

NEW STORAGE BUILDING FOR:

BELLE ISLE STATE PARK

DETROIT, MICHIGAN

CONTACTS:

PROJECT LOCATION:

11 PLEASURE DRIVE
BELLE ISLE PARK
DETROIT, MICHIGAN 48207

AGENCY:

DEPARTMENT OF NATURAL RESOURCES (DNR)
PARKS & RECREATION DIVISION
99 PLEASURE DRIVE
BELLE ISLE PARK
DETROIT, MICHIGAN 48207

OWNER:

MICHIGAN DEPARTMENT OF TECHNOLOGY,
MANAGEMENT & BUDGET (DTMB)
3111 W. ST. JOSEPH ST.
BUILDING 100
LANSING, MI 48917

OFFICE OF THE ARCHITECT:

WTA ARCHITECTS
100 S. JEFFERSON AVENUE, SUITE 601
SAGINAW, MICHIGAN 48607
PHONE: (989) 752-8107
EMAIL: DESIGN@WTAARCH.COM

CIVIL ENGINEER:

ROWE PROFESSIONAL SERVICES COMPANY
27280 HAGGERTY ROAD, SUITE C-2
FARMINGTON HILLS, MICHIGAN 48331
PHONE: (248) 675-1096
FAX: (800) 974-1704

STRUCTURAL ENGINEER:

MACMILLAN ASSOCIATES, INC.
714 E. MIDLAND STREET
BAY CITY, MICHIGAN 48706
PHONE: (989) 894-4300
FAX: (989) 864-9930

ELECTRICAL ENGINEER:

PETER BASSO ASSOCIATES
5145 LIVERNOIS, SUITE 100
TROY, MICHIGAN 48098
PHONE: (866) 950-9760
FAX: (248) 879-0007

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CIVIL

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PROJECT DESCRIPTION

THIS PROJECT INCLUDES CONSTRUCTION OF A NEW
STAND-ALONE COLD STORAGE POLE BUILDING FOR
THE DNR HEADQUARTERS BUILDING ON BELLE ISLE.
THE NEW STRUCTURE WILL NOT BE REGULARLY
OCCUPIED OR STAFFED AND WILL BE USED FOR
EQUIPMENT AND MATERIAL STORAGE AND WILL NOT
INCLUDE ANY REPAIR, OFFICE, OR PLUMBING
FACILITIES.

CODE INFORMATION:

- 2021 MICHIGAN BUILDING CODE (MBC)
 - 2012 NFPA 101 LIFE SAFETY CODE
 - NFPA 70 NATIONAL ELECTRICAL CODE WITH PART 8
RULES (2023)
1. PROPOSED USE: UTILITY (U) - BARN (312)
2. CONSTRUCTION TYPE: V-B (601)
3. ALLOWABLE BUILDING HEIGHT: 40 FT (504.3)
4. ALLOWABLE BUILDING AREA: 5,500 SQ.FT. (506.2)
A. PROPOSED: 3,000 SQ.FT.
FIRST FLOOR: 246 SQ.FT.
MEZZANINE FLOOR: 246 SQ.FT.
TOTAL: 3,246 SQ.FT.
5. NO SPRINKLER SYSTEM REQUIRED (903)
A. NOT PROVIDED
6. NO FIRE ALARM REQUIRED (907)
A. NOT PROVIDED
7. SPACE HEATING SYSTEMS (MMC 309.1)
A. NO HEATING FACILITIES AS PRIMARY PURPOSE IS
NOT ASSOCIATED WITH HUMAN COMFORT.
8. TOILET FACILITIES (MPC TABLE 403.1)
A. STAFF WILL HAVE ACCESS TO TOILET FACILITIES
AT ADJACENT DNR HEADQUARTERS BUILDING.

SCHEDULE OF UNIT PRICES:

UNIT PRICE NO. 1: EXCAVATION

1. DESCRIPTION: PROVIDE EXCAVATION WORK
TO REMOVE UNSUITABLE SOILS IN
ACCORDANCE WITH SOILS INVESTIGATION
REPORT.
2. UNIT MEASUREMENTS: CUBIC YARD

UNIT PRICE NO. 2: ENGINEERED FILL

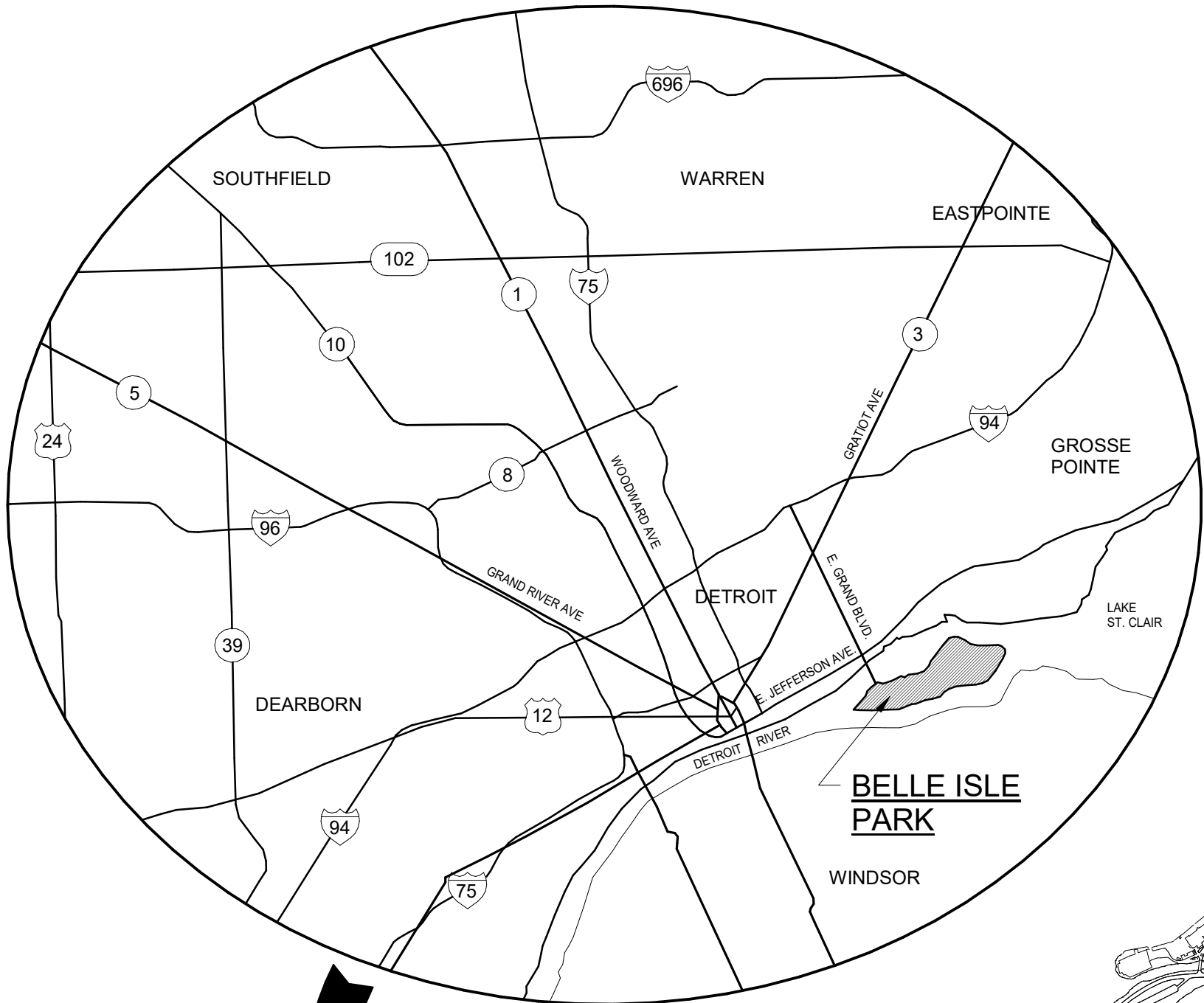
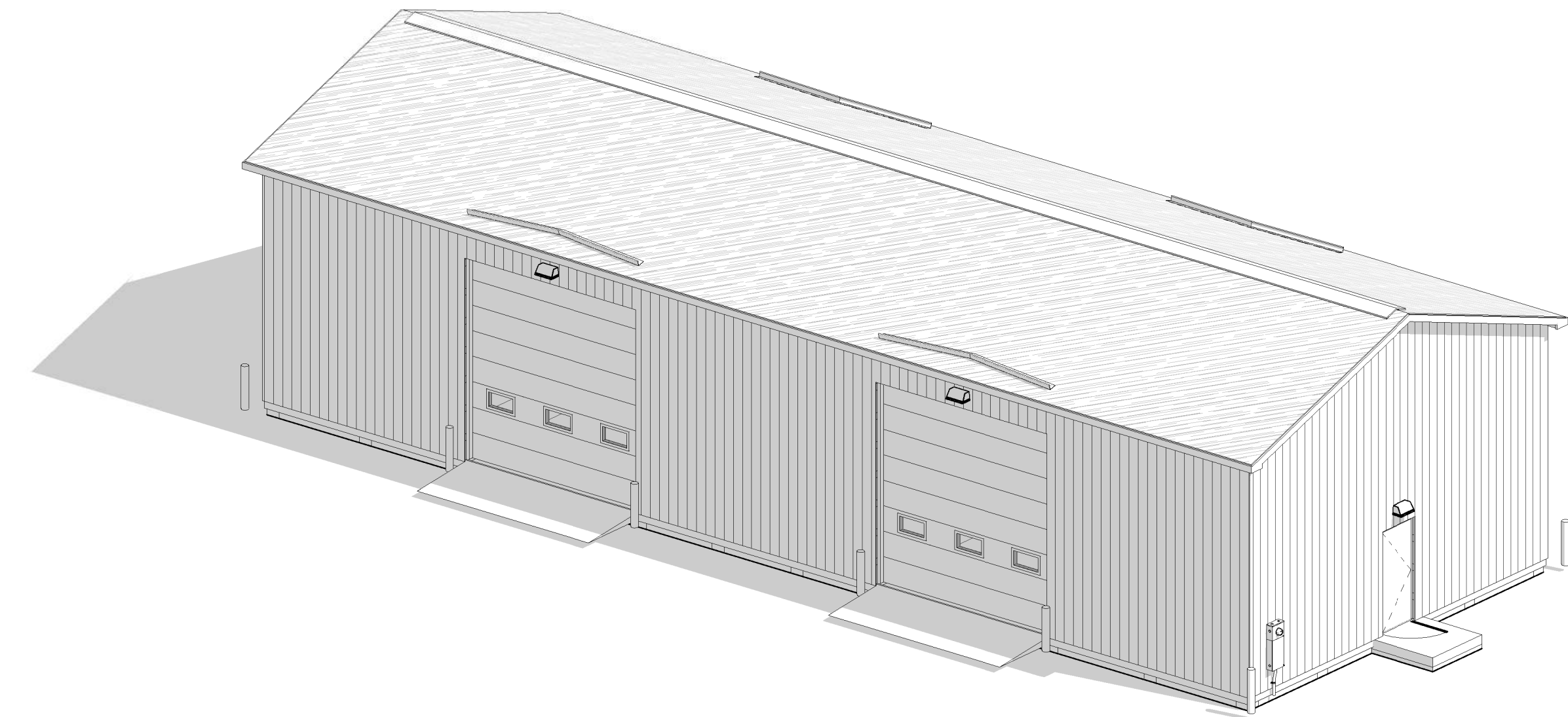
1. DESCRIPTION: PROVIDE ENGINEERED FILL TO
SUPPORT FOUNDATIONS IN ACCORDANCE
WITH SOILS INVESTIGATION REPORT.
2. UNIT MEASUREMENTS: CUBIC YARD

UNIT PRICE NO. 3: COURSE STONE FILL

1. DESCRIPTION: PROVIDE COARSE STONE FILL
AT BOTTOM OF FOUNDATION EXCAVATIONS
FOR STABILIZATIONS IN ACCORDANCE WITH
SOILS INVESTIGATION REPORT.
2. UNIT MEASUREMENTS: CUBIC YARD

UNIT PRICE NO. 4: CHAIN LINK FENCE

1. DESCRIPTION: PROVIDE CHAIN LINK FENCING
AS INDICATED IN CIVIL ENGINEERING
DRAWINGS.
2. UNIT MEASUREMENTS: 10-FOOT SECTION



PROJECT
SITE



LOCATION MAP
SCALE: N.T.S.



PROJECT TITLE

NEW STORAGE BUILDING FOR:

BELLE ISLE STATE PARK

DETROIT, MICHIGAN

SHEET TITLE

TITLE SHEET

PROJECT NUMBER

2019131

PROJECT DATE

OCTOBER 9, 2026

CHECKED BY

J.R.G.

SHEET NUMBER

TS

CONSTRUCTION PLANS FOR
WTA ARCHITECTS
BELLE ISLE STORAGE BARN
SECTION 28, T1S R11E
WAYNE COUNTY, MICHIGAN

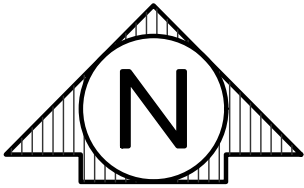
UTILITIES

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED FROM THE UTILITY OWNERS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

NAME OF OWNER	CONTACT	TYPE OF UTILITY
CITY OF DETROIT 6425 HUBER STREET DETROIT, MI 48211	CRYSTAL THOMAS (313) 267-1261 CRYSTAL.THOMAS@DETROITMI.GOV	POTABLE WATER SANITARY STORM
AT&T 54 N. MILL STREET, 4TH FLOOR PONTIAC, MI 48342	DEREK BULKLEY (313) 240-5480 DB3451@ATT.COM	TELEPHONE
DTE 982 BROADWAY STREET ANN ARBOR, MI 48105	SARA KIPP (800) 477-4747 SARA.FORCE@DTEENERGY.COM	ELECTRIC
DTE 982 BROADWAY STREET ANN ARBOR, MI 48105	RUSSELL E THORNTON (800) 477-4747 DET_MAPPINGTEAM@DTEENERGY.COM	GAS
PLA 400 MONROE STREET, STE. 485 DETROIT, MI 48226	PUBLIC LIGHTING AUTHORITY (313) 324-8290 INFO@PLADETROI.ORG	ELECTRIC
WAYNE COUNTY DPS 400 MONROE STREET DETROIT, MI 48226	WAYNE COUNTY DPS (313) 224-7600	LAND USE



LOCATION MAP
NOT TO SCALE



OWNER INFORMATION

MDNR
3111 W. ST. JOSEPH STREET
LANSING, MICHIGAN 48917
AMANDA TREADWELL
PHONE: (313) 269-7430

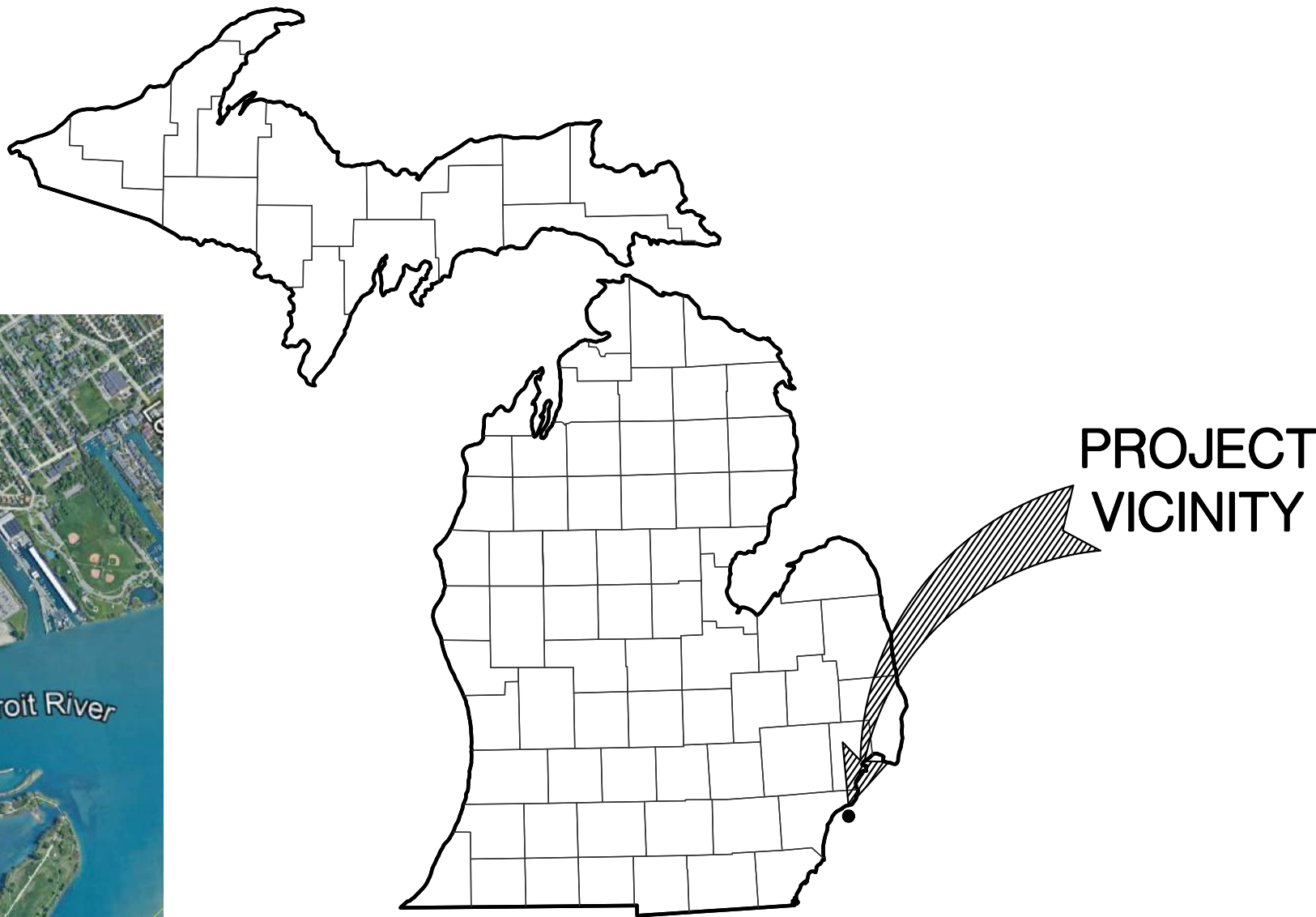
MDTMB
3111 W. ST. JOSEPH STREET
LANSING, MICHIGAN 48917
SCOTT DEKORTE
PHONE: (616) 490-6169

SITE INFORMATION

BELLE ISLE PARK HEADQUARTERS
99 PLEASURE DRIVE
DETROIT, MICHIGAN 48207

CLIENT INFORMATION

WTA ARCHITECTS
100 S. JEFFERSON AVENUE, SUITE 601
SAGINAW, MICHIGAN 48607
JASON GOFF
PHONE: (810) 358-7828



PROJECT VICINITY

PROJECT DESCRIPTION

THIS PROJECT INCLUDES THE CONSTRUCTION OF A STORAGE BARN AND RELATED WORK.

LEGAL DESCRIPTION

PARCEL ID 15-00-00-01
LEGAL DESCRIPTION:
S E JEFFERSON BELLE ISLE DETROIT RIVER 15/--- 981.746 ACRES

GENERAL NOTES

FOR ALL CONSTRUCTION ACTIVITY THAT DISTURBS 5 ACRES OR MORE OF LAND, THE OWNER OF THE PROPERTY SHALL OBTAIN AN NPDES STORM WATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES FROM THE EGLE AS REQUIRED UNDER P.A. 245. THE NOTICE OF COVERAGE APPLICATION SHALL BE SUBMITTED THROUGH THE EGLE MIWATERS WEB SITE. THE DISTURBED AREA FOR THIS PROJECT IS APPROXIMATELY 1.08 ACRES. A NPDES PERMIT IS NOT REQUIRED FOR THIS PROJECT.

NAME OF AND DISTANCE TO NEAREST LAKE, STREAM OR DRAIN:
THE SITE IS LOCATED ADJACENT TO THE DETROIT RIVER.

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- 8 - SESC KEY SHEET



PLAN SUBMITTALS AND CHANGES	
BIDDING DOCUMENTS	
DATE	DESCRIPTION
10/09/26	ISSUED FOR BIDS

REV:

SHT# 1 OF 8
JOB No: 22F0018

ROWE PROFESSIONAL
SERVICES COMPANY



The Rowe Building
540 S. Saginaw St., Suite 200
Flint, MI 48502

PLAN DATE: OCTOBER 2026
PROJECT MGR: DRS
REVIEWER: DAS
SCALE: NOT TO SCALE

PREPARED FOR
WTA ARCHITECTS
BELLE ISLE STORAGE BARN

COVER SHEET

SURVEY MONUMENTATION

	TRAVERSE POINT		SET MONUMENT
	BENCHMARK		FOUND MONUMENT
	ALIGNMENT POINT		SECTION & 1/4 CORNER
	SET IRON		1/8 & 1/16 CORNER
	FOUND IRON		NGS & USGS MONUMENT
	SECTION LINE		
	EXISTING PROPERTY LINE (APPROX)		
	PARCEL LINE / LOT LINE		
	EXISTING EASEMENT LINE		
	EXISTING RIGHT OF WAY		
	PROPOSED EASEMENT		
	PROPOSED RIGHT OF WAY		
	PROJECT CONTROL LINE		

MISCELLANEOUS TOPO

	SATELLITE DISH		TRASH CAN
	ANTENNA		PICNIC TABLE
	COLUMN		PARK BENCH
	FLOOD LIGHT		BBQ GRILL
	FOUNTAIN		DUMPSTER
	STATUE/SCULPTURE		BIKE RACK
	GRAVE MARKER		AIR CONDITIONING UNIT
	PLANTER BOX		PAY PHONE/BOOTH
	ROCK		SOIL BORING
	MAILBOX		MONITORING WELL
	PAPER BOX		BUMPER BLOCK
	FENCE GATE		SWAMP OR WETLAND

SIGNS, SIGNALS & POSTS

	FLAG POLE		CANTILEVERED SIGN
	ADVERTISING/BUSINESS SIGN		PEDESTRIAN SIGNAL
	POST (WOOD/METAL/CONCRETE/FENCE)		PEDESTRIAN CROSSING BUTTON
	HIGHWAY DELINEATOR POST		TRAFFIC SIGNAL
	EXISTING ONE POST TRAFFIC SIGN		RAILROAD CROSSING GATE
	EXISTING TWO POST TRAFFIC SIGN		RAILROAD CROSSING SIGNAL
	PARKING METER		PROPOSED ONE POST TRAFFIC SIGN
	BILLBOARD		PROPOSED TWO POST TRAFFIC SIGN
	CANTILEVERED TRAFFIC SIGNAL		

PLAYGROUND EQUIPMENT

	SWING SET		VOLLEYBALL POLE
	SLIDE (STRAIGHT)		MERRY-GO-ROUND
	SLIDE (SPIRAL)		BASKETBALL HOOP POST
	MONKEY BARS (RECTANGLE)		FOOTBALL/SOCCER GOAL
	MONKEY BARS (ROUND)		

MISCELLANEOUS UTILITIES

	CABLE TV RISER		UTILITY HANDHOLE
	CABLE TV MARKER POST		STRAIN POLE
	CIRCUIT BREAKER		UTILITY/LIGHT POLE
	ELECTRIC METER		GUY WIRE
	ELECTRIC OUTLET		GUY POLE
	ELECTRIC RISER		UTILITY POLE
	ELECTRIC TRANSFORMER PAD		WOOD LIGHT POLE
	ELECTRIC TRANSMISSION TOWER		METAL LIGHT POLE
	ELECTRIC MANHOLE		LIGHT POLE BASE
	ELECTRIC MARKER POST		ORNAMENTAL LIGHT POLE
	TELEPHONE RISER		POLE BOX
	TELEPHONE MANHOLE		TRAFFIC CONTROL BOX
	TELEPHONE MARKER POST		ELECTRIC VEHICLE CHARGING STATION
	FIBER OPTIC MARKER POST		EXISTING MISCELLANEOUS MANHOLE
	EXISTING OVERHEAD UTILITY LINE		
	U/G ELEC		EXISTING U.G. ELECTRIC LINE
	U/G TEL		EXISTING U.G. TELEPHONE LINE
	U/G F/O		EXISTING U.G. FIBER OPTIC LINE
	U/G CATV		EXISTING U.G. CABLE TV LINE

GAS

	GAS METER		PROPANE TANK
	GAS RISER		GAS TEST STATION
	GAS STOP BOX		GAS FILLPORT
	GAS VALVE		GAS PUMP
	GAS VENT		GAS MANHOLE
	GAS BLOW OFF		GAS MARKER POST
	6" S-MP GAS		EXISTING U.G. GAS LINE

WATER MAIN

	EXISTING FIRE HYDRANT		EXISTING WATER FAUCET/SPIGOT
	EXISTING WATER GATE VALVE AND BOX		EXISTING WATER MANHOLE
	EXISTING WATER STOP BOX		EXISTING WATER VALVE
	EXISTING WATER GATE VALVE AND WELL		EXISTING WATER POST VALVE
	EXISTING WATER METER PIT		EXISTING WATER AIR RELEASE VALVE
	EXISTING WATER WELL		EXISTING WATER MARKER POST
	EXISTING SPRINKLER HEAD		PROPOSED FIRE HYDRANT
	EXISTING POST HYDRANT		PROPOSED WATER GATE VALVE AND BOX
	EXISTING WATER BACK FLOW PREVENTER		PROPOSED WATER STOP BOX
	EXISTING WATER TOWER		PROPOSED WATER GATE VALVE AND WELL
	EXISTING SPRINKLER VALVE		PROPOSED WATER MAIN REDUCER
	EXISTING WATER METER		PROPOSED WATER MAIN SLEEVE
	12" WM		EXISTING WATER MAIN
	12" WM		REMOVE WATER MAIN
	12" WM		ABANDON WATER MAIN
	PROPOSED WATER MAIN		

STORM SEWER

	EXISTING CURB INLET		PROPOSED CATCH BASIN IN CURB LINE (5' DIA AND SMALLER)
	EXISTING SQUARE CATCHBASIN		PROPOSED CATCH BASIN IN CURB LINE (6' DIA AND LARGER)
	EXISTING ROUND CATCHBASIN		PROPOSED CATCH BASIN IN GREEN SPACE (5' DIA AND SMALLER)
	EXISTING DOWNSPOUT		PROPOSED CATCH BASIN IN GREEN SPACE (6' DIA AND LARGER)
	EXISTING STORM SEWER CLEANOUT		PROPOSED STORM MANHOLE (5' DIA AND SMALLER)
	EXISTING STORM MANHOLE		PROPOSED STORM MANHOLE (6' DIA AND LARGER)
	EXISTING PIPE INLET/OUTLET		PROPOSED CULVERT END SECTION
	EXISTING STORM MARKER POST		PROPOSED STORM SEWER CLEANOUT
	EXISTING STORM SEWER STRUCTURE NUMBER		PROPOSED STORM SEWER STRUCTURE NUMBER
	12" STM		EXISTING STORM SEWER
	12" CONC		EXISTING DRIVE/CROSS CULVERT
	12" STM		REMOVE STORM SEWER
	12" STM		ABANDON STORM SEWER
	PROPOSED STORM SEWER LESS THAN 24"		
	PROPOSED STORM SEWER 24" AND GREATER		

SANITARY SEWER

	EXISTING SANITARY MANHOLE		EXISTING SANITARY SEWER CLEANOUT/RISER
	EXISTING SANITARY PUMP STATION		EXISTING SANITARY MARKER POST
	EXISTING SANITARY SEWER VALVE		PROPOSED SANITARY SEWER MANHOLE
	EXISTING SEPTIC TANK		PROPOSED SANITARY SEWER CLEANOUT
	EXISTING SANITARY SEWER STRUCTURE NUMBER		PROPOSED SANITARY SEWER STRUCTURE NUMBER
	12" SAN		EXISTING SANITARY SEWER
	12" SAN		REMOVE SANITARY SEWER
	12" SAN		ABANDON SANITARY SEWER
	12" SAN FM		EXISTING SANITARY FORCE MAIN
	12" SAN FM		REMOVE SANITARY FORCE MAIN
	12" SAN FM		ABANDON SANITARY FORCE MAIN
	PROPOSED SANITARY SEWER		

COMBINED SEWER

	EXISTING CURB INLET		EXISTING SQUARE CATCHBASIN
	EXISTING ROUND CATCHBASIN		EXISTING COMBINED SEWER MANHOLE
	EXISTING COMBINED SEWER STRUCTURE NUMBER		
	12" COMB		EXISTING COMBINED SEWER
	12" COMB		REMOVE COMBINED SEWER
	12" COMB		ABANDON COMBINED SEWER

PARCEL INFORMATION

401-069	PARCEL/TAX IDENTIFICATION NUMBER
#5324	EXISTING BUILDING AND ADDRESS/BUSINESS NAME

CAUTION SYMBOLS

	USED WITH UNDERGROUND GAS & ELECTRICAL LINES
	USED WITH FIBER OPTIC LINES
	USED WITH CRITICAL UNDERGROUND LINES

PLAN VIEW LINETYPES

	EXISTING CENTERLINE OF DITCH
	EXISTING FENCE
	EXISTING GUARDRAIL
	EXISTING RAILROAD TRACK
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	EXISTING EDGE OF WETLAND
	EXISTING SHORELINE / EDGE OF WATER
	EXISTING TOP OF BANK
	EXISTING TOE OF SLOPE
	PROPOSED DITCH CENTERLINE
	PROPOSED FENCE
	PROPOSED CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED SLOPE STAKE LINE
	PROPOSED SILT FENCE

PROPOSED CALLOUTS

TOPO CALLOUTS	PLAN VIEW	
		ADJUST STRUCTURE
		ADJUST STRUCTURE W/ NEW COVER
		ADJUST STRUCTURE BY OTHERS
		RECONSTRUCT STRUCTURE
		RELOCATE
		RELOCATE BY OTHERS
		REMOVE
		REMOVE AND REPLACE
		SALVAGE
		SAVE
		ABANDON
		CLEARING
		BULKHEAD
		SIDEWALK RAMP TYPE
		SOIL EROSION CONTROL MEASURE

GPR LOCATED EXISTING U.G. LINES

	GPR CATV	GPR CATV	U.G. CABLE TV LINE (GPR LOCATED)
	GPR ELEC	GPR ELEC	U.G. ELECTRIC LINE (GPR LOCATED)
	GPR FO	GPR FO	U.G. FIBER OPTIC LINE (GPR LOCATED)
	GPR GAS	GPR GAS	U.G. GAS LINE (GPR LOCATED)
	GPR MSC	GPR MSC	U.G. MISCELLANEOUS LINE (GPR LOCATED)
	GPR SAN	GPR SAN	U.G. SANITARY SEWER LINE (GPR LOCATED)
	GPR STM	GPR STM	U.G. STORM SEWER LINE (GPR LOCATED)
	GPR TELE	GPR TELE	U.G. TELEPHONE LINE (GPR LOCATED)
	GPR UNK	GPR UNK	U.G. UNKNOWN LINE (GPR LOCATED)
	GPR WTR	GPR WTR	U.G. WATER LINE (GPR LOCATED)

TREES & SHRUBS

	STUMP		CONIFEROUS TREE
	DECIDUOUS TREE		CONIFEROUS SHRUB
	DECIDUOUS SHRUB		DEAD TREE
	EXISTING EDGE OF WOODS		
	EXISTING EDGE OF BRUSH		
	PROPOSED EDGE OF WOODS		
	PROPOSED EDGE OF BRUSH		

PAVEMENT IDENTIFICATION

	EXISTING EDGE OF GRAVEL
	EXISTING CURB AND GUTTER
	PROPOSED FLOW CURB AND GUTTER
	PROPOSED SPILL CURB AND GUTTER

REMOVAL HATCHING LEGEND

	REMOVE PAVEMENT
--	-----------------

PROPOSED HATCHING LEGEND

	PROPOSED CONCRETE PAVEMENT
	PROPOSED GRAVEL DRIVE



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

PLAN SUBMITTALS AND CHANGES	
BIDDING DOCUMENTS	
DATE	DESCRIPTION
10/09/26	ISSUED FOR BIDS

PLAN DATE: OCTOBER 2026

PROJECT MGR: DRS

REVIEWER: DAS

SCALE: NOT TO SCALE

ROWE PROFESSIONAL
SERVICES COMPANY



The Rowe Building
540 S. Saginaw St., Suite 200
Flint, MI 48502

PREPARED FOR
WTA ARCHITECTS
BELLE ISLE STORAGE BARN

LEGEND SHEET

REV:

SHT# 2 OF 8
JOB No: 22F0018

GENERAL CONSTRUCTION NOTES

EMERGENCY CONTACTS

BEFORE BEGINNING WORK ON THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER WITH THE NAMES AND TELEPHONE NUMBERS OF EMERGENCY CONTACTS. AT LEAST ONE PERSON REPRESENTING THE CONTRACTOR SHALL BE AVAILABLE TO RESPOND TO EMERGENCIES THROUGHOUT THE LIFE OF THE PROJECT, 24 HOURS A DAY, 7 DAYS A WEEK.

UNDERGROUND UTILITY IDENTIFICATION AND LOCATION

THE CONTRACTOR SHALL CALL MISS DIG (1-800-482-7171) A MINIMUM OF 3 WORK DAYS IN ADVANCE OF BEGINNING EXCAVATION. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND NOTIFY UTILITY AGENCIES WITHIN THE PROJECT AREA WHICH DO NOT PARTICIPATE IN THE MISS DIG NOTIFICATION PROGRAM.

PUBLIC UTILITIES

EXISTING UTILITIES ARE SHOWN BASED UPON RECORDS AND LOCATIONS PROVIDED BY UTILITY AGENCIES. THE INFORMATION SHOWN IS CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. UNLESS THE PLANS SPECIFICALLY SHOW THAT EXISTING UTILITIES ARE TO BE MOVED, THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN EXISTING UTILITIES.

VERIFICATION OF UNDERGROUND UTILITIES

THE CONTRACTOR SHALL EXCAVATE AND LOCATE ALL EXISTING UTILITIES IN THE PROJECT AREA IN ADVANCE OF CONSTRUCTION TO VERIFY THEIR ACTUAL LOCATION. POTENTIAL CONFLICTS SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL MAKE SUCH CHANGES TO GRADE AND ALIGNMENT OF PROPOSED WORK AS DIRECTED BY THE ENGINEER TO AVOID CONFLICTS, AT NO INCREASE IN COST TO THE OWNER.

UTILITY SERVICE

UNLESS SPECIFICALLY PROVIDED OTHERWISE IN THE CONTRACT DOCUMENTS, ALL EXISTING UTILITIES ARE TO REMAIN IN SERVICE DURING THE PROJECT.

MAILBOXES

MAILBOXES LOCATED WITHIN THE LIMITS OF EXCAVATION, GRADING, OR CONSTRUCTION SHALL BE REMOVED AND PROTECTED FROM DAMAGE BY THE CONTRACTOR. TEMPORARY MAILBOXES SHALL BE PROVIDED AND MAINTAINED DURING THE PROJECT. UPON COMPLETION OF GRADING OR CONSTRUCTION ACTIVITIES, THE ORIGINAL MAILBOX SHALL BE REINSTALLED.

MAILBOXES (AND/OR SUPPORTS) WHICH ARE DAMAGED AS A RESULT OF THE PROJECT SHALL BE REPLACED BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE. MAILBOXES SHALL BE REPLACED IN ACCORDANCE WITH THE STANDARDS OF THE U.S. POSTAL SERVICE AND THE REGULATIONS OF THE AGENCY HAVING JURISDICTION OVER THE ROADS AND STREETS IN THE PROJECT AREA.

PRIVATE IRRIGATION SYSTEMS

WHERE IRRIGATION SYSTEMS WITHIN THE PUBLIC RIGHT-OF-WAY WILL INTERFERE WITH THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS THAT IT IS THEIR RESPONSIBILITY TO REMOVE AND PROTECT THEIR IRRIGATION SYSTEM. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF THE NOTIFICATION.

WHERE THE OWNER HAS NOT REMOVED THEIR PRIVATE IRRIGATION SYSTEM, THE CONTRACTOR SHALL CUT AND PLUG THOSE SECTIONS OF PIPING WHICH INTERFERE WITH CONSTRUCTION. SPRINKLER HEADS, VALVES, AND PIPING WHICH INTERFERES WITH THE CONTRACTOR'S WORK, SHALL BE REMOVED AND STOCKPILED ON THE OWNER'S PROPERTY.

SOIL BORINGS / PAVEMENT CORES

IF PROVIDED ON THE PLANS OR IN THE CONTRACT DOCUMENTS, LOGS OF SOIL BORINGS OR PAVEMENT CORES REPRESENT THE SUBSURFACE CONDITIONS ENCOUNTERED AT SPECIFIC POINTS. THE INFORMATION IS PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY.

MAINTAINING TRAFFIC

LOCAL AND EMERGENCY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WITHIN THE PROJECT AREA.

WHEN EXCAVATION, FRESH CONCRETE, OR OTHER CONSTRUCTION WORK WILL RESULT IN THE CLOSURE OF A STREET OR DRIVEWAY FOR A PERIOD OF TIME, THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL AFFECTED RESIDENTS AND BUSINESSES IN ADVANCE.

THE CONTRACTOR SHALL NOTIFY EMERGENCY RESPONSE AGENCIES IN ADVANCE OF ROAD CLOSURES OR THE ESTABLISHMENT OF DETOURS.

TRAFFIC SIGNS

TRAFFIC SIGNS WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED AND REPLACED BY THE AGENCY HAVING JURISDICTION OVER THE STREETS OR ROADS IN THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE AGENCY TO ARRANGE FOR REMOVAL OF THE SIGN AND IS RESPONSIBLE TO PAY ANY FEES ASSOCIATED WITH THE REMOVAL AND REPLACEMENT OF THE SIGNS.

SCHEDULE

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AN EXPEDITIOUS MANNER AND SHALL NOT STOP WORK ON THE PROJECT ONCE BEGUN.

ALIGNMENT

ALIGNMENT AND GRADES FOR CURB AND GUTTER (INCLUDING THROUGH RAMPS AND DRIVEWAY OPENINGS) SHOWN ON THE PLANS ARE FOR THE TOP, BACK OF CURB, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE PLANS.

THE HORIZONTAL ALIGNMENT SHOWN ON THE DRAWINGS FOR DRAINAGE STRUCTURES LOCATED IN THE CURB LINE IS TO THE CENTER OF THE CASTING.

THE HORIZONTAL ALIGNMENT SHOWN ON THE DRAWINGS FOR DRAINAGE STRUCTURES WHICH ARE NOT IN THE CURB LINE AND FOR MANHOLES IS TO THE CENTER OF THE STRUCTURE.

WHERE RIM ELEVATIONS ARE PROVIDED ON THE PLANS FOR MANHOLE CASTINGS, THE ELEVATION PROVIDED IS FOR THE TOP OF THE CASTING.

WHERE RIM ELEVATIONS ARE PROVIDED FOR INLET TYPE CASTINGS, THE ELEVATIONS ARE PROVIDED AS FOLLOWS:

- CURB INLETS – THE ELEVATION OF THE TOP OF CURB
- ALL OTHER INLETS – THE ELEVATION OF THE FLOW LINE

WHERE RIM ELEVATIONS ARE PROVIDED ON THE PLANS FOR INLETS OR MANHOLE CASTINGS, THE ELEVATIONS PROVIDED ARE CONSIDERED PRELIMINARY. THE CONTRACTOR SHALL MAKE THE FINAL ADJUSTMENT FOLLOWING THE ESTABLISHMENT OF ACTUAL GRADING AND PAVEMENT ELEVATIONS.

