

PROPOSED MAINTENANCE BUILDING FOR

CITY OF MARSHFIELD— WILDWOOD ZOO

608 W 17th STREET
MARSHFIELD WI 54449

SHEET INDEX

PAGE	CONTENTS	BY:
Title	SHEET INDEX, DESIGN LOADS & CONSTRUCTION NOTES	
G1	SANITARY SEWER DETAILS & TYPICAL SECTIONS	MSA PROFESSIONAL SERVICES TODD TRADER 146 NORTH CENTRAL AVE MARSHFIELD WI 54449 ttrader@msa-ps.com
G2	SANITARY SEWER & WATER DETAILS	
P1	UTILITY PLAN	
P2	SITE & GRADING PLAN	
A1	FOUNDATION PLAN, FENCE & DUMPSTER ENCLOSURE PLAN, DETAILS	BESTIMATE LLC BOB LEWERENZ 714 E NINTH ST MARSHFIELD WI 54449 bob@bestimatellc.com
A2	FLOOR PLANS & SCHEDULES	
A3	ELEVATIONS & CROSS SECTION	
E1	ELECTRICAL PLAN	
M1	HVAC PLAN	COMFORT SYSTEMS NATE BLOCK 1209 WEST VETERANS PARKWAY MARSHFIELD WI 54449 nblock@comfortsystemswi.com

CONSTRUCTION NOTES

MATERIAL	WILDWOOD PARK PRODUCTS AND COLOR MATCHES
CONCRETE BLOCK	COUNTY CONCRETE SPLIT FACE BLOCK IS "PEBBLE BEACH" #18-002C & MATCHING MORTAR COLOR IS "WESTERN" ULTRALITE
SHINGLE	OWENS CORNING "DURATIONS" ROOF SHINGLE SYSTEM IN OWNERS CHOICE OF STANDARD COLORS. SEE ALTERNATE 2: METAL ROOFING.
SIDING & TRIM	LP SMARTSIDE PREFINISHED DIAMOND KOTE 30 YEAR FINISH WARRANTY RIDGIDSTACK 6" (4-3/4" EXPOSURE) HORIZONTAL LAP SIDING IN OWNERS CHOICE OF STANDARD COLORS.
SOFFIT & FASCIA, GUTTER & DOORS	ROLLEX 16" CENTER VENT ALUMINUM SOFFIT, ROOF EDGE, 8" WOODGRAIN FASCIA AND TRIM SHALL BE PREFINISHED "EVERGREEN", AND COLOR MATCH FOR GUTTER AND DOORS SHALL BE APPROVED BY OWNER.

CONSTRUCTION NOTES

OCCUPANCY:	BUSINESS GROUP B- CONDITIONED SPACE
TYPE VB COMBUSTIBLE UNPROTECTED CLASS OF CONSTRUCTION	
BUILDING IS 2,116 SF TWO STORY HEATED UNSPRINKLERED WOOD STUD FRAME BUILDING.	
ENDWALL AREA 892 SF X 46' LONG = 41,032 Cu.Ft.	

DESIGN LOADS

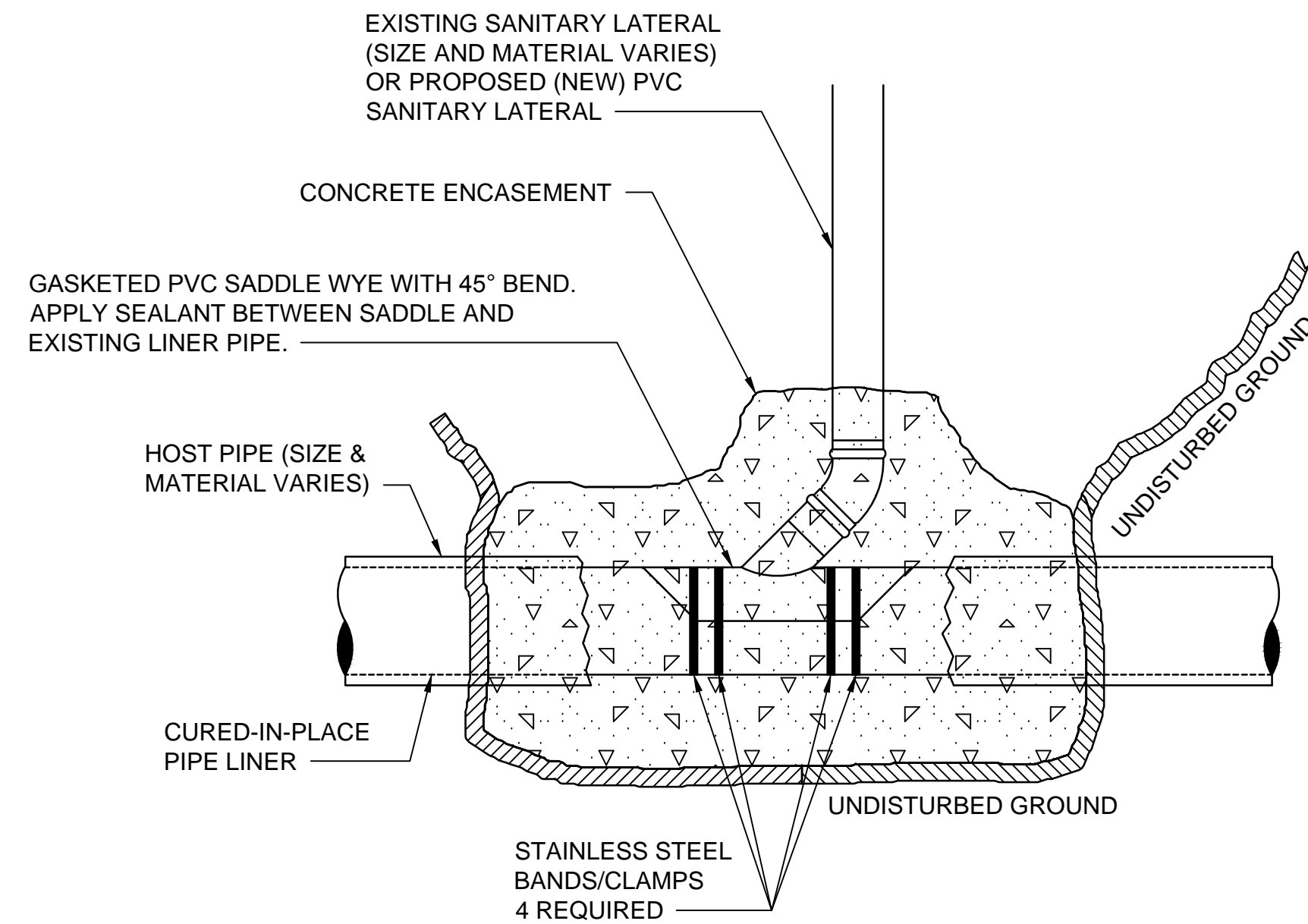
SNOW LOAD	GROUND SNOW LOAD (Pg) =	50 PSF
	SNOW EXPOSURE FACTOR (Ce) =	1.0
	SNOW LOAD IMPORTANCE FACTOR (Is0) =	1.0
	ROOF THERMAL FACTOR (Ct) =	1.1
	FLAT ROOF SNOW LOAD =	38.5 PSF
	SLOPED ROOF / FLAT ROOF FACTOR (Ps) =	1
BALANCED SNOW LOAD =		38.5 PSF
	UNBALANCED SNOW LOAD =	11.55 =.3 *Ps
ROOF TRUSS DESIGN	TOP CHORD LIVE LOAD =	38.5 PSF
	TOP CHORD DEAD LOAD =	10 PSF
	BOTTOM CHORD DEAD LOAD =	10 PSF
WIND LOAD	90 MPH WIND, WIND EXPOSURE =	C
	WIND IMPORTANCE FACTOR (I) =	1.0
	BUILDING ENCLOSURE TYPE =	ENCLOSED
	INTERNAL PRESSURE COEFFICIENT =	±.018
	COMPONENT & CLADDING DESIGN PRESSURE =	+19.2, -20.8 PSF
SEISMIC LOAD	SEISMIC IMPORTANCE FACTOR (I _e) =	1
	SITE CLASS =	D
	SEISMIC DESIGN CATEGORY =	A
	SPECTRAL RESPONSE COEFFICIENTS: S _{ds} =	8.2%
S _{d1} =	5.8%	
FLOOR TRUSS LOAD	TOP CHORD LIVE LOAD =	50 PSF
	TOP CHORD DEAD LOAD =	10 PSF
	BOTTOM CHORD DEAD LOAD =	5 PSF
CONCRETE REQUIREMENTS	SLAB ON GRADE COMPRESSIVE STRENGTH MINIMUM PSI @ 28 DAYS =	3500 PSI
	FOOTING FOUNDATIONS COMPRESSIVE STRENGTH MINIMUM PSI @ 28 DAYS =	3000 PSI
	WALL COMPRESSIVE STRENGTH MINIMUM PSI @ 28 DAYS =	4000 PSI
	CONCRETE REINFORCING STEEL - Fy (ASTM A615, GRADE 60) =	60000 PSI
CONCRETE MASONRY	WF SHAPES - Fy (ASTM A992) =	50000 PSI
	ANGLE, CHANNEL, FLAT SHAPES - Fy (ASTM A36) =	36000 PSI
	STRUCTURAL TUBING - Fy (ASTM A500) =	46000 PSI
	STRUCTURAL PIPES - Fy (ASTM A53) =	35000 PSI
STRUCTURAL STEEL	COMPRESSIVE STRENGTH OF CONCRETE MASONRY Fm =	1500 PSI
SOILS INFORMATION	CLASS OF MATERIALS =	4 FIRM
	ALLOWABLE SOIL BEARING PRESSURE =	2000 PSF

SCALE: Noted
DATE: 1JAN16
NAME: BL
ANG. NO.: 15-234
CAD FILE: CityMarshfield ZooMaintenance Building1&2floorPRELIM 7Jan16
REVISIONS: 16JAN17

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WILDWOOD ZOO
608 W 17th STREET
MARSHFIELD WI 54449

BESTIMATE LLC
http://bestimatellc.com
bob@bestimatellc.com
714 E Ninth St
Marshfield, WI 54449
715-506-0040





ELEVATION/PROFILE VIEW

SADDLE WYE INSTALLED ON EXISTING LINED SANITARY SEWER MAIN

WORK REQUIRED

CAREFULLY REMOVE THE HOST PIPE FROM THE LINER PIPE. EXPOSE LINER PIPE TO AT LEAST 6-INCHES FROM THE SADDLE AND CLAMPS. REMOVE ENTIRE CIRCUMFERENCE OF HOST PIPE (ALL AROUND THE PIPE). DO NOT DAMAGE/MAR LINER PIPE.

MARK PROPOSED HOLE FOR NEW SADDLE ON THE LINER PIPE, CENTERED ON EXISTING HOLE/DIMPLE (EXISTING LATERAL). PROPOSED HOLE SHALL BE THE SAME SIZE AND SHAPE AS THE HOLE IN THE SADDLE.

REMOVE IRREGULARITIES IN/ON THE SURFACE OF THE LINER NEAR THE SADDLE. THIS SURFACE SHALL BE SMOOTH SUCH THAT A LEAK-FREE SEAL TO THE SADDLE CAN BE ACCOMPLISHED.

SAW HOLE IN LINER PIPE USING HOLE/JIG SAW. HOLE MUST BE CLEANLY SAWED. FILE THE HOLE AND ALL EDGES AROUND THE HOLE.

INSTALL SADDLE WYE ONTO THE LINER PIPE. THE HOLE IN THE SADDLE SHALL BE ALIGNED WITH THE HOLE IN PIPE. APPLY ENTIRE TUBE OF SEALANT TO SADDLE/LINER CONNECTION. FASTEN SADDLE TO LINER USING 4 STAINLESS STEEL TYPE CLAMPS. WIPE AWAY ALL EXCESS SEALANT FROM THE INSIDE OF THE SADDLE WYE AND LINER PIPE.

ENCASE THE SADDLE, EXPOSED LINER PIPE AND AT LEAST 6-INCHES OF HOST PIPE IN CONCRETE. THICKNESS OF CONCRETE SHALL BE 6-INCHES MINIMUM, AND SHALL COMPLETELY ENCASE THE BRANCH OF THE WYE AND THE 45° BEND, FOR EITHER HORIZONTAL RUNS OR VERTICAL RISERS. EXTEND CONCRETE ENCASUREMENT TO COVER DEFECTS IN THE HOST PIPE (CRACKS, ETC.). CONCRETE SHALL BE PLACED AGAINST UNDISTURBED GROUND UNDER ALL EXPOSED MAIN/HOST PIPE AND SHALL COMPLETELY FILL THE VOID UNDER SAID EXISTING MAIN.

VOIDS ALONGSIDE OF THE CONCRETE ENCASED MAINLINE PIPE SHALL BE FILLED USING CHIPPED STONE BEDDING/COVER MATERIAL (APPROVED FOR SANITARY SEWERS). COVER THE REMAINDER OF EXCAVATION WITH SAID STONE MATERIAL TO A POINT 2-FEET ABOVE THE CONCRETE ENCASUREMENT.

WATER-TIGHT CONNECTIONS WILL BE VERIFIED BY MAINLINE TELEVISION BY THE CITY. LEAKING CONNECTIONS SHALL BE REMEDIED BY THE CONTRACTOR (INCIDENTAL). LEAKS SHALL BE ELIMINATED BY PRESSURE GROUTING FROM WITHIN THE MAIN. THE ENGINEER SHALL APPROVE THE MATERIALS/SUBCONTRACTOR FOR SAID REMEDY PRIOR TO USE.

SANITARY SEWER NOTES

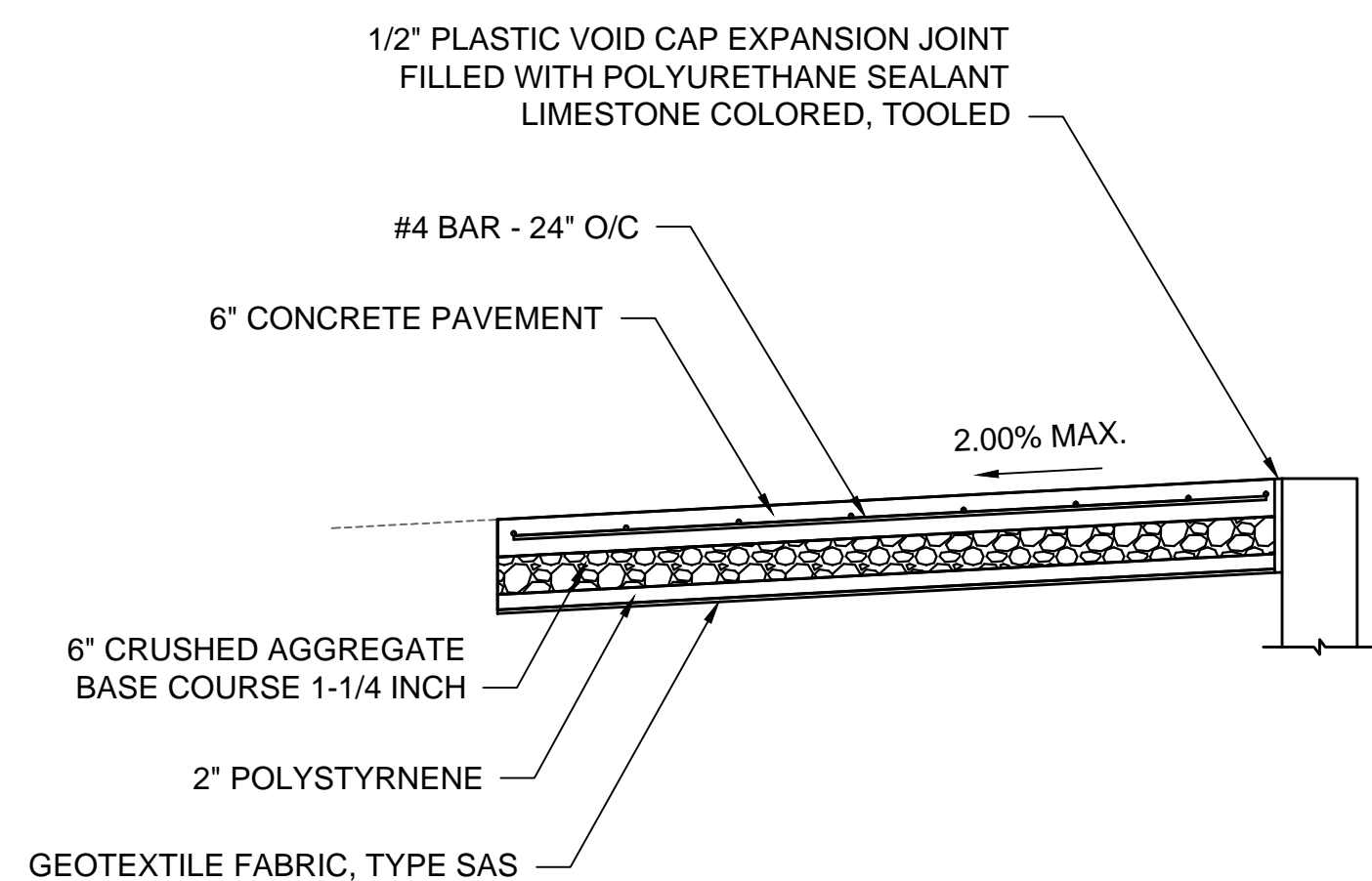
1. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL PROPER BARRICADES, LIGHTS, SIGNAGE AND WATCHMEN, OR OTHER TRAFFIC CONTROL MEASURES NECESSARY TO PROPERLY PROTECT PERSONS, ANIMALS AND PROPERTY DURING ALL SANITARY SEWER CONSTRUCTION.
2. ALL OPEN CUT TRENCHES SHALL BE PROTECTED IN ACCORDANCE WITH APPLICABLE RULES, LAWS AND REGULATIONS OF FEDERAL, STATE AND MUNICIPAL ORDINANCES, BUT SHALL NOT BE LESS THAN THE STANDARDS AND REGULATIONS ESTABLISHED BY THE DEPARTMENT OF LABOR, OSHA 29 CFR, PART 1926.
3. ALL OPEN TRENCHES SHALL BE BACK FILLED AT THE END OF EACH WORKING DAY, UNLESS THE TRENCH IS SUITABLY BARRICADED IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS ESTABLISHED BY THE DEPARTMENT OF LABOR, OSHA 29 CFR, PART 1926.
4. INSTALL ALL BOUNDARY SILT FENCE AND EROSION BALES FOR EROSION CONTROL IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS

MATERIALS

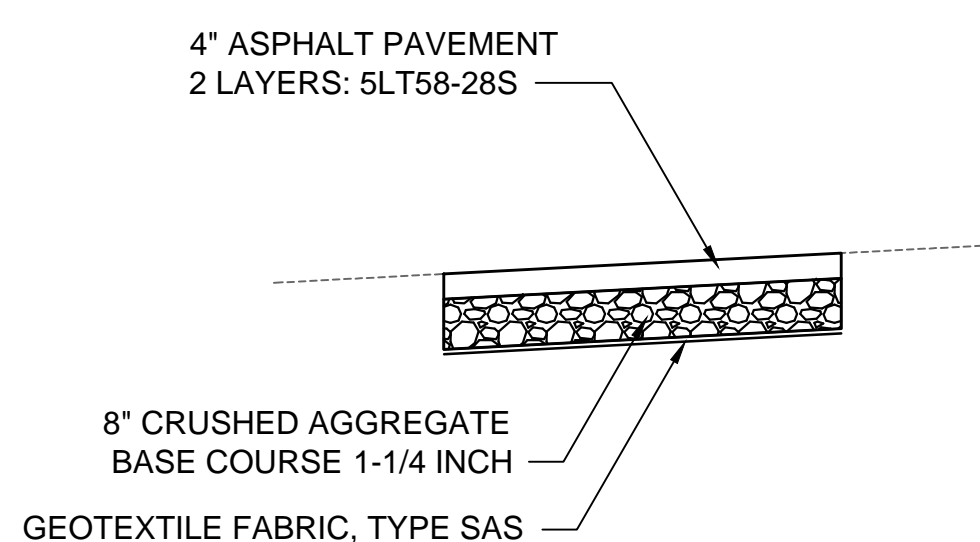
SADDLE WYES SHALL BE AS MANUFACTURED BY GPK PRODUCTS, INC., (GASKET BRANCH, GASKET SKIRT W/STRAPS, 6-INCH X NOMINAL DIAMETER OF THE MAIN).

