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architecture · engineering · interior design
6515 Grand Teton Plaza, Suite 120, Madison, Wisconsin 53719
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FRIENDS OF AZTALAN STATE PARK: VISITOR CENTER PRELIMINARY DESIGN

AZTALAN, WI

RENDERING
05/30/2015
14098

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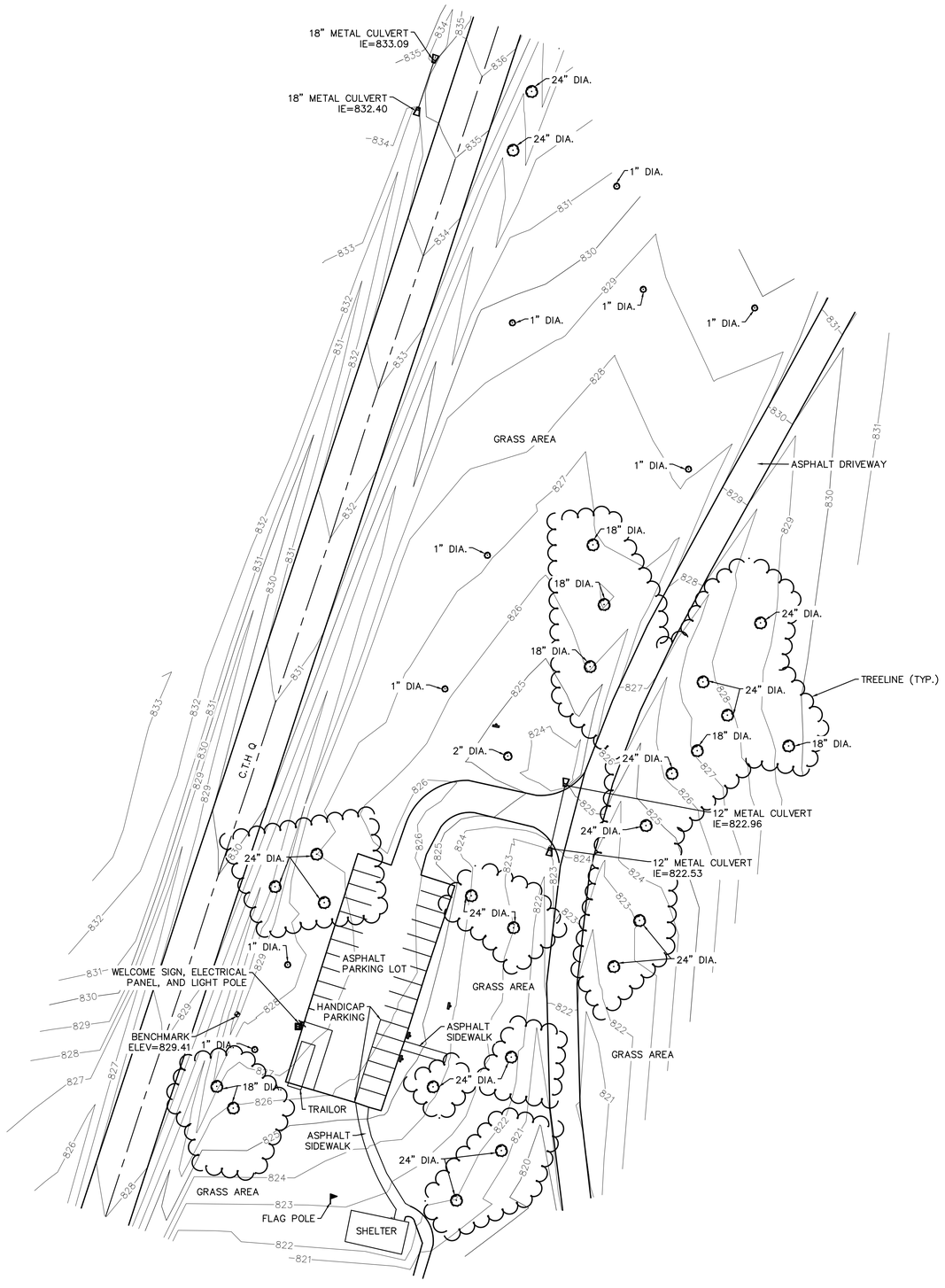
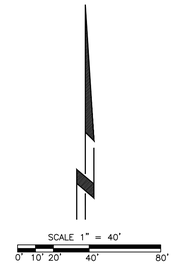
LEGEND

- SECTION CORNER FOUND
- IRON STAKE FOUND
- REBAR PLACED
- CHISELED CROSS
- DRILL HOLE
- SURVEY NAIL
- WOOD STAKE
- (263.56') RECORDED AS DATA
- 263.51' MEASURED DATA
- BENCHMARK
- SANITARY MANHOLE
- YARD CLEANOUT
- STORM MANHOLE
- STORM INLET
- STORM CATCH BASIN
- STORM CATCH BASIN
- STORM CLEAN OUT
- APRON ENDWALL
- WATER MANHOLE
- HYDRANT
- WATER VALVE
- Y CONNECTION
- POST INDICATOR VALVE
- GAS METER
- GAS VALVE
- TRAFFIC SIGNAL
- TRAFFIC CONTROL BOX
- LIGHT POLE
- ELECTRICAL OUTLET
- UTILITY POLE
- GUY WIRE / DEAD MAN
- ELECTRIC PEDESTAL
- ELECTRIC METER
- ELECTRIC MANHOLE
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- CABLE PEDESTAL
- SPRINKLER HEAD
- BOLLARD
- SIGN
- MONITORING WELL
- HANDICAP RAMP
- HANDICAP STALL
- STONE WALL
- FENCE LINE
- EDGE OF TREES
- PROPERTY LINE
- CENTER LINE
- EXISTING BUILDING
- EXISTING CONCRETE
- EXISTING GRAVEL
- EXISTING ASPHALT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED HEAVY DUTY BITUMINOUS PAVEMENT
- PROPOSED SAW CUT
- REMOVE AND REPLACE PAVEMENT
- NEW ASPHALT
- EX. ASPHALT TO BE MILLED & OVERLAID
- EROSION MATTING
- STABILIZED CONSTRUCTION ENTRANCE
- SAW CUT LINE
- CATCH CURB
- REJECT CURB
- PERIMETER SILT FENCE
- STRAW BALES
- INLET PROTECTION
- STRAW BALE/SILT FENCE
- INLET PROTECTION
- CANOPY / SHADE TREE
- SHRUB
- CONIFEROUS TREE
- WAT — BURIED WATER MAIN
- SAN — SANITARY SEWER
- ST — STORM SEWER
- RD — ROOF DRAIN
- OH — OVERHEAD WIRES
- CATV — BURIED CABLE TV LINES
- E — BURIED ELECTRIC
- T — BURIED TELEPHONE
- FO — FIBER OPTIC
- G — BURIED GAS MAIN
- COMB — COMBINED SEWER
- CONTOUR
- X 821.25 SPOT ELEVATION
- CAUTION
- PROPERTY LINE
- UTILITY EASEMENT
- SETBACK LINE
- EDGE OF WATER
- WETLAND BOUNDARY
- 100 YEAR FLOOD BOUNDARY
- TW 900.00 TOP OF WALL ELEVATION
- BW 899.00 BOTTOM OF WALL ELEVATION





ALL BEARINGS ARE REFERENCED TO THE GRID NORTH OF THE WISCONSIN COUNTY COORDINATE SYSTEM – JEFFERSON ZONE.

NOTES:
1. CONTOUR INTERVAL IS ONE FOOT.
2. ALL CONTOURS AND ELEVATIONS ARE NAVD(88) BASED ON WISCORS.
3. BENCHMARKS AS SHOWN.
4. UNDERGROUND UTILITIES SHOWN ARE FROM MARKINGS BY DIGGERS HOTLINE TICKET NO. 20151302790

SURVEYED FOR:
FRIENDS OF AZTALAN STATE PARK
P.O. BOX 855
LAKE MILLS, WI 53551

DWG NO.
SHEET
DATE
PROJ ID 2015118
FILE

2015118 TOPOGRAPHIC SURVEY

AZTALAN STATE PARK CTH Q LAKE MILLS, WI

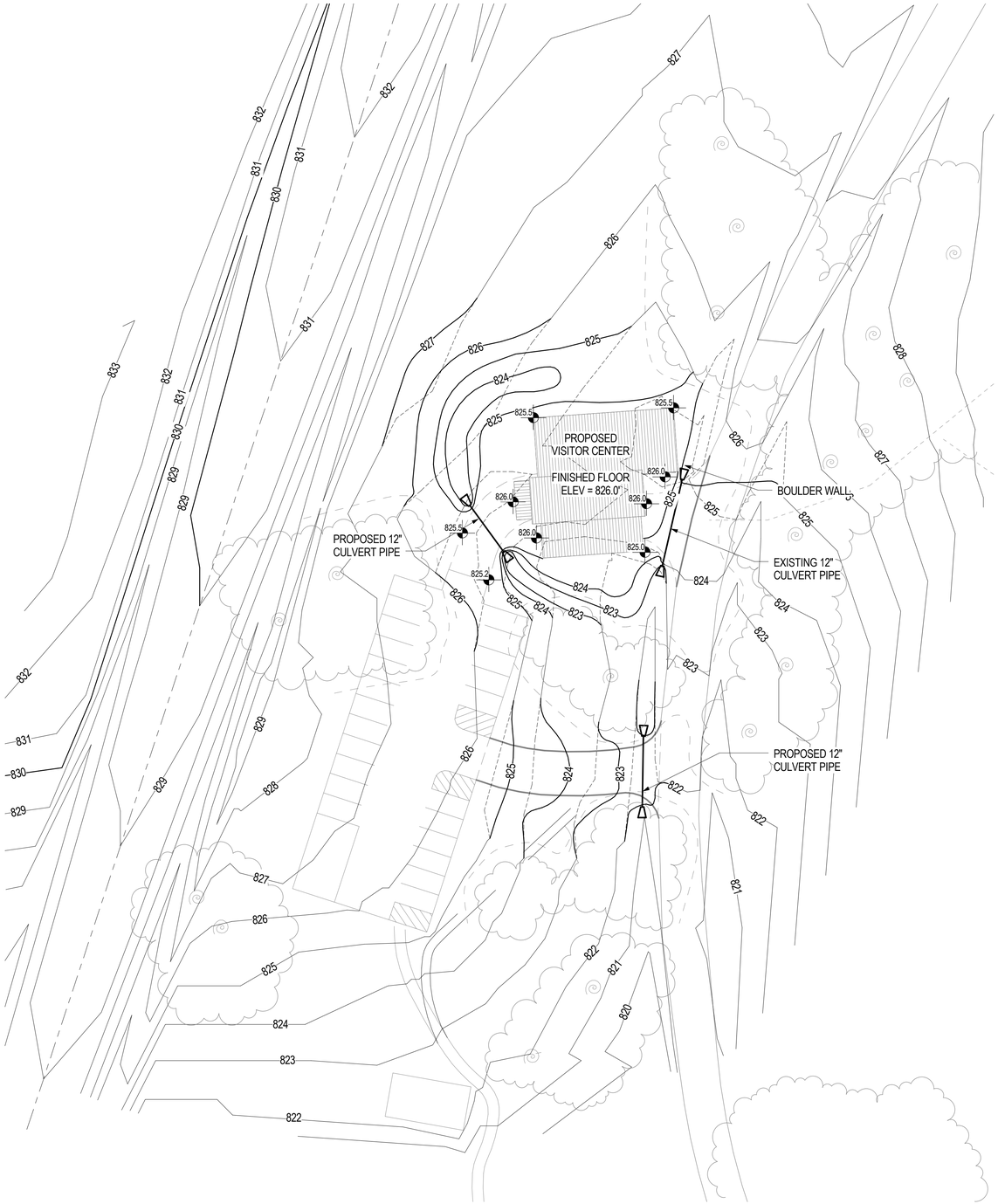
NO.	DATE	REVISION	BY	APVD

OTIE
Oneida Total Integrated Enterprises

DSGN
DR FRT
CHK FRT
APVD

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 ——— 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

FILE NAME:



1 **GRADING PLAN - PHASE I**
1" = 30'-0"

0' 7.5' 15' 30'

NORTH

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OTIE
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5100 EASTPARK BLVD., SUITE 300
MADISON WISCONSIN 53718
608.241.6715

FRIENDS OF AZTALAN STATE PARK: VISITOR CENTER PRELIMINARY DESIGN

AZTALAN, WI

DATE OF ISSUE: 05/21/2015

REVISIONS:		
1	1	Date 1

PROJECT # 14098

GRADING PLAN - PHASE I

C200

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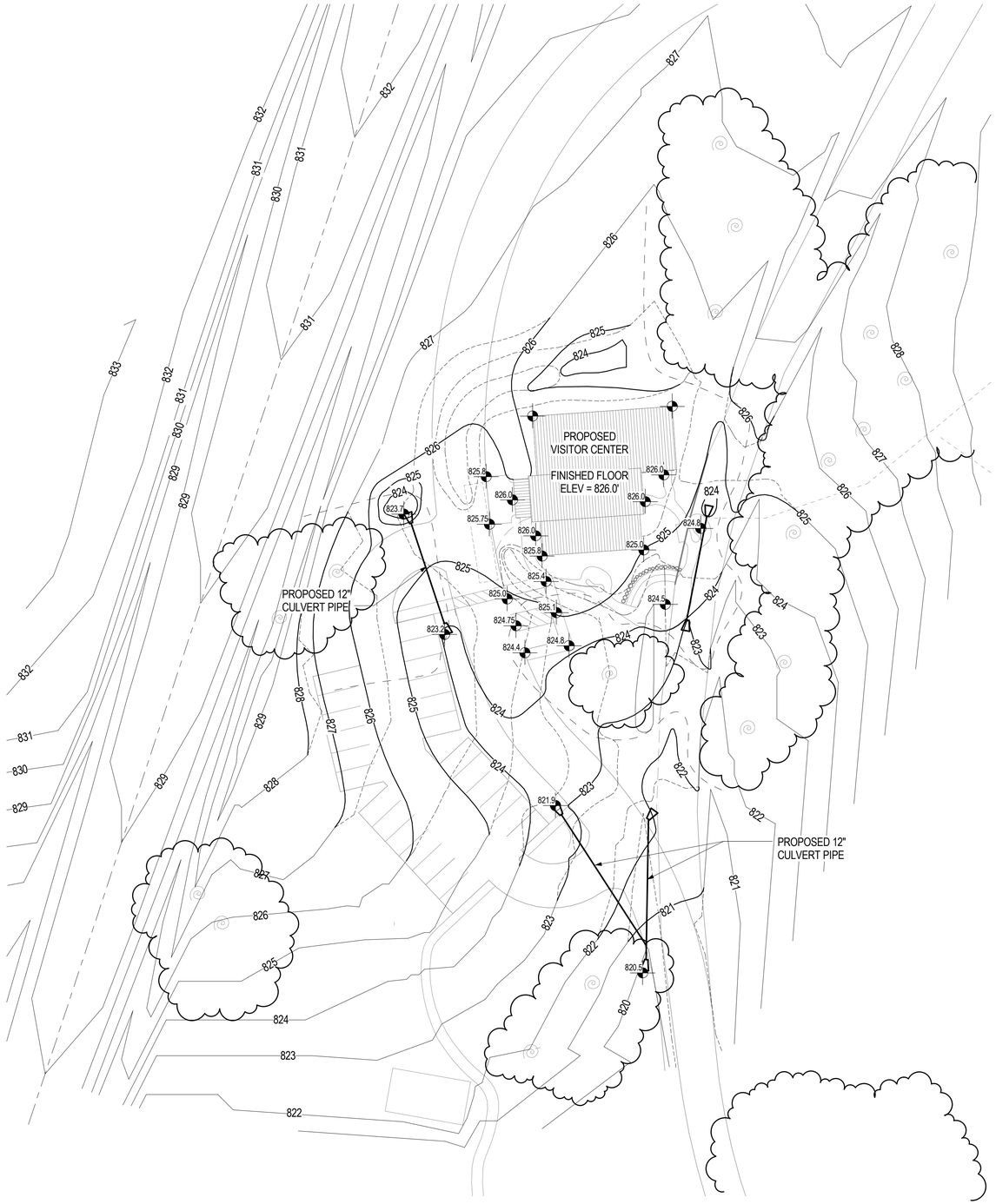

1 **GRADING PLAN - PHASE II**
1" = 30'-0"

0' 7.5' 15' 30'

NORTH

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AZTALAN, WI

DATE OF ISSUE: 05/21/2015

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1	1	Date 1

PROJECT # 14098

GRADING PLAN - PHASE II

C201

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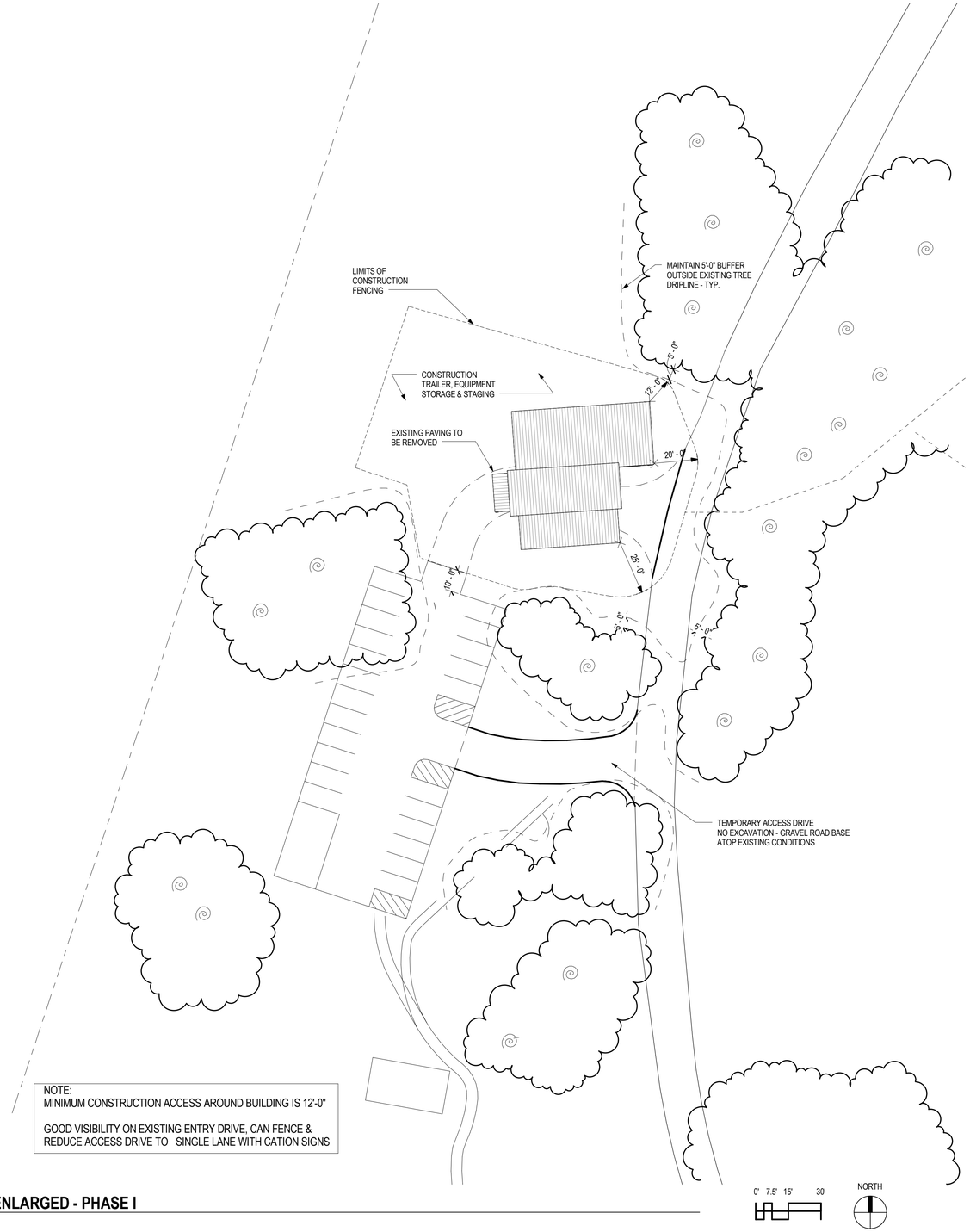
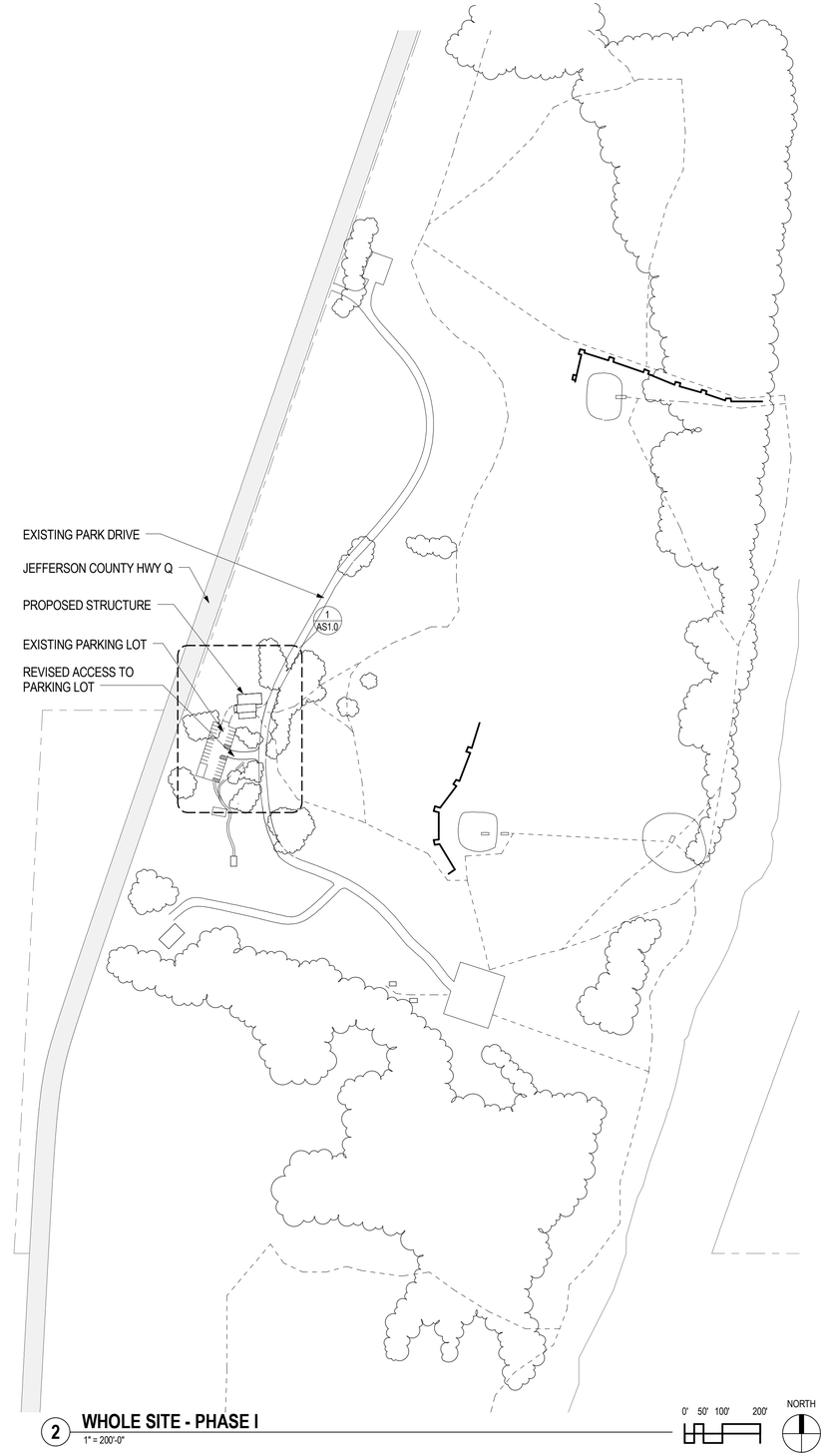