CONSTRUCTION STAKING

WHEN CONSTRUCTION STAKING IS TO BE PROVIDED BY THE ENGINEER OR OWNER, THE CONTRACTOR SHALL REQUEST STAKING AT LEAST 3 WORKING DAYS IN ADVANCE.

WHEN CONSTRUCTION STAKING IS TO BE PROVIDED BY THE ENGINEER OR OWNER, STAKING WILL BE PROVIDED ONE TIME. THE CONTRACTOR SHALL PROTECT AND PRESERVE SURVEY CONTROL AND STAKING. RE-STAKING WILL BE AT THE CONTRACTOR'S EXPENSE.

SURVEY CORNERS, BENCHMARKS, AND CONTROL POINTS

THE CONTRACTOR SHALL PRESERVE ALL GOVERNMENT CORNERS, PROPERTY CORNERS, BENCHMARKS, SURVEY CONTROL POINTS AND OTHER SURVEY POINTS WITHIN THE PROJECT AREA. WHERE CORNERS, BENCHMARKS, OR SURVEY POINTS ARE ENCOUNTERED WHICH WILL BE DISTURBED BY THE CONTRACTOR'S ACTIVITIES; A LICENSED SURVEYOR SHALL WITNESS THE POINT BEFORE DISTURBANCE AND SHALL RE-SET THE POINT FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PAY THE SURVEYOR TO WITNESS AND TO RE-SET THE POINTS.

PROTECTION OF TREES, SHRUBS, AND LANDSCAPING

ALL TREES, SHRUBS, AND LANDSCAPING WITHIN THE CONSTRUCTION AREA WHICH ARE NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED TREES, SHRUBS, AND LANDSCAPING SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION SIGNING AND BARRICADING

THE CONTRACTOR SHALL PROTECT HAZARDOUS AREAS WITH BARRICADES. BARRICADES LEFT IN PLACE AFTER SUNSET SHALL BE LIGHTED.

THE CONTRACTOR SHALL PROVIDE SUITABLE SANDBAGS OR OTHER SUITABLE MEASURES FOR ANCHORING OF TEMPORARY SIGNS AND BARRICADES, TO PREVENT THEIR TIPPING OR DISPLACEMENT BY WIND OR AIR FLOW FROM VEHICLES.

THE CONTRACTOR SHALL PROVIDE SIGNING, BARRICADES, TRAFFIC REGULATORS, CONES, AND OTHER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION OVER STREETS OR ROADS IN THE PROJECT AREA, THE CURRENT MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL COVER OR REMOVE TEMPORARY SIGNS DURING PERIODS WHEN THEY ARE NOT APPROPRIATE.

TURF ESTABLISHMENT

ALL DISTURBED AREAS WHICH ARE NOT TO BE SURFACED WITH PAVEMENT, AGGREGATE OR OTHER APPROVED SURFACES SHALL BE ESTABLISHED WITH TURF.

TURF AREAS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE.

DISTURBED AREAS SHALL BE SURFACED WITH 4 INCHES OF SCREENED TOPSOIL.

THE CONTRACTOR IS RESPONSIBLE TO ESTABLISH TURF WHICH IS SUBSTANTIALLY FREE OF BARE SPOTS AND FREE OF WEEDS. THE GROUND SURFACE IN TURF AREAS SHALL BE SMOOTH AND PROVIDE A NATURAL TRANSITION TO ADJACENT, UNDISTURBED AREAS.

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE WATERING, WEEDING, RESEEDING, AND REWORKING AS NECESSARY TO ESTABLISH TURF AREAS TO THE REQUIRED STANDARD.

ADA COMPLIANCE

ALL PROPOSED CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AND APPLICABLE GUIDELINES OR STANDARDS. WHERE EXISTING CONDITIONS AND/OR THE REQUIREMENTS OF THE PLANS WILL RESULT IN FINISHED CONDITIONS THAT DO NOT MEET THE ADA REQUIREMENTS, GUIDELINES, OR STANDARDS; THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO REMOVE AND REPLACE WORK DETERMINED TO BE NOT IN ACCORDANCE WITH APPLICABLE REQUIREMENTS, GUIDELINES, OR STANDARDS.

EARTHWORK

THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE EARTHWORK QUANTITIES, AND BASE THEIR BID ON THEIR DETERMINATION OF THE QUANTITIES OF WORK REQUIRED.

IF ADDITIONAL FILL MATERIAL MUST BE PROVIDED TO ATTAIN THE FINISH GRADES SHOWN ON THE PLANS, THE CONTRACTOR SHALL PROVIDE THE REQUIRED FILL MATERIAL, UNLESS A SPECIFIC BORROW AREA IS IDENTIFIED ON THE PLANS.

EXCESS SOILS RESULTING FROM EXCAVATION AND EARTHWORK SHALL BECOME THE CONTRACTOR'S PROPERTY AND DISPOSED OF PROPERLY, UNLESS AN AREA(S) HAS BEEN DESIGNATED FOR STOCKPIILING OR "BLENDING IN" THE EXCESS MATERIAL WITHIN THE PROJECT LIMITS.

BACKFILL AND EMBANKMENT

BACKFILL OF AN EXCAVATION UNDER OR WITHIN THE ONE ON ONE INFLUENCE OF AN EXISTING OR PROPOSED ROAD, SIDEWALK, DRIVEWAY, PAVEMENT, OR AGGREGATE SURFACE, SHALL BE SAND, MEETING THE REQUIREMENTS OF GRANULAR MATERIAL CLASS III AS DESCRIBED IN THE CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION. THE SAND BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

BACKFILL OF AN EXCAVATION WHICH IS NOT UNDER OR WITHIN THE ONE ON ONE INFLUENCE OF AN EXISTING OR PROPOSED ROAD, SIDEWALK, DRIVEWAY, PAVEMENT, OR AGGREGATE SURFACE MAY BE SUITABLE EXCAVATED MATERIAL OR OTHER SOIL, WHICH IS FREE OF ORGANIC MATTER, STONES AND ROCKS, ROOTS, BROKEN CONCRETE, FROZEN MATERIAL, OR DEBRIS. THE BACKFILL SHALL BE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM UNIT WEIGHT.

THE CONTRACTOR SHALL INDICATE THE SOURCE OF SAND USED FOR BACKFILL TO THE ENGINEER, AND PROVIDE THE ENGINEER WITH THE RESULTS OF A GRADATION TEST PERFORMED ON A SAMPLE OF THE SAND. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF USING SAND FROM OTHER SOURCES.

EMBANKMENT USED TO BUILD THE SUBGRADE TO REQUIRED ELEVATION SHALL BE SUITABLE SOIL EXCAVATED FROM THE PROJECT SITE, OR FURNISHED BY THE CONTRACTOR FROM OTHER SOURCES. SUITABLE SOIL IS FREE FROM ORGANIC MATTER, ROCKS AND STONES, FROZEN MATERIAL, BROKEN CONCRETE, AND DEBRIS.

EMBANKMENT CONSTRUCTED OF GRANULAR SOILS SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 10 INCHES TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

EMBANKMENT CONSTRUCTED OF COHESIVE SOILS SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 10 INCHES TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

DENSITY TESTING

THE MAXIMUM UNIT WEIGHT OF SAND AND OTHER GRANULAR SOILS WILL BE DETERMINED BY THE ONE POINT CONE TEST, AS DESCRIBED IN THE MICHIGAN DEPARTMENT OF TRANSPORTATION'S DENSITY TESTING AND INSPECTION MANUAL, EXCEPT WHEN ANOTHER TEST METHOD IS SPECIFIED.

THE MAXIMUM UNIT WEIGHT OF COHESIVE SOILS WILL BE DETERMINED BY THE ONE POINT PROCTOR TEST, AS DESCRIBED IN THE MICHIGAN DEPARTMENT OF TRANSPORTATION'S DENSITY TESTING AND INSPECTION MANUAL, EXCEPT WHEN ANOTHER TEST METHOD IS SPECIFIED.

WORK HOURS

UNLESS PROVIDED OTHERWISE IN THE CONTRACT DOCUMENTS OR LIMITED BY LOCAL ORDINANCE, THE CONTRACTOR SHALL WORK WITHIN OF THE FOLLOWING TIMES, UNLESS OTHERWISE APPROVED BY THE OWNER: MONDAY THROUGH SATURDAY 7 A.M. TO 7 P.M.

THE CONTRACTOR SHALL NOT WORK ON SUNDAYS OR HOLIDAYS, UNLESS OTHERWISE APPROVED BY THE OWNER.

DRAINAGE

THE CONTRACTOR SHALL MAINTAIN DRAINAGE OF THE PROJECT AREA AND ADJACENT AREAS. WHERE EXISTING DRAINAGE FACILITIES ARE DISTURBED OR BLOCKED BY CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY PROVISIONS FOR DRAINAGE.

WHERE CONSTRUCTION HAS DISTURBED EXISTING DITCHES, SWALES, OR OTHER DRAINAGE FACILITIES; THE CONTRACTOR SHALL RESTORE THEM TO THEIR GRADES AND DIMENSIONS WHICH EXISTED PRIOR TO THE BEGINNING OF CONSTRUCTION, UNLESS DIRECTED OTHERWISE.

DRAINAGE SHALL NOT BE REROUTED ONTO ADJACENT PROPERTIES NOR ALLOWED TO DRAIN ONTO ADJACENT PROPERTIES AT AN INCREASED RATE, AS A RESULT OF THE CONTRACTOR'S WORK.

ROAD PROJECTS

ADJUSTING STRUCTURES

WHERE CASTINGS FOR MANHOLES, CATCH BASINS, INLETS, VALVE BOXES, AND MONUMENT BOXES ARE TO BE ADJUSTED TO MEET A NEW PAVEMENT SURFACE ELEVATION, THE FINAL ADJUSTMENT SHALL NOT BE COMPLETED UNTIL ALL PAVEMENT COURSES HAVE BEEN PLACED AND SHALL BE COMPLETED IN ACCORDANCE WITH THE SPECIFICATIONS AND DETAILS PROVIDED IN THE PLANS.

THE MATERIALS AND PROCEDURES FOR ADJUSTING STRUCTURES SHALL MEET THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE ROAD AND UTILITIES.

SUBGRADE PREPARATION

TOPSOIL, PEAT, AND ORGANIC MATERIAL SHALL BE EXCAVATED AND REMOVED.

SOFT AND YIELDING SOILS SHALL BE REMOVED OR DRIED IF THE RESULT OF EXCESSIVE MOISTURE CONTENT.

PRIOR TO CONSTRUCTING FILLS, SUBBASE, OR PAVEMENT ON A SUBGRADE; THE SUBGRADE SHALL BE PROOF-ROLLED TO DETERMINE THE SUITABILITY OF THE SUBGRADE. THE CONTRACTOR SHALL DRIVE A HEAVY PIECE OF WHEELED CONSTRUCTION EQUIPMENT OVER THE SUBGRADE WHILE THE ENGINEER IS OBSERVING. THE CONSTRUCTION OF FILLS, SUBBASE, OR PAVEMENTS SHALL NOT PROCEED UNTIL THE SUBGRADE HAS BEEN DEMONSTRATED TO BE FREE OF SOFT AREAS.

THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE MOISTURE CONTENT OF SUBGRADE SOILS WITHIN A SUITABLE RANGE TO ALLOW FOR COMPACTION TO THE REQUIRED DENSITY. WHEN THE SOIL IS TOO DRY, THE CONTRACTOR SHALL ADD WATER. WHEN THE SOIL IS TOO WET, THE CONTRACTOR SHALL PROVIDE DRAINAGE OR AERATE THE SOIL.

THE SURFACE OF THE SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT, PRIOR TO CONSTRUCTING FILLS, SUBBASE, OR PAVEMENTS.

CURB AND GUTTERS

THE CONTRACTOR SHALL DETERMINE THE LOCATION AND DIMENSIONS OF CURB OPENINGS FOR DRIVEWAYS, RAMPS, AND DRAINAGE STRUCTURES.

HOT MIX ASPHALT (HMA) PAVING

PAVEMENTS WHICH ARE TO BE OVERLAID WITH A NEW PAVEMENT COURSE SHALL BE SWEEPED TO REMOVE ALL DIRT AND DEBRIS.

A BITUMINOUS BOND COAT SHALL BE APPLIED TO PAVEMENTS WHICH ARE TO BE OVERLAID WITH A NEW PAVEMENT COURSE AND ALLOWED TO CURE PRIOR TO CONSTRUCTING THE NEW PAVEMENT COURSE.

HMA PAVEMENT SHALL NOT BE PLACED WHEN THE SURFACE BEING OVERLAID IS WET, OR WHEN RAIN IS FORECAST OR THREATENING.

DRIVEWAY CONSTRUCTION

DRIVEWAY SLOPES SHALL NOT EXCEED 10% EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE ON THE PLANS OR DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE PROPERTY OWNERS WITH SUITABLE NOTICE BEFORE REMOVING AND REPLACING AN EXISTING DRIVEWAY.

SIDEWALK CONSTRUCTION

SIDEWALKS SHALL BE CONSTRUCTED TO PROVIDE POSITIVE DRAINAGE OF THE SIDEWALK AND ADJACENT SURFACES.

EXCEPT WHERE NECESSARY TO PROVIDE POSITIVE DRAINAGE OR MEET EXISTING SURFACES, SIDEWALK SHALL BE CONSTRUCTED WITH A CROSS SLOPE SLOPED TOWARD THE STREET.

SIDEWALK CROSS SLOPES SHALL NOT EXCEED 2%.

IN TURF AREAS, THE SURFACE OF THE SIDEWALK SHALL BE ABOUT 1/4 INCH HIGHER THAN THE ADJACENT GROUND SURFACES, EXCEPT WHERE NECESSARY TO PROVIDE POSITIVE DRAINAGE OR MEET EXISTING SIDEWALKS, CURBS, OR PAVEMENTS.

SIDEWALK SHALL BE CONSTRUCTED ON A SAND BASE, COMPACTED TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN SIDEWALK FORMS HAVE BEEN SET AND THE SAND BASE PREPARED. CONCRETE SHALL NOT BE PLACED UNTIL THE ENGINEER HAS OBSERVED THE FORMS. CONCRETE DELIVERY SHALL BE SCHEDULED TO ALLOW SUFFICIENT TIME FOR ADJUSTMENT OF THE FORMS, IN THE EVENT THAT ADJUSTMENT IS NECESSARY.

THE CONTRACTOR SHALL PROTECT FRESH CONCRETE FROM DAMAGE BY THE WEATHER, TRAFFIC, OR VANDALISM. DAMAGED CONCRETE SHALL BE REPLACED BY THE CONTRACTOR'S EXPENSE.



PLAN SUBMITTALS AND CHANGES	
BIDDING DOCUMENTS	
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REV:

SHT# 3 OF 8
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WTA ARCHITECTS
BELLE ISLE STORAGE BARN

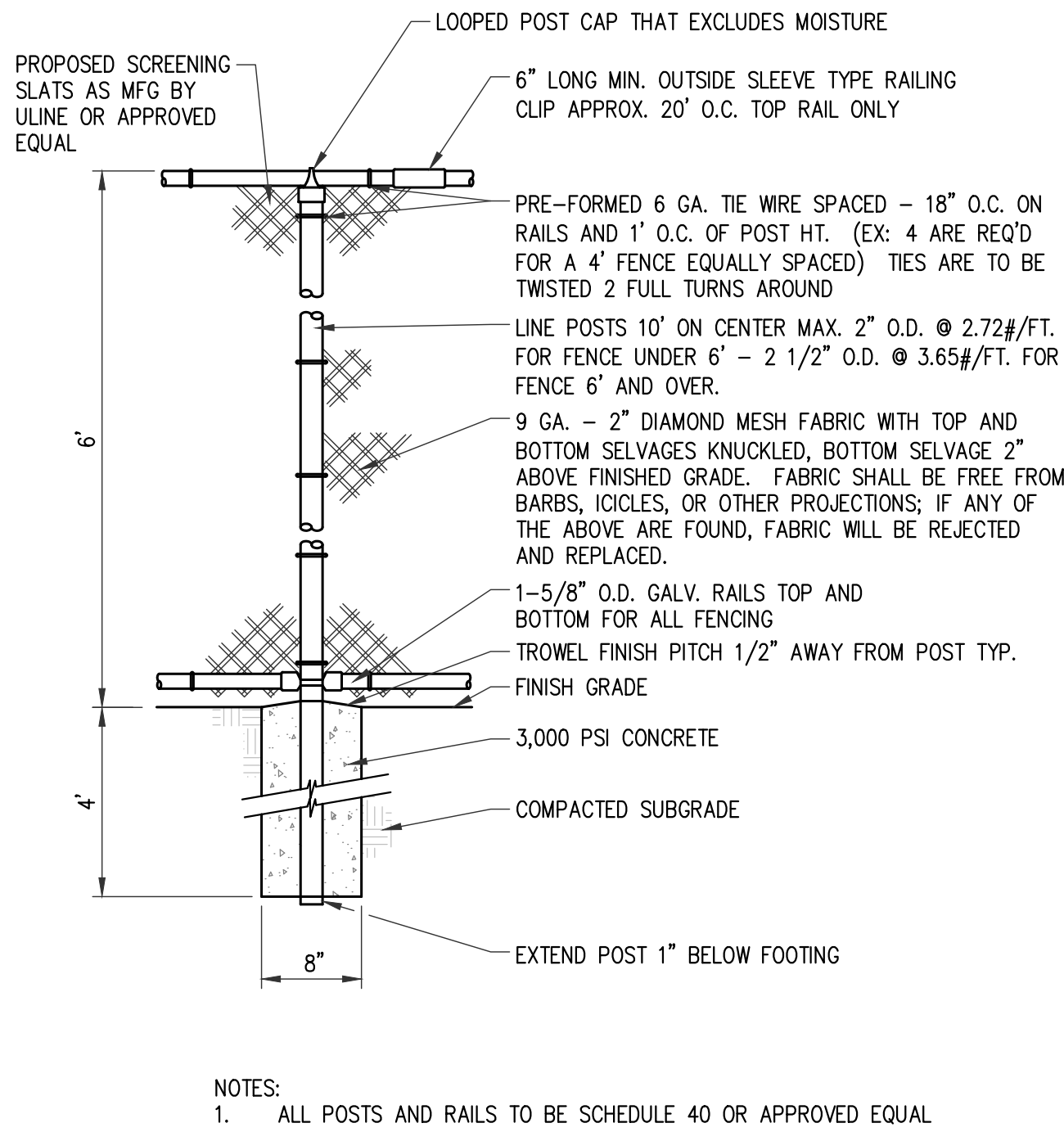
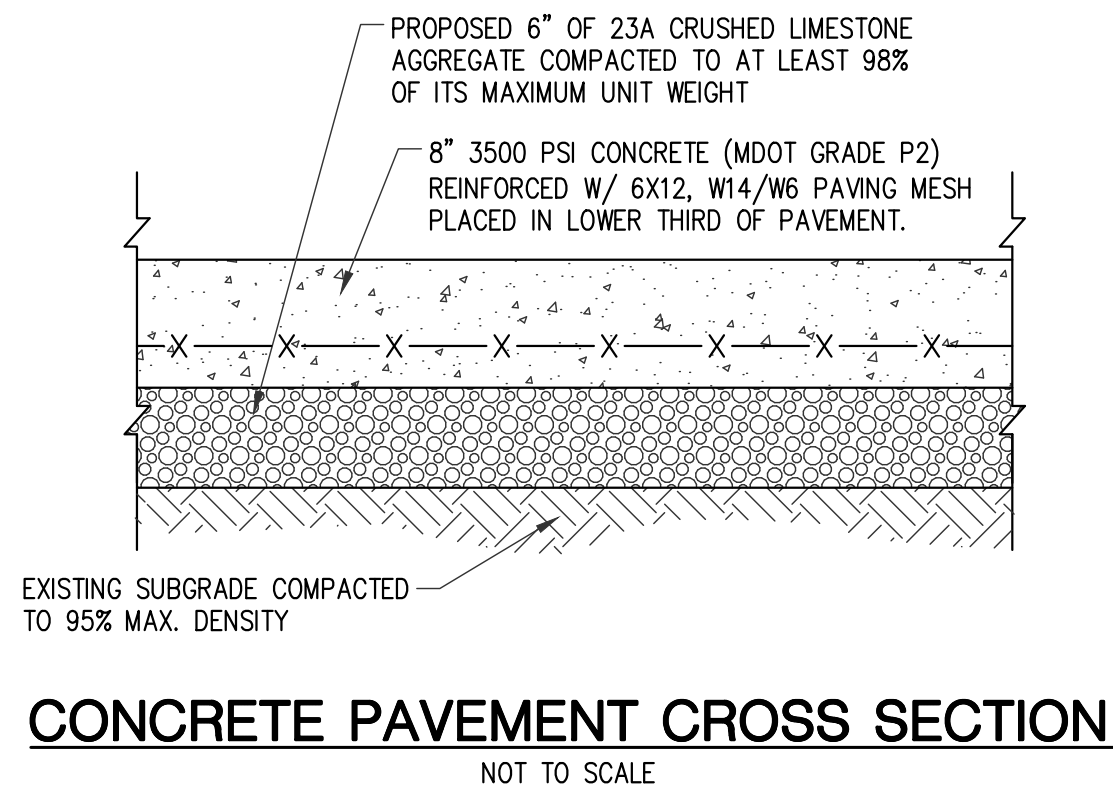
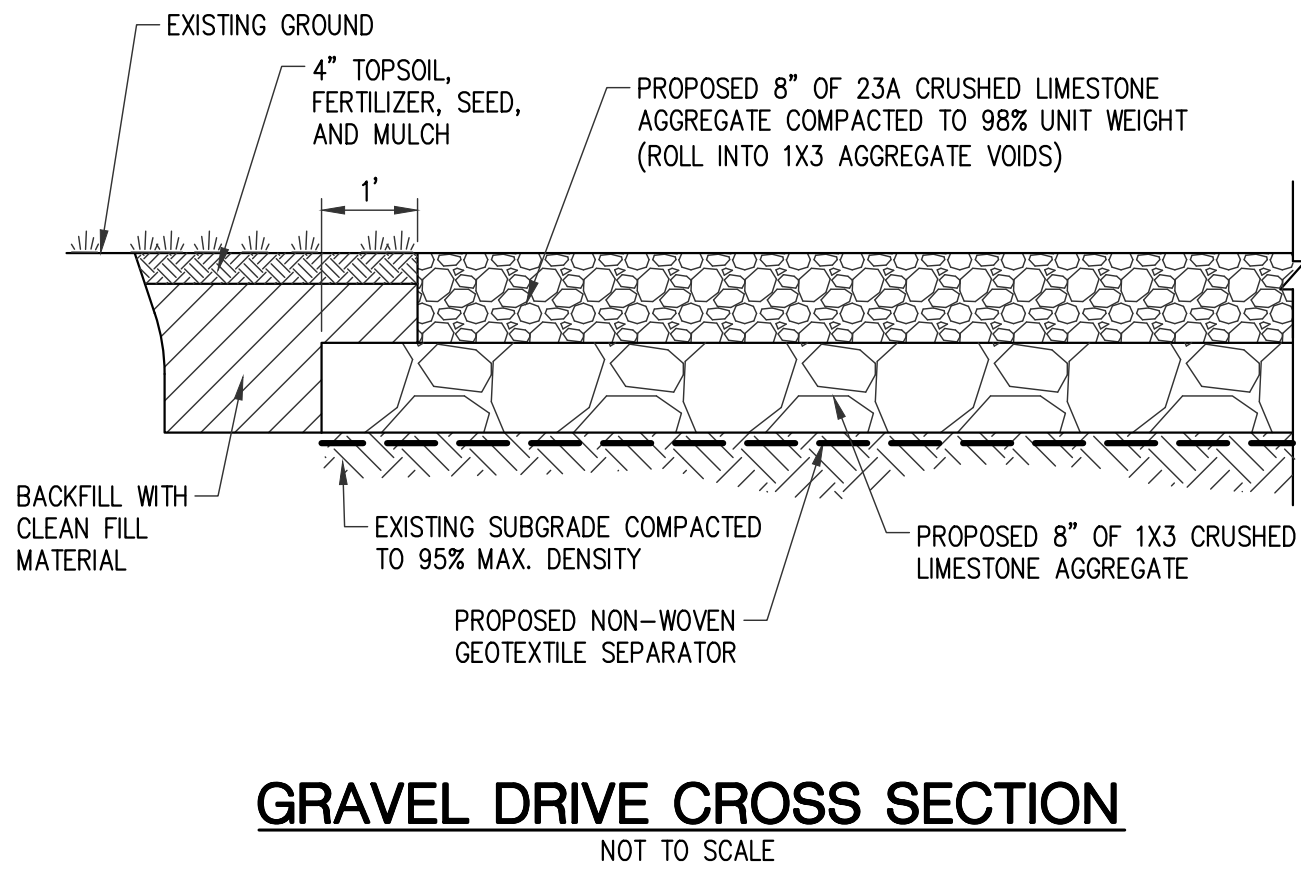
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PLAN DATE: OCTOBER 2026

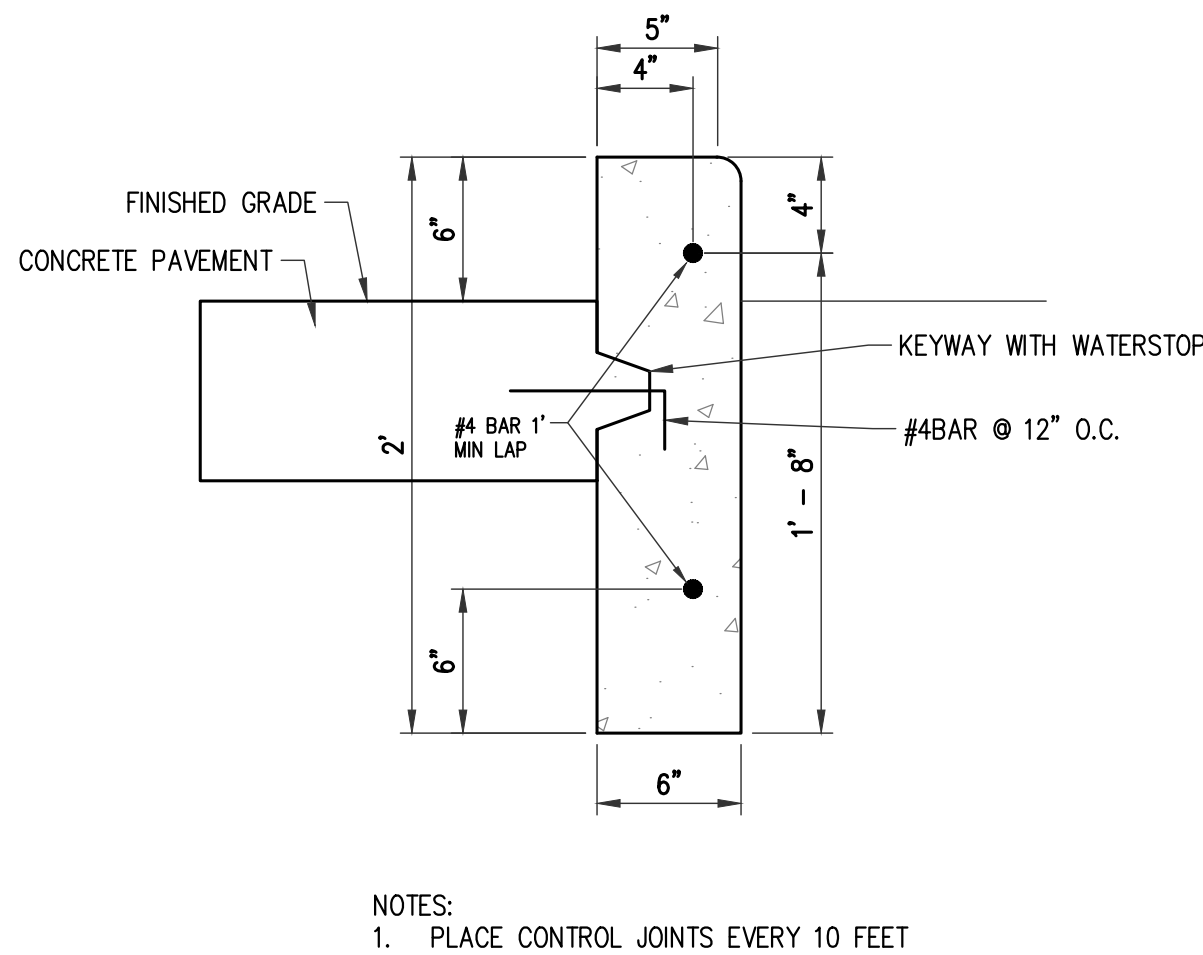
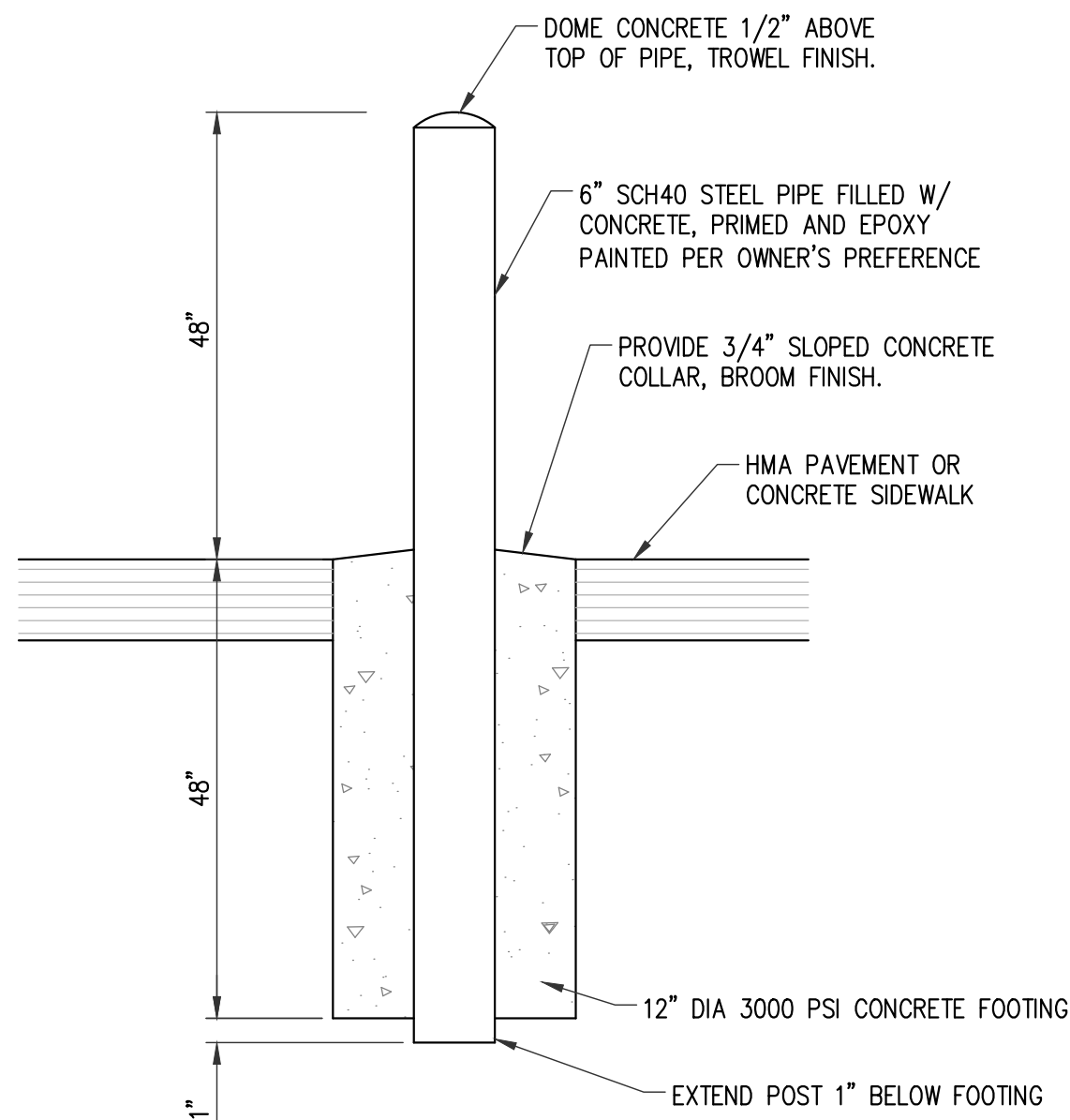
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REVIEWER: DAS

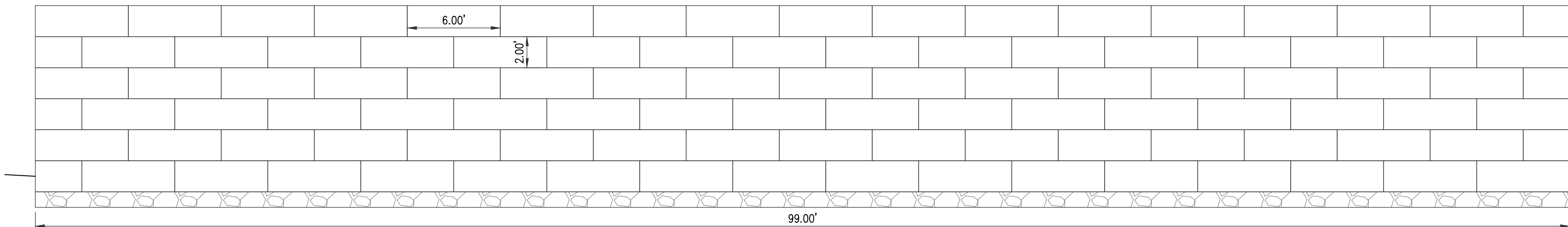
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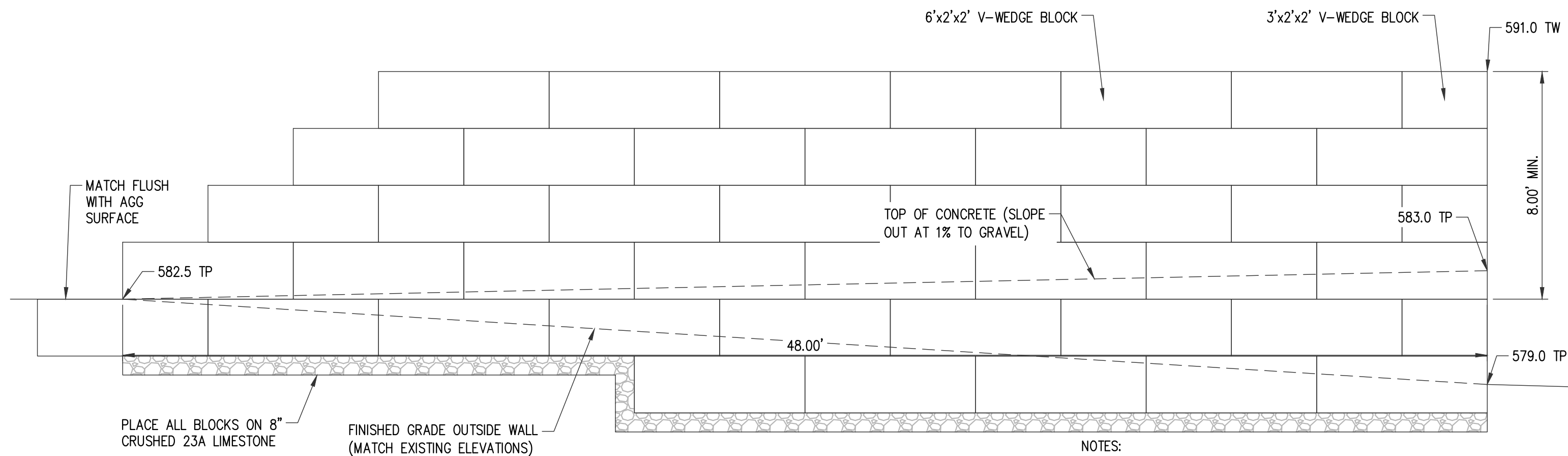
CHAIN LINK FENCE DETAIL
NOT TO SCALE



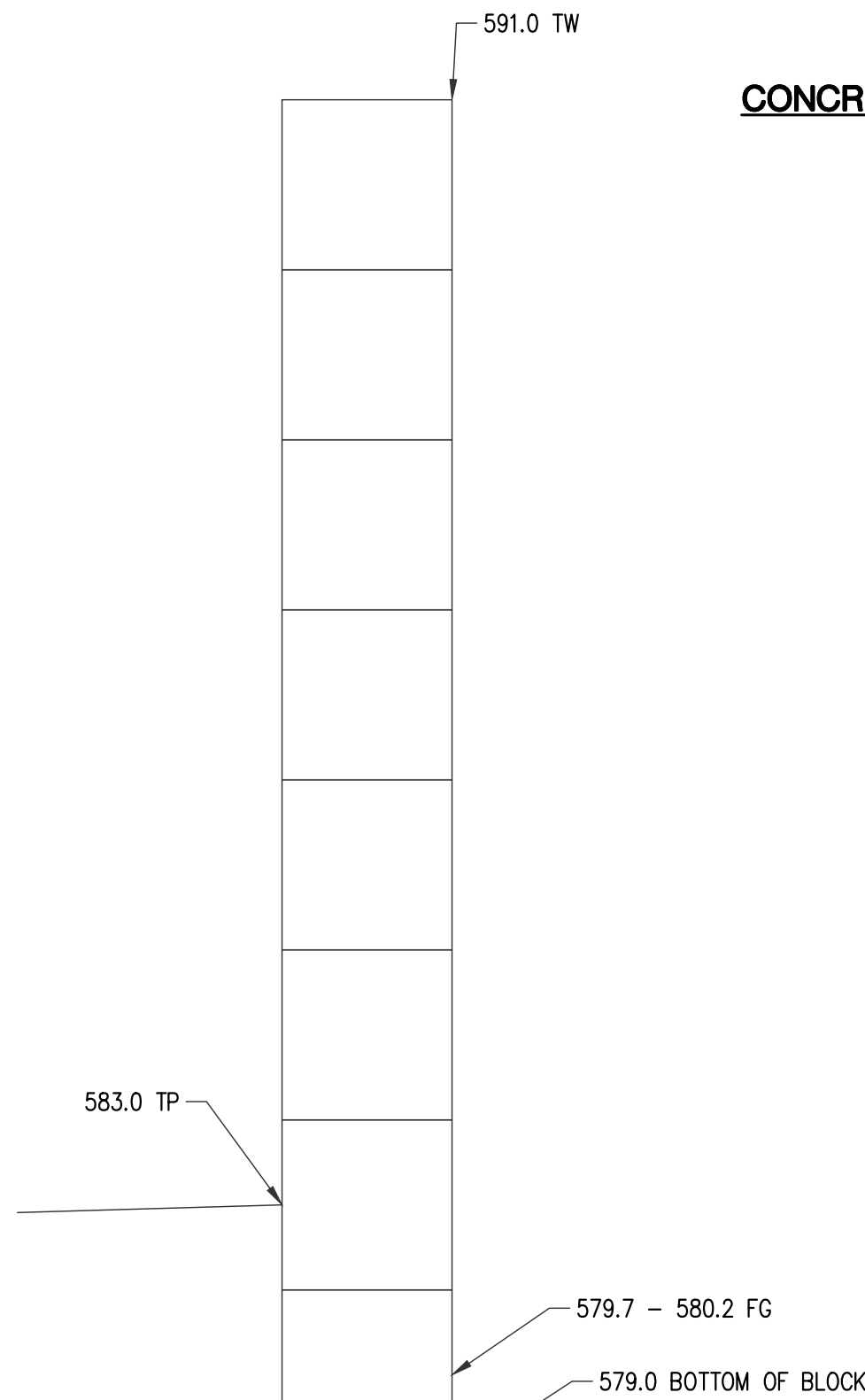
6" WIDE INTEGRAL CURB
NOT TO SCALE



CONCRETE BLOCK WALL STORAGE BINS
NOT TO SCALE



CONCRETE BLOCK WALL - SECTION A-A (TYP. ALL SIDE WALLS)
NOT TO SCALE



CONCRETE BLOCK WALL - BACK WALL SECTION
NOT TO SCALE

CONCRETE BLOCK WALL - BACK OF WALL
NOT TO SCALE

PLAN SUBMITTALS AND CHANGES	
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PREPARED FOR
WTA ARCHITECTS
BELLE ISLE STORAGE BARN

DETAIL SHEET

PLAN DATE: OCTOBER 2026

PROJECT MGR: DRS

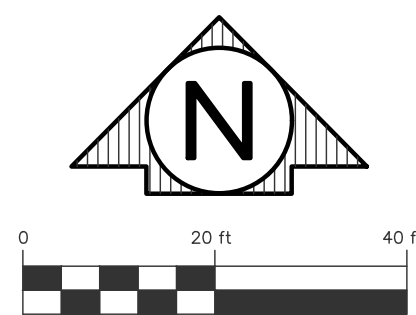
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Know what's below.
Call before you dig.