SEALANT TO BE "PTI-707 ARCHITECTURAL SEALANT" AS MANUFACTURED BY H.B. FULLER CO., OR APPROVED EQUAL. (ONE STANDARD 14 OZ CAULK GUN TYPE TUBE IS REQUIRED FOR EACH SADDLE)

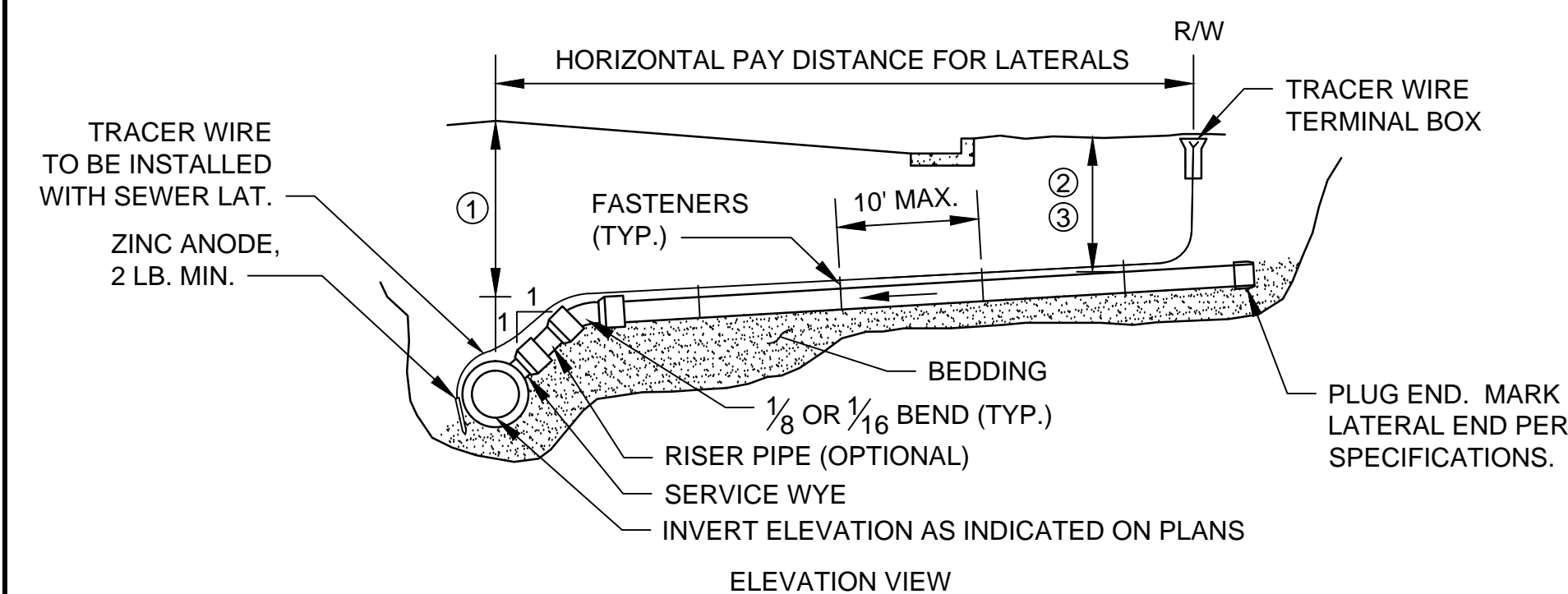
CONCRETE TO BE A QUALITY MIX, FROM A READY MIX PLANT OR PROPERLY MIXED ON-SITE (3/8" MINUS AGGREGATE IS ACCEPTABLE). MIX MUST BE 6-BAG/GRADE A AS A MINIMUM AND CAPABLE OF ACHIEVING 4,000 PSI STRENGTH. SLUMP SHALL NOT EXCEED 3-INCH.



CONCRETE ENTRANCE DETAIL
SCALE: NONE



ASPHALT PATCH DETAIL
SCALE: NONE



NOTES FOR LATERAL INSTALLATION:

1. MINIMUM DEPTH OF COVER UNDER ROADWAY = 7 FEET.
2. MINIMUM DEPTH OF COVER UNDER GRASS AREAS = 5 1/2 FEET.
3. MINIMUM DEPTH OF COVER UNDER GRASS AREAS WITH FROST PROTECTION = 3 FEET 6 INCHES.
4. LATERAL SLOPES SHALL BE 1/8 INCH PER FOOT MINIMUM AND 1/2 INCH PER FOOT MAXIMUM.

NOTES FOR TRACER WIRE INSTALLATION:

1. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE.
2. NO. 12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED WITH THE NON-CONDUCTIVE SERVICE. PIPE TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER MAIN OR AS DETERMINED BY THE ENGINEER OR OWNER. TRACER WIRE INSTALLATION REQUIRES ACCESS POINTS AT LEAST EVERY 300 FEET.
3. TRACER WIRE SHALL BE RESTRAINED BY CABLE-TIES, TAPE, OR BY NON-CORROSIVE FASTENER APPROVED BY THE OWNER, INSTALLED EVERY 10 FEET ALONG SERVICE. DO NOT WRAP TRACER WIRE AROUND THE PIPE.
4. TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATED IN A FLUSH MOUNTED TERMINAL BOX WITH A CAST IRON LOCKABLE TOP. SPLICES IN TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT OR COMPRESSION-TYPE CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION. TERMINAL BOX SHALL BE VALVCO, OR APPROVED EQUAL.

SANITARY SEWER LATERAL DETAIL
NO SCALE

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MAINTENANCE BLDG SITE PLAN
CITY OF MARSHFIELD
WOOD COUNTY, WI

SANITARY SEWER DETAILS AND TYPICAL SECTIONS

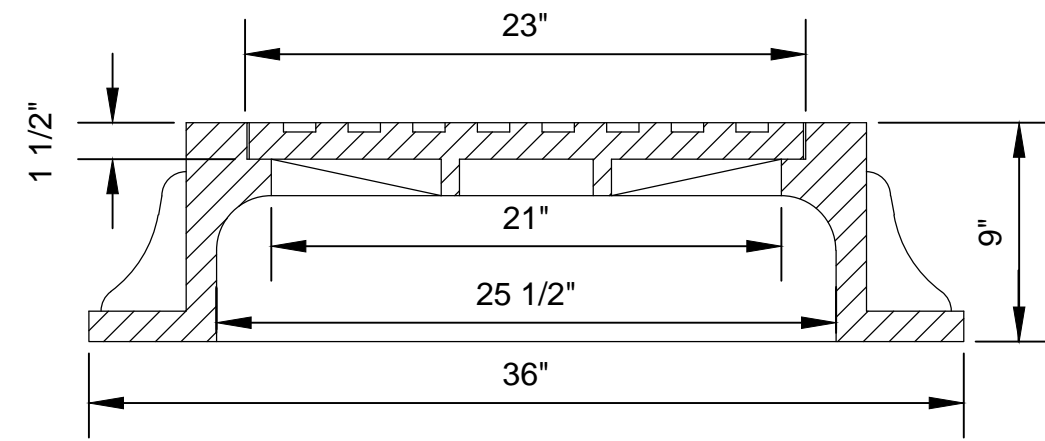
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MANHOLE LID WITH TYPE B
INDENTED TOP DESIGN

NEENAH NO. R-1550-A

LOW PROFILE DESIGNATED "JM-LP"
LOW PROFILE FRAME - NEENAH NO. R-1689
(NON-ROCKING)

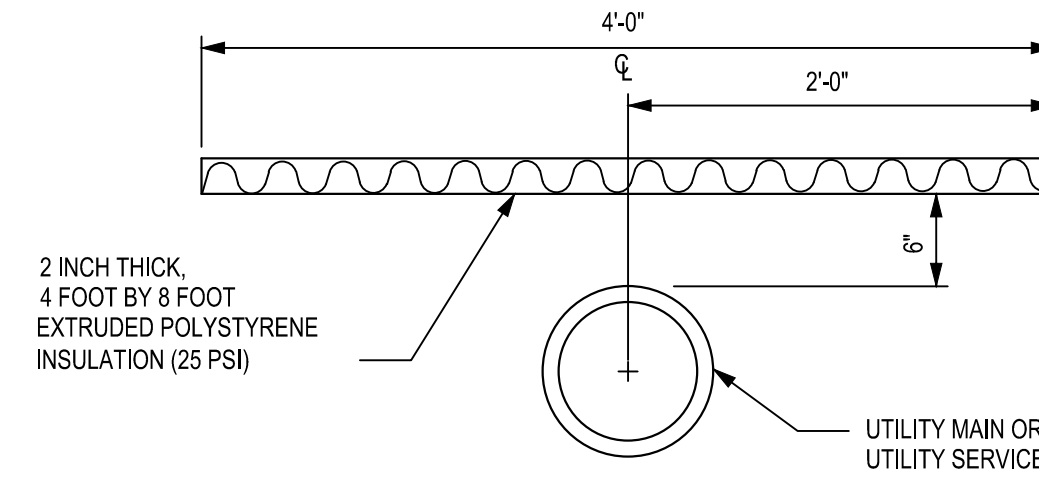


NOTE: TYPE "JM" IS SELF SEALING,
NOT NON-ROCKING STYLE.

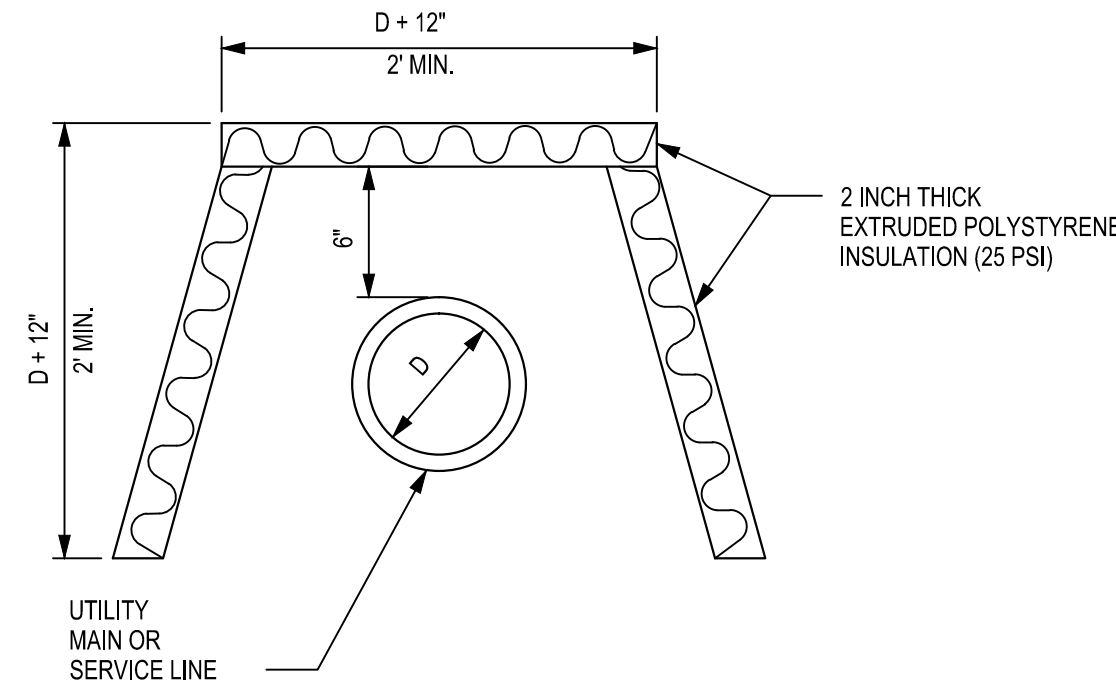
LID HAS CONCEALED PICKHOLES WITH A
T-SEAL GASKET AND MACHINED BEARING

MANHOLE COVER-TYPE "JM"

SCALE: NONE



STANDARD INSTALLATION



SIDE PROTECTION INSTALLATION

GENERAL NOTES:

1. THE SIDE PROTECTION INSTALLATION SHALL BE USED WHERE FROST WILL PENETRATE BELOW THE PIPE INVERT.

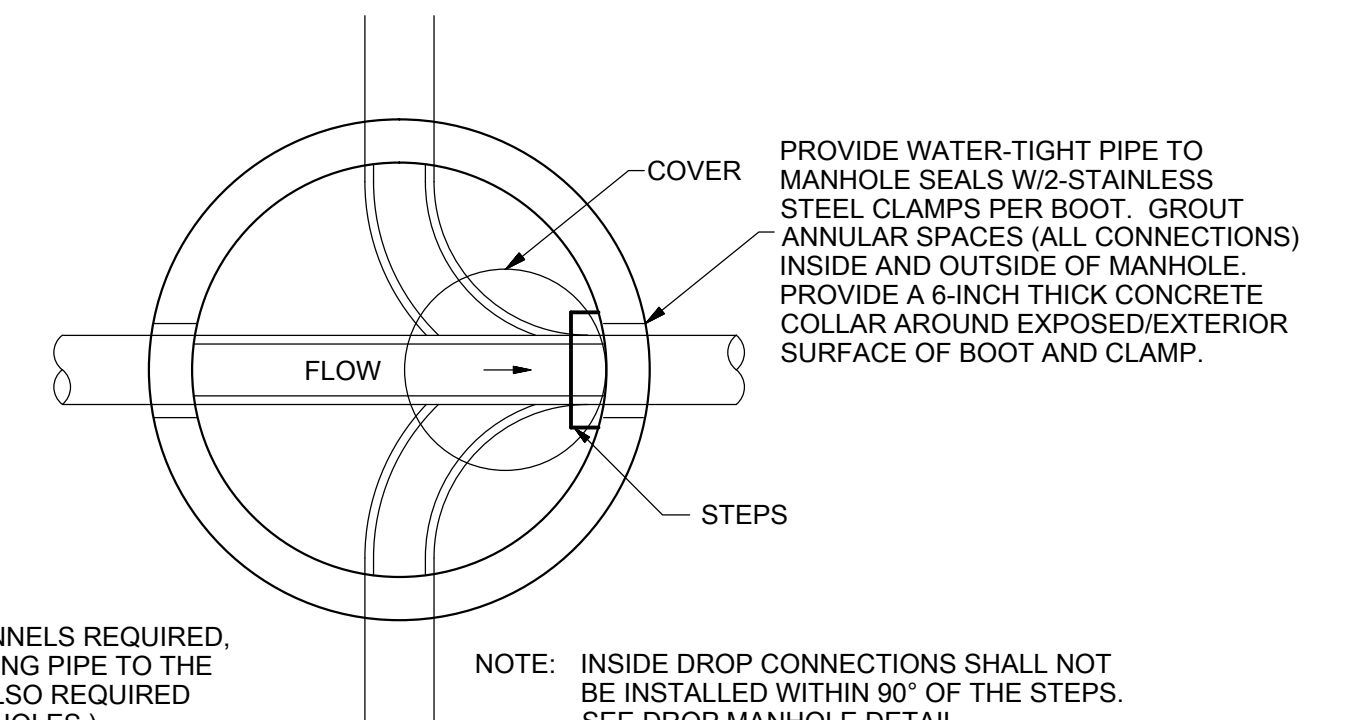
PIPE INSULATION DETAIL

SCALE: NONE

SPECIFICATIONS:

