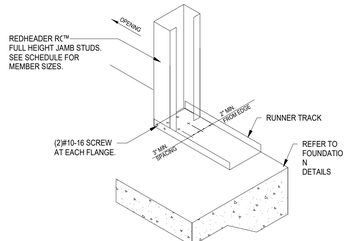


CW2 JAMB LATERAL BRACING

CRC LATERAL BRACING w/SwiftClips

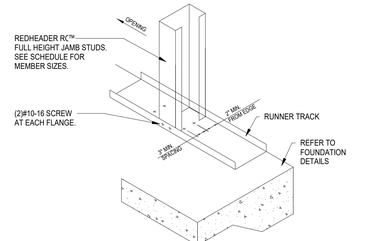


1. JAMB STUD GAGE SHALL BE EQUAL TO OR GREATER THAN THE HEADER STUD GAGE.
2. ALL DROP 'N LOCK CLIPS SHALL BE 68 mils (14 Ga.) FOR ALL CLIPS (20 Ga. OPTION WILL NOT BE ACCEPTED).
3. CUT HEADER STUD 1/2" SHORT TO FIT INSIDE CLIPS.



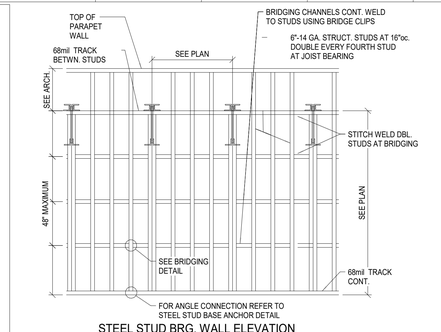
CW3 REDHEADER RO™ JAMB ANCHORAGE

DOOR JAMB ANCHORAGE TO STRUCTURE



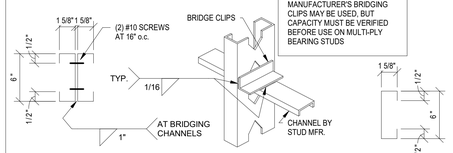
CW4 REDHEADER RO™ JAMB ANCHORAGE

WINDOW JAMB ANCHORAGE TO STRUCTURE

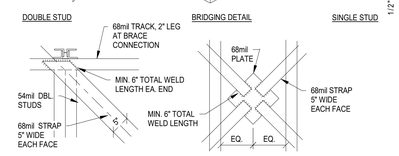


STEEL STUD BRG. WALL ELEVATION

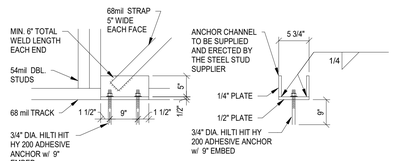
N.T.S.



DOUBLE STUD | BRIDGING DETAIL | SINGLE STUD



TOP ANCHOR DETAIL | SPLICE DETAIL



BOTTOM ANCHOR DETAIL

STRAP BRACING DETAILS

N.T.S.

COLD FORMED STEEL FRAMING NOTES

1. DESIGN, FABRICATION, AND ERECTION OF ALL COLD FORMED STEEL FRAMING MEMBERS SHALL CONFORM TO THE "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" (AISI S100).
2. ALL FRAMING MEMBERS SHALL BE FORMED STEEL CONFORMING TO ASTM A1003 WITH A MINIMUM YIELD
   STRENGTH AS FOLLOWS:
   54 MILS, AND HEAVIER MEMBER Fy = 50 ksi (GRADE ST50H)
   43 MILS. AND LIGHTER MEMBERS Fy = 33 ksi (GRADE ST33H)
3. STUDS USED FOR BRICK VENEER BACKUP SHALL BE GALVANIZED WITH A G-90 COATING MEETING THE REQUIREMENTS OF ASTM A653 (REFERENCE: THE BRICK INDUSTRY ASSOCIATION, TECHNICAL NOTE 28B). ALL OTHER FRAMING MEMBERS SHALL BE G-60.
4. MEMBERS SHALL BE THE MANUFACTURER'S STANDARD "C" SHAPED STUDS/JOISTS OF THE SIZE, FLANGE WIDTH, AND GAUGE INDICATED. ALL MEMBERS SHALL HAVE A MINIMUM FLANGE LIP RETURN OF 1/2" AND SATISFY THE MINIMUM PROPERTIES OF "CLARK DIETRICH" (BASIS OF DESIGN), OR APPROVED EQUAL.
5. THE GAUGE OF ALL LOAD BEARING TRACKS SHALL BE 68 MILS. (14 Ga.), UNLESS NOTED OTHERWISE. CONNECT TRACKS TO CONCRETE WITH 0.157 DIA. POWER DRIVEN FASTENERS (WITH 1.50" EMBEDMENT) AT EACH STUD OR 16" ON CENTER MAX.
6. ALL WELDING SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY SPECIFICATION AWS D1.3. ALL WELDS SHALL BE TOUCHED UP WITH ZINC RICH PAINT.
7. ALL STRUCTURAL MEMBERS SHALL BE PROPERLY CONNECTED TO EACH OTHER AND TO THE SUPPORTING BACK-UP FRAMING. FASTENINGS SHALL BE MADE WITH SELF TAPPING SCREWS OR WELDS OF SUFFICIENT SIZE TO INSURE THE CONNECTION STRENGTH. UNLESS OTHERWISE NOTED, CONNECT ALL MEMBERS BASED ON THE FOLLOWING LOADINGS:
   7.1 STUDS - 25 psf EXTERIOR (5 psf INTERIOR)
8. PROVIDE BRIDGING FOR STUDS, JOISTS AND RAFTERS AT MIDSPAN AND AT A MAXIMUM SPACING NOT TO EXCEED 4'-0". ALL BRIDGING SHALL BE INSTALLED PRIOR TO THE ADDITION OF ANY LOADING. CONNECT BRIDGING TO EACH MEMBER BY WELDING, CLIP ANGLES OR OTHER APPROVED METHOD PER THE MANUFACTURER'S REQUIREMENTS.
9. COORDINATE LOCATION OF CAST-IN-PLACE ANCHORS WITH STRAP ANCHOR OR HOLDOWN LOCATIONS AS REQUIRED. A POST-INSTALLED ANCHOR OPTION MAY NOT BE SUBSTITUTED FOR CAST-IN ANCHORS UNLESS SPECIFICALLY NOTED ON PLAN.
10. ALL AXIALLY LOADED STUDS SHALL HAVE FULL BEARING AGAINST THE INSIDE TRACK WEB (1/16" MAX. GAP), PRIOR TO STUD AND TRACK ALIGNMENT.
11. SPLICES IN STUDS ARE NOT PERMITTED.
12. PROVIDE THE MANUFACTURER'S STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM. UNLESS OTHERWISE NOTED, INSTALL THE METAL FRAMING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTION (MPII) AND RECOMMENDATIONS.
13. CONSTRUCT ALL BEARING WALLS, INCLUDING REQUIRED BRACING, PRIOR TO INSTALLING ANY SUPPORTED FRAMING (ROOF OR FLOOR), UNDER NO CIRCUMSTANCES SHALL ROOFING BE INSTALLED UNTIL WALL BRACING HAS BEEN OBSERVED BY A SHELL + MEYER REPRESENTATIVE.
14. PROVISION FOR STRUCTURE VERTICAL MOVEMENT SHALL BE PROVIDE WHERE INDICATED ON THE PLANS USING THE MANUFACTURER'S VERTICAL DEFLECTION CLIP OR OTHER MEANS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CLIPS SHALL BE SPACED TO BE CAPABLE OF RESISTING THE REQUIRED INTERIOR MINIMUM LATERAL LOAD OF 5 psf.
15. UNLESS OTHERWISE NOTED, PROVIDE JACK STUDS AT ALL BEAM/JOIST BEARINGS. QUANTITY OF STUDS TO MATCH BEAM/JOIST BEARING WIDTH.
16. STRUCTURAL ENGINEER TO OBSERVE COLD FORMED STEEL CONSTRUCTION PRIOR TO INSTALLATION OF WALL COVERINGS.

SUBMITTALS

1. SHOP DRAWINGS
   1.1. CONTRACTOR SHALL SUBMIT DRAWINGS PREPARED BY THE MANUFACTURER FOR APPROVAL BY THE ENGINEER OF RECORD. THESE DRAWINGS SHALL INCLUDE:
      1.1.1. CROSS-SECTIONS, PLANS AND/OR ELEVATIONS DEPICTING COMPONENT LOCATIONS
      1.1.2. CONNECTION DETAILS SHOWING SCREW TYPES AND LOCATIONS, WELD LENGTHS AND LOCATIONS OR OTHER RELATED FASTENER REQUIREMENTS
   1.2. LAYOUT ALL LOAD BEARING AND NON-LOAD BEARINGS WALLS
   1.3. LAYOUT AND COORDINATE ALL X-BRACING LOCATIONS
   1.4. COORDINATE LOCATION OF CAST-IN-PLACE ANCHORS WITH CONCRETE FOUNDATION PLACEMENT.

SPECIALTY COLD FORMED STEEL

1. ONLY WHERE NOTED, A PROPRIETARY HEADER, JAMB STUD, OR CONNECTOR MAY BE USED IN LIEU OF CONVENTIONAL 'SSMA' DESIGNATED STUDS.
2. COMPONENTS FROM DIFFERENT MANUFACTURERS SHALL NOT BE USED INTERCHANGEABLY.
3. ALL PRODUCTS SHALL BE ORDERED AND INSTALLED PER THE MANUFACTURER'S WRITTEN SPECIFICATIONS.
4. PROPRIETARY COMPONENTS (STUDS, HEADERS, etc.) SHALL BE CONNECTED USING AN APPROPRIATELY SIZED CONNECTOR FROM THE SAME MFR. (U.N.O.)
5. PROPRIETARY DETAILS ARE SHOWN AS A CONVENIENCE TO THE G.C. DETAILS SHALL BE VERIFIED WITH THE LATEST MANUFACTURER'S SPECIFICATIONS AND DETAILS.

ALL EXTERIOR ***LOAD -BEARING*** WALL STUDS SHALL BE 600S162-68 (50 ksi) [WALLS PERPENDICULAR TO JOIST SPANS] DOUBLE STUDS AT JOISTS

ALL EXTERIOR ***NON-LOAD BEARING*** WALLS STUDS SHALL BE 600S162-54 (50 ksi) [WALLS PARALLEL TO JOIST SPANS]

THIS SHEET INDICATES BASIS OF DESIGN AND REFERENCE DETAILS. FINAL CFS DESIGN OF STUDS, HEADERS, JAMBS AND SILLS, BY CFS DELEGATED DESIGNER.

STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA)DESIGNATION AND NOMENCLATURE



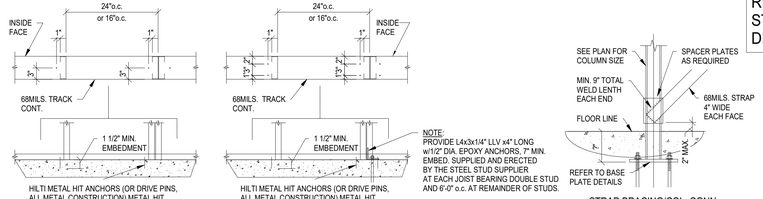
CF1 COLD FORMED STEEL NOMENCLATURE

SCALE: NTS



CF3 SLOTTED DEFLECTION TRACK

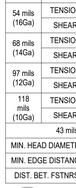
BASIS OF DESIGN: CLARK-DIETRICH MAXTRAK SCALE: 3/4" = 1'-0"



STEEL STUD BASE ANCHOR DETAIL N.T.S. | STEEL STUD BASE ANCHOR DETAIL N.T.S. | STRAP BRACING/COL. CONN. N.T.S.

MINIMUM ALLOWABLE LOAD (lbs.)

		#8-18 HWH	#10-16 HWH	#12-14 HWH	1/4"-14 HWH
		Dia = 0.164"	Dia = 0.190"	Dia = 0.216"	Dia = 0.25"
33 mils (20Ga)	TENSION	71	84	93	106
	SHEAR	162	177	186	199
43 mils (18Ga)	TENSION	92	109	121	138
	SHEAR	241	263	277	296
54 mils (16Ga)	TENSION	167	198	219	250
	SHEAR	333	467	562	600
68 mils (14Ga)	TENSION	-	249	276	315
	SHEAR	-	467	667	849
97 mils (12Ga)	TENSION	-	356	393	450
	SHEAR	-	467	667	867
118 mils (10Ga)	TENSION	-	-	480	549
	SHEAR	-	-	667	867
43 mils and less : Fy = 33 ksi ; 54 mils and greater : Fy = 50 ksi					
MIN. HEAD DIAMETER		0.25"	0.375"	0.375"	0.5"
MIN. EDGE DISTANCE		1/4"	5/16"	3/8"	3/8"
DIST. BET. FSTNRS.		1/2"	5/8"	11/16"	3/4"

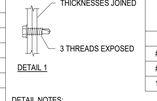


4 BRIDGING TERMINATION DETAIL

1/4" = 1'-0"

MIN. STRENGTH (lbs.)

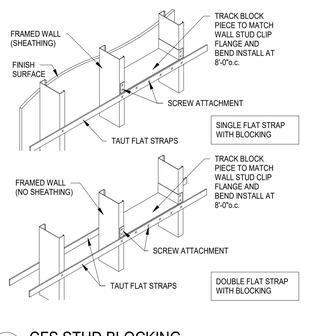
	NOMINAL SHEAR STRENGTH, Pss	NOMINAL TENSION STRENGTH, Pts
#8-18 HWH	1000	1545
#10-16 HWH	1400	1936
#12-14 HWH	2000	2778
1/4"-14 HWH	2600	4060



DETAIL NOTES:
1. MANUFACTURER'S SCREW CAPACITIES SHALL BE DETERMINED FROM TESTING USING AISI S904 STANDARD TEST METHOD FOR DETERMINING THE TENSILE AND SHEAR STRENGTH FOR SCREWS, AND CONFORM ASTM C1513
2. TABLE VALUES BASED ON BUILDEX ITW TEK SELF DRILLING SCREW (SDS) (ICC-ESR 1976)
3. INSTALLATION SHALL BE PER THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII) AND A COPY OF THIS SHALL BE AVAILABLE AT THE JOBSITE AT ALL TIMES DURING CONSTRUCTION
4. WHEN PROPOSING SCREW SUBSTITUTIONS, VALUES OBTAINED FROM THE ALTERNATIVE SCREW MANUFACTURER'S CURRENT ICC-ES REPORT SHALL BE GREATER THAN THE TABLE VALUES SHOWN HERE.
5. SCREWS SHALL BE OF A SUFFICIENT LENGTH TO ALLOW THREE THREADS TO BE EXPOSED TO VEW (SEE DETAIL 1)
6. SCREW SHALL PENETRATE ALL COMPONENTS BEING JOINED WITHOUT CAUSING PERMANENT SEPARATION BETWEEN THE COMPONENTS.
7. FASTENERS SHALL HAVE THE MANUFACTURER'S ELECTROPLATED ZINC COATING CONFORMING ASTM B633 AND ASTM F1941. EXTERIOR EXPOSED APPLICATIONS SHALL HAVE THE MANUFACTURER'S PROPRIETARY COATING OFFERING HIGHER CORROSION RESISTANCE.
8. PAN HEAD OR FLAT TRUSS HEAD LOW PROFILE SCREW HEADS MAY BE USED WHEN SHEATHING WILL BE APPLIED.

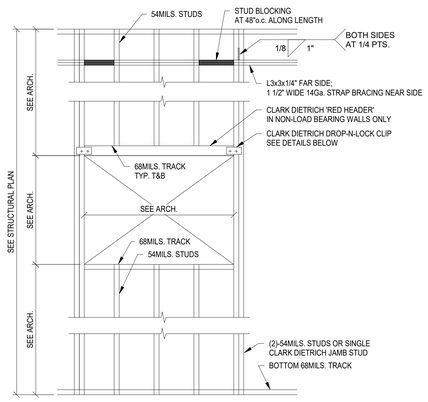
CF20 SCREW DESIGN VALUES

SCALE: NTS



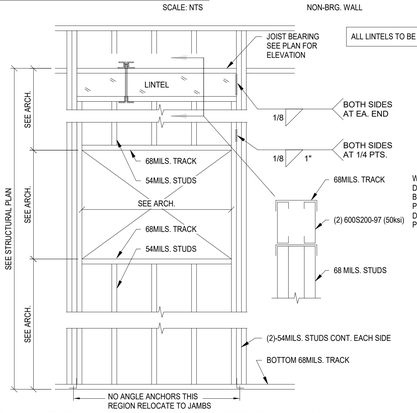
CF3 CFS STUD BLOCKING

TAUT FLAT SRAPS SCALE: NTS



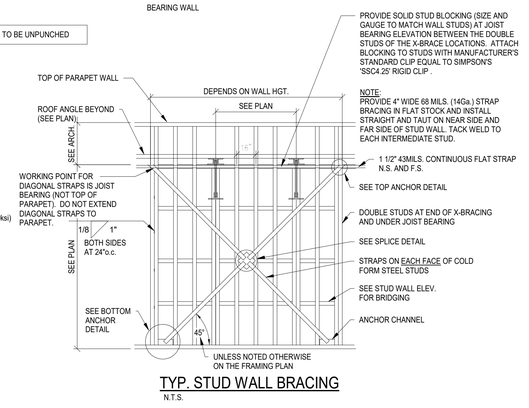
L2 TYP. LINTEL IN NON-BRG., EXTERIOR STUD WALL

N.T.S.



L1 TYP. LINTEL IN BEARING STUD WALL, U.N.O.

N.T.S.



TYP. STUD WALL BRACING

N.T.S.

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No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

COLD FORM STUDS

STATE OF OHIO — CHRISTOPHER R. MEYER 69172 — REGISTERED PROFESSIONAL ENGINEER

Comm. No.	Date
19651.00	2021/4/23
Drawn: JEY	Drawing No.: S501
Checked: CRM	

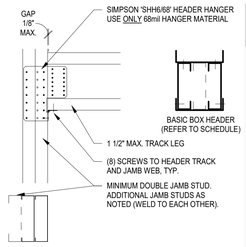
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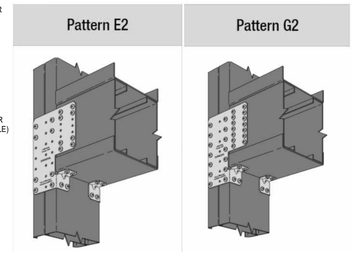
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TYPICAL HEADER TO JAMB CONNECTION w/ SIMPSON 'SHH' HEADER HANGER

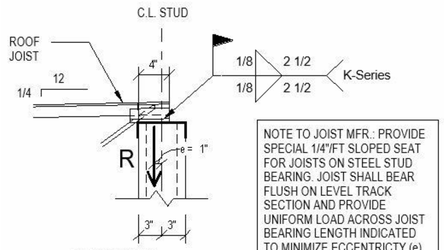
JAMB/BOX THICKNESS	PATTERN	MAX. HORZ. LOAD	MAX. VERT. LOAD	HEADER WEB/ JAMB FLANGE TOTAL SCREWS
54mil (16ga)	E2	1565 lbs.	5665 lbs.	(32) #10 SCREWS
68mil (14ga)	E2	2565 lbs.	6180 lbs.	(32) #10 SCREWS
	G2		7700 lbs.	(56) #10 SCREWS





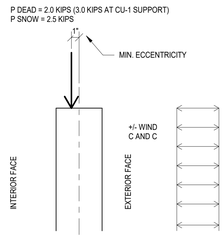
1. INSTALL PER MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII). REFERENCE SCREW PATTERN NOTED BELOW IN MPII.
2. USE ONE 'SHH' HANGER ON EACH SIDE OF HEADER AT EACH CONNECTION TO A JAMB STUD.
3. CONNECTORS MUST BE INSTALLED IN PAIRS. QTY. OF SCREWS IS TOTAL FOR BOTH CLIPS IN THE CONNECTION AT ONE END OF THE HEADER.
4. USE ALL SPECIFIED FASTENERS, #10 SCREWS, TYP.
5. SCREWS SHALL HAVE A MIN. NOMINAL SHEAR STRENGTH OF P_{ns} = 1620 lbs. ; MIN. NOMINAL TENSION STRENGTH P_{ts} = 2460 lbs.
6. SCREWS MUST EXTEND THROUGH ALL PLIES OF THE CONNECTION WITH AT LEAST THREE (3) THREADS EXPOSED.
7. A 1/8" MAXIMUM GAP IS ALLOWED BETWEEN THE END OF THE HEADER AND THE FACE OF THE JAMB STUD.

12 Simpson SSH1
1 1/2" = 1'-0"

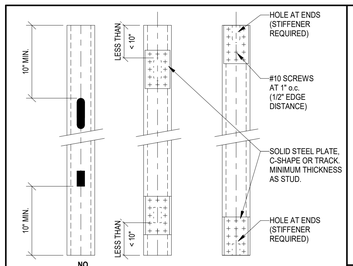


R = Assumed Joist Reaction Location for Stud Design

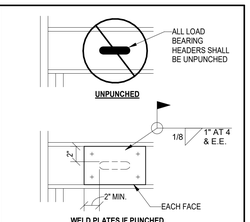
NOTE TO JOIST MFR.: PROVIDE SPECIAL 1/4"/FT SLOPED SEAT FOR JOISTS ON STEEL STUD BEARING. JOIST SHALL BEAR FLUSH ON LEVEL TRACK SECTION AND PROVIDE UNIFORM LOAD ACROSS JOIST BEARING LENGTH INDICATED TO MINIMIZE ECCENTRICTY (e) TO STUD COLUMN.



13 CFS STUD LOADING
1 1/2" = 1'-0"



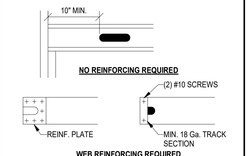
BEARING AND N.L.B. STUDS



LOAD BEARING HEADERS

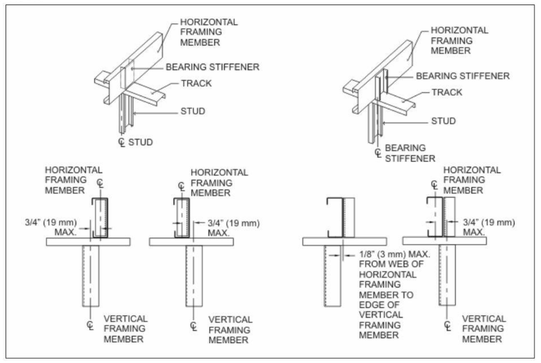
WEB HOLE SIZE AND LOCATIONS
1. WEB HOLES FOR ALL STUDS (LOAD BEARING AND NON-LOAD BEARING) SHALL BE LOCATED AT LEAST 10" FROM EACH END OF THE MEMBER AND ANY BEARING POINT.
2. HOLES SHALL NOT EXCEED THE MANUFACTURER'S STANDARD HOLE SIZE, UNLESS APPROVED BY THE ENGINEER OF RECORD IN ADVANCE.
3. FRAMING MEMBERS WITH HOLES NOT CONFORMING TO THE ABOVE REQUIREMENTS SHALL BE REINFORCED AS INDICATED.

WEB REINFORCING
A. STEEL REINFORCING PLATES OR MEMBERS SHALL HAVE THE SAME THICKNESS OF THE MEMBER BEING REINFORCED.
B. REINFORCING SHALL BE AT LEAST 10" LONG, EXTEND A MINIMUM OF 1" BEYOND ALL EDGES OF THE HOLE AND MATCH THE MEMBER DEPTH. U.N.O.
C. STEEL REINFORCING SHALL BE FASTENED TO THE WEB OF THE RECEIVING MEMBER WITH #10 SCREWS SPACED NO MORE THAN 1" o.c. AROUND THE PERIMETER AND A MINIMUM EDGE DISTANCE OF 1/2" (EXCEPTION: #8 SCREWS MAY BE USED IN NON-LOAD BEARING MEMBERS)

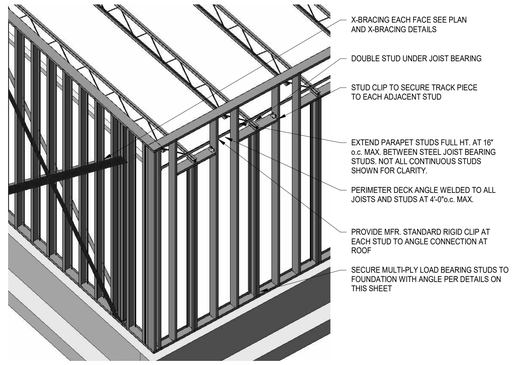


NON-LOAD BEARING HEADERS

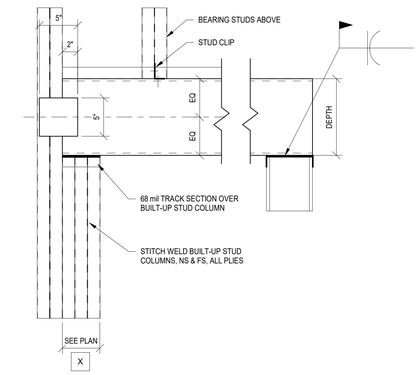
6 CFS - HOLE REINFORCING
1 1/2" = 1'-0"



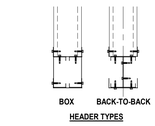
7 CFS - IN-LINE FRAMING
1" = 1'-0"



9 ISOMETRIC JOIST BEARING
6" = 1'-0"

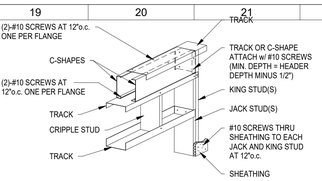


11 CFS STUD COLUMN UNDER LOAD BEARING HSS HEADERS
1 1/2" = 1'-0"

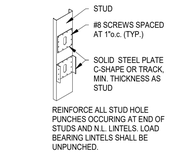


HEADER TYPES

5 CFS - HEADER PROFILES
1 1/2" = 1'-0"

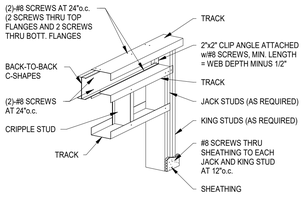


1 BOX BEAM HEADER
3/4" = 1'-0"

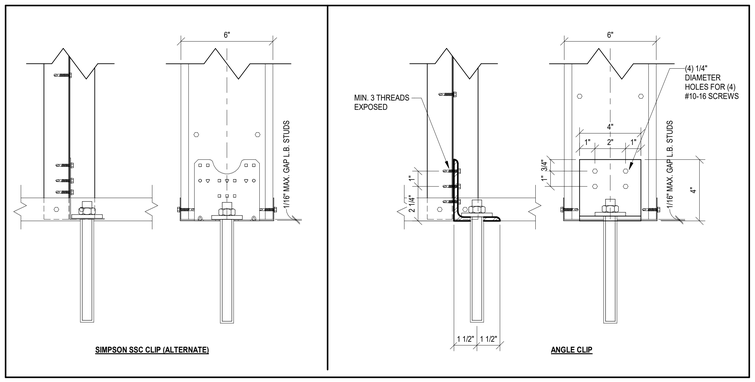


REINFORCE ALL STUD HOLE PUNCHES OCCURING AT END OF STUDS AND N.L. LINTELS. LOAD BEARING LINTELS SHALL BE UNPUNCHED.

3 STUD WEB HOLE PATCH
3/4" = 1'-0"



2 N.L.B. BACK-TO-BACK HEADER, U.N.O.
3/4" = 1'-0"



4 CFS - BASE DETAILS AT MULTI-PLY STUDS
3" = 1'-0"

THIS SHEET INDICATES BASIS OF DESIGN AND REFERENCE DETAILS. FINAL CFS DESIGN OF STUDS, HEADERS, JAMBS AND SILLS, BY CFS DELEGATED DESIGNER.

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No.	Revisions / Submissions	Date
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4	ADDENDUM #4	2021/06/03
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712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

COLD FORM STUDS

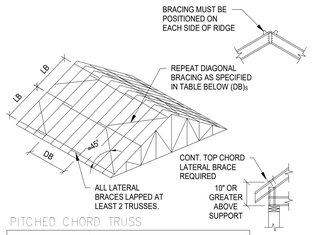
STATE OF OHIO CHRISTOPHER R. MEYER 69172 REGISTERED PROFESSIONAL ENGINEER

Comm. No. 19651.00	Date 2021/4/23
Drawn JEY	Drawing No. S502
Checked CRM	

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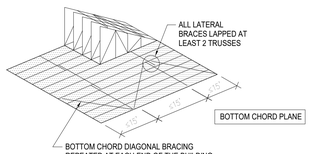


PITCHED CHORD TRUSS

SPAN	TOP CHORD LATERAL BRACE SPACING (LB)	TOP CHORD DIAGONAL BRACE SPACING (DB)
45' - 60'	5'-0"	8'-0"

TOP CHORDS THAT ARE LATERALLY BRACED CAN BUCKLE TOGETHER AND CAUSE COLLAPSE IF THERE IS NO DIAGONAL BRACING. DIAGONAL BRACING SHOULD BE SCREWED TO THE UNDERSIDE OF THE TOP CHORD WHEN PURLINS OR SHEATHING ARE ATTACHED TO THE TOPSIDE OF THE TOP CHORD.

TOP CHORD BRACING



SPAN	BOTTOM CHORD LATERAL BRACE SPACING (LB)S	BOTTOM CHORD DIAGONAL BRACE SPACING (DB)S
OVER 48' - 60'	15'-0"	8'-0"

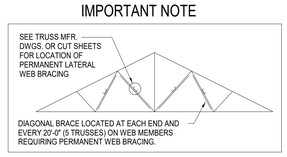
BOTTOM CHORD BRACING

WEB MEMBER BRACING

1. GROUND BRACING REQUIRED FOR ALL INSTALLATIONS
2. ALL CONNECTIONS SHALL BE MADE WITH A MINIMUM OF
   (2)-#10 SELF-DRILLING SCREWS FOR LATERAL BRACING
   (3)-#10 SELF-DRILLING SCREWS FOR DIAGONAL BRACING
3. ALL BRACING MATERIALS TO BE MINIMUM 150F125-33 FURRING CHANNEL OR 362S162-33 STUD MATERIAL.

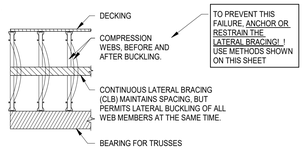
WARNING: FAILURE TO FOLLOW THESE RECOMMENDATIONS COULD RESULT IN SEVERE PERSONAL INJURY OR DAMAGE TO TRUSSES OR BUILDINGS.

IMPORTANT NOTE



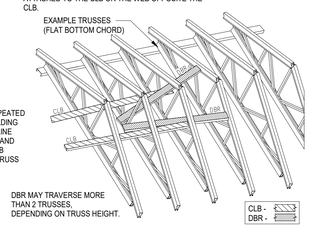
PREBID NOTE TO CONTRACTOR:
THE REQUIRED TRUSS BRACING SHOWN ON THIS SHEET MAY NOT BE INCLUDED IN THE PRICE QUOTED BY THE TRUSS SUPPLIER. ALL BRACING SHOWN ON THIS SHEET AND ANY ADDITIONAL BRACING NOTED ON THE TRUSS SHOP DRAWINGS IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

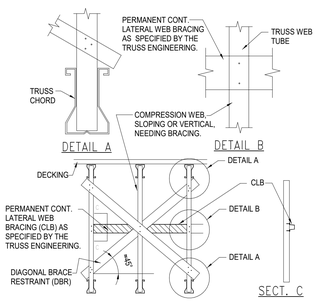
THIS IS A DANGEROUS CONDITION !!

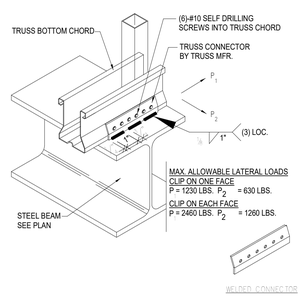


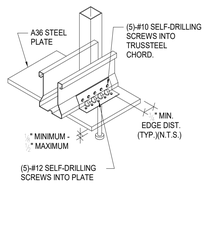
CONTINUOUS LATERAL BRACE RESTRAINT (CLB) NOTES :
1. MAXIMUM TRUSS SPACING FOR THESE DETAILS SHALL NOT EXCEED 4'-0"o.c.
2. DIAGONAL BRACE AND IT'S CONNECTION ARE TO BE DESIGNED BY A PROFESSIONAL ENGINEER. THE DIAGONAL BRACE PREVENTS LATERAL MOVEMENT OF THE WEB AND TRANSFERS LATERAL BRACE FORCE TO ROOF AND CEILING DIAPHRAGMS. DIAGONAL BRACE SHALL BE REPEATED AT APPROXIMATELY 20' INTERVALS.

ANCHORAGE OR RESTRAINT OF LATERAL BRACING
THE DRAWING BELOW SHOWS HOW TO RESTRAIN THE CONTINUOUS LATERAL BRACING (CLB) NEEDED IN TRUSSES. THE ENDS ARE ATTACHED TO TOP & BOTTOM CHORDS. THE DIAGONAL BRACE MAY BE ATTACHED TO THE CLB OR THE WEB OPPOSITE THE CLB.

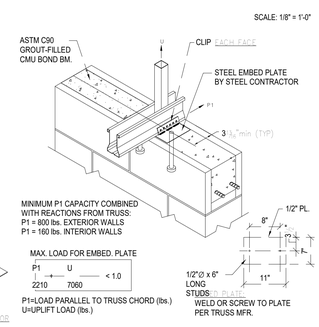








SCALE: 1/8" = 1'-0"

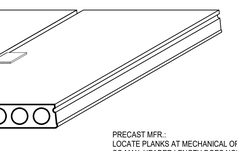


REMARKS AND RECOMMENDATIONS:
1. **IMPORTANT NOTE** - TRUSS MFR. RESPONSIBLE FOR ALL TRUSS TO STEEL AND MASONRY SUPPORT CONNECTIONS PROVIDING CONNECTORS COMPATIBLE WITH THE PROPRIETARY CHORD SECTION.
2. ATTACHMENT OF SECOND CLIP ON OPPOSITE FACE OF CHORD, IF REQUIRED BY TRUSS DESIGN, IS IDENTICAL TO WHAT IS DETAILED.

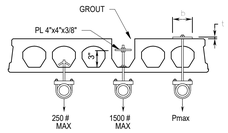
WELDED CONNECTOR NOTES:
1. REFER TO TRUSS MFRS. TECHNICAL BULLETINS TO RESTORE CORROSION RESISTANT PROPERTIES OF THE CONNECTION AFTER WELDING.

SCREWED CONNECTOR NOTES (TS3):
1. SELECT PROPER SCREW FOR STEEL FLANGE OR PLATE THICKNESS. REFER TO SCREW MFRS. RECOMMENDATION.
2. DO NOT OVERDRIVE SCREWS. OVERDRIVEN SCREWS MAY STRIP OUT OF CHORD.
3. DO NOT DRIVE SCREWS INTO AREA OF BEAM FLANGE DIRECTLY ABOVE BEAM WEB.

TB TRUSS BRACING DETAILS — SCREWED CONNECTOR — SCALE: NTS
CLB CONT. LATERAL BRACE RESTRAINT — SCALE: NTS
TS4 COLD FORMED TRUSS TO STEEL BEAM — WELDED CONNECTOR — SCALE: NTS
TS3 COLD FORMED TRUSS TO STEEL PLATE — SCREWED CONNECTOR — SCALE: NTS
TS2 COLD FORMED TRUSS TO MASONRY — WELDED OR SCREWED CONNECTOR TO EMBED PLATE — SCALE: NTS
TS1 TRUSS CONNECTOR NOTES — SCALE: NTS



PRECAST HEADER FOR OPENINGS BY MFR.
N.T.S.



HANGERS TO BE SPACED NO CLOSER THAN 8"o.c.

b (in.)	t (in.)	Pmax
2"	3/8"	710#
3"	3/8"	890#
4"	3/8"	1130#
5"	3/8"	1500#

NOTE: FOR LIGHTER LOADS DRILL-INS AND POWDER ACTIVATED FASTENERS CAN BE USED WITH A MAXIMUM DEPTH OF 1".

**COORDINATE ABOVE DETAIL WITH PRECAST MFR. ** REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR LOCATIONS

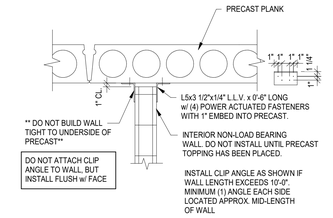
PRECAST HANGERS
N.T.S.

PRECAST HOLLOW PLANK NOTES

1. THE DESIGN, FABRICATION & ERECTION OF ALL PRECAST/PRESTRESSED HOLLOW CORE CONCRETE SLABS SHALL BE THE RESPONSIBILITY OF THE PRECAST MANUFACTURER.
2. PRECAST MEMBERS SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE LATEST ACI 318 AND PCI MNL-116, FOR THE LOADS INDICATED PER THE "GENERAL STRUCTURAL NOTES", AS WELL AS FOR ALL HANDLING AND ERECTION LOADINGS.
3. THE PRECAST MANUFACTURER SHALL BE A PCI CERTIFIED PLANT AND SHALL MAINTAIN DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES AS REQUIRED TO SATISFY THE EXCEPTION IN OBC 2007, SECTION 1704.2.2.
4. THE PRECAST MANUFACTURER SHALL SUBMIT CALCULATIONS AND SHOP DRAWINGS, BEARING THE SIGNED AND DATED SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO, FOR ALL PRECAST PLANKS, INSERTS, BEARING PADS/PLATES, OPENINGS AND ANCHORS.
5. ALL PRECAST CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI. MINIMUM COMPRESSIVE STRENGTH AT TRANSFER OF PRESTRESSING FORCE SHALL BE 3500 PSI.
6. ALL NONSHRINK GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7500 PSI AND SHALL CONFORM TO ASTM C 1107.
7. CONCRETE TOPPINGS : SEE ADDITIONAL SPECIFICATION THIS SHEET
8. UNLESS GREATER STRENGTH IS REQUIRED BY THE PRECAST MANUFACTURER, ALL REINFORCING MATERIALS SHALL CONFORM TO THE FOLLOWING:

REINFORCING	ASTM	MIN. STRENGTH
(UNCOATED 7 WIRE, STRESS RELIEVED)	A 416	PRESTRESSING STRAND 270 KSI (ULT)
REINFORCING BARS	A 615	60 KSI
WELDED WIRE FABRIC	A 185	70 KSI

9. THE PRECAST MANUFACTURER SHALL PROVIDE MINIMUM CLEAR COVER TO REINFORCING IN ACCORDANCE WITH ACI 318.
10. MINIMUM BEARING ON MASONRY WALLS = 4" ; MINIMUM BEARING ON STRUCTURAL STEEL = 3 1/2"
11. ALL WELD PLATES, INSERTS, ANCHOR BOLTS, WELDING, LIFTING HARDWARE, GROUT SLEEVES, ETC. SHALL BE DESIGNED AND PROVIDED BY THE PRECAST MANUFACTURER. UNLESS OTHERWISE NOTED, ALL CONNECTIONS EXPOSED TO EARTH OR WEATHER SHALL BE HOT DIP GALVANIZED IN ACCORDANCEWITH ASTM A 153.
12. THE PRECAST LAYOUT SHOWN ON THE STRUCTURAL PLANS IS CONCEPTUAL. THE PRECAST MANUFACTURER SHALL PROVIDE THE REQUIRED FILLER UNITS AND PROPER QUANTITY OF STANDARD 48" WIDE UNITS. ALL QUANTITIES TO BE DETERMINED BY THE SUPPLIER.
13. UNLESS NOTED OTHERWISE, MULTI-STORY MASONRY SHEARWALLS TO BE CONTINUOUS THROUGH THE PRECAST FLOOR SYSTEM. SEE SHEARWALL DETAILS FOR ADDITIONAL REQUIREMENTS.
14. COORDINATE ALL FLOOR OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS
15. OPENINGS FOR MECHANICAL AND ELECTRICAL ITEMS SHALL BE CORE DRILLED THROUGH HOLLOW CELLS ONLY, IN ACCORDANCE WITH THE PRECAST MANUFACTURER'S RECOMMENDATIONS. ADDITIONAL REINFORCEMENT SHALL BE PROVIDED AS REQUIRED BY THE PRECAST MANUFACTURER.
16. ALL PRECAST UNITS SUPPORTED BY MASONRY OR CONCRETE SHALL BEAR ON 1/8" CONTINUOUS STRIPS OF NEOPRENE.
17. THE CONTRACTOR SHALL PROVIDE HOLES OR OTHER PROTECTIVE MEANS TO ALLOW THE HOLLOW CELLS TO DRAIN ANY WATER ACCUMULATION THAT MAY OCCUR DURING THE PROCESS OF CONSTRUCTION.
18. LIMIT DEFLECTION RESULTING FROM LIVE LOAD, SUPPORTED BLOCK WALLS ABOVE, AND 15 PSF OF SUPERIMPOSED DEAD LOAD TO THE LESSER OF L/600 OR 0.3 INCHES. THIS DEFLECTION LIMIT REQUIRES THE CONCRETE TOPPING BE INSTALLED PRIOR TO CONSTRUCTION OF SECOND FLOOR INTERIOR CMU WALLS.



TYPICAL NON-LOAD BEARING WALL SUPPORT

SHELL + MEYER ASSOCIATES INC
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No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

CFS TRUSS/PRECAST DETAILS

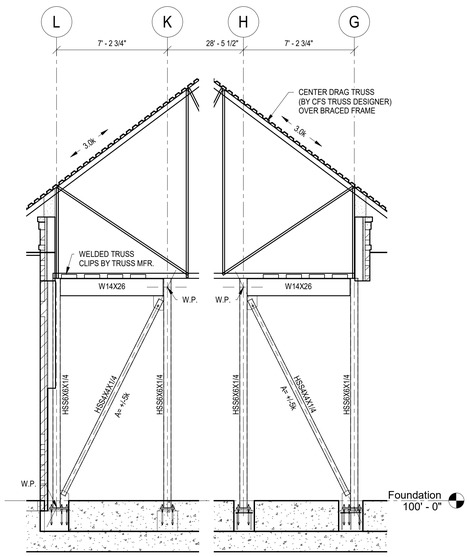
STATE OF OHIO CHRISTOPHER R. MEYER 69172 REGISTERED PROFESSIONAL ENGINEER

Comm. No.	Date
19651.00	2021/4/23
Drawn: JEY	Drawing No.: S503
Checked: CRM	

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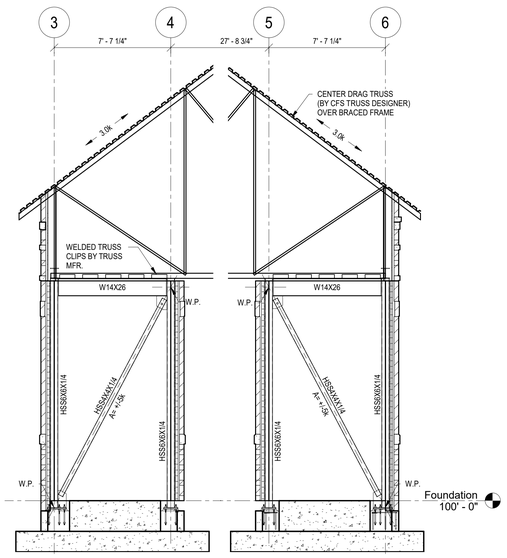
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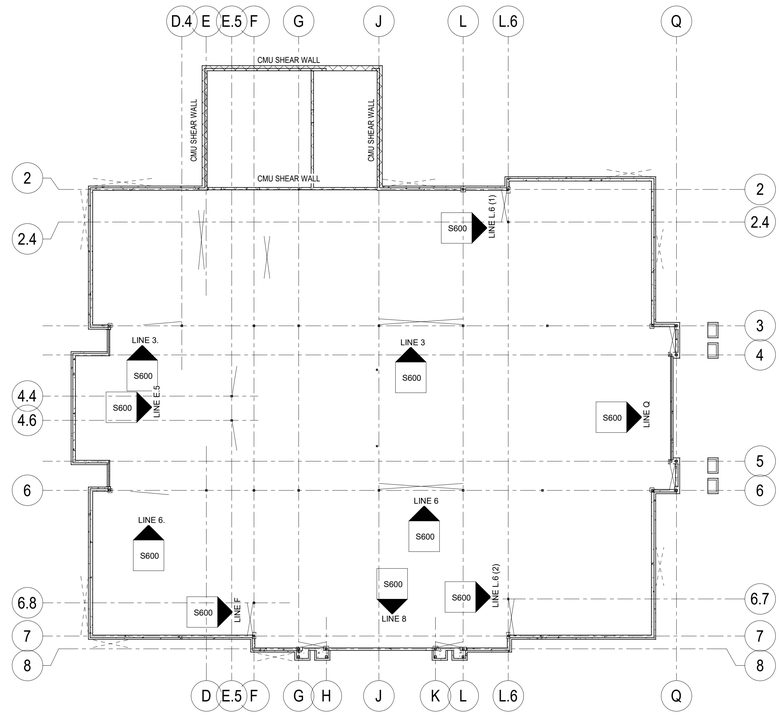
BRACE FRAME AT LINE 8

1/4" = 1'-0"



BRACE FRAME AT LINE Q

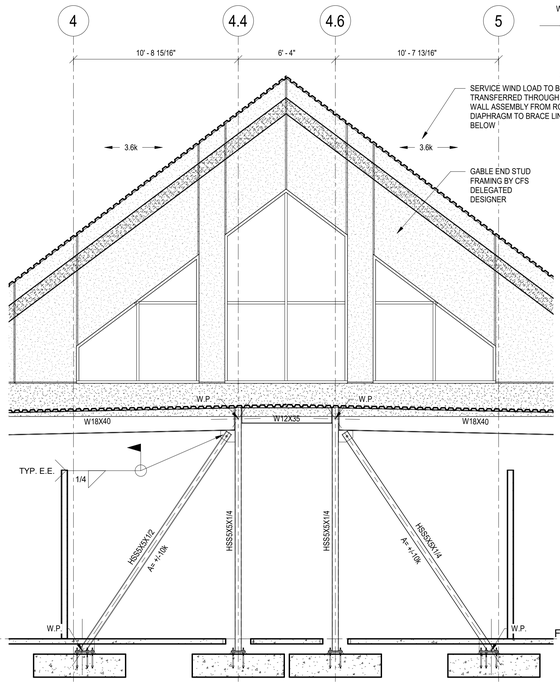
1/4" = 1'-0"



BRACE FRAME LOCATION PLAN

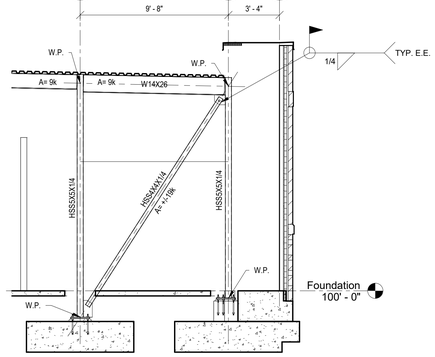
1/16" = 1'-0"

FINAL BRACE CONNECTION DETAILS BY STEEL FABRICATOR BASED ON AXIAL LOADS NOTED.



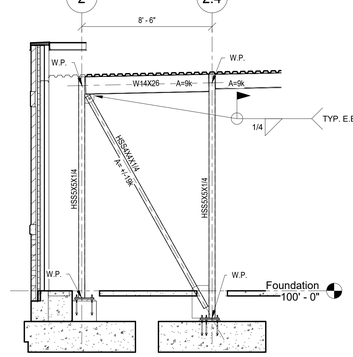
BRACE FRAME AT LINE E.5

1/4" = 1'-0"



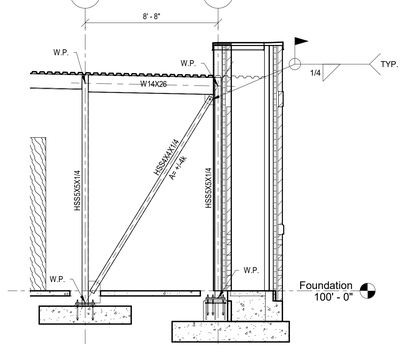
BRACE FRAME AT LINE L.6

1/4" = 1'-0"



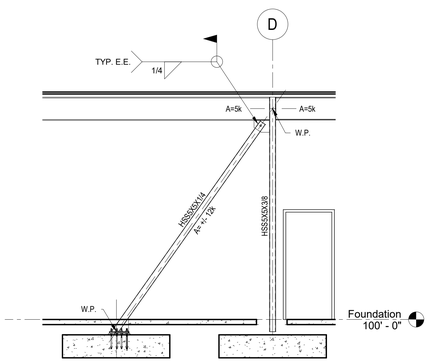
BRACE FRAME AT LINE L.6

1/4" = 1'-0"



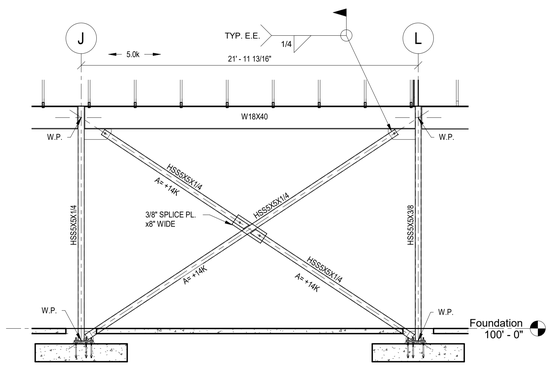
BRACE FRAME AT LINE F

1/4" = 1'-0"



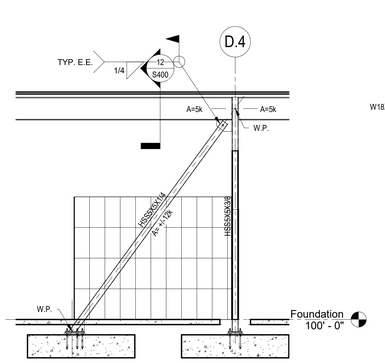
BRACE FRAME AT LINE 6

1/4" = 1'-0"



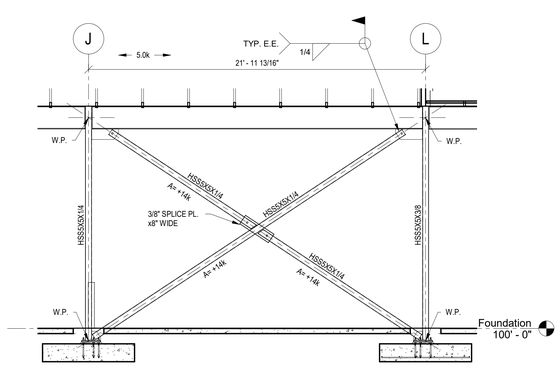
BRACE FRAME AT LINE 6

1/4" = 1'-0"



BRACE FRAME AT LINE 3

1/4" = 1'-0"



BRACE FRAME AT LINE 3

1/4" = 1'-0"

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BRACE FRAME ELEVATIONS

STATE OF OHIO CHRISTOPHER R. MEYER 69172 REGISTERED PROFESSIONAL ENGINEER

Comm. No. 19651.00	Date 2021/4/23
Drawn JEY	Drawing No. S600
Checked CRM	

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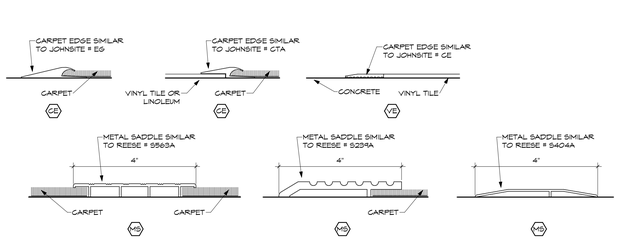
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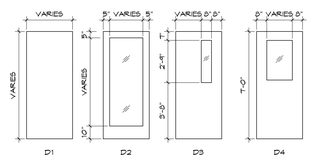
DOOR SCHEDULE

NOTES:
1. SMOKE CONTROL DOOR.
2. CAMERA/INTERCOM/DOORBELL CONTROL W/ 4 MASTER STATIONS (ONE IN EACH BAILIFF AND MAGISTRATE OFFICE)
3. PROVIDE DELAYED EGRESS AT THIS LOCATION. SEE CODE SUMMARY
4. PROVIDE LOCALIZED ALARM AT THIS LOCATION WITH CARD READER SHUNT
5. SEE COURTROOM DETAILS
6. PROVIDE CAMERA / INTERCOM / DOORBELL CONTROL W/ MASTER STATION IN ALL BAILIFF OFFICES AND MAGISTRATE OFFICES.
7. PROVIDE LOCALIZED ALARM AND MONITORED DOOR POSITION SWITCH

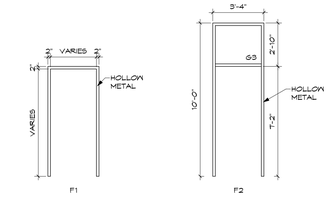
DOOR NO.	INTERIOR / EXTERIOR	SINGLE / PAIR	DOOR SIZE			DOOR			FRAME				FIRE RATING	REMARKS	REQUIRED CONNECTIONS		DOOR NO.
			WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	GLAZING	TYPE	MATERIAL	DETAILS JAMB	DETAILS HEAD			ELECTRICAL	ACCESS CONTROL	
101A	EXT	PAIR	3'-0"	7'-0"	1 3/4"	D2	ALUM.	G2	AF04	ALUM.	PER MFG.	PER MFG.			●	●	101A
101B	INT	PAIR	3'-0"	7'-0"	1 3/4"	D2	ALUM.	G1	AF05	ALUM.	PER MFG.	PER MFG.			●		101B
102A	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4			●	●	102A
102B	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4			●	●	102B
105	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1		NOTE #2	●	●	105
106	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					106
107	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					107
108	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					108
109	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					109
110	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					110
111	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					111
113	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J4	H4					113
114	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J4	H4					114
115	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J4	H4					115
117	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					117
118	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					118
120	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					120
121A	INT	PAIR	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4					121A
121B	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4		NOTE #3	●	●	121B
121C	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4					121C
121D	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J4	H4			●	●	121D
121E	INT	PAIR	3'-0"			D1	SOLID WOOD	-	-	-	-	-		NOTE #5			121E
124	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					124
125	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					125
126	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					126
129	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4					129
130A	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D2	H.M.	G2	F1	STEEL	J1	H1			●	●	130A
130B	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J1	H1			●	●	130B
131	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					131
132	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					132
133	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J4	H4					133
134	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					134
135	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					135
136	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					136
137	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D1	H.M.	-	F1	STEEL	J6	H6		NOTE #7	●	●	137
138	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J1	H1					138
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141	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					141
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143	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					143
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147A	INT	PAIR	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4					147A
147B	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J1	H1		NOTE #4	●	●	147B
147C	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J1	H1			●	●	147C
147D	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4					147D
147E	INT	PAIR	3'-0"			D1	SOLID WOOD	-	-	-	-	-		NOTE #5			147E
148A	INT	SINGLE	3'-0"	7'-2"	1 3/4"	D3	H.M.	SG-2	F1	STEEL	J5	H5		NOTE #1	●	●	148A
148B	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D1	H.M.	-	F2	STEEL	J3	H3					148B
149A	EXT	SINGLE	12'-0"	10'-0"	3"	OVERHEAD	SEE SPEC.	-	SEE SPEC.	SEE SPEC.	SEE SECTIONS	SEE SECTIONS			●		149A
149B	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D3	H.M.	SG-2	F1	STEEL	J2	H2			●	●	149B
149C	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D1	H.M.	-	F1	STEEL	J3	H3			●	●	149C
150	INT	SINGLE	3'-0"	7'-2"	1 3/4"	D1	H.M.	-	F1	STEEL	J2	H2					150
151	INT	SINGLE	3'-0"	7'-2"	1 3/4"	D1	H.M.	-	F1	STEEL	J2	H2					151
152	INT	SINGLE	3'-0"	7'-2"	1 3/4"	D1	H.M.	-	F1	STEEL	J2	H2					152
153	INT	SINGLE	3'-0"	7'-2"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J5	H5					153
154	INT	SINGLE	3'-0"	7'-2"	1 3/4"	D1	H.M.	-	F1	STEEL	J2	H2					154
155A	EXT	PAIR	3'-0"	7'-0"	1 3/4"	D2	ALUM.	G2	AF04	ALUM.	PER MFG.	PER MFG.			●	●	155A
155B	INT	PAIR	3'-0"	7'-0"	1 3/4"	D2	ALUM.	G1	AF05	ALUM.	PER MFG.	PER MFG.			●		155B
156A	EXT	SINGLE	3'-0"	7'-2"	1 3/4"	D3	H.M.	SG-2	F1	STEEL	J6	H6			●	●	156A
156B	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	AF05	ALUM	PER MFG.	PER MFG.		NOTE #3			156B
157	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D3	SOLID WOOD	G1	F1	STEEL	J4	H4					157
158	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					158
159	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					159
160	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					160
161	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					161
162	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D2	ALUM.	G1	AF01	ALUM	PER MFG.	PER MFG.					162
165	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D4	SOLID WOOD	G1	F1	STEEL	J1	H1					165
166	INT	SINGLE	3'-0"	7'-0"	1 3/4"	D1	SOLID WOOD	-	F1	STEEL	J1	H1					166



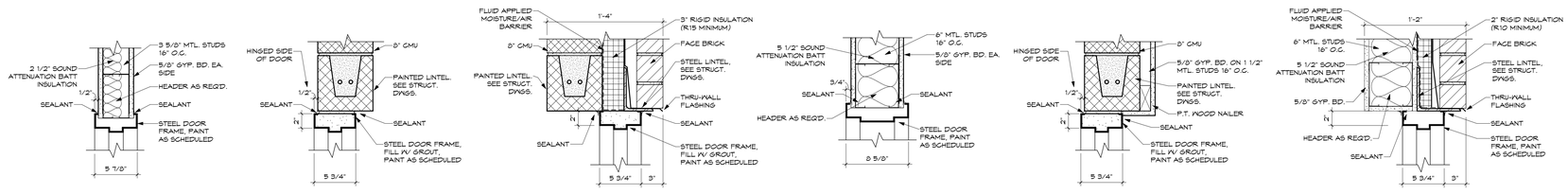
3 FLOOR EDGE DETAILS
SCALE: 6" = 1'-0"



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

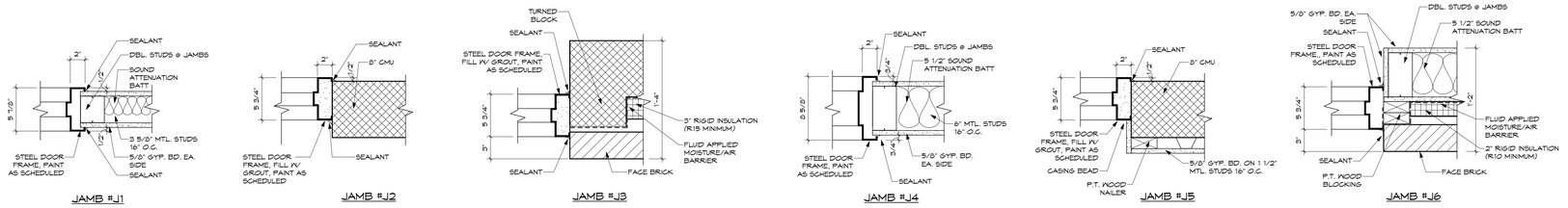


5 DOOR FRAME TYPE
SCALE: 1/4" = 1'-0"



HEAD #H1 HEAD #H2 HEAD #H3 HEAD #H4 HEAD #H5 HEAD #H6

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



JAMB #J1 JAMB #J2 JAMB #J3 JAMB #J4 JAMB #J5 JAMB #J6

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

SHEET NOTES:

GENERAL NOTES:

GLASS SCHEDULE

G1: 1/4" CLEAR TEMPERED GLASS

G2: 1" INSULATED TEMPERED GLASS UNIT, CLEAR/CLEAR

G3: 1" INSULATED HEAT STRENGTHENED GLASS UNIT, CLEAR/CLEAR

SG-1: BULLET RESISTANT GLAZING, U.L. LEVEL III

SG-2: SECURITY GLAZING, CLEAR

SG-3: SECURITY GLAZING, REFLECTIVE

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

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712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

DOOR SCHEDULES AND DETAILS

STATE OF OHIO JOHN CHARLES FABELO 9711799 REGISTERED ARCHITECT
JOHN C FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: A001
Checked: ES/WK	

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6/17/2021 12:24:39 PM

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PROVIDE SPECIFIED ROLLER WINDOW SHADE AT EACH WINDOW IN AN EXTERIOR WALL.

BULLET RESISTANT GLAZING (SEE GLASS TYPE NOTED)

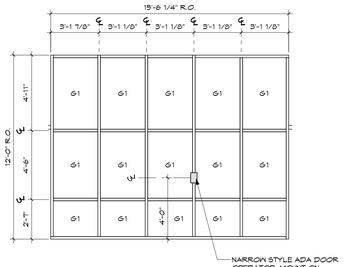
10 WINDOW TYPES
SCALE: 1/4" = 1'-0"

*INTERNALLY REINFORCE FRAMES IF REQUIRED FOR LOADING CONDITIONS AS DETERMINED BY SYSTEM MANUFACTURER

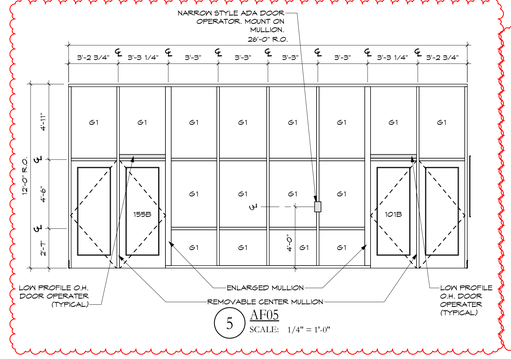
9 TYPICAL STOREFRONT DETAILS
SCALE: 3" = 1'-0"

8 AF08
SCALE: 1/4" = 1'-0"

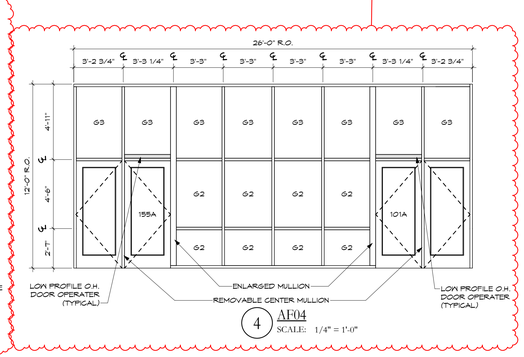
7 AF07
SCALE: 1/4" = 1'-0"



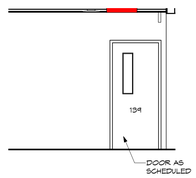
6 AF06
SCALE: 1/4" = 1'-0"



5 AF05
SCALE: 1/4" = 1'-0"

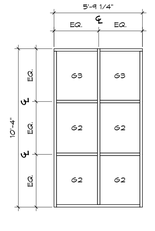


4 AF04
SCALE: 1/4" = 1'-0"

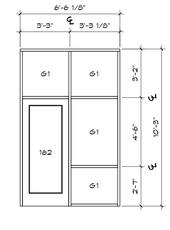


3 AF03
SCALE: 1/4" = 1'-0"

ENTRANCE CHANGED FROM ALUMINUM ENTRANCE TO DRYWALL IN ADDENDUM #4



2 AF02
SCALE: 1/4" = 1'-0"



1 AF01
SCALE: 1/4" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

GLASS SCHEDULE

G1: 1/4" CLEAR TEMPERED GLASS

G2: 1" INSULATED TEMPERED GLASS UNIT, CLEAR/CLEAR

G3: 1" INSULATED HEAT STRENGTHENED GLASS UNIT, CLEAR/CLEAR

SG-1: BULLET RESISTANT GLAZING, U.L. LEVEL III

SG-2: SECURITY GLAZING, CLEAR

SG-3: SECURITY GLAZING, REFLECTIVE

A. POWER FEEDS & CONTROL WIRING FOR AUTOMATIC OPERATORS & PUSH BUTTONS SHALL BE RUN WITHIN THE ALUMINUM FRAME SYSTEM THEY ARE MOUNTED TO.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

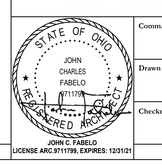
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875 E. MAIN STREET
TROTWOOD, OH 45426

ALUMINUM FRAME AND DETAILS



JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: A002
Checked: ES/WK	

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Set: 01
Door: 101A
Description: Exterior aluminum pair of doors with electrified exit devices and automatic operator.

2	Pivot Set	OP350 3/4" offset	626	DM
2	Side Pivot	75220	626	DM
1	Keyed Removable Mullion	KR822	689	PH
1	Exit Device Rim (nightlatch less pull, electrified)	TS MLR 2403	630	PH
1	Exit Device Rim (exit only, electrified)	TS MLR 2401	630	PH
1	Mortise cylinder	1E 74	626	BE
1	Rim cylinder	12E 72	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	SA
2	Offset Pull (45 degree, 12" center to center)	BF168 12 mounting	US32D	RO
1	Automatic Operator	ED900T SW, provided by section 087113.	689	DM
1	Surface Door Closer (top jamb)	8916 AF89/AF89J FCM BP89	689	DM
2	Concealed Overhead Stop	#6 series stop	630	RF
2	Door Position Switch	DPS-M-GY		SN
2	Power Transfer	EPT-12C		PH
1	Power Supply	RPSMLR2BB		PH
1	Card Reader	By card reader supplier		
1	Jamb Push Plate 1-1/2 x 4-3/4"Actuator	10PBJ1, provided by section 087113.	32D	BA
1	Vestibule Dual Push Plate Switch	10PBDGP1, provided by section 087113.	32D	BA
2	Vestibule Switch Flush Back Box	10BOX475SQFM, provided by section 087113.	BLK	BA
1	Safety Sensor	SS II (approach side mounted), provided by section 087113.	BLK	BA
1	Rain drip	16A TEK		NA
1	Threshold	425 1/4-20 Combo MS/Anchor	MIL	NA
1	Weatherstripping	By aluminum door supplier		
2	Door Sweep	200NA TEK		NA

Verify automatic operator track screws/bolts do not conflict with concealed overhead stop. Provide adaptor plate finished if they do conflict.
Operation, day mode – turn on the automatic operator and electrically dog down the exit devices (making the door push pull). Card reader will set the day mode and will enable outside push plate.
Night mode turn off the operator and undog the exit devices. Valid Card read will enable outside push plate and release the electric latch retraction.
Automatic operator will require 120VAC.

Set: 02
Door: 101B
Description: Vestibule aluminum pair of doors with push pull bar set and automatic operator

2	Pivot Set	OP350 3/4" offset	626	DM
2	Side Pivot	75220	626	DM
2	Push Pull Bar Set (45 degree pull, 12" center to center)	47 push bar with BF168 pull type T1 mounting	US32D	RO
1	Automatic Operator	ED900T SW, provided by section 087113.	689	DM
1	Surface Door Closer (top jamb)	8916 AF89/AF89J FCM BP89	689	DM
2	Concealed Overhead Stop	#6 series stop	630	RF
1	Jamb Push Plate 1-1/2 x 4-3/4"Actuator	10PBJ1, provided by section 087113.	32D	BA
1	Vestibule Switch Flush Back Box	10BOX475SQFM, provided by section 087113.	BLK	BA
1	Safety Sensor	SS II (approach side mounted), provided by section 087113.	BLK	BEA
	Silencers	By aluminum door supplier		

Automatic operator will require 120VAC.

Set: 03
Door: 155A
Description: Exterior aluminum pair of doors with electric exit device (nightlatch trim) and automatic operator.

2	Pivot Set	OP350 3/4" offset	626	DM
2	Side Pivot	75220	626	DM
1	Keyed Removable Mullion	KR822	689	PH
1	Exit Device Rim (nightlatch less pull, electrified)	TS MLR 2403	630	PH
1	Exit Device Rim (exit only, exit switch)	TS 2401	630	PH
1	Mortise cylinder	1E 74	626	BE
1	Rim cylinder	12E 72	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	SA
2	Offset Pull (45 degree, 12" center to center)	BF168 12 mounting	US32D	RO
1	Automatic Operator	ED900J SW, provided by section 087113.	689	DM
1	Surface Door Closer (top jamb)	8916 AF89/AF89J FCM BP89	689	DM
2	Concealed Overhead Stop	#6 series stop	630	RF
2	Door Position Switch	DPS-M-GY		SN
2	Power Transfer	EPT-12C		PH
1	Power Supply	RPSMLR2BB		PH
1	Card Reader	By card reader supplier		
1	Jamb Push Plate 1-1/2 x 4-3/4"Actuator	10PBJ1, provided by section 087113.	32D	BA
1	Vestibule Dual Push Plate Switch	10PBDGP1, provided by section 087113.	32D	BA
2	Vestibule Switch Flush Back Box	10BOX475SQFM, provided by section 087113.	BLK	BA
1	Safety Sensor	SS II (approach side mounted), provided by section 087113.	BLK	BA
1	Rain drip	16A TEK		NA
1	Threshold	425 1/4-20 Combo MS/Anchor	MIL	NA
1	Weatherstripping	By aluminum door supplier		
2	Door Sweep	200NA TEK		NA

Operation - Door always secure on exterior.
Card reader when activated will enable outside push plate and retract the latch bolt. Door 155B will also sequence open 155A.
Free egress at all times.
Automatic operator will require 120VAC.

Set: 04
Door: 155B
Description: Vestibule aluminum pair of doors with push pull bar set and automatic operator

2	Pivot Set	OP350 3/4" offset	626	DM
2	Side Pivot	75220	626	DM
2	Push Pull Bar Set (45 degree pull, 12" center to center)	47 push bar with BF168 pull type T1 mounting	US32D	RO
1	Automatic Operator	ED900J SW, provided by section 087113.	689	DM
1	Surface Door Closer (top jamb)	8916 AF89/AF89J FCM BP89	689	DM
2	Concealed Overhead Stop	#6 series stop	630	RF
2	Door Position Switch	DPS-M-GY		SN
1	Jamb Push Plate 1-1/2 x 4-3/4"Actuator	10PBJ1, provided by section 087113.	32D	BA
1	Vestibule Switch Flush Back Box	10BOX475SQFM, provided by section 087113.	BLK	BA
1	Sequencer module	10BR3, provided by section 087113.		BA
1	Safety Sensor	SS II (approach side mounted), provided by section 087113.	BLK	BA
	Silencers	By aluminum door supplier		

Operation - Free egress at all times.
Door to sequence open 155A 3 to 4 seconds after 155B begins to open.
Automatic operator will require 120VAC.

Set: 05
Door: 130A, 137, 156A
Description: Exterior door with Panic Hardware, pull trim with cylinder.

1	Continuous Hinge	CFM XX HD1 PT	CLR	PE
1	Exit Device rim (nightlatch, electrified)	TS MLR 2103 1703A	630	PH
1	Rim cylinder	12E 72	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel with stop arm)	8916 DS	689	DM
1	Kick plate	K0050 10" high B4E CSK	US32D	TR
1	Door position switch	DPS-M-GY		SN
1	Power Transfer	EPT-12C		PH
1	Power Supply	RPSMLR2BB		PH
1	Card Reader	By card reader supplier		
1	Rain drip	16A TEK		NA
1	Threshold	425 1/4-20 Combo MS/Anchor	MIL	NA
1	Head Weather Strip	700NA TEK		NA
1	Strike Jamb Weather Strip	700NA TEK		NA
1	Hinge Jamb weather strip	135NA TEK		NA
1	Door Sweep	200NA TEK		NA

Install strike jamb weather strip before installing exit device. Install head weather strip before installing the door closer.
Card reader will retract latchbolt.
Free egress at all times.

Set: 06
Doors: 148B
Description: Exterior hollow metal door with asylum lockset.

3	Hinges (hvy wt)	T4A3386 NRP	26D	MC
1	Lockset (asylum F30)	45H 7W 15H S1	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel with stop arm)	8916 DS FMC	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Latch Protector	5001	US32D	TR
1	Door Position Switch	DPS-M-GY		SN
1	Rain drip	16A TEK		NA
1	Threshold	425 1/4-20 Combo MS/Anchor	MIL	NA
1	Head Weather Strip	700NA TEK		NA
2	Jamb Weather Strip	135NA TEK		NA
1	Door Sweep	200NA TEK		NA

Install head weather strip before installing the door closer.
All screws are to be security type screws.
All hardware to be for security type door.
Egress with key.

Set: 07
Doors: 149C
Description: Exterior hollow metal door with asylum lockset.

3	Hinges (hvy wt)	T4A3386 NRP	26D	MC
1	Electric Lockset (Fail Safe)	45HW 7WEL 15H S1	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel with stop arm)	8916 DS FMC	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Latch Protector	5001	US32D	TR
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS610RF		DM
2	Card Reader	By card reader supplier		
1	Door Position Switch	DPS-M-GY		SN
1	Rain drip	16A TEK		NA
1	Threshold	425 1/4-20 Combo MS/Anchor	MIL	NA
1	Head Weather Strip	700NA TEK		NA
2	Jamb Weather Strip	135NA TEK		NA
1	Door Sweep	200NA TEK		NA

Install head weather strip before installing the door closer.
All screws are to be security type screws.
All hardware to be for security type door.
Egress by key or card reader unlock (both sides).
Fail safe locket, will unlock with lose of power.

Set: 08
Door: 148A
Description: Smoke door with electric lockset.