SOIL EROSION CONTROL NOTES

1. LIMITS OF EARTH CHANGE IS 1.08± ACRES – SEE SITE SHEET FOR SURFACE WATER FLOW. A NPDES NOTICE OF COVERAGE IS NOT REQUIRED.
2. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING WORK ON THE PROJECT. THE CONTRACTOR SHALL APPLY FOR AND SECURE A SESC PERMIT AND ABIDE BY ALL REQUIREMENTS OF THE PERMIT.
3. ALL CATCH BASINS WITHIN PROJECT LIMITS AND ADJACENT DOWN GRADIENT CATCH BASINS SHALL HAVE SESC MEASURE #36 (SILT SACK INLET PROTECTION) INSTALLED UNTIL RESTORATION IS COMPLETE.
4. ALL DISTURBED AREAS SHALL BE TOP SOILED (4" MIN), SEEDED, FERTILIZED AND MULCHED TO ESTABLISH TURF.
5. THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.
6. SEE SESC KEY SHEET FOR MORE SESC INFORMATION.

REMOVAL NOTES

1. NO WORK SHALL TAKE PLACE UNTIL ALL APPLICABLE PERMITS HAVE BEEN OBTAINED.
2. SEE SITE PLAN SHEET FOR LIMITS OF REMOVALS FOR PROPOSED WORK.
3. ALL PAVEMENT REMOVALS SHALL BE SAWCUT. THE CONTRACTOR SHALL COORDINATE ALL PAVEMENT REMOVALS WITH THE OWNER.
4. THE EXISTING UTILITY INFORMATION SHOWN ON THE PLANS IS BASED ON THE BEST AVAILABLE RECORDS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY LOCATIONS AND NOTIFYING MISS DIG PRIOR TO PERFORMING ANY WORK. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE OWNER AND RECORD THEM ON THE AS-BUILT DRAWINGS.
5. CONTRACTOR SHALL NOTIFY / SCHEDULE WITH OWNER IN ADVANCE FOR ALL ITEMS LABELED "AS DIRECTED" (IF ANY).
6. ACCESS SHALL BE MAINTAINED FROM MAIN ENTRY ROAD ALONG PLEASURE DRIVE TO THE PARK HQ. MAINTAIN ACCESS AS MUCH AS POSSIBLE, AT ALL TIMES FOR THE DSWD AND DPD HARBOR FACILITIES. ROAD CLOSURES TO PLEASURE DRIVE BETWEEN DWSO AND PARK HQ ARE LIMITED AS MUCH AS POSSIBLE IN DURATION AND ONLY HAPPEN WITH A 48 HOUR NOTICE TO DNR.



PLAN SUBMITTALS AND CHANGES

BIDDING DOCUMENTS	
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BELLE ISLE STORAGE BARN

EXISTING CONDITIONS SHEET

PLAN DATE: OCTOBER 2026

PROJECT MGR: DRS

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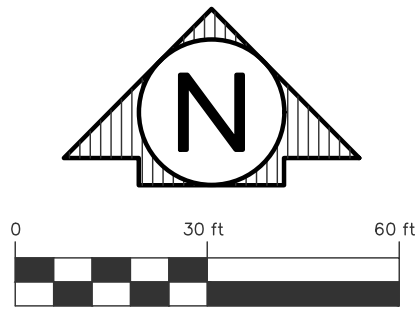
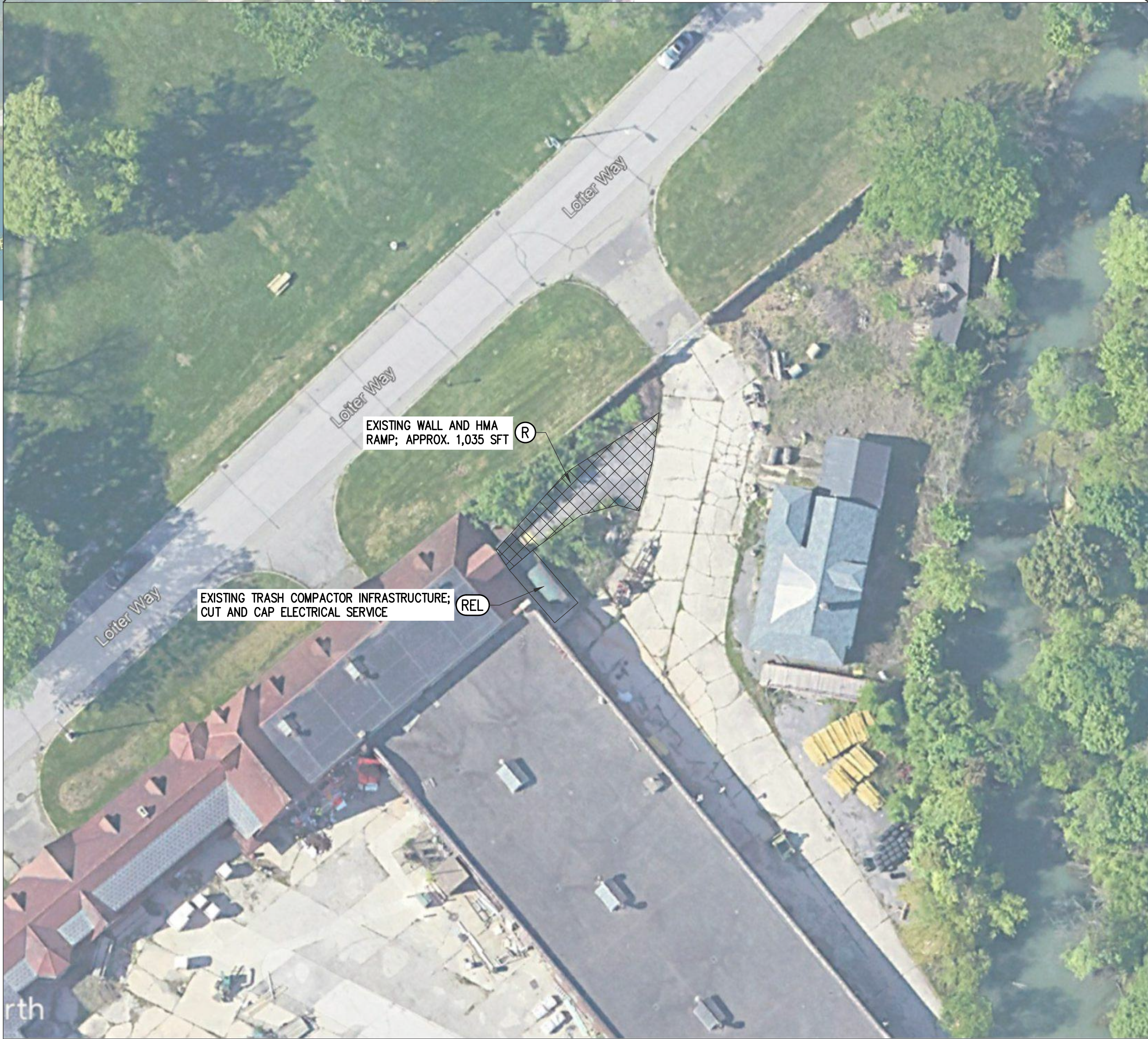
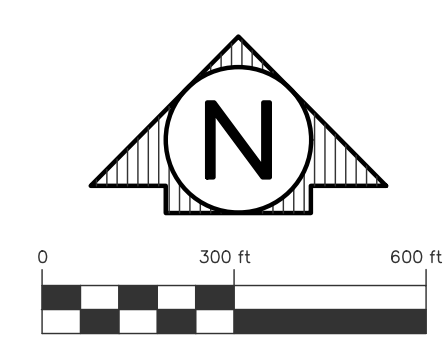
SCALE: 1" = 20'

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TRASH COMPACTOR RELOCATION
EXISTING CONDITIONS SHEET CONT.

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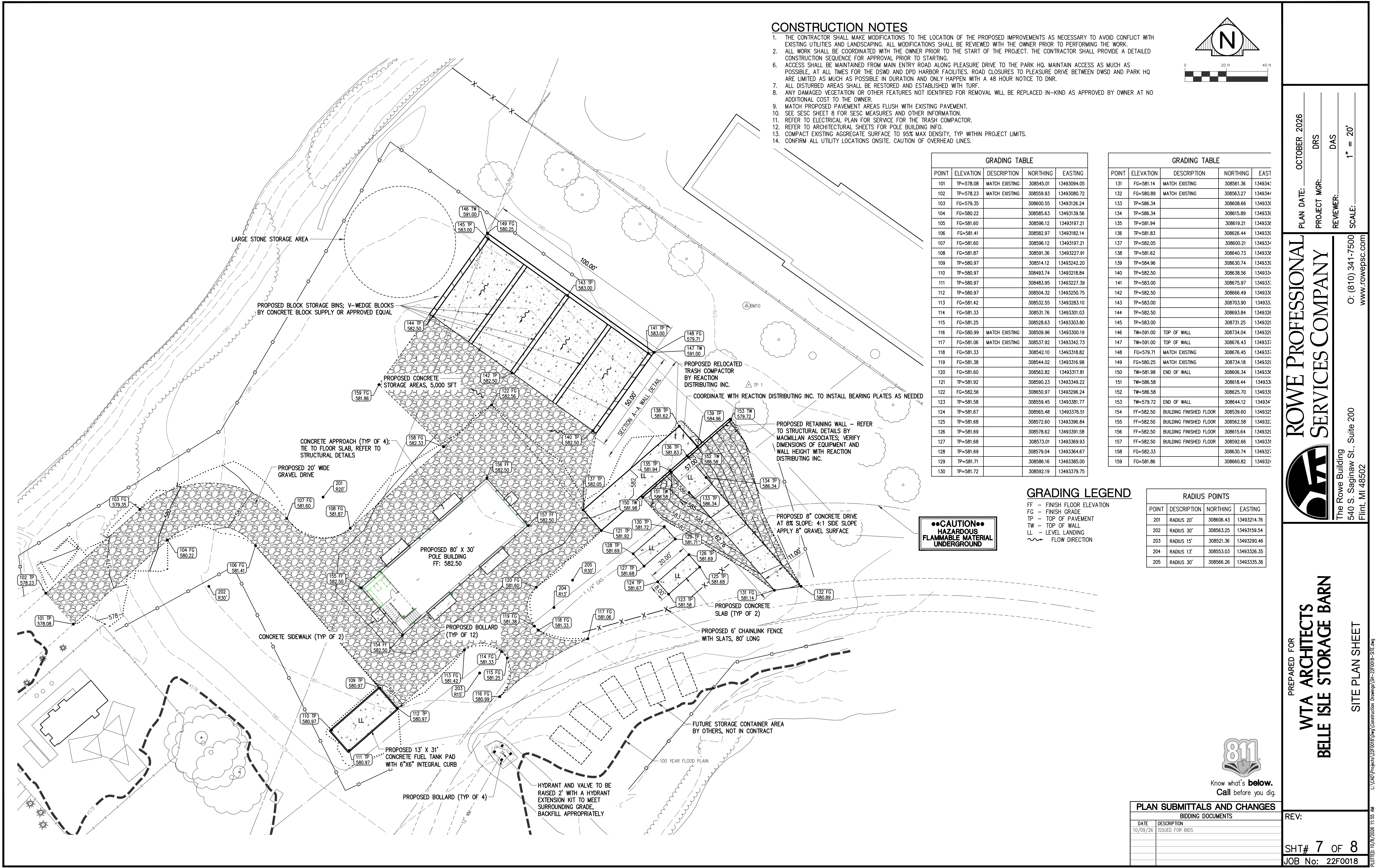
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PLAN DATE: OCTOBER 2026
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SHT# 6 OF 8
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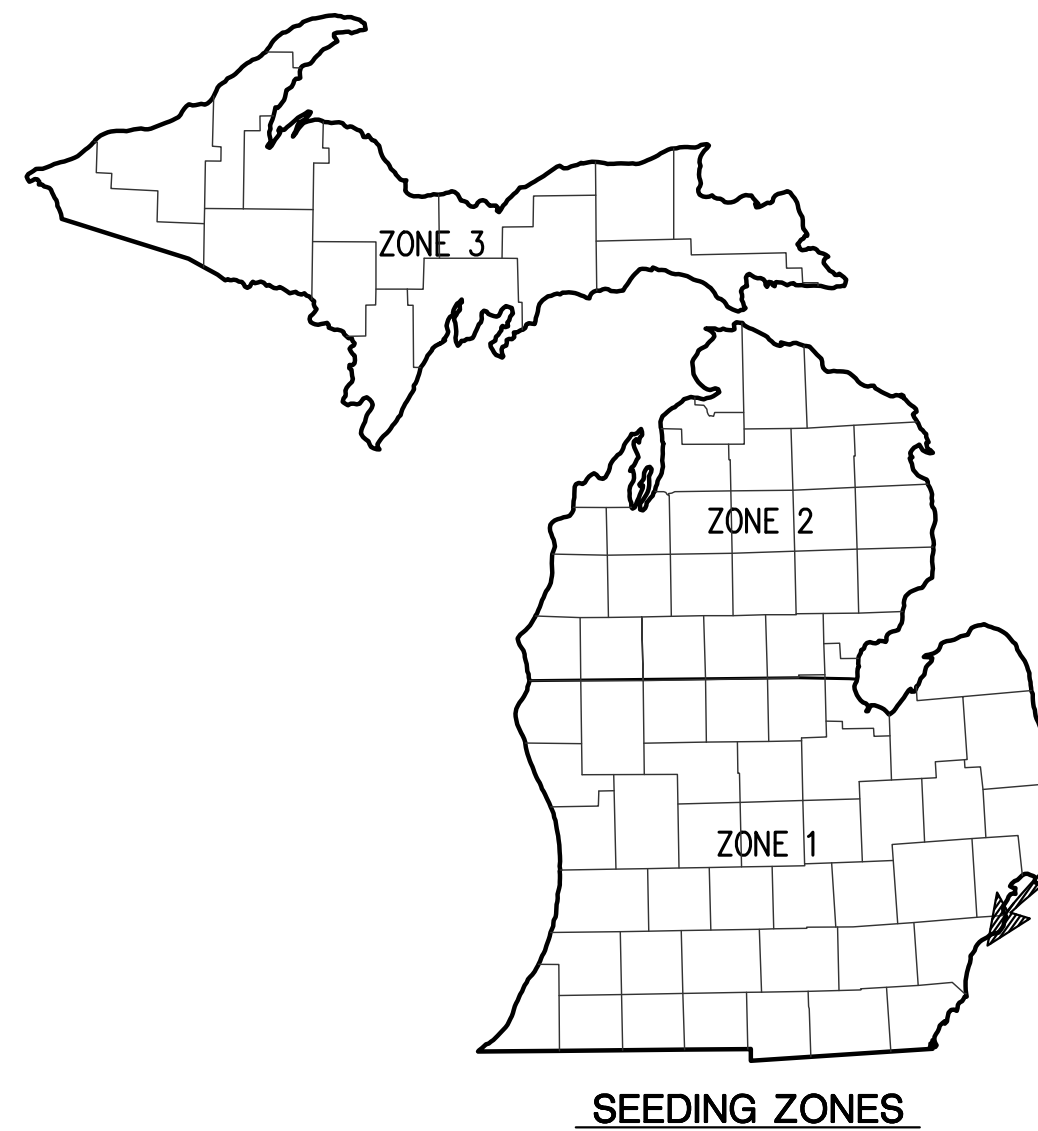


MICHIGAN UNIFIED KEYING SYSTEM

SOIL EROSION SEDIMENTATION CONTROL MEASURES

* INDICATES APPLICABILITY OF A SPECIFIC CONTROL MEASURE TO ONE OR MORE OF THE SEVEN PROBLEM AREAS

KEY	DETAIL	CHARACTERISTICS								KEY	DETAIL	CHARACTERISTICS							
			A	B	C	D	E	F	G				A	B	C	D	E	F	G
1	STRIPPING & STOCKPILING TOPSOIL	TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION. STOCKPILE SHOULD BE TEMPORARILY SEEDED.	*				*	*		28	DROP SPILLWAY	SLOWS VELOCITY OF FLOW, REDUCES EROSION CAPACITY		*	*				
2	SELECTIVE GRADING & SHAPING	WATER CAN BE DIVERTED TO MINIMIZE EROSION. FLATTER SLOPES EASE EROSION PROBLEMS.	*				*	*	*	29	PIPE DROP	REDUCES RUNOFF VELOCITY. REMOVES SEDIMENT AND TURBIDITY. CAN BE DESIGNED TO HANDLE LARGE VOLUMES OF FLOW			*				
3	GRUBBING LIMITED	SAVES COST OF GRUBBING, PROVIDES NEW SPROUTS, RETAINS EXISTING ROOT MAT SYSTEM, REDUCES WIND FALL AT NEW FOREST EDGE. DISCOURAGES EQUIPMENT ENTRANCE.	*				*		*	30	PIPE SPILLWAY	REMOVES SEDIMENT AND TURBIDITY FROM RUNOFF. MAY BE PART OF PERMANENT EROSION CONTROL PLAN.			*				
4	VEGETATIVE STABILIZATION	MAY UTILIZE A VARIETY OF PLANT MATERIAL. STABILIZES SOIL. SLOWS RUNOFF VELOCITY. FLOWS SEDIMENT FROM RUNOFF.	*	*	*		*	*	*	31	ENERGY DISSIPATOR	SLOWS RUNOFF VELOCITY TO NON-EROSIVE LEVEL. PERMITS SEDIMENT COLLECTION FROM RUNOFF.	*		*	*			
5	SEEDING	INEXPENSIVE AND VERY EFFECTIVE. STABILIZES SOIL. THIS MINIMIZES EROSION. PERMITS RUNOFF TO INFILTRATE SOIL, REDUCING RUNOFF VOLUME. SHOULD INCLUDE PREPARED TOPSOIL BED.	*		*		*	*	*	32	LEVEL SPREADER	CONVERTS COLLECTED CHANNEL OR PIPE FLOW BACK TO SHEET FLOW. AVOIDS CHANNEL EROSION AND CONSTRUCTION OFF PROJECT SITE. SWAP TO CONSTRUCT.			*				
6	SEEDING WITH MULCH AND/OR MATTING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER. EFFECTIVE FOR DRAGGAGEWAYS WITH LOW VELOCITY. MULCH PLACED IN SMALL QUANTITIES BY RECOMMENDED PERSONNEL. SHOULD INCLUDE PREPARED TOPSOIL BED.	*		*			*	*	33	SEDIMENTATION TRAP	MAY BE CONSTRUCTED OF A VARIETY OF MATERIALS. TRAPS SEDIMENT AND REDUCES VELOCITY OF FLOW. CAN BE CLEANED AND EXPANDED AS NEEDED.		*	*				
7	HYDRO-SEEDING	EFFECTIVE ON LARGE AREAS. MULCH TACKING AGENT USED TO PROVIDE IMMEDIATE PROTECTION. MULCH AGENT IS MIXED. SHOULD INCLUDE PREPARED TOPSOIL BED.	*				*	*	*	34	SEDIMENT BASIN	TRAPS SEDIMENT. RELEASES RUNOFF AT NON-EROSIVE RATES. CONVEYS RUNOFF AT SYSTEM OUTLETS. CAN BE USED AS AERATION.		*	*	*			
8	SODDING	PROVIDES IMMEDIATE PROTECTION. CAN BE USED ON STEEP SLOPES WHERE SEED MAY BE DIFFICULT TO ESTABLISH. EASY TO PLACE. MAY BE REPAIRED IF DAMAGED. SHOULD INCLUDE PREPARED TOPSOIL BED.	*		*		*	*	*	35	STORM SEWER	SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS. CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF. CONVEYS RUNOFF TO MUNICIPAL SEWER SYSTEM OR STABILIZED OUTFALL LOCATION. USE CATCH BASINS TO COLLECT SEDIMENT.				*		*	
9	VEGETATIVE BUFFER STRIP	SLOWS RUNOFF VELOCITY. FILTERS SEDIMENT FROM RUNOFF. REDUCES VOLUME OF RUNOFF ON SLOPES.	*	*					*	36	CATCH BASIN, DRAIN INLET	COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF. MAY USE FILTER CLOTH OVER INLET.				*		*	
10	MULCHING	USED ALONG TO PROTECT EXPOSED AREAS FOR SHORT PERIODS. PROTECTS SOIL FROM IMPACT OF FALLING RAIN. PRESERVES SOIL, MINIMIZES AND PROTECTS SEEDING FROM TEMPERATURE EXTREMES.	*				*	*		37	SOD FILTER	INEXPENSIVE AND EASY TO CONSTRUCT. PROVIDES IMMEDIATE PROTECTION. PROTECTS AREAS AROUND INLETS FROM EROSION.				*			
11	ROUGHENED SURFACE	REDUCES VELOCITY AND INCREASES INFILTRATION RATES. COLLECTS SEDIMENT. HELDS WATER, SEED, AND MULCH BETTER THAN SMOOTH SURFACES.	*				*			38	STRAW BALE FILTER	INEXPENSIVE AND EASY TO CONSTRUCT. CAN BE LOCATED AS NECESSARY TO COLLECT SEDIMENT. MAY BE USED IN CONJUNCTION WITH SNOW FENCE FOR ADDED STABILITY.				*			*
12	COMPACTION	HELPS HOLD SOIL IN PLACE, MAKING EXPOSED AREAS LESS VULNERABLE TO EROSION.	*				*			39	ROCK FILTER	CAN UTILIZE MATERIAL FOUND ON SITE. EASY TO CONSTRUCT. FILTERS SEDIMENT FROM RUNOFF.				*			*
13	RIPRAP, RUBBLE, CASCADING	USED WHERE VEGETATION IS NOT EASILY ESTABLISHED. EFFECTIVE FOR HIGH VELOCITIES OR HIGH CONCENTRATIONS. PERMITS RUNOFF TO INFILTRATE SOIL. DISAPPEARS ENERGY FLOW AT SYSTEM OUTLETS.	*	*	*					40	INLET SEDIMENT TRAP	EASY TO SHAPE. COLLECTS SEDIMENT. MAY BE CLEANED AND EXPANDED AS NEEDED.				*			
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THIS MINIMIZES EROSION. PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER. MAY BE USED AS PART OF PERMANENT EROSION CONTROL OF PAVED AREAS.					*			41	STONE AND ROCK CROSSING	MAY BE ROCK OR CLEAN RUBBLE. MINIMIZES STREAM TURBIDITY. INEXPENSIVE. MAY ALSO SERVE AS SLOTTED CHECK OR SEDIMENT TRAP.			*				
15	PAVING	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VOLUME AND VELOCITY. REGULAR SURFACING WILL HELP SLOW VELOCITY.	*				*			42	TEMPORARY CULVERT	ELIMINATES STREAM TURBULENCE AND TURBIDITY. BORROW AND FILL DISPOSAL AREAS WILL BE SELECTED AND APPROVED AT TIME OF PLAN REVIEW. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.			*				
16	CURB & GUTTER	KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAVING PAVED SURFACE. COLLECTS AND CONVEYS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINAGEWAY.					*		*	43	CULVERT SEDIMENT TRAP	EASY TO INSTALL AT INLET. KEEPS CULVERT CLEAR AND FREE FLOWING. MAY BE CONSTRUCTED OF LUMBER OR LOGS.			*				*
17	BENCHES	REDUCES RUNOFF VELOCITY BY REDUCING EFFECTIVE SLOPE LENGTH. COLLECTS SEDIMENT. PROVIDES ACCESS TO SLOPES FOR SEEDING, MULCHING AND MAINTENANCE.	*					*		44	CULVERT SEDIMENT TRAP	DEFLECTS CURRENTS AWAY FROM STREAMBANK AREAS.			*				
18	DIVERSION BERM	DIVERTS WATER FROM VULNERABLE AREAS. COLLECTS AND DIVERTS WATER TO PREPARED DRAINAGEWAYS. MAY BE PLACED AS PART OF NORMAL CONSTRUCTION OPERATION.	*					*	*	45	TEMP. STREAM CHANNEL CHANGE	NEW CHANNEL KEEPS NORMAL FLOWS AWAY FROM CONSTRUCTION. REQUIRES STATE PERMIT.			*				
19	DIVERSION DITCH	COLLECTS AND DIVERTS WATER TO REDUCE EROSION POTENTIAL. MAY BE INCORPORATED IN PERMANENT PROJECT DRAINAGE SYSTEMS.	*					*	*	46	SHEET PILING	PROTECTS ERODIBLE BANK AREAS FROM STREAM CURRENTS DURING CONSTRUCTION. MINIMAL DISRUPTION WHEN REMOVED.			*				
20	BERM & DITCH	DIVERTS WATER TO A PREPARED DRAINAGEWAY. MAY BE USED AT INTERVALS ACROSS SLOPE FACE TO REDUCE EFFECTIVE SLOPE LENGTH.	*					*	*	47	COFFERDAM	WORK CAN BE CONTINUED DURING MOST ANTICIPATED STREAM CONDITIONS. CLEAR WATER CAN BE PUMPED DIRECTLY BACK INTO STREAM.			*				
21	FILTER BERM	CONSTRUCTED OF GRAVEL OR STONE. INTERCEPTS AND DIVERTS RUNOFF TO STABILIZED AREAS OR PREPARED DRAINAGE SYSTEM. SLOWS RUNOFF AND COLLECTS SEDIMENT.	*	*				*		48	CONSTRUCTION DAM	PERMITS WORK TO CONTINUE DURING NORMAL STREAM STAGES. CONTROLLED FLOODING CAN BE ACHIEVED DURING PERIODS OF INACTIVITY.			*				
22	BRUSH FILTER	USES SLASH AND LOGS FROM CLEARING OPERATIONS. CAN BE COVERED AND SEEDS RATHER THAN REMOVED. ELIMINATES NEED FOR BURNING OR REMOVAL OF MATERIAL FROM SITE.						*		49	CHECK DAMS	REDUCES FLOW VELOCITY. CATCHES SEDIMENT. CAN BE CONSTRUCTED OF LOGS, STRAW, HAY ROCK, LUMBER, MASONRY, OR SAND BAGS.			*	*			
23	BALE CHANNEL	LEAST EXPENSIVE FORM OF DRAINAGEWAY. MAY BE USED ONLY WHERE GRADIENT IS VERY LOW AND WITH SOILS OF MINOR EROSION POTENTIAL.			*					50	WEIR	CONTROLS SEDIMENTATION IN LARGE STREAMS. CAUSES MINIMAL TURBIDITY.			*	*			
24	GRASSED WATERWAY	MUCH MORE STABLE FORM OF DRAINAGEWAY THAN BALE CHANNEL. GRASS TENDS TO SLOW RUNOFF AND FILTER OUT SEDIMENT. USED WHERE BALE CHANNEL WOULD BE EXPOSED.			*					51	RETAINING WALL	REDUCES GRADIENT WHERE SLOPES ARE EXTREMELY STEEP. PROMOTES RETENTION OF EXISTING VEGETATION, KEEPING SOIL STABLE IN CRITICAL AREAS. MINIMIZES MAINTENANCE.	*						*
25	SLOPE DRAIN (SURFACE PIPE)	PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA. USUALLY PERMANENT. CAN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES.	*							52	SEEPAGE CONTROL	PREVENTS PIPING AND SOIL SLURPAGE ON CUT SLOPES.	*						*
26	SLOPE DRAIN (PIPE CHUTE)	PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA. USUALLY PERMANENT. CAN BE CONSTRUCTED OR EXTENDED AS GRADING PROGRESSES.	*							53	WINDBREAK	MINIMIZES WIND EROSION. MAY BE SNOW FENCE.				*			
27	SLOPE DRAIN (SUBSURFACE PIPE)	PREVENTS EROSION ON SLOPES WHEN RUNOFF CANNOT BE DIVERTED TO EDGE OF SLOPE AREA. USUALLY PERMANENT. CAN BE CONSTRUCTED AS GRADING PROGRESSES.	*							54	SILT FENCE	USES GEOTEXTILE FABRIC AND POSTS OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.			*				*



SEEDING ZONES

PROJECT LOCATION

PERMANENT SEEDING GUIDE

	APR	MAY	JUN	JUL	AUG	SEP	OCT	
IRRIGATED AND/OR MULCH								ZONE 1
WITHOUT IRRIGATION OR MULCH								ZONE 2
IRRIGATED AND/OR MULCH								ZONE 3
WITHOUT IRRIGATION OR MULCH								

TEMPORARY SEEDING GUIDE

ZONE 1											
TYPE OF SEED	APR	MAY	JUN	JUL	AUG	SEP	OCT				
SPRING OATS/BARLEY OR DOMESTIC RYEGRASS											
SUDANGRASS											
RYE OR PERENNIAL RYE											
WHEAT											

ZONE 2											
TYPE OF SEED	APR	MAY	JUN	JUL	AUG	SEP	OCT				
SPRING OATS/BARLEY OR DOMESTIC RYEGRASS											
SUDANGRASS											
RYE OR PERENNIAL RYE											
WHEAT											

ZONE 3											
TYPE OF SEED	APR	MAY	JUN	JUL	AUG	SEP	OCT				
SPRING OATS/BARLEY OR DOMESTIC RYEGRASS											
SUDANGRASS											
RYE OR PERENNIAL RYE											
WHEAT											

SOIL EROSION & SEDIMENTATION CONTROL

- DEVELOPER/PROPERTY OWNER SHALL SUBMIT A DETAILED EROSION CONTROL PLAN AND OBTAIN A SOIL EROSION & SEDIMENTATION CONTROL PERMIT PRIOR TO ANY EARTH CHANGES.
- CONSTRUCTION OPERATION SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING AND/OR GRADING OPERATIONS.
- BORROW AND FILL DISPOSAL AREAS WILL BE SELECTED AND APPROVED AT TIME OF PLAN REVIEW.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- CLEANUP WILL BE DONE IN A MANNER TO ENSURE THAT EROSION CONTROL MEASURES ARE NOT DISTURBED.
- THE PROJECT WILL CONTINUALLY BE INSPECTED FOR SOIL EROSION AND SEDIMENTATION CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE DEVELOPER WITHIN 24 HOURS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE COMPLETELY REMOVED BY THE DEVELOPER UPON ESTABLISHMENT OF PERMANENT CONTROL MEASURES.
- ALL TEMPORARY SOIL EROSION CONTROL MEASURES MUST BE REMOVED FROM ROAD RIGHT-OF-WAY AREAS PRIOR TO ACCEPTANCE OF STREETS FOR ROUTINE MAINTENANCE.
- VEGETATION MUST BE ACCEPTABLY ESTABLISHED PRIOR TO FINAL RELEASE OF THE CONSTRUCTION GUARANTEE BY THE DESIGNATED SOIL EROSION SEDIMENTATION CONTROL AGENT.

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STRIP & STOCKPILE TOPSOIL												
ROUGH GRADE SEDIMENT CONTROL												
TEMP. CONTROL MEASURES												
STORM FACILITIES												
TEMP. CONSTRUCTION ROADS												
SITE CONSTRUCTION												
PERM. CONTROL MEASURES												
FINISH GRADING												

*TO BE COMPLETED BY CONTRACTOR

CONSTRUCTION SEQUENCE

- EXCAVATION AND STOCKPILING OF SOIL.
- IMPLEMENTATION OF TEMPORARY EROSION CONTROL MEASURES; SELECTIVE GRADING, DIVERSIONS AS REQUIRED IN FIELD; PROTECTION OF STORM SEWER FACILITIES.
- PERIODIC MAINTENANCE OF AFFECTED EROSION CONTROL MEASURES.
- PERMANENT MEASURES: FINAL GRADING, SEEDING AND MULCHING.



PLAN SUBMITTALS AND CHANGES

BIDDING DOCUMENTS	
DATE	DESCRIPTION
10/09/26	ISSUED FOR BIDS

REV:

SHT# 8 OF 8
JOB No: 22F0018

ROWE PROFESSIONAL SERVICES COMPANY



The Rowe Building
540 S. Saginaw St., Suite 200
Flint, MI 48502

PREPARED FOR
WTA ARCHITECTS
BELLE ISLE STORAGE BARN

SESC KEY SHEET

1:00 Projects\222018\0mg\Construction Drawings\SH-22F0018-SK1.dwg

PLotted: 10/9/2026 11:55 AM



FUEL DISPENSING SYSTEM SCOPE OF WORK:

THE DESIGN INTENT IS TO RELOCATE TWO EXISTING DOUBLE-WALLED FUEL STORAGE TANKS TO NEW CONCRETE FUELING PAD. A THIRD EXISTING SINGLE-WALLED FUEL STORAGE TANK IS TO BE REPLACED WITH A NEW DOUBLE-WALLED TANK OF MATCHING SIZE AND CAPACITY. PROVIDE NEW AST PUMPS WITH CLOCK GAUGE ALARM FOR EACH TANK AND ALL NECESSARY ACCESSORIES FOR A FULLY OPERATIONAL AND COMPLIANT SYSTEM.

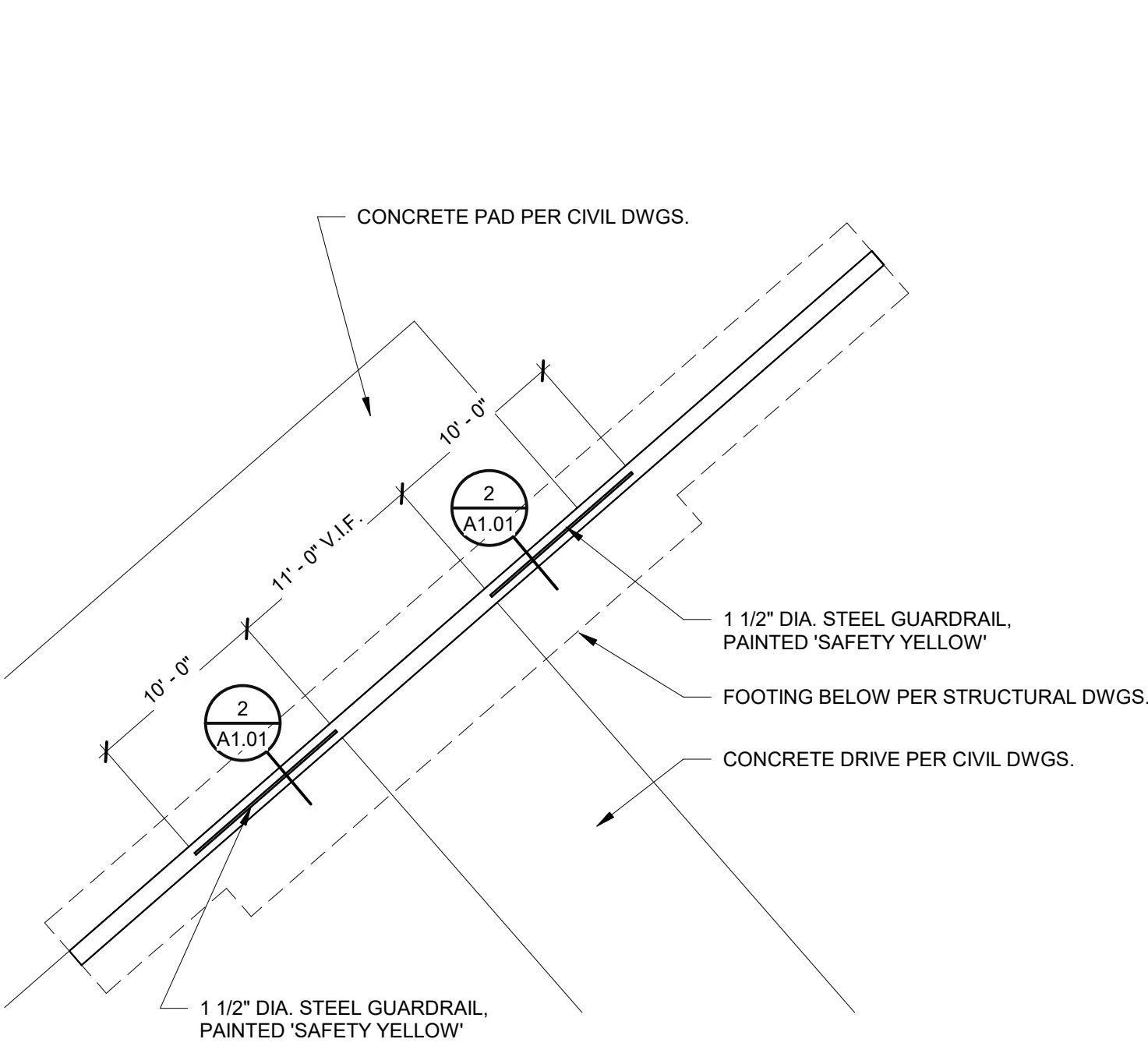
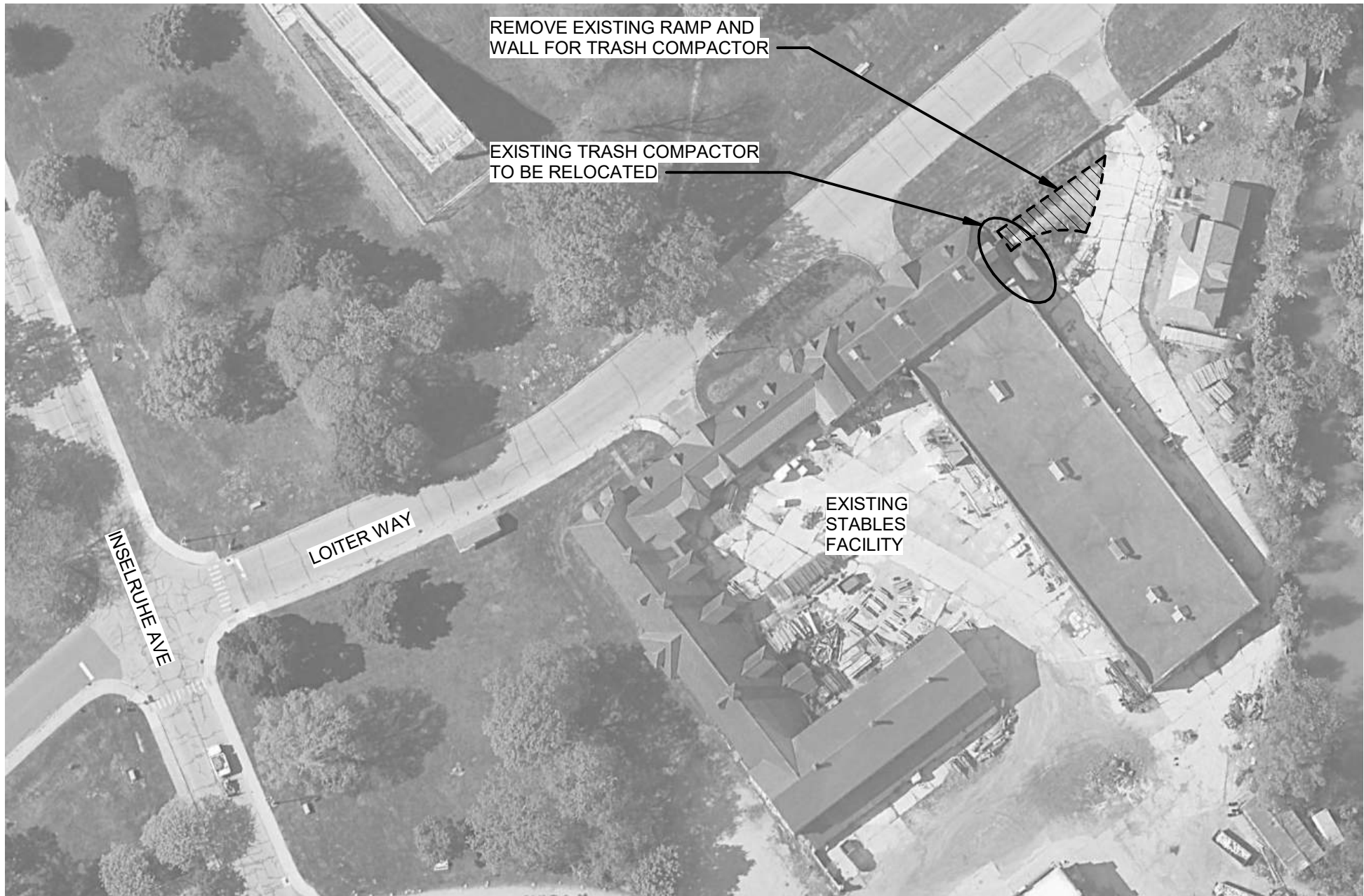
CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DESIGN AND INSTALLATION OF A COMPLETE FUEL DISPENSING SYSTEM IN COMPLIANCE WITH ALL APPLICABLE CODES AND REGULATIONS. SCOPE SHALL INCLUDE INSTALLATION OF UNDERGROUND ELECTRICAL POWER AND ALL CONNECTIONS FROM NEW POLE BUILDING TO FUEL TANKS.