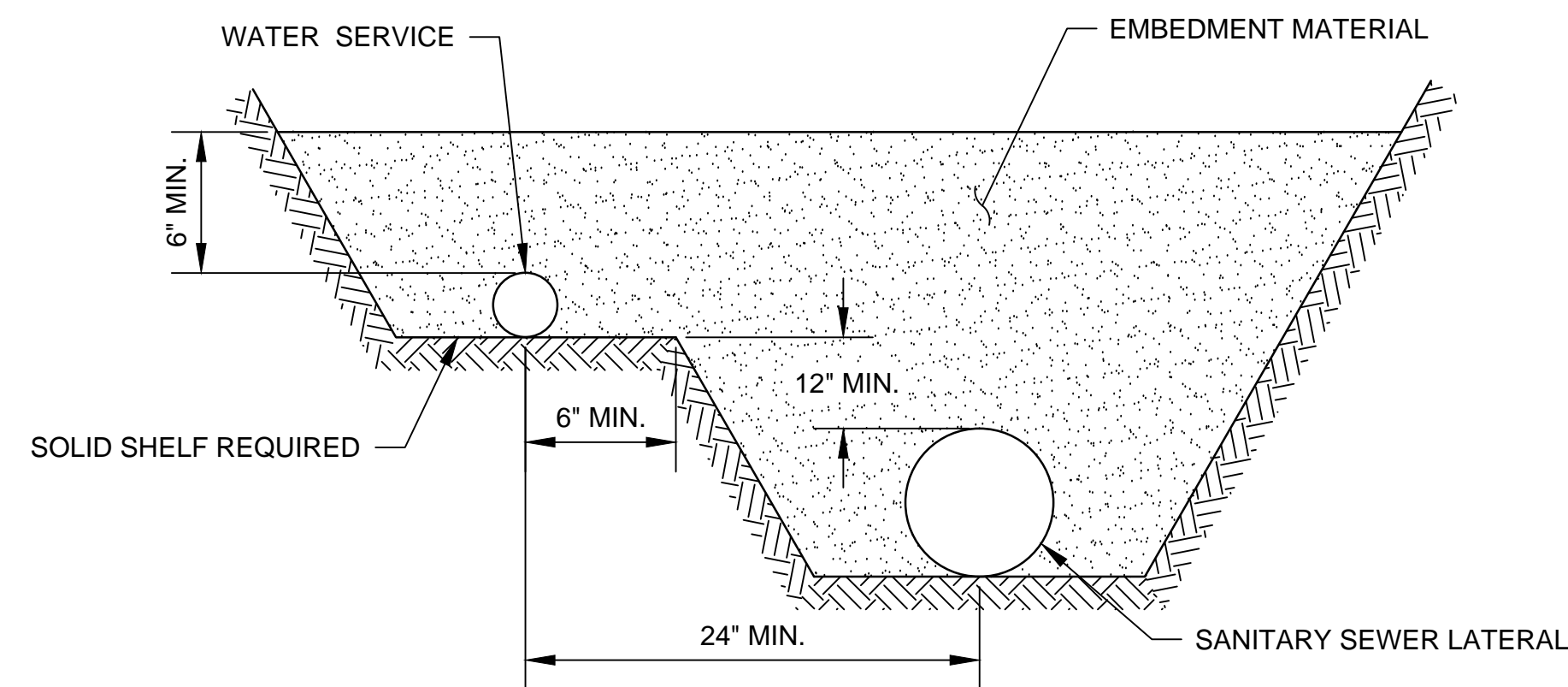
- MANUFACTURED TO A.S.T.M. C-478 SPECIFICATIONS
- CONCRETE STRENGTH - 4000 P.S.I.
- STEEL DESIGN IN ACCORDANCE WITH A.S.T.M. C-478
- 0.12 SQ. IN./FT.
- ALL REINFORCING IS DESIGNED FOR MIN. 1" COVER
- STEP-STEEL, PLASTIC COATED 16" ON CENTER
- MONOLITHIC BASE WITH INLET AND OUTLET OPENING AS REQUIRED
- 48" DIAMETER MANHOLE WILL ACCOMMODATE A 24" DIAMETER PIPE PASSING STRAIGHT THROUGH.
- 48" DIAMETER-5" WALL 890 LBS./FT.

NOTE: ALL STRUCTURES AND COMPONENTS SHALL BE LABELED BY THE MANUFACTURER IN ACCORDANCE WITH PLAN/SCHEDULE IDENTIFICATION



DEFINED FLOW CHANNELS REQUIRED FROM EACH INFLOWING PIPE TO THE DISCHARGE PIPE. (ALSO REQUIRED FOR DEAD-END MANHOLES.) ALL FLOWLINES SHALL BE SMOOTH.

NOTE: INSIDE DROP CONNECTIONS SHALL NOT BE INSTALLED WITHIN 90° OF THE STEPS. SEE DROP MANHOLE DETAIL.

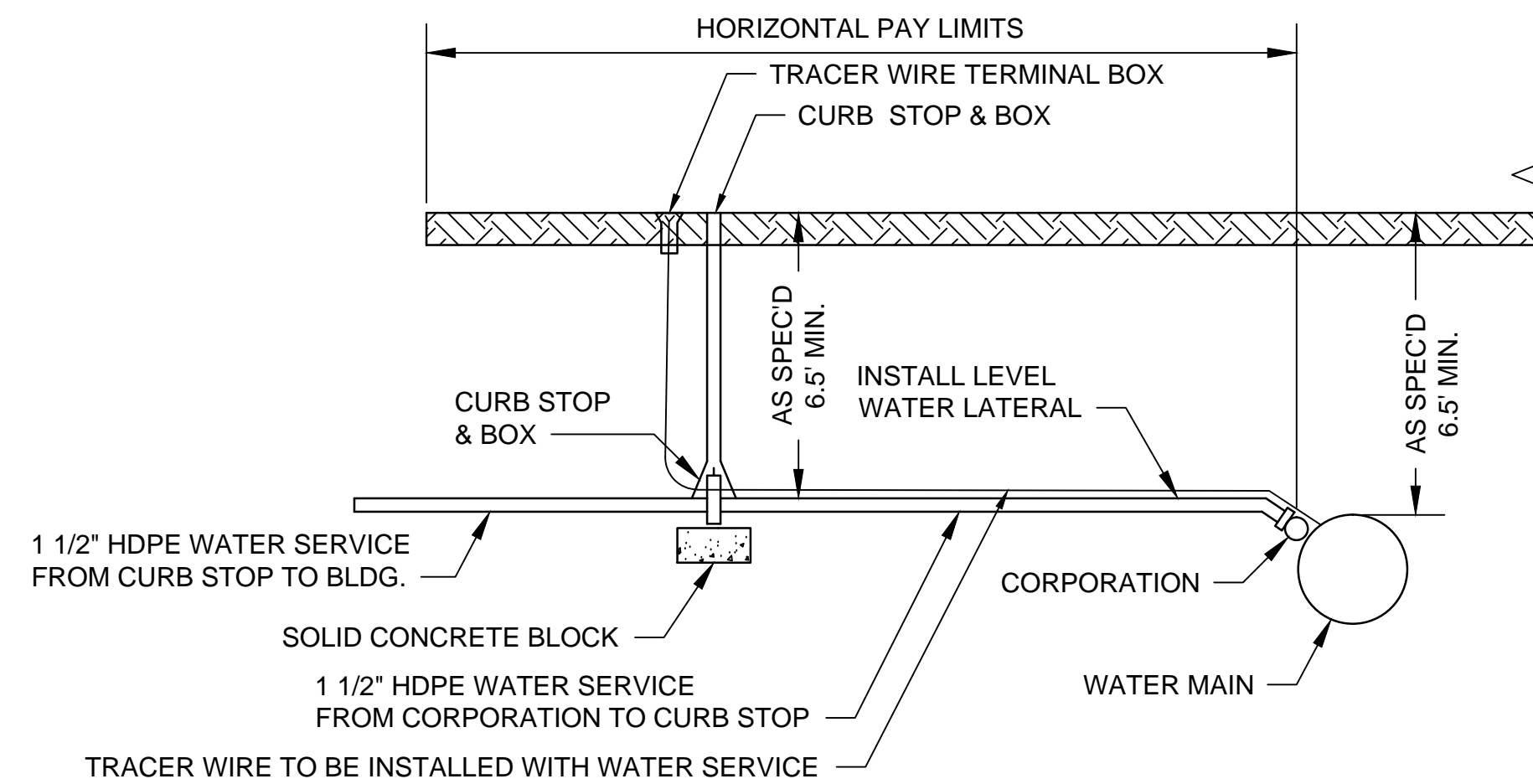


GENERAL NOTES:

1. WATER SERVICES 2 INCHES IN DIAMETER AND LESS SHALL BE LAID WITH A CLEAR HORIZONTAL SEPARATION NOT LESS THAN 2 FEET FROM THE SANITARY LATERAL.

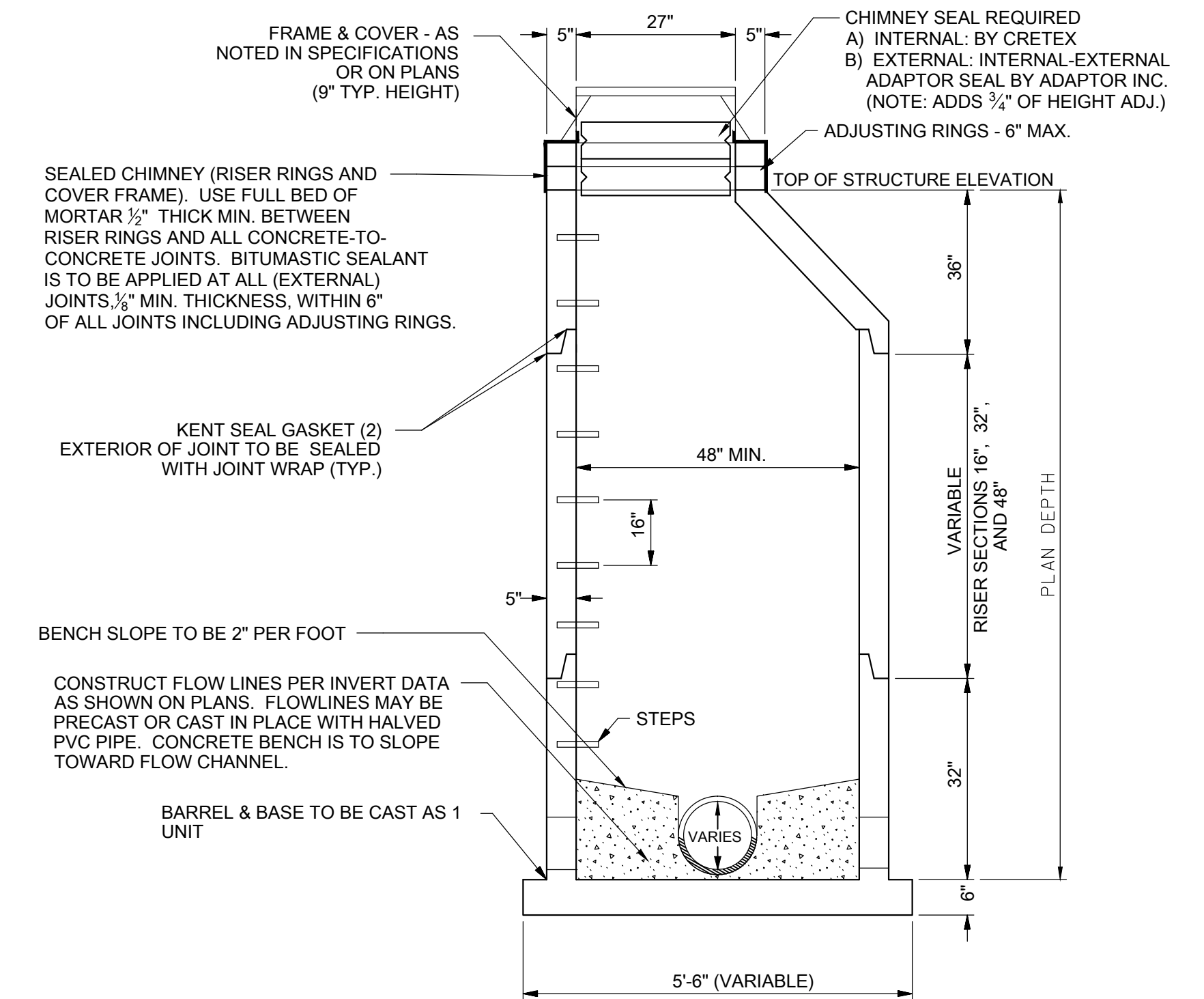
WATER SERVICE AND SANITARY SEWER LATERAL DETAIL

NO SCALE



WATER SERVICE DETAIL

NO SCALE



PRE-CAST CONCRETE SANITARY MANHOLE, TYPE 1 DETAIL

NOTE: LENGTH OF SANITARY SEWER MAINS = MANHOLE CENTER TO MANHOLE CENTER. PIPE SLOPE CALCUTATED FROM INSIDE MANHOLE WALL TO INSIDE MANHOLE WALL. INVERT ELEVATION IS AT INSIDE MANHOLE WALL. PAY DEPTH IS FROM BOTTOM OF CASTING TO LOWEST INVERT.

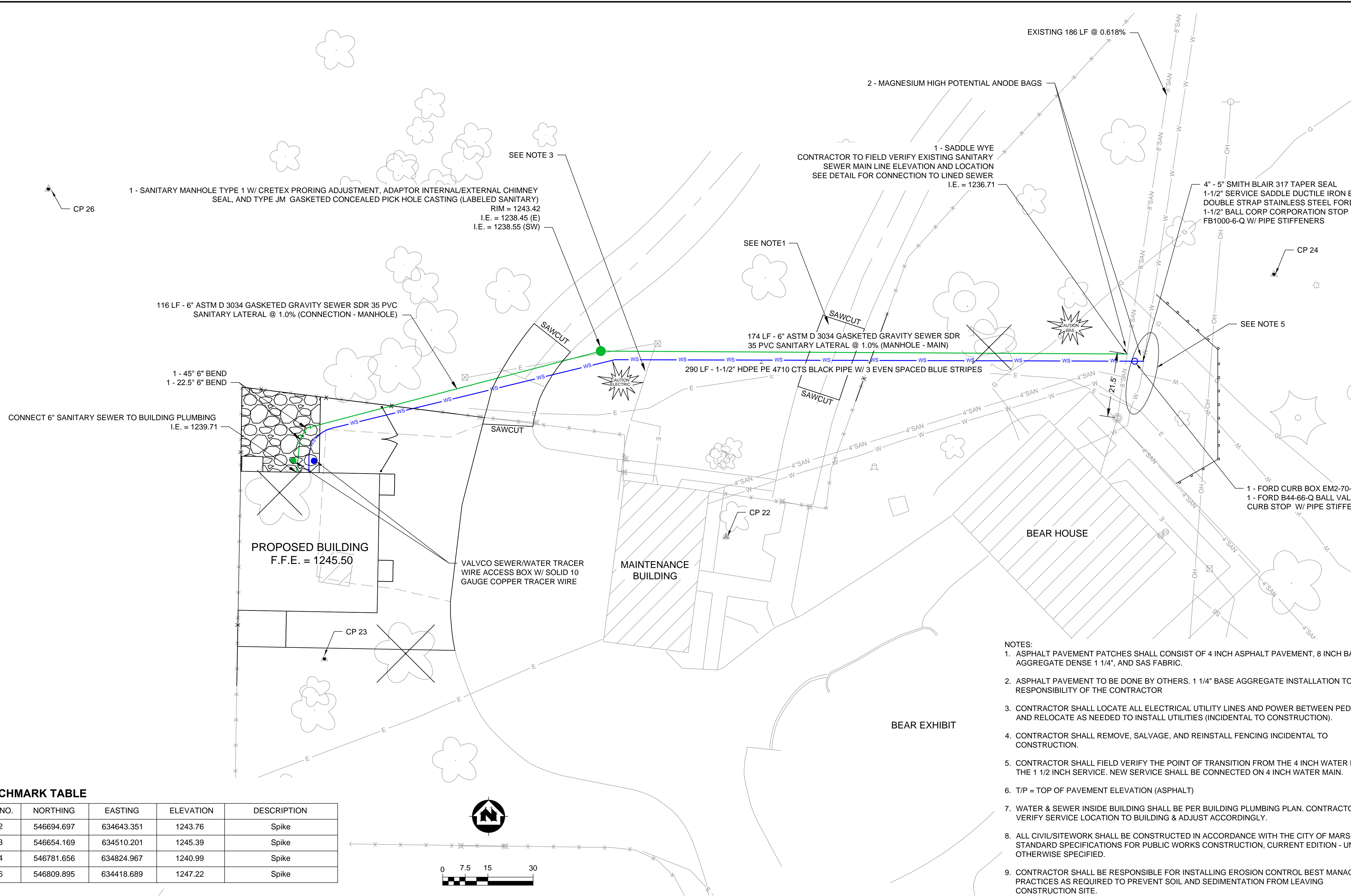
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MAINTENANCE BLDG SITE PLAN
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SANITARY SEWER & WATER DETAILS

FILE NO.
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1 - SANITARY MANHOLE TYPE 1 W/ CRETEX PRORING ADJUSTMENT, ADAPTOR INTERNAL/EXTERNAL CHIMNEY SEAL, AND TYPE JM GASKETED CONCEALED PICK HOLE CASTING (LABELED SANITARY)
 RIM = 1243.42
 I.E. = 1238.45 (E)
 I.E. = 1238.55 (SW)

116 LF - 6" ASTM D 3034 GASKETED GRAVITY SEWER SDR 35 PVC SANITARY LATERAL @ 1.0% (CONNECTION - MANHOLE)

1 - 45° 6" BEND
 1 - 22.5° 6" BEND

CONNECT 6" SANITARY SEWER TO BUILDING PLUMBING
 I.E. = 1239.71

PROPOSED BUILDING
 F.F.E. = 1245.50

VALVCO SEWER/WATER TRACER
 WIRE ACCESS BOX W/ SOLID 10
 GAUGE COPPER TRACER WIRE

MAINTENANCE BUILDING

BEAR HOUSE

BEAR EXHIBIT

2 - MAGNESIUM HIGH POTENTIAL ANODE BAGS
 1 - SADDLE WYE
 CONTRACTOR TO FIELD VERIFY EXISTING SANITARY SEWER MAIN LINE ELEVATION AND LOCATION SEE DETAIL FOR CONNECTION TO LINED SEWER
 I.E. = 1236.71

SEE NOTE 1

174 LF - 6" ASTM D 3034 GASKETED GRAVITY SEWER SDR 35 PVC SANITARY LATERAL @ 1.0% (MANHOLE - MAIN)
 290 LF - 1-1/2" HDPE PE 4710 CTS BLACK PIPE W/ 3 EVEN SPACED BLUE STRIPES

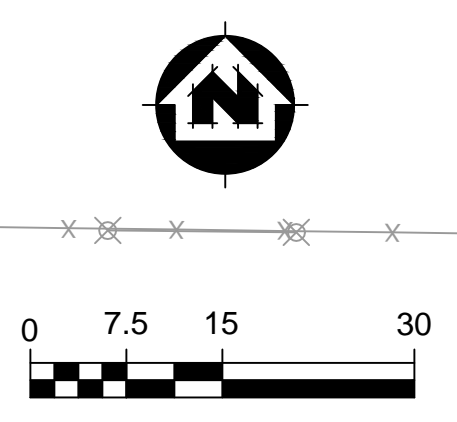
4" - 5" SMITH BLAIR 317 TAPER SEAL
 1-1/2" SERVICE SADDLE DUCTILE IRON BODY W/ DOUBLE STRAP STAINLESS STEEL FORD
 1-1/2" BALL CORP CORPORATION STOP
 FB1000-6-Q W/ PIPE STIFFENERS

1 - FORD CURB BOX EM2-70-56
 1 - FORD B44-66-Q BALL VALVE
 CURB STOP W/ PIPE STIFFENERS

- NOTES:
1. ASPHALT PAVEMENT PATCHES SHALL CONSIST OF 4 INCH ASPHALT PAVEMENT, 8 INCH BASE AGGREGATE DENSE 1 1/4", AND SAS FABRIC.
 2. ASPHALT PAVEMENT TO BE DONE BY OTHERS. 1 1/4" BASE AGGREGATE INSTALLATION TO BE RESPONSIBILITY OF THE CONTRACTOR
 3. CONTRACTOR SHALL LOCATE ALL ELECTRICAL UTILITY LINES AND POWER BETWEEN PEDESTALS AND RELOCATE AS NEEDED TO INSTALL UTILITIES (INCIDENTAL TO CONSTRUCTION).
 4. CONTRACTOR SHALL REMOVE, SALVAGE, AND REINSTALL FENCING INCIDENTAL TO CONSTRUCTION.
 5. CONTRACTOR SHALL FIELD VERIFY THE POINT OF TRANSITION FROM THE 4 INCH WATER MAIN TO THE 1 1/2 INCH SERVICE. NEW SERVICE SHALL BE CONNECTED ON 4 INCH WATER MAIN.
 6. T/P = TOP OF PAVEMENT ELEVATION (ASPHALT)
 7. WATER & SEWER INSIDE BUILDING SHALL BE PER BUILDING PLUMBING PLAN. CONTRACTOR SHALL VERIFY SERVICE LOCATION TO BUILDING & ADJUST ACCORDINGLY.
 8. ALL CIVIL/SITWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MARSHFIELD STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION - UNLESS OTHERWISE SPECIFIED.
 9. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION CONTROL BEST MANAGEMENT PRACTICES AS REQUIRED TO PREVENT SOIL AND SEDIMENTATION FROM LEAVING CONSTRUCTION SITE.