1 **SITE PLAN ENLARGED - PHASE I**
1" = 30'-0"



2 **WHOLE SITE - PHASE I**
1" = 200'-0"

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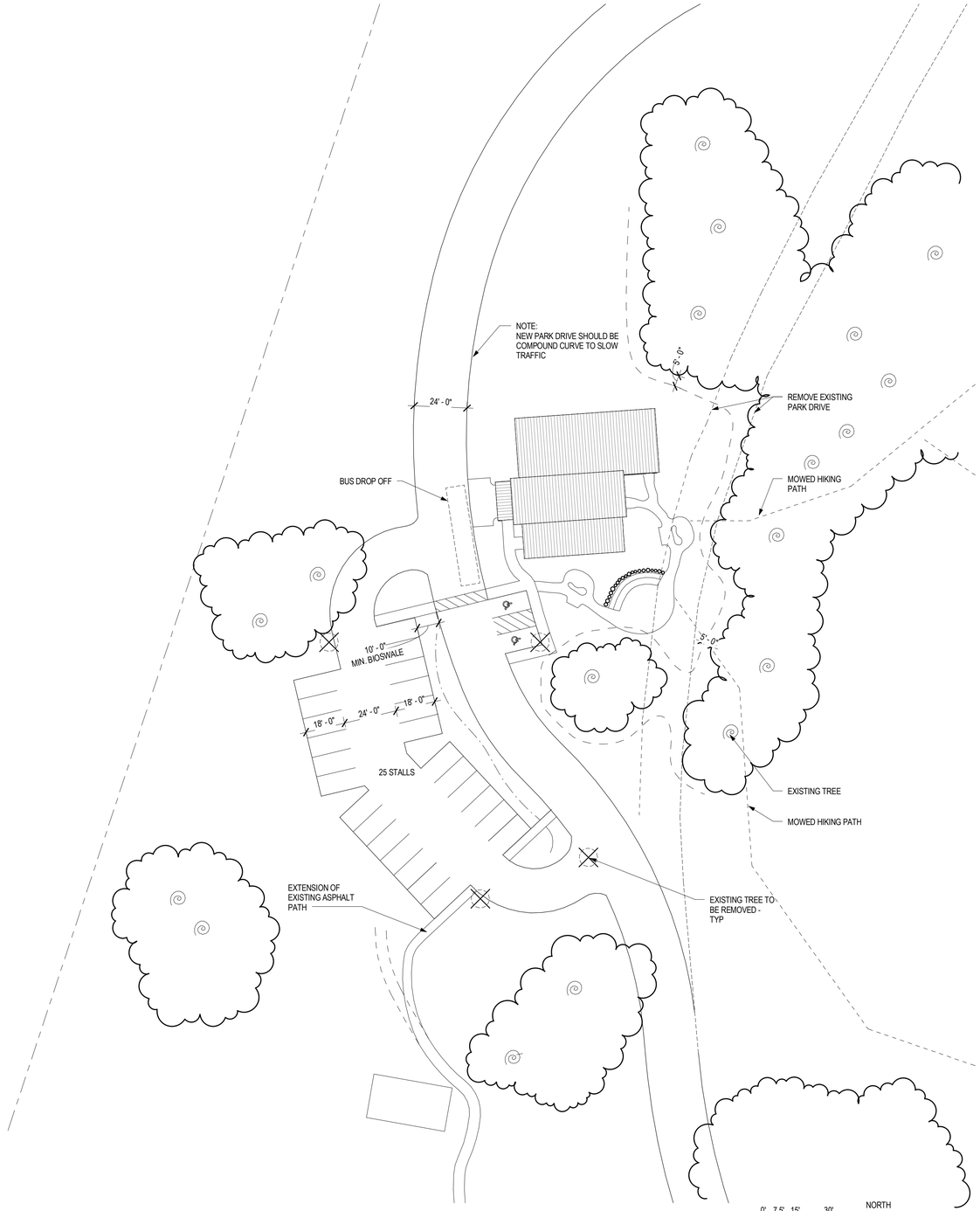
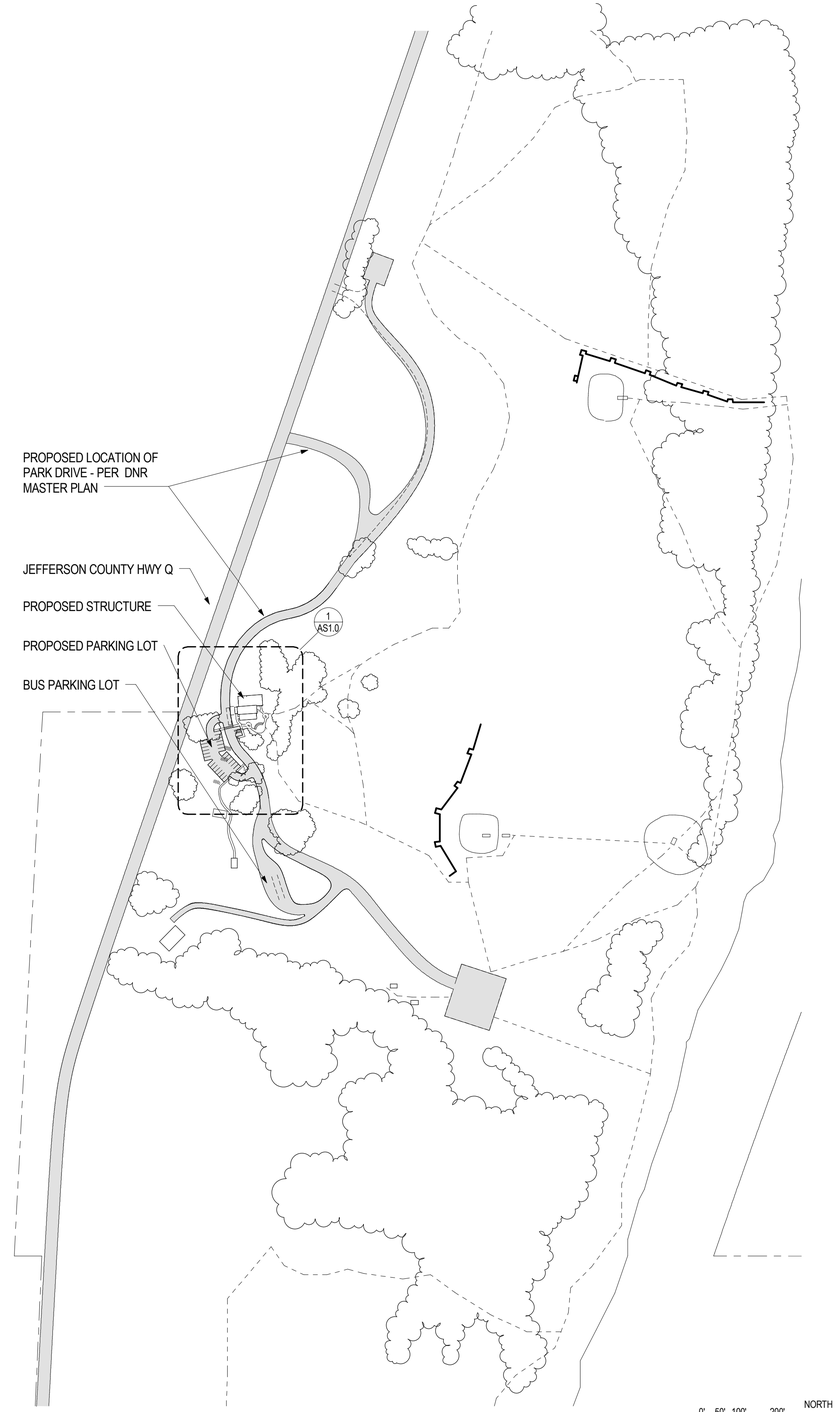
AZTALAN, WI

SITE PLAN PHASE I
05/28/2015
14098



2 **SITE PLAN ENLARGED - PHASE II**
1" = 30'-0"



1 **WHOLE SITE - PHASE II**
1" = 200'-0"

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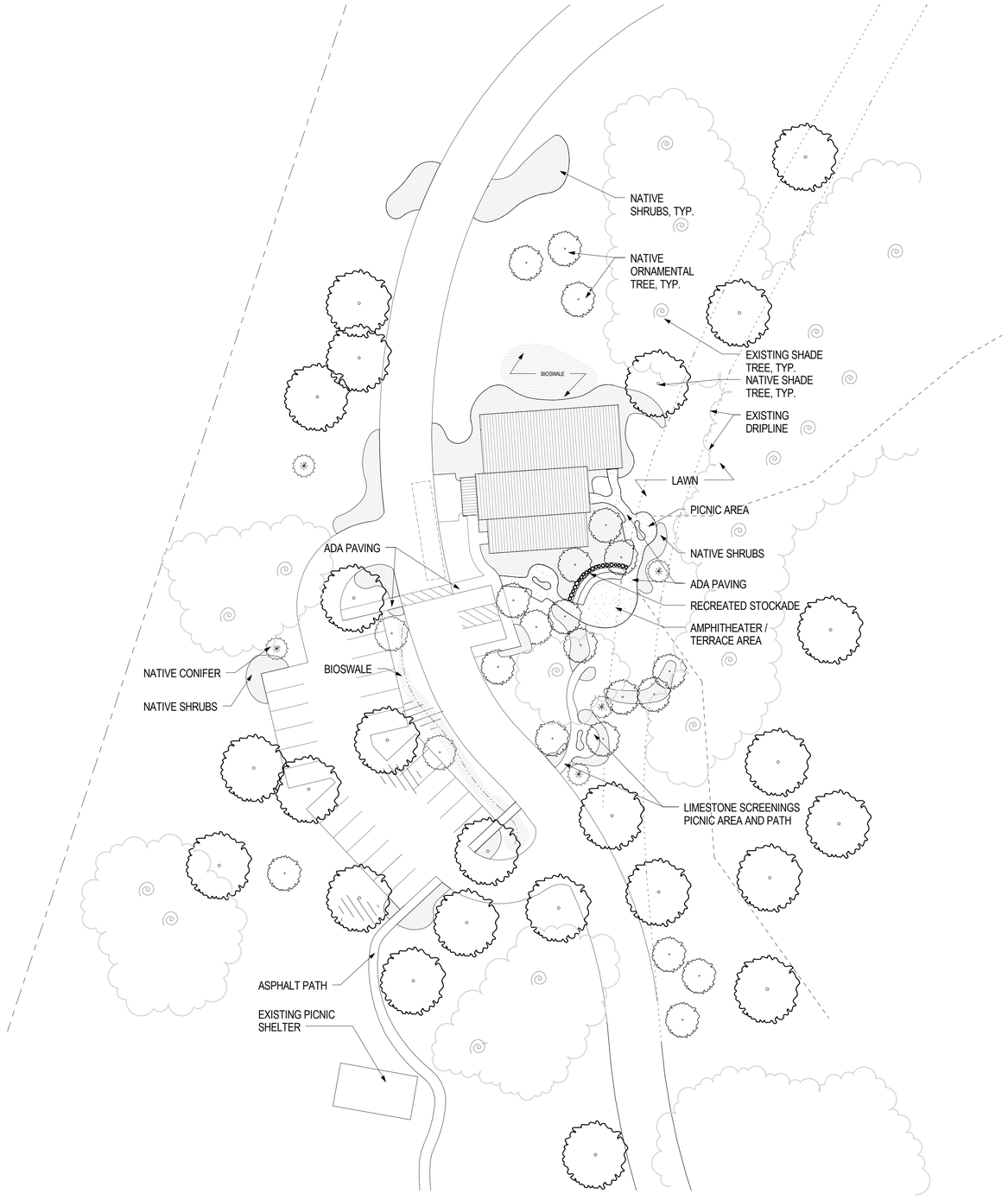
FRIENDS OF AZTALAN STATE PARK: VISITOR CENTER PRELIMINARY DESIGN

AZTALAN, WI

SITE PLAN PHASE II
05/28/2015
14096



1 **SITE PLAN ENLARGED - PHASE II LANDSCAPE**
1" = 30'-0"

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FRIENDS OF AZTALAN STATE PARK: VISITOR CENTER PRELIMINARY DESIGN

AZTALAN, WI

LANDSCAPE PLAN
05/05/2015
14098

STRUCTURAL DESIGN CRITERIA

1. THESE NOTES SUPPLEMENT THE SPECIFICATIONS. PROJECT SPECIFICATIONS SHALL BE REFERRED TO FOR CLARIFICATIONS AND ADDITIONAL INFORMATION. IN CASE OF CONFLICT BETWEEN PROJECT SPECIFICATIONS AND THESE NOTES, THESE NOTES SHALL GOVERN.

2. GOVERNING BUILDING CODE: 2009 IBC AS AMENDED BY THE STATE OF WISCONSIN.

3. DESIGN LOADS

LIVE LOAD
- TYPICAL SLAB ON GRADE ---------- 100 psf
- MEZZANINE ---------- 100 psf

ROOF
- LIVE LOAD
  - SNOW ---------- 50 psf + DRIFTING
- SUPERIMPOSED DEAD LOAD
  - TOP CHORD ---------- 10 psf
  - BOTTOM CHORD ---------- 10 psf

SNOW LOADS
- GROUND SNOW (P_g) ---------- 50 psf
- SNOW LOAD IMPORTANCE FACTOR (I_s) ---------- 1.0
- SNOW LOAD EXPOSURE FACTOR (C_e) ---------- 1.0
- ROOF THERMAL LOAD FACTOR (C_t) AT BUILDING ---------- 1.1
- BASE ROOF SNOW LOAD AT BUILDING ---------- 46.2 psf

WIND LOADS
- BASIC WIND SPEED ---------- 90 mph
- BUILDING OCCUPANCY CATEGORY ---------- II
- WIND LOAD IMPORTANCE FACTOR (I_w) ---------- 1.0
- WIND EXPOSURE CATEGORY ---------- C
- INTERNAL PRESSURE COEFFICIENT ---------- ±.18

MAIN WINDFORCE-RESISTING SYSTEM:
- MWFRS SELECTED EDGE STRIP DISTANCE, (2A) ---------- 11.0 ft
- CALCULATED HORIZONTAL LOADS

	END ZONE		INTERIOR ZONE	
	WALL	ROOF	WALL	ROOF
TRANSVERSE CASE #1:	24.0 psf	16.5 psf	19.2 psf	13.2 psf
TRANSVERSE CASE #2:	24.0 psf	16.5 psf	19.2 psf	13.2 psf
LONGITUDINAL:	24.0 psf	16.5 psf	19.2 psf	13.2 psf

- CALCULATED VERTICAL LOADS

	END ZONE		INTERIOR ZONE	
	WINDWARD	LEEWARD	WINDWARD	LEEWARD
TRANSVERSE CASE #1:	1.8 psf	-14.7 psf	0.7 psf	-12.5 psf
TRANSVERSE CASE #2:	9.3 psf	-7.2 psf	8.0 psf	-5.2 psf
LONGITUDINAL:	-25.7 psf	-14.7 psf	-17.8 psf	-11.3 psf

COMPONENTS AND CLADDING:
- (SEE ASCE/SEI 7-SECTION 6 FOR ZONE DEFINITIONS AND DIAGRAMS)
- COMPONENT AND CLADDING SELECTED EDGE STRIP DISTANCE, (a) ---------- 5.5 ft

TRIBUTARY WIND LOAD AREAS	10 ft	50 ft	100 ft
ROOF (MONOSLOPE):			
ZONE 1 (NEGATIVE)	19.7 psf	17.3 psf	16.3 psf
ZONE 2 (NEGATIVE)	23.0 psf	20.7 psf	19.7 psf
ZONE 3 (NEGATIVE)	23.0 psf	20.7 psf	19.7 psf
WALLS:			
ZONE 4 (NEGATIVE)	21.3 psf	19.3 psf	18.4 psf
ZONE 5 (NEGATIVE)	26.3 psf	22.3 psf	20.4 psf
ZONE 4&5 (POSITIVE)	19.7 psf	17.6 psf	16.7 psf

SEISMIC LOADS
- SEISMIC USE GROUP / OCCUPANCY CATEGORY ---------- II
- SEISMIC IMPORTANCE FACTOR (I_E) ---------- 1.0
- SEISMIC SITE CLASS ---------- C
- SPECTRAL RESPONSE COEFFICIENT (S_{DS}) ---------- 0.048
- SPECTRAL RESPONSE COEFFICIENT (S_{D1}) ---------- 0.032
- SEISMIC DESIGN CATEGORY ---------- A
- BASIC SEISMIC FORCE RESISTING SYSTEM:
  - BEARING WALL SYSTEM
  - LIGHT FRAMED WALL SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE

R = 6.5 Ω_0 = 3.0 C_d = 4.0

- ANALYSIS PROCEDURE:
  - EQUIVALENT LATERAL FORCE PROCEDURE

4. FOUNDATIONS AND EARTHWORK
- ALLOWABLE SOIL BEARING PRESSURE FOR FOOTINGS ---------- 4,000 psf

5. CONCRETE
- MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)
  - FOOTINGS ---------- 3,000 psi
  - PIERS, WALLS ---------- 4,000 psi
  - SLAB-ON-GRADE (INTERIOR) ---------- 3,500 psi
  - SLAB-ON-GRADE (EXTERIOR) ---------- 4,500 psi
- COVER ON MILD STEEL REINFORCEMENT
  - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ---------- 3"
  - CONCRETE EXPOSED TO EARTH OR WEATHER
    - #5 BARS AND SMALLER ---------- 1 1/2"
    - #6 BARS AND LARGER ---------- 2"
  - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND ---------- 1"
- CONCRETE REINFORCEMENT YIELD STRENGTH (Fy)
  - ALL DEFORMED MILD STEEL ---------- 60,000 psi
  - WELDED WIRE FABRIC ---------- 65,000 psi

6. CONCRETE MASONRY
- DESIGN STRESSES
  - MASONRY (NORMAL WEIGHT) MEETING ASTM C90 ---------- f'm = 2,250 psi
  - GROUT: MIN COMPRESSIVE STRENGTH AT 28 DAYS MEETING ASTM C476 ---------- 3,000 psi

7. STRUCTURAL STEEL
- STRUCTURAL STEEL YIELD STRENGTH (Fy)
  - TUBES ---------- 46,000 psi
  - WF BEAMS ---------- 50,000 psi
  - WF COLUMNS ---------- 50,000 psi
- BOLTS FOR STANDARD FRAME CONNECTIONS ---------- 3/4" DIAMETER A325
- BOLTS FOR SINGLE SHEAR TAB CONNECTIONS ---------- 3/4" DIAMETER A325
- ANCHOR RODS ---------- F1554
- WELDING ELECTRODES ---------- E70

8. MISCELLANEOUS
- VERIFY OPENINGS THROUGH FLOOR AND WALLS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL REQUIREMENTS. CHANGES IN SIZE, LOCATION OR NUMBER OF OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. NOT ALL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS.

GENERAL NOTES

1. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THE SHOP DRAWINGS AND WORK.
2. NO OPENING SHALL BE MADE IN ANY STRUCTURAL BEAM, COLUMN, SUPPORT FLOOR, LOAD BEARING WALL, FOOTING, OR FOUNDATION WALL WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ ENGINEER. OPENINGS IN NON-LOAD BEARING WALLS REQUIRE THE ARCHITECT'S APPROVAL.
3. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON NEW STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
4. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION.
5. FIREPROOFING METHODS AND MATERIALS FOR STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR RATING REQUIREMENTS, FIREPROOFING METHODS AND MATERIALS.
6. ALL SECTIONS, DETAIL AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE NOTED.
7. WHEN CONFLICTS ARE NOTED ON THE DRAWINGS, THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE A/E FOR RESOLUTION PRIOR TO FABRICATION OR INSTALLATION.