TRASH COMPACTOR SCOPE OF WORK:

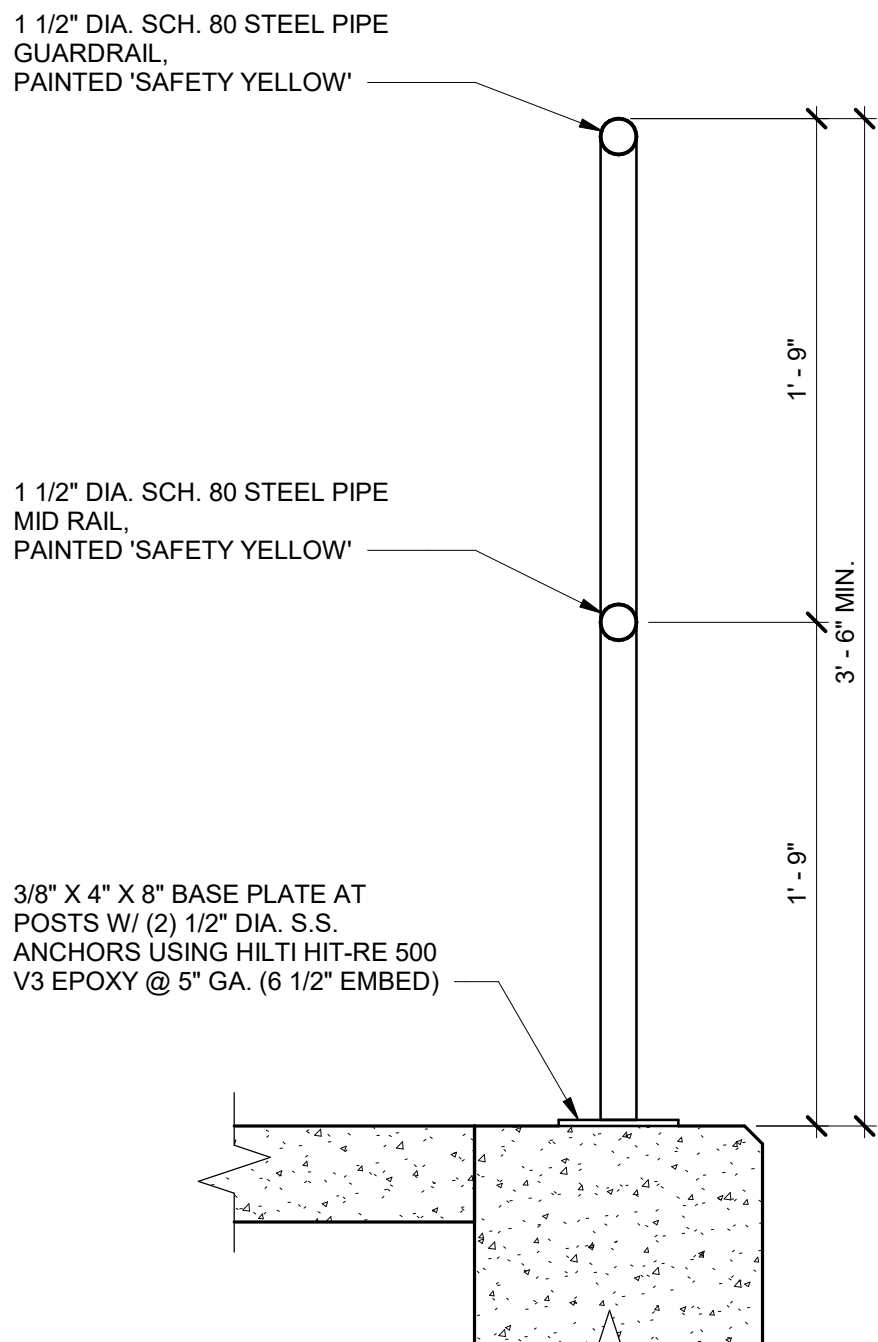
THE DESIGN INTENT IS TO RELOCATE AN EXISTING TRASH COMPACTOR FROM ITS CURRENT LOCATION TO A NEW PAD ADJACENT TO THE NEW POLE BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION OF THE NEW PAD LOCATION AND INFRASTRUCTURE INDICATED ON THE DRAWINGS. MOVING THE EXISTING UNIT, INCLUDING DISCONNECTING AND RECONNECTION OF POWER TO BE PERFORMED BY:

REACTION DISTRIBUTING
19 BROCK STREET
AJAX, ONTARIO, L1S 1S9
(905) 426-6442 EXT 1001
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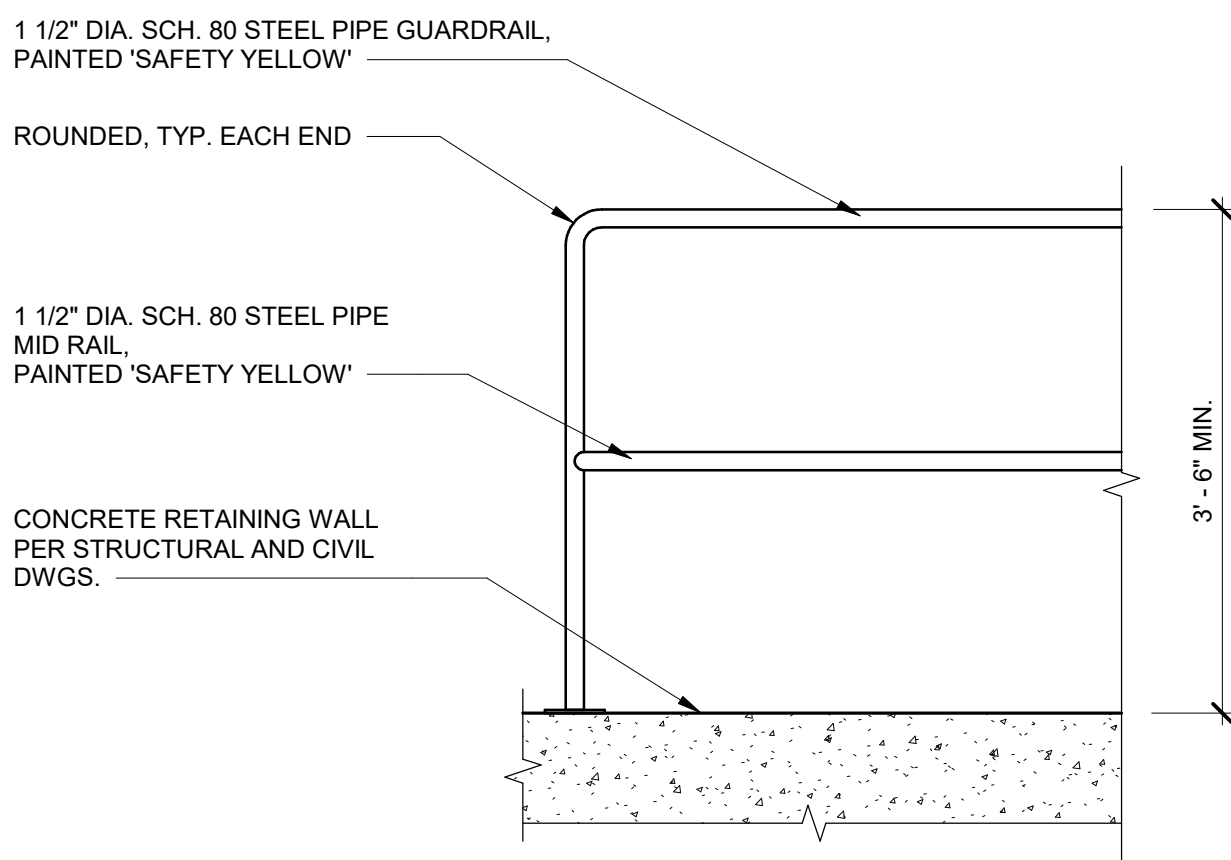
CONTRACTOR SHALL REMOVE EXISTING INFRASTRUCTURE AT CURRENT COMPACTOR LOCATION AFTER RELOCATION, INCLUDING REMOVAL OF RAMP, WALL, AND CUTTING AND CAPPING ELECTRICAL POWER. PROVIDE LAWN RESTORATION AT AREA OF RAMP REMOVAL AS REQUIRED.



1 RETAINING WALL GUARDRAIL PLAN
SCALE: 1/8" = 1'-0"



2 RETAINING WALL GUARDRAIL DETAIL
SCALE: 1 1/2" = 1'-0"



3 PARTIAL RETAINING WALL GUARDRAIL ELEVATION
SCALE: 3/4" = 1'-0"

GENERAL SITE PLAN NOTES:

1. ARCHITECTURAL SITE PLAN INDICATED ON THIS SHEET IS FOR DIAGRAMMATIC PURPOSES ONLY.
2. REFER TO CIVIL DOCUMENTS FOR BENCHMARKS, BOUNDARIES, EASEMENTS, ETC.

	ISSUED FOR BIDS	10/09/26
NO.	REVISION	DATE

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FILE NO.
751/19193.SMD

INDEX NO.
5603

CONTRACT NO.
Y22166

WTAAARCH.COM

WTA ARCHITECTS

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Saginaw, Michigan 48607
989 752 8107

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PROJECT TITLE

NEW STORAGE BUILDING FOR:

BELLE ISLE STATE PARK

DETROIT, MICHIGAN

SHEET TITLE

ARCHITECTURAL SITE
PLAN

PROJECT NUMBER

2019131

PROJECT DATE

OCTOBER 9, 2026

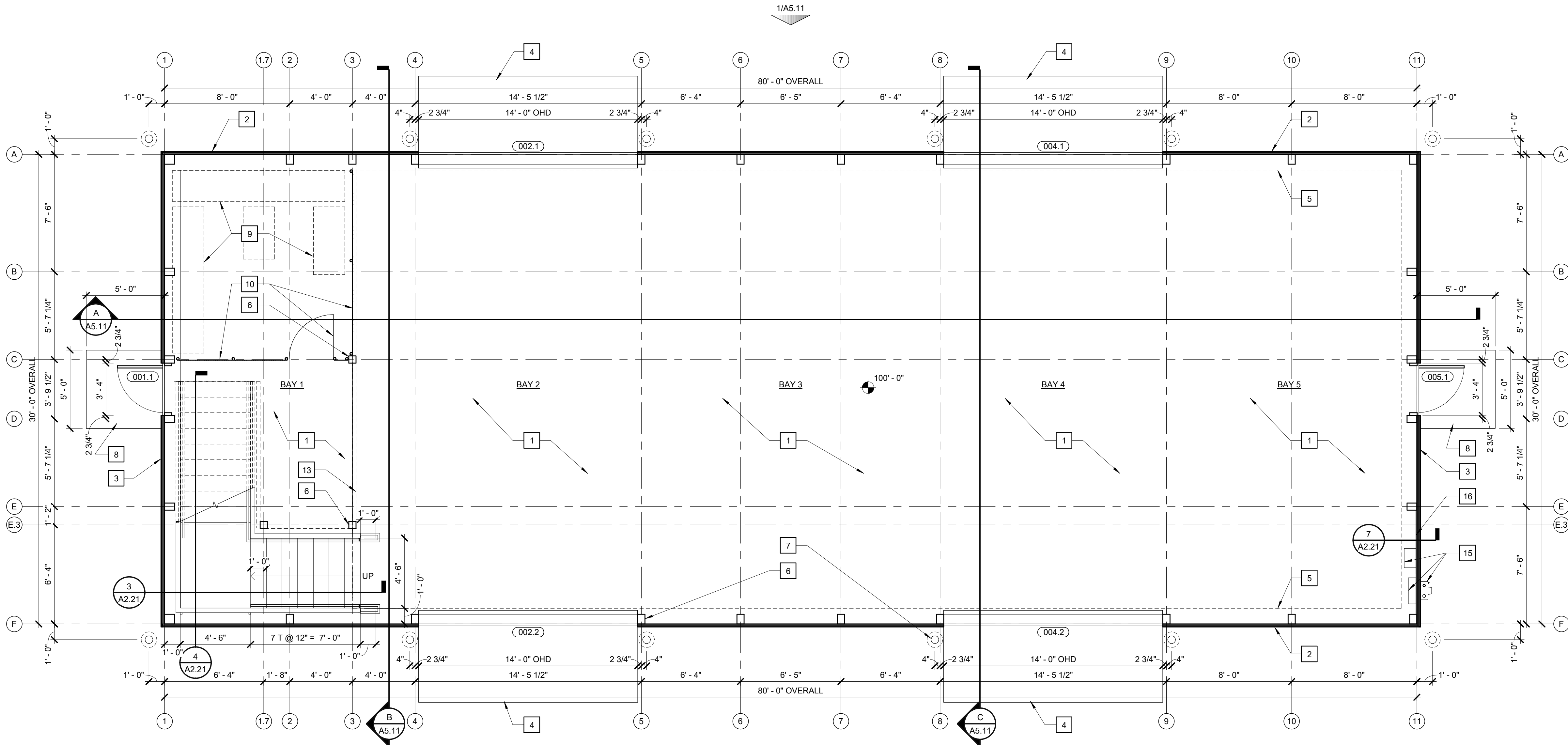
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J.R.G.

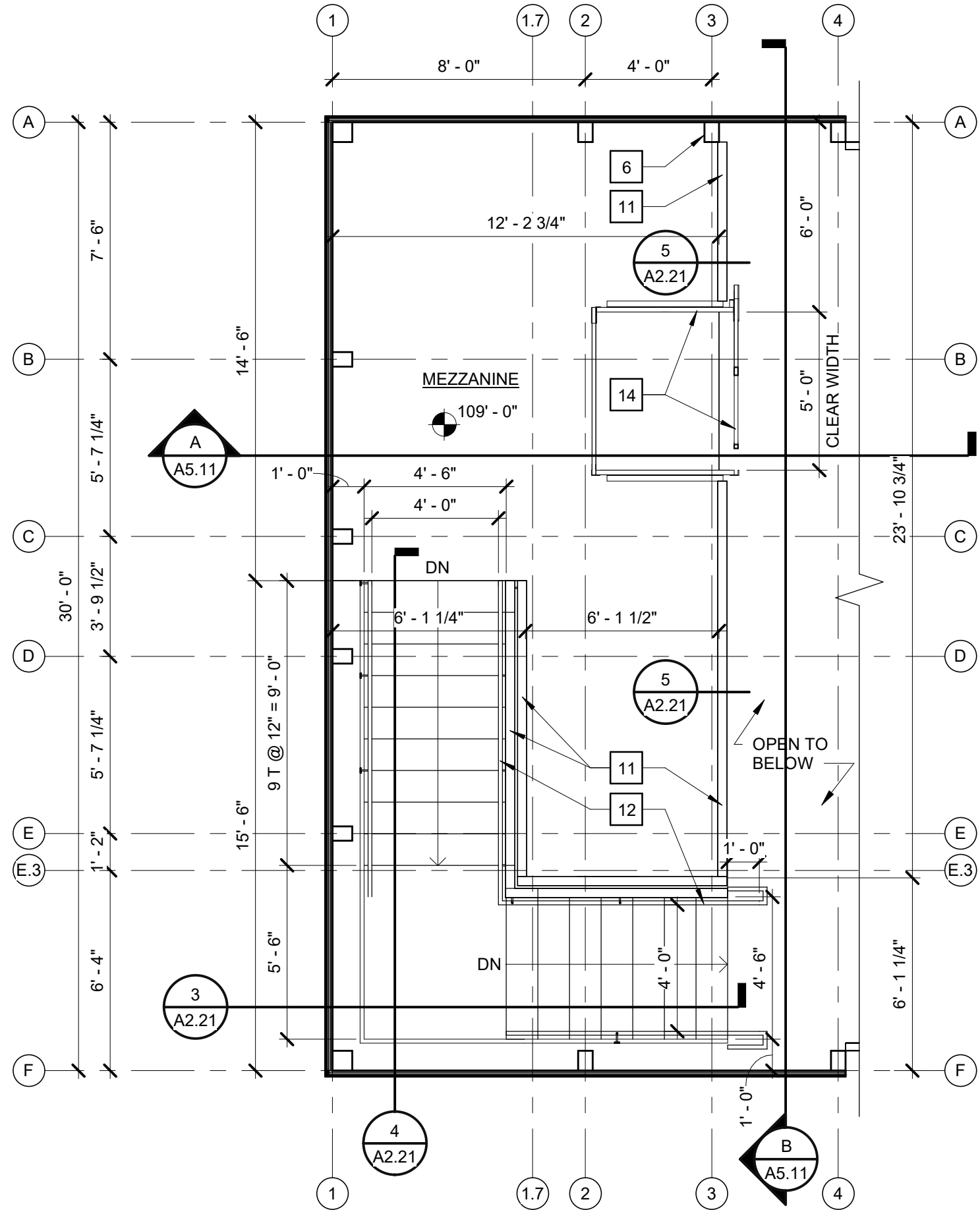
SHEET NUMBER

A1.01

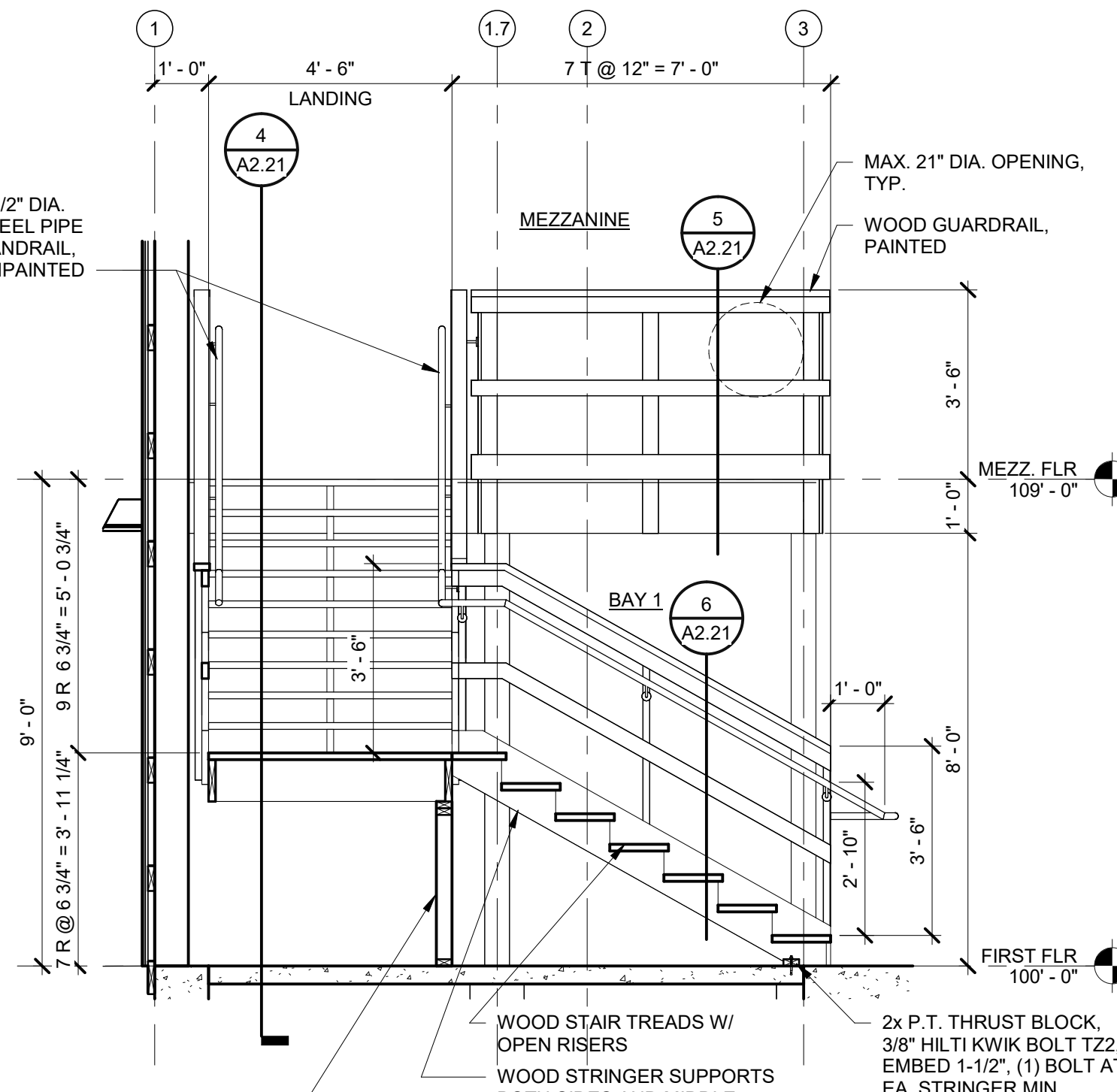




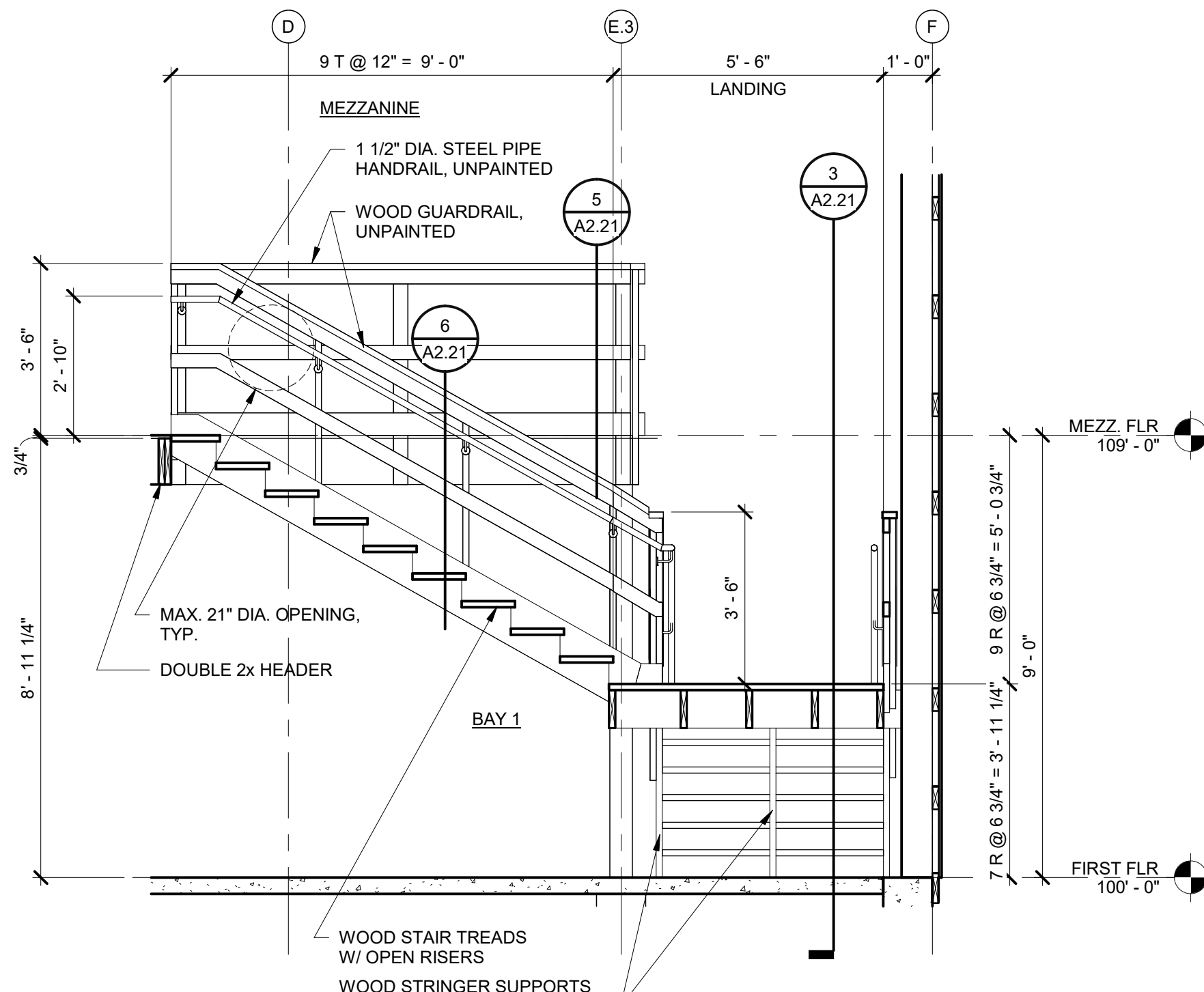
FIRST FLOOR CONSTRUCTION PLAN
SCALE: 1/4" = 1'-0"



PARTIAL MEZZANINE CONSTRUCTION PLAN
SCALE: 1/4" = 1'-0"



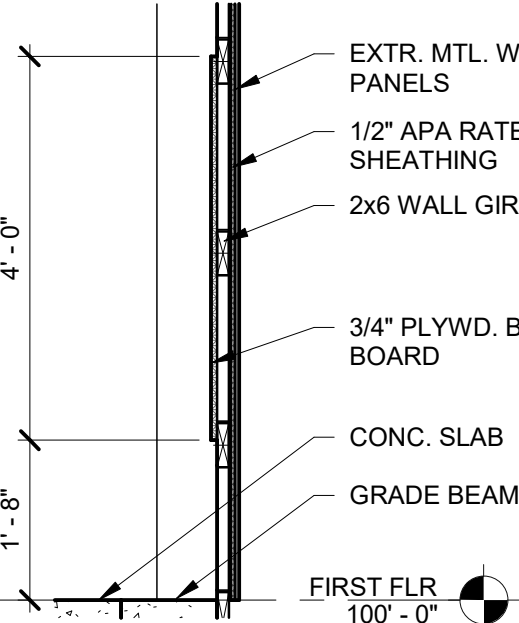
STAIR SECTION
SCALE: 3/8" = 1'-0"



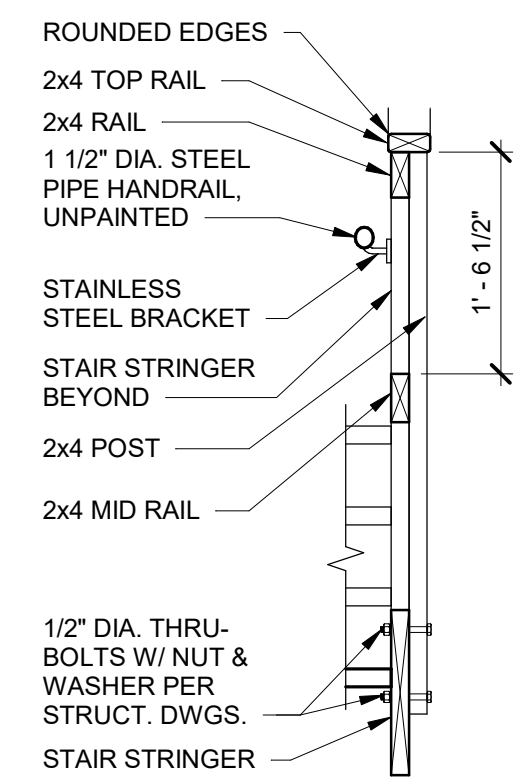
WOOD GUARDRAIL @ MEZZ.
SCALE: 3/4" = 1'-0"

FOUNDATION DESIGN INTENT
THE DESIGN INTENT IS TO CONSTRUCT THIS BUILDING USING CONVENTIONAL PIERS AND FOOTINGS RESTING ON NATIVE, NON-ORGANIC SOILS, AS DESCRIBED IN THE SOILS INVESTIGATION REPORT PREPARED BY MCDOWELL & ASSOCIATES. ALL NON-ENGINEERED FILL SOILS, ORGANIC SUBSTANCES, OR EXCESSIVELY WEAK SOILS SHOULD BE REMOVED IN ACCORDANCE WITH THEIR REPORT AND REPLACED WITH ENGINEERED FILL. CONTRACTOR SHALL BE RESPONSIBLE FOR ENGAGING THE SOILS ENGINEER DURING EXCAVATION AND CONSTRUCTION TO MONITOR OPERATIONS AND VERIFY SOIL SUITABILITY AND BEARING CAPACITY. THE CONTRACTOR SHALL INCLUDE THE FOLLOWING IN BASE BID AMOUNT:
• EXCAVATE FOR ALL FOOTINGS AND FOUNDATIONS TO A DEPTH OF 9'-6" BELOW GRADE
• PROVIDE ENGINEERED FILL PER SOILS INVESTIGATION RECOMMENDATIONS TO BOTTOM OF FOUNDATION BEARING ELEVATION
• BACKFILL FOUNDATIONS USING NATIVE SOILS; SPOILS WILL BE SPREAD ON SITE AT THE DIRECTION OF THE OWNER
• PROVIDE DEWATERING FOR EXCAVATIONS AS REQUIRED
CONTRACT AMOUNTS WILL BE ADJUSTED BASED ON THE ACTUAL WORK PERFORMED USING UNIT COST PRICING. REFER TO UNIT COSTS FOR ADDITIONAL INFORMATION.

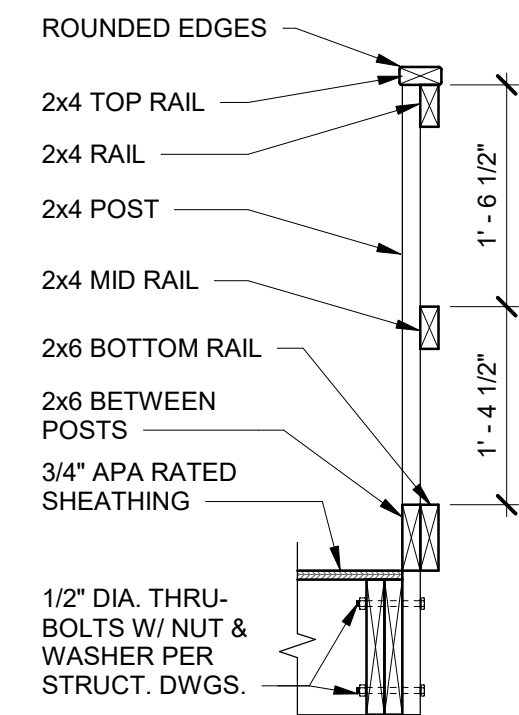
NOTE:
PROVIDE AND INSTALL ALL EQUIPMENT BACKING BOARDS IN STRICT ACCORDANCE WITH THE ELECTRICAL SPECIFICATIONS, LOCAL BUILDING CODES, AND THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC).



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



WOOD GUARDRAIL @ STAIR
SCALE: 3/4" = 1'-0"



WOOD GUARDRAIL @ MEZZ.
SCALE: 3/4" = 1'-0"

GENERAL PLAN NOTES:

1. COLUMN LINES ARE DIMENSIONED FROM INSIDE FACE OF HORIZONTAL 2X WALL GIRTS TO THE CENTER OF THE COLUMN, EXCEPT FOR CORNER COLUMNS, UNLESS NOTED OTHERWISE.
2. REFER TO ALL ARCHITECTURAL, CIVIL, STRUCTURAL AND ELECTRICAL FOR RELATED WORK.
3. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK CONFORMS WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS.

PLAN KEYNOTES

1. CONCRETE FLOOR SLAB ON VAPOR BARRIER PER STRUCT. DWGS.
2. PRE-FINISHED FORMED METAL WALL PANELS (RE: SPEC.), ON 2x6 WALL GIRTS PER STRUCT. DWGS.
3. PRE-FINISHED FORMED METAL WALL PANELS (RE: SPEC.), ON 1/2" APA RATED SHEATHING ON 2x6 WALL GIRTS PER STRUCT. DWGS.
4. CONCRETE APRON PER CIVIL DWGS.
5. LINE OF CONTINUOUS REINFORCED CONCRETE GRADE BEAM PER STRUCT. DWGS.
6. PRESSURE TREATED TIMBER WOOD COLUMN PER STRUCT. DWGS.
7. 6" DIA. BOLLARD, TYP. PER CIVIL DWGS.
8. CONCRETE SUPPORTED ENTRY SLAB PER STRUCT. DWGS.
9. 24" WIDE STORAGE SHELVING UNITS, BY OWNER.
10. FENCING & GATE ENCLOSURE SYSTEM, PROVIDE LATCH AND HOLD SWING IN FOR GATE DOOR.
11. WOOD GUARDRAIL SYSTEM, UNPAINTED.
12. 1 1/2" DIAMETER STEEL PIPE HANDRAIL, UNPAINTED.
13. LINE OF MEZZANINE ABOVE.
14. SAFETY SWING GATE SYSTEM WITH SIDE RAILS. SPEC. FABENCO MZ CH-SERIES, MODEL #CH15-64PC.
15. ELECTRICAL EQUIPMENT PER ELEC. DWGS.
16. PROVIDE 3/4" X 4" X 8" PLYWOOD BACKER BOARD FOR ELECTRICAL EQUIPMENT (RE: DETAIL THIS SHEET).

ISSUED FOR BIDS		10/09/26
NO.	REVISION	DATE

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
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ADAM P. LACH, RA, DIRECTOR

FILE NO. 751/19193.SMD	CONTRACT NO. Y22166
INDEX NO. 5603	

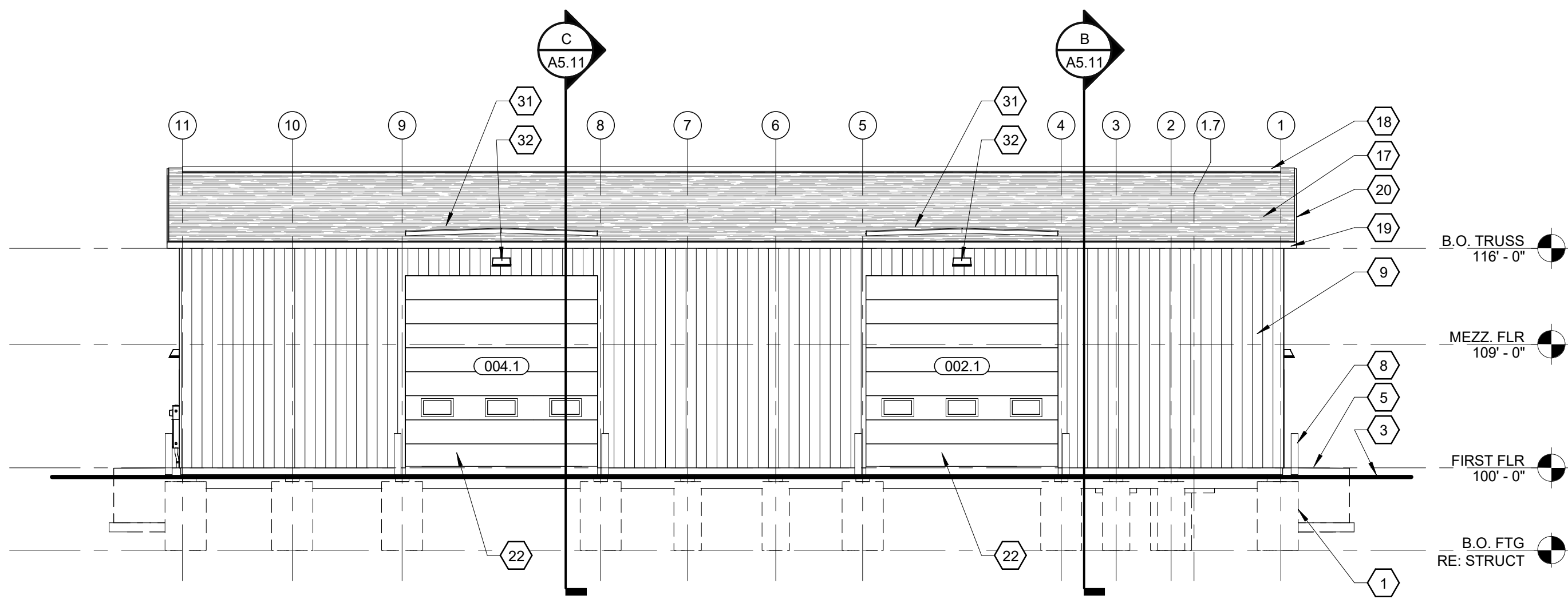
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PROJECT TITLE
NEW STORAGE BUILDING FOR:
BELLE ISLE STATE PARK
DETROIT, MICHIGAN

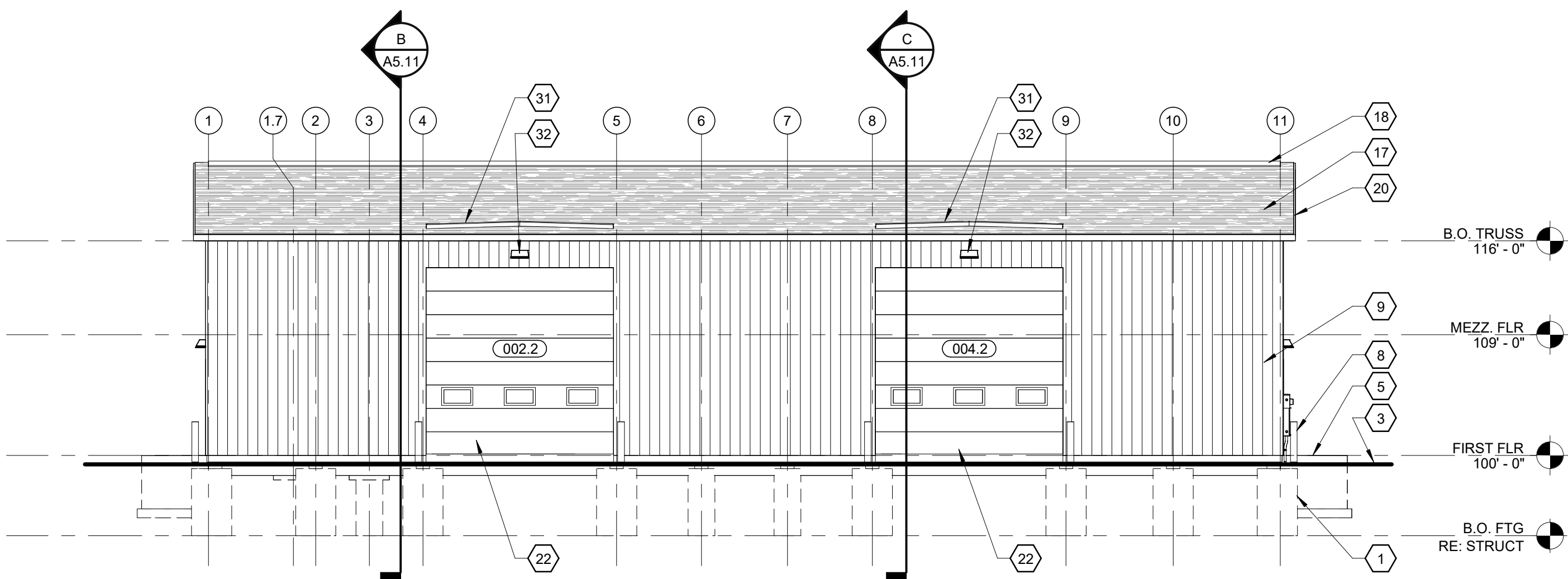
SHEET TITLE
FIRST FLOOR & PARTIAL MEZZANINE FLOOR PLANS

PROJECT NUMBER 2019131	SHEET NUMBER A2.21
PROJECT DATE OCTOBER 9, 2026	
CHECKED BY J.R.G.	