BENCHMARK TABLE

BM. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
22	546694.697	634643.351	1243.76	Spike
23	546654.169	634510.201	1245.39	Spike
24	546781.656	634824.967	1240.99	Spike
26	546809.895	634418.689	1247.22	Spike



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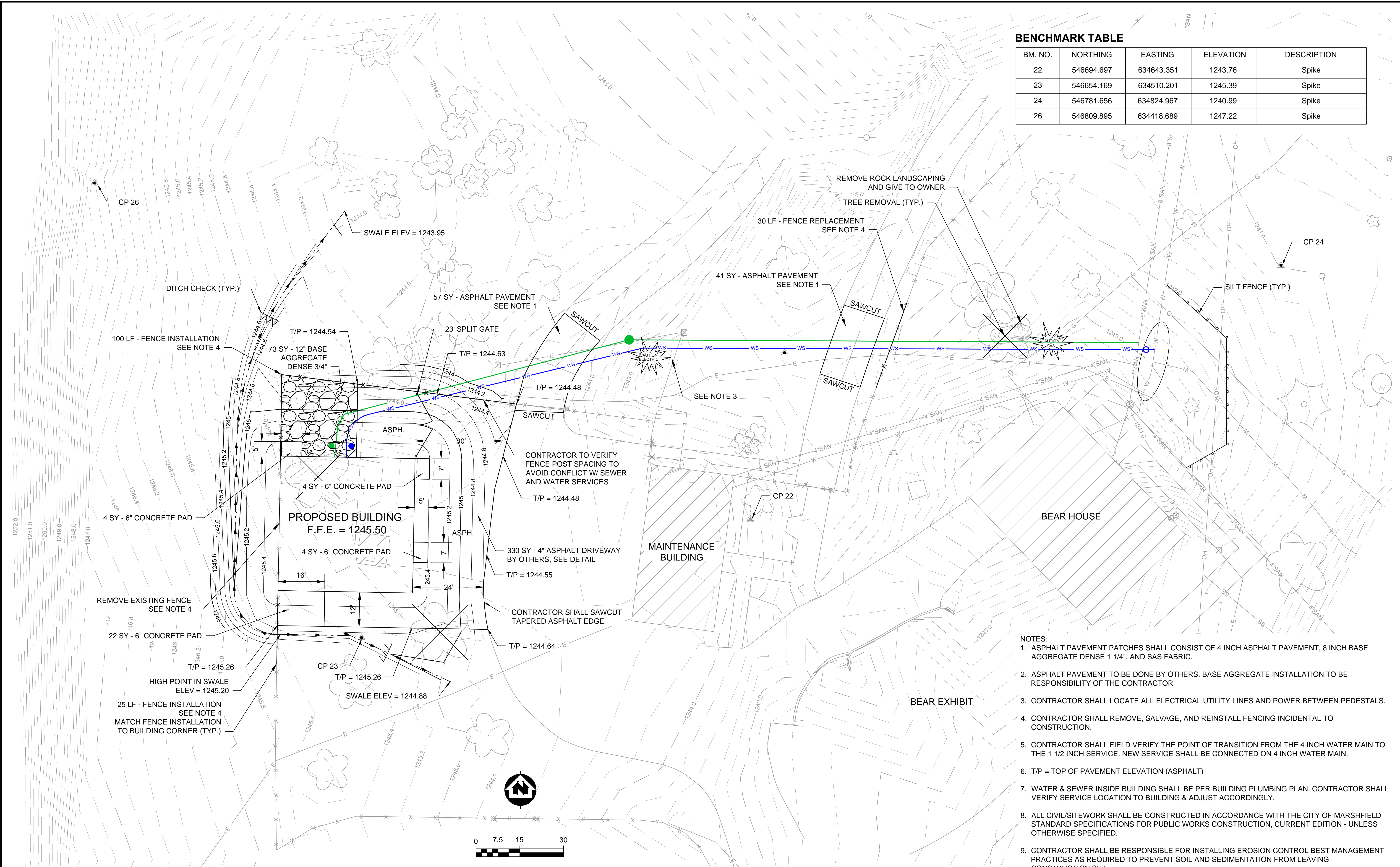
MAINTENANCE BLDG SITE PLAN
 CITY OF MARSHFIELD
 WOOD COUNTY, WI

UTILITY PLAN

FILE NO.
00584096
 SHEET
P 1

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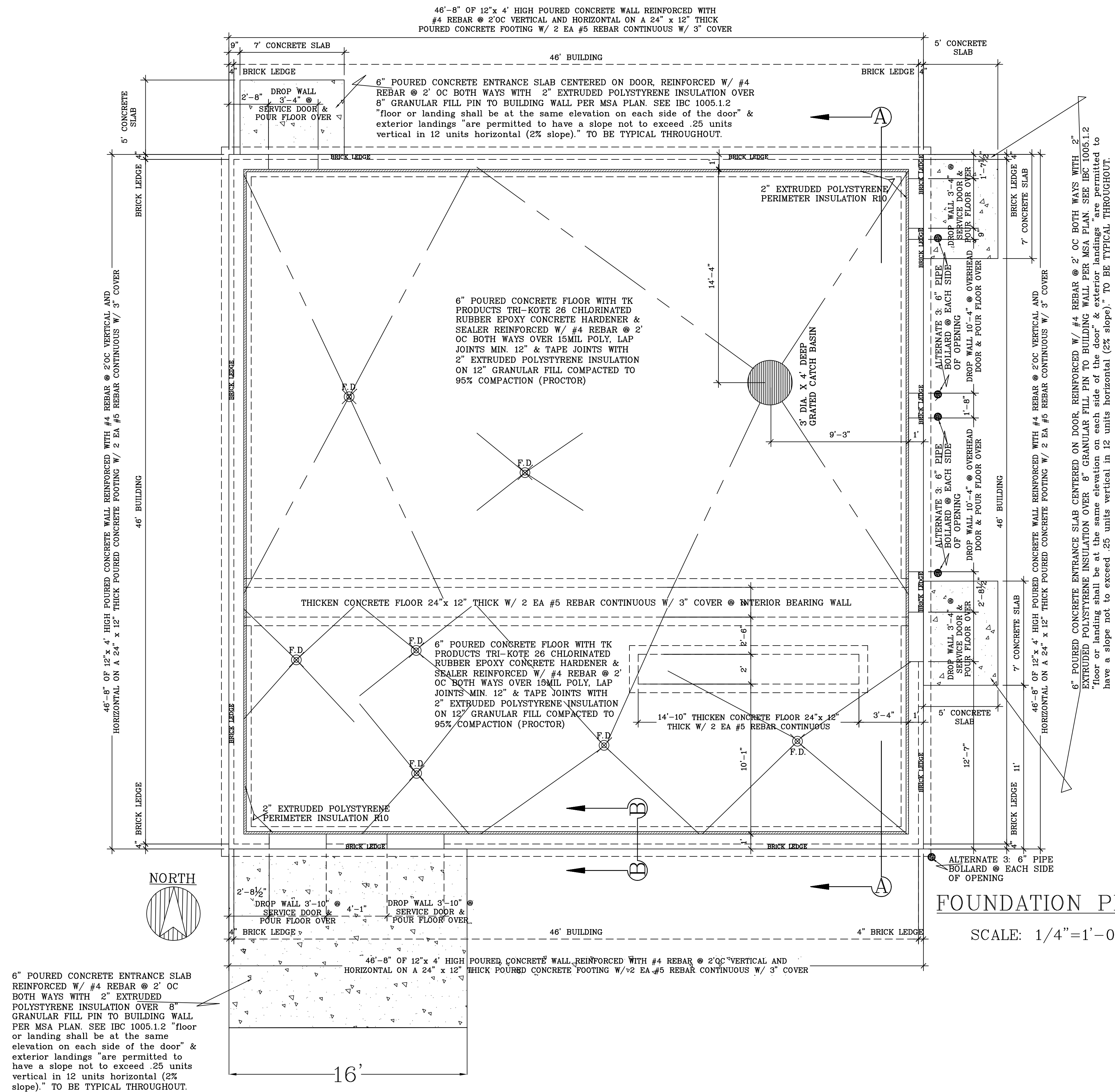
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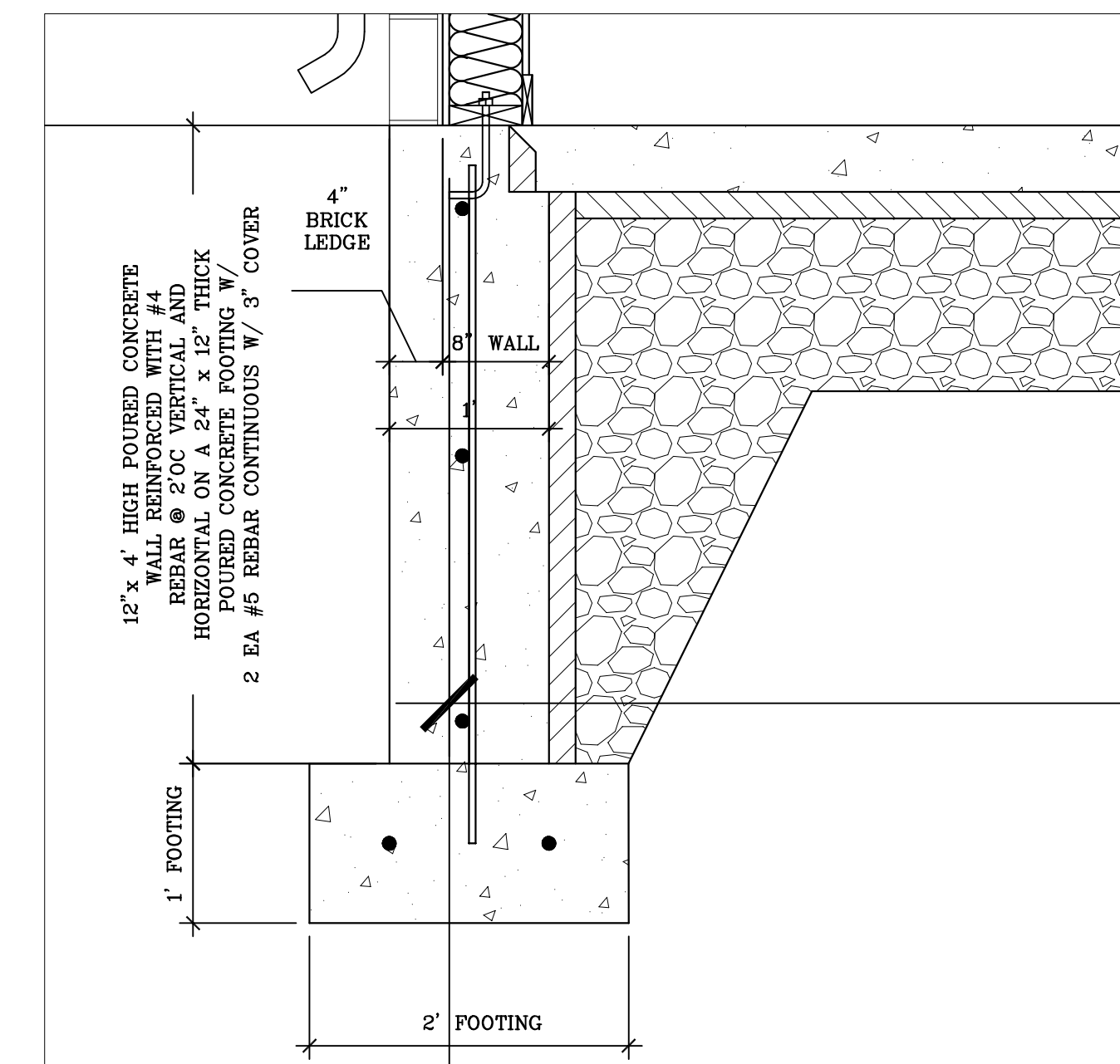
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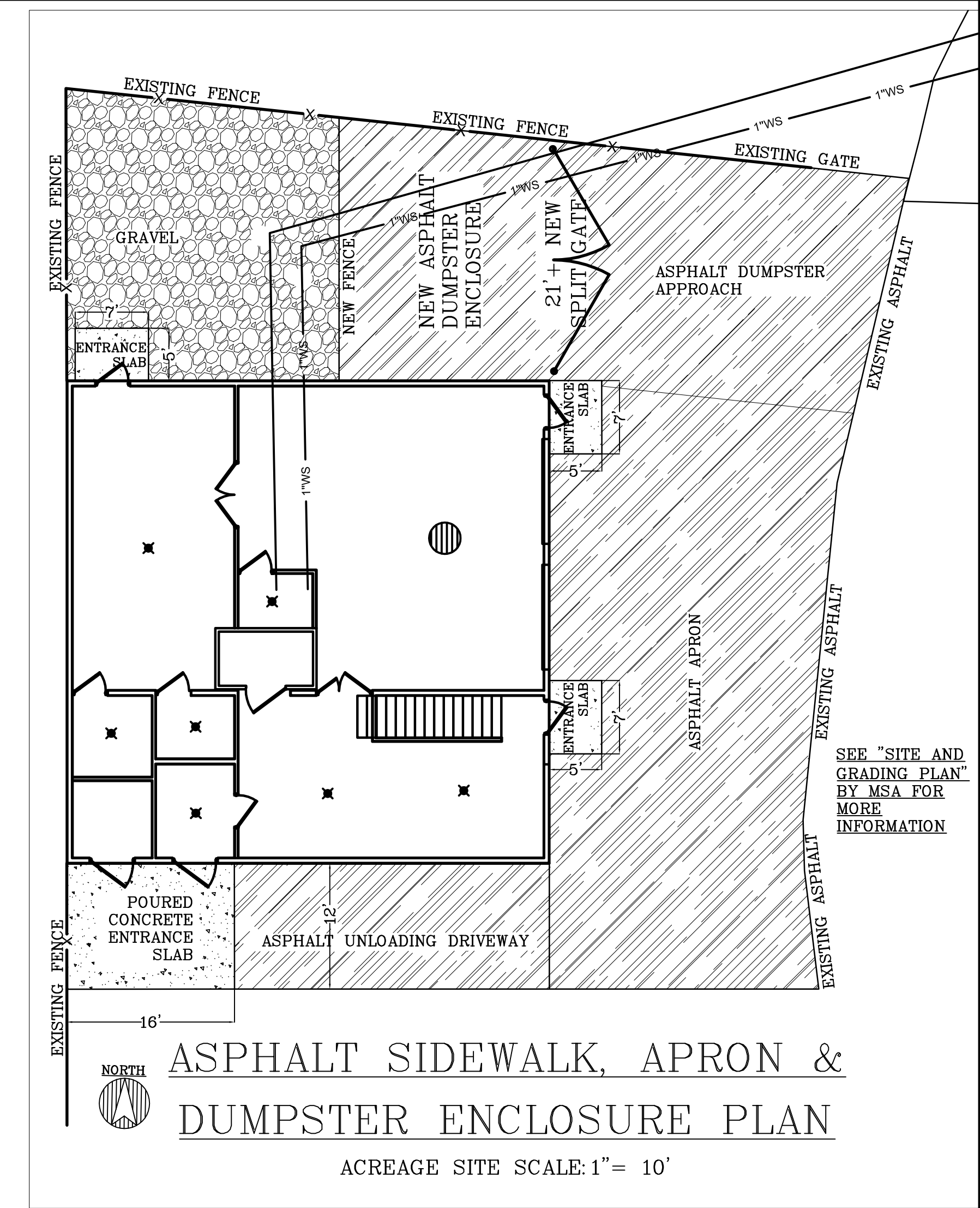
SITE & GRADING PLAN	FILE NO. 00584096
	SHEET P 2



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



FOUNDATION WALL DETAIL B-B
SCALE: 1" = 1'-0"