3	Hinges (std wt)	TA2714 NRP	26D	MC
1	Electric Lockset (Fail Secure)	45HW 7WEU 15H S1	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel with stop arm)	8916 DS	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS610RF		DM
2	Card Reader	By card reader supplier		
1	Set of Smoke Seal	5020B (head and jambs)	BRN	NA

All screws are to be security type screws.
All hardware to be for security type door.

Set: 09
Door 156B
Description: Door with exit device (lever trim), delayed egress.

3	Hinges (hvy wt)	T4A3786	26D	DM
1	Exit Device Rim (nightlatch less pull, electrified delayed egress)	DE 2108 V4908A	630	PH
1	Mortise cylinder	1E 74	626	BE
1	Rim cylinder	12E 72	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel arm)	8916 SPA	689	DM
1	Wall Stop	1270CX	US26D	TR
1	Card Reader	By card reader supplier		
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS161-6		PH
	Silencers	By aluminum door supplier		

Delayed egress exit device. Depressing exit device push pad, sounds alarm, after 15 seconds the exit device will release. Reset alarm at the exit device via the mechanism case key cylinder. Loss of power or fire alarm activation will cause device to release immediately.
Card reader located on push side, to release the exit device for exiting.
When lever is unlocked, free ingress with the lever trim.
Delayed egress only affects the exit device touchbar.

Set: 10
Door 162
Description: Wide stile aluminum door with passage latchset.

1	Pivot Set	OP350 3/4" offset	626	DM
1	Side Pivot	75220	626	DM
1	Latchset (passage F01)	45H 0N 15H S1	626	BE
1	Wall Stop	1270CX	US26D	TR
	Silencers	By aluminum door supplier		

Set: 11-NOT USED

Set: 12
Doors 121A, 147A
Description: Pair of doors with surface vertical rod panic hardware, lever trim, electrified for use with card reader.

6	Hinges (hvy wt)	T4A3786 NRP	26D	MC
2	Exit Device Concealed Vertical Rod (exit only)	MLR TS 2701 CD LBR	630	PH
2	Straight Architectural Pull 18"	AP421 E 18"	US32D	TR
2	Mortise cylinder	1E 74	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
2	Surface Door Closer (parallel with stop arm)	8916 DS	689	DM
2	Kick Plate	K0050 10" high B4E CSK	US32D	TR
2	Silencers	1229A		TR

Free egress at all times.

Set: 13
Doors: 121C, 147C, 147D
Description: Panic hardware, lever trim

3	Hinges (hvy wt)	T4A3786	26D	MC
1	Exit Device (lever)	2108 V4908A	630	PH
1	Rim cylinder	12E 72	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (regular arm)	8916 AF89	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Wall Stop	1270CX	US26D	TR
3	Silencers	1229A		TR

Set: 14 -NOT USED

Set: 15
Door: 121B
Description: Panic hardware (delayed egress), lever trim

3	Hinges (hvy wt)	T4A3786	26D	MC
1	Exit Device (lever, electrified delayed egress)	DE 2108 V4908A	630	PH
1	Rim cylinder	12E 72	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (regular arm)	8916 AF89	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Wall Stop	1270CX	US26D	TR
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS161-6		PH
1	Card Reader	By card reader supplier		
3	Silencers	1229A		TR

Delayed egress exit device. Depressing exit device push pad, sounds alarm, after 15 seconds the exit device will release. Reset alarm at the exit device via the mechanism case key cylinder or card reader. Loss of power or fire alarm activation will cause device to release immediately.

Set: 16
Doors: 135, 136
Description: Restroom with push and pull plates.

3	Hinges (std wt)	TA2714	26D	MC
1	Push Plate	1001-9 6" x 16"	US32D	TR
1	Pull Plate	1014-3B 4" x 16"	US32D	TR
1	Surface Door Closer (regular arm)	8916 AF89	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Mop Plate	KM050 4" high B4E CSK	US32D	TR
1	Wall Stop	1270CX	US26D	TR
3	Silencers	1229A		TR

Counter sink pull through bolts under the push plate.

Set: 17
Door: 159, 160
Description: Restroom with push and pull plates.

3	Hinges (std wt)	TA2714	26D	MC
1	Push Plate	1001-9 6" x 16"	US32D	TR
1	Pull Plate	1014-3B 4" x 16"	US32D	TR
1	Surface Door Closer (regular with stop arm)	8916 IS	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Mop Plate	KM050 4" high B4E CSK	US32D	TR
3	Silencers	1229A		TR

Counter sink pull through bolts under the push plate.
For acceptable door closer manufacturers that don't offer a stop arm for pull side mount, provide concealed overhead stop in addition to the door closer.

Set: 18
Door: 128, 140, 143
Description: Passage set

3	Hinges (std wt)	TA2714	26D	MC
1	Latchset (passage F01)	45H 0N 15H S1	626	BE
1	Wall Stop	1270CX	US26D	TR
3	Silencers	1229A		TR

Set: 19
Door: 147B
Description: Passage set

3	Hinges (std wt)	TA2714	26D	MC
1	Latchset with RQE switch (passage F01)	45HW NXEL 15H RQE S1	626	BE
1	Surface Door Closer (parallel arm)	8916 AF89P	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Wall Stop	1270CX	US26D	TR
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS610RF		DM
1	Horn	L1910-1	WHT	SCE
1	Timer	RTE-P2 Digital Timer with screw base, 24VDC		ID
1	Wire Diagram	WD-P2P		RU
3	Silencers	1229A		TR

Mount timer in power supply enclosure. Timer to be provided with screw base SR3P-05
When operating it is armed, opening the door without a valid card read from the courtroom side will sound the horn. Horn will sound for time set on the timer, default the timer to 10 minutes.
Card reader system can disarm the opening for extended period.
Free ingress into the courtroom, no alarm.
Timer programmable between 5 seconds and 10 hours. Timer to function as a one shot with start input.

Set: 20
Doors: 126, 133, 161, 166
Description: Privacy set.

3	Hinges (std wt)	TA2714	26D	MC
1	Latchset (privacy F19 with indicator)	45H 0L VIN 15H S1	626	BE
1	Surface Door Closer (regular arm)	8916 AF89	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Mop Plate	KM050 4" high B4E CSK	US32D	TR
1	Wall Stop	1270CX	US26D	TR
3	Silencers	1229A		TR

Set: 21
Door: 157
Description: Classroom lockset.

3	Hinges (std wt)	TA2714	26D	MC
1	Lockset (classroom F05)	45H 7R 15H S1	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Wall Stop	1270CX	US26D	TR
3	Silencers	1229A		TR

Set: 22
Doors: 106, 107, 108, 109, 110, 111, 113, 114, 115, 118, 120, 124, 125, 131, 132, 134, 139, 141, 142, 144, 145, 146, 153, 165
Description: Office lockset.

3	Hinges (std wt)	TA2714	26D	MC
1	Lockset (office F04)	45H 7AT 15H S1	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Wall Stop	1270CX	US26D	TR
3	Silencers	1229A		TR

Set: 23
Doors: 117, 119, 158
Description: Storeroom lockset.

3	Hinges (std wt)	TA2714	26D	MC
1	Lockset (storeroom F07)	45H 7D 15H S1	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Wall Stop	1270CX	US26D	TR
3	Silencers	1229A		TR

Set: 24
Door: 149B
Description: Electric lockset locked both sides for use with (2) card readers

3	Hinges (hvy wt)	T4A3386 NRP	26D	MC
1	Electric Lockset (both levers locked (fail secure))	45HW 7WEU 15H S1	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel with stop arm)	8916 DS	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Wall Stop	1270CX	US26D	TR
1	Door Position Switch	DPS-M-GY		SN
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS610RF		DM
2	Card Reader	By card reader supplier		
3	Silencers	1229A		TR

All screws are to be security type screws.
All hardware to be for security type door.
Egress by key or card reader unlock.

Set: 25
Doors: 102A, 102B, 105, 121D, 130B
Description: Electric lockset.

3	Hinges (hvy wt)	T4A3386 NRP	26D	MC
1	Electric Lockset (outside lever locked (fail secure))	45HW 7DEU 15H RQE S1	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel arm)	8916 AF89P	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Wall Stop	1270CX	US26D	TR
1	Door Position Switch	DPS-M-GY		SN
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS610RF		DM
1	Card Reader	By card reader supplier		
3	Silencers	1229A		TR

Free egress always via the inside lever.
121D is not an egress door. Locked lever courtroom side.

Set: 26
Doors: 150, 151, 152, 154
Description: Asylum lockset.

3	Hinges (hvy wt)	T4A3386 NRP	26D	MC
1	Lockset (asylum F30)	45H 7W 15H S1	626	BE
2	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Concealed Door Closer	RTS88 (package RTS27)	689	DM
3	Silencers	1229A		TR

All screws are to be security type screws. All hardware to be for security type door.

Set: 27
Doors: 121E, 147E
Description: Double Acting half height doors

2	Sets of Spring Pivots	7122	26D	BO

Set: 28
Doors: 129
Description: Electric lockset.

3	Hinges (hvy wt)	T4A3386 NRP	26D	MC
1	Electric Lockset (outside lever locked (fail secure))	45HW 7DEU 15H RQE S1	626	BE
1	Interchangeable Cylinder Core	DG1 LF1C Keyway	626	*SA*
1	Surface Door Closer (parallel with stop arm)	8916 DS	689	DM
1	Kick Plate	K0050 10" high B4E CSK	US32D	TR
1	Door Position Switch	DPS-M-GY		SN
1	Power Transfer	EPT-12C		PH
1	Power Supply	PS610RF		DM
1	Card Reader	By card reader supplier		
3	Silencers	1229A		TR

Free egress always via the inside lever.

Set: 29
Doors: Egress Gate at Secure Parking lot
Description: Exterior grade panic hardware

1	Exit Device	V4008D2W W	693	DE
1	Strike Latch Receiver Bracket	GTSTKBKT	BLK	DE
1	Gate latch protector	GTPLFRD	BLK	
1	Spacer for narrow lever	08GSN	BLK	DE
1	Mortise Cylinder	1E-74 STD	622	BE
1	Interchangeable Core	DG1 LF1C Keyway	626	SA
1	Door Stop	1299-3	630	TR

NOTE: Hinges by gate supplier.
NOTE: Back plate by gate supplier Back plate height not to exceed exit device height.
Free egress from secure parking lot side at all times. Entrance via keyed lever only.

HARDWARE SET ASSIGNMENTS

Door	Set No.
101A	01
101B	02
102A	25
102B	25
105	25
106	22
107	22
108	22
109	22
110	22
111	22
113	22
114	22
115	22
117	23
118	22
119	23
120	22
121A	12
121B	15
121C	13
121D	25
121E	27
124	22
125	22
126	20
128	18
129	28
130A	05
130B	25
131	22
132	22
133	20
134	22
135	16

Door	Set No.
136	16
137	05
139	22
140	18
141	22
142	22
143	18
144	22
145	22
146	22
147A	12
147B	19
147C	13
147D	13
147E	27
148A	08
148B	06
149B	24
149C	07
150	26
151	26
152	26
153	22
154	26
155A	03
155B	04
156A	05
156B	09
157	21
158	23
159	17
160	17
161	20
162	10
165	22
166	20
Gate	29

END OF SECTION 087100

SHEET NOTES:

GENERAL NOTES:

MANUFACTURERS ABBREVIATIONS:
BA – BEA INC.
BE – BEST LOCKING SYSTEMS.
BO – BOMMER
DE – DETEX
DM – DORMA
HE – HES
ID – IDEC
MC – McGINNEY PRODUCTS
NA – NATIONAL GUARD PRODUCTS
PE – PEMKO
PH – PRECISION
RF – RIXSON
RO – ROCKWOOD
RU – CORBIN RUSSWIN
SCE – SCHLAGE ELECTRONICS
SN – SECURITRON
TR – TRIMCO

SHEET ISSUED IN RESPONSE TO CODE OFFICIAL REQUIREMENT. INFORMATION SHOWN MATCHES THAT CONTAINED IN ADDENDUM #3 REVISED DOOR HARDWARE SPECIFICATION

No.	Revisions / Submissions	Date
3	ADDENDUM #3	2021/05/28
4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

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DOOR HARDWARE SCHEDULES

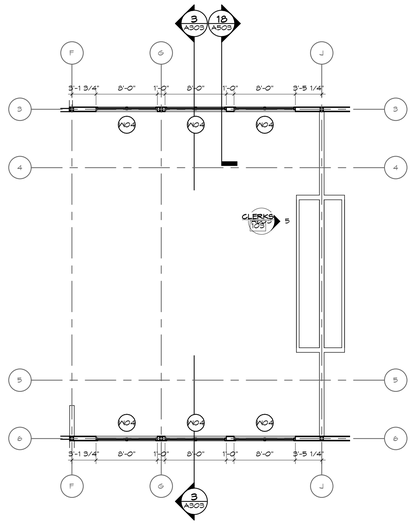
STATE OF OHIO
JOHN CHARLES FABELO
#711799
REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

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19651.00	2021/04/23
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Checked: WJK	

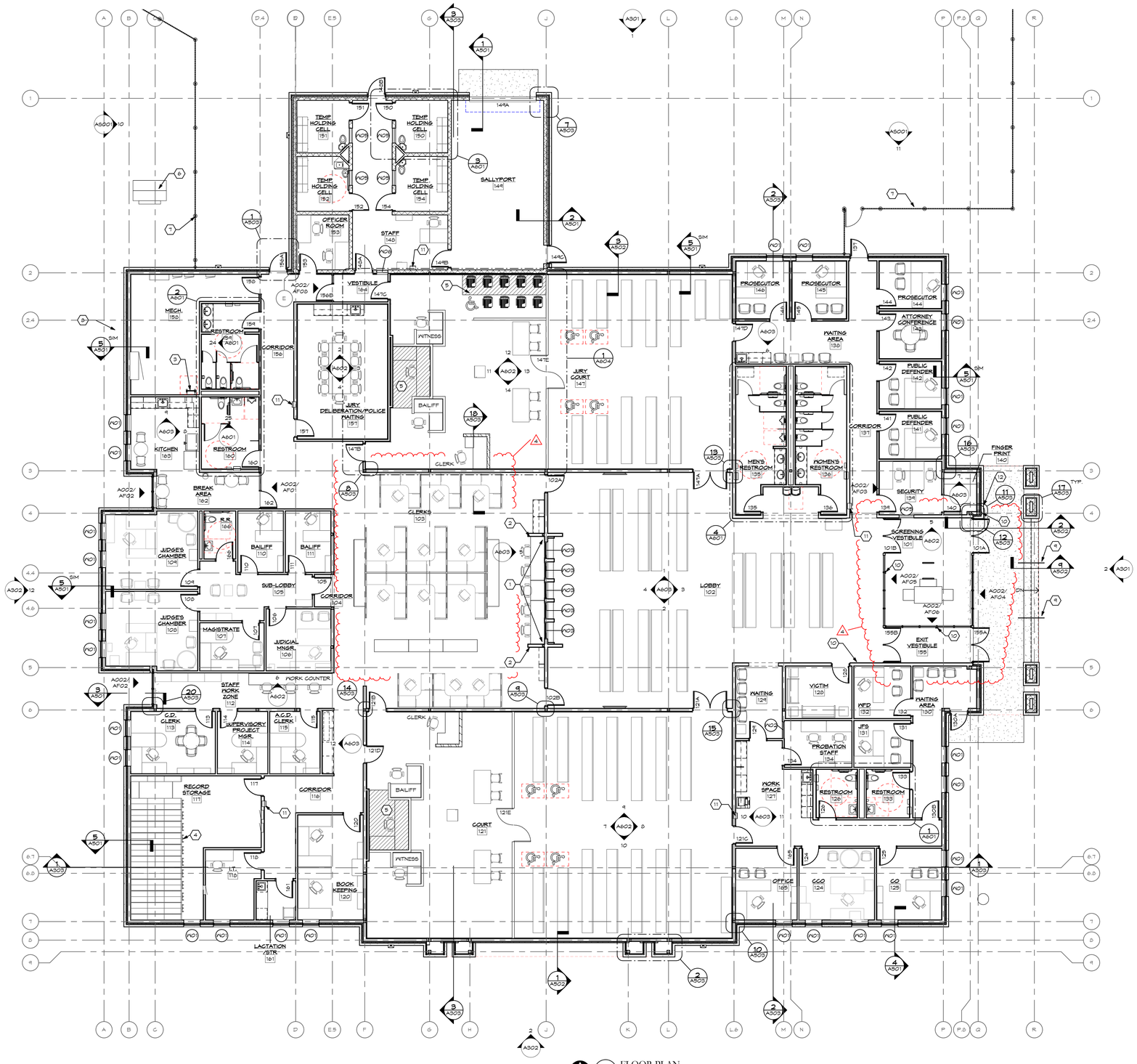
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2 CLERESTORY PLAN
SCALE: 1/8" = 1'-0"



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

SHEET NOTES:

1. INSTALL 1/2" BULLET RESISTANT PANEL ON WEST FACE OF METAL STUDS OF THIS PARTITION BETWEEN KING WALLS FOR A HEIGHT OF 8'-0". FOR THE REMAINING HEIGHT OF THIS PARTITION, INSTALL AN EXTRA LAYER OF 1/2" GYP. WALLBOARD ABOVE THE BULLET RESISTANT PANEL. BOTH SIDES OF PARTITION RECEIVE A FINISH LAYER OF 5/8" GYP. WALLBOARD.
2. 3 5/8" METAL STUDS WITH 1/2" PLYWOOD ON BOTH SIDES. BOTH SIDES OF PARTITION RECEIVE A FINISH LAYER OF 5/8" GYP. WALL BOARD. ANCHOR FLOOR TRACK WITH 1/2" EXPANSION ANCHORS AT 2' O.C. FASTEN SECURELY TO NORTH-SOUTH PARTITION. THESE KING WALLS PROVIDE LATERAL SUPPORT OF THE INTERSECTING PARTITION
3. ROOF ACCESS LADDER AND 2'-6" X 3'-0" ROOF HATCH.
4. HIGH-DENSITY SHELVING SYSTEM BY OWNER. TRACKS WILL BE RECESSED IN FLOOR. CONTRACTOR RESPONSIBLE FOR INITIAL AND SECOND FLOOR POUR.
5. ELEVATED PLATFORM. REFER TO RELATED DETAILS.
6. ELECTRICAL TRANSFORMER. REFER TO ELECTRICAL AND SITE DRAWINGS.
7. SITE FENCING AS SPECIFIED. REFER TO RELATED DRAWINGS.
8. UTILITY METER.
9. PIPE RAILING. REFER TO DETAILS.
10. ADA OPERATOR PUSH BUTTON MOUNTED @ 48" A.F.F.
11. FIRE EXTINGUISHER CABINET.
12. PROVIDE RECESSED EMERGENCY KEY-BOX PER LOCAL AHJ, MOUNTED AT 66" TO CENTER OF BOX. COLOR PER ARCHITECT.

GENERAL NOTES:

A. FF&E SHOWN FOR COORDINATION ONLY.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
3	ADDENDUM #3	2021/05/28
4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

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875 E. MAIN STREET
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FLOOR PLAN

STATE OF OHIO
JOHN CHARLES FABELO
9711799
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JOHN C. FABELO
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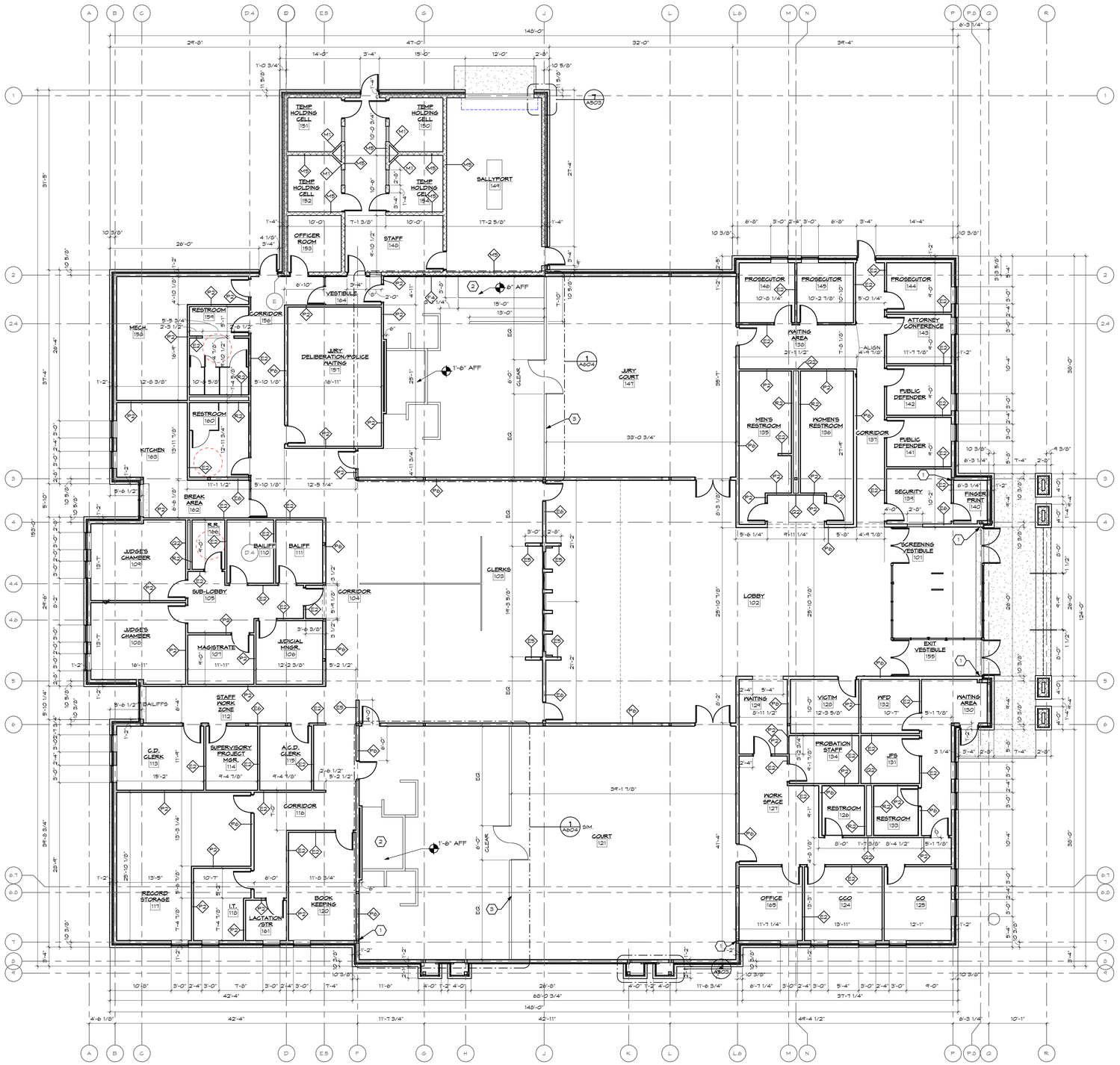
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19651.00	2021/04/23
Drawn: DJB	Drawing No. A101
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1 DIMENSION PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. ALIGN INTERIOR WALL WITH EXTERIOR WALL
2. ELEVATED FLOOR. REFER TO DETAILS
3. COURTROOM RAIL & SWINGING DOORS. REFER TO DETAILS.

GENERAL NOTES:

1. SEE ENLARGED PLANS FOR ADDITIONAL DIMENSIONS.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
4	ADDENDUM #4	2021/06/03
5	ISSUED FOR RE-BID	2021/06/18

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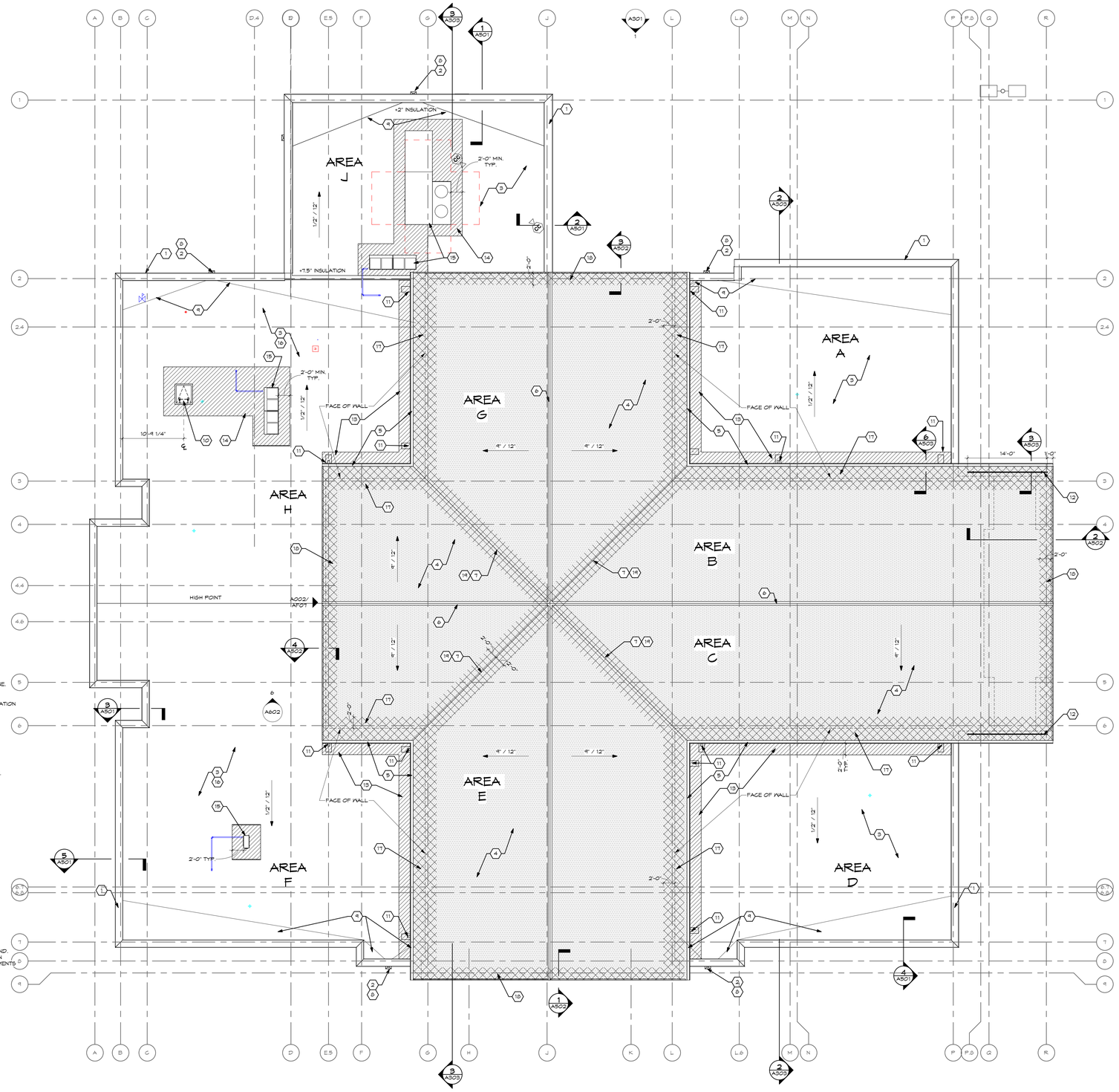
DIMENSION PLAN

STATE OF OHIO
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JOHN C. FABELO
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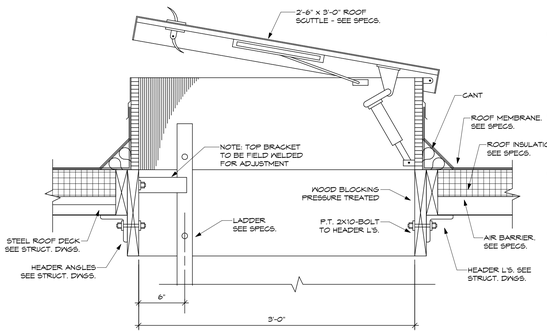
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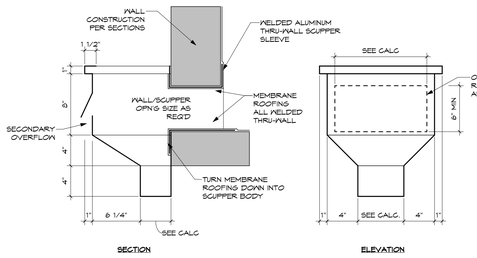
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1 ROOF PLAN
SCALE: 1/8" = 1'-0"



3 ROOF - HATCH DETAIL
SCALE: 1 1/2" = 1'-0"



2 TYP. CONDUCTOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

SHEET NOTES:

1. ALUMINUM COPING.
2. SCUPPER. SEE DETAIL AND PLUMBING DWGS.
3. SINGLE PLY MEMBRANE ROOF OVER 4" RIGID INSULATION AND STRUCTURE.
4. ASPHALT SHINGLE ROOF ON VENTED SHEATHING AND ICE/WATER SHIELD AS SPECIFIED.
5. 'I' GUTTER. SEE ELEVATIONS FOR DOWNSPOUT LOCATIONS
6. CONTINUOUS RIDGE VENT.
7. VALLEY FLASHING PER SHINGLE MANUFACTURER REQUIREMENTS.
8. ROOF DRAIN/OVERFLOW LOCATION. SEE PLUMBING DWGS. FOR DETAILS
9. ROOF CRICKET DEVELOPED WITH TAPERED INSULATION TO ACHIEVE A MINIMUM 1/4" PER FOOT SLOPE TOWARDS DRAIN
10. ROOF ACCESS LADDER AND 2'-6" X 3'-0" ROOF HATCH
11. DOWNSPOUT AND SPLASH BLOCK PER SINGLE-PLY ROOF MANUFACTURER SPECIFICATIONS
12. SNOW GUARD SYSTEM AS SPECIFIED.
13. APPLY ADDITIONAL LAYER OF TPO WALKWAY MATERIAL ALONG PERIMETER OF ROOF BELOW GABLE ROOF EAVE. EXTEND 24" MINIMUM OUTWARD FROM FACE OF GUTTER.
14. TPO WALKWAY MATERIAL AROUND EQUIPMENT. 24" MINIMUM WIDTH.
15. ROOFTOP MOUNTED EQUIPMENT AND CURB. REFER TO RELATED DETAILS AND DRAWINGS
16. STRUCTURE SLOPES IN THIS AREA. REFER TO STRUCTURAL DRAWINGS.
17. ICE/WATER SHIELD FROM EAVE TO 2'-0" BEYOND FACE OF WALL. SEE SPECS.
18. ICE/WATER SHIELD FROM RAKE TO 2'-0" BEYOND FACE OF WALL. SEE SPECS.
19. ICE/WATER SHIELD 2'-0" EITHER SIDE OF VALLEY. SEE SPECS.

GENERAL NOTES:

A. PROVIDE MINIMUM 1/4" PER FOOT SLOPE ON ALL MEMBRANE ROOF SURFACES.
B. DRAINAGE CALCULATIONS BASED UPON 3" RAINFALL RATE IN OHIO PLUMBING CODE, FIGURE 1106.1
C. TABLE REFERENCES BELOW ARE FROM OHIO PLUMBING CODE
D. GALLONS PER MINUTE (GPM) CALCULATION = 0.312 X AREA FOR 3" RAINFALL RATE

AREA A: 2,645 S.F. = 413 GPM.
- REQUIRES 40 SQ. IN. GUTTER, 42" PROVIDED VIA 6"XT' GUTTER PER TABLE 1106.6 AND 5" VERTICAL LEADER PER TABLE 1106.3

AREA B: 1,563 S.F. = 488 GPM.
- 488 GPM + 413 GPM FROM ADJACENT ROOF = 1,406 GPM
- 10" VERTICAL PIPE LEADER = 2,050 GPM CAPACITY > 1,406 GPM PER TABLE 1106.2
- SECONDARY DRAINAGE VIA SCUPPER BIRDSMOUTH OPENING, VISIBLE TO BUILDING STAFF

AREA C: 3,136 S.F. = 979 GPM.
- REQUIRES 40 SQ. IN. GUTTER, 42" PROVIDED VIA 6"XT' GUTTER PER TABLE 1106.6 AND 5" VERTICAL LEADER PER TABLE 1106.3

AREA D: 1,612 S.F. = 503 GPM.
- 503 GPM + 979 GPM FROM ADJACENT ROOF = 1,481 GPM
- 10" VERTICAL PIPE LEADER = 2,050 GPM CAPACITY > 1,481 GPM PER TABLE 1106.2
- SECONDARY DRAINAGE VIA SCUPPER BIRDSMOUTH OPENING, VISIBLE TO BUILDING STAFF

AREA E: 1,970 S.F. = 615 GPM.
- REQUIRES 40 SQ. IN. GUTTER, 42" PROVIDED VIA 6"XT' GUTTER PER TABLE 1106.6 AND 5" VERTICAL LEADER PER TABLE 1106.3

AREA F: 2,610 S.F. = 814 GPM.
- 814 GPM + 615 GPM FROM ADJACENT ROOF = 1,429 GPM
- 10" VERTICAL PIPE LEADER = 2,050 GPM CAPACITY > 1,429 GPM PER TABLE 1106.2
- SECONDARY DRAINAGE VIA SCUPPER BIRDSMOUTH OPENING, VISIBLE TO BUILDING STAFF

AREA G: 1,776 S.F. = 554 GPM.
- REQUIRES 40 SQ. IN. GUTTER, 42" PROVIDED VIA 6"XT' GUTTER PER TABLE 1106.6 AND 5" VERTICAL LEADER PER TABLE 1106.3

AREA H: 2,597 S.F. = 810 GPM.
- 810 GPM + 554 GPM FROM ADJACENT ROOF = 1,352 GPM
- 10" VERTICAL PIPE LEADER = 2,050 GPM CAPACITY > 1,352 GPM PER TABLE 1106.2
- SECONDARY DRAINAGE VIA SCUPPER BIRDSMOUTH OPENING, VISIBLE TO BUILDING STAFF

AREA J: 1,334 S.F. = 416 GPM.
- 6" VERTICAL PIPE LEADER = 538 GPM CAPACITY > 416 GPM PER TABLE 1106.2
- SECONDARY DRAINAGE VIA SCUPPER BIRDSMOUTH OPENING, VISIBLE TO BUILDING STAFF

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
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ROOF PLAN

Comm. No.	19651.00
Date	2021/04/23
Drawn	DJB
Drawing No.	A102
Checked	ES/WK

STATE OF OHIO · JOHN CHARLES FABELO · 9711199 · REGISTERED ARCHITECT

JOHN C. FABELO
LICENSE ARC.9711199, EXPIRES: 12/31/21

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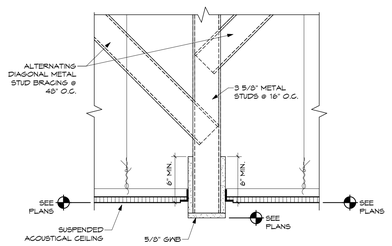
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ROOM SCHEDULE	
Number	Name
101	SCREENING VESTIBULE
102	LOBBY
103	CLERKS
104	CORRIDOR
105	SUB-LOBBY
106	JUDICIAL MNGR.
107	MAGISTRATE
108	JUDGE'S CHAMBER
109	JUDGE'S CHAMBER
110	BAILIFF
111	BAILIFF
112	STAFF WORK ZONE
113	C.P. CLERK
114	SUPERVISORY PROJECT MGR.
115	A.C.D. CLERK
116	CORRIDOR
117	RECORD STORAGE
118	I.T.
119	MECHANICAL
120	BOOK KEEPING
121	COURT
124	CCO
125	CO
126	RESTROOM
127	WORK SPACE
128	VICTM
129	WAITING
130	WAITING AREA
131	JPS
132	WFD
133	RESTROOM
134	PROBATION STAFF
135	MENS RESTROOM

ROOM SCHEDULE	
Number	Name
136	WOMENS RESTROOM
137	CORRIDOR
138	WAITING AREA
139	SECURITY
140	FINGER PRINT
141	PUBLIC DEFENDER
142	PUBLIC DEFENDER
143	ATTORNEY CONFERENCE
144	PROSECUTOR
145	PROSECUTOR
146	PROSECUTOR
147	JURY COURT
148	STAFF
149	SALLYPORT
150	TEMP HOLDING CELL
151	TEMP HOLDING CELL
152	TEMP HOLDING CELL
153	OFFICER ROOM
154	TEMP HOLDING CELL
155	EXIT VESTIBULE
156	CORRIDOR
157	JURY DELIBERATION/POLICE WAITING
158	MECH
159	RESTROOM
160	RESTROOM
161	LACTATION /STR
162	BREAK AREA
163	KITCHEN
164	VESTIBULE
165	OFFICE
166	R.R.

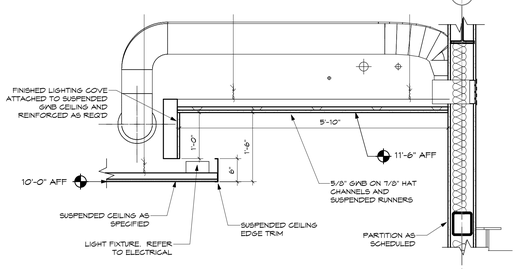
NOTE: ROOM NAMES REMOVED FROM PLANS FOR CLARITY



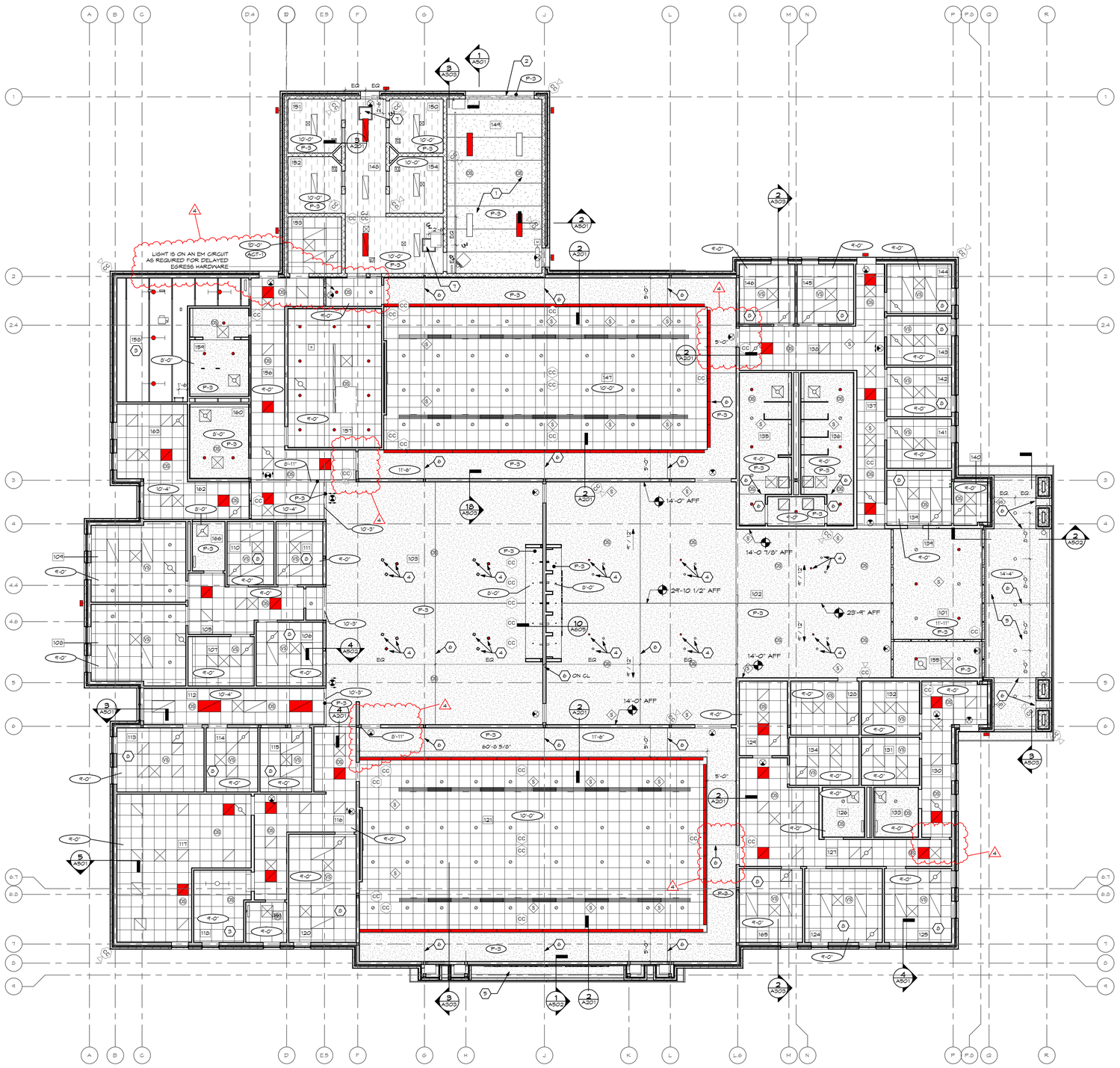
4 CEILING SECTION
SCALE: 1 1/2" = 1'-0"



3 HOLDING CELL CEILING
SCALE: 3/4" = 1'-0"



2 COURTROOM CEILING-TO-WALL SECTION
SCALE: 3/4" = 1'-0"



1 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. EXPOSED PRECAST CONCRETE PLANKS.
2. PAINTED STEEL LINTEL. TYPICAL ALL EXTERIOR OPENINGS
3. EXPOSED STRUCTURE/DECK.
4. PENDANT LIGHT FIXTURE. COORDINATE FINAL LOCATION WITH ARCHITECT IN THE FIELD. PROVIDE SUPPLEMENTAL SUPPORT FRAMING.
5. EXTERIOR SOFFIT SYSTEM AS SPECIFIED
6. DRYWALL OR EIFS CONTROL JOINT
7. ACCESS PANEL. COORDINATE EQUIPMENT INSTALLATION WITH LOCATION SHOWN.
8. INSTALL 3" MINERAL FIBER SOUND ATTENUATION FIRE BLANKET BATTS (SAFB) OVER ENTIRE ACOUSTIC CEILING IN THESE ROOMS. THERMAFIBER OR ROCKWOOL PERMITTED MANUFACTURERS. 2.5 PCF DENSITY

REFLECTED CEILING PLAN RE-ISSUED TO SHOW EMERGENCY LIGHTING AND CLEAR UP OVERLAPPING SYMBOLOGY AS REQUESTED BY THE CODE OFFICIAL

GENERAL NOTES:

A. ALL VAULTED CEILINGS TO USE 7/8" METAL FURRING HAT CHANNELS @ 16" O.C. WITH 5/8" GYPSUM WALLBOARD
B. ALL ACOUSTICAL CEILINGS ARE (ACT-1) UNLESS OTHERWISE NOTED.

REFLECTED CEILING PLAN LEGEND

TYPICAL FOR ALL SHEETS.
SEE SHEET G001 AND MEPT DRAWINGS FOR ADDITIONAL SYMBOLS, AND INFORMATION.

- 101 ---- ROOM NUMBER
- ---- LIGHT FIXTURES
- ---- ACOUSTICAL LAY-IN TILE CEILING
- ---- ABUSE RESISTANT DRYWALL SURFACES
- ---- DRYWALL SURFACES
- ---- GRILLES, DIFFUSERS, REGISTERS, ETC.
- OS ---- OCCUPANCY SENSOR
- VS ---- VACANCY SENSOR
- CC ---- CEILING MOUNTED SECURITY CAMERA
- ---- EXIT LIGHTS
- SD ---- SMOKE DETECTOR
- ---- EMERGENCY LIGHTING

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
3	ADDENDUM #3	2021/05/28
5	ISSUED FOR RE-BID	2021/06/18

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TROTWOOD, OH 45426

REFLECTED CEILING PLAN

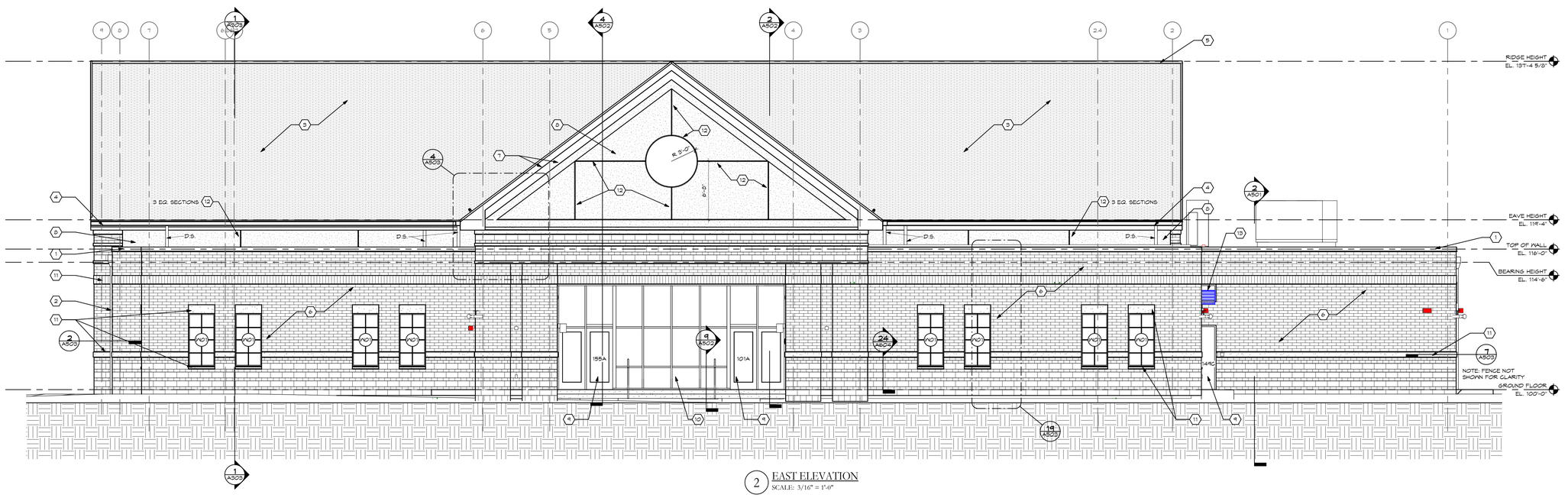
STATE OF OHIO — JOHN CHARLES FABELO — 71179 — REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.#71179, EXPIRES: 12/31/21

Comm. No. 19651.00	Date 2021/04/23
Drawn DJB	Drawing No. A201
Checked ES/WK	

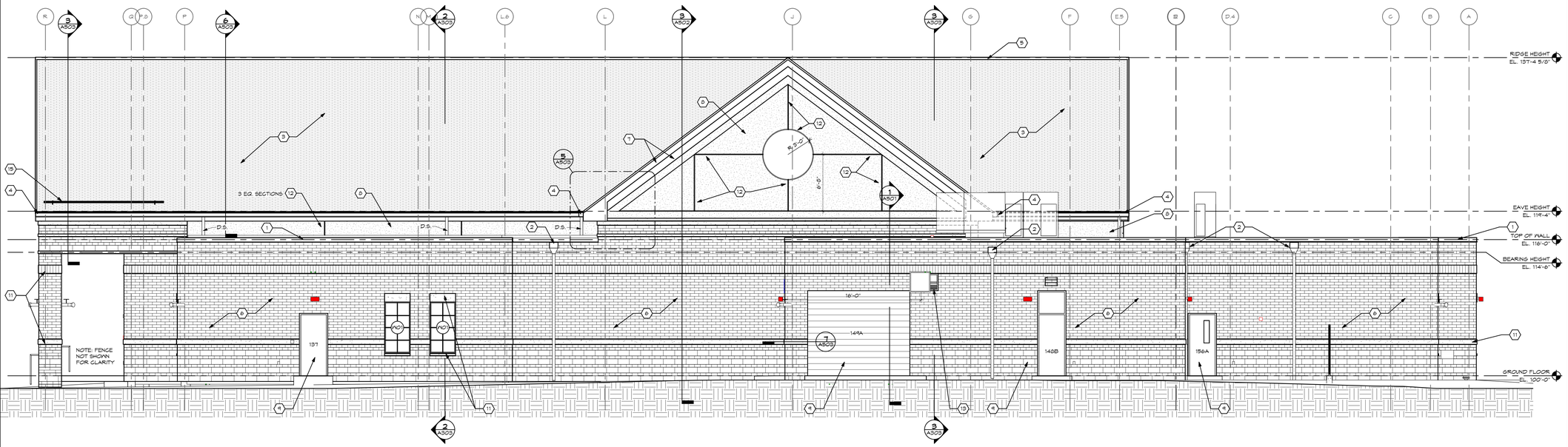
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2 EAST ELEVATION
SCALE: 3/16" = 1'-0"



1 NORTH ELEVATION
SCALE: 3/16" = 1'-0"

SHEET NOTES:

1. .063 ALUMINUM COPING
2. .063 ALUMINUM SCUPPER BOX AND DOWNSPOUT. SEE DETAILS AND PLUMBING DRAWINGS
3. ASPHALT SHINGLE ROOF
4. GUTTER SYSTEM. SEE ELEVATIONS AND ROOF PLANS FOR DOWNSPOUT LOCATIONS
5. 12" RIDGE VENT AND CAP SHINGLES.
6. MASONRY VENEER. SEE SECTIONS
7. .063 ALUMINUM WRAPPED FASCIA BOARD
8. EIFS SYSTEM. SEE SECTIONS AND SPECIFICATIONS
9. PERIMETER DOOR. SEE SCHEDULE AND SPECIFICATIONS. COORDINATE CONNECTIONS TO OTHER BUILDING SYSTEMS AS REQUIRED.
10. ALUMINUM STOREFRONT SYSTEM AND GLAZING AS SPECIFIED.
11. ARCHITECTURAL CAST STONE SILL, LINTEL OR BAND.
12. EIFS REVEAL.
13. ALUMINUM LOUVER. REFER TO MECHANICAL DRAWINGS.
14. PIN-MOUNTED LETTERS. SEE SPECS.
15. SNOW GUARD.

GENERAL NOTES:

A. REFER TO ENLARGED TYPICAL MASONRY COURSING DETAIL FOR INFORMATION ON COLOR/MASONRY SIZES.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

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EXTERIOR ELEVATIONS

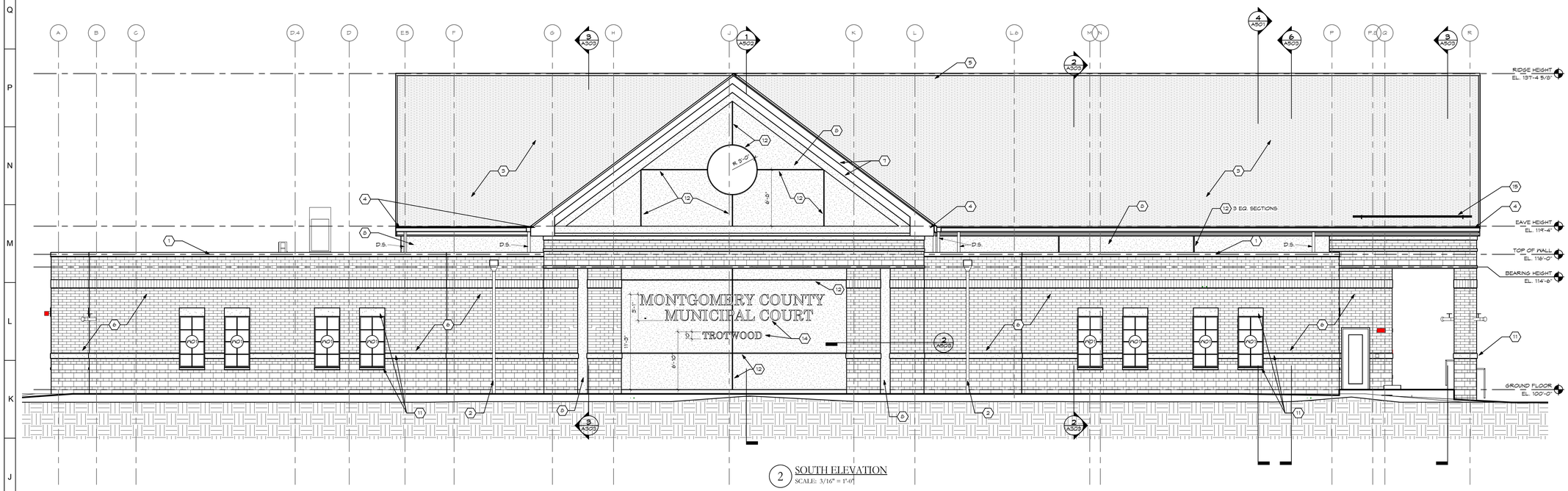
STATE OF OHIO
JOHN CHARLES FABELO
9711799
REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: A301
Checked: ES/WK	

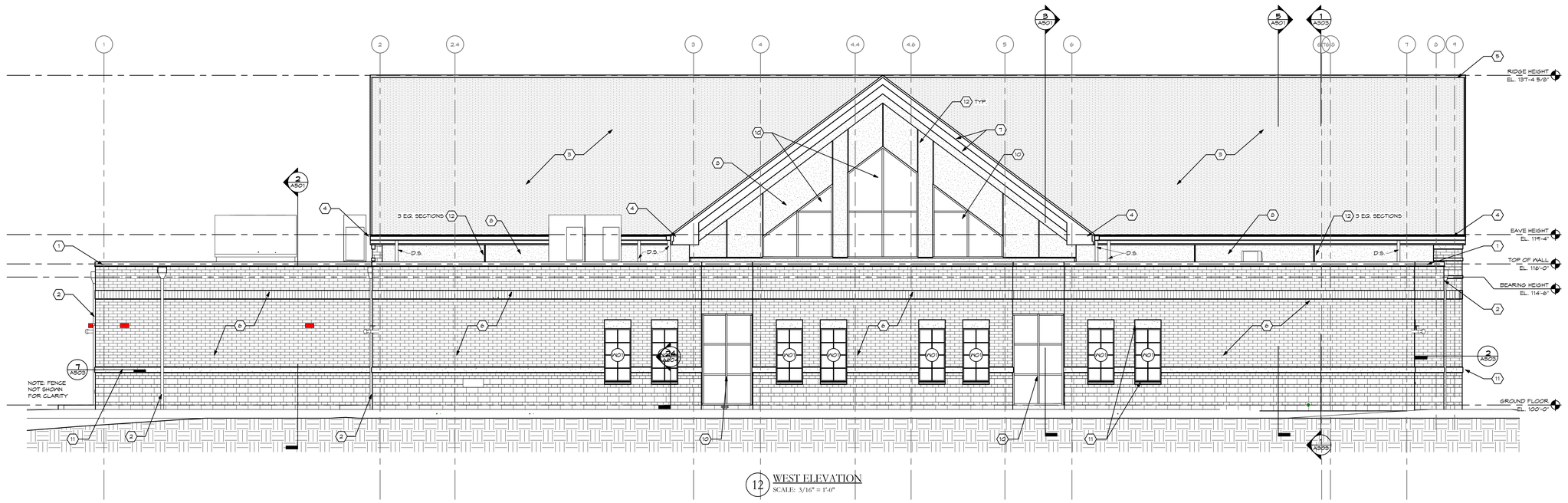
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2 SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



12 WEST ELEVATION
SCALE: 3/16" = 1'-0"

SHEET NOTES:

1. .063 ALUMINUM COPING.
2. .063 ALUMINUM SCUPPER BOX AND DOWNSPOUT. SEE DETAILS AND PLUMBING DRAWINGS.
3. ASPHALT SHINGLE ROOF.
4. GUTTER SYSTEM. SEE ELEVATIONS AND ROOF PLANS FOR DOWNSPOUT LOCATIONS.
5. 12" RIDGE VENT AND CAP SHINGLES.
6. MASONRY VENEER. SEE SECTIONS
7. .063 ALUMINUM WRAPPED FASCIA BOARD.
8. EIFS SYSTEM. SEE SECTIONS AND SPECIFICATIONS.
9. PERIMETER DOOR. SEE SCHEDULE AND SPECIFICATIONS. COORDINATE CONNECTIONS TO OTHER BUILDING SYSTEMS AS REQUIRED.
10. ALUMINUM STOREFRONT SYSTEM AND GLAZING AS SPECIFIED.
11. ARCHITECTURAL CAST STONE SILL, LINTEL OR BAND.
12. EIFS REVEAL.
13. ALUMINUM LOUVER. REFER TO MECHANICAL DRAWINGS.
14. PIN-MOUNTED LETTERS. SEE SPECS.
15. SNOW GUARD.

GENERAL NOTES:

A. REFER TO ENLARGED TYPICAL MASONRY COURSING DETAIL FOR INFORMATION ON COLOR/MASONRY SIZES.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

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EXTERIOR ELEVATIONS

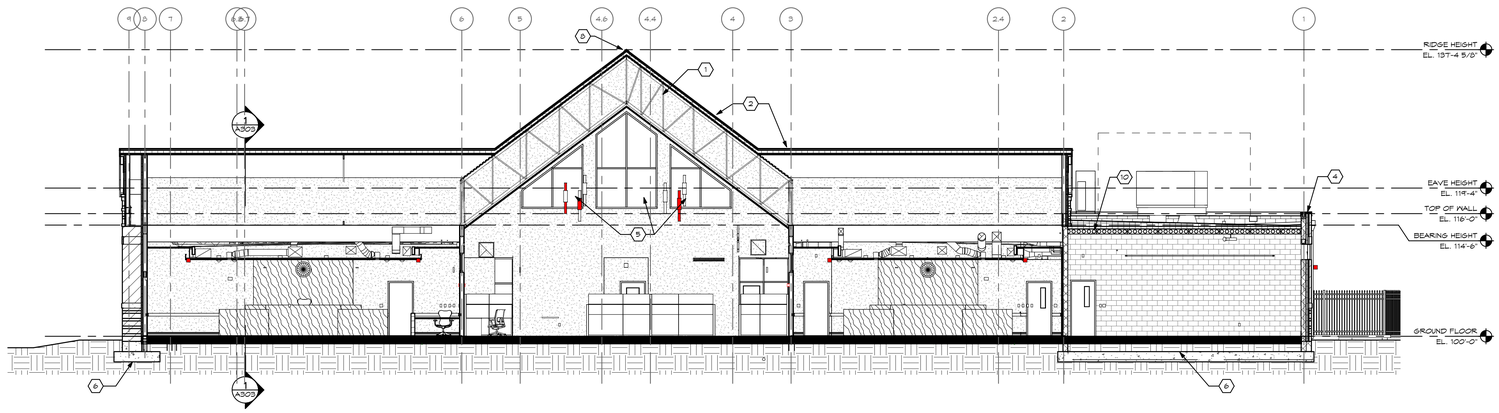
JOHN CHARLES FABELO 9711799 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: A302
Checked: ES/WK	

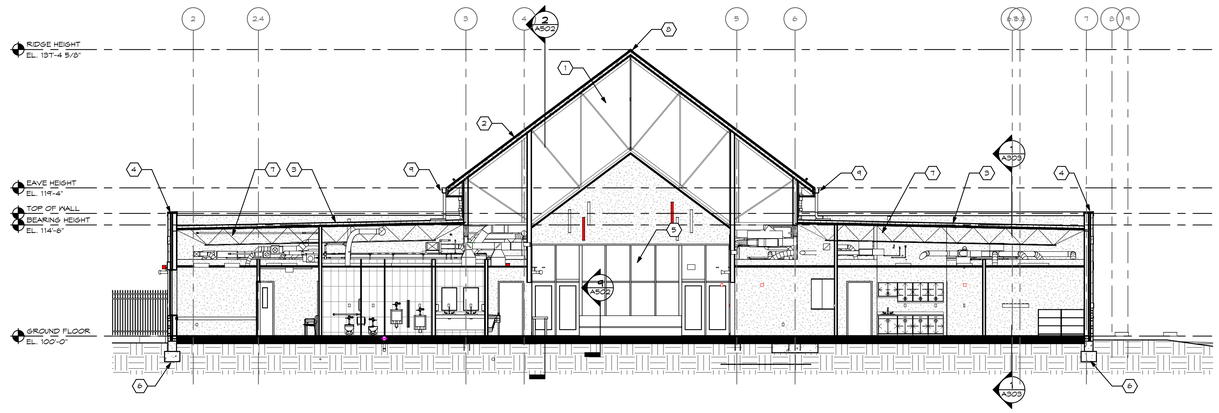
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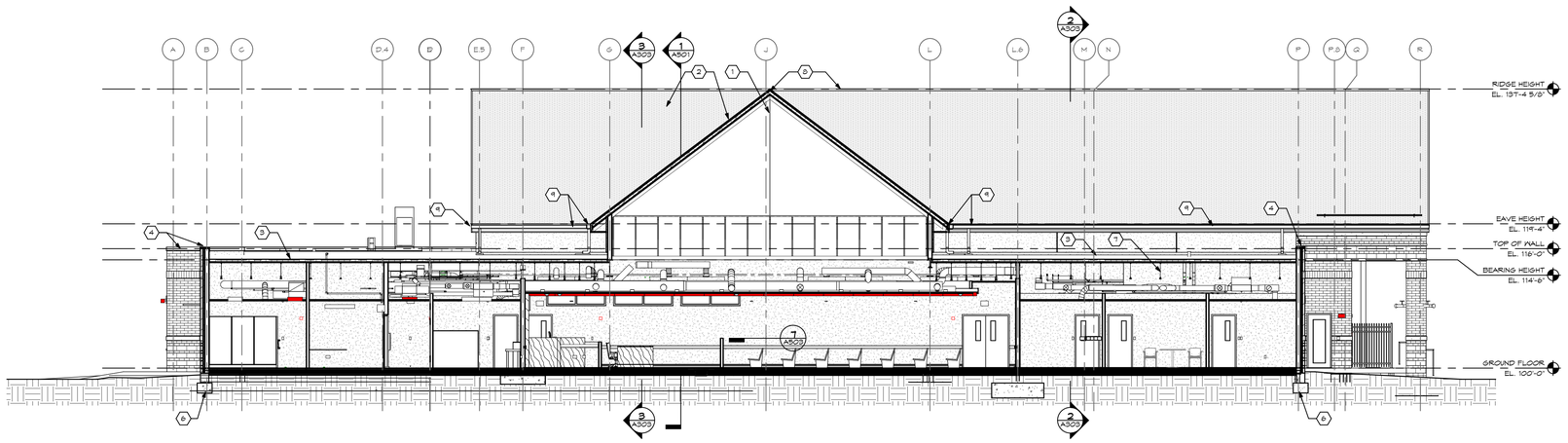
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3 BUILDING SECTION LOOKING WEST
SCALE: 1/8" = 1'-0"



2 BUILDING SECTION LOOKING EAST
SCALE: 1/8" = 1'-0"



1 BUILDING SECTION LOOKING NORTH
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. PRE-FABRICATED TRUSS SYSTEM
2. ASPHALT SHINGLE ROOF SYSTEM
3. MEMBRANE ROOF SYSTEM
4. METAL COPING
5. METAL-FRAMED WINDOW SYSTEM BEYOND
6. CONCRETE FOUNDATION
7. ROOF JOISTS
8. RIDGE VENT
9. GUTTER SYSTEM. SEE ELEVATIONS AND ROOF PLAN FOR DOWNSPOUT LOCATIONS
10. PRE-CAST CONCRETE ROOFING SYSTEM. SEE ROOF PLAN AND STRUCTURAL DRAWINGS

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

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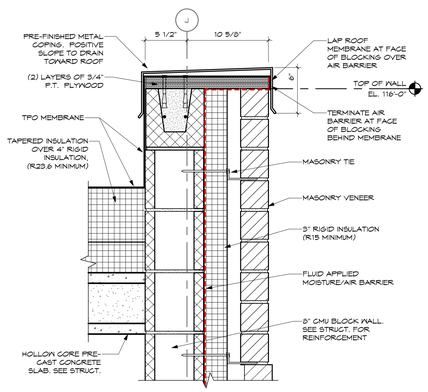
BUILDING SECTIONS

JOHN CHARLES FABELO 8711799 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.8711799, EXPIRES: 12/31/21

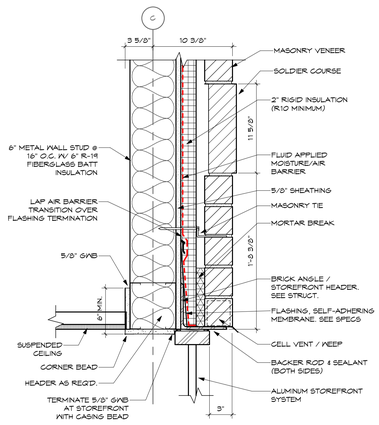
Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: A303
Checked: ES/WK	

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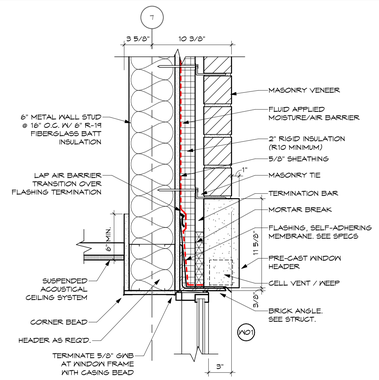
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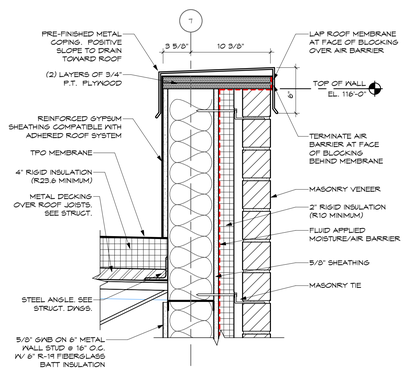
13 TYPICAL BRICK VENEER ON CMU PARAPET DETAIL
SCALE: 1 1/2" = 1'-0"



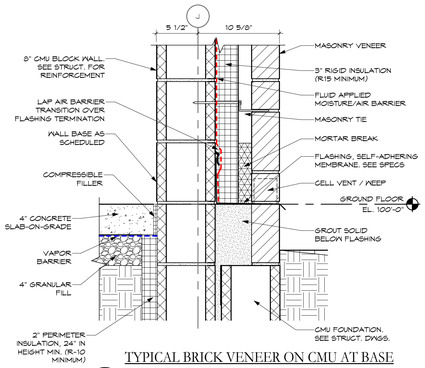
11 TYPICAL ALUMINUM FRAME HEAD IN BRICK VENEER ON METAL STUD
SCALE: 1 1/2" = 1'-0"



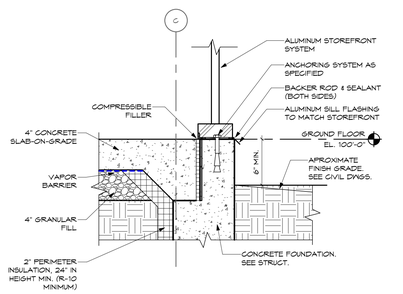
9 TYPICAL WINDOW HEAD IN BRICK VENEER ON METAL STUD
SCALE: 1 1/2" = 1'-0"



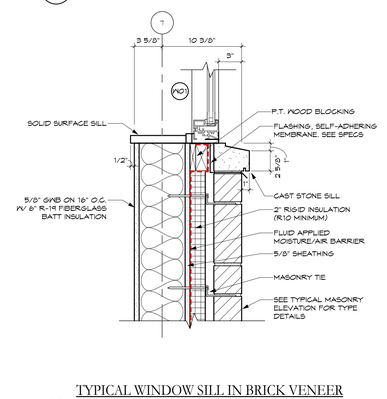
7 TYPICAL BRICK VENEER ON METAL STUD PARAPET DETAIL
SCALE: 1 1/2" = 1'-0"



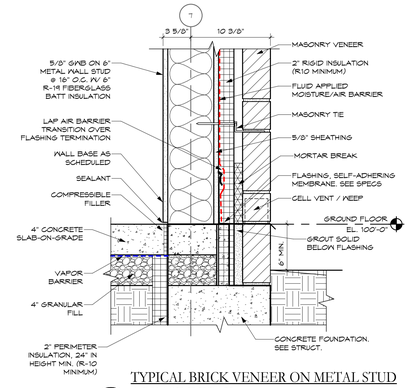
12 TYPICAL BRICK VENEER ON CMU AT BASE DETAIL
SCALE: 1 1/2" = 1'-0"



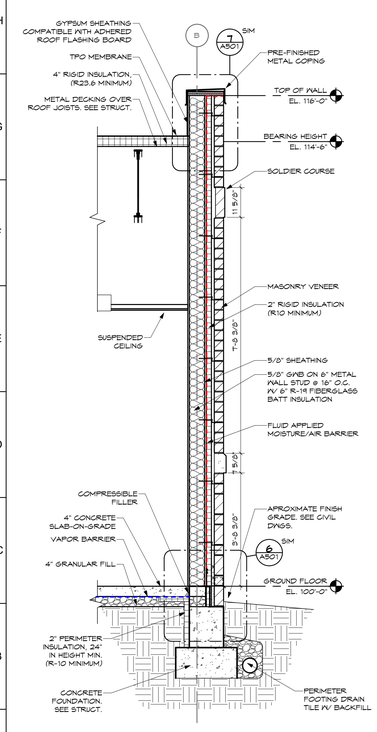
10 TYPICAL ALUMINUM FRAME SILL
SCALE: 1 1/2" = 1'-0"



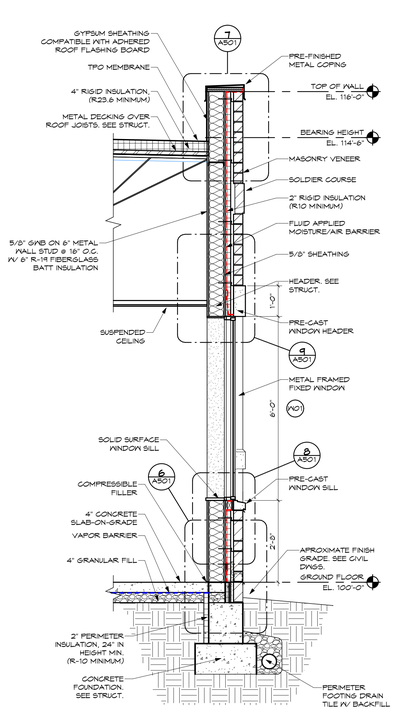
8 TYPICAL WINDOW SILL IN BRICK VENEER ON METAL STUD
SCALE: 1 1/2" = 1'-0"



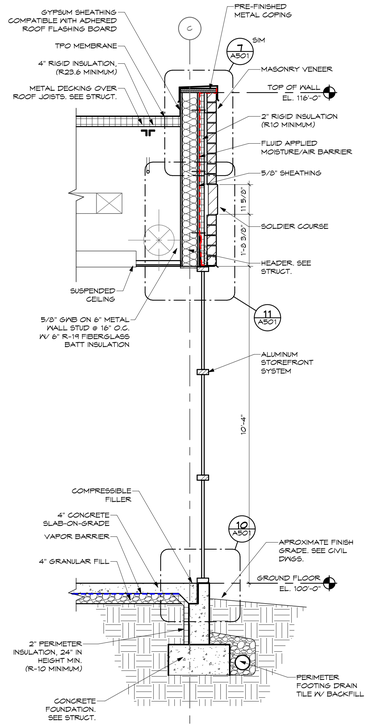
6 TYPICAL BRICK VENEER ON METAL STUD AT BASE DETAIL
SCALE: 1 1/2" = 1'-0"



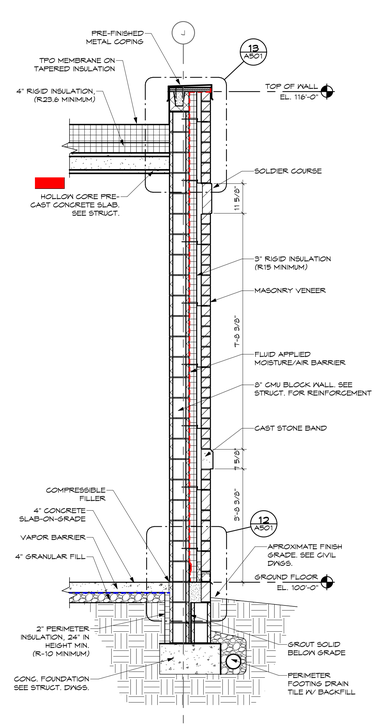
5 TYP. MASONRY VENEER ON METAL STUD WALL
SCALE: 1/2" = 1'-0"



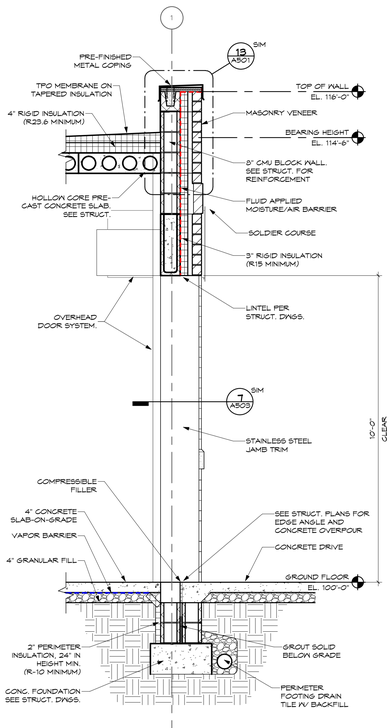
4 TYP. MASONRY VENEER ON METAL STUDS @ WINDOW
SCALE: 1/2" = 1'-0"