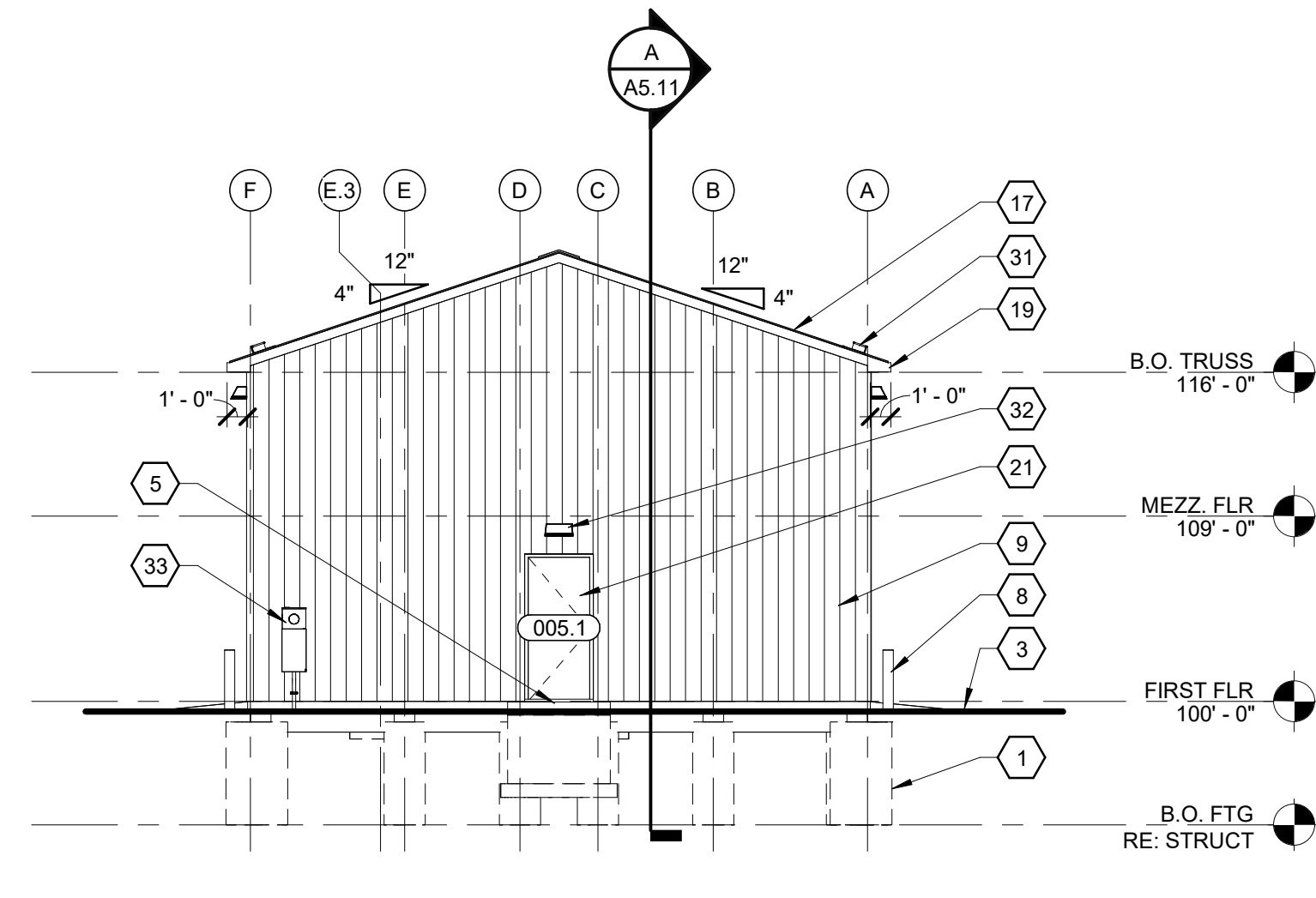




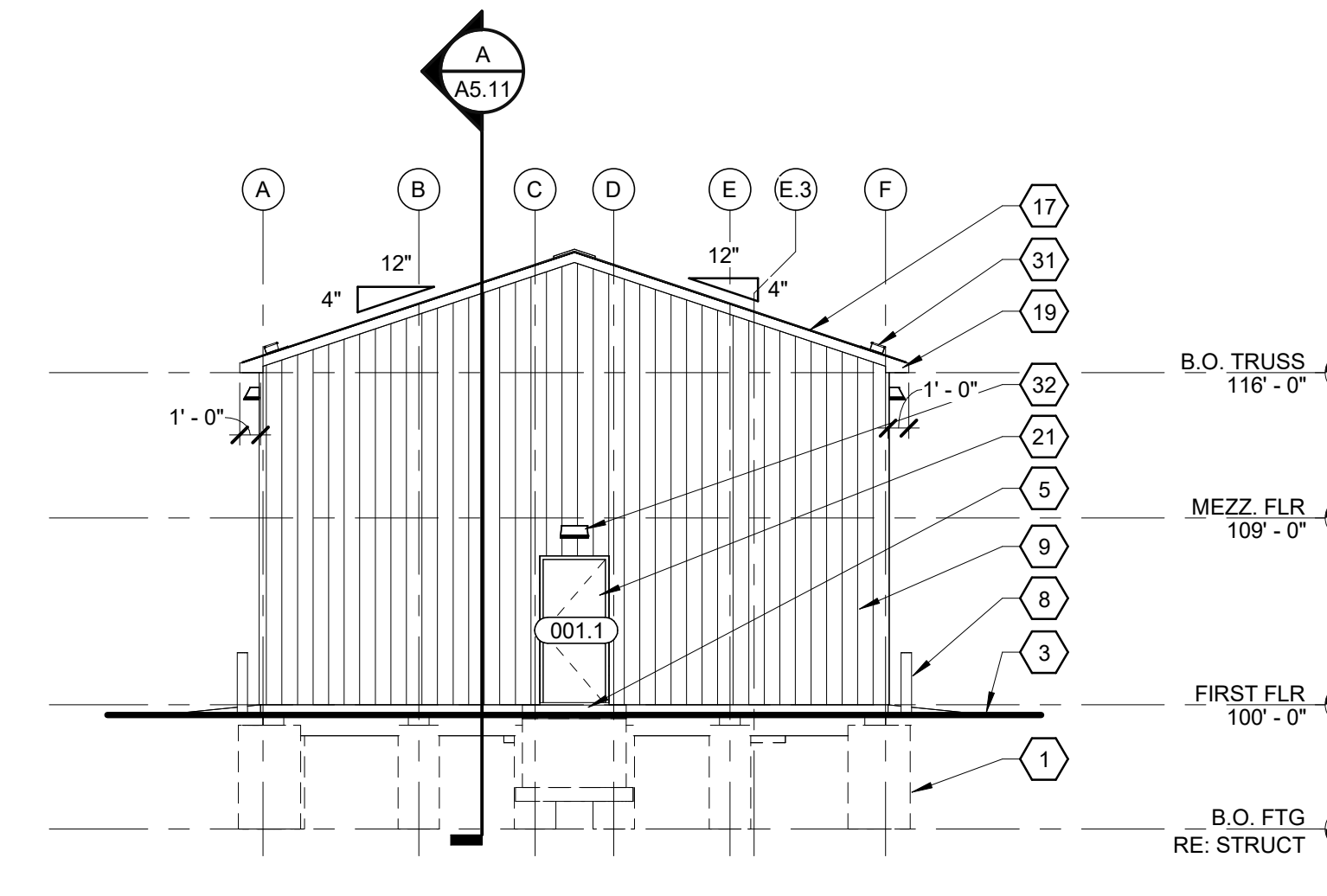
NORTH ELEVATION
1/A5.11 SCALE: 1/8" = 1'-0"



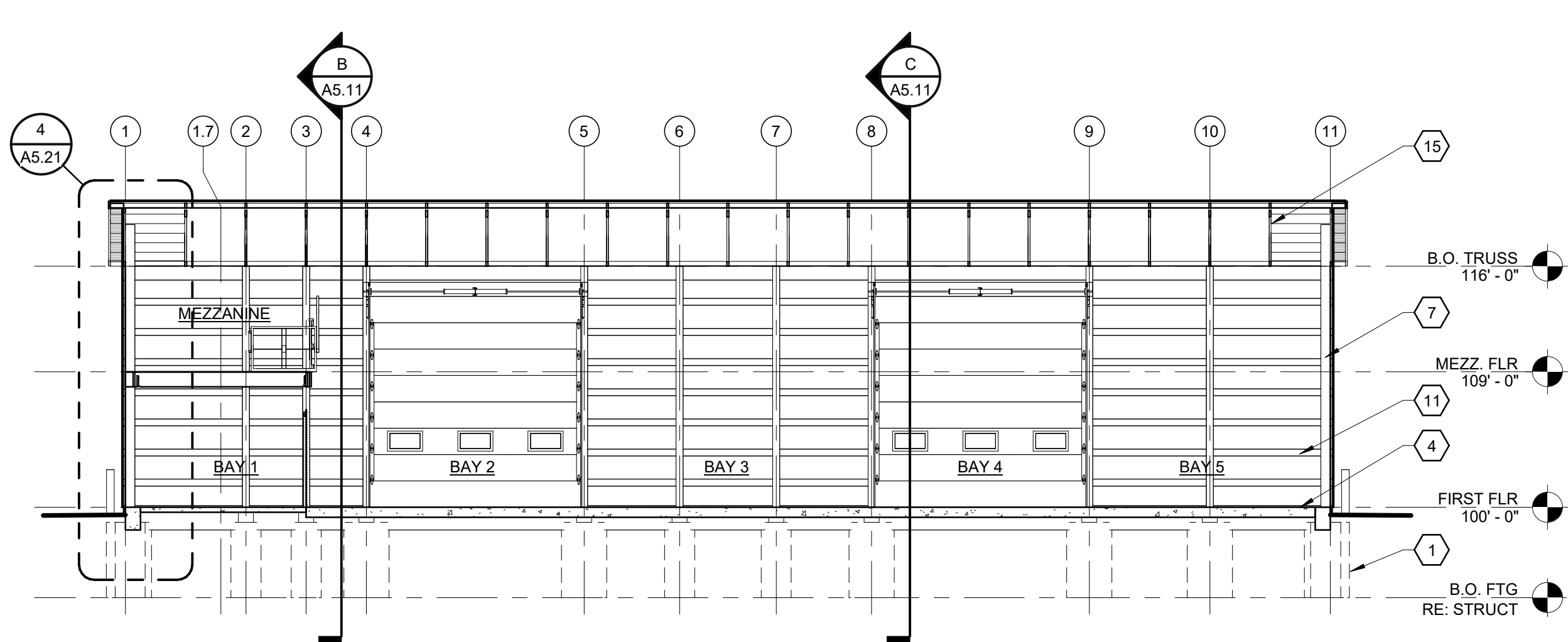
SOUTH ELEVATION
2/A5.11 SCALE: 1/8" = 1'-0"



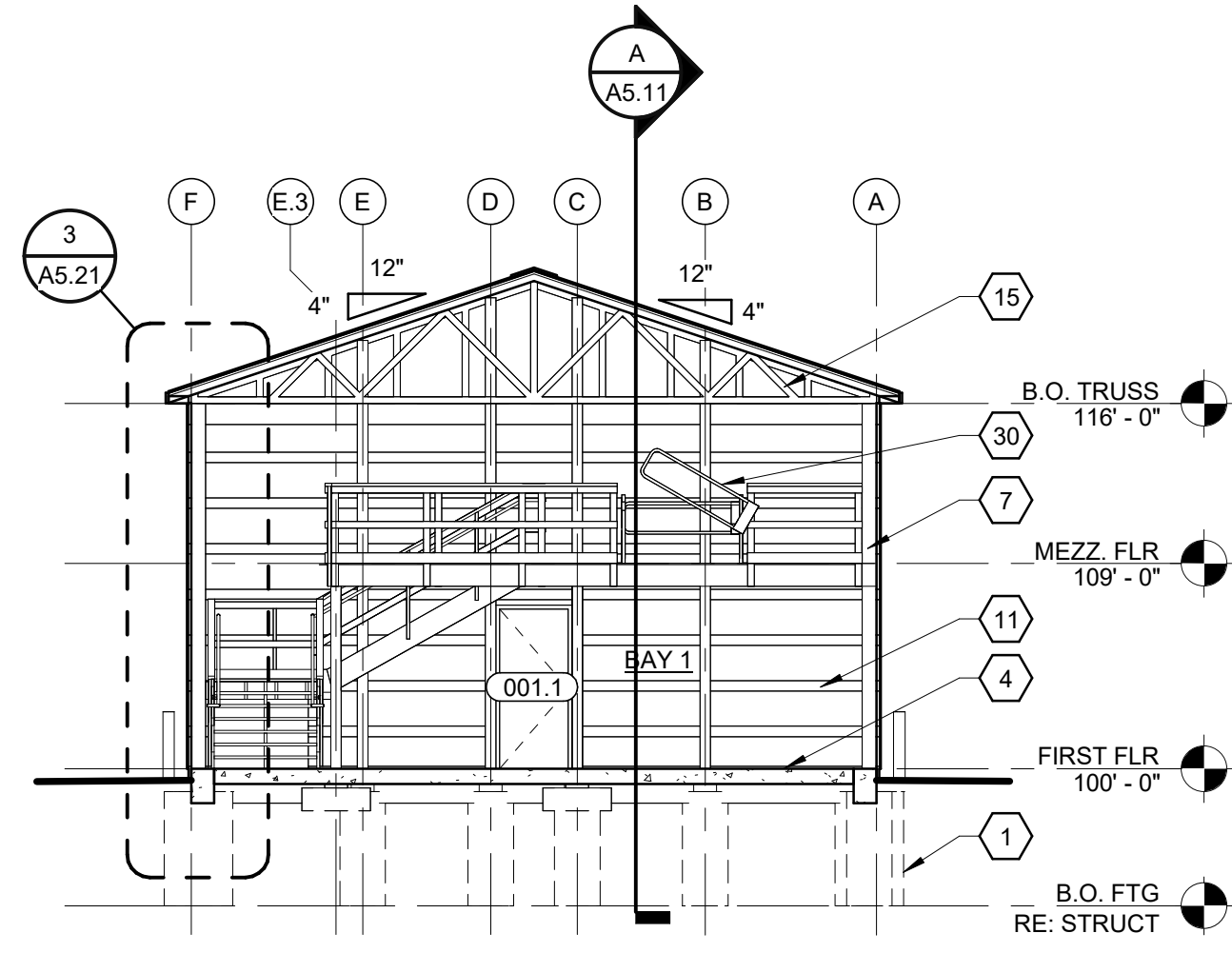
EAST ELEVATION
3/A5.11 SCALE: 1/8" = 1'-0"



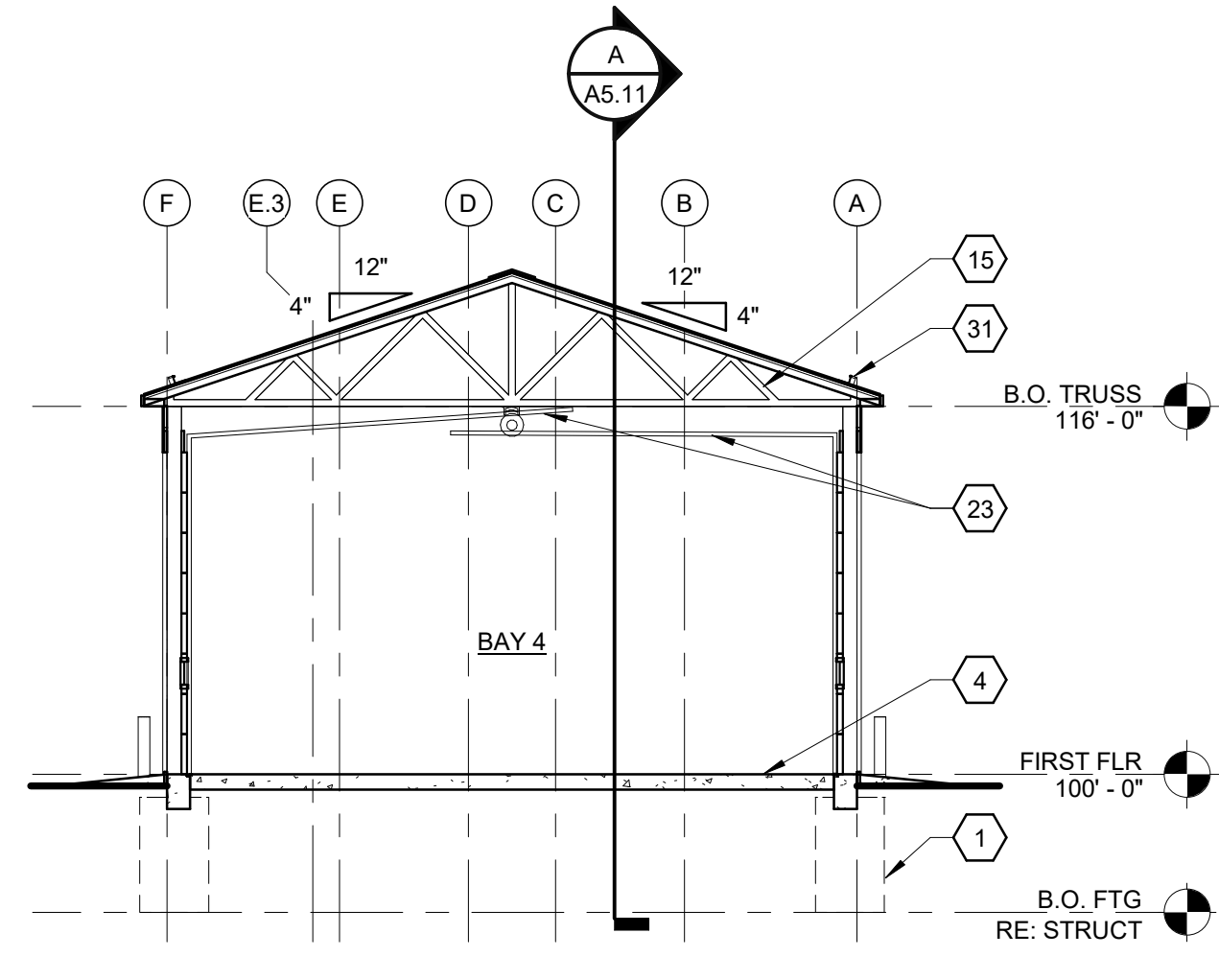
WEST ELEVATION
4/A5.11 SCALE: 1/8" = 1'-0"



BUILDING SECTION
A/A5.11 SCALE: 1/8" = 1'-0"



BUILDING SECTION
B/B5.11 SCALE: 1/8" = 1'-0"



BUILDING SECTION
C/C5.11 SCALE: 1/8" = 1'-0"

MATERIAL KEYNOTE

- POURED CONCRETE FOOTING PER STRUCT. DWGS.
- COMPACTED GRANULAR FILL PER CIVIL DWGS.
- FINISH GRADE. SLOPE AWAY FROM BUILDING PER CIVIL DWGS.
- CONCRETE FLOOR SLAB ON VAPOR BARRIER PER STRUCT. DWGS.
- SUPPORTED CONCRETE ENTRY SLAB PER STRUCT. DWGS.
- PRESSURE TREATED 2x8 SKIRT BOARD.
- PRESSURE TREATED TIMBER WOOD COLUMN PER STRUCT. DWGS.
- CONCRETE FILLED PIPE BOLLARD PER CIVIL DWGS.
- PRE-FINISHED FORMED METAL WALL PANELS (RE: SPEC.).
- 1/2" APA RATED WALL SHEATHING.
- 2x6 WOOD WALL GIRTS LAID FLAT @ 24" O.C.
- HEADER PER STRUCT. DWGS.
- VENTED ALUMINUM SOFFIT SYSTEM.
- PRE-ENGINEERED GABLE END TRUSS.
- PRE-ENGINEERED WOOD TRUSSES @ 48" O.C.
- 1/2" APA RATED ROOF SHEATHING.
- ASPHALT ROOF SHINGLES ON 15# FELT UNDERLAYMENT (RE: SPEC.).
- CONTINUOUS RIDGE VENT.
- METAL WRAPPED FASCIA TRIM ON 2x6 CONTINUOUS FASCIA BOARD.
- METAL WRAPPED RAKE TRIM ON 2x6 CONTINUOUS RAKE BOARD.
- HOLLOW METAL DOOR AND FRAME, PAINT.
- SECTIONAL OVERHEAD DOOR.
- OFFSET MOTOR OPERATOR AND DRAW ARMS ATTACHED TO SECTIONAL DOOR PANEL. INSTALL HORIZONTAL TRACKS AS REQUIRED TO CLEAR EACH OTHER AT 14 FEET AT OHD LOCATIONS.
- 2x4 WOOD ROOF PURLINS @ 24" O.C. PERPENDICULAR TO TRUSSES PER STRUCT. DWGS.
- SIMPSON TIE DOWN PER STRUCT. DWGS.
- WOOD STAIR TREADS WITH OPEN RISERS AND STRINGER SUPPORTS ON BOTH SIDES AND MIDDLE.
- WOOD GUARDRAIL SYSTEM, UNPAINTED.
- 1 1/2" DIAMETER HANDRAIL, UNPAINTED.
- 3/4" UNPAINTED APA RATED FLOOR SHEATHING ON 2x12 FLOOR JOISTS PER STRUCT. DWGS.
- SAFETY SWING GATE SYSTEM WITH SIDE RAILS.
- RAIN GUARD DIVERter SYSTEM.
- LIGHT FIXTURE PER ELEC. DWGS.
- ELECTRICAL EQUIPMENT PER ELEC. DWGS.

NO.	REVISION	DATE
ISSUED FOR BIDS		10/09/26



FILE NO.
751/19193.SMD

INDEX NO.
5603

CONTRACT NO.
Y22166

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WTA ARCHITECTS

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Saginaw, Michigan 48607
989 752 8107

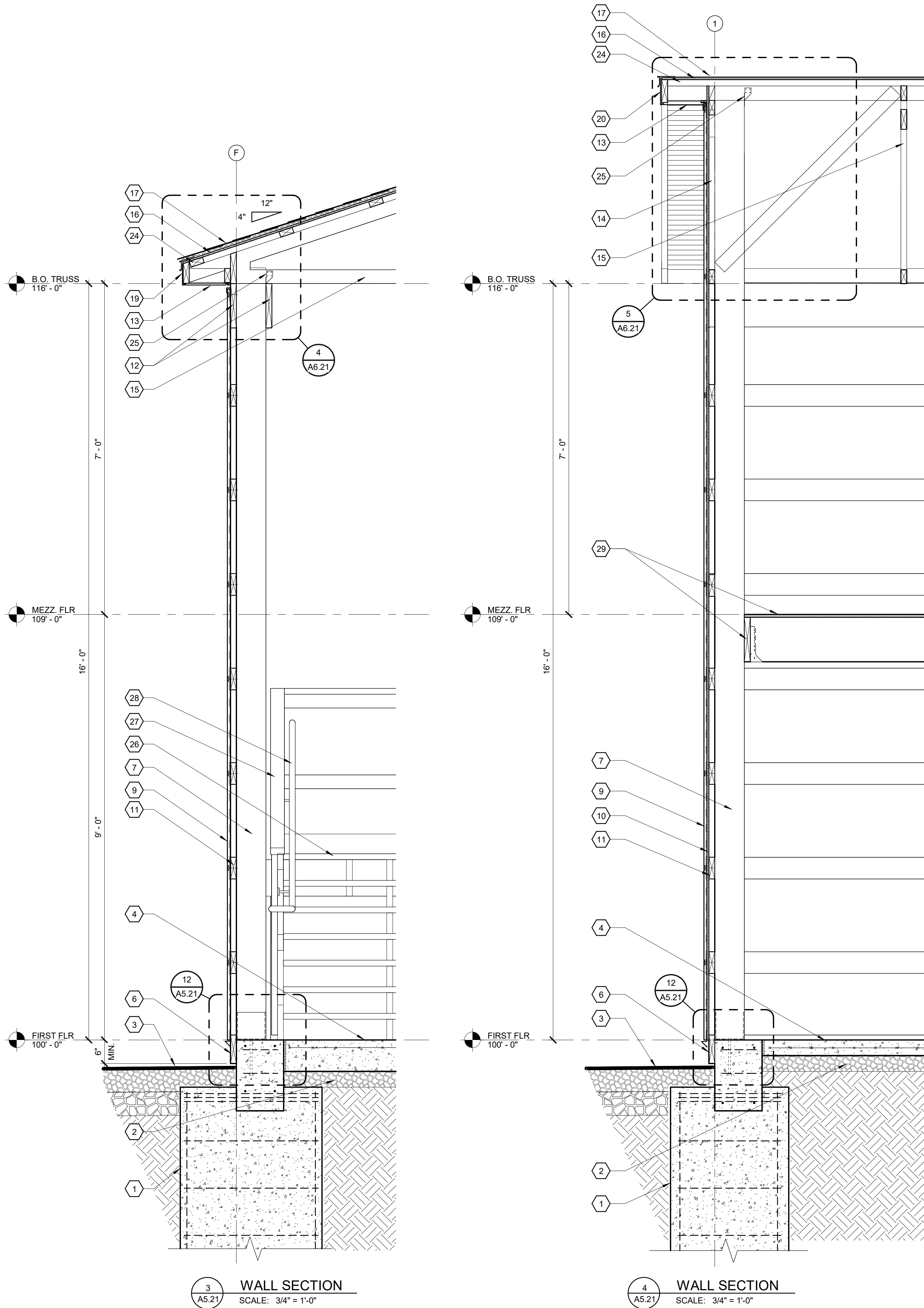
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PROJECT TITLE
NEW STORAGE BUILDING FOR:
BELLE ISLE STATE PARK
DETROIT, MICHIGAN

SHEET TITLE
EXTERIOR ELEVATIONS &
BUILDING SECTIONS

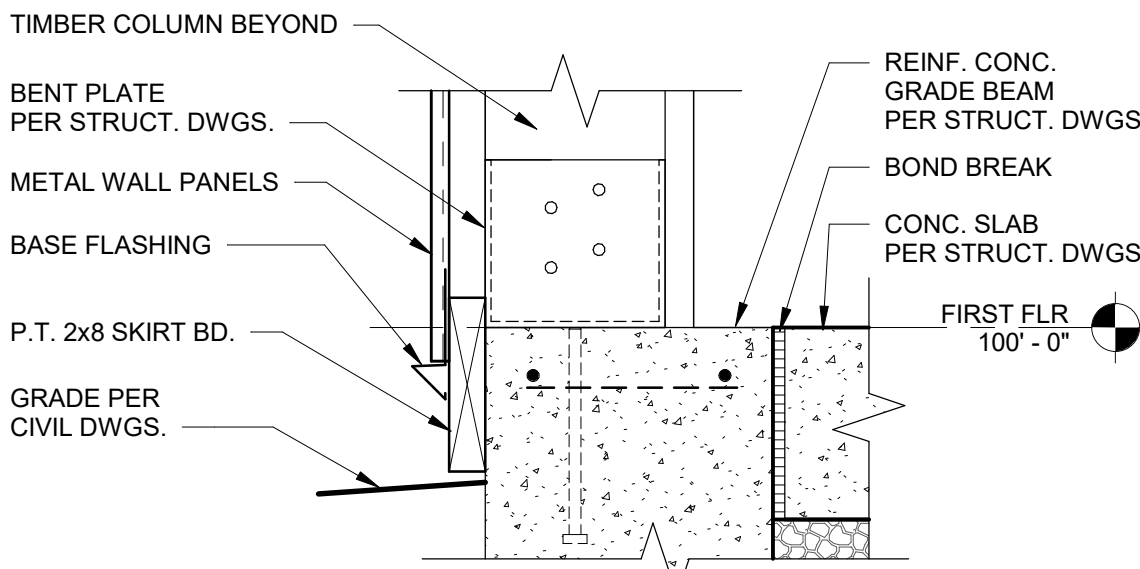
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PROJECT DATE OCTOBER 9, 2026	
CHECKED BY J.R.G.	



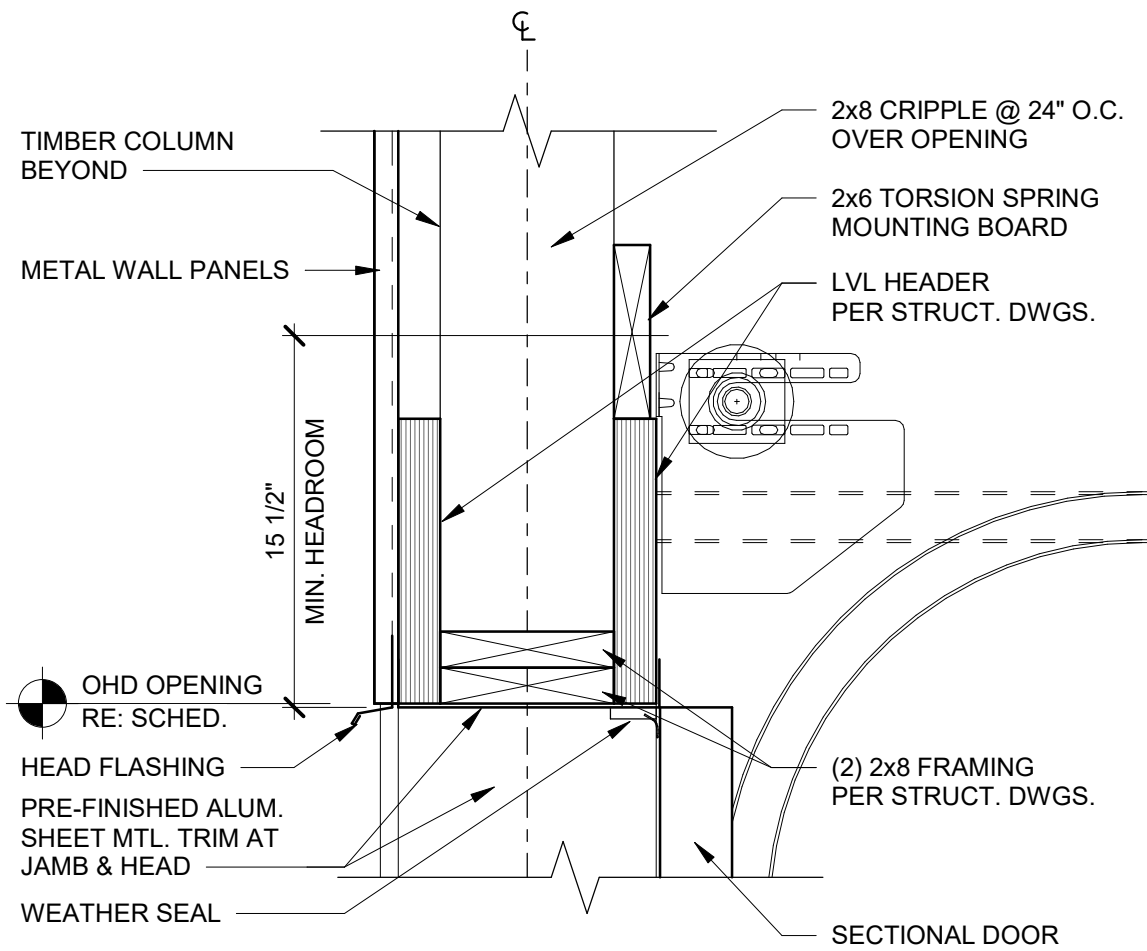


DOOR SCHEDULE

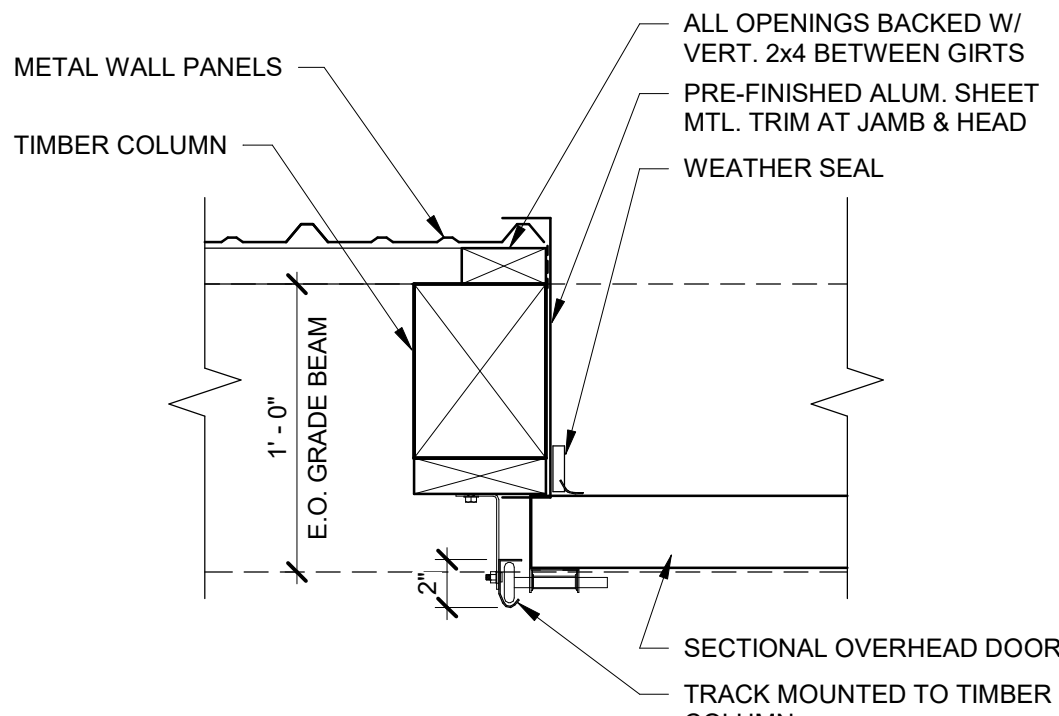
DOOR NUMBER	WIDTH	HEIGHT	THK.	DOOR PANEL			DOOR FRAME			DETAILS *SIM.			FIRE RATING		REMARKS	HW SET
				TYPE	MAT.	FINISH	TYPE	MAT.	FINISH	HEAD	JAMB	SILL	LABEL	MIN.		
001.1	3'-0"	7'-0"	1 3/4"	D1	H.M.	PT-1	F1	H.M.	PT-1	6/A5.21	8/A5.21	10/A5.21			PAINT DOOR & FRAME, PUNCH CODE KEY LOCK	01
002.1	14'-0"	14'-0"	3"	D2			-			5/A5.21	7/A5.21	9/A5.21			SECTIONAL OVERHEAD DOOR	02
002.2	14'-0"	14'-0"	3"	D2			-			5/A5.21	7/A5.21	9/A5.21			SECTIONAL OVERHEAD DOOR	02
004.1	14'-0"	14'-0"	3"	D2			-			5/A5.21	7/A5.21	9/A5.21			SECTIONAL OVERHEAD DOOR	02
004.2	14'-0"	14'-0"	3"	D2			-			5/A5.21	7/A5.21	9/A5.21			SECTIONAL OVERHEAD DOOR	02
005.1	3'-0"	7'-0"	1 3/4"	D1	H.M.	PT-1	F1	H.M.	PT-1	6/A5.21	8/A5.21	10/A5.21			PAINT DOOR & FRAME, PUNCH CODE KEY LOCK	01



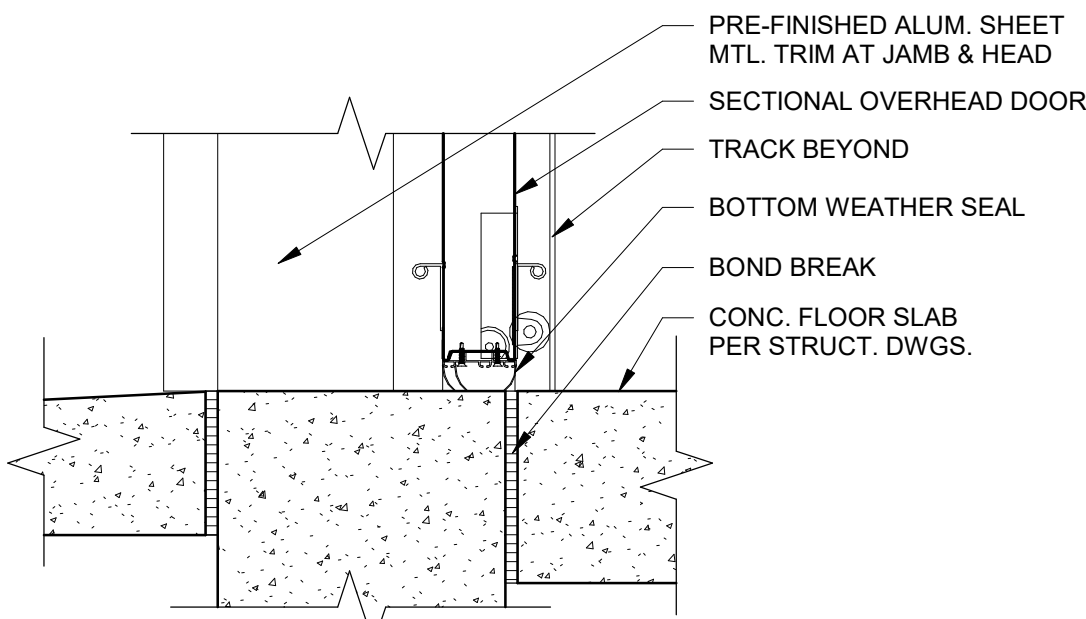
12 TYP. BASE DETAIL
SCALE: 1 1/2" = 1'-0"



