ALCONA HEALTH CENTER
ALPENA SERVICES

1209 US 23 NORTH
ALPENA, MICHIGAN, 49707

OWNER'S REPRESENTATIVE:
BRUCE DIETZ
100 RIPLEY STREET
ALPENA, MICHIGAN 49707
(989) 350-1099

GENERAL NOTES

1. THE CONTRACT DOCUMENTS DO NOT ATTEMPT TO DIVIDE AND ASSIGN WORK TO THE SUB-CONTRACTOR(S). VERIFY WITH THE OWNER (CONSTRUCTION MANAGER) ALL ASSIGNMENTS OF WORK, ESPECIALLY THOSE ITEMS WHICH COULD BE ASSIGNED TO VARIOUS/MULTIPLE SUB-CONTRACTORS.
2. THE DRAWINGS ARE GRAPHIC AND PICTORIAL PORTIONS OF THE CONTRACT DOCUMENTS SHOWING THE GENERAL DESIGN INTENT AND LOCATION OF THE WORK.
3. IN CASE OF DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES WITHIN THE CONTRACT DOCUMENTS, THE MOST STRINGENT REQUIREMENT SHALL GOVERN UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER OR OWNER IN WRITING. THE TERM "MOST STRINGENT REQUIREMENT" SHALL MEAN THAT WHICH IS THE MORE RIGOROUS OR EXACTING AND THAT WHICH WILL RESULT IN THE BETTER QUALITY AFFECTED PART OF THE WORK.
4. EACH CONTRACTOR SHALL INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF HIS PORTION OF THE WORK TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.
5. THE DRAWINGS ARE NOT INTENDED AS DOCUMENTATION OF THE SPECIFIC EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. DO NOT SCALE OR RELY UPON THE DRAWINGS FOR EXISTING CONDITIONS AND MEASUREMENTS THEREOF. EACH CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS, SIZES, PROFILES, ELEVATIONS, QUANTITIES, MATERIALS, ETC., OF ALL EXISTING CONDITIONS AFFECTING HIS PORTION OF THE WORK.
6. DETAILS INCLUDED IN THE DRAWINGS ARE INTENDED TO SHOW GENERAL DESIGN INTENT ONLY. THEY ARE NOT INTENDED TO SERVE AS SHOP DRAWINGS OR OTHER FORM OF GUIDE FOR FABRICATION OR INSTALLATION PURPOSES. EACH CONTRACTOR SHALL BE RESPONSIBLE TO ACHIEVE THE COMPLETE AND PROPER ASSEMBLY AND INSTALLATION OF ALL MATERIALS INCLUDED IN HIS PORTION OF THE WORK AND TO PROVIDE SUBMITTALS AS MAY BE REQUIRED FOR ALL FABRICATED ITEMS INCLUDED THEREIN.
7. ALL WORK WILL BE DONE BY CONTRACTORS LICENSED IN THE STATE OF MICHIGAN. ALL CONTRACTORS WILL SUPPLY THEIR REQUIRED PERMITS AND SCHEDULE THEIR RESPECTIVE INSPECTIONS.
8. ALL WORK MUST BE DONE IN STRICT ACCORDANCE WITH OSHA & MIOSHA.
9. CONTRACTORS WILL SUPPLY TEMPORARY JOB SITE OFFICE TRAILERS, TOOL SHEDS, TELEPHONE, ELECTRICAL OUTLETS, LIGHTING, HEATING DEVICES, ETC., AS REQUIRED FOR CONSTRUCTION. OWNER WILL PAY UTILITY COST FOR NORMAL AMOUNTS OF ELECTRICITY AND NATURAL GAS USED DURING CONSTRUCTION. CONTRACTOR WILL NOT USE THE PERMANENT HEATING SYSTEM FOR TEMPORARY HEATING UNLESS APPROVED BY OWNER.
10. UPON COMPLETION, CONTRACTOR WILL REMOVE FROM THE PREMISES ALL SURPLUS MATERIAL AND RUBBISH. FINAL CLEANING WILL INCLUDE: CLEAN OR RE-CLEAN ENTIRE WORK TO NORMAL LEVEL FOR "FIRST CLASS" MAINTENANCE/CLEANING OF BUILDING PROJECTS OF A SIMILAR NATURE; REMOVE NON-PERMANENT PROTECTION AND LABELS; POLISH GLASS, CLEAN EXPOSED FIXTURES, TOUCH UP MINOR FINISH DAMAGE, CLEAN OR REPLACE FILTERS OF MECHANICAL SYSTEMS; REMOVE DEBRIS AND BROOM-CLEAN NON-OCCUPIED SPACES; SANITIZE PLUMBING/FOOD SERVICE FACILITIES; CLEAN LIGHT FIXTURES AND REPLACE BURNED OUT OR DIMMED LAMPS; SWEEP AND WASH PAVED AREAS; POLICE YARDS AND GROUNDS; AND PERFORM SIMILAR CLEANUP NEEDED TO PRODUCE A "CLEAN" CONDITION.
11. OWNER WILL SUPPLY BUILDER'S RISK INSURANCE ON ALL NEW CONSTRUCTION. OWNER WILL SUBMIT TO CONTRACTOR A CERTIFICATE OF INSURANCE FOR THIS BEFORE START OF CONSTRUCTION.
12. CONTRACTOR WILL SUPPLY WORKER'S COMPENSATION INSURANCE, GENERAL LIABILITY INSURANCE, AND AUTOMOTIVE INSURANCE. CONTRACTOR WILL SUBMIT TO OWNER A CERTIFICATE OF INSURANCE FOR THESE ITEMS BEFORE START OF CONSTRUCTION.
13. ALL CONTRACTORS WILL CLEAN UP AFTER THEIR WORK, AND DISPOSE OF OFF SITE AT LOCAL LANDFILL. SITE BURNING IS PROHIBITED. CONTRACTOR WILL PERFORM CLEAN UP DAILY TO PREVENT THE ACCUMULATION OF DEBRIS.
14. PLUMBING, MECHANICAL, AND ELECTRICAL CODES ARE THE JURISDICTION OF THE STATE OF MICHIGAN CONSTRUCTION CODE, PERMITS AND INSPECTIONS ARE REQUIRED. SEE PLUMBING, MECHANICAL, AND ELECTRICAL PLANS.
15. ALL WORK MUST COMPLY WITH THE 2015 STATE OF MICHIGAN BUILDING CODE, PERMITS AND INSPECTIONS ARE REQUIRED.
16. SEE SITE PLAN FOR BUILDING LOCATION, PARKING, DRIVES, UTILITIES, BARRIER FREE BUILDING ENTRANCES, OTHER BARRIER FREE DETAILS, ETC. CONSULT WITH CITY FOR ALL SETBACKS, PARKING REQUIREMENTS, DRIVEWAY REQUIREMENTS, LANDSCAPING REQUIREMENTS, ETC.

CODE INFORMATION

1. THE PROJECT HAS BEEN REVIEWED ACCORDING TO THE 2015 MICHIGAN BUILDING CODE (INCORPORATING THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE).
2. MICHIGAN BUILDING CODE CLASSIFICATION OF OCCUPANCY IS BUSINESS USE GROUP "B".
3. MICHIGAN BUILDING CODE TYPE OF CONSTRUCTION IS UNPROTECTED TYPE "IIIB".
4. THE MICHIGAN BUILDING CODE ALLOWABLE AREA WITHOUT ALLOWABLE INCREASES IS 19,000 SQ. FT. THE ALLOWABLE HEIGHT IS 3 STORIES.
5. WIND LOADS: BASIC WIND SPEED 115 MPH; BUILDING CATEGORY II; IMPORTANCE FACTOR Iw=1.0; EXPOSURE FACTOR C.
6. MICHIGAN BUILDING CODE OCCUPANT LOAD IS 64.
7. INSTALL EXIT SIGNS AND LIGHTS, AND MEANS OF EGRESS LIGHTING PER MICHIGAN BUILDING CODE CHAPTER 10.
8. SUPPLY INTERIOR FINISH AND TRIM PER MICHIGAN BUILDING CODE CHAPTER 8 AND THE ROOM FINISH SCHEDULE.
9. INSTALL LIGHTING AND VENTILATION PER MICHIGAN BUILDING CODE CHAPTERS 12, 27, 28, AND 29.
10. BUILDING SURPASSES ENERGY CONSERVATION REQUIREMENTS OF THE MICHIGAN BUILDING CODE, CHAPTER 13 AND THE MICHIGAN UNIFORM ENERGY CODE.
11. PLUMBING, MECHANICAL, AND ELECTRICAL CODES ARE THE JURISDICTION OF THE STATE OF MICHIGAN AND STATE PERMITS ARE REQUIRED.
12. ALL WORK AND THE ENTIRE BUILDING MUST COMPLY WITH THE STATE OF MICHIGAN'S BARRIER FREE LAW AND THE AMERICAN'S WITH DISABILITIES ACT.
13. ALL WORK MUST COMPLY WITH THE STATE OF MICHIGAN'S BARRIER FREE LAW AND THE AMERICAN'S WITH DISABILITIES ACT AND THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS.
14. CONSULT ENGINEERED SITE PLAN AND LOCAL BUILDING OFFICIAL FOR BARRIER FREE PARKING REQUIREMENTS.
15. THE BUILDING SHALL HAVE THE APPROVED STREET ADDRESS NUMBERS INSTALLED SO THAT THEY ARE PLAINLY VISIBLE FROM THE ROAD FRONTING THE PROPERTY. THE SIGNAGE SHALL BE IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE, SECTION 501.2 AND THE 2015 INTERNATIONAL FIRE CODE SECTION 505.
16. PORTABLE FIRE EXTINGUISHERS SHALL BE 3A:40B:C, AND WILL BE INSTALLED WITHIN 75' TRAVEL DISTANCE.

DRAWING INDEX

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ
DEVELOPER
DESIGN • BUILD • COMMERCIAL CONSTRUCTION

SHEET TITLE: TITLE SHEET

PROJECT: ALCONA HEALTH CENTER
1209 U.S. 23 NORTH
ALPENA, MICHIGAN 49707

ISSUED	
REVIEW	DEC. 22, 2022
BID	MAR. 20, 2023

ENGINEER

DESIGNER

JOB NUMBER: 2211.02

SHEET NO.: TS

BRUCE DIETZ

PLANS OF PROPOSED IMPROVEMENTS
US 23 NORTH SITE PLAN DEVELOPMENT
SECTION 9, T31N, R8E, CHARTER TOWNSHIP OF ALPENA
ALPENA COUNTY, MICHIGAN

PUBLIC UTILITIES

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO IT'S ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

THE CITY OF ALPENA 208 N 1ST STREET ALPENA, MI 49707 CONTACT: STEVE SHULTZ PHONE: 989-354-1730	SEWER/WATER
CHARTER TOWNSHIP OF ALPENA 4385 US23 NORTH ALPENA, MI 49707	SEWER/WATER/STORM
ALPENA POWER COMPANY 401 N 9TH AVE ALPENA, MI 49707 CONTACT: JON BULLIS PHONE: 989-358-4949	POWER
CHARTER COMMUNICATIONS 3432 M-76 WEST WEST BRANCH, MI 48661 CONTACT: GARY BRIGGS PHONE: 866-874-2389	CABLE
DTE ENERGY 1250 MICHCON LANE PO BOX 279 KALKASKA, MI 49646 CONTACT: MATTHEW LOGAN PHONE: 231-258-3785	GAS
FRONTIER COMMUNICATIONS 3249 FOREST ROAD GAYLORD MI, 49735 CONTACT: DAVE VANCE PHONE: 989-356-8281	COMMUNICATIONS
MERIT NETWORK 880 TECHNOLOGY DRIVE, SUITE B ANN ARBOR, MI 48408 CONTACT: DUSTIN LAPOINT PHONE: 734-476-6100	FIBER

GENERAL NOTES

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMATION WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

UNDERGROUND UTILITIES
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

SOIL EROSION MEASURES
APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTH DISTURBING ACTIVITIES. PLACE TURF ESTABLISHMENT ITEMS AS SOON AS POSSIBLE.

PARCEL CORNER
CONTRACTOR SHALL PRESERVE AND/OR REPLACE ANY EXISTING PARCEL CORNERS ENCOUNTERED DURING THE WORK, INCLUDED IN PAYMENT FOR OTHER ITEMS OF WORK.

NOTES APPLYING TO STANDARD PLANS
WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON THE PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD PLAN OR SPECIAL DETAIL GIVEN BELOW OPPOSITE UNLESS OTHERWISE INDICATED.

R-83-C	UTILITY TRENCHES
R-96-E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES

INDEX TO SHEETS

CONTRACT FOR:

PARKING LOT CONSTRUCTION, UTILITY CONSTRUCTION, AND SITE DEVELOPMENT.

PREPARED UNDER SUPERVISION OF

REBECCA E. RIVARD — REGISTERED PROFESSIONAL ENGINEER
50497 — REGISTRATION NO.

HURON ENGINEERING AND SURVEYING, INC.
ORGANIZATION

3205 US-23 SOUTH, ALPENA, MI 49707
ADDRESS

TITLE SHEET

SCALE N/A

ENGINEER RIVARD

DATE OCTOBER 20, 2021

HURON JOB NUMBER 21.096

HURON ENGINEERING & SURVEYING, INC.

SHEET NO.

1

WATER & DRAINAGE SYMBOLS

- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING CULVERT END SECTION
- PROPOSED CULVERT END SECTION
- EXISTING HEADWALL
- PROPOSED HEADWALL
- WATER SHUTOFF(Service Valve)
- GATE VALVE
- GATEWELL
- WATER METER
- WATER MANHOLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- ADJ-HYD — ADJUST FIRE HYDRANT
- ADJ — ADJUST DRAINAGE STRUCTURE
- ADJ-K — ADJUST DRAINAGE STRUCTURE W/COVER
- ADJ-B/O — ADJUST DRAINAGE STRUCTURE BY OTHERS
- REL-B/O — RELOCATE - BY OTHERS
- SR-1 — SIDEWALK RAMP TYPE
- CHECK DAM (PROFILES)
- DIKE (PROFILES)
- W.T. m — WATER TABLE (PROFILES)
- POST
- WATER WELL

REAL ESTATE SYMBOLS

- PROPERTY OWNERSHIP ARROW
- CONTIGUOUS PROPERTY SYMBOL
- 123456 — PARCEL NUMBER BOX
- PARCEL LINES

UTILITIES SYMBOLS

- POWER POLE
- TELEPHONE POLE
- GUY POLE
- LIGHT POLE
- POWER LIGHT POLE
- TELEPHONE MANHOLE
- POWER TOWER
- GAS VALVE
- WALK/NO-WALK
- GUY ANCHOR
- RAILROAD SIGNAL
- ELECTRICAL MANHOLE
- ELECTRICAL HANDHOLE
- TELEPHONE PEDESTAL/RISER
- FIBER OPTIC MARKER

MISCELLANEOUS SYMBOLS

- RIPRAP
- SIGN
- STUMP
- SWAMP
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- MAIL BOX
- FLAG
- BAR & CAP
- SECTION CORNER
- QUARTER SECTION
- BM 1 — BENCHMARK
- USGS MARKER
- CONTROL POINT
- 123 — BEAM G. R. RUN NUMBER (EXISTING)
- 123 — BEAM G. R. RUN NUMBER (PROPOSED)

HAZARDOUS OR FLAMMABLE MATERIAL — USED WITH UNDERGROUND GAS & ELECTRICAL LINES

CAUTION - CRITICAL UNDERGROUND UTILITY — USED WITH FIBER OPTICS LINES

PROP 36" — PROPOSED CULVERT/SEWER

EX 12" CMP — EXISTING CULVERT/SEWER

UTILITY PATTERNS

- ELEC — ELECTRICAL LINE
- 24" GAS — GAS LINE
- 12" OIL — OIL LINE
- TELE — TELEPHONE LINE
- 36" WM — WATER LINE
- CTV — CABLE TV
- FO — FIBER OPTICS
- POWER TRANSMISSION LINE

R.O.W. PATTERNS

- EX. LIMITED ACCESS R.O.W.
- EXISTING R.O.W.
- PROP LIMITED ACCESS R.O.W.
- PROP FREE ACCESS R.O.W.
- SECTION LINE
- GRADING EASEMENT

TOPO PATTERNS

- HEDGE LINE
- TREE LINE
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING GUARD RAIL
- PROPOSED GUARD RAIL
- DRAINAGE CRS/EDGE OF WATER
- WETLANDS AREA
- ABANDON ANY UTILITY
- CITY LIMITS
- RAILROAD
- SOUND ABATEMENT WALL
- CONCRETE MEDIAN BARRIER
- SLOPE STAKE LINE

DRIVE/APPROACH LEGEND

- CONCRETE
- HMA
- AGGREGATE

REMOVAL LEGEND

- REMOVING ..... R
- ABANDONING ..... A
- SAVE ..... S
- BULKHEAD ..... B
- REMOVING CURB & GUTTER

SPECIAL LEGEND THIS PROJECT

STANDARD PLAN R-96-E
SOIL EROSION & SEDIMENTATION
SILT FENCE 26

STANDARD PLAN R-96-E
SOIL EROSION & SEDIMENTATION
CHECK DAM 37

STANDARD PLAN R-96-E
SOIL EROSION & SEDIMENTATION
INLET PROTECTION FABRIC DROP 29

ROAD BORING LOCATION ..... SBOR 1

LEGEND SHEET

SCALE N/A

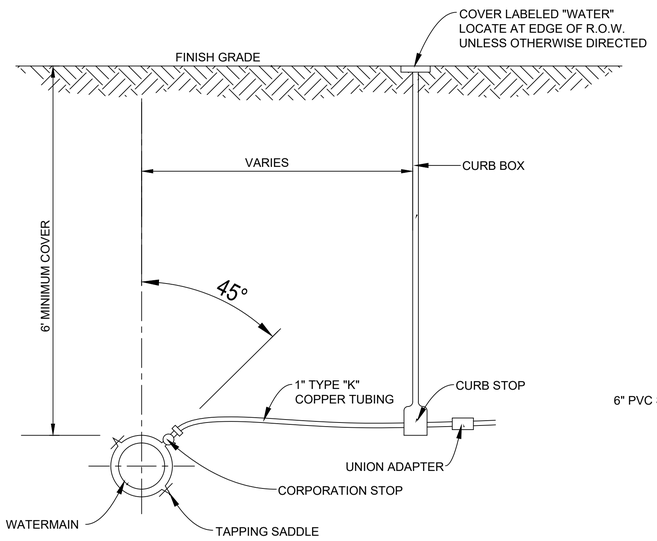
ENGINEER RIVARD

DATE OCTOBER 20, 2021

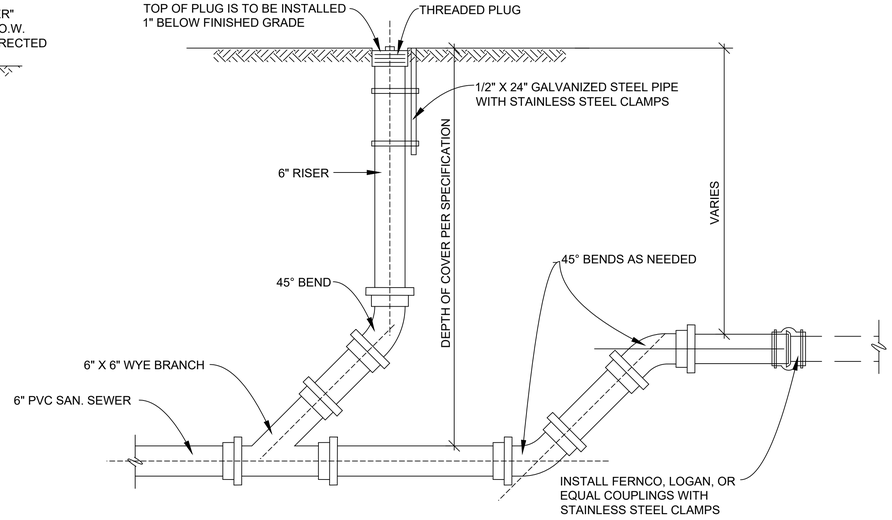
HURON JOB NUMBER 21.096

HURON ENGINEERING & SURVEYING, INC.

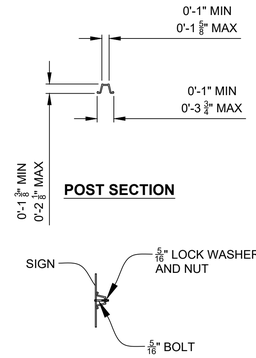
SHEET NO. 2



WATER SERVICE LEAD DETAIL

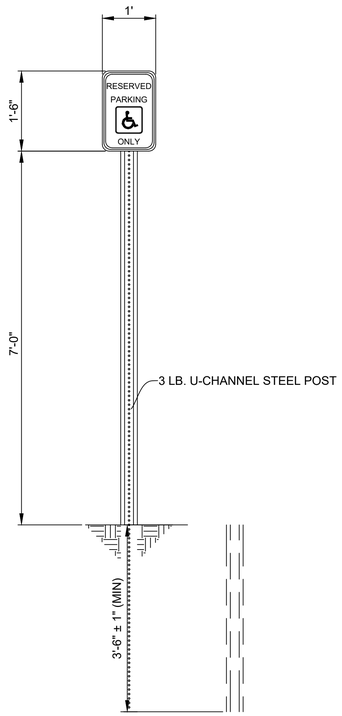


SANITARY SEWER CLEANOUT AND SERVICE DETAIL



POST SECTION

MOUNTING SECTION

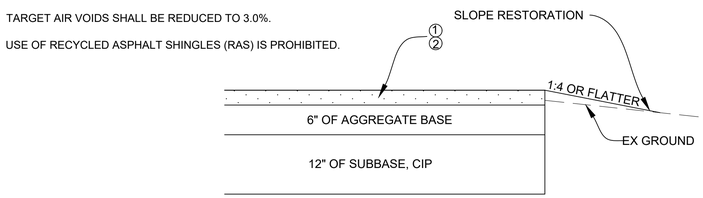


POST MOUNTED ELEVATION

ACCESSIBLE SIGNAGE DETAIL

THICKENED EDGE SIDEWALK DETAIL

NO SCALE

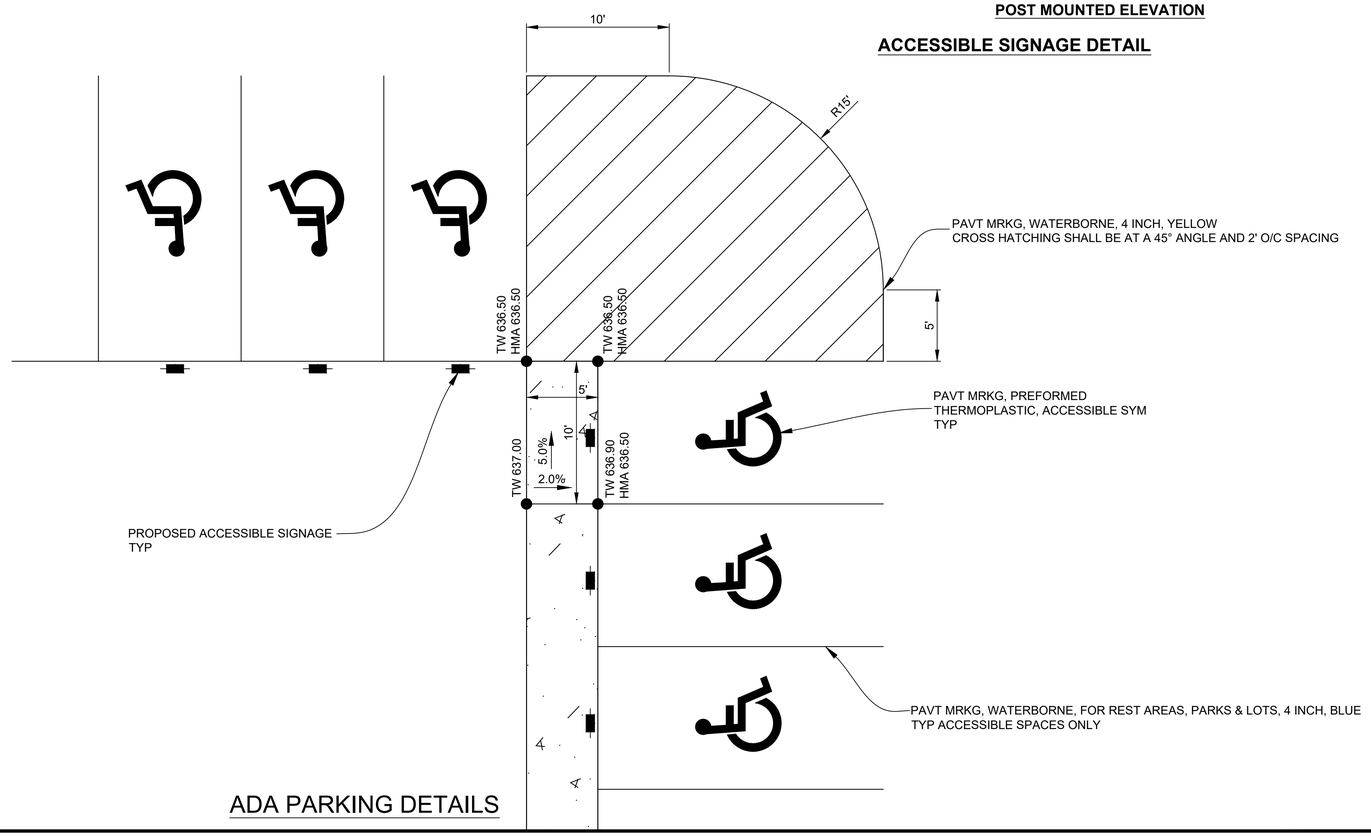


HMA APPLICATION TABLE

IDENT.	PAY ITEM	RATE #/SYD	PERFORMANCE GRADE	REMARKS
1	HMA, LVSP	165	58-28	TOP COURSE, AWI = 220
2	HMA, LVSP	165	58-28	LEVELING COURSE
HMA BOND COAT	0.05-0.15 GAL/SYD (FOR INFORMATION ONLY)			

HMA PAVEMENT DETAIL

NOT TO SCALE



ADA PARKING DETAILS

DETAIL SHEET

SCALE N/A

ENGINEER RIVARD

DATE OCTOBER 20, 2021

HURON JOB NUMBER 21.096

HURON ENGINEERING & SURVEYING, INC.

SHEET NO. 3

CHEE PENG RESTAURANT

N89°14'12"E 208.75'±

N87°37'40"E 169.81'±

EX DETENTION AREA

PLACE SILT FENCE PRIOR TO BEGINNING CONSTRUCTION

R 5348.48'±

FRENCH ROAD

CP

N03°02'44"W 350.95'±

PLACE SILT FENCE PRIOR TO BEGINNING CONSTRUCTION

EX DETENTION AREA

S89°58'25"W 320'±

ALCONA HEALTH CENTER

EX HMA

EX GRAVEL DRIVE

R 5338.84'±

US 23

N

0 20 40 60

SCALE 1" = 20'

EX CONDITIONS & SESC PLAN

SCALE 1:20

ENGINEER RIVARD

DATE OCTOBER 20, 2021

HURON JOB NUMBER 21.096

HURON ENGINEERING & SURVEYING, INC.

SHEET NO. 4

CHEE PENG RESTAURANT

N89°14'12"E 208.75'±

10' SET BACK

EX WATER VALVE

N87°37'40"E 169.81'±

EX DETENTION AREA

ALL PAVEMENT MARKING EXCEPT ACCESSIBLE SPACES WILL BE PAVEMENT MARKING, WATERBORNE, 4 INCH, WHITE

PROP WATER LEAD

R 5348.48'±

20' SETBACK

PROP 12" NONREINF CONCRETE PAVEMENT

22'

193'

15'

N 648793.69
E 19919542.46

N 648793.69
E 19919735.46

80'

24'

PROP HMA SURFACE

24'

29'

20'

20' TYP

10' TYP

24'

N 648728.29
E 19919735.46

N 648728.29
E 19919760.46

N 648727.30
E 19919770.04

N 648724.75
E 19919794.91

93'

80'

24'

80'

140'

140'

R25'

R25'

FRENCH ROAD

CP

20' SETBACK

CP

US 23

N 648685.69
E 19919542.46

N 648685.69
E 19919622.46

PROP 8" SAN LEAD

PROP THICKENED EDGE SIDEWALK

5'

24'

R25'

R25'

N 648646.89
E 19919762.77

N 648645.58
E 19919787.46

SAN SEWER INV ---.--

80'

PROPOSED BUILDING
80'x80'

80'

N 648647.87
E 19919735.46

N 648647.87
E 19919760.46

TAP INTO EX SAN SEWER MH
INV ELEV ---.--

80'

24'

N 648605.69
E 19919735.46

N03°02'44"W 350.95'±

N 648605.69
E 19919542.47

N 648605.69
E 19919622.46

R 5338.84'±

R25'

R25'

N 648605.69
E 19919708.35

N 648580.69
E 19919634.35

N 648580.69
E 19919659.35

N 648580.69
E 19919683.35

N 648580.69
E 19919708.35

24'

EX DETENTION AREA

PROP 50' OF 18" CSP PIPE

10' SET BACK

S89°58'25"W 320'±

N 648540.23
E 19919639.35

R20'

MATCH EX HMA

ALCONA HEALTH CENTER

N

0 20 40 60

SCALE 1" = 20'

CONSTRUCTION, LAYOUT, & PARKING LAYOUT SHEET

SCALE 1:20

ENGINEER RIVARD

DATE OCTOBER 20, 2021

HURON JOB NUMBER 21.096

HURON ENGINEERING & SURVEYING, INC.

SHEET NO. 5

CHEE PENG RESTAURANT

N89°14'12"E 208.75'±

N87°37'40"E 169.81'±

EX DETENTION AREA

CP

FRENCH ROAD

R 5348.48'±

US 23

R 5338.84'±

N03°02'44"W 350.95'±

PROPOSED 80'x80' BUILDING
FINISHED FLOOR ELEV 637.00

TW 636.90
EM 636.50

PROVIDE POSITIVE
DRAINAGE TO THE EX
DETENTION AREA

S89°58'25"W 320'±

EX DETENTION AREA

ALCONA HEALTH CENTER

MATCH EX
630.90±

MATCH EX HMA

MATCH EX
630.16±

MATCH EX
635.46±

MATCH EX
635.09±

635.00 635.00 635.00 635.00

635.25 635.25

636.50

636.05 635.93

635.30

635.50

636.17

635.75

634.65

634.17

634.00

632.17

632.54

637.00

630 631 632 633 634 635 636 637

627 629

SCALE 1" = 20'

0 20 40 60

N

CONSTRUCTION, LAYOUT, & PARKING LAYOUT SHEET

SCALE
1:20

ENGINEER
RIVARD

DATE
OCTOBER 20, 2021

HURON JOB NUMBER
21.096

HURON
ENGINEERING & SURVEYING, INC.

