WILLIAMSTON COMMUNITY SCHOOLS

DISCOVERY ELEMENTARY SCHOOL SECURE ENTRANCE

WILLIAMSTON, MICHIGAN
PROJECT NO. 2020-006

11/15/2021 BIDS

architects planners interior

FRENCH associates

LIST OF DRAWINGS

ARCHITECTURAL

STRUCTURAL

MECHANICAL

ELECTRICAL

0000.00 XYZ PROJECT

MATERIAL LEGEND

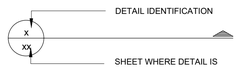
- SOIL
- ASPHALT AGGREGATE
- GRANULAR FILL
- STONE/GRAVEL
- CONCRETE
- CONCRETE MASONRY UNIT
- BRICK
- GLAZED HOLLOW CMU
- STRUCTURAL GLAZED TILE
- LIMESTONE
- MARBLE
- FINISH WOOD
- COMPOSITION/PLYWOOD
- CONTINUOUS WOOD BLOCKING
- BLOCKING OR SHIMS
- BATT INSULATION
- RIGID INSULATION
- PREMOLDED EXPANSION JOINT/ COMPRESSIBLE FILLER STRIP
- PLASTER OR GYPSUM BOARD
- CERAMIC OR QUARRY TILE
- TERRAZZO
- ACOUSTICAL PANEL OR ACOUSTICAL TILE
- EXISTING MATERIAL (IN SECTION)
- EXISTING MATERIAL (IN PLAN)
- DEMOLITION - TO BE REMOVED

ABBREVIATIONS

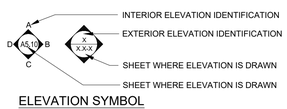
AC	AIR CONDITIONING
ACOUST	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
AL/ALUM	ALUMINUM
ANOD	ANODIZED
APC	ARCHITECTURAL PRECAST LINTEL
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
AV	AUDIO/VISUAL
L	ANGLE
B CMU	BURNISHED CMU
BIT	BITUMINOUS
BD	BOARD
BF	BARRIER FREE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCH MARK/BEAM
BOT	BOTTOM
BRG	BEARING
BUR	BUILT-UP ROOF
CAB	CABINET
CUH	CABINET UNIT HEATER
CB	CHALKBOARD/CATCH BASIN
CEM	CEMENT
CER	CERAMIC
CFM	CUBIC FEET PER MINUTE
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMP	COMPACTED
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS/CONTINUE
CONTR	CONTRACTOR
CORR	CORRUGATED
CPL	CEMENT PLASTER
CPT	CARPET
CT	CERAMIC TILE
CU	CONDENSING UNIT
CUSP	CUSPIDOR
CWF	CURTAINWALL FRAMING
D	DEPTH/DEEP
°	DEGREE
DC	DISPLAY CASE
DEMO	DEMOLISH/DEMOLITION
DTL	DETAIL
DF	DRINKING FOUNTAIN
DIA/Ø	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EIFS	EXTERIOR INSULATION FINISH
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EX/EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FF	FORCED FLOW CABINET HEATER
FHC	FIRE HOSE CABINET
FIN	FINISH
FIN FL	FINISH FLOOR
FLR	FLOOR
FOUND	FOUNDATION
FT/'	FEET
FTG	FOOTING
FRP	FIBERGLASS REINFORCED POLYESTER
GA	GAUGE
GALV	GALVANIZE(D)
GB	GRAB BARS
GHT	GLAZED HOLLOW TILE
GL	GLASS
GLCMU	GLAZED CMU
GLZD	GLAZED
GYP	GYPSUM
H/HGT	HEIGHT
HB	HOSE BIB
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HVAC	HEATING/VENTILATING/AIR CONDITIONING
ID	INSIDE DIAMETER
IN/"	INCH
INCL	INCLUDE(D),(ING)
INSUL	INSULATION/INSULATE(D)
INT	INTERIOR
KIT	KITCHEN
JST	JOIST
JT	JOINT
L	LENGTH
LAM	LAMINATE(D)
LAV	LAVATORY
LB/#	POUND
LGF	LIGHT GAUGE FRAMING
LIN	LINOLEUM
LKR	LOCKER
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMC	LINEAR METAL CEILING
LOC	LOCATION(S)
LP	LOW POINT
MANUF	MANUFACTURER
MAR	MARBLE THRESHOLD
MB	MARKER BOARD
MAS	MASONRY
MAT	MATERIAL/MAT
MAU	MAKE UP AIR UNIT
MAZ	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MIN	MINIMUM/MINUTE
MISC	MISCELLANEOUS
ML	MASONRY LINTEL
MP	METAL PANEL
MWP	METAL WALL PANEL
MO	MASONYOPENING
MET/MTL	METAL
MSF	METAL STUD FRAMING
MT	METAL THRESHOLD
NIC	NOT IN CONTRACT
NO/#	NUMBER
NOM	NOMINAL
NSF	NON-SLIP FINISH
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHD	OVERHEAD DOOR
OPNG	OPENING
OPP	OPPOSITE
OS	OVERFLOW SUMP
PART	PARTICLE
PART'N	MOVABLE PARTITION
PC	PRECAST CONCRETE
PL	PLATE/PROPERTY LINE
PLAS	PLASTER
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTD	PAINTED
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RISER/RADIUM
RB	RESILIENT WALL BASE/RUBBER BASE
RBF	RUBBER FLOORING
RC	RAIN CONDUCTOR
RES	RESILIENT
RS	ROOF SUMP
REF	REFERENCE
REFR	REFRIGERATOR
REINF	REINFORCING
REQ'D	REQUIRED
REV	REVISION(S)
RF	ROOF EXHAUST FAN
RM	REMOVABLE MULLION/ROOM
RO	ROUGH OPENING
RWO	RIGHT OF WAY
RTU	ROOF TOP UNIT
RV	ROOF VENT
S	SINK
SAAC	SPRAY APPLIED ACOUSTICAL COATING
SCHED	SCHEDULE
SEAL	CONCRETE SEALER
SEC	SECTION
SFF	STOREFRONT FRAMING
SHT	SHEET
SIM	SIMILAR
SPEC(S)	SPECIFICATIONS
SP CMU	SPLIT FACE CMU
SPI	SPORTS IMPACT FLOORING
SPKR	SPEAKER
SQ	SQUARE
SS	SERVICE SINK/STAINLESS STEEL
SSM	SOLID SURFACE MATERIAL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SVT	SOLID VINYL TILE
SV	SHEET VINYL
T	TREAD
T&B	TOP AND BOTTOM
TB	TACK BOARD
TC	TOP OF CURB
TEMP	TEMPERED
TER	TERRAZZO
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TS	TUBE STEEL
TV	TELEVISION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
VCT	VINYL COMPOSITION TILE
VCG	VINYL COVERED GYPSUM BOARD
VERT	VERTICAL
VIF	VERIFY IN FIELD
VUV	VERTICAL UNIT VENTILATOR
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDSC	WOOD SOUND CONTROL
WH	WATER HEATER
WP	WORKING POINT / WATERPROOF
WWF	WELDED WIRE FABRIC

SYMBOL LEGEND

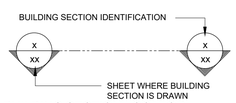
DRAWING SYMBOL



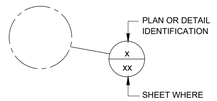
DETAIL LOCATOR



ELEVATION SYMBOL



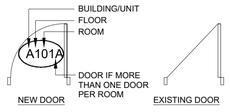
BUILDING SECTION LOCATOR



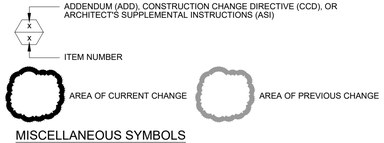
PLAN OR DETAIL BLOW-UP

COLUMN GRID

ROOM NAME AND NUMBER

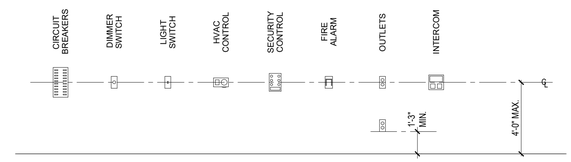


DOOR NUMBER AND SYMBOLS

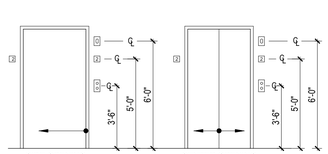


MISCELLANEOUS SYMBOLS

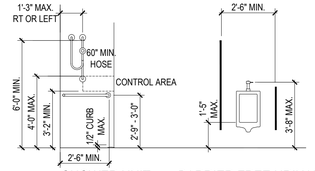
MOUNTING HEIGHTS



CONVENIENCE CONTROLS AND OUTLETS

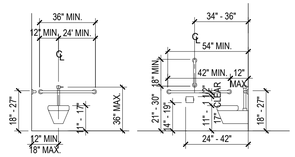


ELEVATORS

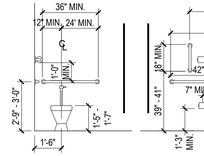


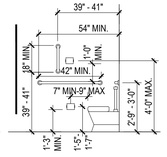
SHOWER UNIT

BARRIER FREE URINAL

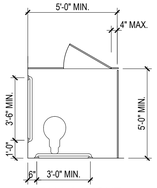


BARRIER FREE WATER CLOSET MOUNTING HEIGHTS FOR CHILDREN

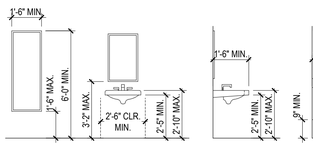


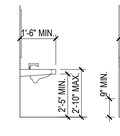


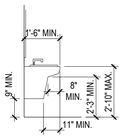
BARRIER FREE WATER CLOSET



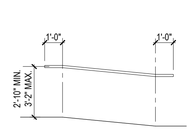
STALL LAYOUT



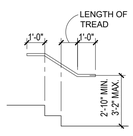




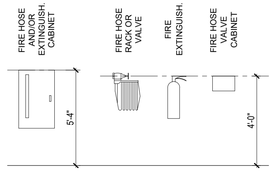
BARRIER FREE LAVATORIES AND MIRRORS



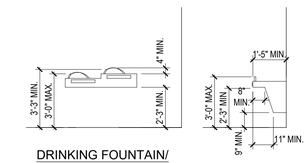
RAMP HANDRAIL



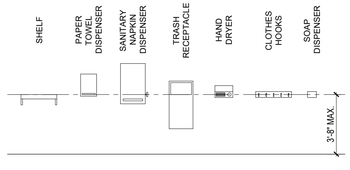
STAIR HANDRAIL



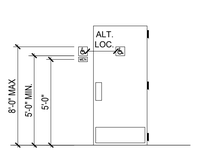
FIRE EXTINGUISHER EQUIPMENT



DRINKING FOUNTAIN/ ELECTRIC WATER COOLER

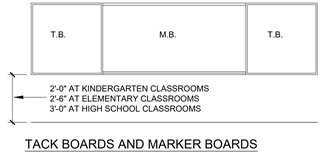


TOILET ROOM ACCESSORIES

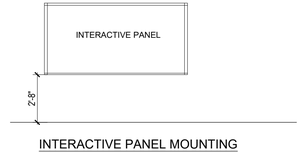


TOILET ROOM SIGNAGE

NOTE: HEIGHT ABOVE FLOOR TO BASELINE OF CHARACTER TO COMPLY WITH ICC/ANSI A117.1-2009 TABLE 703.2.4



TACK BOARDS AND MARKER BOARDS



INTERACTIVE PANEL MOUNTING

ISSUE DATE	ISSUED FOR
11/15/2021	BIDS
DRAWN	FA
CHECKED	FA
APPROVED	FA

FRENCH associates
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PROJECT

Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET

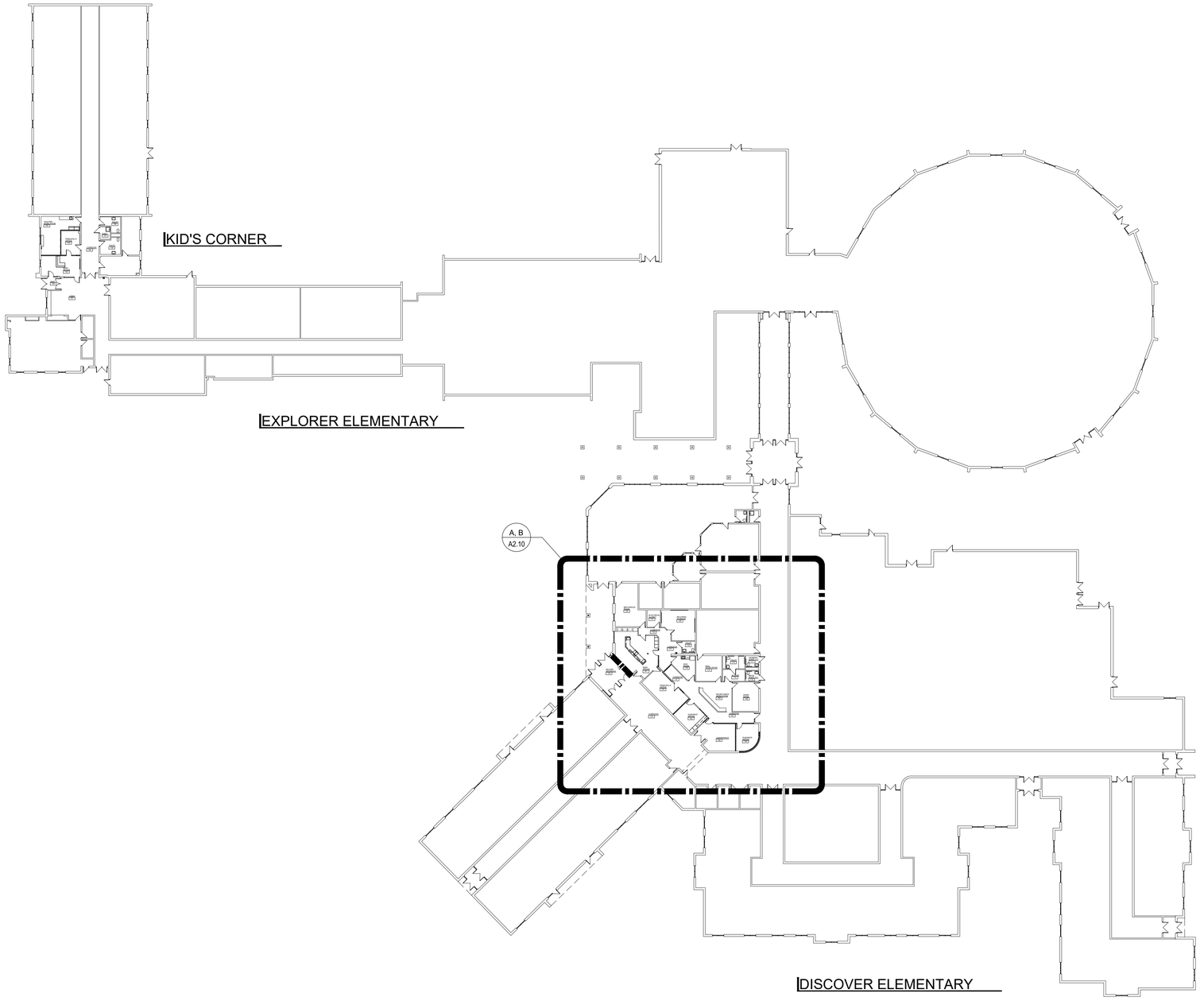
ARCHITECTURAL REFERENCE SHEET

PROJECT NUMBER

2020-006

SHEET NUMBER

A0.01



COMPOSITE FLOOR PLAN
SCALE: 1/32" = 1'-0"

CODE PLAN INFORMATION

Discover Elementary remodeling

1) Design Codes
a)2015 Michigan Rehabilitation Code (Existing Building)
b)1999 School Fire Safety Rules and NFPA 101 Life Safety Code 1997

2) Design Professional in Responsible Charge (106.6)
a)A representative of French Associates will be the Design Professional in Responsible Charge.

3) Existing Building information
a)1 story, first floor = 80,101 square feet

b)The building is not sprinkled.
c)Type of Construction is IIB (0-000 from School Fire Safety Rules)
d)Use Group is Occupancy E (Education)

4) Compliance Method (Chapter 3)
a)Work Area Compliance Method (301.1.2) - The work shall comply with the applicable requirements of Chapters 5 through 11.

5) Classification of Work (Chapter 5)
a)As defined by the Michigan Rehabilitation Code, the work includes Level 1 Alterations and Level 2 Alterations. The Work Area does not exceeds 50% of the Building Area.
b)There is no change of occupancy.
c)There is no addition.
d)Under the School Fire Safety Rules, the scope of work in the Level 1 Alterations is the replacement of existing finishes and systems. As a result, the Level 1 Alteration areas do NOT qualify as remodeling.
e)The Level 2 Alteration areas are being remodeled as defined by the School Fire Safety Rules. The Level 2 Alteration area is less than 50% of the building area so we are NOT required to bring the whole building into compliance.

6) Chapter 7- Alterations- Level 1
a)Section 702.1- New interior finishes will comply with Chapter 8 of the Michigan Building Code.
i) From Table 803.9- Corridors are Class B finishes, Rooms are Class C finishes
b)Interior floor finishes shall comply with Section 804 of MBC.

7) Chapter 8- Alterations- Level 2
a)Section 803.4- New interior finishes will comply with Chapter 8 of the Michigan Building Code.
i) From Table 803.9- Corridors are Class B finishes, Rooms are Class C finishes
b)803.4.1- The new and existing finishes of corridors serving the work area comply with Section 804 of MBC.
c)Section 804- Fire Protection
i) 804.2.2- In work areas, the fire protection (sprinkler) system will be modified as required to comply with the Michigan Building Code.
ii)804.4- The existing building has an existing, previously approved fire alarm system (Exception 1).
iii) 804.4.1.1 The existing fire alarm system is already in place in the Work Areas and shall be maintained. Modifications shall comply with Section 907 of the MBC.
d)Section 805.3- The existing number of exits being maintained comply with MBC Chapter 10 requirements for quantity and sizing.
e)Section 805.5- Corridor doors in the work area that are being replaced shall be solid core wood or hollow metal and shall not contain louvers.
f) 805.5.3- Other corridor opening- The existing corridor walls provide a smoke barrier separation. New corridor openings shall maintain the smoke barrier.
g)805.6- Dead end corridors in the work areas do not exceed 35'
h)805.7- Means of egress and emergency lighting are provided as required in the Level 1 and Level 2 Alteration areas
i) 805.8- Exit signs as provided as required in the Level 1 and Level 2 Alteration areas.

9) NFPA 101 Life Safety Code, Chapter 11, Existing Educational Occupancies
a)The spaces being remodeled (Level 2 Alterations) are designed to comply with the requirements of Chapter 11, Existing Educational Occupancies.
b)11-2.2 through 11-2.5- Existing Means of Egress components comply.
c)11-2.6 travel Distance to Exits- Existing exit travel distances are being maintained. In locations where the travel distance to an exit is being changed by the Addition, the rooms have an Exit Travel Distance of less than 200'.
d)11-2.8 through 11-2.10- New light fixtures, emergency lighting and exit signs are part of the work and will comply.
e)11-3.2- The existing Boiler Room is separated from the rest of the building by a 1 hour fire barrier.
f) 11-3.3- Interior finishes of Corridors are Class B, minimum. All other locations are Class C, minimum.
g)The existing fire alarm system is being maintained.
h)11-3-6- The existing corridor walls consist of a smoke barrier to deck. We are not remodeling the corridors or most classroom spaces, just replacing ceilings, lights and finishes. In locations where we are remodeling, the corridor wall smoke barrier is being maintained.
i) 11-3.7- The existing building is sub-divided into existing fire areas.

CODE PLAN LEGEND

INDICATES 1-HOUR FIRE RATED WALLS

BUILDING INFORMATION

EXISTING BUILDING AREA: FIRST FLOOR 80,101 SF.

STUDENT POPULATION IS NOT CHANGING

WORK AREA COMPLIANCE METHOD: LEVEL 1 & 2 ALTERATIONS

NO CHANGE OF USE

EXISTING BUILDING IS FULLY SPRINKLED.