ASPHALT SIDEWALK, APRON & DUMPSTER ENCLOSURE PLAN

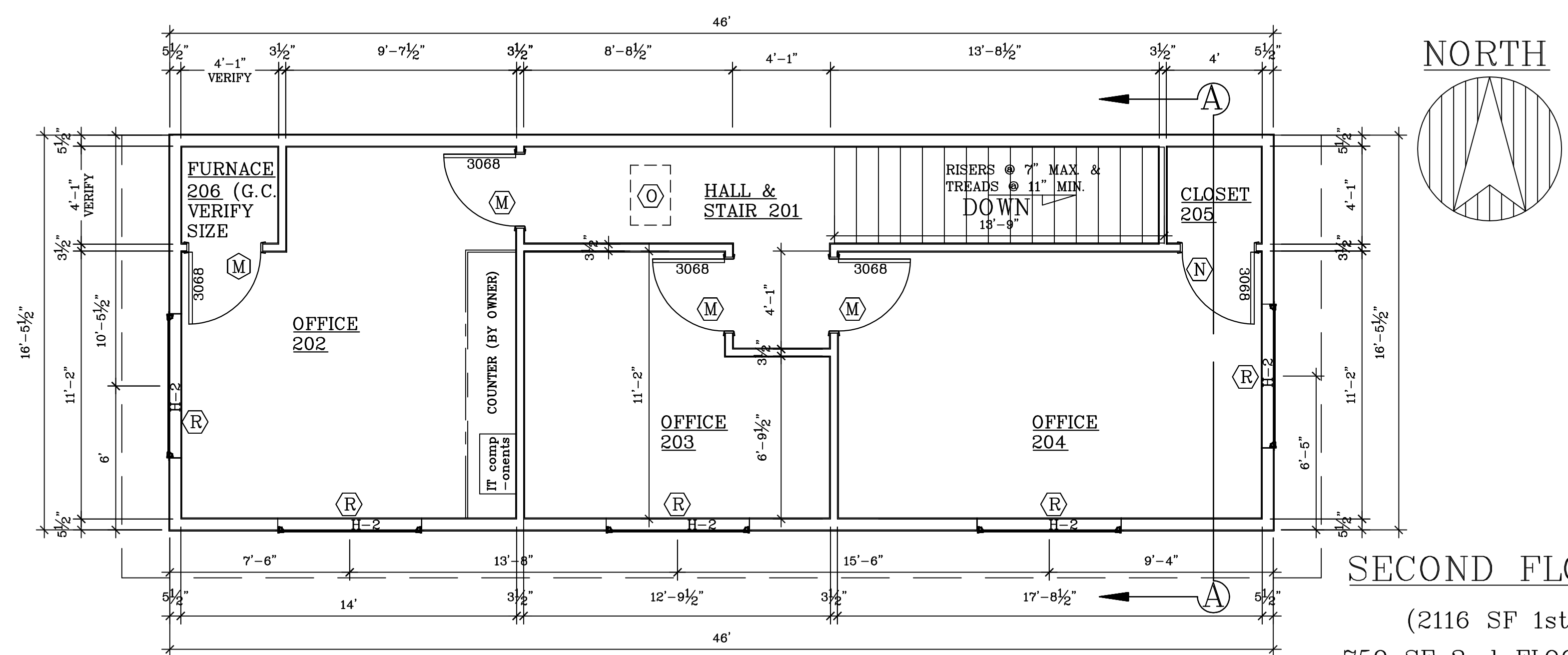
ACREAGE SITE SCALE: 1" = 10'

PROPOSED MAINTENANCE BUILDING FOR
CITY OF MARSHFIELD
WILDWOOD ZOO
608 W 17th STREET
MARSHFIELD WI 54449

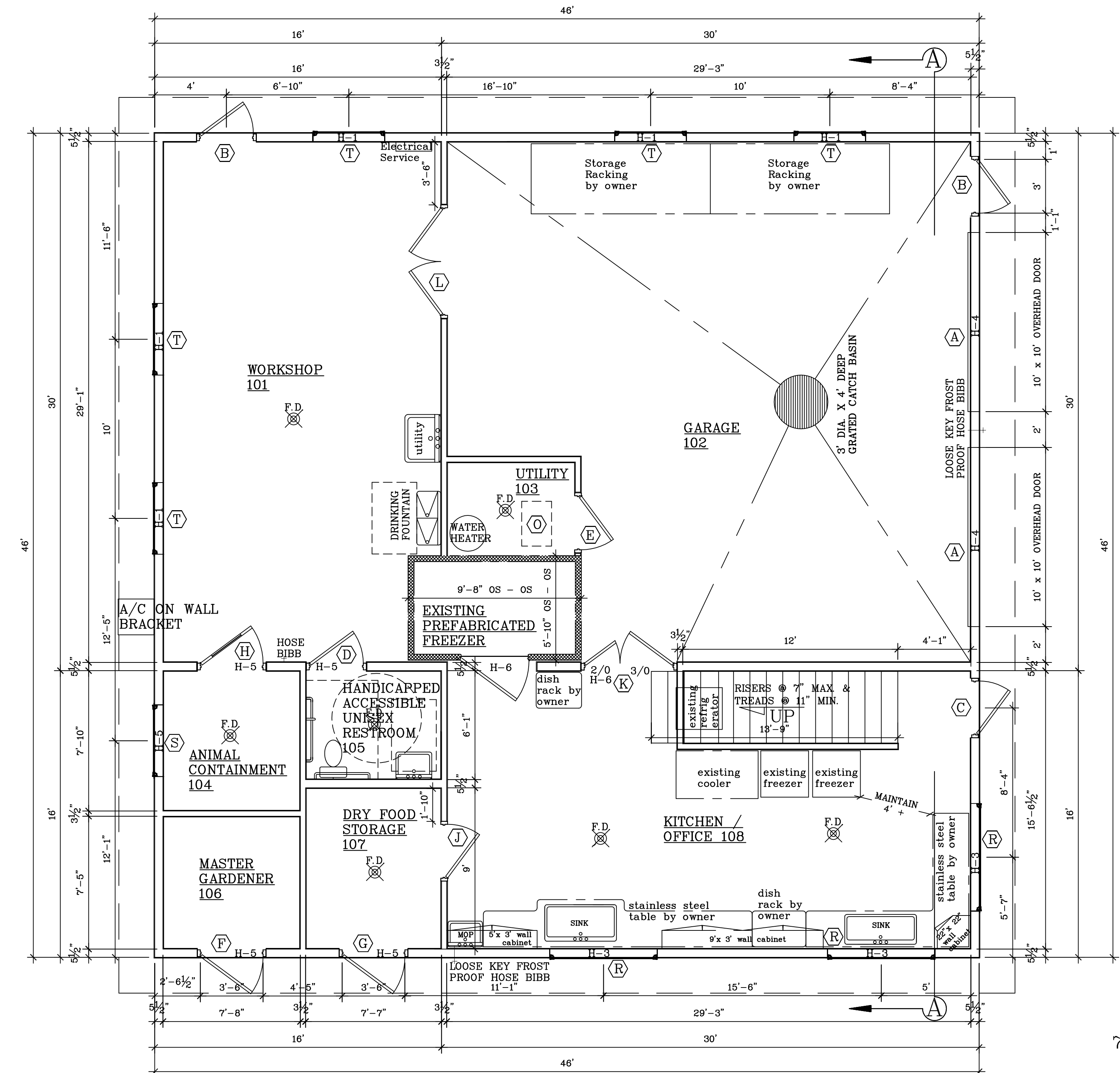
SCALE: Noted
DATE: 1JAN16
NAME: BL
DWG. NO: 15-234
CAD FILE: City\Marshfield Zoo\Maintenance Building\22floor\PRELIM 7jan16
REVISIONS: 29feb16 8mar16 18apr16 3may16 18jul16 26aug16 9dec16 23dec16 16JAN17

BESTIMATE LLC
http://bestimate.com
714 E Ninth St
Marshfield, WI 54449
bob@bestimate.com
715-506-0040

PAGE NO:
A1



SECOND FLOOR PLAN
 (2116 SF 1st FLOOR &
 759 SF 2nd FLOOR = 2875 SF)
 SCALE: 1/4"=1'-0"



FIRST FLOOR PLAN
 (2116 SF 1st FLOOR &
 759 SF 2nd FLOOR = 2875 SF)
 SCALE: 1/4"=1'-0"

DOOR & WINDOW SCHEDULE									
MARK	QTY	TYPE	SIZE	DESCRIPTION	FRAME	GLASS	FIRE RATING	HARDWARE PACKAGE- (see Below)	REMARKS
A	2	OVERHEAD DOOR	10'-0" X 10'-0"	THERMALLY BROKEN 2" STEEL INSULATED PANELS	WOOD FRAME	4 EA 24" x 16"-1" INSUL LITE PER DOOR	NONE		1/2 HP COMMERCIAL DUTY OPERATOR W/ 1 REMOTE & 3 BUTTON INT. WALL SWITCH
B	2	EXIT DOOR & FRAME	3'-0" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	24" x 30"-1" THK INSUL. LOW-E LITE	NONE	Hardware Package #1	
C	1	EXIT DOOR & FRAME	3'-0" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #2	
D	1	EXIT DOOR & FRAME	3'-0" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #6	PROVIDE "ADA" RESTROOM SIGN MOUNTED PER PLAN
E	1	EXIT DOOR & FRAME	3'-0" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #7	
F	1	DOOR & FRAME	3'-6" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #3	
G	1	DOOR & FRAME	3'-6" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #1	
H	1	DOOR & FRAME	3'-6" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	24" x 30"-1" THK INSUL. LOW-E LITE	NONE	Hardware Package #1	
J	1	DOOR & FRAME	3'-6" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #7	
K	1	DOUBLE DOOR	5'-0" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #4	(1 EA 2'-0" & 1 EA 3'-0" SLAB PER CODE)
L	1	DOUBLE DOOR	6'-0" X 7'-0"	18 G. GALV. STEEL INSULATED SLAB	16G. GALV. WELDED STEEL FRAME	NONE	NONE	Hardware Package #5	(2 EA 3'-0" SLAB)
M	4	DOOR & FRAME	3'-0" X 6'-8"	SC OAK FLUSH DOOR SLABS	OAK JAMB & ROUND EDGE CASING & STOP	NONE	NONE	Hardware Package #7	
N	1	DOOR & FRAME	3'-0" X 6'-8"	SC OAK FLUSH DOOR SLABS	OAK JAMB & ROUND EDGE CASING & STOP	NONE	NONE	Hardware Package #8	
O	2	CEILING ATTIC ACCESS DOOR	1'-8" X 2'-6"	WOOD FRAME INSULATED DOOR-BUILD ON JOB	WOOD FRAME	NONE	NONE		SELF CLOSING
R	8	SLIDEBY WINDOW	6'-0" X 4'-0"	WEATHERSHIELD V3000 SLIDING WINDOW	VINYL FRAME	INSULATED LOW-E	NONE		WITH 3" SNAP ON CHANNEL FOR OAK JAMB FINISH
S	1	AWNING WINDOW	4'-0" X 2'-0"	WEATHERSHIELD V300 OPERATING AWNING WINDOW	VINYL FRAME	INSULATED LOW-E	NONE		WITH 1" SNAP ON DRYWALL RETURN FOR JAMB FINISH
T	5	AWNING WINDOW	4'-0" X 2'-0"	WEATHERSHIELD V3000 STATIONARY AWNING WINDOW	VINYL FRAME	INSULATED LOW-E	NONE		WITH 1" SNAP ON DRYWALL RETURN FOR JAMB FINISH

OVERHEAD DOORS ARE TO BE MODEL 3216 MANUFACTURED BY CHI INDUSTRIES, Arthur, IL 61911 ASTM C518 tested R-Value: 17.54 U-Value: .057 OR EQUAL

REQUIRED CITY OF MARSHFIELD HARDWARE SCHEDULE (NOT "OR EQUAL")	
Hardware Package 1 (3) Hinges, Hager BB1279 4-1/2" x 4-1/2" NRP US26D (1) Lockset, Marshall Best, Entry Function, MBIA-3-01-14-626-SI (Keying to be coordinated with owner) (1) Latch Protector, Ives LG10 x US2C (1) Closer, Hager 5100 REG AL (1) Threshold, Reese S204A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size (1) Sweep, Reese 323C x Door Width Hardware Package 2 (3) Hinges, Hager BB1279 4-1/2" x 4-1/2" NRP US26D Housing x 626 (Keying to be coordinated with owner) (1) Closer, Hager 5100 REG AL (1) Threshold, Reese S204A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size (1) Sweep, Reese 323C x Door Width Hardware Package 3 (3) Hinges, Hager BB1279 4-1/2" x 4-1/2" US26D (1) Passageset, Marshall Best, MBIA-3-30-14-626-SI (1) Closer, Hager 5100 REG AL (1) Threshold, Reese S204A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size (1) Sweep, Reese 323C x Door Width Hardware Package 4 (6) Hinges, Hager BB1279 4-1/2" x 4-1/2" US26D (1) Passageset, Marshall Best, MBIA-3-30-14-626-SI (Active Leaf) (1 Pair) Surface Bolts, Ives SB1630T/B (Inactive Leaf) (1) Closer, Hager 5100 REG AL (1) Threshold, Reese S204A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size	(2) Sweeps, Reese 323C x Door Width Hardware Package 5 (6) Hinges, Hager BB1279 4-1/2" x 4-1/2" US26D (1) Lockset, Marshall Best, Entry Function, MBIA-3-01-14-626-SI (Keying to be coordinated with owner) (Active Leaf) (1 Pair) Surface Bolts, Ives SB1630T/B (Inactive Leaf) (1) Closer, Hager 5100 REG AL (Active Leaf) (1) Threshold, Reese S204A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size (1) Sweep, Reese 323C x Door Width Hardware Package 6 (3) Hinges, Hager BB1279 4-1/2" x 4-1/2" US26D (1) Privacyset, Marshall Best, MBIA-3-20-14-626-SI (1) Closer, Hager 5100 REG AL (1) Sign, Rockwood BP886 Plastic (1) Threshold, Reese S404A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size (1) Sweep, Reese 323C x Door Width Hardware Package 7 (3) Hinges, Hager BB1279 4-1/2" x 4-1/2" US26D (1) Passageset, Marshall Best, MBIA-3-30-14-626-SI (1) Closer, Hager 5100 REG AL (1) Threshold, Reese S204A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size (1) Sweep, Reese 323C x Door Width Hardware Package 8 (3) Hinges, Hager BB1279 4-1/2" x 4-1/2" US26D (1) Combination Lock, Alarm Lock Trilogy DL2700IC/26D For Best Core (1) Closer, Hager 5100 REG AL (1) Threshold, Reese S204A x Door Width (1) Weatherstrip Set, Reese DS69C x Door Size (1) Sweep, Reese 323C x Door Width

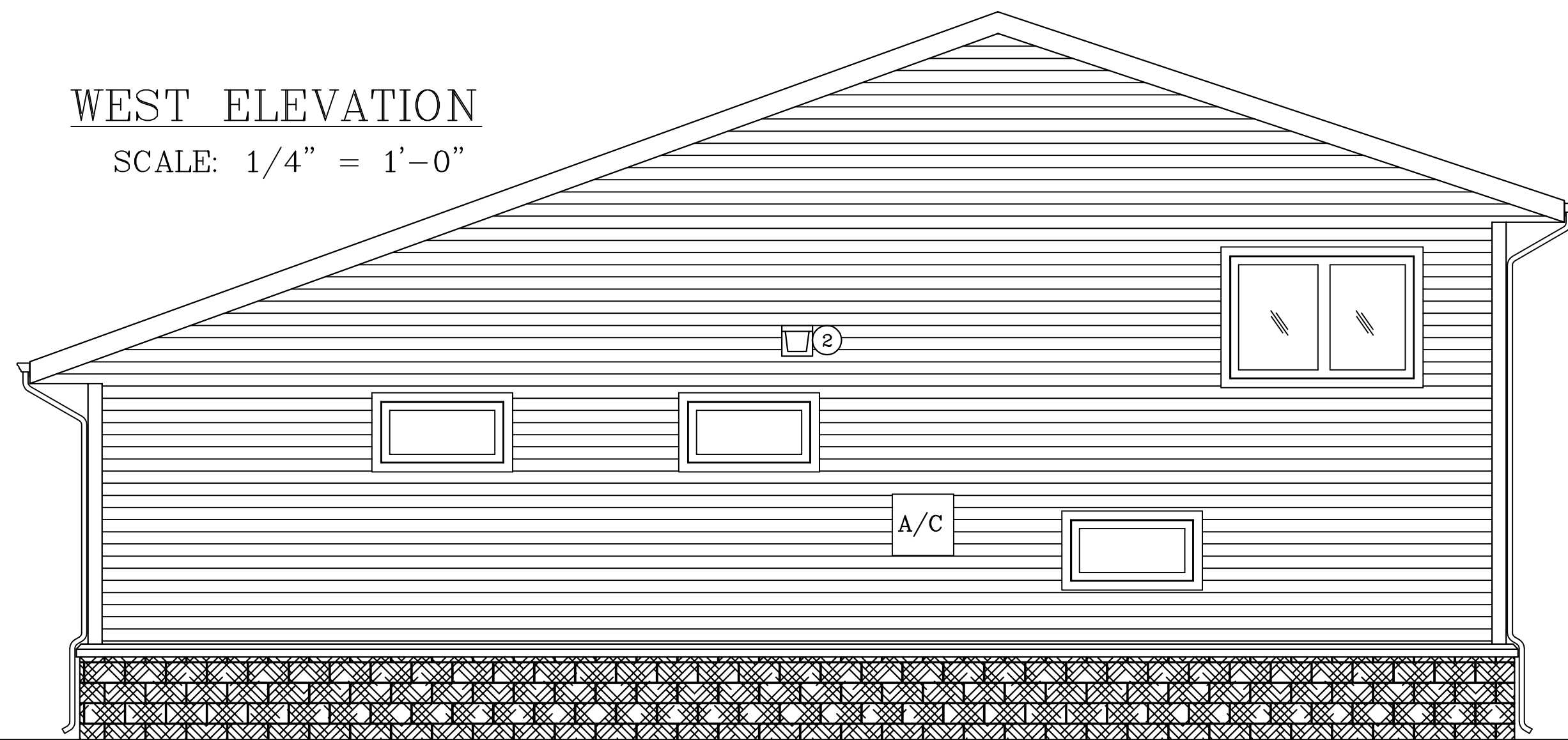
HEADER SCHEDULE	
MARK	DESCRIPTION
H-1	2 PLY 2x8 #2 SPF
H-2	2 PLY 2x10 #2 SPF
H-3	3 PLY 1 1/2 x 5 1/2 #LVL 2.0E
H-4	2 PLY 2x12 #2 SPF
H-5	2 PLY 1 1/2 x 5 1/2 #LVL 2.0E
H-6	3 PLY 1 1/2 x 5 1/2 #LVL 2.0E