FOUNDATION NOTES

1. GEOTECHNICAL INFORMATION TAKEN FROM:
.
2. THE OWNER SHALL RETAIN A SOILS ENGINEERING FIRM TO MONITOR PROPER SUBGRADE PREPARATIONS AND TO OVERSEE THE TESTING AND COMPACTION OF COMPACTED FILL MATERIAL.
3. CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES BEFORE FOUNDATION EXCAVATION IF UNDERGROUND UTILITY CONFLICTS ARE DISCOVERED BEFORE OR ENCOUNTERED DURING EXCAVATION, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ANY EXISTING FOUNDATIONS.
5. BEFORE PLACING FOOTINGS, FOUNDATIONS, GRADE BEAMS, OR SLAB-ON-GRADE, THE SUB-GRADE SHALL BE PREPARED AND INSPECTED AS REQUIRED BY THE SPECIFICATIONS AND THE DRAWINGS.
6. REINFORCE ALL FOUNDATION WALLS AND FOOTINGS AS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
7. CONTROL JOINTS IN THE CAST-IN-PLACE CONCRETE FOUNDATION WALLS SHALL BE PLACED AT NOT TO EXCEED 20' OC OR AS LOCATED ON THE DRAWINGS.
8. PERIMETER FOUNDATION WALL INSULATION IS NOT SHOWN ON THE FOUNDATION DETAILS. SEE ARCHITECTURAL DRAWINGS AND THE SPECIFICATIONS FOR INSULATION REQUIREMENTS.
9. SEE SPECIFICATIONS FOR FREE DRAINING BACKFILL BENEATH ALL CONCRETE WALKS AND SLABS ADJACENT TO STRUCTURE.
10. CONTRACTOR NOTE: THE BASE OF ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER AND LOOSE SOIL PRIOR TO PLACING CONCRETE. CARE SHOULD BE TAKEN DURING EXCAVATION AND CONSTRUCTION TO MINIMIZE DISTURBANCE OF THE BEARING SOILS. THE CONCRETE SHOULD BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATION TO PREVENT EXCESSIVE DRYING OR WETTING OF THE SOIL.

CONCRETE CONSTRUCTION NOTES

1. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM WITH THE LOCAL BUILDING CODE REQUIREMENTS AND THOSE OF THE FOLLOWING STANDARDS (LATEST EDITION).
   "ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
   "ACI 315, DETAILS AND DETAILING OF CONCRETE REINFORCEMENT".
   "ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
   "ACI 307, RECOMMENDED PRACTICE FOR CONCRETE FORMWORK".
2. SEE SPECIFICATIONS FOR INFORMATION REGARDING CONCRETE MIX DESIGN, TESTING, MATERIALS, AND ADMIXTURES.
3. ALL CONCRETE REINFORCING STEEL IS TO BE ASTM A-615, GRADE 60.
4. PIPE SLEEVES OVER 1-1/2" INCHES IN DIAMETER WHICH PASS THROUGH CONCRETE WALLS OR SLABS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE. ALL OTHER SLEEVES SHALL BE 14 GAUGE SHEET METAL. SLEEVES SHALL BE ONE SIZE LARGER THAN OUTSIDE DIAMETER OF PIPE PASSING THROUGH SLEEVE. VERIFY SIZE AND NUMBER WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS.
5. ALUMINUM CONDUIT IS NOT PERMITTED TO BE EMBEDDED IN CONCRETE.
6. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES.
7. THE CONSTRUCTION JOINTS NOTED ON THE FRAMING PLANS MUST BE PLACED AS SHOWN. ADDITIONAL CONSTRUCTION JOINTS OR MODIFICATIONS TO THOSE SHOWN WILL BE ALLOWED ONLY AFTER THEIR LOCATION HAS BEEN APPROVED BY THE ARCHITECT/ENGINEER.
8. REFER TO ARCHITECTURAL DRAWINGS FOR SLAB-ON-GRADE FINISH TYPES AND DEPRESSIONS AS REQUIRED FOR MATS, TILES, SLAB FLATNESS TOLERANCE, AND OTHER FINISH MATERIALS.

GENERAL NOTES APPLY TO ALL SHEETS

1. CONTRACTOR TO PROVIDE DRAFT STOPPING IN ATTIC. MAXIMUM AREA OF SUBDIVIDE ATTIC AREA IS 3000 sf CONTRACTOR TO COORDINATE LOCATION OF DRAFT STOPPING WITH ARCHITECT AND TRUSS SHOP DRAWINGS PRIOR TO START OF CONSTRUCTION. PROVIDE AN ATTIC ACCESS PANEL INTO EACH ATTIC COMPARTMENT. MINIMUM OPENING SIZE OF 20" x 30" COORDINATE LOCATION WITH ARCHITECT. DRAFT STOPPING TO EXTEND TO FASCIA AT OVERHANGS.
2. SECURE TRUSSES AT EACH BEARING WITH SIMPSON H2.5A MIN.
3. CONTRACTOR TO SUBMIT TRUSS SHOP DRAWINGS TO ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTION.

WOOD TRUSS NOTES

1. TRUSS FABRICATOR SHALL DESIGN TRUSSES FOR LOADS SPECIFIED ON PLANS IN CONFORMANCE WITH "QUALITY CONTROL MANUAL" BY TPI. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DEAD LOADS RESULTING FROM DORMERS AND OTHER MISCELLANEOUS FRAMING. ALL TRUSSES SHALL BE DESIGNED FOR A MINIMUM OF 30 psf LIVE LOAD PLUS 10 psf DEAD LOAD.
2. LIVE LOAD IS ON A HORIZONTAL PROJECTION OTHER LIVE LOADS SHOWN ON THE DRAWINGS ARE IN ADDITION TO THESE DESIGNATED LOADS.
3. CHECK VERTICALLY PROJECTED ELEMENTS FOR DESIGN WIND LOAD.
4. DESIGN TRUSSES TO RESIST A NET UPLIFT OF 10 psf.
5. SUBMIT SHOP DRAWINGS AND CALCULATIONS PRIOR TO FABRICATION.
6. CONFORM TO NDS AND TPI SPECIFICATIONS.
7. FLOOR TRUSS LL DEFLECTION SHALL NOT EXCEED L/480.
8. ROOF TRUSS LL DEFLECTION SHALL NOT EXCEED L/360.
9. PERMANENT BRACING NOT SHOWN ON PLANS, WHICH IS REQUIRED FOR STRENGTH AND STABILITY OF TRUSS MEMBERS, SHALL BE DESIGNED AND PROVIDED BY TRUSS SUPPLIER.
10. ALL BRACING SHOWN OR DESCRIBED SHALL BE MINIMUM (2x4 W/(2) 16d) (2x6 W/(3) 10d) IN EVERY TRUSS IT CROSSES.
11. ALL TRUSS TOP CHORDS SHALL BE CONTINUOUSLY BRACED BY THE (ROOF/FLOOR) DECKING. ALL ROOF TRUSS WEB MEMBERS SHALL BE BRACED AT 4'-0" OC UNLESS CALCULATIONS SHOW OTHERWISE.
12. TEMPORARY BRACING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. PROVIDE IN ACCORDANCE WITH TPI GUIDELINES.
13. PROVIDE 24" WIDE VIERENDEEL PANEL AT CENTER OF EACH PARALLEL CHORD TRUSS.
14. ALL TRUSSES EXPOSED DIRECTLY TO MOISTURE SHALL BE MADE OF PRESSURE TREATED LUMBER.

WOOD FRAMING NOTES

1. DESIGN, FABRICATION AND CONSTRUCTION SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", LATEST EDITION, AS RECOMMENDED BY THE NATIONAL LUMBER MANUFACTURER'S ASSOCIATION.
2. DESIGN, FABRICATION AND CONSTRUCTION OF ALL PLYWOOD FRAMING SHALL CONFORM TO "PLYWOOD DESIGN SPECIFICATIONS", LATEST EDITION, AS PUBLISHED BY THE AMERICAN PLYWOOD ASSOCIATION. ALL COLUMNS SHOWN ON STRUCTURAL DRAWINGS SHALL BE CONTINUOUS UNLESS NOTED. 3, 4, SILLS AND MEMBERS EXPOSED DIRECTLY TO MOISTURE OR IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
3. PLYWOOD SHALL CONFORM TO THE LATEST EDITION OF U.S. PRODUCT STANDARD PS-1. INSTALL IN STAGGERED PATTERN. NAIL AS REQUIRED FOR DIAPHRAGM ACTION.
4. FRAMING CONNECTIONS SHALL BE SIMPSON COMPANY OR EQUAL, OF THE CATALOG DESIGNATIONS INDICATED. INSTALL MANUFACTURERS STANDARD NAILS IN ALL HOLES PROVIDED UNLESS OTHERWISE NOTED.
5. SHEAR PLATE AND SPLIT RING FASTENERS SHALL BE TECO OR APPROVED EQUAL.
6. NAILS SHALL BE STRONGHOLD, GALVANIZED COMMON NAILS OF THE SIZES INDICATED, EXCEPT THAT GALVANIZED SIDING NAILS SHALL BE USED FOR THE ATTACHMENT OF EXTERIOR PLYWOOD SIDING.
7. WHERE NOT NOTED OTHERWISE, NAILING SHALL BE ACCORDING TO NAILING SCHEDULE IN TABLE 2304.9.1 IBC.
8. ALL BOLTS AND LAG SCREWS SHALL BE AMERICAN STANDARD MANUFACTURE.
9. BOLT HOLES IN WOOD SHALL BE DRILLED 1/16" MAXIMUM OVERSIZE. HOLES FOR SCREWS AND LAG SCREWS SHALL BE FIRST BORED FOR THE SAME DEPTH AND DIAMETER OF THE SHANK THEN THE REMAINDER OCCUPIED BY THE THREADED PORTION SHALL BE BORED NOT LARGER IN DIAMETER THAN THE ROOT OF THE THREAD. ALL SCREWS SHALL BE SCREWED, NOT DRIVEN INTO PLACE.
10. PROVIDE WASHERS UNDER ALL NUTS AND HEADS OF BOLTS AND LAG SCREWS, WASHERS SHALL BE EITHER ROUND MALLEABLE IRON OR SQUARE CUT STEEL WASHERS 1/4" THICK x 3 FASTENER DIAMETERS.
11. ALL TIMBER FRAMING SHALL BE ACCURATELY CUT, NOTCHED, OR DAPPED AS INDICATED. NO OVERCUT IS PERMITTED FOR NOTCHES OR DAPS. MEMBERS SHALL FIT TIGHT AND TRUE. EXAMINE MEMBERS FOR DETRIMENTAL DAMAGE BEFORE INSTALLATION, AND AVOID NATURAL DEFECTS AT CONNECTIONS. WHERE STEEL PLATES OCCUR, THEY SHALL BE USED AS THE TEMPLATE FOR BORING HOLES.
12. WHEREVER NECESSARY TO CUT OR DRILL TREATED LUMBER, TREAT THE CUT OR BORED SURFACES WITH TWO HEAVY COATS OF THE SAME PRESERVATIVE AS THE ORIGINAL TREATMENT.
13. PROVIDE SOLID BLOCKING AT MID-HEIGHT OF ALL WALLS.
14. PROVIDE SOLID BLOCKING AT MID-SPAN OF SAWN JOISTS EXCEEDING 10 FOOT SPAN AND AT 10 FOOT MAXIMUM ON CENTER.
15. MEMBERS BEARING ON CONCRETE OR MASONRY WALLS SHALL HAVE A 1/2" AIR SPACE AROUND SIDES AND END OF BEAM.
16. PROVIDE SOLID BLOCKING BETWEEN JOISTS AT ALL SUPPORTS.
17. SET ALL JOISTS WITH CROWN UP.
18. PLYWOOD PANEL EDGES SHALL BE NAILED NOT LESS THAN 3/8" IN FROM THE PANEL EDGE.
19. PROVIDE 1/4" GAP BETWEEN 4' x 8' PLYWOOD PANELS AT SIDES AND 1/8" GAP AT ENDS. USE PLYWOOD CLIP SPACERS TO MAINTAIN GAPS.
20. BOLT NAILERS AND BLOCKING TO STEEL, MASONRY, OR CONCRETE MEMBERS WITH BOLTS OF LENGTH REQUIRED SPACED 2'-0" OC AND 4" FROM EACH END, EXCEPT AS OTHERWISE NOTED. ANCHOR BOLTS SHALL BE 3/8" DIAMETER UNLESS OTHERWISE INDICATED.

ABBREVIATIONS

AB's	ANCHOR BOLTS (RODS)
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ARCH	ARCHITECTURAL
BLDG	BUILDING
BRG	BEARING
BP(##)	BASE PLATE CALL-OUT
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CL	CENTER LINE
CLR	CLEAR (DISTANCE)
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
DBA	DEFORMED BAR ANCHOR
DIA	DIAMETER
DWG	DRAWING
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EF	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATION
EQ	EQUAL
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
EXTG	EXISTING
FD	FLOOR DRAIN
FLR	FLOOR
FV	FIELD VERIFY
F(##)	FOOTING CALL-OUT
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLULAM	GLUE-LAMINATED BEAM(S)
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HWS	HEADED WELDED STUD(S)
IF	INSIDE FACE
INT	INTERIOR
JBE	JOIST BEARING ELEVATION
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
LW	LONG WAY
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NA	NOT APPLICABLE
NTS	NOT TO SCALE
OC	ON CENTER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
PC	PRECAST / PRESTRESSED
PCI	POUNDS PER CUBIC INCH
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PROJ	PROJECTION
PSF	POUNDS PER CUBIC FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRE (POST) -TENSIONED
P(#)	PIER CALL-OUT
RD	ROOF DRAIN
REINF	REINFORC(ED)(ING)
RTU	ROOF TOP UNIT
SIM	SIMILAR
SOG	SLAB-ON-GRADE
SPA	SPAC(ES)(ED)(ING)
SPEC	SPECIFICATION(S)
SS	STAINLESS STEEL
SW	SHORT WAY
TL	TOP OF LEDGE
TP	TOP OF PIER
TW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
WP	WORKING POINT
WWF	WELDED WIRE FABRIC

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AZTALAN, WI

DATE OF ISSUE: 03/09/2015

REVISIONS:

PROJECT # 14098

STRUCTURAL NOTE SHEET

S0.0

OTIE - April 10, 2015 - 2:24pm
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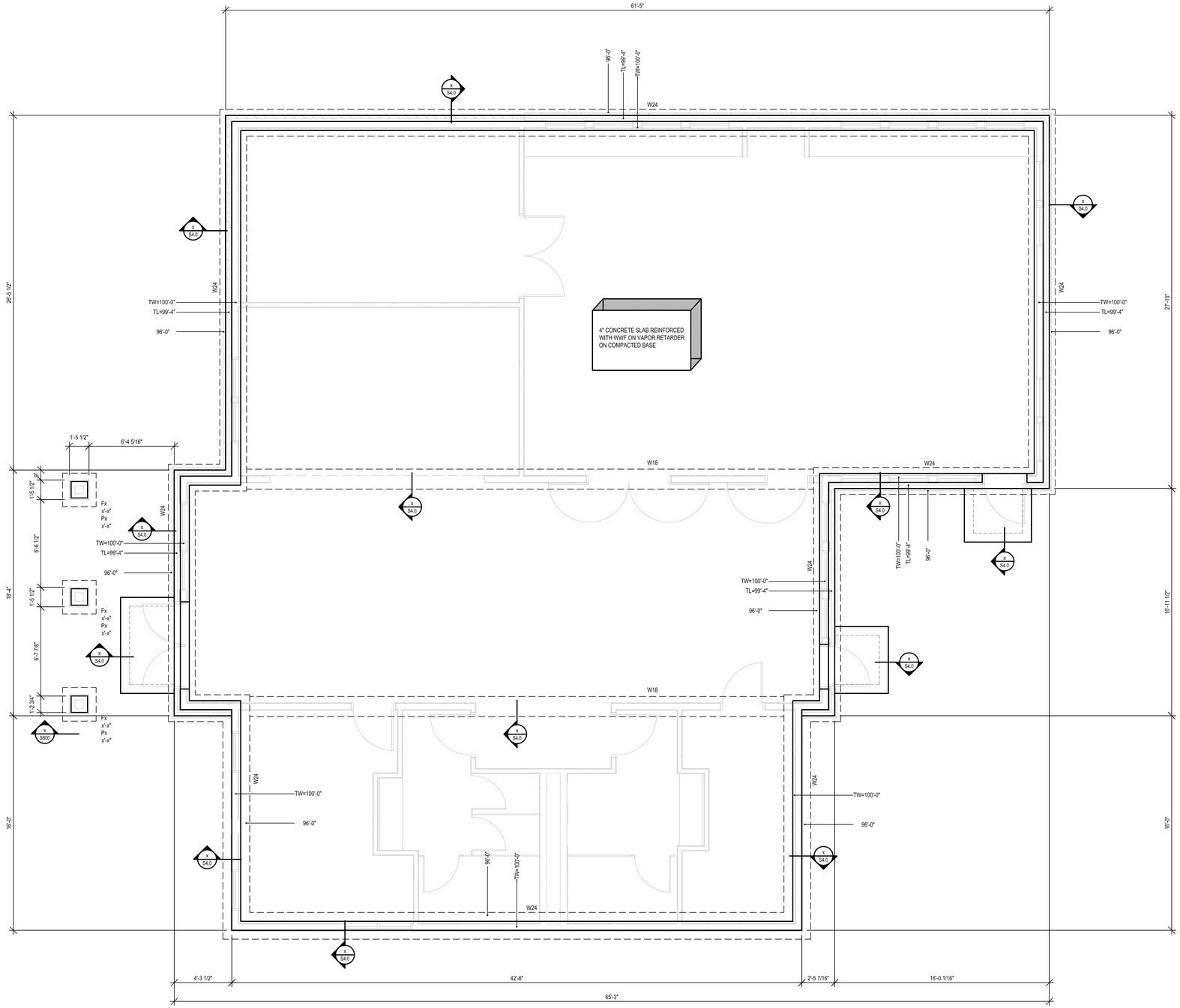

1 S1.0 FOUNDATION PLAN

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

0' 1' 2' 4' 6'

NOTES:

1. -

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FOUNDATION PLAN

S1.0

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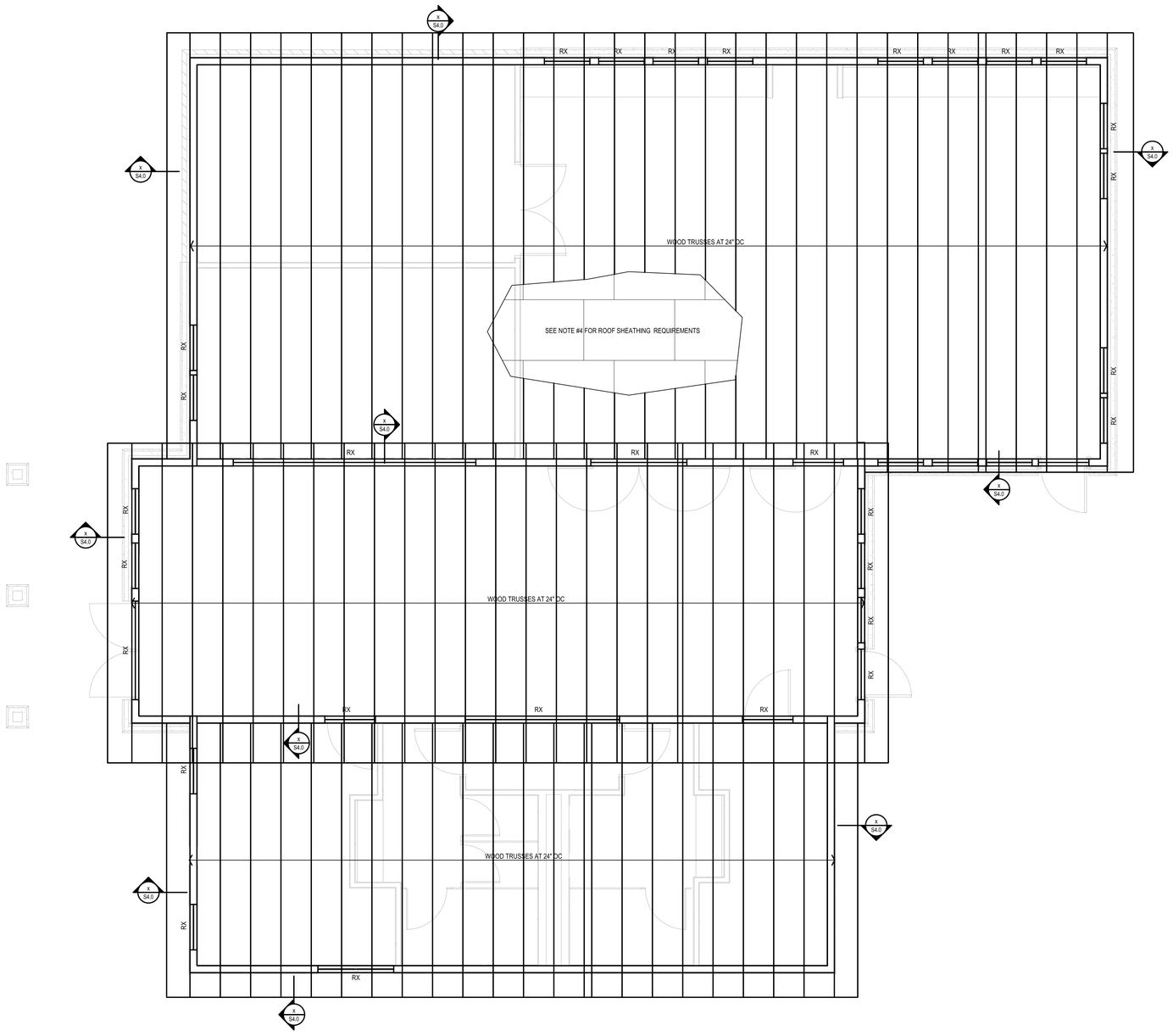

1 S3.0 ROOF FRAMING PLAN

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

0' 1' 2' 4' 6'

NOTES:

1. GENERAL NOTES APPLY TO ALL SHEETS. SEE SHEET S0.0.
2. SECURE ROOF TRUSSES AT EACH BEARING WITH SIMPSON H2.5A MIN.
3. TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOAD: TOP CHORD: LIVE LOAD=30 PSF, DEAD LOAD=10 PSF, BOTTOM CHORD: LIVE LOAD=10 PSF, DEAD LOAD=10 PSF. TRUSS DESIGNER TO ANALYZE TRUSSES FOR AN UNBALANCED ROOF SNOW LOAD PER DIAGRAM.
4. ROOF SHEATHING SHALL BE 1/2" CDX OR OSB SHEATHING, APA RATED 24/16 EXPOSURE 1, NAILED W/ 8D NAILS AT 4" OC AT ALL EDGES AND 12" OC IN THE FIELD.
5. TRUSS SUPPLIER SHALL DESIGN AND SUPPLY ALL TRUSS TO TRUSS AND TRUSS TO BEARING CONDITIONS FOR BOTH GRAVITY AND UPLIFT CONDITIONS.