ALTERATION DESCRIPTION:

OFFICE RENOVATION, FLOORING, CEILINGS, MINOR MECHANICAL AND ELECTRICAL UPGRADES

KEY PLAN

ISSUE DATE	ISSUED FOR
11/15/2021	BIDS
DRAWN	KRM
CHECKED	KRM
APPROVED	DCJ

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PROJECT

Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET

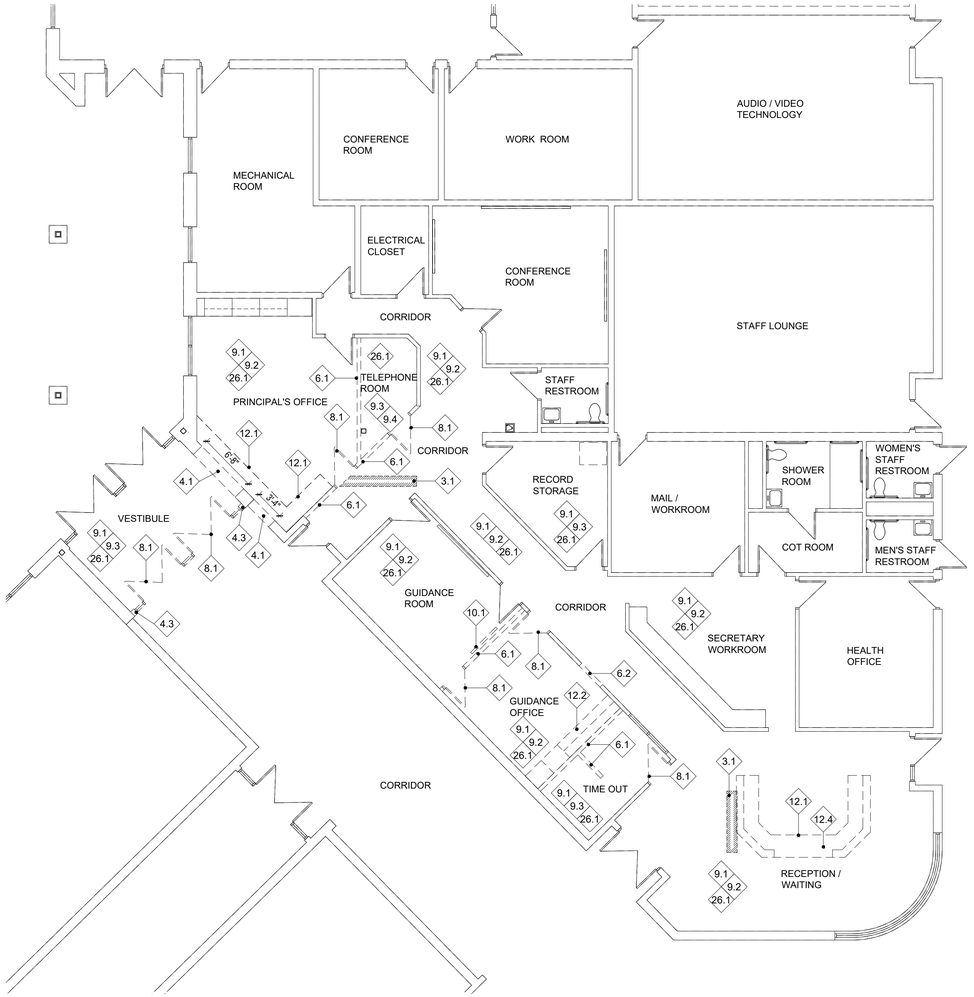
COMPOSITE
FIRST FLOOR PLAN &
CODE PLAN

PROJECT NUMBER

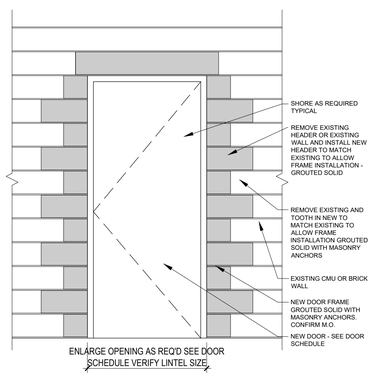
2020-006

SHEET NUMBER

A2.01



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



A / AD2.10 TYPICAL DOOR INSTALLATION IN EXISTING MASONRY WALL
SCALE: 1/2" = 1'-0"

DEMOLITION PLAN NOTES

1. REFER TO SHEET AD2.00 FOR DEMOLITION GENERAL NOTES AND KEY NOTES.
2. = = = = = DASHED LINES REPRESENTS DEMOLITION.

DEMOLITION GENERAL NOTES

1. REFER TO PROJECT SPECIFICATION MANUAL FOR DEMOLITION CRITERIA BEFORE REMOVING ANY ITEMS.
2. REMOVE AND REPLACE EXISTING CONSTRUCTION AS REQUIRED FOR THE EXECUTION OF NEW WORK.
3. PROTECT EXISTING CONSTRUCTION TO REMAIN AS REQUIRED DURING DEMOLITION.
4. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS AND FOR COORDINATION OF WORK.
5. DISCONNECT ALL MISCELLANEOUS FEATURES (I.E. ELECTRICAL, MECHANICAL, PLUMBING, ETC.) ASSOCIATED WITH ITEMS TO BE DEMOLISHED (I.E. PARTITIONS, WALLS, CEILINGS, CABINETS ETC.).
6. REMOVAL OF ANY MECHANICAL, ELECTRICAL AND MISCELLANEOUS ITEMS WILL REQUIRE PATCH AND REPAIR OF ADJACENT MATERIALS TO REMAIN.
7. REMOVE EXISTING UNUSED NAILS, SCREWS AND OTHER WALL PROTRUSIONS FROM EXISTING SURFACES TO REMAIN. PATCH AND REPAIR TO MATCH EXISTING ADJACENT SURFACES AS REQUIRED TO RECEIVE NEW FINISHES.
8. PATCH AND REPAIR ALL SURFACES TO REMAIN TO MATCH EXISTING ADJACENT SURFACES AS REQUIRED TO RECEIVE NEW FINISHES - SEE ROOM FINISH SCHEDULE.
9. CONTRACTOR SHALL PLACE ANY ITEMS OR MATERIALS TO BE RETAINED AS DIRECTED BY OWNER.

DEMOLITION PLAN KEY NOTES

NOTES BELOW ARE INDICATED ON THE DRAWING BY THIS SYMBOL: ◇

3.1 SAW CUT EXISTING FLOOR AS REQUIRED FOR INSTALLATION OF NEW CONDUITS. REFER TO ELECTRICAL DRAWINGS FOR MORE INFORMATION.

4.1 REMOVE PORTION OF EXISTING CMU WALL CONSTRUCTION AS INDICATED FOR NEW DOOR OPENING. REMOVE TO 8" BELOW FLOOR SLAB. PATCH AND REPAIR ADJACENT SURFACES AS REQUIRED TO ACCEPT NEW FINISHES.

4.2 REMOVE PORTION OF EXISTING CMU WALL CONSTRUCTION AS INDICATED FOR NEW WINDOW OPENING. REMOVE TO 8" BELOW FLOOR SLAB. PATCH AND REPAIR ADJACENT SURFACES AS REQUIRED TO ACCEPT NEW FINISHES.

4.3 REMOVE EXISTING CMU WALL CONSTRUCTION, ASSOCIATED ELECTRICAL DEVICES, WALL MOUNTED EQUIPMENT AND DOOR OR WINDOW AND FRAME AS INDICATED. REMOVE TO 8" BELOW FLOOR SLAB. PATCH AND REPAIR ADJACENT SURFACES AS REQUIRED TO ACCEPT NEW FINISHES.

6.1 REMOVE EXISTING PARTITION, ASSOCIATED ELECTRICAL DEVICES, PARTITION MOUNTED EQUIPMENT AND DOOR AND FRAME. PATCH AND REPAIR ALL SURFACES TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES.

6.2 REMOVE PORTION OF EXISTING PARTITION WALL CONSTRUCTION AS INDICATED FOR NEW DOOR OPENING. PATCH AND REPAIR ADJACENT SURFACES AS REQUIRED TO ACCEPT NEW FINISHES.

8.1 REMOVE EXISTING INTERIOR DOOR AND FRAME IN ITS ENTIRETY.

9.1 REMOVE EXISTING CEILING TILES, GRID, HANGERS. SEE MECHANICAL AND ELECTRICAL FOR MORE INFORMATION.

9.2 REMOVE EXISTING CARPET FLOORING AND WALL BASE. PATCH AND REPAIR ALL SURFACES TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES.

9.3 REMOVE EXISTING VCT FLOORING AND WALL BASE. PATCH AND REPAIR ALL SURFACES TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES.

9.4 REMOVE EXISTING HARD CEILING. SEE MECHANICAL AND ELECTR4ICAL FOR MORE INFORMATION. PATCH AND REPAIR ALL SURFACES TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES.

10.1 REMOVE EXISTING MARKER/ TACK BOARD. PATCH AND REPAIR ALL SURFACES TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES.

12.1 REMOVE EXISTING CASEWORK. PATCH AND REPAIR ALL SURFACES TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES.

12.2 REMOVE EXISTING CASEWORK AND SALVAGE FOR RELOCATION. PATCH AND REPAIR ALL SURFACES TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES.

12.4 EXISTING DOOR BELL TO BE SALVAGED FOR RELOCATION TO THE NEW RECEPTION DESK

26.1 REMOVE EXISTING LIGHT FIXTURES. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

KEY PLAN

ISSUE DATE	ISSUED FOR
11/15/2021	BIDS
DRAWN	KRM
CHECKED	KRM
APPROVED	DCJ

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PROJECT
Williamston Community Schools
Discovery Elementary
Secure Entrance
WILLIAMSTON, MICHIGAN

SHEET
PARTIAL DEMOLITION FLOOR PLAN, NOTES & DETAILS

PROJECT NUMBER
2020-006

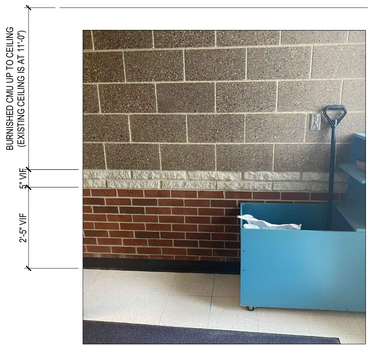
SHEET NUMBER
AD2.10

REFLECTED CEILING PLAN LEGEND

- LAY–IN CEILING IN SUSPENDED METAL GRID 2x2 OR 2x4, SEE CEILING PLAN
- PAINTED GYPSUM BOARD
- LINEAR METAL CEILING
- ELEVATION OF CEILING ABOVE FINISH FLOOR
- RECESSED INCANDESCENT LIGHT FIXTURE
- FLUORESCENT LIGHT FIXTURE
- TRACK LIGHTING
- EXIT LIGHT FIXTURE
- EXTERIOR LIGHT FIXTURE
- EXPOSED CEILING HUNG LIGHT FIXTURE
- SUPPLY AIR DIFFUSER
- RETURN AIR GRILLE
- LINEAR SLOT DIFFUSER
- RADIANT CEILING PANEL

REFLECTED CEILING PLAN NOTES

1. ALL INTERIOR PARTITIONS SHALL EXTEND UP TO UNDERSIDE OF ROOF DECK UNLESS OTHERWISE INDICATED.
2. PROVIDE BATT SOUND ATTENUATION INSULATION ABOVE CEILING, 4'-0" EACH SIDE OF PARTITION, FOR PARTITIONS THAT DO NOT EXTEND UP TO ROOF DECK.
3. THE ELEVATION OF NEW CEILING HEIGHTS OF EXISTING ROOMS ARE GIVEN FROM EXISTING FINISH FLOOR.
4. COORDINATE INSTALLATION OF NEW TV MONITORS AND BRACKETS WITH ELECTRICAL AND TECHNOLOGY.



EXISTING VESTIBULE

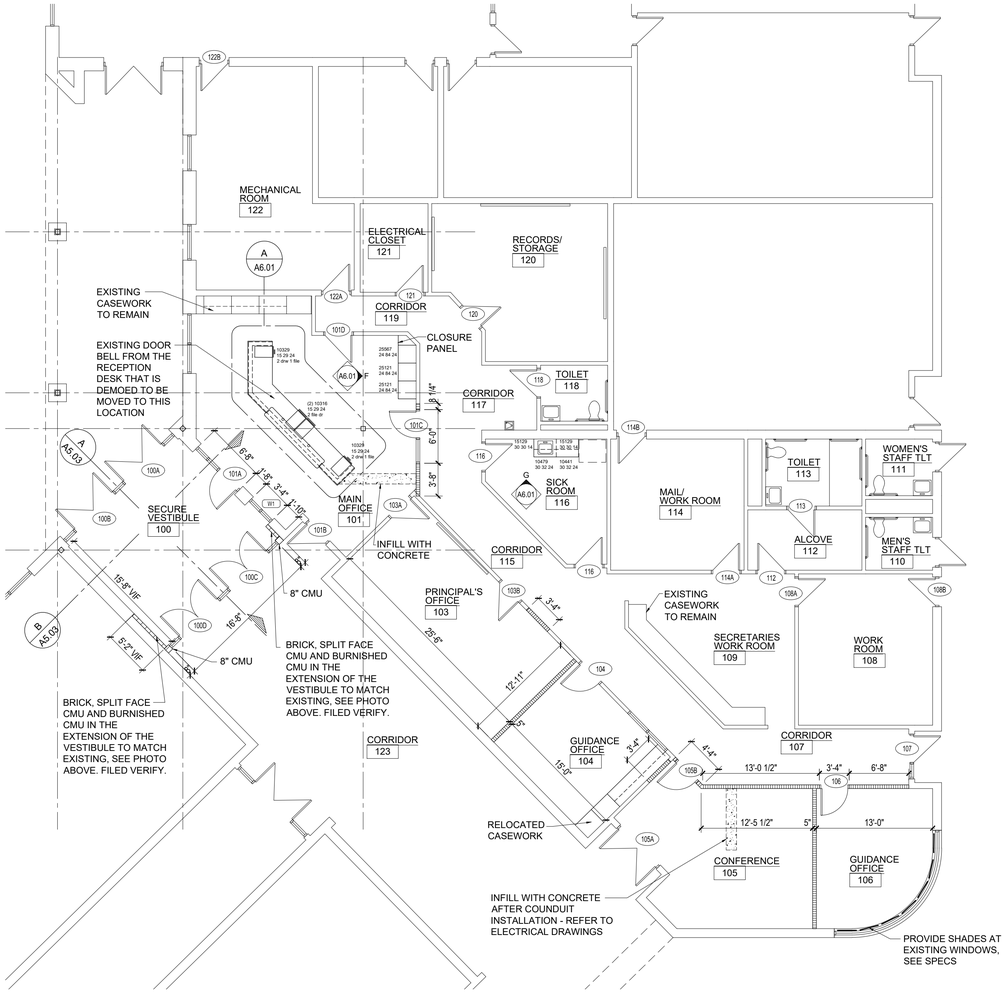
FLOOR PLAN LEGEND

- C.M.U. PARTITION AS DIMENSIONED
- 5/8" ABUSE RESISTANT GYPSUM BOARD EACH SIDE OF 3 5/8" METAL STUD AT 16" O.C. (WALL THICKNESS = 4 7/8" - NOMINAL 5")
- INDICATES BATT SOUND ATTENUATION INSULATION
- SHADING INDICATES PARTITIONS TO EXTEND UP TO DECK HEIGHT UNLESS OTHERWISE INDICATED.

FLOOR PLAN NOTES

1. PROVIDE BATT SOUND ATTENUATION INSULATION ABOVE CEILING, 4'-0" EACH SIDE OF PARTITION, FOR PARTITIONS THAT DO NOT EXTEND UP TO ROOF DECK.
2. PATCH ALL HOLES FROM REMOVED ITEMS SUCH AS, BUT NOT LIMITED TO THERMOSTATS, NAIL HOLES, WALL MOUNTED CASEWORK, ETC.
3. COORDINATE EXACT LOCATION FOR NEW CASEWORK IN FIELD.
4. PROVIDE ABUSE RESISTANT GYPSUM BOARD IN NEW PARTITION LOCATIONS

B A2.01 PARTIAL REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



A A2.01 PARTIAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

KEY PLAN

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11/15/2021	BIDS
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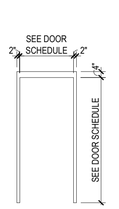
WILLIAMSTON, MICHIGAN

SHEET
PARTIAL FLOOR PLAN & PARTIAL REFLECTED CEILING PLAN

PROJECT NUMBER
2020-006

SHEET NUMBER
A2.10



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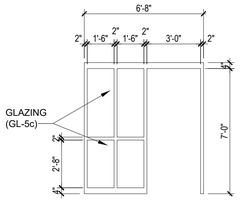

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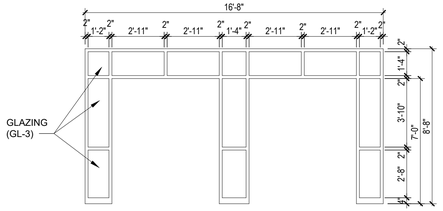

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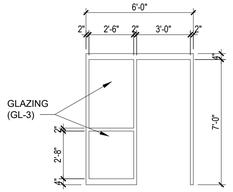

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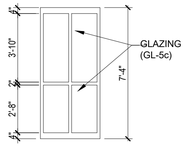

W1

FRAME TYPES

F

N

FG2

WINDOW TYPE

DOOR TYPES

GENERAL NOTES

1. FOR DOOR STYLES REFER TO DOOR SCHEDULE.
2. FOR FRAME STYLES REFER TO DOOR SCHEDULE.
3. REFER TO THE GLAZING SCHEDULE IN THE SPECIFICATIONS FOR THE GLAZING TYPES

* MANUFACTURE'S NOTE: FOR WOOD DOORS WITH MORTIS LOCKS - PROVIDE THE MINIMUM SIZE STILL AVAILABLE WHILE MAINTAINING WARRANTY

FRAME SCHEDULE

HM	HOLLOW METAL FRAME

D A3.01A HEAD DETAIL SCALE: 3/4" = 1'-0"

G A3.01A JAMB DETAIL SCALE: 3/4" = 1'-0"

C A3.01A JAMB DETAIL SCALE: 3/4" = 1'-0"

DOOR SCHEDULE

DOOR NO.	DOOR SIZE	DOOR TYPE	DOOR MAT.	DOOR FIN.	FRAME TYPE	FRAME MAT.	FRAME FIN.	FRAME JAMB *	FRAME HEAD *	H.W. NO.	MIN./ LABEL	LINTEL MAT.	REMARKS
100A	PR 3'-0" x 7'-0"	EX	EX	EX	EX	EX	EX	EX	EX	01	-	EX	1
100B	PR 3'-0" x 7'-0"	EX	EX	EX	EX	EX	EX	EX	EX	01	-	EX	1
100C	PR 3'-0" x 7'-0"	FG2	HM	P1SG-D	3	HM	P1SG-D	G	A/A5.03	02	-	STL	5
100D	PR 3'-0" x 7'-0"	FG2	HM	P1SG-D	3	HM	P1SG-D	G	A/A5.03	03	-	STL	5
101A	3'-0" x 7'-0"	FG2	WD	PREF	2	HM	P1SG-D	G	B/A5.03	04	20	ST	4
101B	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	05	20	EX	6
101C	3'-0" x 7'-0"	F	WD	PREF	4	HM	P1SG-D	C	D	06	-	MSF	7
101D	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
103A	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
103B	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
104	3'-0" x 7'-0"	N	WD	PREF	1	HM	P1SG-D	C	D	07	-	MSF	8
105A	PR 3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
105B	3'-0" x 7'-0"	N	WD	PREF	1	HM	P1SG-D	C	D	07	-	MSF	8
106	3'-0" x 7'-0"	N	WD	PREF	1	HM	P1SG-D	C	D	07	-	MSF	8
107	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
108A	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
108B	3'-0" x 7'-0"	EX	EX	EX	EX	EX	EX	EX	EX	01	EX	EX	2
112	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
113	3'-0" x 7'-0"	EX	EX	EX	EX	EX	EX	EX	EX	01	EX	EX	2
114A	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
114B	3'-0" x 7'-0"	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	2
116	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
116	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	EX	EX	EX	3
118	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
120	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
121	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
122A	3'-0" x 7'-0"	EX	EX	EX	EX	EX	P1SG-D	EX	EX	01	EX	EX	3
122B	3'-0" x 7'-0"	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	2

DOOR SCHEDULE ABBREVIATIONS

AL	ALUMINUM	PC	PRECAST CONCRETE
ANOD	ANODIZED	PLAM	PLASTIC LAMINATE
APC	ARCHITECTURAL PRECAST LINTEL	PREF	PREFINISHED
CWF	CURTAINWALL FRAMING	PTD	PAINTED
EXIST	EXISTING	SIM	SIMILAR
FRP	FIBERGLASS REINFORCED POLYESTER	SS	STAINLESS STEEL
GL	GLASS	STL	STEEL
HM	HOLLOW METAL	SFF	STOREFRONT FRAMING
LGF	LIGHT GAUGE FRAMING	TS	TUBE STEEL
ML	MASONRY LINTEL	WD	WOOD
MSF	METAL STUD FRAMING	WDSC	WOOD - SOUND CONTROL

DOOR SCHEDULE GENERAL NOTES

1. FRAME DETAILS ARE NOTED ON SHEET A3.01A UNLESS NOTED OTHERWISE.
2. DOOR UNDERCUTS FOR MECHANICAL REQUIREMENTS ARE LIMITED TO 5/8" MAX. CLEAR DISTANCE MEASURED FROM THE TOP OF THE FINISHED FLOOR MATERIAL OR THRESHOLD TO THE BOTTOM EDGE OF THE DOOR. STANDARD TOLERANCES OF UNDERCUTTING OF DOORS FOR THRESHOLDS AND OTHER FLOOR COVERING MATERIALS ARE NOT NOTED AND MUST BE CONSIDERED IN DETERMINING THE ACTUAL OVERALL HEIGHT OF THE DOOR. COORDINATE WITH AFFECTED TRADES.
3. FIRE RATED DOORS AND FRAMES ARE LISTED IN MINUTES.
4. ALL FIRE RATED HOLLOW METAL DOOR FRAMES SHALL BE CEMENT GROUTED SOLID UNLESS SPECIFICALLY NOTED OTHERWISE. COORDINATE CAVITY LOCATIONS FOR SCHEDULED HARDWARE.
5. ALL WOOD DOORS SHALL BE SOLID CORE.
6. ALL EXISTING DOOR AND WINDOW OPENINGS MUST BE FIELD VERIFIED AND MEASURED PRIOR TO FABRICATION.

DOOR SCHEDULE REMARKS

1. EXISTING DOOR, FRAME, FINISH AND EXISTING CARD READER TO REMAIN.
2. EXISTING DOOR, FRAME AND EXISTING FINISH TO REMAIN.
3. EXISTING DOOR AND FRAME TO REMAIN. PAINT FRAME P1SG-D.
4. NEW WOOD DOOR IN NEW HM FRAME. MATCH WOOD FINISH TO EXISTING DOORS WOOD FINISH. FILED VERIFY CMU COURSING TO ADJUST FRAME HEAD AS REQUIRED.
5. NEW HM DOOR IN NEW HM FRAME - PATCH AND REPAIR ADJACENT SURFACES AS REQUIRED. NEW CARD READER.
6. EXISTING WOOD DOOR IN EXISTING HM FRAME, EXISTING CARD READER. PAINT FRAME P1SG-D. EXISTING CARD READER TO REMAIN. PROVIDE MOTION SENSOR.
7. NEW WOOD DOOR IN NEW HM FRAME WITH SIDELIGHT.
8. NEW WOOD DOOR IN NEW HM FRAME.