3 TYP. MASONRY VENEER ON METAL STUDS @ STOREFRONT
SCALE: 1/2" = 1'-0"



2 TYP. MASONRY VENEER ON CMU WALL
SCALE: 1/2" = 1'-0"



1 MASONRY VENEER ON CMU WALL @ OVERHEAD DOOR
SCALE: 1/2" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

A. BASIS OF DESIGN BRICK SIZE AND COLOR BLEND
- (TYPE A) = "RED" UTILITY MFG COLOR: BELDEN REGAL BLEND
- (TYPE B) = "RED" ECONOMY MODULAR MFG COLOR: BELDEN REGAL BLEND
- (TYPE C) = "GREY" ECONOMY MODULAR MFG COLOR: BELDEN BEACON GRAY VELOUR
- (TYPE D) = "GREY" DOUBLE MONARCH MFG COLOR: BELDEN BEACON GRAY VELOUR

B. PROVIDE HIGH IMPACT RESISTANT EIFS SYSTEM FOR INSTALLATION AREAS BELOW 10'-0". STANDARD IMPACT RESISTANCE ABOVE 10'-0"

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

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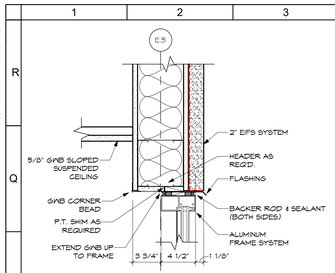
WALL SECTIONS AND DETAILS

JOHN CHARLES FABELO 8711799 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.8711799, EXPIRES: 12/31/21

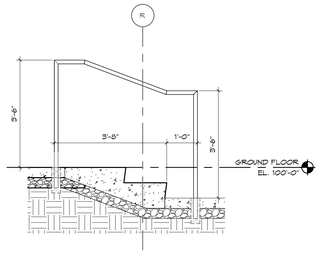
Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No. A501
Checked: ES/WK	

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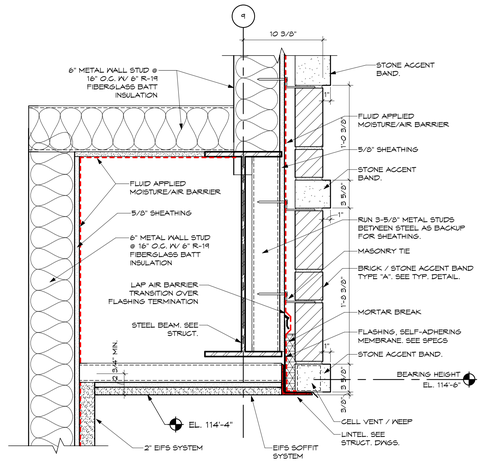
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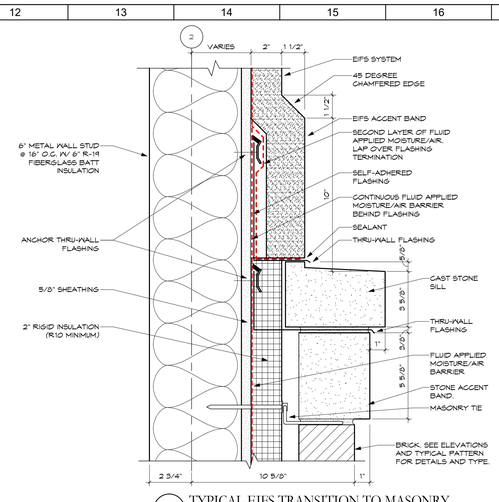
8 EIFS TRANSITION TO STOREFRONT @ HEAD
SCALE: 1 1/2" = 1'-0"



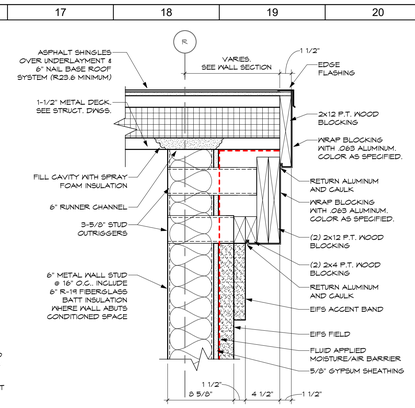
9 ENTRY RAILING
SCALE: 1/2" = 1'-0"



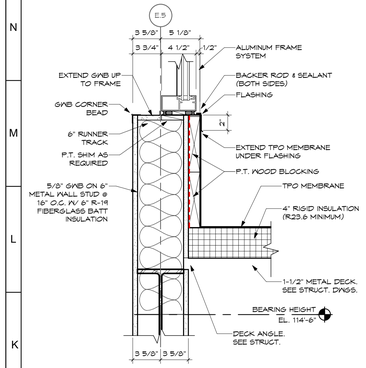
10 ENLARGED SOFFIT DETAIL
SCALE: 1 1/2" = 1'-0"



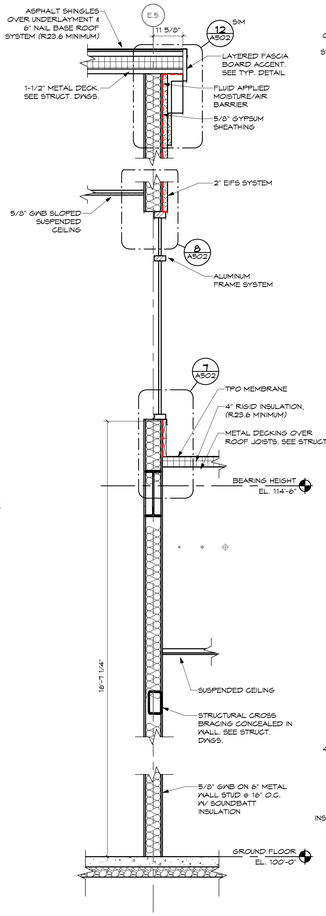
11 TYPICAL EIFS TRANSITION TO MASONRY
SCALE: 3" = 1'-0"



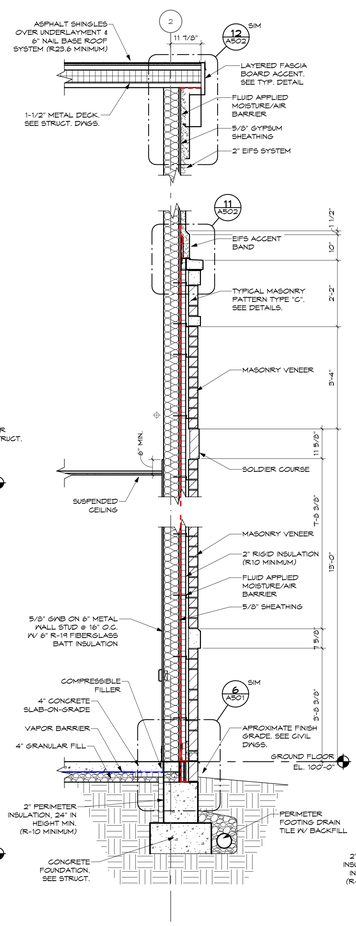
12 TYP. FASCIA BOARD DETAIL
SCALE: 1 1/2" = 1'-0"



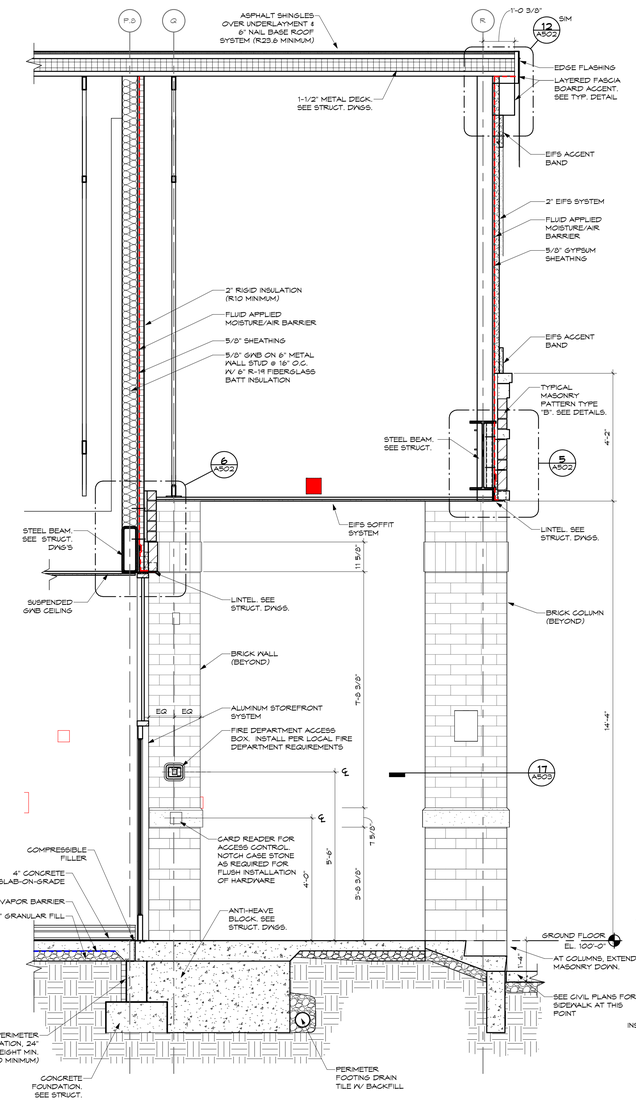
7 EIFS TRANSITION TO ROOF
SCALE: 1 1/2" = 1'-0"



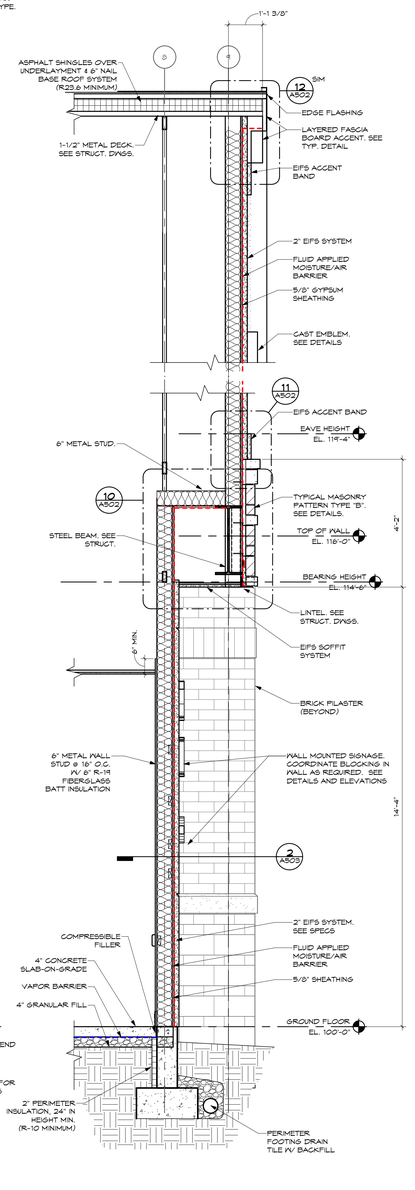
4 EAST GABLE WALL SECTION
SCALE: 1/2" = 1'-0"



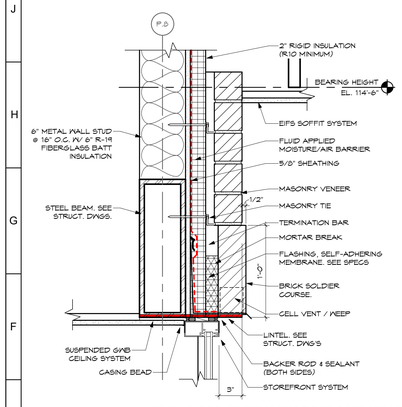
3 NORTH COURTROOM WALL SECTION
SCALE: 1/2" = 1'-0"



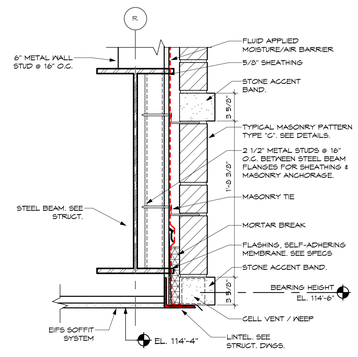
2 ENTRY OVERHANG WALL SECTION
SCALE: 1/2" = 1'-0"



1 SOUTH COURTROOM WALL SECTION
SCALE: 1/2" = 1'-0"



ENLARGED ENTRY STOREFRONT HEAD DETAIL
6
SCALE: 1 1/2" = 1'-0"



5 ENLARGED BRICK LEDGE DETAIL
SCALE: 1 1/2" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

A. BASIS OF DESIGN BRICK SIZE AND COLOR BLEND
- (TYPE A) = 'RED' UTILITY
  MFG COLOR: BELDEN REGAL BLEND
- (TYPE B) = 'RED' ECONOMY MODULAR
  MFG COLOR: BELDEN REGAL BLEND
- (TYPE C) = 'GREY' ECONOMY MODULAR
  MFG COLOR: BELDEN BEACON GRAY VELOUR
- (TYPE D) = 'GREY' DOUBLE MONARCH
  MFG COLOR: BELDEN BEACON GRAY VELOUR

B. PROVIDE HIGH IMPACT RESISTANT EIFS SYSTEM FOR INSTALLATION AREAS BELOW 10'-0". STANDARD IMPACT RESISTANCE ABOVE 10'-0"

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
3	ADDENDUM #3	2021/05/28
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

WALL SECTIONS AND DETAILS

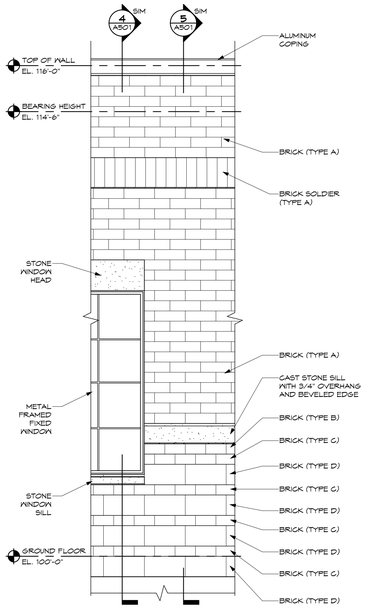
STATE OF OHIO JOHN CHARLES FABELO 9711799 REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No. A502
Checked: ES/WK	

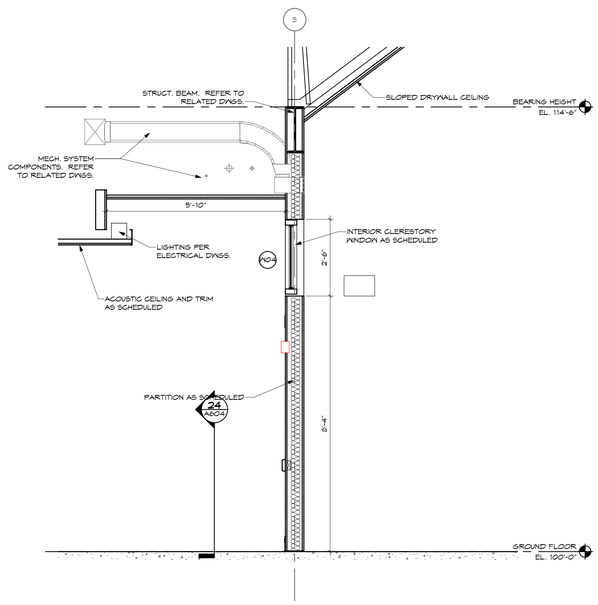
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6/17/2021 12:26:10 PM

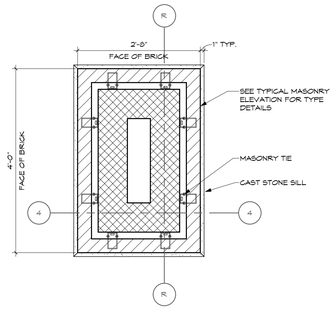
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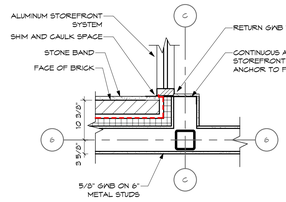
19 TYPICAL MASONRY PATTERN TYPE "A"
SCALE: 1/2" = 1'-0"



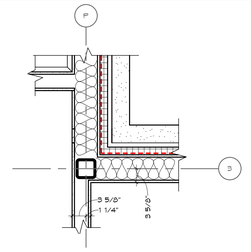
18 SECTION AT CLERK CORRIDOR
SCALE: 1/2" = 1'-0"



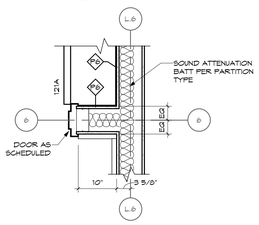
17 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



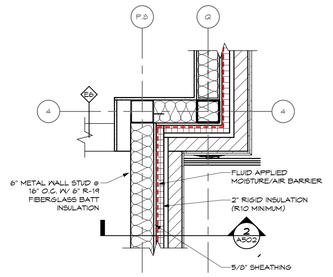
20 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



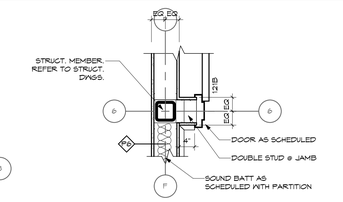
16 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



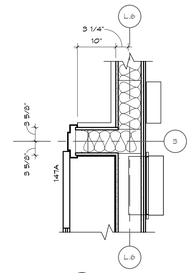
15 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



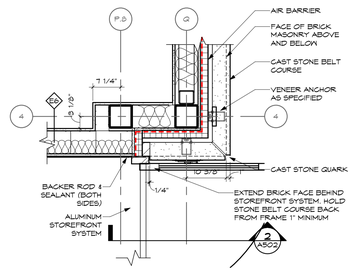
12 DETAIL ABOVE CURTAINWALL
SCALE: 3/4" = 1'-0"



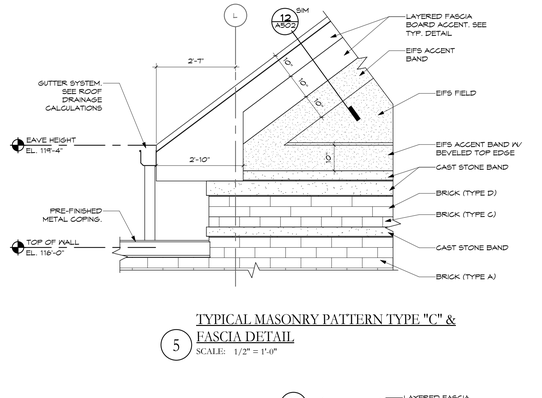
14 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



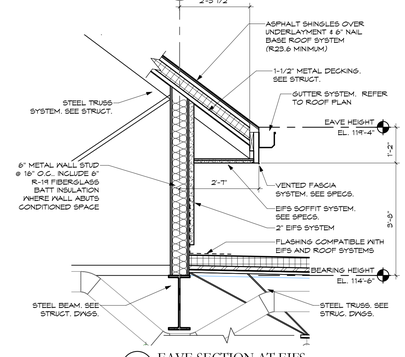
13 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



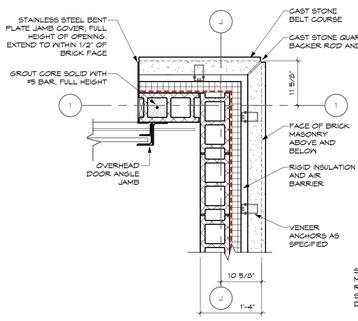
11 DETAIL @ CURTAINWALL JAMB
SCALE: 3/4" = 1'-0"



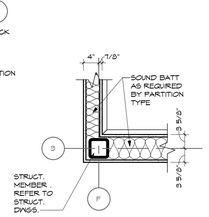
TYPICAL MASONRY PATTERN TYPE "C" & FASCIA DETAIL
5 SCALE: 1/2" = 1'-0"



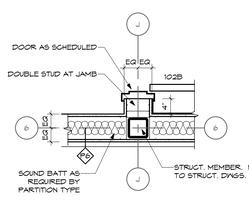
6 EAVE SECTION AT EIFS
SCALE: 1/2" = 1'-0"



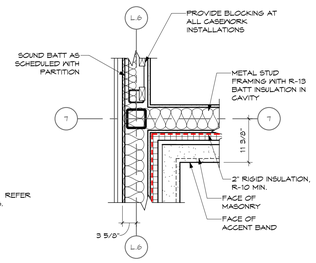
7 OVERHEAD DOOR JAMB DETAIL
SCALE: 3/4" = 1'-0"



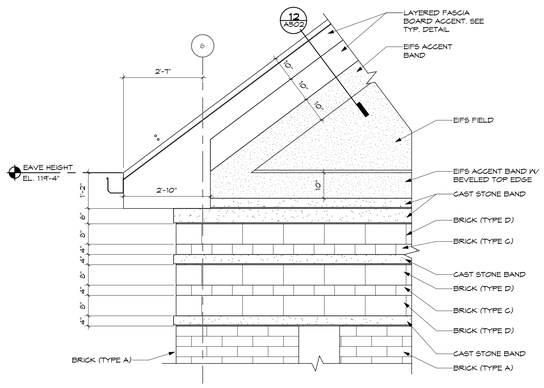
8 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



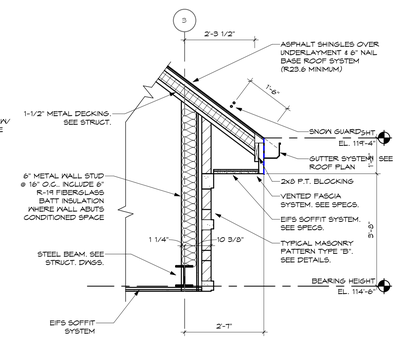
9 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



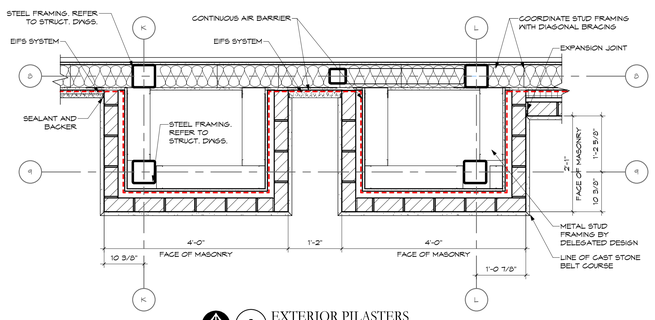
10 ENLARGED DETAIL
SCALE: 3/4" = 1'-0"



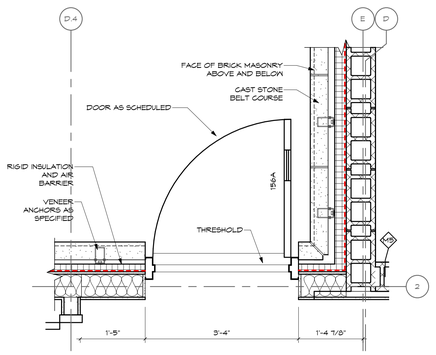
TYPICAL MASONRY PATTERN TYPE "B" & FASCIA DETAIL
4 SCALE: 1/2" = 1'-0"



3 EAVE SECTION AT MASONRY
SCALE: 1/2" = 1'-0"



2 EXTERIOR PILASTERS
SCALE: 3/4" = 1'-0"



1 DETAIL @ INTERIOR CORNER
SCALE: 3/4" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

A. BASIS OF DESIGN BRICK SIZE AND COLOR BLEND
- (TYPE A) = "RED" UTILITY MFG COLOR: BELDEN REGAL BLEND
- (TYPE B) = "RED" ECONOMY MODULAR MFG COLOR: BELDEN REGAL BLEND
- (TYPE C) = "GREY" ECONOMY MODULAR MFG COLOR: BELDEN BEACON GRAY VELOUR
- (TYPE D) = "GREY" DOUBLE MONARCH MFG COLOR: BELDEN BEACON GRAY VELOUR

B. PROVIDE HIGH IMPACT RESISTANT EIFS SYSTEM FOR INSTALLATION AREAS BELOW 10'-0". STANDARD IMPACT RESISTANCE ABOVE 10'-0"

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
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712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

WALL SECTIONS AND DETAILS

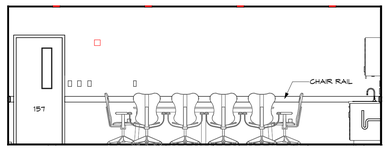
JOHN CHARLES FABELO 71139 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.#71139, EXPIRES: 12/31/21

Comm. No.	19651.00
Date	2021/04/23
Drawn	DJB
Drawing No.	A503
Checked	ES/WK

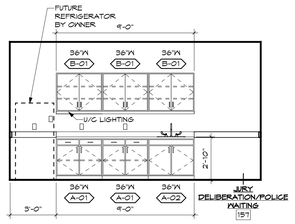
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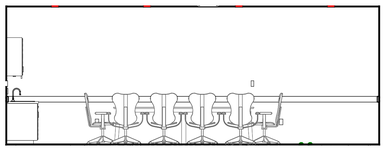
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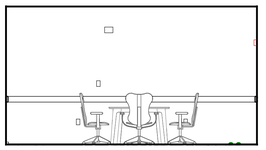
1 DELIBERATION ELEVATION A
SCALE: 1/4" = 1'-0"



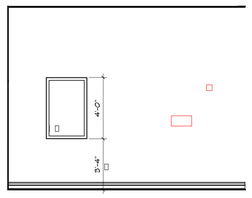
2 DELIBERATION ELEVATION B
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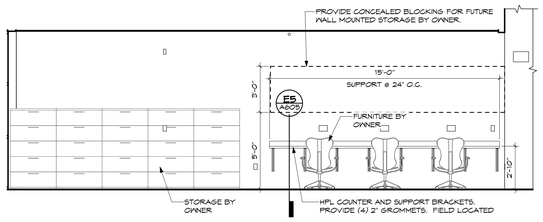
3 DELIBERATION ELEVATION C
SCALE: 1/4" = 1'-0"



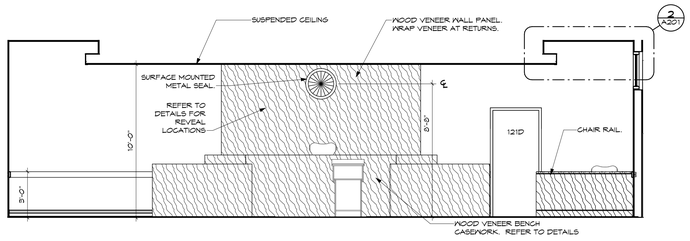
4 DELIBERATION ELEVATION D
SCALE: 1/4" = 1'-0"



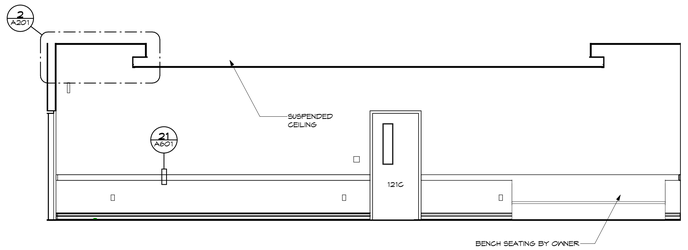
5 VESTIBULE ELEVATION A
SCALE: 1/4" = 1'-0"



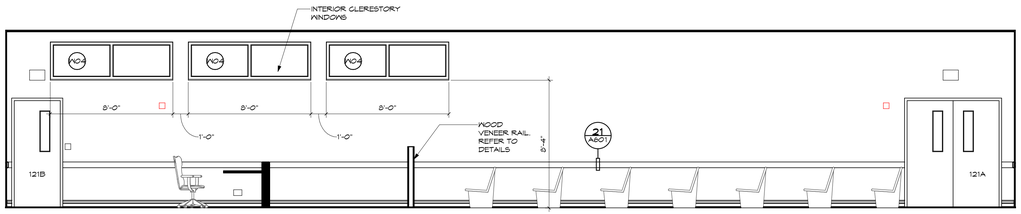
6 STAFF WORKZONE ELEVATION
SCALE: 1/4" = 1'-0"



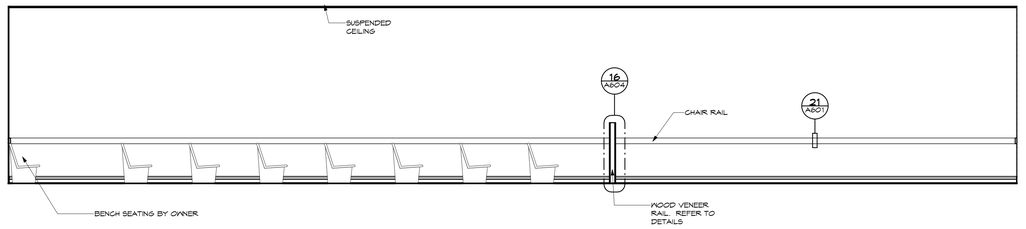
7 COURTROOM 121 WEST ELEVATION
SCALE: 1/4" = 1'-0"



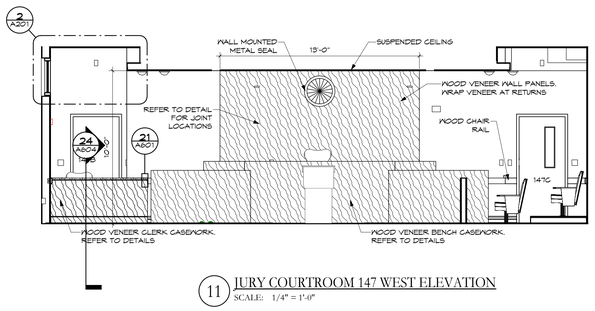
8 COURTROOM 121 EAST ELEVATION
SCALE: 1/4" = 1'-0"



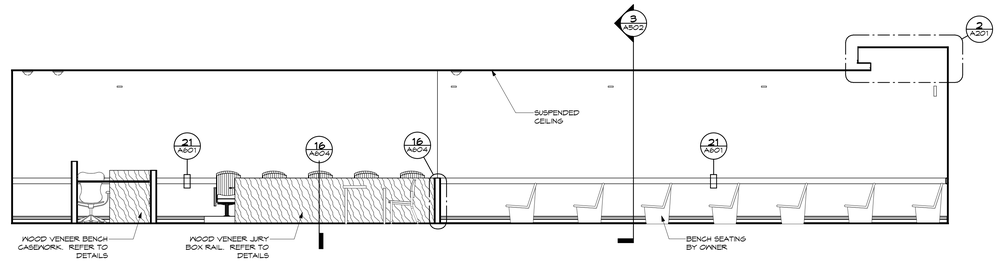
9 COURTROOM 121 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



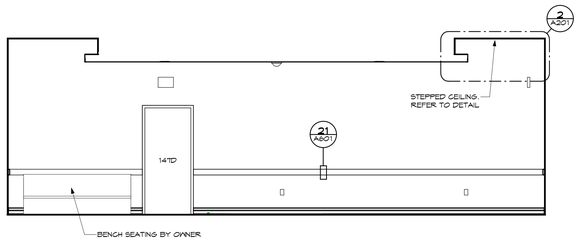
10 COURTROOM 121 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



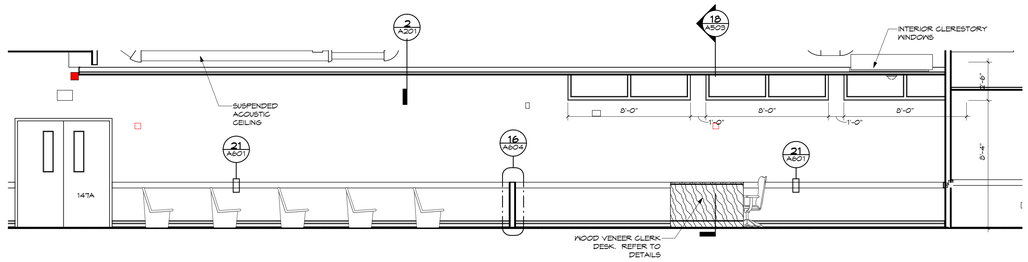
11 JURY COURTROOM 147 WEST ELEVATION
SCALE: 1/4" = 1'-0"



12 JURY COURTROOM 147 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



13 JURY COURTROOM 147 EAST ELEVATION
SCALE: 1/4" = 1'-0"



14 JURY COURTROOM 147 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

A. ALL CASEWORK SHALL HAVE FINISHED END PANELS ON EXPOSED SURFACES, INCLUDING BELOW WORK SURFACES.
B. ALL UPPER CABINETS SHALL HAVE A VALANCE TO SCREEN UNDER COUNTER LIGHTING UNLESS NOTED OTHERWISE
C. CONTRACTOR TO PROVIDE ONE (1) 2" DIAMETER GROMMET FOR EVERY 24" OF COUNTER AT EACH LOCATION. THESE WILL BE LOCATED IN THE FIELD IN COORDINATION WITH THE OWNER AND ARCHITECT.
D. REFER TO RELATED DETAILS FOR LOCATIONS OF WALL SWITCHES, CARD READERS, ETC. FOR ALIGNMENT REQUIREMENTS. COORDINATE LOCATIONS WITH WALL MOUNTED CHAIR RAIL OR OTHER FINISHES PRIOR TO ROUGH-IN

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
5	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

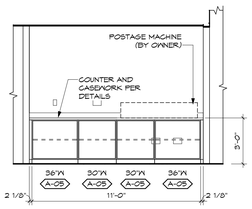
INTERIOR ELEVATIONS

JOHN CHARLES FABELO 9711799 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

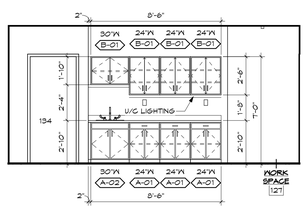
Comm. No.	Date
19651.00	2021/04/23
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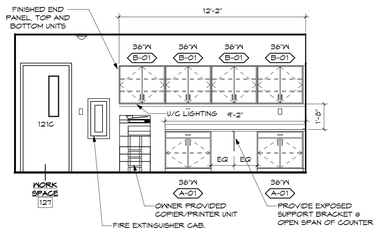
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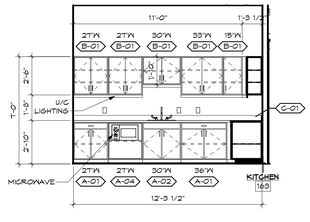
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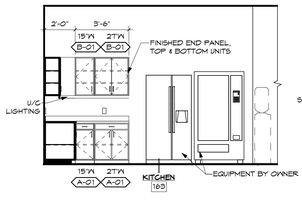
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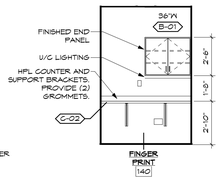
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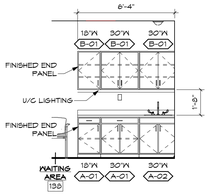
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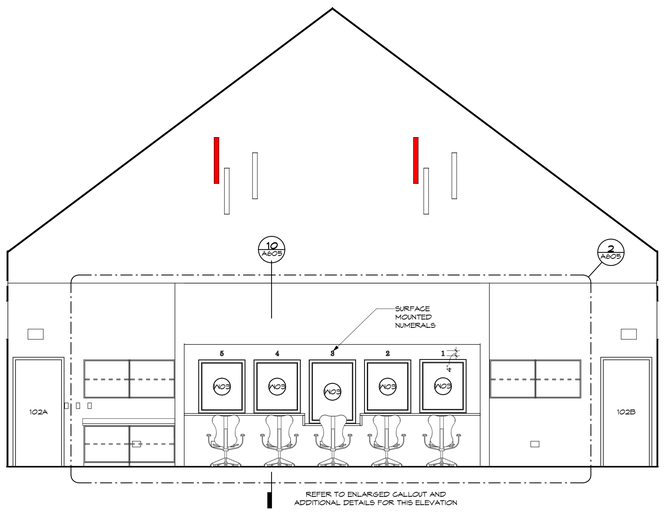
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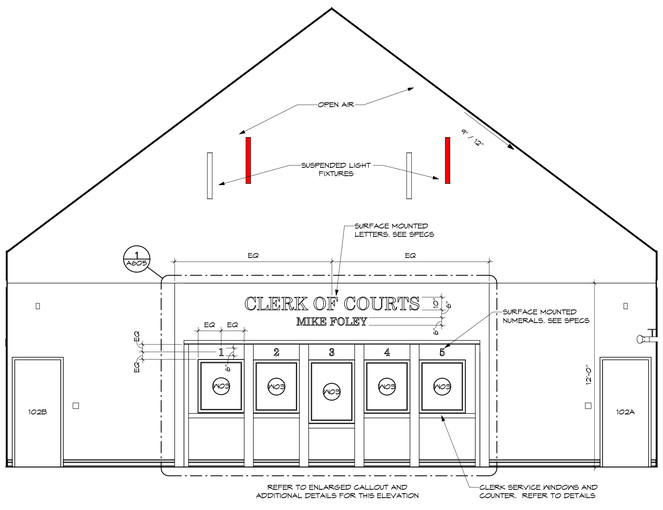
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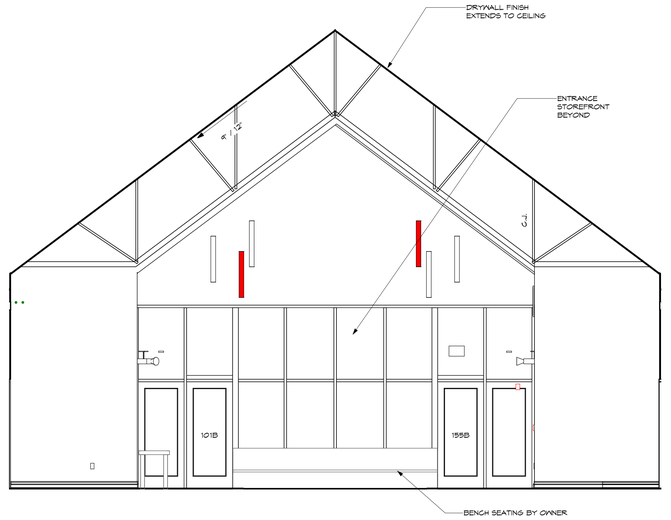
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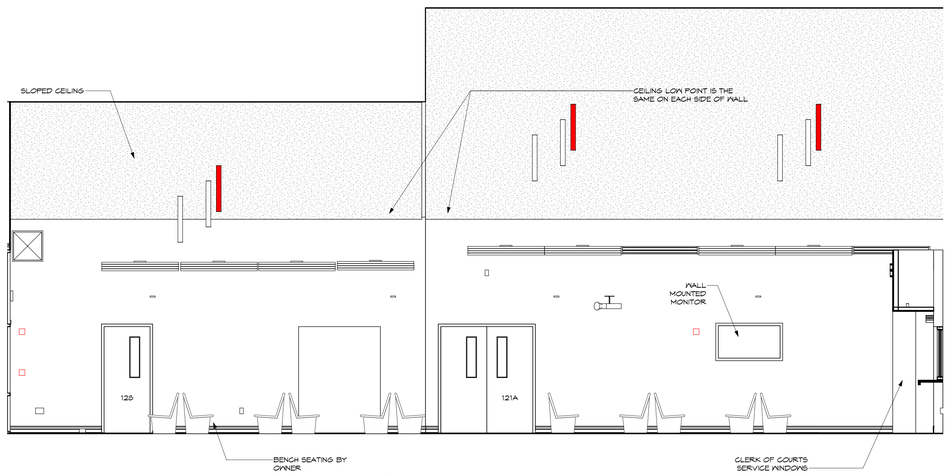
5 CLERK ELEVATION
SCALE: 1/4" = 1'-0"



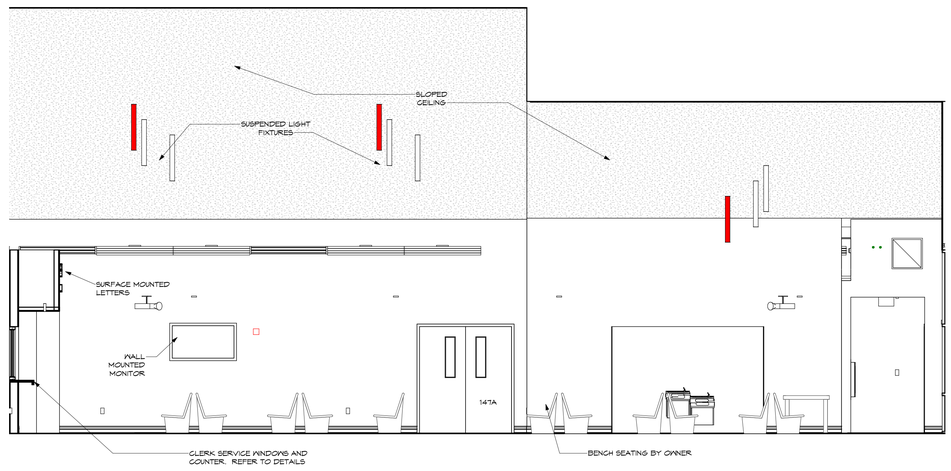
4 LOBBY 102 WEST ELEVATION
SCALE: 1/4" = 1'-0"



3 LOBBY 102 EAST ELEVATION
SCALE: 1/4" = 1'-0"



2 LOBBY 102 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



1 LOBBY 102 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

A. ALL CASEWORK SHALL HAVE FINISHED END PANELS ON EXPOSED SURFACES, INCLUDING BELOW WORK SURFACES.
B. ALL UPPER CABINETS SHALL HAVE A VALANCE TO SCREEN UNDER COUNTER LIGHTING UNLESS NOTED OTHERWISE
C. CONTRACTOR TO PROVIDE ONE (1) 2" DIAMETER GROMMET FOR EVERY 24" OF COUNTER AT EACH LOCATION. THESE WILL BE LOCATED IN THE FIELD IN COORDINATION WITH THE OWNER AND ARCHITECT.
D. REFER TO RELATED DETAILS FOR LOCATIONS OF WALL SWITCHES, CARD READERS, ETC. FOR ALIGNMENT REQUIREMENTS. COORDINATE LOCATIONS WITH WALL MOUNTED CHAIR RAIL OR OTHER FINISHES PRIOR TO ROUGH-IN

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

INTERIOR ELEVATIONS

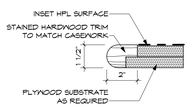
STATE OF OHIO
JOHN CHARLES FABELO
9711799
REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
Drawn: DJB	Drawing No.: A603
Checked: ES/WK	

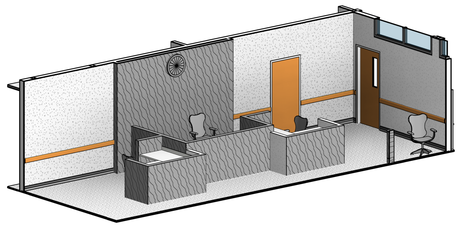
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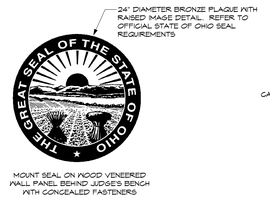
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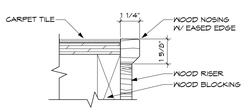
25 JUDICIAL WORK SURFACE EDGE
SCALE: 3" = 1'-0"
TYPICAL ALL JUDICIAL CASEWORK IN COURTROOM



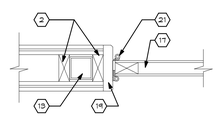
21 3D BENCH ISOMETRIC



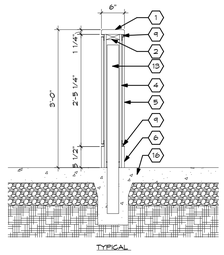
20 OHIO SEAL IMAGE



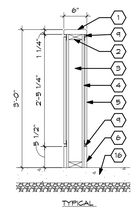
19 ENLARGED NOSING DETAIL
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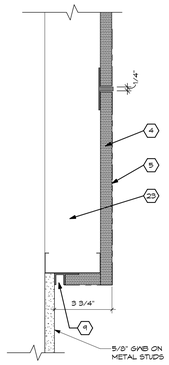
18 COURT GATE DETAIL
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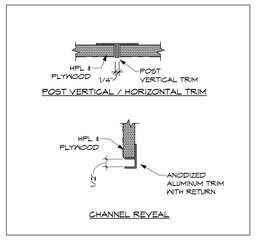
17 COURT RAIL DETAIL 2
SCALE: 3/4" = 1'-0"



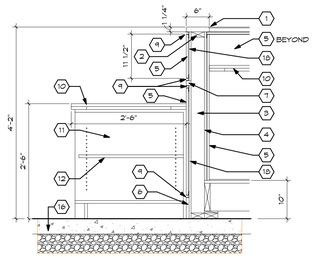
16 COURT RAIL DETAIL 1
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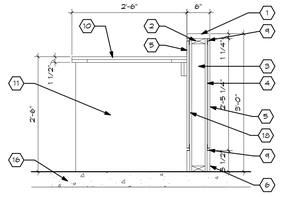
23 JUDGE DESK TOP VIEW1 - Callout 1
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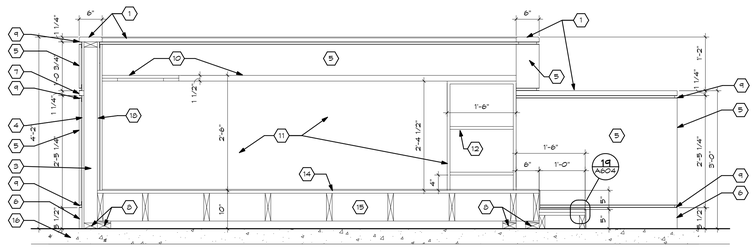
22 TYPICAL TRIM AND REVEAL DETAILS
SCALE: 3" = 1'-0"



15 COURT CLERK DETAIL 2
SCALE: 3/4" = 1'-0"

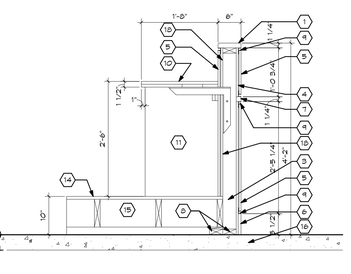


14 COURT CLERK DETAIL 1
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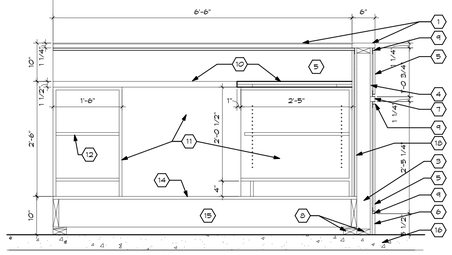


13 JUDGE DESK DETAIL 4
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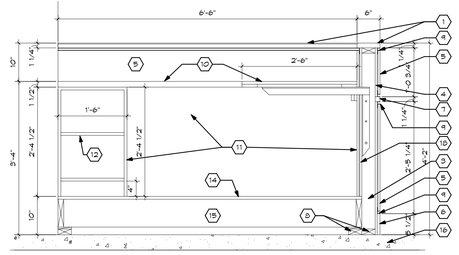
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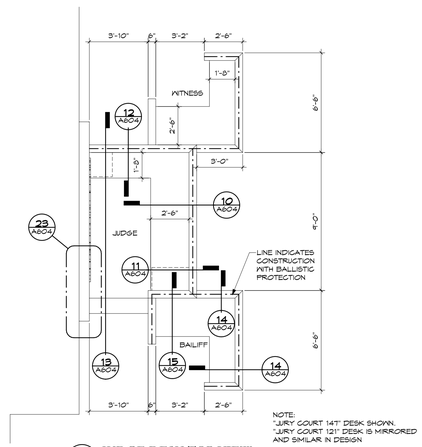
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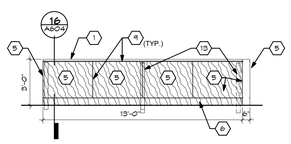
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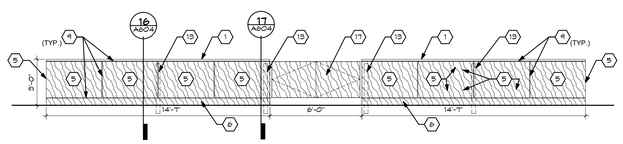
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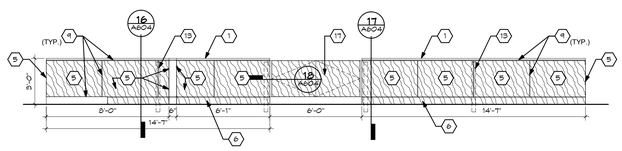
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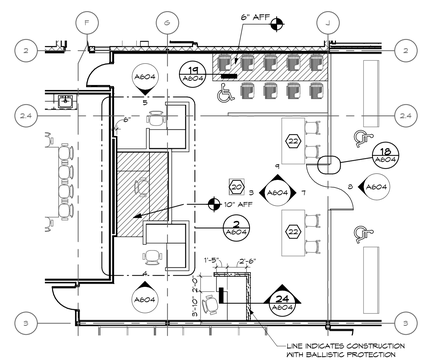
9 JURY RAIL ELEVATION
SCALE: 1/4" = 1'-0"



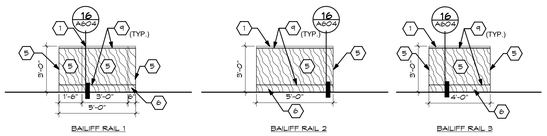
8 COURT RAIL ELEVATION 2
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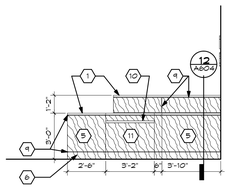
7 COURT RAIL ELEVATION 1
SCALE: 1/4" = 1'-0"



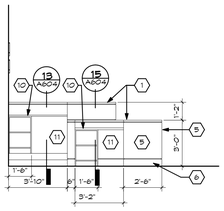
1 COURT MILLWORK REFERENCE PLAN
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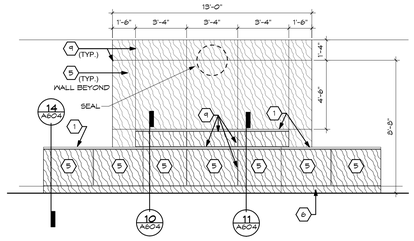
6 BAILIFF RAIL ELEVATIONS
SCALE: 1/4" = 1'-0"



5 JUDGE DESK ELEVATION 3
SCALE: 1/4" = 1'-0"



4 JUDGE DESK ELEVATION 2
SCALE: 1/4" = 1'-0"



3 JUDGE DESK ELEVATION 1
SCALE: 1/4" = 1'-0"

SHEET NOTES:

1. HARDWOOD CAP.
2. FIRE RETARDANT TREATED 2 x 4.
3. FIRE RETARDANT TREATED 2 x 4 STUDS AT 16" O.C.
4. 1/2" OSB.
5. 1/2" HARDWOOD VENEER PLYWOOD ON 1/4" CLIP SYSTEM. "RUN GRAIN VERTICALLY".
6. 3/4" HARDWOOD BASE.
7. 1 1/4" x 1 1/4" HARDWOOD TRIM
8. PRESSURE TREATED 2 x 4 BASE PLATE ANCHORED TO FLOOR SLAB AT 32" O.C. USING 1/2" EXPANSION ANCHORS.
9. CONTINUOUS EXTRUDED ALUMINUM REVEAL.
10. WOOD EDGED HPL SURFACE COUNTER. SEE DETAIL.
11. PLASTIC LAMINATE PANEL.
12. ADJUSTABLE PLASTIC LAMINATE SHELF.
13. 3" x 3" x 5/16" STEEL TUBE ANCHORED IN FLOOR SLAB AT 8' O.C. AND AT GATE LOCATIONS.
14. 3/4" T&G FLOOR DECKING.
15. FIRERETARDANT TREATED 2 x 8 FLOOR JOISTS AT 16" O.C.
16. CONCRETE FLOOR SLAB. "SEE STRUCT. DWGS.".
17. DOUBLE SWING SOLID CORE GATES WITH WOOD VENEER. SEE DETAILS
18. BULLET PROOF PANEL. "SEE SPECS".
19. HARDWOOD DOOR JAMB.
20. PODIUM AND MICROPHONE BY OWNER.
21. DOUBLE ACTING SPRING HINGES. REFER TO DOOR HARDWARE SPECIFICATIONS.
22. OWNER PROVIDED TABLE AND MICROPHONE SYSTEM.
23. 3-5/8" METAL STUDS @ 16" O.C.

GENERAL NOTES:

A. BULLET RESISTANT PANELS AND GLAZING SHALL ACHIEVE A U.L. LEVEL III PROTECTION RATING.
B. CONTRACTOR SHALL PROVIDE NECESSARY CONCEALED SUPPORT FOR BULLET RESISTANT ELEMENTS ARE REQUIRED TO ACHIEVE SPECIFIED RATING.
C. CONTRACTOR SHALL PROVIDE (1) 2" GROMMET FOR EVERY 24" OF COUNTER. COORDINATE FINAL LOCATIONS WITH ARCHITECT PRIOR TO FABRICATION.
D. THE OWNER SHALL PROVIDE VARIOUS TECHNOLOGY SYSTEMS FOR THE COURTROOMS UNDER A SEPARATE CONTRACT. COORDINATION OF THESE SYSTEMS AND THE MILLWORK INCLUDED IN THE PROJECT SHALL BE UNDERTAKEN DURING THE SHOP DRAWING REVIEW PROCESS. THE CONTRACTOR SHALL FACTOR IN A 4 WEEK MINIMUM TIMEFRAME FOR THE REVIEW OF THESE SHOP DRAWINGS. FINAL LOCATIONS OF POWER/DATA/AUDIO VISUAL/COMMUNICATIONS AND OTHER COMPONENTS WILL BE DETERMINED AT THIS TIME.
E. LOOSE FURNITURE SHALL BE PROVIDED AND INSTALLED BY THE OWNER. IT IS SHOWN FOR COORDINATION PURPOSES ONLY.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
3	ADDENDUM #3	2021/05/28
5	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

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875 E. MAIN STREET
TROTWOOD, OH 45426

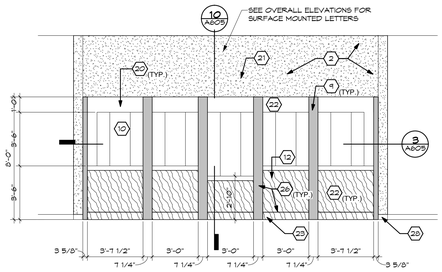
COURTROOM DETAILS

JOHN CHARLES FABELO 71179 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

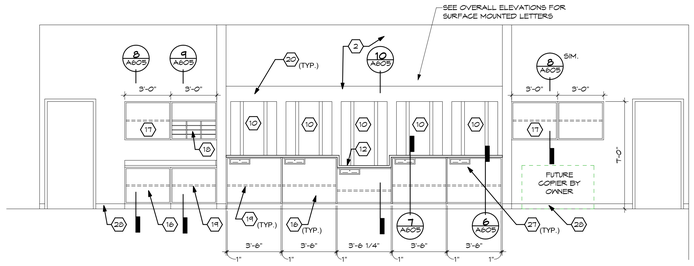
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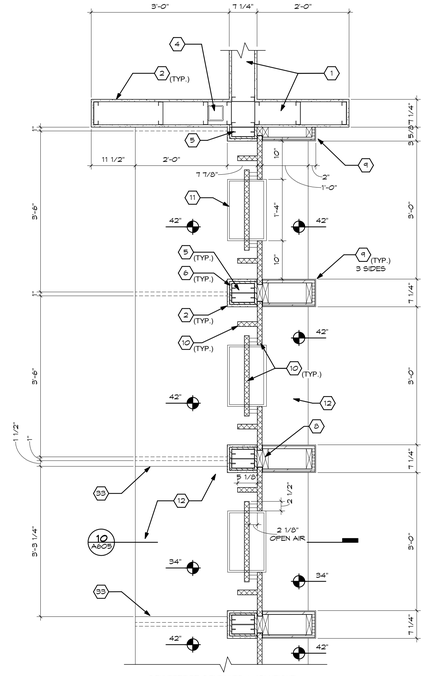
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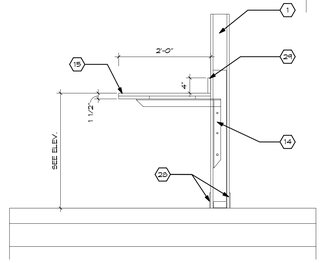
1 CLERK WINDOW ELEVATION - LOBBY SIDE
SCALE: 1/4" = 1'-0"



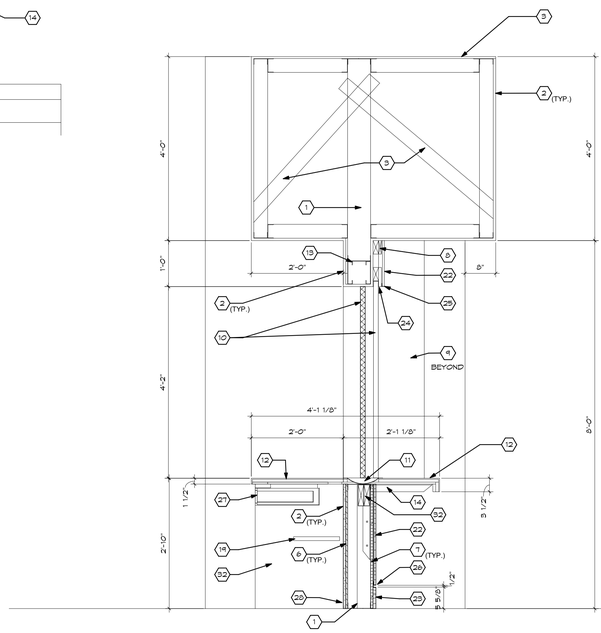
2 CLERK WINDOW ELEVATION - OFFICE SIDE
SCALE: 1/4" = 1'-0"



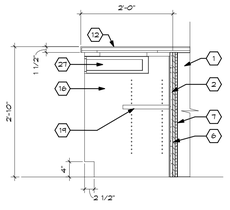
3 PARTIAL CLERK WINDOW PLAN DETAIL
SCALE: 3/4" = 1'-0"



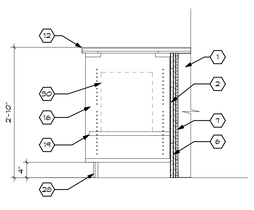
E5 BAILIFF COUNTER SECTION
SCALE: 3/4" = 1'-0"



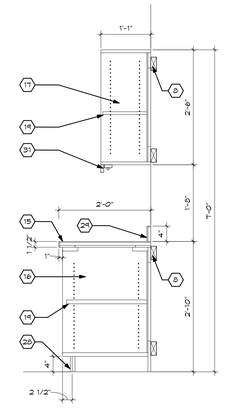
10 CLERK SERVICE WINDOW SECTION
SCALE: 3/4" = 1'-0"



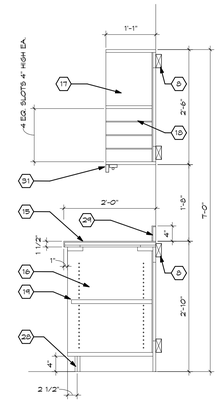
6 CLERK COUNTER SECTION @ CASH DRAWER
SCALE: 3/4" = 1'-0"



7 CLERK COUNTER SECTION @ CPU
SCALE: 3/4" = 1'-0"



8 CLERK CABINETS - RECEIVING
SCALE: 3/4" = 1'-0"



9 CLERK CABINETS - MAIL DROP
SCALE: 3/4" = 1'-0"

SHEET NOTES:

1. PARTITION AS SCHEDULED
2. 5/8" GYPSUM WALLBOARD
3. BRACING AS REQUIRED
4. STEEL COLUMN. SEE STRUCTURAL DWGS.
5. DOUBLE 6" METAL STUDS AT EACH SIDE OF OPEN FOR HEADER SUPPORT.
6. BULLET RESISTANT PANEL. SEE SPECS.
7. 1/2" PLYWOOD
8. WOOD BLOCKING AS REQUIRED.
9. SOLID SURFACE PANEL / TRIM.
10. BULLET RESISTANT GLAZING. SEE SPECS.
11. TRANSACTION SLIDE TRAY. SEE SPECS.
12. SOLID SURFACE COUNTER.
13. METAL STUD HEADER AT OPENING.
14. CONCEALED COUNTER MOUNTING BRACKET AT 24" O.C. MAX. SEE SPECS.
15. HIGH PRESSURE LAMINATE COUNTER
16. PLASTIC LAMINATE BASE CABINET.
17. PLASTIC LAMINATE WALL CABINET.
18. PLASTIC LAMINATE MAIL CUBICLES, 12 COMPARTMENTS.
19. PLASTIC LAMINATE ADJUSTABLE SHELF.
20. SEE OVERALL ELEVATION FOR DIMENSIONAL WINDOW NUMBERS SIZE AND CONTENT. SEE SPECS FOR ADDITIONAL DETAILS.
21. SEE OVERALL ELEVATION FOR DIMENSIONAL LETTERS SIZE AND CONTENT. SEE SPECS FOR ADDITIONAL DETAILS.
22. 1/2" HARDWOOD VENEER PLYWOOD ON 1/4" CLIP SYSTEM. RUN GRAIN VERTICALLY.
23. 3/4" HARDWOOD BASE.
24. 3/4" HARDWOOD TRIM.
25. EXTRUDED ALUMINUM TRIM. SEE SPECS.
26. EXTRUDED ALUMINUM REVEAL TRIM. SEE SPECS.
27. CASH DRAWERS. SEE SPECS.
28. BASE AS SCHEDULED
29. BACKSPLASH.
30. EQUIPMENT BY OWNER
31. VALANCE AND UNDER COUNTER LIGHTING
32. FINISHED CASEWORK END PANEL
33. COUNTER TRANSITION

GENERAL NOTES:

1. BULLET RESISTANT PANELS AND GLAZING SHALL ACHIEVE A U.L. LEVEL III PROTECTION RATING.
2. CONTRACTOR SHALL PROVIDE NECESSARY CONCEALED SUPPORT FOR BULLET RESISTANT ELEMENTS ARE REQUIRED TO ACHIEVE SPECIFIED RATING.
3. CONTRACTOR SHALL PROVIDE (1) 2" GROMMET FOR EVERY 24" OF COUNTER. COORDINATE FINAL LOCATIONS WITH ARCHITECT PRIOR TO FABRICATION.

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT

875 E. MAIN STREET
TROTWOOD, OH 45426

CLERKS WINDOW DETAILS / BAILLIF COUNTER, AND CASEWORK ELEVATIONS

STATE OF OHIO
JOHN CHARLES FABELO
8711799
REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.8711799, EXPIRES: 12/31/21

Comm. No.	19651.00
Date	2021/04/23
Drawn	DJB
Drawing No.	A605
Checked	ES/WK

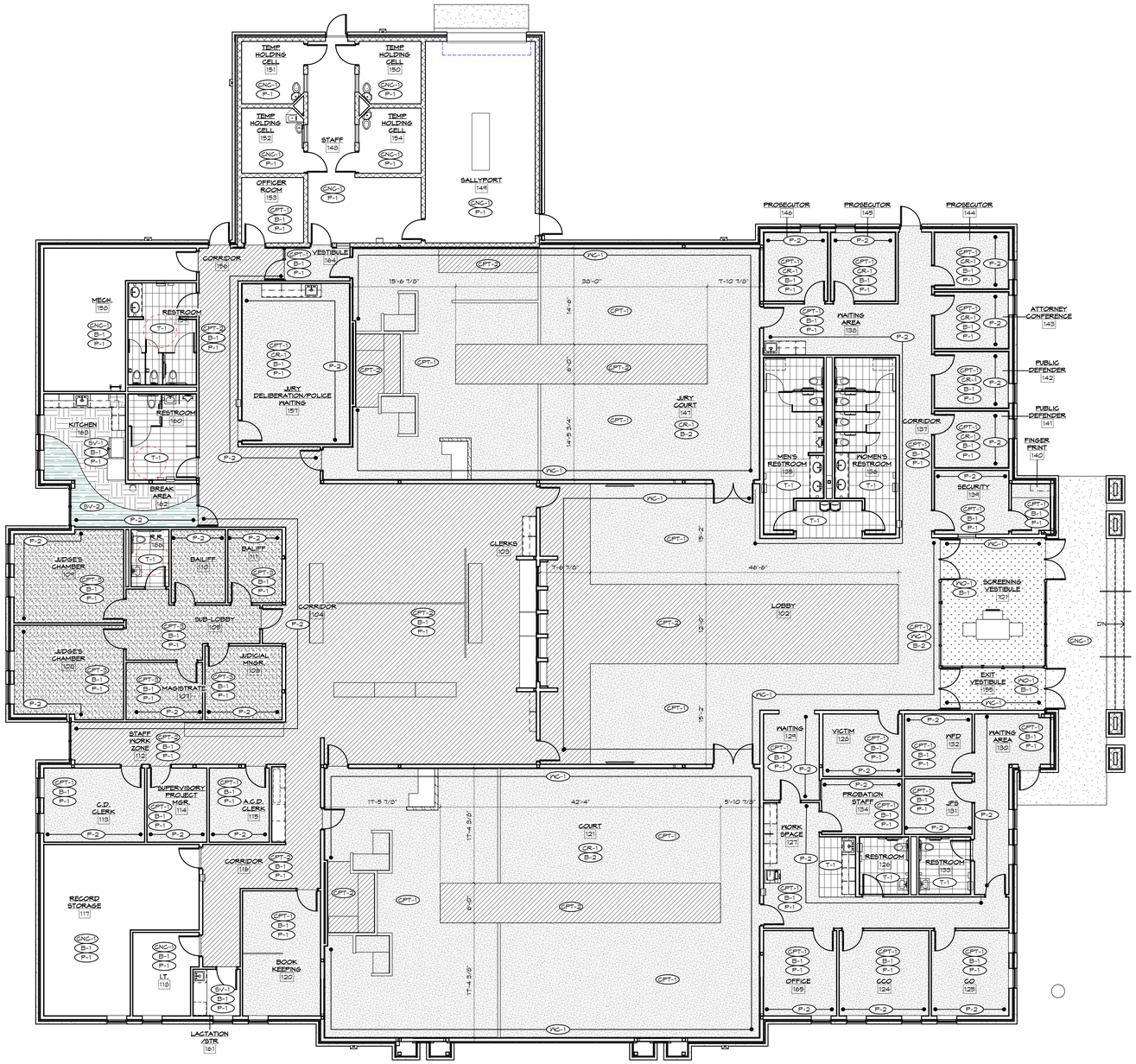
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FINISH MATERIAL SCHEDULE

CODE	MATERIAL	MANUFACTURER	DESCRIPTION / PATTERN	COLOR / MATERIAL	REMARKS
ACT-1	ACOUSTICAL CAGELING TILE	ARMSTRONG	2X2	SEE SPECS	
B-1	RUBBER BASE	TARKETT	MILLWORK / REVEAL 4 1/4"		
B-2	RUBBER BASE	TARKETT	MILLWORK/ REVEAL 8"		
CG-1	CORNER GUARD	TARKETT	MILLWORK/ CORNER GUARD		
CNC-1	SEALED CONCRETE				
CPT-1	CARPET	MOHAWK GROUP	ART STYLE/ DISTUPTIVE PATH	955 COSMIC SKY	
CPT-2	CARPET	MOHAWK GROUP	COLOR BALANCE/ GT405	575 NIGHTSHADE	
CPT-3	CARPET	MOHAWK GROUP	COLOR BALANCE/ GT405	924 SHADOW	
CR-1	CHAIR RAIL	TARKETT	RAMPART CHAIR RAIL 4		
G-1	GROUT	MAPEI		47+ CHARCOAL	
P-1	PAINT	SHERWIN WILLIAMS	ARCADE WHITE	SW7100	WALL FIELD
P-2	PAINT	SHERWIN WILLIAMS	ANEW GRAY	SW7030	WALL ACCENT
P-3	PAINT - GLOSS	SHERWIN WILLIAMS	GAUNTLET GRAY	SW7019	DOOR FRAME
P-4	PAINT	SHERWIN WILLIAMS			CEILING SOFFIT
PL-1	PLASTIC LAMINATE	WILSONART	ITALIAN SILVER ASH	5217K-16	CASUAL RUSTIC FINISH
PL-2	PLASTIC LAMINATE	WILSONART	MERCER OAK	17012K-57	ALIGNED TEXTURE
SS-1	SOLID SURFACE	CORIAN		ASH AGGREGATE	
ST-1	STAIN				
SV-1	SHEET VINYL	ARMSTRONG FLOORING	REJUVENATIONS/ KEAMZIE	32909	
SV-2	SHEET VINYL	ARMSTRONG FLOORING	REJUVENATIONS/ KEAMZIE	32512	
T-1	TILE	STONEPEAK	MATERIA 3D	PLATINUM - LAPPATO	12" X 24"
T-2	TILE	STONEPEAK	MATERIA 3D	LEATHER GRAY - LAPPATO	12" X 24"
TS-1	TRANSITION				
VC-1	WALL COVERING	DESIGNTEX	ENTWINE - 8719-103	FLAX	
WO-1	WALK-OFF MAT	MOHAWK GROUP	FIRST STEP II - QL315		



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

GENERAL NOTES

GENERAL
- REFER TO INTERIOR FINISH SCHEDULE FOR FINISH INFORMATION.
- REFER TO INTERIOR ELEVATIONS FOR FURTHER FINISH PLACEMENT AND INFORMATION.
- COORDINATE ALL FINISH CONCERNS IN FIELD WITH ARCHITECT PRIOR TO INSTALLATION.
- CONTRACTOR SHALL PROVIDE MATERIAL SAMPLES FOR ALL SPECIFIED FINISHES PRIOR TO CONSTRUCTION.

CEILINGS
- ALL ACOUSTICAL CEILINGS TO BE FINISH CODE (ACT-1) UNLESS OTHERWISE NOTED; SEE RCP FOR FURTHER INFORMATION.
- ALL NEW GWB SOFFITS SHALL BE FINISHED TO A LEVEL 5 FINISH.

FLOORING

General
- FLOORING CONTRACTOR SHALL SUBMIT TO ARCHITECT, SHOP DRAWINGS AND/OR MATERIAL SAMPLES INDICATING LAYOUT, PATTERN, COLOR AND SEAM LOCATIONS FOR ALL SPECIFIED FLOOR FINISHES PRIOR TO ORDERING MATERIALS, AND PRIOR TO INSTALLATION.
- REFER TO FINISH PLAN FOR PATTERN LAYOUT AND DIMENSIONS.
- PERFORM FLOORING MOISTURE TESTS RECOMMENDED BY EACH MFG AND PROCEED WITH INSTALLATION OF FLOORING ONLY AFTER SUBSTRATES PASS TESTING.
- PREPARE ALL SUBSTRATES ACCORDINGLY TO ITS FINISH MFG'S RECOMMENDATIONS.

Transitions
- CONTRACTOR TO INSTALL APPROPRIATE TRANSITION STRIP TYPES BETWEEN MATERIALS AS REQUIRED.
- FLOAT/FEATHER MATERIALS AS NEEDED TO CREATE A LEVEL AND EVEN SURFACE AT ALL TRANSITIONS.

Carpet
- CARPET SHALL BE INSTALLED PER MFG'S RECOMMENDATIONS AND/OR CURRENT CRI GUIDELINES.
- CARPET SHALL BE LAID IN THE INSTALLATION PATTERN (I.E.: MONOLITHIC, BRICK PATTERN, RANDOM, ECT.) AS SPECIFIED ON THE INTERIOR FINISH SCHEDULE WITH THE PATTERN MATCHED TO MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE.
- FLOORING SEAMS SHALL BE KEPT TO A MINIMUM. POSITION IN NONCONTIGUOUS AREAS IN COMPLIANCE WITH CRI 104 (CARPET & RUG INSTITUTE INSTALLATION METHODS) AND MFG'S RECOMMENDATIONS FOR SEAM LOCATIONS AND DIRECTION OF CARPET. FLOORING SEAMS SHALL RUN THE LENGTH OF THE AREA RATHER THAN ACROSS A MAIN TRAFFIC PATTERN WHENEVER POSSIBLE; SEAMS SHALL NOT BE PERPENDICULAR TO DOORWAY OPENINGS.

Resilient sheet vinyl
- ALL RESILIENT SHEET FLOORING SEAMS TO BE WELDED PER MFG'S RECOMMENDATIONS IN COLOR MATCHING WELD ROD.
- USE VINYL ENHANCED TILE ADHESIVE AS RECOMMENDED BY TARKETT TO MEET SITE CONDITIONS.
- PREPARE SUBSTRATES ACCORDING TO JOHNSONITE WRITTEN INSTRUCTIONS TO ENSURE ADHESION OF VINYL ENHANCED TILE.

BASE
- ALL WALL BASE IS (B-1) UNLESS OTHERWISE NOTED
- BASE TO BE INSTALLED PER MFG'S INSTRUCTION. MITER ALL CORNERS IN FIELD PER MFGS INSTALLATION GUIDE USING APPROPRIATE TOOLS.
- PROVIDE CLEAR SEALANT BETWEEN BASE AND HARD SURFACE FLOOR FINISH.

WALL PROTECTION
- PROVIDE CORNER GUARDS ON ALL OUTSIDE CORNERS AS INDICATED; SEE INTERIOR FINISH SCHEDULE FOR INFORMATION.

SPECIFIC MATERIALS

Wall covering
- CONTRACTOR TO SUBMIT WALL COVERING SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
- WALL COVERING TO BE INSTALLED PER MFGS RECOMMENDED INSTALLATION PROCEDURES AND ADHESIVES.
- CONTRACTOR TO WRAP OUTSIDE CORNERS OF WALLCOVERING AND NOT ALLOW AN EXPOSED RAN OUTSIDE EDGE.
- ALL EXCESSIVE ADHESIVE SHALL PROMPTLY BE REMOVED FROM THE WALLCOVERING.
- ALL WALLCOVERING WITH REPEATS SHALL BE MATCHED FOR SEAMLESS PATTERN FINISH.