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AZTALAN, WI

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ROOF FRAMING PLAN

S3.0

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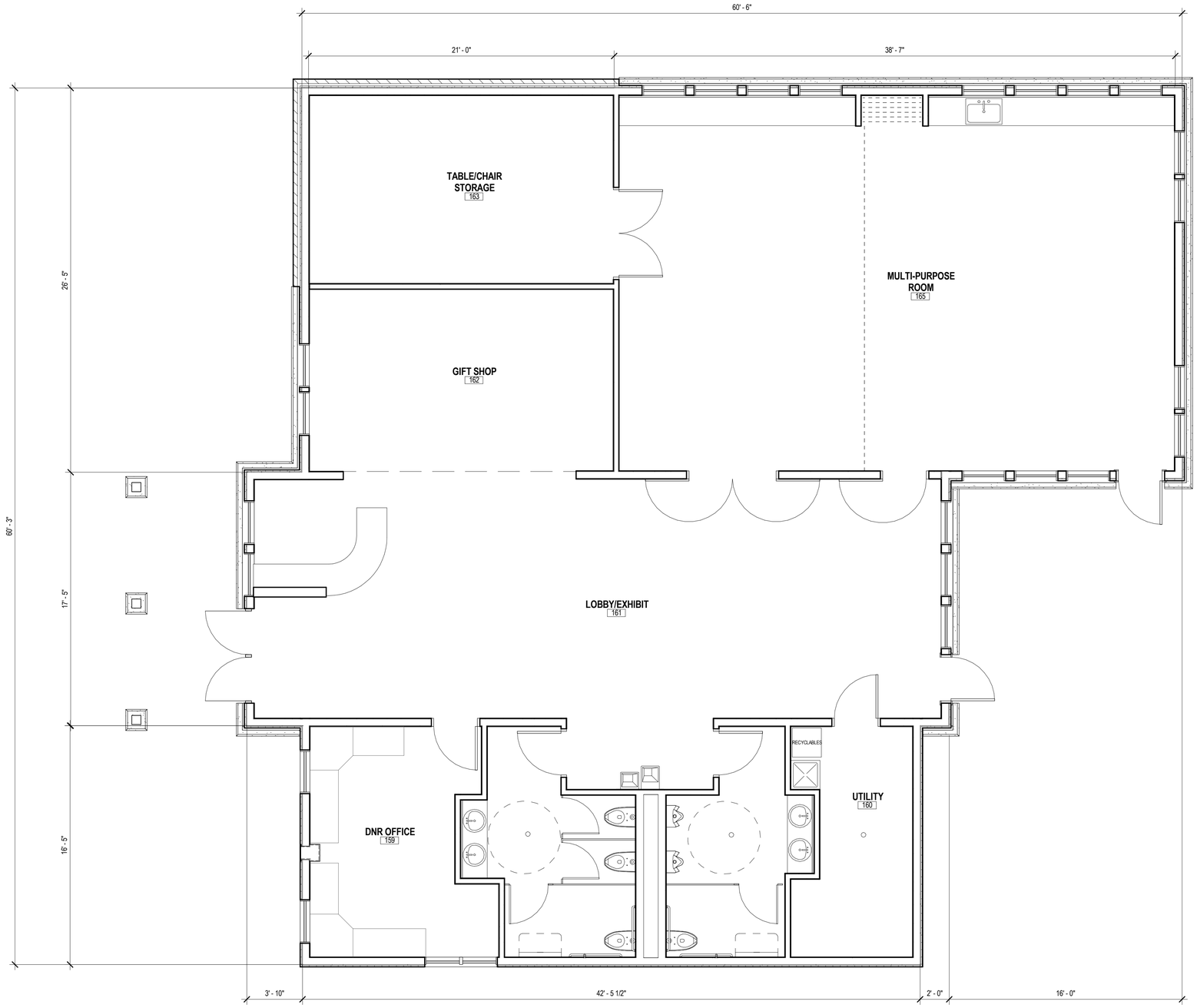

1 **FIRST FLOOR PLAN**
1/4" = 1'-0"

0' 1' 2' 4'

NORTH

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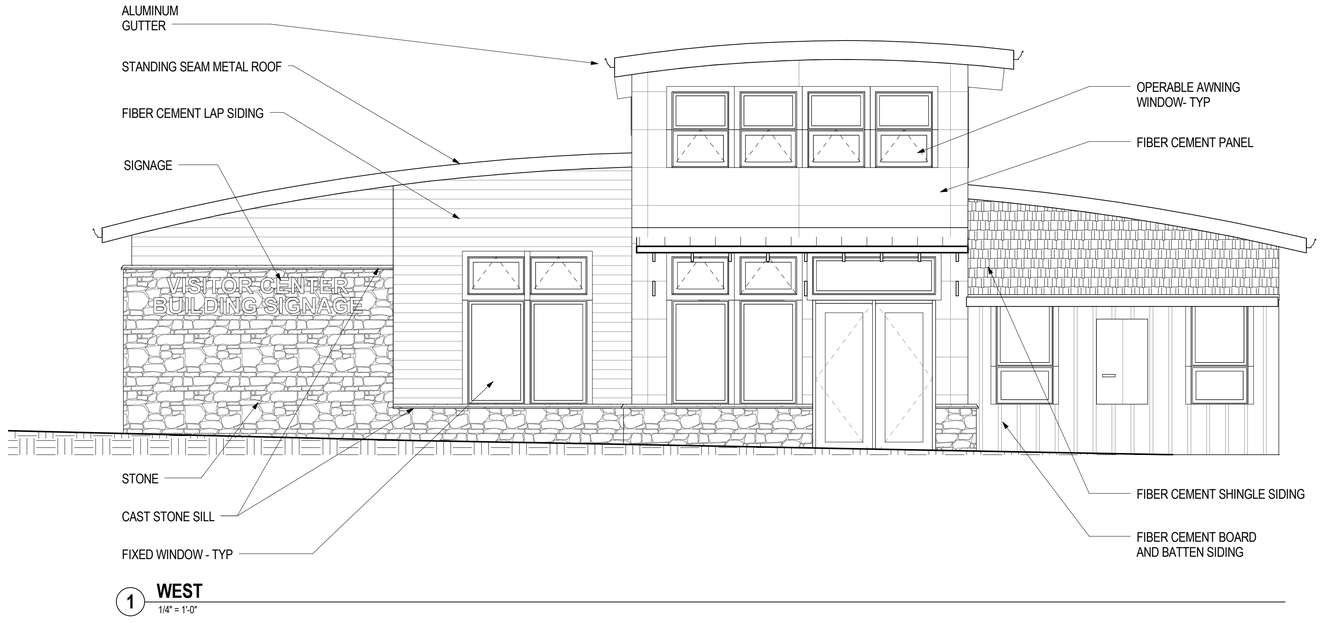
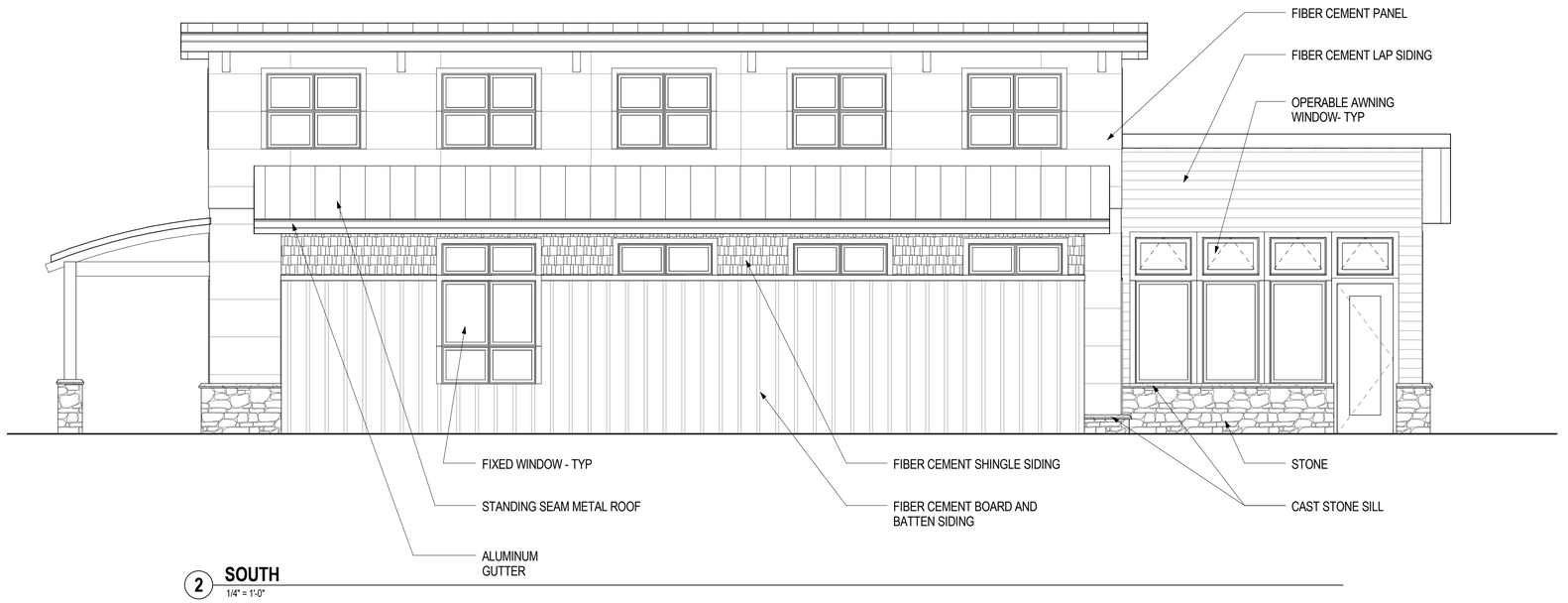
AZTALAN, WI

FIRST FLOOR PLAN
05/30/2015
14098



1 **WEST**
1/4" = 1'-0"



2 **SOUTH**
1/4" = 1'-0"

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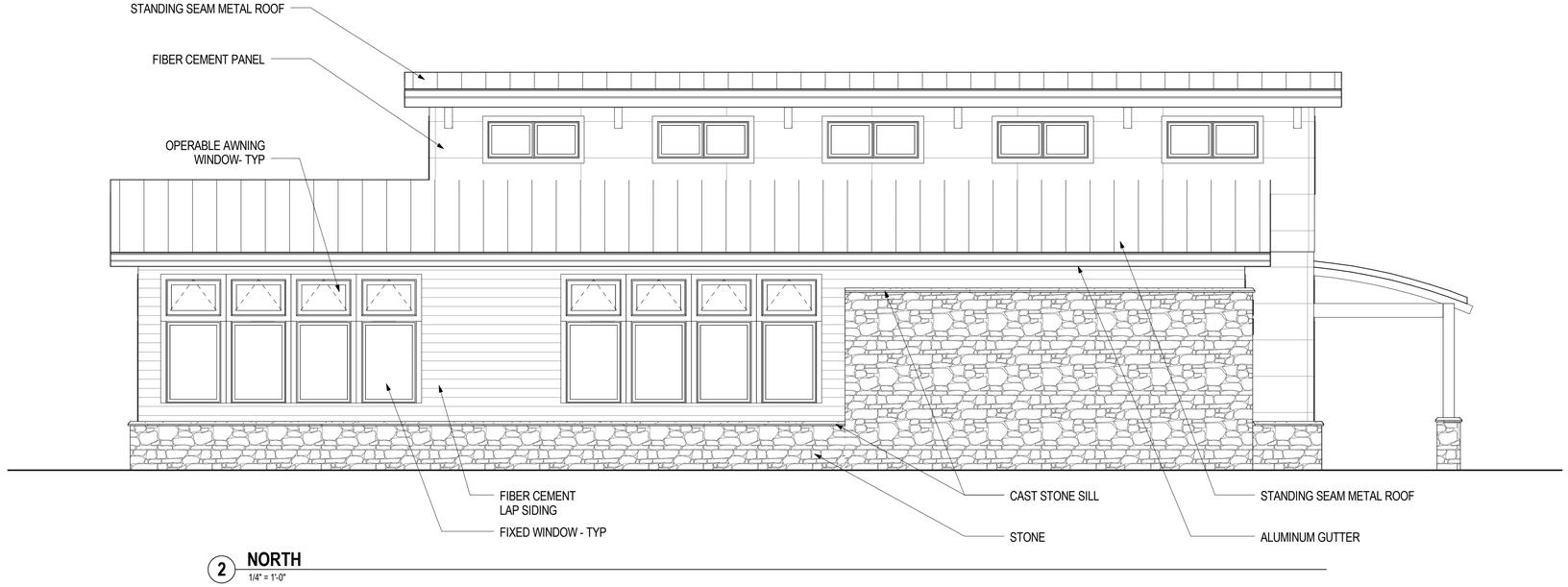
AZTALAN, WI

Elevations
05/30/2015
14098

1 **EAST**
1/4" = 1'-0"



2 **NORTH**
1/4" = 1'-0"

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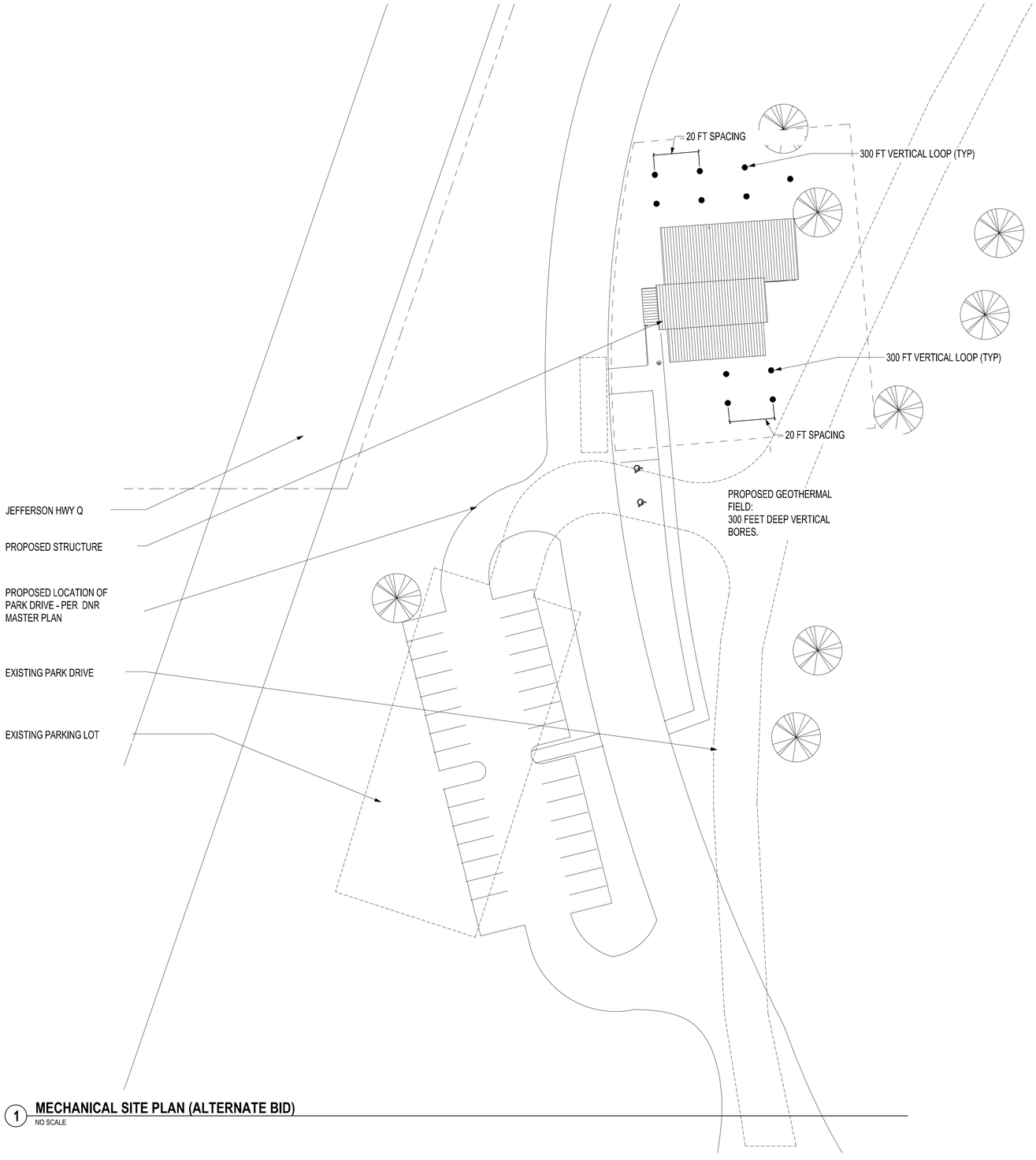

1 **MECHANICAL SITE PLAN (ALTERNATE BID)**
NO SCALE

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MECHANICAL SITE PLAN - (ALTERNATE BID)

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H0.1

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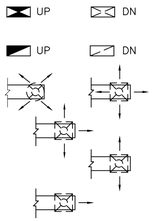
ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AAHX	AIR TO AIR HEAT EXCHANGER
ACCU	AIR-COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMD	AIR FLOW MEASURING DEVICE
AHU	AIR-HANDLING UNIT
AMP	AMPERGE
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE
AS	AIR SEPARATOR
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
B	BOILER
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CONVECTOR
CC	COOLING COIL
CCD	COOLING COIL CONDENSATE DRAIN
CD	CEILING DIFFUSER
CENT	CENTRIFUGAL
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFT	CUBIC FEET
CI	CAST IRON
COP	COEFFICIENT OF PERFORMANCE
COMP	COMPRESSOR
CP	CONDENSATE PUMP
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
CW	COLD WATER (POTABLE)
D	DAMPER - AUTOMATIC
DB	DECIBELS
Db	DRY-BULB TEMPERATURE
DC	DUST COLLECTOR
DDC	DIRECT DIGITAL CONTROLS
DEG	DEGREE
DG	DOOR GRILLE
DIA	DIAMETER
DN	DOWN
DP	DEW POINT TEMPERATURE
DUC	DOOR UNDERCUT
DWH	DOMESTIC WATER HEATER
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ENT	ENTERING
ERU	ENERGY RECOVERY UNIT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EIH	ELECTRIC INFRARED HEATER
ETR	EXISTING TO REMAIN
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
F	FAHRENHEIT
F&T	FLOAT AND THERMOSTATIC
FSD	COMBINATION FIRE SMOKE DAMPER
FA	FREE AREA
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
F	FIRE DAMPER
FF	FINAL FILTER
FG	FILTER GRILLE
FM	FLOW METER
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOW SWITCH
FSTAT	FREEZESTAT
G	NATURAL GAS
GA	GAUGE
GAL	GALLONS
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GS	GALVANIZED STEEL
HC	HEATING COIL
HD	HEAD
HGBP	REFRIGERANT HOT GAS BYBASS
HP	HEAT PUMP
HP	HORSEPOWER
HPR	HIGH PRESSURE RETURN (STEAM CONDENSATE)
HPS	HIGH PRESSURE SUPPLY (STEAM)
HRC	HEAT RECOVERY COIL
HSTAT	HUMIDISTAT
HW	HOT WATER
HWC	HOT WATER COIL
HWWF	HOT WATER WALLFIN
HX	HEAT EXCHANGER
HZ	HERTZ
I/O	INPUT/OUTPUT
IAQ	INDOOR AIR QUALITY
ID	INSIDE DIAMETER
IFB	INTEGRAL FACE AND BYPASS
IN	INCHES
IN HG	INCHES OF MERCURY
IN WC	INCH WATER COLUMN
IN WG	INCH WATER GAUGE
IN-LB	INCH-POUND
IPLV	INTERGRATED PART LOAD VALUE
kW	KILOWATT
kWh	KILOWATT HOUR
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAR FOOT (FEET)
LPR	LOW PRESSURE RETURN (STEAM CONDENSATE)
LPS	LOW PRESSURE STEAM
LWT	LEAVING WATER TEMPERATURE
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	1000 BTUH
MCA	MINIMUM BRANCH CIRCUIT AMPACITY
MD	MOTORIZED DAMPER
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MIN	MINIMUM
MOP	MAX OVERCURRENT PROTECTION
M.C.	MECHANICAL CONTRACTOR
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NPLV	NON-STANDARD PART LOAD VALUE
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
P	PUMP
PC	PUMPED CONDENSATE
PCF	POUNDS PER CUBIC FOOT (FEET)
PD	PRESSURE DROP
PG	PRESSURE GAGE
PG	PROPYLENE GLYCOL-WATER (SOLUTION)
PPM	PARTS PER MILLION
PRV	PRESSURE REGULATING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAGE
PTAC	PACKAGED TERMINAL AIR CONDITIONER
(X)R	STEAM RADIATOR
R	RETURN
RA	RETURN AIR
RF	RETURN FAN
RG	RETURN GRILLE
RH	ROOF HOOD
RHC	REHEAT COIL
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID LINE
RLA	RUN LOAD AMPERE
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SAD	SOUND ATTENUATING DEVICE
SAT	SUPPLY AIR TEMPERATURE
SC	SHADING COEFFICIENT
SCFM	STANDARD CUBIC FEET PER MINUTE
SD	SMOKE DETECTOR
SD	SLOT DIFFUSER
SF	SUPPLY FAN
SG	SUPPLY AIR GRILLE
SHC	STEAM HEATING COIL
SI	SQUARE INCHES
SP	STATIC PRESSURE
SP GR	SPECIFIC GRAVITY
SPS	STATIC PRESSURE SENSOR
SQ FT	SQUARE FOOT (FEET)
SS	STAINLESS STEEL
ST	STEAM TRAP
SUH	STEAM UNIT HEATER
SWHX	STEAM TO WATER HEAT EXCHANGER
T	TRANSFER GRILLE
TAB	TESTING, ADJUSTING, BALANCE
TCP	TEMPERATURE CONTROL PANEL
TD	TEMPERATURE DIFFERENCE
TG	TRANSFER GRILLE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
UH	UNIT HEATER
UV	UNIT VENTILATOR
WWHP	WATER TO WATER HEAT PUMP
WWHX	WATER TO WATER HEAT EXCHANGER
WF	WATER FILTER
(X)	EXISTING EQUIPMENT (WHEN FOLLOWED BY EQUIPMENT ABBREVIATION)

DUCTWORK SYMBOLS



SUPPLY DUCT (UP & DOWN)

RETURN/EXHAUST DUCT (UP & DOWN)

ROUND AND SQUARE 4-WAY CEILING DIFFUSERS

SQUARE 3-WAY CEILING DIFFUSERS

SQUARE 2-WAY CEILING DIFFUSERS

SQUARE 1-WAY CEILING DIFFUSERS

SUPPLY REGISTER OR GRILLE (WALL TYPE)