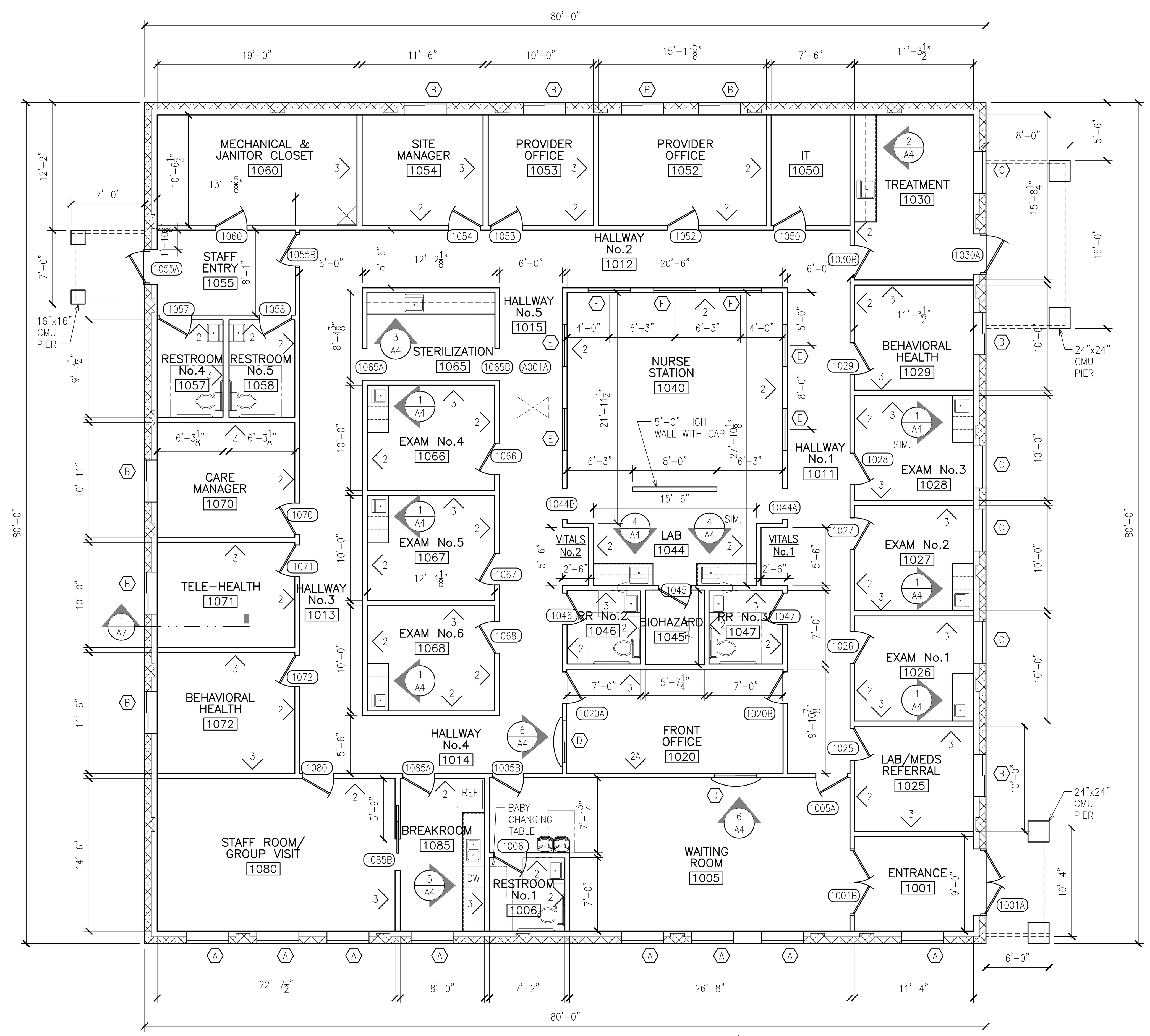
SHEET NO.
6

INTERIOR WALL TYPE

Type	Description
1	8" CMU WITH 6" METAL STUD WALL w/ 5/8" GYPSUM BOARD AND INSULATION FULL HEIGHT, ALL EXTERIOR WALLS UNLESS NOTED OTHERWISE. 14¼" WALL THICKNESS
1	3⅝" METAL STUD WALL w/ 5/8" GYPSUM BOARD EACH SIDE, 4⅞" WALL THICKNESS. INTERIOR WALLS ARE TYPE 1 UNLESS NOTED OTHERWISE.
1A	3⅝" METAL STUD WALL w/ 5/8" GYPSUM BOARD EACH SIDE, WITH 3½" SOUND INSULATION FULL HEIGHT OF WALL. 4⅞" WALL THICKNESS.
2	3⅝" METAL STUD WALL w/ ½" RESILIENT CHANNEL ON SIDE INDICATED, 5/8" GYPSUM BOARD EACH SIDE, WITH 3½" SOUND INSULATION FULL HEIGHT OF WALL. 5⅜" WALL THICKNESS.
2A	3⅝" METAL STUD WALL w/ ½" RESILIENT CHANNEL ON SIDE INDICATED, 5/8" GYPSUM BOARD EACH SIDE, WITH 3½" SOUND INSULATION FULL HEIGHT OF WALL, UL-200 LEVEL 2, ⅜" FIBERGLASS BALLISTIC PANEL FROM FLOOR TO 6" ABOVE CEILING ON WAITING ROOM SIDE. 5¾" WALL THICKNESS.
3	3⅝" METAL STUD WALL w/ ½" RESILIENT CHANNEL AND 5/8" GYPSUM BOARD ON EACH SIDE, WITH 3½" SOUND INSULATION FULL HEIGHT OF WALL. 5⅞" WALL THICKNESS.
FEC	FIRE EXTINGUISHER CABINET

FLOOR PLAN NOTES

1. THE THICKNESS OF THE WALLS ARE AS INDICATED ON THE PRINTS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE THE START OF CONSTRUCTION.
3. REFER TO ROOF FRAMING PLAN FOR ATTIC SEPARATION AREAS & ATTIC ACCESS LOCATIONS.
4. THE TYPICAL DOOR CORNER DETAIL IS 4½" ROUGH FRAMING FROM CORNER AND 5½" TO SWING OF DOOR.
5. SOUND CONTROL: INSTALL SOUND INSULATION THE FULL HEIGHT OF WALL WHERE SHOWN ON PLANS AND/OR INDICATED IN THE ROOM FINISH SCHEDULE NOTES. PACK INSULATION BETWEEN DOOR JAMB AND FRAMING. DO NOT INSTALL ELECTRICAL BOXES, REGISTERS, DUCT WORK, ETC., BACK-TO-BACK IN THE SAME STUD CAVITY. ELECTRICAL, MECHANICAL, AND PLUMBING SUBCONTRACTORS WILL LAYOUT THEIR WORK ACCORDINGLY, AND CONSULT WITH THE DESIGNER IN THIS REGARD.
6. PROVIDE PLASTIC GROMMETS AT ALL COMPUTER LOCATIONS IN DESK/COUNTER TOPS.
7. VERIFY CABINET LAYOUT WITH OWNER BEFORE THE START OF CONSTRUCTION.
8. PROVIDE CABINET BLOCKING, DIAGONAL SUPPORTS AND ALL ITEMS NECESSARY FOR A COMPLETE INSTALLATION.
9. PROVIDE FILLER STRIP(S) BETWEEN WALL AND CABINETRY, AS REQUIRED. FILLER STRIPS SHALL MATCH CASEWORK IN ALL RESPECTS. SIZE OF FILLERS SHALL BE 2" MAX.
10. WHERE RATED WALLS ARE PENETRATED (BY FIRE EXTINGUISHER CABINETS, WATER COOLERS, ELECTRICAL DISTRIBUTION PANELS, ETC.), PROVIDE RECESS OF EQUAL RATING TO THE WALLS.
11. DO NOT ALLOW DISSIMILAR METALS TO COME INTO CONTACT WITH EACH OTHER, DISSIMILAR METALS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, ALUMINUM, ZINC, IRON (STRUCTURAL STEEL), TIN, LEAD, AND COPPER.
12. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE, LOCATION AND QUANTITY OF ARCHITECTURAL ITEMS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, BUT THAT MUST BE PROVIDED FOR INTEGRATION OF MECHANICAL AND ELECTRICAL WORK. THESE ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO HOUSEKEEPING PADS, ACCESS PANELS, MOUNTING DEVICES, BACKBOARDS, BLOCKING, ETC.
13. PROVIDE WOOD BLOCKING BETWEEN BOTTOM CHORDS OF WOOD TRUSSES AS REQUIRED TO ANCHOR THE TOP OF PARTITION WALLS WHERE THEY FALL BETWEEN TRUSSES. USE UPLIFT CLIPS, DO NOT ATTACH TRUSSES DIRECTLY TO INTERIOR PARTITION WALLS.
14. TYPICALLY INTERIOR DIMENSIONS ARE GIVEN TO THE FINISHED FACE OF THE WALL/PARTITION. DIMENSIONS CORRELATING TO EXTERIOR WALLS ARE TYPICALLY TO THE OUTSIDE FACE OF THE CMU UNLESS NOTED OTHERWISE.
15. PROVIDE SOLID BLOCKING BEHIND ALL TOILET ACCESSORIES AND OTHER WALL MOUNTED EQUIPMENT. REFER TO INTERIOR ELEVATIONS, PLANS, AND DETAILS FOR LOCATIONS.
16. BARRIER FREE SIGNAGE IS TO INCLUDE FOUR (4) BUILDING COMPLIANCE SIGNS, ONE (1) RESTROOM SIGN FOR EACH BARRIER FREE RESTROOM. CONSULT ENGINEERED SITE PLAN AND LOCAL BUILDING OFFICIAL FOR BARRIER FREE PARKING REQUIREMENTS.
17. ALL CONCRETE, MASONRY, AND GYPSUM BOARD CONTROL JOINTS, EXPANSION JOINTS AND SAWCUTS WILL COMPLY WITH ASTM C 94; ACI 301; ACI 318; ACI 530.1; ASCE 6; TMS 602; GA 216; GA 600 AND INDUSTRY STANDARDS.
18. PROVIDE FIRE BLOCKING IN ALL NON-INSULATED, COMBUSTIBLE WALL CAVITIES AT SUSPENDED CEILING JUNCTURE, PER MICHIGAN BUILDING CODE, CHAPTER 7.
19. FIELD VERIFY ELECTRIC SERVICE LOCATION, WATER SERVICE LOCATION, SANITARY SEWER EXIT LOCATION, FURNACE LOCATION, WATER HEATER LOCATION, GAS METER / REGULATOR LOCATION, ETC. IN FIELD PRIOR TO THE START OF CONSTRUCTION.
20. PROVIDE PORTABLE FIRE EXTINGUISHERS IN ACCORDANCE WITH THE INTERNATIONAL FIRE CODE AND THE LOCAL FIRE MARSHALL.
21. REVENT ALL PLUMBING STACKS AND PENETRATE THE ROOF ON THE BACK ELEVATION, VERIFY WITH OWNER.
22. ALL PLUMBING WILL BE IN INTERIOR WALLS, WHERE POSSIBLE.



FLOOR PLAN

FLOOR: 6,400 SF SCALE: 1/8"=1'-0"

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

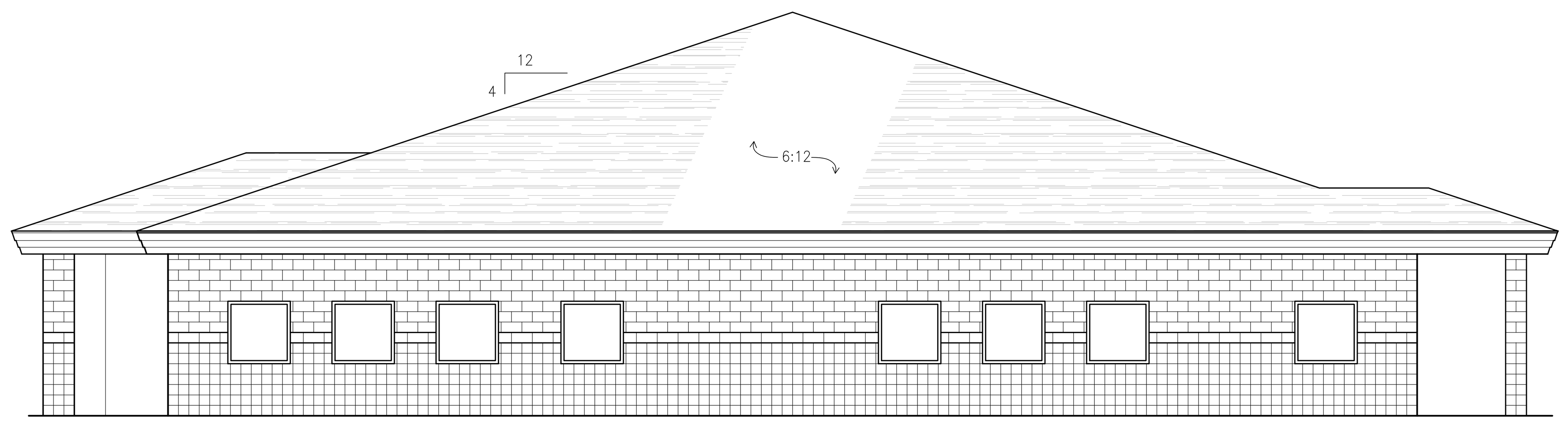
BRUCE DIETZ DEVELOPER
DESIGN • BUILD • COMMERCIAL CONSTRUCTION

SHEET TITLE
FLOOR PLAN

PROJECT
ALCONA HEALTH CENTER
1209 U.S. 23 NORTH
ALPENA, MICHIGAN 49707

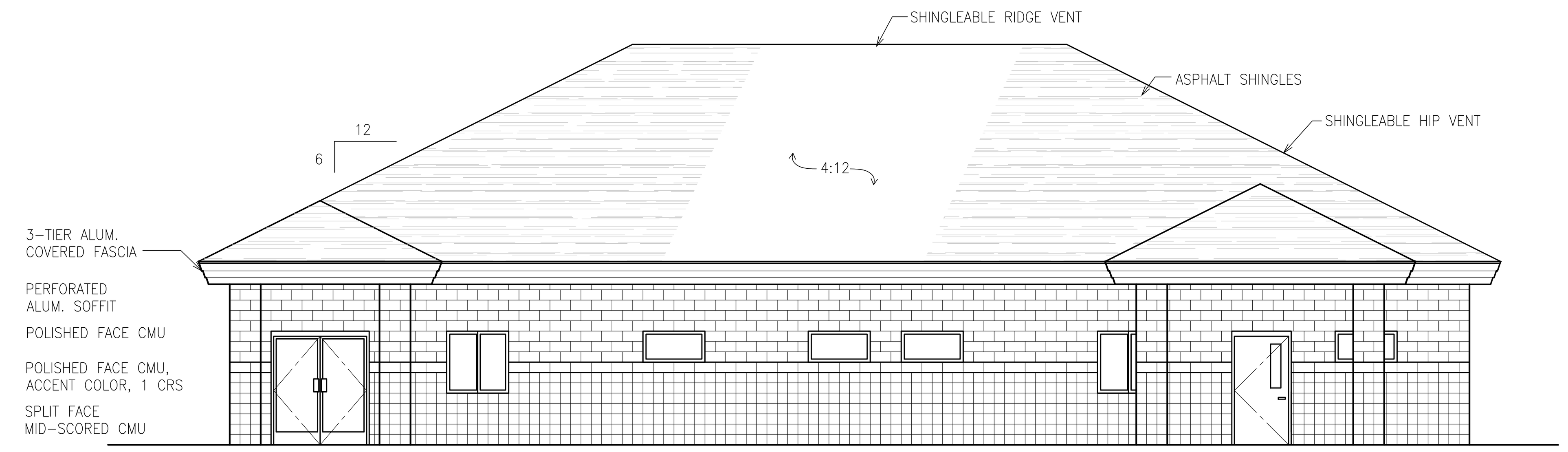
ISSUED	
REVIEW	DEC 22, 2022
BID	MAR 20, 2023

ENGINEER
DESIGNER
JOB NUMBER 2211.02
SHEET NO. A1



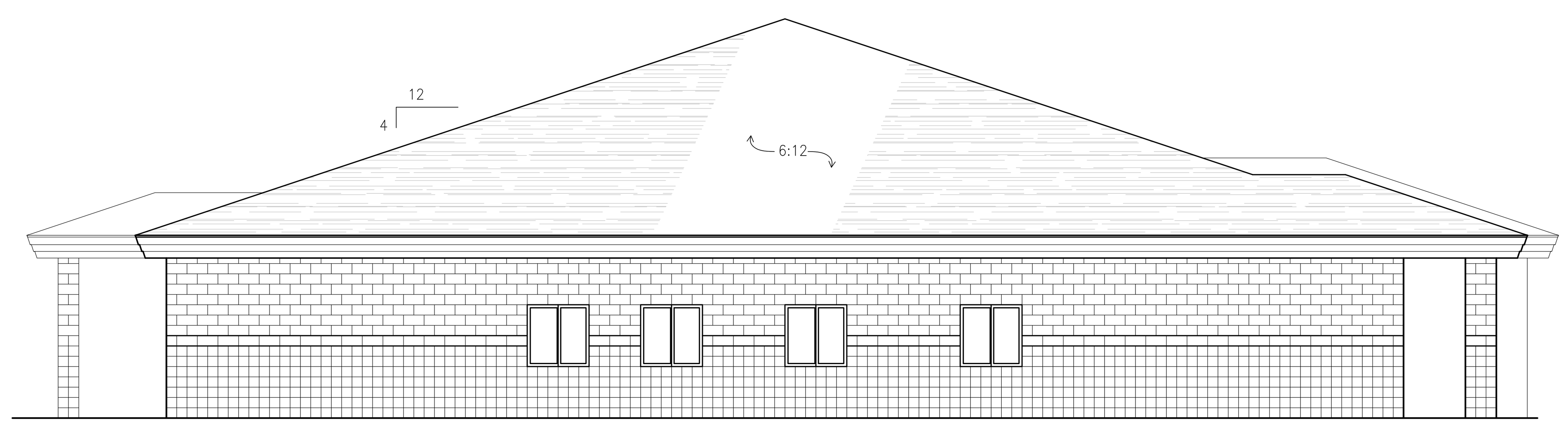
SOUTH ELEVATION

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



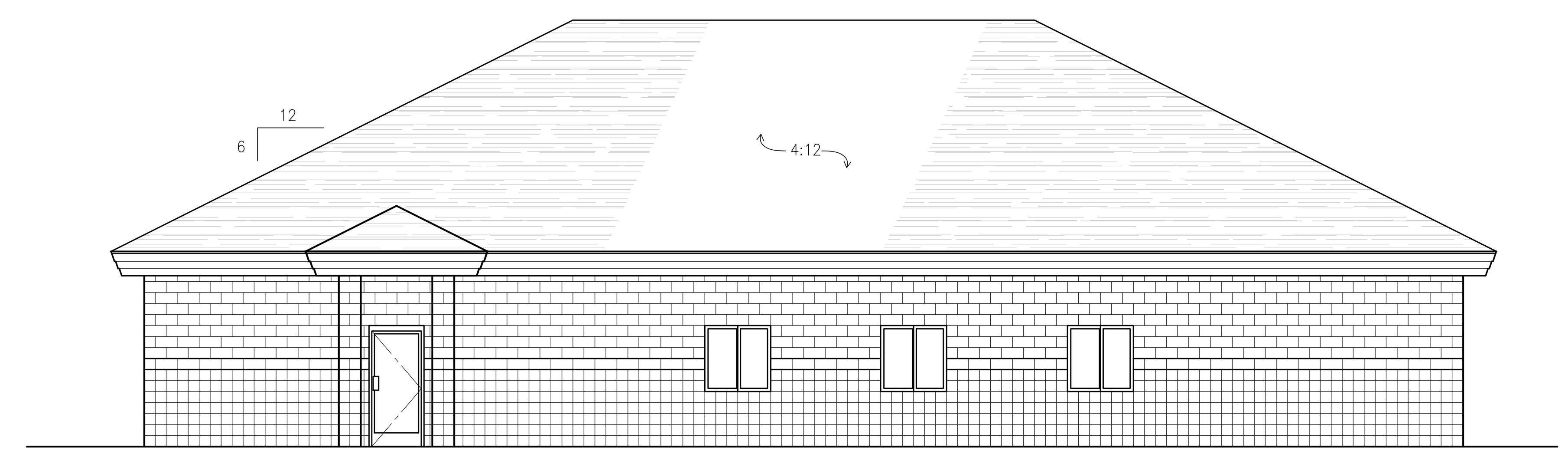
EAST (US 23) ELEVATION

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



NORTH ELEVATION

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



WEST ELEVATION

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

ELEVATION NOTES

1. CONSULT WITH THE PLUMBING CONTRACTOR FOR THE LOCATION OF WATER AND SEWER CONNECTIONS, FIXTURES, VENTS, ETC.
2. CONSULT WITH THE MECHANICAL CONTRACTOR FOR THE LOCATION OF THE GAS SERVICE, VENTS, ETC.
3. CONSULT WITH THE ELECTRICAL CONTRACTOR FOR THE LOCATION OF THE ELECTRIC SERVICE, FIXTURES, ETC.
4. CONSULT WITH THE OWNER FOR ADDITIONAL EXTERIOR ITEMS AND TRIM BEFORE THE START OF CONSTRUCTION.
5. VERIFY CMU COLOR AND STYLE AND MORTAR COLOR WITH OWNER.
6. ASPHALT SHINGLES ARE CERTAINTEED LANDMARK PLUS, 40 YEAR SHINGLES, VERIFY COLOR WITH OWNER.
7. VERIFY ALUMINUM DRIP EDGE COLOR WITH OWNER.
8. FASCIA METAL WILL BE RIBBED ALUMINUM, VERIFY COLOR WITH OWNER.
9. SOFFIT WILL BE PERFORATED ALUMINUM, VERIFY COLOR WITH OWNER.
10. EXPOSED FLASHING WILL BE PVC COATED COILED ALUMINUM STOCK, VERIFY COLOR WITH OWNER.

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ALPENA, MI 49707

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SHEET TITLE: ELEVATIONS

PROJECT: ALCONA HEALTH CENTER
1209 U.S. 23 NORTH
ALPENA, MICHIGAN 49707

ISSUED	
REVIEW	DEC. 22, 2022
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ENGINEER

DESIGNER

JOB NUMBER: 2211.02

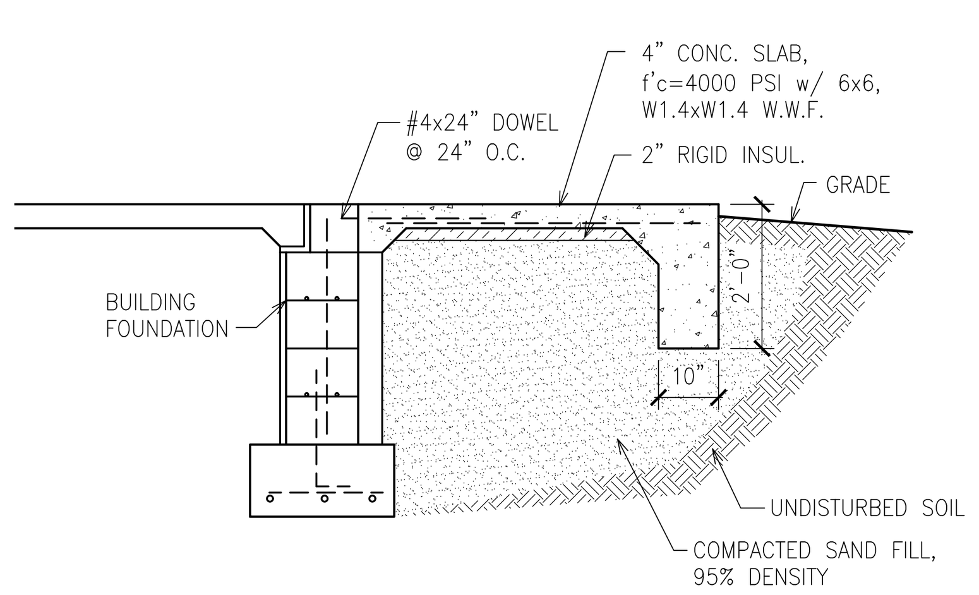
SHEET NO.: A2

FOUNDATION NOTES

1. REQUIRED SOIL-BEARING CAPACITY IS 2500 PSF (SITE WORK CONTRACTOR TO VERIFY).
2. DESIGN LOADS: MAIN FLOOR: 100 PSF; WIND LOADS: 20 PSF; ROOF LIVE (GROUND SNOW) LOADS: 50 PSF; PLUS DEAD LOADS AS REQUIRED.
3. ALL FOOTINGS ON UNDISTURBED SOIL OR ENGINEERED FILL (CONTRACTOR TO VERIFY).
4. PLACE ENGINEERED FILL IN LAYERS NOT EXCEEDING 8" LOOSE THICKNESS. COMPACT TO AT LEAST 95% OF THE MAXIMUM DENSITY PER ASTM D-1557. COMPACTING BY FLOODING IS NOT PERMITTED.
5. ALL FOUNDATION CONCRETE WILL BE f'c=3000 PSI; ALL EXTERIOR CONCRETE WILL BE f'c=4000 PSI WITH FIBERGLASS FIBERS OR W.W.F. (AS NOTED) AND AIR ENTRAINED. ALL INTERIOR CONCRETE WILL BE f'c=3500 PSI WITH FIBERGLASS FIBERS OR W.W.F.
6. ALL CONTROL JOINTS, EXPANSION JOINTS AND SAWCUTS WILL COMPLY WITH ASTM C 94; ACI 301; ACI 318; ACI 530.1; ASCE 6; TMS 602 AND INDUSTRY STANDARDS.
7. AT CONSTRUCTION AND EXPANSION JOINTS, PROVIDE JOINT SEALANTS, JOINT FILLERS, AND OTHER RELATED MATERIAL COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER SERVICE AND APPLICATION CONDITIONS. SEALANTS MUST COMPLY WITH ASTM C920.
8. ALL CONCRETE REINFORCING STEEL WILL BE Fy=60,000 PSI. CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM A-615 GRADE 60.
9. PROVIDE A MINIMUM OF 3" COVER FOR ALL CONCRETE REINFORCING STEEL
10. ALL ANCHOR BOLTS WILL BE A307 STEEL.
11. CONTRACTOR WILL SEAL ALL CONCRETE SLABS WITH A TYPE I, CLASS B, COMMERCIAL FLOOR CURING AND SEALING AGENT AS SOON AS POSSIBLE AFTER FINISHING.
12. CENTER FOOTINGS UNDER WALL LOCATION UNLESS NOTED OTHERWISE.
13. ALL CONCRETE WORK WILL BE DONE IN ACCORDANCE WITH ACI BUILDING CODE (318); MANUAL OF STANDARD PRACTICE, FOR DETAILING (315) FOR THE MIXING, FABRICATION, AND PLACEMENT OF CONCRETE, REINFORCING STEEL, AND ACCESSORIES.
14. CONTRACTOR WILL INSTALL 6 MIL VAPOR BARRIER UNDER ALL INTERIOR SLABS ON GRADE.
15. ALL CONCRETE MASONRY UNITS ARE HOLLOW, GRADE A, AND CONFORM TO ASTM C-145 AND C-90.
16. ALL MASONRY WALLS WILL BE REINFORCED HORIZONTALLY WITH "DURAWALL" OR EQUAL @ 16" O.C. AND REINFORCED VERTICALLY BY FILLING ONE CORE (FULL HEIGHT OF WALL) WITH 3500 PSI CONCRETE AND ONE #5 REINFORCING BAR CONTINUOUS @ 4'-0" O.C.
17. INSTALL SINGLE WYTHE BLOCK FLASH PAN SYSTEM, INSTALL PER MFR.
18. ALL MORTAR FOR MASONRY WILL BE TYPE "M".
19. ALL MASONRY WORK WILL BE DONE IN ACCORDANCE WITH NCMA AND ACI 530 AND ASCE 5 SPECIFICATIONS.
20. PROVIDE COMPLETELY GROUTED UNITS IN MASONRY AND REINFORCING, AND AS NOTED: UNDER ANY CHANGE OF WALL THICKNESS, I.E.: UNDER LINTEL, BEAM BEARING, OR BEARING POINTS; AND AT VERTICAL BAR REINFORCING.
21. CONSULT WITH MECHANICAL CONTRACTOR AND ENGINEER ON UNDER FLOOR PLUMBING, MECHANICAL AND ELECTRICAL ITEMS.
22. CONSULT WITH ELECTRICAL CONTRACTOR ON GROUNDING ROD CONNECTION TO FOUNDATION.
23. CALL MISSDIG, 1-800-482-7171, 72 HOURS (3 WORKING DAYS) BEFORE THE START OF CONSTRUCTION.

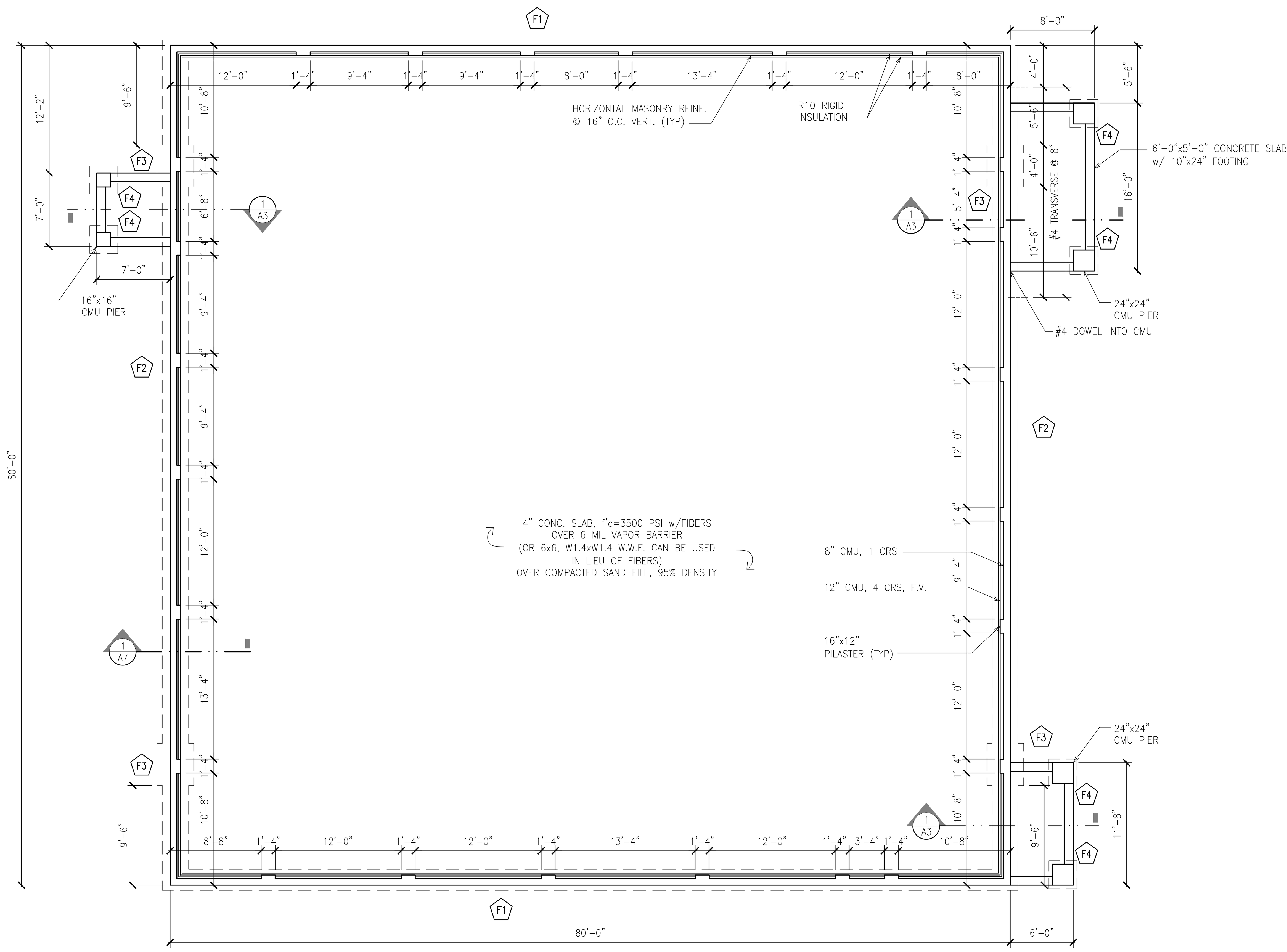
FOOTING SCHEDULE

No.	SIZE	REINFORCEMENT	REMARKS
F1	24"x12" CONTINUOUS	(3) #4 CONTINUOUS	
F2	30"x12" CONTINUOUS	(4) #4 CONTINUOUS	
F3	42"x48"x12"	(7) #4 SHORT, (6) #4 LONG	
F4	32"x32"x12"	(4) #4 EA. DIRECTION	



CONCRETE SLAB SECTION 1

SCALE: 3/8" = 1'-0"



FOUNDATION PLAN

FLOOR: 6,400 SF SCALE: 1/8"=1'-0"

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

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DESIGN • BUILD • COMMERCIAL CONSTRUCTION

SHEET TITLE
FOUNDATION PLAN

PROJECT
ALCONA HEALTH CENTER
1209 U.S. 23 NORTH
ALPENA, MICHIGAN 49707

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ENGINEER

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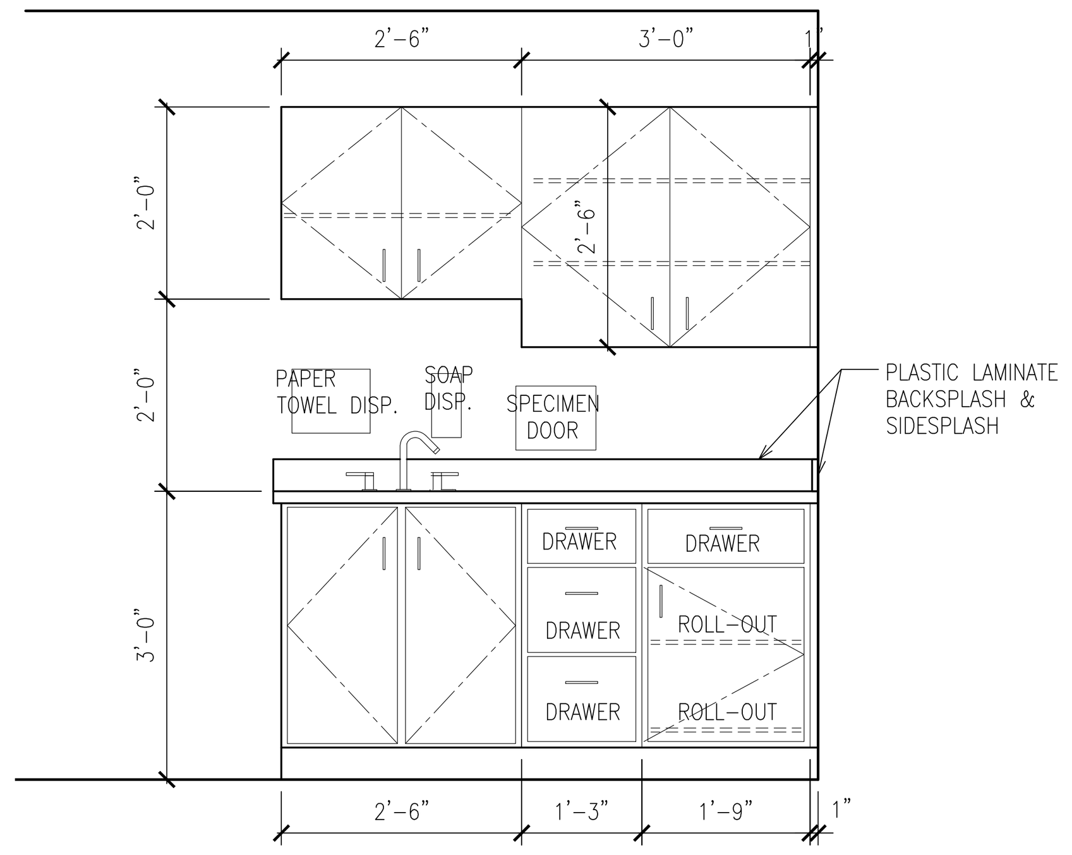
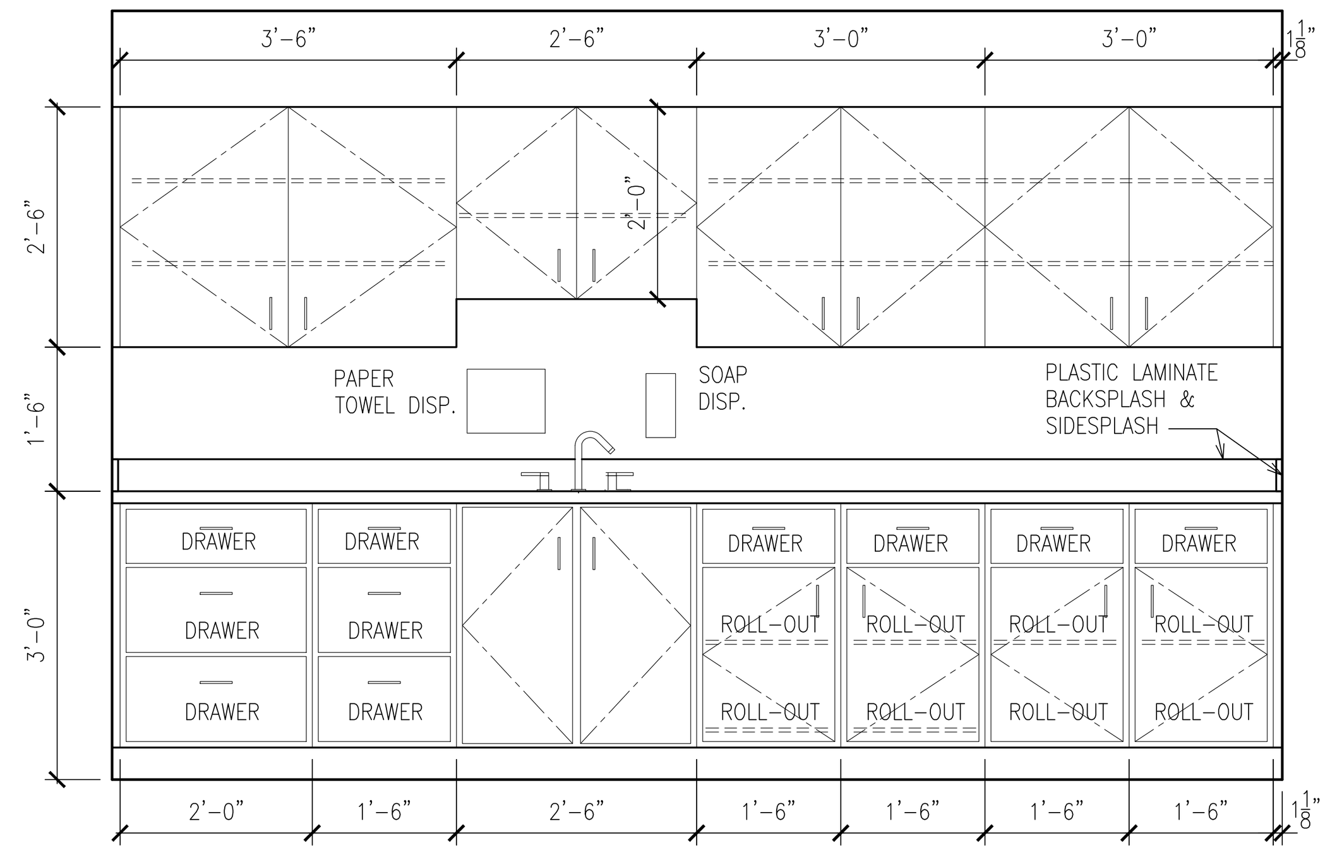
A3