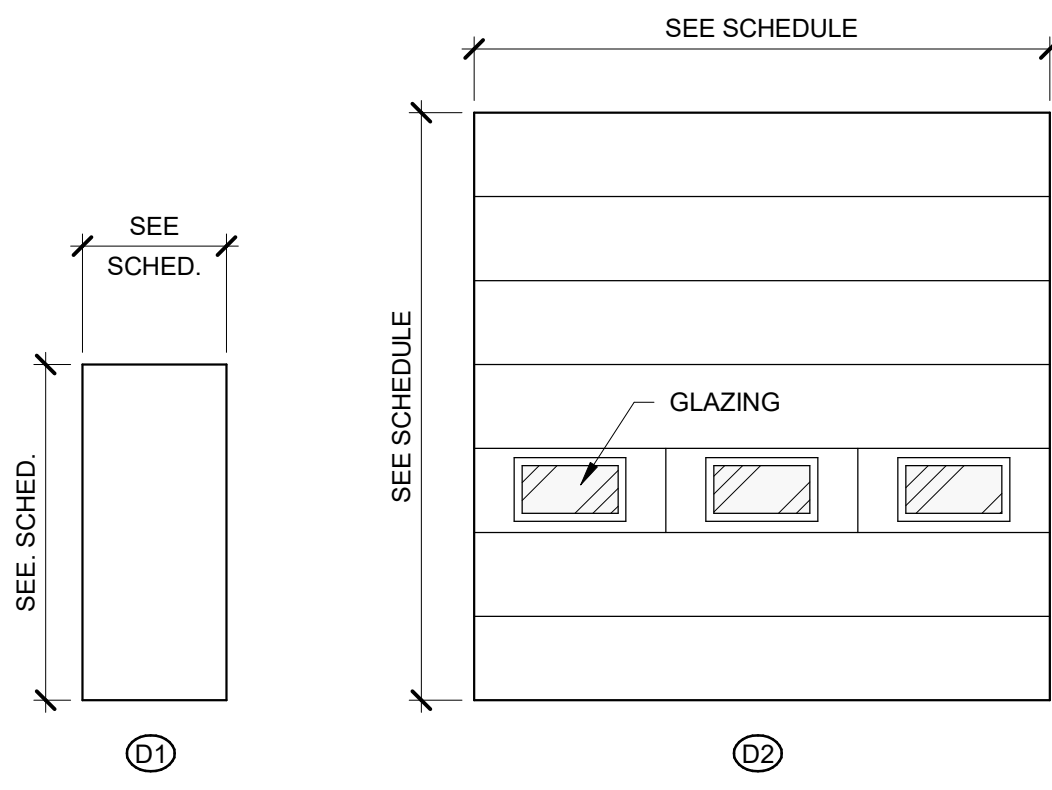
5 HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



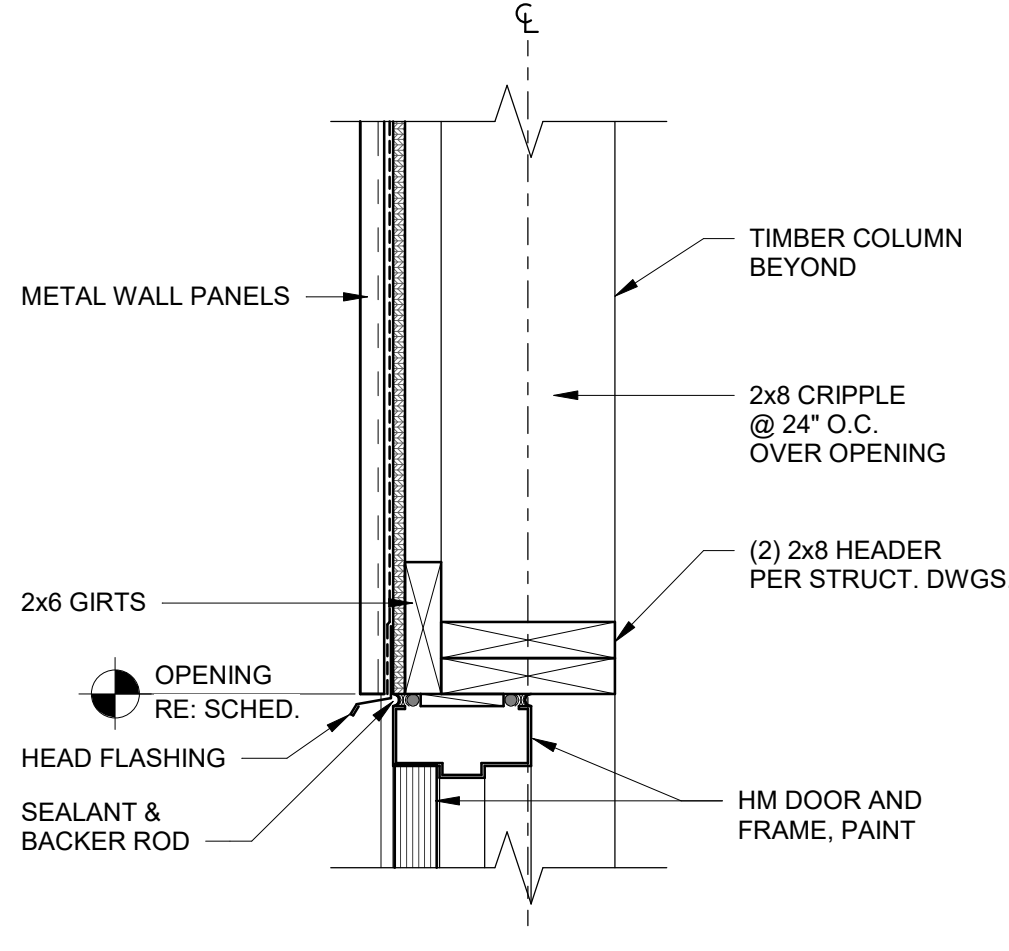
7 JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



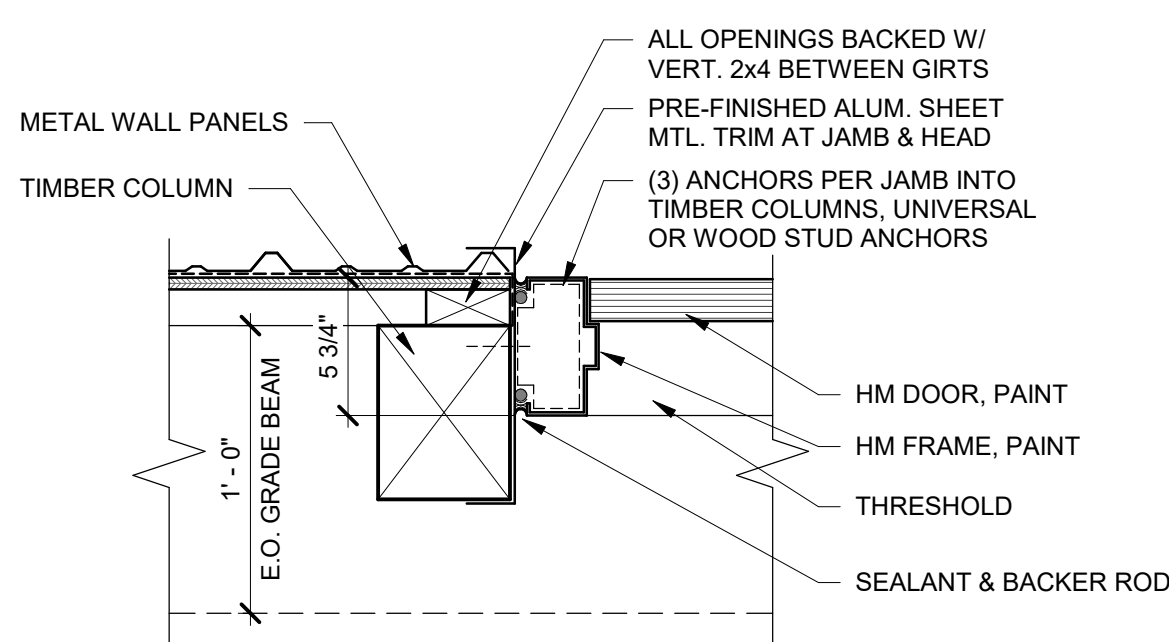
9 SILL DETAIL
SCALE: 1 1/2" = 1'-0"



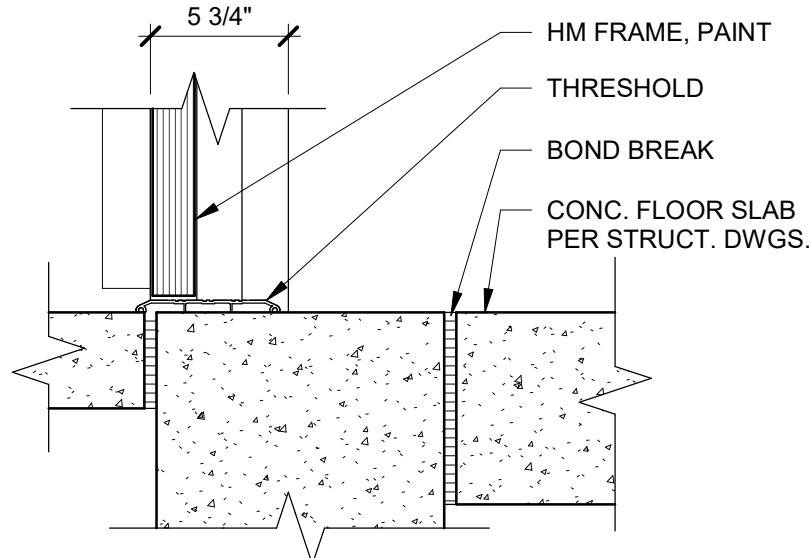
DOOR TYPES
1/4" = 1'-0"



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



8 JAMB DETAIL
SCALE: 1 1/2" = 1'-0"

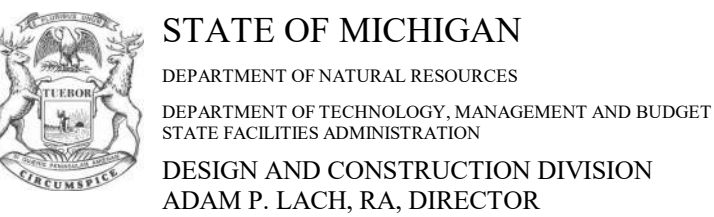


10 SILL DETAIL
SCALE: 1 1/2" = 1'-0"

MATERIAL KEYNOTE

- POURED CONCRETE FOOTING PER STRUCT. DWGS.
- COMPACTED GRANULAR FILL PER CIVIL DWGS.
- FINISH GRADE. SLOPE AWAY FROM BUILDING PER CIVIL DWGS.
- CONCRETE FLOOR SLAB ON VAPOR BARRIER PER STRUCT. DWGS.
- SUPPORTED CONCRETE ENTRY SLAB PER STRUCT. DWGS.
- PRESSURED TREATED 2x8 SKIRT BOARD.
- PRESSURE TREATED TIMBER WOOD COLUMN PER STRUCT. DWGS.
- CONCRETE FILLED PIPE BOLLARD PER CIVIL DWGS.
- PRE-FINISHED FORMED METAL WALL PANELS (RE: SPEC.).
- 1/2" APA RATED WALL SHEATHING.
- 2x6 WOOD WALL GIRTS LAID FLAT @ 24" O.C.
- HEADER PER STRUCT. DWGS.
- VENTED ALUMIMUM SOFFIT SYSTEM.
- PRE-ENGINEERED GABLE END TRUSS.
- PRE-ENGINEERED WOOD TRUSSES @ 48" O.C.
- 1/2" APA RATED ROOF SHEATHING.
- ASPHALT ROOF SHINGLES ON 15# FELT UNDERLAYMENT (RE: SPEC.).
- CONTINUOUS RIDGE VENT.
- METAL WRAPPED FASCIA TRIM ON 2x6 CONTINUOUS FASCIA BOARD.
- METAL WRAPPED RAKE TRIM ON 2x6 CONTINUOUS RAKE BOARD.
- HOLLOW METAL DOOR AND FRAME, PAINT.
- SECTIONAL OVERHEAD DOOR.
- OFFSET MOTOR OPERATOR AND DRAW ARMS ATTACHED TO SECTIONAL DOOR PANEL. INSTALL HORIZONTAL TRACKS AS REQUIRED TO CLEAR EACH OTHER AT 14 FEET AT OHD LOCATIONS.
- 2x4 WOOD ROOF PURLINS @ 24" O.C. PERPENDICULAR TO TRUSSES PER STRUCT. DWGS.
- SIMPSON TIE DOWN PER STRUCT. DWGS.
- WOOD STAIR TREADS WITH OPEN RISERS AND STRINGER SUPPORTS ON BOTH SIDES AND MIDDLE.
- WOOD GUARDRAIL SYSTEM, UNPAINTED.
- 1 1/2" DIAMETER HANDRAIL, UNPAINTED.
- 3/4" UNPAINTED APA RATED FLOOR SHEATHING ON 2x12 FLOOR JOISTS PER STRUCT. DWGS.
- SAFETY SWING GATE SYSTEM WITH SIDE RAILS.
- RAIN GUARD DIVERter SYSTEM.
- LIGHT FIXTURE PER ELEC. DWGS.
- ELECTRICAL EQUIPMENT PER ELEC. DWGS.

ISSUED FOR BIDS	10/09/26
NO.	REVISION
DATE	



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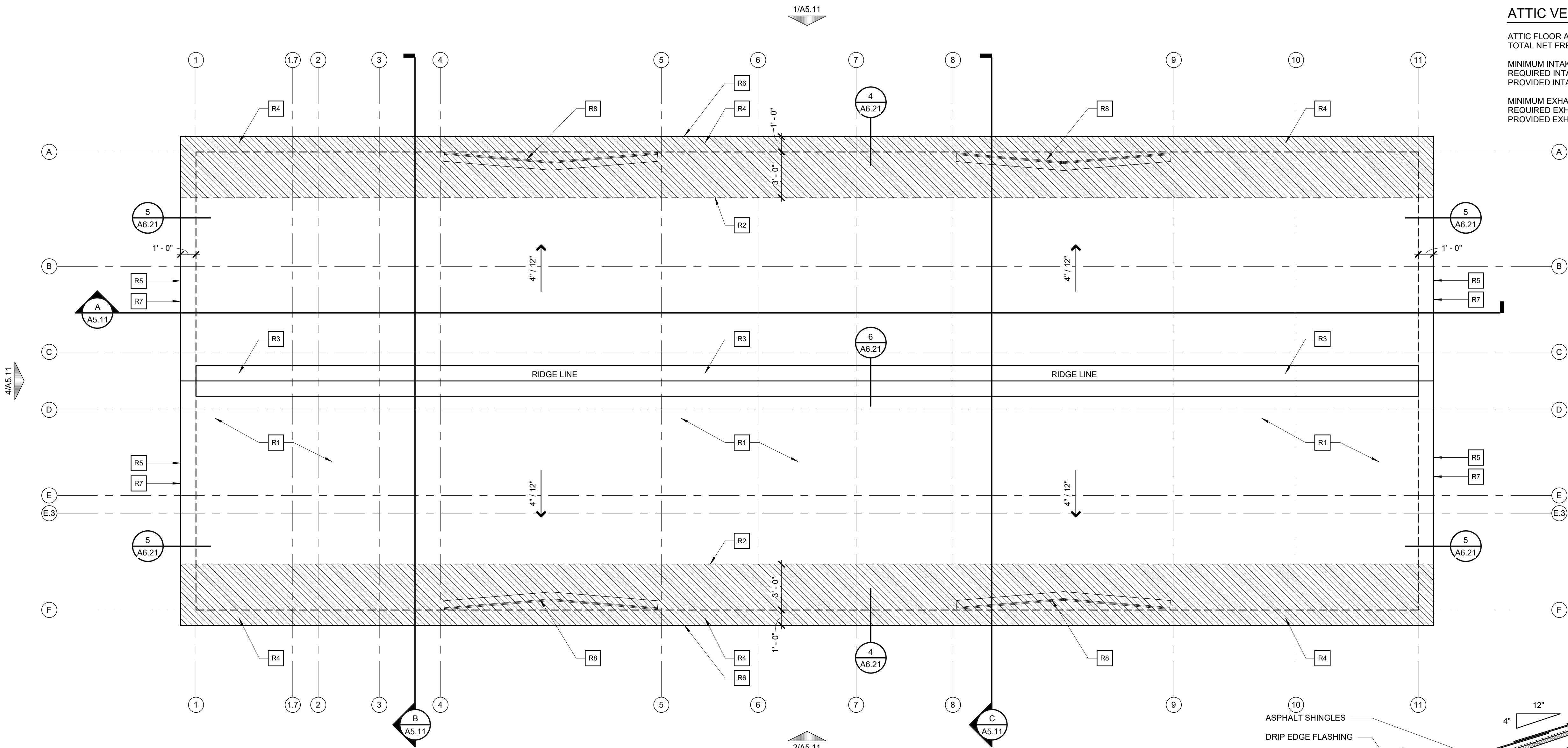
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PROJECT TITLE
NEW STORAGE BUILDING FOR:
BELLE ISLE STATE PARK
DETROIT, MICHIGAN

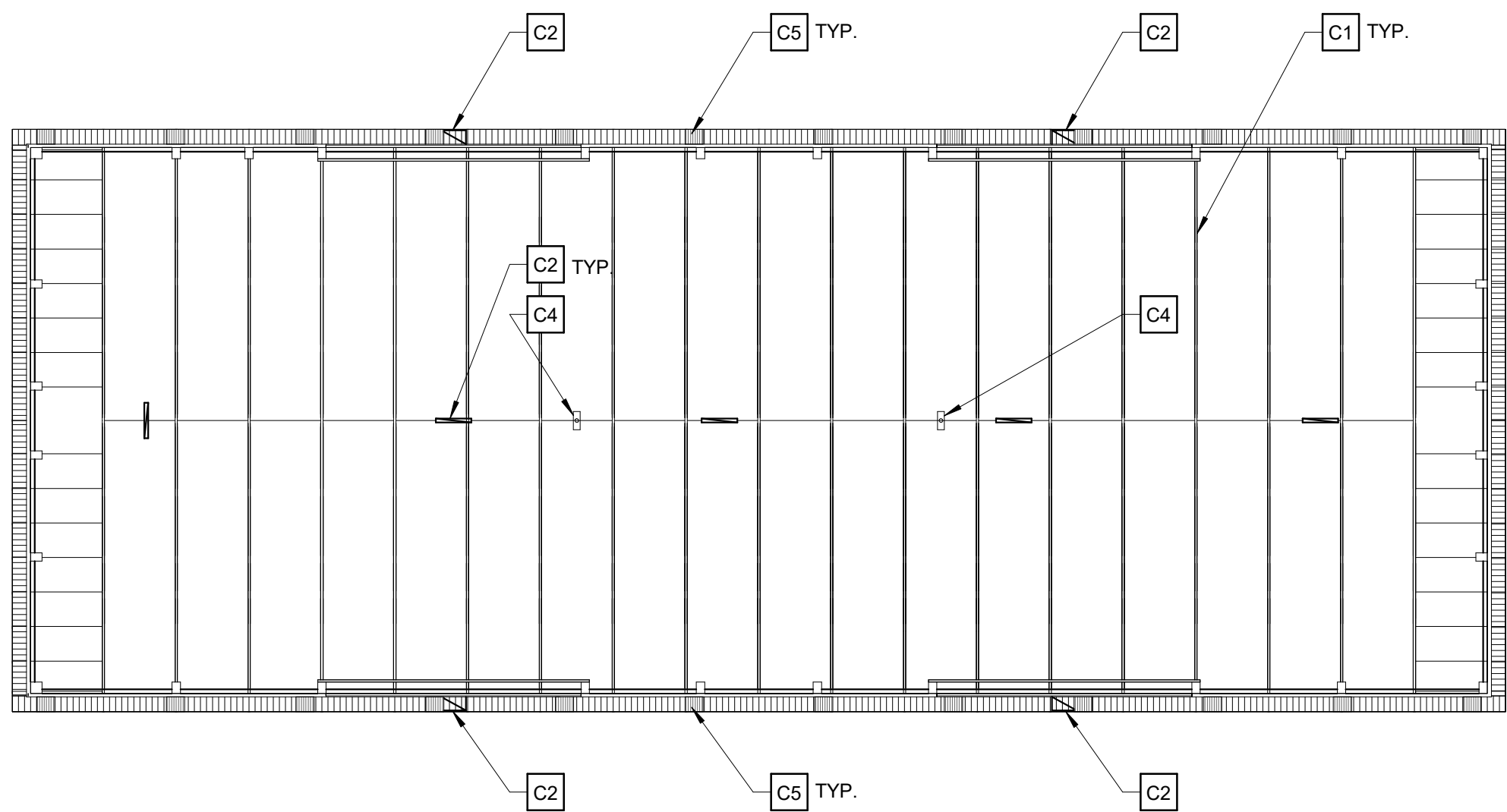
SHEET TITLE
WALL SECTIONS,
DETAILS & SCHEDULES

PROJECT NUMBER 2019131	SHEET NUMBER A5.21
PROJECT DATE OCTOBER 9, 2026	
CHECKED BY J.R.G.	

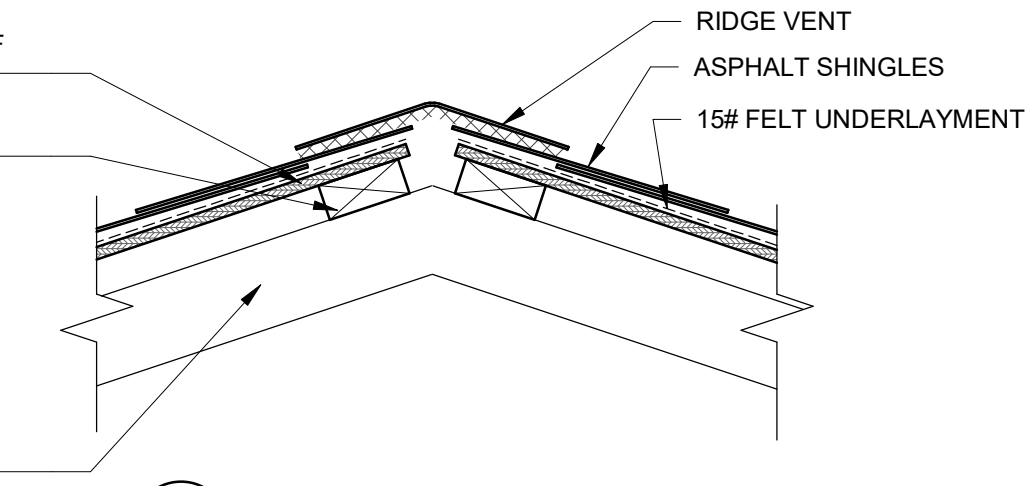
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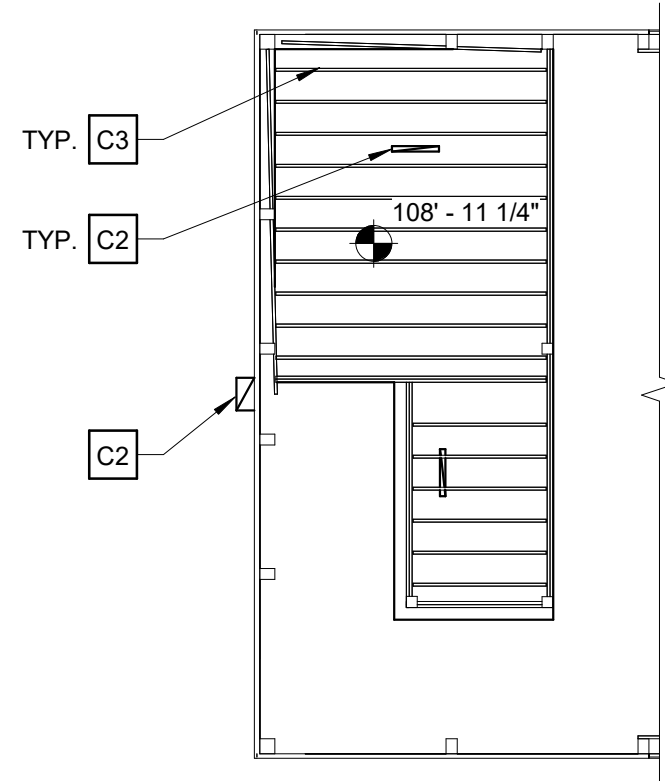
1 ROOF PLAN
SCALE: 1/4" = 1'-0"



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



6 RIDGE VENT DETAIL
SCALE: 1 1/2" = 1'-0"



3 PARTIAL MEZZANINE CEILING PLAN
SCALE: 1/8" = 1'-0"

ATTIC VENTILATION REQUIREMENTS:

ATTIC FLOOR AREA: 80 FEET X 30 FEET = 2,400 SQ.FT.
TOTAL NET FREE AREA: 2,304 SQ.IN. (16.0 SQ.FT.)

MINIMUM INTAKE (SOFFIT): 1,152 SQ.IN.
REQUIRED INTAKE (SOFFIT): 1,152 SQ.IN. / 50 SQ.IN. PER VENT = 23 QTY
PROVIDED INTAKE (SOFFIT): 24 QTY

MINIMUM EXHAUST (RIDGE/ROOF): 1,152 SQ.IN.
REQUIRED EXHAUST (RIDGE/ROOF): 1,152 SQ.IN. / 18 IN./FT. = 64 FEET REQUIRED
PROVIDED EXHAUST (RIDGE/ROOF): 80 FEET

GENERAL ROOF PLAN NOTES:

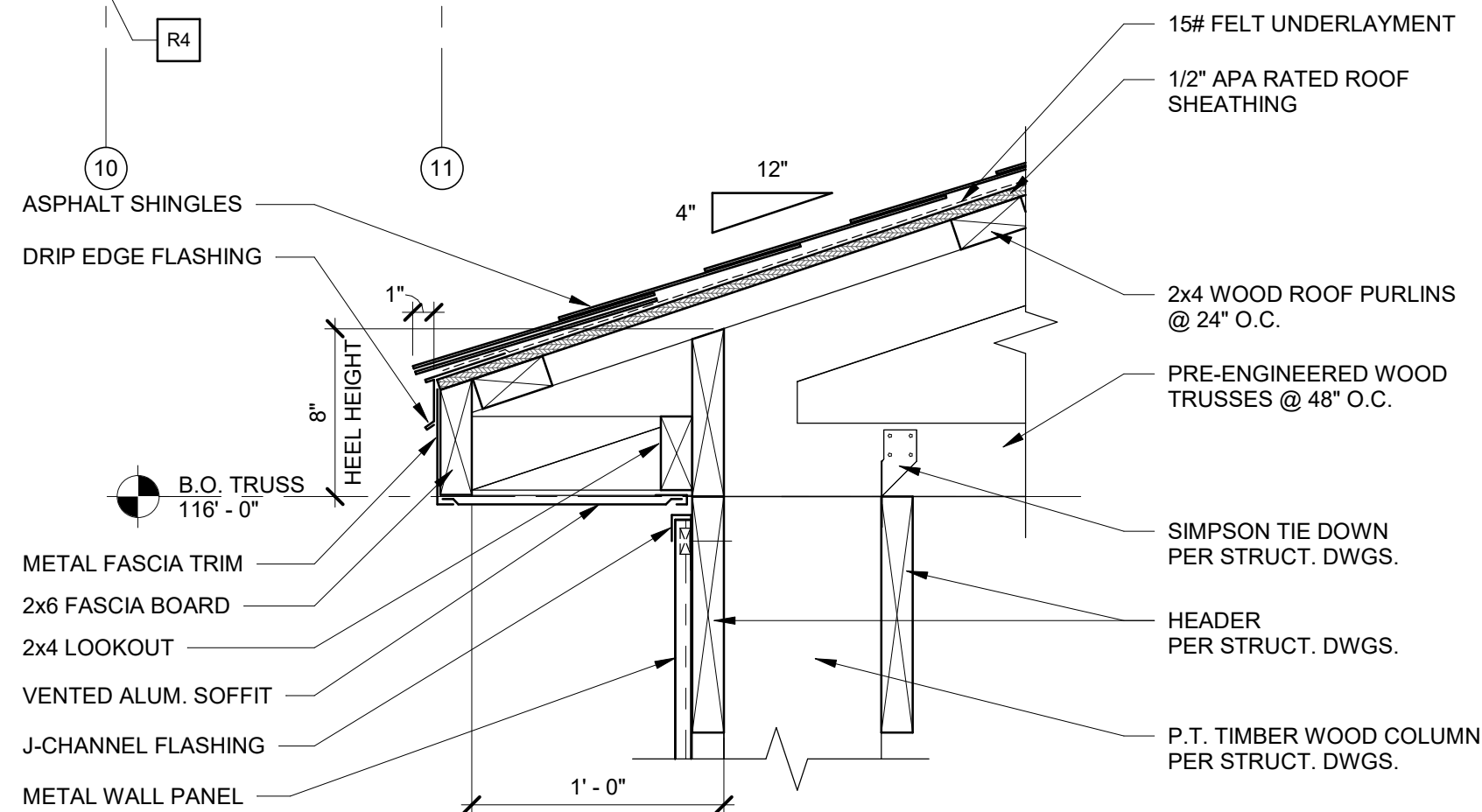
1. PROVIDE FLASHING IN ACCORDANCE WITH ROOF MANUFACTURER'S RECOMMENDATIONS AT ALL ROOF EDGES.

ROOF PLAN KEYNOTES

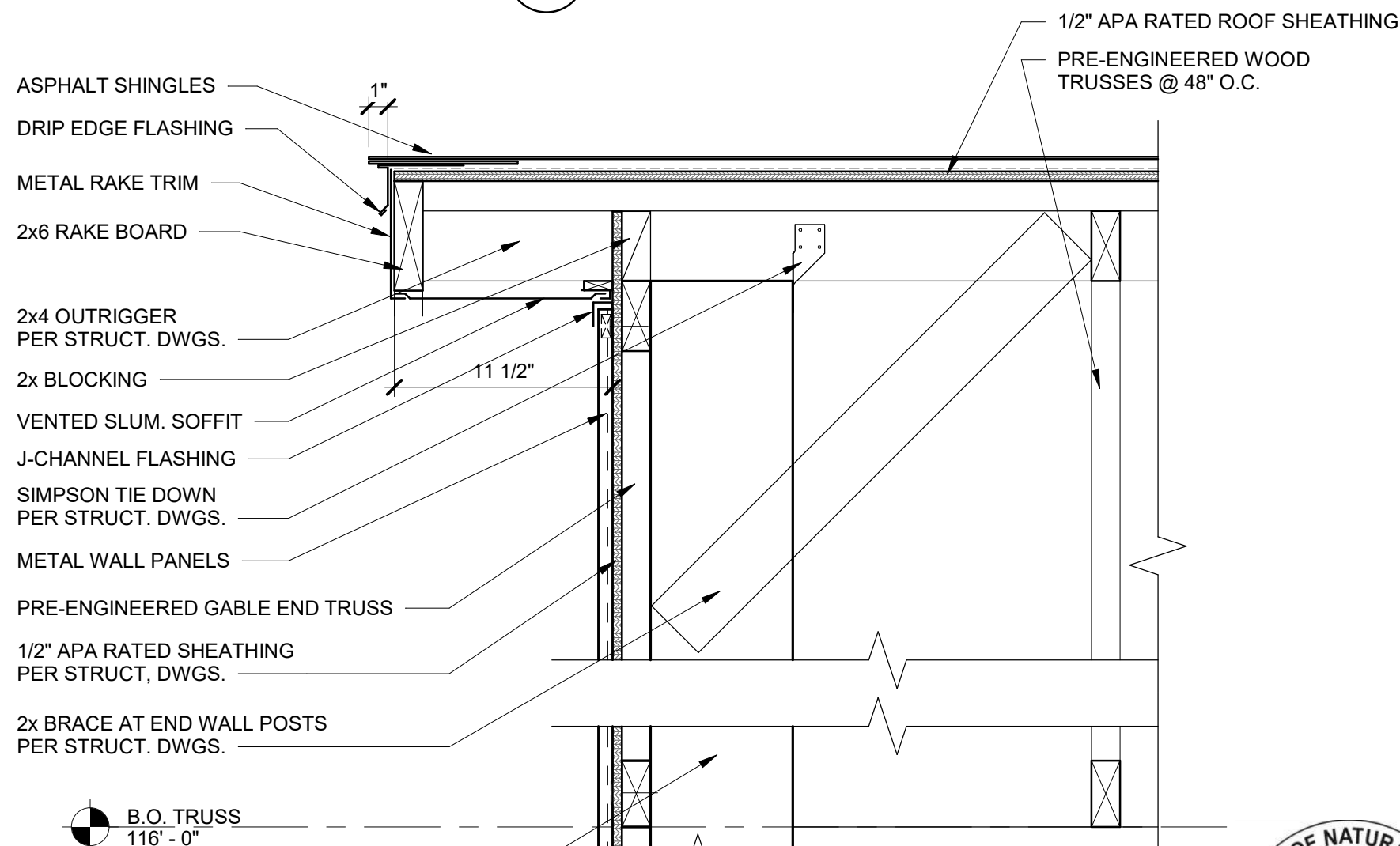
- 1 ASPHALT ROOF SHINGLES ON 15# FELT UNDERLAYMENT ON 1/2" APA RATED ROOF SHEATHING (RE: SPECS.).
- 2 SELF-ADHERED PEEL AND STICK ICE AND WATER SHIELD UNDERLAYMENT OVER SHEATHING.
- 3 CONTINUOUS RIDGE VENT.
- 4 VENTED ALUMINUM SOFFIT SYSTEM (RE: SECTIONS).
- 5 RUN ICE AND WATER SHIELD AND FELT UNDERLAYMENT OVER RAKE TRIM MIN. 1/2". INSTALL DRIP EDGE ON TOP OF UNDERLAYMENT AT RAKE EDGE.
- 6 PRE-FINISHED METAL DRIP EDGE BELOW UNDERLAYMENT AT EAVE EDGE.
- 7 PRE-FINISHED ALUMINUM TRIM OVER FASCIA AND RAKE BOARDS.
- 8 RAIN GUARD DIVERTER SYSTEM.

CEILING KEYNOTES

- 1 EXPOSED PRE-ENGINEERED WOOD TRUSSES.
- 2 LIGHT FIXTURE PER ELEC. DWGS.
- 3 EXPOSED WOOD FLOOR JOISTS PER STRUCT. DWGS.
- 4 CORD REEL RECEPTACLE MOUNTED TO B.O. TRUSS PER ELEC. DWGS.
- 5 VENTED ALUMINUM SOFFIT PANEL.



4 EAVE DETAIL
SCALE: 1 1/2" = 1'-0"



5 RAKE DETAIL
SCALE: 1 1/2" = 1'-0"



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PROJECT TITLE

NEW STORAGE BUILDING FOR:

BELLE ISLE STATE PARK

DETROIT, MICHIGAN

SHEET TITLE

**ROOF PLAN, CEILING
PLANS & DETAILS**

PROJECT NUMBER

2019131

PROJECT DATE

OCTOBER 9, 2026

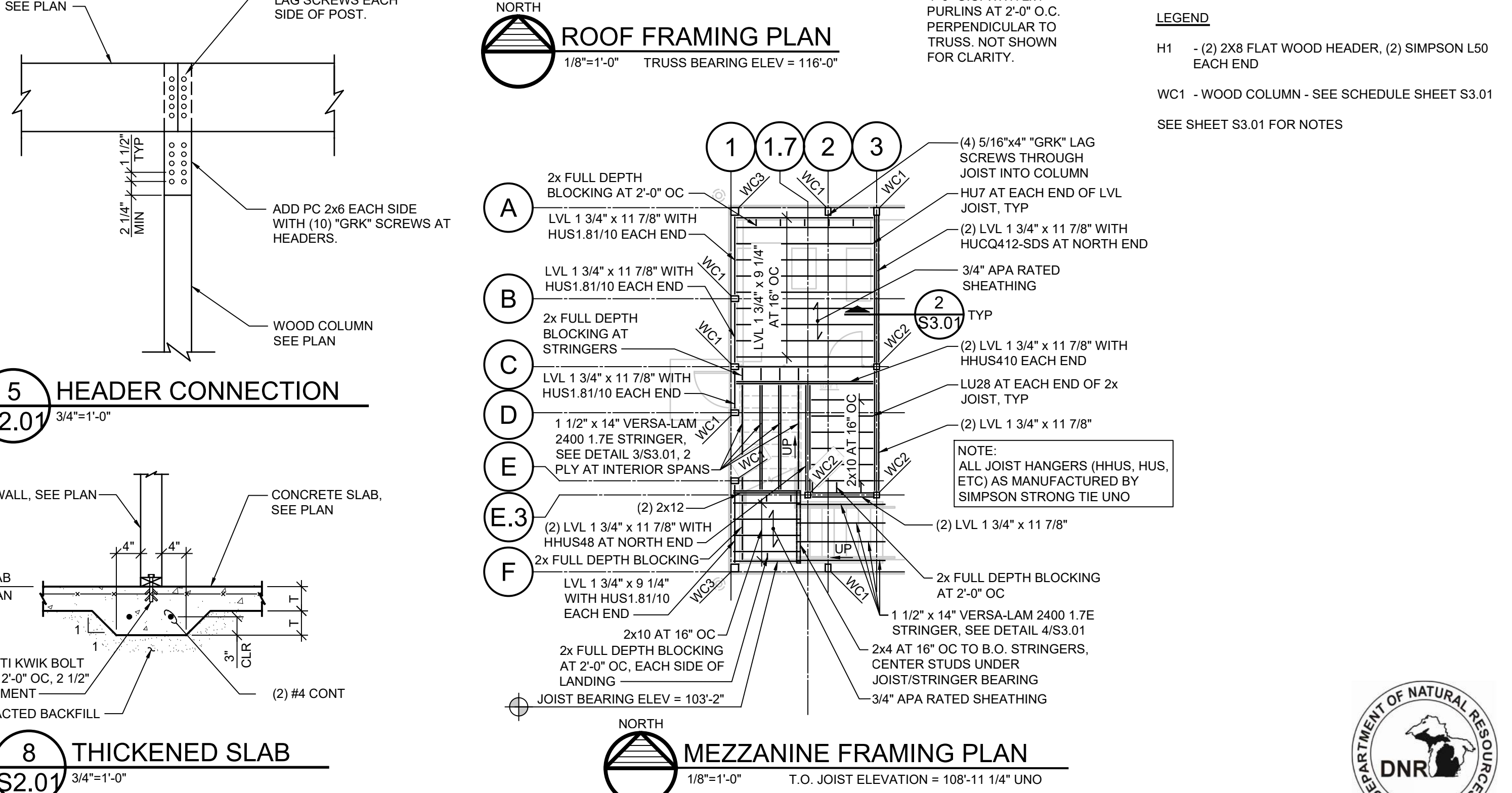
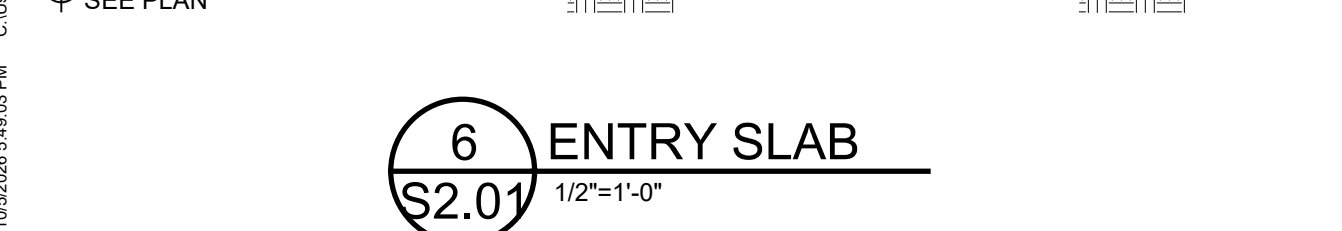
CHECKED BY

J.R.G.