Paint
- ALL WALLS TO BE PAINTED FINISH CODE (P-1) UNLESS NOTED OTHERWISE
- ALL DOOR FRAMES TO BE PAINTED FINISH CODE (P-3) UNLESS OTHERWISE NOTED.
- CONTRACTOR TO SUBMIT PAINT DRAWDOWNS TO ARCHITECT FOR APPROVAL PRIOR TO APPLICATION.
- APPLY TWO COATS OF FINAL FINISH PRODUCT.
- FURNISH CERTIFICATION BY THE PAINT MFG THAT PRODUCTS SUPPLIED COMPLY WITH LOCAL REGULATIONS CONTROLLING THE USE OF VOLATILE ORGANIC COMPOUNDS (VOCS).
- EXPOSED STRUCTURE TO BE PAINTED WITH DRY FALL, FLAT PAINT IN ENTIRETY (STRUCTURE, ROOF DECK, DUCTWORK, CONDUIT, PIPING, AND OTHER SIMILAR ITEMS).

Plastic laminate
- WOODGRAN DIRECTION OF PLASTIC LAMINATE TO BE VERTICAL ON FACE OF CABINETS, HORIZONTAL ON COUNTERTOPS AND SHELF EDGE BAND; UNLESS OTHERWISE NOTED.

Solid surface
- ALL SOLID SURFACE SEAMS TO BE HARD SEAM (NO SEAMS SHOWING).
- USE MFG'S RECOMMENDED MAXIMUM WIDTHS/LENGTHS TO MINIMIZE THE NUMBER OF SEAMS IN SOLID SURFACE.
- SOLID SURFACE SIDE/BACKSPLASHES TO BE INTEGRAL COVED WITH HARD SEAMS (NO SET ON SIDES, BACKSPLASHES, ECT.)
- SOLID SURFACE TO HAVE BULLNOSE EDGE DETAIL; UNLESS OTHERWISE NOTED.

Tile
- CONTRACTOR TO SUBMIT ALL TILE SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
- TILE TO BE INSTALLED PER MFG'S RECOMMENDATIONS AND CURRENT TCA GUIDELINES.

SHEET NOTES:

GENERAL NOTES:

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
2	ADDENDUM #2	2021/05/21
3	ADDENDUM #3	2021/05/28
5	ISSUED FOR RE-BID	2021/06/18

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FINISH PLAN

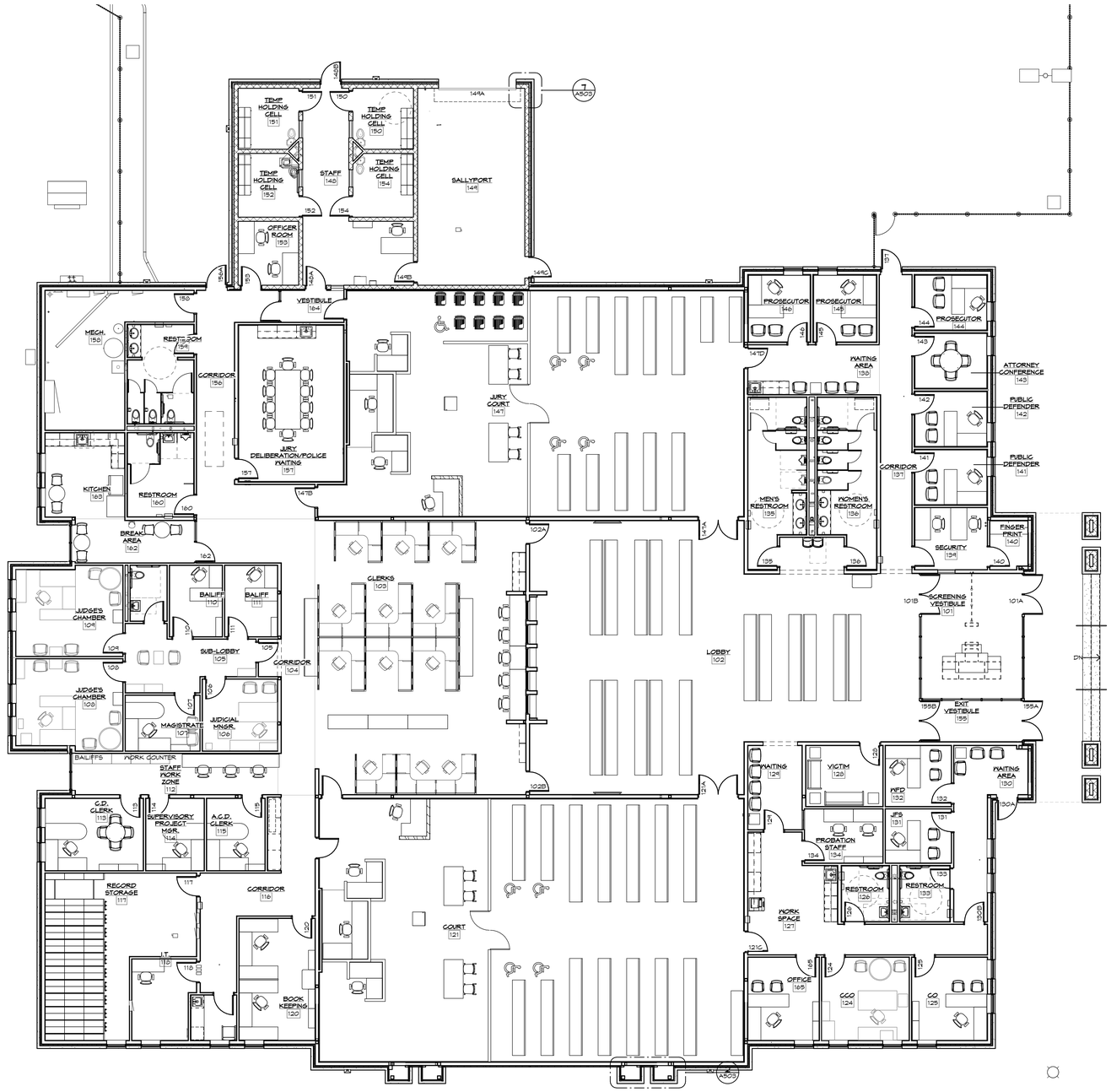
JOHN CHARLES FABELO 9711799 REGISTERED ARCHITECT STATE OF OHIO
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	19651.00
Date	2021/04/23
Drawn	DJB
Drawing No.	ID101
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1 FURNITURE PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES:

GENERAL NOTES:

1. FURNITURE AND EQUIPMENT SHALL BE PROVIDED BY THE OWNER UNDER A SEPARATE CONTRACT. PRODUCTS AND SYSTEMS SHOWN FOR COORDINATION WITH GENERAL CONSTRUCTION ONLY.

FURNITURE LAYOUT UPDATED TO REFLECT ADJUSTMENTS BY OWNER
4

No.	Revisions / Submissions	Date
1	ISSUED FOR CONSTRUCTION	2021/04/23
5	ISSUED FOR RE-BID	2021/06/18

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875 E. MAIN STREET
TROTWOOD, OH 45426

FURNITURE PLAN

STATE OF OHIO JOHN CHARLES FABELO 9711799 REGISTERED ARCHITECT
JOHN C. FABELO
LICENSE ARC.9711799, EXPIRES: 12/31/21

Comm. No.	Date
19651.00	2021/04/23
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PLUMBING FIXTURE SCHUEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	FAUCET/VALVE MANUFACTURER	FAUCET/VALVE MODEL	CW	HW	SAN	VENT	ACCESSORIES
P-1A	LAVATORY	AMERICAN STANDARD	0495.221	SLOAN	SF-2300	1/2"	1/2"	2"	1 1/2"	UNDERMOUNT LAVATORY, ADA COMPLIANT, VITREOUS CHINA, PEDESTAL SPOUT, 0.5 GPM, AUTOMATIC HARDWIRED.
P-1B	LAVATORY	AMERICAN STANDARD	0356.041	SLOAN	SF-2300	1/2"	1/2"	2"	1 1/2"	WALL-HUNG LAVATORY, ADA COMPLIANT, VITREOUS CHINA, FRONT OVERFLOW, PEDESTAL SPOUT, 0.5 GPM, AUTOMATIC HARDWIRED.
P-2A	ADA WATER CLOSET	AMERICAN STANDARD	2257.101.020	SLOAN	SLOAN 111 ESS-1.28	1 1/4"	---	3"	2"	WALL-HUNG FLUSHOMETER VALVE TOILET, ADA COMPLIANT, VITREOUS CHINA, 1.28 GPF SIPHON JET, AUTOMATIC HARDWIRED FLUSH VALVE.
P-2B	STANDARD WATER CLOSET	AMERICAN STANDARD	2257.101.020	SLOAN	SLOAN 111 ESS-1.28	1 1/4"	---	3"	2"	WALL-HUNG FLUSHOMETER VALVE TOILET, VITREOUS CHINA, 1.28 GPF SIPHON JET, AUTOMATIC HARDWIRED FLUSH VALVE.
P-3	URINAL	AMERICAN STANDARD	6590.001	SLOAN	SLOAN 186 ESS-0.125	3/4"	---	2"	2"	WALL-HUNG URINAL, ADA COMPLIANT, VITREOUS CHINA, 0.125 GPF WASHOUT, AUTOMATIC HARDWIRED FLUSH VALVE.
P-4A	GENERAL SINK	ELKAY	ELUHAD281655	CHICAGO FAUCET	786-E65VPAABCP	1/2"	1/2"	2"	1 1/2"	UNDERMOUNT ONE COMPARTMENT SINK, ADA COMPLIANT, TYPE 304 STAINLESS STEEL, SWING GOOSENECK SPOUT, 1.0 GPM AERATOR.
P-4A	GENERAL SINK	ELKAY	ELUHAD281655	CHICAGO FAUCET	786-E65VPAABCP	1/2"	1/2"	2"	1 1/2"	UNDERMOUNT ONE COMPARTMENT SINK, ADA COMPLIANT, TYPE 304 STAINLESS STEEL, SWING GOOSENECK SPOUT, 1.0 GPM AERATOR.
P-4B	BREAKROOM SINK	ELKAY	ELUHAD281655	CHICAGO FAUCET	786-E65VPAABCP	1/2"	1/2"	2"	1 1/2"	UNDERMOUNT ONE COMPARTMENT SINK WITH GARBAGE DISPOSAL, ADA COMPLIANT, TYPE 304 STAINLESS STEEL, SWING GOOSENECK SPOUT, 1.0 GPM AERATOR.
P-4C	MOP SINK	ZURN	Z1996-24	ZURN	JP1996-SF	3/4"	3/4"	3"	1 1/2"	FLOOR MOUNT MOP SINK, PVC DRAIN BODY, WALL MOUNTED FAUCET WITH PAIL HOOK.
P-5	WATER COOLER	ELKAY	EZOOTL8WSLK	---	---	1/2"	---	1 1/2"	1 1/2"	WALL-HUNG BI-LEVEL WATER COOLER WITH BOTTLE FILLING STATION, 8.0 GPH CHILLING CAPACITY, HANDS FREE ACTIVATION.
P-6A	ADA HOLDING CELL COMBO UNIT	ACORN	1432FA-AR-2-LF-MVC2-1.28-MVCFV-GBC2-CW-SPS-SW	ACORN	TIME-TROL	1 1/4"	1/2"	3"	2"	FLOOR MOUNT, WALL OUTLET COMBINATION LAVATORY AND WATER CLOSET, ADA COMPLIANT, TYPE 304 STAINLESS STEEL, TIME-TROL LAVATORY MIXING VALVES AND ELECTRONIC FLUSH VALVE. PROVIDE WITH LIGATURE RESISTANT SKIRT, GRAB BAR & LAV CLOSURE PLATE, AND WALL SLEEVE.
P-6B	HOLDING CELL COMBO UNIT LEFT	ACORN	1418FA-AL-2-LF-MVC2-1.28-MVCFV-CW-SPS-SW	ACORN	TIME-TROL	1 1/4"	1/2"	3"	2"	FLOOR MOUNT, WALL OUTLET COMBINATION LAVATORY AND WATER CLOSET WITH FRONT ACCESS, LEFT MOUNTED WATER CLOSET, TYPE 304 STAINLESS STEEL, TIME-TROL LAVATORY MIXING VALVES AND ELECTRONIC FLUSH VALVE. PROVIDE WITH LIGATURE RESISTANT SKIRT AND WALL SLEEVE.
P-6C	HOLDING CELL COMBO UNIT RIGHT	ACORN	1418FA-AR-2-LF-MVC2-1.28-MVCFV-CW-SPS-SW	ACORN	TIME-TROL	1 1/4"	1/2"	3"	2"	FLOOR MOUNT, WALL OUTLET COMBINATION LAVATORY AND WATER CLOSET WITH FRONT ACCESS, RIGHT MOUNTED WATER CLOSET, TYPE 304 STAINLESS STEEL, TIME-TROL LAVATORY MIXING VALVES AND ELECTRONIC FLUSH VALVE. PROVIDE WITH LIGATURE RESISTANT SKIRT AND WALL SLEEVE.

WATER HEATER SCHEDULE

TAG	TYPE	MANUFACTURER	MODEL	OUTLET TEMP	WATER RECOVERY	STORAGE CAPACITY
WH-1	NATURAL GAS	AO SMITH	BTX-100	140 DEG	115 GPH @ 100 DEG RISE	50 GAL

EXPANSION TANK SCHEDULE

TAG	ET-1
MANUFACTURER	WATTS
MODEL	DETA-5
STORAGE CAPACITY	3.5 GAL

RECIRCULATION PUMP SCHEDULE

TAG	RP-1
MANUFACTURER	BELL & GOSSETT
MODEL	PL-30
HP	1/12 HP
FLOW (GPM)	5 GPM
HEAD (FT)	25 FT
ALL BRONZE BODY / LEAD FREE	YES

DRAIN SCHUEDULE

TAG	MANUFACTURER	MODEL	SAN	DESCRIPTION
FD-1	ZURN	ZN-415	3"	GENERAL RESTROOM FLOOR DRAIN. PROVIDE WITH TRAP SEAL
FD-2	ZURN	ZN-511	4"	MECHANICAL ROOM FLOOR DRAIN. PROVIDE WITH TRAP PRIMER.
FD-3	WILLOUGHBY	LRDF-5RD-3	3"	HOLDING CELL FLOOR DRAIN. PROVIDE WITH TRAP SEAL AND TAMPER PROOF SCREWS.
TD-1	ZURN	Z886	3"	80" SALLYPORT TRENCH DRAIN. DRAIN TO BE TRAFFIC RATED.

NATURAL GAS SCHEDULE

EQUIPMENT TAG	DESCRIPTION	LOAD	PRESSURE	CONNECTION SIZE
DOAS-1	DEDICATED OUTDOOR AIR UNIT	160 CFH	7.0 - 14.0 IN WG	3/4" NPT
WH-1	DOMESTIC WATER HEATER	100 CFH	3.5 - 14.0 IN WG	1/2" NPT
UH-1	SALLYPORT UNIT HEATER	50 CFH	7.0 - 14.0 IN WG	1/2" NPT
TOTAL	BUILDING METER TOTAL	210 CFH	2 PSI	---

PLUMBING GENERAL NOTES:

A. COORDINATE THE LOCATION OF DRAIN, GAS OUTLETS, ETC., WITH ALL CASEWORK EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC., PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE CONTRACTOR.

B. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARD AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY.

C. ALL NEW WORK SHALL BE HUNG FROM STRUCTURE, NOT FROM THE WORK OF OTHER TRADES, WHETHER EXISTING OR NEW.

D. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREMENTS.

E. PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR (TO OWNER'S STANDARDS) WALLS, CEILINGS, ETC., THAT ARE TO REMAIN IF DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH ADJACENT SURFACES TO THE SATISFACTION OF THE ARCHITECT AND OWNER.

F. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, FEDERAL, MUNICIPAL, UTILITY COMPANY, STATE, ETC.)

G. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES SHALL BE APPROPRIATELY FIRE STOPPED PER AN APPROVED U.L. LISTED STANDARD. CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO INSULATED PIPING PENETRATIONS.

H. ALL WORK REQUIRING DOWNTIME OF ANY AREA IN THE BUILDING SHALL BE SCHEDULED 2 WEEKS IN ADVANCE, AND SHALL COMPLY WITH INTERIM LIFE SAFETY MEASURES.

I. ALL PIPING IN ROOMS WITH CEILINGS SHALL BE ABOVE CEILING EXCEPT AS NOTED.

J. LOCATIONS OF PIPING AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.

K. ALL OFFSETS IN PIPING ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY.

L. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COMPANY FEES OR OTHER COSTS THAT ANY UTILITY COMPANY MAY REQUIRE TO COMPLETE THEIR WORK. (GAS, SEWER, WATER, ETC.).

M. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEERS BEFORE INSTALLATION. REFER ALSO TO ARCHITECTURAL WALL INTERIOR AND EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS AND OTHER DETAIL OF THESE DOCUMENTS.

N. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTOR'S EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL BE THAT OF THE ENGINEER.

O. DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT USED AS BASIS OF DESIGN SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEERS OR NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER.

P. VALVES OR ANY MECHANICAL/ELECTRICAL ITEM REQUIRING ACCESS SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF THIS IS NOT POSSIBLE, THEN AN APPROPRIATELY SIZED ACCESS DOOR SHALL BE PLACED UNDER THE ITEM TO ALLOW EASY MAINTENANCE AND ADJUSTMENT. ADDITIONALLY ALL SUCH ITEMS SHALL NOT BE LOCATED AN UNREASONABLE DISTANCE ABOVE THE CEILINGS. IN GENERAL ALL SUCH ITEMS UNLESS INDICATED OTHERWISE SHALL BE MOUNTED SIX TO TWELVE INCHES ABOVE THE CEILING. IF IN DOUBT, CONTACT ENGINEER PRIOR TO INSTALLING.

Q. WHEN RUNNING ANY TYPE OF PIPING BELOW A FOOTER, OR IN THE ZONE OF INFLUENCE THE PIPING SHALL BE BACKFILLED WITH CEMENTITIOUS FLOWABLE FILL PER SPECIFICATIONS. WHENEVER POSSIBLE, LOCATE PIPING OUTSIDE OF THE ZONE OF INFLUENCE. THE ZONE OF INFLUENCE IS THE AREA UNDER THE FOOTER WITHIN A 45 DEGREE ANGLE PROJECTING DOWN FROM THE BOTTOM EDGE OF THE FOOTER OF ALL SIDES OF THE FOOTER. ADDITIONALLY, GREASE TRAPS, MANHOLES, VAULTS AND OTHER UNDERGROUND STRUCTURES SHALL BE HELD AWAY FROM BUILDING WALLS FAR ENOUGH TO BE OUTSIDE OF THE ZONE OF INFLUENCE.

SYMBOLS & ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
C.I.	CAST IRON
CW	DOMESTIC COLD WATER
DN	DOWN
FPWH	FREEZE PROOF WALL HYDRANT
HB	HOSE BIBB
HW	DOMESTIC HOT WATER
IAW	IN ACCORDANCE WITH
IE	INVERT ELEVATION
NTS	NOT TO SCALE
PRV	PRESSURE REDUCING VALVE (STEAM, WATER, OR GAS)
PSI	POUNDS PER SQUARE INCH
RHW	DOMESTIC RECIRCULATING HOT WATER
SR	SANITARY RISER
TYP	TYPICAL
VTR	VENT THRU ROOF
FD-#	FLOOR DRAIN DESIGNATOR
P-#	PLUMBING FIXTURE DESIGNATOR
(X)	TAGGED NOTE DESIGNATOR
1	REVISION DESIGNATOR

	POINT OF CONNECTION
	LIMIT OF DEMOLITION
	PIPE ELBOW TURNING UP/TURNING DOWN
	PIPE TEE TURNING UP/TURNING DOWN
FP	FIRE PROTECTION LINE
G	GAS LINE
SAN	SANITARY WASTE PIPING
VT	VENT PIPING
E(NAME)	EXISTING PIPING (THIN LINE)
ABAN(NAME)	ABANDONED EXISTING PIPING (THIN LINE)
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER SUPPLY
	DOMESTIC RECIRCULATING HOT WATER
CO	FLOOR CLEANOUT
WCO	WALL CLEANOUT
ECO	EXTERIOR CLEANOUT
	BALANCING VALVE
	BALL VALVE
	SAFETY RELIEF VALVE
	PRESSURE REDUCING VALVE (STEAM, GAS, WATER, ETC.)
	CHECK VALVE
	PIPING UNION
	THERMOMETER
T	HOSE BIB

Sheet List - Plumbing

SHEET #	SHEET NAME
P001	PLUMBING LEGEND
P101	PLUMBING UNDERGROUND PLAN
P102	PLUMBING FLOOR PLAN
P201	PLUMBING DETAILS & ENLARGED PLANS
P202	PLUMBING ISOMETRIC

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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PLUMBING LEGEND

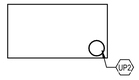
STATE OF OHIO · BRADLEY STEVEN BRUENING · 81283 · REGISTERED PROFESSIONAL ENGINEER

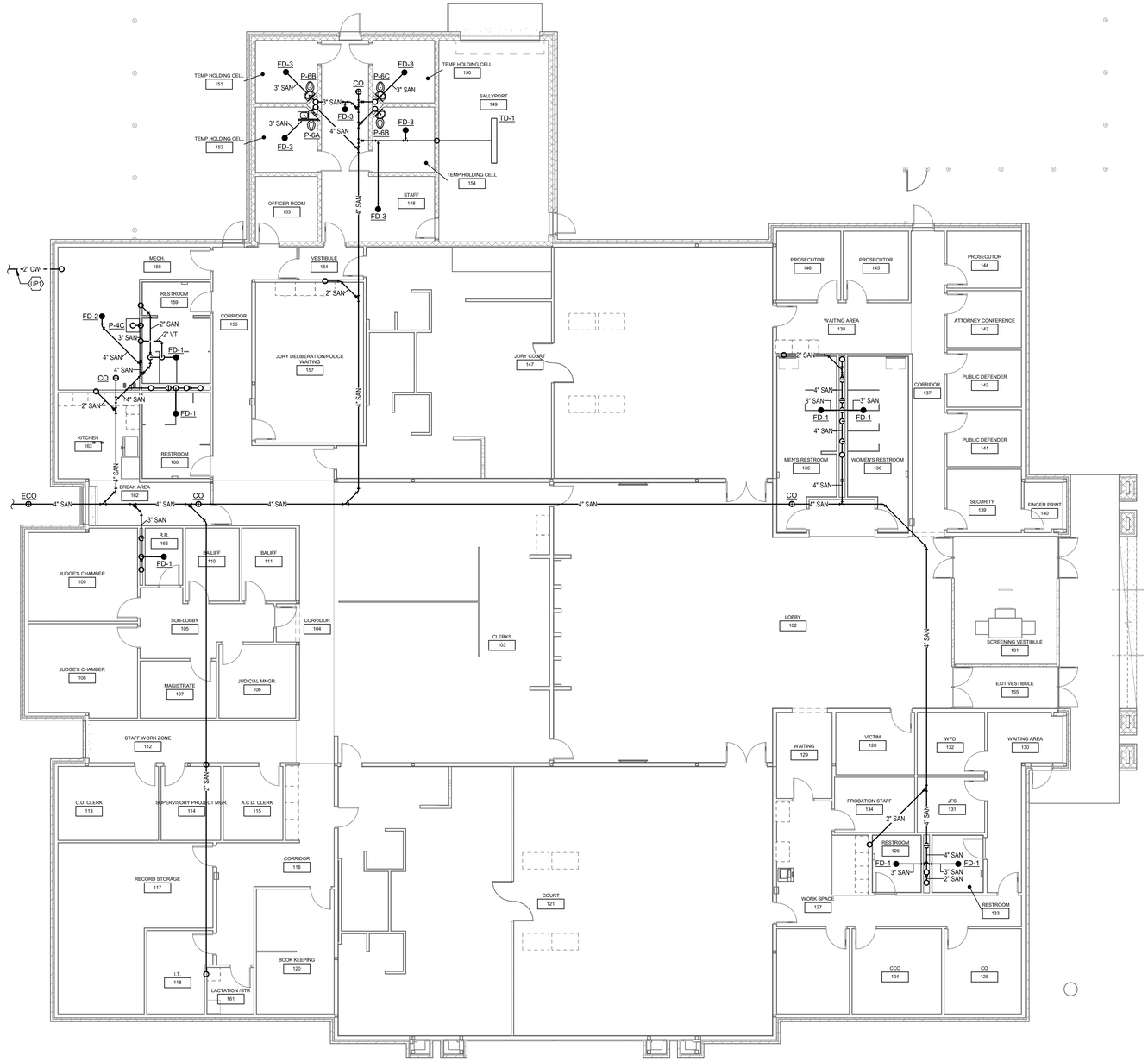
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1 PLUMBING UNDERGROUND PLAN

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

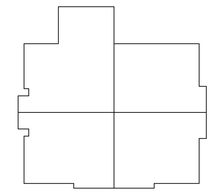
0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

SHEET NOTES:

TAGGED NOTES

UP1	REFER TO CIVIL DRAWINGS FOR LOCATION OF 2" DOMESTIC WATER MAIN UNDERGROUND.
UP2	PROVIDE SUMP PUMP IN METER PIT. PUMP TO BE ZOELLER MODEL M63 SUBMERSIBLE DEWATERING PUMP WITH HIGH WATER ALARM, NEMA 4X WITH DRY CONTACTS INSIDE HIGH WATER ALARM. REFER TO CIVIL DRAWINGS FOR EXACT METER PIT LOCATION.

KEY PLAN:



No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
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PLUMBING UNDERGROUND PLAN

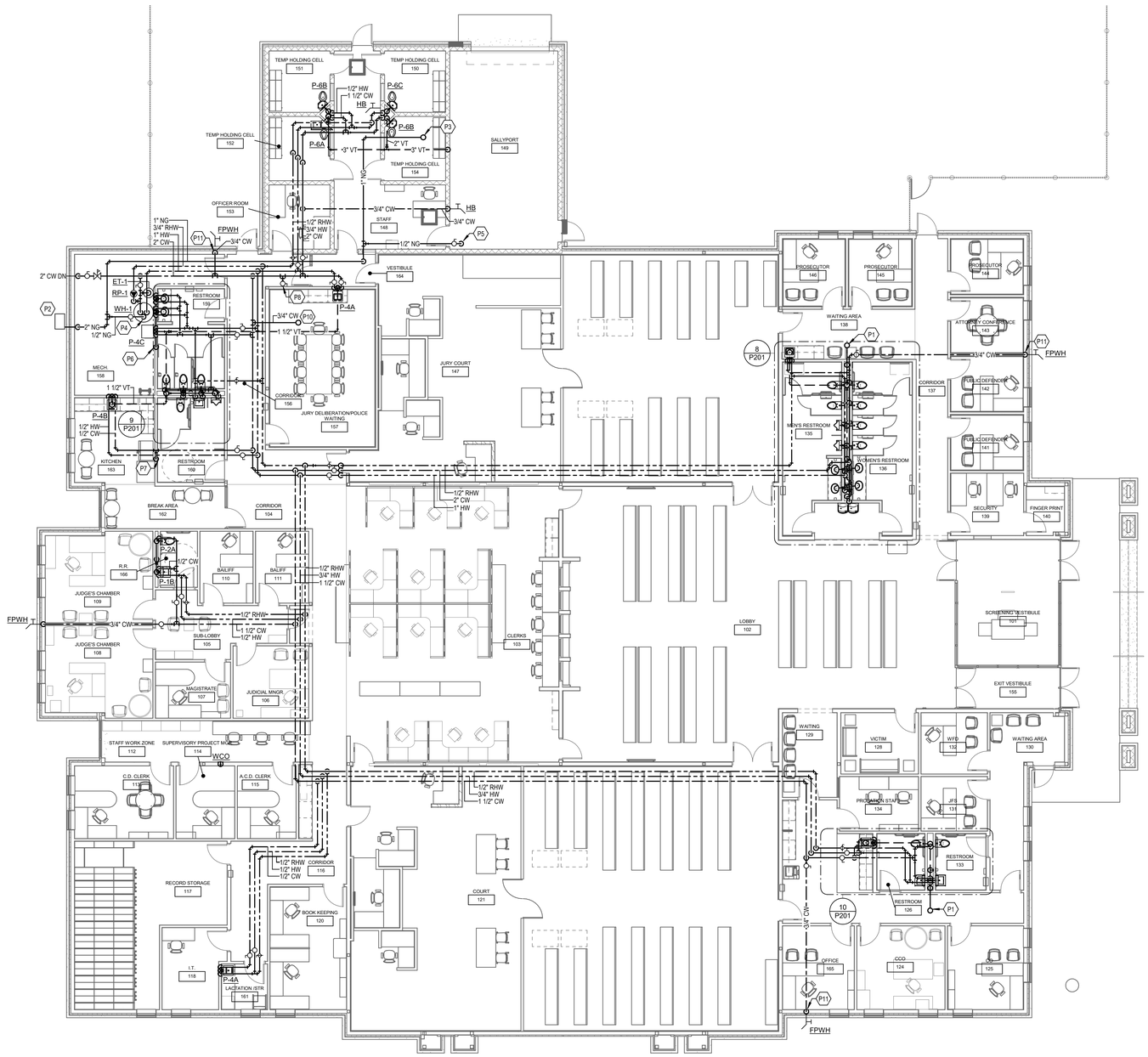
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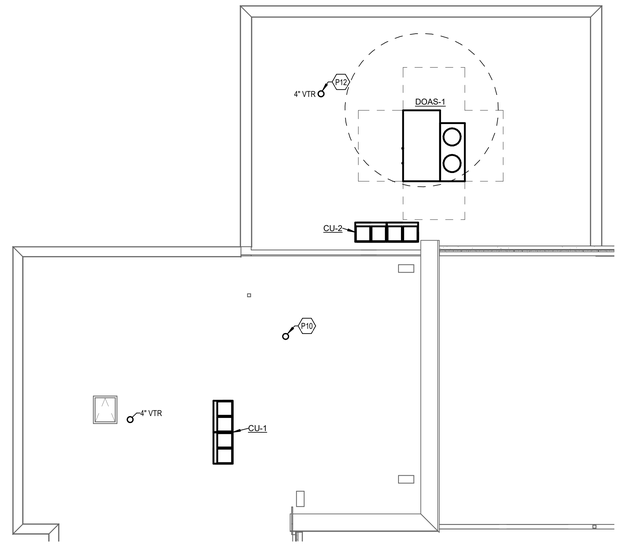
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1 PLUMBING FLOOR PLAN

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

0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"



2 PARTIAL ROOF PLUMBING PLAN

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

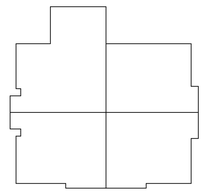
0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

SHEET NOTES:

TAGGED NOTES (#)

P1	2" HUB DRAIN MOUNTED ABOVE CEILING FOR CONDENSATE COLLECTION. PROVIDE WITH TRAP SEAL.
P2	TENTATIVE GAS METER LOCATION. COORDINATE WITH VECTREN GAS FOR EXACT LOCATION. INCOMING GAS PRESSURE IS TO BE 2 PSI. CONTRACTOR TO PROVIDE PRESSURE REGULATOR DOWNSTREAM OF METER TO REDUCE INCOMING PRESSURE TO 10" W.C.
P3	GAS PIPE UP TO ROOFTOP DESIGNATED OUTSIDE AIR UNIT, DOAS-1. REFER TO NATURAL GAS SCHEDULE FOR CONNECTION SIZE. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION.
P4	GAS PIPE DOWN TO WATER HEATER, WH-1. REFER TO NATURAL GAS SCHEDULE FOR CONNECTION SIZE.
P5	GAS PIPE DOWN TO UNIT HEATER, UH-1. REFER TO NATURAL GAS SCHEDULE FOR CONNECTION SIZE. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION.
P6	PROVIDE PRECISION PLUMBING PRODUCTS PR-500 PRESSURE ACTIVATED TRAP PRIMER FOR FLOOR DRAIN.
P7	PROVIDE 1/2" DOMESTIC COLD WATER PIPE DOWN FOR REFRIGERATOR CONNECTION. PROVIDE WITH GUY GRAY MIB1HAAB OR APPROVED EQUAL ICE MAKER OUTLET BOX.
P8	PROVIDE 1/2" DOMESTIC COLD WATER PIPE CAPPED ABOVE CEILING FOR FUTURE REFRIGERATOR CONNECTION.
P10	PROVIDE 3/4" DOMESTIC COLD PIPE THROUGH ROOF TO FREEZEPROOF ROOF HYDRANT, FPRH.
P11	INSTALL DOMESTIC COLD TO FREEZEPROOF WALL HYDRANT ON INTERIOR SIDE OF WALL INSULATION (TYPICAL).
P12	INSTALL VENT THROUGH ROOF AT LEAST 10'-0" AWAY FROM AIR INTAKE OF DOAS-1 AS SHOWN.

KEY PLAN:



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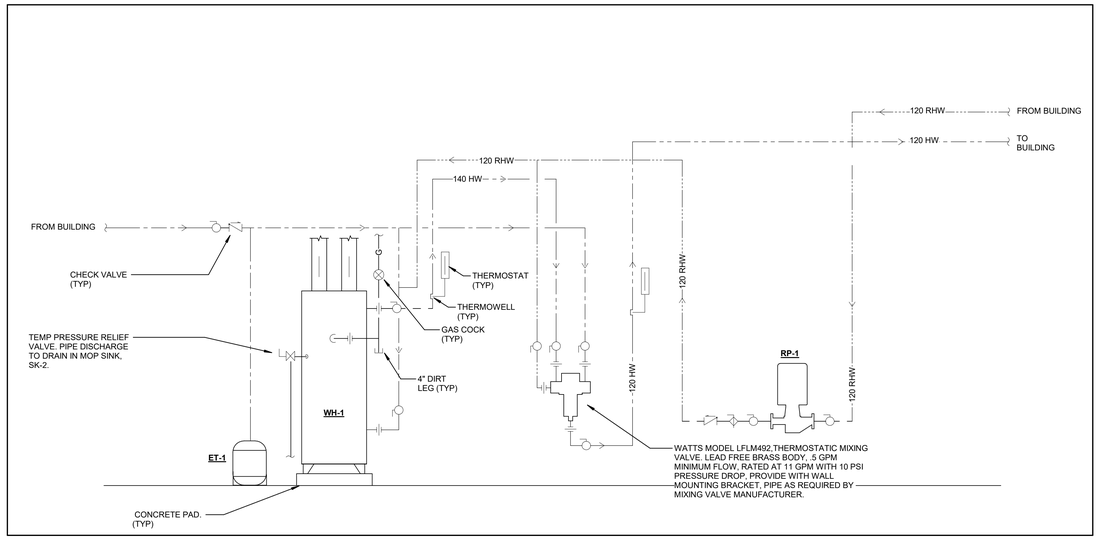
PLUMBING FLOOR PLAN

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Comm. No. 19651.00	Date 2021/4/23
Drawn JDW	Drawing No. P102
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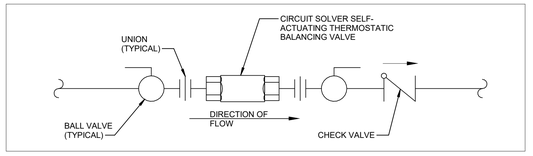
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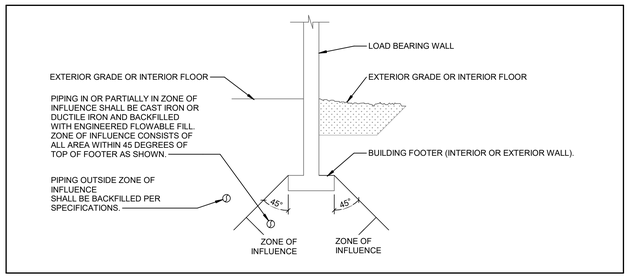
1 WATER HEATERS WITH RECIRC - PIPING SCHEMATIC

SCALE: NONE



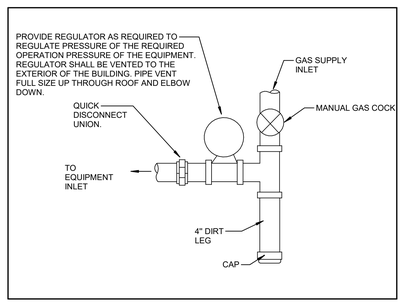
2 HOT WATER BALANCING VALVE DETAIL

SCALE: NONE



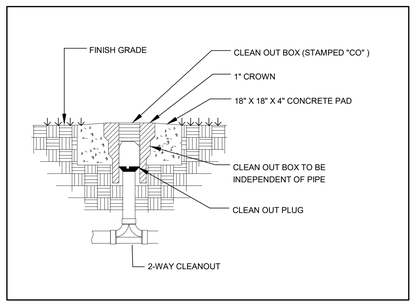
3 UNDERGROUND PIPING AND FOOTER COORDINATION SCHEMATIC

SCALE: NONE



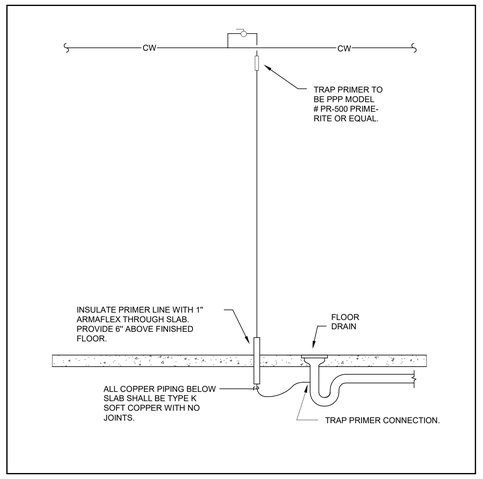
4 TYPICAL GAS CONNECTION DETAIL

SCALE: NONE



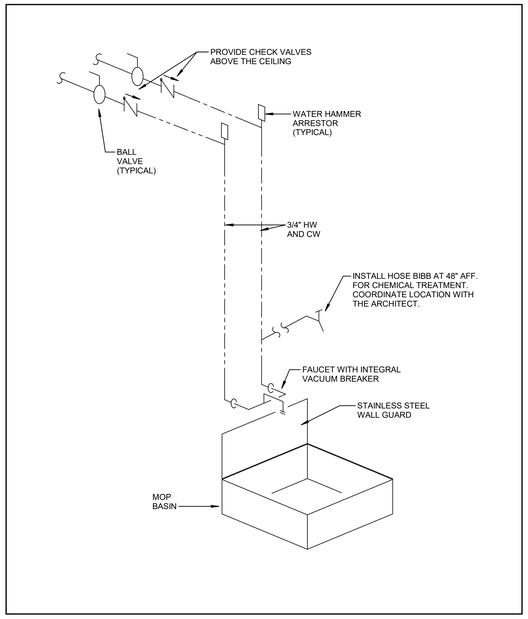
5 EXTERIOR CLEANOUT DETAIL

SCALE: NONE



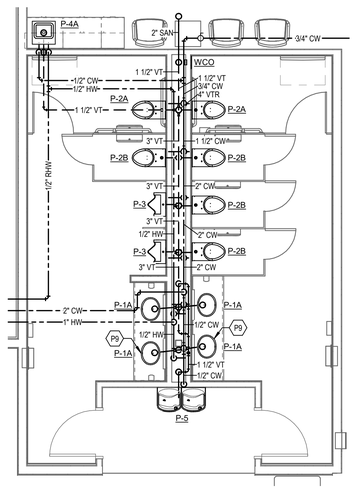
6 TRAP PRIMER DETAIL

SCALE: NONE



7 MOP BASIC DETAIL

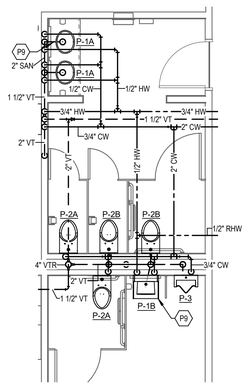
SCALE: NONE



8 PUBLIC GROUP RESTROOM PLAN

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

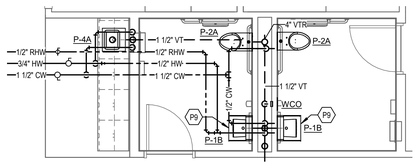
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9 STAFF GROUP RESTROOM PLAN

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

0 1' 2' 4' 8' 12' 16' 1/4" = 1'-0"



10 SINGLE OCCUPANT RESTROOMS PLAN

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

0 1' 2' 4' 8' 12' 16' 1/4" = 1'-0"

SHEET NOTES:

TAGGED NOTES

P9	PROVIDE HOSE BIBB UNDERNEATH LAVATORY FOR CLEANING PURPOSES. CONNECT TO 1/2" CW DROP SERVING THE LAVATORY.

No.	Revisions / Submissions	Date
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PLUMBING DETAILS & ENLARGED PLANS

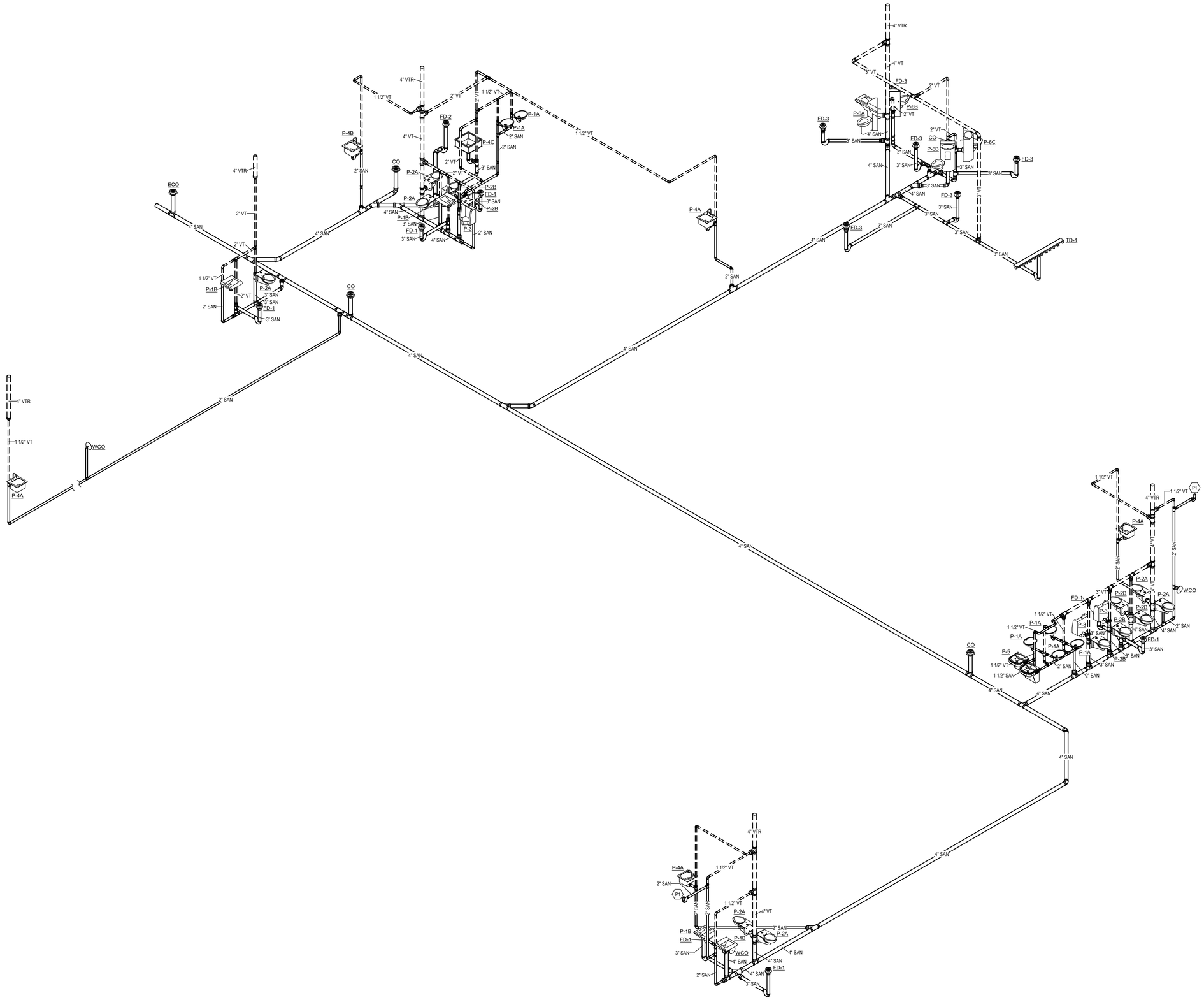
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Drawn JDW	Drawing No. P201
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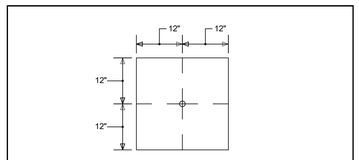
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1 1/2" VT
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P-4A
2" SAN
CO
4" SAN
ECO
4" VTR
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4" SAN
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2" VT
P-2A
3" SAN
FD-1
3" SAN
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P-4B
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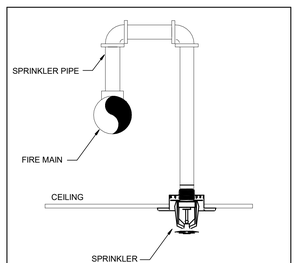
GENERAL NOTES - FIRE PROTECTION

A. ALL AREAS SHALL BE PROTECTED BY A 100% WET PIPE FIRE SUPPRESSION SYSTEM INSTALLED IN STRICT ACCORDANCE WITH NFPA-13, THE OHIO BUILDING CODES AND THE PROJECT SPECIFICATIONS.
B. THE SUCCESSFUL FIRE PROTECTION CONTRACTOR SHALL OBTAIN AND UTILIZE THE ARCHITECTURAL REFLECTED CEILING PLAN FOR LAYING OUT THE SPRINKLER HEADS. THE REFLECTED CEILING PLANS SHOWN ARE TO COORDINATE CEILING TYPES AND LOCATIONS. REFER TO THE MECHANICAL AND ELECTRICAL DRAWINGS FOR CEILING DEVICE LOCATIONS. REFER TO THE SPECIFICATIONS FOR COORDINATION DRAWING REQUIREMENTS.
C. INSTALL HEADS IN CENTER OF 2'X2' TILES. INSTALL HEADS ON 1/4 POINTS OF THE 4' DIMENSION AND CENTER OF THE 2' DIMENSION IN 2'X4' TILES. DO NOT MOUNT HEADS IN CENTER OF 2'X4' TILE IF IT IS SCORED TO LOOK LIKE TWO 2'X2' TILES.
D. ALL SPRINKLER HEADS SHALL BE "SEMI-RECESSED", QUICK RESPONSE SPRINKLER HEADS (UNLESS OTHERWISE NOTED ON THE PLANS.) HEADS SHALL BE FED FROM A RETURN BEND ARRANGEMENT.
E. UTILIZE UPRIGHT AND/OR WALL-MOUNTED TYPE SPRINKLER HEADS IN AREAS WITHOUT CEILINGS.
F. THE FIRE PROTECTION CONTRACTOR SHALL PERFORM HIS OWN FLOW TEST PRIOR TO SUBMITTING SHOP DRAWINGS.
G. REFER TO A COMPLETE SET OF DOCUMENTS (ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICAITONS) FOR COORDINATION OF TRADES, ROOMS, STRUCTURE AND EQUIPMENT. HVAC DUCTWORK MAINS SHALL BE INSTALLED PRIOR TO FIRE PROTECTION PIPING. PROVIDE DRAIN VALVES IN THE FIRE PROTECTION SYSTEM WHERE REQUIRED TO COMPLETELY DRAIN THE SYSTEM.
H. REFER TO THE SPECIFICATIONS FOR SPRINKLER HEAD TYPES.
I. PROVIDE ALL REQUIRED DRAIN PIPING TO TEST FLOW SWITCHES. DISCHARGE DRAIN PIPING TO OUTDOORS OR A FLOOR DRAIN.
J. SIZE ALL FIRE PROTECTION PIPING IN ACCORDANCE WITH NFPA 13. PIPE SIZING SHALL BE ACCOMPLISHED USING HYDRAULIC CALCULATIONS.
K. SUBMIT HYDRAULIC CALCULATIONS AND SYSTEMS DESIGN FOR REVIEW TO THE M/E ENGINEER.
L. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARD AND SAFETY REQUIREMENTS.
M. ALL NEW WORK SHALL BE HUNG FROM STRUCTURE, NOT FROM THE WORK OF OTHER TRADES, WHETHER EXISTING OR NEW.
N. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREMENTS.
O. PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR (TO OWNER'S STANDARDS) EXISTING WALLS, CEILINGS, ETC., THAT ARE TO REMAIN IF DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH ADJACENT SURFACES TO THE SATISFACTION OF THE ARCHITECT AND OWNER.
P. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, FEDERAL, MUNICIPALITY, UTILITY COMPANY, STATE, ETC.)
Q. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES SHALL BE APPROPRIATELY FIRE STOPPED PER AN APPROVED U.L. LISTED STANDARD. CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO INSULATED PIPING PENETRATIONS.
R. WHERE CEILINGS ARE INDICATED ALL SPRINKLER PIPING MUST BE INSTALLED ABOVE CEILINGS. SPRINKLER PIPING MUST BE COORDINATED WITH OTHER TRADES. PIPING MUST BE OFFSET TO AVOID CONFLICTS WITH DUCTWORK, CONDUIT, ALL EQUIPMENT, ETC.
S. LOCATIONS OF PIPING AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.
T. ALL OFFSETS IN PIPING ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY.
U. COORDINATE ALL HVAC WORK WITH ELECTRICAL, PLUMBING AND OTHER TRADES TO AVOID INTERFERENCE WITH PIPING, DUCTS, CONDUIT AND OTHER EQUIPMENT.
V. SEAL AIRTIGHT AROUND ALL PIPING PENETRATIONS THROUGH WALLS, FLOORS AND ROOF. PROVIDE FIRE STOPPING IN FIRE PARTITION.
W. THE CONTRACTOR SHALL RELOCATE OR AVOID ANY EXISTING EQUIPMENT APPURTENANCES, ETC., THAT CONFLICT WITH NEW WORK.

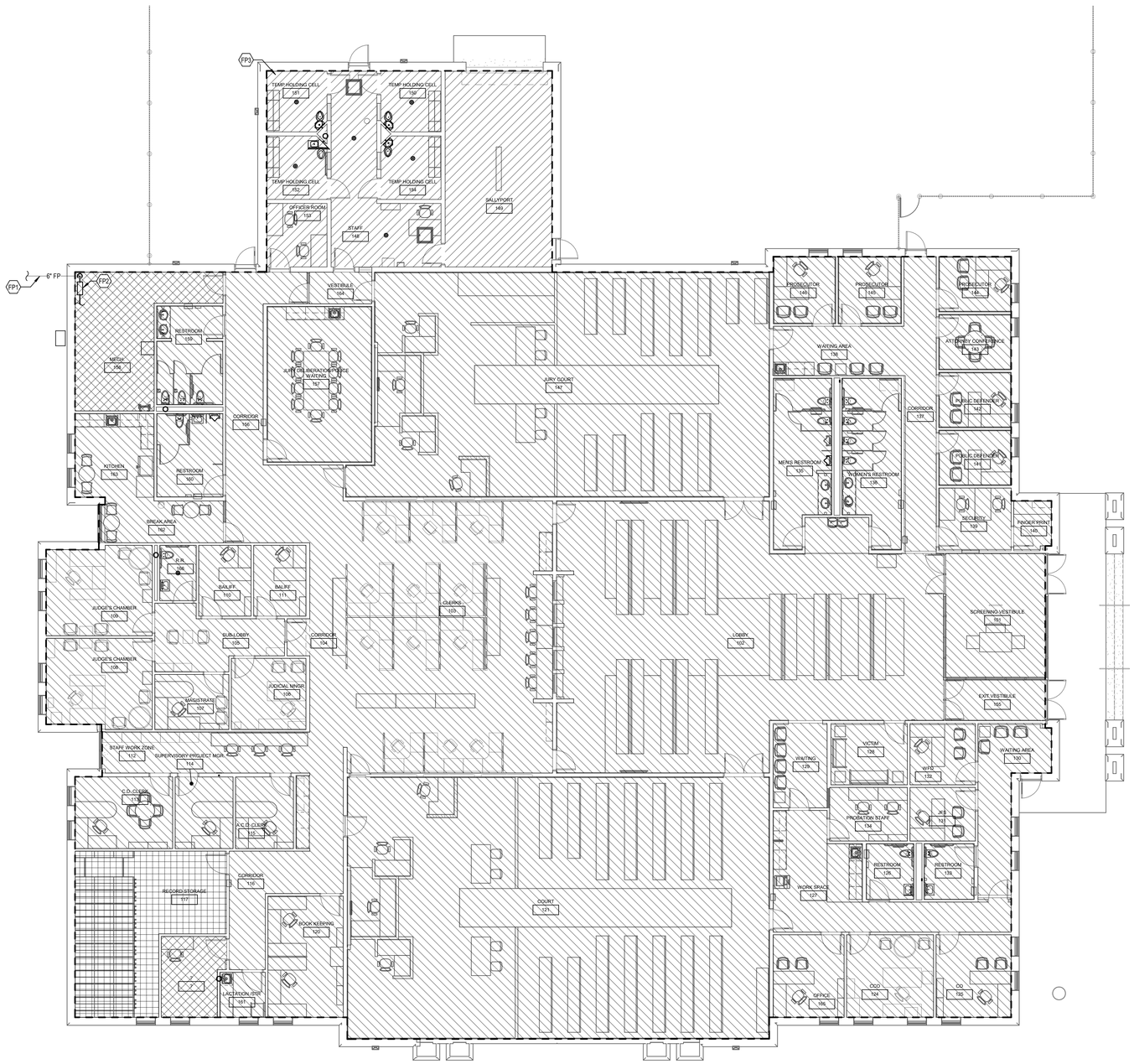


SPRINKLER HEADS TO BE INSTALLED IN CENTER OF 2x2 CEILING TILES.

2x2 CEILING TILE DETAIL
SCALE: NONE



RETURN BEND DETAIL
SCALE: NONE



1 FIRE PROTECTION FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

GENERAL SYMBOLS

(#)	TAGGED NOTE DESIGNATOR
(A)	REVISION TRIANGLE
ROOM NAME / RM #	ROOM TAG

FIRE PROTECTION LEGEND

—o	PIPE ELBOW TURNING UP
—o	PIPE ELBOW TURNING DOWN
—FP—	FIRE PROTECTION PIPING
	LIGHT HAZARD
	LIGHT HAZARD (HOLDING CELLS)
	ORDINARY HAZARD GROUP 1
	ORDINARY HAZARD GROUP 2

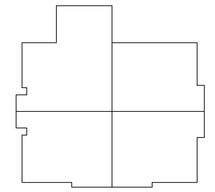
TAGGED NOTES (##)

FP1	REFER TO CIVIL DRAWINGS FOR LOCATION OF 6" FIRE SUPPRESSION MAIN UNDERGROUND.
FP2	PROVIDE WET RISER WITH TAMPER AND FLOW SWITCH OFF OF FIRE RISER IN THIS LOCATION. RISER DRAIN TO DISCHARGE TO EXTERIOR OF BUILDING.
FP3	PROVIDE HOLDING CELL AREA WITH DETENTION GRADE HEADS.

FIRE PUMP FLOW DATA:

STATIC PSI: 98 PSI
RESIDUAL PSI: 86 PSI
FLOW: 1404 GPM
DURATION: CONTINUOUS
DATE & TIME: 01/31/2018
SOURCE OF WATER: CITY OF TROTWOOD WATER DEPT.
SOURCE OF DATA: HYDRANT
HAZARD: LIGHT/ORDINARY
OCCUPANCY OF BUILDING: JUDICAL COURT

KEY PLAN:



No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
6	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

FIRE PROTECTION FLOOR PLAN

Sheet List - Fire Suppression

SHEET #	SHEET NAME
F100	FIRE PROTECTION FLOOR PLAN

STATE OF OHIO
BRADLEY STEVEN BRUENING
81283
REGISTERED PROFESSIONAL ENGINEER

Comm. No. 19651.00	Date 2021/4/23
Drawn JDW	Drawing No. F100
Checked BSB	

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GENERAL NOTES - MECHANICAL

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE GENERAL AND SPECIAL CONDITIONS, "GENERAL CONDITIONS - MECHANICAL" OF THE PROJECT SPECIFICATIONS AND TO ALL OTHER CONTRACT DOCUMENTS AS THEY APPLY TO THIS BRANCH OF WORK. ATTENTION IS ALSO DIRECTED TO ALL OTHER SECTIONS OF THE CONTRACT DOCUMENTS WHICH AFFECTS THE WORK AND WHICH ARE HEREBY MADE A PART OF THE WORK SPECIFIED.
2. ALL MANUFACTURERS, SUPPLIERS, FABRICATORS, CONTRACTORS, ETC. SUBMITTING PROPOSALS FOR ANY PART OF THE WORK, SERVICES, MATERIALS OR EQUIPMENT TO BE USED ON OR APPLIED TO THIS PROJECT ARE HEREBY DIRECTED TO FAMILIARIZE THEMSELVES WITH THE CONTRACT DOCUMENTS. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION AND FINAL DETERMINATION PRIOR TO THE BID.
3. THE WORK SHALL CONSIST OF FURNISHING ALL LABOR, EQUIPMENT, TRANSPORTATION, SUPPLIES, MATERIALS, APPURTENANCES AND SERVICES NECESSARY FOR THE SATISFACTORY INSTALLATION OF THE COMPLETE AND OPERATING SYSTEMS INDICATED OR SPECIFIED IN THE CONTRACT DOCUMENTS.
4. ANY MATERIALS, LABOR, EQUIPMENT OR SERVICES NOT MENTIONED SPECIFICALLY HEREIN WHICH MAY BE NECESSARY TO COMPLETE ANY PART OF THE SYSTEMS IN A SUBSTANTIAL MANNER, IN COMPLIANCE WITH THE REQUIREMENTS STATED, IMPLIED OR INTENDED IN THE PLANS AND SPECIFICATIONS, SHALL BE INCLUDED IN THE BID AS PART OF THE CONTRACT.
5. THE ENGINEER DOES NOT DEFINE THE SCOPE OF INDIVIDUAL TRADES, SUBCONTRACTORS, MATERIAL SUPPLIERS AND VENDORS. ANY SHEET NUMBERING OR SPECIFICATION NUMBERING SYSTEM USED WHICH IDENTIFIES DISCIPLINES IS SOLELY FOR THE ENGINEER'S CONVENIENCE AND IS NOT INTENDED TO DEFINE A SUBCONTRACTOR'S SCOPE OF WORK. INFORMATION REGARDING INDIVIDUAL TRADES, SUBCONTRACTORS, MATERIAL SUPPLIERS AND VENDORS MAY BE DETAILED, DESCRIBED AND INDICATED AT DIFFERENT LOCATIONS THROUGHOUT THE CONTRACT DOCUMENTS. NO CONSIDERATION WILL BE GIVEN TO REQUESTS FOR CHANGE ORDERS FOR FAILURE TO OBTAIN AND REVIEW THE COMPLETE SET OF CONTRACT DOCUMENTS WHEN PREPARING BIDS, PRICES AND QUOTATIONS. UNLESS STATED OTHERWISE, THE SUBDIVISION AND ASSIGNMENT OF WORK UNDER THE VARIOUS SECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR HOLDING THE PRIME CONTRACT.
6. IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO CALL FOR A COMPLETE AND OPERATIONAL SYSTEM, INCLUDING ALL COMPONENTS, ACCESSORIES, FINISH WORK, ETC NECESSARY FOR TROUBLE FREE OPERATION; TESTED AND READY FOR OPERATION. ANYTHING THAT MAY BE REQUIRED, IMPLIED, OR INFERRED BY THE CONTRACT DOCUMENTS SHALL BE PROVIDED AND INCLUDED AS PART OF THE BID.
7. ALL CONTRACTORS AND VENDORS PROVIDING A BID FOR THIS PROJECT SHALL REVIEW THE PLANS AND SPECIFICATIONS AND DETERMINE ANY MODIFICATIONS AND/OR ADJUSTMENTS NECESSARY RELATIVE TO THE PROPOSED EQUIPMENT AND MATERIALS WITH SPECIFIC MANUFACTURER'S INSTALLATION REQUIREMENTS. INCLUDE IN THE BID ANY NECESSARY METHODS, FEATURES, OPTIONS, ACCESSORIES, ETC. NECESSARY TO INSTALL THE PROPOSED EQUIPMENT AND MATERIALS, REGARDLESS OF WHETHER USED AS BASIS OF DESIGN OR BEING OFFERED AS A SUBSTITUTION, IN ACCORDANCE WITH THE SPECIFIC MANUFACTURER'S INSTALLATION REQUIREMENTS, WHETHER SPECIFICALLY DETAILED OR NOT, WITHIN THE PLANS AND SPECIFICATIONS.
8. THE BIDDER/PROPOSER SHALL COMPLETELY REVIEW THE CONTRACT DOCUMENTS. ANY INTERPRETATION AS TO DESIGN INTENT OR SCOPE SHALL BE PROVIDED BY THE ENGINEER. SHOULD ANY INTERPRETATION BE REQUIRED, THE BIDDER/PROPOSER SHALL REQUEST A CLARIFICATION NOT LESS THAN TEN (10) DAYS PRIOR TO THE SUBMISSION OF THE BID SO THAT THE CONDITION MAY BE CLARIFIED BY ADDENDUM. IN THE EVENT OF ANY CONFLICT, DISCREPANCY, OR INCONSISTENCY DEVELOPS; THE INTERPRETATION OF THE ENGINEER SHALL BE FINAL.
9. THE CONTRACTOR SHALL PROVIDE LAYOUT CONFIRMATION OF EQUIPMENT LOCATIONS TO VERIFY THAT ALL COMPONENTS WILL FIT IN THE PROPOSED SPACE AND HAVE ADEQUATE CLEARANCE FOR SERVICES. COORDINATE THE LOCATION OF DRAINS, CONNECTIONS, ETC. PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE RESPONSIBLE CONTRACTOR(S).
10. EQUIPMENT AND MATERIALS SUBSTITUTIONS OR DEVIATIONS SHALL COMPLY WITH "GENERAL PROVISIONS - MECHANICAL PART 6." ANY VENDOR WISHING TO OBTAIN AN EQUIPMENT SUBSTITUTION SHALL REQUEST A CLARIFICATION NOT LESS THAN TEN (10) DAYS PRIOR TO THE SUBMISSION OF THE PROPOSAL SO THAT IT MAY BE CONSIDERED AND POTENTIALLY INCLUDED BY ADDENDUM. REQUESTS MADE AFTER THIS PERIOD WILL BE REJECTED.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE REGARDLESS IF CONTRACTOR IS IGNORANT OF CODES, RULES, REGULATIONS, LAWS, ETC. THE CONTRACTOR SHALL ALSO BE VERSED IN ALL CODES, RULES, REGULATIONS, LAWS, ETC. PERTINENT TO THEIR PART OF THE WORK PRIOR TO SUBMISSION OF THE PROPOSAL.
12. ALL WARRANTIES SHALL BEGIN STARTING AT THE PROJECT'S SUBSTANTIAL COMPLETION DATE. ALL EQUIPMENT, MATERIAL AND LABOR WARRANTIES SHALL BE FURNISHED BY THE EQUIPMENT SUPPLIER/VENDOR.
13. WHEREVER WORK PENETRATES ROOFING, IT SHALL BE DONE IN A MANNER THAT WILL NOT DIMINISH OR VOID THE ROOFING GUARANTEE OR WARRANTY IN ANY WAY. COORDINATE ALL SUCH WORK WITH THE ROOFING INSTALLER.
14. DUCTWORK, PIPING AND EQUIPMENT SHALL BE KEPT CLEAN AT ALL TIMES. DUCTWORK STORED ON THE JOB SITE SHALL BE PLACED A MINIMUM OF 4" ABOVE THE FLOOR AND BE COMPLETELY COVERED IN PLASTIC. INSTALLED DUCTWORK SHALL BE PROTECTED WITH PLASTIC. DO NOT INSTALL THE DUCTWORK OR INSULATION (PIPE OR DUCT) IF THE BUILDING IS NOT "DRIED-IN". IF THIS IS REQUIRED, THE ENTIRE LENGTHS SHALL BE COVERED IN PLASTIC TO PROTECT. THE OWNER/ENGINEER SHALL PERIODICALLY INSPECT THAT THESE PROCEDURES ARE FOLLOWED. IF DEEMED UNACCEPTABLE, THE CONTRACTOR SHALL BE REQUIRED TO CLEAN THE DUCT SYSTEM UTILIZING A NADCA CERTIFIED CONTRACTOR.
15. THE PERMANENT SYSTEMS, WHEN INSTALLED, MAY BE USED FOR TEMPORARY SERVICES WITH THE CONSENT OF THE ENGINEER AND IN STRICT ACCORDANCE WITH "GENERAL PROVISIONS - MECHANICAL - TEMPORARY USE OF EQUIPMENT."
16. THE CONTRACTOR AND THEIR SUBCONTRACTORS SHALL INCLUDE IN THE BID TO PROVIDE EQUIPMENT AND CONTROLS STARTUP AND VERIFICATION FOR ALL MECHANICAL SYSTEMS SPECIFIED FOR THIS PROJECT AND IN STRICT ACCORDANCE WITH "GENERAL PROVISIONS - MECHANICAL - EQUIPMENT/CONTROLS STARTUP & VERIFICATION."
17. THE CONTRACTOR SHALL DETERMINE FROM THE CONTRACT DOCUMENTS, THE DATE OF COMPLETION FOR THE PROJECT AND INSURE THAT EQUIPMENT DELIVERY SCHEDULES CAN BE MET SO AS TO ALLOW THIS COMPLETION TO BE MET.
18. THROUGH COORDINATION WITH OTHER CONTRACTORS, VENDORS, AND SUPPLIERS ASSOCIATED WITH THIS PROJECT, THIS CONTRACTOR SHALL INSURE, 100% FUNCTIONAL, TESTED, INSPECTED AND APPROVED SYSTEMS. CLAIMS FOR ADDITIONAL COST OR CHANGE ORDERS WILL BE REJECTED.
19. PRIOR TO ORDERING ANY MATERIALS OR ROUGH-IN OF ANY KIND, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION OF ALL ELECTRICAL REQUIREMENTS (I.E. VOLTAGE, PHASE, CIRCUIT BREAKER, WIRE SIZING, ETC.) WITH THE ELECTRICAL CONTRACTOR. THERE WILL BE NO CHANGE IN THE CONTRACT AMOUNT FOR ANY DISCREPANCIES.
20. ALL OFFSETS, TURNS, FITTINGS, TRIM, DETAIL, ETC., MAY NOT BE INDICATED, BUT SHALL BE PROVIDED AS REQUIRED. ADDITIONAL ALLOWANCES SHALL BE INCLUDED FOR SAME AT EACH PROPOSERS' DISCRETION.
21. DO NOT SCALE FROM DRAWINGS, PRINTING DISTORTS SCALE. WORK SHALL BE LAID OUT FROM CONTRACTOR GENERATED DIMENSIONED DRAWINGS.
22. THE CONTRACTOR SHALL ENSURE PROPER COORDINATION BETWEEN ALL TRADES SUCH THAT CONDUITS, PIPING, DUCTWORK, ETC, DOES NOT BLOCK ACCESS TO VALVES, EQUIPMENT, DUCT ACCESS DOORS, ETC. ITEMS THAT HAVE BEEN INSTALLED WHERE ACCESS IS COMPROMISED SHALL BE RELOCATED AT THE CONTRACTOR'S EXPENSE.
23. THESE DRAWINGS ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE, HOWEVER LOCATIONS AND SIZES WERE TAKEN FROM DIFFERENT SOURCES AND ARE SUBJECT TO DEVIATION. THE CONTRACTOR SHALL ASSUME SOME DEVIATIONS AND INCLUDE OFFSETS, ADDITIONAL PIPING, ETC. AT THE TIME OF BID.
24. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR THEIR WORK. ALL CUTTING AND PATCHING SHALL MATCH ADJACENT SURFACES AND PERFORMED BY SKILLED WORKERS OF THE TRADE. REFER TO SPECIFICATION SECTION "SLEEVING, CUTTING, PATCHING, REPAIRING, ETC." AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
25. ALL SUPPORTS FOR EQUIPMENT, DEVICES OR FIXTURES SHALL BE UNIQUE, FROM THE BUILDING STRUCTURE. DO NOT SUPPORT WORK FROM OTHER TRADES, EQUIPMENT OR SUPPORTS WITHOUT WRITTEN PERMISSION FROM THE ENGINEER AND CONSENT OF THE OTHER TRADE, IN WRITING.
26. PRIOR TO PURCHASE OR FABRICATION OF PIPING, THE CONTRACTOR SHALL COORDINATE INSTALLATION WITH ACTUAL CONDITIONS AND INSTALL ACCORDINGLY.
27. VALVES, BALANCING DAMPERS OR ANY MECHANICAL/ELECTRICAL ITEM SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF THIS IS NOT POSSIBLE, THEN AN APPROPRIATELY SIZED ACCESS DOOR SHALL BE PLACED AT NO ADDITIONAL COST UNDER THE ITEM WHETHER SHOWN OR NOT ON THE PLANS TO ALLOW ACCESS AND ADJUSTMENT.
28. THE CONTRACTOR SHALL VISIT THE SITE FOR EXACT LOCATIONS OF ALL WALL AND CEILING DEVICES. THIS SHALL INCLUDE PLUMBING FIXTURES, CEILING GRILLES AND DIFFUSERS, ETC.
29. CONTRACTOR SHALL CLEAN UP CONSTRUCTION DEBRIS AT ALL TIMES DURING CONSTRUCTION.