ISSUE DATE	ISSUED FOR
11/15/2021	BIDS
DRAWN	KRM
CHECKED	KRM
APPROVED	DCJ

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PROJECT

Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET

DOOR SCHEDULE, DOOR & FRAME TYPES & DETAILS

PROJECT NUMBER

2020-006

SHEET NUMBER

A3.01A

MATERIAL AND COLOR SCHEDULE

	KEY	MANUFACTURER	STYLE	COLOR	SPECS	NOTES
BASE	B1	JOHNSONITE	6" COVED	TBD	ROLLED RUBBER GOODS	-
CARPET	C1	SHAW	TBD	TBD	CARPET TILE	
	C2	SHAW	ALL ACCESS PATH 5T034	TBD	24 x 24 TILE	WALK-OFF CARPET
PAINTS	P1E-A	SHERWIN WILLIAMS	EGGSHELL	TBD	SINGLE COMPONENT EPOXY	FIELD
	P1SG-D	SHERWIN WILLIAMS	SEMI-GLOSS	TBD	SINGLE COMPONENT EPOXY	DOOR FRAMES & HM DOORS
	P15F-S	SHERWIN WILLIAMS	FLAT	TBD	PRO-MAR 200	SOFFITS
CEILING TILE	AT1	ARMSTRONG	TUNDRA	WHITE	2'-0"x2'-0" 15/16" ANGLED TEGULAR	FINE TEXTURE 303 - OFFICES
VCT	V1	ARMSTRONG	STANDARD EXCELON	TBD	12" x 12" x 1/8", INSTALLED MONOLITHIC	
PLAST. LAM.	PL1	WILSONART	STANDARD LAMINATE	TBD	MATTE FINISH	CABINETS
	PL2	WILSONART	STANDARD LAMINATE	TBD	MATTE FINISH	COUNTERTOPS

ROOM FINISH SCHEDULE

RM. NO.	ROOM NAME	FLOOR		BASE		WALLS								DOOR FRAME	CEILING			MILLWORK/ CASEWORK		REMARKS
						NORTH		EAST		SOUTH		WEST								
		MAT.	FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	FINISH	MAT.	FINISH		MAT.	FINISH	HGT.	M/C	FINISH	
100	SECURE VESTIBULE	CPT	C2	RB	B2	EX	EX	EX, CMU	EX, BRICK, SP CMU, B CMU	CMU, GYP	P1E-A	EX, CMU	EX, BRICK, SP CMU, B CMU	P1SG-D	ACT	AT1	-	-	-	1
101	MAIN OFFICE	CPT	C1	RB	B1	EX	P1E-A	EX, GYP	P1E-A	EX	P1E-A	EX	P1E-A	P1SG-D	ACT	AT1	9'-0"	PLAM	PL1, PL2	-
103	PRINCIPAL'S OFFICE	CPT	C1	RB	B1	EX	P1E-A	EX, GYP	P1E-A	GYP	P1E-A	EX	P1E-A	P1SG-D	ACT	AT1	9'-0"	-	-	-
104	GUIDANCE OFFICE	CPT	C1	RB	B1	GYP	P1E-A	EX	P1E-A	EX, GYP	P1E-A	EX	P1E-A	P1SGD	ACT	AT1	9'-0"	-	-	-
105	CONFERENCE	CPT	C1	RB	B1	GYP	P1E-A	GYP	P1E-A	EX	P1E-A	EX, GYP	P1E-A	P1SGD	ACT	AT1	9'-0"	-	-	-
106	GUIDANCE OFFICE	CPT	C1	RB	B1	GYP	P1E-A	EX	P1E-A	EX	P1E-A	GYP	P1E-A	P1SGD	ACT	AT1	9'-0"	-	-	-
107	CORRIDOR	CPT	C1	RB	B1	EX	P1E-A	EX	P1E-A	GYP	P1E-A	-	-	P1SGD	ACT	AT1	9'-0"	-	-	2
108	WORK ROOM	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	P1SG-D	EX	EX	EX	-	-	-
109	SECRETARIES WORK ROOM	CPT	C1	RB	B1	EX	P1E-A	EX	P1E-A	EX	P1E-A	EX	P1E-A	P1SGD	ACT	AT1	9'-0"	-	-	2
110	MEN'S STAFF TLT	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	-	-	-
111	WOMEN'S STAFF TLT	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	-	-	-
112	ALCOVE	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	P1SG-D	EX	EX	EX	-	-	-
113	TOILET	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	-	-	-
114	MAIL/ WORK ROOM	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	P1SG-D	EX	EX	EX	-	-	-
115	CORRIDOR	CPT	C1	RB	B1	-	-	EX	P1E-A	-	-	EX, GYP	P1E-A	P1SGD	ACT	AT1	9'-0"	-	-	3
116	SICK ROOM	VCT	V1	RB	B1	EX	P1E-A	EX	P1E-A	EX	P1E-A	EX	P1E-A	P1SG-D	ACT	AT1	9'-0"	PLAM	PL1, PL2	-
117	CORRIDOR	CPT	C1	RB	B1	EX	P1E-A	EX	P1E-A	EX	P1E-A	EX, GYP	P1E-A	P1SGD	ACT	AT1	9'-0"	-	-	3
118	TOILET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
119	CORRIDOR	CPT	C1	RB	B1	EX	P1E-A	EX	P1E-A	EX	P1E-A	EX	P1E-A	P1SGD	ACT	AT1	9'-0"	-	-	2
120	RECORDS/ STORAGE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
121	ELECTRICAL CLOSET	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	P1SG-D	EX	EX	EX	-	-	-
122	MECHANICAL ROOM	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	P1SG-D	EX	EX	EX	-	-	-
123	CORRIDOR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ROOM FINISH SCHEDULE ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	EXIST	EXISTING	PLAM	PLASTIC LAMINATE	SS	STAINLESS STEEL
ANOD	ANODIZED	EXPO	EXPOSED	PLAS	VENEER PLASTER	SSM	SOLID SURFACE MATERIAL
B CMU	BURNISHED CMU	GL	GLASS	PT	PORCELAIN TILE	SP CMU	SPLIT FACE CMU
BRICK	BRICK	GCMU	GLAZED CMU	PTD	PAINTED	SPI	SPORTS IMPACT
CMU	CONCRETE MASONRY UNIT	GRCMU	GROUND FACE CMU	QT	QUARRY TILE	SV	SHEET VINYL
CONC	CONCRETE	GYP	GYPSUM BOARD	RBF	RUBBER TILE	TER	TERRAZZO
CPL	CEMENT PLASTER	LMC	LINEAR METAL CEILING	RB	RESILIENT WALL BASE	VCT	VINYL COMPOSITION TILE
CPT	CARPET	MP	METAL PANEL	SAAC	SPRAY-APPLIED ACOUSTICAL COATING	WP	WATERPROOF
CT	CERAMIC TILE	NSF	NON-SLIP FINISH	SEAL	CONCRETE SEALER		
		PART'N	MOVEABLE PARTITION				

ROOM FINISH SCHEDULE GENERAL NOTES

A. SEE THE A6 SERIES SHEETS FOR PAINT DESIGNATIONS.

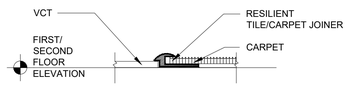
B. PROVIDE RADIUS EDGE AT COUNTERTOPS.

ROOM FINISH SCHEDULE REMARKS

1. NEW BRICK, SPLIT FACE CMU AND BURNISHED CMU TO MATCH EXISTING.
2. EXISTING BULKHEADS TO BE PAINTED P15F-S.
3. EXISTING AND NEW BULKHEAD TO BE PAINTED P15F-S.

ROOM FINISH SCHEDULE ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	EF	EPOXY FLOORING	PLAM	PLASTIC LAMINATE	SS	STAINLESS STEEL
ANOD	ANODIZED	EX	EXISTING	PLAS	VENEER PLASTER	SSM	SOLID SURFACE MATERIAL
B CMU	BURNISHED CMU	EXPO	EXPOSED	PT	PORCELAIN TILE	SP CMU	SPLIT FACE CMU
BRICK	BRICK	GL	GLASS	PTD	PAINTED	SPI	SPORTS IMPACT
CMU	CONCRETE MASONRY UNIT	GCMU	GLAZED CMU	QT	QUARRY TILE	SV	SHEET VINYL
CONC	CONCRETE	GYP	GYPSUM BOARD	RBF	RUBBER TILE	TER	TERRAZZO
CPL	CEMENT PLASTER	LMC	LINEAR METAL CEILING	RB	RESILIENT WALL BASE	TURF	INDOOR TURF
CPT	CARPET	MP	METAL PANEL	SAAC	SPRAY-APPLIED ACOUSTICAL COATING	VCT	VINYL COMPOSITION TILE
CT	CERAMIC TILE	NSF	NON-SLIP FINISH	SEAL	CONCRETE SEALER	WP	WATERPROOF
		PART'N	MOVEABLE PARTITION				



E / A3.03 VCT / CARPET TRANSITION
SCALE: 3" = 1'-0"

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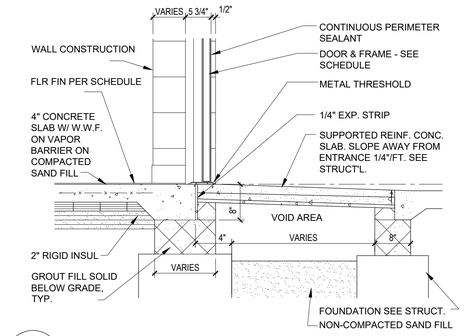
WILLIAMSTON, MICHIGAN

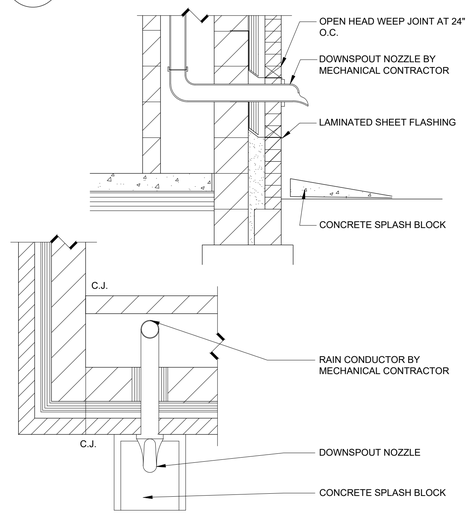
SHEET
ROOM FINISH SCHEDULE & MATERIAL & COLOR SCHEDULE

PROJECT NUMBER
2020-006

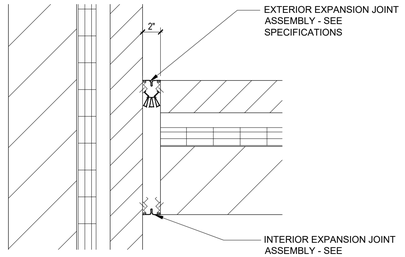
SHEET NUMBER
A3.02A



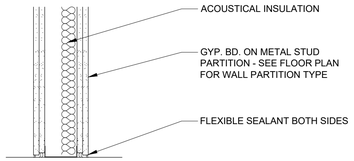
R SUPPORTED SLAB DETAIL
SCALE: N.T.S.



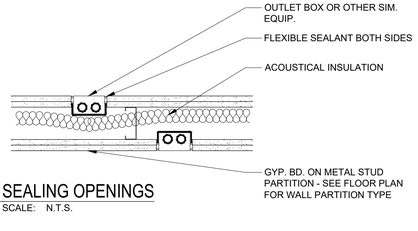
Q DOWNSPOUT NOZZE AND SPLASHBLOCK
SCALE: N.T.S.



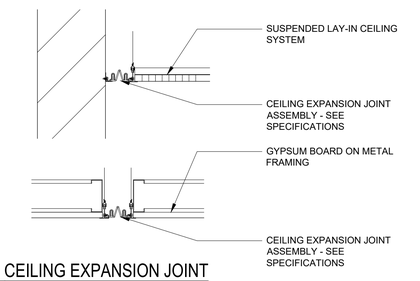
N EXTERIOR AND INTERIOR EXPANSION JOINT
SCALE: N.T.S.



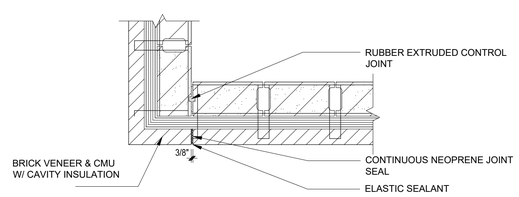
M SEALING PARTITIONS
SCALE: N.T.S.



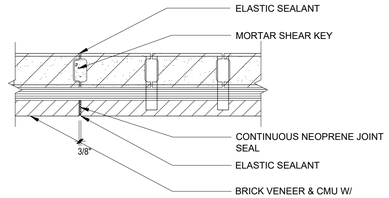
L SEALING OPENINGS
SCALE: N.T.S.



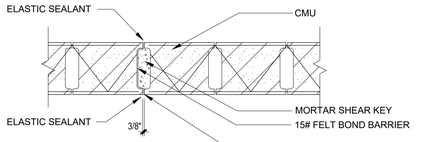
K CEILING EXPANSION JOINT
SCALE: N.T.S.



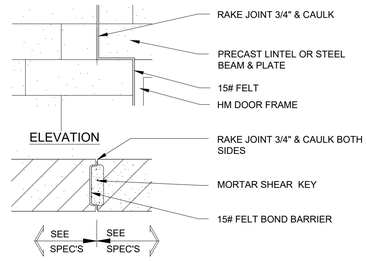
J EXTERIOR EXPANSION JOINT
SCALE: N.T.S.



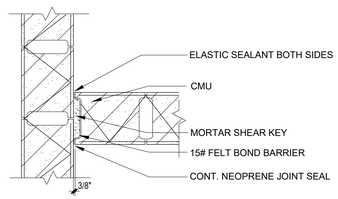
H EXTERIOR CONTROL JOINT
SCALE: N.T.S.



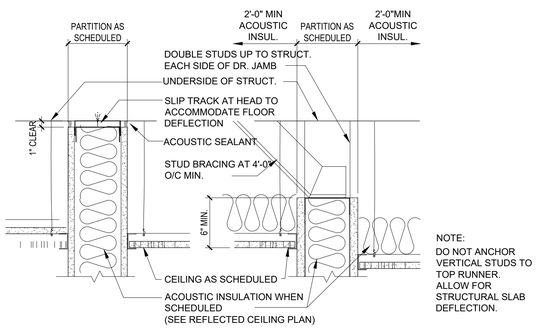
G INTERIOR CONTROL JOINT
SCALE: N.T.S.



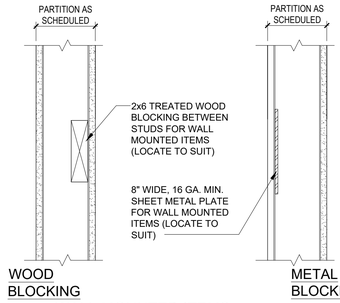
F CONTROL JOINT
SCALE: N.T.S.



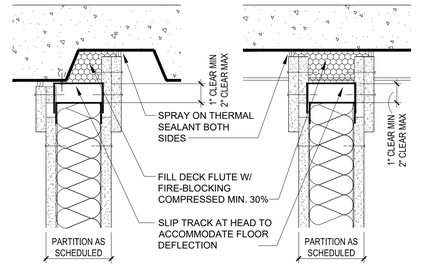
E INTERIOR CONTROL JOINT
SCALE: N.T.S.



D TYPICAL NON-RATED PARTITION CONSTRUCTION
SCALE: N.T.S.

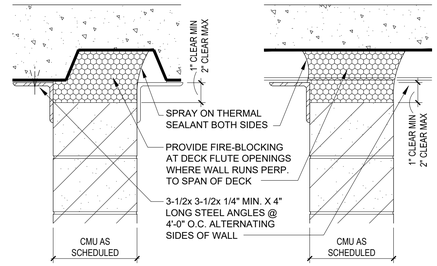


C WALL MOUNTED ITEMS TYPICAL BLOCKING DETAIL
SCALE: N.T.S.



NOTE:
1. PROVIDE FIRE-BLOCKING @ DECK FLUTE OPENINGS WHERE WALL RUNS PERP. TO SPAN OF DECK
2. ONE (1) OR TWO (2) HOUR RATING: UL DESIGN No. HW-0009 - SEE SPECIFICATION SECTION PENETRATION FIRESTOPPING.

B TYPICAL FIRE-RATED STUD PARTITION CONSTRUCTION
SCALE: N.T.S.



NOTE:
1. PROVIDE FIRE-BLOCKING @ DECK FLUTE OPENINGS WHERE WALL RUNS PERP. TO SPAN OF DECK.
2. DO NOT ANCHOR VERTICAL STUDS TO TOP RUNNER. ALLOW FOR STRUCTURAL SLAB DEFLECTION.
3. ONE (1) HOUR RATING: UL DESIGN No. HW-D-0001 - SEE SPECIFICATION SECTION PENETRATION FIRESTOPPING.
4. TWO (2) HOUR RATING: UL DESIGN No. HW-D-0002 - SEE SPECIFICATION SECTION PENETRATION FIRESTOPPING.

A TYPICAL FIRE-RATED CMU PARTITION CONSTRUCTION
SCALE: N.T.S.

GENERAL NOTES

1. INTERIOR WALL PARTITION TYPE CODE:

   INTERIOR WALL PARTITION CONSTRUCTION AS DETAILED:

   A) IN A NON RATED PARTITION, CARRY GYP. BD. MIN. 6" ABOVE SCHEDULED CEILING HEIGHT UNLESS NOTED OTHERWISE.

   B) ALL FIRE-RATED PARTITIONS ARE TO GO TO UNDERSIDE OF STRUCTURE.

   INTERIOR WALL PARTITION CONSTRUCTION WITH ACOUSTIC INSULATION AS DETAILED:

   A) IN A NON RATED PARTITION, CARRY GYP. BD. AND INSULATION MIN. 6" ABOVE SCHEDULED CEILING HEIGHT (UNLESS NOTED OTHERWISE) AND PROVIDE BATT SOUND INSULATION 2'-0" MIN. ON EACH SIDE OF PARTITION (SEE REFLECTED CEILING PLAN)

   B) IN A PARTITION NOTED TO GO TO THE UNDERSIDE OF STRUCTURE PROVIDE BATT SOUND INSULATION FULL HEIGHT OF PARTITION.

   C) PROVIDE / INSTALL SEALANT UNDER PARTITION FLOOR TRACK BOTH EDGES WHEN ACOUSTIC INSULATION IS INDICATED AND AT ALL FIRE-RATED PARTITIONS.

   D) ACOUSTIC INSULATION IS TO HAVE A MIN. STC RATING OF 50.

2. NOT ALL DETAILS ON THIS SHEET WILL BE USED ON THIS PROJECT. DETAILS ARE TYPICAL AND SHALL APPLY WHEN CONSTRUCTION CONDITION EXISTS.

3. REFER TO STANDARD DETAILS THIS SHEET FOR TYPICAL INTERIOR PARTITION CONSTRUCTION INFORMATION. REFER TO DETAIL PLANS AND PLAN DETAILS FOR SPECIAL PARTITION CONSTRUCTION INFORMATION.