ROOM FINISH SCHEDULE								
MARK	DESCRIPTION	FLOOR	BASE	WALL	CEILING	TRIM	CEILING HEIGHT	REMARKS
101	WORKSHOP	SEALED CONCRETE	3/4 x 4" SOLID PLASTIC	29 G WHITE STEEL	29 G WHITE STEEL	WHITE STEEL	12'-0"	
102	GARAGE	SEALED CONCRETE	3/4 x 4" SOLID PLASTIC	29 G WHITE STEEL	29 G WHITE STEEL	WHITE STEEL	12'-0"	
103	UTILITY	SEALED CONCRETE	NONE	1/2" OSB	1/2" OSB	NONE	8'-0"	PAINT 2 COATS SEMI-GLOSS ENAMEL
104	ANIMAL CONTAINMENT	SEALED CONCRETE	3/4 x 4" SOLID PLASTIC	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	MATCHING VINYL	8'-0"	WHITE STAINLESS STEEL TRUSS HEAD SCREW FASTENERS
105	UNISEX RESTROOM	SEALED CONCRETE	3/4 x 4" SOLID PLASTIC	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	MATCHING VINYL	8'-0"	WHITE STAINLESS STEEL TRUSS HEAD SCREW FASTENERS
106	MASTER GARDENER	SEALED CONCRETE	NONE	1/2" OSB	1/2" OSB	NONE	8'-0"	WALL PAINT 2 COATS SEMI-GLOSS ENAMEL
107	DRY FOOD STORAGE	SEALED CONCRETE	3/4 x 4" SOLID PLASTIC	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	MATCHING VINYL	8'-0"	WHITE STAINLESS STEEL TRUSS HEAD SCREW FASTENERS
108	KITCHEN / OFFICE	SEALED CONCRETE	3/4 x 4" SOLID PLASTIC	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	.30 SMOOTH POLY LAMINATED TO 1/2" OSB	MATCHING VINYL	8'-0"	WHITE STAINLESS STEEL TRUSS HEAD SCREW FASTENERS
201	HALL & STAIR	VINYL COMPOSITION TILE	4" VINYL COMPOSE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	PAINTED WOOD JAMBS AND CASING	8'-0"	PRIME & PAINT 2 COATS SEMI-GLOSS LATEX ENAMEL
202	OFFICE	VINYL COMPOSITION TILE	4" VINYL COMPOSE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	PAINTED WOOD JAMBS AND CASING	8'-0"	PRIME & PAINT 2 COATS SEMI-GLOSS LATEX ENAMEL
203	OFFICE	VINYL COMPOSITION TILE	4" VINYL COMPOSE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	PAINTED WOOD JAMBS AND CASING	8'-0"	PRIME & PAINT 2 COATS SEMI-GLOSS LATEX ENAMEL
204	OFFICE	VINYL COMPOSITION TILE	4" VINYL COMPOSE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	PAINTED WOOD JAMBS AND CASING	8'-0"	PRIME & PAINT 2 COATS SEMI-GLOSS LATEX ENAMEL
205	CLOSET	VINYL COMPOSITION TILE	4" VINYL COMPOSE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	PAINTED WOOD JAMBS AND CASING	8'-0"	PRIME & PAINT 2 COATS SEMI-GLOSS LATEX ENAMEL
206	FURNACE	VINYL COMPOSITION TILE	4" VINYL COMPOSE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	1/2" DRYWALL TAPED & ORANGE PEEL TEXTURE	PAINTED WOOD JAMBS AND CASING	8'-0"	PRIME & PAINT 2 COATS SEMI-GLOSS LATEX ENAMEL

SCALE: Noted
 DATE: 1JAN16
 NAME: BL
 DWG. NO: 15-234
 CITY: Marshfield Zoo Maintenance Building & 2nd Floor PRELIM 7jan16
 CAD FILE: 11jan16 18jan16 22jan16 1feb16 8mar16 18apr16 3may16 9may16 9jun16 18jun16 29oct16 16jan17
 PROPOSED MAINTENANCE BUILDING FOR
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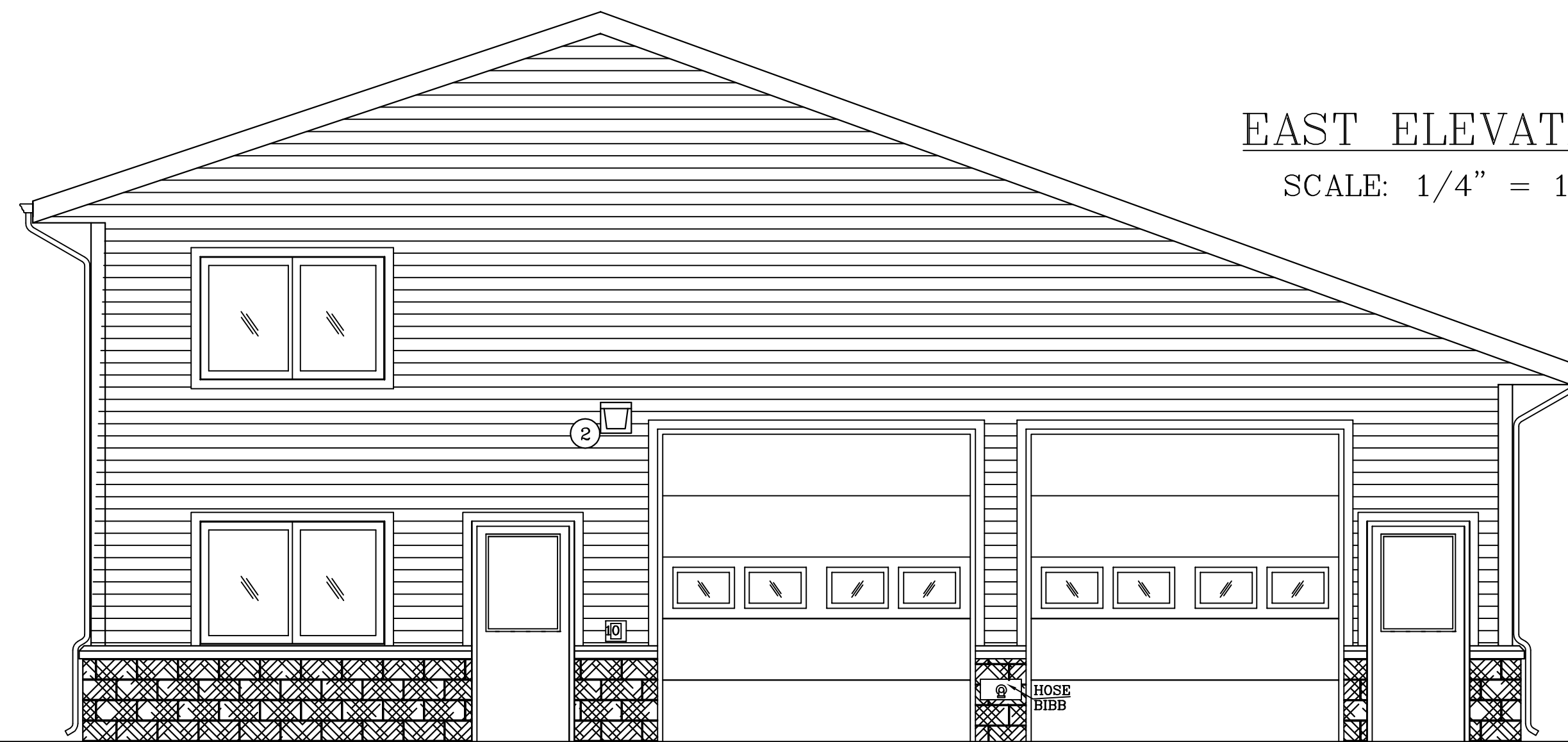
WEST ELEVATION

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



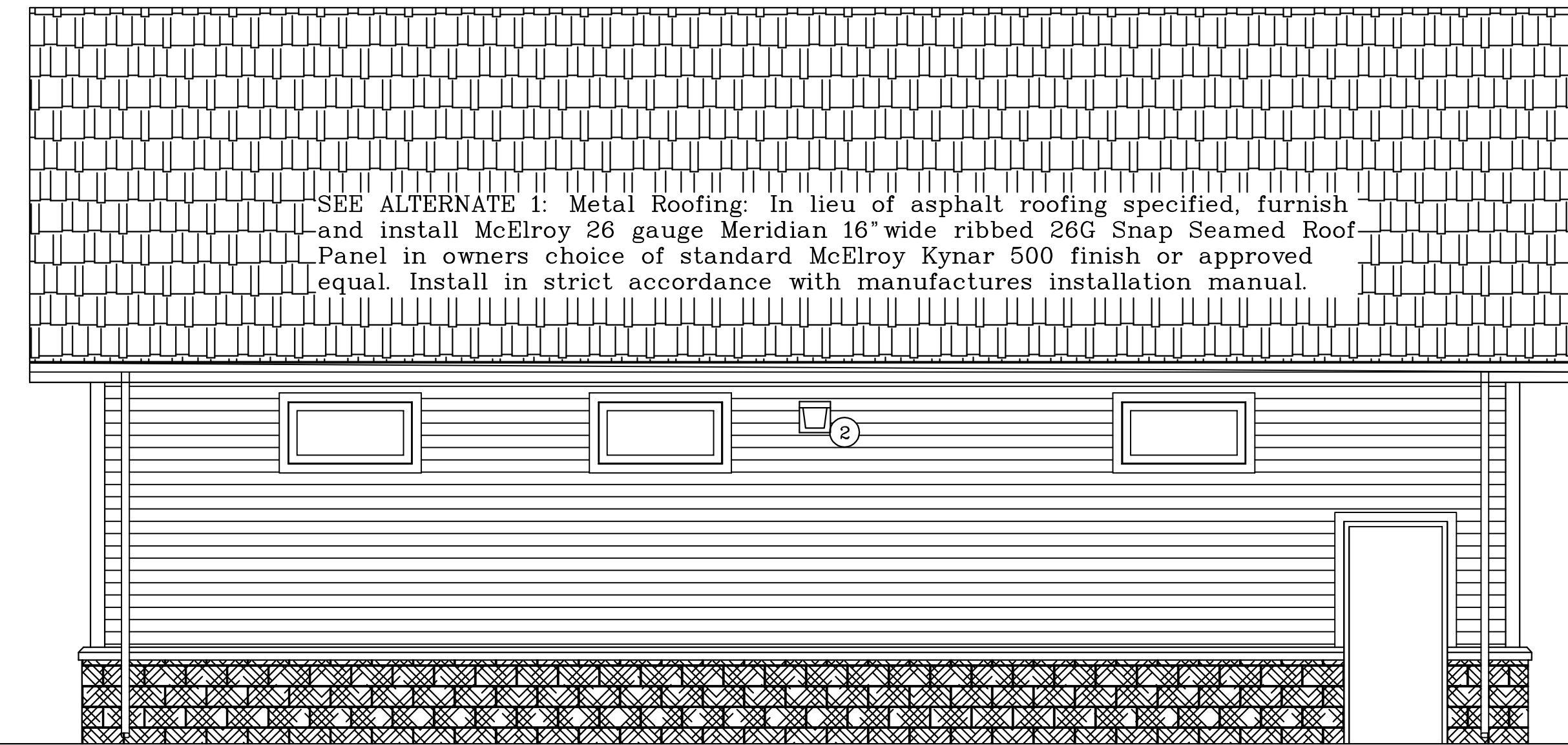
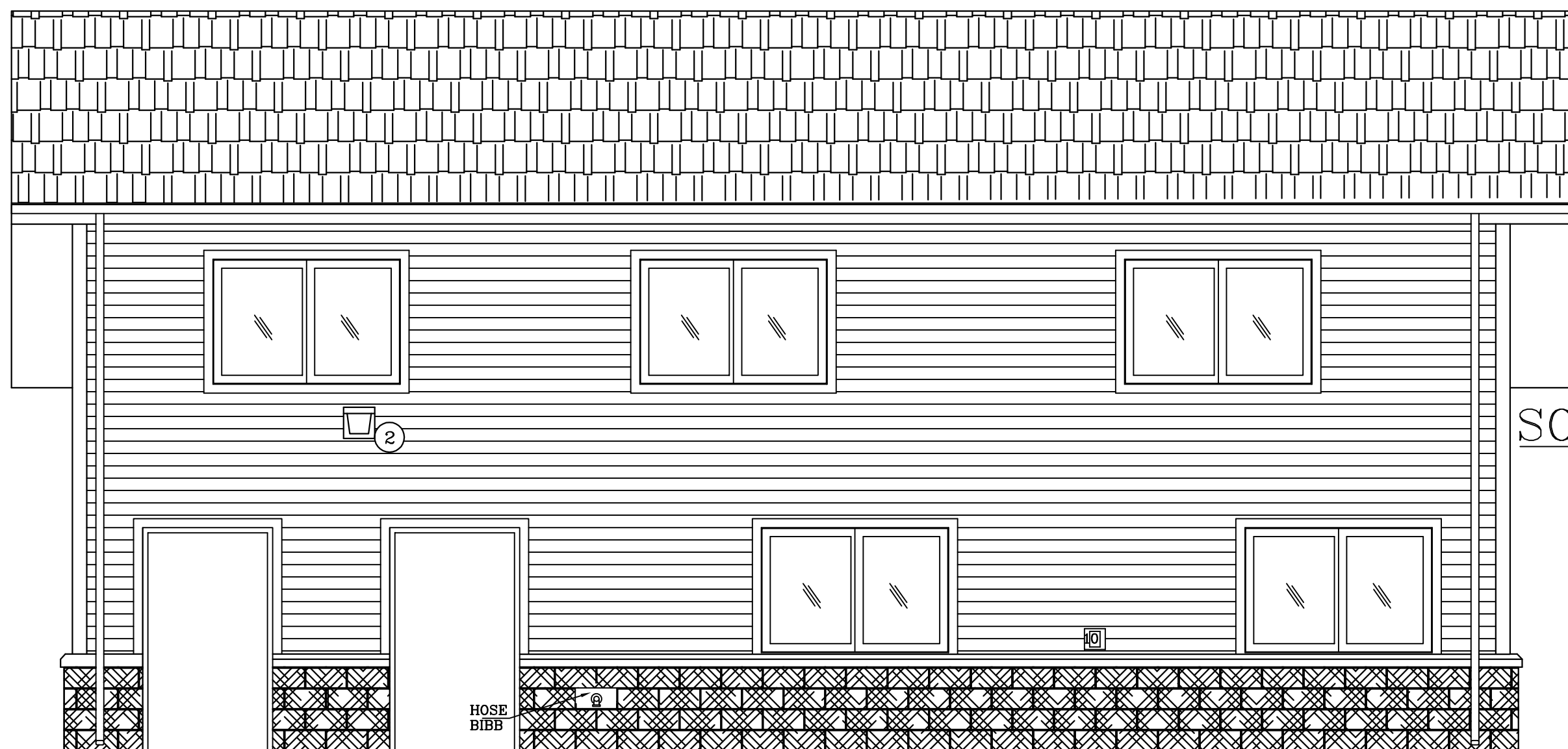
EAST ELEVATION