EXHAUST OR RETURN REGISTER OR GRILLE (WALL TYPE)

FLEXIBLE CONNECTION, EQUIPMENT, VIBRATION, OR SEISMIC

VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)

STANDARD RADIUS ELBOW (LONG RADIUS)

NEW DUCT (INSIDE DIMENSIONS: WIDTH x DEPTH)

FLEXIBLE DUCTWORK (INSULATED)

DUCT WITH SOUND LINING

MANUAL VOLUME DAMPER

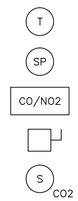
AUTOMATIC CONTROL DAMPER

FIRE DAMPER

BACKDRAFT DAMPER

STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)

CONTROLS SYMBOLS



ROOM THERMOSTAT/TRANSMITTER - WALL MOUNT

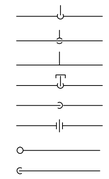
CEILING FAN SPEED CONTROLLER

GAS DETECTION SYSTEM

STARTER/DISCONNECT

CARBON DIOXIDE SENSOR

GENERAL PIPING SYMBOLS



TOP CONNECTION, 45° OR 90°

BOTTOM CONNECTION, 45° OR 90°

SIDE CONNECTION

CAPPED OUTLET

RISE OR DROP IN PIPE

UNION

PIPE UP

PIPE DOWN

GAS PIPING

REFRIGERANT PIPING (SUCTION AND LIQUID)

VENT PIPING

COMBUSTION AIR PIPING

ISOLATION VALVE

GAS PRESSURE REGULATING VALVE

SHEET INDEX

H0.0	MECHANICAL SYMBOLS, ABBREVIATIONS AND SHEET INDEX
H0.1	MECHANICAL SITE PLAN (ALTERNATE BID)
H1.0	FIRST FLOOR MECHANICAL PLAN
H2.0	MECHANICAL DETAILS
H3.0	MECHANICAL SCHEDULES

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MECHANICAL SYMBOLS, ABBREVIATIONS AND SHEET INDEX

H0.0

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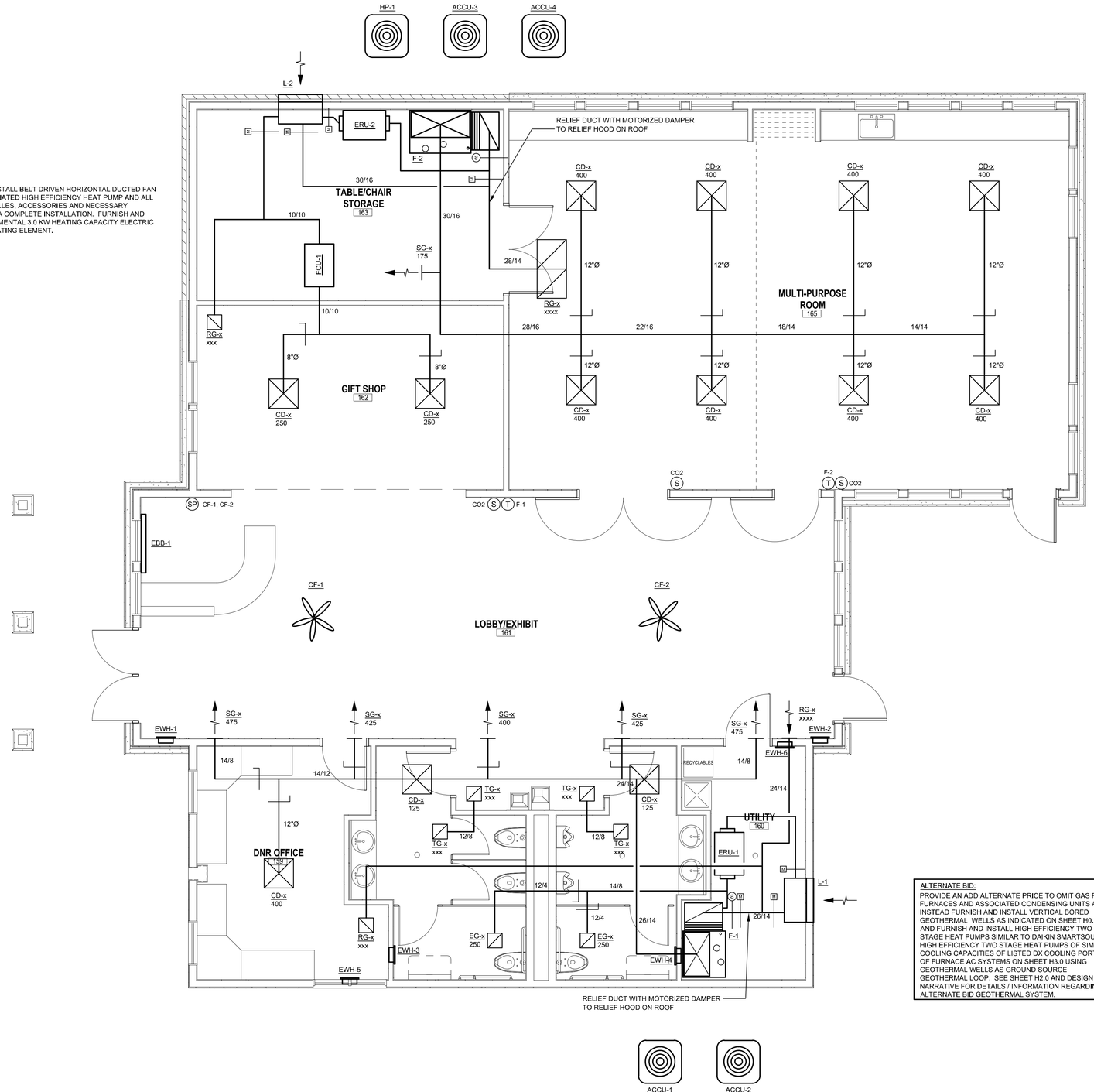
Oneida Total Integrated Enterprises
5100 Eastpark Blvd., Suite 300, Madison, WI 53718, ph. 608-243-6470 Job# 2015072

3/11/2015 11:59:46 AM Y:\2015 Projects\2015072 Aztalan Park Visitors Center\Drawings\REVIT MODEL\03 10 2015 - Aztalan Visitor Center.rvt

FURNISH AND INSTALL BELT DRIVEN HORIZONTAL DUCTED FAN COIL AND ASSOCIATED HIGH EFFICIENCY HEAT PUMP AND ALL DUCTWORK, GRILLES, ACCESSORIES AND NECESSARY CONTROLS FOR A COMPLETE INSTALLATION. FURNISH AND INSTALL SUPPLEMENTAL 3.0 KW HEATING CAPACITY ELECTRIC RESISTANCE HEATING ELEMENT.



ALTERNATE BID:
PROVIDE AN ADD ALTERNATE PRICE TO OMIT GAS FIRED FURNACES AND ASSOCIATED CONDENSING UNITS AND INSTEAD FURNISH AND INSTALL VERTICAL BORED GEOTHERMAL WELLS AS INDICATED ON SHEET H0.1 AND FURNISH AND INSTALL HIGH EFFICIENCY TWO STAGE HEAT PUMPS SIMILAR TO DAIKIN SMARTSOURCE HIGH EFFICIENCY TWO STAGE HEAT PUMPS OF SIMILAR COOLING CAPACITIES OF LISTED DX COOLING PORTIONS OF FURNACE AC SYSTEMS ON SHEET H3.0 USING GEOTHERMAL WELLS AS GROUND SOURCE GEOTHERMAL LOOP. SEE SHEET H2.0 AND DESIGN NARRATIVE FOR DETAILS / INFORMATION REGARDING ALTERNATE BID GEOTHERMAL SYSTEM.

1 **FIRST FLOOR MECHANICAL PLAN**
1/4" = 1'-0"

0' 1' 2' 4'

NORTH

DIMENSION IV
Madison Design Group
architecture · engineering · interior design

6515 Grand Teton Plaza, Suite 120
Madison, Wisconsin 53719
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PRELIMINARY DESIGN - APRIL 10, 2015- NOT FOR CONSTRUCTION

FRIENDS OF AZTALAN STATE PARK -VISITOR CENTER

AZTALAN, WI

DATE OF ISSUE: APRIL 10, 2015

REVISIONS:

PROJECT # 14098

FIRST FLOOR MECHANICAL PLAN

H1.0

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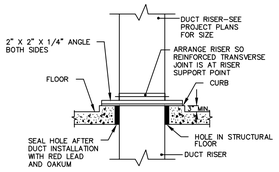
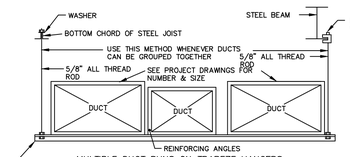
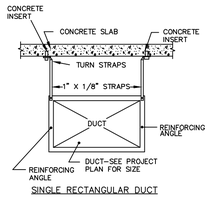


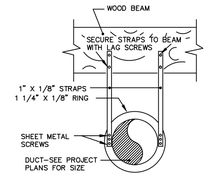
RISER SUPPORT



MULTIPLE DUCT RUNS ON TRAPEZE HANGERS



SINGLE RECTANGULAR DUCT

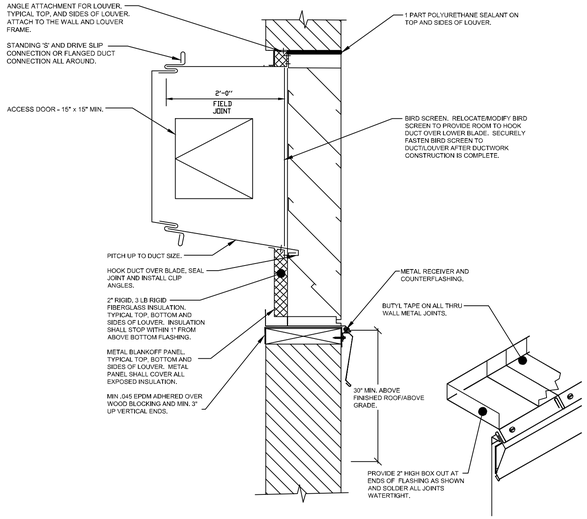


ROUND DUCT

HANGER AND SUPPORT DETAILS FOR DUCTWORK (UP TO 10"WG)

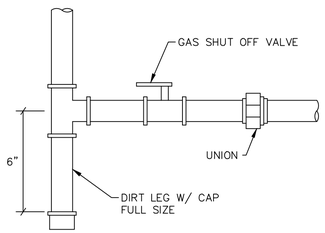
(VARIOUS METHODS OF ATTACHMENT)

NOT TO SCALE



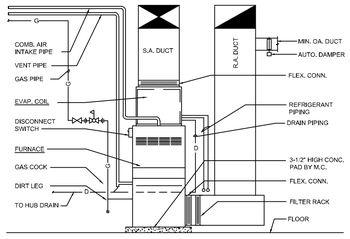
X LOUVER DETAIL

NTS



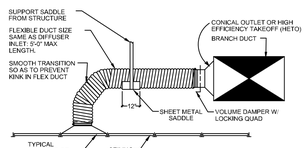
GAS PIPE DIRT LEG DETAIL

NO SCALE



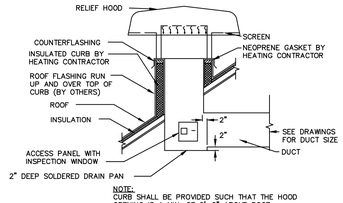
X GAS-FIRED FURNACE DETAIL

NTS



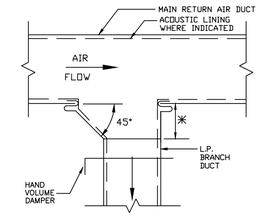
X FLEXIBLE AIR DUCT CONNECTOR

NTS



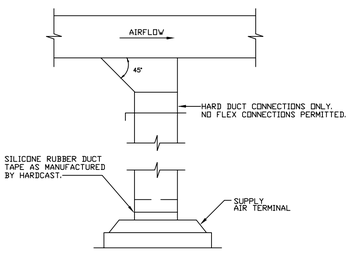
RELIEF HOOD

NO SCALE



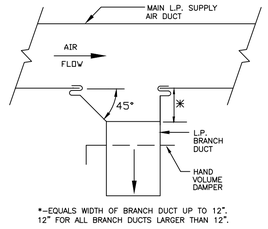
TYPICAL SUPPLY AIR BRANCH DUCT TAKE-OFF

NOT TO SCALE



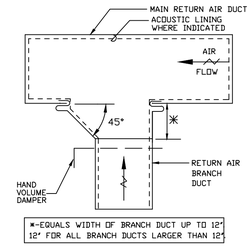
DUCT BRANCH TAKE-OFF DETAIL

NOT TO SCALE



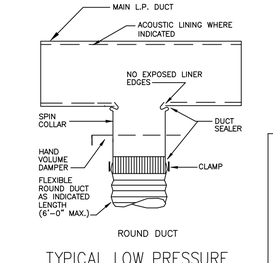
TYPICAL LOW PRESSURE BRANCH DUCT TAKE-OFF

NOT TO SCALE



TYPICAL RETURN AIR BRANCH DUCT TAKE-OFF

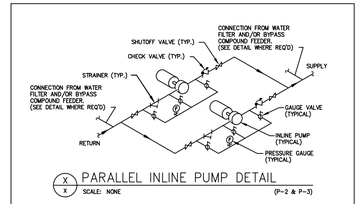
NOT TO SCALE



ROUND DUCT

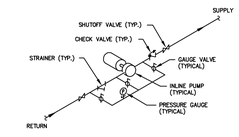
TYPICAL LOW PRESSURE BRANCH DUCT TAKE-OFF

NOT TO SCALE



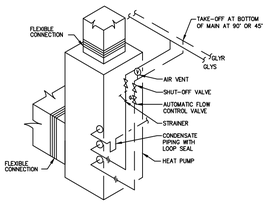
X PARALLEL INLINE PUMP DETAIL

SCALE: NONE (P-2 & P-3)



X INLINE PUMP DETAIL

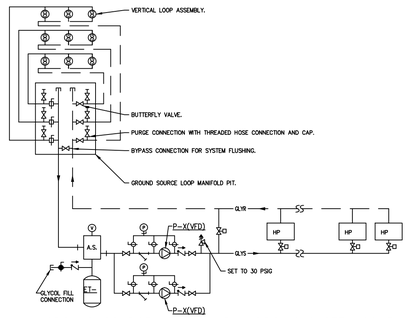
SCALE: NONE



X HEAT PUMP UNIT PIPING DETAIL

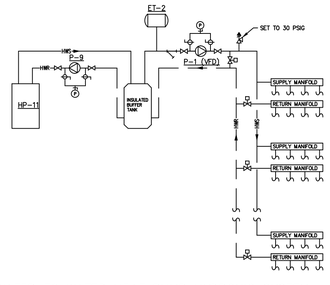
SCALE: NONE

GEOTHERMAL SYSTEM ALTERNATE BID DETAILS



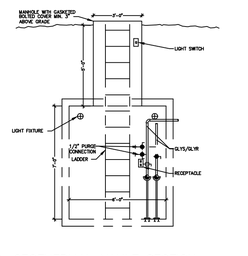
X GROUND SOURCE HEAT PUMP HYDRONIC SYSTEM SCHEMATIC

SCALE: NONE



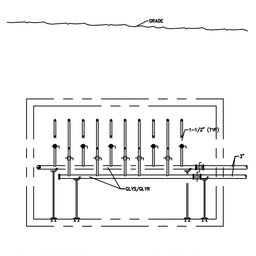
X WATER TO WATER HEAT PUMP HYDRONIC SYSTEM

SCALE: NONE



X GEOTHERMAL VAULT SECTION

SCALE: NONE



X GEOTHERMAL VAULT SECTION

SCALE: NONE

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FRIENDS OF AZTALAN STATE PARK -VISITOR CENTER

AZTALAN, WI

DATE OF ISSUE: APRIL 10, 2015

REVISIONS:

PROJECT # 14098

MECHANICAL DETAILS

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H2.0

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GRILLE AND DIFFUSER SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	CFM RANGE	FACE SIZE	NECK SIZE	MATERIAL	FINISH	VOLUME DAMPER	REMARKS
CD-2	NAILOR	RNS	151 - 250	24" x 24"	8"	STEEL	WHITE	NO	STAMPED CLG DIFFUSER
CD-3	NAILOR	RNS	351 - 580	24" x 24"	12"	STEEL	WHITE	NO	STAMPED CLG DIFFUSER
CD-4	NAILOR	RNS	151 - 250	24" x 24"	8"	STEEL	WHITE	NO	2-WAY (90 DEGREES APPART)
SG-1	NAILOR	51DH	0 - 2000	26" X 26"	24" X 24"	ALUM	ALUM	YES	DOUBLE DEFLECTION
SG-2	NAILOR	61DH	0 - 100	12" X 8"	10" X 6"	STEEL	ALUM	YES	DOUBLE DEFLECTION
T-1	NAILOR	51EC	0 - 500	24" X 12"	22" X 10"	ALUM	WHITE	NO	EGGCRATE
T-2	NAILOR	51EC	0 - 1000	24" X 24"	22" X 22"	ALUM	WHITE	NO	EGGCRATE
T-3	NAILOR	51EC	0 - 250	12" X 12"	10" X 10"	ALUM	WHITE	NO	EGGCRATE
EG-1	NAILOR	51EC	0 - 1000	12" X 12"	10" X 10"	ALUM	WHITE	NO	EGGCRATE
EG-2	NAILOR	6155H	0 - 150	14" X 10"	12" X 8"	STEEL	WHITE	YES	SINGLE DEFLECTION
EG-3	NAILOR	6155H	0 - 855	26" X 12"	24" X 10"	ALUM	ALUM	YES	SINGLE DEFLECTION
EG-4	NAILOR	6155H	0 - 450	12" X 20"	10" X 18"	ALUM	ALUM	YES	SINGLE DEFLECTION

ELECTRIC BASEBOARD HEATER SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	LOCATION	LENGTH	ELECTRICAL DATA			T'STAT	MOUNTING	REMARKS
					KW	VOLTS	PHASE			
EBB-1	QMARK	QMKC	LOBBY	4'	1	120	1	INTEGRAL	WALL MTD	1,2

NOTES:
1. PROVIDE UNIT WITH INTEGRAL THERMOSTAT.
2. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH.

LOUVER SCHEDULE

UNIT NO.	LOCATION	SERVES	AIR FLOW (CFM)	USE	WIDTH (INCHES)	HEIGHT (INCHES)	P.D. (IN. WG)	REMARKS
L-1	EXT. WALL - EAST	F-1 O.A.	2,850	INTAKE	X	X	0.15	1
L-2	EXT. WALL - NORTH	F-2 O.A.	3,725	INTAKE	X	X	0.15	1

NOTES:
1. APPROVAL OF COLOR REQUIRED BY ARCHITECT PRIOR TO RELEASE OF EQUIPMENT.
2. ALIGN TOP OF LOUVER WITH TOP OF OVERHEAD DOOR.
3. INSTALL TOP OF LOUVER AT 10'-8" AFF.
4. INSTALL TOP OF LOUVER AT 9'-10" AFF.

ELECTRIC WALL HEATER SCHEDULE

UNIT NO.	MANUFACTURER	LOCATION	MODEL	ELECTRICAL DATA			T'STAT	MOUNTING	REMARKS
				KW	VOLTS	PHASE			
EWH-1	QMARK	VESTIBULE	LFK	3	208	1	INTEGRAL	RECESSED	1, 2, 3
EWH-2	QMARK	CORRIDOR 119	LFK	3	208	1	INTEGRAL	RECESSED	1, 2, 3
EWH-3	QMARK	WOMENS	AWH	1.5	208	1	INTEGRAL	RECESSED	1, 2, 3
EWH-4	QMARK	MENS	AWH	1.5	208	1	INTEGRAL	RECESSED	1, 2, 3
EWH-5	QMARK	DNR OFFICE	AWH	1.5	208	1	INTEGRAL	RECESSED	1, 2, 3
EWH-6	QMARK	UTILITY	AWH	1.5	208	1	INTEGRAL	RECESSED	1, 2, 3

NOTES:
1. PROVIDE UNIT WITH INTEGRAL TAMPER-RESISTANT THERMOSTAT.
2. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH.
3. FURNISH AND INSTALL UNIT RECESSED MOUNTING FRAME.

MOTORIZED DAMPER SCHEDULE

UNIT NO.	LOCATION	SERVES	WIDTH (INCHES)	HEIGHT (SQ. FT.)	ACTUATOR VOLTAGE	REMARKS
MD-1	F-1 ECONOMIZER	F-1	X	X	24	1,2
MD-2	F-1 MINIMUM O.A.	F-1	X	X	24	1,2
MD-3	F-1 EXHAUST / RELIEF	F-1	X	X	24	1,2
MD-4	F-1 RETURN	F-1	X	X	24	1,2
MD-5	F-2 ECONOMIZER	F-1	X	X	24	1,2
MD-6	F-2 MINIMUM O.A.	F-1	X	X	24	1,2
MD-7	F-2 EXHAUST / RELIEF	F-1	X	X	24	1,2
MD-8	F-2 RETURN	F-1	X	X	24	1,2

NOTES:
1. SEE DETAIL 2 ON H2.
2. PROVIDE THERMALLY INSULATED CONTROL DAMPER WITH SILICONE SIDE SEALS AND EPDM BLADE SEALS. TAMCO SERIES 9000 OR APPROVED EQUAL.