4. ADDITIONAL SURFACE FINISHES ON FACING MATERIAL ARE NOTED ON ROOM FINISH SCHEDULE & DETAILS.

5. REFER TO REFLECTED CEILING PLAN FOR LOCATION OF ACOUSTIC INSULATION ABOVE CEILING.

KEY PLAN

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11/15/2021	BIDS
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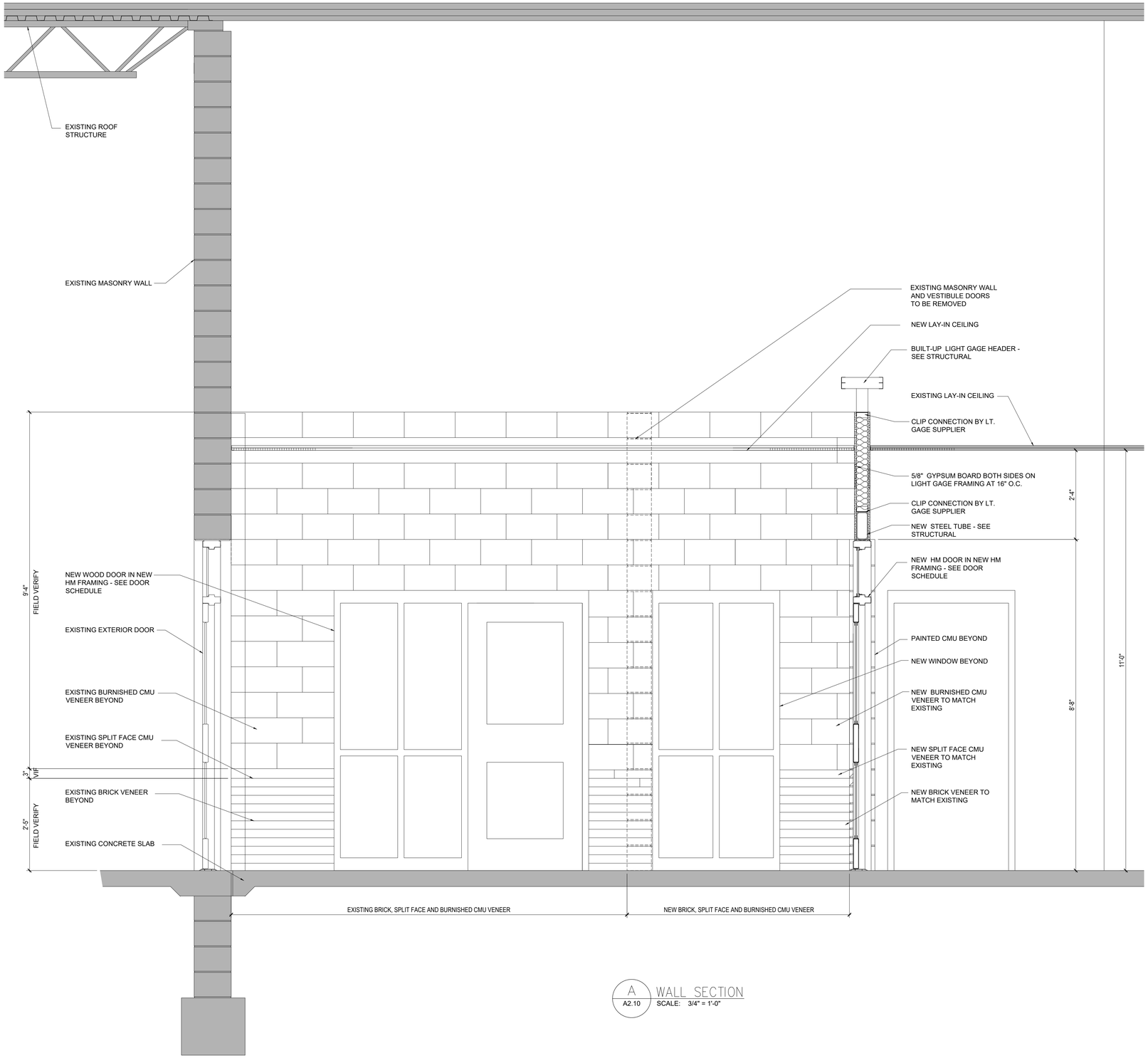
WILLIAMSTON, MICHIGAN

SHEET
TYPICAL CONSTRUCTION DETAILS

PROJECT NUMBER
2020-006

SHEET NUMBER
A5.02



A
A2.10
WALL SECTION
SCALE: 3/4" = 1'-0"

KEY PLAN

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11/15/2021	BIDS
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WILLIAMSTON, MICHIGAN

SHEET

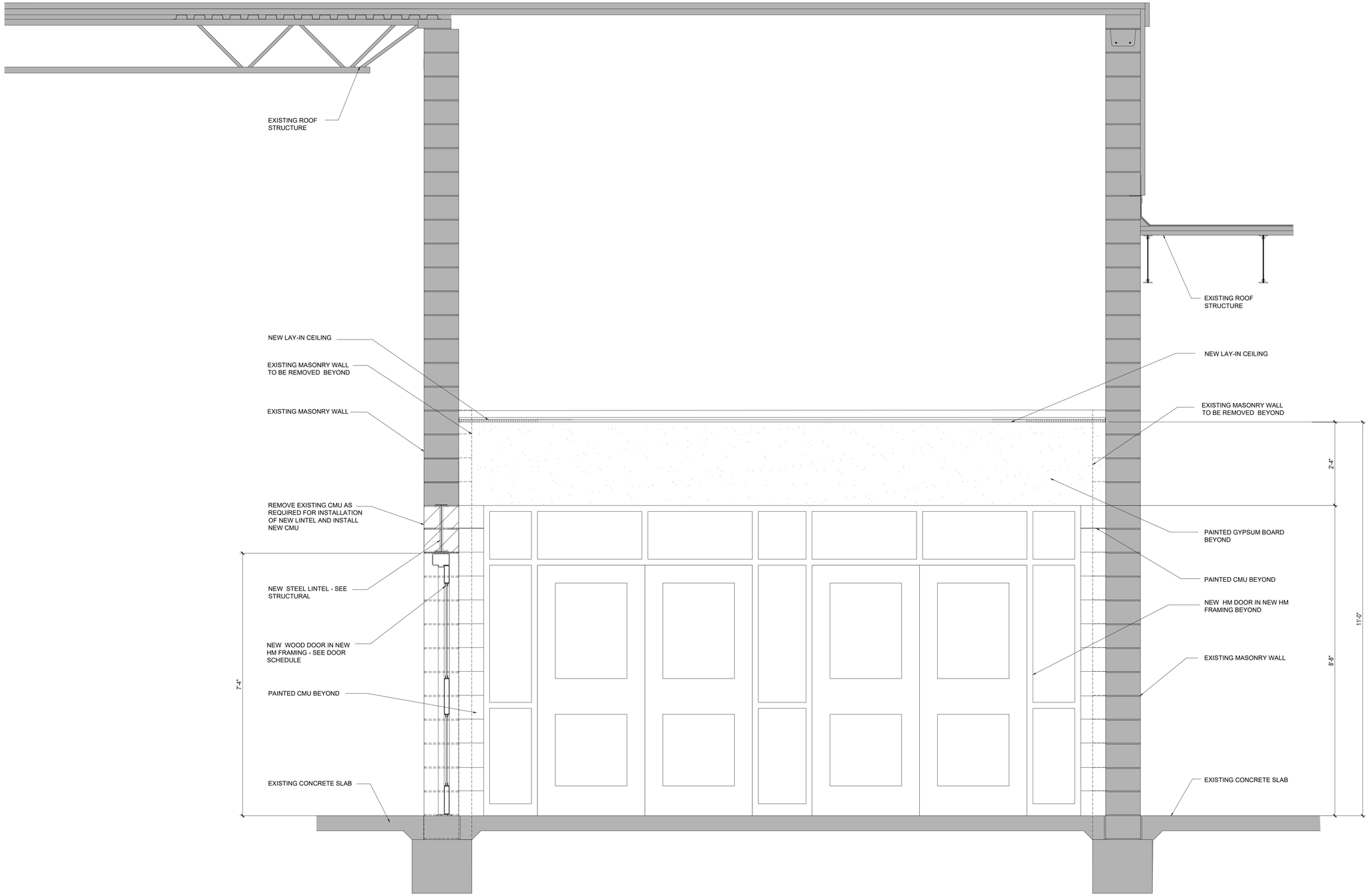
WALL SECTIONS

PROJECT NUMBER

2020-006

SHEET NUMBER

A5.03



B A2.10 WALL SECTION
SCALE: 3/4" = 1'-0"

KEY PLAN

ISSUE DATE	ISSUED FOR
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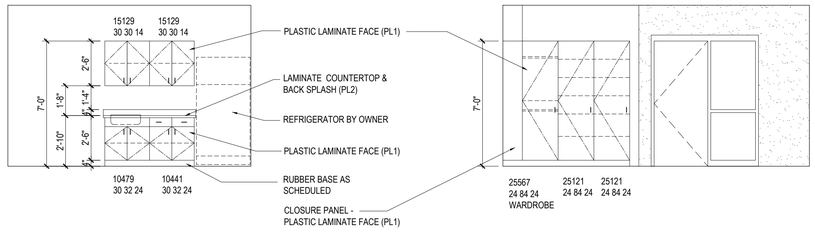
WALL SECTIONS

PROJECT NUMBER

2020-006

SHEET NUMBER

A5.04

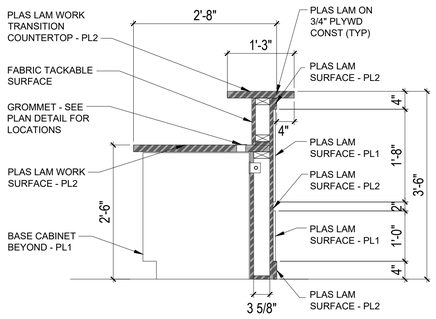


G A2.10 SICK ROOM 116
SCALE: 1/4" = 1'-0"

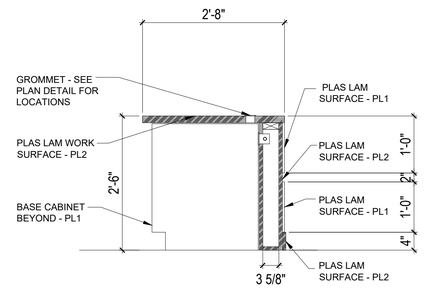
NOTE: CASEWORK BASED ON STEVENS

F A2.10 MAIN OFFICE 101
SCALE: 1/4" = 1'-0"

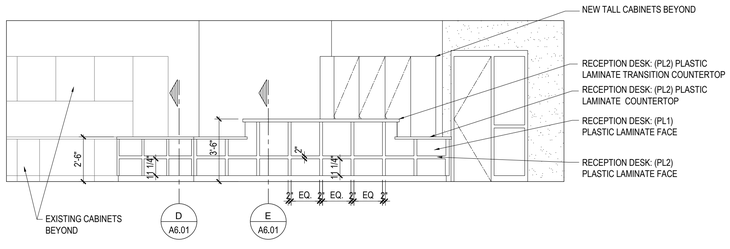
NOTE: CASEWORK BASED ON STEVENS



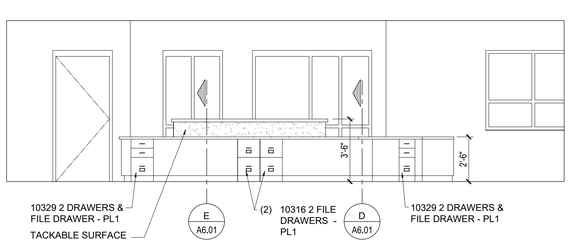
E A6.01 RECEPTION DESK DETAIL SECTION
SCALE: 1/4" = 1'-0"



D A6.01 RECEPTION DESK DETAIL SECTION
SCALE: 1/4" = 1'-0"

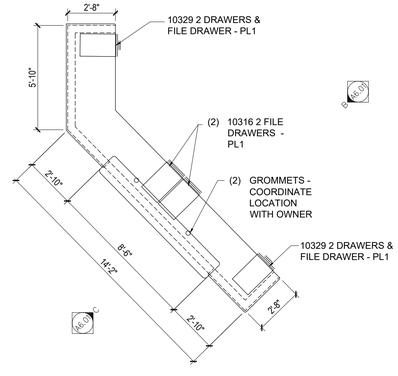


C A6.01 MAIN OFFICE 101 RECEPTION DESK ELEVATION
SCALE: 1/4" = 1'-0"



B A6.01 MAIN OFFICE 101 RECEPTION DESK ELEVATION
SCALE: 1/4" = 1'-0"

NOTE: CASEWORK BASED ON STEVENS



A A2.10 RECEPTION DESK ENLARGED PLAN
SCALE: 1/4" = 1'-0"

NOTE: CASEWORK BASED ON STEVENS

KEY PLAN

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WILLIAMSTON, MICHIGAN

SHEET

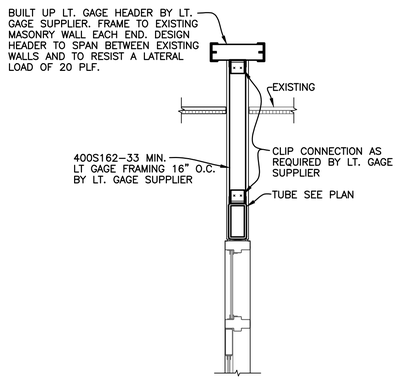
INTERIOR ELEVATIONS, ENLARGED PLAN & SECTION DETAILS

PROJECT NUMBER

2020-006

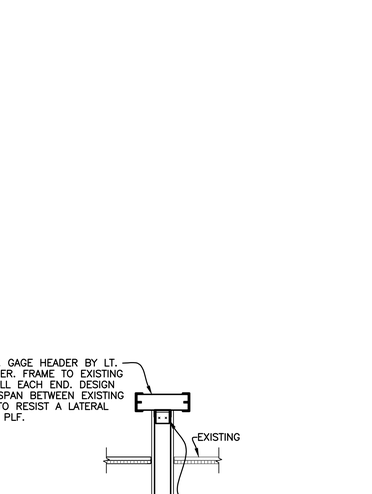
SHEET NUMBER

A6.01

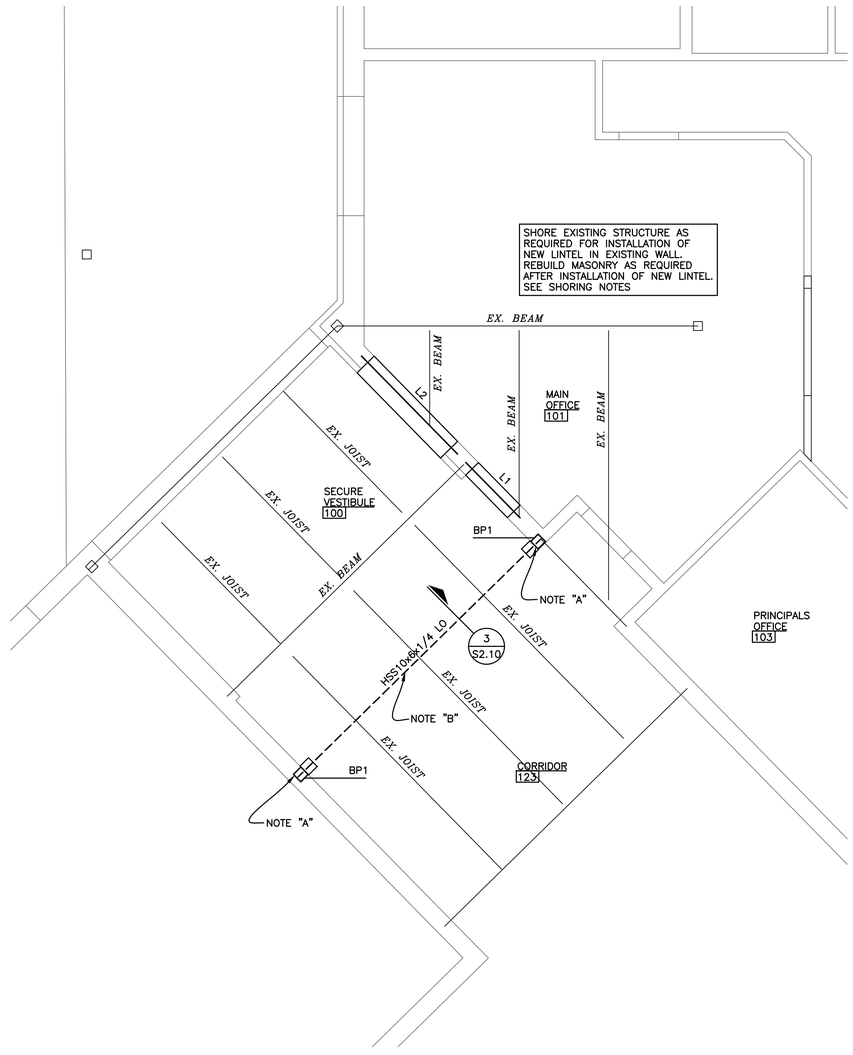


3 S2.10 SECTION
SCALE : 3/4" = 1'-0"

2 S2.10 W8 LINTEL DETAIL AT EXISTING WALL
SCALE : 1 1/2" = 1'-0"



1 S2.10 W8 LINTEL DETAIL AT EXISTING WALL
SCALE : 1 1/2" = 1'-0"



NEW LINTEL FRAMING PLAN
SCALE: 1/4" = 1'-0" SEE ARCH. DRAWINGS FOR LOCATION

L1: W8x18 + 3/8" PLATE. BEAR 8" ON EXISTING WALL EACH END ON 3 COURSES GROUTED SOLID. REBUILD EXISTING WALL AS REQUIRED. SHORE EXISTING STRUCTURE AS REQUIRED FOR REMOVAL OF EXISTING WALL AND PLACEMENT OF NEW SUPPORTS. SEE SHORING NOTES.

L2: W8x24 + 3/8" PLATE. BEAR 8" ON EXISTING WALL EACH END ON 3 COURSES GROUTED SOLID. REBUILD EXISTING WALL AS REQUIRED. SHORE EXISTING STRUCTURE AS REQUIRED FOR REMOVAL OF EXISTING WALL AND PLACEMENT OF NEW SUPPORTS. SEE SHORING NOTES.

BP1: 7"x3/8"x0'-7" BEARING PLATE

NOTE "A": POCKET EXISTING WALL AS REQUIRED FOR INSTALLATION OF NEW TUBE AND BEARING PLATES. GROUT 1 COURSE SOLID BELOW BEARING. WELD TUBE TO BEARING PLATE WITH 3/16" FILLET WELD EACH SIDE EACH END. REBUILD EXISTING WALL AS REQUIRED AFTER INSTALLATION OF NEW TUBE.

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PROJECT
Williamston Community Schools
Discovery Elementary
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WILLIAMSTON, MICHIGAN

SHEET
PARTIAL FOUNDATION PLAN AND NEW LINTEL FRAMING PLAN

PROJECT NUMBER
2020-006

SHEET NUMBER
S2.10

G E N E R A L N O T E S

GENERAL CONDITIONS

1. IF ANY GENERAL NOTE CONFLICTS WITH ANY DETAIL OR NOTE ON THE PLANS OR IN THE SPECIFICATIONS, THE STRICTEST PROVISION SHALL GOVERN.

2. THE STRUCTURAL DRAWINGS ARE FOR THE PLACEMENT AND SIZE OF STRUCTURAL COMPONENTS ONLY. O.S.H.A., LOCAL GOVERNMENT CODES AND SAFETY CODE REQUIREMENTS SHALL BE ADHERED TO BY THE CONTRACTOR.

3. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES PROVIDING TEMPORARY BRACING, SHORING, GUYS OR TIE- DOWNS. THESE TEMPORARY SUPPORTS WILL REMAIN IN PLACE UNTIL ALL STRUCTURAL COMPONENTS ARE IN PLACE AND COMPLETED.

4. USE OF ENGINEERING DRAWINGS AS ERECTION DRAWINGS BY THE CONTRACTOR IS STRICTLY PROHIBITED. DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR BUILDING LAYOUT AND LOCATION. SEE ARCHITECTURAL DRAWINGS AND SITE PLAN FOR THESE PURPOSES.

5. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL RELEVANT DIMENSIONS AND ELEVATIONS FOR EQUIPMENT INSTALLATIONS AGAINST PURCHASED MANUFACTURER'S CERTIFIED EQUIPMENT DRAWINGS. DIMENSIONS THAT DEPEND UPON SPECIFIC EQUIPMENT SUCH AS ELEVATOR OPENINGS, MECHANICAL EQUIPMENT SUPPORTS, ETC. SHALL BE COORDINATED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. SUCH DIMENSIONS SHALL BE PROVIDED ON THE SHOP DRAWINGS BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER.

EXISTING CONDITIONS

1. VERIFY ALL EXISTING ASSUMED DIMENSIONS AND CONDITIONS (I.E. EXISTING MATERIALS; FRAMING MEMBER SIZES AND LOCATIONS; METHODS OF CONSTRUCTION; ETC.) AT THE SITE PRIOR TO CONSTRUCTION AND FABRICATION. IF DISCREPANCIES ARE FOUND, NOTIFY ARCHITECT BEFORE PROCEEDING WITH WORK.

MASONRY

1. THE MASONRY PORTIONS OF THIS STRUCTURE ARE DESIGNED ACCORDING TO THE LATEST ALLOWABLE STRESS DESIGN PROVISIONS OF THE MASONRY STANDARDS JOINT COMMITTEE (MSJC) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/ASCE 602) INCLUDING SECTIONS 2106 AND 2107 OF CHAPTER 21 IN THE MICHIGAN BUILDING CODE. MASONRY COMPONENTS HAVE BEEN DESIGNED ACCORDING TO THE PROVISIONS FOR SEISMIC DESIGN CATEGORY B.

2. ALL STRUCTURAL MASONRY IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST MASONRY STANDARDS JOINT COMMITTEE (MSJC) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (TMS 402/ACI 530/ASCE 5) AND SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602/ACI 530.1/ASCE 6) MASONRY SUBMITTALS ARE REQUIRED BY ACI 530.1/ASCE 6/TMS 602. SECTION 1.5 MASONRY TESTING AND INSPECTIONS ARE REQUIRED BY ACI 530.1/ASCE 6/TMS 602 SECTION 1.6, TABLE 5.

3. ALL STRUCTURAL MASONRY HAS BEEN ENGINEERED IN ACCORDANCE WITH CHAPTER 2 ALLOWABLE STRENGTH DESIGN. COMPRESSION STRENGTH SHALL BE DETERMINED ACCORDING TO THE UNIT STRENGTH METHOD FOR CONCRETE MASONRY MSJC SECTION 1.4. B.2.b.

4. ALL BLOCK SHALL CONFORM TO ASTM C90, TYPE I, WITH A MINIMUM UNIT NET AREA COMPRESSIVE STRENGTH OF 2800 PSI.

5. MASONRY COMPRESSIVE STRENGTH f'm = 2000 PSI MINIMUM.

6. MORTAR SHALL BE TYPE "S" (1800 PSI) CONFORMING TO ASTM C-270. USE MORTAR CEMENT WHERE EXTERIOR WALLS ARE UNREINFORCED.

7. PROVIDE HORIZONTAL WIRE TYPE REINFORCING WITH 9 GAUGE SIDE AND CROSS MEMBERS IN EVERY SECOND COURSE (16" O.C.), IN ALL MASONRY WALLS. WALLS WITH VERTICAL REINFORCING SHALL ONLY HAVE "LADDER" TYPE REINFORCING.