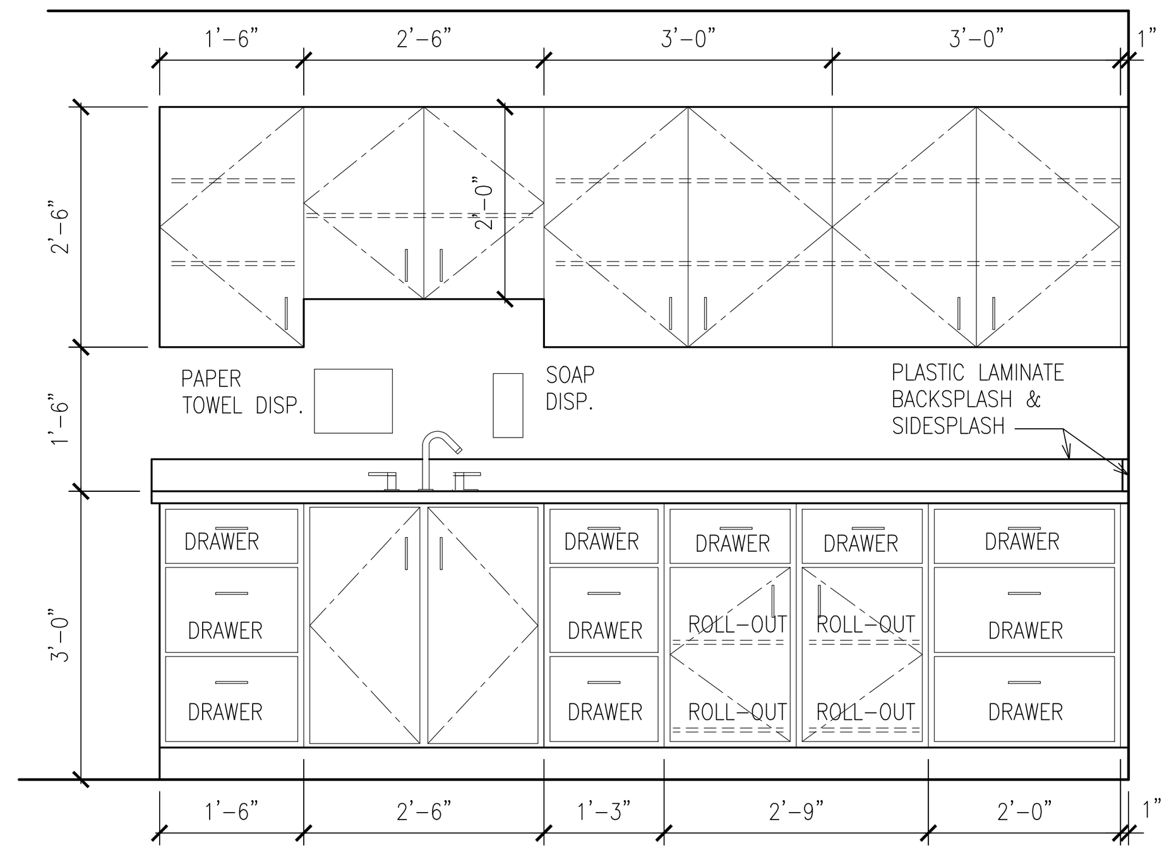
ELEVATION 4

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



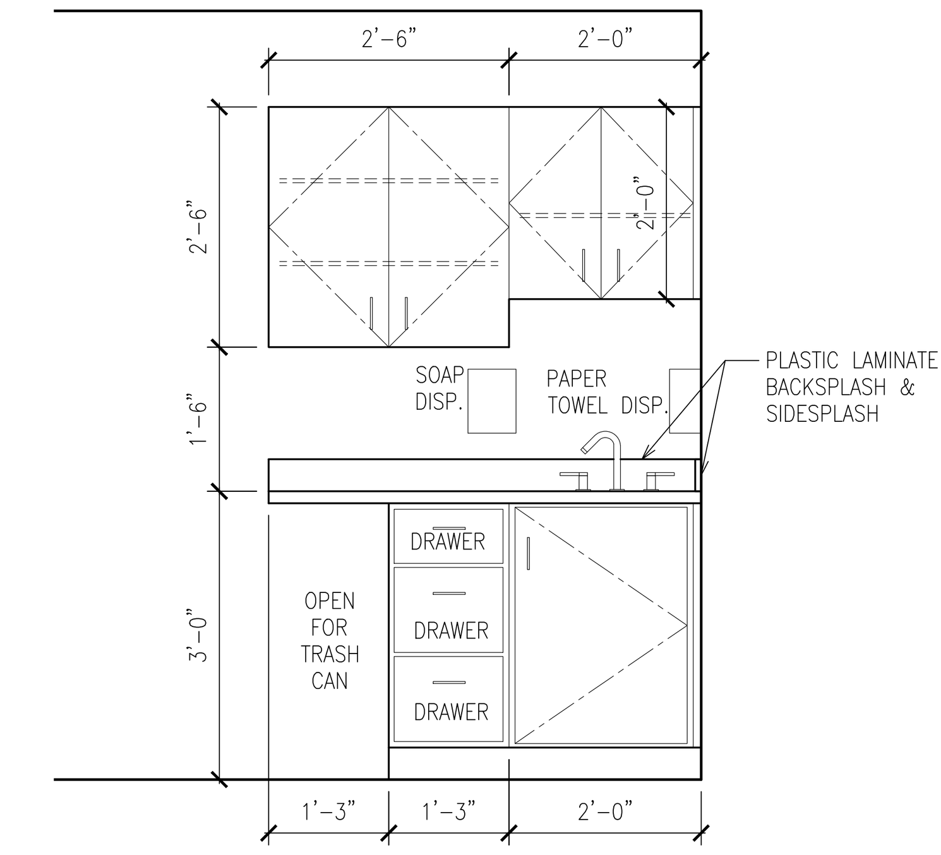
ELEVATION 3

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



ELEVATION 2

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

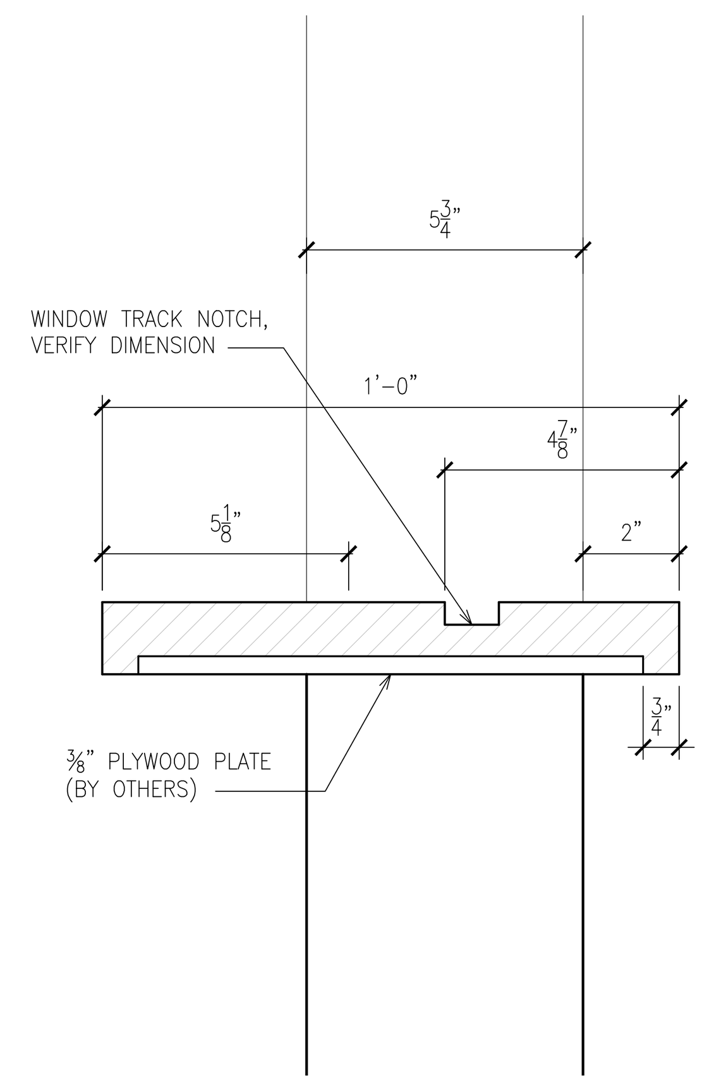


ELEVATION 1

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

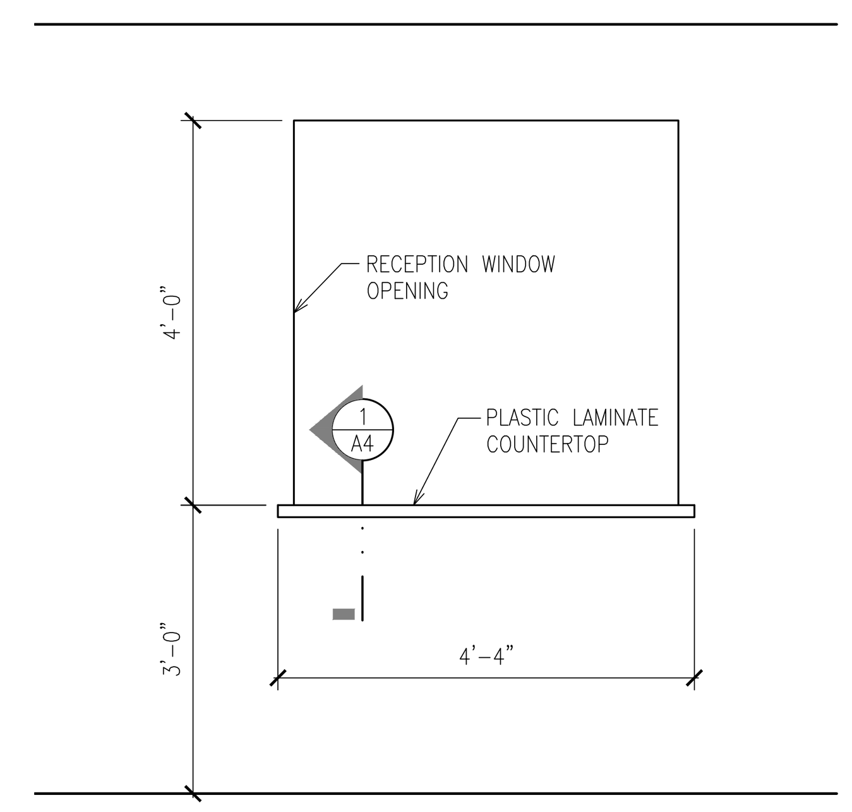
MANUFACTURED CASEWORK NOTES

1. THE EXPOSED SURFACES OF THE MANUFACTURED CASEWORK WILL BE PLASTIC LAMINATE, COLOR TO BE SELECTED BY THE OWNER FROM THE MANUFACTURER'S STANDARD COLORS. THE INTERIOR OF THE CABINET AND THE DRAWER BOXES WILL BE WHITE MELAMINE FINISH.
2. EXPOSED SURFACES OF CABINETS ARE PLASTIC LAMINATE, TO BE SELECTED FROM STANDARD COLORS
3. NOMINAL DEPTH OF BASE CABINETS IS 24" AND OF UPPER CABINETS IS 12", UNLESS NOTED OTHERWISE.
4. BOTTOMS AND ENDS OF CABINETS, AND SHELVES: ¾" PARTICLEBOARD, PLASTIC LAMINATE FACED ON EXPOSED AND SEMI-EXPOSED SURFACES.
5. BACKS OF CABINETS: ½" PARTICLEBOARD: PLASTIC LAMINATE FACED ON EXPOSED AND SEMI-EXPOSED SURFACES
6. DRAWER FRONTS: ¾" PARTICLEBOARD, PLASTIC LAMINATE FACED ON BOTH SIDES
7. DRAWER SIDES AND BACKS: ½" PLASTIC LAMINATE FACED PARTICLEBOARD WITH DOVETAIL OR MULTIPLE-DOWEL JOINTS
8. DRAWER BOTTOMS: ½" PLASTIC LAMINATE FACED PARTICLEBOARD GLUED AND DADOED INTO FRONT, SIDES, AND BACK OF DRAWERS
9. FILLER STRIPS: PROVIDE AS NEEDED TO CLOSE SPACES BETWEEN CABINETS AND WALLS. FABRICATE THEM FROM THE SAME MATERIAL AND WITH THE SAME FINISH AS THE CABINETS.
10. COUNTERTOP AND BACKSPLASH LAMINATE IS PLASTIC LAMINATE TO BE SELECTED FROM STANDARD COLORS. CORIAN WILL BE SELECTED FROM COLOR GROUP 1.
11. COMPLY WITH NEMA LD 3 FOR PLASTIC LAMINATE
12. COMPLY WITH ASTM D 1037 FOR PLASTIC-LAMINATE SUBSTRATE
13. HARDWARE STYLE WILL BE WIRE PULLS
14. PROVIDE TWO PULLS FOR DRAWERS MORE THAN 24" WIDE
15. PROVIDE HEAVY DUTY, SELF-CLOSING DRAWER SLIDES, DESIGNED TO PREVENT REBOUND WHEN DRAWERS ARE CLOSED, WITH NYLON TIRED, BALL BEARING ROLLERS, AND RATED FOR AT LEAST 100 LBS
16. DOOR EDGE BANDING WILL BE 0.5 MM PVC, COUNTERTOP EDGEBANDING WILL BE 3 MM PVC.



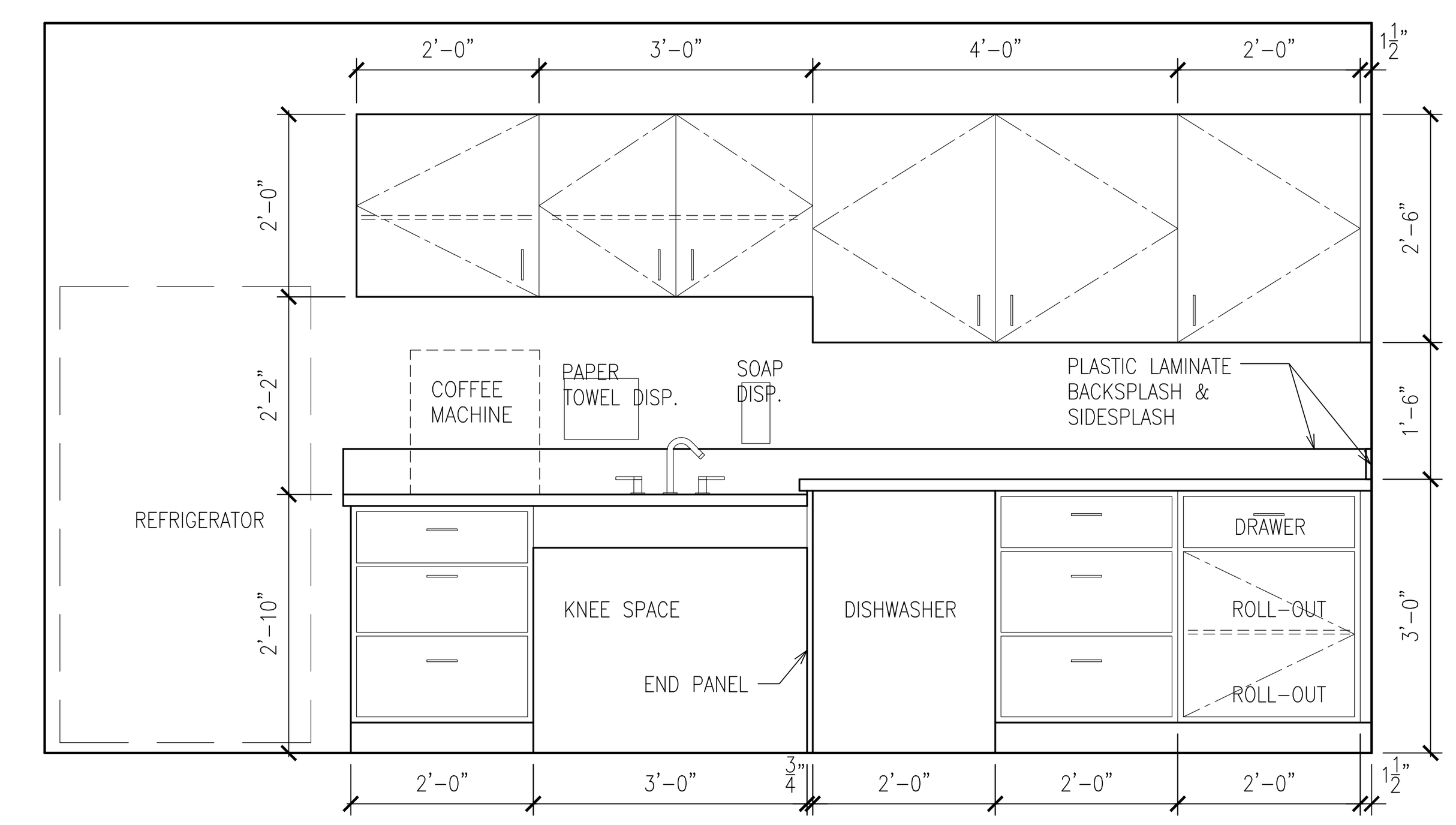
SECTION 1/A4

SCALE: 3" = 1'-0"



ELEVATION 6

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



ELEVATION 5

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

BRUCE DIETZ
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ALPENA, MI 49707

BRUCE DIETZ DEVELOPER
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SHEET TITLE
CASEWORK

PROJECT
ALCONA HEALTH CENTER
1209 U.S. 23 NORTH
ALPENA, MICHIGAN 49707

ISSUED

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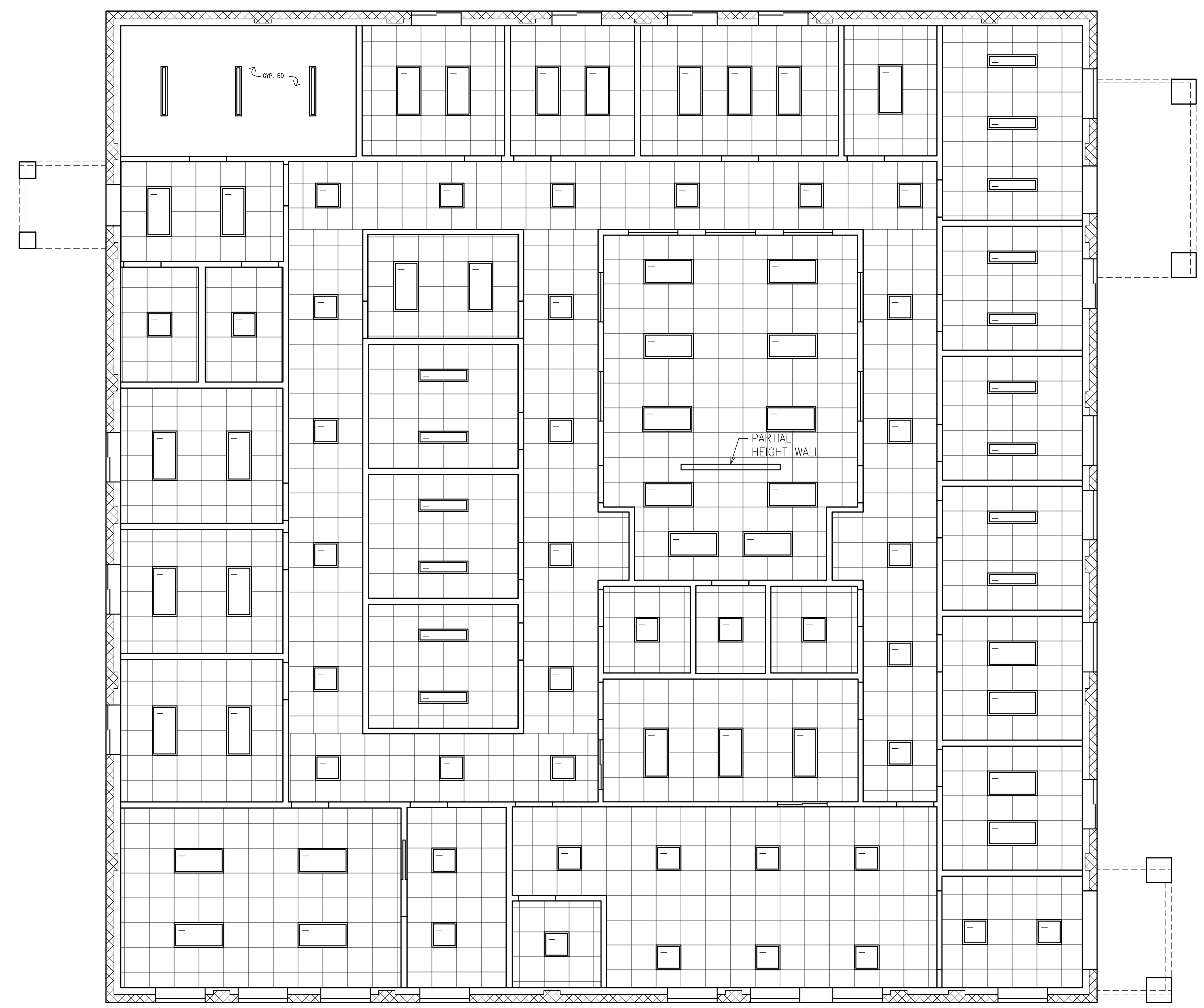
SHEET NO.
A4



REFLECTED CEILING PLAN

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

REFLECTED CEILING PLAN NOTES

1. REFER ELECTRICAL DRAWINGS FOR LIGHT FIXTURE INFORMATION.
2. LIGHT FIXTURES WILL NOT BE SUPPORTED BY THE CEILING GRID.
3. VERIFY CEILING GRID LAYOUT WITH ELECTRICAL AND LIGHTING CONTRACTOR.
4. SUSPENDED CEILING TILE WILL BE USG, RADAR STYLE, 24"x24", WITH SLT TAPERED EDGE. GRID WILL BE WHITE, DIRECT SUSPENSION SYSTEM, WITH INTERMEDIATE DUTY STRUCTURAL CLASSIFICATION.
5. SUSPENDED CEILING GRID WILL BE SUSPENDED WITH LAG SCREWS AND TIE WIRE PER THE MANUFACTURER'S RECOMMENDATIONS.
6. VERIFY ANY WALL SCONCE, UPLIGHTING AND SOFFIT LIGHTING WITH OWNER, BEFORE THE START OF CONSTRUCTION.

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REFLECTED CEILING PLAN

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A5

WALL LINTEL and HEADER SCHEDULE

MARK	HEADER	BEARING (EACH END)
HDR1	W6x8.5	8" CMU w/ #4 VERTICAL AND FULLY GROUTED
HDR2	(2) L4x3x3/8" LONG LEG UP, BACK TO BACK	8" CMU w/ #4 VERTICAL AND FULLY GROUTED

HEADER NOTES

1. ALL MASONRY BEAM BEARING POINTS WILL BE FULLY GROUTED WITH #4 VERT. CONTINUOUS REINFORCEMENT.
2. ALL STRUCTURAL STEEL WILL BE A36 GRADE.

TRUSS NOTES

TYPE: PRE-ENGINEERED, PRE-MANUFACTURED

STYLE: 4:12 MAIN ROOF; 6:12 HIP ENDS

LAYOUT: PER TRUSS MANUFACTURER

PITCH: SEE PRINTS

EAVE OVERHANG: 2'-0" FROM CMU

GABLE OVERHANG: 2'-0" FROM CMU

SPACING: 2'-0"

LATERAL BRACING: PER MANUFACTURER, BUILDING OFFICIAL TO INSPECT

HEEL HEIGHT: 12" MINIMUM; MATCH EAVES

LUMBER SPECIES: PER TRUSS MANUFACTURER

DRAFT STOP: PER PRINTS.

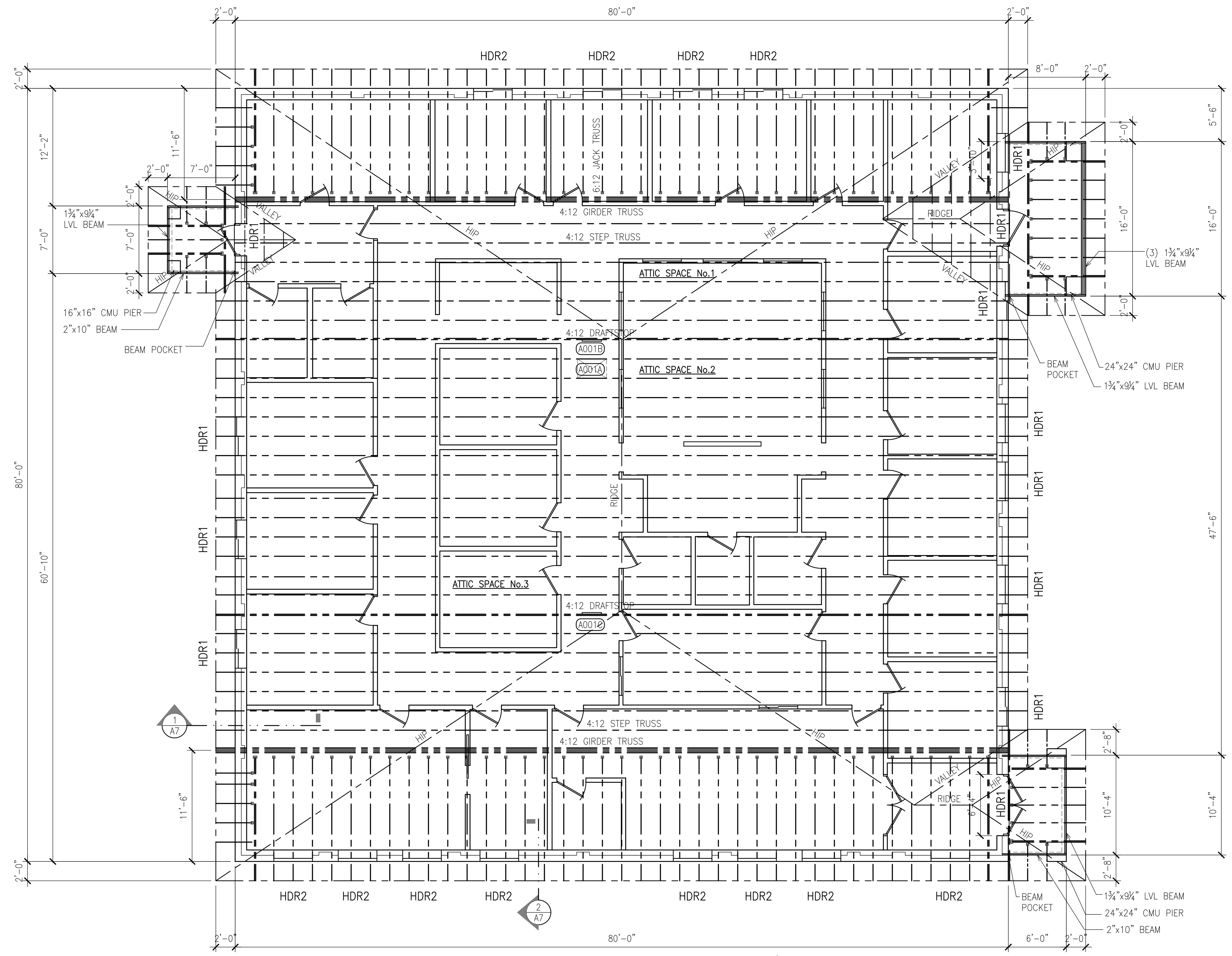
LOADING: 50 PSF LIVE LOAD (GROUND SNOW) TOP CHORD
10 PSF DEAD LOAD BOTTOM CHORD
7 PSF DEAD LOAD TOP CHORD

TRUSS DRAWINGS: SUPPLY TRUSS DRAWINGS STAMPED BY A STATE OF MICHIGAN LICENSED ENGINEER TO OWNER AND BUILDING OFFICIAL

INSTALLATION: INSTALL TRUSSES IN STRICT ACCORDANCE WITH THE TRUSS MANUFACTURER'S INSTRUCTIONS. TRUSS MANUFACTURER TO SUPPLY ALL REQUIRED HANGERS FOR TRUSS INSTALLATION

ROOF FRAMING NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE THE START OF CONSTRUCTION.
2. TRUSS UPLIFT BRACKETS WILL BE SIMPSON 2.5A OR EQUAL ON ALL TRUSSES EXCEPT GIRDER TRUSS. GIRDER TRUSS WILL HAVE SIMPSON H8 OR EQUAL ON EACH FACE OF TRUSS.
3. THE ATTIC DRAFTSTOP(S) MUST BE CONTINUOUS FROM CEILING TO ROOF SHEATHING WITH NO OPENINGS. INSTALL PER THE MICHIGAN BUILDING CODE. THE ATTIC DRAFTSTOP SHEATHING SHALL BE NOT LESS THAN 1/2" GYPSUM BOARD, 3/8" PLYWOOD OR OTHER MATERIAL AS APPROVED BY THE LOCAL BUILDING OFFICIAL. ALL MATERIALS SHALL BE ADEQUATELY SUPPORTED. ALL JOISTS SHALL HAVE 2"x4" BLOCKING.
4. THE ATTIC ACCESS OPENING SHALL BE 22"x36". LOCATE PER PRINTS, FIELD VERIFY.