FURNACE SYSTEMS SCHEDULE

FURNACE DATA											CONDENSING UNIT DATA											
UNIT NO.	MANUFACTURER	MODEL	TOTAL CFM	O.A. CFM	E.S.P.	BLOWER H.P.	VOLTS	PHASE	HEATING MBH		UNIT NO.	MANUFACTURER	MODEL	CAPACITY TONS	COMPRESSOR		CONDENSER FANS	VOLTS	PHASE	SEER	MCA	MOP	REMARKS
									INPUT	OUTPUT					RLA	LRA	FLA						
F-1	REZNOR	CAUA-200	2850	675	1.2" W.C.	2	208	1	200	160	ACCU-1	CARRIER	24ANB136	3.0	15.3	83	1.8	208	1	21	21.1	30	1, 2, 3, 4, 5, 6, 7, 8
											ACCU-2	CARRIER	24ANB148	4.0	21.2	104	2	208	1	21	29.2	40	
F-2	REZNOR	CAUA-250	3725	900	1.2" W.C.	3	208	1	250	200	ACCU-3	CARRIER	24ANB160	5.0	28.8	152.9	2.7	208	1	21	38.7	60	1, 2, 3, 4, 5, 6, 7, 8
											ACCU-4	CARRIER	24ANB160	5.0	28.8	152.9	2.7	208	1	21	38.7	60	

NOTES:
1. PROVIDE FURNACE WITH 2" FILTER RACK.
2. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH.
3. PROVIDE WITH OPTIONAL BELT DRIVE MOTOR.
4. PROVIDE WITH BURNER ORIFICE FOR PROPANE GAS.
5. PROVIDE WITH 2 STAGE COMBINATION GAS VALVE.
6. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL COMBUSTION AIR INTAKE AND FURNACE VENTING DUCTING.
7. UNIT SHALL BE SEPARATED COMBUSTION.
8. FURNACE SHALL HAVE DUAL CIRCUITED DX COOLING COIL.
9. PROVIDE CONDENSING UNIT WITH POWERED CONVENIENCE OUTLET.

FANCOIL SYSTEMS SCHEDULE

FAN COIL DATA											HEAT PUMP UNIT DATA											
UNIT NO.	MANUFACTURER	MODEL	TOTAL CFM	O.A. CFM	E.S.P.	BLOWER H.P.	VOLTS	PHASE	HEATING MBH		UNIT NO.	MANUFACTURER	MODEL	CAPACITY TONS	COMPRESSOR		CONDENSER FANS	VOLTS	PHASE	SEER	MCA	MOP	REMARKS
															RLA	LRA	FLA						
FCU-1	CARRIER	INFINITY FE4	500	100	0.6	0.5 HP	208	1	18		HP-1	CARRIER	25VNA0	2.0	11.1	58.3	1.8	208	1	21	15.7	25	1, 2, 3, 4

NOTES:
1. PROVIDE FAN COIL WITH 2" FILTER RACK.
2. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH.
3. PROVIDE WITH OPTIONAL BELT DRIVE MOTOR.
4. HEAT PUMP WITH POWERED CONVENIENCE OUTLET.

GROUND SOURCE HEAT PUMP SYSTEMS SCHEDULE (ALTERNATE BID)

HEAT PUMP DATA											COMPRESSOR UNIT DATA											
UNIT NO.	MANUFACTURER	MODEL	TOTAL CFM	O.A. CFM	E.S.P.	BLOWER H.P.	VOLTS	PHASE	HEATING MBH		UNIT NO.	MANUFACTURER	MODEL	CAPACITY TONS	COMPRESSOR		VOLTS	PHASE	SEER	MCA	MOP	REMARKS
															RLA	LRA						
GHP-1	DAIKIN	WGTV0721	2000	675	1.2" W.C.	2	208	1		57	INTEGRAL	DAIKIN	24ANB136	6.0	29.7	179.2	208	1	21	46.6	60	1, 2, 3, 4
GHP-2	DAIKIN	WGTV0721	1860	450	1.2" W.C.	2	208	1		57	INTEGRAL	DAIKIN	24ANB136	6.0	29.7	179.2	208	1	21	46.6	60	1, 2, 3, 4
GHP-3	DAIKIN	WGTV0721	1860	450	1.2" W.C.	2	208	1		57	INTEGRAL	DAIKIN	24ANB136	6.0	29.7	179.2	208	1	21	46.6	60	1, 2, 3, 4

NOTES:
1. PROVIDE HEAT PUMP WITH 2" FILTER RACK.
2. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH.
3. PROVIDE WITH OPTIONAL BELT DRIVE MOTOR.
4. UNIT SHALL BE HIGH EFFICIENCY TWO STAGE MODEL.

MOTOR STARTER SCHEDULE

ITEM NO.	EQUIPMENT		ELECTRICAL DATA							STARTER DESCRIPTION			REMARKS
	DESCRIPTION	LOCATION	H.P.	VOLTS	PHASE	KW	AMPS			FURNISHED BY	LOCATION	TYPE	
							FLA	MCA	MOP				
F-1	FURNACE	UTILITY	2	208	1					ELECTRICIAN	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
F-2	FURNACE	STORAGE	0	0	0					ELECTRICIAN	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
ACCU-1	AIR COOLED CONDENSING UNIT	EXT. ON GRADE		208	1			21.1	30	ELECTRICIAN	SOUTH WALL OF MECHANICAL RM	COMB. STARTER/DISCONNECT	NEMA 4
ACCU-2	AIR COOLED CONDENSING UNIT	EXT. ON GRADE		208	1			29.2	40	ELECTRICIAN	SOUTH WALL OF MECHANICAL RM	COMB. STARTER/DISCONNECT	NEMA 4
ACCU-3	AIR COOLED CONDENSING UNIT	EXT. ON GRADE		208	1			38.7	60	ELECTRICIAN	SOUTH WALL OF MECHANICAL RM	COMB. STARTER/DISCONNECT	NEMA 4
ACCU-4	AIR COOLED CONDENSING UNIT	EXT. ON GRADE		208	1			38.7	60	ELECTRICIAN	SOUTH WALL OF MECHANICAL RM	COMB. STARTER/DISCONNECT	NEMA 4
ERU1	ENERGY RECOVERY UNIT	UTILITY		208	1			11.5	15	EQUIPMENT MFG	UNIT MTD	FUSED DISCONNECT SWITCH	
ERU-2	ENERGY RECOVERY UNIT	STORAGE		208	1			11.5	15	EQUIPMENT MFG	UNIT MTD	FUSED DISCONNECT SWITCH	
EBB-1	ELECTRC BASEBOARD	LOBBY		120	1	1				EQUIPMENT MFG	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
EWH-1	ELECTRIC WALL HEATER	LOBBY		208	1	3				EQUIPMENT MFG	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
EWH-2	ELECTRIC WALL HEATER	LOBBY		208	1	3				EQUIPMENT MFG	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
EWH-3	ELECTRIC WALL HEATER	WOMENS		208	1	1.5				EQUIPMENT MFG	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
EWH-4	ELECTRIC WALL HEATER	MENS		208	1	1.5				EQUIPMENT MFG	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
EWH-5	ELECTRIC WALL HEATER	DNR OFFICE		208	1	1.5				EQUIPMENT MFG	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
EWH-6	ELECTRIC WALL HEATER	UTILITY		208	1	1.5				EQUIPMENT MFG	UNIT MTD	NON-FUSED DISCONNECT SWITCH	
CF-1	CEILING FAN	AMBULANCE GARAGE		120	1		0.75			ELECTRICIAN	NEAR CEILING FAN - OUTSIDE FAN RADIUS	NON-FUSED DISCONNECT SWITCH	
CF-2	CEILING FAN	AMBULANCE GARAGE		120	1		0.75			ELECTRICIAN	NEAR CEILING FAN - OUTSIDE FAN RADIUS	NON-FUSED DISCONNECT SWITCH	

ENERGY RECOVERY UNIT SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	LOCATION	DISCHARGE	CFM	E.S.P.	DRIVE	% EFFECTIVENESS SUMMER	% EFFECTIVENESS WINTER	% EFFECTIVENESS SENSIBLE	VOLTS	PHASE	UNIT SERVED	REMARKS
ERU-1	RENEWAIRE	H61XNEOM	MECH	F-1 MIN OA	675	1"	DIRECT	55%	65%	72%	208	1	F-1	1, 2, 3, 4
ERU-2	RENEWAIRE	H61XNEOM	STORAGE	F-2 MIN OA	900	1"	DIRECT	47%	60%	67%	208	1	F-2	1, 2, 3, 4

NOTES:
1. UNIT SHAQLL BE PROVIDED WITH DIRECT DRIVE ECM FANS.
2. UNIT SHALL BE PROVIDED WITH 2" MERV 8 FILTERS.
3. FURNISH UNIT WITH FUSED DISCONNECT, DOUBLE WALL CONSTRUCTION, AND MOTORIZED ISOLATION DAMPERS.
4. INSTALL UNIT ON HOUSEKEEPING CURB

FAN SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	LOCATION	DISCHARGE	CFM	E.S.P.	H.P.	DRIVE	R.P.M.	SONES	VOLTS	PHASE	AREA SERVED	REMARKS
CF-1	LEADING EDGE	36201	LOBBY / EXHIBIT	CEILING	12500	-	75 WATTS	DIRECT	395	-	120	1	LOBBY	4
CF-2	LEADING EDGE	36201	LOBBY / EXHIBIT	CEILING	12500	-	75 WATTS	DIRECT	395	-	120	1	LOBBY	4

NOTES:
1. EXHAUST FAN TO BE INTERLOCKED TO GAS DETECTION SYSTEM AND MANUAL TIMER DELAY RELAYS.
2. PROVIDE SPEED CONTROLLER ON ALL DIRECT DRIVE FANS
3. FAN TO BE INTERLOCKED WITH BUILDING OCCUPANCY.
4. PROVIDE SPEED CONTROLLER ON WALL WHERE SHOWN ON PLANS.

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AZTALAN, WI

DATE OF ISSUE: APRIL 10, 2015

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MECHANICAL SCHEDULES

H3.0

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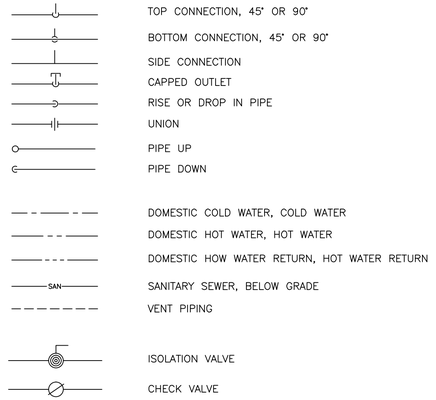
ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AD	AREA DRAIN
ACW	AUTOMATIC CLOTHES WASHER
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AG	AIR GAP
AP	ACCESS PANEL
AS	AUTOMATIC SPRINKLER
ASD	ADJUSTABLE SPEED DRIVES
ASD	AUTOMATIC SPRINKLER DRAIN
ASME	AMERICAN SOCIETY MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
AV	ACID VENT
AW	ACID WASTE
BFP	REDUCED PRESSURE BACKFLOW PREVENTER
BHP	BREAK HORSEPOWER
BSP	BLACK STEEL PIPE
BT	BATHTUB
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CELSIUS
CB	CATCH BASIN
CGA	COMPRESSED GAS ASSOCIATION
CI	CAST IRON
CO	CLEANOUT
CP	HOT WATER CIRCULATING PUMP
CS	CLINICAL SINK
CV	CONTROL VALVE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DHWR	DOMESTIC WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DI	DEIONIZED WATER
DN	DOWN
DOE	DEPARTMENT OF ENERGY
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWR	DRINKING WATER RETURN
DWS	DRINKING WATER SUPPLY
DWV	DRAIN WASTE VENT
EL	ELEVATION
EMCS	ENERGY MONOSERRAT AND CENTRAL SYSTEM
EPA	ENVIROMENTAL PROTECTION AGENCY
EPACT	ENERGY POLICY ACT
ESC	ESCUTCHEON
ESH	EMERGENCY SHOWER
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYE WASH STATION
EX	EXISTING
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FCW	FILTERED COLD WATER
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT (HOSE) CONNECTION
FM	FLOW METER
FOP	FUEL OIL PUMP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FS	FLOOR SINK
FS	FLOW SWITCH
FU	FIXTURE UNITS
GAL	GALLON
GCO	GRADE CLEANOUTS
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REGULATOR
GRS	GAS REGULATOR STATION
GT	GREASE TRAP
GVTR	GAS VENT THROUGH ROOF
GWH	GAS FIRED WATER HEATER
H&CW	HOT AND COLD WATER
HB	HOSE BIBB
HD	HUB DRAIN
HEX	HEAT EXCHANGER
HP	HORSEPOWER
HS	HAND SINK
HST	HOT WATER STORAGE TANK (DOMESTIC)
HWB	HOT WATER BOILER
HWP	HOT WATER PUMP
HYD	HYDRANT
ICW	INDUSTRIAL COLD WATER
INV	INVERT
IPC	INTERNATIONAL PLUMBING CODE
IRW	IRRIGATION WATER
IW	INDIRECT WASTE
IWH	INSTANTANEOUS WATER HEATER
IWR	INDUSTRIAL WATER RETURN
IWS	INDUSTRIAL WATER SUPPLY
KW	KILOWATT
KWHR	KILOWATT-HOUR
L/S	LITER PER SECOND
LA	LABORATORY AIR
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LNG	LIQUID NATURAL GAS
LOX	LIQUID OXYGEN
LV	LABORATORY VACUUM
LW	LOW WATER
M	METER
MA	MEDICAL AIR
MAV	MANUAL AIR VENT
MBH	1000 BTUH
MED	MEDICAL
MER	MECHANICAL EQUIPMENT ROOM
MH	MANHOLE
MOU	MEMORANDUM OF UNDERSTADING
MB	MOP SERVICE BASIN
MV	MEDICAL VACUUM
N2	NITROGEN
N2O	NITROUS OXIDE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM.	NOMINAL
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFD	OVERFLOW DRAIN
OR	OPERATING ROOM
OVFL	OVERFLOW
PA	PASCAL
PD	PRESSURE DROP OR DIFFERENCE
PDI	PLUMBING AND DRAINAGE INSTITUTE
PG	PRESSURE GAGE
PP	PLUMBING PUMP
PPM	PARTS PER MILLION
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
PSIG	POUNDS PER SQUARE INCH GAUGE
PTRV	PRESSURE TEMPERATURE RELIEF VALVE
PW	POTABLE WATER
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
RL	ROOF LEADER
RO	REVERSE OSMOSIS WATER
RWL	RAIN WATER LEADER
SAN	SANITARY SEWER
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SCFM	STANDARD CUBIC FOOT/MINUTE
SCW	SOFTENED COLD WATER
SDMH	STORM DRAIN MANHOLE
SP	SUMP PUMP
SPR	SPRINKLER LINE
SQFT	SQUARE FEET
SS	STAINLESS STEEL
ST	STORAGE TANK
SW	STORM WATER
TCV	TEMPERATURE CONTROL VALVE
TD	TEMPERATURE DIFFERENCE
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TSTAT	THERMOSTAT
TWR	TEMPERED WATER RETURN
TWS	TEMPERED WATER SUPPLY
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
V	VENT
VAC	VACUUM
VB	VACUUM BREAKER
VCO	VACUUM CLEANER OUTLET
VP	VACUUM PUMP
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAGE
WH	WALL HYDRANT
WH	WATER HEATER
WHA	WATER HAMMER ARRESTER
WL	WATER LINE
WM	WATER METER
WPD	WATER PRESSURE DROP
WS	WASTE STACK
YCO	YARD CLEANOUT
YH	YARD HYDRANT

PLUMBING PIPING SYMBOLS



TOP CONNECTION, 45° OR 90°
BOTTOM CONNECTION, 45° OR 90°
SIDE CONNECTION
CAPPED OUTLET
RISE OR DROP IN PIPE
UNION
PIPE UP
PIPE DOWN
DOMESTIC COLD WATER, COLD WATER
DOMESTIC HOT WATER, HOT WATER
DOMESTIC HOW WATER RETURN, HOT WATER RETURN
SANITARY SEWER, BELOW GRADE
VENT PIPING
ISOLATION VALVE
CHECK VALVE

SHEET INDEX

P0.0	SYMBOLS, ABBREVIATIONS AND SHEET INDEX
P1.0	UNDERFLOOR PLAN – PLUMBING
P2.0	FIRST FLOOR PLAN – PLUMBING
P3.0	WASTE AND VENT ISOMETRIC
P4.0	WATER SUPPLY ISOMETRIC
P5.0	SCHEDULES AND DETAILS

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PLUMBING SYMBOLS, ABBREVIATIONS AND SHEET INDEX

P0.0

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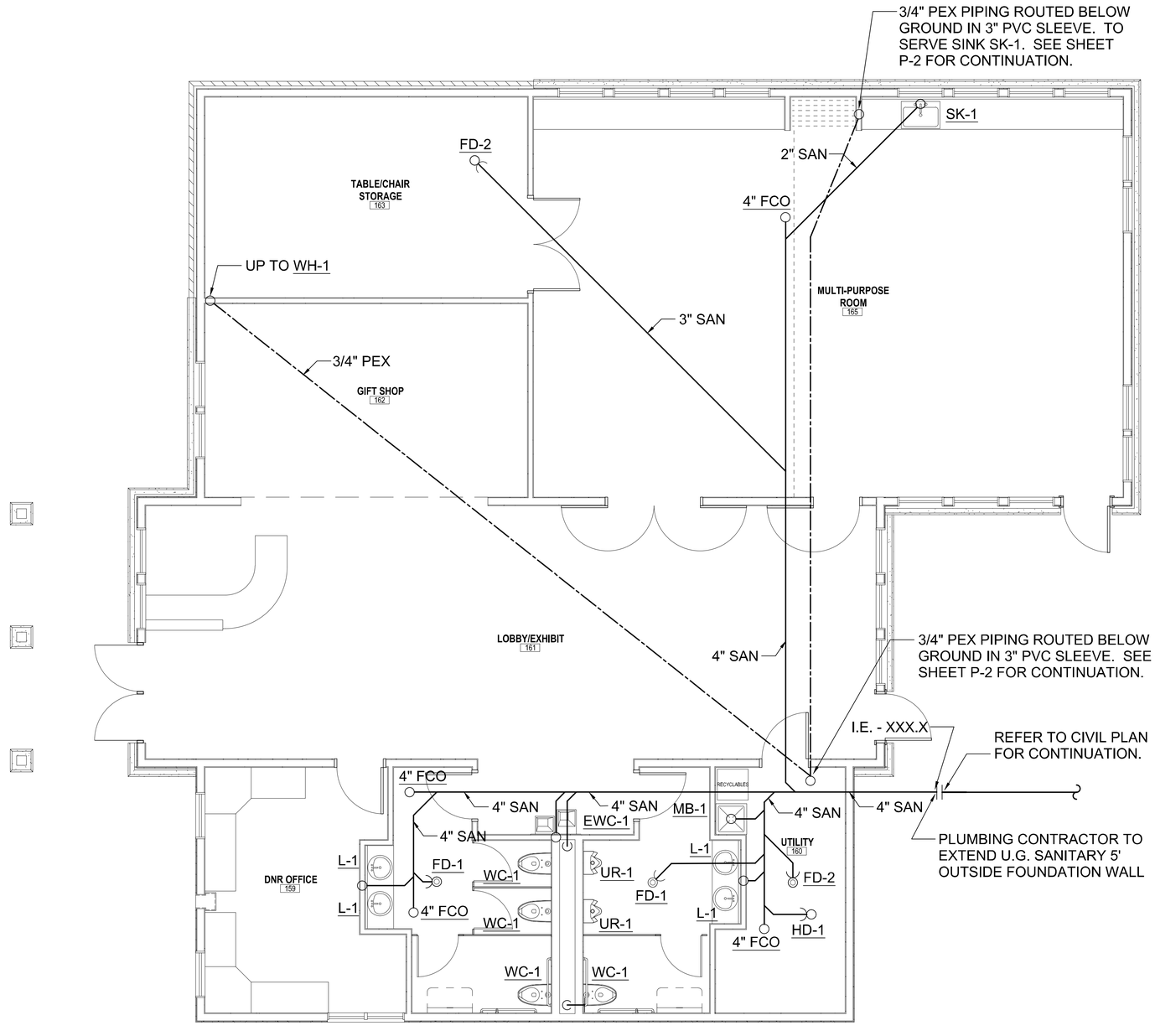

1 **UNDERGROUND PLUMBING PLAN**
1/4" = 1'-0"

0' 1' 2' 4'

NORTH

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UNDERGROUND PLUMBING PLAN

P1.0

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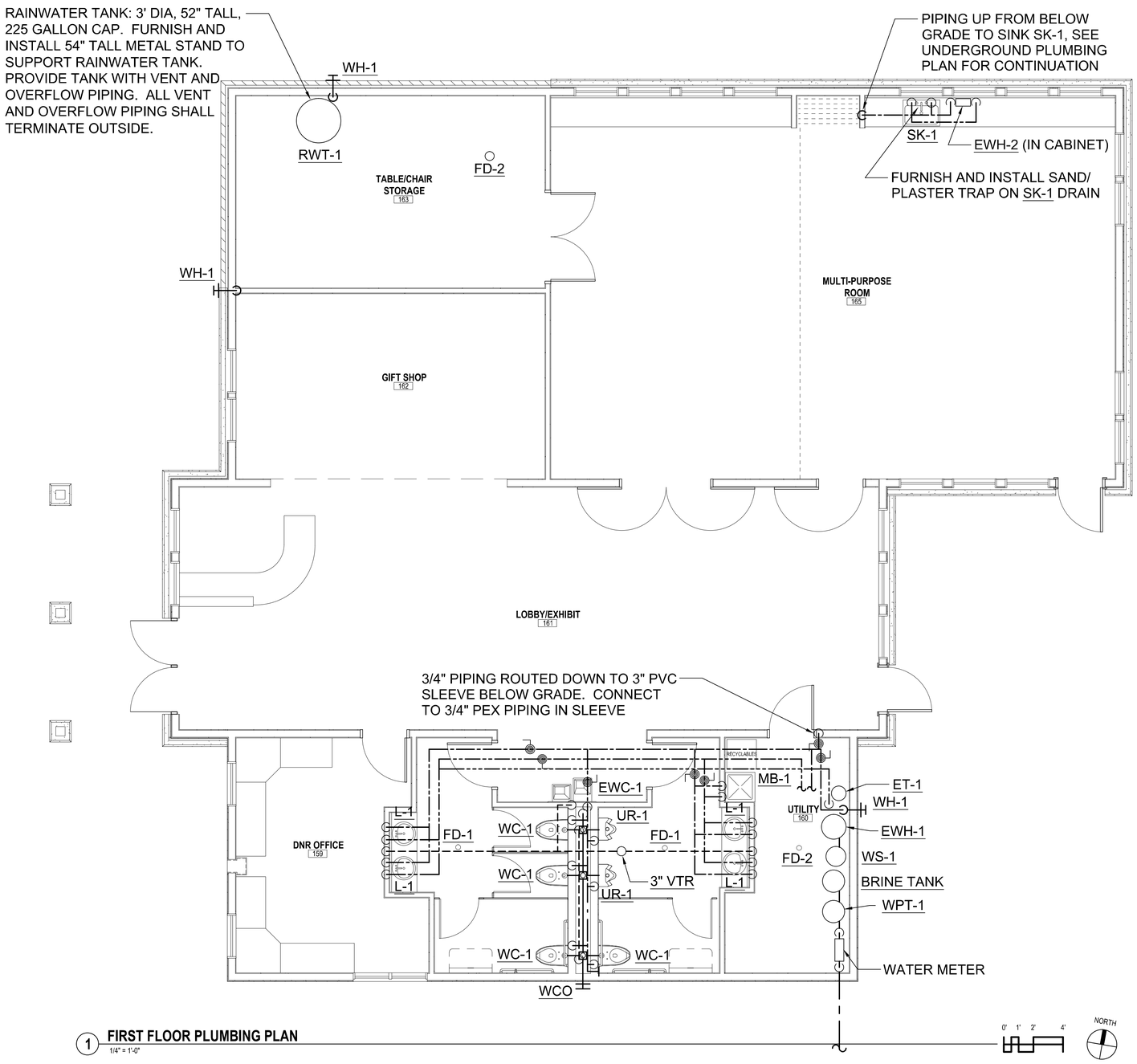

