ARCHITECTURAL DWG ABBREVIATIONS

ACC	ACCESSIBLE	HM	HOLLOW METAL	SS	STAINLESS STEEL		
ACFL	ACCESS FLOOR	HO	HONEY-COMB	SSM	SOLID SURFACING MATERIAL		
ACT	ACOUSTICAL CEILING TILE	HOR	HORIZONTAL	ST	STONE		
AD	AREA DRAIN	HR	HOUR	STC	SOUND TRANSMISSION CLASS		
ADJ	ADJACENT	HSKG	HOUSEKEEPING	STD	STANDARD		
AFF	ABOVE FINISHED FLOOR	HSS	HOLLOW STEEL SECTION	STL	STEEL		
ALUM	ALUMINUM	HT	HEIGHT	STOR	STORAGE		
ANNP	ANNUNCIATOR PANEL	HVAC	HEATING / VENTING / AIR CONDITIONING	STRUCT	STRUCTURAL		
ANOD	ANODIZED	HVY	HEAVY	SUSP	SUSPENDED		
APPROX	APPROXIMATE	HW	HOT WATER				
ARCH	ARCHITECTURAL			TBD	TO BE DETERMINED		
AUTO	AUTOMATIC	ID	INSIDE DIAMETER	TD	TRENCH DRAIN		
AVB	AIR VAPOUR BARRIER	INFO	INFORMATION	TEL	TELEPHONE		
AVM	AIR VAPOUR MOISTURE BARRIER	INSUL	INSULATION	TEMP	TEMPORARY		
		INT	INTERIOR	TERR	TERRAZZO		
B	BASE	IMP	INSULATED METAL PANEL	T/O	TOP OF		
BF	BIFOLD DOOR	ISO	POLYISOCYANURATE	TOC	TOP OF CURB		
BLDG	BUILDING			TOF	TOP OF FLOOR		
BM	BEAM	JAN	JANITOR CLOSET	TOS	TOP OF STEEL		
B/O	BOTTOM OF			TPO	THERMOPLASTIC POLYOLEFIN		
BOL	BOLLARD	KIT	KITCHEN	TS	TRANSITION STRIP		
BUR	BUILT UP ROOFING			TSG	TEMPERED SAFETY GLASS		
		L	LENGTH	TYP	TYPICAL		
CAB	CABINET	LAV	LAVATORY				
CB	CATCH BASIN	LINO	LINOLEUM	U/G	UNDER GROUND		
CD	COILING DOOR	LL	LIVE LOAD	UNO	UNLESS NOTED OTHERWISE		
CG	CORNER GUARD	LVR	LOUVER				
CIP	CAST IN PLACE			U/S	UNDERSIDE		
CJ	CONTROL JOINT	m	METER				
C/L	CENTRE LINE	MATL	MATERIAL	V	VENEER		
CLG	CEILING	MAX	MAXIMUM	VB	VAPOUR BARRIER		
CLR	CLEARANCE	MECH	MECHANICAL	VCT	VINYL COMPOSITE TILE		
CMP	COMPOSITE METAL PANEL	MED	MEDIUM	VERT	VERTICAL		
CMU	CONCRETE MASONRY UNIT	MEL	MELAMINE	VEST	VESTIBULE		
		MEP	MECHANICAL, ELECTRICAL AND PLUMBING	VIF	VERIFY IN FIELD		
COL	COLUMN						
COM	CUSTOMERS OWN MATERIAL	MEZZ	MEZZANINE	W	WIDTH		
CONC	CONCRETE	MF	MINERAL FIBRE	WC	WALL COVERING		
CONST	CONSTRUCTION	MFR	MANUFACTURER	W/C	WATER CLOSET		
CONT	CONTINUOUS	MH	MANHOLE	WD	WOOD		
CORR	CORRIDOR	MIN	MINIMUM	WH	WATER HEATER		
CPT	CARPET	MISC	MISCELLANEOUS	WP	WATERPROOF		
CPT-T	CARPET TILE	MLDG	MOULDING	WPR	WALL PROTECTION		
CS	COUNTER SHUTTER	MLWK	MILLWORK	WRM	WASHROOM		
CT	CERAMIC TILE	mm	MILLIMETER	WV	WOOD VENEER		
CW	CURTAIN WALL	MP	METAL PANEL				
C/W	COMPLETE WITH	MTD	MOUNTED	X-HVY	EXTRA HEAVY		
		MTL	METAL				
DCRON	DURACRON	N/A	NOT APPLICABLE				
DD	DOUBLE SWING DOOR	NF	NO FRAME (FRAMELESS)				
DEG	DEGREES	NIC	NOT IN CONTRACT				
DEMO	DEMOLITION	No.	NUMBER				
DF	DRINKING FOUNTAIN	NTS	NOT TO SCALE				
DIA	DIAMETER						
DIM	DIMENSION	O/C	ON CENTRE				
DL	DEAD LOAD	OD	OUTSIDE DIAMETER				
DN	DOWN	OH	OVERHEAD DOOR				
DNAR	DURANAR	O/H	OVERHEAD				
DP	DEPTH	OPNG	OPENING				
DR	DOOR	OPP	OPPOSITE				
DW	DISH WASHER	OS	OWNER SUPPLIED				
DWG	DRAWING	OWSJ	OPEN WEB STEEL JOIST				
EA	EACH	P	PAINT (colour)				
EJ	EXPANSION JOINT	PC	POWDER COAT				
EL	ELEVATION	P.CONC	POLISHED CONCRETE				
ELEC	ELECTRICAL	PD	PLANTER DRAIN				
ELEV	ELEVATOR	PERP	PERPENDICULAR				
EP	ELECTRICAL PANEL	PH	PHASE				
EPDM	ETHYLENE PROPYLENEDIENE M-CLASS (ROOFING)	PL	PROPERTY LINE				
		PLAM	PLASTIC LAMINATE				
EPX	EPOXY	PLYWD	PLYWOOD				
EQ	EQUAL	PO	POLYSTYRENE				
ES	EMERGENCY SHOWER	POLY	POLYETHYLENE				
EXIST	EXISTING	POLY-U	POLYURETHANE				
EXP	EXPOSED	PREFAB	PREFABRICATED				
EXP-S	EXPOSED STRUCTURE	PREFIN	PREFINISHED				
EXT	EXTERIOR	PS	PRESSED STEEL				
EWS	EYE WASH STATION	PSFR	PRESSED STEEL FRAME				
		PT	PRESSURE TREATED				
F	FRAME	PTD	PAINTED				
FAAP	FIRE ALARM ANNUNCIATOR PANEL	QT	QUARRY TILE				
FAB	FABRIC						
FC	FLASH COVE	R	RADIUS				
FD	FLOOR DRAIN	R/A	RETURN AIR				
FDN	FOUNDATION	RB	RUBBER BASE				
FE	FIRE EXTINGUISHER	RCP	REFLECTED CEILING BASE				
FFE	FINISH FLOOR ELEVATION	RD	ROOF DRAIN				
FF&E	FURNITURE FIXTURES & EQUIPMENT	RE	REVOLVING DOOR				
		REINF	REINFORCED				
FHC	FIRE HOSE CABINET	REF	REFERENCE				
FLR	FLOOR	REFR	REFRIGERATOR				
F/O	FACE OF	REQ'D	REQUIRED				
FOC	FACE OF CONCRETE	RES	RESILIENT FLOORING				
FOG	FACE OF GLAZING	REV	REVISION				
FOS	FACE OF STUD	RM	ROOM				
FP	FRAME PROTECTION	RO	ROLLING DOOR				
FRR	FIRE RESISTANCE RATING	RR	RAPID ROLL DOOR				
FT	FOOT/FEET	RSF	RESILIENT SHEET FLOORING				
		RUB	RUBBER				
G ( )	GLASS (type)	RWL	RAINWATER LEADER				
GA	GAUGE						
GALV	GALVANIZED	S/A	SUPPLY AIR				
GB	GRAB BAR	SAM	SELF-ADHERED MEMBRANE				
GBN	GARBAGE BIN						
GC	GENERAL CONTRACTOR	SC	SOLID CORE				
GL	GLASS / GLAZING	SCW	SOLID CORE WOOD				
GRD	GROUND	SD	SINGLE SWING DOOR				
GWB	GYPSUM WALL BOARD	SF	SQUARE FEET				
GWG	GEORGIAN WIRE GLASS	SFL	SAFETY FLOOR				
GYP	GYPSUM	SG	STRUCTURAL GLAZING				
		SHT	SHEET				
HB	HOSE BIB	SIA	SIAMESE CONNECTION				
HC	HOLLOW CORE	SIM	SIMILAR				
H/C	HANDICAP	SL	SLIDING DOOR				
HCW	HOLLOW CORE WOOD	SMC	STEEL METAL CARRIER				
HD	HANGAR DOOR	SOG	SLAB ON GRADE				
HDR	HEADER	SP	STAND PIPE				
HDWD	HARDWOOD	SPEC	SPECIFICATION				
HDWR	HARDWARE	SQ	SQUARE				

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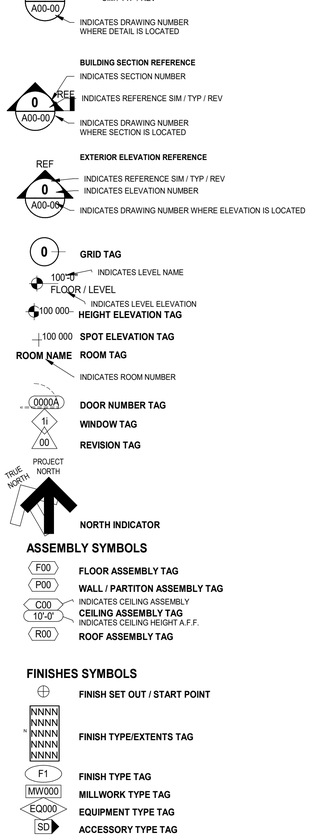
SYMBOL LEGEND



ASSEMBLY SYMBOLS

FINISHES SYMBOLS

GENERAL CONDITIONS

A. THE FOLLOWING ARE GENERAL CONDITIONS FOR THE PROJECT. IF THERE OCCURS A CONFLICT BETWEEN THESE NOTES AND OTHER CONTRAT REQUIREMENTS THE MORE STRICT SHALL GOVERN. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED FOR A COMPLETE AND OPERATIONAL PROJECT AS INDICATED OR IMPLIED BY THE CONSTRUCTION DRAWINGS AND/ OR SPECIFICATIONS UNLESS NOTED OTHERWISE.

B. THE CONTRACTOR SHALL OBTAIN COPIES OF ALL RELATED BUILDING CODES FOR REFERENCE DURING CONSTRUCTION. ALL WORK SHALL MEET THE BUILDING CODES AND REGULATIONS LISTED UNDER CODE INFORMATION.

C. THE CONTRATOR SHALL THOROUGHLTY INSPECT THE SITE AND BE FAMILIAR W/ EXISTING CONDITIONS PRIOR TO THE START OF THEIR WORK.

D. THESE DRAWINGS ARE PREPARED FOR THE PURPOSE OF CONSTRUCTION ONLY. THESE DRAWINGS ARE NOT TO BE USED FOR MAINTENANCE PURPOSES, AS ACTUAL CONDITIONS MAY VARY FROM THESE SHOWN DRAWINGS DUE TO CHANGE ORDERS. ALTERATIONS BY OTHERS, FIELD CONDITIONS, ETC.

E. THESE DOCUMENTS AND RELATED CONTENT ARE DIAGRAMMATICAL IN NATURE AND ARE NOT INTENDED TO INDICATE MEANS AND METHODS REQUIRED TO PROPERLY COMPLETE THE WORK. ALL WORK SHALL MEET ALL APPLICABLE CODES AND REGULATIONS.

F. PRIOR TO CONSTRUCTION, THE PREPARATION OF SHOP DRAWINGS, AND THE FABRICATION OF ANY MATERIALS, VERIFY ALL DIMENSIONS IN FIELD, REFERRING TO EXISTING ADJACENT CONDITIONS, CONSTRUCTION MATERIALS, AND DETAILS. IF ANY DISCREPANCIES ARE DISCOVERED, ASSUME CERTAIN MODIFICATIONS TO DETAILS AFFECTING EXISTING CONDITIONS ARE SUBJECT TO REVIEW BY THE ARCHITECT.

G. ALL WORK SHALL MEET THE CRITERIA OF THE RELATED PRODUCT'S MANUFACTURER AS NEEDED TO MEET CODE AND AS NEEDED TO PROVIDE A WARRANTED INSTALLED ASSEMBLY. ANY INSTALL OF AN ASSEMBLY OVER, WITHIN OR ATTACHED TO A SURFACE, SUBSTRATE, OR OTHER PRODUCT ASSEMBLY SHALL INDICATE THE INSTALLER'S AND THE RELATED MANUFACTURER'S ACCEPTANCE OF ALL CONDITIONS AS BEING CODE COMPLIANT AND SUITABLE FOR A FULLY WARRANTED ASSEMBLY.

H. REMEDY, WITHOUT COST TO THE OWNER. ANY DEFECTS DUE TO FAULTY WORKMANSHIP.

I. ALL WORK SHALL BE DONE TO MEET OR EXCEED THE STANDARDS OF NORMAL CONSTRUCTION TRADE PRACTICE(S) AND CURRENT GOVERNING CODE.

J. MAINTAIN A COMPLETE SET OF CONSTRUCTION DOCUMENTS AT THE SITE FOR USE IN RECORDING AN AS-BUILT RECORD. UPDATE AS-BUILT NOTATIONS DAILY, PROTECT DOCUMENTS TO ENSURE THEIR COMPLETENESS AND LEGIBILITY, FOLLOWING COMPLETION OF THE PROJECT AS -BUILT DRAWINGS ARE TO BE GIVEN TO THE OWNER.