8. ALL REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO A.S.T.M. A615 GRADE 60. REINFORCING STEEL SHALL BE CONTINUOUS, FABRICATED AND PLACED IN ACCORDANCE WITH A.C.I. - 315 LATEST EDITION AND HAVE THE FOLLOWING MINIMUM LAP LENGTHS:

BAR SIZE	8" CMU	12" CMU
#3	18"	18"
#4	24"	24"
#5	30"	30"
#6	38"	36"
#7		42"
#8	PROVIDE MECH. SPLICE	

9. ALL MASONRY BEARING STEEL BEAMS AND LINTELS TO BEAR 8" MINIMUM ON 3 COURSES SOLID MASONRY, WITH 2-3/4" DIAMETER BOLTS EACH END, UNLESS OTHERWISE NOTED.

10. MASONRY GROUT SHALL CONFORM TO ASTM C 476, WITH PEA GRAVEL AGGREGATE AND A MINIMUM STRENGTH OF 2000 PSI, BUT NOT LESS THAN SPECIFIED f'm.

11. UNLESS OTHERWISE NOTED, AT ALL MASONRY WALLS PROVIDE THE FOLLOWING LINTELS:

    8" WALLS

    (2) L4x3 1/2 x 5/16 LLV FOR OPENINGS UP TO 4'-0"
    (2) L5x3 1/2 x 5/16 LLV FOR OPENINGS UP TO 5'-4"
    W8x18 + 3/8" PLATE FOR OPENINGS UP TO 8'-0"
    W8x28 + 3/8" PLATE FOR OPENINGS UP TO 12'-4"

    12" WALLS:

    (3) L4x3- 1/2 x 5/16 LLV FOR OPENINGS UP TO 4'-0"
    (3) L5x3-1/2 x 5/16 LLV FOR OPENINGS UP TO 5'-4"
    W8x18 + 3/8" PLATE FOR OPENINGS UP TO 8'-0"
    W8x28 + 3/8" PLATE FOR OPENINGS UP TO 12'-4"

12. ALL DOUBLE ANGLE LINTELS SHALL BE WELDED BACK TO BACK WITH A MINIMUM 2 INCH STITCH WELD EVERY 8 INCHES.

13. UNLESS OTHERWISE NOTED, PROVIDE L5 X 3-1/2 X 5/16 L.L.V. LINTEL FOR EACH 4" OF MASONRY FOR SPANS UP TO 5'-4" MAX.

STRUCTURAL STEEL

1. STEEL DESIGN, FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH THE LATEST A.I.S.C. MANUAL AND SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS. ALL WIDE FLANGE BEAMS AND COLUMNS SHALL CONFORM TO THE LATEST ASTM. SERIAL DESIGNATION A992, GR50; ALL MISCELLANEOUS STEEL PLATES, BARS, ANGLES, ETC., SHALL CONFORM TO ASTM A36; STEEL TUBING TO BE ASTM A500, GRADE B; STEEL PIPE ASTM. A-53, GRADE B. ANCHOR BOLTS TO BE ASTM F1554 GRADE 36 KSI MINIMUM UNLESS OTHERWISE NOTED

2. ALL WELDED CONNECTIONS SHALL BE IN ACCORDANCE WITH THE LATEST AWS CODE, E70XX ELECTRODES, WITH WELDING PERFORMED BY QUALIFIED WELDERS.

3. BOLTED CONNECTIONS SHALL BE MADE WITH A-325 OR A-490 BOLTS. ALL BOLTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS FOR "STRUCTURAL JOINTS USING A.S.T.M. A-325 OR A-490 BOLTS." TYPICAL BOLTED CONNECTIONS ARE "BEARING TYPE" UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL (CONT.)

4. DESIGN CONNECTIONS FOR MINIMUM ONE-HALF THE TOTAL ALLOWABLE UNIFORM LOAD PER A.I.S.C. BEAM LOAD TABLES, UNLESS OTHERWISE NOTED. (MIN. 2 BOLTS EACH CONNECTION).

5. THE DESIGN, CONFIGURATION & ERECTION SAFETY OF ALL STRUCTURAL STEEL CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE STRUCTURAL STEEL FABRICATOR. REVIEW AND ACCEPTANCE OF THE SHOP DRAWINGS BY THE ENGINEER SHALL CONSTITUTE APPROVAL OF THE LOAD CARRYING ADEQUACY ONLY.

6. TYPE OF CONSTRUCTION PER ASCE A2.2 IS TYPE 2 "SIMPLE FRAMING" UNLESS NOTED OTHERWISE.

7. TEMPORARY ERECTION SEATS SHALL BE PROVIDED AS RECOMMENDED ON PAGE 3-59 OF THE A.I.S.C. PUBLICATION "ENGINEERING FOR STEEL CONSTRUCTION".

8. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL ANGLES, PLATES, BARS, CLIPS, ETC., ATTACHED TO STRUCTURAL STEEL.

9. THE CONTRACTOR SHALL FURNISH ALL ACCESSORIES INCLUDING CLOSURES, "Z" CLOSURES, COLUMN CLOSURES, SCREED ANGLES AND GIRDER FILLERS AS REQUIRED.

10. NO LOADS SHALL BE PERMITTED TO BE HUNG FROM ANY ROOF DECK. ALL HANGERS FOR CEILINGS, DUCTWORK, ELECTRICAL CONDUIT, PIPING, ETC., SHALL BE HUNG DIRECTLY FROM STRUCTURAL STEEL WORK OR SUPPLEMENTARY MEMBERS.

11. MASONRY AND BRICK LINTELS SHALL BE GALVANIZED G90 PER ASTM A123.

12. ALL WIDE FLANGE LINTELS TO HAVE MINIMUM 7"x3/8"xO'-7" BEARING PLATE, ALL WIDE FLANGE FLOOR OR ROOF BEAMS TO HAVE MINIMUM 7"x3/8"xO'-7" BEARING PLATE UNLESS OTHERWISE NOTED

LIGHT GAGE FRAMING

1. LIGHT GAGE FRAMING SUPPLIER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MICHIGAN INDICATING ALL DESIGN LOADS AND MATERIALS INCLUDING VERIFYING ANY MEMBER SIZES SHOWN. DESIGN BY SUPPLIERS ENGINEER SHALL INCLUDE ALL CONNECTIONS AND MISCELLANEOUS MATERIALS NECESSARY FOR A COMPLETE STRUCTURE. THE FINAL MEMBER SIZES AND GAGES SHALL BE CALCULATED BY THE LIGHT GAGE ENGINEER. LIGHT GAGE SHOP DRAWINGS NOT SIGNED AND SEALED WILL BE REJECTED.

2. LIGHT GAGE MEMBERS SHALL BE DESIGNED, MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) INCLUDING ANY REQUIRED CLIPS, STIFFENERS, AND BRACING.

3. MEMBER SIZES INDICATED ON DRAWINGS ARE MINIMUM DEPTH AND GAGE REQUIRED TO MEET THE DESIGN INTENT AND ARE BASED ON THE PROPERTIES AND MATERIALS LISTED IN THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) PRODUCT CATALOG. ALTERNATE MANUFACTURERS ARE ACCEPTABLE IF THE PHYSICAL PROPERTIES ARE EQUAL OR BETTER THAN THOSE LISTED ACCEPTABLE TO THE PROJECT ARCHITECT AND ENGINEER, AND MEET OR EXCEED PERFORMANCE CRITERIA.

4. LIGHT GAGE DOCUMENTS SUBMITTED BY THE LIGHT GAGE FRAMING SUPPLIER IS A "DEFERRED SUBMITTAL" PER SECTION 107.3.4.1 OF THE MBC 2015

5. ALL LIGHT GAGE BACK UP STUDS FOR BRICK VENEER TO BE 16 GA. MINIMUM (54) AND BE DESIGNED FOR L/600 MINIMUM LATERAL DEFLECTION REQUIREMENT.

SHORING

1. SHORE STRUCTURE AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY.

2. ALL SHORING, UNDERPINNING, ETC., SHALL BE PERFORMED BY EXPERIENCED CONTRACTORS.

3. SHORE, UNDERPIN, ETC., ALL QUESTIONABLE AREAS PRIOR TO REMOVAL OF ANY STRUCTURAL SUPPORT TO INSURE STRUCTURAL INTEGRITY.

4. MAINTAIN SHORING UNTIL NEW PERMANENT STRUCTURE IS IN PLACE AND SECURE TO MAINTAIN STRUCTURAL INTEGRITY.

5. REMOVE SHORING AFTER NEW WORK IS IN PLACE AND CONNECTED.

SPECIAL INSPECTION

1. WORK CONSTRUCTED SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY TO ENSURE COMPLIANCE WITH THE REQUIREMENTS SHOWN ON THE DRAWINGS. INSPECTIONS REQUIRED BY CHAPTER 17 OF THE MICHIGAN BUILDING CODE; LOCAL BUILDING DEPARTMENTS AND THE CONTRACT DOCUMENTS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY. SITE VISITS BY THE DESIGN ENGINEER DO NOT CONSTITUTE OR REPLACE INSPECTION

2. THE FOLLOWING ITEMS SHALL BE INSPECTED IN ACCORDANCE WITH MBC 2015 SEC. 1704 & 1705 BY A CERTIFIED SPECIAL INSPECTOR UNLESS NOTED OTHERWISE IN REMARKS COLUMN. ALL INSPECTION SHALL BE CONTINUOUS UNLESS OTHERWISE NOTED. ALL PRODUCTS WITH ICC APPROVALS SHALL BE INSTALLED PER THE APPROVAL AND PER MANUFACTURER'S RECOMMENDATIONS. FOR MATERIAL TESTING REQUIREMENTS, SEE SPECIFICATIONS AND/OR GENERAL NOTES. TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT.

   INSPECTION OF FABRICATOR'S (SEC. 1704.2.5) *

   FABRICATION AND IMPLEMENTATION PROCEDURES 1704.2.5.1

   *SPECIAL INSPECTION IS NOT REQUIRED FOR FABRICATOR SHOP IF CERTIFICATE OF APPROVAL SUBMITTED BY FABRICATOR'S INSPECTION AGENCY PER EXCEPTION 1704.2.5.1

TABLE 1705.2.2
REQUIRED VERIFICATION AND
INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	NOT APPLICABLE	REFERENCED STANDARD
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:				
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	X	-	APPLICABLE ASTM MATERIAL STANDARDS
b. MANUFACTURER'S CERTIFIED TEST REPORTS.	-	X	-	-
2. INSPECTION OF WELDING:				
a. COLD-FORMED STEEL DECK:				
1) FLOOR AND ROOF DECK WELDS.	-	X	-	AWS D1.3
b. REINFORCING STEEL:				
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-	X	-	AWS D1.4 ACI 318: SECTION 3.5.2
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	-	-	
3) SHEAR REINFORCEMENT.	X	-	-	
4) OTHER REINFORCING STEEL.	-	X	-	

SPECIAL INSPECTION (CONT.)

TABLE N5.4-1
INSPECTION TASKS PRIOR TO WELDING

INSPECTION TASKS PRIOR TO WELDING	QC	QA	NOT APPLICABLE
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P	-
MANUFACTURER CERTIFICATION FOR WELDING CONSUMABLES AVAILABLE	P	P	-
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O	-
WELDER IDENTIFICATION SYSTEM[1]	O	O	-
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	O	O	-
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O	-
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOF) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	O	O	-
CHECK WELDING EQUIPMENT	O	-	-

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

TABLE N5.4-2
INSPECTION TASKS DURING WELDING

INSPECTION TASKS DURING TO WELDING	QC	QA	NOT APPLICABLE
USE OF QUALIFIED WELDERS	O	O	-
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	O	O	-
NO WELDING OVER CRACKED TACK WELDS	O	O	-
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	O	O	-
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH)	O	O	-
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	O	O	-

TABLE N5.4-3
INSPECTION TASKS AFTER WELDING

INSPECTION TASKS AFTER WELDING	QC	QA	NOT APPLICABLE
WELDS CLEANED	O	O	-
SIZE, LENGTH AND LOCATION OF WELDS	P	P	-
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	P	P	-
ARC STRIKES	P	P	-
K-AREA[1]	P	P	-
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P	-
REPAIR ACTIVITIES	P	P	-
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P	-

[1]WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OF STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. (75MM) OF THE WELD.

TABLE N5.6-1
INSPECTION TASKS PRIOR TO BOLTING

INSPECTION TASKS PRIOR TO BOLTING	QC	QA	NOT APPLICABLE
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P	-
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O	-
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O	-
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O	-
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O	-
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O	-
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTNER COMPONENTS	O	O	-

TABLE N5.6-2
INSPECTION TASKS DURING BOLTING

INSPECTION TASKS DURING BOLTING	QC	QA	NOT APPLICABLE
FASTENERS ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O	-
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O	-
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O	-
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O	-

TABLE N5.6-3
INSPECTION TASKS AFTER BOLTING

INSPECTION TASKS AFTER BOLTING	QC	QA	NOT APPLICABLE
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O	-

O - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.

SPECIAL INSPECTION (CONT.)

REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION (LEVEL B QUALITY ASSURANCE)

MINIMUM TESTS
VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.5 B.1.b.3 FOR SELF-CONSOLIDATING GROUT
VERIFICATION OF f'_g AND f'_{AGC} IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.4B PRIOR TO CONSTRUCTION, EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE

MINIMUM INSPECTION						
INSPECTION TASK	FREQUENCY (a)			REFERENCE FOR CRITERIA		
	CONTINUOUS	PERIODIC	NOT APPLICABLE	IBC SECTION	TMS 402/ACI 530/ASCE 5	TMS 602/ACI 530.1/ASCE 6
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS		X				ART. 1.5
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:						
a. PROPORTIONS OF SITE-PREPARED MORTAR.		X				ART. 2.1, 2.6A
b. CONSTRUCTION OF MORTAR JOINTS.		X				ART. 3.3B
c. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.		X				ART. 2.4B, 2.4H
d. LOCATION OF REINFORCEMENT, CONNECTORS, PRESTRESSING TENDONS AND ANCHORAGES.		X				ART. 3.4, 3.6A
e. PRESTRESSING TECHNIQUE.		X				ART. 3.6B
f. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	X(b)	X(c)				ART. 2.1C
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:						
a. GROUT SPACE		X				ART. 3.2D, 3.2F
b. GRADE, TYPE AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES		X		SEC. 1.16		ART. 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES		X		SEC. 1.16		ART. 3.2E, 3.4, 3.6A
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.						
e. CONSTRUCTION OF MORTAR JOINTS.		X				ART. 3.3B
4. VERIFY DURING CONSTRUCTION:						
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS		X				ART. 3.3F
b. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION		X			SEC. 1.16.4.3, 1.17.1	
c. WELDING OF REINFORCEMENT	X				SEC. 2.1.7.7.2, 3.3.3.4(c), 8.3.3.4(b),	
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F (4.4°C) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C)		X				ART. 1.8C, 1.8D
e. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	X					ART. 3.6B
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	X					ART. 3.5, 3.6C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	X(b)	X(c)				ART. 3.3 B.8
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS		X				ART. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

(a). FREQUENCY REFERS TO THE FREQUENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE TASK LISTED OR PERIODICALLY DURING THE LISTED TASK, AS DEFINED IN THE TABLE.

(b). REQUIRED FOR THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF ACC MASONRY.

(c). REQUIRED AFTER THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF ACC MASONRY.

DESIGN CRITERIA		
CODE: MBC 2015 THE STRUCTURE IS DESIGNED FOR THE FOLLOWING LIVE LOADS, IN ADDITION TO THE LATERAL LOADS, SUPER-IMPOSED DEAD LOADS, & SELF WEIGHT OF THE STRUCTURE. WHERE APPLICABLE LIVE LOADS ARE REDUCED IN ACCORDANCE WITH THE PROVISIONS OF THE BUILDING CODE. A. AMERICAN CONCRETE INSTITUTE BUILDING CODE (ACI-318). B. MANUAL OF STEEL CONSTRUCTION BY AMERICAN INSTITUTE OF STEEL CONSTRUCTION (LATEST EDITION). C. LATEST MASONRY STANDARDS JOINT COMMITTEE (MSJC) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (TMS 402/ACI 530/ASCE 5) AND SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602/ACI 530.1/ASCE 6) D. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) STANDARDS AND SPECIFICATIONS. E. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) AS PUBLISHED BY AMERICAN FOREST AND PAPER ASSOCIATION.		
		CODE REFERENCE
BUILDING OCCUPANCY CATEGORY	III	MBC-Table 1604.5 ASCE Table 1.5-1

SNOW LOADS/ROOF LIVE LOADS		
SNOW CRITERIA		CODE REFERENCE
GROUND SNOW LOAD	Pg = 25 PSF	MBC FIG. 1608.2 ASCE Fig. 7-1
FLAT ROOF SNOW LOAD	Pf = 20 PSF (MINIMUM)	ASCE Sec. 7.3
EXPOSURE FACTOR	Ce = 1.0	ASCE Table 7-2
IMPORTANCE FACTOR	I = 1.0	ASCE Table 1.5-2
THERMAL FACTOR	Ct = 1.0	ASCE Table 7-3
ROOF LIVE LOADS	Lr = 20 PSF	ASCE Table 4-1
NOTE: SNOW LOADS ADJACENT VERTICAL PROJECTIONS, ON LOWER ROOFS, ADJACENT TO HIGH ROOFS, OR SLOPED ROOFS ARE INCREASED FOR THE EFFECT OR DRIFTING		

WIND LOADS		
WIND CRITERIA		CODE REFERENCE
BASIC WIND SPEED (3 SEC. GUST)	V = 120 MPH	ASCE FIG. 26.5-1A, 26.5-1B, 26.5-1C
RISK FACTOR	III	ASCE Table 1.5-1
EXPOSURE CATEGORY	B	ASCE Sec. 26.7.3
INTERNAL PRESSURE COEFFICIENT	± 0.18 (ENCLOSED)	ASCE TABLE 26.11-1
MWFRS ANALYSIS PROCEDURE	DIRECTIONAL PROCEDURE	ASCE CHAP. 27
COMPONENTS AND CLADDING	± 33 PSF MINIMUM ULTIMATE AND PER CODE REQUIREMENTS BASED ON ABOVE INFORMATION	ASCE Sec. 30.2.2

ISSUE DATE	ISSUED FOR
11/12/2021	BIDS
DRAWN	
CHECKED	
APPROVED	

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PROJECT

Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET

GENERAL NOTES

PROJECT NUMBER

2020-006

SHEET NUMBER

S3.00

MECHANICAL ABBREVIATIONS

ABBREV.	DESCRIPTION
AAV	AUTOMATIC AIR VENT / AIR ADMITTANCE VALVE
AD	ACCESS DOOR
AE	AIR EXTRACTOR
AFF	ABOVE FINISHED FLOOR
APD	AIR PRESSURE DROP
ASR	AUTOMATIC SPRINKLER RISER
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
BWV	BACKWATER VALVE
CAP	CAPACITY
CAV	CONSTANT AIR VOLUME
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CIRC	CIRCULATING
CLG	COOLING
CO	CLEAN OUT
CONT	CONTINUATION OR CONTINUED
CONV	CONVECTOR
CUH	CABINET UNIT HEATER
CV	CONTROL VALVE
DB	DRY BULB TEMPERATURE
DEG	DEGREES
DDC	DIRECT DIGITAL CONTROL
DN	DOWN
DTC	DRAIN TILE CONNECTION
DWH	DOMESTIC WATER HEATER
(E)	EXISTING
EA/EXH	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
EJ	EXPANSION JOINT
EL	ELEVATION
ELECT	ELECTRICAL
EMS	ENERGY MANAGEMENT SYSTEM
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING WET BULB TEMPERATURE
EWC	ELECTRIC WATER COOLER
°F	DEGREES FAHRENHEIT
FA	FACE AREA (COIL) / FREE AREA (LOUVER)
FC	FLEXIBLE CONNECTION
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FHV	FIRE HOSE VALVE
FLA	FULL LOAD AMPS
FLR	FLOOR
FPM	FEET PER MINUTE
FFD	FUNNEL FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FS	FLOOR SINK
FT	FEET
FURN	FURNISHED
FV	FACE VELOCITY
FVC	FIRE VALVE CABINET
GAL	GALLON
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HO	HUB OUTLET
HP	HORSEPOWER

MECHANICAL ABBREVIATIONS

ABBREV.	DESCRIPTION
HR	HOUR
HTG	HEATING
HYD	HYDRANT
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCHES
INST	INSTALLED
INV	INVERT
ISP	INTERNAL STATIC PRESSURE
IW	INDIRECT WASTE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LDB	LEAVING DRY BULB TEMPERATURE
LRA	LOCKED ROTOR AMPS
LWB	LEAVING WET BULB TEMPERATURE
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	1000 BRITISH THERMAL UNITS PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MOTOR OPERATED DAMPER (AUTOMATIC)
MOP	MAXIMUM OVER-CURRENT PROTECTION
N.C.	NOISE CRITERIA
NIC	NOT IN CONTRACT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NOM	NOMINAL
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER / CENTER TO CENTER
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
ORS	OVERFLOW ROOF SUMP
OS&Y	OUTSIDE SCREW AND YOKE
PD	PRESSURE DROP (FEET OF WATER)
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAUGE
PT	PRESSURE / TEMPERATURE PORT
RA	RETURN AIR
RH	RELATIVE HUMIDITY
REQD	REQUIRED
REL.A	RELIEF AIR
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
RS	ROOF SUMP
SA	SUPPLY AIR
SH	SHOWER
SP	STATIC PRESSURE
SqFt / SF	SQUARE FOOT/SQUARE FEET
SS	SERVICE SINK
TC	TEMPERATURE CONTROL
T & P	TEMPERATURE AND PRESSURE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE

MECHANICAL ABBREVIATIONS

ABBREV.	DESCRIPTION
UR	URINAL
VD	VOLUME DAMPER (MANUALLY ADJUSTABLE)
VTR	VENT THRU ROOF
W	WASTE
W&V	WASTE AND VENT
WB	WET BULB TEMPERATURE
WC	WATER CLOSET
WG	WATER GAUGE
WH	WALL HYDRANT