ROOF FRAMING PLAN

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

BRUCE DIETZ
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SHEET TITLE
ROOF FRAMING PLAN

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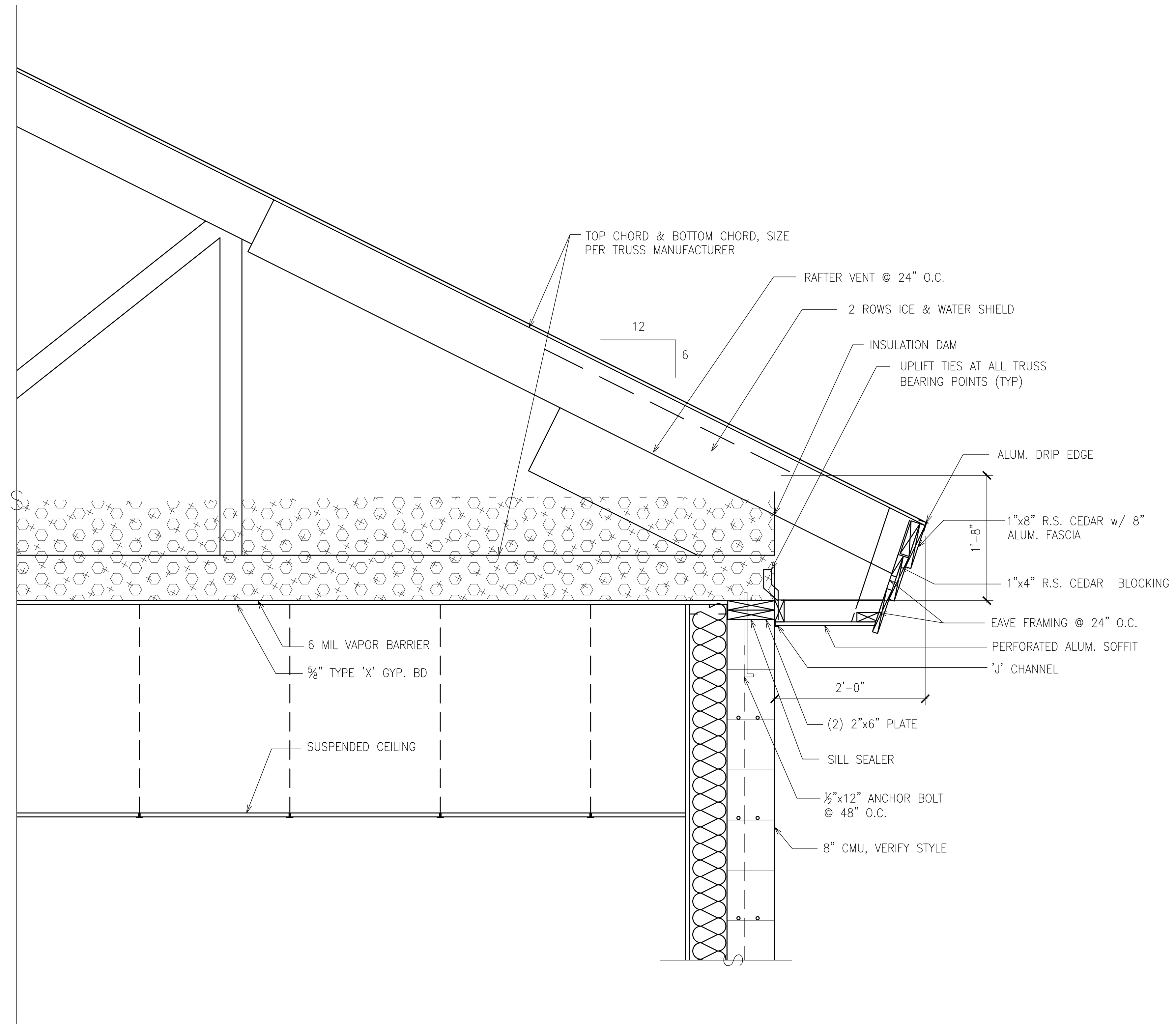
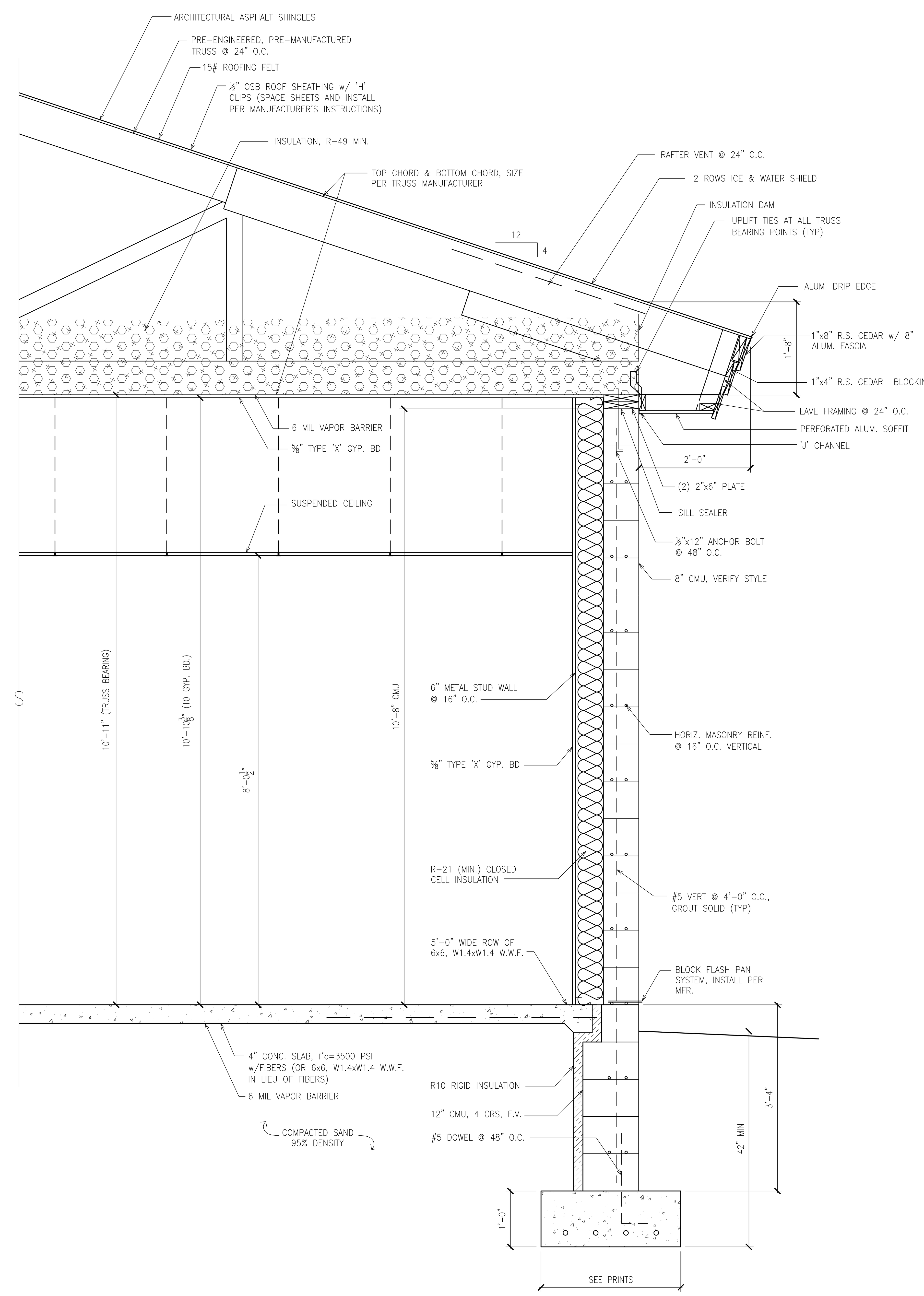
A6



SECTION 2

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



SECTION 1

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

FRAMING NOTES

1. ALL FRAMING LUMBER 2"x4" THROUGH 2"x8" WILL BE SPF No. 2 & BETTER; ALL FRAMING LUMBER 2"x10" AND 2"x12" WILL BE HEM-FIR, No. 2 & BETTER. DIMENSIONAL FRAMING MATERIAL SHALL BEAR THE GRADE MARK OF AN APPROVED AGENCY, KILN DRIED. ALL LVL BEAMS AND COLUMNS SHALL BE AS NOTED.
2. ALL ENGINEERED LUMBER BEAMS WILL BE ROSEBERG FOREST PRODUCTS RIGIDLAM LVL, 3100 FB, 2.1E BEAMS (OR EQUAL), UNLESS OTHERWISE NOTED.
3. INSTALL TRUSS UPLIFT BRACKET PER TRUSS MANUFACTURER AND THE LOCAL BUILDING OFFICIAL.
4. SEE HEADER SCHEDULE FOR EXTERIOR BEARING WALLS HEADERS.
5. CONTRACTOR WILL INSTALL ALL BLOCKING AND BACKERS AS REQUIRED FOR ALL SURFACE-MOUNTED ITEMS SUCH AS, BUT NOT LIMITED TO: GRAB BARS, LIGHT FIXTURES, MIRRORS, TOILET PAPER HOLDERS, PAPER TOWEL DISPENSERS, TOWEL BARS, CURTAIN RODS, CABINETS, SINKS, COAT RACKS, ETC.
6. CONTRACTOR WILL USE JOIST HANGERS, JOIST ANGLES, AND ANY OTHER METAL CONNECTORS AS REQUIRED FOR A COMPLETE JOB. CONTRACTOR WILL USE THE PROPER CONNECTOR WITH AN ADEQUATE LOAD RATING FOR THE PROPER USAGE. INSTALL PER THE MANUFACTURER'S RECOMMENDATIONS WITH THE CORRECT AMOUNT AND TYPE OF FASTENERS.
7. CONTRACTOR WILL INSTALL ADEQUATE BLOCKING AND/OR CRIPPLES IN ALL WALLS AND UNDER ALL HEADERS AND BEAMS TO TRANSFER ALL LOADS TO THE FOUNDATION.
8. INSTALL FIRESTOPPING (OR FIREBLOCKING) AT ALL INTERCONNECTIONS BETWEEN VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS OVER CABINETS, DROP CEILINGS, COVE CEILINGS, STAIRWAY STRINGERS, AND SIMILAR LOCATIONS.
9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD BEFORE START OF CONSTRUCTION.
10. REFER TO ROOF FRAMING PLAN FOR ATTIC SEPARATION AREAS & ATTIC ACCESS LOCATIONS.

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DEVELOPER
DESIGN • BUILD • COMMERCIAL CONSTRUCTION

SHEET TITLE:
BUILDING SECTIONS

PROJECT:
ALCONA HEALTH CENTER
1209 U.S. 23 NORTH
ALPENA, MICHIGAN 49707

ISSUED	
REVIEW	DEC. 22, 2022
BID	MAR. 20, 2023

ENGINEER

DESIGNER

JOB NUMBER
22ll.02

SHEET NO.
A7

ROOM FINISH SCHEDULE

RM No.	ROOM NAME	FLOOR	BASE	WALLS				CEILING		REMARKS
				NORTH	EAST	SOUTH	WEST	MAT'L	HT.	
1001	ENTRANCE	MAT	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1002	WAITING	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1006	RESTROOM No.1	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	48" FRP AT SINK
1011	HALLWAY No.1	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1012	HALLWAY No.2	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1013	HALLWAY No.3	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1014	HALLWAY No.4	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1020	FRONT OFFICE	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
125	LAB/MEDS REDERRAL	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1026	EXAM No.1	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1027	EXAM No.2	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1028	EXAM No.3	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1029	BEHAVIORAL HEALTH	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1030	TREATMENT	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1040	NURSE STATION	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1044	LAB	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1045	BIOHAZARD	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1046	RESTROOM No.2	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	48" FRP AT SINK
1047	RESTROOM No.3	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	48" FRP AT SINK
1050	IT CLOSET	VINYL	V	GYP/PLY	GYP/PLY	GYP/PLY	GYP/P	SUSP	9'-0"	
1052	PROVIDER OFFICE	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1053	PROVIDER OFFICE	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1054	SITE OFFICE	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1055	STAFF ENTRANCE	MAT	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1057	RESTROOM No.2	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	48" FRP AT SINK
1058	RESTROOM No.3	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	48" FRP AT SINK
1060	MECHANICAL & JANITOR CLOSET	CONC	V	GYP/P	GYP/P	GYP/P	GYP/P	GYP/P	12'-2"	48" FRP AT SINK
1065	STERILIZATION	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1066	EXAM No.4	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1067	EXAM No.5	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1068	EXAM No.6	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1070	CARE MANAGER	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1071	TELE-HEALTH	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1072	BEHAVIORAL HEALTH	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1080	STAFF ROOM/GROUP VISIT	CARP	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	
1085	BREAKROOM	VINYL	V	GYP/P	GYP/P	GYP/P	GYP/P	SUSP	9'-0"	

WINDOW SCHEDULE

No.	QTY	MANUFACTURER & STYLE	ROUGH OPENING	HEAD HT	REMARKS
A	8	QUAKER K200 FIXED SASH	48"x48"	7'-4"	
B	9	QUAKER K200 SLIDING	48"x48"	7'-4"	
C	4	QUAKER K200 FIXED SASH	48"x24"	7'-4"	
D	1	SLIDING RECEPTION WINDOW	48"x48"	7'-0"	LOCKING HARDWARE
E	7	FIXED SASH TRANSON	48"x24"	7'-0"	GYPSUM BOARD JAMBS

WINDOW NOTES

1. ALL EXTERIOR WINDOWS QUAKER K200 SERIES, ALUMINUM FRAMED, AND WILL BE DOUBLE PANE INSULATED LOW E GLASS, WITH STANDARD HARDWARE.
2. ALL OPERABLE EXTERIOR WINDOWS WILL HAVE STANDARD COLOR FRAMED INSECT SCREENS.
3. WINDOW TREATMENTS WILL BE BY OWNER.
4. VERIFY ALL WINDOWS WITH OWNER PRIOR TO THE START OF CONSTRUCTION.

DOOR and FRAME SCHEDULE

No.	SIZE	DOOR			FRAME		HARDWARE	REMARKS
		MAT'L	TYPE	GLASS	MAT'L	WALL		
1001A	(2) 3'-0"x7'-0"	ALUM	A	FULL	ALUM	FV	PH, PP, LC, PA, W	
1001B	(2) 3'-0"x7'-0"	ALUM	A	FULL	ALUM	4 7/8"	PH, PP, PA	
1005A	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/4"	B, EL, ES, C	
1005B	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/4"	B, EL, ES, C	
1006	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PVL, C	
1020A	3'-0"x7'-0"	WOOD	B	NL	HM	4 7/8"	B, EL, C	
1020B	3'-0"x7'-0"	WOOD	B	NL	HM	4 7/8"	B, EL, C	
1025	3'-0"x7'-0"	WOOD	B	ML	HM	5 3/8"	B, EL, DS	
1026	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1027	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1028	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1029	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1030A	3'-6"x7'-0"	STL	B	NL	HM	FV	B, EL, C, W	
1030B	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1044A	3'-0"x7'-0"	NONE	D	–	HM	4 7/8"	--	JAMBED OPENING
1044B	3'-0"x7'-0"	NONE	D	–	HM	4 7/8"	--	JAMBED OPENING
1045	3'-0"x7'-0"	WOOD	C	NONE	HM	4 7/8"	B, STO	
1046	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1047	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1050	3'-0"x7'-0"	WOOD	E	NONE	HM	4 7/8"	B, EL, ES	
1052	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, EL, DS	
1053	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, EL, DS	
1054	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, EL, DS	
1055A	3'-0"x7'-0"	ALUM	A	FULL	HM	FV	PH, ED, LC, ES, C, W	
1055B	3'-0"x7'-0"	ALUM	A	FULL	HM	4 7/8"	PH, ED, C	
1057	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PVL, C	
1058	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PVL, C	
1060	3'-0"x7'-0"	WOOD	C	NONE	HM	4 7/8"	B, EL, C	
1065A	3'-0"x7'-0"	NONE	D	–	HM	4 7/8"	--	JAMBED OPENING
1065B	3'-0"x7'-0"	NONE	D	–	HM	4 7/8"	--	JAMBED OPENING
1066	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1067	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1068	3'-0"x7'-0"	WOOD	C	NONE	HM	5 3/8"	B, PL, DS	
1070	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, EL, DS	
1071	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, EL, DS	
1072	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, EL, DS	
1080	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, PL, DS	
1085A	3'-0"x7'-0"	WOOD	B	NL	HM	5 3/8"	B, PL, C	
1085B	3'-0"x7'-0"	WOOD	F	NONE	HM	5 7/8"	STD	
A001A	22"x36"	STL	–	NONE	STL	--	STD	BEST ACCESS DOORS BA-PFI-GYP OR EQAUL
A001B	22"x36"	STL	–	NONE	STL	--	STD	BEST ACCESS DOORS BA-PFI-GYP OR EQAUL
A001C	22"x36"	STL	–	NONE	STL	--	STD	BEST ACCESS DOORS BA-PFI-GYP OR EQAUL

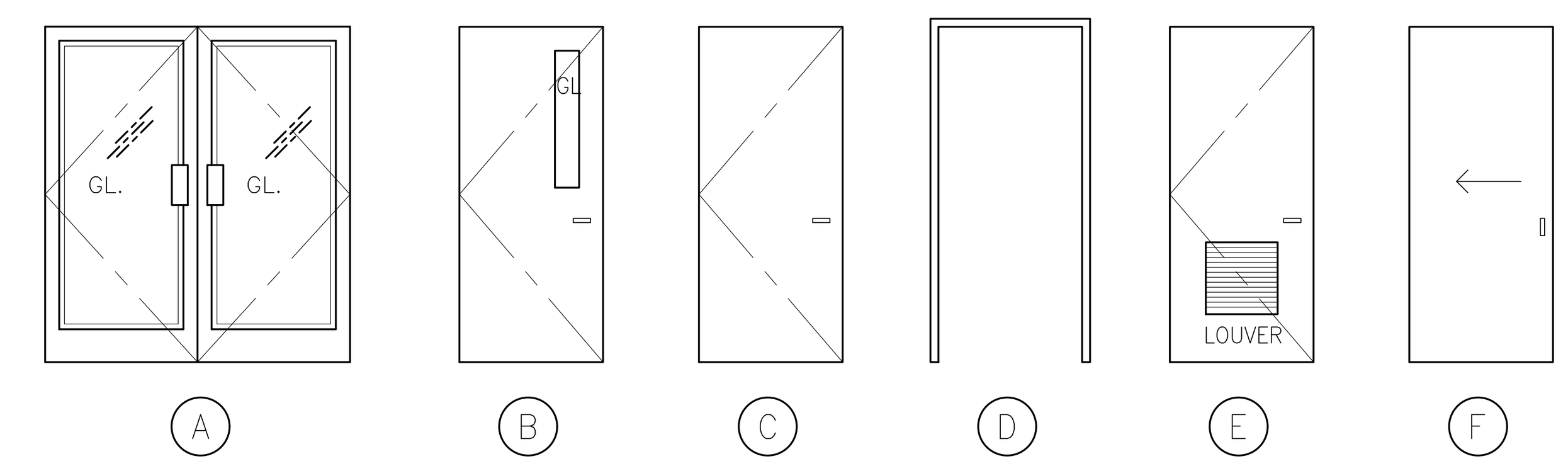
ROOM FINISH NOTES

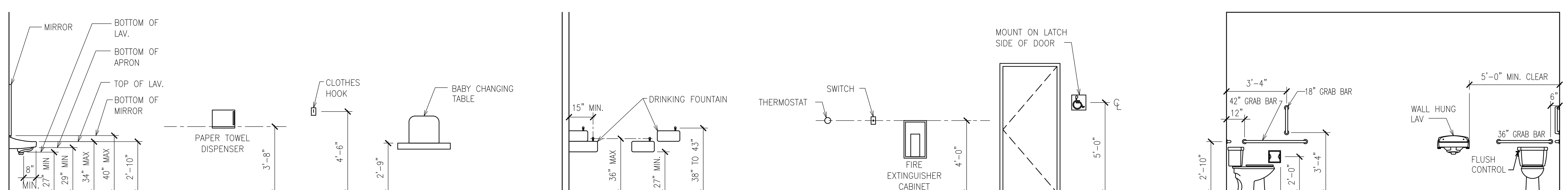
1. KEY: CARP = CARPET w/ PAD; MAT = FLUFF CORD CARPET TILE; V = 4" VINYL BASE; GB/P = GYPSUM BOARD AND PAINT; SUSP = SUSPENDED ACOUSTICAL TILE CEILING; PLY/GYP = ¾" FIRE RETARDANT PLYWOOD OVER FIRE TAPED GYPSUM BOARD; CONC = CONCRETE w/SEALER.
2. ALL CEILINGS WILL RECEIVE 1 LAYER 5/8" TYPE "X" GYPSUM BOARD AT TRUSS BOTTOM CHORD.
3. ALL INTERIOR AND EXTERIOR WALLS WILL RECEIVE 5/8" TYPE "X" FIRESHIELD GYPSUM BOARD. GYPSUM BOARD WILL BE FULL HEIGHT ON ALL WALLS. INSTALL PER THE MANUFACTURERS INSTRUCTIONS.
4. ALL INTERIOR GYPSUM BOARD WILL BE TAPED AND FINISHED, READY FOR PAINT, EXCEPT FOR AREAS ABOVE SUSPENDED CEILING, WHICH CAN BE TAPED ONLY.
5. ALL INTERIOR GYPSUM BOARD WILL BE PRIMED BY THE PAINTER, THEN SPOTTED AND CHECKED BY THE PAINTER, DRYWALLER, AND GENERAL CONTRACTOR BEFORE FINISH PAINT IS APPLIED.
6. WINDOW JAMBS WILL BE GYPSUM BOARD. WINDOW SILLS WILL BE SOLID SURFACE.
7. INTERIOR TRIM WILL RECEIVE THREE (3) COATS OF FINISH. FILL ALL NAIL HOLES WITH FILLER TO MATCH FINISH.
8. ALL PAINTED GYPSUM BOARD/DRYWALL WILL RECEIVE ONE PRIME COAT AND TWO FINISH COATS.
9. HOLLOW METAL FRAMES SHALL BE SHOP PRIMED.
10. DOOR AND WINDOW FRAMES WILL RECEIVE THREE (3) COATS OF FINISH.
11. ALL RESTROOMS REQUIRE A SIGN ON THE WALL ADJACENT TO THE DOOR PER THE BARRIER FREE CODE OF THE STATE OF MICHIGAN.
12. INSTALL 3½" SOUND INSULATION IN ALL WALLS PER THE PRINTS.
13. PUBLIC RESTROOM WILL HAVE THE FOLLOWING INSTALLED PER THE STATE OF MICHIGAN BARRIER FREE CODE AND THE AMERICAN'S WITH DISABILITIES ACT:
    - 18", 36" & 42" GRAB BARS
    - ONE TOILET PAPER DISPENSER / SHELF
    - ONE SOAP DISPENSER
    - ONE PAPER TOWEL DISPENSER
    - ONE 24"x36" MIRROR
    - ONE CLOTHES HOOK
    - ONE DIAPER CHANGING TABLE (WHERE NOTED ON PLANS)
14. INSTALL THE FOLLOWING ACCESSORIES AT ALL SINK LOCATIONS:
    - ONE SOAP DISPENSER
    - ONE PAPER TOWEL DISPENSER
15. THERE WILL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
16. CEILING HEIGHTS INDICATED ON THE ROOM FINISH SCHEDULE ARE FOR THE LOWEST MAJOR AREA OF CEILINGS IN THE ROOM. REFER TO PLANS, SECTIONS, AND DETAILS WHERE APPLICABLE FOR ADDITIONAL CEILING HEIGHTS WITHIN THE ROOM.
17. WHEREVER A FLOOR, WALL, OR CEILING SURFACE OF A ROOM IS SCHEDULED TO BE FINISHED, ALL UNFINISHED ITEMS WITHIN THAT SURFACE (FRAMES, DOORS, TRIM, PANEL COVERS, ETC.) SHALL BE FINISHED, UNLESS INDICATED OTHERWISE. FINISH FOR SUCH ITEMS SHALL BE AS APPLICABLE TO SPECIFIC MATERIAL. DO NOT FINISH PRE-FINISHED ITEMS, UNLESS INDICATED OTHERWISE.
18. TRANSITIONS BETWEEN ABUTTING DISSIMILAR MATERIALS SHALL BE SMOOTH AND LEVEL WITHOUT EXPOSED EDGES NOR ABRUPT CHANGES IN ELEVATION. PROVIDE AND INSTALL TRANSITION DEVICES OF AN APPROPRIATE MATERIAL AND PROFILE AS REQUIRED TO ACHIEVE THIS REQUIREMENT. WHEREVER POSSIBLE, LOCATE FLOORING MATERIAL TRANSITIONS BETWEEN ADJACENT ROOMS BENEATH THE DOORWAY(S) IN ITS CLOSED POSITION, UNLESS INDICATED OTHERWISE.
19. CEILING BULKHEADS: BOTH HORIZONTAL AND VERTICAL SURFACES SHALL BE FINISHED THE SAME UNLESS INDICATED OTHERWISE.
20. ALL COLORS, PATTERNS, AND TEXTURES OF FINISHES SHALL BE AS SELECTED BY THE OWNER.
21. FLOOR MATERIAL CHANGES SHALL OCCUR BENEATH DOORS/THRESHOLDS.
22. WALL DESCRIPTIONS (INCLUDING WALLS, PARTITIONS, ASSEMBLIES, SEPARATIONS, ENCLOSURES, ETC.) ON THIS DRAWING GENERALLY DESCRIBE THE WALL CONDITIONS. REFER TO PLANS, SECTIONS, AND DETAILS WHERE APPLICABLE FOR WALL DESCRIPTIONS PERTAINING TO RATINGS, SOUND AND AIR CONTROL.
23. VERIFY CEILING GRID LAYOUT WITH ELECTRICAL AND LIGHTING CONTRACTOR.
24. SUSPENDED CEILINGS ARE PER THE PRINTS. PROVIDE TILE HOLD DOWN CLIPS AS REQUIRED.
25. PROVIDE FILLER STRIP(S) BETWEEN WALL AND CABINETRY AS REQUIRED. FILLER STRIPS SHALL MATCH CASEWORK IN ALL RESPECTS. SIZE OF FILLERS SHALL BE 2" MAX.
26. ALL CARPET ON FLOORS WILL BE NOT LESS THAN CLASS II, PER THE MICHIGAN BUILDING CODE.
27. OFFICE DOORS WILL HAVE A COAT HOOK ON THEM
28. OWNER TO VERIFY ALL ROOM FINISHES PRIOR TO THE START OF CONSTRUCTION.
29. LOCKER ROOM LOCKERS ARE REPUBLIC STORAGE, 24"x24"x72" SINGLE TIER, COLOR MIDNIGHT BLUE #61.
30. PORTABLE FIRE EXTINGUISHERS WILL BE AMEREX, MODEL B402T OR EQUAL, FIRE EXTINGUISHER CABINETS WILL BE LARSON MODEL 2409-R3-FG, ARCHITECTURAL SERIES, ROLLED EDGE, OR EQUAL.

DOOR NOTES

1. **HARDWARE KEY:** B = 1½ PAIR BALL BEARING BUTTS; C = HYDRAULIC DOOR CLOSER WITH KEY VALVES FOR BACK CHECK, SPEED, AND LATCHING; DS = WALL-MOUNT OR FLOOR-MOUNT DOOR STOP; LC = LOCK CYLINDER; PP = PUSH AND PULL PLATES; EL = ENTRY LEVER LOCKSET; PL = PASSAGE LEVER LOCKSET; PVL = PRIVACY LEVER LOCKSET; W = WEATHERSTRIP, BARRIER FREE THRESHOLD AND SWEEP; PA = POWER ASSISTED OPERATOR; ES = ELECTRIC STRIKE WITH KEYPAD; STD = STANDARD HARDWARE; PH = PIVOT HINGE.
2. VERIFY FLOOR FINISH BEFORE INSTALLATION OF DOOR FRAMES.
3. VERIFY ALL DOOR HARDWARE WITH OWNER.
4. COORDINATE THE KEYING OF THE LOCKS WITH THE OWNER.
5. ALL DOORS AND FRAMES THAT RECEIVE DOOR CLOSERS SHALL BE REINFORCED WHERE ATTACHMENT IS MADE.
6. PROVIDE CAULK AT INTERIOR LOCATIONS AND SEALANT AT EXTERIOR LOCATIONS BETWEEN ALL FRAMES AND ADJACENT MATERIALS.
7. EXTERIOR ALUMINUM FRAME DOORS WILL HAVE 1" INSULATED GLAZING.
8. HOLLOW METAL FRAMES TYPICAL SHOWN FOR DETAILING PURPOSES, ALUMINUM AS OCCURS. HOLLOW METAL SUPPLIER TO VERIFY WALL THICKNESS AND THROAT SIZE BEFORE ORDERING.
9. EXTERIOR DOOR FRAMES WILL BE NOT LESS THAN 14 GA; INTERIOR DOOR FRAMES WILL NOT BE LESS THAN 16 GA., HOLDING CELL DOOR FRAMES WILL NOT BE LESS THAN 12 GA.
10. WOOD DOORS SOLID CORE DOORS FOR TRANSPARENT FINISH: PREMIUM GRADE, 5-PLY, PARTICLEBOARD CORE; RED OAK, PLAIN SLICED, EDGING MATCHES FACE; PAIRED MATCHING.
11. ALL GLAZING IN DOORS SHALL BE SAFETY GLAZING.
12. LEVERSETS WILL BE MARKS, GRADE II, COMMERCIAL QUALITY LOCKSETS.
13. CLOSERS WILL LCN 1261 OR PDQ 5501BCPA, WITH DOGGING FEATURES AND COVERS.
14. BALL BEARING BUTT HINGES WILL HAVE NON-REMOVABLE PINS FOR EXTERIOR AND PUBLIC INTERIOR EXPOSURE.
15. WALL STOPS WILL BE IVES WS33.

DOOR TYPES





MOUNTING HEIGHT SCHEDULE

THE INTENT OF THIS SCHEDULE IS TO ILLUSTRATE THE PROPER MOUNTING HEIGHTS ONLY. THE FIXTURES INDICATED WITHIN THIS SCHEDULE MAY VARY FROM THOSE SPECIFIED OR REQUIRED. REFER TO PLANS, MECHANICAL DRAWINGS, AND/OR PROJECT MANUAL FOR ADDITIONAL INFORMATION.

SCALE: NONE

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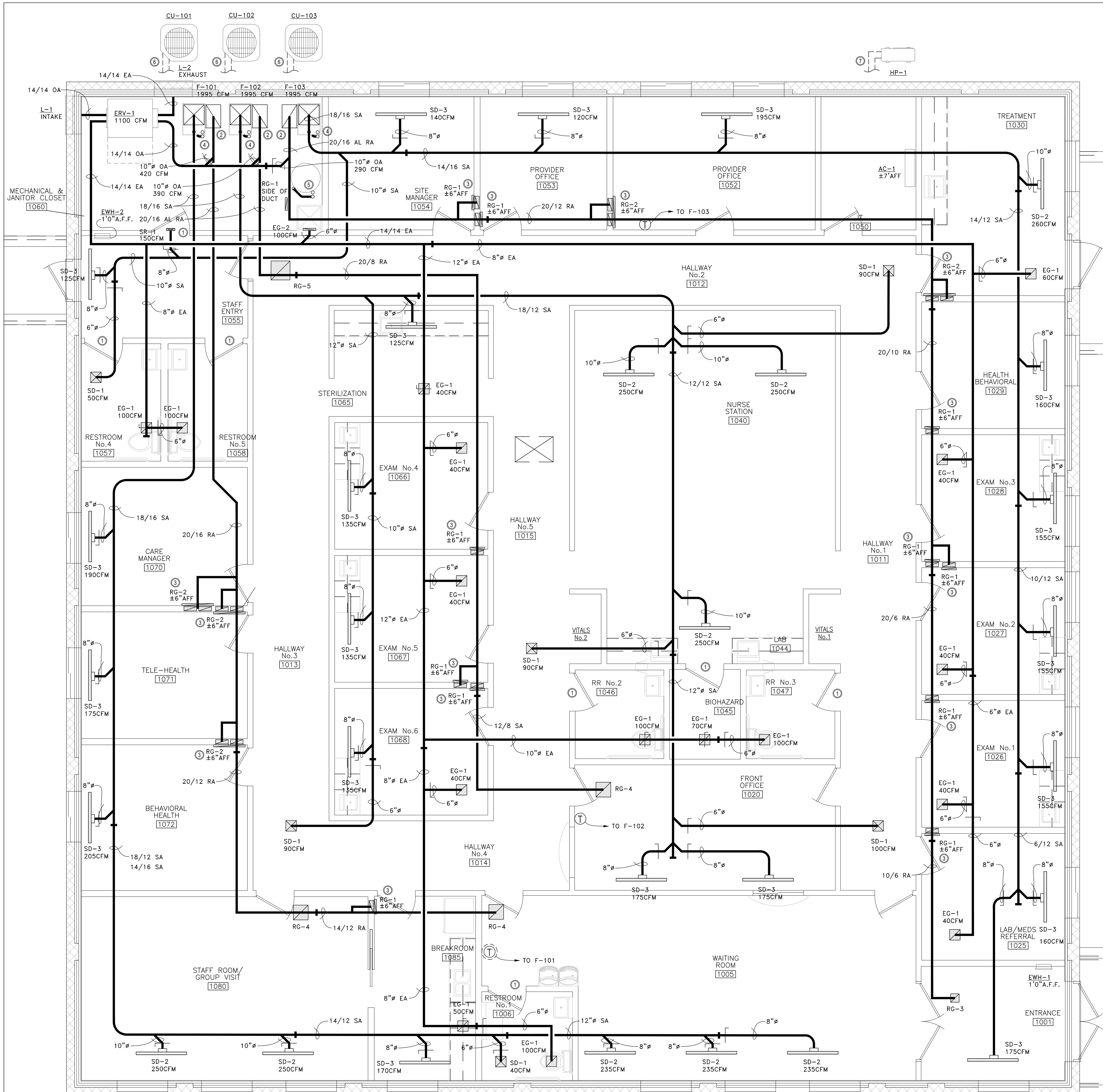
BRUCE DIETZ DEVELOPER

SHEET TITLE: ROOM FINISH, WINDOW, AND DOOR SCHEDULES

PROJECT: ALCONA HEALTH CENTER
1209 U.S. 23 NORTH
ALPENA, MICHIGAN 49707

ISSUED	
REVIEW	DEC 22, 2022
BID	MAR 20, 2023

ENGINEER
DESIGNER
JOB NUMBER 2211.02
SHEET NO. A8



FIRST FLOOR PLAN - MECHANICAL

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

MECHANICAL GENERAL NOTES

1. ALL WORK SHALL BE INSTALLED PER LOCAL, STATE, & FEDERAL CODES, RULES, ORDINANCES, AND REGULATIONS.
2. REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. ALL DUCT AND EQUIPMENT ELEVATIONS NOTED ON PLANS MEASURED FROM F.F. TO BOTTOM OF DUCT/EQUIPMENT UNLESS OTHERWISE NOTED.
4. ALL DUCTWORK SHALL BE INSULATED ACCORDING TO WRITTEN SPECIFICATIONS UNLESS OTHERWISE NOTED. ALL CONCEALED SUPPLY DUCTWORK SHALL HAVE BLANKET DUCT WRAP INSULATION. ALL EXPOSED SUPPLY DUCTWORK IN CONDITIONED SPACES AND ALL EXHAUST DUCTWORK DO NOT REQUIRE INSULATION. ALL RECTANGULAR RETURN DUCTWORK SHALL HAVE 1" INTERNAL ACOUSTICAL LINER INSULATION AS SPECIFIED ON PLANS.
5. ALL DUCTWORK BEHIND GRILLES AND DIFFUSERS CONNECTIONS SHALL BE PAINTED FLAT BLACK. PAINT INSIDE OF DUCT CONNECTIONS 2'-0" UP STREAM OF FIRST 90 DEGREE ELBOW.
6. ALL WORK SHOWN ON THIS PLAN TO BE COORDINATED WITH ALL OTHER TRADES PRIOR TO FABRICATION AND INSTALLATION.
7. FIELD VERIFY THERMOSTAT AND SENSOR LOCATIONS WITH OWNER. INSTALL SENSORS AT A HEIGHT OF 4'0" A.F.F.. COORDINATE MECHANICAL SENSOR LOCATIONS WITH OTHER TRADES.
8. ALL DUCT DIMENSIONS ARE INSIDE DIMENSIONS.
9. INSTALLING CONTRACTOR SHALL USE EXTREME CAUTION TO COORDINATE THE EXACT ROUTING AND ELEVATION OF DUCTING SYSTEMS. THIS CONTRACTOR SHALL INSTALL DUCTING SO AS TO NOT INTERFERE WITH THE REMOVAL AND/OR SERVICING OF SYSTEMS.
10. ALL SUPPLY, RETURN AND EXHAUST BRANCH DUCTS SHALL HAVE A BALANCING DAMPER NEAR MAIN.
11. ALL SUPPLY, RETURN AND EXHAUST DUCT ELBOWS SHALL BE SMOOTH RADIUS ELBOWS WITH THE INSIDE RADIUS SAME AS WIDTH OF DUCT UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER. ALL 90° MITERED ELBOWS SHALL HAVE TURNING VANES.
12. EXHAUST TERMINATIONS, PLUMBING VENTS, ETC. TO BE A MINIMUM OF 3FT. VERTICAL CLEARANCE ABOVE OR MINIMUM OF 10FT. HORIZONTAL CLEARANCE FROM FENESTRATION OR EQUIPMENT OUTDOOR AIR INTAKES.
13. ALL SERVICEABLE MECHANICAL EQUIPMENT INSTALLED ON ROOF SHALL BE INSTALLED A MINIMUM OF 10FT FROM ROOF EDGE OR HAVE GUARD RAIL AS REQUIRED BY CODE. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCES.
14. ALL ROOF PENETRATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE ROOF WARRANTY.
15. ALL MECHANICAL DUCTS AND PIPING PENETRATING RATED ASSEMBLIES SHALL BE SEALED AND FIRE-STOPPED TO COMPLY WITH LOCAL REGULATIONS.
16. ALL EXPOSED HVAC INSTALLED AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED. FIELD COORDINATE EXACT HVAC ROUTING WITH STRUCTURAL ELEMENTS, EXISTING SYSTEMS, AND OTHER TRADES.
17. ALL DUCTWORK LOCATED ABOVE BUILDING INSULATION IN ATTIC SPACE SHALL BE INSULATED WITH TWO (2) LAYERS OF 1 1/2" FIBERGLASS INSULATION WITH OFFSET SEAMS AND WITH VAPOR FOIL BARRIER, REFER TO SPECIFICATIONS. LOCATE DUCTWORK BELOW / COVERED WITH BUILDING INSULATION WHEREVER POSSIBLE. COORDINATE EXACT ROUTING WITH STRUCTURAL ELEMENTS.