K. **NOTE TO OWNER AND GENERAL CONTRACTOR**: THE ARCHITECT ASSUMES THAT THE PERMIT PLAN REVIEW PERFORMED BY THE RELATED AUTHORITIES HAVING JURISDICTION (AHJ) IS THOROUGH, COMPLETE, AND ACCURATE. ANY CHANGES REQUESTED BY THE AHJ WHICH ARE MADE AFTER PROJECT PERMITTING SHALL BE DEEMED A CHANGE IN SCOPE. THE ARCHITECT/ ENGINEERS SHALL ASSUME NO RESPONSIBILITY FOR ANY COSTS RELATED TO SUCH THINGS.

L. **DEFERRED SUBMITTALS**: PORTIONS OF THE WORK FOR THIS PROJECT ARE BEING DESIGNED AND ENGINEERED BY OTHERS OR THROUGH A DESIGN-BUILD PROCESS. THIS WORK SHALL BE PERMITTED SEPARATELY. PRIOR TO FABRICATION, SHIPPING, OR INSTALL OF THE FOLLOWING ITEMS, A SET OF DETAILED STAMPED/ CERTIFIED DESIGN SHOP DRAWINGS SHALL BE PROVIDED BY A STATE LICENSED STRUCTURAL ENGINEER WHOM IS EITHER HIRED OR EMPLOYED BY THE RELATED PRODUCT MANUFACTURER, SUPPLIER, SUBCANTRACTOR, OR INSTALLER: *(DO NOT UNDERTAKE ANY RELATED WORK UNTIL SUCH SHOP DRAWINGS HAVE BEEN APPROVED BY THE STRUCTURAL ENGINEER OF RECORD AND THE LOCAL PERMITTING AUTHORITIES HAVING JURISDICTION. ALL WORK SHALL MEET ALL RELATED CODES AND REGULATIONS)*
   a. PAY BOOTH
   b. PRE-FABRICATED STEEL TRUSSES
   c. SIGNAGE

M. **FACILITY SIGNAGE**: FACILITYSIGNAGE IS NOT PART OF THIS PERMIT SUBMITTAL. PRIOR TO FABRICATION, THE SIGNAGE VENDOR SHALL SUBMIT DETAILED SHOP DRAWINGS INDICATING SIGNAGE TYPES, QUANTITIES, SIZES, COLORS, LOCATIONS, STRUCTURAL SUPPORT, STRUCTURAL FOUNDATIONS, AND UTILITY CONNECTIONS TO THE LOCAL PERMITTING AUTHORITIES FOR APPROVAL.

EXTERIOR SIGNAGE:

SIGNS ARE NOT APPROVED WITHIN THE SCOPE OF THIS BUILDING PERMIT. A SEPARATE SIGN LOCATION PERMIT IS REQUIRED FOR SIGNAGE AS PER LOCAL REGULATIONS.

NOTE TO AHJ:

THE ARCHITECT OR HIS ENGINEERS ARE NOT RESPONSIBLE FOR CONSTRUCTION ADMINISTRATION OF THIS PROJECT.

24 HOUR CONTACT DURING CONSTRUCTION:

SHALL BE THE BUILDING PERMIT HOLDER

STATEMENT OF SPECIAL INSPECTIONS:

SEE STRUCTURAL DRAWINGS

SPECIAL INSPECTIONS:

THE OWNER SHALL HIRE SPECIAL INSPECTION AGENCY TO UNDERTAKE SPECIAL INSPECTIONS. THE CONTRACTOR SHALL COORDINATE AND OBTAIN SUCH INSPECTIONS.

SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH CHAPTER 17 OF 2018 IBC FOR THE FOLLOWING ITEMS:
- STEEL CONSTRUCTION, WELDING, HIGH STRENGTH BOLTS, AND MASONRY CONSTRUCTION.
- ALL SPECIAL INSPECTION REPORTS MUST BE FORWARDED TO BUILDING INSPECTION DEPARTMENT FOR REVIEW AND APPROVAL.

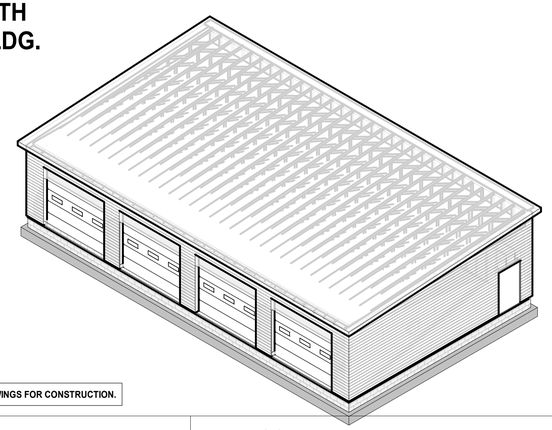
TRENCH/ SEWER COORDINATION DESIGN NOTE:

INVERT LOCATIONS NOTED HEREIN ARE PROTOTYPICAL MINIMUMS. INVERT ELEVATIONS FOR EACH SPECIFIC PROPERTY ARE TO BE COORDINATED WITH EACH SITE-SPECIFIC CIVIL ENGINEER.
IN THE EVENT THAT THE EXISTING SEWER IS TOO SHALLOW TO ACCOMMODATE PROTOTYPICAL MINIMUMS, THE TRENCH DESIGN MAY BE MADE SHALLOWER BY THE FOLLOWING MEANS, IN THIS ORDER:
1. DELETE 3" AT ENTRANCE (GAIN 3")
2. CHANGE SLOPE TO 1% (GAIN 6")
3. DELETE SUMP (GAIN 8")

THESE CHANGES MUST BE APPROVED BY TIDAL WAVE PRIOR TO IMPLEMENTATION.

ST. CLAIR COUNTY HEALTH DEPARTMENT GARAGE BLDG.

220 FORT STREET
PORT HURON, MI
48060



FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO DETAILED DRAWINGS FOR CONSTRUCTION.

PROJECT DESCRIPTION

CONSTRUCTION OF NEW GARAGE FACILITY

1. **APPLICABLE CODES**
   INTERNATIONAL BUILDING CODE (IBC) - 2015
   INTERNATIONAL MECHANICAL CODE (IMC) - 2021
   UNIFORM PLUMBING CODE (IPC) - 2021
   NATIONAL ELECTRICAL CODE (NEC) - 2020
   INTERNATIONAL FIRE CODE (IFC) - 2012
   INTERNATIONAL ENERGY CONSERVATION CODE (IECC) - 2012
   ACCESSIBILITY - ANSI A117.1, 2009
2. **USE & OCCUPANCY**
   STORAGE: S1
3. **FIRE AND SMOKE PROTECTION FEATURES**
   FIRE RESISTANCE RATING OF EXTERIOR WALLS DUE TO DISTANCE FROM PROPERTY LINE SHALL MEET CODE REQUIREMENTS.
   NOT REQUIRED
4. **FIRE PROTECTION SYSTEMS**
   FIRE SPRINKLER: NOT REQUIRED
   FIRE ALARM: NOT REQUIRED
5. **MEANS OF EGRESS**
   REFER TO LIFE SAFETY/ EGRESS PLAN FOR SPECIFIC CALCULATIONS.

   OCCUPANT LOAD: SEE LIFE SAFETY PLAN
   NUMBER OF EXITS: 1
6. **ENERGY COMPLIANCE**
   NOT REQUIRED
7. **PLUMBING SYSTEMS**
   NOT REQUIRED

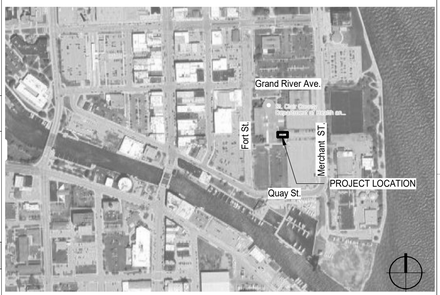
BUILDING CODE REVIEW

BUILDING REQUIREMENTS	
CODES	***2012 NFPA 101*** (Life Safety Code) ***MBC 2015*** (Michigan Building Code, 2015, as referenced by MRCEB 2015 above) ***MPC 2018*** (Michigan Plumbing Code, 2018) ***MMC 2015*** (Michigan Mechanical Code, 2015) ***NEC 2017*** (State of Michigan Electrical Code) ***IFC 2015*** (International Fire Code, 2015, as referenced by MBC 2015 above) ***MEC 2015*** (Michigan Energy Code, 2015, Ch. 4 & Part 10a.) ***ICC A117.1-2009*** (Accessible and Usable Buildings & Facilities)
OCCUPANCY CLASSIFICATION	***S-2 LOW HAZARD STORAGE***
TYPE OF CONSTRUCTION	***V-B (NOT-SPRINKLERED)***
BUILDING FLOORS ALLOWABLE	TOTAL BUILDING FLOORS: 1 2
BUILDING HEIGHT ALLOWABLE	14'-4" TOTAL HEIGHT (HIGHEST POINT) 40'-0"
BUILDING AREA ALLOWABLE	2177 SF 13,500 SF
FIRE RATING	Per MBC ***Table 601, "Fire-Resistance Rating Requirements for Building Elements (Hours)"***: Construction ***Type V-B*** FIRE RATING — REQUIRED — PROVIDED PRIMARY STRUCTURAL FRAME 0 0 BEARING WALLS (INT. & EXT.) 0 0 NON-BEARING INTERIOR WALLS 0 0 FLOOR CONSTRUCTION 0 0
FIRE ALARM SMOKE ALARM	N/A N/A
OCCUPANCY	Per MBC ***Table 1004.1.2, "Maximum Floor Area Allowances Per Occupant"***: S-2 (Storage) 1 OCCUPANT PER 300 GROSS SQ. FT. OCCUPANT LOAD: "S-2" OCC. (Storage) 2177 sf / 300 sf = 8 occ. **TOTAL OCCUPANTS = 8 occ.** *Refer to Life Safety Plan for further information
MEANS OF EGRESS	
EXITS	Per ***MBC 1006.2.1, "Spaces With One Exit or Exit Access Doorway"*** - 1 exit or exit access doorway required: ***Occupant Load < 29,*** ***Maximum Common Path of Egress Travel Distance without Sprinkler < 100'*** Per ***MBC 1005.3.2, "Other Egress Components"*** - Means of Egress Component Capacity = ***0.2" / Occupant*** REQUIRED 8 occ. * .2"/person = 1.6" of exit width PROVIDED: EXIT 1 - (1 Single Door) 32" x 1 = 32"
MEANS OF EGRESS	
MAX. COMMON PATH OF TRAVEL	Per ***MBC Table 1006.2.1 "Spaces with One Exit or Exit Access Doorway"*** ALLOWABLE: 100' Without Sprinkler System
TRAVEL DISTANCE	Per ***MBC Table 1017.2, "Exit Access Travel Distance,"*** ALLOWABLE: 300'-0" (Without Sprinkler System) PROVIDED: 85' - 0" (Max. Path of Travel)

DRAWING SHEET INDEX

ARCHITECTURAL		
A00-00	COVER SHEET	
A10-01	ARCHITECTURAL SITE PLAN	
A21-02	FLOOR, LIFE SAFETY, RCP AND ROOF PLANS	
A40-01	EXTERIOR ELEVATIONS AND SECTIONS	
A42-01	WALL SECTIONS	
A71-01	SCHEDULES AND PLAN DETAILS	
A100-01	PROJECT VIEWS	
STRUCTURAL		
S001	GENERAL NOTES	
S002	GENERAL SHEET SPECS	
S101	FOUNDATION AND ROOF FRAMING PLAN	
S201	TYPICAL DETAILS AND SECTIONS	

VICINITY MAP



AHJ STAMP

DATE	ISSUED FOR	REV
4-22-2024	BID	1

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

NORR

NORR OFFICE ADDRESS

norr.com

Project Manager	Drawn
B. Colburn	Drawer
Project Leader	Checked
J. Brock	Checker

Client
St. Clair County Health Department

Project
Garage Building

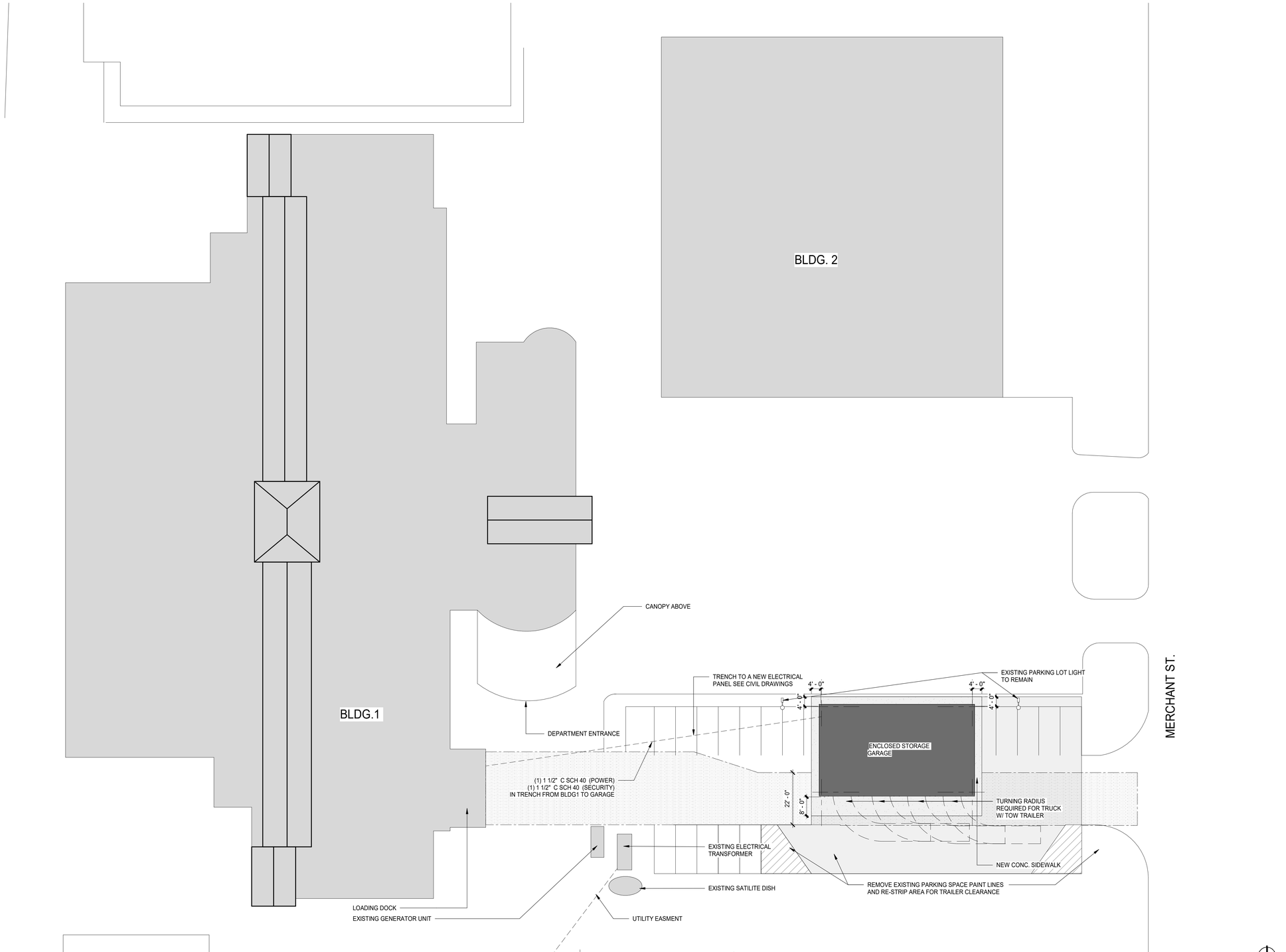
220 Fort Street
Port Huron, MI
48060

Drawing Title
COVER SHEET

Scale
As indicated

Project No.
JCDT23-0185

Drawing No.
A00-00



1 A10-01 PROPOSED SITE PLAN

SCALE: 1" = 20'-0"