MECHANICAL PIPING SYMBOLS

ABBREV.	DESCRIPTION
	PIPE ELBOW UP
	PIPE ELBOW DOWN
	PIPE TEE DOWN
	DIRECTION OF FLOW
	UNION
	STRAINER
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	EXPANSION JOINT
	FLEXIBLE CONNECTION
	PIPE ANCHOR
	PIPE GUIDE
	PIPE CAP OR PLUG
	ISOLATION VALVE
	CIRCULATING PUMP
	GLOBE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	BACKWATER VALVE
	ANGLE VALVE
	CHECK VALVE (SWING)
	CHECK VALVE (SPRING)
	PLUG VALVE
	NEEDLE VALVE
	OUTSIDE SCREW AND YOKE VALVE (OS&Y)
	PRESSURE REGULATING VALVE
	SOLENOID VALVE
	CONTROL VALVE (2-WAY / 3-WAY)
	CENTRIFUGAL FAN
	AUTOMATIC GAS SHUT-OFF VALVE
	TRAP (PLAN VIEW)
	FLOOR DRAIN / FUNNEL FLOOR DRAIN (PLAN VIEW)
	FLOOR DRAIN / FUNNEL FLOOR DRAIN (ELEVATION)
	ROOF SUMP
CO	CLEAN OUT (IN FLOOR)
CO	CLEAN OUT (IN LINE)
WCO	CLEAN OUT (WALL)
BFP	BACKFLOW PREVENTER
M	WATER METER ASSEMBLY
	HOSE BIBB, WALL HYDRANT
	DIRECTION OF PIPE PITCH
	SPRINKLER HEAD (UPRIGHT)
	SPRINKLER HEAD (SIDEWALL)
FS	FLOW SWITCH
	SIAMESE CONNECTION (YARD)
	SIAMESE CONNECTION (WALL MOUNTED)
	FIRE HYDRANT
	FLOW MEASURING DEVICE
	BALANCING VALVE
	COMBINATION FLOW MEASURING AND BALANCING DEVICE
AAV	AUTOMATIC AIR VALVE
MAV	MANUAL AIR VALVE

MECHANICAL SYMBOLS

ABBREV.	DESCRIPTION
	RECTANGULAR TAKE-OFF (SINGLE LINE)
	RECTANGULAR TAKE-OFF (DOUBLE LINE)
	ROUND TAKE-OFF (SINGLE LINE)
	ROUND TAKE-OFF (DOUBLE LINE)
	SPIN-IN FITTING (WITH VOLUME DAMPER)
	ELBOW (WITH TURNING VANES)
	RADIUS RECTANGULAR ELBOW
	RADIUS ROUND ELBOW
	RECTANGULAR ELBOW UP
	ROUND ELBOW UP
	RECTANGULAR ELBOW DOWN
	ROUND ELBOW DOWN
	CONCENTRIC TRANSITION (DOUBLE LINE)
	CONCENTRIC TRANSITION (SINGLE LINE)
	ECCENTRIC TRANSITION (DOUBLE LINE)
	ECCENTRIC TRANSITION (SINGLE LINE)
R	INCLINED RISE IN DIRECTION OF AIR FLOW (DOUBLE LINE)
R	INCLINED RISE IN DIRECTION OF AIR FLOW (SINGLE LINE)
D	INCLINED DROP IN DIRECTION OF AIR FLOW (DOUBLE LINE)
D	INCLINED DROP IN DIRECTION OF AIR FLOW (SINGLE LINE)
	FLEXIBLE CONNECTION
	FLEXIBLE DUCT CONNECTION TO SUPPLY DIFFUSER
	SUPPLY DIFFUSER
	LINEAR SLOT DIFFUSER
	RETURN OR EXHAUST GRILLE
	TRANSFER GRILLE
	CROSS SECTION OF SUPPLY AIR DUCT
	CROSS SECTION OF EXHAUST OR RETURN AIR DUCT
EXISTING / NEW	FIRE DAMPER (HORIZONTAL)
EXISTING / NEW	FIRE DAMPER (VERTICAL)
EXISTING / NEW	SMOKE DAMPER
EXISTING / NEW	COMBINATION FIRE/SMOKE DAMPER (VERTICAL)
EXISTING / NEW	COMBINATION FIRE/SMOKE DAMPER (HORIZONTAL)
	VOLUME DAMPER (MANUALLY ADJUSTABLE)
M	MOTORIZED DAMPER
SD	SMOKE DETECTOR
CO2	CO2 SENSOR
T	THERMOSTAT OR TEMPERATURE SENSOR
H	HUMIDISTAT OR HUMIDITY SENSOR
	RETURN OR EXHAUST / SUPPLY AIR FLOW

PIPING LEGEND

ABBREV.	DESCRIPTION
CA	COMPRESSED AIR PIPING
CD	CONDENSATE DRAIN PIPING
DT	DRAIN TILE
F	FIRE PROTECTION PIPING
FOR	FUEL OIL RETURN PIPING
FOS	FUEL OIL SUPPLY PIPING
G	NATURAL GAS PIPING
BCW	BOOSTED-DOMESTIC COLD WATER PIPING
BHW	BOOSTED-DOMESTIC HOT WATER PIPING
CW	DOMESTIC COLD WATER PIPING
NPCW	NON POTABLE COLD WATER PIPING
TW	TEMPERED WATER PIPING
HW	DOMESTIC HOT WATER PIPING
HW(140°F)	DOMESTIC 140°F HOT WATER PIPING
HWR	DOMESTIC HOT WATER RETURN PIPING
SAN	SANITARY WASTE PIPING
PSAN	PUMPED SANITARY PIPING
V	VENT PIPING
ST	STORM SEWER PIPING
PST	PUMPED STORM PIPING
RC	RAIN CONDUCTOR PIPING
ORC	OVERFLOW RAIN CONDUCTOR PIPING
CHWR	CHILLED WATER RETURN PIPING
CHWS	CHILLED WATER SUPPLY PIPING
CWR	CONDENSER WATER RETURN PIPING
CWS	CONDENSER WATER SUPPLY PIPING
HHWR	HEATING HOT WATER RETURN PIPING
HHWS	HEATING HOT WATER SUPPLY PIPING
HPLR	HEAT PUMP LOOP RETURN PIPING
HPLS	HEAT PUMP LOOP SUPPLY PIPING
RL	REFRIGERANT LIQUID PIPING
RS	REFRIGERANT SUCTION PIPING
HGB	HOT GAS BY-PASS PIPING
GXHR	GEO HEAT EXCHANGE RETURN
GXHS	GEO HEAT EXCHANGE SUPPLY
STM	STEAM PIPING
HPS	HIGH PRESSURE STEAM PIPING
LPS	LOW PRESSURE STEAM PIPING
CR	STEAM CONDENSATE RETURN PIPING
PCR	PUMPED STEAM CONDENSATE RETURN PIPING
LPC	LOW PRESSURE CONDENSATE PIPING
HPC	HIGH PRESSURE CONDENSATE PIPING
MA	MEDICAL AIR PIPING
N	NITROGEN GAS PIPING
O2	OXYGEN GAS PIPING
VAC	VACUUM PIPING

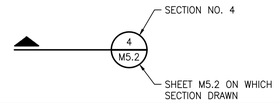
APPLICABLE CODES AND REGULATIONS

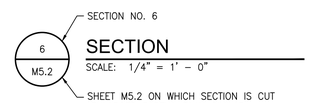
YEAR	CODE
2015	MICHIGAN BUILDING CODE
2015	MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS
2018	MICHIGAN PLUMBING CODE
2015	MICHIGAN MECHANICAL CODE
2015	MICHIGAN UNIFORM ENERGY CODE
2013	NFPA 13
2012	NFPA 101 WITH BFS AMENDMENTS
2009	ICC/ANSI ACCESSIBLE AND USABLE BUILDING & FACILITIES
-	AMERICANS WITH DISABILITIES ACT ACCESSIBILITIES GUIDELINE (ADA-AG)

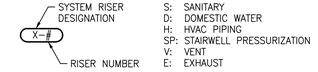
DRAWING INDEX

DRAWING NOTATION

SYMBOL	DESCRIPTION
1	NEW WORK KEY NOTE NO. 1
1	DEMOLITION KEY NOTE NO. 1
EF-1	EQUIPMENT TAG
S-1 10x10 100-2	AIR TERMINAL TAG: IE: DIFFUSER TYPE = S-1 NECK SIZE = 10x10 CFM = 100 (TYPICAL FOR 2) S = SUPPLY R = RETURN E = EXHAUST T = TRANSFER
	EXISTING DEVICES OR EQUIPMENT
	NEW OR MODIFIED DEVICES OR EQUIPMENT
	EXISTING SYSTEM COMPONENT TO BE REMOVED
	POINT OF NEW CONNECTION







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PROJECT
Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET
MECHANICAL GENERAL INFORMATION

PROJECT NUMBER
2020-006

SHEET NUMBER
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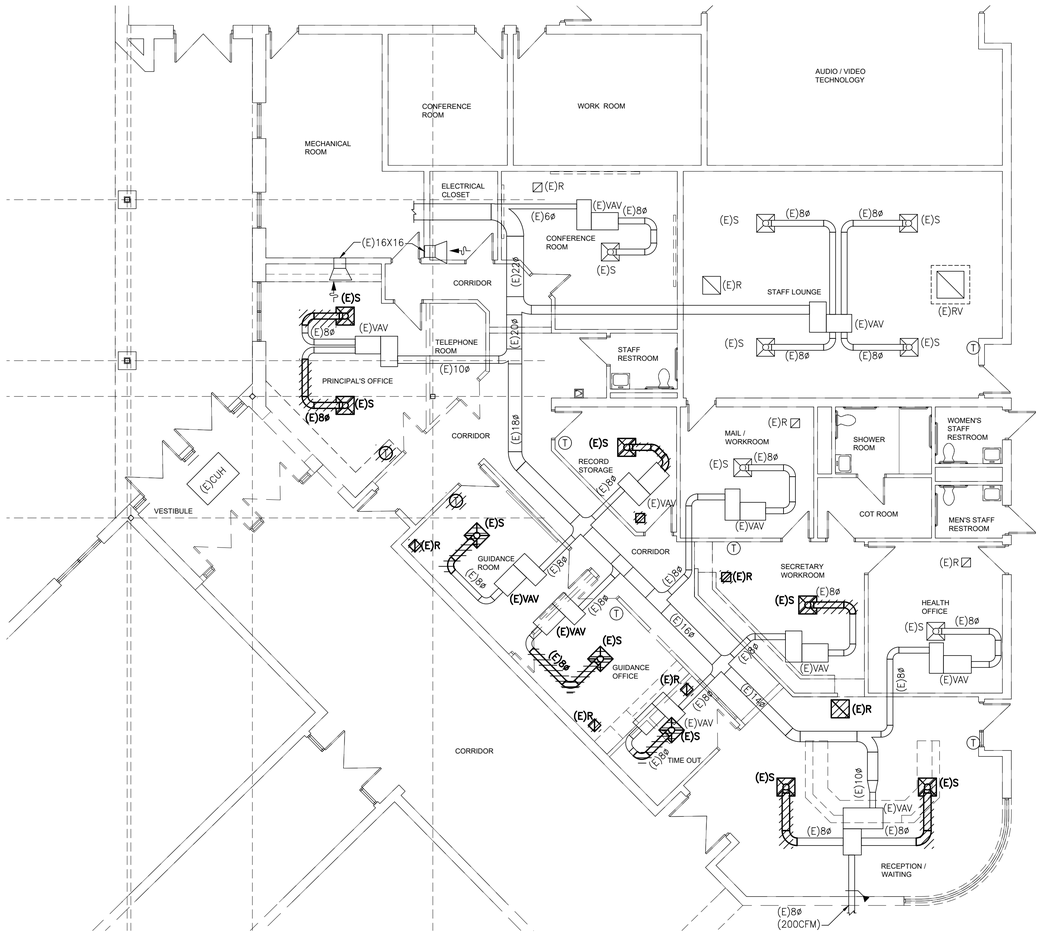

PARTIAL MECHANICAL DEMOLITION PLAN

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

MECHANICAL DEMOLITION NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF WORK TO BE PERFORMED. THE EXACT EXTENT OF DEMOLITION SHALL BE AS REQUIRED BY THE NEW WORK.
2. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING SITE CONDITIONS, SYSTEMS, AND UTILITIES. NOTIFY ARCHITECT OF ANY INTERFERENCES OR DISCREPANCIES.
3. VERIFY DEPTH, SIZE, LOCATIONS AND CONDITION OF EXISTING UTILITIES IN THE FIELD, INCLUDING POINTS OF CONNECTION PRIOR TO STARTING ANY WORK.
4. ANY INTERRUPTIONS OF EXISTING SERVICES AND/OR EQUIPMENT SHALL BE PERFORMED AT A TIME APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE SO AS NOT TO INTERFERE WITH THE PRESENT BUILDING'S OPERATION.
5. ALL ITEMS ON DEMOLITION PLAN SHALL BE CONSIDERED EXISTING UNLESS OTHERWISE NOTED. ALL WORK INDICATED ON PLANS HAS BEEN LOCATED PER EXISTING DRAWINGS AND/OR FIELD OBSERVATION AND REQUIRES FIELD VERIFICATION.
6. ALL ITEMS INDICATED WITH CROSS-HATCHING SHALL BE REMOVED COMPLETE, WITH ALL RELATED ITEMS INCLUDING HANGERS, SUPPORTS, INSULATION, CONTROLS, ETC. CAP ALL OPEN ENDED PIPES AND DUCTS.
7. ALL EXISTING WORK TO REMAIN SHALL BE PROTECTED FROM DAMAGE. WHERE DUCT OR PIPE INSULATION HAS BEEN DAMAGED DURING DEMOLITION, THE CONTRACTOR SHALL REPAIR INSULATION AS REQUIRED TO MATCH EXISTING.
8. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL ITEMS REMOVED SHALL BE LEGALLY DISPOSED OF. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING RELOCATED AND OWNER PROVIDED EQUIPMENT.

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PROJECT

Williamston Community Schools
Discovery Elementary
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WILLIAMSTON, MICHIGAN

SHEET

PARTIAL MECHANICAL DEMO PLAN

PROJECT NUMBER

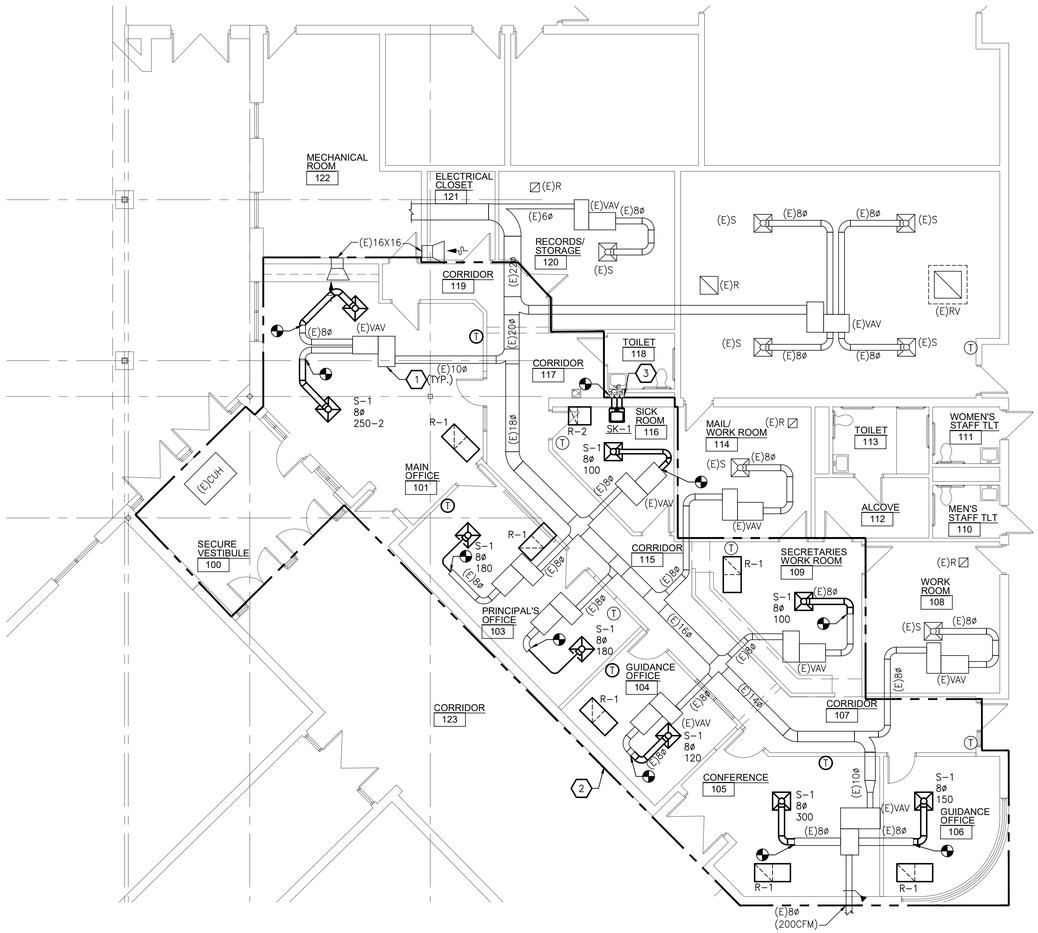
2020-006

SHEET NUMBER

MD2.10

0 1/2" 1" 2"
ACCURATE WHEN PRINTED TO SCALE

2020-006 William Community Schools - Discovery Elementary School Secure Entry



PARTIAL MECHANICAL PLAN
SCALE:1/8" = 1'-0"

HVAC GENERAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. PROVIDE HVAC SYSTEMS COMPLETE PER SPECIFICATION, SMACNA STANDARDS, AND PER APPLICABLE CODES INCLUDING ALL NECESSARY OFFSETS, FITTINGS, SPECIAL RADIUS OR MITERED ELBOWS WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS OR STRUCTURAL CONDITIONS OR OTHER CONDITIONS.
2. CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE WORK OF ALL OTHER TRADES. ALL DUCTWORK IS TO BE ROUTED AS HIGH A POSSIBLE. PROVIDE ACCESS AROUND ALL NEW EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. VERIFY ALL CLEARANCES PRIOR TO THE FABRICATION OF ANY WORK.
3. DUCTWORK/PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE AND SHALL NOT BE LOCATED OVER ELECTRICAL EQUIPMENT/PANELS. PROVIDE REQUIRED CLEARANCE IN FRONT OF ELECTRICAL EQUIPMENT. DUCTWORK/PIPING SHALL NOT INTERFERE WITH ELECTRICAL EQUIPMENT CLEARANCE.
4. DUCTWORK/PIPING SHALL NOT BE INSTALLED IN A LOCATION THAT RESTRICTS THE ACCESS TO MECHANICAL DEVICES REQUIRING ACCESS.
5. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS.
6. BRANCH DUCTWORK TO GRILLES, REGISTERS AND DIFFUSERS SHALL BE THE SAME SIZE AS THE GRILLE, REGISTER OR DIFFUSER NECK SIZE WHERE NO DUCT SIZE IS INDICATED ON PLAN.
7. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 5'-0".
8. PAINT ALL VISIBLE INTERIOR SURFACES OF EXHAUST/RETURN GRILLES, REGISTERS AND VISIBLE ASSOCIATED DUCTWORK FLAT BLACK.
9. THE CEILING SPACE IS USED AS A RETURN AIR PLENUM. NO PLASTIC MATERIALS INCLUDING PVC PIPING, CONDUIT, WIRING, ETC. SHALL BE USED. ALL MATERIAL IN THE CEILING SPACE IS TO BE PLENUM RATED.
10. DUCTWORK TO AND FROM VAV BOXES/TERMINAL UNITS SHALL BE EQUAL TO THE BOX CONNECTIONS SIZES UNLESS INDICATED OTHERWISE.
11. CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.

KEYED NOTES

(#)

1. RE-BALANCE THE EXISTING VAV TO MATCH NEW AIRFLOW TO THE DIFFUSERS. REFER TO DIFFUSERS FOR EXACT CFM. REFER TO VENTILATION TABLE ON DRAWING M5.00 FOR MINIMUM VENTILATION FLOWS.
2. REVISE/RECONFIGURE THE FIRE PROTECTION SPRINKLER SYSTEM IN THIS AREA TO ACCOMMODATE THE ARCHITECTURAL REVISIONS. REVISED SYSTEM TO TO MEET NFPA 13 REQUIREMENTS. SPRINKLERS TO BE CENTERED IN THE TILES OF THE NEW CEILING.
3. UTILIZE THE EXISTING CW/HW PIPING, VENTING AND SANITARY FROM THE EXISTING TOILET ROOM SINK TO SUPPLY TO THE NEW SICK ROOM SINK.

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PROJECT
Williamston Community Schools
Discovery Elementary
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WILLIAMSTON, MICHIGAN

SHEET
PARTIAL MECHANICAL PLAN

PROJECT NUMBER
2020-006

SHEET NUMBER
M2.10

0 1/2" 1" 2"
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2020-006 William Community Schools - Discovery Elementary School Secure Entry

PLUMBING FIXTURE SCHEDULE

TAG	BARRIER FREE	ITEM	PIPE CONNECTION SIZES				MANUFACTURER & MODEL NO.	ACCESSORIES
			WASTE	VENT	CW	HW		
SK-1	Y	SINK - STAINLESS STEEL DROP IN	1-1/2"	1-1/2"	1/2"	1/2"	ELKAY: LRAD202265PD WITH DELTA 26C3924-R7	19-1/2" X 22" X 6-1/2" SINGLE BOWL DROP IN STAINLESS STEEL SINK WITH PERFECT DRAIN. FAUCET SHALL BE 9" GOOSENECK WITH WRAISTBLADE HANDLES, 1.5 GPM VANDAL RESISTANT LAMINAR FLOW OUTLET. PROVIDE WITH ASSE 1070 MIXING VALVE FOR ADA UNITS.