(#) MECHANICAL PLAN NOTES

(1) DOOR(S) TO SPACE SHALL BE UNDERCUT A MINIMUM OF 1" TO ALLOW RETURN / EXHAUST / TRANSFER AIRFLOW, SEE ARCHITECTURAL PLANS.

(2) PROVIDE INTERNAL ACOUSTICALLY LINED RETURN AIR DUCTWORK FOR ALL RETURN DUCTWORK WITHIN 10' OF FURNACE RETURN AIR DUCT CONNECTION INTO UNIT.

(3) RETURN AIR INSIDE STUD WALL CAVITY DOWN TO RETURN AIR GRILLE. PROVIDE SHEET METAL BACKPAN AND 1/2" ARMAFLEX INSULATION ALONG ENTIRE LENGTH OF BACKSIDE OF EACH RETURN CAVITY, FLUSH WITH BACK EDGE OF WALL CAVITY, FOR NOISE REDUCTION INTO ADJACENT ROOM. REFER TO DETAIL.

(4) 3"ø COMBUSTION AIR INTAKE AND 3"ø FLUE EXHAUST VENT ROUTED UP FROM FURNACE THRU ROOF TO ROOF CONCENTRIC TERMINATION. FLASH AND SEAL AS REQUIRED.

(5) 3"ø COMBUSTION AIR INTAKE AND 3"ø FLUE EXHAUST VENT ROUTED UP FROM WATER HEATER THRU ROOF TO ROOF CONCENTRIC TERMINATION. FLASH AND SEAL AS REQUIRED. REFER TO PLUMBING PLANS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.

(6) ROUTE REFRIGERANT LINES WITH INSULATION FROM CONDENSING UNIT OVER THRU EXTERIOR WALL, AND OVER TO ASSOCIATED FURNACE COOLING COIL. COVER ALL EXTERIOR REFRIGERANT PIPE INSULATION WITH UV RESISTANT PVC JACKET OR PAINT WITH UV RESISTANT PVC COATING.

(7) ROUTE REFRIGERANT LINES WITH INSULATION FROM SPLIT SYSTEM HEAT PUMP OVER THRU EXTERIOR WALL INTO CEILING SPACE, AND OVER AND DOWN TO ASSOCIATED INDOOR UNIT. COVER ALL EXTERIOR REFRIGERANT PIPE INSULATION WITH UV RESISTANT PVC JACKET OR PAINT WITH UV RESISTANT PVC COATING.

MECHANICAL LEGEND

F	FURNACE
CU	CONDENSING UNIT
DOAS	DEDICATED OUTSIDE AIR UNIT
S.A.	SUPPLY AIR
R.A.	RETURN AIR
O.A.	OUTDOOR AIR
E.A.	EXHAUST AIR
(T)	TEMPERATURE THERMOSTAT INFINITY
	BALANCE DAMPER W/LOCKING QUADRANT
M	MOTORIZED DAMPER
AC	HP TERMINAL UNIT
HPFC	HEAT PUMP FAN COIL
HP	AIR/AIR HP

DUCT STD. TAKEOFF SIZING CHART

DUCT SIZE	SUPPLY AIR CFM	RETURN AIR CFM	SUPPLY AIR VAV CFM
4"	20-40	20-35	20-120
6"	40-120	35-100	125-250
8"	125-240	105-200	260-480
10"	250-430	210-380	490-750
12"	440-700	390-600	760-1000
14"	710-1000	610-850	1010-1500

NOTES:
1. FLOWS ARE SIZED USING 0.1"WC/100' FOR S.A.
2. FLOWS ARE SIZED USING 0.07"WC/100' FOR R.A.
3. TAKE OFFS TO HAVE PROPER RELIEF FOR PROPER FLOW. AS PER SMACNA STANDARDS.
4. VAV TAKE OFFS SIZED AT NOMINAL 1300FPM.
5. IF SIZING NOT GIVEN ON PLAN USE CHART.

STATE OF MICHIGAN
JOHN JOSEPH RICHARDS
ENGINEER
NO.
62010-43952
LICENSED PROFESSIONAL ENGINEER
SN-0280

PROJECT# 2210-06

APOLLO ENGINEERING

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BRUCE DIETZ
100 RIPLEY
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BRUCE DIETZ DEVELOPER

SHEET TITLE: FIRST FLOOR PLAN - MECHANICAL

PROJECT: ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

ISSUED SET	DATE
PERMIT	12/22/22

ENGINEER: AE

DESIGNER: AE

JOB NUMBER: 2210.06

SHEET NO.: M1

FURNACE SCHEDULE

MARK	MANUF.	MODEL No.	TYPE	HTG.MBH INPUT	HTG.MBH OUTPUT	NOMINAL CLG.MBH	CFM	SPEEDS	O.A.CFM	ESP	VOLTAGE	H.P.	MIN. CIR. AMPACITY	MAX. FUSE SIZE	REMARKS
F-101	CARRIER	59MN7A080V21-20	UP FLOW	100.0	97.0	60.0	1995	VARIABLE	220	0.5"	120V/1ø	1.0	19.1	20A	SEE NOTES
F-102	CARRIER	59MN7A080V21-20	UP FLOW	100.0	97.0	60.0	1995	VARIABLE	220	0.5"	120V/1ø	1.0	19.1	20A	SEE NOTES
F-103	CARRIER	59MN7A080V21-20	UP FLOW	100.0	97.0	60.0	1995	VARIABLE	220	0.5"	120V/1ø	1.0	19.1	20A	SEE NOTES

NOTES:
1. BASED ON CARRIER.
2. FURNACES SHALL RUN CONTINUOUSLY DURING BUILDING OCCUPIED TIMES. UNIT TO DELIVER NOT LESS THAN 15% CFM LESS THEN STATED VALUES.
3. VERIFY RA CONNECTIONS TO FURNACE IN AGREEMENT WITH MANUFACTURES RECOMMENDATION.
4. PROVIDE ALL FURNACES WITH VERTICAL CONCENTRIC VENT KIT, SIZE AND ROUTE VENTING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. PROVIDE ALL FURNACES WITH 7-DAY PROGRAMMABLE THERMOSTAT. ALL SYSTEM CONTROLS SHALL BE EQUAL TO CARRIER INFINITY.
6. PIPE CONDENSATE DRAIN TO NEAREST FLOOR DRAIN. PROVIDE ALL FURNACES WITH CONDENSATE PUMP EQUAL TO LITTLE GIANT #VCMX-20UL IF REQUIRED.
7. PROVIDE ALL FURNACES WITH FACTORY PROVIDED, FIELD INSTALLED 2" FILTER BOX WITH MIN. MERV-8 FILTERS.
8. UNITS TO HAVE GPS AIR CLEANER INSTALLED, REFER TO FURNACE DETAIL.
9. FURNACE SUPPLY MINIMUM AIRFLOW LEVEL SHALL BE 50% OF SCHEDULED CFM. FURNACE SHALL MAINTAIN MINIMUM MIXED AIR TEMPERATURE INTO FURNACE OF 60°F.

CONDENSING UNIT SCHEDULE

MARK	UNIT SERVED	MODEL No.	NOMINAL CLG. CAP	SEER	REFRIG.	ELECTRICAL			WEIGHT	REMARKS
						VOLTAGE	MCA	MOCP		
CU-101	F-101	24VNA060A0030	5 TONS	20.0	R-410A	208V/1ø	35.0	50A	324	SEE NOTES
CU-102	F-102	24VNA060A0030	5 TONS	20.0	R-410A	208V/1ø	35.0	50A	324	SEE NOTES
CU-103	F-103	24VNA060A0030	5 TONS	20.0	R-410A	208V/1ø	35.0	50A	324	SEE NOTES

NOTES:
1. BASED ON CARRIER. AAON IS EQUAL.
2. UNITS SHALL HAVE VARIABLE-SPEED COOLING.
3. UNITS SHALL BE INSTALLED ON 4" CONCRETE PAD, LEVEL IN ALL DIRECTIONS, BY ARCHITECTURAL TRADE.
4. PROVIDE FURNACES WITH MATCHED COOLING COIL. ROUTE REFRIGERANT LINES FROM OUTDOOR UNIT TO ASSOCIATED FURNACE, LINES SIZED AND CONFIGURED PER MANUFACTURER'S RECOMMENDATIONS FOR PROPER OIL RETURN.
5. ALL SYSTEM CONTROLS SHALL BE EQUAL TO CARRIER INFINITY.

ENERGY RECOVERY VENTILATOR SCHEDULE

MARK	MANUF.	MODEL No.	OUTDOOR AIR		EXHAUST AIR		MOTOR HP (EA.)	VOLTAGE	MIN. CIR. AMPACITY	MAX. FUSE SIZE	REMARKS
			CFM	E.S.P.	CFM	E.S.P.					
ERV-1	RENEWAIRE	HE1.5JINH	1100	0.5"	1100	0.9"	1.0	208V/1ø	7.7	15A	SEE NOTES

NOTES:
1. BASED ON RENEWAIRE.
2. UNIT SHALL INCLUDE FACTORY ECM MOTORS, NON-FUSED DISCONNECT SWITCH, FACTORY MER 8 – 2" PLEATED FILTERS.
3. UNIT SHALL RUN CONTINUOUSLY DURING BUILDING OCCUPIED TIMES AS DETERMINED BY TIME CLOCK EQUAL TO RENEWAIRE TC7D-E.
4. UNIT SHALL BE PROVIDED WITH FACTORY BACKDRAFT DAMPER IN BOTH AIRSTREAMS.
5. UNIT SHALL BE INSTALLED FROM STRUCTURE ABOVE WITH ISOLATORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
6. PROVIDE AND INSTALL UNIT WITH DUCT AND ACCESS DOOR CONFIGURATION AS SHOWN ON PLANS.

WALL LOUVER SCHEDULE

MARK	MODEL No.	UNIT SERVED	TYPE	CFM	SIZE W x H	FREE AREA	PD	REMARKS
L-1	ELF6375DX	ERV-1	INTAKE	1100	36" X 18"	1.97 SQFT	.05"	SEE NOTES
L-2	ELF6375DX	ERV-1	EXHAUST	1100	36" X 18"	1.97 SQFT	.04"	SEE NOTES

NOTES:
1. BASED ON RUSKIN.
2. PROVIDE FLANGE, BIRD SCREEN, AND BAKED ENAMEL FINISH.
3. LOUVER SHALL HAVE A FACTORY APPLIED FINISH IN COLOR AS SELECTED BY ARCHITECT.

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

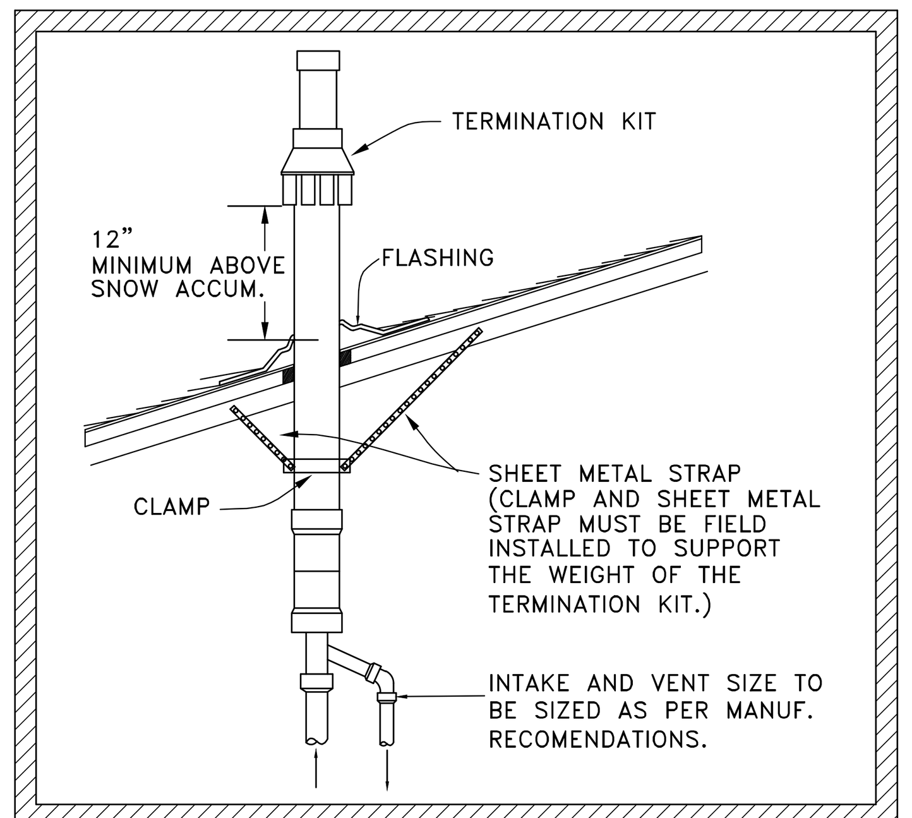
MARK	SPACE SERVED	MODEL No.	NOMINAL CLG. CAP.	NOMINAL HTG. CAP.	ELECTRICAL			SEER	WEIGHT	REMARKS
					VOLTAGE	MCA	MOCP			
HP-1	IT ROOM	TRUZA0121KA70(N/B)A	12.0 MBH	18.0 MBH	208V/1ø	11.0	15	21.0	93	SEE NOTES

NOTES:
1. BASED ON TRANE/MITSUBISHI. OTHERS MAY BE BID AS VOLUNTARY ALT.
2. UNIT SHALL BE PROVIDED WITH WIND BAFFLES FOR LOW AMBIENT OPERATION.
3. UNIT SHALL BE INSTALLED ON 4" CONCRETE PAD, LEVEL IN ALL DIRECTIONS, BY ARCHITECTURAL TRADE.
4. REFRIGERANT LINES SIZED AND CONFIGURED PER MANUFACTURER'S RECOMMENDATIONS FOR PROPER OIL RETURN. REFRIGERANT PIPING SHALL NOT EXCEED RECOMMENDED MAXIMUM LENGTH.

SPLIT SYSTEM INDOOR UNIT SCHEDULE

MARK	UNIT SERVED	MODEL No.	NOMINAL CLG. CAP.	NOMINAL HTG. CAP.	TYPE	ELECTRICAL		WEIGHT	REMARKS
						VOLTAGE	MCA		
AC-1	HP-1	TPKA0A0121LA00A	12.0 MBH	18.0 MBH	WALL	DC24V	1.0	28	SEE NOTES

NOTES:
1. BASED ON TRANE/MITSUBISHI. OTHERS MAY BE BID AS VOLUNTARY ALT.
2. INDOOR UNIT POWER TO BE FED FROM ASSOCIATED OUTDOOR UNIT.
3. PROVIDE LOCKING BASE FOR WALL MOUNTED THERMOSTAT.
4. WALL MOUNTED INDOOR UNIT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATION.
5. PIPE CONDENSATE DRAIN TO NEAREST FLOOR DRAIN. PROVIDE CONDENSATE PUMP FOR EACH INDOOR UNIT EQUAL TO LITTLE GIANT #VCMX-20UL. CONDENSATE PUMP SHALL BE 240V/1ø SUCH THAT POWER CAN BE PROVIDED THRU INDOOR A/C UNIT.



CONCENTRIC ROOF TERMINATION
NOT TO SCALE

ELECTRIC WALL HEATER SCHEDULE

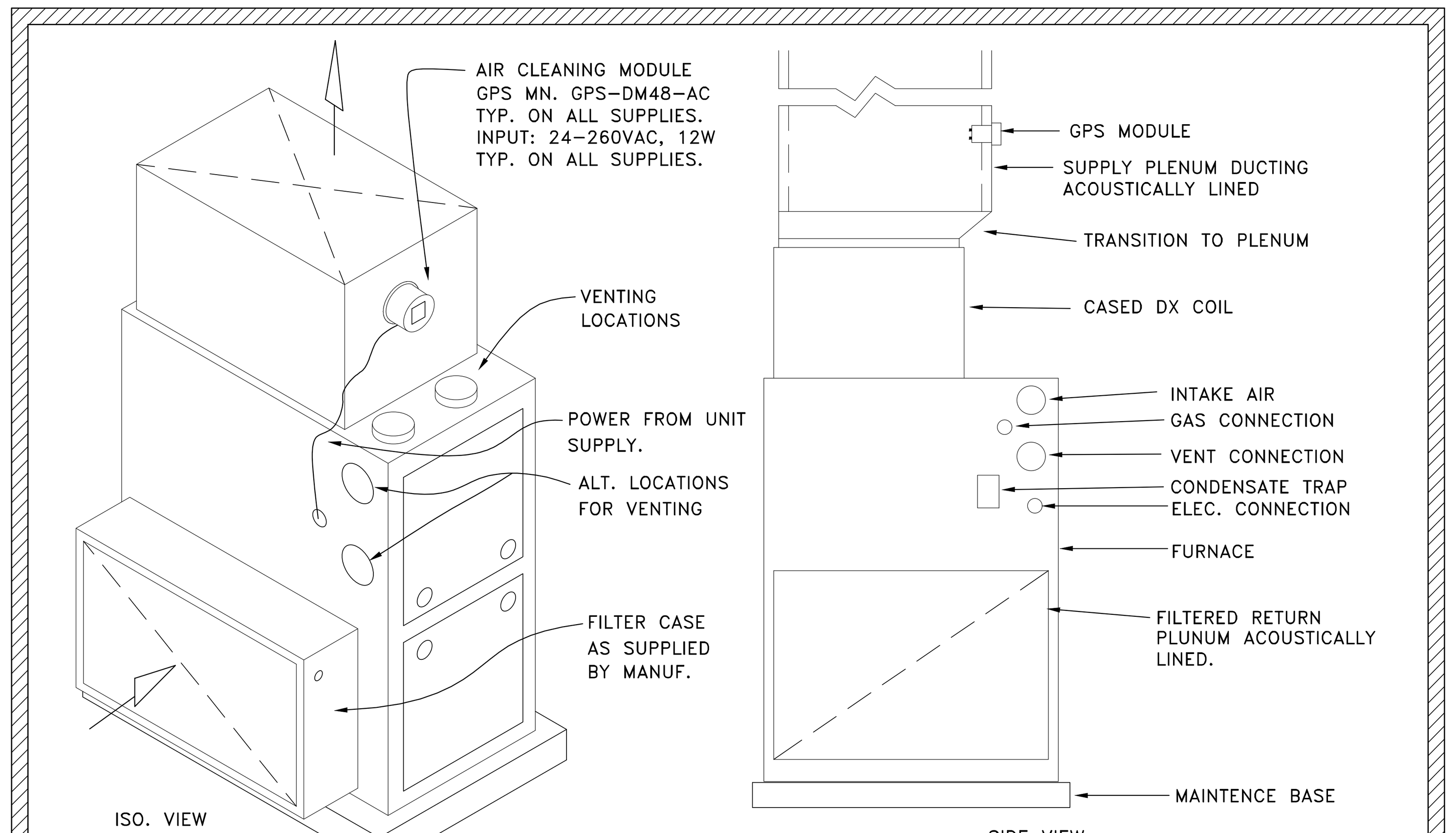
MARK	MODEL No.	KW	MBH	VOLTAGE	AMPS	REMARKS
EWH-1	FRA-4024	3.0	10.2	208V/1ø	14.5	SEE NOTES
EWH-2	FRA-1512	1.5	5.1	120V/1ø	12.5	SEE NOTES

NOTES:
1. BASED ON BERKO. OTHERS MAY BE BID AS VOLUNTARY ALT.
2. UNIT SHALL BE PROVIDED WITH INTEGRAL THERMOSTAT, INTEGRAL DISCONNECT, TAMPER-PROOF FRONT COVER, AND SEMI-RECESSED MOUNTING FRAME.

DIFFUSER / GRILLE SCHEDULE

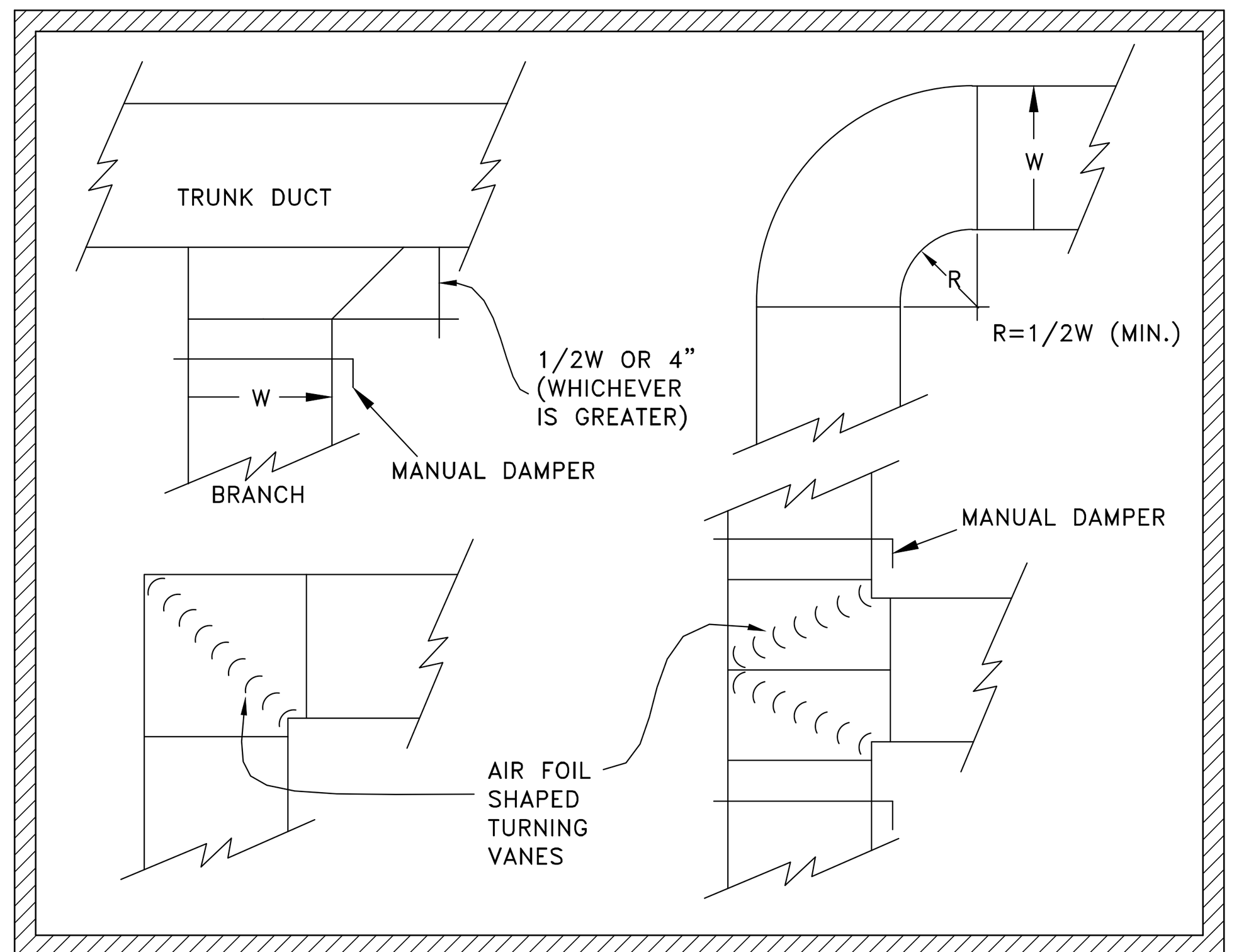
MARK	MODEL No.	CFM	SIZE	BALANCING DAMPER	COLOR	REMARKS
SD-1	TDC	40-100	9"x9", 6"ø NECK	NO	WHITE	BORDER TYPE 1, SEE NOTE #4
SD-2	FLI-10	235-260	48"LG, 1"SLT, 2-SLOT	YES	WHITE	BORDER TYPE 66, SEE NOTE #3
SD-3	FLI-10	120-205	48"LG, 1"SLT, 1-SLOT	YES	WHITE	BORDER TYPE 66, SEE NOTE #3
SR-1	300FL	150	8"X6"	YES	WHITE	BORDER TYPE 1
RG-1	355FL	120-325	14"x6"	NO	WHITE	BORDER TYPE 1
RG-2	355FL	120-325	30"x6"	NO	WHITE	BORDER TYPE 1
RG-3	8F	175	8"x8"	NO	WHITE	BORDER TYPE 1
RG-4	8F	500-745	14"X14"	NO	WHITE	BORDER TYPE 1
RG-5	8F	1245	18"X18"	NO	WHITE	BORDER TYPE 1
EG-1	50F	40-100	8"x8"	YES	WHITE	BORDER TYPE 1
EG-2	355FL	100	6"x6"	NO	WHITE	BORDER TYPE 1

NOTES:
1. BASED ON TITUS. (DISCOVAIR, PRICE OR KRUGER MAY BE BID EQUALS.)
2. REVIEW COLOR W/ARCHITECT BEFORE ORDERING.
3. FLOWBAR DIFFUSORS TO BE SUPPLIED WITH INSULATED PLENUM, END CAPS AND HANGER CLIPS. PROVIDE PLASTER FRAME WITH DIFFUSER IF MOUNTED IN DRYWALL CEILING.
4. ALL SUPPLY AIR DIFFUSERS SHALL HAVE A 4-WAY AIR PATTERN UNLESS OTHERWISE INDICATED (SEE PLANS).
5. PROVIDE ALL DUCT COLLARS, TRANSITIONS, CONNECTIONS AND SUPPORTS.
6. ALL VISIBLE SURFACES BEHIND DIFFUSER/GRILLE (INCLUDING DAMPERS) SHALL BE PAINTED FLAT BLACK.
7. CONTRACTOR SHALL VERIFY DIFFUSER OR GRILLE FRAME TYPE WITH MOUNTING SURFACE.
8. BRANCH DUCTS SERVING DIFFUSER/GRILLE SHALL BE SAME SIZE AS DIFFUSER/GRILLE NECK SIZE UNLESS OTHERWISE NOTED.
9. PROVIDE EXTRA T'BAR FOR INSTALLATION OF 24x24 LAY-IN DIFFUSERS/GRILLES INTO 48x24 CEILING GRID AS REQUIRED.

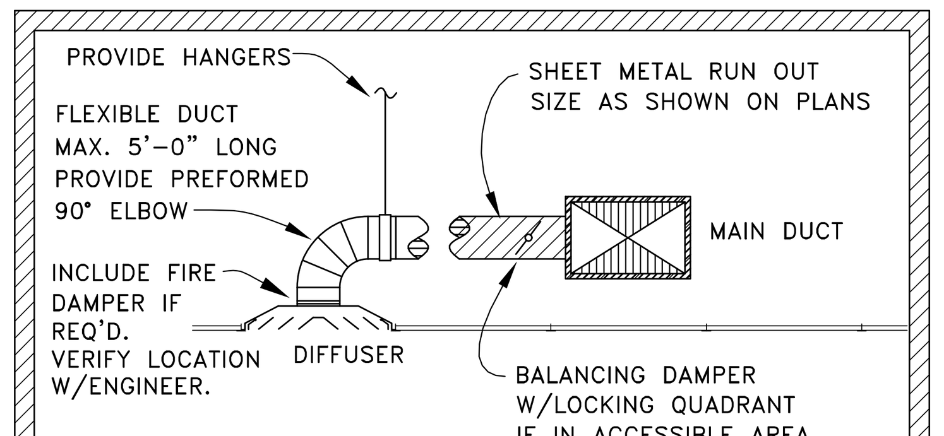


NOTES:
FIELD VERIFY RIGHT HAND OR LEFT HAND.
DOWN FLOW TO BE SIMILAR.

FURNACE AND HEAT PUMP FAN COIL DETAIL
NOT TO SCALE

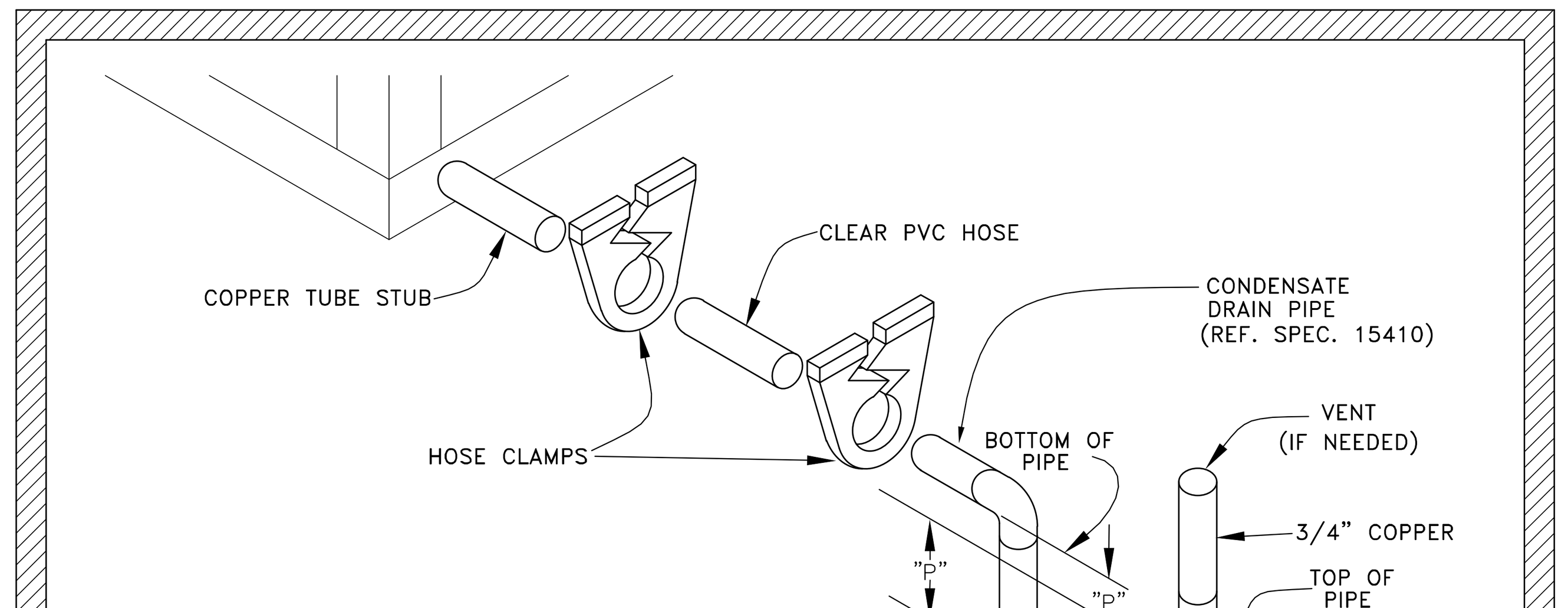


ACCEPTABLE DUCT TURNS
NOT TO SCALE



NOTE:
1. FABRICATION AND INSTALLATION OF ALL DUCTWORK SHALL BE PER ASHRAE, NFPA AND SMACNA STANDARDS.