DATE	ISSUED FOR	REV
4-22-2024	BID	1

This drawing has been prepared solely for the use of St. Clair County Health Department and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants

Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

NORR

NORR OFFICE ADDRESS

norr.com

Project Manager	Drawn
B. Colburn	Author
Project Leader	Checked
J. Brock	Checker

Client

St. Clair County Health Department

Project

St. Clair County Health Department Relocation
Garage Building

Port Huron, MI
48060

Drawing Title

ARCHITECTURAL SITE PLAN

Scale

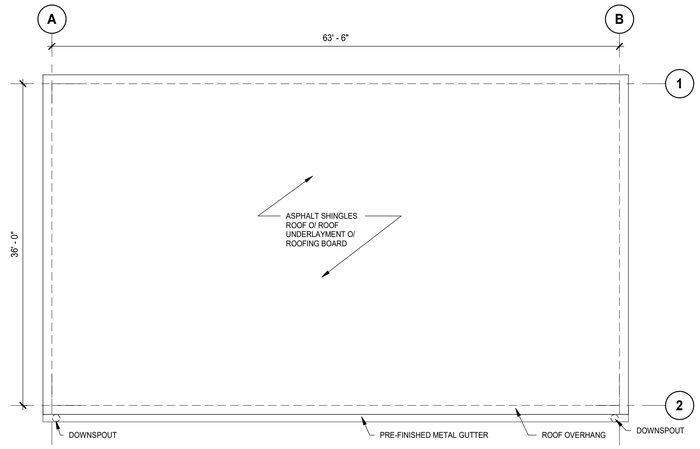
1" = 20'-0"

Project No.

JCDT23-0185

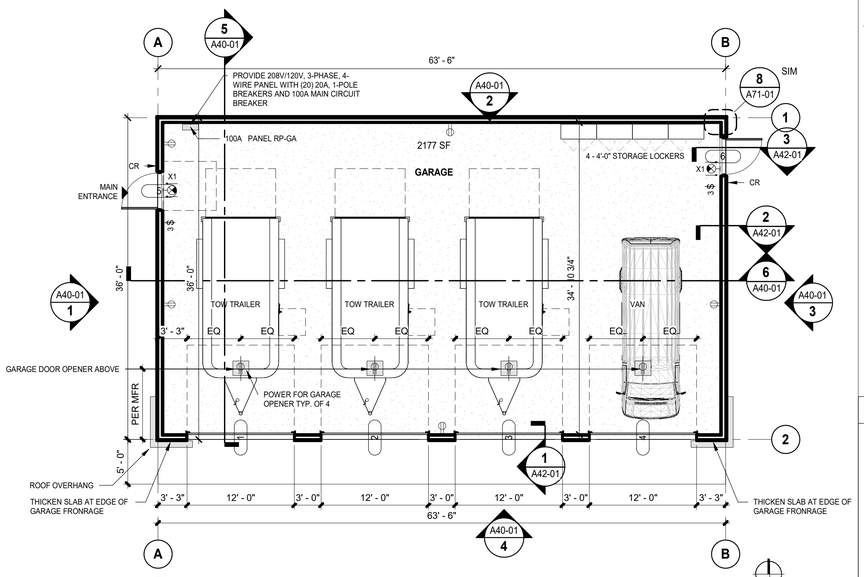
Drawing No.

A10-01



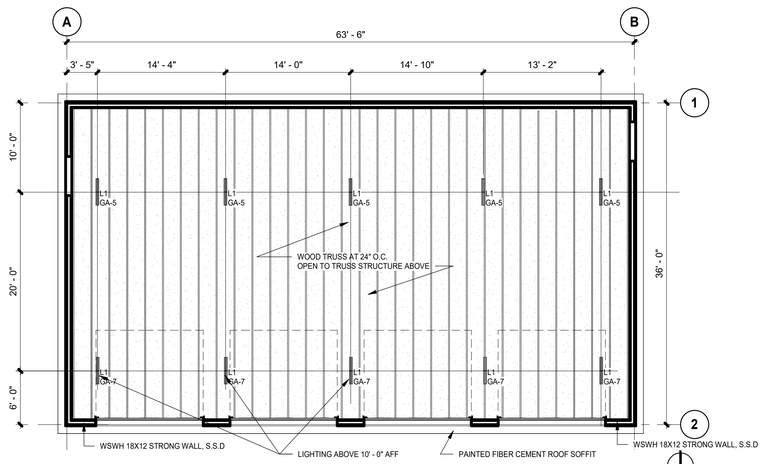
2 A21-02 GARAGE - ROOF PLAN

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



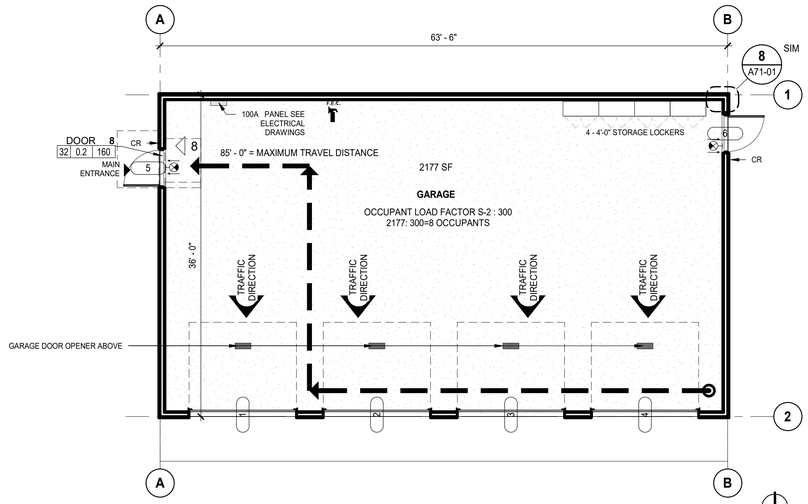
1 A21-02 GARAGE - FLOOR PLAN

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



3 A21-02 GARAGE - FRAMING PLAN

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



4 A21-02 GARAGE - LIFE SAFERY PLAN

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

GENERAL NOTES - PLANS

A. REFER TO EXTERIOR ELEVATIONS FOR FINISHES.

B. SEE STRUCTURAL FOR STRUCTURAL ELEMENTS.

LIGHTING FIXTURE LEGEND

L1 - LITHONIA # CLX L48 10000 LM SEF FDL MVOLT GZ10 40K 80 CRIWH, WITH AIRCRAFT CABLING AS REQUIRED. SUSPEND LIGHT FIXTURE AT 10'-0" AFF

X1 - LITHONIA - LQM SERIES EXIT SIGN. WALL MOUNT 7'-6" AFF

LIFE SAFETY PLAN LEGEND

MAXIMUM TRAVEL DISTANCE FROM FARTHEST POINT

ILLUMINATED EXIT SIGN ABOVE THE DOOR WITH TACTILE EXIT SIGNS WITHIN 12" OF LATCHSIDE JAMB AT DOOR @ LOCATION OF SYMBOL

18" CLR / 18" CLR — TACTILE EXIT SIGNAGE WITH 18"X18" CLEAR SPACE CENTERED ON TACTILE CHARACTERS, SEE DETAIL IN THIS SET, FOR MOUNTING LOCATIONS

F.E.C. — PROVIDE LISTED AND LABELED DRY-CHEMICAL UL-RATED FIRE EXTINGUISHER - SURFACE MOUNTED ON RATED AND AT NEW LOCATIONS ON EXISTING WALLS, SEMI-RECESSED OTHERWISE. SEE DETAIL IN THIS SET FOR MOUNTING HEIGHT

1 EXITING OCCUPANT COUNT

ADA TURNING RADIUS & CLEARANCES

WALL - MOUNTED ILLUMINATED EXIT SIGNAGE

STAIR XX* — EXIT COMPONENT / OCCUPANT LOAD

XX XX XXX — MAX OCCUPANT LOAD / LOAD FACTOR / COMPONENT WIDTH

DATE	ISSUED FOR	REV
4-22-2024	BID	1

Project Component

Key Plan

Consultants

Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

NORR

NORR OFFICE ADDRESS

norr.com

Project Manager	Drawn
B. Colburn	Author
Project Leader	Checked
J. Brock	Checker

Client

St. Clair County Health Department

Project

Garage Building

220 Fort Street
Port Huron, MI
48060

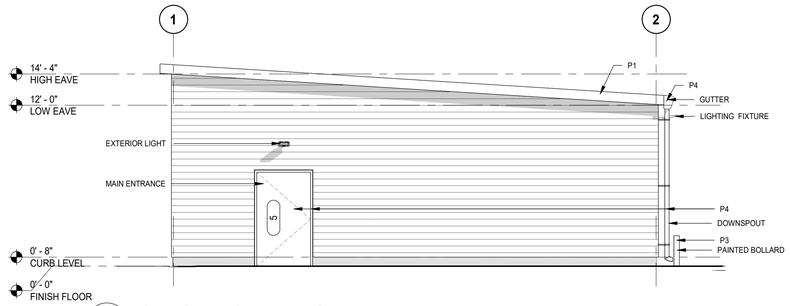
Drawing Title

FLOOR, LIFE SAFETY, RCP AND ROOF PLANS

Scale: As indicated

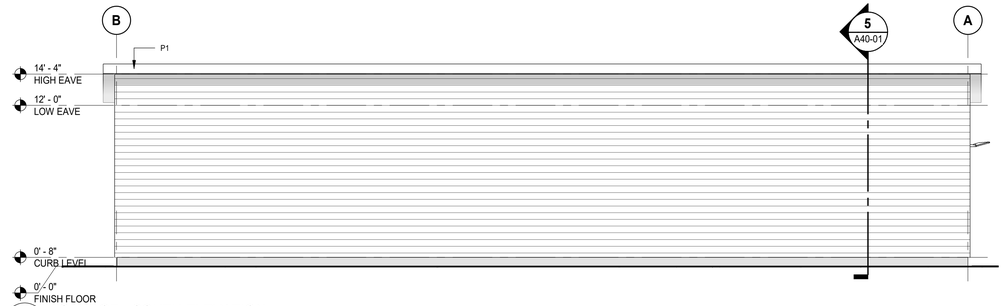
Project No.: JCDT23-0185

Drawing No.: **A21-02**



1 A40-01 GARAGE - EAST ELEVATION

SCALE: 3/16" = 1'-0"

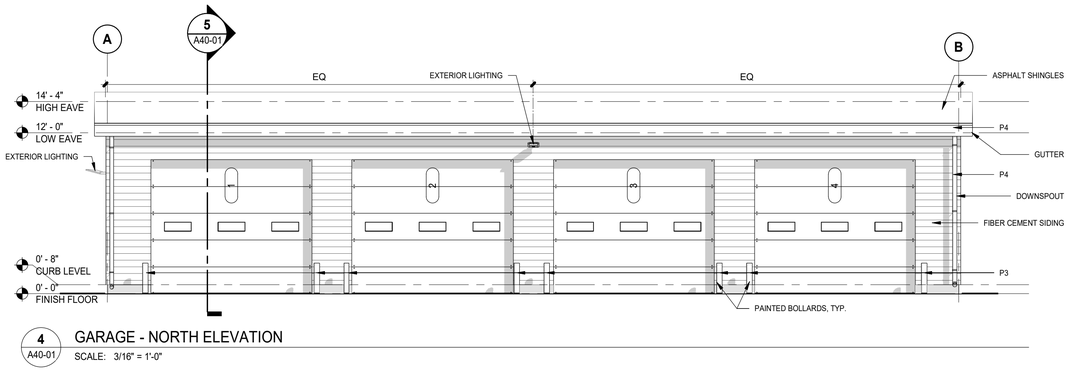


2 A40-01 GARAGE - SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

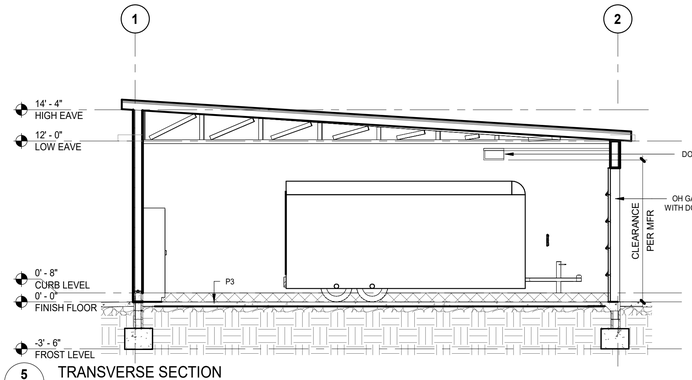
3 A40-01 GARAGE - WEST ELEVATION

SCALE: 3/16" = 1'-0"