SHEET NUMBER

A6.21





PROJECT NUMBER 2019131	SHEET NUMBER S2.01
PROJECT DATE 10/7/2026	
CHECKED BY JAG	

GENERAL

- VERIFY DIMENSIONS BEFORE COMMENCING WORK. REPORT DISCREPANCIES TO THE ARCHITECT.
- VERIFY OPENINGS IN THE FRAMING PLANS WITH THE ARCHITECTURAL AND ELECTRICAL DRAWINGS.
- ALL WORK SHALL CONFORM TO MICHIGAN BUILDING CODE 2021.
- DESIGN LOADS
 - DESIGNED IN ACCORDANCE WITH MICHIGAN BUILDING CODE 2021.
 - ROOF SNOW LOAD:
GROUND SNOW LOAD PG = 20 PSF
FLAT ROOF SNOW LOAD, PF = 17 PSF
SNOW EXPOSURE FACTOR, CE = 1.0
SNOW LOAD IMPORTANCE FACTOR, I = 1.0
THERMAL FACTOR, CT = 1.2
 - LIVE LOAD:
DESIGN ROOF LIVE LOAD = 30 PSF UNIFORM
MEZZANINE STORAGE = 125 PSF
 - WIND LOADS:
BASIC WIND SPEED $V_{ULT} = 108$ MPH
 $V_{ASD} = 84$ MPH
WIND EXPOSURE D
INTERNAL PRESSURE COEFFICIENT, GC PI = +/-0.18
WALL COMPONENTS & CLADDING:

EFFECTIVE WIND AREA (FT ²)	POSITIVE PRESSURE (PSF)	NEGATIVE PRESSURE (PSF)
-END ZONE		
10	32	-43
20	31	-40
50	29	-36
100	28	-34
-INTERIOR ZONE		
10	32	-35
20	31	-34
50	29	-32
100	28	-30
 - EARTHQUAKE DESIGN DATA:
SEISMIC USE GROUP, II
SEISMIC IMPORTANCE FACTOR, I = 1.0
SPECTRAL RESPONSE COEFFICIENTS: SDS = .11, SD1 = .073, SS = .103, S1 = .046
SITE CLASS D
BASIC SEISMIC - FORCE - RESISTING SYSTEM:
SEISMIC DESIGN CATEGORY, B
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE METHOD
SEISMIC RESPONSE MODIFICATION FACTOR, R=7, CS = .068
DESIGN BASE SHEAR = 5.2 KIPS TOTAL UNFACTORED
- SPECIAL INSPECTIONS:
 - SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE 2021 SECTION 1700.
 - THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTIONS: (REFER TO THE BUILDING CODE AND SPECIFICATIONS FOR DETAILED INSPECTION REQUIREMENTS).
 - PREPARED FILL.
 - DRILLED PIER FOUNDATIONS.
 - CONCRETE CONSTRUCTION.

FOUNDATION NOTES

- FOUNDATIONS ARE DESIGNED BASED ON SOIL BEARING OF 2000 PSF FOLLOWING INSTALLATION OF ENGINEERED FILL. BELOW FOOTING BEARING ELEVATION AS RECOMMENDED BY GEOTECHNICAL ENGINEER. IF SOIL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATION NOTED, ENLARGE OR LOWER FOOTINGS AT THE DIRECTION OF THE ARCHITECT/ENGINEER.
- PLACE STRUCTURAL BACKFILL MEETING OR EXCEEDING MDOT CLASS II IN LAYERS NOT EXCEEDING 9" LOOSE THICKNESS. COMPACT EACH LAYER TO AT LEAST 95% OF THE MAXIMUM DENSITY PER ASTM D-1557. COMPACTING BY FLOODING IS NOT PERMITTED.
- CENTER FOOTINGS UNDER WALL LOCATION AND COLUMNS UNLESS NOTED.
- EARTH FORMS ARE NOT PERMITTED UNLESS SPECIFICALLY NOTED.
- FOLLOWING DEMOLITION OF STRUCTURES AND STRIPPING OF TOPSOIL, PREPARE SOILS AND INSTALL ENGINEERED FILL UNDER FOUNDATION BEARING LOCATIONS IN ACCORDANCE WITH SOILS REPORT BY MCDOWELL AND ASSOCIATES, DATED APRIL 1, 2022.
- DISTURBANCE OF THE FOUNDATION BEARING SOILS SHALL BE AVOIDED.
- EXISTING FOUNDATIONS OR FLOOR SLAB ENCOUNTERED DURING SITE GRADINGS AND EXCAVATION SHALL BE REMOVED TO A DEPTH OF TWO (2) FEET BELOW NEW CONSTRUCTION. REPLACE WITH STRUCTURAL BACKFILL.
- BACKFILL AND EXCAVATION PER SPECIFICATIONS.
- CASINGS WILL BE REQUIRED FOR INSTALLATION OF DRILLED PIERS.

CONCRETE NOTES

- ACI BUILDING CODE 318; MANUAL OF STANDARD PRACTICE FOR DETAILING 315 FOR THE MIXING, FABRICATION AND PLACEMENT OF CONCRETE, REINFORCING STEEL, AND ACCESSORIES.
- CONCRETE STRENGTH - STANDARD WEIGHT CONCRETE:
FOOTINGS, WALLS, PIERS: $f'_c = 3000$ MINIMUM PSI
CONCRETE SLABS ON GRADE: $f'_c = 3500$ MINIMUM PSI
EXTERIOR CONCRETE SLABS EXPOSED TO DE-ICING: $f'_c = 5000$ PSI
- REINFORCING - BARS: ASTM A-615 GRADE 60
WELDED WIRE FABRIC: ASTM A-1064
- PROVIDE SAWCUT CONTROL JOINTS AT APPROXIMATELY 15' MAXIMUM ON CENTER EACH WAY IN SLABS ON GRADE. SEE DETAILS. LOCATE JOINTS UNDER PARTITIONS WHENEVER POSSIBLE. CONSTRUCTION JOINTS AT CONTRACTOR'S OPTION. CONTRACTOR TO SUBMIT PROPOSED CONTROL JOINT PLAN FOR REVIEW AND APPROVAL.
- FORM ALL CONCRETE.
- EXPOSED EDGES OF CONCRETE BEAMS, COLUMNS, ETC. SHALL BE CHAMFERED $\frac{3}{4}"$.
- PROVIDE CORNER BARS FOR ALL CONTIGUOUS CORNERS.
- WATER/CEMENT RATIO LIMITS:

$f'_c = 3000$ PSI	0.68 NON-AIR ENTRAINED, 0.50 AIR-ENTRAINED
$f'_c = 3500$ PSI	0.62 NON-AIR ENTRAINED, 0.50 AIR-ENTRAINED
$f'_c = 5000$ PSI	0.4 AIR-ENTRAINED
- SLUMP LIMITS:
3" FOR FOUNDATIONS, 4" FOR SLABS AND WALLS
- PROVIDE AIR ENTRAINED CONCRETE FOR EXTERIOR EXPOSURES.
- REINFORCING LAP LENGTH: 45 BAR DIAMETERS (36 IF STAGGERED) FOR BARS UP TO #5, 60 BAR DIAMETERS (48 IF STAGGERED) FOR BARS LARGER THAN #5.

WOOD FRAMING

- DIMENSIONAL FRAMING MATERIAL SHALL BEAR THE GRADE MARK OF AN ALSC APPROVED AGENCY, KILN DRIED, AND HAVE THE FOLLOWING MINIMUM STRESS GRADE:

2x4 STUD WALLS: SPRUCE-PINE-FIR, CONSTRUCTION GRADE OR BETTER.
2x6 AND LARGER: HEM-FIR #2 OR BETTER.
TIMBER POSTS: SOUTHERN YELLOW PINE #1 OR BETTER, TREATED FOR BELOW GRADE USE.
- ROOF RAFTERS ANCHORED TO CONTINUOUS PLATES WITH ONE SIMPSON H3 ANCHOR UNLESS NOTED OTHERWISE.
- WOOD TO BE IN CONTACT WITH CONCRETE, MASONRY, OR GRADE SHALL BE PRESSURE TREATED.

PLYWOOD SHEATHING

- PLYWOOD FOR ROOF DECK SHALL BE 1/2" THICK APA RATED SHEATHING, (24/16).
- PLYWOOD FOR WALLS SHALL BE 1/2" THICK APA RATED SHEATHING, (24/16).
- PLYWOOD FOR FLOORS SHALL BE 3/4" THICK APA RATED SHEATHING, (24/16).
- ROOF SHEATHING FASTENED WITH 8D COMMON NAILS AT 4" O.C. AT PANEL EDGES AND INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE.
- PANELS SHALL BE LAID IN A STAGGERED PATTERN, CONTINUOUS OVER TWO SPANS.

WOOD TRUSSES

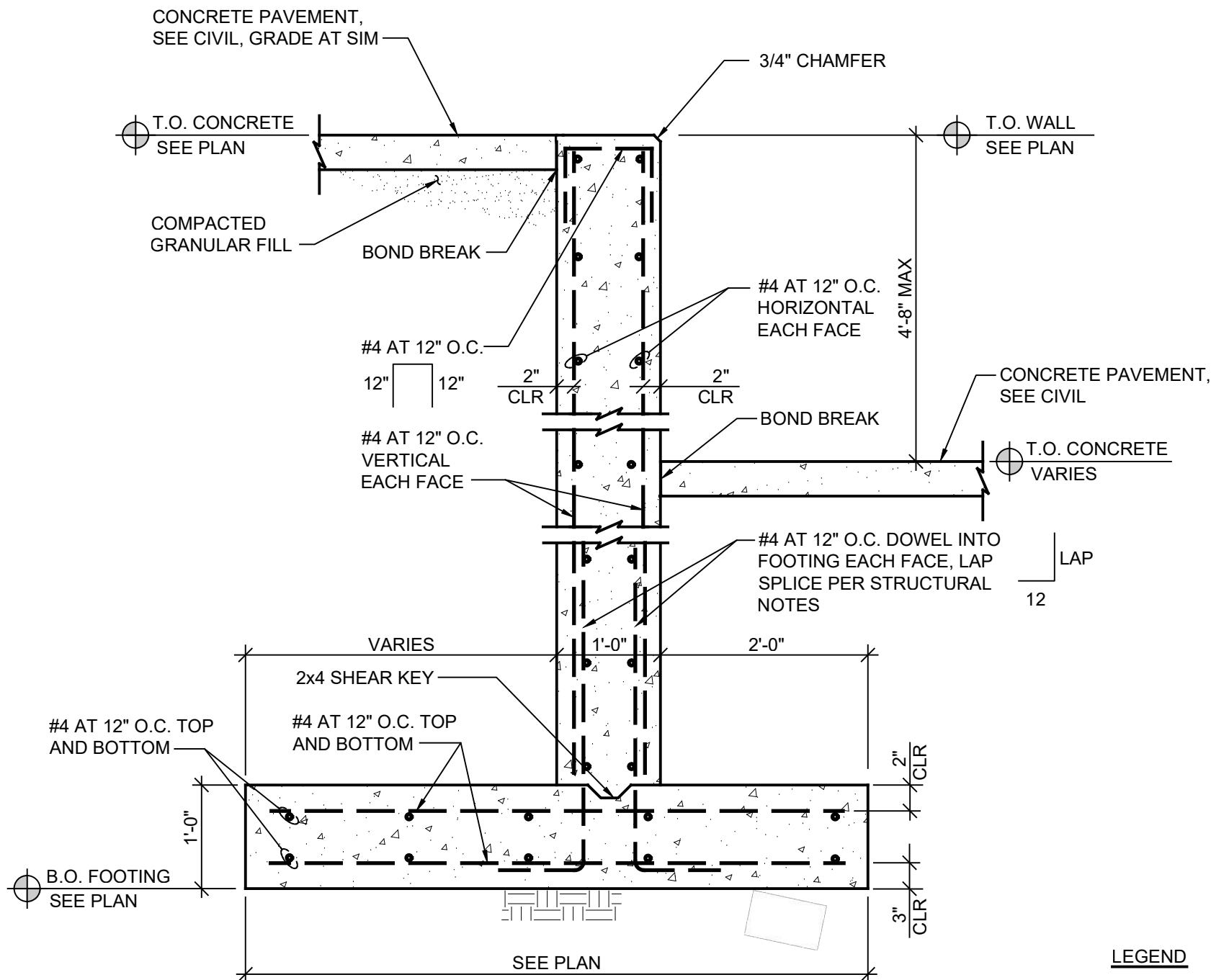
- WOOD TRUSSES SHALL BE DESIGNED AND FABRICATED PER TRUSS PLATE INSTITUTE, INC. SPECIFICATIONS.
- DESIGN LOADS FOR TRUSSES SHALL BE:

TOP CHORD SNOW LOAD - 30 PSF (SEE DIAGRAM THIS SHEET FOR UNBALANCED SNOW LOAD)
TOP CHORD DEAD LOAD - 15 PSF
BOTTOM CHORD DEAD LOAD - 5 PSF
BOTTOM CHORD LIVE LOAD - 2,000 LB PANEL POINT (LOCATE ALONG TRUSS BOTTOM CHORD TO PRODUCE THE GREATEST LOAD EFFECT)
TOP CHORD WIND UPLIFT - DESIGN IN ACCORDANCE WITH MICHIGAN BUILDING CODE 108 MPH, EXPOSURE D. DEPENDENT ON EFFECTIVE WIND AREA AND ZONE.
LOADS SHALL BE COMBINED PER MICHIGAN BUILDING CODE LOAD COMBINATIONS.
- SHOP DRAWINGS FOR TRUSSES SHALL BE PREPARED BY THE SUPPLIER AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL. SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION AND SHALL BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED.
- TRUSSES SHALL BE ANCHORED TO SUPPORTS WITH (2) SIMPSON H2.5A ANCHOR UNLESS NOTED OTHERWISE.
- LIMIT OVERHANG MEMBER DEFLECTION TO L/180.
- PIGGY-BACK TRUSS TO TRUSS CONNECTION DESIGN AND SPECIFICATION BY TRUSS MANUFACTURER. MINIMUM CONNECTION (2) SIMPSON TP47 PLATES EACH SIDE, @ 2'-0" ON CENTER.
- PROVIDE MATCHING DEPTH TRUSS MEMBERS AT 2X FRAMING CONNECTIONS.
- LATERAL WEB BRACING DESIGN AND CONNECTIONS BY TRUSS MANUFACTURER.
- TRUSSES SHALL BE DESIGNED FOR MAXIMUM BEARING PRESSURE OF 405 PSI.
- TEMPORARY BRACING PER BCSI TO BE CONTRACTORS RESPONSIBILITY. CONFORM TO ALL APPLICABLE CODES AND STANDARDS.

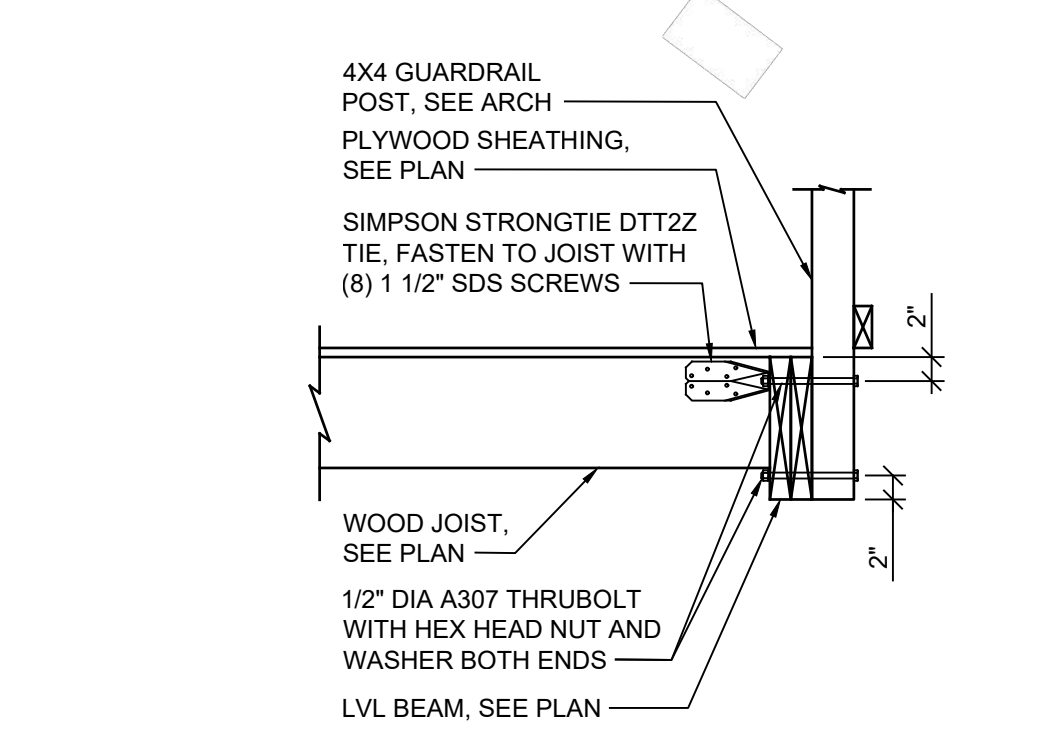
STRUCTURAL COMPOSITE LUMBER

- LAMINATED VENEER LUMBER (LVL):

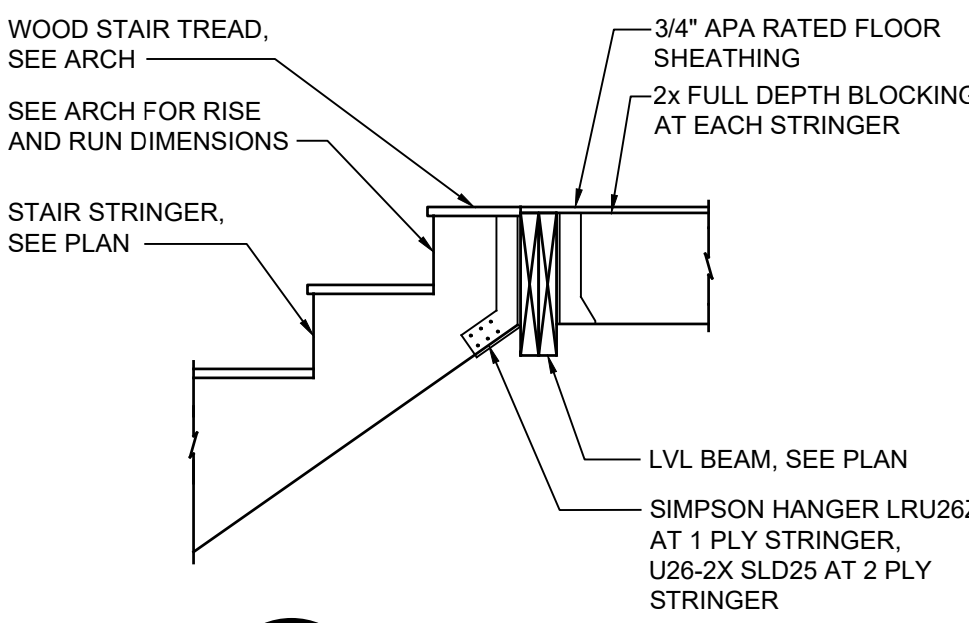
FB	= 2,600 PSI (BOTH TENSION & COMPRESSION)
FC (PERPENDICULAR)	= 750 PSI
FC (PARALLEL)	= 2,310 PSI
FV	= 285 PSI
E	= 1.9×10^6 PSI



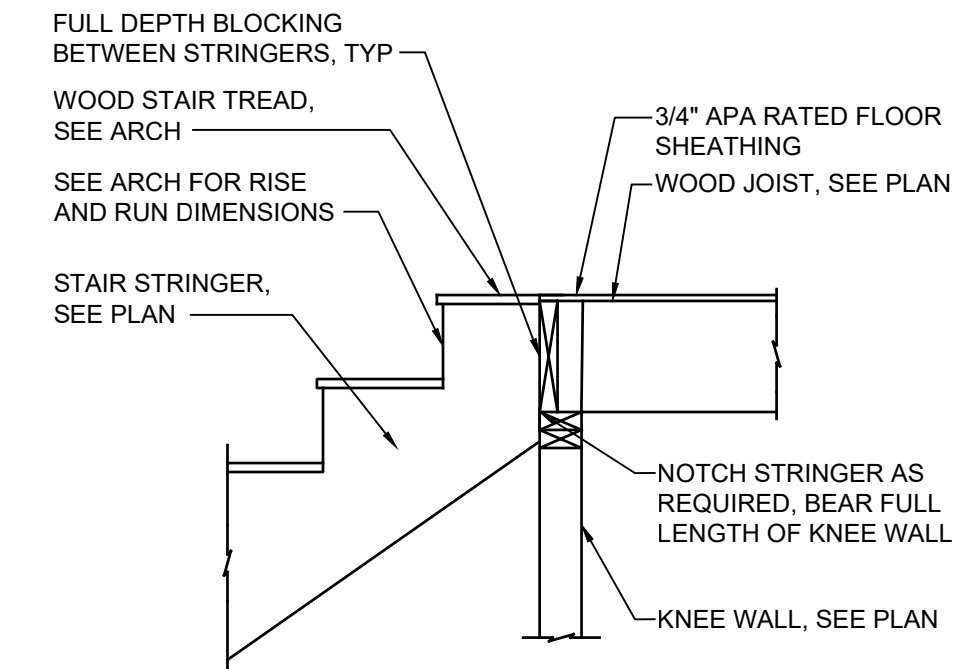
1 RETAINING WALL
3/4"=1'-0"



2 GUARDRAIL CONNECTION
3/4"=1'-0"



3 STAIR DETAIL
3/4"=1'-0"



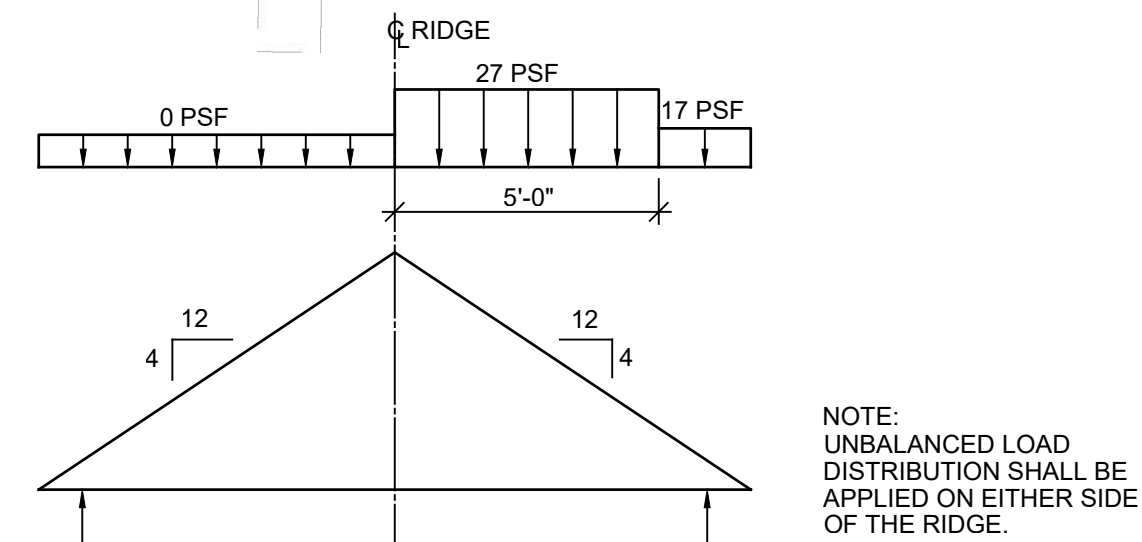
4 STAIR DETAIL
3/4"=1'-0"

FOOTING SCHEDULE					Fy=60 KSI Fc=3000 PSI
MARK	SIZE	DEPTH	REINFORCING	REMARKS	
F1	2'-0" DIAMETER	SEE PLAN	(6)#6 VERT, #3 TIES AT 12" O.C.	SEE DETAIL 2/S2.01	
F2	3'-0" DIAMETER	SEE PLAN	(12)#6 VERT, #3 TIES AT 12" O.C.	SEE DETAIL 2/S2.01	
F3	2'-6"x2'-6"	1'-0"	(4)#4 EACH WAY	SEE DETAIL 1/S2.01 AND 7/S2.01	
F4	1'-6" CONT	1'-0"	(2) #5 CONT		

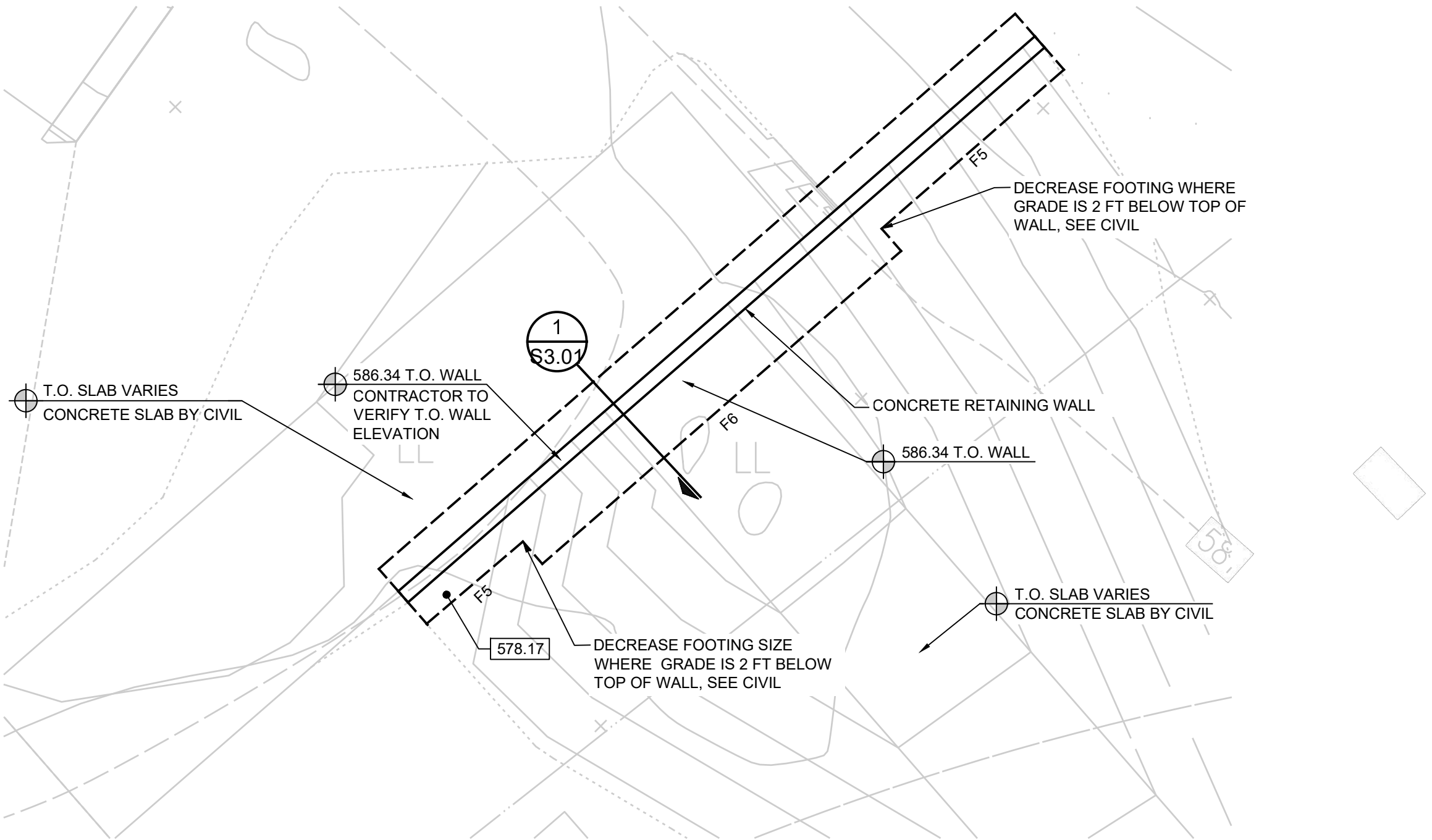
WOOD COLUMN SCHEDULE		
MARK	SIZE	REMARKS
WC1	6x8	SIMPSON APA66Z WITH (1) 5/8" HEAVY HEX HEAD ANCHOR WITH HIT-HY-200 EPOXY, 8" EMBED UNO
WC2	6x6	SIMPSON ECCLL464 AT CORNER COLUMNS SIMPSON BC46 AT INTERIOR COLUMN
WC3	8x8	SEE DETAIL 3/S2.01

PIER SCHEDULE					Fc = 3000 psi Fy = 60 ksi
MARK	SIZE	VERT REINF	TIES	REMARKS	
P1	12"x12"	(4)#4	#3 AT 12" O.C.		

T.O. PIER = 100'-0" TYP UNO



UNBALANCED SNOW LOAD DIAGRAM



- LEGEND
- F1 - FOOTING - SEE SCHEDULE THIS SHEET
 - 100'-0" - B.O. FOOTING ELEVATION

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

	ISSUED FOR BIDS	10/09/26
NO.	REVISION	DATE

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

FILE NO. 751/19193.SMD	CONTRACT NO. Y22166
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PROJECT TITLE

NEW STORAGE BUILDING FOR:

BELLE ISLE STATE PARK

DETROIT, MICHIGAN

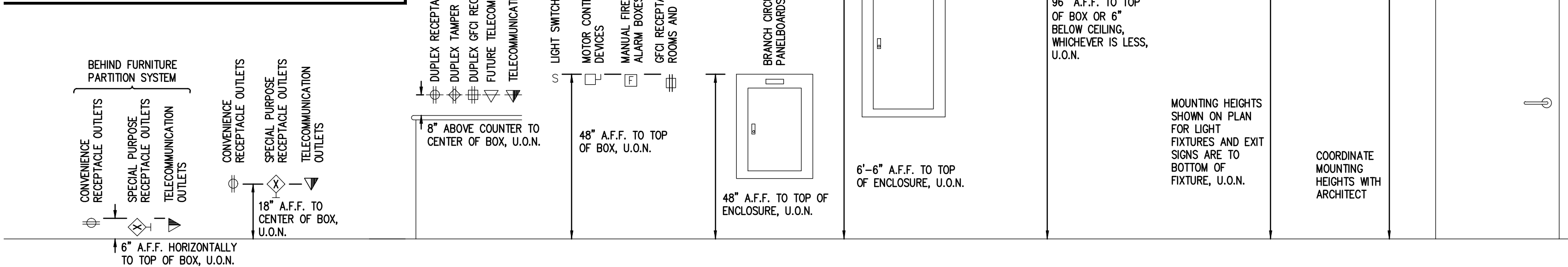
SHEET TITLE NOTES, SCHEDULES AND DETAILS	
PROJECT NUMBER 2019131	SHEET NUMBER S3.01
PROJECT DATE 10/7/2026	
CHECKED BY JAG	



ELECTRICAL SYMBOL LIST (NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	NON-ILLUMINATED LIGHT		TWO-WAY COMMUNICATION SYSTEM CALL STATION		CONTROL PANEL		SECURITY CAMERA
	FIXTURE TYPE		TWO-WAY COMMUNICATION SYSTEM AUTO DIALER		MOTOR		MOTION DETECTOR
	ZONE		TWO-WAY COMMUNICATION SYSTEM ANNUNCIATOR & COMMUNICATION PANEL		VARIABLE FREQUENCY CONTROLLER		SECURITY KEY SWITCH
	FILL DENOTES EMERGENCY FIXTURE		TWO-WAY COMMUNICATION SYSTEM POWER SUPPLY WITH BATTERY BACK-UP		MAGNETIC CONTROLLER		DOOR CONTACT
	TROFFER LIGHT		TWO-WAY COMMUNICATION SYSTEM AUTO DIALER POWER SUPPLY WITH BATTERY BACK-UP		COMBINATION MAGNETIC CONTROLLER		KEY PAD
	STRIP LIGHT		REMOTE GENERATOR ANNUNCIATOR PANEL		FUSIBLE DISCONNECT SWITCH		CARD READER
	LINEAR LIGHT		AUTOMATIC TRANSFER SWITCH		ENCLOSED CIRCUIT BREAKER		DURESS PUSH BUTTON STATION
	MULTI-ADJUSTABLE LIGHT		UNINTERRUPTIBLE POWER SUPPLY		PUSH BUTTON STATION		DELAYED EGRESS
	DOWN LIGHT		SINGLE/DUPLEX RECEPTACLE OUTLET "X" INDICATES TYPE		JUNCTION BOX		AUTOMATIC DOOR PUSH PAD OPERATOR
	DIRECTIONAL DOWN LIGHT		SINGLE/DUPLEX RECEPTACLE OUTLET CONTROLLED BY AUTOMATIC CONTROL DEVICE/SYSTEM (SIMILAR FOR TAMPER RESISTANT, GFCI, USB)		HARD WIRE POWER CONNECTION		DOOR OPERATOR
	DECORATIVE LIGHT		DUPLEX / TAMPER RESISTANT RECEPTACLE OUTLET HALF CONTROLLED BY AUTOMATIC CONTROL DEVICE/SYSTEM		GROUND ROD		DOOR ACTUATOR
	WALL MOUNTED LIGHT		QUAD RECEPTACLE OUTLET		HANDHOLE		ACCESS CONTROL STATION
	WALL SCONCE		ABOVE COUNTER DUPLEX RECEPTACLE OUTLET (SIMILAR FOR TAMPER RESISTANT, CONTROLLED, SINGLE, QUADS, EMERGENCY, UPS, USB, AND GFCI RECEPTACLE OUTLETS)		CONDUIT SLEEVE WITH BUSHINGS LENGTH AS REQUIRED "X" INDICATES CONDUIT SIZE		ACCESS CONTROL POWER SUPPLY
	ARM MOUNTED LIGHT		DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE OUTLET		CONDUIT UP		CIRCUIT BREAKER
	LIGHTING TRACK		DEAD FRONT GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE OUTLET		CONDUIT DOWN		DRAWOUT CIRCUIT BREAKER MANUALLY / OPERATED
	TRACK LIGHT		DUPLEX EMERGENCY RECEPTACLE OUTLET		EMPTY BOX FOR FUTURE TELECOMMUNICATION OUTLET		DRAWOUT CIRCUIT BREAKER ELECTRICALLY / OPERATED
	ADJUSTABLE FLOOD LIGHT		QUAD TAMPER RESISTANT RECEPTACLE OUTLET		EMPTY BOX FOR FUTURE TELECOMMUNICATION OUTLET		SWITCH
	STEP LIGHT		DUPLEX UPS RECEPTACLE OUTLET		EMPTY BOX FOR FUTURE CEILING MOUNTED TELECOMMUNICATION OUTLET "X" INDICATES TYPE		FUSE
	LED TAPE		DUPLEX RECEPTACLE OUTLET WITH 2 USB PORTS		ABOVE COUNTER TELECOMMUNICATION OUTLET "X" INDICATES TYPE		TRANSFORMER
	REMOTE DRIVER		4 PORT USB CHARGING STATION		TELECOMMUNICATION CEILING MOUNTED OUTLET "X" INDICATES TYPE		CURRENT TRANSFORMER
	HIGH BAY LIGHT		POWER POLE		TELECOMMUNICATION BACKBOARD		POTENTIAL TRANSFORMER
	POLE MOUNTED LIGHT		WALL/CEILING MOUNTED SPECIAL RECEPTACLE OUTLET - REFER TO ELECTRICAL STANDARD SCHEDULES		TELECOMMUNICATION GROUNDING BUS BAR		LIGHTNING ARRESTOR
	POST TOP LIGHT		MULTI-OUTLET SURFACE RACEWAY		TELECOMMUNICATION MAIN GROUNDING BUS BAR		GROUND
	BOLLARD LIGHT		MULTI-SERVICE DROP SEE ELECTRICAL DETAILS AND DIAGRAMS SHEET "X" INDICATES TYPE		INTERCOM OUTLET		STRESS CONE TERMINATION
	IN GROUND LIGHT		POKE-THROUGH ASSEMBLY "X" INDICATES TYPE		SPEAKER		KEY INTERLOCK
	EMERGENCY LIGHT		FLOOR SERVICE FITTING "X" INDICES TYPE		SPEAKER - WALL MOUNTED		ENGINE GENERATOR
	EXIT LIGHT WITH DIRECTIONAL ARROWS (FILLED AREA INDICATES FACE)		ACCESS FLOOR SERVICE FITTING "X" INDICES TYPE		MICROPHONE		UTILITY METER
	EXIT LIGHT WITH DIRECTIONAL ARROWS (FILLED AREA INDICATES FACE)		CORD REEL "X" INDICES TYPE		VOLUME CONTROL/STATION SELECTOR		ELECTRONIC METERING UNIT
	EXIT LIGHT - WALL MOUNTED (FILLED AREA INDICATES FACE)		DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES		BELL		AMMETER
	EXIT/EMERGENCY LIGHT COMBO - WALL MOUNTED (FILLED AREA INDICATES FACE)		3-WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES		SIGNALING BELL		VOLTMETER
			4-WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES		SINGLE FACE CLOCK - CEILING MOUNTED		AMMETER SWITCH
	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH		DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES		SINGLE FACE CLOCK - WALL MOUNTED		VOLTMETER SWITCH
	AUTOMATIC LOAD CONTROL RELAY		3-WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES		DOUBLE FACE CLOCK - CEILING MOUNTED		SURGE PROTECTIVE DEVICE
	LIGHTING CONTROL DEVICE - REFER TO LIGHTING CONTROL SCHEDULE		4-WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES		DOUBLE FACE COMBINATION CLOCK/SPEAKER CEILING MOUNTED		CONTROL RELAY
	LOW VOLTAGE CONTROL STATION "X" INDICATES TYPE		4-WAY DUAL SWITCHING FOR INNER/OUTER LAMPS OF FLUORESCENT LIGHT FIXTURES		DOUBLE FACE CLOCK - WALL MOUNTED		TIME DELAY RELAY
	ROOM CONTROL DESIGNATION - REFER TO LIGHTING CONTROL SCHEDULE		DIGITAL TIME SWITCH		DOUBLE FACE COMBINATION CLOCK/SPEAKER WALL MOUNTED		PHASE ROTATION MONITOR
	SINGLE POLE TOGGLE SWITCH		ILLUMINATED TOGGLE SWITCH FOR CONTROL OF LIGHTING ON CRITICAL POWER-ILLUMINATED WHEN SWITCH IS IN "OFF" POSITION		TIME CLOCK		CAMLOCK - MALE
	TWO POLE TOGGLE SWITCH		OCCUPANCY SENSOR		CONTACTOR		CAMLOCK - FEMALE
	3 WAY TOGGLE SWITCH		OCCUPANCY SENSOR REFER TO ELECTRICAL STANDARD SCHEDULES		PHOTOCELL		ELECTRICAL VEHICLE SUPPLY EQUIPMENT
	4 WAY TOGGLE SWITCH		OCCUPANCY SENSOR "X" INDICATES TYPE		TIME		DC FAST CHARGER - STANDALONE
	KEY OPERATED SWITCH				TIME		DC FAST CHARGER - POWER MODULE
	3 WAY KEY OPERATED SWITCH						DC FAST CHARGER - DISPENSER
	4 WAY KEY OPERATED SWITCH						
	LOW VOLTAGE KEY OPERATED SWITCH						
	DIMMER SWITCH						
	3 WAY DIMMER SWITCH						
	DIMMER OCCUPANCY SENSOR SWITCH						
	PILOT SWITCH						
	MANUAL FIRE ALARM BOX		SMOKE DETECTOR		CARBON MONOXIDE DETECTOR		REMOTE TEST STATION (FOR DUCT DETECTOR)
	DUCT SMOKE DETECTOR		HEAT DETECTOR		PROJECTED BEAM DETECTOR		FIRE ALARM BELL
	CARBON MONOXIDE DETECTOR		FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE		FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd		FIRE ALARM COMBINATION VISUAL / AUDIBLE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd
	REMOTE TEST STATION (FOR DUCT DETECTOR)		FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd		FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE CEILING MOUNTED		FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE CEILING MOUNTED
	HEAT DETECTOR		FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd		FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE CEILING MOUNTED		FIREFIGHTERS PHONE JACK
	PROJECTED BEAM DETECTOR		FIRE ALARM CONTROL PANEL		FIRE ALARM ANNUNCIATOR PANEL		NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL
	FIRE ALARM BELL		ADDRESSABLE MONITORING MODULE		ADDRESSABLE CONTROL MODULE		ADDRESSABLE MONITORING MODULE FOR TAMPER SWITCH
	FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE		ADDRESSABLE MONITORING MODULE FOR FLOW SWITCH		MAGNETIC DOOR RELEASE		THERMAL OVERLOAD RELAY
	FIRE ALARM COMBINATION VISUAL / AUDIBLE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd		NORMALLY OPEN CONTACTS		NORMALLY CLOSED CONTACTS		N.O. PUSH BUTTON SINGLE CIRCUIT
	FIRE ALARM VISUAL NOTIFICATION APPLIANCE "XX" INDICATES CANDELA RATING IF NO RATING SHOWN, APPLIANCE IS 15cd		N.C. PUSH BUTTON SINGLE CIRCUIT		N.O. PUSH BUTTON SINGLE CIRCUIT		CABLE VAULT "X-X" INDICATES TYPE
	FIRE ALARM AUDIBLE NOTIFICATION APPLIANCE CEILING MOUNTED		BRANCH CIRCUIT PANELBOARD		LOAD CENTER		MOTOR CONTROL CENTER
	FIREFIGHTERS PHONE JACK		LOAD CENTER		DISTRIBUTION EQUIPMENT		ELECTRICAL GROUNDING BUS BAR
	FIRE ALARM CONTROL PANEL		ELECTRICAL GROUNDING BUS BAR		PLUG IN BUSWAY		FEEDEER BUSWAY
	FIRE ALARM ANNUNCIATOR PANEL		PLUG IN BUSWAY		FEEDEER BUSWAY		CABLE TRAY - ALL SIZES IN INCHES
	NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL		FEEDEER BUSWAY		CABLE TRAY - ALL SIZES IN INCHES		
	ADDRESSABLE MONITORING MODULE						
	ADDRESSABLE CONTROL MODULE						
	ADDRESSABLE MONITORING MODULE FOR TAMPER SWITCH						
	ADDRESSABLE MONITORING MODULE FOR FLOW SWITCH						
	MAGNETIC DOOR RELEASE						
	THERMAL OVERLOAD RELAY						
	NORMALLY OPEN CONTACTS						
	NORMALLY CLOSED CONTACTS						
	N.O. PUSH BUTTON SINGLE CIRCUIT						
	N.C. PUSH BUTTON SINGLE CIRCUIT						
	CABLE VAULT "X-X" INDICATES TYPE						
	BRANCH CIRCUIT PANELBOARD						
	LOAD CENTER						
	MOTOR CONTROL CENTER						
	DISTRIBUTION EQUIPMENT						
	ELECTRICAL GROUNDING BUS BAR						
	PLUG IN BUSWAY						
	FEEDEER BUSWAY						
	CABLE TRAY - ALL SIZES IN INCHES						