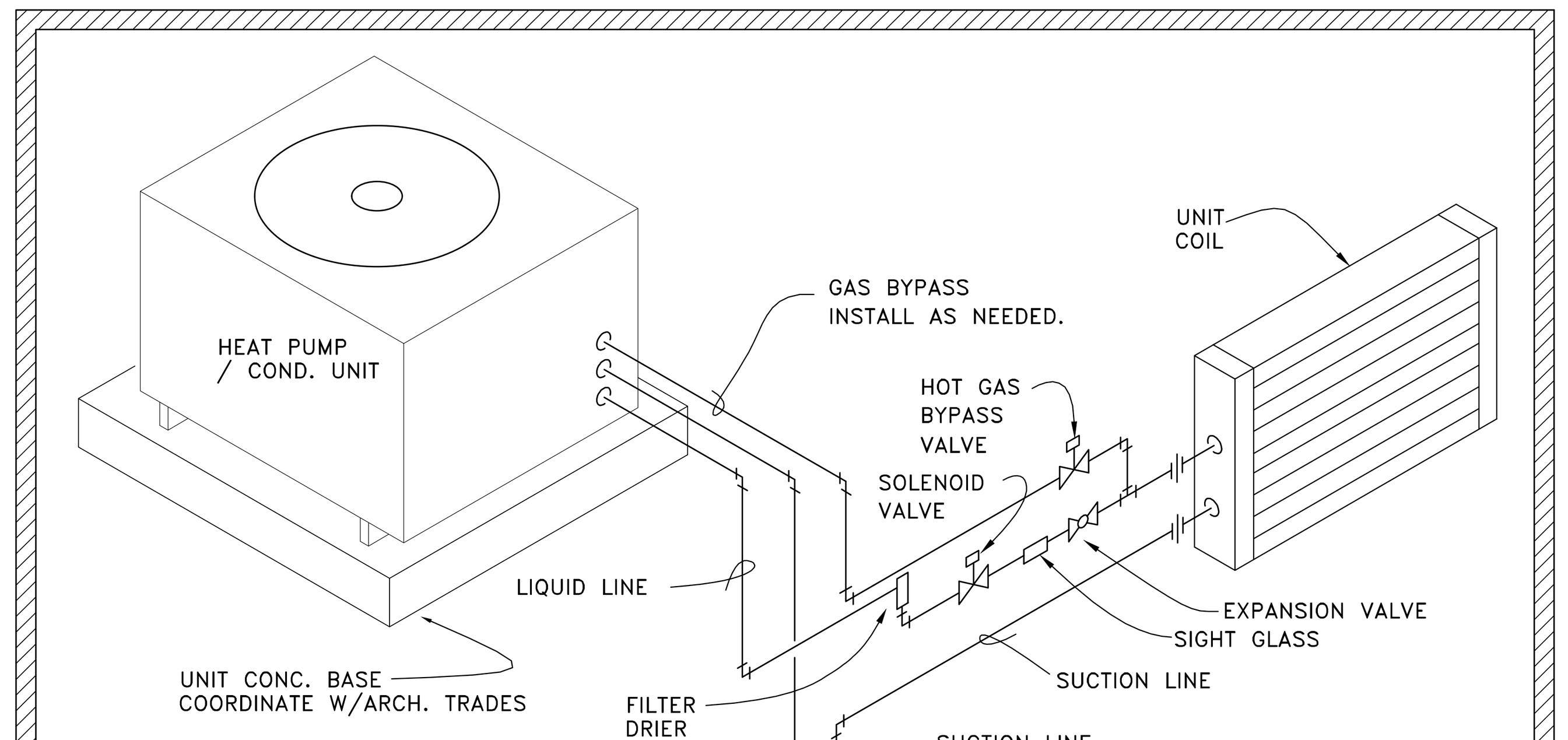
TYPICAL DUCT TAKE OFF DETAIL
NOT TO SCALE



P=PRESSURE @ DRAIN PAN.
= RA STATIC PRESSURE + INTERNAL + FILTER PRESSURE LOSS

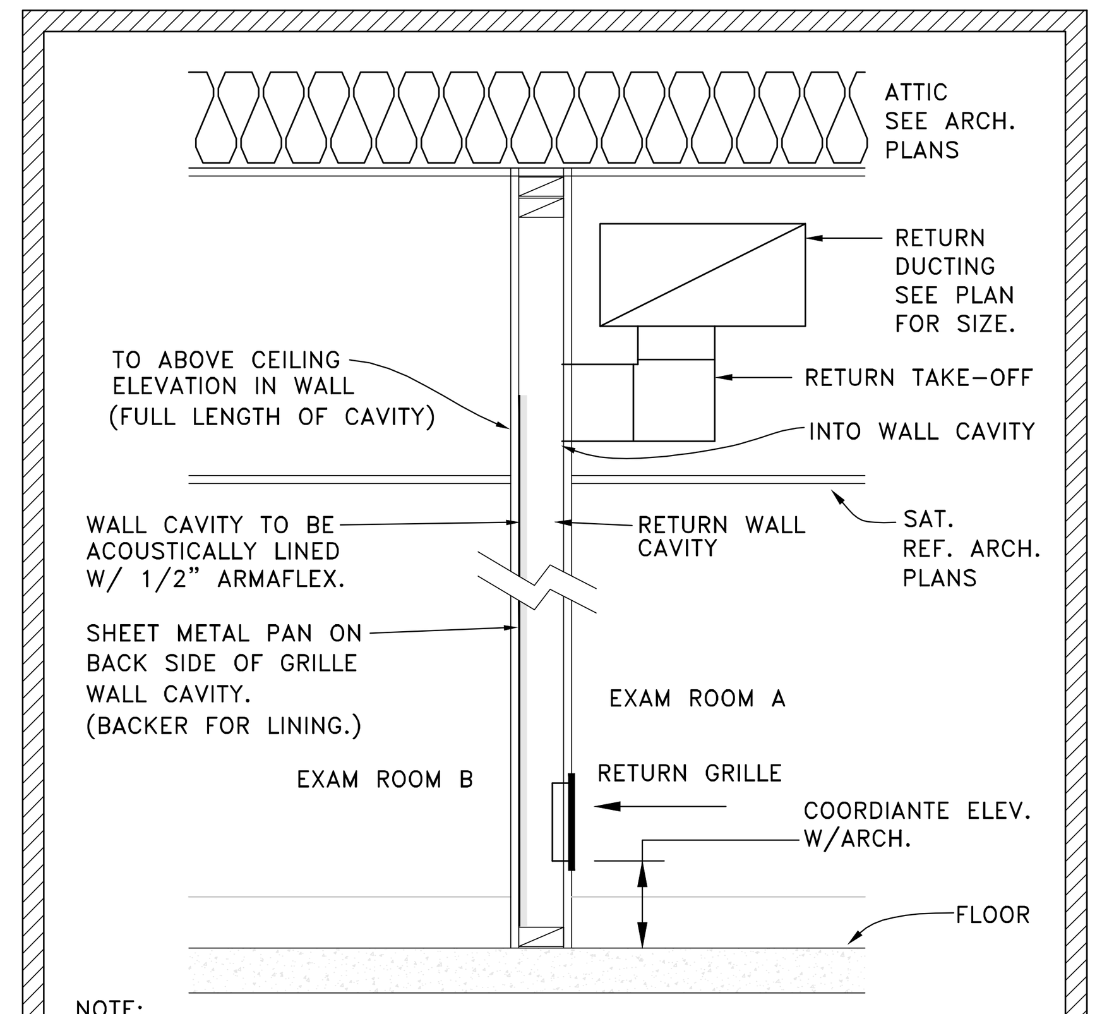
NOTE: THIS SETUP IS FOR A NEGITIVE PRESSURE AT THE DRAIN PAN. IF A POSITIVE PRESSURE IS AT THE DRAIN PAN. THEN THE ELEVATION CHANGE FOR THE "AFTER THE TRAP" PIPING NEEDS TO HIGHER THEN THE UNIT DISCHARGE. THIS ELEVATION IS TO BE "P" BUT, IS NOT TO BE GREATER THEN THE TOP OF THE INTERAL PAN ELEVATION.

TYP. CONDENSATE DRAIN CONNECTIONS
NOT TO SCALE



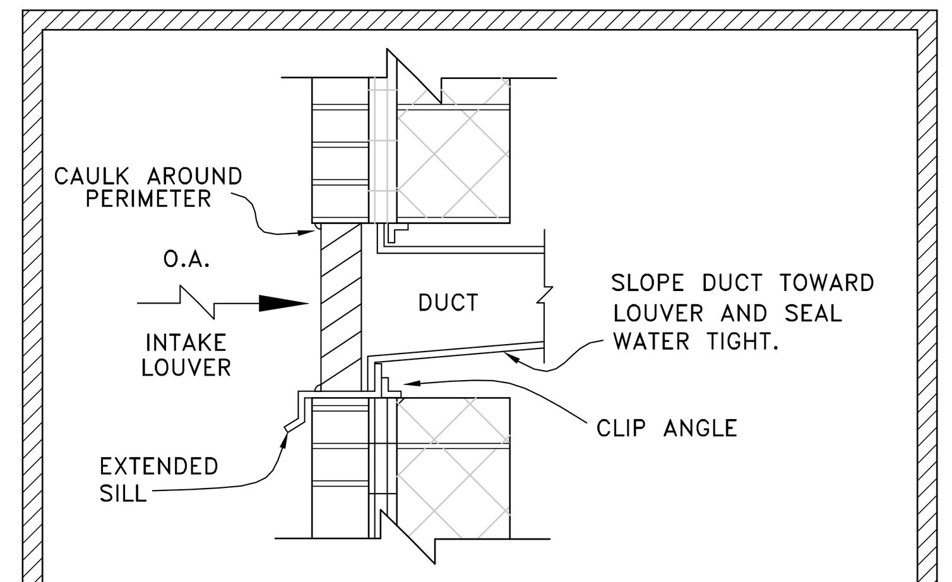
NOTE:
REFERENCE UNIT MANUF. FOR PROPER ITEMS FOR INSTALLATION.

HEAT PUMP / COND. UNIT AND COIL PIPING SCHEMATIC
NOT TO SCALE



NOTE:
COORDINATE WITH CONSTRUCTION TRADES.
IF NEEDED INSTALL IN 2 CAVITIES TO MATCH GRILLE WIDTH.
REFERNCE ARCH PLANS FOR WALL CONSTRUCTION.

WALL CAVITY RETURN DETAIL
NOT TO SCALE



TYPICAL INTAKE AIR WALL LOUVER DETAIL
NOT TO SCALE

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DESIGN • BUILD • COMMERCIAL CONSTRUCTION

SHEET TITLE
MECHANICAL SCHEDULES AND DETAILS

PROJECT
ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

ISSUED	
SET	DATE
PERMIT	12/22/22

ENGINEER AE
DESIGNER AE
JOB NUMBER 2210.06
SHEET NO.
M2

SECTION 15.000
MECHANICAL GENERAL PROVISIONS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. The Division includes all labor, materials, equipment, tools, supervision, start-up services, Owner's Instructions, including all incidental and related items necessary to complete installation and successfully test and start up and operate in a practical and efficient manner the Mechanical Systems indicated on Drawings and described in each Section of Division 15 Specifications and conforming with all Contract Documents.

B. Bidding: the Contractor shall bid the project in strict accordance with the plans and Specifications. Alternative methods or materials, beyond those indicated as "Base Bid", proposed by the Contractor shall be in the form of a voluntary alternate, with all details indicated, and a separate add or deduct price for these changes submitted with the Contractor's bid. (Reference General Requirements - Product Substitutions)

C. Mechanical systems complete and in place, shall include the following:

SECTION 15.000 MECHANICAL GENERAL PROVISIONS
SECTION 15.050 BASIC MECHANICAL MATERIALS AND METHODS
SECTION 15.060 PIPE HANGERS AND SUPPORTS
SECTION 15.180 THERMAL INSULATION
SECTION 15.410 PLUMBING PIPING
SECTION 15.440 PLUMBING FIXTURES
SECTION 15.850 DUCTWORK
SECTION 15.855 DUCTWORK CAP OPERATION
SECTION 15.990 TESTING, ADJUSTING AND BALANCING

D. The General Provisions of the Contract, including General and Supplementary Conditions and other General requirements Sections, apply to the Work specified in this Section.

E. This Section is not intended to supersede, but to clarify the definitions in Division 1, General Requirements and Supplementary Conditions.

F. Drawings and Specifications:

1. Drawings and Specifications are intended to complement each other, and all work specified and not shown or work shown and not specified shall be provided as though mentioned in both specifications and drawings.
2. Minor items and accessories or devices reasonably inferable as necessary to complete the proper operation of any system shall be provided by the Contractor or Subcontractor for such system, whether or not they are specifically called for by the specifications or drawings.
3. Drawings are diagrammatic and indicate general arrangement of systems and work included in the Contract, and shall serve only as design drawings, to represent design intent for general layout of various equipment and systems. Do not scale drawings for exact locations of equipment and piping. Coordinate with other trades as required into drawings.

G. Coordination: Coordinate installation shall, without extra charge, make reasonable modifications in the layout as needed to prevent conflict with work of other trades or for proper execution of the work. (Refer to General Requirements for coordination Meetings).

1.03 RELATED WORK

A. Section 16000 - Electrical General Provisions
B. All building construction documents.

1.04 COORDINATION OF WORK

A. Responsibility:

1. The Mechanical Contractor shall be responsible for his Sub-Contractors and Suppliers, and include in his bid all materials, labor, and equipment involved, and install in accordance with all local customs, codes, rules, regulations, jurisdictional awards, and decisions, and secure completeness of all parts of the Specifications and Drawings regardless of technical inclusion in these Specifications.
2. The Mechanical Contractor and Sub-Contractor shall be responsible for all tasks applicable to their trades as described in the Contract Documents. In accordance with the Specifications, Drawings, and code requirements, and shall be responsible for coordinating locations and arrangements of their work to give best results with all other relevant Mechanical Work, Architectural, Structural and Electrical Contractors' Specifications, Drawings and shop drawings. Coordinate work so that sprinkler heads, lights, diffusers, etc. are coordinated into Project and are installed per the architectural reflected ceiling plan.

B. Site and Project Equipment Restrictions:

1. Submission of a proposal is considered evidence that the Contractor has visited the site and acquainted themselves with all existing conditions, made all necessary measurements, examined the Drawings and Specifications of all trades, and informed himself fully as to the character of the work required. No allowance will be made subsequently in this regard to correct any misunderstanding of conditions, and is profitless, experienced and knowledgeable of all standards, codes, ordinances, permits and regulations which affect the installation of his respective trade, and that all costs are included in his proposal.
2. No allowance shall subsequently be made in his behalf for extra expense incurred due to failure or neglect on his part to make this visit and examination.
3. It is the responsibility of the Contractor to notify the Engineer, prior to submitting his bid, of any potential problems that he has identified during his site visit or from examination of the Contract documents.

C. General Supports:

1. Provide all necessary angle and channel brackets or supplementary steel as required for adequate support for all piping, sprinkling, and equipment which is hung or mounted above floor. No trade shall hang equipment from work of another trade (such as sprinkler lines hanging from heating lines or electrical conduit). Secure approval from Architect, in writing, before welding or drilling to steel members.

2. Mount piping or equipment is suspended from concrete construction, set approved concrete inserts in formwork to receive hanger rods, such as conical or flowerpost, and where installed in metal deck, set flanker or welds to steel beams.

D. Access Panels:

1. No valve, trap, control, fire damper, duct access opening, etc., shall be installed in inaccessible locations without access panels. Any subcontractor having items requiring access shall also include access panels for same unless Drawings indicate otherwise. Contractor will be responsible for quantities of panels and receive approval for locations of panels from Architect/Engineer before installation.
2. Any wall, ceiling, or floor access panels required shall be equal to Milcor with hinged door and latch. Those in walls or floor shall be type to accept finished surface material. Those in ceiling shall be exposed metal.
3. Removable ceilings or ceilings are accessible or access panels. Panels in rated construction shall have U.L. label and proper rating and construction to match partition, ceiling, or roof assemblies in which they occur.
4. Purchase and provide, coordinate location, have General Contractor install access panel, and reimburse for installation. This trade is to coordinate the access panel manufacturer with the architectural access panels.

E. Field Changes:

1. This Contractor shall not make any field changes which affect timing, code, or performance without written approval from the Architect/Engineer in the form of a Change Order, Field Change Order, or a Supplemental Instruction. In special circumstances, verbal approvals pending paperwork may be acceptable. The Contractor assumes liability for all additional costs for changes made without such instruction or approval. Should any discrepancy appear between the Drawings and Specifications or between the rules of the project, a credit will be determined and issued as a change to the contract in accordance with the General Requirements.

1.05 CLEANING, CODE AND PERMITS

A. Refer to General Requirements and Supplementary Conditions.

B. All work installed under Mechanical Sections shall comply with latest edition of applicable standards and codes of following:

ADAAG	Americans with Disability Act Guidelines for Buildings and Facilities
ASA	American Standards Association
ASHRAE	American Society of Heating Engineers
ASHRAE 90A	Energy Conservation in New Building Design
ASHRAE 62	Ventilation for Acceptable Indoor Air Quality
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASSE	American National Standards Institute
ACA	American Gas Association
AWWA	American Water Works Association
NFPA	National Fire Protection Association
IBR	Institute of Boiler and Radiator Manufacturers
MSS	Manufacturers Standardization
UL	Underwriter's Laboratories
SMACNA	Sheet Metal Contractors Association
NESC	National Electric Safety Code 29:23
NEMA	National Electrical Manufacturers
OSHA	Occupational Safety and Health Act
ARMS	American Boiler Manufacturers Association
CSA	Canadian Standards Association, Related to State of Michigan
CGA	Compressed Air and Gas Institute

C. All work shall be provided and tested in accordance with all applicable local, county, and state laws, ordinances, codes, rules, and regulations.

D. Contractor shall give all notices, file all drawings, obtain required approvals, certificates, pay all fees, deposits, or other requirements required for installation of all work under this Contract.

E. No work shall be covered or enclosed until work is tested in accordance with applicable codes and regulations, and successful tests witnessed and approved by authorized inspection authority. Written approvals shall be secured by Contractor and kept on file for inspection by the Engineer.

F. In general, all material, where applicable, shall be labeled or listed by Underwriters' Laboratories, Inc.

G. In the event that plans and specifications conflict with any rules, regulations, or codes applying, said rules, regulations, and codes shall govern the Contractor.

1.06 INSPECTION

A. Shop Drawings

1. After a schedule of Sub-Contractors is approved by the Engineer, submit PDF files of shop drawings with one device or fixture of each type clearly identified (high-lighted, bolded, underlined, etc.) in each set on equipment and materials indicated on drawings or in the specifications.
2. Submit complete manufacturer's shop drawings of all equipment, plumbing fixtures, accessories, and controls, including dimensions, weights, capacities, construction details, installation, control methods, wiring diagrams, motor data.
3. Engineer's approval of shop drawings is for general application only, and is a service that is not considered as a guarantee of total compliance with, or that relieves the Contractor of basic responsibilities under all Contract Documents, and does not approve changes in time or cost.
4. After approval, each Contractor is responsible for expeditious providing information to all other trades involved in, or affected by, installation of his equipment and work.

B. Operating and Maintenance Instructions and Manuals:

1. Each Contractor shall provide for all major items of equipment two (2) copies, in 3-ring notebooks, of indexed sets of operating and maintenance instructions to Engineer for approval. After approval, manuals will be given to Owner's Representative.
2. Manuals shall include a complete set of shop drawings submitted, repair parts lists, manufacturer's standard equipment manuals, valve tag schedule, and automatic control diagrams, all indexed with tabs for each section.
   a. Operating Instructions:
   b. Detailed instructions regarding the starting and operating of all equipment and accessories. Operating instructions shall be enclosed in plastic and mounted in mechanical room. Provide additional copies of these instructions in 3-ring notebooks. Operating instructions within manuals shall be typed and shall include sequence of operation, by each system, and detailed description of hazards, points, etc.). Also, include steps of trouble-shooting and describe areas reserved for engineering adjustments.
   c. Maintenance Instructions:
   d. Provide complete schedule of maintenance and subcontractors, including control person and day/night telephone numbers. Upon completion of work, provide for persons not less than four (4) hours, competent person to instruct Owner in operation and maintenance of mechanical systems, equipment, controls, etc.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. Standards:

1. Where products shall be provided by established manufacturers regularly engaged in making the type of materials to be provided and shall be complete with all parts, accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

B. Substitution and Changes:

1. Contractor and/or Equipment Supplier may propose alternate equipment or materials of equal quality, function, durability, and appearance as described and permitted in Specification Section 15000, 1.01.B. The substitution will be allowed only if approved by the Engineer. It will be the substitutor's responsibility to provide sufficient information for the Engineer to evaluate the request. Acceptance and approval is the responsibility of the Engineer.
2. No substitutions will be accepted, except as authorized in a Project Addendum.
3. Contractor and/or Equipment Supplier is liable for any added costs to himself or others, and is responsible for verifying dimensions, clearances, and roughing-in requirements, when product not specifically named or described as the basis of design is used. The Contractor is responsible for any other installation changes required by the substitution. This trade is to coordinate the access panel manufacturer with the architectural access panels.

C. Explanation of Scheduled Manufacturers:

1. **Base Bid** - this term designates that this equipment will be the product which the contractor generates his bid from. It is usually a component that is critical to maintaining the design intent. No other equipment suppliers will be allowed to bid as an equal.
2. **Equal** - this term designates that the equipment is designed around a certain product. Products of equal status are listed and may be bid as if they were the basis of design. The **basis of design** equipment shall serve as the standard to which equals will be judged.

2.02 ELECTRICAL REQUIREMENTS

A. Motor Starters and Controls:

1. Mechanical Contractor shall provide all manual or magnetic motor starters as required for motors as indicated in the Electrical Drawings and specified in Division 16.
2. Mechanical Contractor shall provide factory installed motor starters and/or safety switches, integral with packaged equipment, containing thermal over current protection in ungrounded conductors with heater coils selected for motor characteristics.
3. Package equipment shall be defined as Mechanical, Architectural, Civil, or other trade's equipment, and which is specified to be furnished and installed complete with all associated electrical components by those trades.

   Other Trades providing package equipment shall also provide both integral and remotely located devices if necessary for a complete system, ready for operation except for a single incoming power source. These devices may include, but not be limited to, disconnect switches, heaters, relays, thermostats, transformers, interlocking devices, starters, motors, low limit and linkage thermostats, control valves and other necessary components.

Each item as provided under this division of the specifications outside the definition of package equipment shall be as noted on the drawings accompanying these specifications, or as specially noted after the package equipment list every tenderer.

B. Electrical Wiring and Controls:

1. Mechanical Contractor shall connect all motors, drives, and controllers integral to packaged equipment and factory mounted controls for all mechanical equipment. When pre-wired equipment is used, control circuit shall be separately fused at control transformer, and shall always revert to a fail-safe condition.
2. Mechanical Contractor shall provide electrical devices requiring mechanical/electrical connections, such as pressure switches, float switches, solenoid valves, motor operated valves, etc.
3. Mechanical Contractor shall install power wiring and conduit to motors and/or factory mounted control panels as indicated on Drawings or in specifications.
4. All electrical wiring work by Mechanical Contractor to be in accordance with Division 16 requirements.

PART 3 - EXECUTION

3.01 CONNECTIONS AND SERVICES

A. Connections to Existing Lines Within Building:

1. Where existing lines are indicated on Drawings, connection shall be on an "as found" basis. Include all necessary costs to make proper connection.
2. Locate, identify, maintain, and protect existing mechanical services passing through demolition area and serving other areas outside the demolition limits. Maintain services to areas outside demolition limits. When services found are inaccurate, install temporary services for affected areas.

B. Connecting Into Existing Facility and Street Lines:

1. Connection into existing service and street lines shall be on an "as found" basis. All service interruption shall be coordinated with Owner and public utility. No interruption of utilities shall be made without prior arrangement with Owner.
2. Locate existing underground utilities in excavation areas. If utilities are indicated to remain, support and protect services during excavation operations.

C. Coordinating of Services:

Continuity of all existing utility services in building shall be maintained throughout construction period. Where necessary, provide temporary services as required by Owner.

3.02 CLEANING

A. Final Acceptance:

Final acceptance and payment will only be made after the final check list completion and receipt at Engineer's office of:

1. Guarantees/Warranties
2. Test Reports
3. Operating and Maintenance Instruction Manuals (3)
4. Record Documents (3)
5. Certificates of Inspection
6. Final Clean-up Certification
7. Maintenance Contracts, if required
8. Start-up Reports
9. Test and Balance Reports - Air and Hydronic
10. Boiler Start-up Report

B. Certificates of Inspection and Test Reports:

The Contractor is to provide the Engineer with evidence that the installation has been inspected and approved by municipal or state inspector having jurisdiction over that phase of work involved, i.e., plumbing, heating, boiler, fire protection, and refrigeration.

C. Guarantees and Warranties:

1. During the one-year guarantee period (except if General Requirements specify a longer warranty period), make two complete inspections (at approximately 3 months and 10 months) of all systems, fixtures, equipment, safety devices, and controls to ensure that the equipment is operating properly, and report to the Engineer in writing. The visits are to be coordinated with the owner.

D. Record Drawings:

1. Maintain a white print set of Mechanical Contract Drawings in clean, unstamped condition for mark-up of actual installation on Contract Drawings, which very substantially (i.e. location of piping, ductwork, door changes, etc.) from the work as shown.

E. Operating and Maintenance Instructions:

1. Provide instruction of Owner's personnel or operation and maintenance procedures for all systems equipment such as boilers, HVAC equipment, temperature controls, etc.
2. Provide the Owner with instructions on the location of hand valves, and other concealed items, etc.

F. Placing Systems into Operation:

1. Mechanical Contractor shall be responsible for all check-up procedures, system checks and balancing, and coordinating work of other Contractors and Sub-Contractors to assure cooperation.
2. All equipment shall be installed in accordance with the manufacturer's recommended instructions.
3. Permanent equipment may be operated during construction only with adequate protection from damage and dirt by filtering of air using minimum 30% efficient filters or straining of fluids, and replacing as often as necessary to keep mechanical system equipment clean and free of deleterious materials.
4. Place all systems into operation, when weather or other considerations require their use. Perform repair, adjustment and balancing operations as often as required to assure satisfactory operation before final acceptance.
5. Check, test and adjust pressure reducing and safety valves, water controls and devices, and other controls and devices as often as required.
6. Tests:
   a. Make necessary tests to provide leak proof and code-tested system under operation. Make tests before work is concealed or covered and perform all necessary repairs as required or as otherwise indicated by test results.
   b. See subsequent trade sections for additional requirements.
   c. Soil, waste, and vent piping shall be closed and tested with water at head equal to highest fixture.
   d. Domestic hot and cold water piping shall be tested to 100 PSI. Gas piping shall be tested at 125 PSI with soap bubbles.

G. Adjustments and Balancing:

1. Subsequent to the installation of the piping, and air distribution systems and upon the beginning of operation, the Contractor shall make all necessary adjustments to equipment, control dampers, fans, and any other equipment installed by him under this Contract so as to ensure proper operation of the same. The Contractor shall be responsible for balancing the air system to deliver the air quantities shown on the Plans. The total volume of air delivered by the air conditioning equipment shall be measured and adjusted to the quantities shown on the Plans. Balancing shall be done by a certified balancing agent. Refer to Section 15990 for more information.
2. Balancing shall be done in accordance with the latest procedures published by the National Environmental Balancing Bureau. The Contractor shall have on employment a duly certified balancing engineer who shall supervise the balancing of all systems. The said engineer shall be employed continuously until all air and water systems are adjusted to proper balance and temperature conditions. The Contractor shall have on employees a duly certified balancing engineer who shall supervise the balancing of all systems. The said engineer shall be employed continuously until all air and water systems are adjusted to proper balance and temperature conditions. **Balancing must be completed and report submitted before Engineer completes final check list.**

3.03 GUARANTEES AND WARRANTIES

A. All labor, materials and equipment shall be guaranteed by Contractor and/or warranted by the Manufacturer for one year after acceptance date and/or one normal continuous complete season's operation applicable to equipment or system except where specified longer for special equipment. Contractor shall assume such warranty from all Suppliers of the Contractor and assume the warranty for such work as a guarantee fully to the owner.

B. Acceptance date of substantial completion shall be Owner acceptance as determined by Architect/Engineer.

C. Contractor shall make all necessary alterations, repairs, adjustments, and replacements during guarantee periods as directed by Architect/Engineer to comply with Drawings and Specifications at no cost to Owner. The Contractor shall repeat an effort as necessary to give satisfactory system in opinion of Engineer.

D. Repair or replacements made under guarantee shall bear further one year guarantee from date of acceptance of repair or replacement.

3.04 COMMISSIONING SERVICES

A. All services and requirements of the commissioning agent (CA) shall be completed in a timely manner.

B. All reports, training, and TAB services shall be completed as required in construction documents.

END OF SECTION

SECTION 15.050
BASIC MECHANICAL MATERIALS AND METHODS

PART 1 - GENERAL

This Specification is intended to describe general mechanical systems' methods and materials.

1.01 RELATED WORK

A. Section 15000 - Mechanical General Provisions
B. Section 15000 - Electrical General Provisions

1.02 WORKMANSHIP

A. Install work in accordance with best practice of trade.

1. Install new piping and ductwork straight and true with no unnecessary offsets and parallel with walls, beams, floors, or ceilings.
2. Install new piping so as to be completely drainable. Provide drain cocks and capped hose adapters at all low points in piping system.
3. Provide for expansion and contraction of piping at bends or risers. Install piping so as to be free from pockets due to sagging.
4. Where no elevation is indicated, piping and ducts suspended above and/or below ceiling shall be home as high as possible.
5. No piping shall be installed in a manner which will interfere with necessary passage or head room, with operation of any doors or windows, with ductwork, lay-in ceiling panels, lighting outlets or fixtures, or Owner's equipment.
6. No piping over electrical equipment, elevator machine rooms, electrical rooms, and telephone rooms without prior approval from Architect/Engineer.

1.03 PIPES AND PIPE FITTINGS

A. General:

1. Coordinate with work of other trades. Piping shall not be supported from ductwork or piping of other trades.
2. Support piping from structure using approved hangers; pipe straps shall not be permitted.
3. Allow for adequate expansion and contraction while maintaining alignment. Provide expansion joints or loops as required.
4. Use reducing fittings when changing pipe sizes. Bushings and "Orange Peeling" shall not be permitted.
5. Terminate piping in fixtures and in equipment furnished by others including stop valves.
6. Install strainers on the supply side of each control valve, pressure reducing or regulating valve, solenoid valve, and elsewhere as indicated.
7. Install unions adjacent to each valve, and at the final connection to each piece of equipment and plumbing fixture having 2" and smaller connections, and elsewhere as indicated.
8. Dielectric unions: Provide dielectric unions with appropriate end connections for the pipe materials in which installed (screwed, soldered, or flanged) which effectively assate dissimilar metals, to prevent galvanic action, and stop corrosion.
9. Install flanges in piping 2-1/2" and larger, adjacent to each valve, of the type suitable for the class of piping used in each piece of equipment, and elsewhere as indicated.
10. Install sectionalizing valves at main branch lines where branch connects into mains.
11. Fill all valves in piping with permanently labeled tags and caps during construction.
12. Threading couplings shall be installed at all piping connections to other metals and in gas piping at water meters.
13. If leak occurs, pipe or fitting shall be replaced with new length or fitting. Risers out all pipe ends. Clean out debris and excess of before installing. Use approved lubricant for all threaded joints. Do not stop leaks by adding caulking to joints.
14. Conceal all pipe installations in walls, pipe chases, utility spaces, above ceilings, below finish grade of floors, unless indicated otherwise.
15. Locate group of pipes parallel to each other, spaced to permit applying full insulation and servicing of valves.
16. Fire Barrier Penetrations: Where pipes pass through fire rated walls, partitions, ceilings, or floors, the fire rated integrity shall be maintained. Refer to Architectural Drawings or Plans indicating walls, floors, or ceilings requiring ratings and fire assembly type.
17. Drip Pans: Provide drip pans fabricated from corrosion-resistant sheet metal with watertight joints, and with edges turned up 2-1/2" with reinforced top. Provide hole, gasket, and flange at low point for watertight joint on 1" drain line connection.
18. Drip Pan Installation: Locate drip pans under piping, passing over or within 3" horizontally of electrical equipment, under roof relief vents, and elsewhere as indicated. Hang from structure with rods and building attachments, attach rods to sides of drip pans. Brace to prevent sagging or wowing. Connect 1" drain line to drain connection, and run to nearest plumbing drain or elsewhere as indicated.

B. Sleeves and Escutcheons:

1. Piping passing through concrete and masonry walls and floors shall be sleeved; wall sleeves shall be cut back 1/8" from face of wall.
2. Sleeves shall be fabricated from sections of steel pipe, 1/2" thick for pipes through walls.
3. Sleeves passing through floors shall extend 3/8" above floor. Void between sleeve and pipe shall be caulked water tight. Use fire-rated sealants at rated floors and walls.
4. Sleeves shall be permanently membrane.
5. Where pipes pass through exterior walls, wall pipe penetrations through exterior walls using sleeves and mechanical sleeve seals. Pipe sleeves smaller than 6" shall be steel; pipe sleeves 6" and larger shall be sheet metal. Pipe to be sealed with 100% Silicone caulking to exterior.
6. Wherever pipes are exposed and pass through walls, floors, partitions, or ceilings, they shall be fitted with chromium plated escutcheons, plate 1/4" larger than the pipe diameter, to cover the opening. Escutcheons shall be large enough to fit over insulation on insulated pipes.
7. Plumbing vent stacks passing through roofs shall have a vent collar/seal installed.

C. Pipe Joining:

1. **Steel Pipe Joining:**
   a. Pipe 2" and Smaller: Thread pipe with tapered pipe threads in accordance with ANSI B2.1. Apply pipe joint lubricant or sealant suitable for the service for which the pipe is to be used.
   b. Pipe Larger than 2": Weld pipe joints for steel pipe except where flanged or grooved is required.
2. **Brazed and Solder Joints:** For copper tube and fitting, brazes joints in accordance with ANSI B31.5 and ASME B31.1.0 - Standard Code for Pressure Piping.
   a. Pressure Piping, Power Piping: ANSI B31.1 Code for Mechanical Refrigerators.
   b. Solder: Type of solder shall conform to following schedule:
      Hot and cold water and recirculating lines - lead free solder.
      Heating piping - lead free solder.
      Refrigerant suction lines - silver brazing.
      Condensate drain piping - lead free solder.
      Refrigerant liquid lines - silver brazing.
      Refrigerant hot gas lines - silver brazing.
      Refrigerant solder lines - silver brazing.
      Refrigerant connections to equipment - lead free solder.

3. **Welding:**
   a. Qualifications: Welders shall be qualified according to provisions of ASME Standard Qualifications for Welding Procedures, Welders and Welding Operators, or ASME Boiler and Pressure Vessel Code for class of piping being welded. Submit welding qualifications for all welders on project when requested by Engineer.
   b. Welding Procedure: Preparation of base metals and welding procedures shall conform to ASME American Standard Code for Pressure Piping.
   c. Filler Material: Conform to ASTM specifications for base metal being welded.
   d. Fabricated Fittings: Mitered or segmental elbows, wyes, laterals, and similar pipe fittings, or similar construction will not be permitted.
   e. Branch Connections: Welding of branch connections directly to run will be permitted in lieu of tees, laterals, or crosses when branch sizes are less than 1/2 of main size unless detailed otherwise. Branches shall be prepared with proper bevel to receive flush joint. Grind slag from inside of pipe after welding.

D. Valves and Equipment:

1. Install valves with stems upright or horizontal, not inverted.
2. Install valves in accessible locations to conserve space and for convenience of operation.
3. Install brass hose adapters each side of valves in copper piped system. Sweat solder adapters to pipe.
4. Install cast strainers at all steam/wall drain/condensate (both sides). Wall strainers to be placed to forward "Knows Tee" Model "MS".
5. 2-1/2" to 3" pipe or 10" strainers with 1/2" rod.
6. 4" to 14" centers with 5/8" rod.
7. 6" to 8" pipe or maximum of 12" centers with 3/4" rod. (Use maximum 10" centers on phased plank.)
8. 8" pipe - 19" open with 7/8" rod.

E. Attachment to Structure:

1. Steel Beam Attachment: Install AST weldable iron "C" clamp (2" pipe and smaller) with bolt-nut and retainings clips. Grinnell #199 and #292 (2-1/2" pipe and larger) attach to upper or lower webs of joists as conditions require and as approved by Engineer. Where loads require, use two "C" clamps, and tack clips, and lock clamp hangers so that pipe is symmetrically loaded. Line sizes 1-1/2" and smaller may be hung with only one hanger.
2. Steel Beam Attachment: Grinnell #367 malleable iron "C" clamp (2" pipe and smaller) with bolt-nut and retainings clips. Grinnell #199 and #292 (2-1/2" pipe and larger) attach to upper or lower webs of joists as conditions require with one hanger.
3. Wood Beams and Purlins (for piping under 4" dia): Grinnell #141 1/2" diameter lag screws with bolt thread head of black steel. Length shall penetrate not less than two-thirds of member depth. Use welded eye rods such as Grinnell #287 black steel of bolt diameter shown. Use 5/8" diameter lag screws for piping 2-1/2" and smaller.
4. Metal Trusses: Suspend piping from the building structure using one of the following methods:
   a. Clamp to bottom chord of truss. Do not use for piping 4" and over. Do not use for pipe 2" or over that pressure.
   b. Observe each bolt section for leakage at end of field period. Test fails if leakage is observed or if pressure drop exceeds 5% of test pressure.
   c. Record date of each test and results in a log which shall be turned over to Architect/Engineer at completion of Project.
5. Repair piping systems which fail test pressure tests by replacing joints, valves, or fittings, or fixtures found to be defective. Do not use chemicals, stop-leak compounds, mastics, or other temporary repair methods.