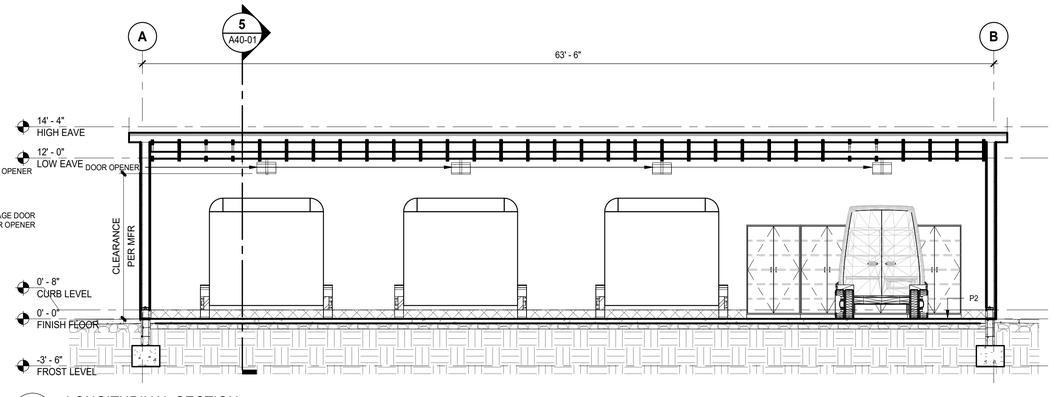
4 A40-01 GARAGE - NORTH ELEVATION

SCALE: 3/16" = 1'-0"



5 A40-01 TRANSVERSE SECTION

SCALE: 3/16" = 1'-0"



6 A40-01 LONGITUDINAL SECTION

SCALE: 3/16" = 1'-0"

GENERAL NOTES - ELEVATIONS

A. REFER TO SECTIONS AND DETAILS FOR EXTERIOR WALL ASSEMBLIES INFORMATION.

FINISH SCHEDULE

MARK	TYPE	COLOR	NOTES
P1	EXTERIOR WOOD	MATCH FIBER CEMENT SIDING	FASCIA
P2	ACRYLIC SEALER	CLEAR	EXPOSED CONCRETE
P3	EPOXY	SAFETY YELLOW	BOLLARDS
P4	URETHANE ENAMEL	GRAY	GUTTER, DOWNSPOUTS, DOORS/ FRAMES,

DATE	ISSUED FOR	REV
4-22-2024	BID	1
4-24-2024	PERMIT	2

Project Component

Key Plan

Consultants

Survey:
Civil:
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Structural:
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Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

NORR

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B. Colburn	Author
Project Leader	Checked
J. Brock	Checker

Client

St. Clair County Health Department

Project

St. Clair County Health Department Relocation Garage Building

Port Huron, MI
48060

Drawing Title

EXTERIOR ELEVATIONS AND SECTIONS

Scale

As indicated

Project No.

JCDT23-0185

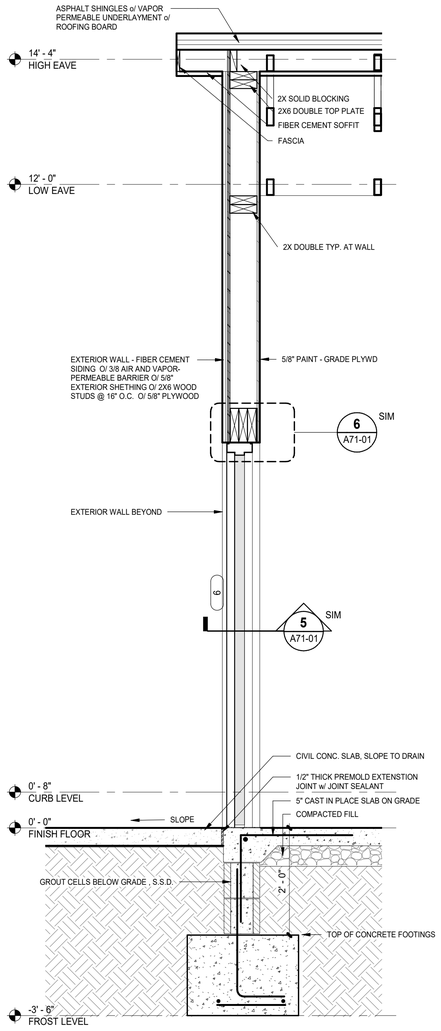
Drawing No.

A40-01

GENERAL NOTES - SECTIONS

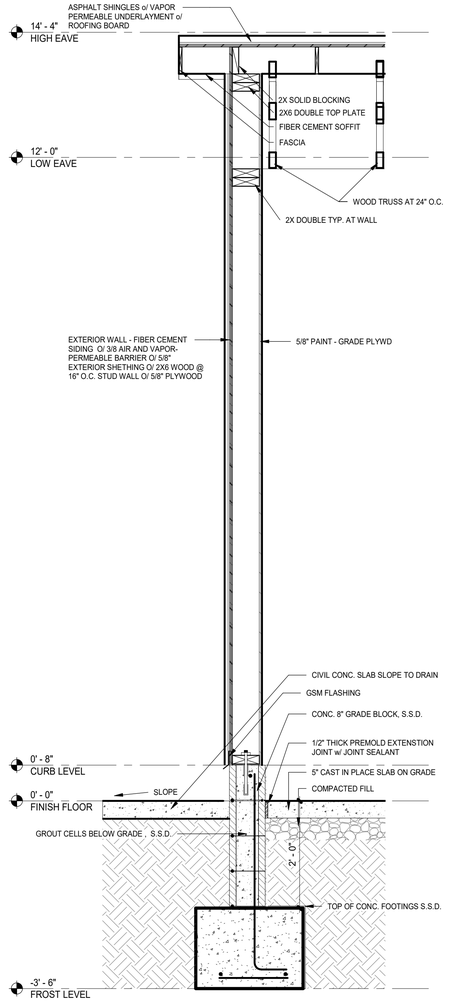
A. REFER TO EXTERIOR ELEVATIONS FOR FINISHES.

B. SEE STRUCTURAL FOR STRUCTURAL ELEMENTS.



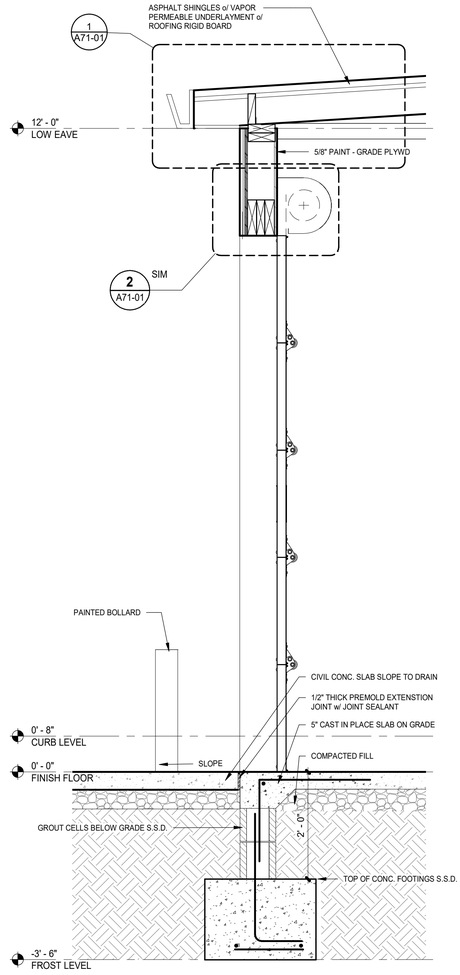
3 A42-01 WALL SECTION THRU WALL1

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



2 A42-01 WALL SECTION THRU WALL

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



1 A42-01 WALL SECTION THRU ROLL UP DOOR

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

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants

Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

NORR

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B. Colburn	Author
Project Leader	Checked
J. Brock	Checker

Client

St. Clair County Health Department

Project

Garage Building

220 Fort Street
Port Huron, MI
48060

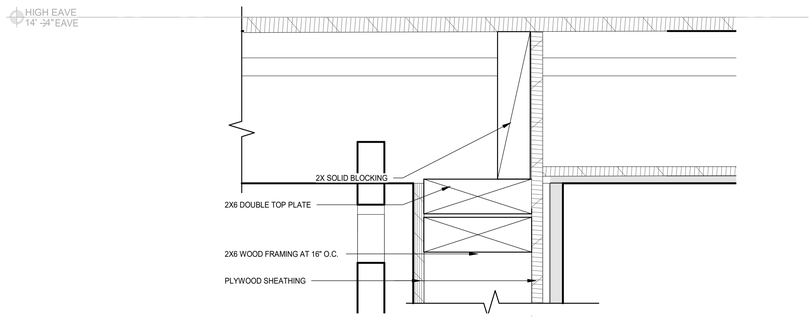
Drawing Title

WALL SECTIONS

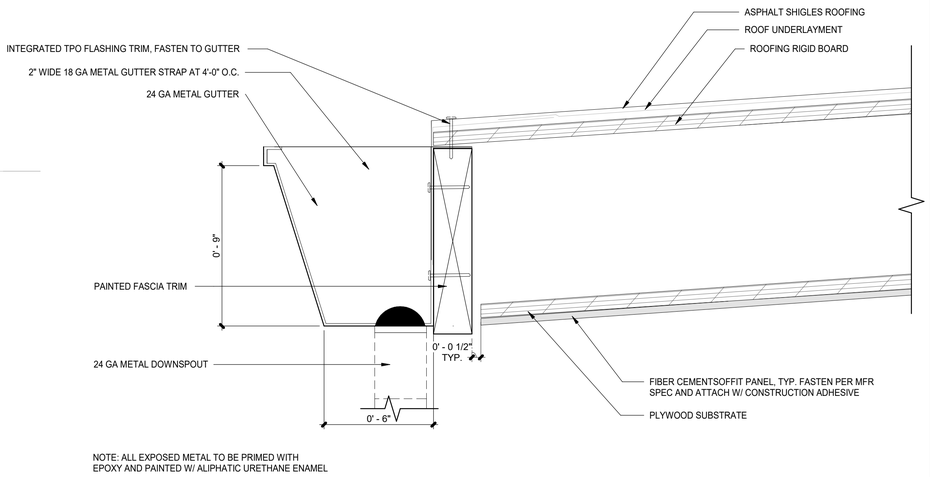
Scale: As indicated

Project No.: JCDT23-0185

Drawing No.: **A42-01**

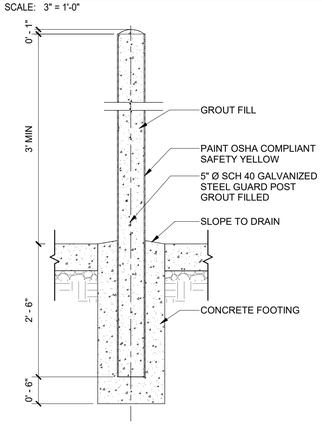


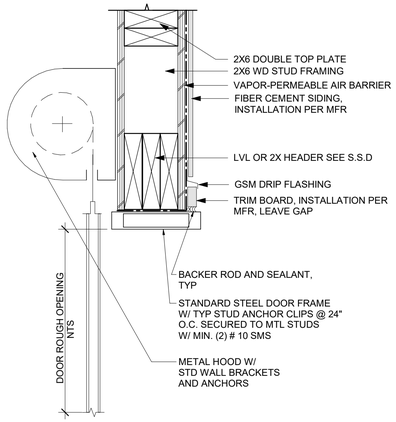
7 EXTERIOR HIGH EAVE - TYP.
A71-01 SCALE: 3" = 1'-0"

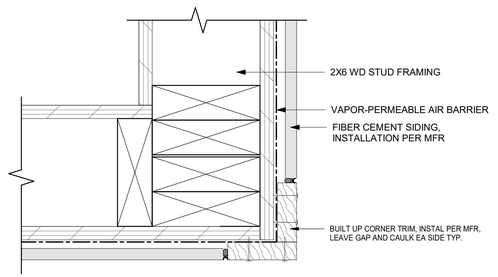


NOTE: ALL EXPOSED METAL TO BE PRIMED WITH EPOXY AND PAINTED W/ ALIPHATIC URETHANE ENAMEL

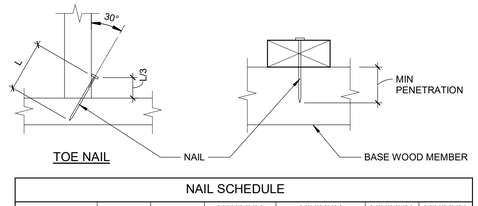
1 LOW EAVE w/ GUTTER
A71-01 SCALE: 3" = 1'-0"







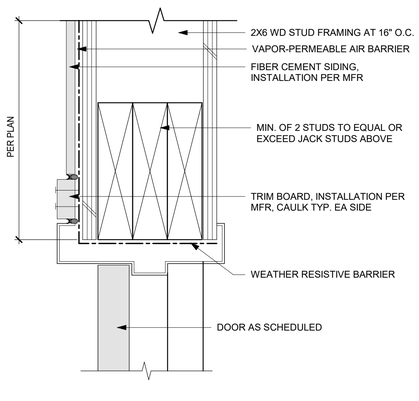
8 EXTERIOR CORNER DETAIL
A71-01 SCALE: 3" = 1'-0"