ABBREVIATIONS

ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFR	ABOVE FINISHED ROOF
APD	AIR PRESSURE DROP
AVG	AVERAGE
BAS	BUILDING AUTOMATION SYSTEM
BHP	BREAK HORSEPOWER
BTU	BRITISH THERMAL UNIT
CAV	CONSTANT AIR VOLUME
CFM	CUBIC FEET PER MINUTE
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROLS
DN	DOWN
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWT	ENTERING WATER TEMPERATURE
FA	FREE AREA
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FPC	FIRE PROTECTION CONTRACTOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FSD	FIRE SMOKE DAMPER
GAL	GALLON (-S)
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GR	GRAINS
HD	HEAD
HP	H (-ORSEPOWER, -EAT PUMP)
ID	I (-DENTIFICATION, -NSIDE DIAMETER, -NSIDE DIMENSION)
kW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MBH	BTU PER HOUR [THOUSANDS]
MCA	MINIMUM CIRCUIT AMPS
MFG	MANUFACTURER
MOCP	MAXIMUM OVERCURRENT PROTECTION [AMPS]
NC	NOISE CRITERIA **OR** NORMALLY CLOSED
RF	REFRIGERANT PIPING

ABBREVIATIONS (CONTINUED)

NO	NORMALLY OPEN **OR** NUMBER
NTS	NOT TO SCALE
OD	OUTSIDE DI (-AMETER, -MENSION)
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PH	PHASE [ELECTRICAL]
PPM	PARTS PER MILLION
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE (STEAM, WATER, GAS)
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	PSI GAUGE
RH	RELATIVE HUMIDITY [%]
RPM	REVOLUTIONS PER MINUTE
SD	SMOKE DAMPER
SP	STATIC PRESSURE
SQ FT	SQUARE FEET **OR** FOOT
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V	VOLT (-AGE, -S)
VAR	VARI (-ABLE, -IES)
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VFD	VARIABLE FEQUENCY DRIVE
W	WATT (-AGE, -S)
WB	WET BULB
WPD	WATER PRESSURE DROP
ΔP	DIFFERENTIAL PRESSURE
ΔT	TEMPERATURE DIFFERENCE
℄	CENTERLINE

GENERAL SYMBOLS

(#)	TAGGED NOTE DESIGNATOR
(A)	REVISION TRIANGLE
ROOM NAME (RM #)	ROOM TAG
XXX-X	EQUIPMENT TAG

HVAC LEGEND

	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST AIR DIFFUSER
	TRANSFER AIR GRILLE W/ SOUND ATTENUATING BOOT
	SIDEWALL DIFFUSER/GRILLE
TAG AIRFLOW	AIR DEVICE TAG (REGISTER, GRILLE, DIFFUSER,LOUVER)
##/##	RECTANGULAR DUCT
#ø	ROUND/SPIRAL DUCT
##/##Φ	FLAT OVAL DUCT
SA	SUPPLY AIR DUCT
RA	RETURN AIR DUCT
EA	EXHAUST AIR DUCT
OA	OUTSIDE AIR DUCT
TA	TRANSFER AIR DUCT
CAE	COMBUSTION AIR EXHAUST DUCT
CAI	COMBUSTION AIR INTAKE DUCT
SA	SA AIR DUCT TURNING UP
SA	SA AIR DUCT TURNING DOWN
RA	RA AIR DUCT TURNING UP
RA	RA AIR DUCT TURNING DOWN
EA	EA AIR DUCT TURNING UP
EA	EA AIR DUCT TURNING DOWN
	MITERED ELBOW WITH TURNING VANES
	FLEXIBLE DUCT
T	THERMOSTAT
T	TEMPERATURE SENSOR
H	HUMIDITY SENSOR
CO2	CARBON DIOXIDE SENSOR
TCO2	TEMPERATURE & CARBON DIOXIDE SENSOR
CO	CARBON MONOXIDE SENSOR
VERT. HORIZ.	MANUAL BALANCING/VOLUME DAMPER
VERT. HORIZ.	MOTORIZED DAMPER

MECHANICAL PIPING LEGEND

	PIPE ELBOW TURNING UP
	PIPE ELBOW TURNING DOWN
	PIPE TEE; CONNECTION ON TOP
	PIPE TEE; CONNECTION ON BOTTOM
	PIPE CAP
CD	CONDENSATE DRAIN
RFS	VRF REFRIGERANT PIPING
RS/RL	SPLIT SYSTEM PIPING

Sheet List - Mechanical

SHEET #	SHEET NAME
M001	MECHANICAL LEGEND
M002	HVAC ZONING PLAN
M101	MECHANICAL AIR DISTRIBUTION
M101.1	MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED NE
M101.2	MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED SE
M101.3	MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED NW
M101.4	MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED SW
M102	MECHANICAL ROOF PLAN
M201	MECHANICAL PIPING PLAN
M300	N-S MECHANICAL SECTION VIEWS
M301	E-W MECHANICAL SECTION VIEWS
M400	MECHANICAL PIPING SCHEMATIC
M500	MECHANICAL EQUIPMENT DETAILS
M501	MECHANICAL DETAILS
M600	CONTROL SCHEMATICS
M601	CONTROL SCHEMATICS
M700	MECHANICAL SCHEDULES
M800	VENTILATION CALCS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED ON THIS PROJECT

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

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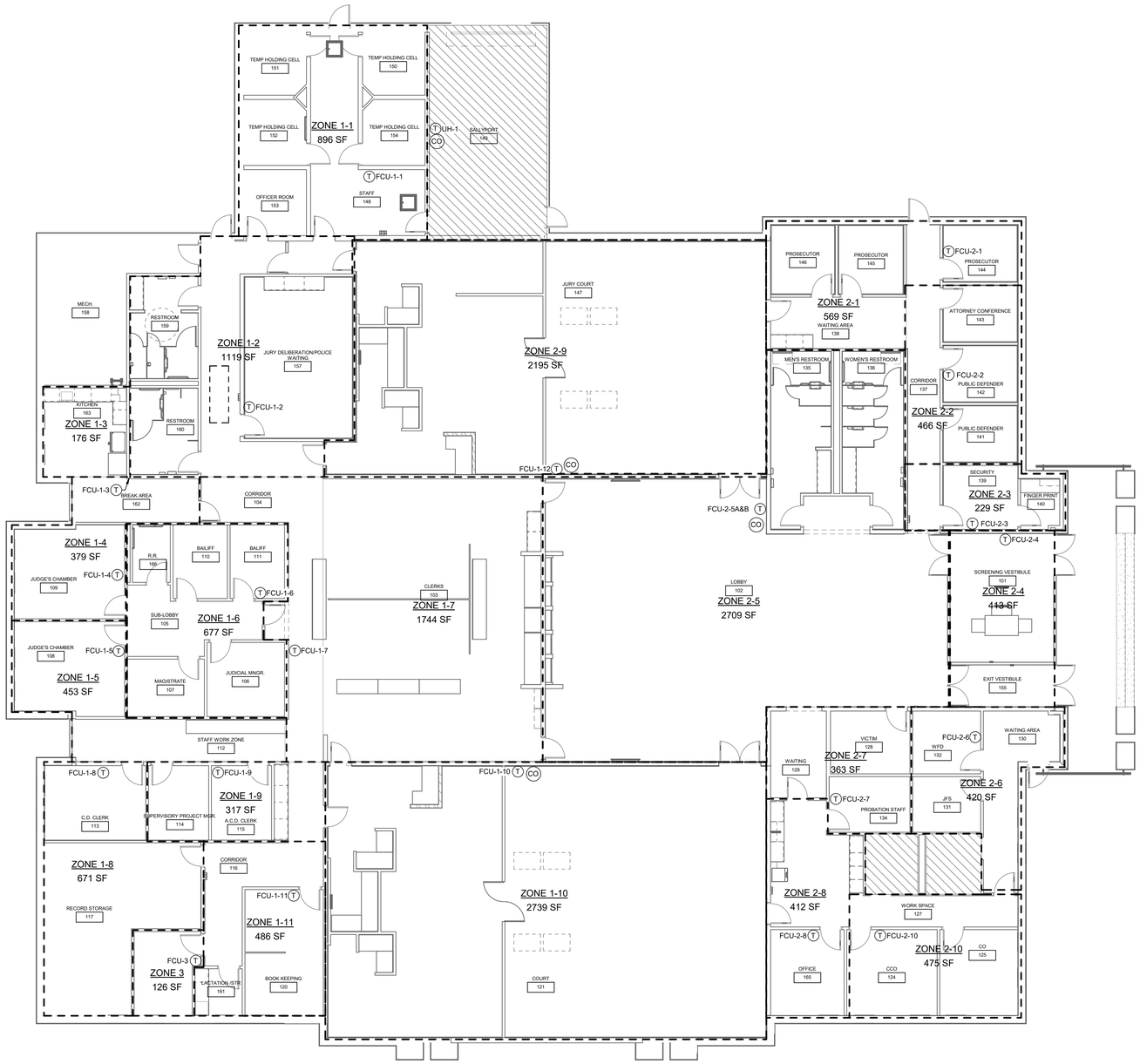
MECHANICAL LEGEND

STATE OF OHIO · PAUL J. COME · E-80723 · REGISTERED · PROFESSIONAL ENGINEER · 6/21/21

Comm. No. 19651.00	Date 2021/4/23
Drawn HDB	Drawing No. M001
Checked PJC	

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1 HVAC ZONING PLAN

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

0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

CU-1 ZONING SCHEDULE

NAME	FCU CONNECTED VOLUME	ALLOWABLE CHARGE	OA CFM	OA TYPE
ZONE 1-1	6993.0	181.8	155	MIXED WITH RETURN
ZONE 1-2	9224.0	240.3	160	MIXED WITH RETURN
ZONE 1-3	7808.6	203.0	35	MIXED WITH RETURN
ZONE 1-4	4876.6	126.8	65	MIXED WITH RETURN
ZONE 1-5	39945.4	1038.6	55	MIXED WITH RETURN
ZONE 1-6	5274.0	137.1	65	MIXED WITH RETURN
ZONE 1-7	32745.4	851.4	155	DIRECT TO SPACE
ZONE 1-8	4518.0	117.5	45	MIXED WITH RETURN
ZONE 1-9	41745.4	1085.4	30	MIXED WITH RETURN
ZONE 1-10	27762.0	721.8	1100	DIRECT TO SPACE
ZONE 1-11	41621.4	1082.2	65	MIXED WITH RETURN

A. BASIS OF DESIGN SYSTEM CU-1 CONTAINS 95.5 POUNDS OF R410A REFRIGERANT. (51.6 POUNDS FACTORY CHARGE AND 43.9 POUNDS ADDITIONAL CHARGE FOR SYSTEM)
B. A LIMIT OF 26 LB/1000 FT^3 OF R410A IS PERMITTED PER ASHRAE 34-2010 TABLE 1.
C. CRITICAL VOLUME IS DETERMINED TO BE 3673 FT^3 PER ASHRAE 15-2010 SECTION 7.3. ALL ZONES UNDER CRITICAL VOLUME REQUIRE PERMANENT TRANSFER OPENINGS.
D. CONTRACTOR SHALL COVER EXPENSE OF ADDITIONAL TRANSFER GRILLES/DUCTS IF REQUIRED DUE TO DEVIATIONS IN REQUIRED REFRIGERANT CHARGE REGARDLESS OF VENDOR SELECTED, CEILING HEIGHT ADJUSTMENTS, OR OTHER FACTORS THAT MAY AFFECT CRITICAL VOLUME.
E. DO NOT ROUTE EXPOSED REFRIGERANT PIPING IN MEANS OF EGRESS.

CU-2 ZONING SCHEDULE

NAME	FCU CONNECTED VOLUME	ALLOWABLE CHARGE	OA CFM	OA TYPE
ZONE 2-1	5121.0	133.1	90	MIXED WITH RETURN
ZONE 2-2	4194.0	109.0	140	MIXED WITH RETURN
ZONE 2-3	4923.0	128.0	20	MIXED WITH RETURN
ZONE 2-4	43172.5	1122.5	35	MIXED WITH RETURN
ZONE 2-5	43910.5	1141.7	640	DIRECT TO SPACE
ZONE 2-6	4500	117	75	MIXED WITH RETURN
ZONE 2-7	41983.5	1091.6	45	MIXED WITH RETURN
ZONE 2-8	4899	127.4	95	MIXED WITH RETURN
ZONE 2-9	22396.5	582.3	900	DIRECT TO SPACE
ZONE 2-10	6478.7	168.4	40	MIXED WITH RETURN

A. BASIS OF DESIGN SYSTEM CU-2 CONTAINS 105.3 POUNDS OF R410A REFRIGERANT. (51.6 POUNDS FACTORY CHARGE AND 53.7 POUNDS ADDITIONAL CHARGE FOR SYSTEM LAYOUT)
B. A LIMIT OF 26 LB/1000 FT^3 OF R410A IS PERMITTED PER ASHRAE 34-2010 TABLE 1.
C. CRITICAL VOLUME IS DETERMINED TO BE 4050 FT^3 PER ASHRAE 15-2010 SECTION 7.3. ALL ZONES UNDER CRITICAL VOLUME REQUIRE PERMANENT TRANSFER OPENINGS.
D. CONTRACTOR SHALL COVER EXPENSE OF ADDITIONAL TRANSFER GRILLES/DUCTS IF REQUIRED DUE TO DEVIATIONS IN REQUIRED REFRIGERANT CHARGE REGARDLESS OF VENDOR SELECTED, CEILING HEIGHT ADJUSTMENTS, OR OTHER FACTORS THAT MAY AFFECT CRITICAL VOLUME.
E. DO NOT ROUTE EXPOSED REFRIGERANT PIPING IN MEANS OF EGRESS.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
6	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

HVAC ZONING PLAN

STATE OF OHIO PAUL J. COYNE E-80723 REGISTERED PROFESSIONAL ENGINEER 6/16/21

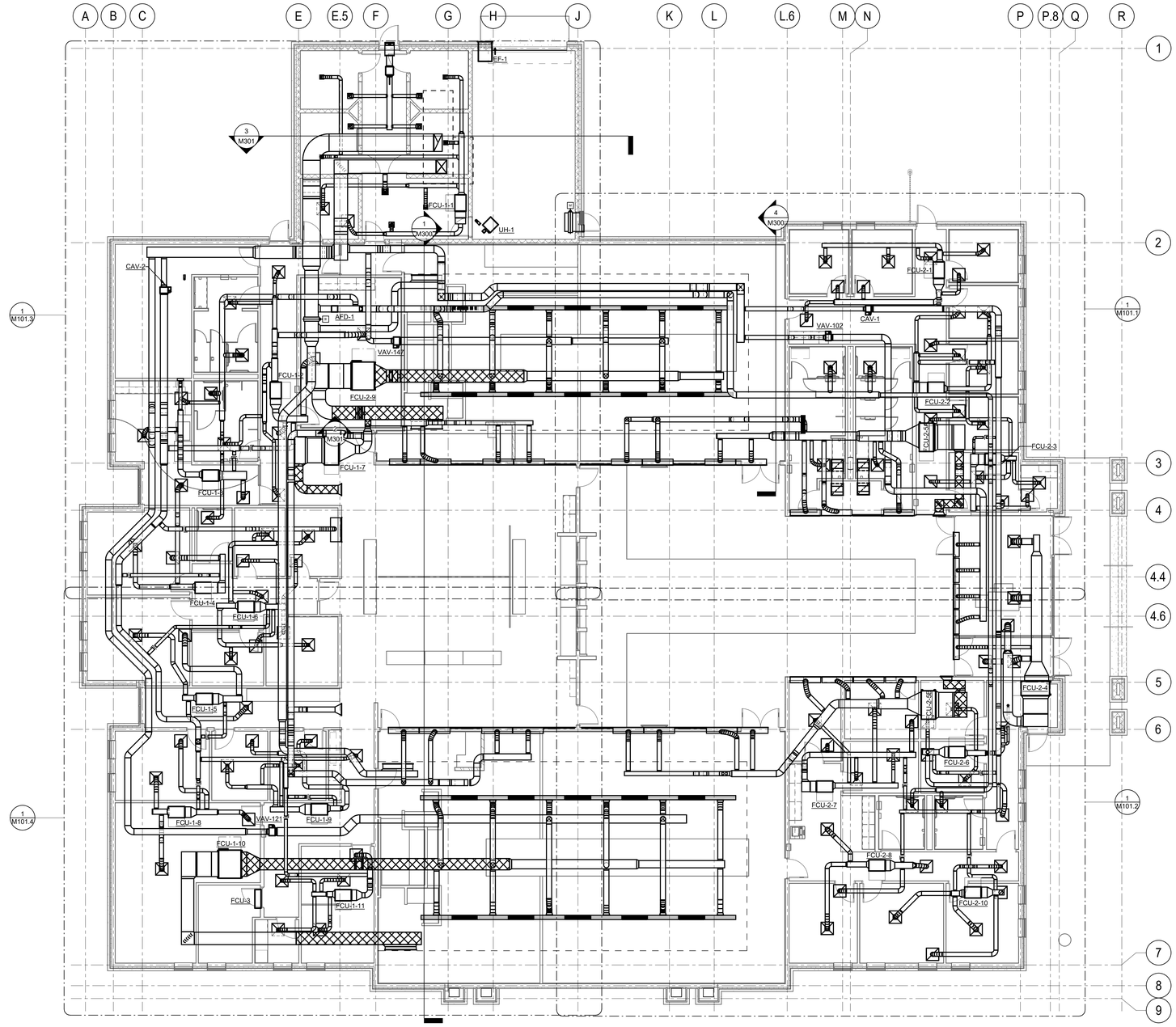
Comm. No.	Date
19651.00	2021/4/23
Drawn: HDB	Drawing No.: M002
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1 MECHANICAL AIR DISTRIBUTION PLAN

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

0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

SHEET NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
6	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
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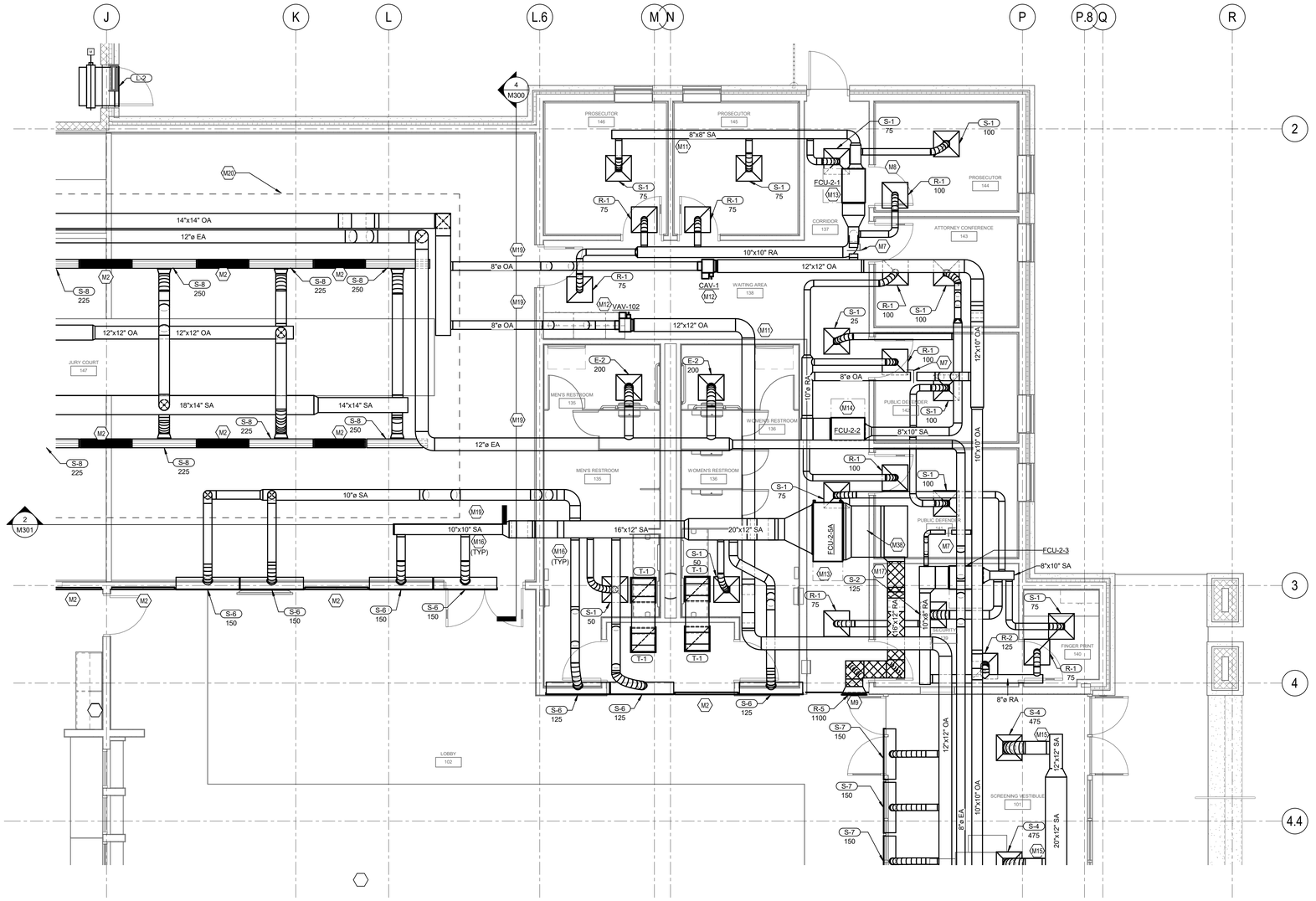
MECHANICAL AIR DISTRIBUTION

STATE OF OHIO
PAUL J. COYNE
E-80723
REGISTERED PROFESSIONAL ENGINEER
6/16/21

Comm. No. 19651.00	Date 2021/4/23
Drawn HDB	Drawing No. M101
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1 ENLARGED MECHANICAL AIR DISTRIBUTION PLAN - NE

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

SHEET NOTES:

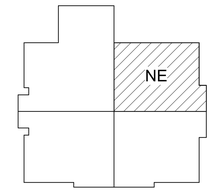
M2	INACTIVE LINEAR SLOT DIFFUSER SECTION. LINEARS TO BE CONTINUOUS BETWEEN ACTIVE AND INACTIVE SECTIONS.
M7	OUTSIDE AIR SHALL BE BALANCED TO THE INDICATED CFM ON ZONING SCHEDULE. REFER TO SHEET M002.
M8	IN ACCESSIBLE CEILING REFER TO TYPICAL RECTANGULAR ROUND BRANCH DUCT DETAIL ON M501 FOR BALANCE DAMPER AND INSULATION DETAILS. TYPICAL.
M9	REFER TO SIDEWALL GRILLE DETAIL ON M501.
M11	REFER TO DUCT WALL PENETRATION THROUGH NON-RATED WALLS DETAIL ON M501, TYPICAL
M12	REFER TO VAV/CAV BRANCH DUCT CONNECTION DETAIL ON M501, TYPICAL.
M13	REFER TO VRF FAN COIL INSTALLATION DETAIL ON M500, TYPICAL.
M14	MAINTAIN ALL RECOMMENDED MANUFACTURER SERVICE AND OPERATIONS CLEARANCES, TYPICAL.
M15	INSTALL HIGH EFFICIENCY TAKE OFFS WITH REMOTE BALANCING DAMPER FOR ALL RUNOUTS TO GRILLES, REGISTERS AND DIFFUSERS IN NON-ACCESSIBLE CEILINGS, TYPICAL.
M16	INSTALL HIGH EFFICIENCY TAKE OFFS WITH REMOTE BALANCING DAMPER FOR ALL RUNOUTS TO LINEAR SLOT DIFFUSERS, REFER TO DETAIL ON SHEET M501 TYPICAL.
M17	PROVIDE INTERNAL DUCT ACOUSTICAL LINER TO EXTENT INDICATED BY HATCHED REGION DUCT SIZES INDICATED ARE INTERNAL CLEAR DIMENSIONS.
M19	COORDINATE ELEVATIONS TO ROUTE DUCTWORK UNDER AND/OR THROUGH STRUCTURE.
M20	OUTLINE OF LOW CEILING BULKHEAD.
M38	FILTER BOX ON RETURN SIDE OF UNIT. PROVIDE CLEARANCE AT SIDE FOR FILTER REPLACEMENT. REFER TO FAN COIL SCHEDULE.

GENERAL NOTES:

DUCT RUNOUT SCHEDULE

SYMBOL	RUNOUT SIZE
E-1	6"Ø
E-2	10"Ø
E-3	72"X14"
E-4	6"Ø
E-5	6"Ø
R-1	6"Ø
R-2	8"Ø
R-3	10"Ø
R-4	12"Ø
R-5	16"X12"
R-6	72"X12"
R-7	6"Ø
S-1	6"Ø
S-2	8"Ø
S-3	10"Ø
S-4	12"Ø
S-5	6"Ø
S-6	8"Ø
S-7	6"Ø
S-8	10"Ø
S-9	6"Ø
S-10	8"Ø
T-1	16"Ø

KEY PLAN:



No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED NE

STATE OF OHIO PAUL J. COWIE E-80723 REGISTERED PROFESSIONAL ENGINEER 6/16/21

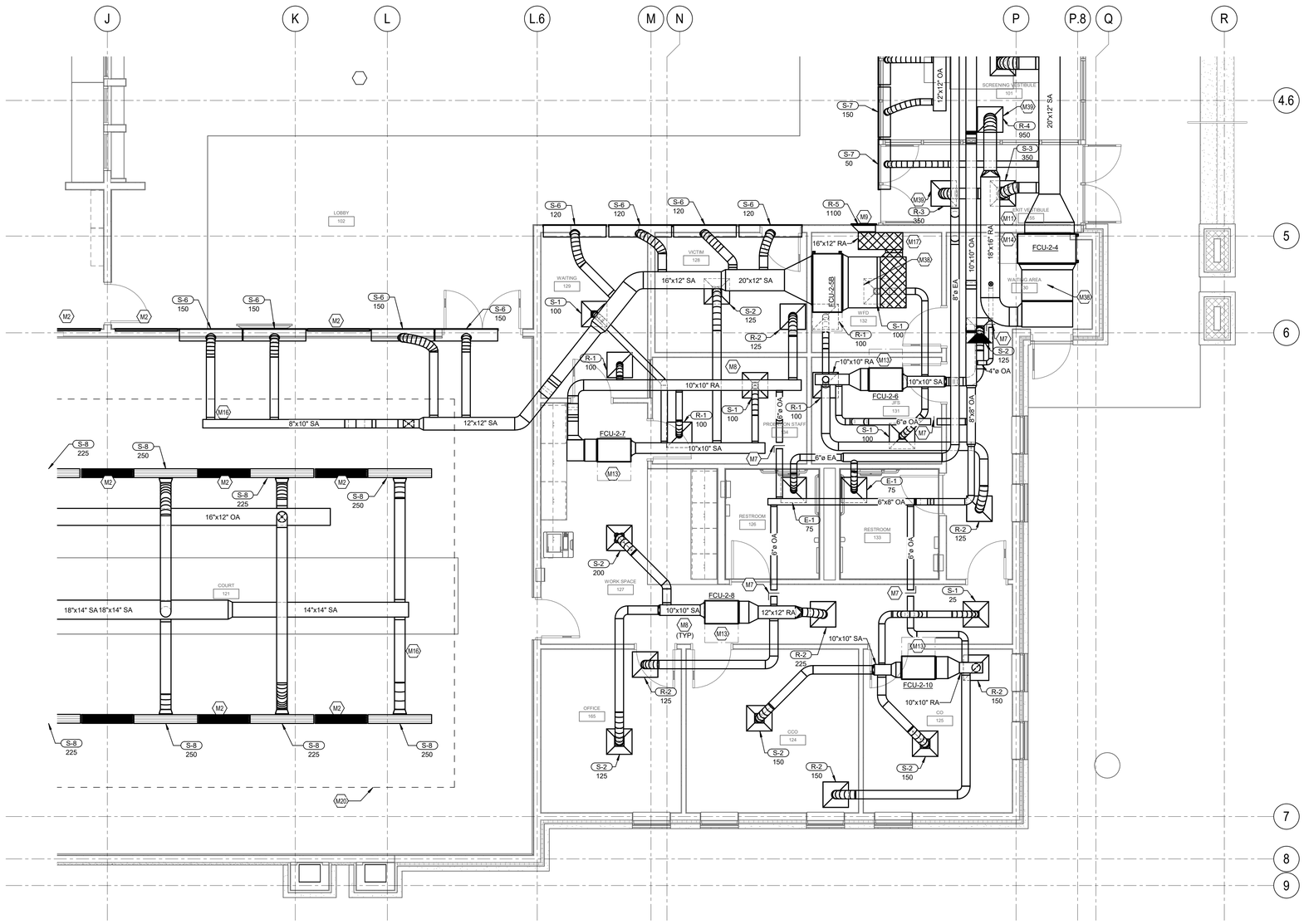
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Drawn HDB	Drawing No. M101.1
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1 ENLARGED MECHANICAL AIR DISTRIBUTION PLAN - SE
SCALE: 1/4" = 1'-0"

SHEET NOTES:

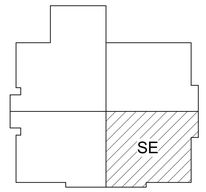
M2	INACTIVE LINEAR SLOT DIFFUSER SECTION. LINEARS TO BE CONTINUOUS BETWEEN ACTIVE AND INACTIVE SECTIONS.
M7	OUTSIDE AIR SHALL BE BALANCED TO THE INDICATED CFM ON ZONING SCHEDULE. REFER TO SHEET M002.
M8	IN ACCESSIBLE CEILING REFER TO TYPICAL RECTANGULAR ROUND BRANCH DUCT DETAIL ON M501 FOR BALANCE DAMPER AND INSULATION DETAILS. TYPICAL.
M9	REFER TO SIDEWALL GRILLE DETAIL ON M501.
M11	REFER TO DUCT WALL PENETRATION THROUGH NON-RATED WALLS DETAIL ON M501, TYPICAL
M13	REFER TO VRF FAN COIL INSTALLATION DETAIL ON M500, TYPICAL.
M14	MAINTAIN ALL RECOMMENDED MANUFACTURER SERVICE AND OPERATIONS CLEARANCES, TYPICAL.
M16	INSTALL HIGH EFFICIENCY TAKE OFFS WITH REMOTE BALANCING DAMPER FOR ALL RUNOUTS TO LINEAR SLOT DIFFUSERS, REFER TO DETAIL ON SHEET M501 TYPICAL.
M17	PROVIDE INTERNAL DUCT ACOUSTICAL LINER TO EXTENT INDICATED BY HATCHED REGION DUCT SIZES INDICATED ARE INTERNAL CLEAR DIMENSIONS.
M20	OUTLINE OF LOW CEILING BULKHEAD.
M38	FILTER BOX ON RETURN SIDE OF UNIT. PROVIDE CLEARANCE AT SIDE FOR FILTER REPLACEMENT. REFER TO FAN COIL SCHEDULE.
M39	RETURN GRILLE DOES NOT REQUIRE FILTER FRAME.

GENERAL NOTES:

DUCT RUNOUT SCHEDULE

SYMBOL	RUNOUT SIZE
E-1	6"Ø
E-2	
E-3	10"Ø
E-4	72"X14"
E-5	6"Ø
R-1	6"Ø
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R-3	10"Ø
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S-4	12"Ø
S-5	6"Ø
S-6	8"Ø
S-7	6"Ø
S-8	10"Ø
S-9	6"Ø
S-10	8"Ø
T-1	16"Ø

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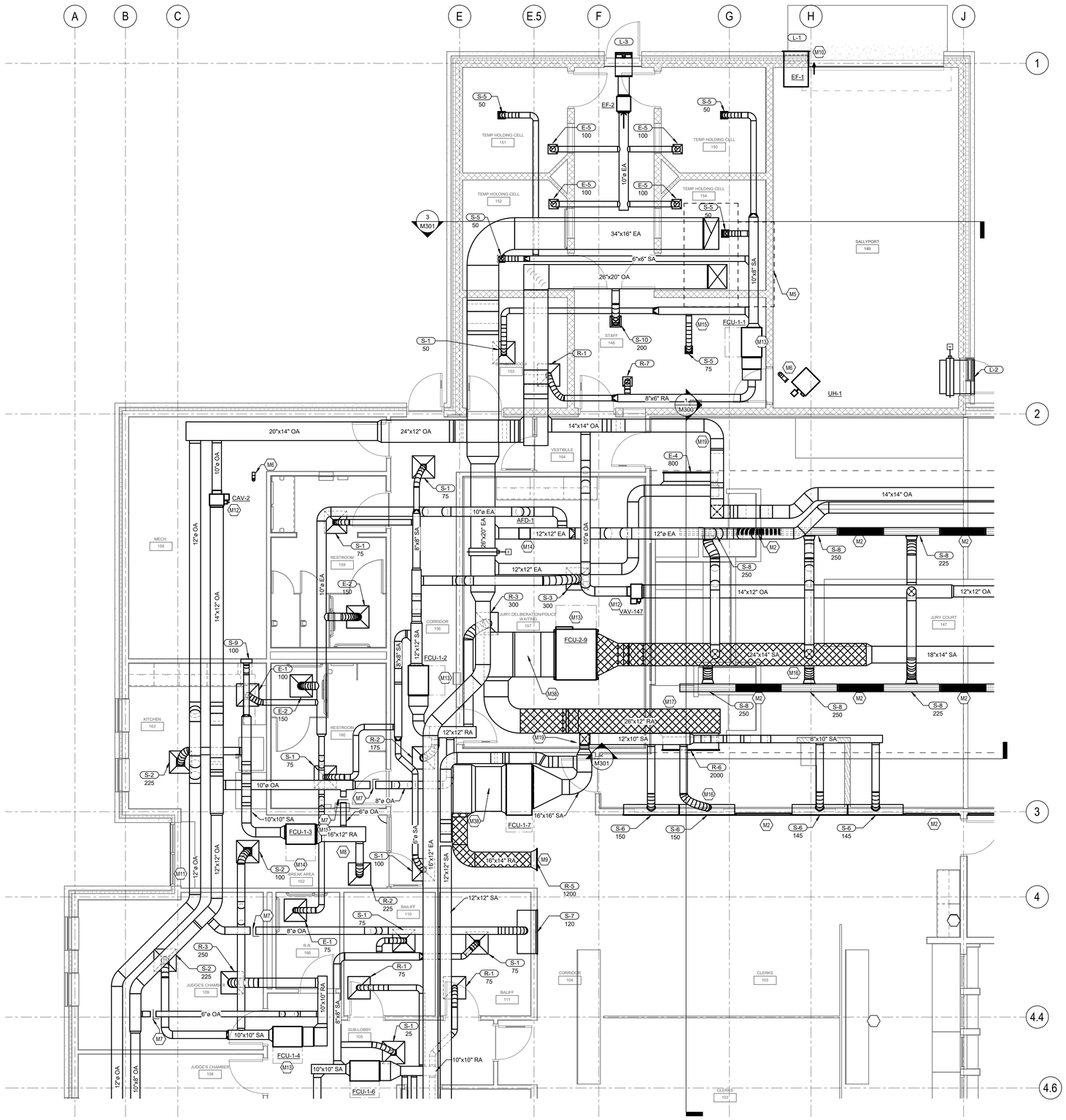
MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED SE

STATE OF OHIO PAUL J. COYNE E-80723 REGISTERED PROFESSIONAL ENGINEER 6/16/21

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1 ENLARGED MECHANICAL AIR DISTRIBUTION PLAN - NW
SCALE: 1/4" = 1'-0"

SHEET NOTES:

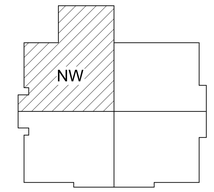
M2	INACTIVE LINEAR SLOT DIFFUSER SECTION. LINEARS TO BE CONTINUOUS BETWEEN ACTIVE AND INACTIVE SECTIONS.
M5	DOAS-1 ON ROOF. REFER TO M500 MECHANICAL DETAILS FOR INSTALLATION. THE UNIT SHALL BE LOCATED ON MANUFACTURERS ROOF CURB. COORDINATE WITH ELECTRICAL CONTRACTOR AND ROOF FLASHING REQUIREMENTS WITH GENERAL CONTRACTOR.
M6	COMBUSTION AIR INTAKE AND VENT TO TERMINATE WITH CONCENTRIC VENT KIT THROUGH ROOF PER MANUFACTURERS RECOMMENDATIONS. REFER TO DETAIL ON M501.
M7	OUTSIDE AIR SHALL BE BALANCED TO THE INDICATED CFM ON ZONING SCHEDULE. REFER TO SHEET M002.
M8	IN ACCESSIBLE CEILING REFER TO TYPICAL RECTANGULAR ROUND BRANCH DUCT DETAIL ON M501 FOR BALANCE DAMPER AND INSULATION DETAILS. TYPICAL.
M9	REFER TO SIDEWALL GRILLE DETAIL ON M501.
M10	REFER TO SIDEWALL EXHAUST FAN DETAIL ON SHEET M500.
M11	REFER TO DUCT WALL PENETRATION THROUGH NON-RATED WALLS DETAIL ON M501, TYPICAL.
M12	REFER TO VAV/CAV BRANCH DUCT CONNECTION DETAIL ON M501, TYPICAL.
M13	REFER TO VRF FAN COIL INSTALLATION DETAIL ON M500, TYPICAL.
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M19	COORDINATE ELEVATIONS TO ROUTE DUCTWORK UNDER AND/OR THROUGH STRUCTURE.
M38	FILTER BOX ON RETURN SIDE OF UNIT. PROVIDE CLEARANCE AT SIDE FOR FILTER REPLACEMENT. REFER TO FAN COIL SCHEDULE.

GENERAL NOTES:

DUCT RUNOUT SCHEDULE

SYMBOL	RUNOUT SIZE
E-1	6"Ø
E-2	
E-3	10"Ø
E-4	72"X14"
E-5	6"Ø
R-1	6"Ø
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S-4	12"Ø
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S-6	8"Ø
S-7	6"Ø
S-8	10"Ø
S-9	6"Ø
S-10	8"Ø
T-1	16"Ø

KEY PLAN:



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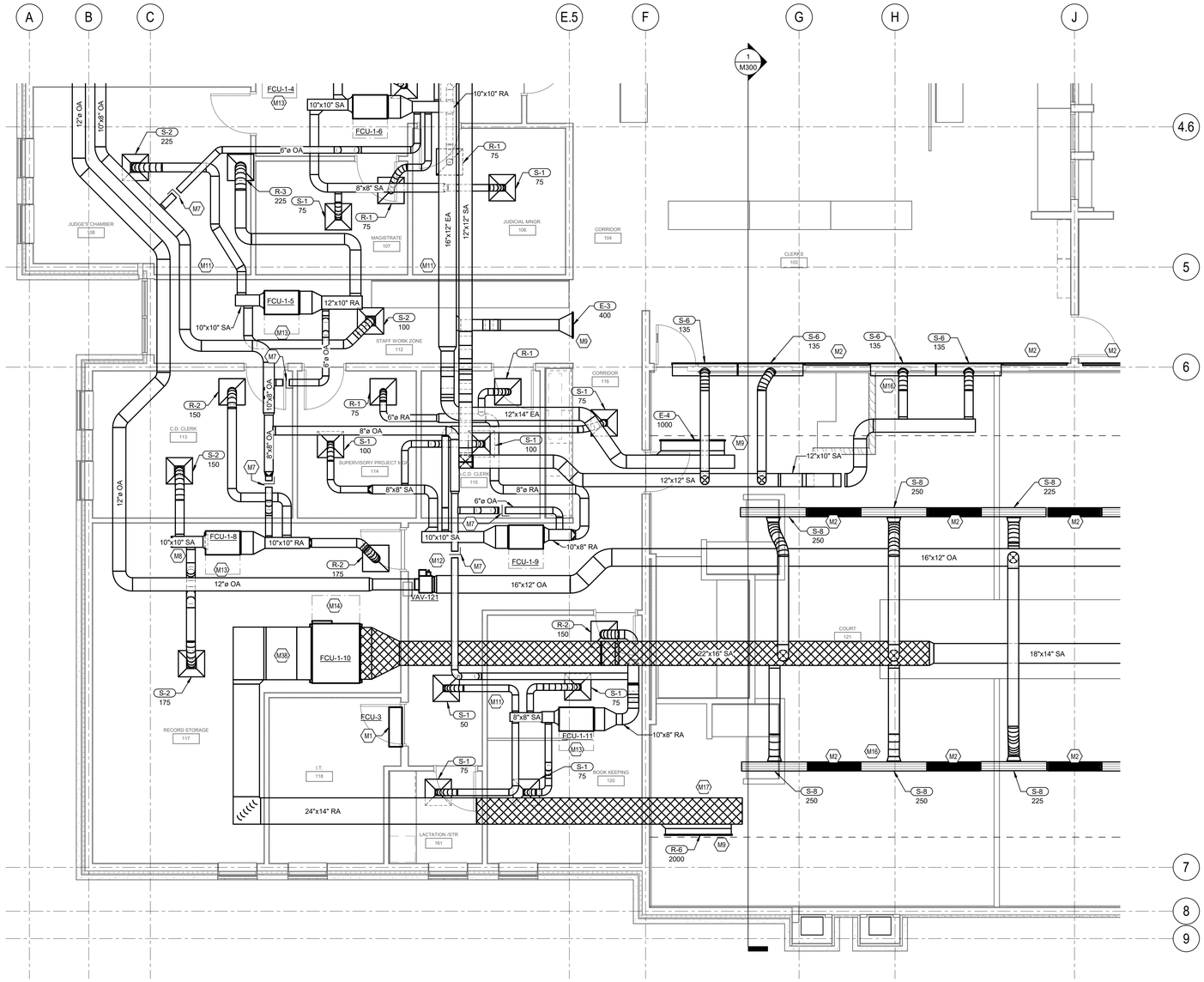
MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED NW

STATE OF OHIO PAUL J. COWIE E-80723 REGISTERED PROFESSIONAL ENGINEER 6/16/21

Comm. No.	Date
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1 ENLARGED MECHANICAL AIR DISTRIBUTION PLAN - SW

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

SHEET NOTES:

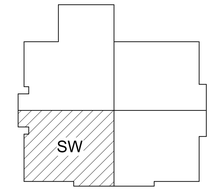
M1	WALL MOUNTED FCU WITH CU ON ROOF ABOVE. REFER TO ROOF PLAN FOR CONDENSING UNIT LOCATION.
M2	INACTIVE LINEAR SLOT DIFFUSER SECTION. LINEARS TO BE CONTINUOUS BETWEEN ACTIVE AND INACTIVE SECTIONS.
M7	OUTSIDE AIR SHALL BE BALANCED TO THE INDICATED CFM ON ZONING SCHEDULE. REFER TO SHEET M002.
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M12	REFER TO VAV/CAV BRANCH DUCT CONNECTION DETAIL ON M501, TYPICAL.
M13	REFER TO VRF FAN COIL INSTALLATION DETAIL ON M500, TYPICAL.
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M38	FILTER BOX ON RETURN SIDE OF UNIT. PROVIDE CLEARANCE AT SIDE FOR FILTER REPLACEMENT. REFER TO FAN COIL SCHEDULE.

GENERAL NOTES:

DUCT RUNOUT SCHEDULE

SYMBOL	RUNOUT SIZE
E-1	6"Ø
E-2	
E-3	10"Ø
E-4	72"X14"
E-5	6"Ø
R-1	6"Ø
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S-8	10"Ø
S-9	6"Ø
S-10	8"Ø
T-1	16"Ø

KEY PLAN:



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MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

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MECHANICAL AIR DISTRIBUTION PLAN - ENLARGED SW

STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER PAUL J. COYNE E-80723 6/6/21

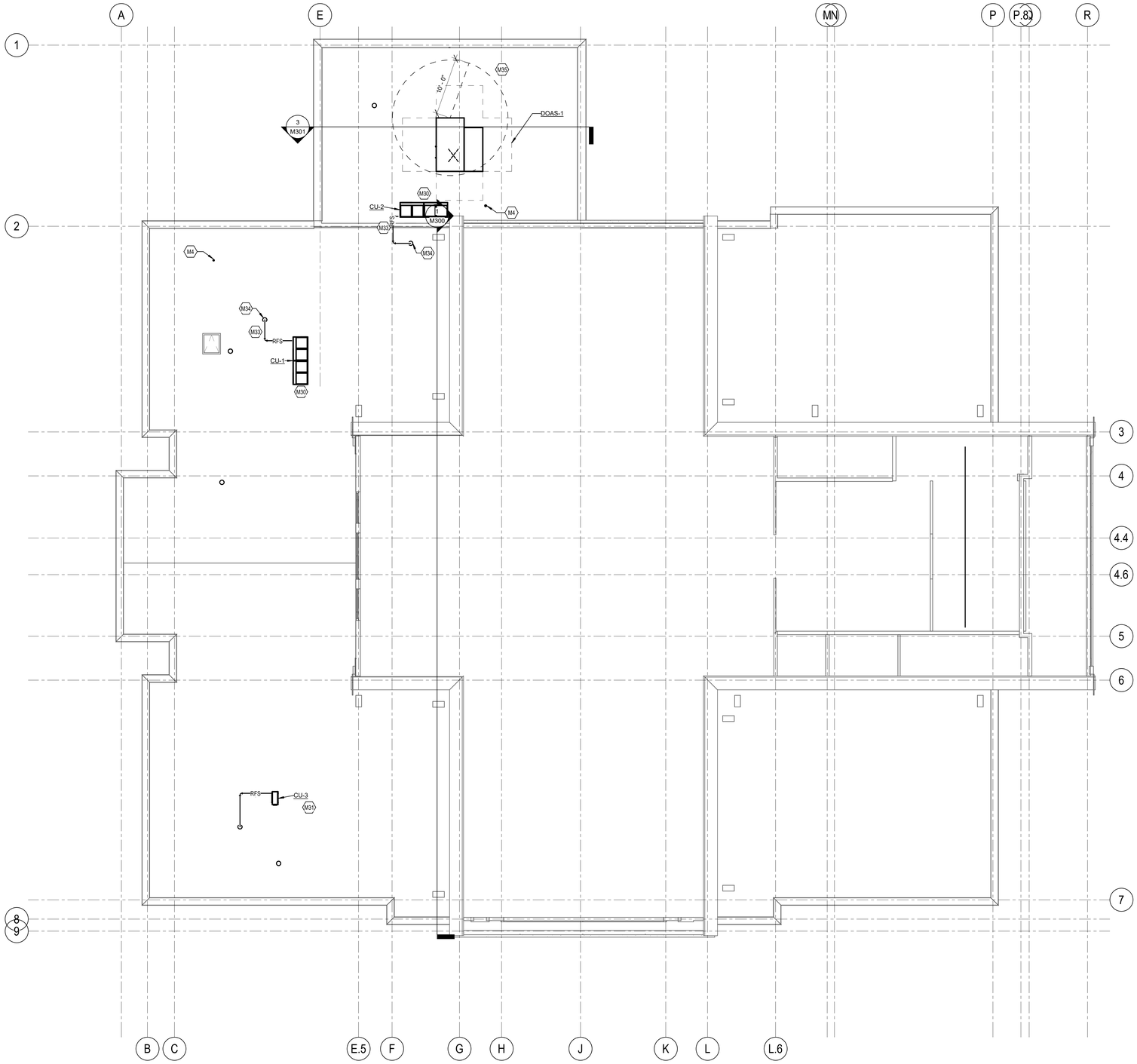
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1 ROOF PLAN

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

1/8" = 1'-0"

0 2' 4' 8' 16' 24' 32'

SHEET NOTES:

M4	CONCENTRIC VENT THROUGH ROOF. TERMINATE WITH APPROVED VENT CAP. MIN. 10' FROM AIR INTAKE.
M30	REFER TO VRF CONDENSING UNIT DETAIL ON SHEET M500.
M31	INSTALL UNIT ON EQUIPMENT RAILS. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDED CLEARANCES. LOCATE UNIT TO AVOID LINE OF SIGHT FROM GROUND LEVEL.
M33	REFER TO SHEET M400 FOR PIPE SIZE AND QUANTITY. TYPICAL FOR ALL RFS PIPING.
M34	REFER TO PIPE ROOF CURB DETAIL. ROUTE PIPING TO CONDENSING UNIT WITH PIPE SUPPORTS EVERY 5'-0" WITH MICRO INDUSTRIES PIPING SUPPORTS OR EQUAL. WOOD BLOCKS ARE NOT ACCEPTABLE.
M35	FRESH AIR INTAKE SHALL BE LOCATED A MINIMUM OF 10' AWAY FROM ANY SOURCE OF EXHAUST OF THE BUILDING INCLUDING VENTS. THE UNIT SHALL SIT MINIMUM 10' FROM ROOF EDGE.

No.	Revisions / Submissions	Date
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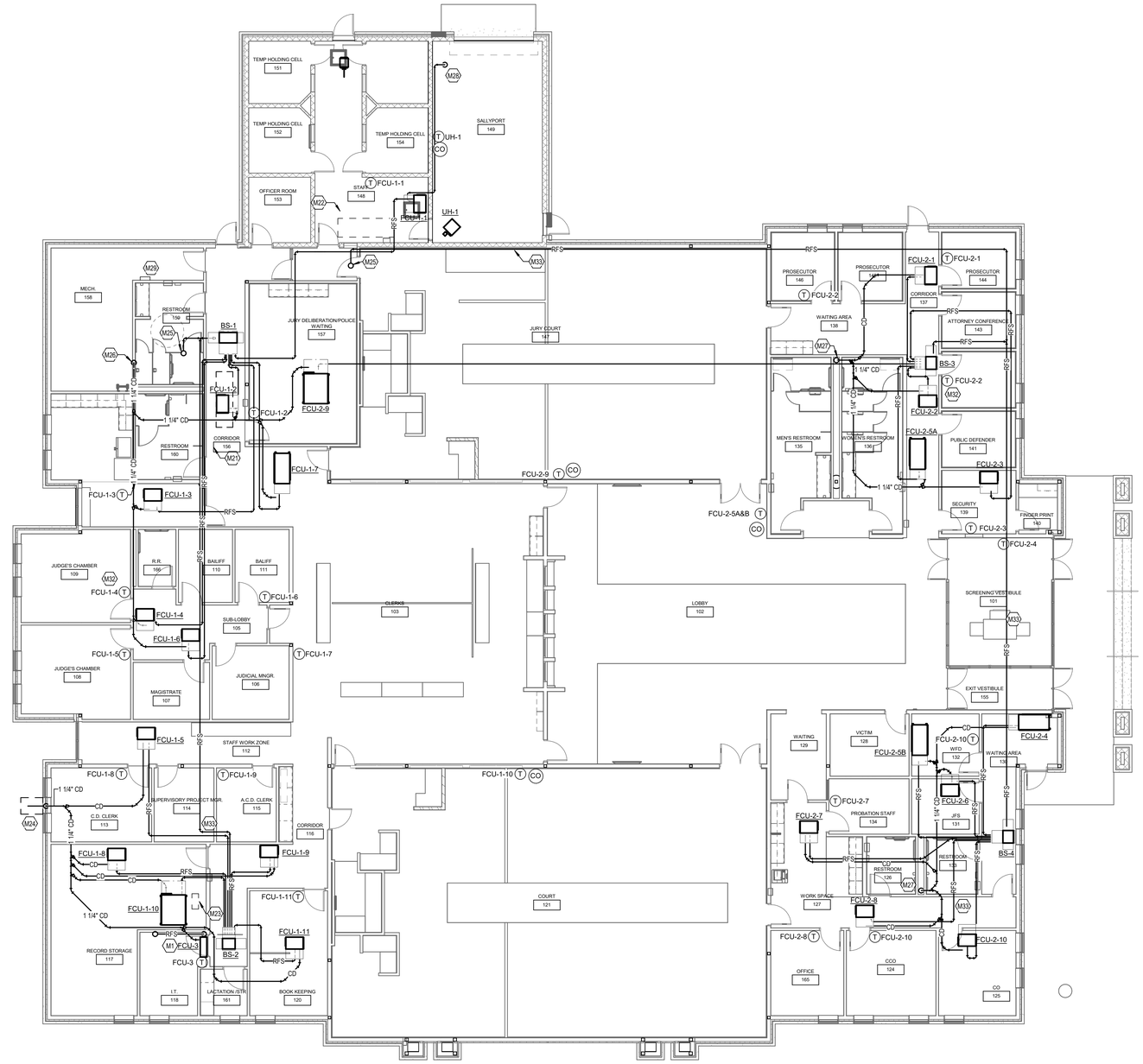
MECHANICAL ROOF PLAN

STATE OF OHIO PAUL J. COYNE E-80723 REGISTERED PROFESSIONAL ENGINEER 6/16/21

Comm. No. 19651.00	Date 2021/4/23
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1 MECHANICAL PIPING PLAN

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

0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

SHEET NOTES:

M1	WALL MOUNTED FCU WITH CU ON ROOF ABOVE. REFER TO ROOF PLAN FOR CONDENSING UNIT LOCATION.
M21	CU-1 ON ROOF.
M22	CU-2 ON ROOF.
M23	CU-3 ON ROOF.
M24	REFER TO CONDENSATE DRYWELL DETAIL ON SHEET M500.
M25	RFS UP TO VRF CONDENSING UNIT ON ROOF.
M26	CONDENSATE TO MOP SINK WITH AIR GAP.
M27	CONDENSATE HUB DRAIN ABOVE CEILING. REFER TO PLUMBING DRAWINGS.
M28	CONDENSATE TO OPEN RECEPTACLE AT TRENCH DRAIN WITH AIR GAP.
M29	BAS PANEL.
M32	REFER TO THERMOSTAT/ELECTRICAL OUTLET DETAIL ON SHEET M500 FOR LOCATION. TYPICAL.
M33	REFER TO SHEET M400 FOR PIPE SIZE AND QUANTITY. TYPICAL FOR ALL RFS PIPING.

CONDENSATE RUNOUT SCHEDULE

MARK	NOMINAL TON	CONDENSATE PIPE SIZES
FCU-1-1	1	1"
FCU-1-2	1.5	1"
FCU-1-3	1	1"
FCU-1-4	1	1"
FCU-1-5	1	1"
FCU-1-6	1	1"
FCU-1-7	3	1"
FCU-1-8	1	1"
FCU-1-9	0.6	1"
FCU-1-10	6	1 1/4"
FCU-1-11	0.8	1"
FCU-2-1	1	1"
FCU-2-2	1	1"
FCU-2-3	0.6	1"
FCU-2-4	4	1"
FCU-2-5A	2.5	1"
FCU-2-5B	2.5	1"
FCU-2-6	1	1"
FCU-2-7	1	1"
FCU-2-8	1	1"
FCU-2-9	6	1 1/4"
FCU-2-10	1	1"
FCU-3	1	1"

NOTE: WHERE 2 OR MORE CONDENSATE LINES CONNECT, PIPE SIZE SHALL BE 1-1/4".

GENERAL NOTES:

A. DO NOT ROUTE EXPOSED REFRIGERANT PIPING IN ENCLOSED CORRIDORS OR OTHER MEANS OF EGRESS OR SPACES OPEN TO MEANS OF EGRESS.
B. PIPING AND SYSTEM LAYOUT BASED ON BASIS OF DESIGN MANUFACTURER. ANY DEVIATIONS FROM THIS LAYOUT FROM THE BASIS OF DESIGN VENDOR OR ALTERNATIVE VENDOR SHALL BE CONTRACTORS RESPONSIBILITY. FINAL LAYOUT SHALL BE APPROVED BY ARCHITECT AND ENGINEER.
C. INSTALLATION OF REFRIGERANT PIPING SHALL BE PERFORMED BY A VENDOR CERTIFIED REFRIGERATION TECHNICIAN AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ASHRAE 15 AND VRF MANUFACTURERS GUIDELINES.
D. CONTRACTOR SHALL PROVIDE TESTING, REFRIGERANT CHARGING, STARTUP, AND TRAINING FOR VRF SYSTEM IN STRICT ACCORDANCE WITH VRF MANUFACTURERS RECOMMENDATIONS.

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

MECHANICAL PIPING PLAN

STATE OF OHIO PAUL J. COYNE E-80723 REGISTERED PROFESSIONAL ENGINEER 4/23/21

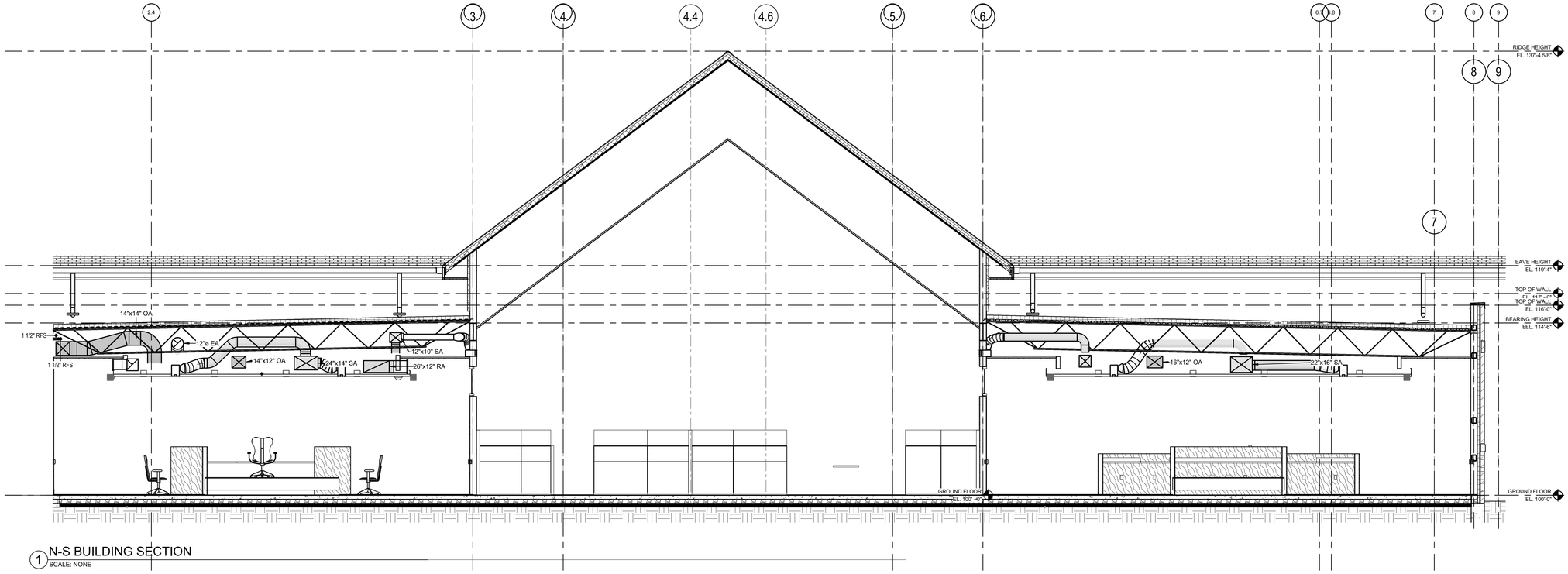
Comm. No. 19651.00	Date 2021/4/23
Drawn HDB	Drawing No. M201
Checked PJC	

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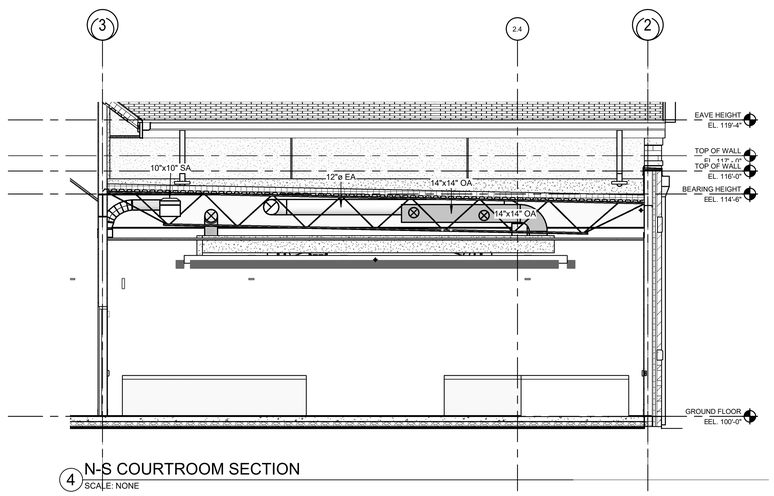
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1 N-S BUILDING SECTION
SCALE: NONE



4 N-S COURTROOM SECTION
SCALE: NONE

SHEET NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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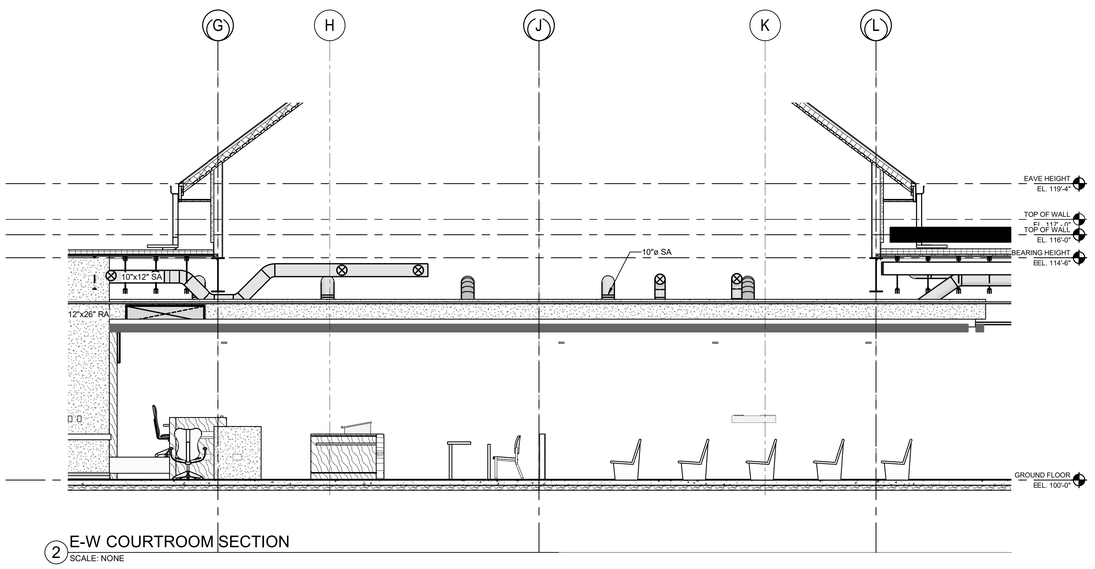
N-S MECHANICAL SECTION VIEWS

STATE OF OHIO · PAUL J. COYNE · E-80723 · REGISTERED PROFESSIONAL ENGINEER · 6/16/21

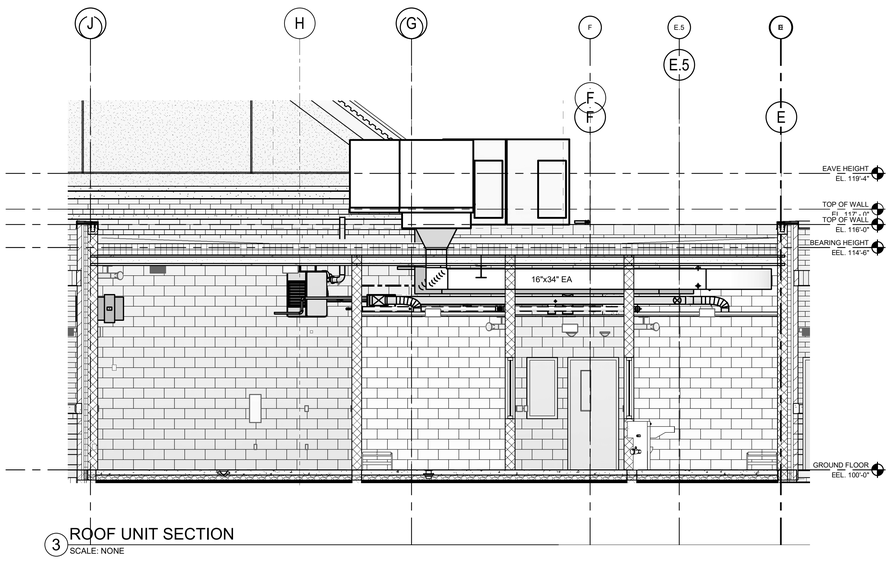
Comm. No.	Date
19651.00	2021/4/23
Drawn: HDB	Drawing No.: M300
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2 E-W COURTROOM SECTION
SCALE: NONE



3 ROOF UNIT SECTION
SCALE: NONE

SHEET NOTES:

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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E-W MECHANICAL SECTION VIEWS

STATE OF OHIO · PAUL J. COYNE · E-80723 · REGISTERED PROFESSIONAL ENGINEER · 6/16/21

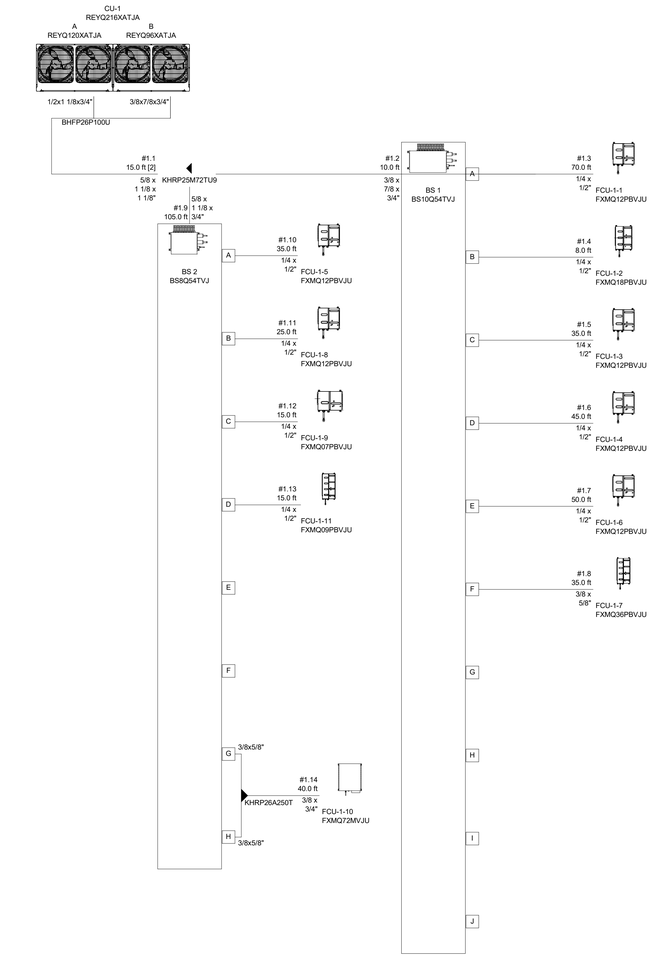
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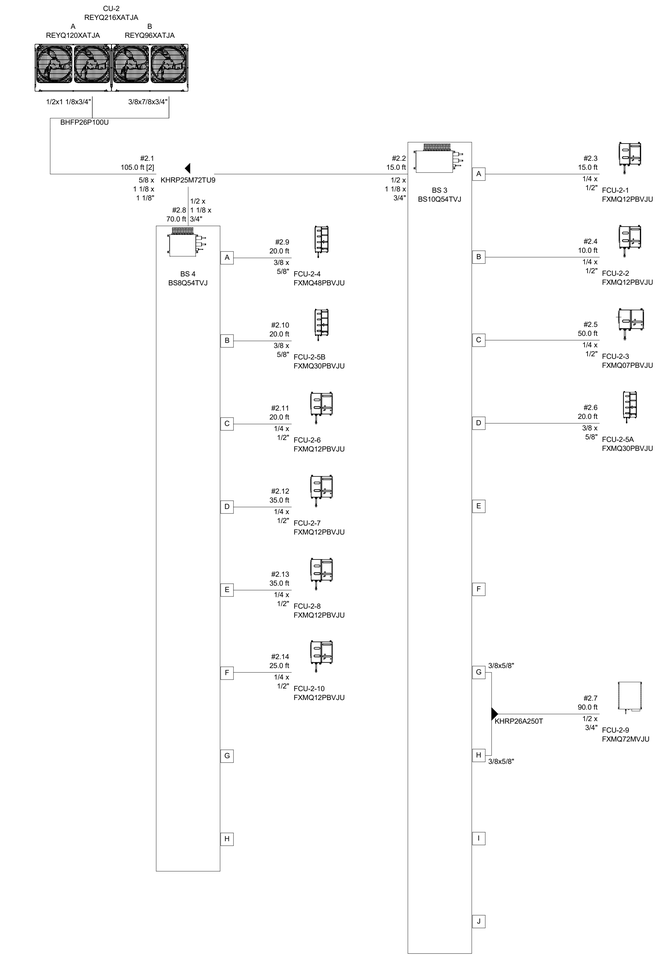
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Client	CMTA USA
Project	Trotwood Municipal Court - CMTA
Title	Piping schematics CU-1 Air cooled heat recovery VRV-IV-X -A REYQ216XATJA
Date	2/5/2021
Drawing No	



Client	CMTA USA
Project	Trotwood Municipal Court - CMTA
Title	Piping schematics CU-2 Air cooled heat recovery VRV-IV-X -A REYQ216XATJA
Date	2/5/2021
Drawing No	



NOTE:
1. PIPING DIAGRAM REPRESENTATIVE OF BASIS OF DESIGN SYSTEM. ANY DEVIATIONS FROM THE BASIS OF DESIGN VENDOR OR ALTERNATIVE VENDOR SHALL BE CONTRACTORS RESPONSIBILITY. FINAL LAYOUT SHALL BE APPROVED BY ENGINEER.
2. REFRIGERANT PIPING DESIGN IS DELEGATED TO THE EQUIPMENT SUPPLIER. EQUIPMENT SUPPLIER ALONG WITH CONTRACTOR ARE RESPONSIBLE FOR DESIGNING, SIZING, AND PROVIDING REFRIGERANT PIPING AND ACCESSORIES REQUIRED BY THE HVAC EQUIPMENT MANUFACTURER TO DELIVER A COMPLETE AND FULLY FUNCTIONAL SYSTEM. THE CONTRACTOR AND HVAC EQUIPMENT MANUFACTURER SHALL COORDINATE LOCATIONS OF CONDENSING UNITS AND EVAPORATING UNITS TO MINIMIZE REFRIGERANT PIPING DISTANCES AND ADJUST PIPE SIZES AS ALLOWED BY MANUFACTURER FOR LONG REFRIGERANT PIPE RUNS. THE CONTRACTOR SHALL INFORM THE DESIGN TEAM WHEN CONDENSING UNITS ARE REQUIRED TO BE MOVED FROM THE LOCATIONS SHOWN ON THE DESIGN DOCUMENTS.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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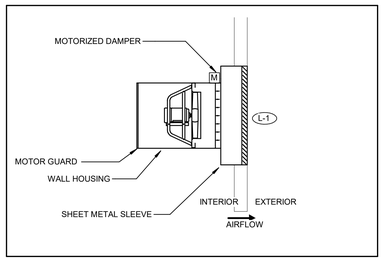
MECHANICAL PIPING SCHEMATIC

STATE OF OHIO
PAUL J. COYNE
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6/16/21

Comm. No.	Date
19651.00	2021/4/23
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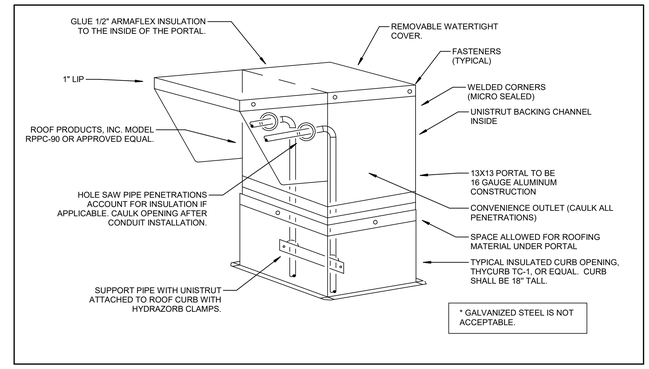
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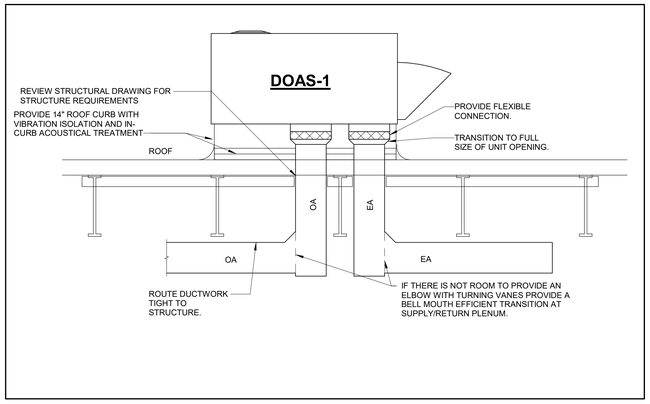
SIDEWALL EXHAUST FAN DETAIL

7 SCALE: NONE



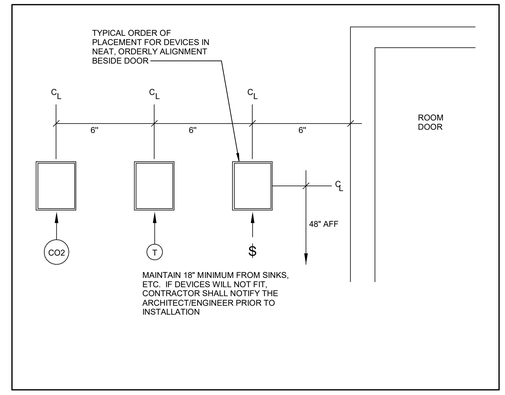
PIPE ROOF CURB DETAIL

3 SCALE: NONE



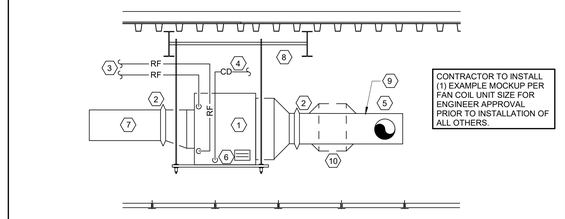
DOAS-1 OUTSIDE AIR AND EXHAUST AIR DUCT PENETRATION DETAIL

4 SCALE: NONE



THERMOSTAT/ELECTRICAL OUTLET COORDINATION DETAIL

6 SCALE: NONE

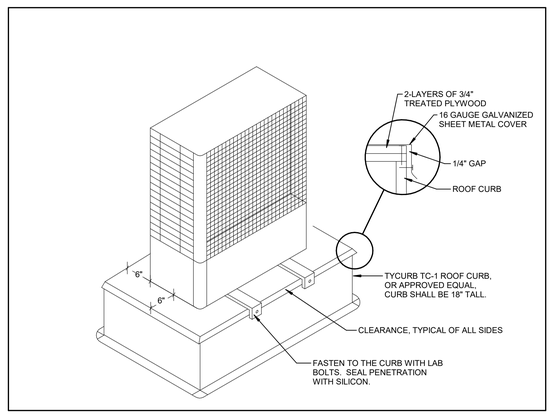


TAG NOTES:

1. HORIZONTAL VRF UNIT. DO NOT BLOCK ACCESS PANEL FOR UNIT WITH ANY PIPING, CONDUIT, ETC.
2. PROVIDE FLEXIBLE CANVAS CONNECTIONS AT UNIT CONNECTION. TRANSITION DUCTWORK TO UNIT OPENING AS NEEDED.
3. INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATION.
4. INSTALL CONDENSATE PIPING PER MANUFACTURER'S RECOMMENDATION. PROVIDE A CONDENSATE OVERFLOW SWITCH AND SHUT UNIT OFF IF SWITCH IS ACTIVATED.
5. WHERE APPLICABLE, CONNECT OUTSIDE AIR DUCT TO RETURN AIR DUCT WITH HIGH EFFICIENCY TAKE-OFF. REFER TO RUN-OUT SCHEDULE FOR DUCT SIZE.
6. IDENTIFICATION PLACARD: THE PLACARD SHALL INCLUDE THE ELECTRIC PANEL NAME, CIRCUIT NUMBER FEEDING THE EQUIPMENT, AND AREA SERVED.
7. SUPPLY AIR DUCTWORK. REFER TO DRAWINGS FOR DUCT SIZE.
8. PROVIDE UNI-STRUT BETWEEN BEAMS FOR HORIZONTAL PROPER SUPPORT OF VRF INSTALLATION.
9. USE DUCT LINER WHERE NOTED ON PLANS.
10. REFER TO FCU SCHEDULE FOR UNITS REQUIRING FILTER HOUSING BOX.