1 **FIRST FLOOR PLUMBING PLAN**
1/4" = 1'-0"

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FIRST FLOOR PLUMBING PLAN

P2.0

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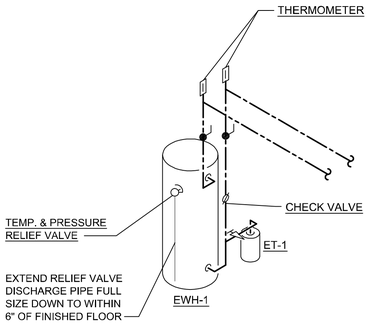

WATER HEATER PIPING DETAIL

NO SCALE

PLUMBING FIXTURE SCHEDULE

WC-1	ADA WATER CLOSET, WALL MOUNTED, MANUAL FLUSH VALVE TYPE, WHITE VITREOUS CHINA, ELONGATED BOWL, 16-1/2" RIM HEIGHT, PRESSURE ASSISTED SIPHON JET FLUSH ACTION. FLUSH LEVER SHALL BE ON WIDE SIDE OF STALL.
	ACCEPTABLE MANUFACTURERS: KOHLER K-4325, AMERICAN STANDARD, CRANE.
	SEAT, EXTRA HEAVY, OPEN FRONT, SOLID ANTI-MICROBIAL PLASTIC, WHITE SELF-SUSTAINING CHECK HINGE, AND STAINLESS STEEL POSTS AND NUTS. CARRIER Z1203-N.
	ACCEPTABLE MANUFACTURERS: KOHLER K-4731-C, BEMIS, BENEKE, OLSONITE
L-1	LAVATORY, OVAL DECK MOUNTED, WHITE VITREOUS CHINA, 20" X 17", 3 HOLE AT 4" CENTERS. PROVIDE BRASS SUPPLIES LOOSE KEY SUPPLIES, 1-1/4" BRASS P-TRAP WITH CLEANOUT PLUG AND OFFSET TAILPIECE.
	ACCEPTABLE MANUFACTURERS: AMERICAN STANDARD 0475.028, KOHLER K-2196-4, ELJER 051-0124.
	LAVATORY TRIM, SINGLE LEVER MIXING FAUCET, AERATOR, CHROME PLATED, 4" CENTERS, PERFORATED DRAIN GRATE. INSTALLATION SHALL BE IN COMPLIANCE WITH ADA SECTION 4.19.
	ACCEPTABLE MANUFACTURERS: MOEN L4621, DELTA, CHICAGO FAUCET, T&S BRASS.
	PROVIDE PRE-MANUFACTURED TRAP AND SUPPLY INSULATION KIT. FIELD FABRICATION COVERING IS NOT ACCEPTABLE.
	ACCEPTABLE MANUFACTURERS: TRUEBRO "HANDI-LAV GUARD", MCQUIRE "PROWRAP", BROCAR "TRAPWRAP".
UR-1	URINAL, WALL MOUNT, WHITE VITREOUS CHINA, MANUAL FLUSH VALVE, WASHOUT FLUSH STYLE, ELONGATED RIM, 3/4" TOP SPUD, 2" OUTLET, STAINER W/ STAINLESS STEEL BEEHIVE GRATE.
	ACCEPTABLE MANUFACTURERS: KOHLER K-4904-ET, AMERICAN STANDARD
	FLUSH VALVE, BATTERY POWERED, SENSOR ACTIVATED, CHROME PLATED, WALL AND SPUD ESCUTCHEON, 1.0 GAL PER FLUSH. CARRIER Z 1221.
	ACCEPTABLE MANUFACTURERS: SLOAN 8186, DELANY, ZURN
EWC-1	ELKAY EZSTL8SC BI-LEVEL ELECTRIC WEATER COOLER.
	KEENEY 300CP 1-1/4" P-TRAP.
	BRASS CRAFT KTSCR14XC 1/2" X 3/8" COMPRESSION STOP W/LOOSE KEY.
SK-1	STAINLESS STEEL (ACCESSIBLE), DOUBLE COMPARTMENT WITH FAUCET DECK, 18 GA, TYPE 304 SELF RIMMING, 33" X 21" X 6-1/2". COMPLETELY UNDERCOATED, 3-1/2" DIAMETER OFFSET DRAIN, PERFORATED STAINLESS STEEL STRAINER, 1-1/2" 17 GA CHROME PLATED BRASS TAILPIECE. CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, 3/8" BRASS ANGLE SUPPLIES WITH SOFT COPPER RISERS. FURNISH AND INSTALL SAND/ PLASTER TRAP.
	ACCEPTABLE MANUFACTURERS: ELKAY GECR3318
	SINK TRIM, TWO HANDLE MIXING FAUCET, LEVER HANDLE, SWIVEL AERATOR AND SPRAY, MATCHING FINISH SIDE SPRAY. CHROME PLATED 10" SWING SPOUT, ALL BRASS CONSTRUCTION.
	ACCEPTABLE MANUFACTURERS: CHICAGO FAUCET MODEL 1100
MB-1	MOB BASIN, MOLDED STONE, 24" X 24" X 10", WHITE, STAINLESS STEEL DRAIN, 3" OUTLET, PROVIDE MOP HANGER, HOSE AND HOSE BRACKET. PROVIDE FRP PANELS TO TWO WALL SURFACES ABOVE MOP BASIN.
	ACCEPTABLE MANUFACTURERS: FIAT MSB-2424, ZURN, WILLIAMS, MUSTEE
	SERVICE FAUCET, TWO HANDLE MIXING FAUCET, CHROME PLATED, INTEGRAL VACUMM BREAKER, INTEGRAL STOPS, PAIL HOOK, 3/4" MALE HOSE THREAD SPOUT. PROVIDE HOSE END VACUUM BREAKER
	ACCEPTABLE MANUFACTURERS: CHICAGO FAUCET 897, T&S BRASS, ZURN.

PLUMBING SPECIALTIES

WH-1	HOSE BIBB, EXTERIOR, FREEZELESS, AUTODRAINING, VACUUM BREAKER, BRASS BODY, CHROME PLATED FACE, WALL CLAMP, 3/4" MALE HOSE THREAD, LOOSE-KEY OPERATOR.
	ACCEPTABLE MANUFACTURERS: WOODFORD 67, ZURN Z-1310, WADE-8620.
ET-1	THERMAL EXPANSION TANK WESSELS MODEL 25 TX
FD-1	FLOOR DRAIN, 6" DIA, CHROME PLATED BRONZE ADJUSTABLE TOP, CAST-IRON BODY, THREADED FLASHING COLLAR, 3" OUTLET.
	ACCEPTABLE MANUFACTURERS: SMITH 2000, ZURN Z415, WADE W-1100.
FD-2	FLOOR DRAIN, 9" DIA, NICKEL BRONZE ADJUSTABLE TOP, ACID RESISTING EPOXY COATED CAST-IRON BODY, THREADED FLASHING COLLAR, 3" OUTLET.
	ACCEPTABLE MANUFACTURERS: SMITH 2000, ZURN Z550, WADE W-1100.
WCO-1	WALL CLEANOUT, BODY AND PLUG SHALL BE OF SAME MATERIAL AS PIPE WITH ROUND STAINLESS STEEL COVER PLATE AND CENTER SCREW INTO PLUG.
FCO-1	FLOOR CLEANOUT, ROUND, NICKEL BRONZE ADJUSTABLE SCORIATED SECURED TOP, CAST IRON BODY AND PLUG, OUTLET SIZE SHALL MATCH PIPE SIZE. "CO" SHALL BE CAST IN TOP.
	ACCEPTABLE MANUFACTURERS: SMITH 4020, ZURN, WADE.

PLUMBING EQUIPMENT SCHEDULE

EWH-1	ELECTRIC WATER HEATER, MEETS ASHRAE 90.1 EFFICIENCY STANDARDS, 21 GPH RECOVERY CAPACITY @ 90 F TEMP RISE. 19 U.S. GALLON STORAGE CAPACITY. DUAL 4.5 KW HEATING ELEMENTS FOR NON-SIMULTANEOUS OPERATION.
	ACCEPTABLE MANUFACTURERS: BRADFORD WHITE, BOCK, LOCHINVAR.
EWH-2	ELECTRIC TANKLESS WATER HEATER, 56 DEGREE TEMPERATURE RISE AT 0.5 GPM WATER FLOW. 208 VOLT, SINGLE PHASE ELECTRIC POWER, 4.1 KW HEATING ELEMENT.
WS-1	WATER SOFTENER, MAX CONTINUOUS FLOW RATE 35 GPM, 56,000 GRAIN CAPACITY AT MEDIUM SALT LEVEL, FURNISH AND INSTALL BRINE TANK
	ACCEPTABLE MANUFACTURERS: HELLENBRAND, CULLIGAN

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PLUMBING DETAILS
AND SCHEDULE

P5.0

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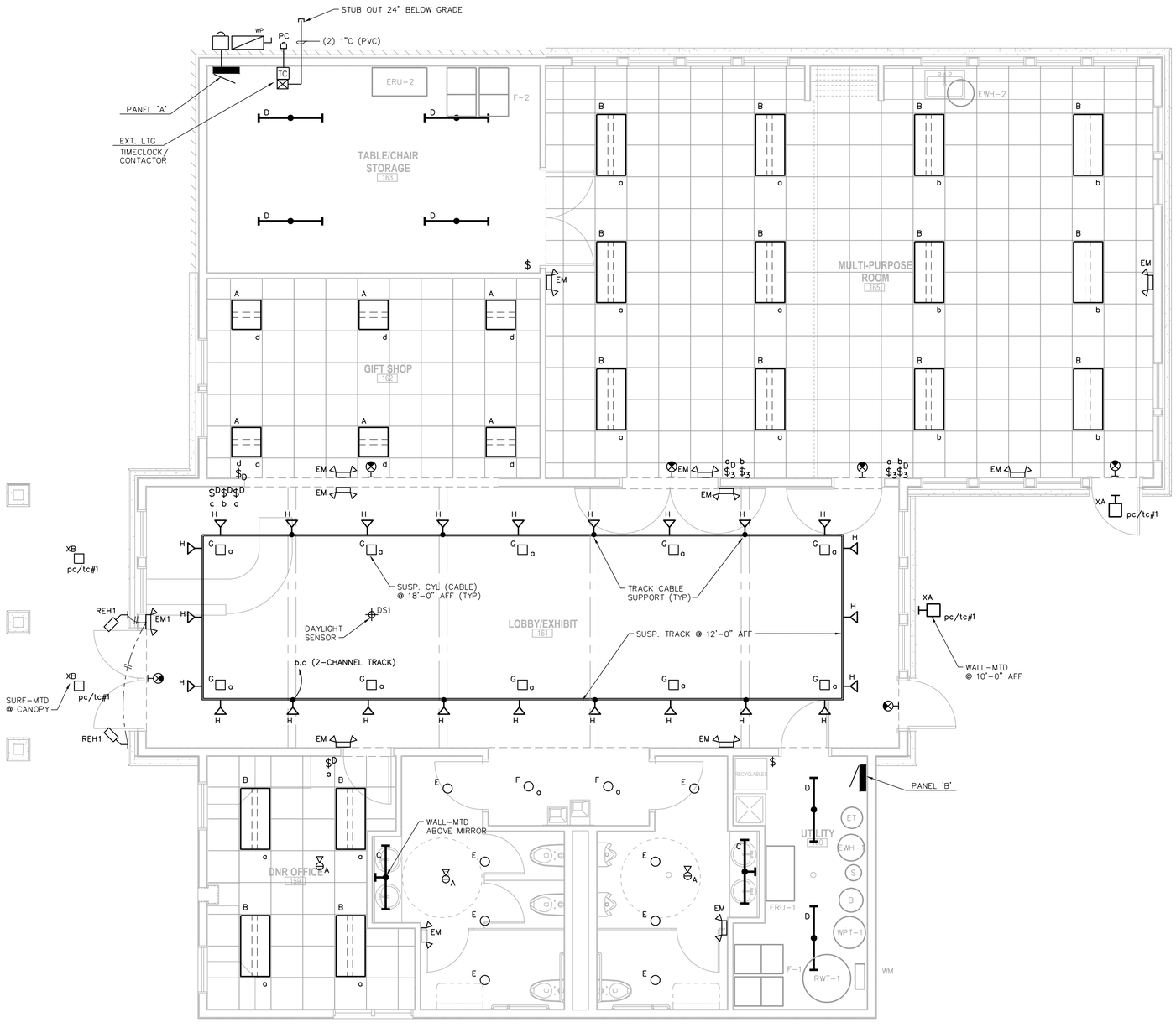
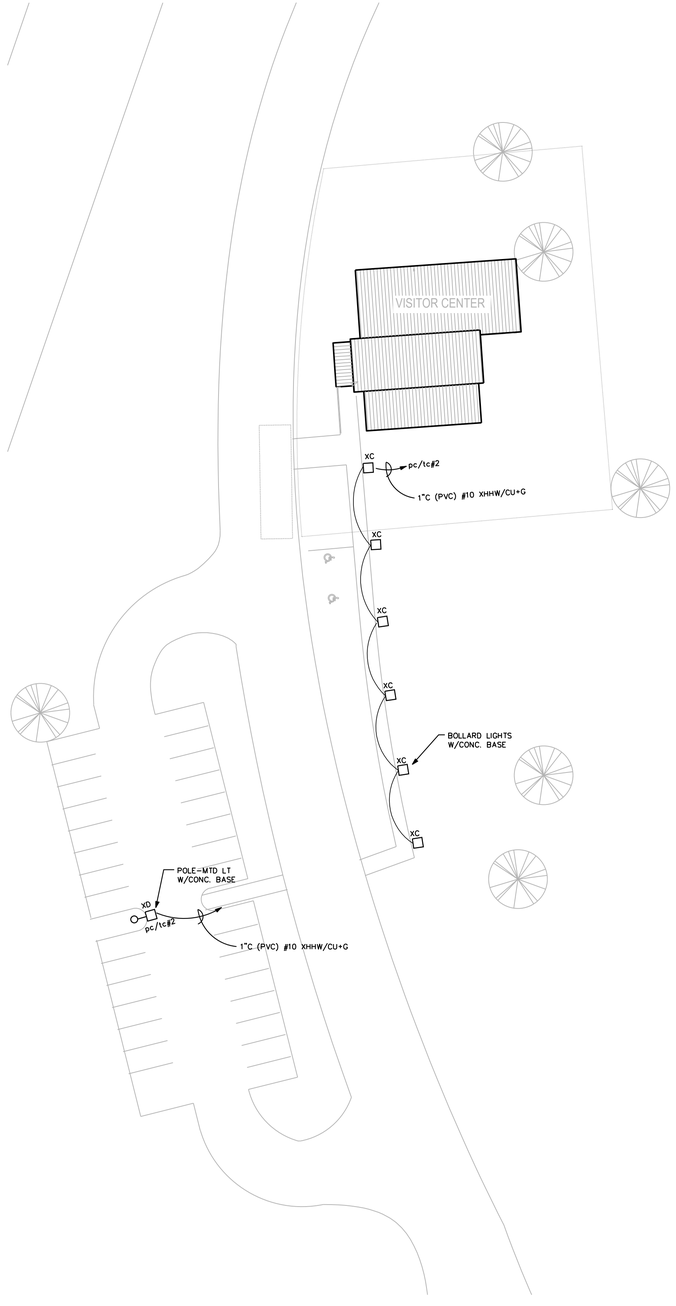


1 **FIRST FLOOR PLAN - ELECTRICAL LIGHTING**
1/4" = 1'-0"

0' 1' 2' 4' NORTH



1 **SITE PLAN - ELECTRICAL LIGHTING**
1" = 30'-0"

0' 7'-6" 15' 30' NORTH

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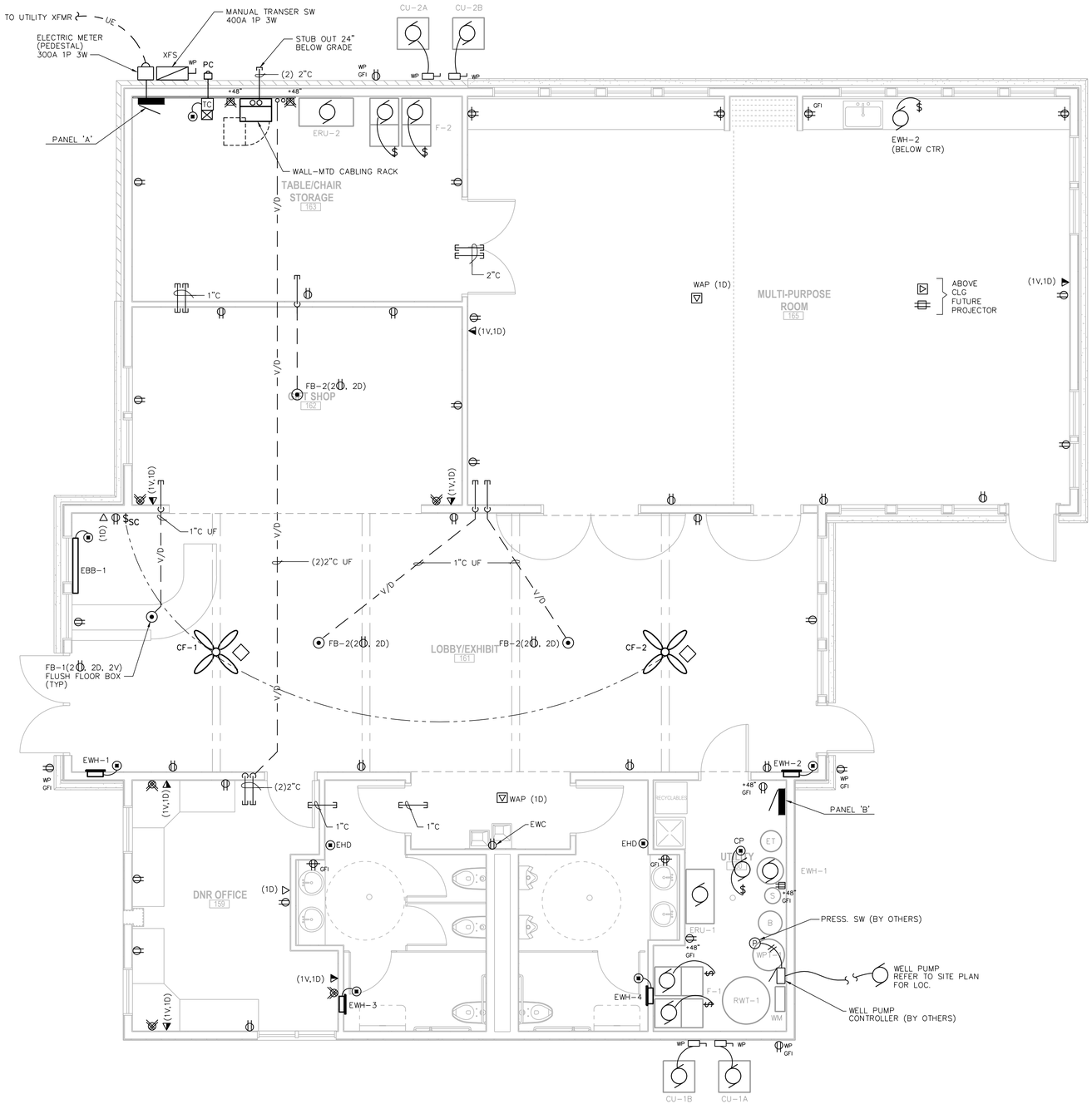
FLOOR PLAN - ELECTRICAL LIGHTING

E100



1 **FIRST FLOOR PLAN - ELECTRICAL POWER/LV**
1/4" = 1'-0"

0' 1' 2' 4'

NORTH

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FLOOR PLAN - ELECTRICAL POWER/LV

E101

ELECTRICAL MOTOR/EQUIPMENT SCHEDULE

TAG	1	2	3	4	5	6	7	8	9
PANEL NO.							A		
CIRCUIT							43,45		
BREAKER ④							30		
POLE							2		
WIRING NO. ①							2+G (#10)		
TYPE							XHHW/CU		
SIZE							#10		
COND.							3/4"		
ELECTRICAL HP (KW)							2		
VOLT							230		
PHASE							1		
FLA (MCA)							12.0 (15.0)		
STARTER TYPE							PANEL CONTROL PANEL		
SIZE							–		
BY							W.C.		
CONTROL TYPE							PRESSURE SWITCH		
BY							W.C.		
DISCONNECT TYPE							NEMA 3R HD		
SIZE							30		
FUSE							–		
BY							W.C.		
REMARKS	FURNACE F-1A & 1B	FURNACE F-2A & 2B	CONDENSING UNIT CU-1A & 1B	CONDENSING UNIT CU-2A & 2B	ENERGY RECOVERY UNIT ERU-1	ENERGY RECOVERY UNIT ERU-2	WELL PUMP ②	ELECTRIC WTR. HTR. EWH-1 & 2	ELECTRIC WTR. HTR. EWH-3 & 4

E.C. = ELECTRICAL CONTRACTOR
H.C. = HVAC CONTRACTOR
P.C. = PLUMBING CONTRACTOR
G.C. = GENERAL CONTRACTOR
W.C. = WELL CONTRACTOR
S.C. = PRIVATE SEWAGE DISPOSAL (SEPTIC) CONTRACTOR
G.D. = GENERAL DUTY

H.D. = HEAVY DUTY
T.S. = TOGGLE SWITCH
F.T.S. = FUSED TOGGLE SWITCH
M.S. = MANUAL STARTER
T.U. = THERMAL

MAG = MAGNETIC STARTER
FVNR = FULL VOLTAGE NON-REVERSING
P.L. = PILOT LIGHT
H.O.A. = HAND-OFF-AUTO SWITCH
N.R. = NOT REQUIRED

① PROVIDE GREEN WIRE GROUND TO ALL MOTORS AND EQUIPMENT PER NEC 250-95.
② COORDINATE FINAL WIRING REQUIREMENTS FOR WELL PUMP, WELL CONTROL PANEL/ CONTACTOR & PNEUMATIC TANK PRESSURE CONTROLS WITH WELL CONTRACTOR.
③
④ HVAC TYPE CIRCUIT BREAKER.
⑤ GFI CIRCUIT BREAKER.