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



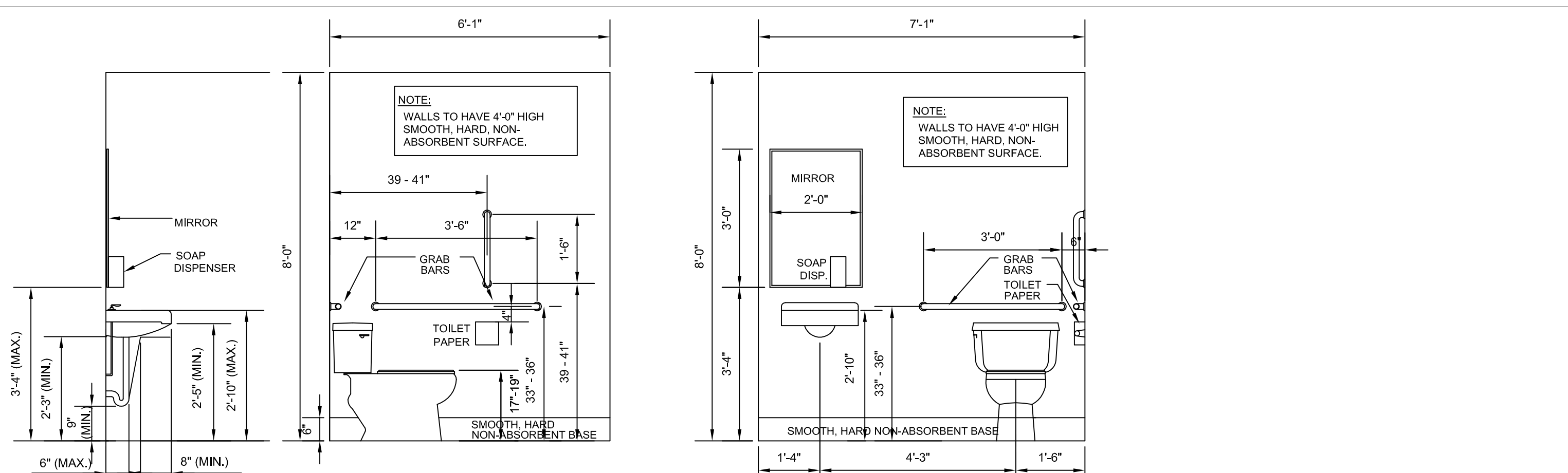
SOUTH ELEVATION

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



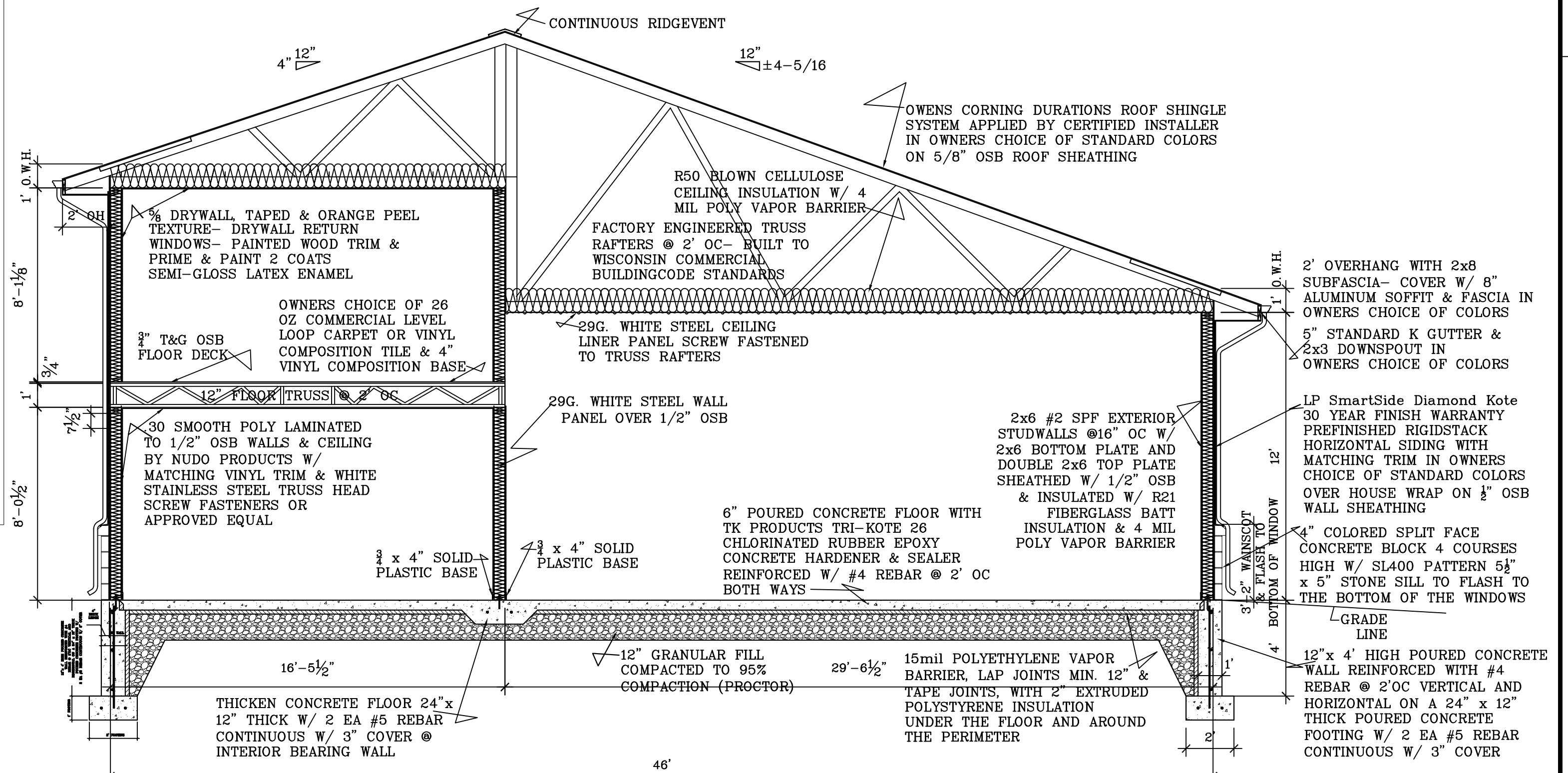
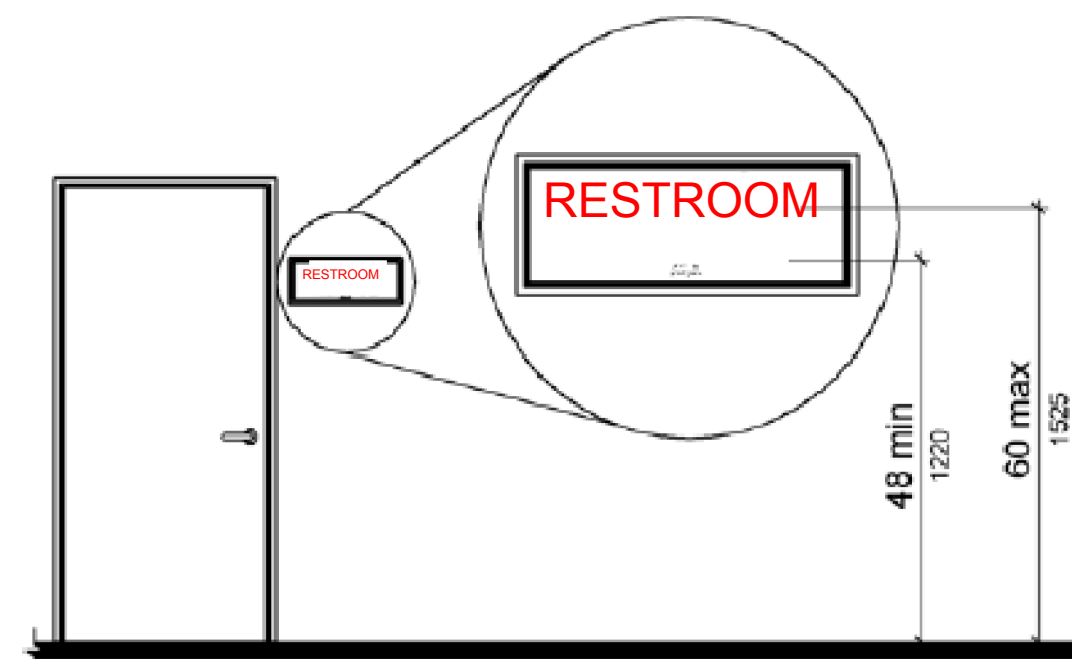
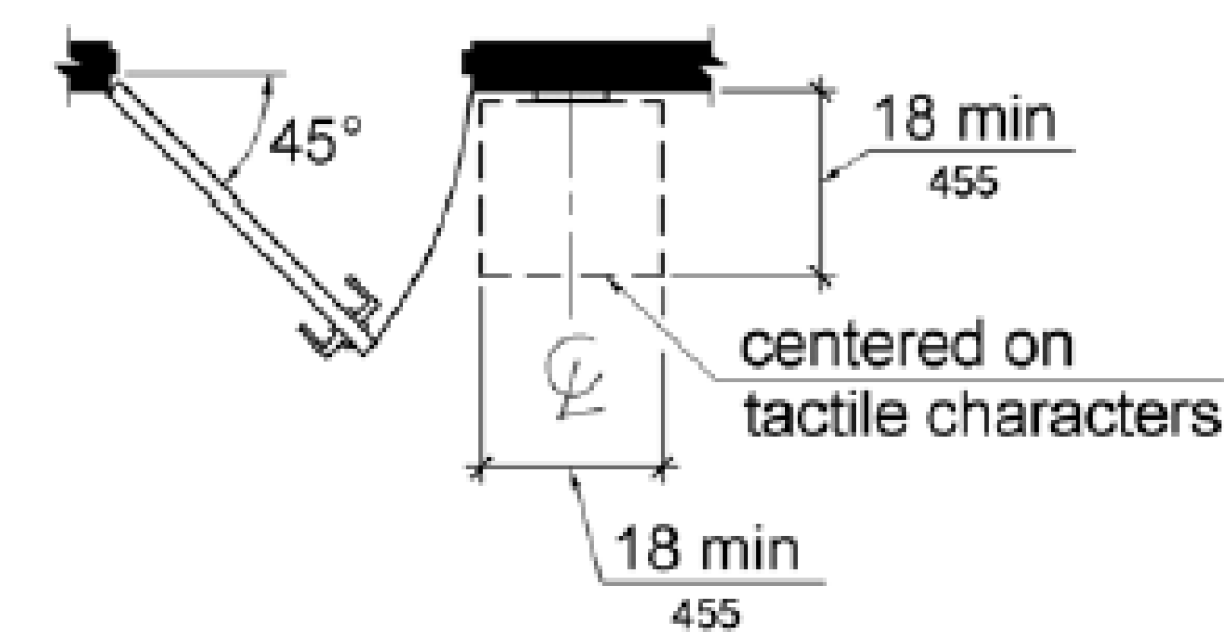
NORTH ELEVATION

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



THE STANDARDS DESIGNATE CLEAR FLOOR SPACE to accommodate a single wheelchair of at least 30 inches by 48 inches (760 by 1220mm). The space can be positioned for a forward or parallel approach to restroom elements. A portion of the clear floor space may be located under fixtures, lavatories, or accessories as long as the required knee and toe clearance is provided (Fig. 14 and many others). If properly centered in front of controls and operating mechanisms, the clear floor space will allow both left- and right-hand access.

REACH RANGES AND MOUNTING HEIGHTS for restroom accessories may vary within a facility depending on the location of individual accessories and the direction of reach required for their use. To allow use by people with limited reach range, it is required that accessories be mounted with their "operable parts" - dispensing mechanisms, start buttons, coin slots, or dispenser openings - located no more than 48 inches (1220mm) above the finish floor (Fig. 1a). Where accessories are mounted over obstructions such as counters, depending on the nature and depth of the obstruction it is required that they be located between 44 inches and 48 inches (1120 and 1220mm) maximum above the finish floor. The operable portions of any accessory should be mounted no lower than 15 inches (380mm) above the floor. However, the 2009 ICC/ANSI Standards limit the operable portions of dispensers in toilet compartments to no lower than 18 inches (455mm). When determining the mounting location of restroom accessories, make sure to account for side and forward approaches.



CROSS SECTION A-A

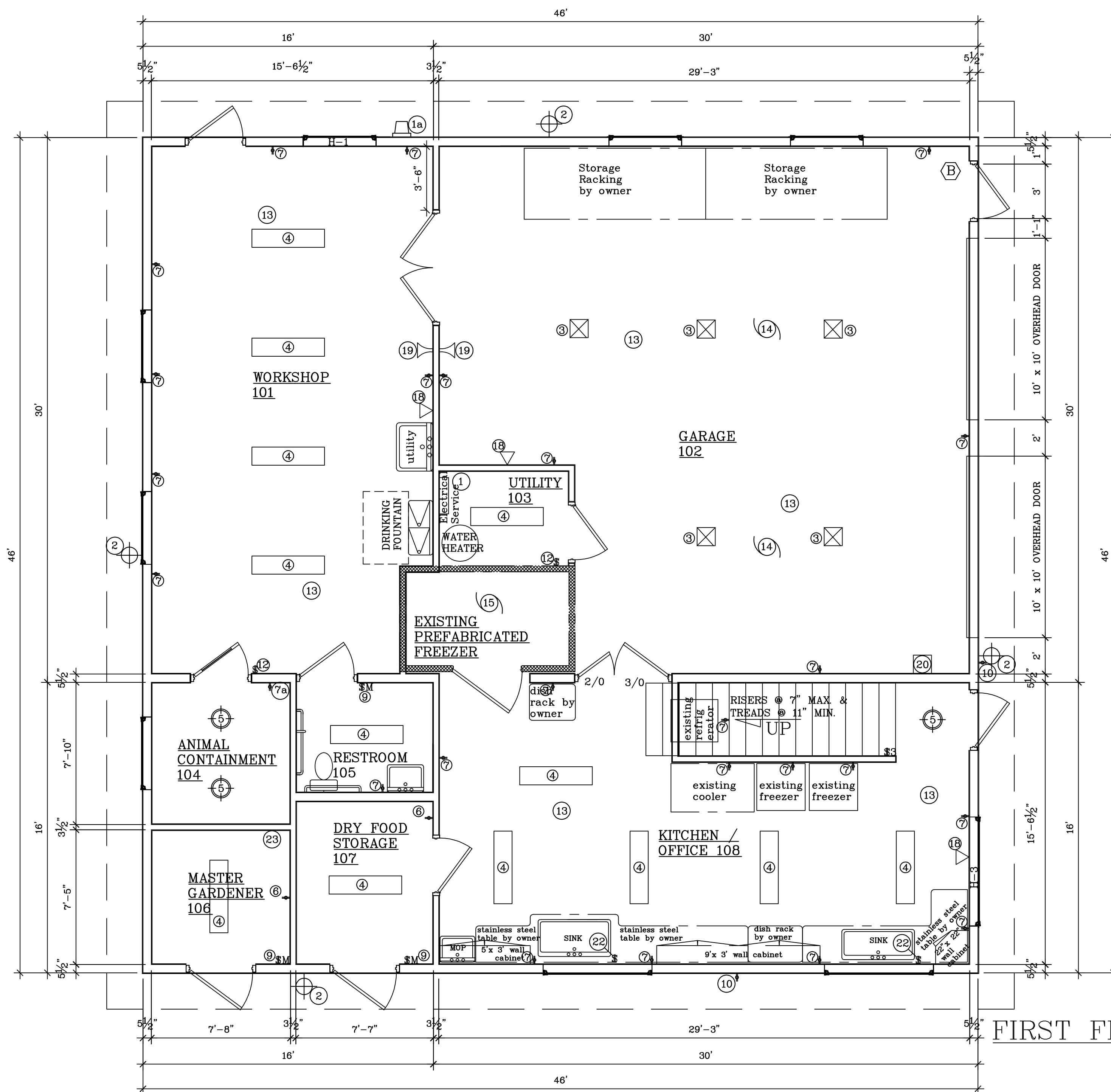
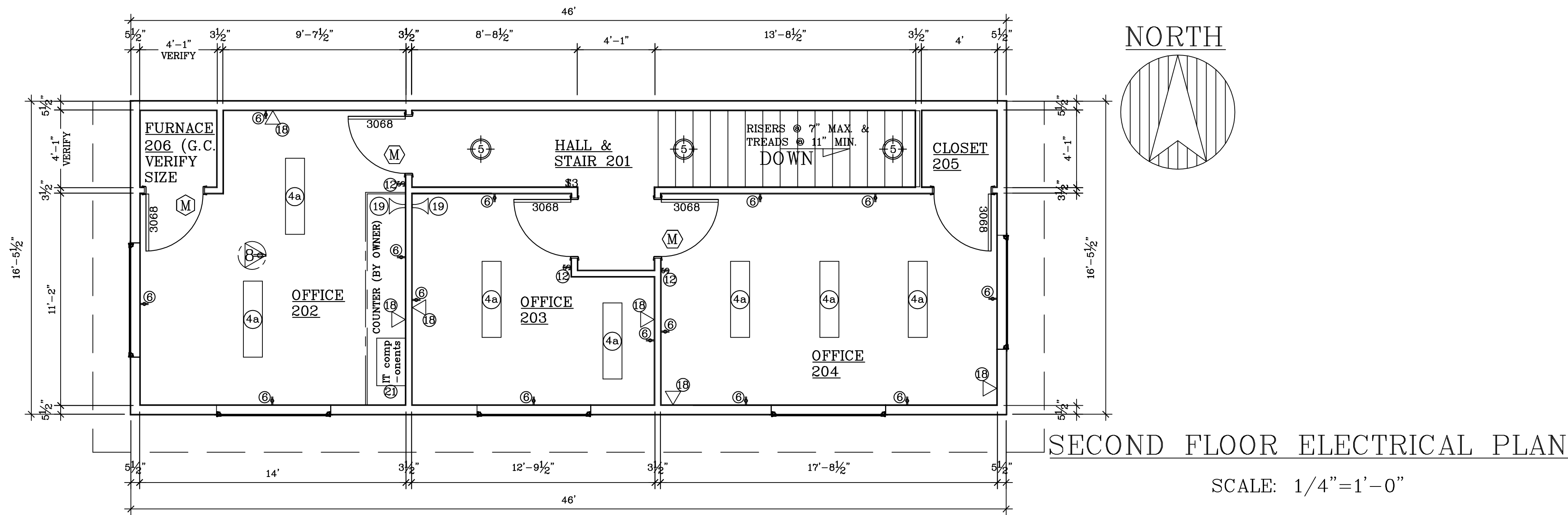
SCALE: 1/4" = 1'-0"

SCALE: Noted
DATE: 1JAN16
NAME: BL
DWG. NO.: 15-234
CITY: Marshfield Zoo Maintenance Building & 2nd Floor PRELIM 7jan16
REVISIONS: 11jan16 18jan16 29feb16 8mar16 16apr16 3may16 5jun16 16jan17

PROPOSED MAINTENANCE BUILDING FOR
CITY OF MARSHFIELD
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608 W 17th STREET
MARSHFIELD, WI 54449

BESTIMATE LLC
http://bestimatellc.com
bob@bestimatellc.com
715-506-0040
714 E Ninth St
Marshfield, WI 54449





ELECTRICAL NOTES

GENERAL CONTRACTOR IS RESPONSIBLE FOR THE ELECTRICAL SUBCONTRACTOR TO FURNISH ALL MATERIALS AND LABOR AS REQUIRED TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE PLANS AND SCHEDULES, INCLUDING PLUMBING EQUIPMENT AND HVAC EQUIPMENT ELECTRICAL HOOKUP. SUBMITTAL AND FURNISHING ON SITE LIGHTING AND EGRESS PLANS APPROVED BY CITY OF MARSHFIELD ELECTRICAL INSPECTOR. SEE ELECTRICAL SPECIFICATIONS.