NOTES:

1. PROVIDE ALL SLEEVES, TEMPLATES, HARDWARE, ACCESSORIES, ETC. REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION. VERIFY ALL COLORS AND FINISHES WITH ARCHITECT AND REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHT OF ALL FIXTURES.
2. WHERE REQUIRED AND/OR DESIGNATED, FIXTURES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE'S BARRIER FREE DESIGN REQUIREMENTS & ICC/ANSI A117.1. ALL EXPOSED LAVATORY AND SINK TRIM ON WHEELCHAIR ACCESSIBLE FIXTURES SHALL BE COVERED WITH A SEAMLESS ANTIMICROBIAL VINYL INSULATING OUTER SHELL.
3. PROVIDE COMMERCIAL GRADE SUPPLIES TO SINKS AND LAVATORIES WITH CHROME PLATED BRASS LOOSE KEY ANGLE STOPS WITH BRASS STEMS (NO PLASTIC STEMS), WHERE APPLICABLE PROVIDE ESCUTCHEON PLATE.
4. PROVIDE POINT OF USE THERMOSTATIC MIXING VALVES, ASSE 1070, FOR ALL ADA SINKS AND HANDWASHING SINKS.

GRILLE, REGISTER AND DIFFUSER SCHEDULE

UNIT ID	FACE SIZE	NECK SIZE	MOUNTING	ACCESSORY	FINISH	MATERIAL	PRICE/ MODEL NO.	REMARKS
S-1	24x24	SEE PLANS	CEILING	-	WHITE	STEEL	SPD	
R-1	24x24	22x22	CEILING	-	WHITE	STEEL	80	PROVIDE WITH SOUND ATTEN. BOOT IF NOT DUCTED.
R-2	24X12	22x10	CEILING	-	WHITE	STEEL	80	PROVIDE WITH SOUND ATTEN. BOOT IF NOT DUCTED.

NOTES:

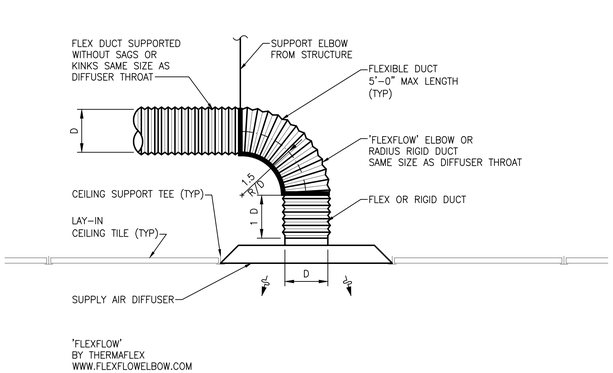
1. REFER TO ARCHITECTURAL CEILING PLAN AND COORDINATE FRAME TYPE ACCORDINGLY.

OUTSIDE AIR VENTILATION SCHEDULE

ROOM/ SPACE	OCCUPANCY CLASSIFICATION	SF	OCCUPANT DENSITY (P/1000 SF)	OCCUPANTS	OUTSIDE AIR FLOWRATE		OA REQUIRED (CFM)	OA PROVIDED	REMARKS
					CFM/ PERSON	CFM/ SF			
CONFERENCE ROOM	CONDERENCE	300	50	15	5	.06	93	95	
GUIDANCE OFFICE	OFFICE SPACES	180	5	1	5	.06	15	15	
GUIDANCE OFFICE	OFFICE SPACES	190	5	1	5	.06	16	20	
MAIN OFFICE	OFFICE SPACES	506	5	3	5	.06	43	45	
PRINCIPAL OFFICE	OFFICE SPACES	330	5	2	5	.06	28	30	
SICK ROOM	OFFICE SPACES	148	5	1	5	.06	13	15	
STORAGE	STORAGE	310	0	0	0	.06	19	20	

NOTES:

1. OCCUPANT DENSITIES AND OUTSIDE AIR FLOW RATES BASED ON THE 2015 MICHIGAN MECHANICAL CODE TABLE 403.3.



'FLEXFLOW'
BY THERMAFLEX
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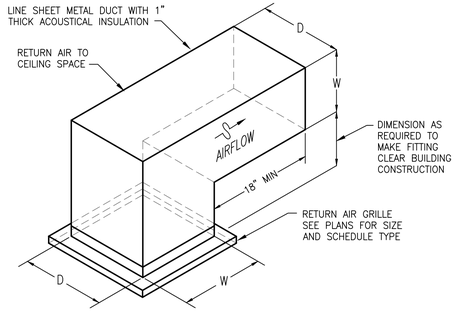
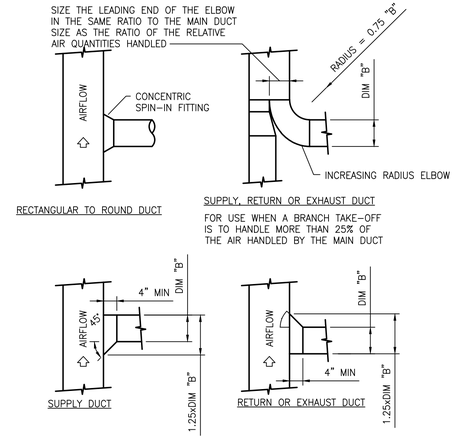
SUPPLY AIR DIFFUSER DETAIL

NO SCALE



RETURN AIR BOOT DETAIL



RECTANGULAR DUCT BRANCH TAKE-OFF DETAILS

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PROJECT
Williamston Community Schools
Discovery Elementary
Secure Entrance
WILLIAMSTON, MICHIGAN

SHEET
MECHANICAL SCHEDULES AND DETAILS

PROJECT NUMBER
2020-006

SHEET NUMBER
M5.00

APPLICABLE CODES AND REGULATIONS

YEAR	CODE
2015	MICHIGAN BUILDING CODE
2015	MICHIGAN ENERGY CODE
2015	MICHIGAN RESIDENTIAL CODE
2015	MICHIGAN REHABILITATION CODE
2017	MICHIGAN ELECTRICAL CODE RULES, PART 8
2017	NATIONAL ELECTRICAL CODE (NFPA 70)
2013	NFPA 20
2013	NFPA 72
2013	NFPA 101
2013	NFPA 110
2009	ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS & FACILITIES
1985	DETROIT ELEVATOR CODE

TECHNOLOGY SYMBOL LIST

SYMBOL	DESCRIPTION
	CAMERA
CR	CARD READER
	TECHNOLOGY OUTLET – 6" ABOVE COUNTER
	TECHNOLOGY OUTLET – FLOOR
	TECHNOLOGY OUTLET – WALL
DH	MAGNETIC DOOR HOLDER
	PUSH BUTTON
S	SPEAKER
	WALL CLOCK – SINGLE FACE
	WALL CLOCK – DOUBLE FACE
S	WALL CLOCK AND SPEAKER UNIT
WAP	WIRELESS ACCESS POINT

NOTES:
1. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR BOX AND CONDUIT FOR ALL DEVICES INDICATED.
2. LOW VOLTAGE CONTRACTOR SHALL PROVIDE EXACT SPECIFICATIONS AND LOCATIONS OF ALL DEVICES.

LIGHTING CONTROLS LEGEND

SYMBOL	DESCRIPTION
$	SINGLE POLE SWITCH
$3	THREE WAY SWITCH
$4	FOUR WAY SWITCH
$L	LIGHT CONTROL LOCATION
G	GENERATOR TRANSFER DEVICE

POWER SYMBOL LIST

SYMBOL	DESCRIPTION
	CONDUIT DOWN
	CONDUIT UP
	DISCONNECT SWITCH – NON FUSED
	DISCONNECT SWITCH – FUSED
	DISCONNECT SWITCH – COMB. MOTOR STARTER
	ELECTRICAL PANEL
	GROUNDING ROD
	GROUND
	GROUNDING BAR
J	JUNCTION BOX
M	METER
	MOTOR – SINGLE PHASE
	MOTOR – THREE PHASE
$M	MOTOR RATED SWITCH
	POWER RECEPTACLE – SIMPLEX TYPE
	POWER RECEPTACLE – DUPLEX TYPE
	POWER RECEPTACLE – DUPLEX 6" ABOVE COUNTER
USB	POWER RECEPTACLE – USB/DUPLEX COMBO. DEVICE
	POWER RECEPTACLE – QUADRUPLEX TYPE
	POWER RECEPTACLE – RECESSED FLOOR TYPE
	POWER RECEPTACLE – SPECIALTY TYPE
TC	TIME CLOCK
T	TRANSFORMER

NOTES:
1. ALL DEVICE RATINGS/SIZES SHALL BE COORDINATED WITH PLANS AND SCHEDULES.

FIRE ALARM SYMBOL LIST

SYMBOL	DESCRIPTION
F	AUDIBLE DEVICE/WALL MOUNTED
F	VISUAL DEVICE/WALL MOUNTED
F	COMBO AUDIBLE/VISUAL DEVICE/WALL MOUNTED
F	AUDIBLE DEVICE/CEILING MOUNTED
F	VISUAL DEVICE/CEILING MOUNTED
F	COMBO AUDIBLE/VISUAL DEVICE/CEILING MOUNTED
CS	CO ALARM/SMOKE DETECTOR
S	SMOKE DETECTOR
CO	CO ALARM
S	DUCT MOUNTED SMOKE DETECTOR
H	HEAT DETECTOR
FD	FIRE DEPARTMENT COMMUNICATION OUTLET
	EXISTING / NEW — COMBINATION FIRE/SMOKE DAMPER (HORIZONTAL)
	EXISTING / NEW — COMBINATION FIRE/SMOKE DAMPER (VERTICAL)
F	MANUAL PULL STATION
FS	FLOW SWITCH
TS	TAMPER SWITCH
FAA	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
I/O	INPUT/OUTPUT CONTROL MODULE

NOTES:
1. DRAWINGS INDICATE DESIGN INTENT ONLY, FINAL LOCATIONS AND DEVICE SPECIFICATIONS SHALL BE PROVIDED BY FIRE ALARM MANUFACTURER. REFER TO PROJECT SPECIFICATIONS FOR APPROVED MANUFACTURERS.

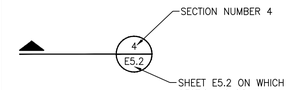
ELECTRICAL ABBREVIATIONS

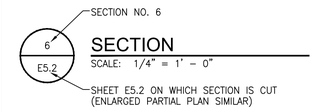
ABBREV.	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
A	AMPERE
AF	AMPERE FUSE/AMPERE FRAME
AWG	AMERICAN WIRE GAUGE
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AIC	AVAILABLE INTERRUPTING CURRENT (AMPS)
C	CONDUIT OR CEILING MOUNTED
CB	CIRCUIT BREAKER
CU	COPPER
CT	CURRENT TRANSFORMER
DIA	DIAMETER
DISC	DISCONNECT
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EPO	EMERGENCY POWER OFF
(E)	EXISTING ELECTRICAL EQUIPMENT OR WORK
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
F	FUSE
G/GRD	GROUND
GFCI/GFI	GROUND FAULT CIRCUIT INTERRUPTER
HOA	HAND–OFF–AUTO
HP	HORSEPOWER
IG	ISOLATED GROUND
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LP	LIGHTING PANEL
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUG ONLY
MAX	MAXIMUM
MIN	MINIMUM
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
N/NEU	NEUTRAL
NF	NON–FUSIBLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
PH. OR ø	PHASE
P	POLE
PF	POWER FACTOR
PVC	POLYVINYL CHLORIDE (PLASTIC)
(R)	RELOCATED EXISTING ELECTRICAL EQUIPMENT
(RR)	REMOVE AND REINSTALL
RMC	RIGID METALLIC CONDUIT
RP	RECEPTACLE PANEL
TBB	TELEPHONE BACKBOARD
TYP.	TYPICAL
UC	UNDER COUNTER
UL	UNDERWRITERS LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
V	VOLT
VA	VOLT AMPERE
W	WATT
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

DRAWING INDEX

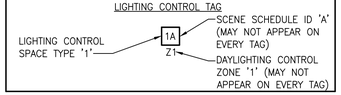
DRAWING NOTATION

SYMBOL	DESCRIPTION
L1	LIGHTING FIXTURE TAG
1	CONSTRUCTION KEY NOTE NUMBER 1
1	DEMOLITION KEY NOTE NUMBER 1
20	COPPER FEEDER SIZE TAG (REFER TO FEEDER SCHEDULE)
20	ALUMINUM FEEDER SIZE TAG (REFER TO FEEDER SCHEDULE)
EQUIPMENT	EQUIPMENT TAG
	EXISTING DEVICES OR EQUIPMENT
	NEW OR MODIFIED DEVICES OR EQUIPMENT
	NEW OR MODIFIED UNDERGROUND WIRING
	EXISTING SYSTEM COMPONENT TO BE REMOVED
	POINT OF NEW CONNECTION





LIGHTING CONTROL TAG



LIGHTING CONTROLS MATRIX

TAG NUMBER #	SPACE TYPE	PARAMETERS: MANUAL ON/OFF SWITCH	DIMMING SWITCH	OVERRIDE SWITCH	MULTI ZONE CONTROL	KEY SWITCH	TIMECLOCK	OCCUPANCY SENSOR	PHOTOCONTROL DIMMING	EXTERIOR PHOTOCELL	COLOR TUNING	RGB/RGBW	BACNET INTEGRATION	SEQUENCE OF OPERATIONS
1	OFFICE, CONFERENCE, WORKROOM, SICK ROOM,	X	X					X						MANUAL ON/AUTOMATIC OFF WITHIN 20 MIN OF OCCUPANTS LEAVING SPACE (VACANCY MODE). CONTINUOUS DIMMING.
2	CORRIDOR, VESTIBULE	X						X						LOCAL EXISTING SWITCH WITH ON/OFF FUNCTION. AUTOMATIC ON TO FULL VIA OCCUPANCY SENSOR. AUTOMATIC FULL OFF VIA OCCUPANCY SENSOR (VACANCY MODE) WITHIN 20 MIN OF OCCUPANTS LEAVING SPACE.

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	LIGHT ENGINE	WATTAGE	VOLTAGE	REMARKS
L1	RECESSED 2X4 LED TROFFER	LITHONIA	2BLT4-48L-ADP-EZ1-LP835	3500K CCT LED, 80 CRI	38W	MVOLT	
L1E	SAME AS TYPE L1 WITH EM BATTERY	LITHONIA	2BLT4-48L-ADP-EZ1-LP835-EL14L	3500K CCT LED, 80 CRI	38W	MVOLT	
X1	LED EXIT SIGN	LITHONIA	LQM-S-W-3-R-120/277-EL-N	LED	1W	MVOLT	

FIXTURE TYPE KEY:

L STANDARD
S SITE
R RESIDENTIAL
O OWNER PROVIDED
X EXIT LIGHTS
E EMERGENCY EGRESS

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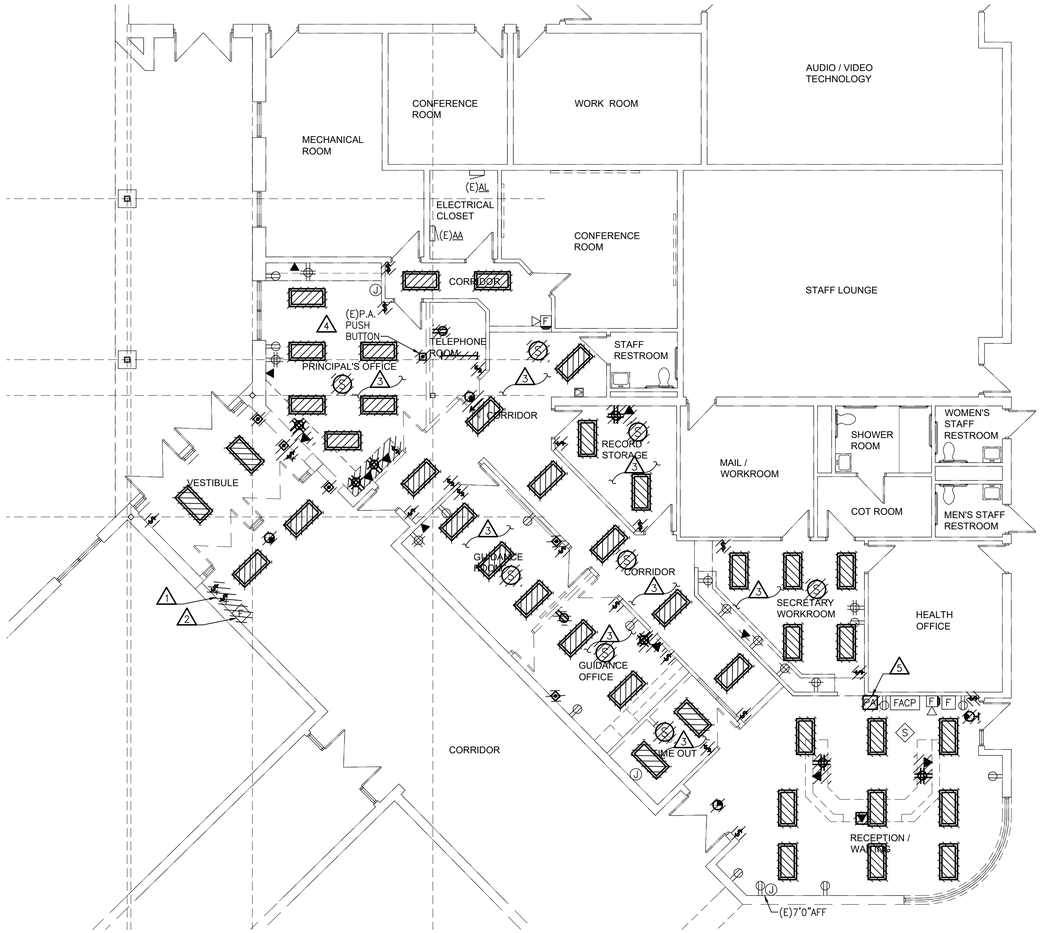
PROJECT
Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET
ELECTRICAL GENERAL INFORMATION

PROJECT NUMBER
2020-006

SHEET NUMBER
E0.00



PARTIAL ELECTRICAL DEMOLITION PLAN
SCALE:1/8" = 1'-0"

ELECTRICAL DEMOLITION NOTES

1. VISIT THE SITE PRIOR TO SUBMISSION OF BID TO EXAMINE THE EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION WORK.
2. EXAMINE THE DRAWINGS OF OTHER TRADES, BE FAMILIAR WITH THE DEMOLITION REQUIRED BY OTHER TRADES.
3. PERFORM ALL INCIDENTAL ELECTRICAL DEMOLITION AND/OR RELOCATION OF DEVICES AND EQUIPMENT REQUIRED TO FACILITATE THE DEMOLITION WORK OF OTHER TRADES.
4. COORDINATE WITH NEW WORK PLANS, ONE LINE, AND RISER DIAGRAMS FOR EXTENT OF DEMOLITION WORK.
5. COORDINATE ANY SHUTDOWN OF EXISTING SERVICES AND EQUIPMENT REMAINING IN USE WITH OWNERS' REPRESENTATIVE. WHERE EXISTING BUILDING SERVICE IS REQUIRED TO BE SHUT DOWN, INCLUDE ALL ASSOCIATED OVERTIME COST TO PERFORM THIS WORK DURING EVENING AND WEEKENDS. INCLUDE ALL COSTS FOR PROVIDING TEMPORARY POWER.
6. REMOVE ALL CONDUIT AND WIRE BACK TO NEAREST UPSTREAM DEVICE REMAINING IN SERVICE.
7. WHERE DEMOLITION WORK AFFECTS ELECTRICAL SERVICE TO DOWNSTREAM DEVICES TO REMAIN; EXTEND CONDUIT AND WIRE AS REQUIRED TO MAINTAIN ELECTRICAL SERVICE.
8. PROVIDE BLANK COVER PLATES WHERE SWITCHES AND DEVICES ARE REMOVED AND WALL REMAINS INTACT. MARK ALL UNUSED CIRCUIT BREAKERS AS "SPARE".
9. CONTRACTOR TO TAG ALL CIRCUITS AT BOTH ENDS AFFECTED BY THIS SCOPE OF WORK.
10. CONTRACTOR SHALL PROVIDE UPDATED, TYPED-IN DIRECTORIES FOR ALL PANELS AFFECTED BY THIS SCOPE OF WORK.
11. CONTRACTOR SHALL VERIFY ALL UNDERGROUND AND IN-SLAB UTILITIES LOCATIONS PRIOR TO SAW CUTTING OR PENETRATING ANY FLOOR SLABS. CONTRACTOR SHALL REPAIR ALL UTILITIES DAMAGED BY SAW CUTTING.

DEMOLITION KEYED NOTES

1. EXISTING LIGHT SWITCHES TO BE REMOVED AND RELOCATED. REFER TO NEW WORK PLANS.
2. EXISTING FIRE ALARM PULL STATION TO BE REMOVED AND RELOCATED. REFER TO NEW WORK PLANS.
3. EXISTING SPEAKER TO BE REMOVED AND RELOCATED. REFER TO NEW WORK PLANS.
4. EXISTING PUSH-TO-CALL BUTTON TO BE REMOVED AND RELOCATED. REFER TO NEW WORK PLAN.
5. EXISTING PUBLIC ADDRESS SYSTEM AND DOORBELL SYSTEM TO BE REMOVED AND RELOCATED. REFER TO NEW WORK PLAN.