F. Distribution of Domestic Water Piping System:

1. Prior to starting work, verify system is complete, flushed, and clean.
2. Ensure pH of water to be treated is between 7.4 and 7.6 by adding shot (caustic soda or soda ash) or acid (hydrochloric).
3. Install test gauges at pump discharge, with pressure range such that normal operating pressure is between 50 to 80 sq. inch gauge.
4. Bleed water from system to ensure that no air remains in system.
5. Maintain distribution in system for 24 hours.
6. If final disinfectant residual tests less than 25 mg/L, repeat treatment.
7. Flush disinfectant from system until residual equal to that of incoming water or 1.0 mg/L.
8. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWA C601.

3.04 FIELD QUALITY CONTROL - DUCTWORK

A. Examination:

1. Provide balancing dampers at points on supply, return, and exhaust systems where branches are taken from larger ducts as required for air balancing. Use splitter dampers only where indicated.
2. Provide fire dampers or combination fire and smoke dampers at locations where ducts and outlets pass through fire rated components. Install with required perimeter mounting angles, sleeves, breakaway duct connections, corrosion-resistant springs, bearings, bushings, and hinges.
3. Demonstrate re-setting of fire dampers to indicate full operation of system.
4. Provide backdraft dampers on exhaust fans or exhaust ducts named to outside and where indicated.
5. Provide flexible connections immediately adjacent to equipment in ducts associated with fans and motorized equipment.
6. Provide support for all diffusers/grilles in any ceiling with a non-exposed t-bar ceiling support system. Support to support diffuser/grille and associated ductwork without adding weight to ceiling tile.

B. Duct Sealing:

1. Test systems, including all seams, joints, fasteners and connections, shall be effectively sealed in accordance with SMACNA Duct Class B requirements, and leak tested with total allowable leakage from high and medium pressure (4" W.C. or greater) duct rich to exceed one (1) percent of the total system design airflow rate. Joint sealants shall have fire and smoke hazard rating as tested by ASTM E-2336. Exterior mastic sealant shall be certified to pass 500 hours UV/H2O. Sealants shall also comply with ASTM Hazardous Material Identification Control (CID) and GS350.
2. Manufacturer, upon request shall be able to properly document recorded of expense and success in the specialized formulation of duct sealants, elastomeric types, and adhesives.
3. All duct work shall be suitably cleaned and prepared, and sealed applied in strict accordance with manufacturer's recommendations for cure time shall be followed before pressure testing is begun. Any additional paint or finishes shall be applied after testing is satisfactorily completed.
4. Sealant Manufacturer: **AMF Reflectal Duraflex, United Duct Sealer (Water based Uni-Mastic 181)**

3.05 SELECTIVE DEMOLITION

A. Remodel, remove, demount, and disconnect abandoned mechanical materials and equipment indicated to be removed and not indicated to be salvaged or saved. Where noted or indicated to be removed, then disconnected, capped, and removed from Owner's property and properly disposed of by the Contractor.

B. Mechanical Equipment to be Salvaged: Removing, disconnecting, and delivering existing mechanical equipment indicated to be removed and salvaged, and deliver materials and equipment to the location designated by Owner.

1. Where noted or indicated to be removed and reused, that portion of the existing mechanical systems are to be disconnected, taken down, stored in a clean, dry location by the Contractor until such time as the Contractor shall reinstall those portions of the reused mechanical system which can be cleaned, tested, and put back in service. Damaged, dirty, and/or stained items remodeling. If existing surfaces are painted, such surfaces shall be touch-up painted or repainted after remodeling.

C. Gas Conditions:

1. Where drawings indicate certain existing mechanical systems or other materials are to be removed or removed, Contractor shall not consider these notations as allowing all items in the area. The notations are general in nature and are to establish the intent and nature of work and apply to all mechanical items in the area.
2. Certain mechanical materials that must be removed are concealed in walls or ceilings are not shown but shall be removed when walls are removed at no cost to the Owner.
3. If the existing occupied facility is to stay in operation throughout the entire remodeling period, the mechanical systems for the occupied facility shall be completely operable and shall function continuously while remodeling work is in progress.

D. Mechanical Materials and Equipment: Remove, demount, and disconnect the following items:

1. Interior and exterior equipment, piping, fittings and specialties, equipment, ductwork, controls, fixtures, and insulation.
2. Piping and ducts installed in floors, walls, and ceilings may remain if such materials do not interfere with new installations. Remove materials above accessible ceilings. Drain and cap piping and ducts allowed to remain.
3. Installation and Removal: Where materials are to be removed and existing piping or ductwork is uncovered which must be kept in service for a section of the building other than the remodeling area, it shall be this Contractor's responsibility to reroute and provide permanent piping to replace that which is removed. Unused piping and ductwork shall be removed to 3" below disturbed surfaces and capped.

END OF SECTION

SECTION 15.140
SUPPORTS AND ANCHORS

PART 1 GENERAL

1.01 WORK INCLUDED

A. Pipe, duct, and equipment hangers, supports, and associated anchors.

B. Sleeves and seals.

C. Flashing and sealing equipment and pipe stacks.

1.02 RELATED WORK

A. Section 15153 - Expansion Compensation

B. Section 15240 - Thermal Insulation

1.03 REFERENCES

A. Conformance with ANSI/ASME B31.1 , Power Piping.

B. Conformance with NFPA 13 , Standard for the Installation of Sprinkler Systems.

C. Conformance with Manufacturer's Standardization Society MSS SP-90.

1.04 SUBMITTALS

A. Submit product data under provisions of Section 15000.

B. Indicate hanger and support framing and attachment methods.

PART 2 - PRODUCTS

2.01 PIPE HANGERS AND SUPPORTS

A. Hangers for Pipe Sizes 1/2 to 2 Inch: Malleable iron carbon steel, adjustable swivel, split ring.

B. Hangers for Pipe Sizes 2-1/2 to 4 Inches and Hot Pipes Sizes 2 Inches and Over: Carbon steel, adjustable, clevis.

C. Hangers for Hot Pipe Sizes 6 Inches and Over: Adjustable steel yoke, cast iron roll, pipe covering protection saddle.

D. Multiple or Trapeze Hangers: Steel channels with welded spacers and hanger rods; cast iron roll and stand for hot pipe sizes 6 inches and over.

E. Wall Support for Pipe Sizes 3 Inches and Over: Welded steel bracket and wrought steel clamp; adjustable steel yoke and cast iron roll for hot pipe sizes 6 inches and over.

F. Vertical Support: Steel riser clamp.

G. Floor Support for Pipe Sizes 4 Inches and Cold Pipe Sizes: Cast iron adjustable pipe saddle, locknut nipple, floor flange, and concrete pier or steel support.

I. Floor Support for Hot Pipe Sizes 6 Inches and Over: Adjustable cast iron roll and steel stand, screws, and bolts.

J. Copper Pipe Support: Carbon steel ring, adjustable, copper plated.

K. Shield for Insulated Piping 2 Inches and Smaller: 18 gauge galvanized steel shield over insulation in 180 degree segments, minimum 12 inches long at pipe support.

L. Shield for Insulated Piping 2-1/2 Inches and Larger (Except Cold Water Piping): Pipe covering protective saddles.

M. Shields for Insulated Cold Water Piping 2-1/2 Inches and Larger: Hard block non-conducting saddles in 90 segments, 12 " minimum length, block thickness same as insulation thickness.

2.02 HANGER RODS

A. Steel Hanger Rods: Threaded both ends, threaded one end, or continuous threaded.

2.03 INSERTS

A. Inserts: Malleable iron case of galvanized steel shell and expander plug for threaded connection with lateral adjustment, top slot for reinforcing rods, lugs for attaching to forms; size inserts to suit threaded hanger rods.

2.04 FLASHING

A. Metal Flashing: 26 gauge galvanized steel.

B. Flexible Flashing: 47 mil thick sheet compatible with roofing.

C. Caps: Sheet, 22 gauge minimum; lift gauge at fire resistant elements.

2.05 SLEEVES

A. Sleeves for Pipes Through Non-Fire Rated Beams, Walls, Footings, and Floors: Form with steel pipe or 16 gauge galvanized steel.

B. Sleeves for Pipes Through Fire Rated and Fire Resistive Floors and Walls, and Fireproofing: Prefabricated fire rated sleeves including seals, UL listed.

C. Sleeves for Ductwork: Form with galvanized steel.

D. Sleeves for Rectangular Ductwork: Form with galvanized steel or wood.

E. Pipe Sleeve Application: Glass fiber, type, foam or cement type to be equal or greater than rating of structure being penetrated.

F. Caulk: Acrylic sealant.

2.06 FIRESTOPPING

A. Size sleeves large enough to allow for movement due to expansion and contraction. Provide for continuous insulation wrapping.

B. Design hangers without interrupting insulation and vapor barrier.

C. Provide copper plated hangers and supports for copper piping.

2.07 FINISH

A. Prime coat or factory-galvanize exposed steel hangers and supports. Hangers and supports located in crawl spaces, pipe shafts, and suspended ceiling spaces are not considered exposed.

PART 3 EXECUTION

3.01 INSPECTS

A. Install hangers for placement in concrete formwork.

B. Provide inserts for suspending hangers from reinforced concrete slabs and sides of reinforced concrete beams.

C. Provide formed rod to concrete reinforcement section for inserts carrying pipe over 4 inches.

D. Wherever pipes are exposed to finish surfaces, provide ceiling plates or escutcheons.

E. Where inserts are omitted, drill through concrete slab from below and provide thru-bolt with recessed square steel plate and nut flush with top of slab.

3.02 PIPE HANGERS AND SUPPORTS

A. Support horizontal piping as follows:

PIPE SIZE	MAX. HANGER SPACING	HANGER DIAMETER
1/2 thru 1, 1/4 inch	6'-0"	3/8"
1, 1/2 thru 2 inch	8'-0"	3/8"
2, 1/2 thru 6 inch	10'-0"	1/2"
8 thru 8 inch	10'-0"	5/8"
10 thru 12 inch	12'-0"	3/4"
FAC CAP Sizes	5'-0"	1/2"
C.I.Bell and Spigot	5'-0"	
Per Joint	and at Joints	1/2"

B. Install hangers to provide minimum 1/2 inch space between finished covering and adjacent work.

C. Place a hanger within 12 inches of each horizontal elbow.

D. Use hangers with 1, 1/2 inch minimum vertical adjustment.

E. Support horizontal cast iron pipe adjacent to each hub, with 5 feet maximum spacing between hangers.

F. Support vertical piping at every floor. Support vertical cast iron pipe at every other floor at hub.

G. Where

FIRST FLOOR PLAN - ELECTRICAL LIGHTING

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

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ DEVELOPER

STATE OF MICHIGAN
JOHN JOSEPH RICHARDS
ENGINEER
No.
LICENSED PROFESSIONAL ENGINEER
SN-0280

FLOOR PLAN - ELECTRICAL LIGHTING

ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

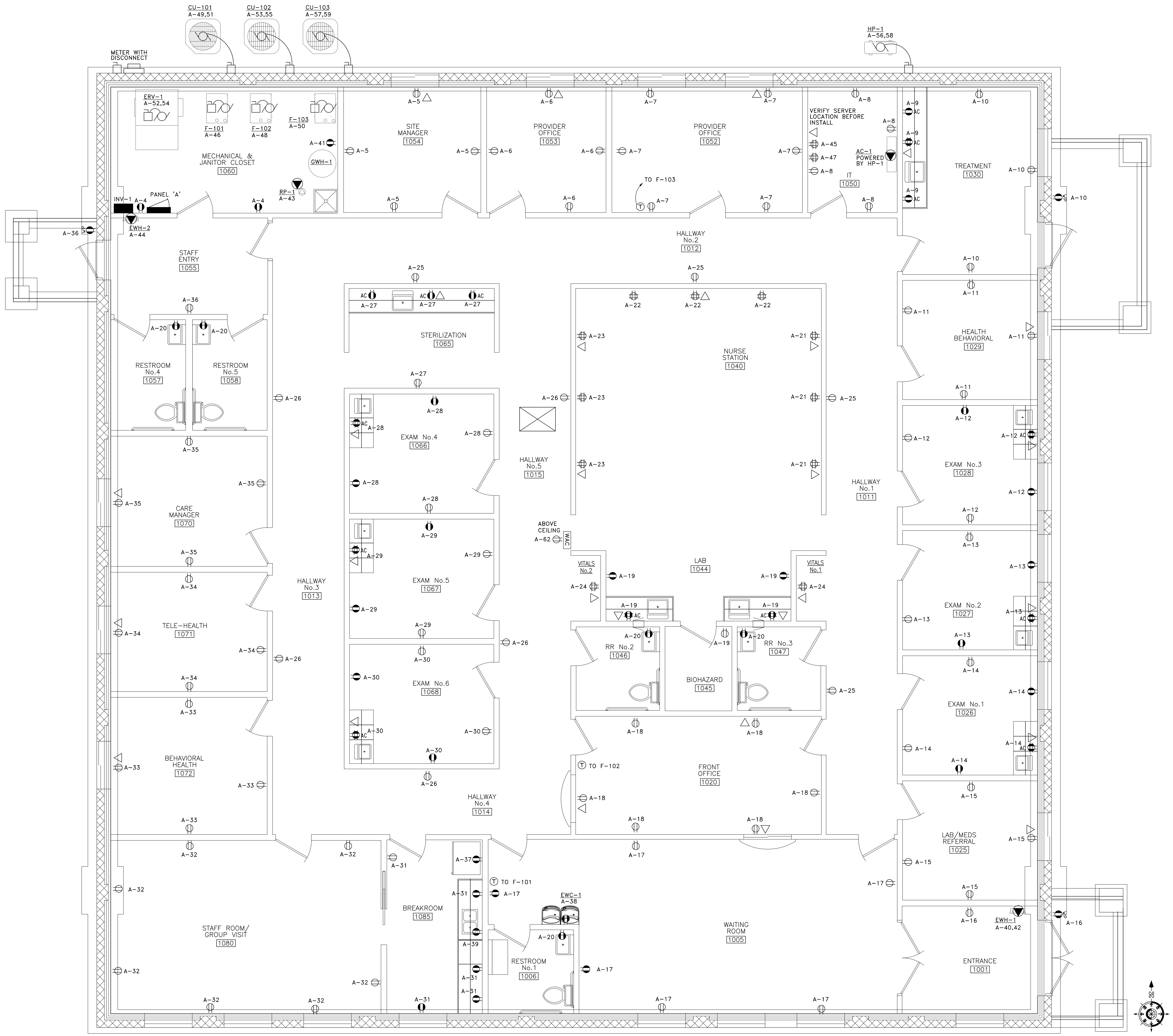
PROJECT# 2210-06

13310 S. West Bayshore Dr.
Suite C
Traverse City, MI 49684
(231) 932-0800 office

APOLLO ENGINEERING

ISSUED	
SET	DATE
PERMIT	12/22/22

ENGINEER: AE
DESIGNER: AE
JOB NUMBER 2210.06
SHEET NO. E1



FIRST FLOOR PLAN - ELECTRICAL POWER

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

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ DEVELOPER

FLOOR PLAN - ELECTRICAL POWER

ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

STATE OF MICHIGAN
JOHN JOSEPH RICHARDS
ENGINEER
No.
LICENSED PROFESSIONAL ENGINEER
SN-0280

PROJECT# 2210-06

APOLLO ENGINEERING
13310 S. West Bayshore Dr.
Suite C
Traverse City, MI 49684
(231) 932-0800 office

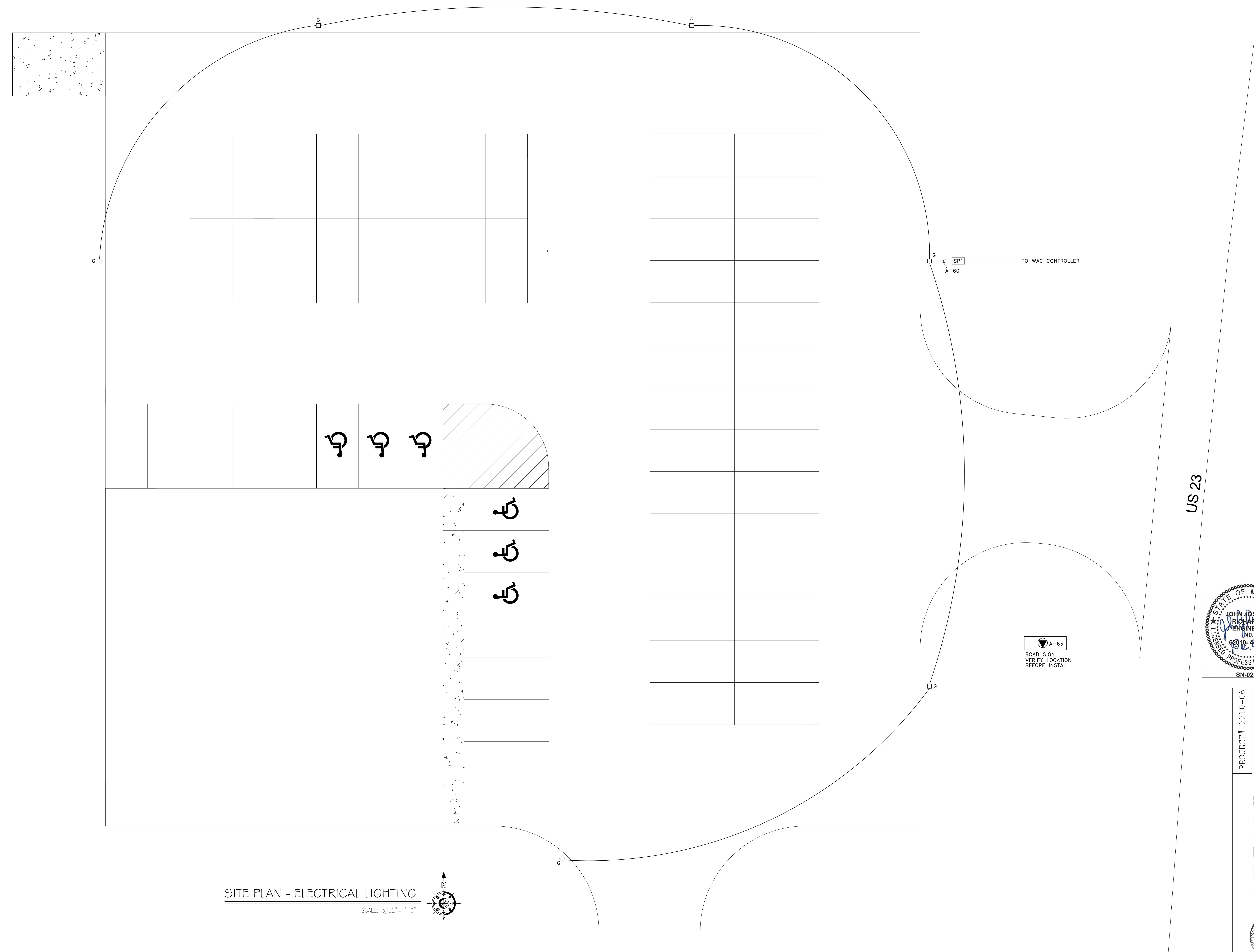
ISSUED SET	DATE
PERMIT	12/22/22

ENGINEER: AE

DESIGNER: AE

JOB NUMBER: 2210.06

SHEET NO.: E2



SITE PLAN - ELECTRICAL LIGHTING

SCALE: 3/32"=1'-0"

STATE OF MICHIGAN
JOHN JOSEPH RICHARDS
ENGINEER
NO.
62010-43952
LICENSED PROFESSIONAL ENGINEER
SN-0280

PROJECT# 2210-06

APOLLO ENGINEERING
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BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ
DEVELOPER
DESIGN • BUILD • COMMERCIAL CONSTRUCTION

SHEET TITLE
SITE PLAN - ELECTRICAL LIGHTING

PROJECT
ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

ISSUED

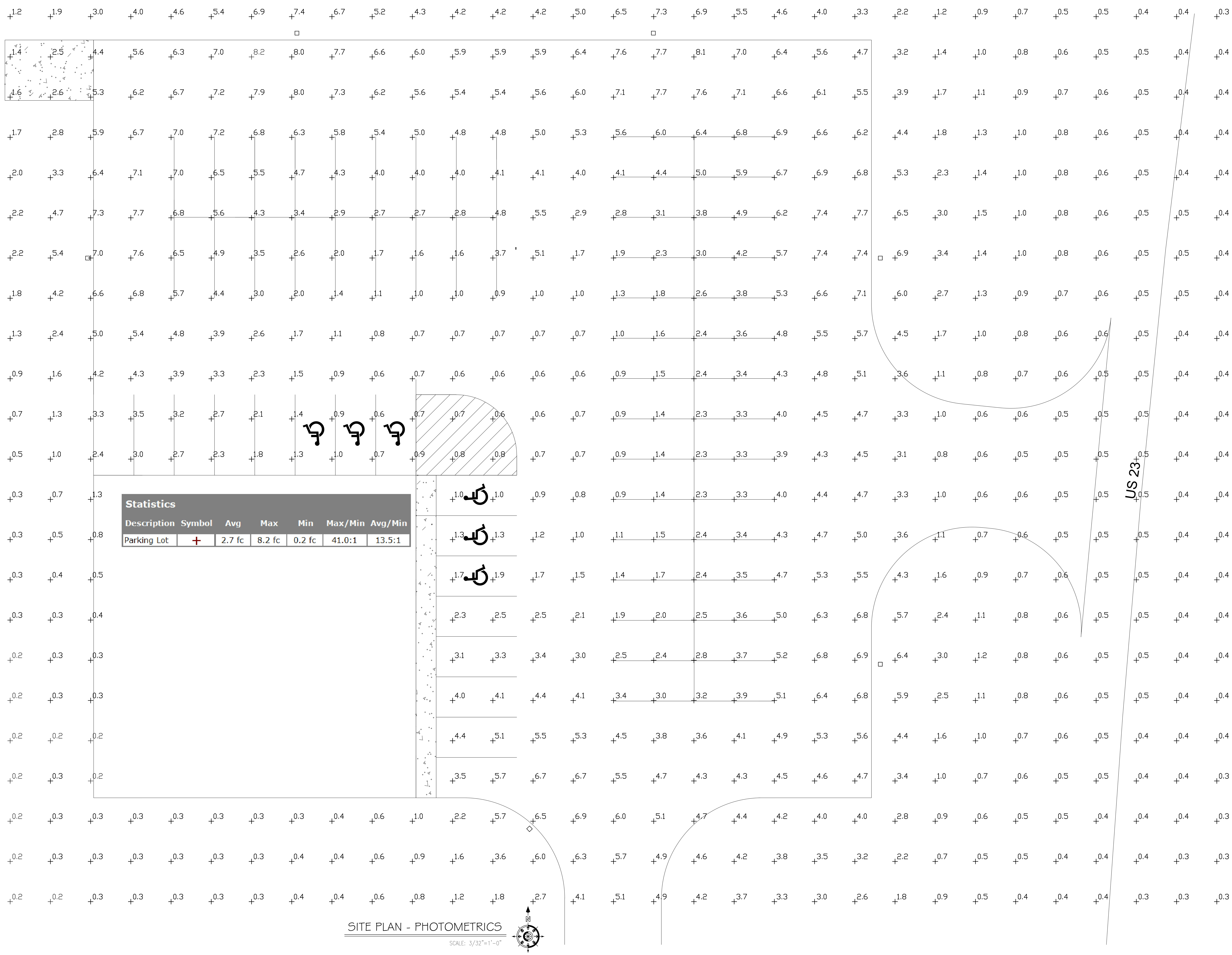
SET	DATE
PERMIT	12/22/22

ENGINEER: AE

DESIGNER: AE

JOB NUMBER: 2210.06

SHEET NO.: E3



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking Lot	+	2.7 fc	8.2 fc	0.2 fc	41.0:1	13.5:1

SITE PLAN - PHOTOMETRICS

SCALE: 3/32"=1'-0"

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ
DEVELOPER

SITE PLAN - PHOTOMETRICS

ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

STATE OF MICHIGAN
JOHN JOSEPH RICHARDS
ENGINEER
No. 62010-45932
LICENSED PROFESSIONAL ENGINEER
SN-0280

PROJECT# 2210-06

13310 S. West Bayshore Dr.
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Traverse City, MI 49684
(231) 932-0800 office

APOLLO ENGINEERING

PERMIT 12/22/22

JOB NUMBER: 2210.06

SHEET NO.: E4

PANEL A (MECH. ROOM)

400 AMPS M.L.O. 120/208V-3ø-4W

CIR NO.	AMP/ POLES	DESCRIPTION	LOAD	PH	LOAD	DESCRIPTION	AMP/ POLES	CIR NO.
1	20/1	LIGHTS (STAFF ENTRY, HALLWAYS, EXT)	964	A	1244	LIGHTS (NORTH LIGHTS)	20/1	2
3	20/1	LIGHTS (SOUTH LIGHTS)	1272	B	720	RECEPTACLES (MECH RM 1060)	20/1	4
5	20/1	RECEPTACLES (SITE MGR 1054)	720	C	720	RECEPTACLES (PROVIDER OFFICE 1053)	20/1	6
7	20/1	RECEPTACLES (PROVIDER OFFICE 1052)	1080	A	720	RECEPTACLES (IT RM 1050)	20/1	8
9	20/1	RECEPTACLES (TREATMENT 1030)	720	B	720	RECEPTACLES (TREATMENT 1030, EXT)	20/1	10
11	20/1	RECEPTACLES (BEHAVIOR HEALTH 1029)	720	C	1080	RECEPTACLES (EXAM RM 3)	20/1	12
13	20/1	RECEPTACLES (EXAM RM 2)	1080	A	1080	RECEPTACLES (EXAM RM 1)	20/1	14
15	20/1	RECEPTACLES (REFERRAL 1025)	720	B	360	RECEPTACLES (ENTRANCE 1001, EXT)	20/1	16
17	20/1	RECEPTACLES (WAITING RM 1005)	1080	C	1080	RECEPTACLES (FRONT OFFICE 1020)	20/1	18
19	20/1	RECEPTACLES (LAB 1044)	1260	A	900	RECEPTACLES (RESTROOMS)	20/1	20
21	20/1	RECEPTACLES (NURSE STATION 1040)	1080	B	1080	RECEPTACLES (NURSE STATION 1040)	20/1	22
23	20/1	RECEPTACLES (NURSE STATION 1040)	1080	C	720	RECEPTACLES (VITALS 1 AND 2)	20/1	24
25	20/1	RECEPTACLE (HALLS 1, 2)	720	A	900	RECEPTACLES (HALLS 3, 4, 5)	20/1	26
27	20/1	RECEPTACLES (STERILIZATION 1065)	720	B	1080	RECEPTACLES (EXAM RM 4)	20/1	28
29	20/1	RECEPTACLES (EXAM RM 5)	1080	C	1080	RECEPTACLES (EXAM RM 6)	20/1	30
31	20/1	RECEPTACLES (BREAK RM 1085)	900	A	1260	RECEPTACLES (STAFF/GROUP 1080)	20/1	32
33	20/1	RECEPTACLES (BEHAVIORAL HEALTH 1072)	720	B	720	RECEPTACLES (TELE-HEALTH 1071)	20/1	34
35	20/1	RECEPTACLES (CARE MGR 1070)	720	C	360	RECEPTACLES (STAFF ENTRY 1055, EXT)	20/1	36
37	20/1	REFRIGERATOR (BREAK RM 1085)	780	A	370	EWC-1 (WAITING RM 1005)	20/1	38
39	20/1	DW-1 (BREAK RM 1085)	370	B	1508	EWH-1 (ENTRANCE 1001)	20/2	40
41	15/1	GWH-1 (MECH RM 1060)	1440	C	1508			42
43	20/1	RP-1 (MECH RM 1060)	93	A	1500	EWH-2 (WAITING RM 1005)	20/1	44
45	20/1	SERVER (IT RM 1050)	500	B	1920	F-101 (MECH RM 1060)	20/1	46
47	20/1	SERVER (IT RM 1050)	500	C	1920	F-102 (MECH RM 1060)	20/1	48
49	50/2	CU-101 (EXTERIOR)	3640	A	1920	F-103 (MECH RM 1060)	20/1	50
51			3640	B	801	ERV-1 (MECH RM 1060)	15/2	52
53	50/2	CU-102 (EXTERIOR)	3640	C	801			54
55			3640	A	1144	HP-1 (EXTERIOR)	15/2	56
57	50/2	CU-103 (EXTERIOR)	3640	B	1144			58
59			3640	C	1350	PARKING LIGHTS (EXTERIOR)	20/1	60
61	20/1	INV-1 (MECH RM 1060)	441	A	8	WAC (STAFF ENTRY 1055, EXT)	20/1	62
63	20/1	ROAD SIGN (EXTERIOR)	300	B	---	SPARE	20/1	64
65	20/1	SPARE	---	C	---	SPARE	20/1	66
67	20/1	SPARE	---	A	---	SPARE	20/1	68
69	20/1	SPARE	---	B	---	SPACE	--	70
71	--	SPACE	---	C	---	SPACE	--	72

ELECTRICAL NOTES

1. PRIOR TO SUBMITTING A PROPOSAL, BIDDER SHALL HAVE VISITED THE CONSTRUCTION SITE. HE SHALL BE FAMILIAR WITH THE EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS
2. ELECTRICAL WORK SHALL COMPLY WITH THE LATEST ENFORCEABLE EDITION OF THE N.E.C., LOCAL AND STATE CODES, ORDINANCES, REGULATIONS, INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), AND ADA GUIDELINES WITH THE LOCAL CODE AUTHORITIES HAVING JURISDICTION.
3. ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY ALL FEES, INCLUDING COSTS ASSESSED BY THE ELECTRIC UTILITY COMPANIES, AND ARRANGE FOR ALL INSPECTIONS FOR HIS WORK. AT THE COMPLETION OF ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL FURNISH THE OWNER WITH ALL CERTIFICATES OF FINAL INSPECTION AND APPROVALS.
4. ELECTRICAL MATERIALS SHALL BE NEW, AND BEAR THE "UL" LABEL
5. BRANCH CIRCUIT WIRE FOR LIGHTING, RECEPTACLE AND SMALL POWER SHALL BE COPPER, RATED 75 DEGREES C, MINIMUM SIZE #12 AWG, AND BE TYPE "THHN", AND BE INSTALLED IN EMT. UNLESS OTHERWISE NOTED OR REQUIRED BY CODE. FEEDERS AND SECONDARY SERVICE CONDUCTORS SHALL BE STRANDED COPPER WITH 600 VOLT INSULATION, RATED 90 DEGREES C, TYPE "THHN", AND BE INSTALLED IN EMT OR PVC CONDUIT, MINIMUM SIZE 1/2" UNLESS OTHERWISE NOTED OR REQUIRED BY CODE. ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE DELIVERED TO PROJECT IN UNBROKEN AND UNDAMAGED CARTONS AND REELS.
6. FUSES SHALL BE "UL" LISTED, DUAL AS MANUFACTURED BY BUSMAN CO., OR APPROVED EQUAL (200,000 ERIC).
7. PLATES FOR SWITCHES AND RECEPTACLES SHALL BE PLASTIC. COLOR TO BE WHITE.
8. PANELS ARE TO BE RATED 120/208V, 3 PHASE, 4W, WITH PLUG TYPE BRANCH CIRCUIT BREAKERS RATED A MINIMUM 10,000 A.I.C. EXT'G PANELS TO HAVE NEW TYPE WRITTEN PANEL SCHEDULE AND PLASTIC ENGRAVED NAME PLATES.
9. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT ELECTRIC UTILITY COMPANIES SERVICE POINTS AND PRIMARY SERVICE CONDUIT, ROUTING, AND SIZE WITH UTILITY COMPANY SERVICE PLANNERS PRIOR TO BEGINNING WORK.
10. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK INSTALLED UNDER HIS CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER THE ACCEPTANCE OF THE BUILDING BY THE OWNER. SHOULD DEFECTS OCCUR WITHIN THIS PERIOD, REPAIR AND/OR REPLACE DEFECTIVE ITEMS AT NO EXPENSE
11. ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF HIS EQUIPMENT AND WORK WITH OTHER BUILDING TRADES TO AVOID ANY INTERFERENCE'S BETWEEN HIS WORK AND THE WORK OF OTHER BUILDING TRADES. IF ANY DISCREPANCIES OCCUR, CONSULT WITH THE ARCHITECT AND/OR OWNER BEFORE CONTINUING.
12. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING, PAINTING AND/OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THIS SPECIFICATION. CLOSE ALL OPENINGS, REPAIR ALL SURFACES,
13. THE ELECTRICAL CONTRACTOR SHALL PERIODICALLY REMOVE FROM THE SITE ALL DEBRIS AND RUBBISH ACCUMULATING AS A RESULT OF THE ELECTRICAL INSTALLATION. UPON COMPLETION OF THE PROJECT, HE SHALL DISPOSE OF ALL DEBRIS AND RUBBISH AND SHALL LEAVE ALL AREAS CLEAN. THE INTERIORS OF ALL CABINETS, PULL BOXES, AND EQUIPMENT ENCLOSURES SHALL BE FREE OF ANY DEBRIS.
14. UNDERGROUND CONDUIT TO BE SCHEDULE 40 PVC.
15. ELECTRICAL JOINTS WILL BE PERMITTED ONLY IN JUNCTION AND OUTLET BOXES. ALL JOINTS SHALL BE FIRMLY BONDED TOGETHER AND TAPED OR SHALL BE MADE WITH MECHANICAL CONNECTORS.
16. ELECTRICAL CONTRACTOR TO VERIFY ALL EXT'G ITEMS TO REMAIN AND RECONNECT/RELOCATE NEW CIRCUITS INDICATED IN THE PANEL SCHEULE AS REQ'D TO ENERGIZE THE COMPLETE BUILDING AS INTENDED.
17. PATIENT CARE SPACE (SPACE WITHIN A HEALTH CARE FACILITY WHERE PATIENTS ARE INTENDED TO BE EXAMINED OR TREATED) ARE TO COMPLY WITH NEC "SECTION 517", WITH SPECIAL ATTENTION TO THE FOLLOWING SECTIONS.