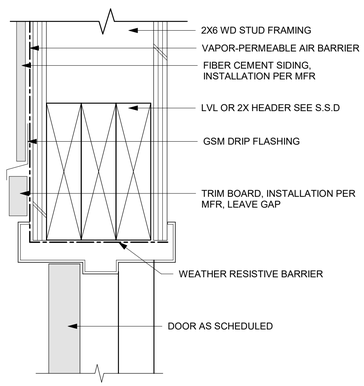
NAIL SCHEDULE						
NAIL PENNY WEIGHT	SHANK DIA (IN)	LENGTH (IN)	MAXIMUM PREDRILL BIT DIA. (IN)	MINIMUM PENETRATION (IN)	MINIMUM SPACING (IN)	MINIMUM EDGE DISTANCE
8d COMMON	0.131	2 1/2	3/32	1 5/8	1 5/8	13/16
10d COMMON	0.148	3	7/64	1 7/8	1 7/8	15/16
16d COMMON	0.162	3 1/2	1/8	2	2	1
20d BOX	0.148	4	7/64	1 7/8	1 7/8	15/16
30d BOX	0.148	4 1/2	7/64	1 7/8	1 7/8	15/16
40d BOX	0.162	5	1/8	2	2	1

NOTES:
1. PREDRILL TO PREVENT SPLITTING

10 TYP. NAIL INSTALLATION
A71-01 SCALE: 3" = 1'-0"



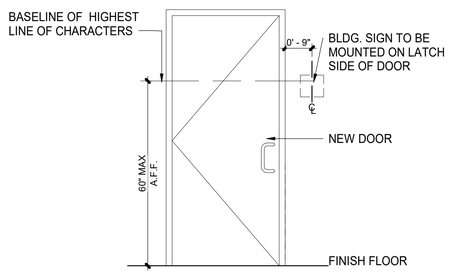
5 HM DOOR JAMB DETAIL
A71-01 SCALE: 3" = 1'-0"



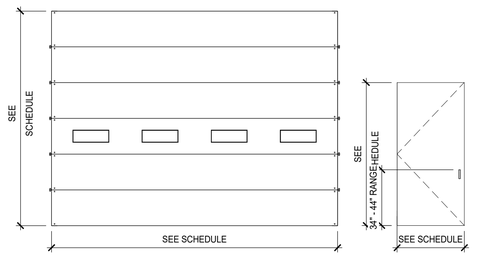
6 HM DOOR HEAD DETAIL
A71-01 SCALE: 3" = 1'-0"

GARAGE DOOR SCHEDULE

DOOR NO.	DIMENSIONS			DOOR			FRAME	DETAILS			HDWE		
	WIDTH	HEIGHT	THK.	TYPE	MATERIAL	FINISH	TYPE	HEAD	JAMB	SILL	SET	SIGNAGE	COMMENTS
1	12' - 0"	10' - 0"	0"	1	STL	BY MFR	STL	2/A71-01	2/A71-01	-	(none)	-	RAYNOR GARAGE DOOR + DOOR OPENER
2	12' - 0"	10' - 0"	0"	1	STL	BY MFR	STL	2/A71-01	2/A71-01	-	(none)	-	RAYNOR GARAGE DOOR + DOOR OPENER
3	12' - 0"	10' - 0"	0"	1	STL	BY MFR	STL	2/A71-01	2/A71-01	-	(none)	-	RAYNOR GARAGE DOOR + DOOR OPENER
4	12' - 0"	10' - 0"	0"	1	STL	BY MFR	STL	2/A71-01	2/A71-01	-	(none)	-	RAYNOR GARAGE DOOR + DOOR OPENER
5	4' - 0"	7' - 0"	1 3/4"	2	HM	FP	HM	6/A71-01	5/A71-01	-	1	BLDG. SIGN	FACTORY PRIMED GALV. FRAME + CARD ACCESS
6	4' - 0"	7' - 0"	1 3/4"	2	HM	FP	HM	6/A71-01	5/A71-01	-	1	BLDG. SIGN	FACTORY PRIMED GALV. FRAME + CARD ACCESS



4 ENTRY / EXIT SIGNSGE
A71-01 SCALE: 1/2" = 1'-0"



3 BOLLARD TYP.
A71-01 SCALE: 3/4" = 1'-0"

2 ROLL UP DOOR HEAD AND JAMB
A71-01 SCALE: 1 1/2" = 1'-0"

DATE	ISSUED FOR	REV

This drawing has been prepared solely for the use of St. Clair County Health Department and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

NORR
NORR OFFICE ADDRESS
norr.com

Project Manager	Drawn
B. Colburn	Author
Project Leader	Checked
J. Brock	Checker

Client
St. Clair County Health Department

Project
St. Clair County Health Department Relocation
Garage Building
Port Huron, MI
48060

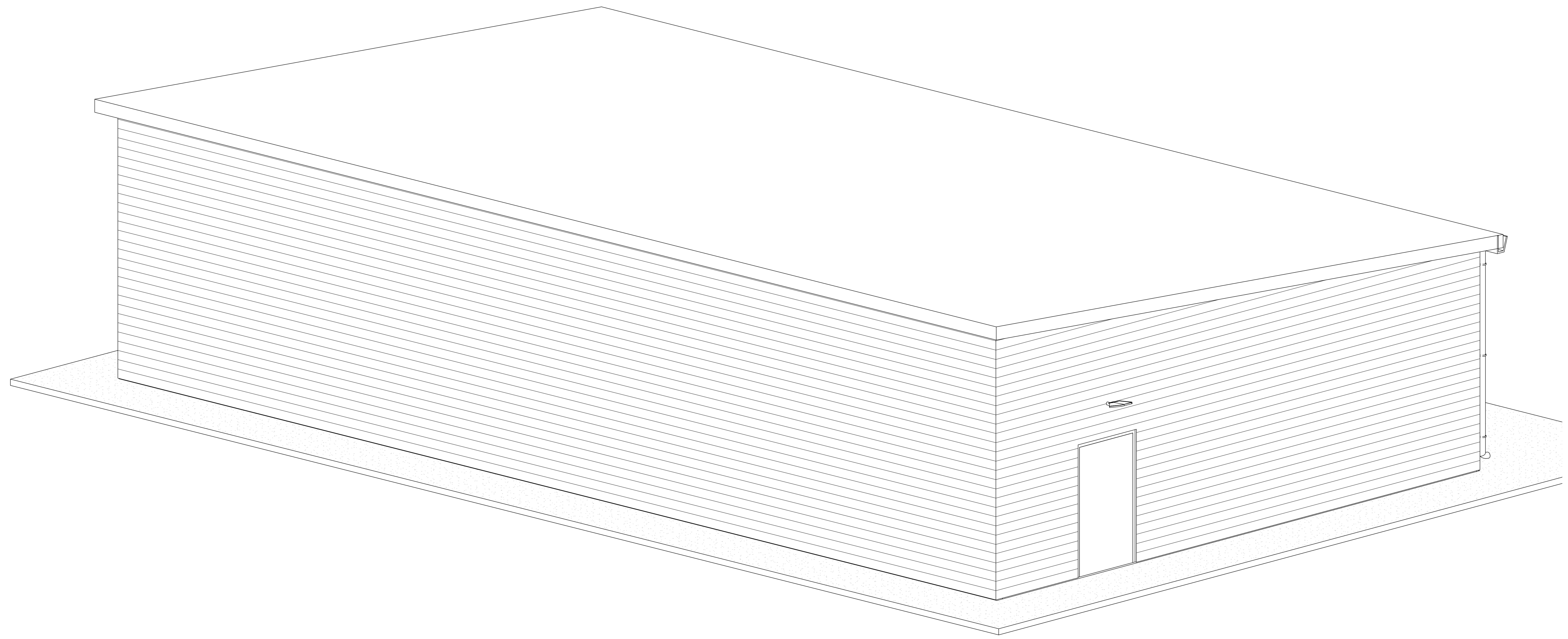
Drawing Title
SCHEDULES AND PLAN DETAILS

Scale
As indicated

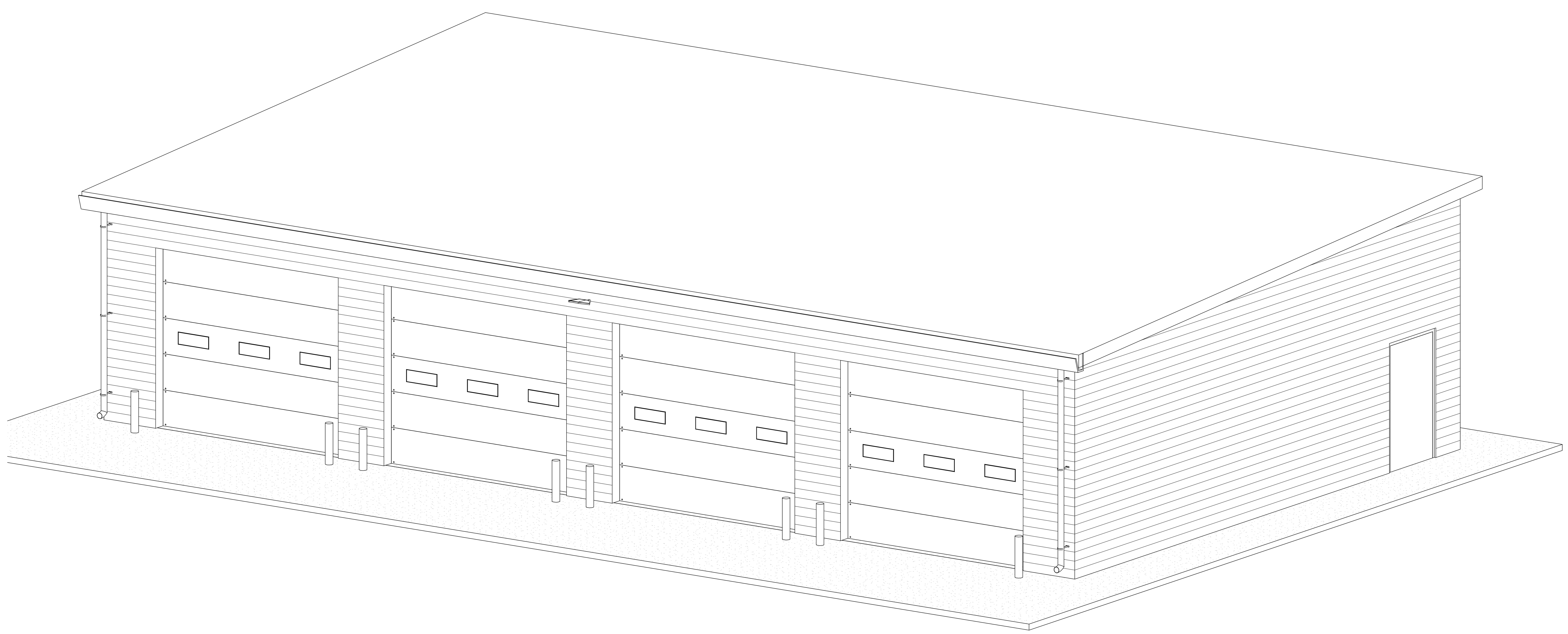
Project No.
JCDT23-0185

Drawing No.
A71-01

4/23/2024 1:09:44 PM



1
A100-01
NORTH VIEW
SCALE:



2
A100-01
SOUTH VIEW
SCALE:

Autodesk Docs://St. Clair County Health Department Relocation/JCDT23-0185_ARi_StClairCntyHealthDep_GarageBldg.rvt

DATE	ISSUED FOR	REV

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

NORR

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Project Manager B. Colburn	Drawn Author
Project Leader J. Brock	Checked Checker

Client
St. Clair County Health Department

Project
St. Clair County Health Department Relocation Garage Building
220 Fort Street
Port Huron, MI
48060

Drawing Title
PROJECT VIEWS

Scale

Project No.
JCDT23-0185

Drawing No.
A100-01

STRUCTURAL NOTES

A. **PROJECT REFERENCES:**

1. **CODE:** WORK SHALL BE EXECUTED IN FULL COMPLIANCE WITH THE APPLICABLE PROVISIONS OF ALL LAWS, BY-LAWS, STATUTES, ORDINANCES, CODES, RULES, REGULATIONS, AND LAWFUL ORDERS OF PUBLIC AUTHORIIES BEARING ON THE PERFORMANCE AND EXECUTION OF THE WORK.

CODES AND STANDARDS

BUILDING CODE	ASCE 7-16
RISK CATEGORY	II
FM APPROVED PARAMETERS	NO

2. **PROJECT SPECIFICATIONS:** NOTES AND SPECIFICATIONS GIVEN ON THE STRUCTURAL DRAWINGS ARE EXCERPTS FROM THE RELATING PROJECT SPECIFICATIONS. THEY ARE NEITHER COMPLETE NOR DO THEY REPLACE THE CONTRACT SPECIFICATIONS.

3. **MATERIAL STANDARDS:** REFERENCED STANDARDS OR PUBLICATIONS SHALL PERTAIN TO MOST CURRENT DATA, STANDARD OR PUBLICATION..

B. **TEMPORARY BRACING, SHORING AND METHODS:** CONTRACTOR REPONSIBLE FOR THE DESIGN, ADEQUACY, AND SAFETY OF SHORING, BRACING, OTHER TEMPORARY SUPPORTS, AND METHODS OF CONSTRUCTION.