HORIZONTAL VRF FAN COIL UNIT INSTALLATION DETAIL

8 SCALE: NONE



VRF CONDENSING UNIT DETAIL

9 SCALE: NONE

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
6	ISSUED FOR RE-BID	2021/06/18

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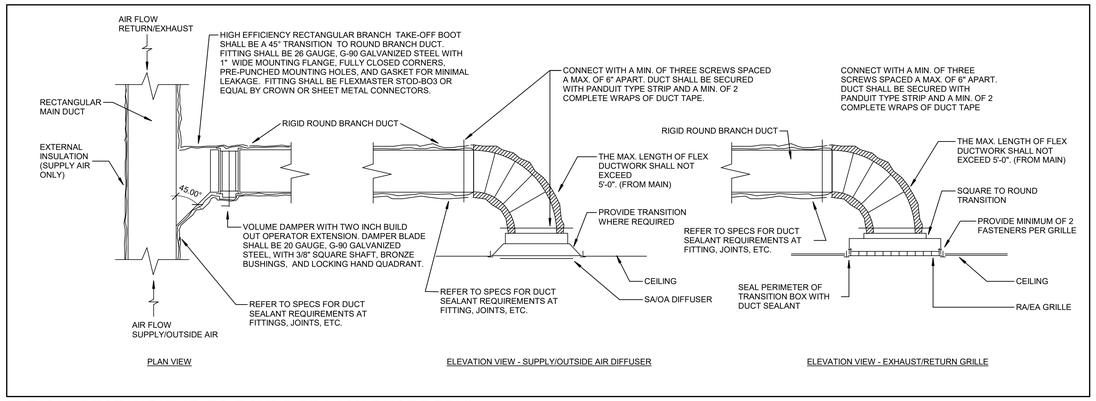
MECHANICAL EQUIPMENT DETAILS

Comm. No. 19651.00	Date 2021/4/23
Drawn HDB	Drawing No. M500
Checked PJC	

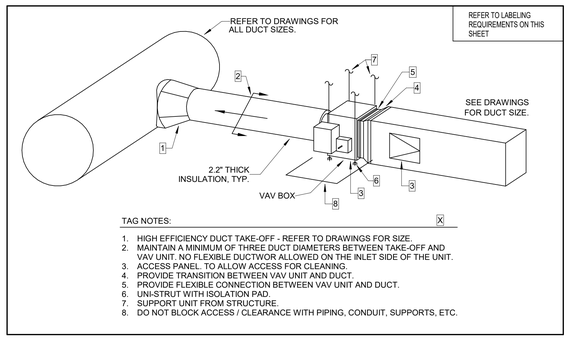
STATE OF OHIO PAUL J. COYNE E-80723 REGISTERED PROFESSIONAL ENGINEER 6/24/21

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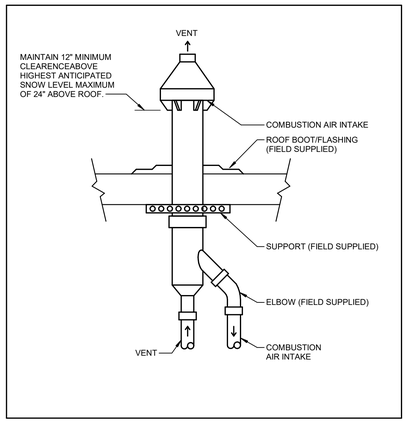
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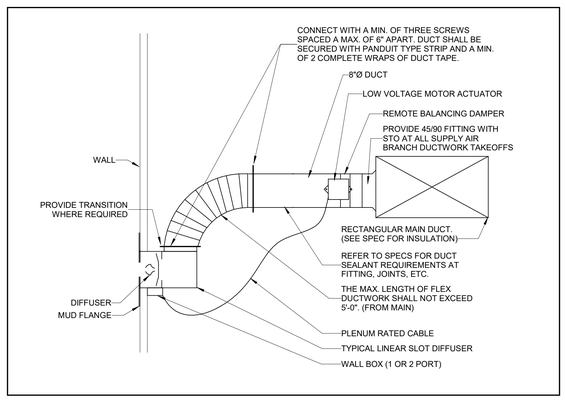
2 TYPICAL RECTANGULAR-TO-ROUND BRANCH DUCT DETAIL
SCALE: NONE



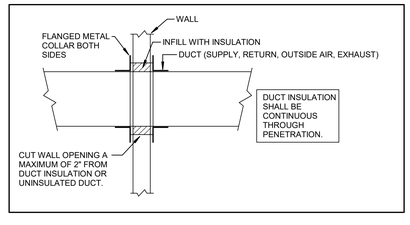
8 VAV/CAV BRANCH DUCT CONNECTION DETAIL
SCALE: NONE



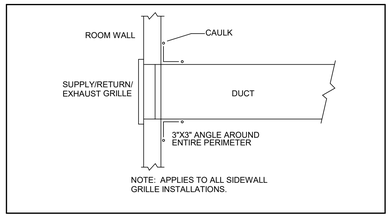
6 CONCENTRATION VENT DETAIL (UH-1)(DWH-1)
SCALE: NONE



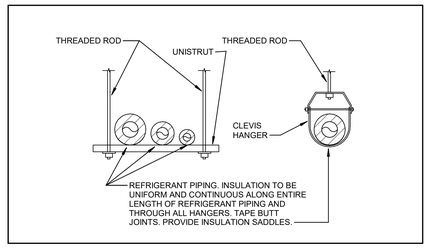
LINEAR SLOT DIFFUSER BRANCH DUCT DETAIL (HARD CEILINGS)
4 SCALE: NONE



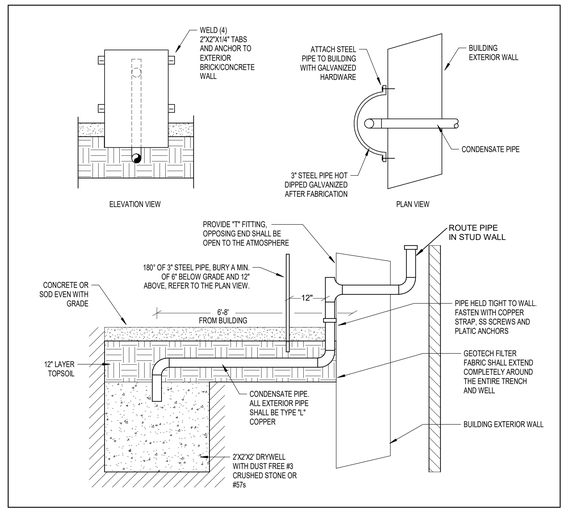
DUCT PENETRATION THROUGH NON-RATED WALL DETAIL
3 SCALE: NONE



7 SIDE WALL GRILLE DETAIL
SCALE: NONE



5 REFRIGERANT PIPING INSULATION DETAIL
SCALE: NONE



9 CONDENSATE DRYWELL DETAIL
SCALE: NONE

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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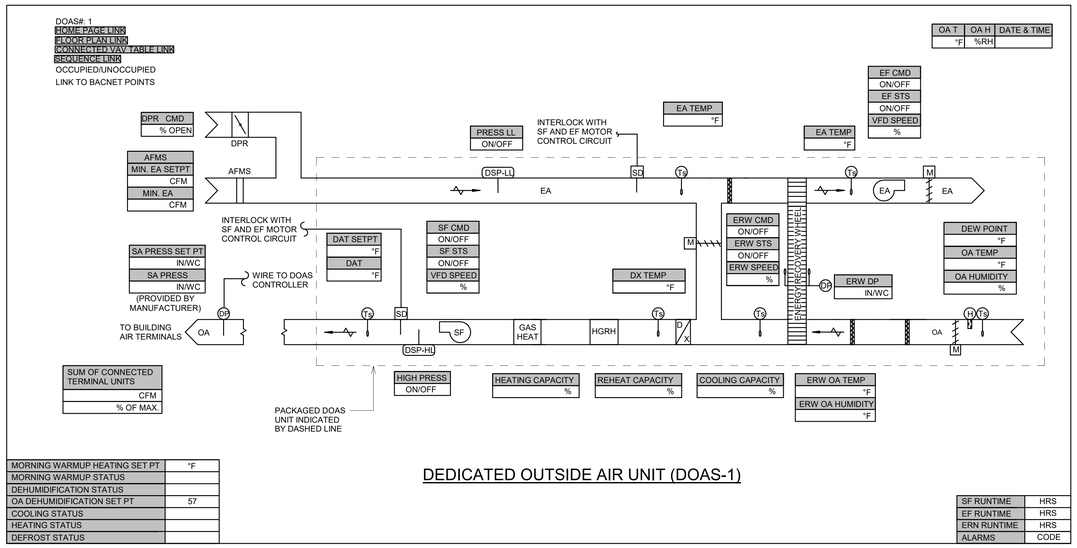
MECHANICAL DETAILS

STATE OF OHIO PAUL J. COYNE E-80723 REGISTERED PROFESSIONAL ENGINEER 6/16/21

Comm. No.	Date
19651.00	2021/4/23
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DEDICATED OUTSIDE AIR UNIT (DOAS-1)

MORNING WARMUP HEATING SET PT	°F
MORNING WARMUP STATUS	
DEHUMIDIFICATION STATUS	
OA DEHUMIDIFICATION SET PT	57
COOLING STATUS	
HEATING STATUS	
DEFROST STATUS	

SF RUNTIME	HRS
EF RUNTIME	HRS
ERN RUNTIME	HRS
ALARMS	CODE

DEDICATED OUTSIDE AIR UNIT (DOAS-1)

POINTS LIST	AI	AO	DI	DO	TREND
CONSTANT EXHAUST DAMPER		X	X		X
CONSTANT EXHAUST CFM	X				X
GENERAL EXHAUST MODULATING DAMPER		X	X		

BACNET POINTS LIST:

1. THE FOLLOWING BACNET POINTS SHALL BE MONITORED AT THE BAS FOR MAINTENANCE AND TROUBLESHOTTING OF EQUIPMENT. REFER TO EQUIPMENT SCHEDULE ON SHEET M700.

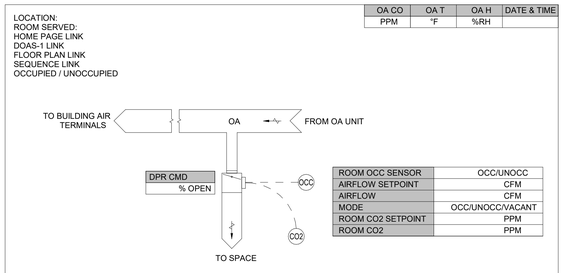
POINT	READ/WRITE (R/W)	TREND
UNIT STATE	R	
UNIT STATUS	R	
MORNING WARMUP STATUS	R	
DEHUMIDIFICATION STATUS	R	
COOLING STATUS	R	
HEATING STATUS	R	
COOLING CAPACITY	R	X
HEATING CAPACITY	R	X
SUPPLY FAN CAPACITY	R	X
EXHAUST FAN CAPACITY	R	
EMERGENCY OVERRIDE	R	
OCCUPANCY	R	
OCCUPANCY MODE	W	
DISCHARGE AIR TEMPERATURE	R	X
EXHAUST AIR TEMPERATURE	R	
OUTDOOR AIR TEMPERATURE	R	X
ENTERING FAN / LEAVING COIL TEMPERATURE	R	
DEFROST TEMPERATURE	R	
SUCTION LINE REFRIGERANT TEMPERATURE	R	X
EXHAUST FAN STATUS	R	X
DUCT STATIC PRESSURE	R	X
DUCT STATIC PRESSURE SETPOINT	W	
OCCUPIED COOLING SETPOINT	W	
OCCUPIED HEATING SETPOINT	W	
OCCUPIED HEATING SETPOINT	W	
MAX DISCHARGE AIR HEATING SETPOINT	W	
MORNING WARM-UP HEATING SETPOINT	W	
OUTSIDE AIR RELATIVE HUMIDITY	R	X
DEW POINT TEMPERATURE	R	X
DEW POINT SETPOINT	W	
REHEAT CAPACITY	R	X
ENERGY RECOVERY EXHAUST AIR TEMPERATURE	R	
ENERGY RECOVERY LEAVING AIR TEMPERATURE	R	X
ENERGY RECOVERY WHEEL SPEED	R	
ENERGY RECOVERY WHEEL STATUS	R	X
DISCHARGE REFRIGERANT PRESSURE	R	X
DISCHARGE REFRIGERANT PRESSURE CIRCUIT (ALL)	R	
SUCTION REFRIGERANT PRESSURE	R	X
SUPPLY FAN HOURS	W	X
EXHAUST FAN HOURS	W	X
ENERGY RECOVERY WHEEL HOURS	W	X
DEFROST STATE	R	
ALARMS (ALL)	R	
MAX PURGE TIME	W	
NETWORK DISCHARGE AIR COOLING SETPOINT	W	
NETWORK DISCHARGE AIR HEATING SETPOINT	W	
FILTER STATUS	R	

DEDICATED OUTSIDE AIR SYSTEM (DOAS-1)

1. GENERAL
   A. MAJOR COMPONENTS AS FOLLOWS: ECM SUPPLY AND EXHAUST FANS, ENERGY RECOVERY WHEEL, COMPRESSOR WITH HOT GAS REHEAT, GAS HEAT, OUTSIDE AIR, EXHAUST AIR AND RETURN AIR DAMPERS
   B. DOAS UNIT CONTROLS SHALL BE BACNET MSTP AND CONTROLLED THROUGH THE DAIKIN CONTROLLER.
   C. THE BAS SHALL BE CAPABLE OF COMMANDING THE UNIT TO ENTER RECIRCUALAITON MODE WITH HEATING FOR MORNING WARM-UP VIA THE BACNET MSTP READ/ WRITE POINTS.
   D. EXHAUST FAN CONTROL: THE EXHAUST SHALL SPEED TRACK THE SUPPLY FAN AND NOT UTILIZE BUILDING PRESSURE SENSORS.
   E. THE SYSTEM WILL BE OCCUPIED FROM 8A - 6P, WEEKDAYS (ADJUSTABLE).
   F. IF COMMUNICATION IS LOST BETWEEN THE NETWORK CONTROL PANEL AND THE OUTSIDE AIR SYSTEM CONTROLLER, THE UNIT SHALL BE IN UNOCCUPIED MODE UNTIL COMMUNICATION IS RESTORED.
2. FACTORY CONTROLS:
   A. BUILDING AUTOMATION SYSTEM (BAS) INTERFACE: THE FACTORY UNIT CONTROLLER WILL INTERFACE WITH BACNET MSTP, SYSTEMS. (REQUIRES BACNET MSTP CARD)
   B. HEAD PRESSURE CONTROL: CONDENSER CONTROL: THE CONDENSER HEAD PRESSURE WILL BE MONITORED BY THE UNIT CONTROLLER TO MAINTAIN HEAD PRESSURE AND THE COMPRESSOR OPERATING ENVELOPE AT ALL TIMES TO AVOID HIGH PRESSURE TRIPS ON HIGH LOAD DAYS. ECM MOTORS SHOULD BE PROVIDED AS WELL AS FACTORY SENSORS TO PROVIDE THIS PROTECTION.
   C. COMPRESSOR ENVELOPE CONTROL: THE UNIT CONTROLLER WILL CONTINUALLY MONITOR THE SUCTION AND DISCHARGE PRESSURE AND TEMPERATURE CONDITIONS DURING COMPRESSOR OPERATION. THE UNIT WILL MODULATE THE COMPRESSOR, CONDENSER HEAD PRESSURE, AND ELECTRONIC EXPANSION VALVE TO MAINTAIN A SAFE COMPRESSOR OPERATING CONDITIONS TO ADD RELIABILITY, AND LIMIT UNIT SHUT DOWN DURING FRINGE OPERATING CONDITIONS.
   D. CHANGE OVER SETPOINTS: THE UNIT CHANGE OVER SOURCE TEMPERATURE IS THE OUTDOOR AIR TEMPERATURE (OAT), THE UNIT STATE WILL CHANGE FROM COOLING, FAN ONLY OR HEATING BASED ON THE CHANGE-OVER HEATING OR COOLING SETPOINTS.
   E. SUPPLY FAN CONTROL: THE SUPPLY FAN WILL OPERATE CONTINUOUSLY AND THE SPEED SHALL BE CONTROLLED VIA DUCT PRESSURE SENSOR LOCATED 2/3 DISTANCE IN SUPPLY DUCT
   F. EXHAUST FAN CONTROL: EXHAUST FAN SPEED SHALL BE AN ADJUSTABLE TRACKING RELATIONSHIP BETWEEN THE SUPPLY FAN AND THE EXHAUST FAN TO MAINTAIN POSITIVE BUILDING PRESSURE. THE EXHAUST FAN SPEED SHALL BE CONTROLLED TO MAINTAIN EXHAUST AIRFLOW ~10% LESS THAN OUTSIDE AIR. COORDINATE FINAL OFFSET WITH TAB CONTRACTOR TO ENSURE POSITIVE PRESSURE AND DOORS CLOSE PROPERLY.
   G. ENERGY RECOVERY WHEEL CONTROL:
      a. THE ENTHALPY WHEEL IS TURNED ON WHENEVER THE EXHAUST FAN IS RUNNING AND THE OUTDOOR AIR DAMPERS ARE OPEN.
      b. WHEEL EFFECTIVENESS CONTROL: THE ENERGY RECOVERY WHEEL WILL START/STOP OR MODULATE ITS SPEED TO MEET THE DISCHARGE AIR TEMPERATURE SET POINT USING FACTORY MOUNTED TEMPERATURE SENSORS. THE ENERGY WHEEL IS THE FIRST FORM OF HEATING OR COOLING WHEN ACTIVE. COMPRESSORS OR HEAT WILL ONLY BE ACTIVE WHEN THE ENERGY RECOVERY WHEEL CANNOT SATISFY THE DAT.
      c. FROST PREVENTION CONTROL (SELECTABLE OPTION) - THE UNIT WILL MONITOR RETURN AIR TEMPERATURE AND HUMIDITY, OUTSIDE AIR TEMPERATURE, AND EXHAUST AIR TEMPERATURE. ASSUMING AN OUTDOOR AIR RELATIVE HUMIDITY OF 95% THE UNIT WILL CALCULATE THE POINT AT WHICH CONDENSATE WILL DEVELOP IN THE EXHAUST AIR. WHEN THE EXHAUST AIR REACHES THIS CALCULATED TEMPERATURE. THE WHEEL WILL BEGIN TO MODULATE TO REDUCE THE EFFECTIVENESS OF THE WHEEL AND AVOID FROST BUILDUP. THIS ALLOWS THE WHEEL TO REMAIN ON AT THESE FROST PREVENTION TIMES AND STILL RECOVER SOME ENERGY
   H. MODULATING HOT GAS REHEAT
      a. ENABLE THE DEHUMIDIFICATION ON AN OUTDOOR AIR DEW POINT OF 57F.
      b. PROVIDE FULLY MODULATING, SUB COOLING, HOT GAS REHEAT COIL. THE CONTROL SEQUENCE USED FOR DEHUMIDIFICATION USES TWO SEPARATE POINTS OF CONTROL. THE FIRST POINT IS THE LEAVING COIL TEMPERATURE SENSOR (LCT), AND THE SECOND POINT IS THE DISCHARGE AIR TEMPERATURE SENSOR
      c. DURING DEHUMIDIFICATION THE REFRIGERATION CIRCUIT CONTROLS THE COMPRESSOR(S) TO MAINTAIN THE LEAVING COIL TEMPERATURE SETPOINT OF 55F AND THE REHEAT COIL IS CONTROLLED TO MAINTAIN THE SUPPLY AIR REHEAT SETPOINT.
      d. THE SUPPLY AIR REHEAT SETPOINT CHANGES BASED ON THE WHETHER THERE IS A CALL FOR BOTH COOLING AND DEHUMIDIFICATION OR A CALL FOR DEHUMIDIFICATION ONLY. WHEN A CALL FOR BOTH COOLING AND DEHUMIDIFICATION IS MADE THE REHEAT SETPOINT IS SET AS THE COOLING DAT SETPOINT. DURING A CALL FOR DEHUMIDIFICATION ONLY THE REHEAT SETPOINT IS RESET IN A LINEAR MANNER BETWEEN TWO ENDPOINTS REFERRED TO AS THE MIN AND MAX REHEAT SETPOINTS (ADJUSTABLE). THIS RESET IS BASED ON THE COOLING AND HEATING SETPOINTS FOR THE RTU. THIS LOGIC WILL SEND COOLER WARMER SUPPLY AIR WHEN THE SPACE IS APPROACHING THE HEATING CHANGEOVER SETPOINT AND COOLER SUPPLY AIR WHEN THE SPACE IS APPROACHING COOLING CHANGEOVER SETPOINT. THIS LOGIC PREVENTS UNNECESSARY FLUCTUATIONS BETWEEN COOLING AND HEATING STATES.
   I. MODE OF OPERATION: THE DOAS WILL BE PLACED INTO A MODE OF OPERATION BASED UPON THE FOLLOWING TEMPERATURE SCHEDULE:

OUTSIDE AIR CONDITION	MODE OF OPERATION
OA-T > 65F	COOLING MODE
55F <OA-T< 65F	ECONOMIZER MODE
OAT<55F	HEATING MODE

   J. COOLING MODE:
      a. DISCHARGE AIR CONTROL (DAT): IN THE COOLING MODE, THE UNIT CAPACITY WILL MODULATE THE VARIABLE SPEED COMPRESSOR TO MAINTAINTHE UNIT COOLING DISCHARGE AIR SET POINT OF 65F. THE COOLING DAT SET POINT WILL BE ADJUSTABLE AT THE BAS. UNIT CAPACITY WILL BE MODULATED BY THE VARIABLE SPEED COMPRESSOR OPERATION
   K. ECONOMIZER COOLING MODE: THE COMPRESSORS SHALL BE OFF AND THE GAS HEAT SHALL BE OFF.
   L. MODULATING GAS HEAT: THE MODULATING GAS HEAT WILL BE MODULATED BY THE UNIT CONTROLLER TO MAINTAIN THE HEATING DAT SET POINT OF 70F. THE HEATING DAT SET POINT WILL BE ADJUSTABLE AT THE BAS.
3. FIELD CONTROLS
   A. OPTIMAL START (WARM-UP ONLY):
      a. EACH ZONE SHALL UTILIZE OPTIMAL START. THE BAS SHALL CALCULATE THE REQUIRED WARM-UP OR COOL-DOWN TIME BASED ON THE ZONE'S OCCUPIED COOLING SET POINT, THE CURRENT ZONE TEMPERATURE, THE OUTDOOR AIR TEMPERATURE, AND A MASS/CAPACITY FACTOR FOR EACH ZONE. THE MASS FACTOR SHALL BE MANUALLY ADJUSTED OR SELF-TUNED BY THE BAS. WARM-UP OR COOL-DOWN MODE SHALL START BASED ON THE ZONE WITH THE LONGEST CALCULATED WARM-UP OR COOL-DOWN TIME REQUIREMENT, BUT NO EARLIER THAN 3 HOURS BEFORE THE START OF THE SCHEDULED OCCUPIED PERIOD, AND SHALL END AT THE SCHEDULED OCCUPIED START HOUR.
      b. OPTIMAL START SHALL BE RESET AT FINAL COMPLETION.WHEN THE OUTSIDE AIR TEMPERATURE IS LESS THAN 40F BAS CONTROLLER SHALL SCHEDULE THE DOAS TO START 1 HOUR (ADJ) PRIOR TO OCCUPANCY. TO SUPPLEMENT FOR MORNING WARM-UP.
      c. THE RETURN DAMPER SHALL BE COMMANDED OPEN AND THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL REMAIN CLOSED. THE DOAS SHALL DISCHARGE 80F UNTIL SPACES ARE AT THE OCCUPIED SETPOINT.
   B. COOLING DISCHARGE AIR RESET CONTROL (DAT): IN THE COOLING MODE, IF ANY SPACE IS UNABLE TO MAINTAIN THE COOLING SETPOINT FOR 30 MINUTES THAN RESET THE DISCHARGE AIR TEMPERATURE TO 55F.
   C. EXHAUST AIR FLOW DAMPER (AFD) TERMINAL UNITS CONNECTED TO DEDICATED OUTDOOR AIR SYSTEM
      a. THE TERMINAL UNIT SHALL HAVE A PRESSURE INDEPENDENT CONTROL SYSTEM. EACH SYSTEM SHALL OPERATE UNDER THE CONTROL OF A LOCAL, STAND-ALONE, MICROPROCESSOR BASED DDC CONTROLLER. A DEDICATED DDC CONTROLLER SHALL BE PROVIDED. MULTIPLE AFD ON ONE CONTROLLER IS PROHIBITED.
      b. THE "TOILET" EXHAUST AFD SHALL BE CONSTANT VOLUME.
      c. THE "GENERAL" EXHAUST AFD SHALL BE VARIABLE VOLUME IN DEMAND CONTROL VENTILATION (DCV) SPACES, THE ZONE "GENERAL" EXHAUST AFD SHALL TRACK THE VAV SERVING THE ZONE GENERALLY 5-15% LESS THAN THE VENTILATION. FIELD VERIFY OFFSET AT MAXIMUM AND MINIMUM FLOWS TO ENSURE PROPER DOOR CLOSERS AND POSITIVE PRESSURE IS MAINTAINED.
      d. PRIMARY AIR CFM SHALL BE MONITORED BY BAS. AN AIR FLOW SENSOR SHALL BE LOCATED ON THE INLET SIDE OF THE AFD BOX. THIS SHALL BE USED TO SET MINIMUM/MAXIMUM SETPOINTS.
4. SAFETIES
   A. OVER PRESSURIZATION CONTROL: A HIGH STATIC PRESSURE SWITCH SHALL BE LOCATED AT THE SUPPLY AIR OUTLET, BEFORE ANY FIRE DAMPERS OR SMOKE DAMPERS. IF THE PRESSURE IN THE OA DUCT EXCEEDS 3.0" W.G. LOCALLY (ADJ.), THEN ALL FANS SHALL SHUT-OFF VIA HARDWIRED SAFETY. UPON A MANUAL RESET OF THE SWITCH, THE SYSTEM SHALL RETURN TO NORMAL OPERATION.
   B. UNDER PRESSURIZATION CONTROL: A LOW STATIC PRESSURE SWITCH SHALL BE LOCATED AT THE EXHAUST AIR INLET, AFTER ANY FIRE DAMPERS OR SMOKE DAMPERS. IF THE PRESSURE IN THE EA DUCT EXCEEDS -3.0" W.G. LOCALLY (ADJ.), THEN ALL FANS SHALL SHUT-OFF VIA HARDWIRED SAFETY. UPON A MANUAL RESET OF THE SWITCH, THE SYSTEM SHALL RETURN TO NORMAL OPERATION.
   C. SMOKE SHUTDOWN: A SMOKE DETECTOR SHALL BE LOCATED IN THE SUPPLY AND RETURN AIR DUCTS. IF SMOKE IS DETECTED, THE SUPPLY AND EXHAUST FANS SHALL SHUT-OFF VIA HARDWIRED SAFETY AND AN AUDIO/VISUAL ALARM WILL ACTIVATE. UPON CORRECTION, THE SYSTEM SHALL BE RESET AND RETURN TO NORMAL OPERATION. COORDINATE WITH FIRE ALARM SYSTEM.
5. ALARMS:
   A. LEVEL 1 ALARMS:
      a. SMOKE DETECTOR TRIPS THE UNIT.
      b. ACTIVATION OF THE EMERGENCY HVAC/ VENTILATION SHUT-OFF
   B. LEVEL 2 ALARMS
      a. ERW MOTOR FAILURE.
      b. ANY FAN STATUS DOES NOT EQUAL COMMAND.
   C. LEVEL 3 ALARMS
      a. LOW TEMPERATURE ALARM: DISCHARGE AIR TEMPERATURE IS 10°F BELOW SETPOINT FOR 20 MINUTES.
      b. HIGH TEMPERATURE ALARM: DISCHARGE AIR TEMPERATURE IS 10°F ABOVE SETPOINT FOR 20 MINUTES.
   D. LEVEL 4 ALARMS:
      a. DOAS UNIT RUNTIME MAINTENANCE ALARM PER THE MANUFACTURER'S RECOMMENDATIONS.
      b. DIRTY FILTER MAINTENANCE ALARM (QTY 3) PER THE MANUFACTURER'S RECOMMENDATIONS. (OUTSIDE AIR MERV 8, MERV 14 AND EXHAUST MERV 8). COORDINATE PRESSURE DROP WITH MANUFACTURER.

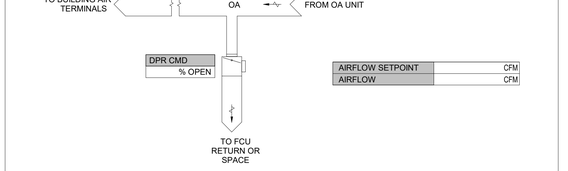


VARIABLE AIR VOLUME BOX CONTROL SCHEMATIC

VARIABLE AIR VOLUME BOX (VAV)

1. GENERAL:
   A. OUTSIDE AIR IS PROVIDED DIRECT TO THE SPACE.
   B. THE TERMINAL UNIT SHALL HAVE A PRESSURE INDEPENDENT CONTROL SYSTEM. EACH SYSTEM SHALL OPERATE UNDER A DEDICATED DDC CONTROLLER.
   C. WALL MOUNTED CO2 AND OCCUPANCY SENSOR SHALL CONTROL THE VAV.
   D. THE VENTILATION AIRFLOW SHALL BE MONITORED BY THE BAS. AN AIR FLOW SENSOR SHALL BE LOCATED ON THE INLET SIDE OF THE VAV BOX.
2. UNOCCUPIED MODE: THE VAV DAMPER SHALL BE AT CLOSED POSITION.
3. OCCUPIED MODE: THE VAV TERMINAL BOX SHALL CONTROL THE AMOUNT OUTSIDE AIR INTRODUCED INTO THE ZONE. EACH VAV BOX HAS MINIMUM AND MAXIMUM SET POINTS. THE VENTILATION AIR TO THE SPACE IS VARIED LINEARLY BETWEEN THE MINIMUM AND MAXIMUM SET POINTS BASED ON THE SPACE CO2 LEVEL. REFER TO PLANS FOR MINIMUM AND MAXIMUM SET POINTS. THE VAV SHALL MODULATE TO MAINTAIN A MAXIMUM CO2 INDOORS OF 1000 PPM. (ADJ.).
4. OCCUPIED STANDBY MODE: THE COURTROOMS ARE TO BE PROVIDED WITH OCCUPANCY SENSOR CONTROL, IF THE OCCUPANCY SENSOR DETECTS NO OCCUPANCY IN THE ROOMS THAN THE DAMPER SHALL STAY OPEN AT MINIMUM CFM UNTIL THE SPACE CO2 LEVEL IS 550 PPM OR LESS FOR 15 MINUTES AND THEN THE DAMPER SHALL CLOSE.
5. DURING MORNING WARM-UP THE DAMPER SHALL BE OPEN UNTIL THE SPACE REACHES OCCUPIED SETPOINT. ONCE THE SPACE REACHS SETPOINT THE VAV DAMPER SHALL CLOSE UNTIL THE SPACE ENTERS OCCUPIED MODE.
6. ALARMS:
   A. LEVEL 4 ALARMS: AIRFLOW SENSOR CALIBRATION.

VAV BOX POINTS LIST	AI	AO	DI	DO	TREND
AIRFLOW	X				X
DAMPER		X			X
OCCUPANCY SENSOR			X		X
CO_2 SENSORS (AS REQUIRED)		X	X		X



CONSTANT AIR VOLUME BOX CONTROL SCHEMATIC

CONSTANT AIR VOLUME BOX (CAV)

1. GENERAL:
   A. OUTSIDE AIR IS PROVIDED TO THE RETURN OF THE FAN COIL UNITS AND DIRECT TO CLERK 103.
   B. THE TERMINAL UNIT SHALL HAVE A PRESSURE INDEPENDENT CONTROL SYSTEM. EACH SYSTEM SHALL OPERATE UNDER A DEDICATED DDC CONTROLLER.
   C. THE VENTILATION AIRFLOW SHALL BE MONITORED BY THE BAS. AN AIR FLOW SENSOR SHALL BE LOCATED ON THE INLET SIDE OF THE OVAV BOX.
2. UNOCCUPIED MODE: THE CAV DAMPER SHALL BE AT OPEN TO LAST POSITION.
3. OCCUPIED MODE: THE CAV TERMINAL BOX SHALL CONTROL THE AMOUNT OUTSIDE AIR INTRODUCED INTO THE FAN COIL UNITS. THE CAV BOX SHALL BE CONSTANT VOLUME. REFER TO PLANS FOR SET POINTS.
4. ALARMS:
   A. LEVEL 4 ALARMS: AIRFLOW SENSOR CALIBRATION.

CAV BOX POINTS LIST	AI	AO	DI	DO	TREND
AIRFLOW	X				
DAMPER		X			

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CONTROL SCHEMATICS

STATE OF OHIO · PAUL J. COYNE · E-80723 · REGISTERED PROFESSIONAL ENGINEER · 6/16/21

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UNIT HEATER :

1. WHEN THE SPACE TEMPERATURE IS BELOW 55F THE UNIT HEATER FAN SHALL START AND THE GAS VALVE MODULATE TO MAINTAIN SETPOINT OF 55F.
2. ALARMS
   A. LEVEL 2 ALARMS:
      a. LOW TEMPERATURE ALARM: SPACE TEMPERATURE IS 45F FOR 30 MINUTES.

UNIT HEATER POINTS LIST	AI	AO	DI	DO	TREND
SPACE TEMP	X				X
FAN COMMAND				X	
FAN STATUS			X		X
GAS VALVE		X			

SALLY PORT VENTILATION AND COOLING:

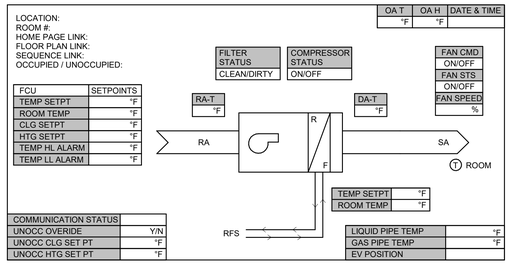
1. VENTILATION: WHEN THE CO LEVEL EXCEEDS 25PPM THE EXHAUST FAN DAMPER AND INTAKE DAMPER SHALL OPEN AND THE EXHAUST FAN SHALL RUN TO VENTILATE THE SPACE. THE FAN SHALL RUN FOR A MINIMUM OF 15 MINUTES.
2. COOLING MODE: WHEN THE SPACE TEMPERATURE EXCEED 75 F THE EXHAUST FAN DAMPER AND INTAKE DAMPER SHALL OPEN AND THE EXHAUST FAN SHALL RUN.
3. ALARMS:
   A. LEVEL 1 ALARMS:
      a. IF THE CO LEVEL EXCEEDS 50 PPM FOR 1 HOUR AN ALARM SHALL BE SENT TO THE BAS.
   B. LEVEL 3 ALARMS:
      a. IF THE CO LEVEL EXCEEDS 25 PPM FOR 1 HOUR AN ALARM SHALL BE SENT TO THE BAS.
      b. EXHAUST AIR AND OUTSIDE ARE DAMPERS STATUS DOES NOT MATCH COMMAND.

UNIT HEATER POINTS LIST	AI	AO	DI	DO	TREND
SPACE TEMP	X				X
EXHAUST/INTAKE DAMPER			X STATUS	X COMMAND	
FAN			X STATUS	X COMMAND	
CO SENSOR	X				X

DUCTLESS SPLIT

1. SPLIT SYSTEM UNITS (FCU-3 & CU-3): PROVIDE ALL NECESSARY WIRING, CONDUIT, ETC. AS REQUIRED TO INTERLOCK THE WALL THERMOSTAT, INDOOR AIR HANDLING UNIT, AND OUTDOOR CONDENSING UNIT AS REQUIRED TO MAINTAIN SPACE SETPOINT OF 70°F (ADJ.).
2. ALARMS:
   A. LEVEL 2 ALARMS:
      a. HIGH TEMPERATURE ALARM: SPACE TEMPERATURE IS 85°F FOR 1 HOUR.

DUCTLESS SPLIT POINTS LIST	AI	AO	DI	DO	TREND
SPACE TEMP	X				X



VARIABLE REFRIGERANT VOLUME (VRV) SYSTEM:

1. GENERAL:
   A. THE VARIABLE REFRIGERANT FLOW ZONING SYSTEM SEQUENCE OF OPERATION SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER. A VARIABLE REFRIGERANT FLOW ZONING SYSTEM WALL TEMPERATURE SENSOR SHALL BE PROVIDED BY THE VARIABLE REFRIGERANT FLOW ZONING SYSTEM MANUFACTURER. THE CONTROL WIRING, ROOM SENSOR/THERMOSTAT WIRING, COMMUNICATION WIRING, AND OUTDOOR HEAT PUMP CONTROL WIRING SHALL BE PROVIDED BY CONTROLS CONTRACTOR. THIS CONTRACTOR SHALL COMMUNICATE TO THE VARIABLE REFRIGERANT FLOW ZONING SYSTEM VIA BACNET IP. THE ENGINEER SHALL HAVE FINAL DETERMINATION AS TO THE INTEGRATED POINTS THAT ARE BROUGHT INTO THE BAS, AS WELL AS APPEAR ON THE BAS FRONT END.
   B. THE TCC SHALL MAP BACNET IP POINTS FOR THE VRV SYSTEM INTO THE BAS. THE BAS SHALL PROVIDE SCHEDULING, ALARMS, SETPOINT ADJUSTMENT, MODE CHANGEOVER, TRENDING, SETBACK AND INDIVIDUAL INDOOR UNIT CONTROL AND MONITORING.
   C. THE VRV MANUFACTURER SHALL PROVIDE WALL THERMOSTATS WITH AN OVERRIDE BUTTON FOR ALL ROOMS WITH VRF UNITS. AREAS LABELED WITH A TS ON THE DRAWINGS SHALL BE A TEMPERATURE SENSOR ONLY AND THE SETPOINT SHALL BE PROVIDED VIA THE BMS.
2. UNOCCUPIED MODE:
   A. ALL SPACES SHALL BE IN UNOCCUPIED MODE ON HOLIDAYS AND WEEKENDS. IN-SERVICE DAYS SHALL BE SCHEDULED PER OWNER/ENGINEER DIRECTION
   B. VRF FAN COIL UNIT FANS SHALL STOP AND EXPANSION VALVES WILL CLOSE. VRF OUTDOOR CONDENSING UNITS SHALL STOP. NIGHT SETBACK OPERATION - IF SPACE TEMPERATURE DROPS BELOW 59°F AND THE OUTSIDE AIR TEMPERATURE IS BELOW 35°F, VRF FAN COIL UNITS WILL BE SET IN HEAT MODE OF OPERATION WITH A SET POINT OF 70°F UNTIL SPACE TEMPERATURE REACHES 65°F, THEN SYSTEM SHALL GO TO UNOCCUPIED MODE (OFF). IF SPACE TEMPERATURE RISES ABOVE 78°F, VRF FAN COIL UNITS WILL BE SET IN COOLING MODE OF OPERATION WITH A SETPOINT OF 72°F UNTIL SPACE TEMPERATURE REACHES 75°F, THEN SYSTEM SHALL GO TO UNOCCUPIED MODE (OFF).
3. OCCUPIED MODE: OCCUPIED HOURS SHALL BE SET FROM 7:00 AM TO 6:00 PM (ADJ.) MONDAY THROUGH FRIDAY
   A. HEAT/COOL SET POINT AND MODE – THE SPACE TEMPERATURE COOLING SET POINT SHALL BE DETERMINED EITHER BY A LOCAL SET POINT ADJUSTMENT KNOB, OR BAS CONTROL. IF THE BAS IS NOT COMMUNICATING, THE ASC SHALL USE LOCAL ZONE SENSOR CONTROL.
   B. SET POINT LIMITING – THE SET POINTS SHALL BE LIMITED BY ADJUSTABLE PARAMETERS IN THE BAS TO PREVENT THEM FROM BEING SET TOO HIGH OR LOW. SET OCCUPIED COOLING MINIMUM SETPOINT AT 70°F (ADJ.) AND OCCUPIED MAXIMUM HEAT SET POINT AT 72°F (ADJ.). IN THE UNOCCUPIED MODE, THE SET POINTS SHALL BE WIDENED TO ACCOMMODATE NIGHT SETBACK AND ARE ADJUSTABLE. SET UNOCCUPIED TEMPERATURE RANGE FOR ALL ZONES AS NOTED ABOVE.
4. ALARMS:
   A. LEVEL 2 ALARMS
      a. ANY ZONE TEMPERATURE IS LESS THAN 50F OR GREATER THAN 95F
   B. LEVEL 3 ALARMS:
      a. VRV ALARM OUTPUTS.
      b. LOW TEMPERATURE ALARM: SPACE TEMPERATURE IS 5°F BELOW SETPOINT FOR 20 MINUTES.
      c. HIGH TEMPERATURE ALARM: DISCHARGE AIR TEMPERATURE IS 5°F ABOVE SETPOINT FOR 20 MINUTES.

VRV-FCU BACNET POINTS	READ/WRITE (R/W)	TREND
CURRENT UNIT OPERATION	R	
ROOM TEMPERATURE	R	X
OCC COOLING SETPOINT	W	
OCC HEATING SETPOINT	W	
UNOCC COOLING SETPOINT	W	
UNOCC HEATING SETPOINT	W	
MAX COOLING SETPOINT	W	
MIN COOLING SETPOINT	W	
MAX HEATING SETPOINT	W	
MIN HEATING SETPOINT	W	
MIN SETPOINT DIFFERENTIAL (COOLING & HEATING)	W	
FAN SPEED	R	
COMPRESSOR SUCTION TEMPERATURE	R	
TIMED OVERRIDE OPERATION	R	
FILTER SIGN STATUS	R	
FILTER SIGN RESET	R	
INDOOR FAN STATUS	R	
COMMUNICATION STATUS	R	
COMPRESSOR STATUS	R	
RETURN AIR TEMPERATURE	R	X
DISCHARGE AIR TEMPERATURE	R	X
LIQUID PIPE TEMPERATURE	R	
GAS PIPE TEMPERATURE	R	
EV POSITION	R	
FREEZE PROTECTION	R	

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STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER PAUL J. COYNE E-80723 6/24/21

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REGISTERS, GRILLES, AND DIFFUSERS

MARK	MANUFACTURER	MODEL #	TYPE	GRILLE SIZE	INLET DUCT SIZE	RUNOUT SIZE	CFM	REMARKS
E-1	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	22"X22"	6"Ø	0-100	1,2,3,5
E-2	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	22"X22"			1,2,3,5
E-3	PRICE	80	ALUMINUM 1/2" EGG CRATE	24"X24"	22"X22"	10"Ø	201-400	1,3,5
E-4	PRICE	630	ALUMINUM 3/4" BLADE SPACING SIDEWALL GRILLE	74"X16"	72"X14"	72"X14"	1000	5
E-5	PRICE	MSRRG	STEEL MAXIMUM SECURITY RISK RESISTANT GRILLE	10"X10"	8"X8"	6"Ø	0-100	2,3,4,7,8
R-1	PRICE	80FF	ALUMINUM 1/2" EGG CRATE WITH FILTER FRAME	24"X24"	22"X22"	6"Ø	0-100	1,2,3,5,10
R-2	PRICE	80FF	ALUMINUM 1/2" EGG CRATE WITH FILTER FRAME	24"X24"	22"X22"	8"Ø	101-225	1,2,3,5,10
R-3	PRICE	80FF	ALUMINUM 1/2" EGG CRATE WITH FILTER FRAME	24"X24"	22"X22"	10"Ø	226-400	1,2,3,5,10
R-4	PRICE	80FF	ALUMINUM 1/2" EGG CRATE WITH FILTER FRAME	24"X24"	22"X22"	12"Ø	401-600	1,2,3,5,10
R-5	PRICE	630	ALUMINUM 3/4" BLADE SPACING SIDEWALL GRILLE	32"X18"	30"X16"	16"X12"	1200	5
R-6	PRICE	630	ALUMINUM 3/4" BLADE SPACING SIDEWALL GRILLE	72"X14"	72"X12"	72"X12"	2000	5
R-7	PRICE	MSRRG	STEEL MAXIMUM SECURITY RISK RESISTANT GRILLE	10"X10"	8"X8"	6"Ø	0-100	2,3,4,7,8
S-1	PRICE	SPD	ALUMINUM SQUARE PLAQUE DIFFUSER	24"X24"	24"X24"	6"Ø	0-100	1,2,3,5,6
S-2	PRICE	SPD	ALUMINUM SQUARE PLAQUE DIFFUSER	24"X24"	24"X24"	8"Ø	101-225	1,2,3,5,6
S-3	PRICE	SPD	ALUMINUM SQUARE PLAQUE DIFFUSER	24"X24"	24"X24"	10"Ø	226-350	1,2,3,5,6
S-4	PRICE	SPD	ALUMINUM SQUARE PLAQUE DIFFUSER	24"X24"	24"X24"	12"Ø	351-550	1,2,3,5,6
S-5	PRICE	MSRRCD	STEEL MAXIMUM SECURITY RISK RESISTANT DIFFUSER	8"X8"	6"Ø	6"Ø	0-75	2,3,4,7,8
S-6	PRICE	SDS150	ALUMINUM LINEAR 1-SLOT WITH SDB INSULATED PLENUM	60"X3"	8"Ø	8"Ø	0-150	5,7,9
S-7	PRICE	SDS150	ALUMINUM LINEAR 1-SLOT WITH SDB INSULATED PLENUM	48"X3"	6"Ø	6"Ø	0-150	5,7,9
S-8	PRICE	SDS150	ALUMINUM LINEAR 2-SLOT WITH INSULATED PLENUM, 2-WAY THROW	60"X3"	10"Ø	10"Ø	0-250	5,7,9
S-9	PRICE	20/30	ALUMINUM AIRFOIL SUPPLY GRILLE DOUBLE DEFLECTION	12"X6"	12"X6"	6"Ø	0-100	5
S-10	PRICE	MSRRCD	STEEL MAXIMUM SECURITY RISK RESISTANT DIFFUSER	12"X12"	8"Ø	8"Ø	200	2,3,4,7,8
T-1	PRICE	630	ALUMINUM 3/4" BLADE SPACING SIDEWALL GRILLE	24"X24"	22"X22"	16"Ø	N/A	5

REMARKS:
1. CEILING T-BAR MOUNTED 24"X24" ALUMINUM PANEL.
2. PROVIDE ALL ACCESSORIES AS NECESSARY FOR CEILING INSTALLATION. REFER TO ARCHITECTURAL PLANS FOR CEILING TYPES.
3. INLET TRANSITION BOX, ROUND TO RECTANGULAR.
4. WHITE IN COLOR.
5. COLOR BY ARCHITECT.
6. PROVIDE TRANSITION OR PLENUM BOX WITH MOLDED INSULATED BLANKET.
7. BALANCE DAMPER IS ABOVE HARD CEILING AND TO BE PROVIDED WITH REMOTE BALANCE DAMPER.
8. AIR DEVICES IN HOLDING AREA TO BE PROVIDED WITH TAMPERPROOF SCREWS AND 6" SLEEVE.
9. PROVIDE WITH ALL BLANK OFF AND END FABRICATION COMPONENTS NECESSARY FOR A CONTINUOUS FINISH AS SHOWN ON FLOOR PLANS.
10. PROVIDE WITH FILTER FRAME FOR 24"X24" - 2" MERV 8 FILTERS WITH HINGE TABS AT FACE.

VAV BOX SCHEDULE

MARK	MANUFACTURER	MODEL #	BOX TYPE	INLET SIZE	INLET STATIC PRESS. @ MAX CFM ("WG)	MAX CFM	MIN CFM	REMARKS
VAV-147	PRICE	SDV10	VAV	10"	.25"	900	175	1,2
CAV-1	PRICE	SDV8	VAV	8"	.25"	610	610	1,2
CAV-2	PRICE	SDV10	VAV	10"	.25"	710	710	1,2
VAV-121	PRICE	SDV10	VAV	10"	.25"	1100	225	1,2
VAV-102	PRICE	SDV8	VAV	8"	.25"	600	300	1,2

REMARKS:
1. ALL BOXES SHALL BE DOUBLE WALL INSULATED
2. PROVIDE EACH BOX WITH AN INDEPENDENT CONTROLLER, NO BOX SHALL BE OPERATED FROM ANOTHER CONTROLLER LOCATED ON ANOTHER BOX.

SPLIT SYSTEM INDOOR UNIT SCHEDULE

MARK	MODEL #	MANUFACTURER	DIMENSIONS (IN.)			WEIGHT (LBS)	AIRFLOW (CFM)	ELECTRICAL		REMARKS
			LENGTH	WIDTH	HEIGHT			VOLTAGE	PHASE	
FCU-3	FTK12AXVJU	DAIKIN	30.9	9.8	11.3	22	316	208 V	1	ALL

REMARKS:
1. PROVIDE INLINE CONDENSATE PUMP INSIDE UNIT.
2. COORDINATE FINAL LOCATION ON WALL WITH IT EQUIPMENT LAYOUT.
3. PROVIDE WITH FACTORY THERMOSTAT.

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

MARK	MANUF.	MODEL #	DIMENSIONS (IN.)			WEIGHT (LBS)	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	MINIMUM SEER	ELECTRICAL			REMARKS
			LENGTH	WIDTH	HEIGHT					MCA	MOCP	VOLTAGE / PHASE	
CU-3	DAIKIN	RK12AXVJU	27	11	22	62	10900.0	9090.0	19	8 A	15	208 / 1	ALL

REMARKS:
1. COOLING ONLY UNIT TO BE PROVIDED WITH LOW AMBIENT KIT.
2. CONFIRM TOTAL COOLING CAPACITY WITH IT EQUIPMENT IN SPACE PRIOR TO ORDERING.

AIRFLOW DAMPER SCHEDULE

MARK	MANUFACTURER	MODEL	DAMPER SIZE		AIRFLOW		MAX. TOTAL APD AT MAX. (CFM)	REMARKS
			WIDTH	HEIGHT	MAXIMUM (CFM)	MINIMUM (CFM)		
AFD-1	GREENHECK	AMD-12	12"	12"	775	775	.12"	ALL

REMARKS:
1. PROVIDE WITH FACTORY 24 VAC EXTERNALLY MOUNTED ACTUATOR WITH TRANSFORMER.
2. PROVIDE WITH FACTORY SUPPLIED PRESSURE TRANSDUCER.
3. PROVIDE WITH FACTORY SUPPLIED LON CONTROLLER.
4. CONTROLS CONTRACTOR TO PROVIDE FIELD MOUNTED CONTROLLER.
5. PROVIDE ACCESS DOOR IN DUCT UP STREAM OF UNIT FOR MAINTENANCE ACCESS.

GAS FIRED UNIT HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	HEATING CAPACITY (MBH)	CFM	POWER SUPPLY V / PH	AMPS	REMARKS
UH-1	REZNOR	UDAP-60	50	769	115/1	1	ALL

REMARKS:
1. THERMOSTAT BY TEMPERATURE CONTROL CONTRACTOR.
2. DISCONNECT BY EC.
3. MOUNT 10'-0" AFF.

DEDICATED OUTSIDE AIR UNIT SCHEDULE

MARK	MANUFACTURER	MODEL #	PHYSICAL DATA				SUPPLY FAN						EXHAUST FAN						UNIT ELECTRICAL CONNECTION				REMARKS
			WIDTH (IN.)	LENGTH (IN.)	HEIGHT (IN.)	WEIGHT (LBS)	TOTAL OA CFM	FAN MOTOR TYPE	FAN RPM	ESP (" WC)	TSP (" WC)	RATED H.P.	B.H.P.	TOTAL EA CFM	FAN MOTOR TYPE	FAN RPM	E.S.P. (" WC)	T.S.P. (" WC)	RATED H.P.	B.H.P.	VOLTAGE	PH.	MCA	MOCP	
DOAS-1	DAIKIN	DPS012A	97	111	57	2828	3500	ECM	1704	2.00	4.7	8.0	4.54	3200	ECM	1792	2.00	2.90	4	2.3	208	3	64.6	80	ALL

DEDICATED OUTSIDE AIR UNIT SCHEDULE - CONTD. 1

MARK	DX COOLING COIL									HOT GAS REHEAT						GAS HEAT				
	NO. OF ROWS	REFRIGERANT	TOTAL (MBH)	SENSIBLE (MBH)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	APD (IN. WG.)	TYPE	TOTAL CAPACITY (MBH)	LAT DB (°F)	LAT WB (°F)	FACE AREA (FT2)	APD (IN H2O)	AIRFLOW	TOTAL CAPACITY (MBH)	EAT DB(°F)	LAT DB(°F)	APD (IN H2O)
DOAS-1	4	R410A	148.0	100.0	80.6	67.9	54.3	54.3	0.22	ALUMINUM TUBE MICRO-CHANNEL	67.0	72.0	60.8	14.6	0.05	3500	160	41.4	83.5	0.15

DEDICATED OUTSIDE AIR UNIT SCHEDULE - CONTD. 2

MARK	ENERGY RECOVERY WHEEL PERFORMANCE																	
	WINTER OPERATION							SUMMER OPERATION										
	OUTDOOR AIR STREAM				EXHAUST AIR STREAM		TOTAL EFFECTIVENESS (%)	RECOVERY CAPACITY (MBH)	OUTDOOR AIR STREAM				EXHAUST AIR STREAM		TOTAL EFFECTIVENESS (%)	RECOVERY CAPACITY (MBH)	OUTDOOR AIR APD (IN. WG.)	EXHAUST AIR APD (IN. W.G.)
	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	EAT DB (°F)	EAT WB (°F)			EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	EAT DB (°F)	EAT WB (°F)				
DOAS-1	-5.0	-0.7	41.4	32.5	70.0	50.0	66	204	91.0	75.0	80.6	67.9	75.0	63.0	64	90.5	0.18	0.15

REMARKS:
1. ENTIRE UNIT SHALL BE DOUBLE WALL CONSTRUCTION. PERFORATED PANELS ARE NOT ACCEPTABLE.
2. UNIT SHALL BE DESIGNED FOR OUTDOOR OPERATION.
3. SUPPLY STAINLESS STEEL CONDENSATE DRAIN PAN FOR COOLING COIL SECTIONS. ENTIRE DRAIN SHALL BE PITCHED TO OUTLET.
4. UNIT DESIGN AND WEIGHTS ARE STATED ABOVE. IT IS THE CONTRACTOR'S AND ALTERNATE MANUFACTURER'S RESPONSIBILITIES TO INSURE FIT AND CLEARANCES ARE MAINTAINED SHOULD EQUIPMENT OTHER THAN THAT SPECIFIED BE FURNISHED.
5. THE UNIT SHALL HAVE SINGLE POINT POWER CONNECTION AND FACTORY MOUNTED NON-FUSED DISCONNECT.
6. PROVIDE FACTORY CONTROLS WITH BACNET MSTP COMMUNICATION.
7. PROVIDE WITH ERW WITH VFD FOR WHEEL EFFECTIVENESS CONTROL AND FROST PREVENTION CONTROL.
8. PROVIDE SENSORS FOR OUTSIDE AIR DEWPOINT CONTROL.
9. PROVIDE WITH DUCT STATIC PRESSURE SENSOR FOR VAV SYSTEM.
10. PROVIDE WITH ECM MOTORS ON SUPPLY AND EXHAUST FANS.
11. THE DIGITAL SCROLL COMPRESSOR TO BE LEAD COMPRESSOR.
12. THE EQUIPMENT PERFORMANCE TO MEET OR EXCEED IECC 2015.
13. CURB HEIGHT SHALL BE 14" TALL WITH VIBRATION ISOLATION AND IN-CURB ACOUSTICAL TREATMENT.
14. CURB SHALL BE A THYBAR TC-1 OR SIMILAR BY MANUFACTURER.
15. REFER TO M600 FOR CONTROLS SEQUENCES OF OPERATION AND POINT LIST.
16. GAS HEAT SHALL HAVE MODULATING 10:1 TURNDOWN
17. PROVIDE WITH MODULAR CONTROL INVERTER COMPRESSORS.
18. PROVIDE WITH 115V GFCI OUTLET.
19. PROVIDE WITH NON-FUSED DISCONNECT SWITCH.

VRV OUTDOOR UNIT SCHEDULE

MARK	MANUFACTURER	MODEL #	DESCRIPTION	NOMINAL TONNAGE	DIMENSIONS (IN.)			WEIGHT (LBS)	COOLING CAPACITY (BTU/H)	HEATING CAPACITY (BTU/H)	REFRIGERANT CHARGE	EQUIPMENT PERFORMANCE				ELECTRICAL DATA				REFRIGERANT TYPE	REMARKS
					WIDTH	DEPTH	HEIGHT					EER	IEER	COP @ 47°F	COP @ 17°F	VOLTAGE	PHASE	MCA	MOCP		
CU-1	DAIKIN	REYQ216XATJA	AIR COOLED HEAT RECOVERY	18	8' - 2"	2' - 6"	5' - 6 1/2"	1454 lb	165719	152137	51.6 lb	12.3	21.7	3.52	2.2	208	3	81 A	95	R-410A	ALL
CU-2	DAIKIN	REYQ216XATJA	AIR COOLED HEAT RECOVERY	18	8' - 2"	2' - 6"	5' - 6 1/2"	1454 lb	186107	150891	51.6 lb	12.3	21.7	3.52	2.2	208	3	81 A	95	R-410A	ALL

REMARKS:
1. PROVIDE WITH R-410A REFRIGERANT. SIZE LINES PER MANUFACTURER'S INSTRUCTIONS. SUBMIT DETAILED PIPING SCHEMATIC WITH SHOP DRAWINGS.
2. PROVIDE ROOF SUPPORT SYSTEM. ROOF SUPPORT SHALL BE 18" OR THE MINIMUM HEIGHT RECOMMENDED BY THE VRF MANUFACTURER (WHICHEVER IS HIGHER).
3. PROVIDE DAIKIN INTELLIGENT TOUCH MANAGER WITH BACNET IP CLIENT SOFTWARE.
4. UNIT SHALL BE CAPABLE OF MEETING THE REQUIRED COOLING AND HEATING LOADS FOR A SUMMER DB/WB OF 93.5°F/60.5°F AND WINTER DB OF -5°F.
5. MANUFACTURER'S SUBMITTAL MUST INCLUDE REFRIGERANT PIPING DIAGRAM WITH PIPE DIAMETERS, LENGTHS, AND REFRIGERANT VOLUMES.
6. SUBSTITUTE MANUFACTURERS SHALL BE RESPONSIBLE FOR ADDITIONAL PIPING AND REFRIGERANT.
7. CONTRACTOR AND MANUFACTURER ARE RESPONSIBLE FOR PIPING DIMENSIONS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIRECT COSTS ASSOCIATED WITH ANY DEVIATIONS RESULTING FROM CHANGES IN DESIGN.
9. THE EQUIPMENT PERFORMANCE TO MEET OR EXCEED IECC 2015.

VRV INDOOR UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	DESCRIPTION	NOMINAL TON	DIMENSIONS (IN.)			WEIGHT (LBS)	AIRFLOW (CFM)	NOMINAL COOLING CAPACITY (BTU/H)	NOMINAL HEATING CAPACITY (BTU/H)	ELECTRICAL					REMARKS
					LENGTH	WIDTH	HEIGHT					VOLTAGE	PHASE	HZ	MCA	MOCP	
FCU-1-1	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-1-2	DAIKIN	FXMQ15	DUCTED CONCEALED CEILING AIR CONDITIONER	1.5	2' - 4"	3' - 4"	1' - 0"	80.00 lb	600	18000	20000	208/230	1	60	1.6	15	1,2,3,4,5,6
FCU-1-3	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-1-4	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-1-5	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-1-6	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-1-7	DAIKIN	FXMQ36	DUCTED CONCEALED CEILING AIR CONDITIONER	3	2' - 4"	4' - 8"	1' - 0"	102.00 lb	1130	36000	40000	208/230	1	60	2.9	15	ALL
FCU-1-8	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-1-9	DAIKIN	FXSQ07	DUCTED CONCEALED CEILING AIR CONDITIONER	0.6	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	275	7500	8500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-1-10	DAIKIN	FMXQ72	DUCTED CONCEALED CEILING AIR CONDITIONER	6	3' - 8"	4' - 6"	1' - 6 1/2"	102.00 lb	2000	72000	81000	208/230	1	60	9.5	15	ALL
FCU-1-11	DAIKIN	FXSQ09	DUCTED CONCEALED CEILING AIR CONDITIONER	0.8	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	275	9500	10500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-2-1	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-2-2	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-2-3	DAIKIN	FXSQ07	DUCTED CONCEALED CEILING AIR CONDITIONER	0.6	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	275	7500	8500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-2-4	DAIKIN	FXMQ48	DUCTED CONCEALED CEILING AIR CONDITIONER	4	2' - 4"	4' - 8"	1' - 0"	102.00 lb	1350	48000	54000	208/230	1	60	3.4	15	ALL
FCU-2-5A	DAIKIN	FXMQ30	DUCTED CONCEALED CEILING AIR CONDITIONER	2.5	2' - 4"	4' - 8"	1' - 0"	102.00 lb	1080	30000	34000	208/230	1	60	2.3	15	ALL
FCU-2-5B	DAIKIN	FXMQ30	DUCTED CONCEALED CEILING AIR CONDITIONER	2.5	2' - 4"	4' - 8"	1' - 0"	102.00 lb	1080	30000	34000	208/230	1	60	2.3	15	ALL
FCU-2-6	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-2-7	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-2-8	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6
FCU-2-9	DAIKIN	FMXQ72	DUCTED CONCEALED CEILING AIR CONDITIONER	6	3' - 8"	4' - 6"	1' - 6 1/2"	102.00 lb	2000	72000	81000	208/230	1	60	9.5	15	ALL
FCU-2-10	DAIKIN	FXSQ12	DUCTED CONCEALED CEILING AIR CONDITIONER	1	2' - 7 1/2"	0' - 9 5/8"	1' - 9 11/16"	55.00 lb	325	12000	13500	208/230	1	60	0.8	15	1,2,3,4,5,6

REMARKS:
1. PROVIDE DIGITAL WALL MOUNTED THERMOSTAT TO CONTROL UNIT. REFER TO PLANS FOR THERMOSTAT LOCATIONS. FCU-2-5A&B TO BE CONTROLLED FROM A SINGLE TSTAT.
2. PROVIDE ACCESS TO SERVICE UNIT. UNITS NOT TO BE LOCATED ABOVE COURTROOMS. PROVIDE ACCESS DOORS SIZED ACCORDING TO MANUFACTURER FOR UNITS ABOVE DRYWALL CEILING.
3. INTEGRATE CONTROL OF VRV INDOOR UNITS TO THE INTELLIGENT TOUCH MANAGER.
4. DUCTED UNITS SHALL BE HIGH STATIC MODEL.
5. REFER TO M600 FOR CONTROLS SEQUENCES OF OPERATION.
6. PROVIDE INLINE CONDENSATE PUMP INSIDE UNIT.
7. PROVIDE UNIT WITH FILTER HOUSING EQUAL TO CAMFIL FARR V-BANK GLIDE/PACK AT RETURN SIDE WITH TRANSITIONS AS REQUIRED.
   A. FCU-1-7, 2-4, 2-5A, 2-5B SHALL HAVE (2) 24X12 MERV 8 FILTERS - MODEL G/P VB 2X0.5
   B. FCU-1-10, 2-9 SHALL HAVE (2) 24X24 MERV 8 FILTERS. - MODEL G/P VB 2X1

VRV BRANCH SELECTOR UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	MAX. CAPACITY (PER PORT)	DIMENSIONS (IN.)			WEIGHT (LBS)	ASSOCIATED HEAT PUMP	NUMBER OF BRANCHES	VOLTAGE	PHASE	MCA	MOCP	REMARKS
				LENGTH	WIDTH	HEIGHT								
BS-1	DAIKIN	BS12QS4TVJ	54000	18.9"	32.3"	11.7"	105.8	CU-1	9	208-230V	1	1.2	15	ALL
BS-2	DAIKIN	BS8QS4TVJ	54000	18.9"	22.8"	11.7"	72.8	CU-1	6	208-230V	1	.8	15	ALL
BS-3	DAIKIN	BS8QS4TVJ	54000	18.9"	22.8"	11.7"	72.8	CU-2	6	208-230V	1	.8	15	ALL
BS-4	DAIKIN	BS8QS4TVJ	54000	18.9"	22.8"	11.7"	72.8	CU-2	7	208-230V	1	.8	15	ALL

REMARKS:
1. PROVIDE SINGLE POINT POWER CONNECTION.
2. REFER TO PIPING SCHEMATICS FOR ADDITIONAL INFORMATION.
3. CONTRACTOR SHALL COORDINATE TO ENSURE MANUFACTURER'S RECOMMENDED CLEARANCES ARE MAINTAINED.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL #	TYPE	AIRFLOW (CFM)	E.S.P.	DRIVE	RPM	FAN HP	ELECTRICAL DATA			REMARKS
									VOLTAGE	PHASE	HZ	
EF-1	GREENHECK	SBE-1H20	WALL MOUNTED	700	0.50	BELT	974	0.50	115 V	1	60	ALL
EF-2	GREENHECK	SQ-90-VG	INLINE	400	0.50	DIRECT	1642	0.17	208 V	1	60	ALL

REMARKS:
1. PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH, FAN HOUSING, AND MOTORIZED DAMPER WITH ACTUATOR..
2. REFER TO M600 FOR CONTROLS SEQUENCES OF OPERATION.