    517.13 GROUNDING OF RECEPTACLES AND FIXED ELECTRICAL EQUIPMENT IN PATIENT CARE AREAS.

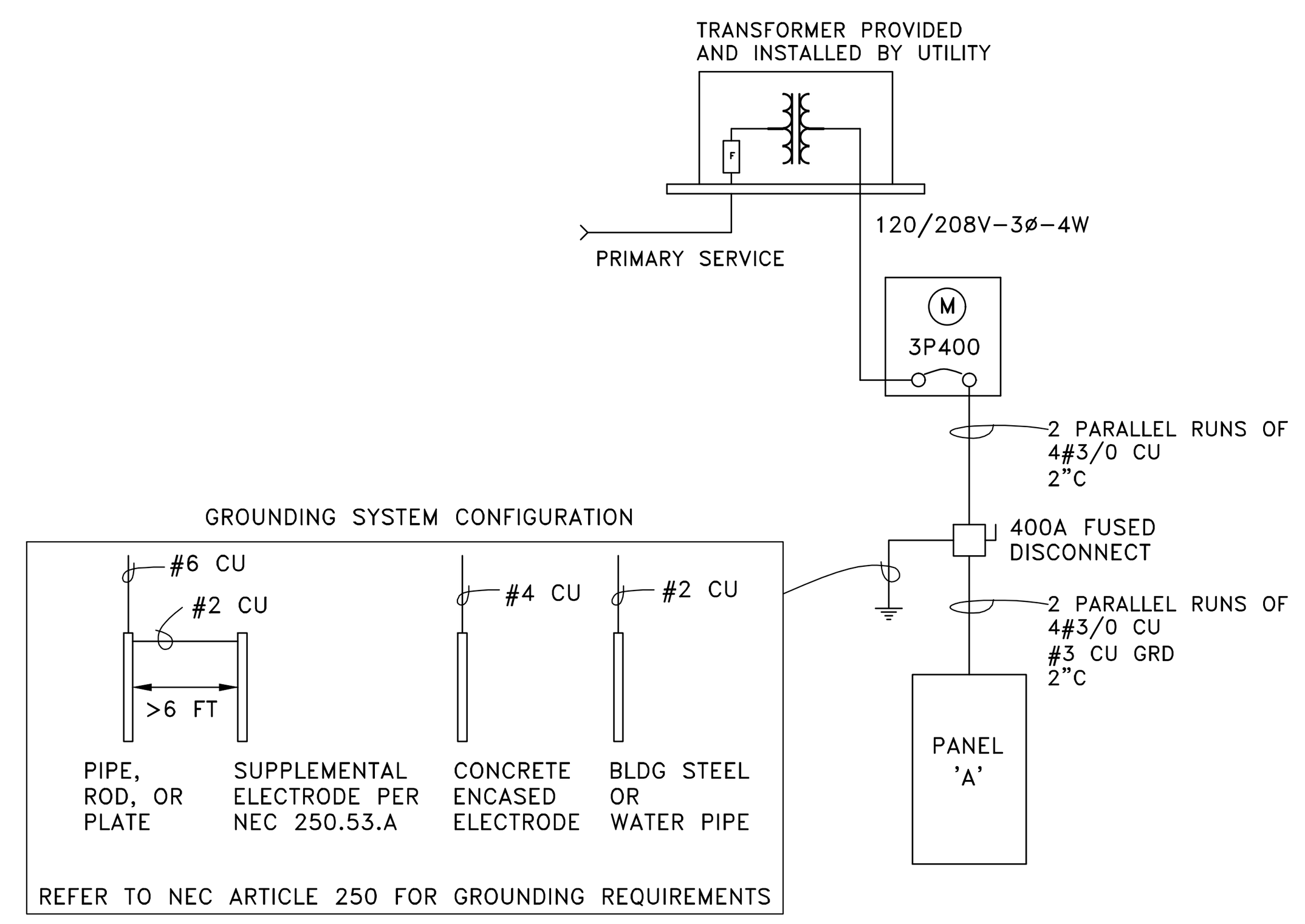
    517.14 PANELBOARD BONDING.

    NOTE: ALL PATIENT CARE SPACES AT THIS FACILITY ARE INTENDED TO BE "BASIC CARE SPACES".
18. ALL EQUIPMENT IS TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.

PANEL A, METER – 120/208V, 3ø

LIGHTS	– (6400 SQFT) (3.5VA)		= 22,400VA
RECEPTACLES	– (161REC)(180/REC)	= 28,980VA – 10,000VA	= 10,000VA
		18,980VA(0.5)	= 9,490VA
REFRIGERATORS	– (1)(780VA)		= 780VA
EWC-1	– (1)(370VA)		= 370VA
DW-1	– (1)(370VA)		= 370VA
GWH-1	– (1)(1440VA)		= 1,440VA
RP-1	– (1)(93VA)		= 93VA
EWH-1	– (1)(3016VA)		= 3,016VA
EWH-2	– (1)(1500VA)		= 1,500VA
SERVER	– (2)(500VA)		= 1,000VA
F-101,102,103	– (3)(1920VA)		= 5,760VA
CU-101	– (1)(7280VA) + (0.25)(7280VA)		= 9,100VA
CU-102,103	– (2)(7280VA)		= 14,560VA
ERV-1	– (1)(1602VA)		= 1,602VA
HP-1	– (1)(2288VA)		= 2,288VA
PARKING LIGHTS	– (1)(1350VA)		= 1,350VA
INV-1	– (1)(441VA)		= 441VA
ROAD SIGN	– (1)(300VA)		= 300VA
WAC	– (1)(8VA)		= 8VA
			= 85,868VA

85.9 KW – 238.5A



ONE-LINE DIAGRAM

NOT TO SCALE

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	NOTES
S	SINGLE POLE STYLE SWITCH	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED
X	2'x2' FIXTURE, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
X	EMERGENCY LIGHTING FIXTURE	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
X	EXIT SIGN, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
10 S	GREENGATE ONW-P-1001-MV-X	WALLBOX MOUNTED PASSIVE INFRARED OCCUPANCY SENSOR
	DUPLEX OUTLET – 20 AMP	MOUNT @ 24" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED
	DUPLEX OUTLET – GROUND FAULT	MOUNT @ 24" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED
WP	DUPLEX OUTLET – WEATHER PROOF COVER	MOUNT @ 24" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED
	QUADPLEX OUTLET – 20 AMP	MOUNT @ 24" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED
	SPECIAL PURPOSE OUTLET, AS NOTED	REFER TO SHOP DRAWINGS FOR CONNECTION REQUIREMENTS
	MOTOR, AS SPECIFIED	REFERENCE SPECIFICATIONS FOR REQUIREMENTS
	FUSED DISCONNECT	REFER TO GENERAL ELECTRICAL NOTES AND ONE-LINE DIAGRAM. (VFD IS BEING SUPPLIED WITH UNIT FOR ROOTOPS OR BY CONT. CONTRACTOR)
	LIGHTING/BRANCH CIRCUIT PANELS	REFER TO GENERAL ELECTRICAL NOTES AND ONE-LINE DIAGRAM.
	DATA OUTLETS	MOUNT @ 24" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED, EC TO PROVIDE SINGLE GANG BOX WITH 1"C STUBBED ABOVE CEILING SPACE COORDINATE LOCATION, QUANTITY, AND HEIGHT W/ OWNER/TECH. CONSULTANT
T	MECHANICAL THERMOSTAT	PROVIDE CONDUIT AND BACKBOX

ELECTRIC WALL HEATER SCHEDULE

MARK	MODEL No.	KW	MBH	VOLTAGE	AMPS	REMARKS
EWH-1	FRA-4024	3.0	10.2	208V/1ø	14.5	SEE NOTES
EWH-2	FRA-1512	1.5	5.1	120V/1ø	12.5	SEE NOTES

NOTES:
1. BASED ON BERKO. OTHERS MAY BE BID AS VOLUNTARY ALT.
2. UNIT SHALL BE PROVIDED WITH INTEGRAL THERMOSTAT, INTEGRAL DISCONNECT, TAMPER-PROOF FRONT COVER, AND SEMI-RECESSED MOUNTING FRAME.

LIGHTING FIXTURE SCHEDULE

TYPE	BRAND	MODEL #	MOUNTING TYPE	LAMP	TOTAL FIXTURE POWER	VOLTAGE	NOTES:
A	METALUX	24CZ-LD5-45-UNV-L835-CD1-U-WAA	RECESSED	4558LM/3500K/LED	35.7W	UNV	WAVELINX WIRELESS SENSOR
B	METALUX	14CZ-LD5-39-UNV-L835-CD1-U-WAA	RECESSED	4035LM/3500K/LED	35.7W	UNV	WAVELINX WIRELESS SENSOR
C	METALUX	4SNLED-LD5-46SL-LN-UNV-L835-CD1-U	SURFACE	4708LM/3500K/LED	34.6W	UNV	–
D	METALUX	22CZ-LD5-29-UNV-L835-CD1-U	RECESSED	2838LM/3500K/LED	20.9W	UNV	–
E	METALUX	22CZ-LD5-44-UNV-L835-CD1-U-WAA	RECESSED	4348LM/3500K/LED	32.8W	UNV	WAVELINX WIRELESS SENSOR
F	LUMARK	XTOR1B-W	SURFACE	1396LM/4000K/LED	12.0W	UNV	–
G	MCGRAW-EDISON	GLEON-SA4C-740-U-T3-BZ	PARKING	31307LM/4000K/LED	225.0W	UNV	RPSQ-25-4-11-AB-D1-CB POLE
H	PORTFOLIO	6LDC109040D010M LGSKT6IP66	RECESSED EXTERIOR	1000LM/4000K/LED	10.0W	UNV	EXTERIOR EAVE FIXTURE
XA	SURELITES	APC7R	EXIT LIGHT	(1) LED	1.4W	120V	–

WIRE SIZE REQUIREMENTS

NOTE:
BASED ON A MAXIMUM OF 6-VOLT DROP (5%) ON 120V CIRCUITS. WIRES FOR RUNS OVER 100'-0" SHALL BE DETERMINED ON THIS A MAXIMUM OF A 5% DROP ALLOWED.

BRANCH CIRCUIT AMPS	LENGTH OF RUN – FROM PANEL TO FIRST CONNECTION – FEET								
AMPS	50'	60'	70'	80'	90'	100'	110'	120'	130'
15	#12	#12	#12	#12	#12	#12	#10	#10	#10
20	#12	#12	#12	#10	#10	#10	#10	#10	#8
30	#10	#10	#10	#10	#8	#8	#8	#8	#6

EATON WAVELINX BILL OF MATERIALS

- WB1 – EATON W2L-RL-* WALL BOX CONTROLLER (VERIFY COLOR WITH OWNER)
- WB2 – EATON W1L-* WALL BOX CONTROLLER (VERIFY COLOR WITH OWNER)
- WAC – EATON WAC2-POE WIRELESS AREA CONTROLLER.
- SP1 – EATON WSP-MV-010 SWITCH PACK
- ——— WIRELESS CONNECTION – ALL LIGHTING CONNECTIONS ARE SHOWN FOR WIRELESS GROUPING ONLY.
- – SUPPLIER TO PROVIDE INITIAL PROGRAMING AND TRAINING FOR WAVELINK SYSTEM. (CONTACT CRITES TIDEY (231) 941-8686)

INVERTER SCHEDULE

TYPE	BRAND	MODEL	MOUNTING TYPE	POWER	INPUT VOLTAGE	OUTPUT VOLTAGE
INV-1	MYERS	LV-3-R1	WALL	441 VA	120 V	120 V

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ DEVELOPER

SHEET TITLE: NOTES/SCHEDULES/ ONE-LINE - ELECTRICAL

PROJECT: ALCONA HEALTH CENER
1209 U.S. 23
ALPENA, MICHIGAN 49707

SN-0280

PROJECT# 2210-06

APOLLO ENGINEERING
13310 S. West Bayshore Dr.
Suite C
Traverse City, MI 49684
(231) 932-0800 office

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ENGINEER: AE
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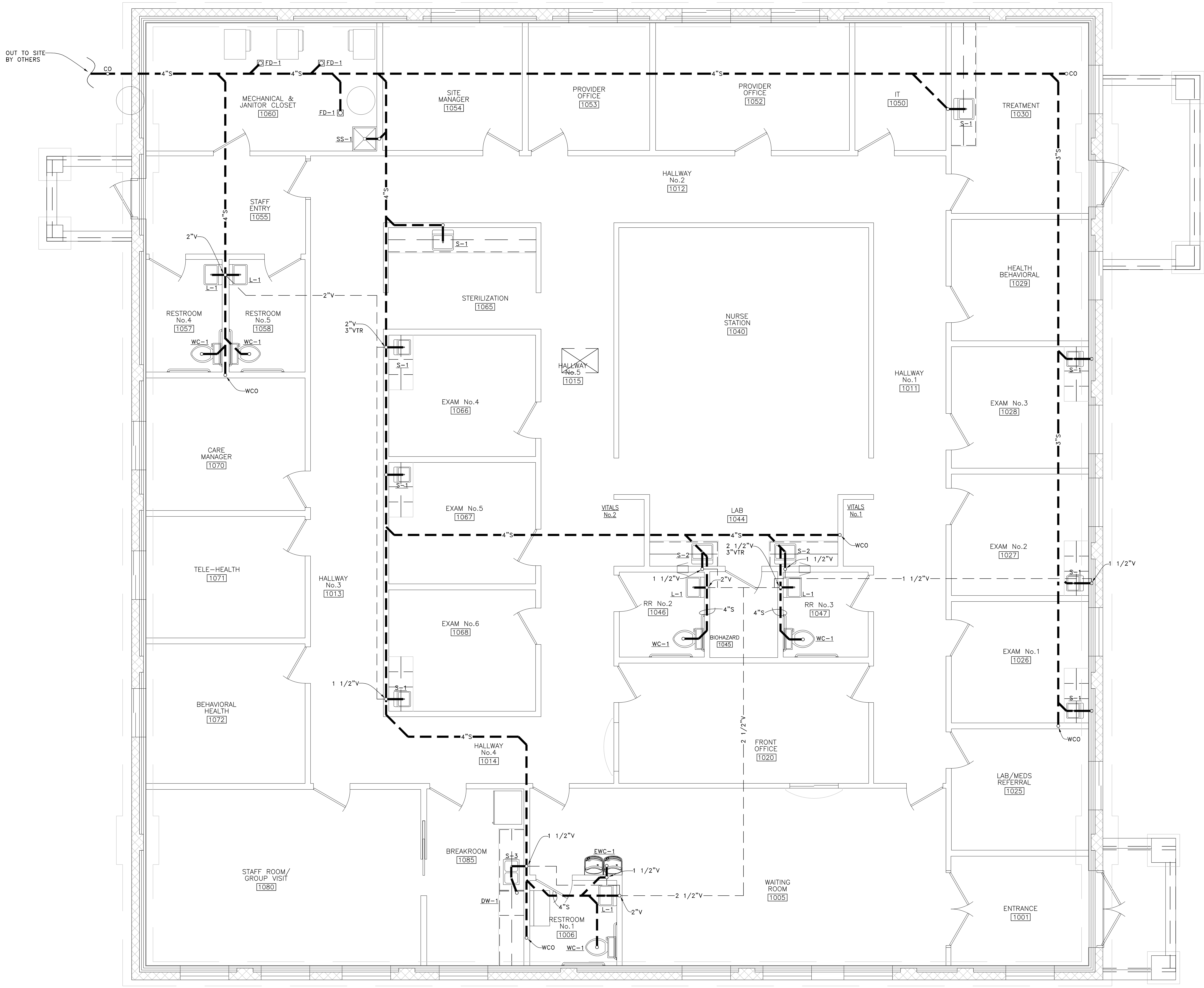

FIRST FLOOR PLAN - PLUMBING SANITARY

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

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ DEVELOPER

FLOOR PLAN - PLUMBING SANITARY

ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

STATE OF MICHIGAN JOHN JOSEPH RICHARDS ENGINEER No. 62010-49252 LICENSED PROFESSIONAL ENGINEER

SN-0280

PROJECT# 2210-06

13310 S. West Bayshore Dr.
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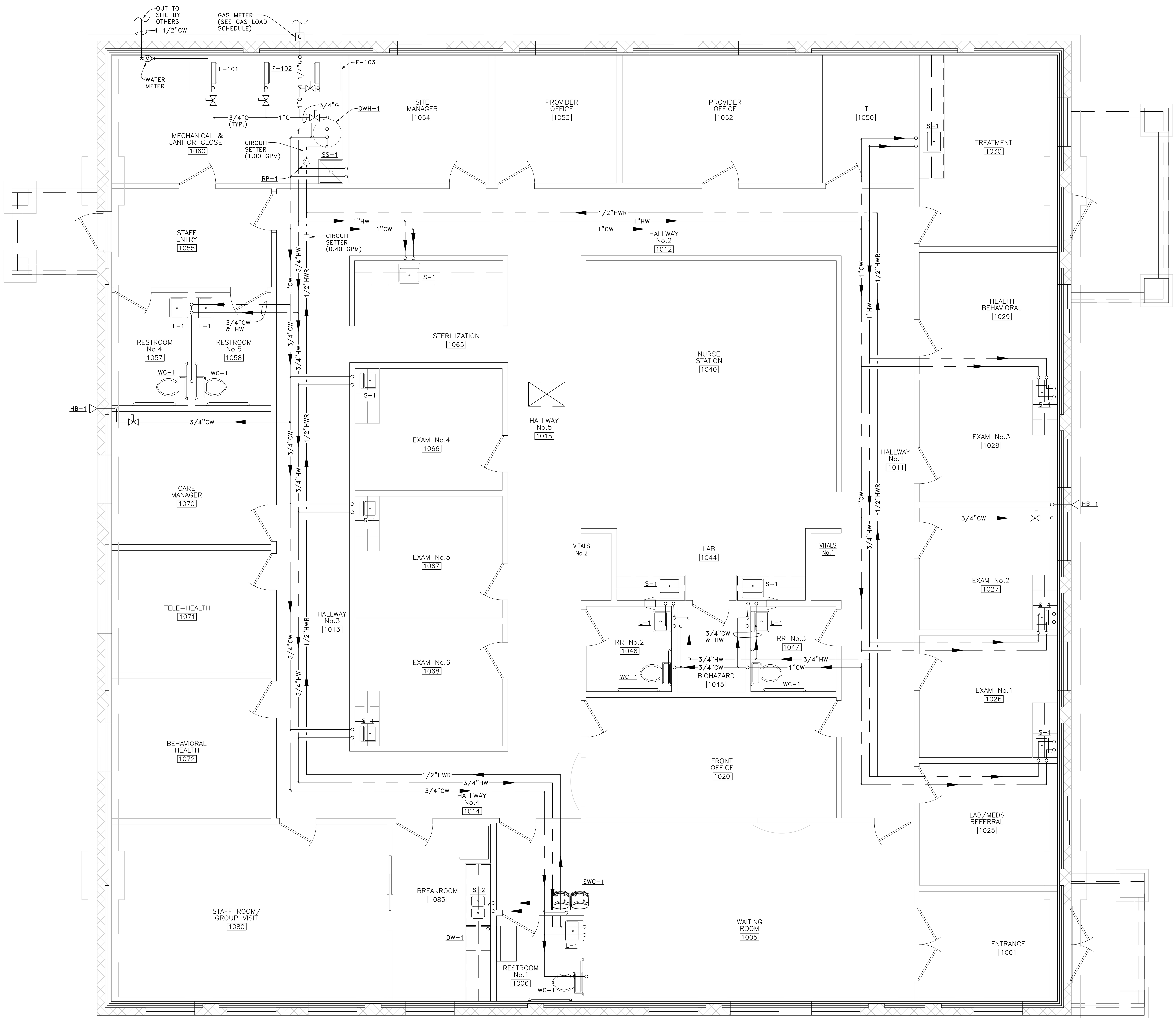

FIRST FLOOR PLAN - PLUMBING PIPING

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

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ DEVELOPER

FLOOR PLAN - PLUMBING PIPING

ALCONA HEALTH CENTER
1209 U.S. 23
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STATE OF MICHIGAN
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ENGINEER: AE

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JOB NUMBER: 2210.06

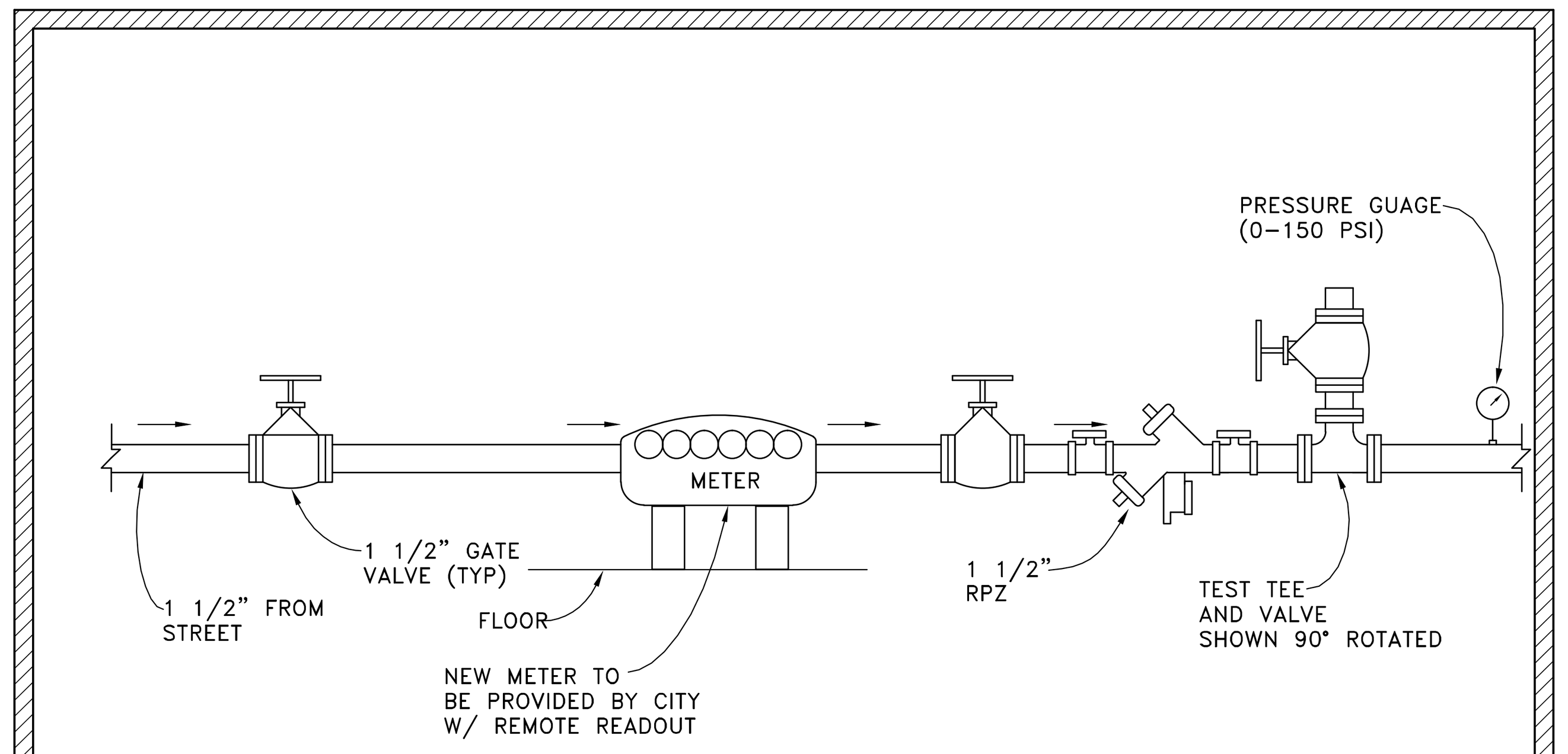
SHEET NO.: P2

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANU.	MODEL	SAN.	HOT	COLD	REMARKS
WC-1	WATER CLOSET	AM. STD.	2467.100	3"	–	1"	W/ OLSONITE #95 SEATE, 17" HIGH
L-1	LAVITORY	AM. STD.	0355.027	1 1/2"	1/2"	1/2"	W/ DELTA FAUCET #501
S-1	SINK	ELKAY	BLR-150C	1 1/2"	1/2"	1/2"	COMBINATION INCLUDES FAUCET
S-2	SINK	ELKAY	LRAD221955	1 1/2"	1/2"	1/2"	W/ T & S BRASS #B-0892-01 FAUCET
S-3	SINK	ELKAY	LR2519	1 1/2"	1/2"	1/2"	W/ ELKAY #LK100CR FAUCET
EWC-1	ELECTRIC WATER COOLER	ELKAY	EZSTLGBSC	1 1/2"	–	1/2"	–
GWH-1	GAS WATER HEATER	AO SMITH	BTH-120	–	–	1/2"	100 GAL., 120,000 BTU/HR
FD-1	FLOOR DRAIN	ZURN	ZN-415-5B	3"	–	–	W/ TYPE 'B' ROUND STRAINER, SEE NOTE #6
SS-1	SERVICE SINK	FLORESTONE	MSR2424	3"	1/2"	1/2"	W/MR-370, MR-371, & MR-372
HB-1	HOSE BIB	WOODFORD	MODEL 67	–	–	3/4"	FREEZLESS W/ VACUUM BREAKER
DW-1	DISHWASHER	BY OTHERS	–	1 1/2"	1/2"	1/2"	–

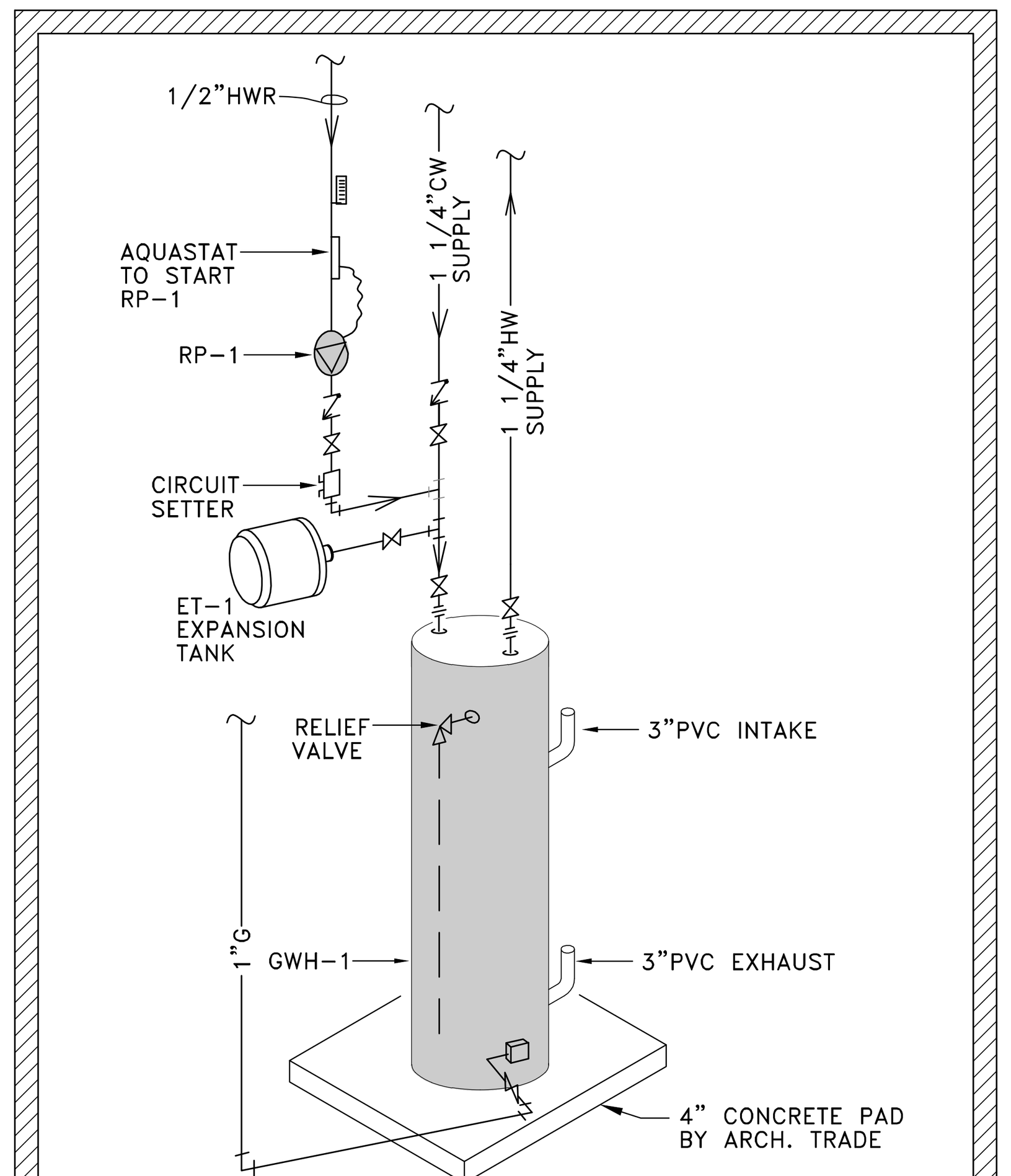
NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR ALL ROUGH-IN LOCATIONS OF PLUMBING FIXTURES.
2. WC-1 TO CONFORM TO ADA REQUIREMENTS.
3. VERIFY COLOR WITH ARCHITECT BEFORE ORDERING.
4. INSULATE ALL EXPOSED SANITARY AND DOMESTIC HOT AND COLD WATER PIPING TO LAVATORIES.
5. PROVIDE A POWERS 480 MIXING VALVE AT EACH LAV.
6. PROVIDE A SURE SEAL MODEL #SS2009 TRAP SEAL AT EACH FLOOR DRAIN



WATER METER DETAIL

NOT TO SCALE



GAS WATER HEATER DETAIL

NOT TO SCALE

PLUMBING NOTES

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REGULATIONS.
2. EACH CONTRACTOR SHALL BE THOROUGHLY KNOWLEDGEABLE OF REGULATIONS GOVERNING HIS PRODUCT AND SERVICE AND SHALL ASSUME RESPONSIBILITY OF INSTALLATION IN ACCORDANCE WITH THOSE REGULATIONS.
3. CONTRACTORS TO VERIFY ALL DIMENSIONS RELATIVE TO THEIR SPECIFIC WORK AND SHALL BE THOROUGHLY FAMILIAR WITH EXISTING CONDITIONS PRIOR TO INITIATING THEIR WORK. DISCREPANCIES SHALL BE REPORTED TO THE GENERAL CONTRACTOR OR TO HIS ON-SITE REPRESENTATIVE.
4. FAILURE TO DETECT INFERIOR WORK, OR WORK NOT IN ACCORDANCE WITH THESE CONSTRUCTION DOCUMENTS, SHALL NOT BE CONSTRUED AS ACCEPTABLE OF SUCH WORK.
5. ANY PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES FOR MECHANICAL OR PLUMBING SYSTEMS, ETC. SHALL BE FIRE-STOPPED AND DRAFT-STOPPED WITH NON-COMBUSTIBLE MATERIALS PER CODE REQUIREMENTS TO MAINTAIN STRUCTURAL AND FIRE RESISTIVE INTEGRITY.
6. DRAWINGS ARE DIAGRAMMATIC ONLY, FIELD VERIFY EXISTING CONDITIONS.
7. PRIOR TO SUBMITTING A PROPOSAL, BIDDER SHALL HAVE VISITED THE CONSTRUCTION SITE. HE SHALL BE FAMILIAR WITH THE EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OF NEGLIGENCE ON HIS PART.
8. PLUMBING CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY ALL FEES, INCLUDING COSTS ASSESSED BY THE MECHANICAL UTILITY COMPANIES, AND ARRANGE FOR ALL INSPECTIONS FOR HIS WORK. AT THE COMPLETION OF PLUMBING WORK, THE PLUMBING CONTRACTOR SHALL FURNISH THE OWNER WITH ALL CERTIFICATES OF FINAL INSPECTION AND APPROVALS.
9. PLUMBING CONTRACTOR SHALL GUARANTEE ALL WORK INSTALLED UNDER HIS CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER THE ACCEPTANCE OF THE BUILDING BY THE OWNER. SHOULD DEFECTS OCCUR WITHIN THIS PERIOD, REPAIR AND/OR REPLACE DEFECTIVE ITEMS AT NO EXPENSE TO THE OWNER.
10. PLUMBING CONTRACTOR SHALL COORDINATE LOCATIONS OF HIS EQUIPMENT AND WORK WITH OTHER BUILDING TRADES TO AVOID ANY INTERFERENCE'S BETWEEN HIS WORK AND OTHER BUILDING TRADES. IF ANY DISCREPANCIES OCCUR, CONSULT WITH THE GENERAL CONTRACTOR OR HIS ON-SITE REPRESENTATIVE.
11. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING, PAINTING AND/OR OTHER REPAIR DUE TO THE INSTALLATION OF MECHANICAL WORK UNDER THE TERMS OF THIS SPECIFICATION. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC. AS REQUIRED.
12. THE CONTRACTOR SHALL EMPLOY QUALIFIED AND EXPERIENCED WORKMEN FOR THIS WORK.
13. THE PLUMBING CONTRACTOR SHALL PERIODICALLY REMOVE FROM THE SITE ALL DEBRIS AND RUBBISH ACCUMULATING AS A RESULT OF THE MECHANICAL INSTALLATION. UPON COMPLETION OF THE PROJECT, HE SHALL DISPOSE OF ALL DEBRIS AND RUBBISH AND SHALL LEAVE ALL AREAS CLEAN.

PLUMBING CONSTRUCTION NOTES

GENERAL

1. REFERENCE ARCHITECTURAL DRAWINGS FOR ALL ROUGH-IN DIMENSIONS, BOTH FIXTURES AND WALLS.
2. ALL VALVES SHALL BE ACCESSIBLE.
3. WATER HAMMER ARRESTORS SHALL BE INSTALLED AND SHALL BE. ACCESSIBLE.
4. PLUMBING CONTRACTOR TO EXTEND WATER AND SANITARY LINES AND MAKE UTILITY CONNECTIONS.

SPECIFICATIONS

1. PLUMBING DESIGN PER THE LATEST MICHIGAN PLUMBING CODES.

GAS LOAD SCHEDULE

MARK	EQUIPMENT	GAS LOAD
F-101	FURNACE	100,000 BTU/HR
F-102	FURNACE	100,000 BTU/HR
F-103	FURNACE	100,000 BTU/HR
GWH-1	GAS WATER HEATER	120,000 BTU/HR
TOTAL GAS LOAD		420,000 BTU/HR

PLUMBING LEGEND

S	SANITARY SEWER
FS	FORCED SANITARY
V	SANITARY VENT
CW	COLD WATER LINE
HW	HOT WATER LINE
HWR	HOT WATER RETURN
G	GAS LINE
	BALL VALVE

STATE OF MICHIGAN JOHN JOSEPH RICHARDS ENGINEER NO. 62010-49252 LICENSED PROFESSIONAL ENGINEER
SN-0280

PROJECT# 2210-06

APOLLO ENGINEERING
13310 S. West Bayshore Dr.
Suite C
Traverse City, MI 49684
(231) 932-0800 office

BRUCE DIETZ
100 RIPLEY
ALPENA, MI 49707

BRUCE DIETZ DEVELOPER

SHEET TITLE: SCHEDULES / NOTES / DETAILS - PLUMBING

PROJECT: ALCONA HEALTH CENTER
1209 U.S. 23
ALPENA, MICHIGAN 49707

ISSUED	
SET	DATE
PERMIT	12/22/22

ENGINEER: AE
DESIGNER: AE
JOB NUMBER: 2210.06
SHEET NO: P3