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PROJECT
Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

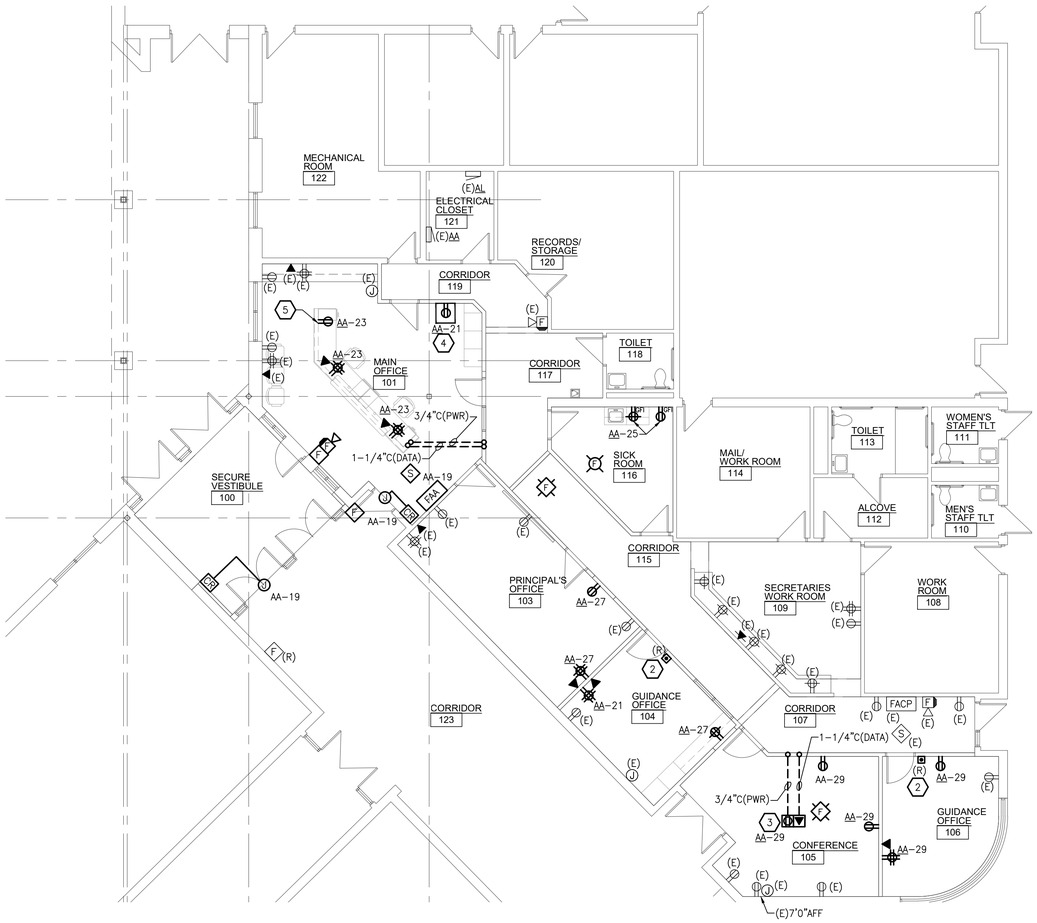
SHEET
PARTIAL ELECTRICAL DEMO PLAN

PROJECT NUMBER
2020-006

SHEET NUMBER
ED2.10

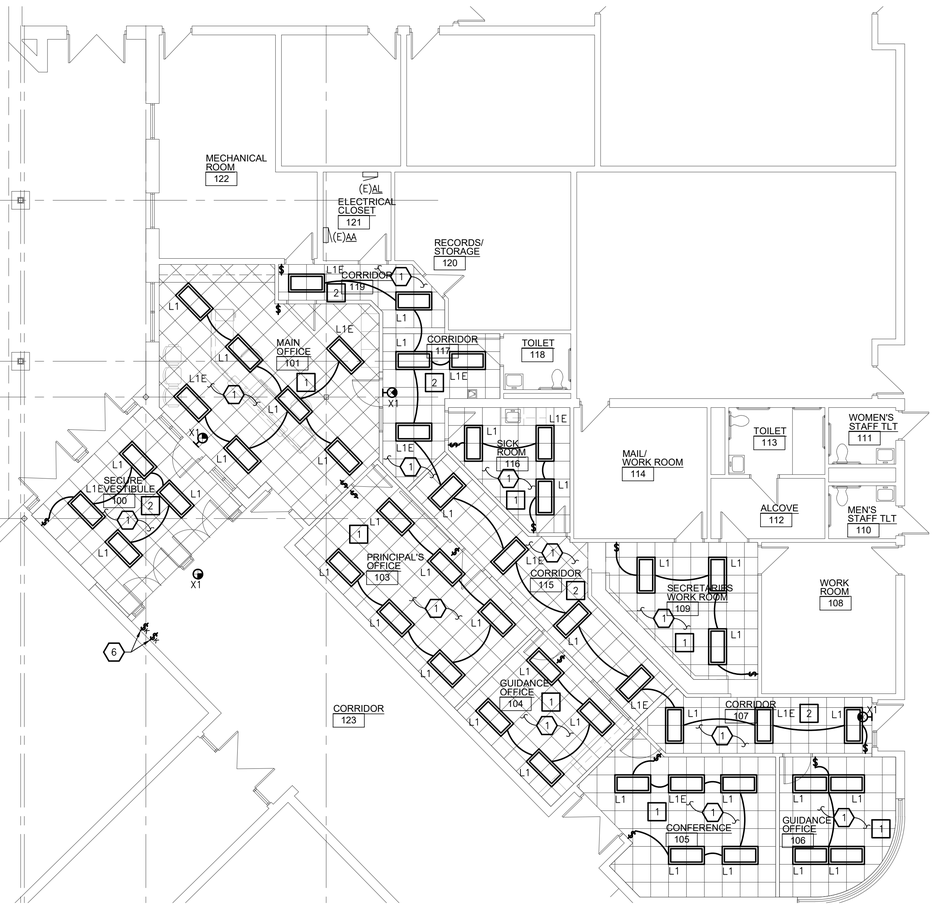
0 1/2" 1" 2"
ACCURATE WHEN PRINTED TO SCALE

2020-006 William Community Schools - Discovery Elementary School Secure Entry



PARTIAL ELECTRICAL POWER PLAN

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



PARTIAL ELECTRICAL LIGHTING PLAN

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

POWER GENERAL NOTES

1. ALL RECEPTACLES ON EXTERIOR, IN KITCHEN, IN CONCESSION, IN LABORATORY, AND WITHIN 6'-0" OF SINK OR OTHER WATER SUPPLY SHALL BE READILY ACCESSIBLE GFCI TYPE RECEPTACLE.
2. REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATIONS TO VERIFY LOCATION OF DEVICES.
3. ALL CONDUITS SERVING 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
4. ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.
5. ALL 120 VOLT CIRCUITS SHALL UTILIZE A SEPARATE NEUTRAL.
6. RECEPTACLES INSTALLED IN ELEVATOR HOISTWAY(S), ELEVATOR MACHINE ROOM(S), CONTROL ROOM(S)/SPACE(S) SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE (GFCI) WITH THE EXCEPTION OF A DEDICATED SINGLE PHASE RECEPTACLE SUPPLYING AN ELEVATOR PIT SUMP PUMP SHALL NOT BE A GFCI TYPE RECEPTACLE.
7. ALL BRANCH CIRCUITS THAT SUPPLY 125-V SINGLE PHASE, 15 AND 20 AMP OUTLETS TO BE INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER; COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.

LIGHTING GENERAL NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES UNLESS OTHERWISE NOTED.
2. EXIT LIGHTS AND EMERGENCY BATTERY UNITS SHALL BE UNCONTROLLED AND TIED AHEAD OF LOCAL AREA LIGHTING SWITCH, UNLESS CIRCUITED OTHERWISE.
3. WHERE MORE THAN ONE LIGHT SWITCH IS INDICATED TO BE INSTALLED AT THE SAME LOCATION, THEY SHALL BE GROUPED UNDER ONE COMMON FACEPLATE.
4. ALL POWER PACKS TO BE LOCATED DIRECTLY ABOVE SWITCH.
5. LIGHT FIXTURES ARE LOOPED TOGETHER TO INDICATE CONTROL ZONE GROUPS. CONNECTED FIXTURES ARE TO BE CONTROLLED TOGETHER. CIRCUITS MAY BE SHARED AMONG SEPARATE CONTROL ZONE GROUPS. MULTIPLE ZONES ZONES MAY BE COMBINED IN SOFTWARE TO FORM SCENES. SEE LIGHTING CONTROL MATRIX: SCENE SCHEDULE (IF PROVIDED), AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
6. ALL CONDUITS SHALL BE ROUTED CONCEALED UNLESS NOTED OTHERWISE.

KEYED NOTES

1. CONNECT NEW LIGHT FIXTURE TO EXISTING BRANCH CIRCUIT THAT FED REMOVED LIGHTING. EXTEND/MODIFY AS REQUIRED. PROVIDE NEW CONSTANT HOT FOR EMERGENCY FIXTURES AS REQUIRED. CONTRACTOR TO MARK UP CIRCUIT NUMBERS ON AS-BUILT DRAWING AND PROVIDE UPDATED TYPE WRITTEN PANEL DIRECTORIES.
2. RELOCATED PUSH-TO-CALL BUTTON. EXTEND WIRING AS REQUIRED.
3. PROVIDE RECESSED POWER AND DATA FLOOR BOX (MODEL NUMBER: RFB4 BY WIREMOLD OR EQUAL) WITH 3/4" CONDUIT FOR POWER AND 1-1/2" CONDUIT FOR DATA.
4. RELOCATED PUBLIC ADDRESS SYSTEM. EXTEND EXISTING CABLING TO NEW LOCATION AS REQUIRED.
5. RELOCATED DOOR BELL SYSTEM. COORDINATE WITH OWNER.
6. RELOCATED KEYED SWITCHES. EXTEND CONDUIT AND WIRING TO NEW LOCATION AS REQUIRED.

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PROJECT

Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET

PARTIAL ELECTRICAL PLAN

PROJECT NUMBER

2020-006

SHEET NUMBER

E2.10

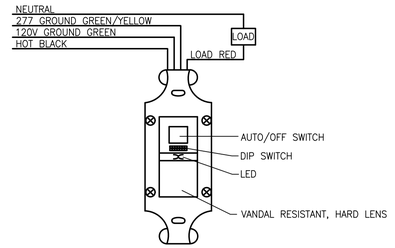
0 1/2" 1" 2"
ACCURATE WHEN PRINTED TO SCALE

Panel Designation: (E)AA | **Main:** MLO | **P-P Voltage:** 208
Panel Location: ELECTRICAL CLOSET | **Bussing:** 100A | **P-N Voltage:** 120
Fed From: EXISTING | **Ground Bus:** STANDARD | **Phase:** 3
Feeder Size: EXISTING | **Mounting:** SURFACE | **Wire:** 4
Neutral: 100% | **Min SC Interrupting Rating:**

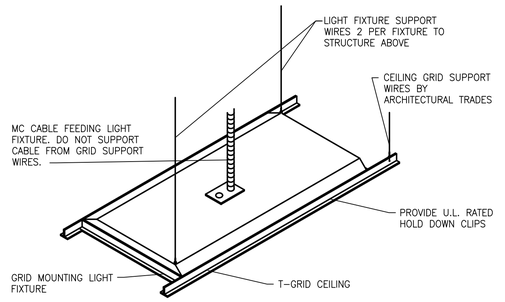
Remarks	Light Load	Recept Load	Cont Load	nonC Load	OC Prot	CKT	Ø A	Ø B	Ø C	CKT	OC Prot	nonC Load	Cont Load	Recept Load	Light Load	Remarks
EXISTING PWR VAV				950	20	1	X			2	20	999				EXISTING PWR VAV
EXISTING PWR VAV				950	20	3		X		4	20	999				EXISTING PWR VAV
EXISTING PWR VAV				950	20	5			X	6	20	980				EXISTING PWR LEIBERT UNIT
EXISTING PWR SOUND RACK & CLOCKS				888	20	7	X			8		980				
EXISTING PWR CLOCKS				776	20	9		X		10	20	776				EXISTING PWR VAV
EXISTING PWR FIRE ALARM PANEL				776	20	11			X	12	20	776				EXISTING PWR VAV
EXISTING SPARE					20	13	X			14	20	776				EXISTING PWR VAV
EXISTING SPARE					20	15		X		16	20	555				EXISTING PWR UNIT HEATER
EXISTING PWR FIRE ALARM PANEL				555	20	17			X	18	50	4500				EXISTING PWR STOVE LOUNGE
PWR - FIRE ALARM ANUNC & DOOR LATCH				**787**	**20**	**19**			X	20		4500				
PWR - PUBLIC ADD & RECEPT RM 104		**360**			**20**	**21**		X		22	--					SPACE
PWR - RECEPT MAIN OFFICE 101		**900**			**20**	**23**			X	24	--					SPACE
PWR - RECEPT RM 116		**360**			**20**	**25**	X			26	--					SPACE
PWR - RECEPT OFFICE 103.104		**540**			**20**	**27**		X		28	--					SPACE
PWR - RECEPT OFFICE 105.106		**1080**			**20**	**29**			X	30	--					SPACE

	Connected Load				Demand	Demand Load			
Load Description	**ØA**	**ØB**	**ØC**	**Total**	**Factor**	**ØA**	**ØB**	**ØC**	**Total**
Lighting or Continous Load (Volt-Amps)	0	0	0	0	1.00	0	0	0	0
180VA Receptacle Load (Volt-Amps)	360	900	1980	3240	1.00 (First 10kVA)	360	900	1980	3240
	Amount over 10kVA			*0*	0.50 (> 10kVA)	0	0	0	0
Continuous Load (Volt-Amps)	0	0	0	0	1.00	0	0	0	0
Non-Continuous Load (Volt-Amps)	9880	4056	8537	22473	1.00	9880	4056	8537	22473
Total Load (KVA)	10.24	4.96	10.32	25.71	**125% of Light/Cont and Recept**	10.24	4.96	10.32	25.71
Total Ampacity (Amps)	85.3	41.3	87.6	71.4	**(<10kVA) load plus other load**	85.3	41.3	87.6	71.4
Minimum Feeder Sizing (Amps)	86.0	43.1	91.7	73.6	**<---- per NEC Article 215.2 ---->**	86.0	43.1	91.7	73.6

Receptacle Demand Factor per Article 220.44 of the National Electrical Code.



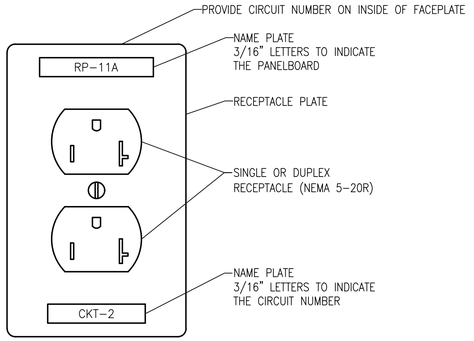
OFFICE OCCUPANCY SENSOR SCHEMATIC
NO SCALE



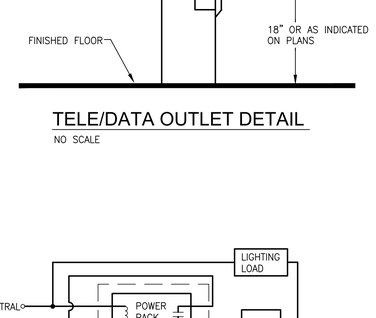
ELECTRICAL FIXTURES

1. LIGHT FIXTURES WEIGHING LESS THAN 10 POUNDS SHALL HAVE ONE 12 GAUGE HANGER WIRE CONNECTED FROM THE FIXTURE TO THE STRUCTURE ABOVE. THIS WIRE MAY BE SLACK.
2. LIGHT FIXTURE WEIGHING MORE THAN 10 POUNDS AND LESS THAN 56 LBS. SHALL HAVE 12 GAUGE WIRES ATTACHED AT OPPOSING CORNERS OF THE LIGHT FIXTURE TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK.
3. LIGHT FIXTURES WEIGHING MORE THAN 56 POUNDS SHALL BE SUPPORTED BY DIRECTLY FROM THE STRUCTURE ABOVE. THESE WIRES MUST BE TAUT.
4. PENDANT MOUNTED FIXTURES SHALL BE DIRECTLY SUPPORTED FROM THE STRUCTURE ABOVE USING A 9 GAUGE WIRE OR AN APPROVED ALTERNATE SUPPORT WITHOUT USING THE CEILING SUSPENSION SYSTEM FOR DIRECT SUPPORT.
5. TANDEM FIXTURES MAY UTILIZE COMMON WIRES.

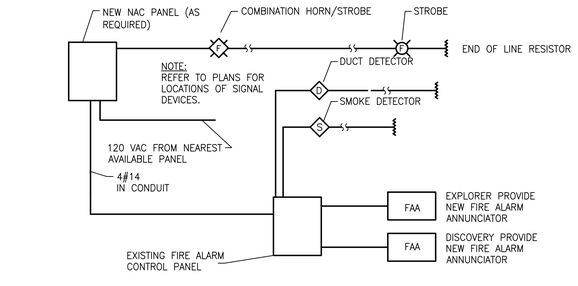
T-GRID FIXTURE MOUNTING DETAIL
NO SCALE



DETAIL OF BRANCH CIRCUIT NUMBER ON RECEPTACLE PLATE
NO SCALE

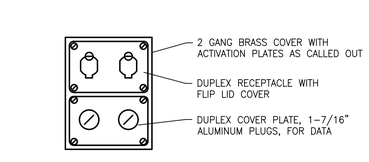


TELE/DATA OUTLET DETAIL
NO SCALE

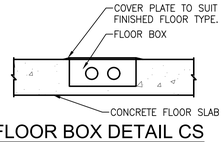


1. FOR FIRE ALARM EQUIPMENT SPECIFICATION AND ADDITIONAL REQUIREMENTS, SEE SPECIFICATIONS.
2. ALL DUCT DETECTORS SHALL BE WIRED TO ACTIVATE ALARM SYSTEM AND SHUT DOWN FAN.
3. CANDELLA RATING ARE SHOWN IN ALL ROOMS, ALL AUDIO AND VISUAL RATINGS SHALL MEET OR EXCEED NFPA REQUIREMENTS. MINOR DEVIATIONS SUCH AS STROBE RATING, MISSING OF AUDIO/VISUAL UNITS, SMOKE DETECTORS UNITS, ETC. (MAX OF 10) SHALL BE INCLUDED.
4. PROVIDE REMOTE POWER SUPPLIES AS REQUIRED FOR NOTIFICATION APPLIANCE CIRCUITS, NOT TO EXCEED 80% OF CAPACITY.
5. PROVIDE SMOKE DETECTOR ABOVE EACH REMOTE POWER SUPPLY PANEL.
6. PROVIDE BATTERY , CURRENT LOAD AND VOLTAGE DROP CALCULATIONS.
7. SEAL AROUND ALL PIPES & CONDUITS IN MASONRY AND DRYWALL WALLS.
8. ALL FIRE ALARM WIRING SHALL BE MINIMUM #14AWG. WIRING ABOVE CEILING SHALL BE PLENUM RATED AND RUN EXPOSED ON J-HOOKS. ANY WIRING IN WALLS SHALL BE RUN IN 3/4"C.
9. FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHARGES INVOLVED IN OBTAINING APPROVAL AND CERTIFICATION FROM STATE ELECTRICAL INSPECTOR FOR A COMPLETE SYSTEM. CERTIFIED CONTRACTOR TO PAY ALL FEES REQUIRED.
10. THE ELEVATION DIAGRAM IS FOR REFERENCE PURPOSES. EXACT QUANTITIES OF DEVICES AND LOCATIONS SHALL COMPLY WITH NFPA GUIDELINES AND MEET APPROVAL OF THE STATE ELECTRICAL INSPECTOR. FIRE ALARM CONTRACTOR SHALL HAVE SHOP DRAWINGS APPROVED BY THE STATE ELECTRICAL INSPECTOR PRIOR TO COMMENCEMENT OF WORK.
11. FOR FIRE ALARM SYMBOL LEGEND SEE DRAWING E0.00.

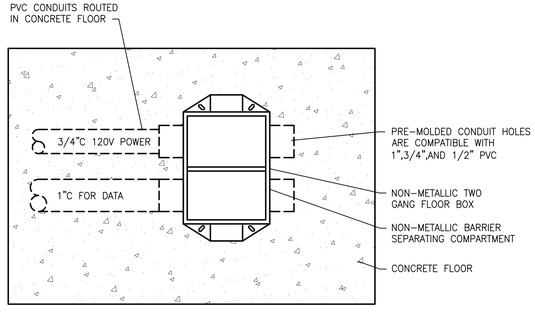
PARTIAL FIRE ALARM RISER
NO SCALE



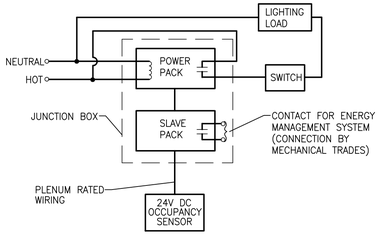
FLOOR BOX-LID DETAIL
NOT SCALE



FLOOR BOX DETAIL CS
NOT SCALE



2 GANG FLOOR BOX DETAIL
NOT SCALE



TYPICAL CEILING MOUNTED OCCUPANCY SENSOR WIRING DIAGRAM
NO SCALE

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PROJECT
Williamston Community Schools
Discovery Elementary
Secure Entrance

WILLIAMSTON, MICHIGAN

SHEET
ELECTRICAL SCHEDULES AND DETAILS

PROJECT NUMBER
2020-006

SHEET NUMBER
E5.00