STANDARD MOUNTING HEIGHTS



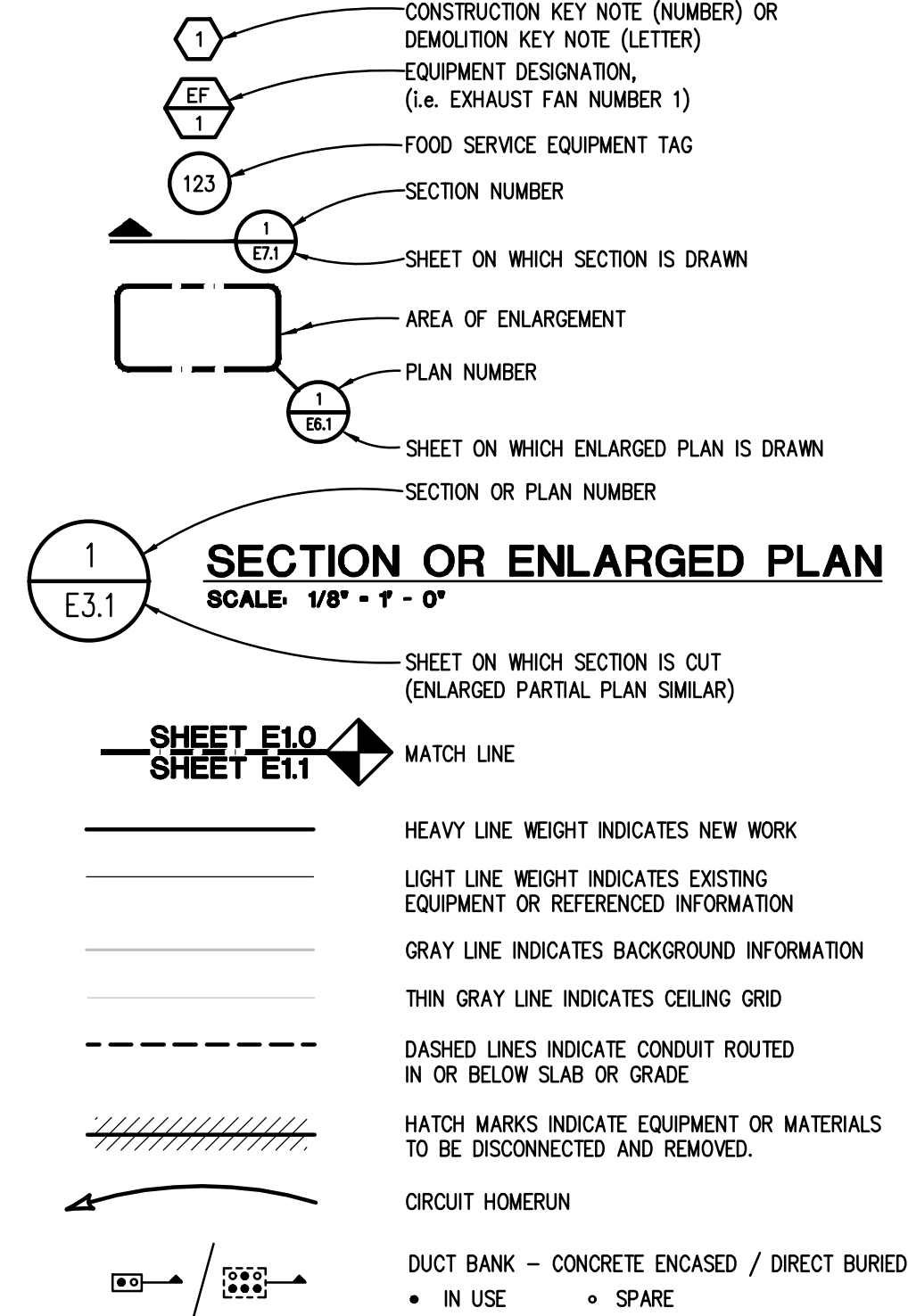
ELECTRICAL DRAWING INDEX

<u>SHEET NO.</u>	<u>SHEET TITLE</u>
E0.01	ELECTRICAL STANDARDS AND DRAWING INDEX
E0.02	ELECTRICAL STANDARD SCHEDULES
E0.04	ELECTRICAL SITE PLAN
E1.01	ELECTRICAL NEW WORK PLAN
E5.01	ONE LINE DIAGRAM & DETAILS

ELECTRICAL ABBREVIATION LIST

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	AMPERES	MAX	MAXIMUM
AER	ARC ENERGY REDUCTION	MCA	MINIMUM CIRCUIT AMPACITY
AF	AMPERES FRAME (BREAKER RATING)	MCB	MINI CIRCUIT BREAKER
AFCI	ARC FAULT CIRCUIT INTERRUPTER	MCC	MOTOR CONTROL CENTER
A.F.F.	ABOVE FINISH FLOOR	MDP	MAIN DISTRIBUTION PANEL
AL	AMPS INTERRUPTING CAPACITY	MECH	MECHANICAL
ALC	AUDIENCE LEFT	MIN	MINIMUM
ALOR	AUTOMATIC LOAD CONTROL RELAY	MISC	MISCELLANEOUS
AR	AUDIENCE RIGHT	MLO	MAIN LUGS ONLY
AT	AMPERES TRIP (BREAKER SETTING)	MPO	MAXIMUM OVERCURRENT PROTECTION
ATS	AUTOMATIC TRANSFER SWITCH	MTD	MOUNTED
AUX	AUXILIARY	MTG	MOUNTING
		MTR	MOTOR
BELT/LS	BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH	N	NEUTRAL
BKR	BREAKER	NC	NORMALLY CLOSED
BPS	BOLTED PRESSURE SWITCH	NEC	NATIONAL ELECTRICAL CODE
C	CONDUIT	NF	NON-FUSIBLE
CB	CIRCUIT BREAKER	NFC	NOT IN CONTRACT
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	NLT	NIGHT LIGHT
		NO	NORMALLY OPEN
CKT	CIRCUIT	NTO	NOT TO SCALE
CT	CURRENT TRANSFORMER	OC	ON CENTER
DEMO	DEMOLITION	OCFI	OWNER FURNISHED, CONTRACTOR INSTALLED
DM	DIMENSION	OFDI	OWNER FURNISHED, OWNER INSTALLED
DISC	DISCONNECT	P	POLE
DP	DISTRIBUTION PANEL	PB	PUSHBUTTON STATION
DWG	DRAWING	PB	PHASE
EBU	EMERGENCY BATTERY UNIT	PT	POTENTIAL TRANSFORMER
EC	ELECTRICAL CONTRACTOR	PDH	POWER DISTRIBUTION PANEL
ECM	ELECTRONICALLY COMMUTATED MOTOR	PH	PHASE
ELEC	ELECTRICAL	RECEPT.	RECEPTACLE
EM/ EMERG	EMERGENCY	RDP	RECEPTACLE DISTRIBUTION PANEL
EPT	ELECTRICAL METALLIC TUBING	RSC	RECEPTACLE PANEL
EMT	ELECTRICALLY OPERATED	RP	RIGID STEEL CONDUIT
EW	EMERGENCY POWER OFF	SCR	SHORT CIRCUIT CURRENT RATING
EWIC	ELECTRIC WATER COOLER	SCHED	SCHEDULE
EXIST	EXISTING	SPD	SURGE PROTECTION DEVICE
		ST	SHUNT TRIP
FA	FIRE ALARM	SW	SWITCH
FLA	FULL LOAD AMPS	SWBD	SWITCHBOARD
FLR	FLOOR	SWGR	SWITCHGEAR
FOH	FOOD HOUSE	TB	TERMINAL BOX
FSEC	FRONT OF SERVICE EQUIPMENT CONTRACTOR FUSE	TELECOM	TELECOMMUNICATIONS
FU	FUSE	TR	TAMPER RESISTANT
G/GRD/EG	GROUND	TTP	TELEPHONE TERMINAL BACKBOARD
GFI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GRFP	GROUND FAULT PROTECTION	U.O.N.	UNLESS OTHERWISE NOTED
HA	HAND-OFF-AUTO	UVR	UNDERVOLTAGE RELAY
HP	HORSEPOWER	US	UPSTAGE
HV	HIGH VOLTAGE	V	VOLTS
HZ	HERTZ	W	WIRE OR WATTS
IG	ISOLATED GROUND	WAP	WIRELESS ACCESS POINT
JB	JUNCTION BOX	WG	WIRE GUARD
KA	THOUSAND AMP	WP	WEATHER-PROOF
KV	KILOVOLT	WR	WEATHER RESISTANT
KVA	KILOVOLT - AMPERES	XEMR	TRANSFORMER
KW	KILOWATT	XP	EXPLOSION PROOF
KWH	KILOWATT - HOURS	(E)	EXISTING
LA	LIGHTNING ARRESTOR	(R)	RELOCATED
L	LIGHTING PANEL		
LDP	LIGHTING DISTRIBUTION PANEL		

STANDARD METHODS OF NOTATION

[illegible]

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, DIRECTOR

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PBA Project No.: 2026.0047

PROJECT TITLE

NEW STORAGE BUILDING FOR:

DEPARTMENT OF NATURAL RESOURCES
BELLE ISLE STATE PARK

DETROIT, MICHIGAN

SHEET TITLE

ELECTRICAL STANDARDS AND
DRAWING INDEX

PROJECT NUMBER 2019131	SHEET NUMBER E0.01
PROJECT DATE 05/13/26	
CHECKED BY EMG	



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FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE - GENERAL PURPOSE							
OVERCURRENT DEVICE RATING (AMPERES)	COPPER CONDUCTORS						KEYED NOTES
	WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE				
	PHASE & NEUTRAL	GROUND	SINGLE PHASE 2 WIRE+G (1PH, 1N, 1G, 2PH, 1G)	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1G)	THREE PHASE & NEUTRAL 4 WIRE+G (3PH, 1N, 1G)	
15-20	12	12	3/4"	3/4"	3/4"	3/4"	
25-30	10	10	3/4"	3/4"	3/4"	3/4"	
35-40	8	10	3/4"	3/4"	3/4"	3/4"	
45-50	8 (6)	10	3/4"	3/4"	3/4"	3/4"	1
60	6 (4)	10	3/4" (1")	3/4" (1")	3/4" (1")	1" (1 1/4")	1
70	4	8	1"	1 1/4"	1 1/4"	1 1/4"	
80	4 (3)	8	1"	1 1/4"	1 1/4"	1 1/4"	1
90-100	3 (2)	8	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1
110	2 (1)	6	-	1 1/4"	1 1/4"	1 1/4" (1 1/2")	1
125	1 (1/0)	6	-	1 1/4" (1 1/2")	1 1/4" (1 1/2")	1 1/2"	1
150	1/0	6	-	1 1/2"	1 1/2"	1 1/2"	
175	2/0	6	-	2"	2"	2"	
200	3/0	6	-	2"	2"	2 1/2"	
225	4/0	4	-	2"	2"	2 1/2"	
250	250	4	-	2 1/2"	2 1/2"	2 1/2"	
300	350	4	-	2 1/2"	2 1/2"	3"	
350	500	3	-	3"	3"	3"	
400	500	3	-	3"	3"	3"	

GENERAL NOTES:
1. CONTRACTOR TO SIZE FEEDERS AND BRANCH CIRCUITS BASED ON THIS SCHEDULE AND OVER CURRENT DEVICE SIZE, UNLESS NOTED OTHERWISE.
2. CONTRACTOR MAY COMBINE 20A CIRCUITS AS NOTED IN SPECIFICATION.
3. CONDUCTORS ARE BASED ON THHN/THWN-2 UP TO AND INCLUDING #4/0. LARGER THAN #4/0 ARE BASED ON TYPE XHHW.
4. CONDUIT SIZES ARE VALID FOR EMT OR RSC. CONDUIT SIZES SHALL BE ADJUSTED AS REQUIRED FOR OTHER TYPES OF CONDUIT.
5. SIZE OF DISCONNECT SWITCH LOCATED AT EQUIPMENT SHALL BE SIZED BASED UPON OVERCURRENT PROTECTION OF THAT DEVICE.
6. OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLING DIFFERENT SIZE/QUANTITY OF CONDUCTORS TO OBTAIN AN EQUIVALENT AMPACITY.

KEYED NOTES:
1. CONDUCTORS ARE BASED ON 90°C, 600V INSULATED WIRE APPLIED AT 75°C FOR TERMINATION RATED 60/75°C OR 75°C. FOR TERMINATION RATED AT 60°C, USE CONDUCTORS AND CONDUIT SIZES INDICATED IN PARENTHESES.

MOTOR CIRCUIT SIZING SCHEDULE (240V, 1 PHASE)				
MOTOR HP	SWITCH/ FUSE	CIRCUIT BREAKER	STARTER SIZE/TYPE	MOTOR DISCONNECT (NOTE 3)
1/2	30/7A	15A	1	30A
3/4	30/10A	15A	1	30A
1	30/12A	15A	1	30A
1 1/2	30/15A	20A	1	30A
2	30/20A	25A	1	30A
3	30/25A	35A	1	30A/60A
5	60/40A	60A	2	60A
7 1/2	60/60A	80A	2	60A/100A
10	60/60A	90A	3	60A/100A

GENERAL NOTES:
1. BASED ON MOTOR FULL LOAD AMPERES AS PROVIDED BY THE NEC
2. BASED ON MOTOR RUNNING OVERLOAD PROTECTIONS PROVIDED BY THERMAL OVERLOAD RELAYS.
3. WHERE THE STARTER IS LOCATED REMOTE FROM THE MOTOR, PROVIDE DISCONNECT LOCATED AT THE MOTOR, SIZE AS INDICATED. WHERE TWO SIZES ARE INDICATED, LARGER SIZE INDICATED IS FOR WHERE OVERCURRENT PROTECTION IS PROVIDED BY A CIRCUIT BREAKER.

BRANCH CIRCUIT VOLTAGE DROP WIRING SCHEDULE FOR SINGLE PHASE CIRCUITS						
BRANCH CIRCT RATING (A)	WIRE SIZE (AWG)	MAXIMUM BRANCH CIRCUIT LENGTH (IN FEET)				
		120V	208V	240V	277V	480V
20A	12	83	143	165	191	331
	10	128	222	256	295	511
	8	201	348	402	464	804
	6	313	542	625	721	1250
30A	10	85	148	170	197	341
	8	134	232	268	309	536
	6	208	361	417	481	833
	4	313	542	625	721	1250

GENERAL NOTES:
1. THE ABOVE TABLE VALUES ARE BASED ON COPPER CONDUCTORS, IN STEEL CONDUIT, WITH A LOAD POWER FACTOR OF 0.85 PER NEC CHAPTER 9, TABLE 9.
2. PROVIDE BRANCH CIRCUIT CONDUCTORS AS INDICATED IN THE TABLE ABOVE FOR ALL LIGHTING AND RECEPTACLE BRANCH CIRCUITS. WHERE BRANCH CIRCUITS SERVE DEDICATED EQUIPMENT, THE CONTRACTOR MAY PERFORM VOLTAGE DROP CALCULATIONS BASED ON ACTUAL EQUIPMENT CONNECTED LOAD AND PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO A MAXIMUM OF 3%.
3. CONDUCTOR SIZES ARE BASED ON MAXIMUM OF 9 CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT.
4. LIMITS FOR CONDUCTOR LENGTHS SHOWN ARE BASED ON A MAXIMUM BRANCH CIRCUIT LOADING OF 64% OF THE BRANCH BREAKER RATING AND A MAXIMUM OF 3 PERCENT VOLTAGE DROP TO COMPLY WITH ASHRAE 90.1 AND THE NEC. FOR CIRCUITS LOADED GREATER THAN 64% OF BRANCH BREAKER RATING, THE CONTRACTOR SHALL PROVIDE CONDUCTORS APPROPRIATELY SIZED TO LIMIT VOLTAGE DROP TO 3%.

MOTOR CIRCUIT SIZING SCHEDULE (120V, SINGLE PHASE)				
MOTOR HP	CIRCUIT BREAKER	MANUAL MOTOR STARTER SIZE	COMBINATION STARTER SIZE	MOTOR DISCONNECT (NOTE 3)
1/6	15A	1 HP	0	20A
1/4	15A	1 HP	0	20A
1/3	15A	1 HP	0	20A
1/2	20A	1 HP	0	20A

GENERAL NOTES:
1. BASED ON MOTOR FULL LOAD AMPERES AS PROVIDED BY THE NEC
2. BASED ON MOTOR RUNNING OVERLOAD PROTECTIONS PROVIDED BY THERMAL OVERLOAD RELAYS.
3. WHERE THE STARTER IS LOCATED REMOTE FROM THE MOTOR, PROVIDE DISCONNECT LOCATED AT THE MOTOR, SIZE AS INDICATED.

LUMINAIRE SCHEDULE								
TYPE	DESCRIPTION	MANUFACTURER(S)	WATTAGE	VOLTAGE	LIGHT CHARACTERISTICS	CONTROLS	MODEL #	REMARKS
L1	LED STRIP LIGHT 4FT	METALUX	47W	120V	4000K 5733L 80 CRI	0-10V DIM TO 10%	4SLSTP5540DD-UNV	PROVIDE EBPLED7W FOR EMERGENCY LIGHTS.
OL1	LED WALL PACK	LUMARK	58W	120V	3000K 5,611L 70CRI	INTERNAL PHOTOCCELL	XTOR6B-Y-CBP	
GENERAL NOTES:								
1. WATTAGE LISTED IS FROM THE BASIS OF DESIGN MANUFACTURER.								
2. FINISH TO BE APPROVED BY INTERIOR DESIGNER, ARCHITECT OR CLIENT.								
3. ALL LUMINAIRES TO BE AS SPECIFIED OR EQUAL APPROVED BY PBA.								

NOTE: SOME SYMBOLS AND ABBREVIATIONS SHOWN MAY NOT APPLY TO THIS PROJECT.

RACEWAY / CONDUCTOR / CABLE APPLICATION SCHEDULE																													
	WIRE	COPPER, TYPE THHN/THWN-2	COPPER, TYPE XHHW-2	RACEWAY	ELECTRICAL METALLIC TUBING (EMT)	INTERMEDIATE METAL CONDUIT (IMC)	RIGID STEEL CONDUIT (RSC)	PVC COATED RIGID STEEL CONDUIT	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-40	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-80	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 40	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 80	REINFORCED THERMOSET RESIN CONDUIT (RTRC) TYPE AG	REINFORCED THERMOSET RESIN CONDUIT (RTRC) TYPE BG	LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC)														
		FEEDERS - EXTERIOR																											
		EXPOSED, SURFACE MOUNTED TO STRUCTURE															X											X	
		EXPOSED, WITH FREESTANDING SUPPORT															X			X	X	X						X	
		BELOW PARKING LOTS AND ROADWAYS															X				X		X		X		X		
		BELOW GREEN SPACE															X					X	X		X			X	
		WITHIN 5' OF FOUNDATION WALL															X				X	X							
		FEEDERS - INTERIOR																											
		EXPOSED, BELOW 10' AFF AND SUBJECT TO DAMAGE															X			X	X	X							
EXPOSED, BELOW 10' AFF AND NOT SUBJECT TO DAMAGE			X			X	X																						
EXPOSED, ABOVE 10' AFF UNFINISHED SPACES			X			X	X																						
EXPOSED, FINISHED SPACES			X																										
BELOW SLAB ON GRADE			X				X	X	X	X																			
DAMP AND WET LOCATIONS			X				X	X	X																				
BRANCH CIRCUITS - EXTERIOR																													
EXPOSED, SURFACE MOUNTED TO STRUCTURE			X			X	X	X		X																			
EXPOSED, WITH FREESTANDING SUPPORT			X			X	X	X																					
BELOW PARKING LOTS AND ROADWAYS			X			X	X	X		X		X																	
BELOW GREEN SPACE			X					X																					
WITHIN 5' OF FOUNDATION WALL			X				X	X																					
BRANCH CIRCUITS - INTERIOR																													
EXPOSED, BELOW 10' AFF AND SUBJECT TO DAMAGE			X			X	X	X																					
EXPOSED, BELOW 10' AFF AND NOT SUBJECT TO DAMAGE			X			X	X																						
EXPOSED, ABOVE 10' AFF UNFINISHED SPACES			X			X	X																						
EXPOSED, FINISHED SPACES			X																										
BELOW SLAB ON GRADE			X					X																					
EMBEDDED IN ELEVATED CONCRETE SLAB			X					X																					
DAMP AND WET LOCATIONS			X				X	X	X	X					X														
SPECIAL APPLICATIONS																													
SERVICE ENTRANCE - UNDERGROUND			X					X	X	X	X	X																	
SERVICE ENTRANCE - ABOVE GROUND			X			X	X	X																					
CLASS 1 CONTROL CIRCUITS			X			X	X	X																					
CLASS 2 CONTROL CIRCUITS			X			X	X	X																					
CLASS 3 CONTROL CIRCUITS			X			X	X	X																					
CONNECTIONS TO TRANSFORMERS, MOTORS AND VIBRATING EQUIPMENT			X																										

GENERAL NOTES:
1. TRANSITION FROM PVC/HDPE AND PROVIDE RIGID STEEL OR RTRC SWEEPS WHERE CONDUITS PENETRATE WALLS, CONCRETE SLABS, CONCRETE BASES, AND ASPHALT.
2. REFER TO SPECIFICATIONS FOR RESTRICTIONS ON MC/AC CABLE INSTALLATION.
3. EMT SHALL NOT BE USED ON THE EXTERIOR OF A BUILDING OR IN AREAS SUBJECT TO DAMAGE BELOW 10' AFF.
4. INSTALL SURFACE RACEWAYS ONLY WHERE INDICATED ON DRAWINGS.

	ISSUED FOR BIDS	10/09/26
	95% CD REVIEW	09/15/26
NO.	REVISION	DATE



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DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
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FILE NO.	
751/19193.SMD	

INDEX NO.	CONTRACT NO.
5603	Y 22166



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PBA Project No.: 2026.0047

PROJECT TITLE	
NEW STORAGE BUILDING FOR:	
DEPARTMENT OF NATURAL RESOURCES BELLE ISLE STATE PARK	
DETROIT, MICHIGAN	

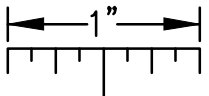
SHEET TITLE	
ELECTRICAL STANDARD SCHEDULES	

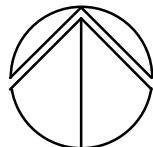
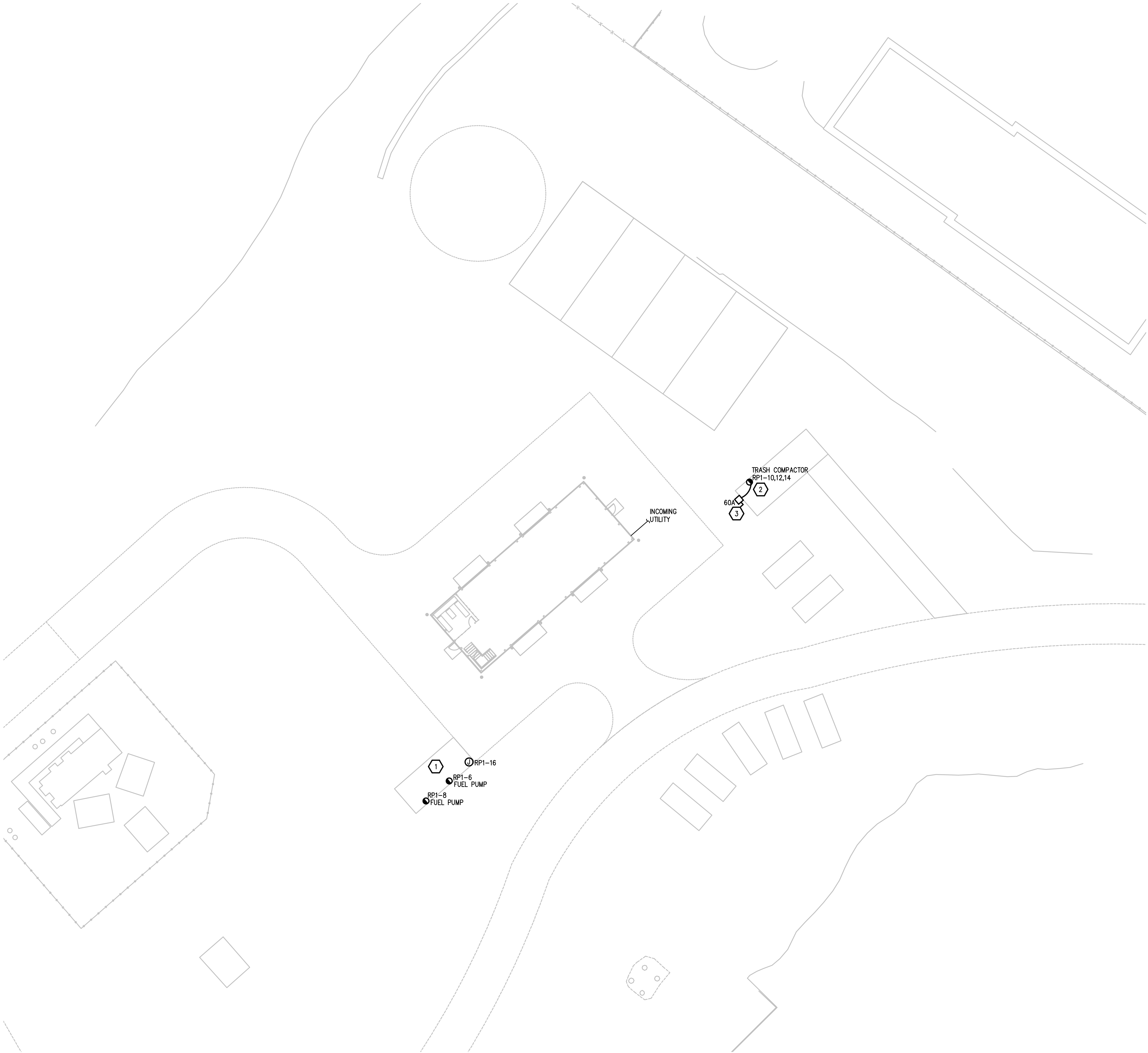
PROJECT NUMBER	SHEET NUMBER
2019131	
PROJECT DATE	
05/13/26	E0.02
CHECKED BY	
EMG	



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THE FOLLOWING DIMENSION EQUALS
ONE INCH WHEN PRINTED TO SCALE.





ELECTRICAL SITE PLAN

SCALE: 1" = 20'

SITE PLAN GENERAL NOTES:

- THESE NOTES ARE GENERIC GUIDELINES ONLY. ELECTRICAL CONTRACTOR'S PERSONNEL ON SITE SHALL BE THOROUGHLY FAMILIAR WITH THE PUBLISHED SPECIFICATIONS FOR EXACT DESCRIPTIONS OF SCOPE, METHODS, AND MATERIAL.
- THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
- CONDUCT A SURVEY TO IDENTIFY ALL UNDERGROUND UTILITIES. CALL 811 PRIOR TO EXCAVATION.
- UTILITIES SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. COORDINATE EXACT LOCATION OF ALL EXISTING UTILITIES, AND ROUTING OF ALL NEW UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
- DEWATER TRENCHES PRIOR TO INSTALLATION OF CONDUITS. PROVIDE WATER TIGHT FITTINGS ON ALL UNDERGROUND CONDUITS.
- COORDINATE DEMOLITION WORK, AND ELECTRICAL AND TELEPHONE SERVICES TO THE SITE, WITH THE RESPECTIVE LOCAL UTILITY COMPANY REPRESENTATIVES PRIOR TO COMMENCEMENT OF WORK. INCLUDE ALL ASSOCIATED COST/FEE'S BY THE UTILITY COMPANIES IN THE BID PRICE.
- INSTALL UNDERGROUND CONDUITS 42" BELOW FINISHED GRADE, MINIMUM, UNLESS NOTED OTHERWISE.
- COORDINATE SERVICE SHUT-DOWNS WITH ALL TRADES INVOLVED ON SITE AND OBTAIN WRITTEN AUTHORIZATION FROM OWNER 72 HOURS PRIOR TO ANY ELECTRICAL AND/OR TELEPHONE SHUT-DOWN.
- REMOVE ALL DE-ENERGIZED CONDUCTORS FROM SITE AT COMPLETION OF THE PROJECT.
- EXCAVATE THE ENTIRE LENGTH OF TRENCH TO PROPERLY SET DUCT ELEVATIONS.

CONSTRUCTION KEY NOTES:

- COORDINATE FINAL PUMP SIZES AND LOCATION WITH FUEL ISLAND DESIGNER AND OWNER REQUIREMENTS PRIOR TO INSTALLATION. PUMP SIZE, VOLTAGE, AND AMPACITY IS ASSUMED TO BE 2 PUMPS AT 1/3HP 120V 5.5FLA. ANY ADDITIONAL REQUIREMENTS FOR GROUNDING, HAZARD RATING OF CONNECTIONS, ETC., FOR THIS FEED SHALL BE DESIGNED BY AND COORDINATED WITH THE FUEL ISLAND SYSTEM DESIGNER. WIRE SIZING MAY NEED TO ACCOUNT FOR VOLTAGE DROP BASED ON DISTANCE AND FINAL VOLTAGE RATING. PROVIDE A TOTAL OF 3 DEDICATED 120V CIRCUITS. PROVIDE AND INSTALL ONE 1" SPARE CONDUIT TO PAD FOR FUTURE.
- CIRCUIT FOR TRASH COMPACTOR TO GO THROUGH 30KVA STEP-UP TRANSFORMER TO CONVERT THE 208V 3PH TO 240V 3PH. LOCATE TRANSFORMER ON WALL ADJACENT TO PANELBOARD AS SHOWN ON NEW WORK PLANS.
- MOUNT DISCONNECT ON TRASH COMPACTOR UNIT IF AVAILABLE SPACE, OTHERWISE MOUNT ON STRUT STANCHION.



Know what's below.
Call before you dig.



	ISSUED FOR BIDS	10/09/26
	95% CD REVIEW	09/15/26
NO.	REVISION	DATE



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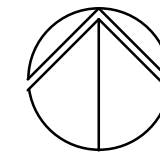
PROJECT TITLE
NEW STORAGE BUILDING FOR:

DEPARTMENT OF NATURAL RESOURCES
BELLE ISLE STATE PARK

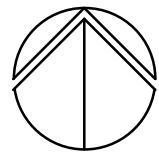
DETROIT, MICHIGAN

SHEET TITLE
ELECTRICAL SITE PLAN

PROJECT NUMBER 2019131	SHEET NUMBER E0.04
PROJECT DATE 05/13/26	
CHECKED BY EMG	



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



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

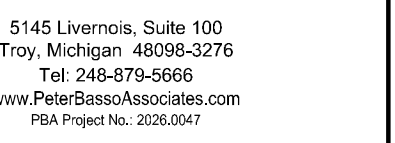
1. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS. COORDINATE EXACT EQUIPMENT LOCATIONS, ELEVATIONS, AND FINAL CONNECTION REQUIREMENTS. PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.
2. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.
3. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.
4. COORDINATE THE MOUNTING HEIGHTS OF DEVICES WITH ARCHITECTURAL ELEVATIONS AND THE TRADES INSTALLING THE WORK.

1. TIMECLOCK SHALL TURN INTERIOR LIGHTS OFF AT AN OWNER DESIRED TIME IF THEY ARE LEFT ON.
2. COORDINATE SERVICE TO BUILDING WITH DTE FOR FINAL CONDUIT AND METER LOCATIONS AND REQUIREMENTS.
3. MOUNTING HEIGHT FOR EXTERIOR LIGHTS TO MATCH THE MOUNTING HEIGHT ON THE ADJACENT DNR HEADQUARTERS BUILDING.
4. MOUNT ALL INTERIOR AND EXTERIOR WALL MOUNTED RECEPTACLES AT 48" A.F.F.
5. FURNISH AND INSTALL REELCRAFT POWER CORD REEL WITH 45FT CORD, NEMA 5-20R DUPLEX RECEPTACLE WITH FLIP-TOP COVER, MODEL #L 4545 123 7A, OR SIMILAR, CONNECT TO CORREL WITH 48 INCH PIGTAIL WITH NEMA 5-20P PLUG. PROVIDE STOPPER SO THAT RECEPTACLE HANGS AT OWNER PROVIDED HEIGHT. USE 7/8" A.F.F. AS A STARTING POINT.
6. MOUNT LIGHT FIXTURE BETWEEN JOISTS SO THAT BOTTOM OF LIGHT FIXTURE IS AT THE SAME LEVEL AS THE BOTTOM OF THE JOISTS/RAFTERS.
7. SENSOR TO TURN ON LIGHTS WHEN MOTION IS DETECTED AND TURN LIGHTS OFF AFTER 10 MINUTES OF INACTIVITY. SENSOR TO BE MOUNTED SO THAT IT FACES THE DOOR OF THE TOOL CRIB.
8. COORDINATE FINAL POWER CONNECTION LOCATION AND REQUIREMENTS WITH FINAL MOTORIZED DOOR CONTROLLER SELECTION. OPERATOR AND MOTOR DISCONNECT TO BE PROVIDED BY MANUFACTURER AS PART OF A PACKAGED UNIT.
9. MOUNT 30KVA BUCK BOOST TRANSFORMER HIGH ON WALL ABOVE PANELBOARD TO FEED TRASH COMPACTOR. 208V 3PH TO 240V 3PH.
10. COORDINATE FINAL LOCATION OF GROUND MAT WITH CIVIL AND LANDSCAPING.

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SHEET TITLE
ELECTRICAL NEW WORK PLAN

PROJECT NUMBER 2019131	SHEET NUMBER E1.01
PROJECT DATE 05/13/26	
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PANELBOARD RP1																
#	LOAD TYPE	DESCRIPTION	CB TYPE	CB	VA	ØA	ØB	ØC	VA	CB	CB TYPE	DESCRIPTION	LOAD TYPE	#		
1	M	BAY 2 SOUTH GARAGE DOOR 1/2HP		20	1176	1527			351	20		BARN LIGHTING	L	2		
3	M	BAY 2 NORTH GARAGE DOOR 1/2HP		20	1176		1536		360	20	GFCI	CORD REELS	R	4		
5	M	BAY 4 NORTH GARAGE DOOR 1/2HP		20	1176			1726	550	20		FUEL PUMP 1/3HP	M	6		
7	M	BAY 4 SOUTH GARAGE DOOR 1/2HP		20	1176	1726			550	20		FUEL PUMP 1/3HP	M	8		
9	R	WALL OUTLETS – 1		20	900		5704		4804				MH	10		
11	R	WALL OUTLETS – 2		20	900			5704	4804	110		TRASH COMPACTOR TRANSFORMER 30KVA	MH	12		
13	R	WALL OUTLETS – 3		20	900	5704			4804				MH	14		
15	R	TOOL STORAGE OUTLETS EAST		20	360		360			20		SPARE FOR FUEL PAD		16		
17	R	TOOL STORAGE OUTLETS NORTH		20	360			360		20		SPARE		18		
19		SPARE		20						20		SPARE		20		
21		SPARE		20						20		SPARE		22		
23		SPARE										SPARE		24		
25		SPARE		20								SPARE		26		
27		SPARE										SPARE		28		
29		SPARE										SPARE		30		
					8957	7600	7790									
					ØA	ØB	ØC									
PANELBOARD INFORMATION					BRANCH CIRCUIT CONNECTED LOAD			DEMAND FACTOR		CALCULATED LOAD		FEEDER AND OVERCURRENT SIZING		NOTES:		
VOLTAGE: 208Y/120					CONTINUOUS LOAD (C)			100%		125%				AIC RATING TO BE		
BUS AMPACITY: 225A					ELECTRIC HEAT (E)			100%		125%				COORDINATED WITH		
MAIN TYPE: 200A MCB					NON-CONTINUOUS LOAD (NC)			100%		100%				UTILITY		
MINIMUM A.I.C.: 2					KITCHEN LOAD (K)			100%		100%						
MOUNTING: SURFACE					RECEPTACLE BASE LOAD (R)			100%		3780		100%		SERVICE ENTRANCE		
					RECEPTACLE DEMAND LOAD (R)			50%		100%				RATED		
					LIGHTING LOAD (L)			100%		351		125%		439		
					ADDITIONAL TRACK LIGHTING LOAD					100%						
					MOTORS, HIGHEST LOAD (MH)			125%		18015		100%		18015		
					MOTORS, REMAINING LOAD (M)			100%		5804		100%		5804		
					TOTAL(KVA):			27.95								
					TOTAL (AMPS):			78		TOTAL (AMPS):		78				
PANELBOARD LOCATION																