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	SIZE (WxH)	DEPTH (IN)	CFM	FREE AREA (SF)	VELOCITY (FPM)	MAX P.D. (IN W.C.)	REMARKS
L-1	RUSKIN	ELF6350MP	EF-1	24"X24"	6	700	1.75	800	.09	ALL
L-2	RUSKIN	ELF6350MP	INTAKE	36"x18"	6	700	2.25	680	.08	ALL
L-3	RUSKIN	ELF6350MP	EF-2	18"x12"	6	400	0.46	870	.095	ALL

REMARKS:
1. FREE AREA LISTED IS MINIMUM ACCEPTABLE. ALTERNATE LOUVER MANUFACTURERS SHALL MEET OR EXCEED AREA LISTED. NO EXCEPTIONS.
2. ALL LOUVERS SHALL BE EXTRUDED ALUMINUM WITH ANODIZED FINISH, CHANNEL FRAME WITH CONCEALED MULLIONS UNLESS NOTED OTHERWISE.
3. COLOR TO BE SELECTED BY ARCHITECT.
4. PROVIDE WITH BIRDSCREEN

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

MECHANICAL SCHEDULES

STATE OF OHIO — PAUL J. COYNE — E-80723 — REGISTERED PROFESSIONAL ENGINEER — 6/8/21

Comm. No.	Date
19651.00	2021/4/23
Drawn: HDB	Drawing No.: M700
Checked: PJC	

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Room #	Room Name	SQFT	Type of Room (OH M Code)	Air Distribution Configuration	EZ	People/1000 sqft	CFM/Person	CFM/SQFT	Minimum OA CFM	DESIGN OA CFM
101	Screening Vestibule	268	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	20.1	25
102	Lobby	2159	Reception areas	Ceiling supply of warm air less than 15°F above space temperature and ceiling return provided that the 150 feet per minute (fpm) supply air jet reaches to within 4.5 feet of floor level.	1	30	5	0.06	453.4	600
103	Clerks	1414	Office spaces	Ceiling supply of warm air less than 15°F above space temperature and ceiling return provided that the 150 feet per minute (fpm) supply air jet reaches to within 4.5 feet of floor level.	1	5	5	0.06	120.2	125
104	Corridor	356	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	26.7	30
105	Sub-lobby	157	Corridors (see public spaces)	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	11.8	15
106	Magistrate	123	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	13.1	15
107	Bailiff	91	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	9.7	10
108	Judges Chamber	241	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	25.6	30
109	Judges Chamber	242	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	25.7	30
110	Bailiff	91	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	9.7	10
111	Bailiff Office Mngr	124	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	13.2	15
112	Staff Work Zone	208	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	22.1	25
113	CD Clerk	108	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	11.5	15
114	Supervisory Project Mgr	108	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	11.5	15
115	ACD Clerk	108	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	11.5	15
116	Corridor	321	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	24.1	25
117	Record Storage	394	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	29.6	30
118	IT	119	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	8.9	10
119	Mechanical	130		Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0	0.0	20
120	Book Keeping	225	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	16.9	20
121	Court	2644	Courtrooms	Ceiling supply of warm air less than 15°F above space temperature and ceiling return provided that the 150 feet per minute (fpm) supply air jet reaches to within 4.5 feet of floor level.	1	70	5	0.06	1084.0	1100
124	CCO	174	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	18.5	20
125	CO	151	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	16.0	20
126	Restroom	70	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	5.3	10
127	Work Space	500	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	53.1	60
128	Victim	116	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	12.3	15
129	Waiting	114	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	12.1	15
130	Waiting Area	186	Reception areas	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	30	5	0.06	48.8	50
131	JFS	85	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	9.0	10
132	WFD	98	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	10.4	15
133	Restroom	72	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	5.4	10
134	Probation Staff	100	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	10.6	15
135	Men's Restroom	220	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	16.5	20
136	Women's Restroom	221	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	16.6	20
137	Corridor	232	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	17.4	20
138	Waiting Area	158	Reception areas	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	30	5	0.06	41.5	45
139	Security	112	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	11.9	15
140	Finger Print	45	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	4.8	5
141	Attorney Conference	97	Conference/meeting	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	50	5	0.06	37.6	40
142	Attorney Conference	97	Conference/meeting	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	50	5	0.06	37.6	40
143	Attorney Conference	97	Conference/meeting	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	50	5	0.06	37.6	40
144	Prosecutor	96	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	10.2	15
145	Prosecutor	102	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	10.8	15
146	Prosecutor	102	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	10.8	15
147	Jury Court	2133	Courtrooms	Ceiling supply of warm air less than 15°F above space temperature and ceiling return provided that the 150 feet per minute (fpm) supply air jet reaches to within 4.5 feet of floor level.	1	70	5	0.06	874.5	900
148	Staff	362	Corridors (see public spaces)	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	27.2	30
149	Sallyport	509		Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0	0.0	0
150	Restroom	54	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	4.1	5
151	Temp Holding Cell	88	Cells w/ plumbing fixtures	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	25	5	0.12	27.0	30
152	Temp Holding Cell	91	Cells w/ plumbing fixtures	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	25	5	0.12	27.9	30
153	Temp Holding Cell	91	Cells w/ plumbing fixtures	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	25	5	0.12	27.9	30
154	Temp Holding Cell	91	Cells w/ plumbing fixtures	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	25	5	0.12	27.9	30
155	Vestibule	91	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	6.8	10
156	Corridor	307	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	23.0	25
157	Jury Deliberation/Police	401	Conference/meeting	Ceiling supply of warm air less than 15°F above space temperature and ceiling return provided that the 150 feet per minute (fpm) supply air jet reaches to within 4.5 feet of floor level.	1	50	5	0.06	124.3	125
158	Mechanical	365		Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0	0.0	0
159	Restroom	146	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	11.0	15
160	Restroom	68	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	5.1	10
161	Lactation/STR	62	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	6.6	10
162	Break Area	132	Break rooms (Office)	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	25	5	0.06	30.5	35
163	Kitchen	130	Break rooms (Office)	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	25	5	0.06	30.1	35
164	Vestibule	50	Corridors	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	0	0	0.06	3.8	5
165	Office	143	Office spaces	Ceiling supply of warm air 15 deg F above space temperature and ceiling return	0.8	5	5	0.06	15.2	20
									Total	4055.0

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
TROTWOOD, OH 45426

VENTILATION CALCS

STATE OF OHIO · PAUL J. COYNE · E-80723 · REGISTERED · PROFESSIONAL ENGINEER · 6/21/21

Comm. No.	Date
19651.00	2021/4/23
Drawn: HDB	Drawing No.: M800
Checked: PJC	

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ELECTRICAL GENERAL NOTES:

A. EACH CONTRACTOR, PROPOSER, SUPPLIER AND/OR MANUFACTURER SHALL REFER TO ALL DOCUMENTS PERTAINING TO THIS PROJECT AND COORDINATE ACCORDINGLY SO AS TO ENSURE ADEQUACY OF FIT, COMPLIANCE WITH SPECIFICATIONS, PROPER VOLTAGE AND CURRENT CHARACTERISTICS TO AVOID CONFLICT WITH ANY OTHER BUILDINGS SYSTEMS. VERIFY SAME WITH SHOP DRAWINGS.
B. ADDITIONAL ELECTRICAL REQUIREMENTS MAY BE SHOWN ON PLANS FROM OTHER DISCIPLINES IN THIS SET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL PLANS AND SPECIFICATIONS FOR A COMPLETE UNDERSTANDING OF THE PROJECT REQUIREMENTS.
C. WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ALL LOCAL, STATE, AND NATIONAL CODES. INCLUDING BUT NOT LIMITED TO NFPA 70 (NEC), NFPA 72, INTERNATIONAL BUILDING CODES, ETC.
D. CONTRACTOR SHALL FOLLOW SEISMIC RESTRAINT AND DESIGN REQUIREMENTS CONTAINED IN LATEST ADOPTED STATE AND INTERNATIONAL BUILDING CODES, WITH ALL AMENDMENTS AS ADOPTED BY THE CURRENT LEGISLATION. REFER TO ELECTRICAL AND STRUCTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
E. ALL OFFSETS, TURNS, FITTINGS, TRIM, DETAIL, ETC. MAY NOT BE INDICATED, BUT SHALL BE PROVIDED AS REQUIRED. ADDITIONAL ALLOWANCES SHALL BE INCLUDED FOR SAME AT EACH PROPOSER'S DISCRETION.
F. INSTALL NO PIPING, CONDUIT, DUCTWORK, ETC. IN A LOCATION OR IN A MANNER WHICH WILL ALLOW FREEZING OR THE COLLECTION OF CONDENSATION THEREON. IF IN DOUBT, CONTACT THE ENGINEER.
G. ADVISE THE ENGINEER OF ANY CONFLICTS, ERRORS, OMISSIONS, ETC. AT LEAST TEN DAYS PRIOR TO BID DATE, TO ALLOW CLARIFICATION BY WRITTEN ADDENDUM.
H. WHERE CONFLICTS ARE FOUND BETWEEN DRAWINGS, DETAILS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY. NOTIFY ARCHITECT OF DISCREPANCY IN WRITING.
I. DEVIATION FROM SPECIFICATIONS OR PLANS REQUIRES PRIOR WRITTEN APPROVAL FROM THE ENGINEERS AND MUST BE SUBMITTED IN WRITING NO LATER THAN TEN DAYS PRIOR TO THE BID DATE.
J. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, STATE, FEDERAL, MUNICIPALITY, UTILITY COMPANY, OSHA, ETC.).
K. MOUNTING HEIGHTS FOR WALL MOUNTED DEVICES INDICATED ABOVE FINISHED FLOOR ARE TO CENTER OF DEVICE UNO. MOUNTING HEIGHTS TO CEILING SUSPENDED DEVICES ARE TO BOTTOM OF DEVICE UNO.
L. INSTALL EQUIPMENT, MATERIALS, ETC. IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND DIRECTIONS. IF IN CONFLICT WITH THE DESIGN INDICATED IN CONTRACT DOCUMENTS, ADVISE THE ENGINEER PRIOR TO INSTALLATION FOR CLARIFICATION.
M. DO NOT RECESS PANELBOARD TUBS OR OTHER FLUSH-MOUNTED EQUIPMENT IN WALLS THAT HAVE A FIRE RATING. NO INSTALLATION SHALL DIMINISH OR VOID FIRE RESISTIVE RATINGS IN ANYWAY.
N. THE PURPOSE AND INTENT OF ALL OF THE DOCUMENTS PERTAINING TO THIS PROJECT IS TO PROVIDE A COMPLETE, FUNCTIONAL, SAFE, LIKE-NEW FACILITY. ANYTHING LESS SHALL BE UNACCEPTABLE.
O. ALL SYSTEMS, EQUIPMENT AND MATERIALS ARE TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. WORK NOT MEETING THIS CRITERION SHALL BE REMOVED AND REINSTALLED SATISFACTORILY. FINAL DETERMINATION OF THE ACCEPTABILITY OF THE QUALITY OF WORK RESIDES WITH THE ENGINEER
P. ALL WORK, MATERIALS, EQUIPMENT, ETC. SHALL BE FULLY GUARANTEED FOR ONE FULL CALENDAR YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AS DOCUMENTED BY THE ENGINEER, UNLESS LONGER WARRANTY PERIODS FOR EQUIPMENT ARE SPECIFIED.
Q. UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL EQUIPMENT AND/OR MATERIALS WITHIN OCCUPIED SPACES OR EXPOSED TO VIEW ON THE BUILDING EXTERIOR SHALL BE PRIMED AND FINISHED SO AS TO COMPLEMENT ADJACENT SURFACE, UNLESS OTHERWISE NOTED. COORDINATE WORK AND COLORS WITH ARCHITECT
R. WHERE PENETRATING ROOFING MEMBRANE OR OTHER MATERIALS USED FOR WEATHERPROOFING THE BUILDING, MAKE SUCH PENETRATION IN A WAY THAT WILL NOT VOID OR DIMINISH THE ROOFING WARRANTY OR INTEGRITY IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING MANUFACTURER AND ARCHITECT.
S. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COMPANY FEES, CASH CONTRIBUTIONS OR OTHER COSTS THAT THE UTILITY COMPANY MAY REQUIRE TO COMPLETE THEIR WORK. (ELECTRIC, TELEPHONE, TELEVISION, DATA, ETC.).
T. COORDINATE WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND CASEWORK DETAILS FOR LOCATION OF ADDITIONAL RECEPTACLES, UTILITY OUTLETS, ELECTRICAL DEVICES, ETC.
U. CEILING-MOUNTED ELECTRICAL DEVICES SHALL BE CENTERED IN 2'X2' CEILING TILE AND INSTALLED CENTERED ON 2' DIMENSION OF 2'X4' TILE AND ON CENTERLINE OR A QUARTER POINT ON 4' DIMENSION.
V. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTORS' EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL BE THAT OF THE ENGINEER.
W. CHECK ALL THREE PHASE MOTORS WITH A PHASE ROTATION METER, PRIOR TO PLACING IN SERVICE.
X. PROVIDE DETAILED SHOP DRAWINGS FOR ENGINEER PRIOR TO PURCHASING OR INSTALLING ANY EQUIPMENT
Y. DEVIATIONS IN SIZES, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT PRIME SPECIFIED SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEER OR NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER.
Z. THE CONSTRUCTION MANAGER, GENERAL CONTRACTOR, OR WHOMEVER HOLDS THE PRIME CONTRACT(S) FOR THIS CONSTRUCTION IS RESPONSIBLE FOR THE COORDINATION, APPEARANCE, SCHEDULING AND TIMELINESS OF THE WORK OF ALL TRADES, CONTRACTORS, SUPPLIERS, INSTALLERS, ETC. POOR OR UNTIMELY WORK ON THE PART OF ANY SUBCONTRACTOR SHALL BE RESOLVED BY THE PARTY WHO ENGAGED THEM IN THIS PROJECT.
AA. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEER BEFORE AFFECTING INSTALLATION. REFER ALSO TO ARCHITECTURAL INTERIOR AND EXTERIOR ELEVATIONS, CEILING HEIGHTS AND OTHER DETAILS OF THESE DOCUMENTS, AS APPLICABLE.
BB. WHERE FIRE-RATED CEILING ASSEMBLIES ARE NOTED, PROVIDE UL-LISTED FIRE-RATED GYPSUM BOARD OR PRE-MANUFACTURED ENCLOSURES ABOVE LUMINAIRES, CEILING DEVICES, ETC. IN OR ON CEILING, AS REQUIRED TO MAINTAIN CEILING RATINGS.
CC. COORDINATE THE LOCATION OF DRAINS, ELECTRICAL OUTLETS, GAS OUTLETS, ETC. WITH ALL CASEWORK, KITCHEN EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC. PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE RESPONSIBLE CONTRACTOR(S).
DD. ALL ELECTRICAL COMPONENTS OR EQUIPMENT SHALL BE LISTED AND LABELED BY UNDERWRITER'S LABORATORIES OR OTHER APPROVED LISTING AGENCY. APPROVAL AND LABELING OF INDIVIDUAL COMPONENTS ON AN ASSEMBLY IS NOT ACCEPTABLE AS MEETING THIS REQUIREMENT, UNLESS WAIVED BY THE ENGINEER IN WRITING.
EE. ALL WIRING SYSTEMS SHALL BE INSTALLED WITH A MINIMUM OF SPLICES. CONDUCTORS, WHETHER SINGLE OR MULTI-PAIR, SHALL BE INSTALLED CONTINUOUS INSOFAR AS POSSIBLE FROM TERMINAL POINT TO TERMINAL POINT.
FF. NO CONDUIT, SUPPORTS, ETC. SHALL BE RUN THROUGH ACCESS CLEARANCES OF EQUIPMENT BY OTHER TRADES (I.E. VAV BOXES). COORDINATE WITH ALL TRADES PRIOR TO CONSTRUCTION.
GG. ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE OR SUB-SERVICE FOR SAFETY PURPOSES. PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC. OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARD AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
HH. ALL SUPPORTS FOR EQUIPMENT, DEVICES OR FIXTURES SHALL BE UNIQUE, DIRECTLY FROM THE BUILDING STRUCTURE. DO NOT SUPPORT WORK FROM OTHER TRADES EQUIPMENT OR SUPPORTS WITHOUT WRITTEN PERMISSION FROM THE ENGINEER AND CONSENT OF THE OTHER TRADE, IN WRITING.
II. WHERE INTERRUPTING AN EXISTING UTILITY OR SERVICE DELIBERATELY OR ACCIDENTALLY, THE RESPONSIBLE CONTRACTOR SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME, PROVIDING PREMIUM TIME AS NEEDED.
JJ. REFER TO ARCHITECTURAL WALL ELEVATIONS (WHERE GIVEN) FOR HEIGHTS AND MOUNTING RELATIONSHIP OF OUTLETS AND EQUIPMENT. IF IN DOUBT, CONTACT ENGINEER FOR DIRECTION PRIOR TO ROUGH IN.
KK. FLUSH OR PEDESTAL TYPE FLOOR OUTLETS/BOXES, AS INDICATED ON PLAN, SHALL BE LOCATED BY DIMENSIONS PROVIDED BY THE ARCHITECT, UNLESS OTHERWISE SHOWN ON PLANS. IF IN DOUBT, CONTACT THE ENGINEER PRIOR TO ROUGHING-IN ANY WORK.
LL. AS APPLICABLE, REFER TO ARCHITECTURAL PHASING PLANS AND PHASING BOUNDARIES ON THESE DRAWINGS FOR SEQUENCING OF WORK, FULL EXTENT OF AREAS INVOLVED, EXTENT OF CEILING WORK, ETC. PROVIDE TEMPORARY CONNECTIONS FOR CIRCUITS AND WORK AS REQUIRED TO MAINTAIN SEQUENCE OF THE WORK FROM PHASE TO PHASE.
MM. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR HIS WORK. ALL CUTTING AND PATCHING SHALL BE IN ACCORDANCE WITH THE ARCHITECT'S STANDARDS FOR SUCH WORK.
NN. ALL WORK SHALL BE CONCEALED UNLESS SPECIFICALLY INDICATED TO BE EXPOSED, OR REQUIRED TO BE EXPOSED. IF IN DOUBT, CONTACT THE ENGINEER FOR CLARIFICATIONS PRIOR TO INSTALLING ANY SUCH WORK.
OO. INTERRUPTION OF ANY EXISTING SERVICES SHALL BE COORDINATED WITH THE OWNER, GENERAL CONTRACTOR, UTILITY COMPANY AS NECESSARY, AND THE ARCHITECT, AT LEAST TWO WEEKS IN ADVANCE OF ANTICIPATED INTERRUPTION. A SCHEDULE FOR THESE OUTAGES SHALL BE DEVELOPED AND AGREED UPON BETWEEN THE PARTIES MENTIONED TO AVOID UNNECESSARY INCONVENIENCE TO THE OWNER OR ANY AFFECTED PARTY. NOTIFY THE UTILITY COMPANY OF ANY ANTICIPATED SERVICES REQUIRED TWO WEEKS IN ADVANCE, IN WRITNG. IF UTILITY COMPANY REQUIRES A LONGER NOTIFICATION PERIOD, SO PROVIDE.
PP. WHERE BACKBOXES ARE LOCATED IN THE SAME VERTICAL CHANNEL/STUD SPACE ON OPPOSITE SIDES OF THE SAME WALL, PROVIDE SOUND-INSULATING PUTTY AROUND BOXES AS REQUIRED TO ELIMINATE SOUND TRANSMISSION FROM ROOM TO ROOM.
QQ. JUNCTION BOXES LOCATED ABOVE ACCESSIBLE CEILINGS SHALL BE LOCATED NO MORE THAN 36" ABOVE CEILING LEVEL. LABEL EACH BOX IN AREA OF WORK WITH A PERMANENT MARKER OR IN ACCORDANCE WITH SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
RR. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODES, NATIONAL FIRE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION, THE REQUIREMENTS OF LOCAL UTILITY COMPANIES, AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AGENCIES OR DEPARTMENTS HAVING JURISDICTION. IF ANY CONFLICTS OR DISCREPANCIES OCCUR THE MOST STRINGENT SHALL APPLY.
SS. DO NOT SCALE FROM DRAWINGS, AS PRINTING DISTORTS SCALE. WORK SHALL BE LAID OUT FROM DIMENSIONED DRAWINGS, OR DIMENSIONS SUPPLIED TO THE CONTRACTOR.
TT. NOISY WORK, WORK OUTSIDE CONSTRUCTION BARRIERS, WORK IN OCCUPIED AREAS, ETC. SHALL BE PERFORMED AFTER HOURS OR ON WEEKENDS. COORDINATE EXACT SCHEDULING WITH FACILITY PRIOR TO CONSTRUCTION.
UU. ALL ITEMS HAVING KEYED LOCKS/OPERATORS SHALL HAVE CORED LOCKS/OPERATORS. ALL KEYING SHALL MATCH THE OWNER'S EXISTING KEY-WAYS. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO CONSTRUCTION.
VV. REFER TO ARCHITECTURAL PLANS FOR PHASING REQUIREMENTS. WORK SHALL BE COMPLETED IN PHASES PER THE PHASING PLAN AND AS COORDINATED WITH OWNER AND GENERAL CONTRACTOR. PROVIDE ALL REQUIRED INCREMENTAL INSPECTIONS, CERTIFICATIONS, ETC. AND ALL TEMPORARY SERVICES AS REQUIRED BY OWNER TO ACCOMPLISH THE PHASING PLAN.

DESCRIPTION	MOUNTING HEIGHT (TO CENTER OF BOX)	DRAWING SYMBOL
LIGHTING CONTROL SWITCHES		
LIGHT SWITCH: LOW VOLTAGE	46"	$
LOW VOLTAGE DIMMER SWITCH	46"	$D
LINE VOLTAGE SWITCH	46"	$LV
LINE VOLTAGE THREE-WAY SWITCH	46"	$LV3
LINE VOLTAGE FOUR-WAY SWITCH	46"	$LV4
OCCUPANCY OR VACANCY SENSOR SWITCH	46"	$OS ,$VS
LIGHT SWITCH FOR UNDER-CABINET LIGHTS	46"	$U
OCCUPANCY OR VACANCY SENSOR, CEILING MOUNT	CLG	OS, VS
PHOTO-CELL AS NOTED	AS NOTED	PC
EMERGENCY AUTOMATIC TRANSFER SWITCH FOR LIGHTING CONTROLS (REFER TO DETAIL)	CLG	ER
LIGHTING SEQUENCE OF OPERATIONS SYMBOL		#
POWER OUTLETS		
SIMPLEX RECEPTACLE	1'-6"	
DUPLEX RECEPTACLE-SAFETY TYPE, TAMPER-RESISTANT	1'-6"	S
DUPLEX RECEPTACLE	1'-6"	
SLASH THROUGH ANY DEVICE INDICATES MOUNTING ABOVE COUNTERTOP 4" ABOVE BACKSPLASH		,
FILLED CENTER BAR INDICATES INTEGRAL GROUND FAULT PROTECTION (GFCI)	1'-6"	
FILLED OUTER BARS INDICATES INTEGRAL INTEGRAL USB OUTLETS IN ADDITION TO POWER RECEPTACLES	1'-6"	
QUADRUPLEX RECEPTACLE	1'-6"	
JUNCTION BOX, CEILING OR WALL		J
GROUND FAULT PROTECTED DUPLEX WITH WEATHER-PROOF "WHILE IN USE" TYPE DIE-CAST METAL COVERPLATE WITH LOCKABLE ENCLOSURE AT OUTLET - SEE SPECIFICATIONS	2'-2"	WP
FIRE ALARM		
MAIN CONTROL PANEL CENTRAL PROCESSING UNIT (CPU)	6'-6" TO TOP	FACP
REMOTE L.C.D. FIRE ALARM ANNUNCIATOR	54"	FAA
REMOTE FIRE ALARM ANNUNCIATOR W/ MICROPHONE	54"	FAAM
PULL STATION : DOUBLE ACTION	46" TO LEVER	F
KEYED, LOCKED PULL STATION : DOUBLE ACTION. STATION SHALL ONLY BE OPERABLE VIA KEY IN POSSESSION OF STAFF.	46" TO LEVER	F K
SPEAKER/STROBE NOTIFICATION APPLIANCE, UNO	WALL, CLG	F, F
SPEAKER NOTIFICATION APPLIANCE, UNO	WALL, CLG	A, A
STROBE NOTIFICATION APPLIANCE, UNO	WALL, CLG	V, V
PHOTO-ELECTRIC SMOKE DETECTOR	CLG	SD
DUCT SMOKE DETECTOR	ABV CLG	DD
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE		FS
CONNECTION TO SPRINKLER FLOW TAMPER WITH ADDRESSABLE MODULE		TS
ADDRESSABLE RELAY MODULE		R
H.V.A.C SMOKE DAMPER CONNECTION		SM
FIREMAN'S KNOX BOX CONNECTION		KB
DOOR HOLDER : WALL TYPE	WALL	DH
DOOR HOLDER : CLOSURE TYPE	ABV DOOR	DH C

DESCRIPTION	MOUNTING HEIGHT (TO CENTER OF BOX)	DRAWING SYMBOL
LIGHTING		
REFER TO LUMINAIRE SCHEDULE FOR EXACT FIXTURE SPECIFICATIONS, MOUNTING HEIGHTS, ETC.		
SURFACE OR SUSPENDED CEILING FIXTURE (SLASH INDICATES RECESSED)		
POLE MOUNTED AREA LIGHT		
EMERGENCY BATTERY WALL-PACK		
WALL MOUNT FIXTURE		
EXIT LIGHT (CEILING, END, WALL MOUNT)		
STRIP FIXTURE		
CROSS-HATCHING INDICATES LIGHT IS POWERED FROM THE EMERGENCY-CRITICAL BRANCH		
SOLID-HATCHING INDICATES LIGHT IS POWERED FROM THE EMERGENCY-LIFE SAFETY BRANCH		
MISCELLANEOUS		
CONDUIT CONCEALED IN WALLS OR IN CEILING SPACE: ARROW(S) INDICATE(S) HOME RUN & # OF CIRCUITS: HASHMARKS INDICATE # OF CONDUCTORS. DASHED LINE INDICATES CONDUIT BELOW FLOOR.		GROUND NEUTRAL PHASE
DISCONNECT SWITCH	5'-0"	
VARIABLE FREQUENCY DRIVE	5'-0"	
BOX ON ANY DEVICE INDICATES SURFACE MOUNTED BACKBOX/WIREMOLD		
CIRCLE ON ANY DEVICE INDICATES DEVICE FED FROM STUB UP CONDUIT		
PUSHBUTTON STATION	46"	
FLEXIBLE CONDUIT		
PANELBOARD, SURFACE OR FLUSH MOUNTED, HATCHING INDICATES EMERGENCY	6'-6" TO TOP	
TRANSFORMER	AS NOTED	
EQUIPMENT TAG, REFER TO EQUIPMENT SCHEDULE		EQUIP-1
TAGGED NOTE		
REVISION TAG		
MECHANICAL EQUIPMENT DESIGNATOR (SEE MECH. SCHEDULES)		
EQUIPMENT HARDWIRE CONNECTION (SEE DETAIL)		
MOTOR CONNECTION, REFER TO EQUIPMENT CONNECTION SCHEDULE		K
KITCHEN EQUIPMENT OUTLET COUPLING CONNECTION (SEE DETAIL)		
WIREGUARD - PROVIDE MANUFACTURER'S SPECIFIC GUARD FOR DEVICE NOTED		WG
WEATHERPROOF - NEMA-3R, WET LOCATION LISTED. PROVIDE COVERS, RATINGS, ETC, AS SUITABLE FOR OUTDOORS.		WP
CONDUIT UP		
CONDUIT DOWN		

DESCRIPTION	MOUNTING HEIGHT (TO CENTER OF BOX)	DRAWING SYMBOL
ABBREVIATIONS		
UNLESS OTHERWISE NOTED		UON
OWNER FURNISHED CONTRACTOR INSTALLED		OFCI
OWNER FURNISHED OWNER INSTALLED		OFOI
CONTRACTOR FURNISHED CONTRACTOR INSTALLED		CFCI
CONTRACTOR FURNISHED OWNER INSTALLED		CFOI
INDICATES EMERGENCY POWER		E, EM
SPECIAL OUTLETS		
FLOORBOX, POWER ONLY, AS SCHEDULED	FLOOR	
FLOORBOX, POWER AND DATA, AS SCHEDULED	FLOOR	
AUDIO/VISUAL SYSTEM OUTLET WITH DUPLEX RECEPTACLE, REFER TO ASSOCIATED DETAIL FOR ADDITIONAL INFORMATION	1'-6"	AV
COMBINATION POWER AND DATA OUTLET LOCATION, REFER TO ASSOCIATED DETAIL FOR ADDITIONAL INFORMATION	1'-6"	
COMBINATION POWER AND DATA OUTLET LOCATION, GFCI DUPLEX RECEPTACLE, REFER TO ASSOCIATED DETAIL FOR ADDITIONAL INFORMATION	1'-6"	
OVERHEAD PROJECTOR: PROVIDE DUPLEX RECEPTACLE, ONE DATA, HDMI, 3.5mm AUDIO, AND VGA OUTLET ON (3) PLATES	CLG	
OVERHEAD PAGING		
PAGING SPEAKER: CEILING (ROUGH IN ONLY)	CLG	R, S
PAGING SPEAKER: CEILING, SUBSCRIPT INDICATES ZONE	CLG	S, Z, X
PAGING SPEAKER W/ VOLUME CONTROL	CLG	SV
PAGING SPEAKER: WALL	8'-0"	S
CALL INITIATION STATION	46"	C
WALL VOLUME CONTROL	46"	V
PAGING MICROPHONE	1'-6"	M
PAGING SYSTEM AMPLIFIER/TUNER CABINET	46"	PA
PANEL FURNITURE		
PANEL FURNITURE DUPLEX RECEPTACLE. PROVIDE ALL WIRING AS REQUIRED, COORDINATE EXACT INSTALLATION REQUIREMENTS AND LOCATIONS WITH OWNER'S PANEL FURNITURE VENDOR		
PANEL FURNITURE DATA/VOICE OUTLET. PROVIDE ALL WIRING AS REQUIRED, COORDINATE EXACT INSTALLATION REQUIREMENTS AND LOCATIONS WITH OWNER'S PANEL FURNITURE VENDOR		
POWER CONNECTION TO PANEL FURNITURE, PROVIDE SEAL-TIGHT CONDUIT CONNECTION FROM RECESSED WALL BOX TO PANEL FURNITURE. PROVIDE FINAL CONNECTIONS TO PANEL FURNITURE AS REQUIRED BY PANEL FURNITURE VENDOR.	1'-6"	FP
COMBINATION POWER AND LOW-VOLTAGE CONNECTION TO PANEL FURNITURE, PROVIDE SEAL-TIGHT CONDUIT CONNECTION FROM RECESSED WALL BOX TO PANEL FURNITURE, PROVIDE FINAL CONNECTIONS TO PANEL FURNITURE AS REQUIRED BY PANEL FURNITURE VENDOR	1'-6"	FF

DESCRIPTION	MOUNTING HEIGHT (TO CENTER OF BOX)	DRAWING SYMBOL
SECURITY PANIC ALARM		
PANIC ALARM BUTTON	46"	PB
PANIC ALARM ANNUNCIATOR	46"	PA
AMBER STROBE	80"	AS
PANIC ALARM POWER SUPPLY CABINET	46"	SEC-P
SECURITY INTERCOM		
AUDIO/VIDEO INTERCOM STATION: MASTER WITH SELECTIVE DOOR CONTROLS, POWER SUPPLIES & DOOR RELAY CONTACTS AS REQUIRED FOR OPERATION OF ANY DOOR IN THE SYSTEM AND VIEWING OF ANY AUDIO/VIDEO INTERCOM REMOTE ON THE SYSTEM. AIPHONE#AX-MV W/DESK STAND - COLOR BY ARCHITECT.	46"	IM
AUDIO/VIDEO INTERCOM STATION: REMOTE WITH FLUSH-MTD S.S. ENCLOSURE. AIPHONE #AX-DVF.	46"	IR
SECURITY ACCESS CONTROL		
DOOR ALARM/POSITION SWITCH	DOOR FRAME	DA
MAGNETIC LOCK(S)	ABV DOOR	ML
DOOR POWER SUPPLY	ABV CLG	DS
DOOR DELAYED EGRESS/ELECTRIFIED PANIC MECHANISM	ABV DOOR	DP
ELECTRIC STRIKE	AT LATCH	ES
AUTOMATIC DOOR CONNECTION (MAY ALSO HAVE ELECTRIC STRIKE/MAG-LOCK/ELECTRIFIED PANIC CONNECTION - SEE ARCHITECTURAL HARDWARE SPECIFICATIONS)	CLG	AD
DOOR RELEASE PUSH-PLATE / INFRA-RED OPERATOR STATION. PROVIDE ANY ADDITIONAL ROUGH-IN FOR "EMERGENCY RELEASE" OPERATOR STATIONS AS REQUIRED.	46"	PP
DOOR RELEASE KEYSWITCH STATION	6'-0"	KS
DOOR RELEASE KEYPAD STATION	46"	KP
DOOR RELEASE CARD READER STATION. PROVIDE ANY ADDITIONAL ROUGH-IN FOR "EMERGENCY RELEASE" OPERATOR STATIONS AS REQUIRED.	46"	CR
SAME AS "CR" EXCEPT MULLION MOUNT	46"	CR M
MOTION SENSOR DOOR CONTROL	CEIL.	MS
PUSH-TO-EXIT BUTTON	46"	PE
ACCESS CONTROL POWER SUPPLIES/CONTROL PANEL	46"	SEC-A
SECURITY CCTV VIDEO SURVEILLANCE		
REMOTE DOOR RELEASE PUSH-BUTTON	8" ACT	RR
CCTV CAMERA: CEILING MOUNT DOME	CLG	CC
CCTV CAMERA: WALL MOUNT DOME	WALL	CC
INDICATES EXTERIOR CAMERA RATED FOR CONDITIONS, WET LOCATION LISTED, WITH AUXILLARY HEATER		WP
INDICATES CAMERA WITH PAN/TILT/ZOOM FUNCTION		PTZ
CCTV POWER SUPPLIES/CONTROL PANEL	46"	SEC-C
SECURITY INTRUSION DETECTION		
MOTION DETECTOR	CLG	MD
MOTION DETECTOR KEYPAD CONTROLLER	46"	MK
SECURITY SYSTEM HEAD END	46"	SEC-M
DATA / VOICE		
DATA OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA JACKS	1'-6"	#D
VOICE OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF VOICE JACKS	1'-6"	#V
COMBINATION OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS	1'-6"	#D/#V
SLASH THROUGH ANY DEVICE INDICATES MOUNTING ABOVE COUNTERTOP 4" ABOVE BACKSPLASH		#D, #V, #D/#V

SYSTEM RESPONSIBILITY MATRIX — SYSTEM	ITEM USED ON PROJECT	DEVICES - OFOI	DEVICES - CFCI	CABLING/CONDUCTORS - OFOI	CABLING/CONDUCTORS - CFCI	SYSTEM SYMBOL
OVERHEAD PAGING	●	●		●		◇
FIRE ALARM	●		●		●	□
SECURITY: PANIC ALARM	●	●		●		⬡
SECURITY: ACCESS CONTROL	●	●		●		⬡
SECURITY: INTERCOM*	●	●		●		⬡
SECURITY: CCTV	●	●		●		⬡
DATA PROCESSING	●	●		●		▽
TELEPHONE	●	●		●		▼
LOCAL SOUND	●	●		●		○
SECURITY INTRUSION DETECTION	●	●		●		◇

* PA SYSTEM SPEAKERS SHOWN IN PUBLIC AREA WITH ZONE INDICATED ARE TO BE PROVIDED COMPLETE WITH ROUGH-IN, CABLING, AND SPEAKERS AS INDICATED ON FLOOR PLANS AND SHEET E500.

SYSTEM RESPONSIBILITY GENERAL NOTES:

A. REFER TO VENDOR DRAWINGS FOR COMPLETE SCOPE OF WORK RELATING TO VENDOR-FURNISHED EQUIPMENT. ALL WORK INDICATED ON VENDOR DRAWINGS SHALL BE INCLUDED BY THE CONTRACTOR.
B. REFER TO ARCHITECTURAL DOOR HARDWARE SPECIFICATIONS FOR ACCESS CONTROL DEVICE SPECIFICATIONS AND FURTHER REQUIREMENTS.
C. PROVIDE BACKBOXES AND CONDUIT WITH PULL-STRINGS FOR ALL SYSTEMS. CONTRACTOR SHALL VERIFY BACKBOX SIZES, CONDUIT, ETC. AND EXACT INSTALLATION LOCATIONS/REQUIREMENTS WITH SUCCESSFUL VENDORS OF ALL SYSTEMS PRIOR TO CONSTRUCTION.
D. AT ALL SYSTEMS EQUIPMENT CABINET/TERMINAL BOARD LOCATIONS, CONTRACTOR SHALL PROVIDE SIZE AND NUMBER OF CONDUIT STUB-OUTS TO CABLE PATHS AS REQUIRED BY SYSTEM VENDORS, TERMINATE CONDUITS AT CABINETS/ON BACKBOARDS AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH APPROPRIATE VENDORS PRIOR TO CONSTRUCTION.
E. REFER TO SPECIFICATIONS FOR REQUIREMENTS APPLICABLE TO ALL SYSTEMS INCLUDING CABLING, CABLE MANAGEMENT, INSTALLATION, GROUNDING, TESTING, LABELING, ETC.
F. WHERE INDICATED AS CFCI, THE CONTRACTOR SHALL PROVIDE THE SYSTEM COMPLETE, INCLUDING ALL ROUGH-INS, CABLING, DEVICES, POWER, ETC. THE CONTRACTOR SHALL CONTACT THE LISTED VENDOR FOR PRICING PRIOR TO BID. ALL SYSTEMS SHALL MATCH EXISTING FACILITY STANDARDS AND BE FULLY COMPATIBLE WITH ANY EXISTING SYSTEMS. ALL SYSTEM VENDORS SHALL COORDINATE EXACT SYSTEM REQUIREMENTS WITH OWNER PRIOR TO BID. NEW COMPONENTS SHALL BE INTERCONNECTED WITH EXISTING SYSTEMS WHERE POSSIBLE. ALL NEW SYSTEM DESIGNS AND PROGRAMMING SHALL BE COORDINATED WITH THE OWNER PRIOR TO ORDERING. ALL PROGRAMMING SHALL BE INCLUDED AS REQUIRED BY THE OWNER. PROVIDE 4 HOURS OF TRAINING FOR EACH SYSTEM.

Sheet List - Electrical

SHEET #	SHEET NAME
E001	ELECTRICAL LEGEND & DRAWING INDEX
E002	LIGHTING FIXTURE SCHEDULE AND DETAILS
E003	DETAILS
E004	DETAILS
EU101	ELECTRICAL SITE PLAN
EU102	SITE UTILITY ELECTRICAL DETAILS
E101	FLOOR PLAN LIGHTING
E201	FLOOR PLAN POWER
E301	FLOOR PLAN SYSTEMS
E400	ELECTRICAL SINGLELINE DIAGRAM AND PANEL SCHEDULES

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04

ELEC - LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	BASIS OF DESIGN	EQUAL MANUFACTURERS	MOUNTING	LAMPS / CCT	MINIMUM LUMENS	MAXIMUM WATTAGE	VOLTAGE	REMARKS
CS1	SURFACE MOUNT 1'X4' CORRECTIONAL GRADE	KENALL #SSA-4-4-45L35K-DCC-120-SYM/9-1	CERTOLUX, LCD, NEW STAR (33LN4)	CEILING SURFACE	3500K	4,938	46	120	
CV1	6" RECESSED COVE LIGHT	LITE CONTROL #6L-WS4-DW-D-XX-SOF-C1-35K-D045-NDM-1C-UNV	LITHONIA, PINNACLE, FOCAL POINT, FINELITE	CEILING RECESSED	3500K	450 LM PER FOOT		120	
CV2	RECESSED COVE	VODE #707-Z9-SL-XX-XX-ZZ-0-IP-AT-1-0-Z-SO-35-C1-0-AL-0	LITE CONTROL (15L), FINELITE	CEILING RECESSED COVE	3500K	861 LM PER FOOT	26	120	
D1	4" RECESSED CAN LIGHT FIXTURE	PRESCOLITE #LTR-4RD-H-SL10L-DM1-LTR-4RD-T-SL35KIMD-SS-WT	LITHONIA, LIGHTOLIER	CEILING RECESSED	3500K	1,055	13	120	
D2	4" RECESSED CAN LIGHT FIXTURE	PRESCOLITE #LTR-4RD-H-SL15L-DM1-LTR-4RD-T-SL35K8MD-SS-WT	LITHONIA, LIGHTOLIER	CEILING RECESSED	3500K	1,390	16	120	
D3	6" RECESSED CAN LIGHT FIXTURE	PRESCOLITE #LTR-6RD-H-SL15L-DM1-LTR-6RD-T-SL35K8MD-SS-WT	LITHONIA, LIGHTOLIER	CEILING RECESSED	3500K	1,451	16	120	
D4	6" RECESSED CAN LIGHT FIXTURE	PRESCOLITE #LF6SL-DM1-6LFSL15L35K8IP65WT	LITHONIA, LIGHTOLIER, GOTHAM	CEILING RECESSED	3500K	1,360	16	120	
D5	2" RECESSED CAN LIGHT FIXTURE	PRESCOLITE #D2LEDEDM-2D9LED9L35K8WFL45WT	LITHONIA, LIGHTOLIER, GOTHAM	CEILING RECESSED	3500K	824	13	120	
FL1	3" GROUND MOUNTED SIGN LIGHT	HYDREL #PALM-A-P1-80CRI-40K-MVOLT-55DEG-FLC-KM-C3-BL	HUBBELL, HADCO	GROUND	4000K	1,465	18	120	
FL2	FLAG POLE UPLIGHT	WE-EF #FCL131-665-3121	LIGMAN, HYDREL	GROUND	4000K	2,297	28	120	
P1	8" ROUND PENDANT CYLINDER	VISA LIGHTING #CP2040-L35K-L35K-MVOLT-TW9016-XX	SPI (12068), MANNING	CEILING SURFACE PENDANT	3500K	9,800	110	120	PROVIDE OVERALL HEIGHT AS REQUIRED FOR MOUNTING HEIGHT SHOWN ON FLOOR PLANS.
P2	8" ROUND PENDANT CYLINDER WITH INTEGRAL DOWNLIGHT	VISA LIGHTING #CP2040-L35K-L35K-MVOLT-WIDE-TW9016-XX	SPI (12068), MANNING	CEILING SURFACE PENDANT	3500K	12,600	138	120	PROVIDE OVERALL HEIGHT AS REQUIRED FOR MOUNTING HEIGHT SHOWN ON FLOOR PLANS.
PL1-4F	25' POLE MOUNTED AREA LIGHT	BEACON VPS-48L-110-4K7-4F	LITHONIA, XTRALIGHT	25' SQUARE METAL POLE MOUNT	4000K	11,828	110	208	COORDINATE POLE HEIGHT WITH POLE BASE. PROVIDE POLE HEIGHT AS REQUIRED TO MOUNT FIXTURE AT 25' AFF.
PL1-4W	25' POLE MOUNTED AREA LIGHT	BEACON VPS48L-110-4K7-4W	LITHONIA, XTRALIGHT	25' SQUARE METAL POLE MOUNT	4000K	11,609	110	208	COORDINATE POLE HEIGHT WITH POLE BASE. PROVIDE POLE HEIGHT AS REQUIRED TO MOUNT FIXTURE AT 25' AFF.
RL1	RECESSED 4" LINEAR SLOT WITH INTEGRAL DOWNLIGHTS	MARK ARCHITECTURAL #SL4L-LOP-12-FLP-TG-80CRI-35K-600LMF-3DL-S80CRI-S35K-MN1-120-XX	ALW (LP3), FINELITE	CEILING RECESSED	3500K	9,300	59	120	
ST1	4' PENDANT MOUNT STRIP	LITHONIA #WL4-40L-EZ1-LP835-EL14L	COLUMBIA (MPS4), VISCOR, DAY-BRITE	PENDANT MOUNT	3500K	4,124	40	120	
T1	RECESSED 1'X4' CORRECTIONAL GRADE	KENALL #RMCA-4-FL/TR-2-45L35K-DCC-120-SYM/B-1	LCD, NEW STAR (57M14)	CEILING RECESSED	3500K	3,535	46	120	
T2	RECESSED 2'X2' FLAT PANEL	LITHONIA #EPANL-2X2-3400LM-80CRI-35K-MIN10-ZT-MVOLT	COLUMBIA (CFP22), DAYBRITE	CEILING RECESSED	3500K	3,291	30	120	
T3	RECESSED 2'X2'	LITHONIA #ENVX-2X2-HRG-2000LM-80CRI-35K-MIN1-ZT-MVOLT	COLUMBIA (VSY22), VISCOR, PMC	CEILING RECESSED	3500K	1,914	17	120	
T4	RECESSED 2'X2'	LITHONIA #ENVX-2X2-HRG-3300LM-80CRI-35K-MIN1-ZT-MVOLT	COLUMBIA (VSY22), VISCOR, PMC	CEILING RECESSED	3500K	3,411	30	120	
T5	RECESSED 2'X4'	LITHONIA #ENVX-2X4-HRG-4000LM-80CRI-35K-MIN1-ZT-MVOLT	COLUMBIA (VSY24), VISCOR, PMC	CEILING RECESSED	3500K	4,036	33	120	
T6	RECESSED 2'X4'	LITHONIA #ENVX-2X4-HRG-4800LM-80CRI-35K-MIN1-ZT-MVOLT	COLUMBIA (VSY24), VISCOR, PMC	CEILING RECESSED	3500K	4,748	40	120	
UC1	UNDERCABINET LIGHT FIXTURE	FAIL-SAFE #UCL-X-LD4-35K-A12125-EDC1-UNV	NEW STAR, KENALL, NORA	SURFACE	3500K	2602	25	120	
WM1	EXTERIOR WALL MOUNT SCONCE	LITHONIA #WDGE2LED-P3SW-35K-80CRI-VW-MVOLT-SRM-PIR1FC3V-XXXXX	HUBBELL, GARDCO	WALL MOUNT	3500K	2,983	23	120	
WM2	SURFACE WALL MOUNT 2' SLOT	MARK ARCHITECTURAL #S4LWD-LLP-2FT-80CRI-35K-400LMF-NODIM-120-WHTT	PINNACLE (EX3D), FINELITE	SURFACE WALL	3500K	863	8	120	COLOR SELECTED BY ARCHITECT DURING SHOP DRAWING REVIEW.
WM3	EXTERIOR DECORATIVE WALL MOUNT SCONCE	VISA LIGHTING #OW5201-L35K-L-MVOLT-TW9016	SPI (SEW12114), MANNING	WALL MOUNT	3500K	1100	10	120	
X1	EDGE LITE EXIT SIGN SINGLE FACE WITH RED LETTERS	DUAL-LITE #LE-X-S-R-XX-X-A-M	LITHONIA, PINNACLE	CEILING SURFACE/WALL	RED		2	120	WALL MOUNT WHERE POSSIBLE. COORDINATE WITH ARCHITECTURAL ELEVATIONS AND SECTIONS AND PROVIDE ACCORDINGLY.
X2	EDGE LITE EXIT SIGN DOUBLE FACE WITH RED LETTERS	DUAL-LITE #LE-X-D-R-XX-X-A-M	LITHONIA, PINNACLE	CEILING SURFACE/WALL	RED		2	120	WALL MOUNT WHERE POSSIBLE. COORDINATE WITH ARCHITECTURAL ELEVATIONS AND SECTIONS AND PROVIDE ACCORDINGLY.
X3	CORRECTIONAL GRADE EXIT SIGN	KENALL #MMEX-1-3-R-DT-1	DUAL-LITE (SE), LCD	CEILING SURFACE/WALL	RED		2	120	WALL MOUNT WHERE POSSIBLE. COORDINATE WITH ARCHITECTURAL ELEVATIONS AND SECTIONS AND PROVIDE ACCORDINGLY.

LIGHTING SEQUENCE OF OPERATIONS

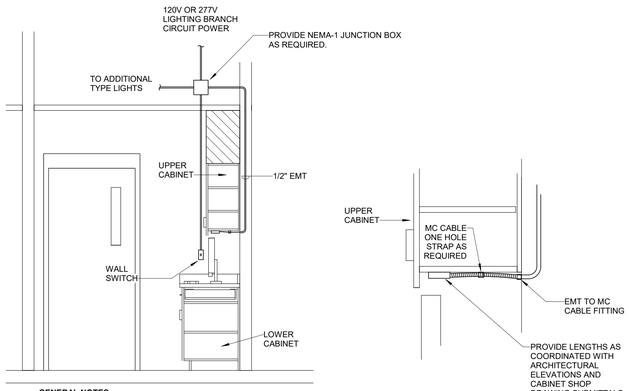
LC ID	OCCUPANCY SENSOR				TIME CLOCK			WALL SWITCH					DAYLIGHT SENSOR			
	VACANCY MODE	OCCUPANCY MODE	SENSOR TIME OUT PERIOD	HIGH/LOW OPERATION	SCHEDULED ON	SCHEDULED OFF	AFTER HOURS OVERRIDE SWITCH	ON/OFF ONLY	DIMMER SWITCH	KEY SWITCH	SCENE SWITCH	GRAPHICAL WALL STATION	INDOOR - ON/OFF ONLY	INDOOR - DIMMING	LIGHT LEVEL MAINTAINED AT	EXTERIOR PHOTOCELL ON/OFF
1	X		20 MIN						X							
2												X				
3								X								
4																
5		X	20 MIN													
6					DUSK	DAWN										X
7		X	20 MIN		7:00 AM	5:00 PM			X							
8		X	20 MIN						X							

ELEC - EQUIPMENT CONNECTION SCHEDULE

EQUIP ID	DESCRIPTION	DISCONNECT MEANS	VOLTAGE	POLES	POWER (kVA)	MCA
BH-1	VRF BRANCH SELECTOR BOX	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	120	1	0.14	1.2
BH-2	VRF BRANCH SELECTOR BOX	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	120	1	0.10	0.8
BH-3	VRF BRANCH SELECTOR BOX	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	120	1	0.10	0.8
BH-4	VRF BRANCH SELECTOR BOX	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	120	1	0.10	0.8
CU-1	ROOFTOP CONDENSING UNIT		208	3	39.58	110
CU-2	ROOFTOP CONDENSING UNIT		208	3	39.58	110
CU-3	ROOFTOP CONDENSING UNIT	30A NON FUSIBLE DISCONNECT PROVIDED AND WIRED BY E.C.	208	2	1.62	7.8
DOAS-1	DEDICATED OUTDOOR AIR SYSTEM	MANUFACTURER PROVIDED NON-FUSIBLE DISCONNECT TO BE WIRED BY E.C.	208	3	29.00	64.6
EF-1	EXHAUST FAN	MANUFACTURER PROVIDED NON-FUSIBLE DISCONNECT TO BE WIRED BY E.C.	120	1	0.37	
EF-2	EXHAUST FAN	MANUFACTURER PROVIDED NON-FUSIBLE DISCONNECT TO BE WIRED BY E.C.	208	2	0.10	
FCU-1-1	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-1-2	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.27	1.6
FCU-1-3	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-1-4	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-1-5	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-1-6	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-1-7	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.48	2.9
FCU-1-8	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-1-9	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.10	0.8
FCU-1-10	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	1.58	9.5
FCU-1-11	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.10	0.8
FCU-2-1	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-2-2	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-2-3	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.10	0.8
FCU-2-4	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.57	3.4
FCU-2-5A	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.38	2.3
FCU-2-5B	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.38	2.3
FCU-2-6	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-2-7	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-2-8	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-2-9	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	1.58	9.5
FCU-2-10	CONCEALED CEILING AIR CONDITIONER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	208	2	0.23	0.8
FCU-3	WALL MOUNT AIR CONDITIONER	DISCONNECT PROVIDED AND WIRED BY E.C. WIRING BETWEEN CU-3 AND FCU-3 PROVIDED BY E.C.	208	2	0.50	
Q			120	1	0.18	
RP-1	PUMP		120	1	0.50	
UH-1	UNIT HEATER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	120	1	0.10	1
WH-1	WATER HEATER	TOGGLE SWITCH PROVIDED AND WIRED BY E.C.	120	1	0.50	

SHEET E002 TAGGED NOTES

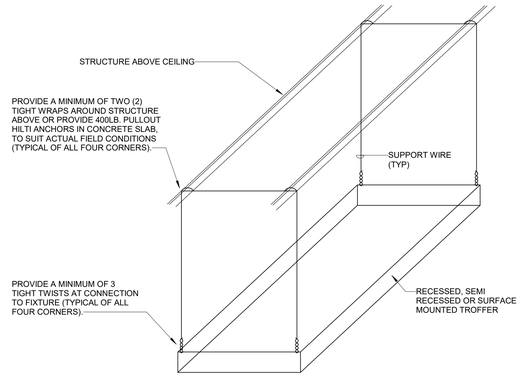
E1	PROVIDE MOTION SENSORS ON POLE LIGHTS AS REQUIRED FOR COVERAGE OF PARKING AND SIDEWALK AREA. SENSORS SHALL OPERATE IN ZONES AND DIM TO 50% AT 11:00PM. FIXTURES SHALL GO TO FULL BRIGHTNESS UPON MOTION DETECTED AND DIM BACK TO 50% AFTER 20 MINUTES OF NO MOTION DETECTED.
E2	PROVIDE GRAPHICAL CONTROL STATIONS AT COURTROOM ENTRANCES AND AT JUDGE'S PODIUM. REFER TO SHEET E101 FOR APPROXIMATE POSITIONING. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH IN AND PROVIDE ACCORDINGLY.
E3	ALL CONDUCTORS FEEDING CU-3 AND THE CONNECTION BETWEEN CU-3 AND FCU-3 SHALL BE COPPER.
E4	MOUNT TOGGLE SWITCH ABOVE ACCESSIBLE CEILING ADJACENT TO FAN COIL UNIT. COORDINATE EXACT LOCATION WITH H.C. PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY.



GENERAL NOTES:

A. PROVIDE LINE VOLTAGE WALL SWITCH FOR ALL ROOMS WITH TYPE "UC" LIGHTING. SWITCH SHALL CONTROL ALL TYPE "UC" LIGHTS IN ROOM.
B. CONNECT TYPE "UC" LIGHTING TO 277V NORMAL POWER LIGHTING CIRCUIT IF PRESENT IN ROOM. OTHERWISE CONNECT TO 277V EMERGENCY POWER LIGHTING CIRCUIT IN ROOM.

A UNDERCABINET LIGHT INSTALLATION DETAIL
SCALE: NONE



GENERAL TROFFER SUPPORT DETAIL NOTES:

A. SUPPORT WIRES SHALL BE GALVANIZED REGULAR COATING, SOFT TEMPER, 0.1055 INCHES IN DIAMETER (12 GAGE).
B. ALTERNATELY, CONTRACTOR MAY SUPPORT FIXTURES WITH SINGLE WIRE FROM ALL FOUR CORNERS OF FIXTURE PER SPECIFICATIONS WITH NUMBER OF TWISTS AT FIXTURE AND NUMBER OF WRAPS AROUND STRUCTURE INDICATED IN THIS DETAIL.

B TROFFER SUPPORT DETAIL
SCALE: NONE

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
5	ADDENDUM #4	2021/06/03
6	ISSUED FOR RE-BID	2021/06/18

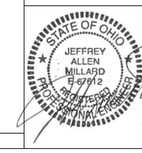
LWC INCORPORATED
434 East First Street Dayton, OH 45402 937.223.6500
712 East Main Street Richmond, IN 47374 765.966.3546

MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

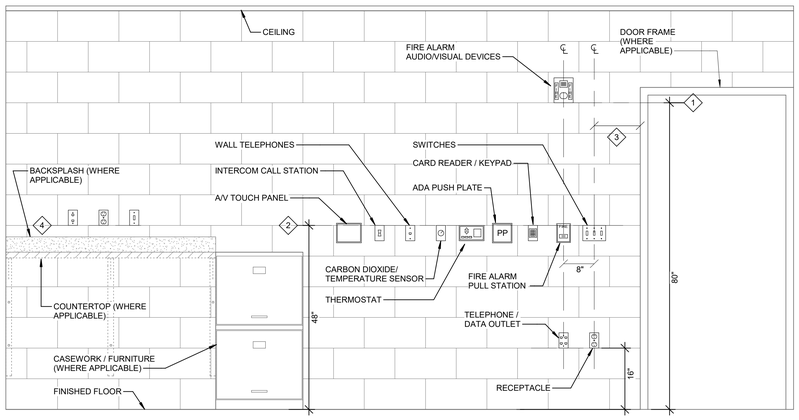
875 E. MAIN STREET
TROTWOOD, OH 45426

LIGHTING FIXTURE SCHEDULE AND DETAILS



Comm. No. 19651.00	Date 2021/4/23
Drawn NGM	Drawing No. E002
Checked JAE	

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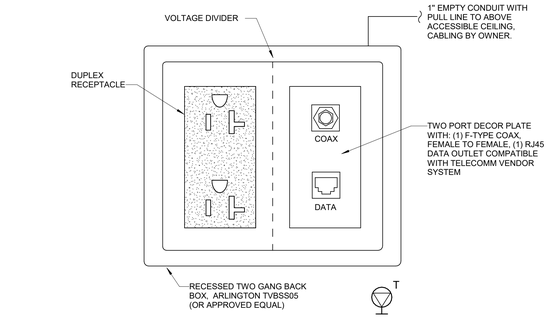
DEVICE MOUNTING DETAIL - GENERAL NOTES:

A. WHERE DEVICES OF ANY DISCIPLINE ARE LOCATED IN THE SAME GENERAL AREA ON THE PLANS AND ARE SHOWN TO BE MOUNTED AT A SIMILAR HEIGHT, ALIGN HORIZONTALLY ALONG TOP OF DEVICE BACKBOX (AS SHOWN IN DETAIL AND DESCRIBED IN KEY NOTE #2).
B. WHERE DEVICES OF ANY DISCIPLINE ARE LOCATED IN THE SAME GENERAL AREA ON THE PLANS AND ARE SHOWN MOUNTED AT DIFFERENT HEIGHTS, ALIGN VERTICALLY ALONG THE CENTERLINE OF THE DEVICE BACKBOX (AS SHOWN IN DETAIL).
C. FOR ANY WALL OTHER THAN PAINTED GYPSUM BOARD OR CMU, DEVICE LOCATIONS MUST BE FIELD APPROVED BY ENGINEER OR ARCHITECT PRIOR TO INSTALLATION OF FINISHES.
D. ADA REQUIRES 48" ABOVE FINISH FLOOR FOR FRONT ACCESS. SIDE REACH ACCESS ALLOWS A MAXIMUM OF 54" AND A LOW SIDE REACH OF NO LESS THAN 9" ABOVE FINISH FLOOR. ADA FRONT AND SIDE REACH ACCESS MUST BE MAINTAINED FOR NEW AND EXISTING CONSTRUCTION. NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES.

X DEVICE MOUNTING DETAIL - KEY NOTES:

1. MOUNT VISUAL NOTIFICATION APPLIANCES SO THAT ENTIRE LENS IS BETWEEN 80" AND 96" AFF. IF CEILING IS TOO LOW FOR DEVICE TO BE MOUNTED ABOVE 80", MOUNT SO THAT THE LENS IS WITHIN 6" OF FINISHED CEILING.
2. ALIGN BACKBOXES OF DEVICES AT THE MOUNTING HEIGHT INDICATED. MEASURE TO THE TOP OF THE BACKBOX FOR STANDARD OUTLET BOXES. NON-STANDARD BACKBOXES ARE TO BE INSTALLED SUCH THAT THE FINISHED DEVICES ARE ALIGNED ALONG THEIR RESPECTIVE CENTERLINES.
3. MOUNTING HEIGHTS SHOWN ILLUSTRATE DESIGN INTENT AND ARE TO BE FOLLOWED UNLESS CONTRADICTED BY APPLICABLE CODE. WHERE DEVICES ARE SHOWN ADJACENT TO DOOR FRAMES ON PLANS INSTALL 12" FROM FRAME TO AVOID SLUSHED SECTIONS OR BRACING. SPECIFIC DEVICES ARE SHOWN IN RELATIVE ORDER FROM DOOR FRAME; WHERE THESE DEVICES ARE NOT PRESENT AT A PARTICULAR LOCATION, ADJUST LOCATIONS CLOSER TO DOOR ACCORDINGLY.
4. THE CONTRACTOR IS TO COORDINATE ALL ROUGH-INS WITH ANY COUNTERTOPS/BACKSPLASHES/WALL PROTECTION TO AVOID CONFLICT. ALIGN DEVICE BACKBOXES IN THE BOTTOM OF THE NEXT FULL BLOCK ABOVE THE BACKSPLASH AS SHOWN. FOR NON-BLOCK WALLS ALIGN BOTTOM OF DEVICE BACKBOXES 4" ABOVE BACKSPLASH. COORDINATE WORK WITH CASEWORK AND KITCHEN SHOP DRAWINGS ACCORDINGLY. IF CONFLICT STILL ARISES CONTACT THE ENGINEER FOR DIRECTION ON HOW TO PROCEED.

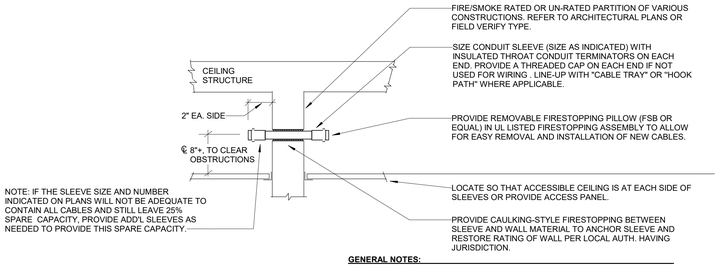
A TYPICAL WALL DEVICE MOUNTING DETAIL
SCALE: NONE



GENERAL NOTES:

A. COORDINATE MOUNTING HEIGHT WITH TV INSTALLER TO CONCEAL BEHIND TV.

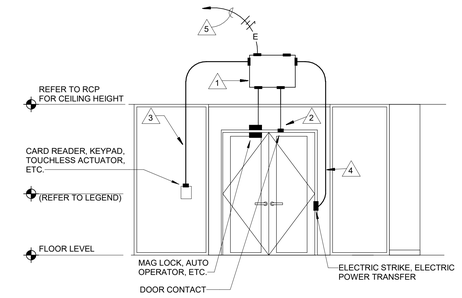
B TELEVISION OUTLET DETAIL
SCALE: NONE



GENERAL NOTES:

A. PROVIDE ONE 2" SPARE CONDUIT SLEEVE THROUGH ALL FULL HEIGHT PARTITIONS FOR FUTURE USE. LABEL AS SPARE FOR OWNER'S USE ONLY. REFER TO ARCHITECTURAL PLANS FOR FULL HEIGHT PARTITION LOCATIONS.
B. USE AT ALL "OPEN" TYPE CABLING PENETRATIONS THROUGH WALLS, FLOORS, ETC.

C CONDUIT WALL SLEEVE INSTALLATION
SCALE: NONE

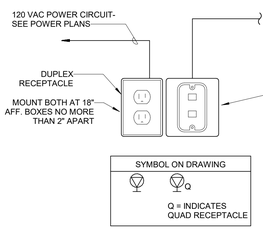


ACCESS CONTROL SYSTEM (TAGGED NOTES)

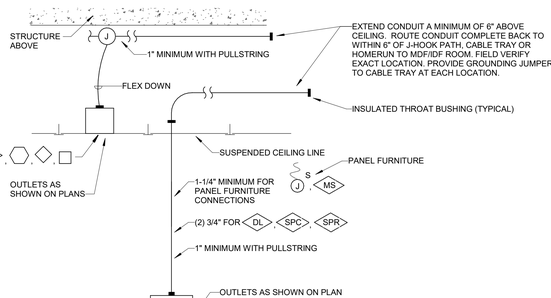
1. DOOR JUNCTION PANEL ABOVE DOOR PROVIDED AND INSTALLED BY THE ACCESS CONTROL VENDOR/CONTRACTOR. REFER TO DOOR HARDWARE SPECIFICATIONS AND FLOOR PLANS FOR ALL LOCATIONS.
2. PROVIDE CONDUIT STUB-OUT FROM DOOR FRAME TO 6" ABOVE CEILING AT DOOR LOCATION AS REQUIRED FOR DOOR POSITION CONTACT SWITCHES, AUTO OPERATORS, MAGNETIC LOCKS, ETC.. PROVIDE ADDITIONAL CONDUITS AND LOCATIONS AS REQUIRED FOR ADDITIONAL DEVICES. REFER TO DOOR HARDWARE SPECIFICATIONS AND FLOOR PLANS FOR DEVICES REQUIRED.
3. PROVIDE CONDUIT STUB-OUT FROM DOOR OPERATOR DEVICE 6" ABOVE CEILING AT DOOR LOCATION AS REQUIRED FOR CARD READERS, TOUCHLESS ACTUATORS, KEYPADS, ETC. PROVIDE ADDITIONAL CONDUITS AT LOCATIONS AS REQUIRED FOR ADDITIONAL DEVICES. REFER TO DOOR HARDWARE SPECIFICATIONS AND FLOOR PLANS FOR DEVICES REQUIRED.
4. PROVIDE CONDUIT STUB-OUT FROM DOOR FRAME TO 6" ABOVE CEILING AT DOOR LOCATION AS REQUIRED FOR FOR ELECTRIC POWER TRANSFER, ELECTRIC STRIKE, ETC. PROVIDE ADDITIONAL CONDUITS AT LOCATIONS AS REQUIRED FOR ADDITIONAL DEVICES. REFER TO DOOR HARDWARE SPECIFICATIONS AND FLOOR PLANS FOR DEVICES REQUIRED.
5. ROUTE 120V EMERGENCY LIFE-SAFETY POWER TO ALL DOOR POWER SUPPLIES, AUTO DOOR OPERATORS, ETC. AS REQUIRED. REFER TO DOOR HARDWARE SPECIFICATIONS AND FLOOR PLANS FOR DEVICES REQUIRED.

ACCESS CONTROL SYSTEM (GENERAL NOTES)

A. PROVIDE ALL NECESSARY BACKBOXES, CONDUITS AND ROUGH-INS REQUIRED. REFER TO DOOR HARDWARE SPECIFICATIONS FOR DOOR RISER REQUIREMENTS PER DOOR AND FOR EQUIPMENT ITEMS AND CONNECTIONS.
B. REFER TO DOOR HARDWARE SPECIFICATIONS SECTION FOR ADDITIONAL REQUIREMENTS. PROVIDE ALL CONDUITS AND FINAL TERMINATIONS OF PATHWAYS AT ALL DOOR FRAMES, WALLS, BACKBOXES, ETX AS REQUIRED FOR WIRING PATHWAYS.
C. PROVIDE 3/4" CONDUIT MINIMUM FOR ALL ACCESS CONTROL ROUGH-IN AND STUB-OUTS.



D POWER/DATA OUTLET BOX DETAIL
SCALE: NONE

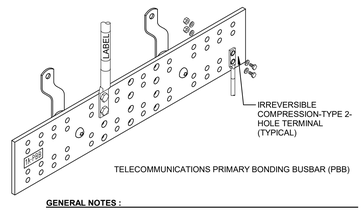


GENERAL NOTES:

A. EXTEND CONDUIT TO NEAREST WIRING PATH UNLESS CABLING TERMINATES AT ANOTHER OUTLET IN THE SAME ROOM (IN WHICH CASE, STUB CONDUIT OUT ABOVE THE ROOM'S SUSPENDED CEILING). REFER TO GENERAL NOTES LOCATED ON ALL SYSTEM'S DRAWINGS. ACCESS CONTROL CONDUITS SHALL STUB ABOVE ACCESSIBLE CEILING FOR VENDOR FURNISHED ACCESS CONTROL CABLING, ETC.
B. WHERE OPEN CABLING IS INSTALLED WITHIN ENVIRONMENT AIR PLENUMS, SUCH CABLING SHALL MEET NEC REQUIREMENTS FOR SUCH INSTALLATIONS.
C. LABEL BACK OF OUTLET BOXES AND ENDS OF CONDUIT WITH UNIQUE NUMBER TO IDENTIFY EACH STUB-UP. USE PERMANENT MARKER PEN, 3/4" HIGH LETTERS. MATCH NUMBER ON OUTLET BOX TO END OF CONDUIT
D. INSTALL TELECOMMUNICATION AND CABLE TV OUTLETS WITHIN 6" OF POWER RECEPTACLE WHERE POWER RECEPTACLE IS SHOWN ON POWER PLANS IN SAME GENERAL LOCATION.

E ROUGHING-IN DETAIL FOR STUB-OUTS
SCALE: NONE

F TYPICAL DOOR HARDWARE ROUGH-IN ELEVATION
SCALE: NONE



GENERAL NOTES:

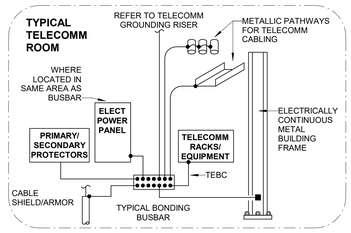
A. PROVIDE PVC SLEEVES WHERE CONDUCTORS ARE EXPOSED TO PHYSICAL DAMAGE. SEAL CONDUIT OPENINGS.
B. LOCATE EXTERIOR ELECTRODES A MINIMUM OF 5FT OUTSIDE THE BUILDING DRIP LINE.
C. PROVIDE EXOTHERMIC WELDS FOR ALL BUILDING STEEL, REBAR, AND UNDERGROUND CONNECTIONS UNLESS NOTED OTHERWISE.

G GROUNDING ELECTRODE SYSTEM DETAIL
SCALE: NONE

GENERAL NOTES:

A. ALL WORK TO BE DONE IN ACCORDANCE WITH ANSI/TIA STD-607-C
B. ALL GROUNDING AND BONDING CONDUCTORS SHALL BE GREEN INSULATED COPPER CONDUCTORS AND LISTED FOR INTENDED APPLICATION.
C. LABEL ALL GROUNDING AND BONDING CONDUCTORS IN ACCORDANCE WITH ANSI/TIA/EIA 606 REQUIREMENTS.
D. ALL CONNECTIONS SHALL BE EXOTHERMIC WELD, LISTED COMPRESSION TWO-HOLE LUGS, OR OTHER IRREVERSIBLE COMPRESSION TYPE CONNECTION.
E. ALL METALLIC RACEWAYS FOR TELECOMM CABLING SHALL BE BONDED TO BUSBAR IF LOCATED IN SAME ROOM OR AREA.
F. WHERE THE OSP OR BACKBONE CABLING INCORPORATES A SHIELD OR METALLIC ARMOR, IT SHALL BE BONDED TO THE BUSBAR WHERE THE CABLES ARE TERMINATED OR WHERE THE PAIRS ARE BROKEN OUT FROM THE CABLE SHEATH.
G. BONDING CONDUCTOR TO BUILDING STEEL SHALL BE SIZED TO MATCH BACKBONE CONDUCTOR. OTHER BONDING CONDUCTORS SHALL BE A MINIMUM #6 AWG AND INSTALLED WITH A MINIMUM 8-INCH BEND RADIUS.
H. BONDING CONDUCTORS FOR ENTRANCE PROTECTORS AND CABLE SHIELDING CAPABLE OF CONDUCTING LIGHTNING AND FAULT CURRENTS SHALL MAINTAIN A MINIMUM OF 1FT SEPARATION FROM ALL TELECOMM CABLING.

H TELECOMM BUSBAR CONNECTIONS
SCALE: NONE



GENERAL NOTES :

A. PRE-DRILLED ELECTRO-TIN PLATED COPPER GROUND BAR 1/4"X4"X20" MIN AND LISTED BY AN NTRL
B. MINIMUM 2" INSULATED STANDOFFS
C. BICSI/TIA-607 STYLE HOLE PATTERN
D. CLEAN SURFACE AND APPLY ANTI-OXIDANT PRIOR TO FASTENING OF CONDUCTORS.
E. PROVIDE IDENTIFICATION FOR GROUND BAR AND GROUNDING CONDUCTORS IN ACCORDANCE WITH TIA/EIA-606-B.

I TELECOMM BUSBAR - PBB
SCALE: NONE

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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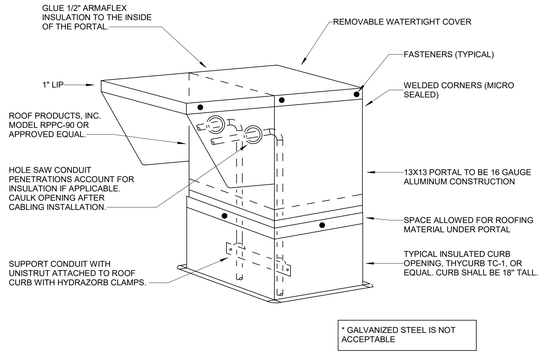
DETAILS

STATE OF OHIO — JEFFREY ALLEN MILLARD — E-67012 — REGISTERED PROFESSIONAL ENGINEER

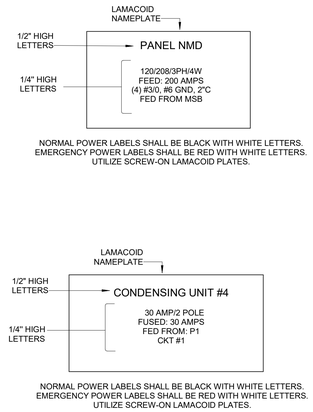
Comm. No.	19651.00
Date	2021/4/23
Drawn	NGM
Drawing No.	E003
Checked	JAE

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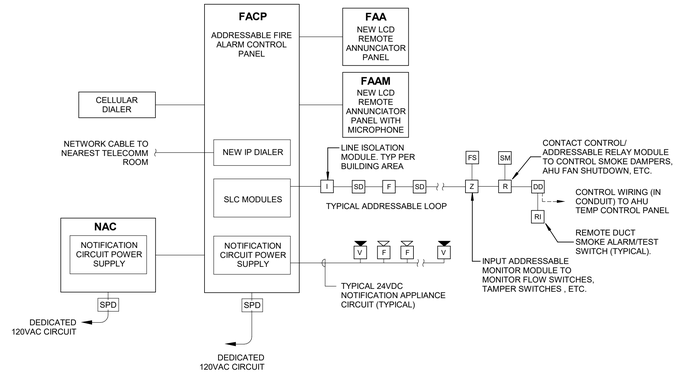
A ROOF CURB DETAIL
SCALE: NONE



B PANEL & DISCONNECT NAMEPLATE DETAIL
SCALE: NONE

GENERAL FIRE ALARM NOTES:

A. RISER DIAGRAM IS SHOWN TO ILLUSTRATE DESIGN INTENT AND DEVICE INTERCONNECTION ONLY. SEE PLANS FOR LOCATION AND QUANTITIES OF DEVICES. FURNISH AND INSTALL ALL EQUIPMENT AND DEVICES TO MEET THE INTENT OF THE SPECIFICATIONS.
B. PROVIDE FOR DOOR RELEASE UPON FIRE ALARM SIGNAL TO DOORS WITH ACCESS CONTROL DEVICES OR MAGNETIC DOOR HOLD OPEN DEVICES.
C. PROVIDE IP INTERFACE WITH CENTRAL MONITORING STATION.
D. PROVIDE PLENUM CABLE.
E. INTERLOCK FIRE ALARM SYSTEM WITH AIR HANDLING UNITS, FIRE DAMPERS AND SMOKE DAMPERS TO PROVIDE FAN SHUTDOWN AND DAMPER CLOSURE AS REQUIRED BY NFPA.
F. LOCATE ADDRESSABLE RELAY MODULES WITHIN 3'-0" OF ASSOCIATED MOTOR STARTER.
G. PROVIDE SEPARATE SIGNALING LINE CIRCUIT (SLC) TO EACH ZONE OR FLOOR.
H. PROVIDE 25% SPARE CAPACITY ON EACH NOTIFICATION APPLIANCE CIRCUIT.
I. ALL FIRE ALARM STROBE LIGHTS SHALL BE SYNCRONIZED TO ACCOMODATE BUILDING STANDARDS.
J. PROVIDE (5) PULL STATIONS AND (5) HORN STROBES ALONG WITH 50FT OF RACEWAY AND CABLE TO BE FIELD LOCATED AS DIRECTED BY THE ENGINEER. TURN OVER DEVICES TO OWNER AS SPARES IF NOT UTILIZED.



C FIRE ALARM SYSTEM RISER DIAGRAM
SCALE: NONE

INSTALL WITHIN EQUIPMENT RACK LOCATED IN I.T. 118

VOIP TO ANALOG	
OFE	
COORDINATE WITH OWNER	
VTA.01	
VOIP	LINE

AUDIO PROCESSOR	
BIAMP	
NEXIA SP	
DSP.01	
IN.01	OUT.01
IN.02	OUT.02
IN.03	OUT.03
IN.04	OUT.04
LAN	OUT.05
	OUT.06
	OUT.07
	OUT.08

TO OWNERS NETWORK
CREATE BIAMP DAVINCI CONTROL SCREEN FOR OWNER TO ACCESS AND CONTROL VOLUME LEVELS IN THE VARIOUS AUDIO ZONES.