LIGHTING FIXTURE SCHEDULE

TAG	LAMPS NO.	TYPE	WATTS	DESCRIPTION	MOUNTING	FIXTURE: MFGR. & MODEL	BALLAST: MFGR. & MODEL	REMARKS
A	–	LED	35	W/FIXTURE	RECESSED/ T-BAR CLG.	LITHONIA 2ALL2-40L-EZ1-LP840	–	(1)(2) LED 2x2 TROFFER (3) DIMMING 4000L
B	–	LED	68	W/FIXTURE	RECESSED/ T-BAR CLG.	LITHONIA 2ALL4-72L-EZ1-LP840	–	(1)(2) LED 2x4 TROFFER (3) DIMMING 7200L
C	–	LED	50	W/FIXTURE	SURFACE/ WALL	KENALL MLHA5-48-R-MW-PP-1-45L40K-DDC-1-120	–	(1) 4 FT LED WALL BRACKET 4500L
D	–	LED	40	W/FIXTURE	SURFACE/ CEILING	LITHONIA WL4-40L-EZ1-LP840	–	(1) 4 FT LED WRAPAROUND 4000L
E	–	LED	10	W/FIXTURE	RECESSED/ CEILING	LITHONIA 6BPMW-LED-40K90CRI + L7XLEDT24 (HOUSING)	–	(1)(10) 6" LED DOWNLIGHT WHITE BAFFLE 650L
F	–	LED	10	W/FIXTURE	RECESSED/ CEILING	INTENSE LIGHTING ICRL4-650-409-SD-SFW + IL4AIC (HOUSING)	–	(1)(3) 4"ø LED DOWNLIGHT SEMI-DIFFUSE 650L DIMMING
G	–	LED	42	W/FIXTURE	PENDANT/ CEILING	GOTHAM ICO-CYL-40/30-4AR-LD-35D-EZB-PM-DWHS	–	(1)(2) 4"ø LED DOWNLIGHT CYLINDER (3)(8) DIMMING 3000L 35 deg
H	–	LED	31	W/FIXTURE	TRACK HEADS	INTENSE LIGHTING – MBWS-L4-41-DIM-W + LHWSW + PLF-W-4 + IPS12W + IPS349	–	(1)(4) TRACK HEADS + CABLE-HUNG (7)(8) TRACK – 2000L DIMMING
XA	–	LED	27	W/FIXTURE	SURFACE/ WALL	LITHONIA DSXW1-LED-10C-530-40K-TFTM-MVOLT-ELCW	–	(1)(10) EXT. WALL LIGHT (8)(9) W/BATTERY BACK-UP
XB	–	LED	20	W/FIXTURE	SURFACE/ SOFFIT	KENALL MR13FF-PP-DB-20L40K-1-DDC-120-LEL	–	(1)(10) EXT. 13"ø SOFFIT LIGHT (8)(9) W/BATTERY BACK-UP
XC	–	LED	22	W/FIXTURE	BOLLARD CONC. BASE	LITHONIA KBDB-LED-12C-530-40K-ASY-MVOLT-SF-DDBXD	–	(1)(10) EXT. 8"ø BOLLARD (8) ASYMMETRIC DIST
XD	–	LED	137	W/FIXTURE	POLE-MTD 20 FT RND POLE CONC. BASE	LITHONIA – DSX2-LED-80C-530-40K-T3M-40K-MVOLT-RPA-SF-DDBXD + RSS-20-4B-DM19AS (20 FT RND STL POLE)	–	(1)(10) SINGLE HD EXT. POLE-MTD AREA LIGHT (8) TYPE III MED DIST.
EM	2	TH	5.4	6V	SURFACE/ WALL	LITHONIA – ELM2	–	(9) EMERGENCY EGRESS LIGHT w/ BATTERY BACK-UP
EM1	2	TH	9	6V	SURFACE/ WALL	LITHONIA – ELM654 (54 WATTS, 6V)	–	(6)(9) EMERGENCY EGRESS LIGHT w/BATTERY BACK-UP & TWO (2) ADD'L REMOTE HEADS
REH-1	1	TH	10	6V/MR11	SURFACE/ WALL	LITHONIA – ELA-OMC-H1006-DDB	–	(6) WALL-MTD REMOTE EXT. EM HEAD-MINI CYLINDER
( )	–	LED	–	w/FIXTURE	SURFACE	LITHONIA – LQC-W-1-G-ELN	–	(5)(9) EXIT LIGHT w/BATTERY BACK-UP

LAMP ABBREVIATIONS:
LED=LIGHT EMITTING DIODE
CF=COMPACT FLUORESCENT
F=FLUORESCENT
IN=INCANDESCENT
TH=TUNGSTEN HALOGEN
HPS=HIGH PRESSURE SODIUM
MH=METAL HALIDE
BF=BALLAST FACTOR

REMARKS:
(1) LED LAMPING & DRIVER.
(2) DIMMING LED DRIVER (0-10 VDC).
(3) WALL DIMMER (0-10 VDC; 4-WIRE): SYNERGY ISD-BC OR EQUAL.
(4) WALL DIMMER (ELV): SYNERGY ISD-LV OR EQUAL.
(5) CONTRACTOR TO PROVIDE EXIT FIXTURE MOUNTING AS INDICATED ON DRAWING.
(6) EXTEND REMOTE HEAD (REH1) TO EMERGENCY BATTERY PACK.
(7) TRACK FITTINGS AND CONNECTIONS AS REQUIRED TO PROVIDE ARRANGEMENT AS SHOWN ON DRAWINGS.
(8) FIXTURE FINAL FINISH COLOR TO BE SELECTED BY ARCHITECT.
(9) EMERGENCY BATTERY BACK-UP.
(10) WET LOCATION UL LISTED.

ALL FIXTURE VOLTAGES ARE 120 VOLT UNLESS INDICATED OTHERWISE.

OCCUPANCY SENSOR SCHEDULE

SYMBOL	MOUNTING	VOLTAGE	RATED CURRENT	PIR SENSOR TYPE	PIR SENSOR COVERAGE	MFGR. & MODEL	REMARKS
OSA	RECESSED/ CLG	24 VAC	16 mA	DT	360° 24'x24'	SENSOR SWITCH RM-PDT-9	(1)(2) RECESSED CLG DT
$OS	WALL SWITCH	120 VAC	800 Watt	DT	160° 20'	SENSOR SWITCH WSD-PDT	WALL SWITCH

REMARKS:
(1) SENSOR SWITCH PP-20 POWER PACK SW RATED: 20 AMPS 120/277 VOLTAGE; OUTPUT = 150mA 15VDC.
(2) LOW-VOLTAGE AUX. RELAY.

ABBREVIATIONS:
PIR=PASSIVE INFRARED
U=ULTRASONIC
DT=DUAL TECHNOLOGY (PIR+U)

FLOOR BOX SCHEDULE

TAG	TYPE	SERVICE CAPACITY RECEPTACLES	DATA OUTLETS	VOICE OUTLETS	MFGR. & MODEL	REMARKS
FB1	RECESS-ACTIVATED MULTI-SERVICE	2	4	2	LEGRAND RFB4 (BOX)-FPCTC (COVER)	(1)(2) 1¼"ø LV CONDUIT
FB2	RECESS-ACTIVATED MULTI-SERVICE	2	2	–	LEGRAND RFB4 (BOX)-FPCTC (COVER)	(1)(2) 1"ø LV CONDUIT

REMARKS:
(1) PROVIDE MULTI-SERVICE INSERT ACCESSORIES AS SCHEDULED FOR SERVICE.
(2) ARCHITECT TO SELECT COVER FINAL FINISHES FROM STANDARD OPTION AVAILABLE.

DAYLIGHT SENSOR SCHEDULE

SYMBOL	MOUNTING	VOLTAGE	RATED CURRENT	TYPE	MFGR. & MODEL	REMARKS
DS1	RECESSED/ CLG	120 VAC	800 WATT	ON/OFF PHOTOCELL	SENSOR SWITCH CMR-PC	LINE VOLTAGE

REMARKS:

ELECTRICAL SYMBOL SCHEDULE

MOUNTING HGT.	SYMBOL	DESCRIPTION
		EQUIPMENT AND WIRING
		DIRECT EQUIPMENT CONNECTION
		MOTOR CONNECTION-SEE EQUIP. SCHEDULE FOR TYPE, WIRING, ETC.
	J	JUNCTION BOX-CONCEALED IN FINISHED AREAS, SURFACE IN UNFINISHED AREAS
	$F	FUSE HOLDER W/FUSESTAT AND TOGGLE SWITCH (1/2 HP MOTORS AND UNDER)
		SAFETY DISCONNECT SWITCH WITH COVER INTERLOCK-W.P. INDICATES WATERPROOF (NON-FUSED UNLESS INDICATED BY "F"-FUSED)
		MANUAL STARTER
		MOTOR STARTER-MAGNETIC UNLESS NOTED OTHERWISE
		COMB. MOTOR STARTER/ FUSED DISCONNECT
		ELECTRICAL POWER PANEL
		ELECTRICAL POWER PANEL
		SPECIALTY DEVICES
	FB #	FLUSH FLOOR BOX-FB (DEVICE TYPE)
		TELEPHONE AND COMMUNICATION SYSTEMS
18"		TELEPHONE OUTLET
18"		DATA OUTLET
18"		VOICE/DATA OUTLET
		DATA OUTLET MOUNTED ABOVE CASEWORK BACKSPLASH
		VOICE/DATA OUTLET MOUNTED ABOVE CASEWORK BACKSPLASH
		FLUSH FLOOR VOICE/DATA OUTLET
		TELEPHONE OUTLET IN FLOOR -FLUSH MOUNTED
54"	W	TELEPHONE WALL OUTLET
		COMMUNICATION SYSTEMS
	WAP (1D)	WIRELESS ACCESS POINT (1 DATA) CEILING MTD

ABBREVIATIONS
SUBSCRIPTS
AFF = ABOVE FINISH FLOOR
GFI = GROUND FAULT INTERRUPTER
NL = NIGHT LIGHT-24 HOURS
PC = PHOTOCELL CONTROLLED
PC/TC = PHOTOCELL ON/ TIMECLOCK OFF
TC = TIMECLOCK CONTROLLED
WP = WEATHERPROOF

EQUIPMENT
EHD = ELECTRIC HAND DRYER
ERV = ENERGY RECOVERY VENTILATOR
EWC = ELECT. WATER COOLER
EWH = ELECTRIC WALL HEATER
F = FURNACE
CU = CONDENSING UNIT

GENERAL MOUNTING NOTES:
– DEVICE HEIGHTS AS NOTED ON DRAWING OR IN THESE MTG SYMBOL NOTES ARE INLUE OF THAT NOTED ON SYMBOL SCHEDULE. COORDINATE & VERIFY PRIOR TO INSTALLATION WITH GERNERAL CONTRACTOR. ALL HEIGHTS INDICATED ARE TO DEVICE CENTERLINE. WHEN MTD IN BLOCK/BRICK WALL, MOUNT TO NEAREST COURSE LINE.
– APPLIANCE RECEPTACLES (REFRIGERATOR, FREEZER, RANGE, WASHER, DRYER, ECT.) SHALL BE MOUNTED AT 36" AFF UNLESS SPECIFICALLY INDICATED OTHERWISE.

MOUNTING HGT.	SYMBOL	DESCRIPTION
	PANEL/CIRC.# TYPE SWITCHING	LIGHTING FIXTURES
		INCANDESCENT: SURFACE/ PENDANT
		INCANDESCENT: RECESSED
		INCANDESCENT: SURFACE WALL MOUNTED
		HID: SURFACE/PENDANT
		HID: RECESSED
		HID: SURFACE WALL MOUNTED
		COMPACT FLUORESCENT: SURFACE
		COMPACT FLUORESCENT: RECESSED
		COMPACT FLUORESCENT WALL-MOUNTED
		FLUORESCENT: RECESSED
		FLUORESCENT: SURFACE, CEILING MOUNTED
		FLUORESCENT: SURFACE, WALL MOUNTED
		EXIT LIGHT: ARROWS, FACES & MOUNTING AS SHOWN ON DRAWINGS
		EMERGENCY LIGHT W/ BATTERY PACK: WALL MOUNTED
		SWITCHES
48"	$	SINGLE POLE
48"	$3	THREE WAY
48"	$4	FOUR WAY
48"	$G	SWITCH AND DUPLEX RECEPT. IN TWO GANG BOX
48"	$D	DIMMING SWITCH
48"	$P	SWITCH WITH PILOT LIGHT
48"	$OS	OCCUPANCY SENSOR CONTROLLED WALL SWITCH
	#	OCCUPANCY SENSOR CEILING OR WALL MTD. TYPE
	DS#	DAYLIGHT SENSOR CEILING MTD. TYPE
		RECEPTACLES
18"		DUPLEX: RECESSED-WP: INDICATES WATERPROOF
18"		DUPLEX: SURFACE
18"	S	DUPLEX: W/IG & SURGE SUPPRESSION
18"		TWO DUPLEX RECEPTACLES IN TWO GANG BOX
		TWO DUPLEX RECEPTACLES SURFACE MTD IN TWO GANG BOX
18"	GFI	DUPLEX: W/GROUND FAULT INTERRUPTION PROTECTION
18"		125V, 2P, 2W SINGLE RECEPTACLE
18"		250V, 2P, 3W SINGLE RECPT.- AMPS AS SHOWN ON DRAWINGS
		FLUSH FLOOR BOX WITH DUPLEX RECPTACLE
		PEDESTAL SERV. FITTING W/ DUPLEX RECEPTACLE
		DUPLEX RECEPT. MOUNTED ABOVE CASEWORK BACKSPLASH
		TWO DUPLEX RECEPTACLE MOUNTED ABOVE CASEWORK BACKSPLASH
		DUPLEX: SWITCHED
		DUPLEX: TOP HALF SWITCHED

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FRIENDS OF AZTALAN STATE PARK-VISITOR CENTER

AZTALAN, WI

DATE OF ISSUE: 3-31-15

REVISIONS:

PROJECT # 14098

ELECTRICAL SCHEDULES

E200

PANEL 'A'

AIC=22,000

AMPS MAIN: 400 / 300 — VOLTS PHASE: 120/240 / 1 — MOUNTING LOCATION: SURFACE / TABLE/CHAIR 163

BRKR A	BRKR P	DESCRIPTION	CIRCUIT WATT	CIRCUIT NO.	PHASELOADS A	PHASELOADS B	CIRCUIT NO.	CIRCUIT WATT	DESCRIPTION	BRKR A	BRKR P
				1			2				
				3			4				
				5			6				
				7			8				
				9			10				
				11			12				
				13			14				
				15			16				
				17			18				
				19			20				
				21			22				
				23			24				
				25			26				
				27			28				
				29			30				
				31			32				
				33			34				
				35			36				
				37			38				
				39			40	–	SPD	30	2
				41			42	–	SPD	–	–
200	2	SUB FEED PANEL B									
–	–	SUB FEED PANEL B									

ESTIMATED DEMAND LOAD: _____ WATTS _____ AMPS

TOTAL CONNECTED LOADS: _____ WATTS _____ AMPS

PANEL 'B'

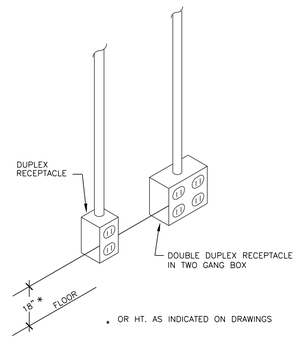
AIC=10,000

AMPS MAIN: 225 / MLO — VOLTS PHASE: 120/240 / 1 — MOUNTING LOCATION: SURFACE / UTILITY 160

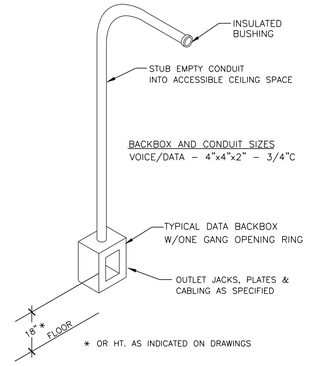
BRKR A	BRKR P	DESCRIPTION	CIRCUIT WATT	CIRCUIT NO.	PHASELOADS A	PHASELOADS B	CIRCUIT NO.	CIRCUIT WATT	DESCRIPTION	BRKR A	BRKR P
				1			2				
				3			4				
				5			6				
				7			8				
				9			10				
				11			12				
				13			14				
				15			16				
				17			18				
				19			20				
				21			22				
				23			24				
				25			26				
				27			28				
				29			30				
				31			32				
				33			34				
				35			36				
				37			38				
				39			40				
				41			42				

ESTIMATED DEMAND LOAD: _____ WATTS _____ AMPS

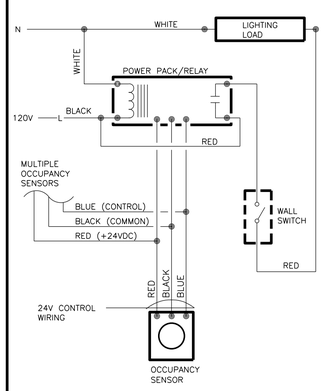
TOTAL CONNECTED LOADS: _____ WATTS _____ AMPS



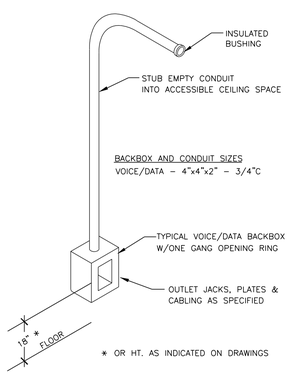
3 BACKBOX INSTALLATION DETAIL RECEPTACLE
N.T.S.



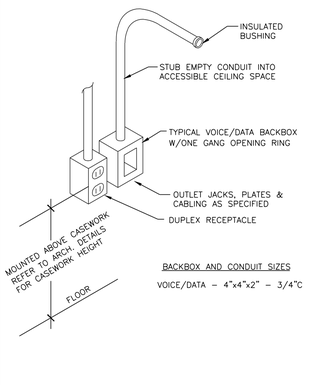
2 BACKBOX INSTALLATION DETAIL DATA



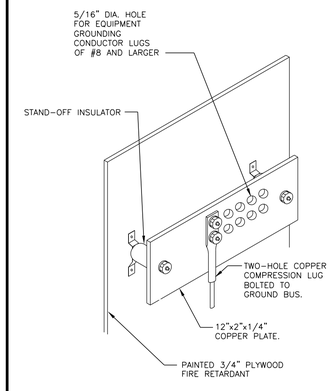
1 CEILING OCCUPANCY SENSOR WIRING SCHEMATIC



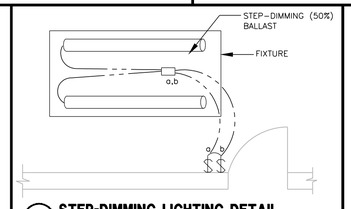
6 BACKBOX INSTALLATION DETAIL VOICE/DATA
N.T.S.



5 BACKBOX INSTALLATION DETAIL VOICE/DATA
N.T.S.

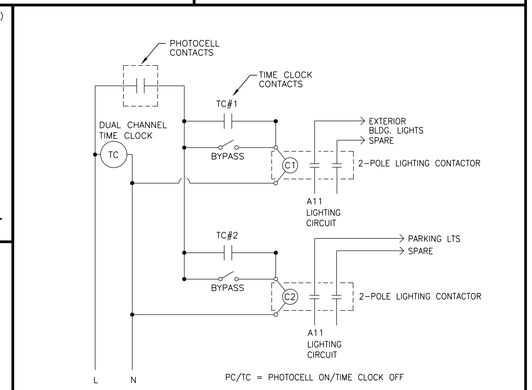


4 GROUNDING BUSS DETAIL
N.T.S.

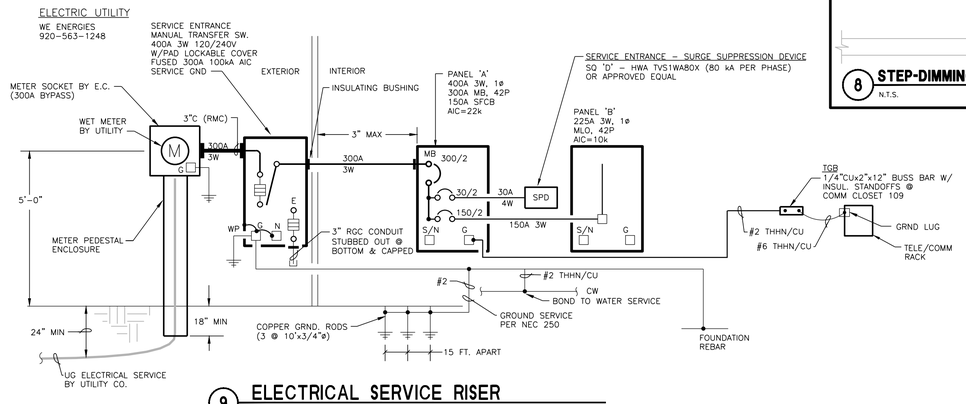


8 STEP-DIMMING LIGHTING DETAIL
N.T.S.

E-11A



7 EXTERIOR LIGHTING CONTROL SCHEMATIC
NTS



9 ELECTRICAL SERVICE RISER
300 AMP 1-PHASE/3-WIRE 120/240 VOLT

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FRIENDS OF AZTALAN STATE PARK-VISITOR CENTER

AZTALAN, WI

DATE OF ISSUE: 3-31-15

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ELECTRICAL DETAILS & RISERS

E201