1. **STABILITY:** THE CONTRACTOR SHALL INSURE THE STABILITY OF ALL ELEMENTS INCLUDING, BUT NOT LIMITED TO EXCAVATION, FLOORS, ROOFS, WALLS, FOUNDATIONS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. THE STRUCTURAL ENGINEER ASSUMES NO RESPONSIBILITY FOR THE STRUCTURE DURING THE ENTIRE CONSTRUCTION PERIOD. BRACE BASEMENT/PIT WALLS UNTIL SUPPORTING FLOORS ARE PLACED AND WALL/FLOOR HAS REACHED DESIGN STRENGTH. BACKFILL BOTH SIDES OF WALLS SIMULTANEOUSLY

2. **LOADING:** THE BUILDING IS DESIGNED ONLY FOR PERMANENT LOADS APPLIED TO THE STRUCTURE IN ITS FINAL CONFIGURATION. DO NOT PLACE MATERIAL OR EQUIPMENT ON FLOORS OR FLOORS IN EXCESS OF THE INDICATED DESIGN LIVE LOADS, AVOID IMPACT LOADS.

3. **SURCHARGE:** IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL. IF THE CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0", THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND, AT HIS OWN EXPENSE, PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.

4. **SITE SAFETY:** THE CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR MAINTAINING CONDITIONS OF PUBLIC AND WORKER SAFETY DURING EXECUTION OF THE WORK. THIS SHALL INCLUDE COMPLIANCE WITH ALL OSHA, STATE AND LOCAL REGULATIONS/LAWS AS WELL AS PREPARING AND FILING A SITE SAFETY PLAN OR PROVIDING OTHER WRITTEN SAFETY ASSURANCES AS REQUIRED. ALL CONSTRUCTION METHODS SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 33 OF THE IBC, "SAFEGUARDS DURING CONSTRUCTION".

5. **DAMAGE:** CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY MEASURES TO PROTECT THE PREMISES INCLUDING EXISTING FACILITIES, STRUCTURES, AND UTILITY LINES FROM ANY DAMAGE AND REPAIR ALL DAMAGE CAUSED BY THE CONTRACTOR WITH NEW MATERIALS TO MATCH EXISTING TO THE SATISFACTION OF THE OWNER, ARCHITECT AND/OR ENGINEER.

C. **REVIEW AND COORDINATION:**

1. **EXISTING CONDITIONS, DIMENSIONS, AND ACCESSIBILITY** SHALL BE VERIFIED BY ALL CONSTRUCTION TRADES IN FIELD, PRIOR TO SHOP DRAWING PREPARATIONS AND PROCEEDING WITH THE WORK. IF EXISTING CONDITIONS DO NOT PERMIT EXECUTION OF THE WORK IN ACCORDANCE WITH THE SHOWN DETAILS, THE CONTRACTOR MUST SUBMIT A SKETCH WITH PROPOSED MODIFICATION. APPROVAL MUST BE GRANTED BY THE ENGINEER PRIOR TO START OF WORK.

2. **CONSTRUCTION DOCUMENTS**: THE CONTRACTOR SHALL COORDINATE STRUCTURAL PLANS, DETAILS AND DIMENSIONS WITH ALL OTHER CONSTRUCTION DOCUMENTS BEFORE PROCEEDING WITH THE WORK. DISCREPANCIES WITHIN OR BETWEEN OTHER CONSTRUCTION DOCUMENTS SHALL BE NOTIFIED TO THE ENGINEER AND ARCHITECT PRIOR TO BID AND EXECUTION OF THE WORK.
   - **MATERIAL STRENGTHS OR QUANTITIES:** IF DISCREPANCIES OCCUR REGARDING MATERIAL STRENGTHS OR QUANTITIES, HIGHER STRENGTH, AND GREATER QUANTITY SHALL BE USED.
   - **DIMENSIONS AND ELEVATIONS** SHOWN ON STRUCTURAL DRAWINGS ARE GENERATED BY OTHER DISCIPLINES, WITH THE EXCEPTION OF DIMENSIONS OF STRUCTURAL MEMBERS. ANY DIMENSIONS OR ELEVATIONS OMITTED OR NOT SHOWN ON THE STRUCTURAL DRAWINGS SHOULD BE OBTAINED FROM THE OTHER TRADE CONSTRUCTION DOCUMENTS.

3. **INTENT:** ALL DETAILS, SECTIONS, AND NOTES ARE INTEDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO SIMILAR CONDITIONS ELSEWHERE.

4. **BID:** UNLESS DRAWING IS PART OF THE FULL SET OF DOCUMENTS LABELED "ISSUED FOR BID," DO NOT CONSIDER IT AS THE BASIS FOR A BID. ALL ESTIMATES BASED ON OTHER DRAWINGS ARE USED AT THE ESTIMATOR'S SOLE RISK.

5. **CHANGES** REQUESTED BY THE CONTRACTOR WILL BE DONE AT NO COST TO THE OWNER. APPROVAL OF CONTRACTOR REQUESTED CHANGES IN NO WAY STATES OR IMPLIES APPROVAL OF A CHANGE IN SCOPE OR CHANGE IN CONTRACT COST. THE CONTRACTOR SHALL MAKE NO DEVIATION FROM THE CONTRACT DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

6. **ERRORS:** COSTS OF INVESTIGATION AND/OR REDESIGN DUE TO CONTRACTOR ERRORS WILL BE AT THE CONTRACTORS EXPENSE.

D. **SUBMITTALS:**

1. **REVIEW SCHEDULE:** SUBMIT SHOP DRAWINGS FOR REVIEW AT LEAST 14 DAYS (10 WORKING DAYS) BEFORE RETURNED SUBMITTALS WILL BE NEEDED. ANY REVIEW THAT IS REQUIRED MORE QUICKLY WILL BE AT THE CONTRACTORS EXPENSE.

2. **COMPLETENESS:** A CONTRACTOR'S STAMP CERTIFYING THAT THEY HAVE VERIFIED ALL FIELD MEASUREMENTS, CONSTRUCTION CRITERIA, MATERIALS AND SIMILAR DATA AND HAVE CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION AND COMPLIANCE WITH THE CONTRACT DOCUMENTS MUST BE PRESENT ON ALL SUBMITTALS FOR REVIEW BY THE ENGINEER OF RECORD. IF REVIEWS OF INCOMPLETE SHOP DRAWINGS/SUBMITTALS ARE REQUIRED, THOSE SUBMITTALS SHALL BE MARKED AS INCOMPLETE UNTIL THEY BEAR SUCH STAMP FROM THE G.C.

3. **ORIGINAL DOCUMENTS:** IN NO CASE SHALL THE CONTRACT DOCUMENTS BE USED/REPRODUCED AS A BASIS FOR SHOP DRAWINGS. SHOP DRAWINGS SHALL BE ORIGINAL DRAWINGS NOT COPIES OF THE CONTRACT DOCUMENTS.

4. **REJECTION:** SUBMITTALS NOT MEETING THE CRITERIA LISTED IN THIS SECTION WILL NOT BE REVIEWED.

5. **DELEGATED DESIGN:** DELEGATED DESIGNS SHALL CLEARLY INDICATE THE APPLICABLE CODES, DESIGN CRITERIA, CONNECTION DETAILS, AND LOAD CAPACITY OF COMPONENTS/SYSTEMS BEING PROVIDED.

   a. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS **AND** CALCULATIONS SIGNED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CONSTRUCTION FOR THE FOLLOWING:
   - SHORING SYSTEMS FOR EXCAVATIONS AND SOIL RETENTION
   - TEMPORARY BRACING, ERECTION BRACING
   - CONCRETE MIX DESIGNS
   - CONCRETE FORMWORK
   - WOOD - ENGINEERED FRAMING, GLULAM, & CONNECTIONS
   - WOOD - PRE-ENGINEERED WOOD TRUSSES

   b. DELEGATED ELEMENTS AND CONNECTIONS SHALL BE ARRANGED SUCH THAT NO ECCENTRICITIES OR TORSION IS CREATED ON THE PRIMARY STRUCTURE. ADDITIONAL BRACING TO RESOLVE SUCH FORCE SHALL BE DETAILED BY THE DELEGATED DESIGNER AND FURNISHED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING EMBED ITEMS AND HARDWARE AS REQUIRED.

E. **SPECIAL INSPECTIONS (STRUCTURAL)**:

1. **RESPONSIBILITIES**:
   - THIRD PARTY INSPECTION AGENCY SHALL BE CONTRACTED BY THE OWNER.
   - THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING AND OBTAINING PERMITS AND SIGN-OFFS FROM THE DEPARTMENT OF BUILDINGS.
   - SPECIAL INSPECTIONS AND TESTS, STATEMENTS OF SPECIAL INSPECTIONS, RESPONSIBILITIES OF CONTRACTORS, SUBMITTALS TO THE BUILDING OFFICIAL AND STRUCTURAL OBSERVATIONS SHALL MEET THE APPLICABLE REQUIREMENTS OF IBC CHAPTER 17

2. **STATEMENT OF SPECIAL INSPECTIONS**: MATERIALS, PROCEDURES AND WORKMANSHIP OF LISTED STRUCTURAL ELEMENTS SHALL BE VERIFIED FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS AND APPROVED SUBMITTALS PER THE CORRESPONDING REFERENCES.

3. **INSPECTION DEFINITIONS**:
   - **C - CONTINUOUS**: CONSTANT MONITORING OF IDENTIFIED TASKS BY A SPECIAL INSPECTOR OVER THE DURATION OF PERFORMANCE OF SAID TASKS.
   - **P - PERIODIC**: INTERMITTANTLY INSPECFTED DURING THE COURSE OF EACH WORK DAY TO INSURE THAT APPLICABLE REQUIREMENTS ARE BEING MET. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS AT CONTRACTOR'S RISK.

STATEMENT OF SPECIAL INSPECTIONS (IBC '21)

REQ'D	INSPECTION	VERIFICATION AND INSPECTION ITEM	IBC 18	REFERENCE	TYPE
CONCRETE					
Yes	CAST IN PLACE	CONCRETE DESIGN MIX, SAMPLING, FORMWORK, PLACEMENT AND MAINTENANCE	1705.3	ACI 318 CH 20, 25, 26	P
Yes	POST-INSTALLED ANCHOR	ANCHORS INSTALLED IN HARDEND CONCRETE	1705.3	ACI 318: 17.8.2	C
MASONRY					
Yes	MASONRY CONSTRUCTION	MASONRY CONSTRUCTION, DEPENDING ON STRUCTURAL OCCUPANCY CATEGORY OF THE BUILDING OR STRUCTURE	1705.4	ACI 530	C, P
WOOD					
Yes	WOOD DIAPHRAGMS	HIGH LOAD DIAPHRAGMS	1705.11	IBC 1705.11	P
Yes	PREFABRECATED WOOD	PREBRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES	1705.11	IBC 1705.11	P
SOILS & FOUNDATION					
Yes	SUBGRADE	EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT, LOAD BEARING REQUIREMENTS	1705.6, 1804	IBC 1705.6, 1804	P
Yes	COMPACTED FILL	COMPACTED FILL, MAXIMUM LIFT THICKNESS PER GEOTECHNICAL REPORT	1705.6, 1804	IBC 1705.6, 1804	C
Yes	MASONRY FOUNDATION	VERTICAL MASONRY FOUNDATION ELEMENTS	1705.4.2	IBC 1705.4.2	C, P

WOOD NOTES

A. **STANDARDS**
THE DESIGN, FABRICATION, AND ERECTION OF WOOD CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS:

1. **LUMBER/TIMBER:**
   - "THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION" BY THE AMERICAN FOREST & PAPER ASSOCIATION (AFPA)
   - "TIMBER CONSTRUCTION MANUAL" BY THE AMERICAN INSITITUE OF TIMBER CONSTRUCTION.

2. **CONNECTORS** SPECIFIED ON PLAN ARE BY THE SIMPSON STRONG-TIE COMPANY, INC. COMPONENTS BY OTHER SUPPLIERS MAY BE SUBSTITUTED IF THEY HAVE I.C.B.O. APPROVAL AND MEET OR EXCEED LOAD-CARRYING CAPACITY OF SIMPSON CONNECTORS AND ANCHORS SPECIFIED.

3. **ERECTION:** STRUCTURAL BUILDING COMPONENTS ASSOCIATION (SBCA) "BUILDING COMPONENT SAFETY INFORMATION GUIDELINES" (BCSI 1).

4. **TRUSSES AND THEIR CONNECTIONS:**
   - NFPA, AND TRUSS PLATE INSTITUTE "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" (ANSI/TPI 1),
   - WOOD TRUSS COUNCIL OF AMERICA "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES"
   - WOOD TRUSS PLATE INSTITUTE (BWT-76) SPECIFICATIONS.

5. **EXPERIENCE:** WOOD FRAMING CONTRACTOR SHALL BE PREQUALIFIED BY THE OWNER AND SHALL HAVE RECENT AND EXTENSIVE (5 YEARS +) EXPERIENCE WITH HEAVY TIMBER FRAMING.

6. MOISTURE CONTENT: LUMBER MUST BE KILN-DRIED TO A MAXIMUM MOISTURE CONTENT OF 19%. THE FOLLOWING STEPS MUST ALSO BE TAKEN TO REDUCE WATER EXPOSURE OF WOOD MATERIALS ON SITE:
   A. AVOID STORING MATERIALS WHERE EXPOSED TO RAIN OR STANDING WATER
   B. KEEP UNUSED FRAMING MATERIALS COVERED
   C. IMMEDIATELY REMOVE STANDING WATER FROM FLOOR FRAMING AFTER RAIN
   D. INSPECT BUILDING ENCLOSURE LAYERS SUCH AS WEATHER-RESISTIVE
   E. BARRIERS FOR PROPER INSTALLATION
   F. "DRY-IN" THE STRUCTURE AS QUICKLY AS POSSIBL

B. **SUBMITTALS**

1. **DRAWINGS:** SUBMIT PRODUCT DATA WITH SHOP DRAWINGS, SHOP DRAWINGS SHALL SHOW LAYOUT, TYPE OF MEMBER, ANCHORAGE DETAILS, SUPPLEMENTAL FRAMING, CUT OPENINGS AND ACCESSORIES.