POWER AMPLIFIER	
QSC	
MP-A40V	
AMP.01	
IN.01	OUT.01
IN.02	OUT.02
IN.03	OUT.03
IN.04	OUT.04

MINIMUM 18 AWG SPEAKER CABLE

REFER TO FLOORPLANS FOR SPEAKER QUANTITIES BY TYPE

FLUSH CEILING SPEAKER
MARTIN AUDIO
C6.8T
Z.A
70V @40W

FLUSH CEILING SPEAKER
MARTIN AUDIO
C6.8T
Z.B
70V @20W

FLUSH CEILING SPEAKER
MARTIN AUDIO
C6.8T
Z.C
70V @10W

SURFACE MOUNT SPEAKER
MARTIN AUDIO
CDD6TX-WR
Z.D
70V @50W

D Public Address / Paging System Details
SCALE: NONE

SYSTEM OUTPUT:

SYSTEM INPUT:

	CONTROL PANEL FUNCTIONS					NOTIFICATION			CONTROL																
	ACTUATE AUDIBLE AND VISIBLE FIRE ALARM SIGNAL	ACTUATE AUDIBLE AND VISIBLE SUPERVISORY SIGNAL	ACTUATE AUDIBLE AND VISUAL TROUBLE SIGNAL	RECORD EVENT IN SYSTEM MEMORY	IDENTIFY ALARMED DEVICE LOCATION AND ADDRESS	TRANSMIT GENERAL ALARM TO SUPERVISING STATION	TRANSMIT SUPERVISORY TO SUPERVISING STATION	TRANSMIT TROUBLE TO SUPERVISING STATION	ACTIVATE SPEAKERS AND STROBES FOR EVACUATION	ACTIVATE SPRINKLER WATER FLOW ALARM BELL	SWITCH HVAC EQUIPMENT CONTROLS TO FIRE ALARM MODE	CLOSE SMOKE DAMPERS IN ASSOCIATED DUCT	SILENCE SPEAKERS AND DISABLE STROBES	TEMPORARY OVERRIDE FIRE ALARM MESSAGE AND DISABLE STROBES	RECALL ELEVATOR TO MAIN LEVEL (ALTERNATE)	RECALL ELEVATOR TO LOWER LEVEL (PRIMARY)	WARNING SIGNAL TO ELEVATOR CAB	INITIATE ELEVATOR POWER SHUT-DOWN (SHUNT TRIP)	RANGEHOOD SHUTDOWN OF ELECTRIC AND FUEL SUPPLY	RELEASE MAGNETIC DOOR HOLD OPENS	RELEASE ELECTRONICALLY LOCKED SECURITY DOORS	ACTIVATE EMERGENCY SHUTOFFS FOR GAS SUPPLIES	ACTIVATE EXTERIOR FIRE BELL	OVERRIDE THEATRICAL DIMMING CONTROLS TO FULL OUTPUT	OVERRIDE LOCAL SOUND SYSTEMS
MANUAL PULL STATION	●			●	●		●		●	●		●	●								●	●	●				
SMOKE/HEAT DETECTOR	●			●	●		●		●	●		●	●								●	●	●				
SPRINKLER WATERFLOW SWITCH	●			●	●		●		●	●	●	●	●								●	●	●	●			
SPRINKLER TAMPER SWITCH		●		●	●		●																				
SPRINKLER PRESSURE SWITCH		●		●	●		●																				
DUCT SMOKE DETECTOR		●		●	●		●					●	●														
SMOKE DETECTOR - SMOKE DAMPER		●		●	●		●					●	●														
CO DETECTION		●		●	●		●							●													
ALARM SILENCE AT FACP LOCATION		●		●	●		●							●													
MANUAL MICROPHONE ACTIVATION				●	●			●							●												
FIRE ALARM AC POWER FAILURE			●	●	●			●													●	●					
FIRE ALARM DC POWER FAILURE/SYSTEM DISABLE			●	●	●			●													●	●					
FIRE ALARM SYSTEM LOW BATTERY/FAILURE			●	●	●			●																			
VOICE AMPLIFIER FAILURE			●	●	●			●																			
OPEN CIRCUIT/GROUND FAULT/SHORT CIRCUIT			●	●	●			●																			
LOSS OF COMMUNICATION			●	●	●			●																			
DEVICE TAMPER			●	●	●			●																			
AHU SHUTDOWN/SMOKE DAMPER OVERRIDE SWITCH			●	●	●			●																			
DOOR HOLD OPEN RELEASE TROUBLE			●	●	●			●													●						

MULTISERVICE FLOORBOX SCHEDULE

TAG	POWER REQUIREMENTS	DATA REQUIREMENTS	PART NUMBER
FB-A	(1) 5-20R	CAT6 RJ45 COMMUNICATION PORTS	LEGRAND RFB4E-OG LEGRAND 6CTC2XX
FB-B	(2) 5-20R	CAT6 RJ45 COMMUNICATION PORTS	HUBBELL CFB4G30CR HUBBELL 24GCCVRXXXX
FB-FF	(1) 0.75" TRADE SIZE KNOCKOUT	(1) 1.25" TRADE SIZE KNOCKOUT	LEGRAND RFB2E-OG LEGRAND 6CFFTCXX

GENERAL NOTES:
A. COLOR OF COVER PLATE TO BE SELECTED BY ARCHITECT IN SHOP DRAWING PHASE.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
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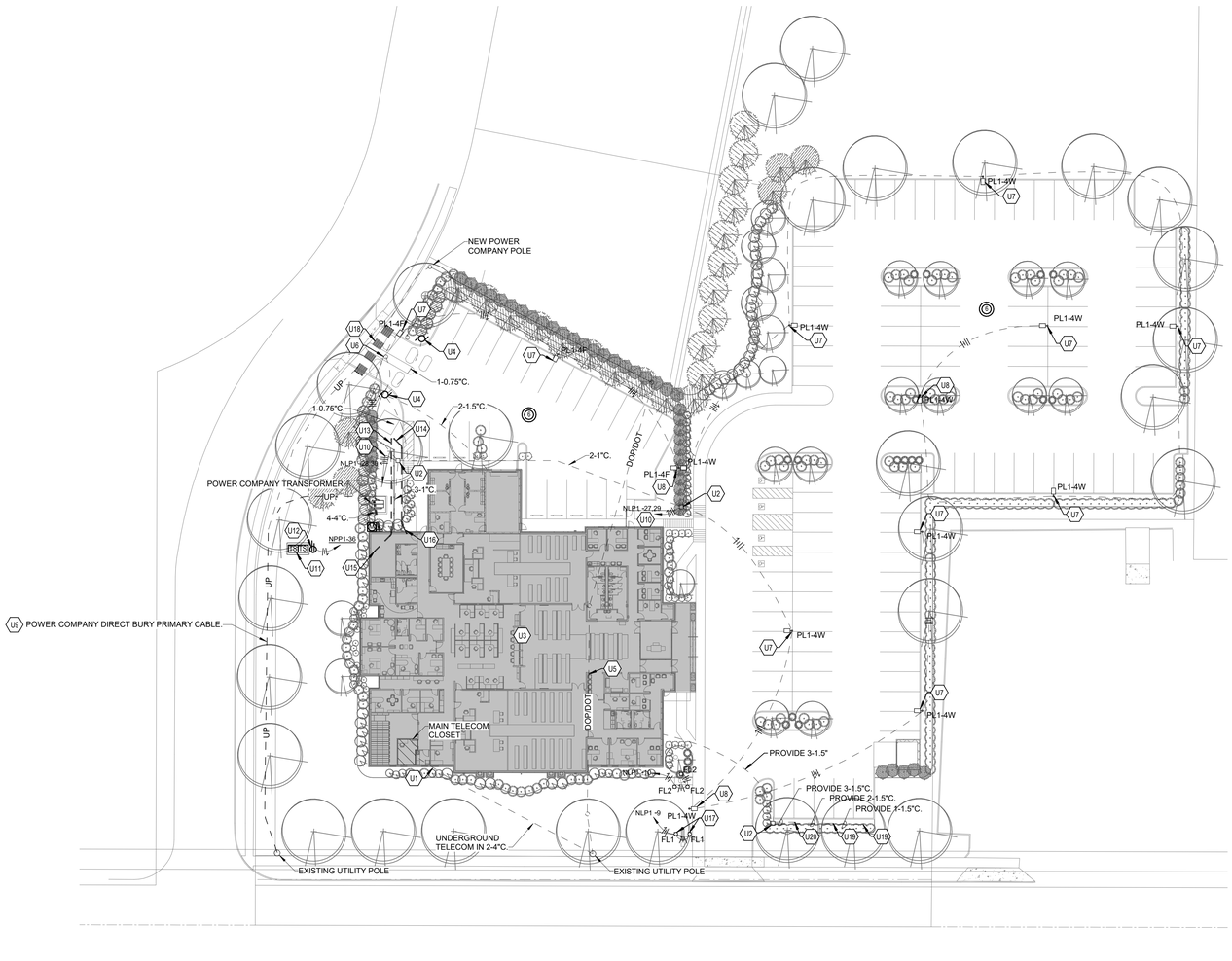
DETAILS

STATE OF OHIO JEFFREY ALLEN MILLARD E-67012 REGISTERED PROFESSIONAL ENGINEER

Comm. No.	Date
19651.00	2021/4/23
Drawn: NGM	Drawing No. E004
Checked: JAE	

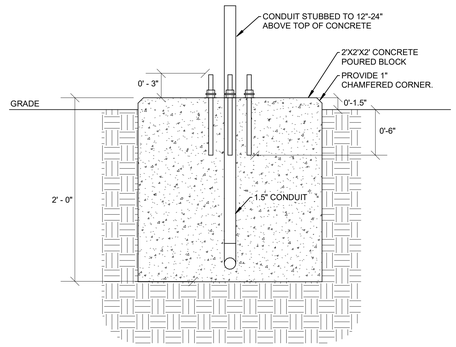
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1 ELECTRICAL SITE PLAN
SCALE: 1" = 30'-0"
0 15' 30' 60' 90' 120' 1" = 30'-0"

SITE UTILITIES LEGEND	EXISTING	DEMOLITION	NEW
OVERHEAD PRIMARY	EOP	DOP	OP
OVERHEAD SECONDARY	EOS	DOS	OS
OVERHEAD STREET LIGHTING	EOSL	DOSL	OSL
OVERHEAD TRAFFIC SIGNAL	EOTS	DOTS	OTS
OVERHEAD TELECOMMUNICATIONS	EOT	DOT	OT
OVERHEAD FIBER OPTIC	EOF	DOF	OF
OVERHEAD CATV	EOTV	DOTV	OTV
UNDERGROUND PRIMARY	EUP	DUP	UP
UNDERGROUND SECONDARY	EUS	DUS	US
UNDERGROUND STREET LIGHTING	EUSL	DUSL	USL
UNDERGROUND TRAFFIC SIGNAL	EUTS	DUTS	UTS
UNDERGROUND TELECOMMUNICATIONS	EUT	DUT	UT
UNDERGROUND FIBER OPTIC	EUF	DUF	UF
UNDERGROUND CATV	EUTV	DUTV	UTV
CHILLED WATER	CW	CW	CW
DOMESTIC WATER	W	W	W
GAS	GAS	GAS	GAS
HIGH PRESSURE SUPPLY	HPS	HPS	HPS
HIGH PRESSURE RETURN	HPR	HPR	HPR
PUMP DISCHARGE RETURN	PDR	PDR	PDR
SANITARY SEWER	SS	SS	SS
STORM	STORM	STORM	STORM
FIRE HYDRANT	F.H.	D(F.H.)	F.H.
WATER VALVE	WV	D(WV)	WV
EXTERIOR CLEANOUT	ECO	D(ECO)	ECO
SANITARY MANHOLE	S	S	S
THRUST BLOCK	T.B.	D(T.B.)	T.B.



A EV CHARGING STATION ROUGH-IN
SCALE: NONE

GENERAL NOTES (SITE):

A. DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS AND COORDINATE WITH CIVIL DRAWINGS AND SURVEYS.
B. REFER ALSO TO ALL OTHER PLANS AND THE SPECIFICATION, BUT ESPECIALLY TO: THE SITE SURVEY, THE ARCHITECTURAL SITE PLAN, THE SITE GRADING PLAN, THE PLANTING PLAN (WHERE AVAILABLE), FOUNDATION PLAN(S), APPROPRIATE MECHANICAL & ELECTRICAL FLOOR PLANS FOR SERVICE CONTINUATIONS, THE SITE UTILITY PLAN - MECHANICAL & ELECTRICAL. WHERE THERE ARE CONFLICTS AMONG THESE PLANS AND/OR RELATED SPECIFICATIONS, ADVISE THESE ENGINEERS AT LEAST TEN DAYS PRIOR TO SUBMISSION OF BIDS.
C. ALL FEES AND ANY OTHER COSTS TO UTILITY COMPANIES, MUNICIPALITIES, INSPECTORS, REVIEWING AGENCIES, ETC. ARE TO BE INCLUDED AS A PART OF THIS CONTRACT.
D. FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN.
E. WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICE IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE.
F. LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS. EXISTING UTILITIES LOCATIONS MAY VARY. CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS.
G. PROVIDE LONG RADIUS ELBOWS FOR UNDERGROUND CONDUIT BENDS. WHERE SERVING A UTILITY OWNED TRANSFORMER, THE UTILTY STANDARDS SHALL TAKE PRECEDENCE.
H. UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE ENGINEER. CONTRACTOR SHALL VISIT THE SITE AND FIELD VERIFY THE ROUTING OF ALL UTILITIES NEW AND EXISTING PRIOR TO SUBMISSION OF BIDS. SUBMISSION OF A BID PROPOSAL INDICATES THAT THE CONTRACTOR IS FULLY AWARE OF ALL OBSTRUCTIONS AND WILL INSTALL ALL OF THE NEW UTILITIES WITHOUT REQUESTS FOR ANY ADDITIONAL CHANGES.
I. PROVIDE GALVANIZED RIGID CONDUIT FOR EXTERIOR UNDERGROUND TRANSITIONS TO ABOVE GRADE; EXTEND CONDUIT A MINIMUM OF 6" ABOVE GRADE.
J. CONTRACTOR SHALL PERFORM A SMOKE TEST ON ALL CONDUITS INSTALLED ON SITE AND SHALL TAKE ALL NECESSARY CORRECTIVE ACTION IF NOT FOUND IN COMPLIANCE WITH FACILITY STANDARDS.
K. CONTRACTOR SHALL CONTACT ENGINEER FOR INSPECTION OF TRENCHES PRIOR TO INSTALLATION OF CONDUITS OR RACEWAYS. PROVIDE PHOTOS UPON REQUEST.
L. CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, ETC. AS REQUIRED FOR WORK. CONTRACTOR SHALL REPAIR ALL LANDSCAPING THAT IS DAMAGED FOR WORK. FINISH GRADE, SEED AND STRAW ALL DISTURBED GREEN SPACES. ALL PATCH AND REPAIR WORK SHALL BE IN ACCORDANCE WITH BOTH CIVIL AND LANDSCAPE DRAWINGS AND SPECIFICATIONS.

TAGGED NOTES

U1	APPROXIMATE LOCATION OF MAIN TELECOM ROOM. REFER TO E201 FOR CONTINUATION OF CONDUITS. PROVIDE 2-4" SCHEDULE 40 PVC CONDUITS WITH PULL STRING AT 36" BELOW GRADE FOR COMMUNICATION INCOMING SERVICE FROM UTILITY POLE TO TELECOM DEMARCATION POINT IN MAIN TELECOMIT ROOM.
U2	PROVIDE PULLBOX FOR SITE LIGHTING AND POWER CIRCUITS. REFER TO DETAIL C, ON SHEET EU102.
U3	PROVIDE LIGHTNING PROTECTION SYSTEM AS AN ADD ALTERNATE E1 PER SPECIFICATION SECTION 26 41 13.
U4	E.C. SHALL PROVIDE 1-1.5"C. FROM SECURITY OFFICE TO GATE OPERATOR FOR CONTROLS. PROVIDE ADDITIONAL SPARE 1-1.5"C. FROM BUILDING TO GATE OPERATOR. REFER TO DETAIL I, ON SHEET EU102.
U5	EXISTING OVERHEAD ELECTRICAL SERVICE TO BE DEMOLISHED AND REROUTED TO NEW UTILITY COMPANY POLE.
U6	GATE CARD READER POST AND CARD READER PROVIDED BY OTHERS. PROVIDE ALL PATHWAYS BETWEEN CARD READER, PHOTO BEAMS AND MOTOR UNITS PER MANUFACTURER REQUIREMENTS AND PROVIDE ACCORDINGLY.
U7	E.C. SHALL INSTALL NEW 2' POLE BASE. REFER TO POLE BASE DETAIL A SHEET EU102.
U8	E.C. SHALL INSTALL NEW 4" POLE BASE. REFER TO POLE BASE DETAIL D SHEET EU102.
U9	E.C. SHALL PROVIDE TRENCH PER POWER COMPANY STANDARDS FOR DIRECT BURY CABLE. PROVIDE CONCRETE ENCASED CONDUIT DUCTBANK UNDER ANY SIDEWALKS AND DRIVES.
U10	E.C. SHALL RUN CIRCUIT THROUGH EXTERIOR LIGHTING CONTROL PANEL. REFER TO DETAIL E ON SHEET EU102.
U11	E.C. SHALL PROVIDE TAMPER SWITCHES IN METER PIT TO MONITOR METER PIT SHUTOFFS. COORDINATE EXACT LOCATION WITH CIVIL DRAWINGS AND P.C. PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY.
U12	E.C. SHALL PROVIDE 120V 20A-1P GFCI WEATHERPROOF RECEPTACLE TO SERVE METER PIT SUMP PUMP.
U13	E.C. SHALL PROVIDE 3-4" CONDUITS STUBBED AND CAPPED BELOW GRADE TO THIS POINT FOR FUTURE GENERATOR.
U14	E.C. SHALL PROVIDE 2.5" CONDUIT TO THIS POINT FOR FUTURE GENERATOR & MANUAL TRANSFER SWITCH. STUB AND CAP BELOW GRADE. PROVIDE DRIVEN LOCATOR PIN FOR FUTURE DETECTION.
U15	E.C. SHALL STUB 3-4", 1-2" AND 2-1" CONDUITS 12" ABOVE FINISHED FLOOR ALONG EXTERIOR WALL FOR FUTURE ATS, CONTROLS, AND ASSOCIATED BRANCH CIRCUITS REQUIRED.
U16	E.C. SHALL STUB 2.5" CONDUIT TO WITHIN 1' OF EXTERIOR WALL AND CAP BELOW GRADE. PROVIDE DRIVEN LOCATOR FOR FUTURE DETECTION OF CONDUIT.
U17	E.C. SHALL PROVIDE FL1 FIXTURE FOR LIGHTING SIGN. INSTALL PER DETAIL B SHEET EU102.
U18	E.C. SHALL PROVIDE 5-5" CONDUITS. CONCRETE ENCASE SLEEVES UNDER THE DRIVE.
U19	E.C. SHALL STUB 1.5" CONDUIT TO THIS LOCATION AND CAP FOR FUTURE ELECTRIC VEHICLE CHARGING STATION.
U20	E.C. SHALL "MAKE READY" ROUGH-IN FOR ELECTRIC VEHICLE CHARGING STATION PROVIDED BY OTHERS. REFER TO DETAIL A THIS SHEET FOR FURTHER INFORMATION.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
4	ADDENDUM #3	2021/05/28
6	ISSUED FOR RE-BID	2021/06/18

UTILITY COMPANY CONTACTS

POWER DP&L	JULIE SULLIVAN	O: 937.331.4947 C: 937.272.9674
GAS VECTRON	JAMES MELANIE	812.432.3229
FIRE CHIEF TROTWOOD FIRE DEPARTMENT	RICHARD HAACKE	937.854.7257

IT IS THE CONTRACTORS RESPONSIBILITY TO MEET ALL LOCAL ORDINANCE AND MUNICIPAL REQUIREMENTS RELATED TO UTILITY INSTALLATION, INSPECTIONS, MATERIALS, FEES, ETC.

OHIO811 Before You Dig

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONTACT OHIO811 1.800.362.2764 OR 8-1-1 AND/OR SUBMIT A DIG NOTIFICATION REQUEST THROUGH OHIO811 AT LEAST 48 HOURS AND NO MORE THAN TEN DAYS BEFORE YOU PLAN TO DIG TO OBTAIN UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING ANY TYPE OF EXCAVATION ON THIS PROJECT SHALL CONTACT OHIO811.

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ELECTRICAL SITE PLAN

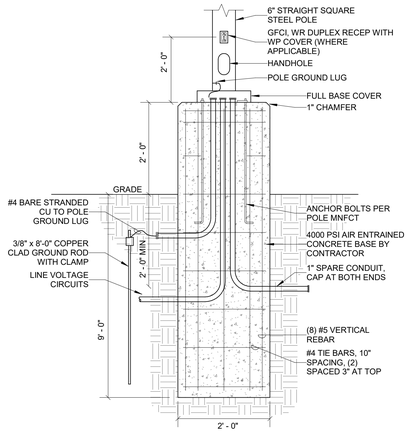
STATE OF OHIO
JEFFREY ALLEN MILLARD
E-67912
REGISTERED PROFESSIONAL ENGINEER

Comm. No. 19651.00	Date 2021/4/23
Drawn NGM	Drawing No. EU101
Checked JAE	

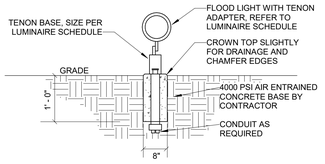
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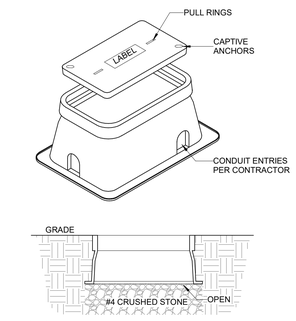
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A POLE BASE DETAIL A
SCALE: NONE

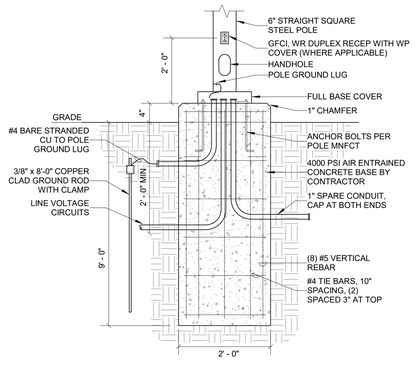


B FLOOD LIGHT DETAIL
SCALE: NONE

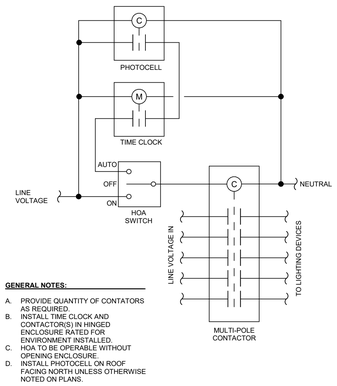


NOTES:
1. BOXES TO BE SIZED PER NEC 314.28 BASED UPON FIELD CONFIGURATION OF CONDUIT ENTRIES. PROVIDE EXTENSIONS WHERE REQUIRED.
2. BOX AND LID TO BE CONSTRUCTED OF POLYMER CONCRETE. LID TIER RATING PER INSTALLED LOCATION.
3. REFER TO SPECIFICATIONS FOR RELATED INFORMATION.

C PULL BOX DETAIL
SCALE: NONE

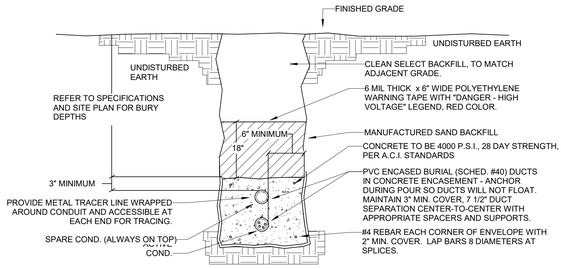


D POLE BASE DETAIL B
SCALE: NONE



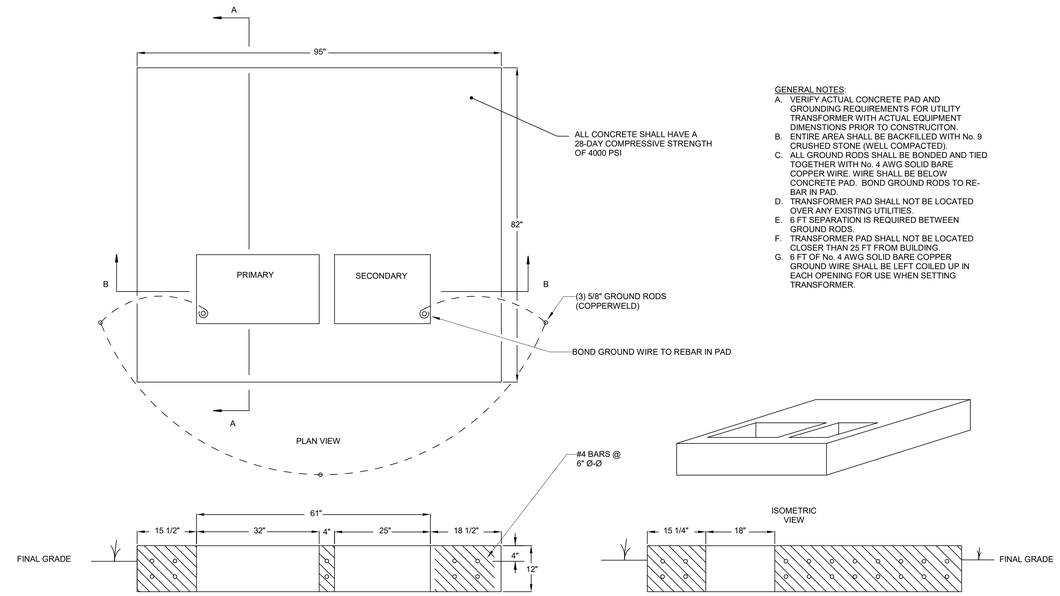
GENERAL NOTES:
A. PROVIDE QUANTITY OF CONTATORS AS REQUIRED.
B. INSTALL TIME CLOCK AND CONTACTOR(S) IN HINGED ENCLOSURE RATED FOR ENVIRONMENT INSTALLED.
C. HOA TO BE OPERABLE WITHOUT OPENING ENCLOSURE.
D. INSTALL PHOTOCELL ON ROOF FACING NORTH UNLESS OTHERWISE NOTED ON PLANS.

E EXTERIOR LIGHTING CONTROL WIRING
SCALE: NONE



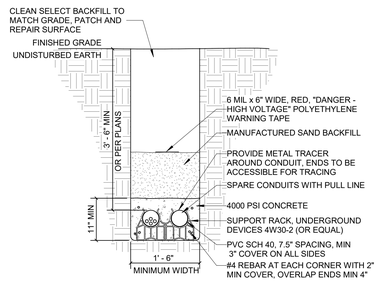
GENERAL NOTES :
A. USE RIGID STEEL SWEEPING ELLS AT ALL TURNS, WHERE RISING ON UTILITY POWER POLE, TURNING UP INTO PAD MOUNTED UTILITY TRANSFORMER AND TURNING UP INTO BUILDING.
B. REFER TO POWER RISER, FLOOR PLANS AND PLAN NOTES FOR EXACT QUANTITY AND SIZE OF CONDUITS.
C. COMMUNICATIONS/FIBER RACEWAYS SHALL BE ROUTED IN DUCT BANK ENCASED CONSTRUCTION, CONSTRUCTED SAME AS SHOWN, EXCEPT FOR NUMBER AND SIZE OF CONDUIT.
D. DUCT BANK CONSTRUCTION FOR SECONDARY SERVICE SHALL BE SAME AS SHOWN, EXCEPT WITH GREATER NUMBER OF CONDUITS. REFER TO POWER RISER DIAGRAM FOR REQUIREMENTS AND PLAN NOTES.
E. REFER TO POWER RISER DIAGRAM FOR REQUIREMENTS AND PLAN NOTES.
F. POUR CONCRETE AGAINST UNDISTURBED EARTH.
G. REFER TO SPECIFICATION SECTION 16040 FOR EXCAVATION, TRENCHING, BACKFILLING AND GRADING REQUIREMENTS. REFER TO EARTHWORK SPECIFICATIONS FOR GENERAL ROCK REMOVAL AND EARTHWORK REQUIREMENTS.
H. REFER TO SPECIFICATION SECTION 16130 FOR ADDITIONAL DUCT BANK REQUIREMENTS.

F TYPICAL TRENCH DETAIL
SCALE: NONE



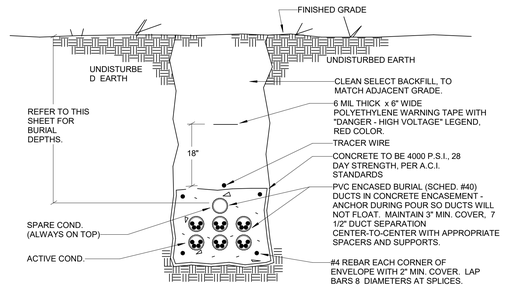
GENERAL NOTES:
A. VERIFY ACTUAL CONCRETE PAD AND GROUNDING REQUIREMENTS FOR UTILITY TRANSFORMER WITH ACTUAL EQUIPMENT DIMENSTIONS PRIOR TO CONSTRUCITON.
B. ENTIRE AREA SHALL BE BACKFILLED WITH No. 9 CRUSHED STONE (WELL COMPACTED).
C. ALL GROUND RODS SHALL BE BONDED AND TIED TOGETHER WITH No. 4 AWG SOLID BARE COPPER WIRE. WIRE SHALL BE BELOW CONCRETE PAD. BOND GROUND RODS TO RE-BAR IN PAD.
D. TRANSFORMER PAD SHALL NOT BE LOCATED OVER ANY EXISTING UTILITIES.
E. 6 FT SEPARATION IS REQUIRED BETWEEN GROUND RODS.
F. TRANSFORMER PAD SHALL NOT BE LOCATED CLOSER THAN 25 FT FROM BUILDING.
G. 6 FT OF No. 4 AWG SOLID BARE COPPER GROUND WIRE SHALL BE LEFT COILED UP IN EACH OPENING FOR USE WHEN SETTING TRANSFORMER.

PAD MOUNTED UTILITY TRANSFORMER CONCRETE PAD AND GROUNDING DETAIL
G SCALE: NONE



GENERAL NOTES:
A. USE RIGID STEEL SWEEPING ELBOWS AT ALL TURNS, WHERE RISING ON UTILITY POWER POLE, TURNING UP INTO PAD MOUNTED UTILITY TRANSFORMER AND TURNING UP INTO BUILDING.
B. REFER TO POWER RISER, FLOOR PLANS AND PLAN NOTES FOR EXACT QUANTITY AND SIZE OF CONDUITS.
C. COMMUNICATIONS/FIBER RACEWAYS SHALL BE ROUTED IN DUCT BANK ENCASED CONSTRUCTION, CONSTRUCTED SAME AS SHOWN, EXCEPT FOR NUMBER AND SIZE OF CONDUIT.
D. POUR CONCRETE AGAINST UNDISTURBED EARTH.
E. REFER TO SPECIFICATIONS FOR EXCAVATION, TRENCHING, BACKFILLING AND GRADING REQUIREMENTS. REFER TO EARTHWORK SPECIFICATIONS FOR GENERAL ROCK REMOVAL AND EARTHWORK REQUIREMENTS.

H DUCT BANK DETAIL - 2 CONDUIT
SCALE: NONE



GENERAL NOTES:
A. USE SWEEPING BENDS AT ALL TURNS AND RIGID STEEL ELLS.
B. COMMUNICATIONS RACEWAYS SHALL BE RUN IN DUCT BANK ENCASED CONSTRUCTION, CONSTRUCTED SAME AS SHOWN, EXCEPT FOR NUMBER AND SIZE OF CONDUIT.
C. POUR CONCRETE AGAINST UNDISTURBED EARTH.
D. REFER TO SPECIFICATION SECTION 260040 FOR EXCAVATION, TRENCHING, BACKFILLING AND GRADING REQUIREMENTS. REFER TO EARTHWORK SPECIFICATIONS FOR GENERAL ROCK REMOVAL AND EARTHWORK REQUIREMENTS.

I TYPICAL DUCT BANK CONSTRUCTION DETAIL
SCALE: NONE

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
6	ISSUED FOR RE-BID	2021/06/18

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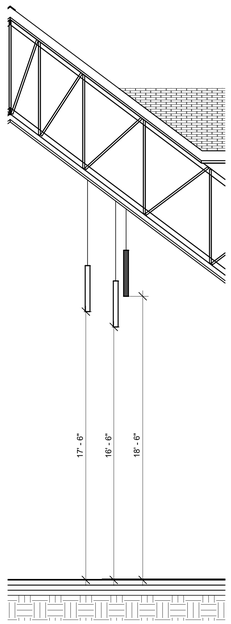
SITE UTILITY ELECTRICAL DETAILS

STATE OF OHIO JEFFREY ALLEN MILLARD E-67012 REGISTERED PROFESSIONAL ENGINEER

Comm. No. 19651.00
Date 2021/4/23
Drawn NGM
Checked JAE
Drawing No. EU102

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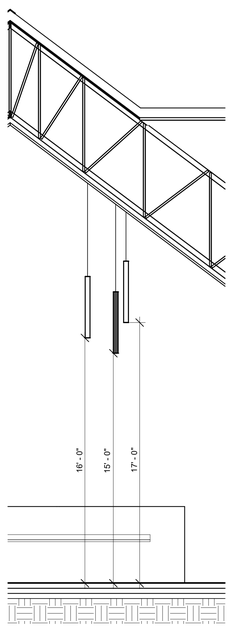
GENERAL NOTES:

1) TYPICAL CLUSTER OF (3) P1 TYPE FIXTURES. MOUNTING HEIGHT TO BE COORDINATED CLOSELY WITH ARCHITECT.

2 TYPICAL PENDANT CLUSTER - LOBBY 102

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

0 1' 2' 4' 8' 12' 16' 1/4" = 1'-0"



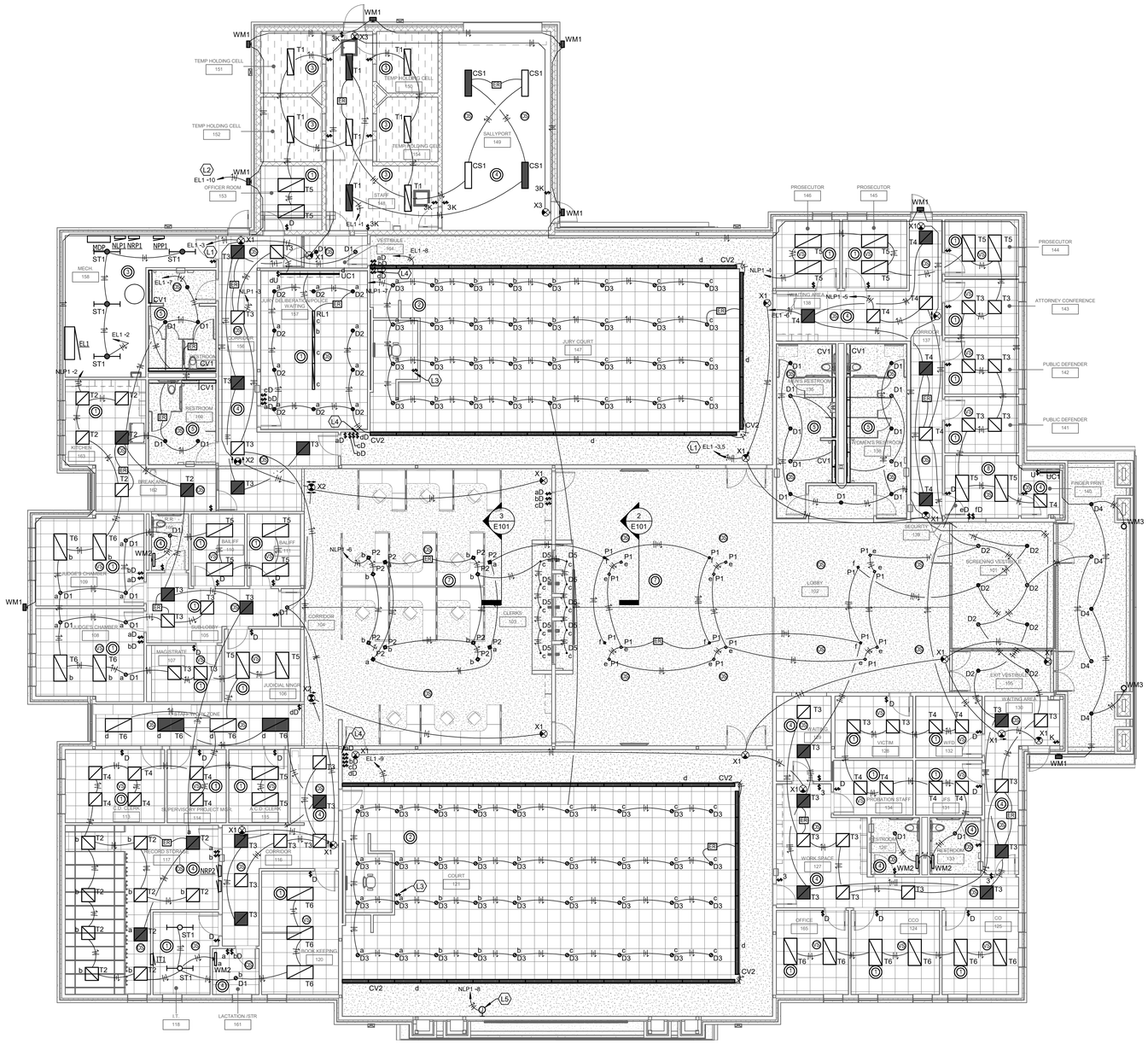
GENERAL NOTES:

1) TYPICAL CLUSTER OF (3) P2 TYPE FIXTURES. MOUNTING HEIGHT TO BE COORDINATED CLOSELY WITH ARCHITECT.

3 TYPICAL PENDANT CLUSTER - CLERKS 103

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

0 1' 2' 4' 8' 12' 16' 1/4" = 1'-0"



1 LIGHTING PLAN

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

0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

GENERAL NOTES (LIGHTING):

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.
B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER N.E.C. #310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER N.E.C. #300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN N.E.C #100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.
C. IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. ALSO, MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT NUMBER.
D. LOCATE CHAIN-HUNG INDUSTRIAL FIXTURES IN MECHANICAL ROOMS TO AVOID DUCTWORK AND PIPING, TO MAXIMIZE AVAILABLE LIGHT. SPACE AROUND EQUIPMENT, AIR HANDLERS, ETC. TO PROVIDE ADEQUATE LIGHTING TO ALL AREAS OF ROOM. PROVIDE ADDITIONAL FIXTURES OF SAME TYPE AS NEEDED TO FULFILL THIS REQUIREMENT.
E. LOCATE EXIT SIGNS FOR MAXIMUM VIEWING AREA TO IDENTIFY EGRESS PATHS AS INDICATED ON PLANS. COORDINATE LOCATIONS SUCH THAT ARCHITECTURAL FEATURES OR EQUIPMENT FROM OTHER TRADES DO NOT OBSTRUCT VIEW.
F. WHERE EXIT SIGNS OR EMERGENCY BATTERY PACKS ARE PROVIDED, THEY SHALL BE CONNECTED TO AN UNSWITCHED LINE.
G. LUMINAIRES INDICATED WITH MULTI-LEVEL SWITCHING SHALL HAVE SIMILAR LAMPS CONTROLLED TOGETHER, I.E. INBOARD AND OUTBOARD LAMPS OR RIGHT AND LEFT HAND LAMPS.
H. ALL LIGHTING FIXTURE LENSES, PARABOLIC LOUVERS, DOWNLIGHTING ALZAK CONES AND "PARACUBE" LOUVERS SHALL BE HANDLED WITH COTTON GLOVES DURING INSTALLATION AND LAMPING TO AVOID FINGERPRINTS OR DIRT DEPOSITS. IT IS PREFERRED THAT FIXTURES BE SHIPPED AND INSTALLED WITH CLEAR PLASTIC BAGS TO PROTECT LOUVERS. AT CLOSE OF PROJECT, AND AFTER CONSTRUCTION AIR FILTERS ARE CHANGED, REMOVE BAGS. ANY LOUVER OR CONE SHOWING DIRT OR FINGER PRINTS SHALL BE CLEANED WITH SOLVENT RECOMMENDED BY THE MANUFACTURER, OR REPLACED AS NECESSARY IN ORDER TO TURN OVER TO THE OWNER NEW FIXTURES AT OCCUPANCY.
I. RECESSED LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE REQUIRED INSERTING LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING. ALL TRIMS SHALL BE COMPLETELY FLUSH WITH FINISHED CEILINGS AT COMPLETION OF CONSTRUCTION.
J. CONTRACTOR SHALL PROVIDE UNSWITCHED CONDUCTOR TO ALL EXIT SIGNS, EMERGENCY INVERTER BATTERY PACKS, AND NIGHT LIGHTS AS REQUIRED.

SHEET E101 TAGGED NOTES (##)

L1	E.C. SHALL WIRE EXIT LIGHTS AHEAD OF ANY AND ALL SWITCHING. RUN EXIT LIGHT CIRCUIT WITH 2-#10, 1-#10 GRD. IN 0.75"C.
L2	E.C. SHALL RUN CIRCUIT THROUGH LIGHTING CONTROL CONTACTOR. REFER TO DETAIL E SHEET EU102.
L3	E.C. SHALL PROVIDE GRAPHIC LIGHTING CONTROL STATION AT JUDGE'S PODIUM. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY.
L4	E.C. SHALL PROVIDE GRAPHIC LIGHTING CONTROL STATION. UNIT SHALL BE KEY OR PASSWORD PROTECTED.
L5	E.C. SHALL INSTALL AND WIRE EXTERIOR BACKLIT SIGN PROVIDED BY OTHERS. PROVIDE ACCESS PANEL TO JUNCTION BOX ABOVE ACCESSIBLE CEILING. COORDINATE LOCATION OF ACCESS PANEL WITH ARCHITECT PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY. WIRE ACCORDING TO SIGN MANUFACTURER RECOMMENDATIONS.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
6	ISSUED FOR RE-BID	2021/06/18

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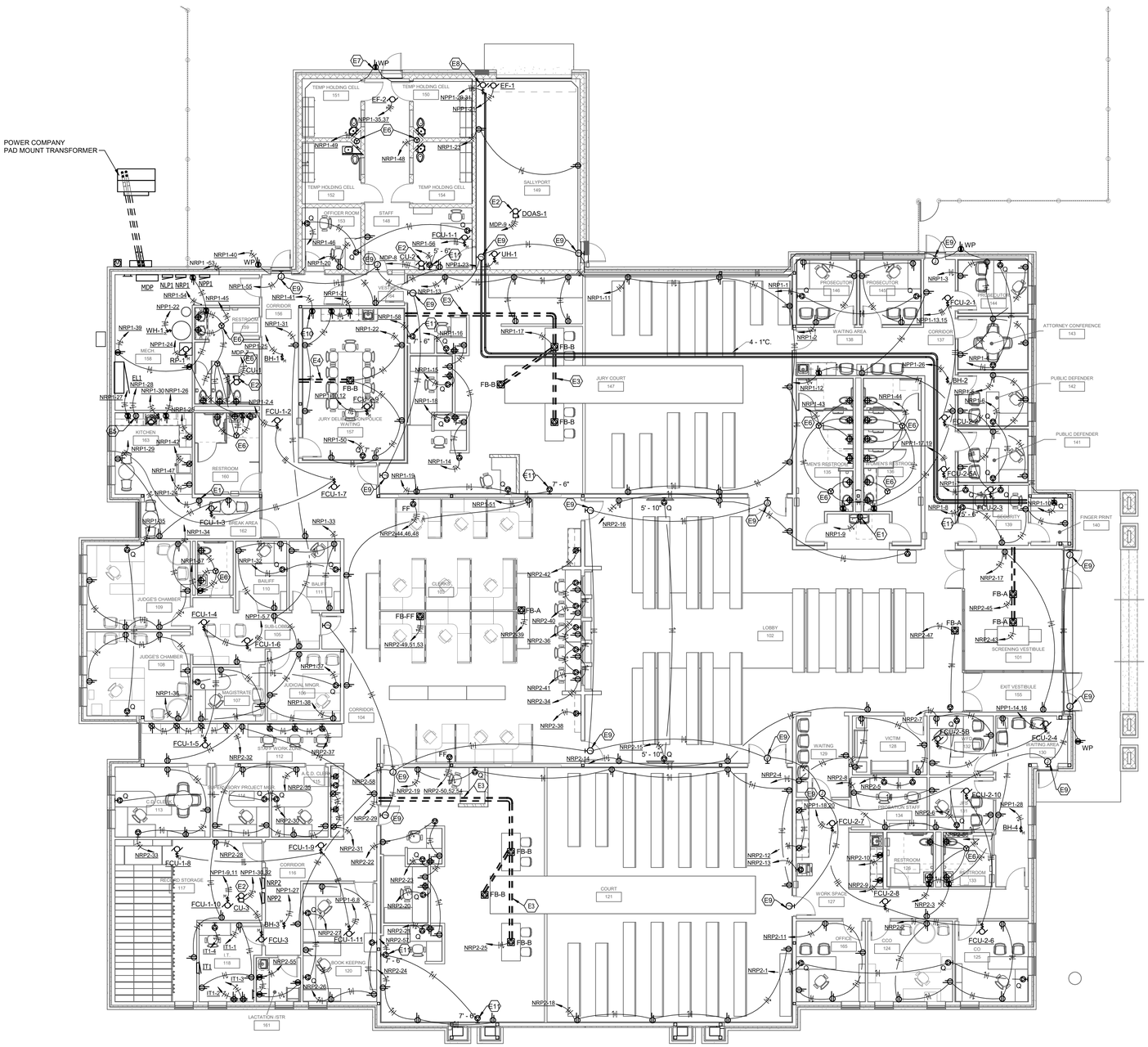
FLOOR PLAN LIGHTING

STATE OF OHIO — JEFFREY ALLEN MILLARD — E-67912 — REGISTERED PROFESSIONAL ENGINEER

Comm. No.	19651.00
Date	2021/4/23
Drawn	NGM
Drawing No.	E101
Checked	JAE

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GENERAL NOTES (POWER):

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.
B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER NEC 310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER NEC 300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN NEC 100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.
C. IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING.
D. LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS OR THROUGH ACCESS/MAINTENANCE CLEARANCES OF EQUIPMENT BY OTHER TRADES.
E. ALL POWER AND DATA LOCATIONS TO BE CONFIRMED IN FIELD BY OWNER.

SHEET E201 TAGGED NOTES

E1	E.C. SHALL PROVIDE GROUND FAULT CIRCUIT BREAKER SERVING WATER COOLER.
E2	EQUIPMENT MOUNTED ON ROOFTOP.
E3	E.C. SHALL PROVIDE 1-0.75"C. FOR POWER AND 1-1.5"C. FOR TELECOM BETWEEN FLOOR BOXES AND UP WALL TO ABOVE ACCESSIBLE CEILING.
E4	E.C. SHALL PROVIDE 1-0.75"C. FOR POWER AND 1-1.5"C. FOR TELECOM UP WALL TO ABOVE ACCESSIBLE CEILING.
E5	E.C. SHALL PROVIDE GROUND FAULT CIRCUIT BREAKER SERVING MICROWAVE. COORDINATE MOUNTING HEIGHT OF RECEPTACLE WITH ARCHITECTURAL ELEVATIONS. MICROWAVE MOUNTED ON SHELF IN LOWER CABINET.
E6	E.C. SHALL PROVIDE LOW VOLTAGE TRANSFORMER COMPATIBLE WITH ELECTRONIC FAUCETS AND FLUSH VALVES. PROVIDE QUANTITY AS REQUIRED TO SERVE QUANTITY OF FIXTURES. LOCATE TRANSFORMER IN ACCESSIBLE LOCATION AS COORDINATED WITH ARCHITECTOWNER.
E7	EMERGENCY VENTILATION DAMPER THAT SHALL OPEN WHEN SMOKE IS DETECTED IN THE SPACE.
E8	E.C. SHALL PROVIDE TOGGLE SWITCH MOUNTED NEAR MOTOR. COORDINATE EXACT LOCATION WITH EQUIPMENT SUPPLIER. PROVIDE 1" CONDUIT FROM SECURITY OFFCE TO DOOR OPERATOR FOR REMOTE CONTROL.
E9	PROVIDE J-BOX FOR ACCESS CONTROL CARD READER. REFER TO DETAIL E SHEET E003.
E10	E.C. SHALL PROVIDE GROUND FAULT CIRCUIT BREAKER SERVING WATER COOLER.
E11	E.C. SHALL PROVIDE RECEPTACLE TO SERVE MONITOR. COORDINATE MOUNTING LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
4	ADDENDUM #3	2021/05/28
5	ADDENDUM #4	2021/06/03
6	ISSUED FOR RE-BID	2021/06/18

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MONTGOMERY COUNTY

MONTGOMERY COUNTY MUNICIPAL COURT BUILDING

875 E. MAIN STREET
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FLOOR PLAN POWER

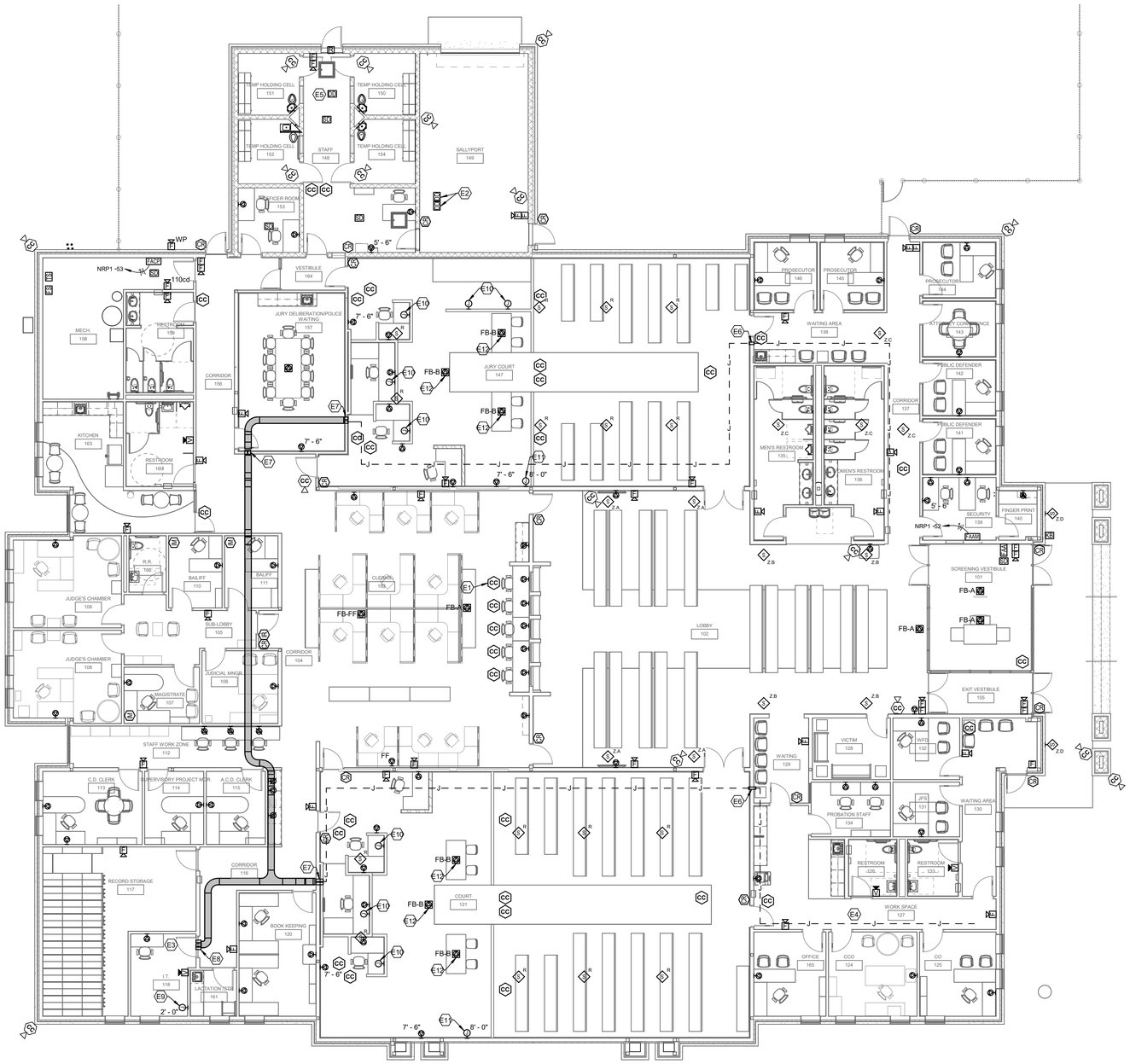
STATE OF OHIO JEFFREY ALLEN MILLARD E-67912 REGISTERED PROFESSIONAL ENGINEER

Comm. No.	Date
19651.00	2021/4/23
Drawn: NGM	Drawing No. E201
Checked: JAE	

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1 FLOOR PLAN - SYSTEMS

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

0 2' 4' 8' 16' 24' 32' 1/8" = 1'-0"

GENERAL NOTES (SYSTEMS):

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.
B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER NEC 310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER NEC 300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN NEC 100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.
C. IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING.
D. REFER TO "SYSTEM INSTALLATION MATRIX" (ON SYSTEMS LEGEND SHEET) AND SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS OF EACH SYSTEM.
E. THE CONTRACTOR SHALL ROUTE ALL "SYSTEM CONDUIT STUB-UPS" TO THE NEAREST CORRIDOR CABLING PATH (SEE "STUB-UP" DETAILS). REFER TO CABLING PATH INSTALLATION DETAIL FOR ADDITIONAL REQUIREMENTS.
F. CONTRACTOR SHALL PAINT ALL SYSTEMS CONDUIT STUB-UPS LIGHT BLUE FOR SYSTEMS CABLING INTO THE CORRIDOR CABLING PATH. PROVIDE PULL STRINGS IN ALL NEW CONDUIT RUNS FOR SYSTEM CABLING INSTALLATION.
G. E.C. SHALL PROVIDE J-HOOK PATHWAYS TO SUPPORT LOW VOLTAGE SYSTEMS CABLING AS REQUIRED EVERY 4'.

SHEET E301 TAGGED NOTES (##)

E1	CAMERAS TO BE MOUNTED IN SOFFIT ABOVE CLERK STATIONS.
E2	E.C. SHALL PROVIDE DUCT MOUNTED SMOKE DETECTOR IN DOAS-1 SUPPLY AND EXHAUST DUCT TO SHUTDOWN UNIT UPON DETECTION OF SMOKE. FIRE ALARM PANEL SHALL ALSO SEND SIGNAL TO DOAS-1 TO SHUTDOWN UPON ALARM FROM ANY INITIATING DEVICE.
E3	E.C. SHALL PROVIDE SLEEVE TO ABOVE ACCESSIBLE CEILING.
E4	E.C. SHALL PROVIDE (3) J-HOOKS PER ROOM FOR ROUTING BACK TO MAIN J-HOOK PATHWAY.
E5	E.C. SHALL PROVIDE DUCT MOUNTED SMOKE DETECTOR IN RETURN AIR DUCT SERVING HOLDING CELLS TO SHUT DOWN UNIT UPON DETECTION OF SMOKE.
E6	E.C. SHALL PROVIDE 1-4" CONDUIT SLEEVE FOR LOW VOLTAGE PATHWAY.
E7	E.C. SHALL PROVIDE 2-4" CONDUIT SLEEVE FOR LOW VOLTAGE PATHWAY.
E8	E.C. SHALL PROVIDE 3-4" CONDUIT SLEEVE FOR LOW VOLTAGE PATHWAY.
E9	E.C. SHALL PROVIDE 12"X12"X6" NEMA 1 METAL ENCLOSURE WITH SCREW COVER FOR A/V RACK. PROVIDE 2-2"C. REFER TO A/V DRAWINGS FOR ADDITIONAL INFORMATION.
E10	E.C. SHALL PROVIDE 2-GANG METAL BOX WITH 1-GANG PLASTER MUD RING FOR MICROPHONE. RECESS BOX AND RUN CABLE IN CASEWORK. COORDINATE MOUNTING LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO A/V DRAWINGS FOR ADDITIONAL INFORMATION.
E11	E.C. SHALL PROVIDE 2-GANG METAL BOX WITH 1-GANG PLASTER MUD RING FOR ASSISTED LISTENING SYSTEM. COORDINATE MOUNTING LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO A/V DRAWINGS FOR ADDITIONAL INFORMATION.
E12	E.C. SHALL PROVIDE 1-GANG OF FLOOR BOX FOR MICROPHONE CABLE. COORDINATE WITH A/V EQUIPMENT SUPPLIER AND PROVIDE ACCORDINGLY.

No.	Revisions / Submissions	Date
1	BID DOCUMENTS	2021/04/23
3	ADDENDUM #2	2021/05/21
5	ADDENDUM #4	2021/06/03
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TROTWOOD, OH 45426

FLOOR PLAN SYSTEMS

STATE OF OHIO JEFFREY ALLEN MILLARD E-67912 REGISTERED PROFESSIONAL ENGINEER

Comm. No.	Date
19651.00	2021/4/23
Drawn: NGM	Drawing No.
Checked: JAE	E301

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SWITCHBOARD AND WIRING SCHEDULE

SWITCHBOARD: MDP
VOLTAGE: 208Y/120V,3P,4W
AMPERES: 800 A
MAINS TYPE: MAIN BREAKER
SPD: Yes
MOUNTING: FLOOR
kAIC VALUE: 23.2
kAIC RATING: 42
LOCATION: MECH. 158
SUPPLY FROM: UTILITY PAD MOUNT TRANSFORMER

CKT	CIRCUIT DESCRIPTION	SETS	WIRE	GND	COND	POLES	FRAME	TRIP	LOAD (kVA)	REMARKS
1	NLP1					3	100 A	100 A	9.7	
2	NRP1					3	225 A	225 A	33.5	
3	NRP2					3	225 A	225 A	29.9	
4	NPP1					3	225 A	225 A	31.9	
5	IT1					3	225 A	225 A	1.4	
6	EL1					2	50 A	50 A	5.2	
7	CU-1					3	150 A	140 A	40.6	
8	CU-2					3	150 A	140 A	40.6	
9	DOAS-1					3	100 A	100 A	30.0	
10	SPARE	--	--	--	--	3	--	225 A	0.0	
11	SPARE	--	--	--	--	3	--	225 A	0.0	
12	SPD	--	--	--	--	3	--	60 A	0.0	
13	NPP2					3	200 A	200 A	12.5	
14										
15										
16										
17										
18										
19										
20										

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	158590 VA	100.00%	158590 VA	TOTAL CONN. LOAD: 235 kVA
LTNG	14860 VA	100.00%	14860 VA	TOTAL EST. DEMAND: 209 kVA
REC	61740 VA	58.10%	35870 VA	TOTAL CONN. CURRENT: 653 A
				TOTAL EST. DEMAND CURRENT: 581 A

NOTES:

PANELBOARD AND WIRING SCHEDULE

PANEL: NRP1
VOLTAGE: 208Y/120V,3P,4W
AMPERES: 225 A
MAINS TYPE: MAIN LUGS ONLY
SPD: Yes
MOUNTING: SURFACE
AVAILABLE FAULT CURRENT: 20.8
PANEL INTERRUPTING RATING: 25
SUPPLY FROM: MDP

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
RECEPTACLES ROOM 145, 146				20	1	1	0.4 1.1			2	1	20				RECEPTACLES ROOM 145, 146
RECEPTACLES ROOM 143, 144				20	1	3	1.1 0.4			4	1	20				RECEPTACLES ROOM 143, 144
RECEPTACLES ROOM 141, 142				20	1	5	1.1 0.4			6	1	20				RECEPTACLES ROOM 141, 142
RECEPTACLES ROOM 139				20	1	7	0.4 0.7			8	1	20				RECEPTACLES ROOM 139, 140
GFCI WATER COOLER ROOM 102				20	1	9	0.2 0.2			10	1	20				RECEPTACLES ROOM 140
RECEPTACLES COURTROOM 147				20	1	11	1.3 1.1			12	1	20				GFCI RECEPTACLES ROOM 135,...
RECEPTACLES COURTROOM 147				20	1	13	0.9 0.7			14	1	20				RECEPTACLES COURTROOM 147
RECEPTACLES COURTROOM 147				20	1	15	0.5 0.5			16	1	20				RECEPTACLES COURTROOM 147
FLOORBOX COURTROOM 147				20	1	17	1.1 0.5			18	1	20				RECEPTACLES COURTROOM 147
RECEPTACLES COURTROOM 147				20	1	19	0.5 0.7			20	1	20				RECEPTACLES ROOM 148, 153,...
RECEPTACLES ROOM 157				20	1	21	0.7 1.1			22	1	20				RECEPTACLES ROOM 157
RECEPTACLES ROOM 149				20	1	23	0.4 0.2			24	1	20				REFRIGERATOR ROOM 163
GFCI RECEPTACLES ROOM 163				20	1	25	0.2 0.2			26	1	20				GFCI RECEPTACLES ROOM 163
MICROWAVE ROOM 163				20	1	27	0.2 0.2			28	1	20				GFCI RECEPTACLES ROOM 163
RECEPTACLES ROOM 163				20	1	29	0.2 0.2			30	1	20				GARBAGE DISPOSAL ROOM 163
RECEPTACLES CORRIDOR 105,...				20	1	31	0.9 0.4			32	1	20				RECEPTACLES ROOM 110, 111
RECEPTACLES ROOM 110, 111				20	1	33	1.1 0.9			34	1	20				RECEPTACLES ROOM 109
RECEPTACLES ROOM 108, 109				20	1	35	0.4 0.9			36	1	20				RECEPTACLES ROOM 108
RECEPTACLES ROOM 106, 107				20	1	37	0.4 1.1			38	1	20				RECEPTACLES ROOM 106, 107
RECEPTACLES ROOM 158, 159,...				20	1	39	0.9 0.7			40	1	20				GFCI OUTDOOR RECEPTACLES
GFCI - FUTURE REFRIGERATOR				20	1	41	1.2 1.2			42	1	20				REFRIGERATOR
MEN'S RESTROOM 135				20	1	43	0.2 0.2			44	1	20				WOMEN'S RESTROOM 136
RESTROOMS 159, 160				20	1	45	0.3 0.5			46	1	20				RECEPTACLES ROOM
VENDING MACHINE ROOM 163				20	1	47	0.2 0.1			48	1	20				HOLDING CELL PLUMBING...
HOLDING CELL PLUMBING...				20	1	49	0.1 0.2			50	1	20				SMARTBOARD 157
RECEPTACLES CORRIDOR 104				20	1	51	0.5 0.0			52	1	20				FIRE ALARM ANNUNCIATOR 139
FIRE ALARM CONTROL PANEL				20	1	53	0.5 0.2			54	1	20				BAS PANEL
CARD READERS NORTH				20	1	55	1.6 0.2			56	1	20				SECURITY MONITOR 148
JUDGES RESTROOM				20	1	57	0.3 0.2			58	1	20				MONITOR COURTROOM 147
MECHANICAL CONTROLS	--	--	--	20	1	59	0.0 0.0			60	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	61	0.0 0.0			62	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	63	0.0 0.0			64	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	65	0.0 0.0			66	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	67	0.0 0.0			68	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	69	0.0 0.0			70	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	71	0.0 0.0			72	1	20	--	--	--	SPARE
							TOTAL LOAD (kVA): 10.9 kVA	10.5 kVA	12.1 kVA							
							TOTAL CURRENT (A): 91 A	87 A	101 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	3000 VA	100.00%	3000 VA	TOTAL CONNECTED LOAD: 33480 VA
REC	30480 VA	66.40%	20240 VA	TOTAL ESTIMATED DEMAND: 23240 VA
				TOTAL CONNECTED CURRENT: 93 A
				TOTAL ESTIMATED DEMAND CURRENT: 65 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: IT1
VOLTAGE: 208Y/120V,3P,4W
AMPERES: 100 A
MAINS TYPE: MAIN BREAKER
SPD: Yes
MOUNTING: FLUSH
AVAILABLE FAULT CURRENT: 4.7
PANEL INTERRUPTING RATING: 10
LOCATION:
SUPPLY FROM: MDP

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
RECEPTACLES ROOM 118				20	1	1	0.5 0.4			2	1	20				RECEPTACLES ROOM 118
RECEPTACLES ROOM 118				20	1	3	0.4 0.2			4	1	20				RECEPTACLES ROOM 118
SPARE	--	--	--	20	1	5	0.0 0.0			6	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	7	0.0 0.0			8	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	9	0.0 0.0			10	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	11	0.0 0.0			12	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	13	0.0 0.0			14	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	15	0.0 0.0			16	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	17	0.0 0.0			18	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	19	0.0 0.0			20	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	21	0.0 0.0			22	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	23	0.0 0.0			24	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	25	0.0 0.0			26	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	27	0.0 0.0			28	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	29	0.0 0.0			30						
							TOTAL LOAD (kVA): 0.9 kVA	0.5 kVA	0.0 kVA							
							TOTAL CURRENT (A): 8 A	5 A	0 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
REC	1440 VA	100.00%	1440 VA	TOTAL CONNECTED LOAD: 1440 VA
				TOTAL ESTIMATED DEMAND: 1440 VA
				TOTAL CONNECTED CURRENT: 4 A
				TOTAL ESTIMATED DEMAND CURRENT: 4 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: NLP1
VOLTAGE: 208Y/120V,3P,4W
AMPERES: 100 A
MAINS TYPE: MAIN LUGS ONLY
SPD: No
MOUNTING: SURFACE
AVAILABLE FAULT CURRENT: 20.8
PANEL INTERRUPTING RATING: 25
LOCATION: MECH. 158
SUPPLY FROM: MDP

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
LIGHTING HOLDING CELLS				20	1	1	0.4 1.5			2	1	20				LIGHTING WEST OFFICES
LIGHTING WEST CORRIDORS				20	1	3		1.2 0.9		4	1	20				LIGHTING EAST OFFICES
LIGHTING LOBBY & EAST...				20	1	5			1.6 1.2	6	1	20				LIGHTING CLERKS 103
LIGHTING COURT ROOMS				20	1	7	1.1 0.0			8	1	20				SOUTH WALL SIGN LIGHTING
EXTERIOR SIGN LIGHTING				20	1	9		0.0 0.1		10	1	20				EXTERIOR FLAG POLE LIGHTING
SPARE	--	--	--	20	1	11			0.0 0.0	12	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	13	0.0 0.0			14	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	15		0.0 0.0		16	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	17			0.0 0.0	18	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	19	0.0 0.0			20	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	21		0.0 0.0		22	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	23			0.0 0.0	24	1	20	--	--	--	SPARE
POLE LIGHTS EAST PARKING LOT				20	2	25	0.0 0.0			26						
						27		0.6 0.2		28	2	20				POLE LIGHTS NORTH PARKING LOT
						29			0.6 0.2	30						
SPARE	--	--	--	20	1	31	0.0 0.0			32	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	33		0.0 0.0		34	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	35			0.0 0.0	36	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	37	0.0 0.0			38	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	39		0.0 0.0		40	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	41			0.0 0.0	42	1	20	--	--	--	SPARE
							TOTAL LOAD (kVA): 3.1 kVA	3.0 kVA	3.6 kVA							
							TOTAL CURRENT (A): 26 A	25 A	30 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
LTNG	9660 VA	100.00%	9660 VA	TOTAL CONNECTED LOAD: 9660 VA
				TOTAL ESTIMATED DEMAND: 9660 VA
				TOTAL CONNECTED CURRENT: 27 A
				TOTAL ESTIMATED DEMAND CURRENT: 27 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: NRP2
VOLTAGE: 208Y/120V,3P,4W
AMPERES: 225 A
MAINS TYPE: MAIN BREAKER
SPD: Yes
MOUNTING: FLUSH
AVAILABLE FAULT CURRENT: 8.1
PANEL INTERRUPTING RATING: 25
LOCATION:
SUPPLY FROM: MDP

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
RECEPTACLES ROOM 124, 125				20	1	1	0.5 0.9			2	1	20				RECEPTACLES ROOM 124,125
GFCI RECEPTACLES ROOM 126,...				20	1	3		0.9 1.1		4	1	20				RECEPTACLES ROOM 128, 129
RECEPTACLES ROOM 134				20	1	5			0.4 0.4	6	1	20				RECEPTACLES ROOM 131, 132
RECEPTACLES ROOM 132				20	1	7	0.5 0.9			8	1	20				RECEPTACLES ROOM 131, 132,...
GFCI RECEPTACLES ROOM 127				20	1	9		0.2 0.2		10	1	20				GFCI RECEPTACLES ROOM 127
RECEPTACLES ROOM 165				20	1	11			0.7 0.4	12	1	20				RECEPTACLES ROOM 127
COPIER 127				20	1	13	0.2 0.5			14	1	20				RECEPTACLES ROOM 102
RECEPTACLES ROOM 102				20	1	15		0.4 0.7		16	1	20				RECEPTACLES ROOM 102
RECEPTACLES ROOM 101, 155				20	1	17			0.4 0.7	18	1	20				RECEPTACLES COURTROOM 121
RECEPTACLES COURTROOM 121				20	1	19	1.1 0.5			20	1	20				RECEPTACLES COURTROOM 121
RECEPTACLES COURTROOM 121				20	1	21		0.5 0.9		22	1	20				RECEPTACLES COURTROOM 121
RECEPTACLES COURTROOM 121				20	1	23			0.5 0.5	24	1	20				RECEPTACLES COURTROOM 121
RECEPTACLES COURTROOM 121				20	1	25	1.1 0.9			26	1	20				RECEPTACLES ROOM 120
RECEPTACLES ROOM 120				20	1	27		0.4 0.5		28	1	20				RECEPTACLES ROOM 117, 119
RECEPTACLES COUNTERTOP 116				20	1	29			0.7 0.5	30	1	20				RECEPTACLES ROOM 113, 114
RECEPTACLES ROOM 113, 114				20	1	31	0.9 0.7			32	1	20				RECEPTACLES ROOM 112
RECEPTACLES ROOM 115				20	1	33		0.7 0.5		34	1	20				RECEPTACLES ROOM 113
RECEPTACLES ROOM 112				20	1	35			1.1 0.4	36	1	20				RECEPTACLES ROOM 113
FLOORBOX ROOM 113				20	1	37	0.5 0.2			38	1	20				COPIER ROOM 113
RECEPTACLES ROOM 113				20	1	39		0.4 0.4		40	1	20				RECEPTACLES ROOM 113
FLOORBOX ROOM 101				20	1	41			0.5 0.2	42	1	20				COPIER ROOM 113
FLOORBOX ROOM 101				20	1	43	0.4 0.1			44						
FLOORBOX ROOM 101				20	1	45		0.4 0.1		46	3	20				FURNITURE FEED CLERKS 103
FLOORBOX & REC ROOM 102				20	1	47			0.5 0.1	48						
						49	0.1 0.1			50						
FURNITURE FEED CLERKS 103				20	3	51		0.1 0.1		52	3	20				FURNITURE FEED CLERKS 103
						53			0.1 0.1	54						
LACTATION ROOM 161				20	1	55	0.5 0.1			56	1	20				RESTROOM 133
MONITORS COURTROOM 121				20	1	57		0.4 1.9		58	1	20				CARD READERS SOUTH
MECHANICAL CONTROLS	--	--	--	20	1	59			0.0 0.0	60	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	61	0.0 0.0			62	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	63		0.0 0.0		64	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	65			0.0 0.0	66	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	67	0.0 0.0			68	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	69		0.0 0.0		70	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	71			0.0 0.0	72	1	20	--	--	--	SPARE
							TOTAL LOAD (kVA): 10.9 kVA	10.7 kVA	8.3 kVA							
							TOTAL CURRENT (A): 94 A	93 A	69 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	100 VA	100.00%	100 VA	TOTAL CONNECTED LOAD: 29920 VA
REC	29820 VA	66.77%	19910 VA	TOTAL ESTIMATED DEMAND: 20010 VA
				TOTAL CONNECTED CURRENT: 83 A
				TOTAL ESTIMATED DEMAND CURRENT: 56 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: EL1 (4)
VOLTAGE: 208/120V,1P,3W
AMPERES: 100 A
MAINS TYPE: MAIN LUGS ONLY
SPD: No
MOUNTING: SURFACE
AVAILABLE FAULT CURRENT: 7.2
PANEL INTERRUPTING RATING: 25
LOCATION: MECH. 158
SUPPLY FROM: MDP

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
EM LIGHTING HOLDING AREA				20	1	1	0.2 0.2		2	1	20				EM LIGHTING MECH
EXIT LIGHTS WEST				20	1	3		0.0 1.3	4	1	20				EM LIGHTING WEST COR. &...
EXIT LIGHTS EAST				20	1	5	0.0 1.0		6	1	20				EM LIGHTING EAST
EM LIGHTS WEST				20	1	7		0.2 1.1	8	1	20				EM LTNG JURY COURT 147
EM LTNG COURT 121				20	1	9	1.0 0.3		10	1	20				EM LIGHTING EXTERIOR
SPARE	--	--	--	20	1	11		0.0 0.0	12	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	13	0.0 0.0		14	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	15		0.0 0.0	16	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	17	0.0 0.0		18	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	19		0.0 0.0	20	1	20	--	--	--	SPARE
							TOTAL LOAD (kVA): 2.6 kVA	2.6 kVA							
							TOTAL CURRENT (A): 25 A	25 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
LTNG	5200 VA	100.00%	5200 VA	TOTAL CONNECTED LOAD: 5200 VA
				TOTAL ESTIMATED DEMAND: 5200 VA
				TOTAL CONNECTED CURRENT: 25 A
				TOTAL ESTIMATED DEMAND CURRENT: 25 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: NPP1
VOLTAGE: 208Y/120V,3P,4W
AMPERES: 225 A
MAINS TYPE: MAIN LUGS ONLY
SPD: No
MOUNTING: SURFACE
AVAILABLE FAULT CURRENT: 20.8
PANEL INTERRUPTING RATING: 25
LOCATION: MECH. 158
SUPPLY FROM: MDP

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
FCU-1-1				20	2	1	0.4 1.2			2						
						3		0.4 1.2		4	2	20				FCU-1-2, 1-3, 1-7
FCU-1-4, 1-5, 1-6				20	2	5			1.1 1.0	6						
						7	1.1 1.0			8	2	20				FCU-1-8, 1-9, 1-11
FCU-1-10				20	2	9	1.0 1.0			10						
						11			1.0 1.0	12	2	20				FCU-2-9
FCU-2-1, 2-2, 2-3				20	2	13	1.0 1.0			14						
						15		1.0 1.0		16	2	20				FCU-2-4, 2-5B
FCU-5A				20	2	17			0.4 1.5	18						
						19	0.4 1.5			20	2	20				FCU-2-6, 2-7, 2-8, 2-10
EF-1				20	1	21		0.4 1.0		22	1	20				WATER HEATER
UH-1				20	1	23			0.6 1.0	24	1	20				CIRCULATION PUMP
BS-1				15	1	25	0.6 0.6			26	1	15				BS-2
BS-3				15	1	27		0.6 0.6		28	1	15				BS-4
SALLYPORT GARAGE DOOR				20	2	29			0.8 1.8	30						
						31	0.8 1.8			32	2	20				CU-3, FCU-3
PARKING GATE MOTOR	#10	#10	0.75	20	1	33		0.6 0.6		34	1	20	0.75	#10	#10	PARKING GATE MOTOR
EF-2				20	2	35			0.1 0.6	36	1	20				SUMP PUMP
						37	0.1 0.0			38	2	20	--	--	--	SPARE
SPARE	--	--	--	20	2	39		0.0 0.0		40						
						41			0.0 0.0	42	2	20	--	--	--	SPARE
SPARE	--	--	--	20	2	43	0.0 0.0			44						
						45		0.0 0.0		46	2	20	--	--	--	SPARE
SPARE	--	--	--	20	1	47			0.0 0.0	48	2	20	--	--	--	SPARE
SPARE	--	--	--	20	1	49	0.0 0.0			50	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	51		0.0 0.0		52	1	20	--	--	--	SPARE
SPARE	--	--	--	20	1	53			0.0 0.0	54	1	20	--	--	--	SPARE
							TOTAL LOAD (kVA): 11.4 kVA	9.5 kVA	10.9 kVA							
							TOTAL CURRENT (A): 97 A	80 A	92 A							

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIP	31850 VA	100.00%	31850 VA	TOTAL CONNECTED LOAD: 31850 VA
				TOTAL ESTIMATED DEMAND: 31850 VA
				TOTAL CONNECTED CURRENT: 88 A
				TOTAL ESTIMATED DEMAND CURRENT: 88 A

NOTES: WHERE NOT LISTED, WIRE AND CONDUIT SHALL BE BE MINIMUM PER SPECIFICATIONS. SPARE BREAKERS TO BE 20A/1P.

PANELBOARD AND WIRING SCHEDULE

PANEL: NPP2
VOLTAGE: 208Y/120V,3P,4W
AMPERES: 225 A
MAINS TYPE: 200A MAIN BREAKER
SPD: Yes
MOUNTING: FLUSH
AVAILABLE FAULT CURRENT: 8.1
PANEL INTERRUPTING RATING: 25
LOCATION:
SUPPLY FROM: MDP

CIRCUIT DESCRIPTION	WIRE	GND	C	OCP	P	CKT	A	B	C	CKT	P	OCP	C	GND	WIRE	CIRCUIT DESCRIPTION
EV CHARGER	3-#6	1-#8	1-1.5"	20	2	1	3.1 3.1			2						
						3		3.1 3.1		4	2	20	1-1.5"	1-#8	3-#6	EV CHARGER
SPARE	--	--	--	40	2	5			0.0 0.0	6						
						7	0.0 0.0			8	2	40	--	--	--	SPARE
SPARE	--	--	--	40	2	9		0.0 0.0		10	1	20	--	--	--	SPARE
						11			0.0 0.0	12	1	20	--	--	--	S