ELECTRICAL SCHEDULE

#	QTY	EQUIPMENT	EQUIPMENT
1	1	200 AMP SINGLE PHASE BREAKER PANEL	SQUARE D #Q0140M200
1a	1	METER	
2	4	40 WATT LED WALL PACS 3900 LUMENS-	econoLIGHT E-WF1L04CZ - 5000K- SEE NOTE A BELOW
3	5	36WATT 3600 LUMEN LED CANOPY LIGHT	econoLIGHT E-CC5 - 5000K
4	13	SURFACE MOUNT 4' LED FIXTURE 47 WATT - 5000K	EATON #4WNLED-LD4-50SL-F-UNV-L850-CD1-U
4a	7	SURFACE MOUNT 4' LED FIXTURE 36 WATT - 4000K	EATON #4WNLED-LD4-40SL-F-UNV-L840-CD1-U
5	6	RECESSED LED CAN LIGHT- 10 WATT CEILING LITES- 700 LUMENS - 5000K	JUNO 6" IC22 THERMALLY PROTECTED HOUSING & PENNACIA #73159 ULTRA RT6 LED RECESSED DOWNLIGHT KIT
6	15	20 AMP RECEPTACLE	GENERIC
7	26	20 AMP GFI RECEPTACLE	GENERIC
7a	26	20 AMP GFI RECEPTACLE	RECEPTACLE TO BE +/-40" ABOVE FLOOR FOR WASH
8	1	20 AMP RECESSED COVERED FLOOR RECEPTACLE & DATA PORT	GENERIC
9	3	WALL MOUNT MOTION SENSOR SWITCH	GENERIC
10	2	20 AMP GFI RECEPTACLE W/ EXTERIOR LOCKABLE COVER	GENERIC
11	2	3 WAY SWITCH	GENERIC
12	5	SINGLE POLE SWITCH	GENERIC
13	6	CEILING MOUNT OCCUPANCY SENSOR	GENERIC
14	2	MOTOR HOOKUP FOR OHD OPERATORS	GENERIC
15	1	COMPLETE 220V. HOOKUP FOR EXISTING WALK-IN COOLER	FREEZER TO BE ON DEDICATED 220V. CIRCUIT
19	4	CB RADIO SPEAKER WIRING	BY OWNER
20	1	PUBLIC ADDRESS SYSTEM CONTROL 110V. WIRING	BY OWNER
21	1	IT COMPONENT SYSTEM BY OWNER OR SEPARATE CONTRACT	SEE NOTE B. BELOW
22	2	GARBAGE DISPOSAL	110V. TO G.D. FURNISH & INSTALL BY PLUMBING SUB.
23	1	ROUGH IN ONLY FOR RECESSED WALL HEATER	FUTURE- WIRING IN WALL IF NEEDED

NOTES:

A. ALL FIVE EXTERIOR WALL PACS WILL BE WIRED WITH LIGHT SENSOR SO EXTERIOR LIGHTING WILL ALWAYS BE ON WHEN DARK, AND CONTROLLED BY ONE INTERIOR SWITCH.

B. ELECTRICAL SUBCONTRACTOR TO FURNISH AND INSTALL 110V. DEDICATED CIRCUIT AND LOW VOLTAGE WIRING & JUNCTION BOXES FOR IT EQUIPMENT BY OTHERS.

C. ELECTRICAL CONTRACTOR TO PROVIDE SWITCH AND 110V. TO GARBAGE DISPOSAL FURNISHED AND INSTALLED BY PLUMBING SUBCONTRACTOR

SCALE NOTED: 1MARI6
 DATE: 1MARI6
 NAME: BL
 DWG. NO.: 15-234
 PROJECT: CityMarshfield ZooMaintenance Building1&2floorPRELIM 7jan16
 REVISIONS: 14APR16 18apr16 19apr16 3may16 5jun16

PROPOSED MAINTENANCE BUILDING FOR
 CITY OF MARSHFIELD -
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 608 W 17th STREET
 MARSHFIELD WI 54449

BESTIMATE LLC
<http://bestimatellc.com>
 714 E Ninth St
 Marshfield, WI 54449
 bob@bestimatellc.com
 715-506-0040

GENERAL NOTES, CONDITIONS AND TERMS:

- All work to be done in compliance with all state and local codes and all manufacturer's instructions.
- Supply fans to run constantly during periods of building operation.
- Maintain 10'-0" between all vent/exhaust and outside air intakes.
- Provide and install turning vanes or larger radius turns on all duct corners.
- Provide and install splitter dampers at all supply duct tees and take-offs.
- All supply duct take-offs shall be provided with manually adjustable air balancing damper with locking quadrants or wings.
- Undercut doors or provide door to transfer grilles where necessary to provide for proper transfer of air, do not penetrate any fire barriers.
- All duct installation shall conform to ASHRAE and SMACNA standards as regards but not limited to duct gauges, turning radius and the installation of turning vanes and/or extractors, whether or not shown on plans.
- All clothes dryer exhaust ducting shall be constructed from minimum 26 gauge aluminum duct. The total equivalent length of dryer exhaust ducting shall not exceed 25 equivalent feet per IMS (International mechanical code) chapter 5, section 504.6.1. Each vertical rise shall be provided with clean-out per IMS, section 504.3
- All ductwork and piping shall run straight and true and shall be installed in a workmanlike manner.
- Steel or aluminum ductwork that requires insulation shall conform with all applicable codes, dimensions listed are inside area sizes. Minimum insulation R values shall be determined by IECC Chapter 5. All supply and return ducts shall be insulated with a minimum of R-5 insulation when located in unconditioned spaces and with a minimum of R-8 insulation when located outside of building envelope.
- Ductwork seams and joints: all longitudinal & transverse joints, seams and connections of supply, return and exhaust duct to be securely fastened and sealed, this system is a low pressure (less than or equal to 2" w.g.) duct system. Tapes and mastics shall be listed and labeled in accordance with UL 181a. (per IECC Chapter 5)
- Grilles and registers are general sizes and should be verified for final selection and type.
- Gas piping provided to meet all state and local codes, including local gas utility company requirements and the national fuel gas code, NFPA no.54
- HVAC Contractor shall furnish and install all condensate drain lines and refrigeration piping in strict accordance with manufacturer's recommendations.
- All low voltage control wiring shall be furnished and installed by HVAC contractor.
- HVAC Contractor or balancing agent shall test and balance the entire HVAC system per requirements of SPS 364.0313 (1). The balance report shall be submitted to the engineer or hvac designer along with one copy retained on site with approved HVAC plans. Note that final inspections shall not be performed and compliance statements (required for occupancy) shall not be provided without a valid air balance report on file with the engineer or HVAC designer.
- HVAC Contractor shall provide on set of operation & maintenance manuals to the owner as required by code SPS 364.0313 (3). This manual shall include all equipment o&m manuals, all thermostat programming manuals and instructions and any and all relevant wiring diagrams or control schematics and all equipment warranty information.
- Per IMC section 306: access and service space requirements: clearances around appliances to elements of permanent construction, including other installed equipment and appliances, shall be sufficient to allow inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly.
- Appliances in rooms: rooms containing appliances requiring access shall be provided with a door and an unobstructed passageway measuring not less than 36 inches wide and 80 inches high.
- Exhaust outlets for "environmental air" exhaust openings shall be located >=3 feet from property lines and >3 feet from openings into the building. "Environmental air" is air that is conveyed to or from occupied areas through ducts which are not part of the heating or air-conditioning system, such as ventilation for human usage, domestic kitchen range exhaust, bathroom exhaust and domestic clothes dryer exhaust. The exhaust from a bathroom or kitchen in a residential dwelling shall not be considered to be hazardous or noxious contaminant. Other types of exhaust opening shall be located 10 feet from property lines and 10 feet from operable openings into buildings. See IMC501.2.1
- IMC 601.1 provide sheet metal ducts, duct liner and fittings which are constructed in compliance with the standards approved by the department. The use of fiberglass constructed duct, (ductboard) will not be permitted on this project.
- HVAC Contractor shall field verify all duct dimensions prior to fabrication.
- HVAC Contractor shall be responsible for ductwork routing, installation and resolving interference with other trades.
- Provide HVAC systems with automatic setback or shutdown controls.
- All thermostats shall be located at a maximum of 48 inches and a minimum of 15 inches above finished floor.
- All exhaust fans shall be interlocked with the electronic programmable thermostats serving the respective zone to provide for continuous fan operation during occupied hours of building use.
- Per IMC 304.9 clearance from grade. Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending above adjoining grade or shall be suspended a minimum of 6 inches above adjoin grade.
- These drawings are diagrammatic & are intended to show the intent of the plans and specifications. Some field changes that do not affect the performance or intent of the design are acceptable and should be expected. Do not scale drawings, the contractor shall field verify all measurements and accept responsibility for their accuracy.
- Ownership of Instruments of Service: These plans and all related including work performed and provided, including but not limited to load calculations are intended for use only by the specific HVAC Contractor named in the title block contained in and shown on this plan. Transfer of this plan along with any and all related work shall not be permitted without specific written authorization from the Engineer. If said written authorization is not obtained, the Engineer shall not be responsible for the design or performance of the HVAC system on this particular project.
- The design and installation of the HVAC system for this particular project shall be strictly adhered to with regards to the type of HVAC equipment and the Manufacturer of said equipment as listed in the Equipment Schedules. If any changes are requested, prior written approval of equipment and shop drawing approval must be obtained. If the type and Manufacturer of the HVAC equipment utilized on this project is not provided as scheduled, the Engineer shall not be responsible for the design or performance of the HVAC system.
- The HVAC Engineer/Designer hereby assumes no responsibility for the ability of the existing or new roof structure to adequately support any or all roof mounted HVAC Equipment shown on this plan. The registered Architect shall provide all structural calculations along with all additional or new structural support to adequately support all roof mounted HVAC equipment shown on this plan.

ELECTRIC HEAT SCHEDULE							
TAG	MFG.	MODEL	VOLTAGE	WATTS	BTU	COLOR	NOTES
EWH-1	BERKO	FRC 4024F	208/1	1500	5120	VERIFY	1,3
EBB-1	DAYTON	3ENC4	208/1	500	1705	VERIFY	1,3
RCH-1	DAYTON	2YU53	208/1	375	1280	VERIFY	2

NOTES: 1. PROVIDE UNIT WITH TAMPER PROOF CONTROLS
2. PROVIDE UNIT WITH REMOTE STAT AND ROOM SENSOR
3. MOUNT UNIT 8" AFF

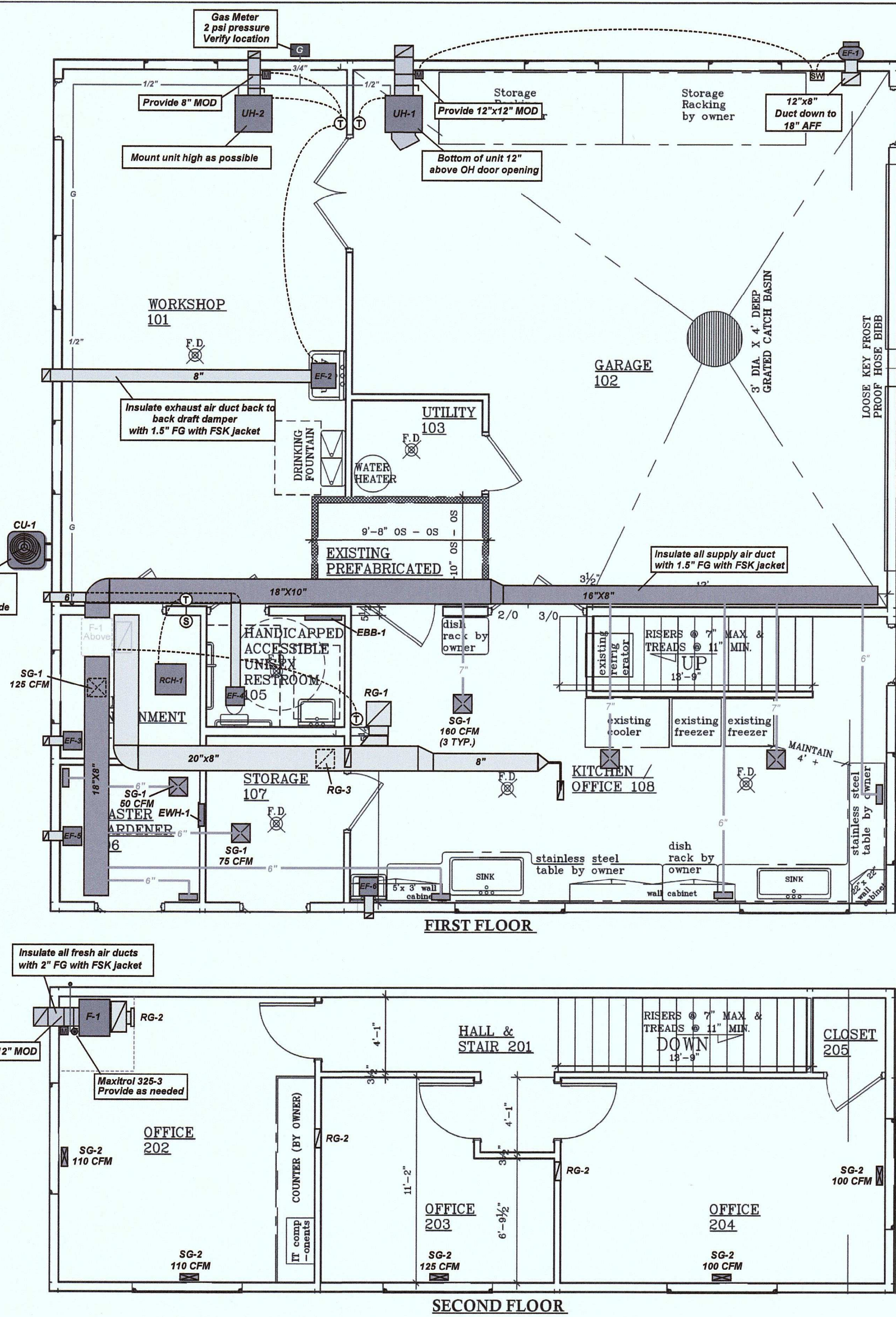
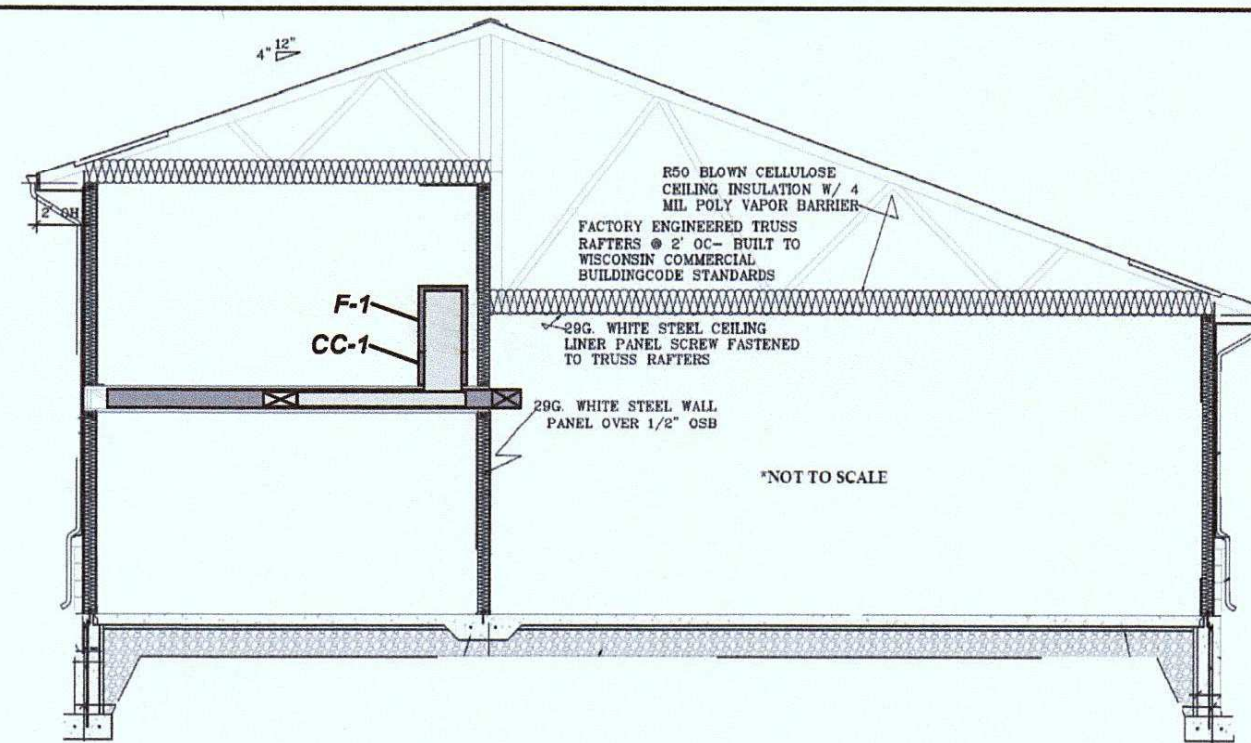
EXHAUST FAN SCHEDULE							
TAG	MFG.	MODEL	VOLTAGE	CFM	STATIC	DAMPER	NOTES
EF-1	COOK	ACEW	120/1	400	.26"	GRAVITY	1
EF-2	COOK	GN-422	120/1	250	.25"	GRAVITY	2
EF-3	COOK	GC148	120/1	125	.25"	GRAVITY	3
EF-4	COOK	GC144	120/1	75	.25	GRAVITY	5
EF-5	COOK	GC128	120/1	50	.25	GRAVITY	4
EF-6	COOK	GC128	120/1	50	.25	GRAVITY	4

NOTES: 1. OPERATE FAN FROM WALL SWITCH/INTERLOCK WITH UH-1 MOD
2. OPERATE FAN ON BLDG OCC/INTERLOCK WITH UH-2 MOD
3. OPERATE ON BLDG OCC
4. OPERATE CONTINUOUS
5. INTERLOCK WITH LIGHT

REGISTER SCHEDULE				
TAG	MFG.	MODEL	COLOR	SIZE
SG-1	H & C	24	WHITE	8"X8"
SG-2	H & C	421	VERIFY	12"X4"
RG-1	H & C	RESS	WHITE	18"X18"
RG-2	H & C	657	VERIFY	14"X18"
RG-3	H & C	RESS	WHITE	10"X10"

HVAC EQUIPMENT SCHEDULE							
TAG	MFG.	MODEL	VOLTAGE	CFM	BTU IN	EFF.	NOTES
F-1	TRANE	TDH2B080	120/1	1400	80,000	95%	1
CU-1	TRANE	4TTR3024	208/1	N/A	30,000	13 SEER	
CC-1	TRANE	4TXCB031	N/A	N/A	30,000	13 SEER	2
UH-1	MODINE	HD75	120/1	N/A	75,000	80%	
UH-2	MODINE	HD45	120/1	N/A	45,000	80%	

NOTES: 1. DOWNFLOW CONFIGURATION
2. CASED COIL



ARCHITECT:
BESTIMATE LLC
714 E. NINTH STREET
MARSHFIELD, WI 54449

CONTACT INFO
NAME: BOB LEWERENZ
PHONE: 715-506-0040
EMAIL: bob@bestimateilc.com

PLANS PREPARED BY:



PLAN REVISIONS:

DATE:	MARK:

DRAWN BY:	NATE BLOCK
DATE:	5/13/16
JOB NUMBER:	
CHECKED BY:	
ISSUE:	
CAD TECH:	

DRAWING NUMBER
M-1
PAGE 1 OF 1



WILDWOOD ZOO
MAINTENANCE BUILDING
CITY OF MARSHFIELD