2. **ENGINEERING CALCULATIONS:** CALCULATIONS SUPPORTING ENGINEERED WOOD CONSTRUCTION SYSTEMS (INCLUDING ENGINEERING I-JOISTS, FLOOR OR ROOF TRUSSES, AND THEIR CONNECTIONS) SHALL BE SUBMITTED FOR REVIEW OF THE ARCHITECT AND ENGINEER OF RECORD AND BEAR A SIGNATURE/SEAL OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF CONSTRUCTION.

3. **COORDINATION:** WOOD CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

C. **MATERIAL INFORMATION**

1. **GRADE**: ALL LUMBER AND PLYWOOD SHALL BE GRADE-STAMPED BY THE APPROPRIATE SUPPLIER'S ASSOCIATION FOR THE APPROPRIATE USE. PLEASE CONFRIM PT. ROOF SHEATHING IS NOT NEEDED ON THIS JOB.

2. **PRESSURE-TREATED:** ALL WOOD 18" FROM EARTH, OR WITHIN 1" FROM DIRECT CONTACT WITH CONCRETE OR MASONRY, SHALL BE PRESSURE-TREATED WITH A CCA-C 0.40 PROCESS AND SHALL BE BRANDED WITH A QUALITY CONTROL AGENCY MARK BY AMERICAN WOOD PRESERVERS BUREAU OR EQUAL.

3. **LUMBER:** ALL WOOD FOR STRUCTURAL FRAMING SHALL BE:
   - 2" NOMINAL LUMBER TO BE SEASONED TO 19% MAXIMUM MOISTURE CONTENT.
   - TIMBER DIMENSIONS ARE NOMINAL.

4. **CONNECTOR PLATES** SHALL BE A MINIMUM THICKNESS OF 0.036" STEEL, PER ASTM A446 GRADE A, AND GALVANIZED, CONFORMING TO ASTM A525 DESIGNATION G60. TRUSS CONNECTOR PLATES SHALL BE AT LEAST 20 GA. GALVANIZED STEEL. NO INCREASE IN ALLOWABLE STRESS DUE TO DURATION OF LOAD SHALL BE USED IN CONNECTOR PLATE DESIGN. FINAL THICKNESS/GAUGE SHALL BE AT THE DISCRETION OF THE PLATE SUPPLIER BASED ON APPLIED LOADING.

5. **CONNECTION HARDWARE:** SIMPSON CONSTRUCTION HARDWARE (OR APPROVED EQUAL) SHALL BE FASTENED ACCORDING TO THE SUPPLIER'S SPECIFICATIONS AND NAILING SCHEDULE. THE GENERAL CONTRACTOR MUST BE FAMILIAR WITH AND HAVE THE APPROPRIATE PRODUCT CATALOGS ON SITE.

6. **SCREWS** SHALL BE THOSE INTENDED FOR STRUCTURAL ASSEMBLY OF WOOD STRUCTURES, MANUFACTURED BY QUICKDRIVE, GRABBER, OR USP

7. **NAILS:** ALL NAILS IN TREATED TIMBER SHALL BE GALVANIZED.

8. **WASHERS:** MILD STEEL PLATE WASHERS ARE REQUIRED AT ALL BOLTS AND NUTS BEARING ON WOOD EXCEPT AT SILL PLATES, PROVIDE CUT WASHERS.

9. **ENGINEERED LUMBER:**
   - ENGINEERED PRODUCTS SHALL BE ADEQUATELY STORED AND COVERED AT THE JOBSITE TO BE PROTECTED FROM WATER DAMAGE.
   - ALL EXPOSED ENGINEERED LUMBER SHALL BE PRESSURE TREATED WITH A NON-INCISED PRESSURE METHOD SO A CLEAR FINISH CAN BE APPLIED. WET-USE ADHESIVES ARE REQUIRED.

D. **FRAMING CONSTRUCTION**

1. ALL WOOD FRAMING SHALL BE BUILT PLUMB, LEVEL, SQUARE, AND TRUE WITH ADEQUATE BRACING AND CONNECTION HARDWARE TO ENSURE A RIGID STRUCTURE. MULTIPLE MEMBERS SHALL BE FASTENED TOGETHER. SEE TYPICAL DETAIL FOR NAILING PATTERNS.

2. **ROUGH CONNECTIONS** SHALL BE ACCURATELY CUT AND TIGHTLY FITTED AS NECESSITATED BY THE CONDITIONS ENCOUNTERED TO PROVIDE FULL BEARING WITHOUT THE USE OF SHIMS.

E. **FLOOR/ROOF CONSTRUCTION**

1. FASTEN ALL JOISTS TO SUPPORTS WITH APPROPRIATELY SIZED FRAMING HANGERS UNLESS NOTED OTHERWISE.

2. **BEARING:** BEAR A MINIMUM OF 4" ON MASONRY OR CONCRETE. BEAR BEAMS, GIRDERS, JOISTS, RAFTERS AND TRUSSES ON CONTINUOUS WOOD PLATE WITH 5/8"Ø BOLTS @ 48" O.C., UNLESS OTHERWISE NOTED. FLOOR JOISTS, CEILING JOISTS AND ROOF RAFTERS SHALL HAVE 4" NOMINAL BEARING ON WOOD OR WOOD PLATES ON METAL OR MASONRY.

3. **BUILT-UP MEMBERS**: ALL DOUBLE (OR MORE) JOISTS, BEAMS, HEADERS, RAFTERS AND TRUSSES MUST BE MECHANICALLY FASTENED OR NAILED TO EACH OTHER TO ACT AS A SINGLE UNIT WHEN LOADED. SEE TYPICAL DETAILS AND IBC FASTENING REQUIREMENTS UNDER WOOD CHAPTER.

4. **BLOCKING REQUIREMENTS**: PROVIDE 2" NOMINAL THICKNESS FULL DEPTH SOLID BLOCKING FOR JOISTS AND RAFTERS AT ENDS AND AT SUPPORTS. OMIT SOLID BLOCKING WHEN JOISTS ARE NAILED TO A CONTINUOUS HEADER. LAP JOISTS FRAMING FROM OPPOSITE SIDES OF A BEAM, GIRDER OR PARTITION AT LEAST 6". SECURE JOISTS FRAMED END TO END WITH METAL STRAPS. USE APPROVED FRAMING ANCHORS TO SUPPORT JOISTS FRAMING INTO THE SIDES OF WOOD OR STEEL BEAMS. FASTEN SOLID WOOD BLOCKING TO STEEL BEAM WEB WITH 2 ROWS OF 1/2"Ø THROUGH-BOLTS @ 16" O.C. PRIOR TO INSTALLING JOIST HANGERS.

5. **HEADER BEAMS**: PROVIDE DOUBLED (ANOTHER HEADER BEAM OR EQUIVALENT CROSS-SECTION) TRIMMER AND HEADER JOISTS AROUND OPENINGS UNLESS NOTED OTHERWISE. SUPPORT HEADER JOISTS FROM FRAMING ANCHORS OR JOIST HANGERS UNLESS BEARING ON A BEAM, PARTITION OR A WALL. JOISTS CARRYING PARTITIONS PERPENDICULAR TO JOISTS SHALL NOT BE OFFSET FROM SUPPORTING GIRDERS, WALLS OR PARTITIONS MORE THAN THE JOIST DEPTH. JOISTS CARRYING PARTITIONS PARALLEL TO JOISTS SHALL BE DOUBLED.

F. **WOOD STRUCTURAL PANELS**

1. **ROOF SHEATHING** SHALL BE APPLIED PERPENDICULAR TO SUPPORTS. THE INDEX NUMBER IS BASED ON A 3 SPAN CONDITION. IF LESS THAN 3 SPANS ARE FURNISHED, ADDITIONAL EDGE SUPPORT IS REQUIRED (MIN 4 PLY). UNSUPPORTED EDGES OF ROOF SHEATHING SHALL BE SUPPORTED BY EITHER OF FOLLOWING:
   - GALVANIZED STEEL H CLIPS (SIMPSON PSCL) DESIGNED FOR THIS PURPOSE (USE TWO H CLIPS FOR EACH TRUSS SPACE OF 24" AND ONE H CLIP FOR EACH TRUSS SPACE OF 16")
   - PLYWOOD ROOF SHEATHING WITH STANDARD TONGUE-AND-GROOVE EDGES.

2. **GAPS:** PANELS SHALL BE INSTALLED WITH 1/4" SPACING AT END JOINTS AND 1/8" SPACING AT EDGE JOINTS MINIMUM.

G. **PREFABRICATED TRUSSES**

1. PREFABRICATED TRUSS SUPPLIER SHALL BE RESPONSIBLE FOR DESIGN OF TRUSS AND ASSOCIATED COMPONENTS INCLUDEDING (BUT NOT LIMITED TO) CONNECTIONS, BRIDING, AND CROSS BRACING. CONTRACTOR SHALL COORDINATE ALL ADDITIONAL TRADE WORK WITH THE TRUSS SUPPLIER SHOP DRAWINGS.
2. ALL ROOF TRUSSES SHALL BE DESIGNED TO RESIST DEAD, LIVE, ROOF, AND WIND UPLIFT FORCES PER LOAD TABLE.
3. TRUSSES SHALL NOT BE FIELD MODIFIED WITHOUT ADVANCE APPROVAL AND DETAILS BY THE TRUSS SUPPLIER AND ENGINEER OF RECORD. DO NOT CUT OR REMOVE TRUSS MEMBERS OR COMPONENTS.
4. ALL TRUSSES ARE LATERALLY UNSTABLE UNTIL PROPERLY BRACED. ALL TRUSSES SHALL BE SECURELY BRACED BY THE CONTRACTOR, BOTH DURING CONSTRUCTION AND AFTER PERMANENT INSTALLATION PER BCSI AND/OR AS INDICATED IN THE CONTRACT DOCUMENTS. PROVIDE PERMANENT BRACING OF INDIVIDUAL COMPRESSION MEMBERS PER TRUSS SUPPLIER'S ENGINEER'S DESIGN DOCUMENTS. ALL BRACING SHALL HOLD TRUSSES STRAIGHT AND PLUMB, AND INSTALLED PERMANENTLY BEFORE THE APPLICATION OF ANY LOADING.
5. PROVIDE CONTINUOUS BRIDGING FOR NET WIND UPLIFT PER ANSI/TPI-1 RECOMMENDATIONS.
6. WEB ORIENTATION SHALL MATCH THE TRUSS SUPPLIER ELEVATIONS. ORIENTATION OF WEB ELEMENTS ON PLAN DO NOT REFLECT FINAL CONFIGURATION.
7. TRUSSES SHALL BE FABRICATED WITH HYDRAULICALLY PRESSED 20 GAUGE TOOTHED METAL PLATES OR NAILED STEEL GUSSET PLATES. CONNECTIONS SHALL BE CAPABLE OF TRANSMITTING THE STRESS PLUS ALL ECCENTRICITIES.
8. PROVIDE ADDITIONAL TRUSSES UNDER ALL PARTITIONS PARALLEL TO TRUSS SPAN.
9. TRUSS SHOP DRAWINGS SHALL SHOW MULTI-PLY GIRDER AND HEADER FASTENER DETAILS TO EACH OTHER TO ACT AS A SINGLE UNIT WHEN LOADED.

H. **WALL CONSTRUCTION:**

1. AT EXTERIOR WALLS PROVIDE SOLID BLOCKING WITHIN THE FLOOR FRAMING, LOCATED UNDER POSTS OR MULTIPLE STUDS AT THE EDGES OF OPENINGS.
2. PROVIDE SIMPSON RSP4 (2) STUD PLATE TIES TO WALL FRAMING TOP PLATES AND RSP4 (1) TIES TO WALL FRAMING BOTTOM PLATES WHERE WALLS SUPPORT ROOF FRAMING.
3. STUDS IN BEARING WALLS AND EXTERIOR WALLS SHALL BE CONTINUOUSLY BRIDGED WITH WOOD BLOCKING AT MID-HEIGHT BETWEEN FLOORS (AND ROOF).
4. STUDS AND POSTS SHALL BE ONE-PIECE CONTINUOUS BETWEEN FLOOR LEVELS AND BETWEEN FLOOR LEVEL AND ROOF DIAPHRAGMS. ALL DOUBLE STUDS SHALL BE NAILED TO EACH OTHER AT 8 INCH MAXIMUM SPACING FULL-HEIGHT.
5. BRACE EXTERIOR BUILDING CORNERS IN STUD WALLS WITH DIAGONALLY PLACED METAL STRAPS OR PLYWOOD SHEATHING NAILED OR SCREWED TO STUDS.
6. WOOD COLUMNS AND POSTS SHALL BE FRAMED TO TRUE END BEARINGS, AND SHALL BE POSITIVELY ANCHORED TO THEIR SUPPORTING FOUNDATION WITH APPROVED POST BASE. CONTRACTOR SHALL SUPPORT COLUMNS AND POSTS SECURELY IN POSITION AND PROTECT POST BASES FROM DETERIORATION. TREATED WOOD COLUMNS AND POSTS MAY BE PLACED DIRECTLY ON CONCRETE OR MASONRY.
7. MINIMUM OF TWO JAMB STUDS ARE REQUIRED UNDER ALL HEADERS, 2x BEAMS, PSL BEAMS, OR GIRDER TRUSSES, U.N.O.
8. ALL TOP PLATE SPLICES SHALL BE EITHER A 4"x18 GAUGE STRAP OR 4'-0" MINIMUM LAPPED PLATES WITH (10) 16d EACH SIDE OF SPLICE U.N.O.
9. ALL PLYWOOD SHALL BE LAID WITH LONG DIMENSIONS PERPENDICULAR TO SUPPORTS. STAGGER ALL JOINTS.
10. BOLT HOLES SHALL BE A MINIMUM OF 1/32" AND A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER.
11. INSTALL ALL SPECIFIED FASTENERS BEFORE LOADING THE CONNECTION.
12. PNEUMATIC NAILERS MAY BE USED TO INSTALL CONNECTORS, PROVIDED THE CORRECT QUANTITY AND TYPE OF NAILS ARE PROPERLY INSTALLED IN THE NAIL HOLES PER SUPPLIER'S INSTRUCTIONS. TOOLS WITH NAIL HOLE LOCATING MECHANISMS AND APPROPRIATE SAFETY EQUIPMENT SHOULD BE USED.
13. JOISTS SHALL BEAR COMPLETELY ON THE CONNECTOR SEAT AND THE GAP BETWEEN THE JOIST AND THE HEADER SHALL NOT EXCEED 1/8".
14. PLYWOOD OR OSB SHALL BE APA RATED AND SHALL BE ADEQUATELY SPACED AT JOINTS (1/8" TYP.) PER APA FOR EXPANSION.

I. **PROJECT SPECIFIC MATERIAL AND CONNECTION INFORMATION**

1. **LUMBER:** ALL WOOD FOR STRUCTURAL FRAMING SHALL BE:
   - STRESS-GRADED, SURFACE DRIED **NO. 2** OR BETTER.
   - FRAMING MEMBERS SHALL BE **HEM-FIR** WITH THE FOLLOWING MIN. VALUES:
     - Fb = 850 PSI   Fc = 405 PSI (PERPENDICULAR TO GRAIN)
     - Fv = 150 PSI   Fc = 1,300 PSI (PARALLEL TO GRAIN)
     - Ft = 525 PSI   E = 1,300,000 PSI

2. **ENGINEERED LUMBER:** SHALL HAVE THE FOLLOWING MIN. VALUES:
   - **PSL** PARALLEL STRAND LUMBER BEAMS (2.0E)
     - Fb = 2,900 PSI FOR 12" DEPTH FOR OTHER MULTIPLY BY [12/d]^0.111
     - Fv = 290 PSI
     - Fc = 750 PSI (PERPENDICULAR TO GRAIN)
     - Fc = 2,900 PSI (PARALLEL TO GRAIN)
     - E = 2,000,000 PSI
   - **LVL** LAMINATED VENEER LUMBER BEAMS:
     - Fb = 2,600 PSI FOR 12" DEPTH FOR OTHER MULTIPLY BY [12/d]^0.136
     - Fv = 285 PSI
     - Fc = 750 PSI (PERPENDICULAR TO GRAIN)
     - Fc = 2,510 PSI (PARALLEL TO GRAIN)
     - E = 1,800,000 PSI
   - **LSL** LAMINATED STRAND LUMBER BEAMS:
     - Fb = 2,325 PSI   Fv = 310 PSI
     - E = 1,550,000 PSI
   - **PSL POSTS** PARALLEL STRAND LUMBER POSTS (1.8E)
     - Fc = 2,500 PSI   E = 1,800,000 PSI

3. **SHEATHING:** ALL SHEATHING SHALL BE APA RATED SHEATHING MEETING THE FOLLOWING MINIMUM SPECIFICATIONS, UNLESS NOTED OTHERWISE:
   - **ROOF SHEATHING** SHALL BE EXPOSURE 1, 19/32" (5/8" NOMINAL) 40/20 SPAN RATING APA STRUCTURAL I RATED PLYWOOD SHEATHING. ROOF SHEATHING SHALL BE FASTENED TO SUPPORTING MEMBERS 8d COMMON WIRE NAILS AT 6" (EDGES) & 12" O.C. (INTERMEDIATE SUPPORTS). ALL JOINTS IN SHEATHING SHALL BE STAGGERED. FOR ROOF SHEATHING, USE PANEL CLIPS, TONGUE & GROOVE, OR LUMBER BLOCKED EDGE SUPPORTS AS RECOMMENDED BY APA. NAILING SHALL COMPLY WITH APA REQUIREMENTS FOR PLYWOOD FLOOR/ROOF DIAPHRAGMS.
   - **FLOOR SHEATHING** SHALL BE EXPOSURE 1, 23/32" (3/4" NOMINAL) 48/24 SPAN RATING APA STRUCTURAL I RATED PLYWOOD SHEATHING. PLYWOOD SHALL BE GLUED AND SCREWED TO WOOD FRAMED FLOOR STRUCTURE. FLOOR SHEATHING SHALL BE FASTENED TO SUPPORTING MEMBERS WITH #8 WOOD SCREWS AT 6" O.C. (EDGES) & 12" O.C. (INTERMEDIATE SUPPORTS). ALL JOINTS IN SHEATHING SHALL BE STAGGERED. ALL EDGES IN FLOOR SHEATHING SHALL BE TONGUE & GROOVE.
   - **EXTERIOR WALL SHEATHING** SHALL BE EXPOSURE 1, 7/16 (1/2" NOMINAL) 32/16 SPAN RATING APA STRUCTURAL I RATED PLYWOOD OR OSB WALL SHEATHING. FASTEN TO SUPPORTING MEMBERS WITH 8d COMMON WIRE NAILS (1 3/8" PENETRATION INTO STUDS) AT 6" O.C. (EDGES) & 12" O.C. (INTERMEDIATE SUPPORTS), UNLESS NOTED GREATER AT SHEAR WALLS. PROVIDE 2x BLOCKING AT PANEL JOINTS.

STRUCTURAL DRAWINGS LIST

STRUCTURAL LOADS

ROOF DEAD LOADS

TOTAL	15 PSF
ROOF DECK CONST.	3 PSF
FRAMING	5 PSF
ROOFING/INSULATION	5 PSF
CEILING	0 PSF
MEP	2 PSF

LIVE LOAD

PARKING GARAGE	40 PSF

LIVE LOAD REDUCTION AND SNOW DRIFT ARE APPLIED PER BUILDING CODE.

ROOF LIVE LOAD=SNOW LOAD

SNOW LOAD

GROUND SNOW LOAD	Pg*	25 PSF
IMPORTANCE FACTOR	Is	1.0
EXPOSURE FACTOR	Ce	1.0
THERMAL FACTOR	Ct	1.0
FLAT-ROOF SNOW LOAD (θ < 5°)	Pf [a]	18 PSF
MINIMUM SNOW LOAD	Pmin	30 PSF
DESIGN SNOW LOAD	Pd	30 PSF (MINIMUM)

" a " DENOTES THAT FLAT-ROOF SNOW LOAD HAS BEEN USED IN CALCULATION OF SNOW DRIFT VALUES PER ASCE-7

WIND LOAD

BASIC WIND SPEED	V	115 MPH
WIND EXPOSURE CATEGORY		C
BASE WIND PRESSURE	qh	± 25 PSF

WALL COMPONENTS & CLADDING WIND LOAD (UNFACTORED)

ZONE \ AREA	10 FT²	50 FT²	100 FT²	200 FT²	500 FT²
ZONE 4 (NEGATIVE)	-22.0	-19.9	-19.0	-18.1	-16.9
ZONE 5 (NEGATIVE)	-27.0	-22.9	-21.1	-19.3	-16.9
ZONE 4&5 (POSITIVE)	20.3	18.2	17.3	16.4	16.0

- POSITIVE PRESSURE: ACTING TOWARDS SURFACE (psf)
- NEGATIVE PRESSURE: ACTING AWAY FROM SURFACE (psf)
- ALL MIN. DESIGN WIND PRESSURES MUST BE AT LEAST +/- 16PSF.

WIND BASE SHEAR

WIND BASE SHEAR (N/S)		10.16 K
WIND BASE SHEAR (E/W)		5.6 K

WIND ROOF NET UPLIFT (GROSS - APPLICABLE DEAD LOAD)

FIELD	10 PSF
PERIMETER	20 PSF
CORNER	20 PSF
CORNER / EDGE DISTANCE, a	3'-6"

SEISMIC LOAD

IMPORTANCE FACTOR	Ie	1.0
MAPPED SPEC. ACCL. (SHORT)	Ss	0.082g
MAPPED SPEC. ACCL. (1s)	S1	0.041g
LONG PERIOD - TRANSITIONAL	TL	12 SECONDS
SEISMIC DESIGN CATEGORY		B
SITE CLASSIFICATION		D
BASE SEISMIC FORCE RESISTING SYSTEM		STRUCTURAL STEEL NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
RESPONSE MODIF. FACTOR	R	6.5
DEFLECTION AMPL. FACTOR	Cd	4
ANALYSIS PROCEDURE		EQUIVALENT LATERAL FORCE PROCEDURE

SEISMIC BASE SHEAR

SEISMIC BASE SHEAR (N/S)		1 K
SEISMIC BASE SHEAR (E/W)		1 K

WOOD TRUSS LOAD - ROOF

TOTAL	45 PSF
SNOW LOAD*	30 PSF
TOP CHORD DL	10 PSF
BOTTOM CHORD DL	5 PSF

*ACCOUNT FOR SNOW DRIFT LOAD

TRUSS MFG. TO COORDINATE TRUSS SPACING W/ MECHANICAL UNITS. MECHANICAL UNIT TO BE CENTERED BETWEEN 2-TRUSSES.

ALL WET WALLS TO BE 2x6. WALL PANELIZER TO COORD. ALL WET WALL LOCATIONS W/ ARCHITECT.

DATE	ISSUED FOR	REV
2024-04-23	PERMIT AND BID SUBMISSION	1

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)
STATE OF MICHIGAN · STEVEN CHARLES DEVINE · ENGINEER · No. 55520 · LICENSED PROFESSIONAL ENGINEER

NORR

NORR OFFICE ADDRESS
norr.com

Project Manager B. Colburn	Drawn Author
Project Leader J. Brock	Checked Checker

Client
St. Clair County Health Department

Project
Garage Building
220 Fort Street
Port Huron, MI
48060

Drawing Title
GENERAL NOTES

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

Project No.: JCDT23-0185

Drawing No.: **S001**

FOUNDATION NOTES

A. **STANDARDS**
1. ALL FOUNDATION WORK SHALL CONFORM TO THE APPLICABLE CONCRETE WORK NOTES.

B. **GEOTECHNICAL DATA**
1. **REFERENCE:** FOUNDATIONS HAVE BEEN DESIGNED WITH CONFORMANCE TO THE GEOTECHNICAL ENGINEERING REPORT INDICATED IN FOUNDATION CRITERIA TABLE.
2. **SITE PREPARATION AND EXCAVATION WORK:** SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT.

FOUNDATION CRITERIA

GEOTECHNICAL ENGINEER	N/A
GEOTECH REPORT DATE	N/A
BEARING CAPACITY	1,500 PSF
FROST DEPTH	42"

C. **SHALLOW FOUNDATION**
1. **BEARING CAPACITY:** BUILDING COLUMNS ARE TO BE SUPPORTED WITH SPREAD FOOTINGS. THE ADEQUACY OF THE BEARING STRATUM AND ALL FOOTING ELEVATIONS SHALL BE INSPECTED AND APPROVED, IN WRITING, BY A REGISTERED GEOTECHNICAL ENGINEER HIRED BY THE CONTRACTOR IMMEDIATELY PRIOR TO PLACING CONCRETE. WRITTEN APPROVAL SHALL SPECIFY THAT THE SOIL HAS THE CAPACITY TO SUPPORT THE DESIGNED BEARING PRESSURE.
2. **VERIFICATION OF SOIL CAPACITY:** ALL FOOTING BOTTOMS SHALL BE INSPECTED AND APPROVED, IN WRITING, BY A REGISTERED SOILS ENGINEER PRIOR TO PLACING CONCRETE. WRITTEN APPROVAL SHALL SPECIFY THAT THE SOIL HAS THE CAPACITY TO SUPPORT THE DESIGNED BEARING PRESSURE. FOUNDATIONS **SHALL NOT** BEAR ON (OR ABOVE) EXISTING FILL MATERIALS.

D. **FOUNDATION PLACEMENT**
1. **FROST DEPTH:** ALL EXTERIOR FOOTINGS SHALL BE PROTECTED FROM FROST BY EXTENDING BELOW THE FROST DEPTH PER FOUNDATION CRITERIA TABLE.
2. **SUBGRADE:** ALL FOUNDATION SUBGRADE PREPARATION AND CRUSHED STONE FILL BLANKETS BENEATH SLAB ON GRADE SHALL COMPLY WITH THE PROJECT'S GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
3. **DEWATERING**: DEWATERING OF THE SITE, INCLUDING METHODS OF DEWATERING AND CALCULATIONS, DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL CONTROL SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SO THAT THE FOUNDATION WILL BE CONSTRUCTED ON DRY SOIL/ROCK.
4. **FREEZING:** NO FOUNDATION SHALL BE PLACED IN WATER OR FROZEN GROUND.
5. **BACKFILL**
   A. AROUND THE EXTERIOR OF WALLS (UNBALANCED) SHALL NOT BE PLACED UNTIL AFTER THE WALLS ARE SUPPORTED (BRACED) BY THE COMPLETION OF THE INTERIOR FLOOR SYSTEMS AT BOTH THE BOTTOM AND TOP OF WALL.
   B. DO NOT PROCEED WITH BACKFILL UNTIL SEVEN (7) DAYS AT A MINIMUM AFTER THE COMPLETION OF INTERIOR FLOOR SYSTEM INSTALLATION (CONCRETE) UNLESS WALLS ARE OTHERWISE TEMPORARILY SHORED/BRACED.
6. BACKFILL SHALL NOT BE PLACED UNTIL AFTER COMPLETION AND INSPECTION OF WATERPROOFING WHERE APPLICABLE.
7. **MATERIAL ACCEPTANCE:** ALL UNSUITABLE MATERIALS SHALL BE REMOVED FROM SUBGRADE AND BACKFILL AREAS AND BACKFILLED WITH ACCEPTABLE FILL ACCORDING TO THE SPECIFICATIONS AND COMPACTED TO THE SPECIFIED BEARING CAPACITY
8. **REINFORCEMENT CONTINUITY:** FOUNDATION WALLS AND FOOTINGS (OR CAPS) SHALL HAVE REINFORCEMENT KEPT CONTINUOUS THROUGH ELEMENTS SO ELEMENTS BEHAVE MONOLITHICALLY.
9. **CENTERING:** ALL FOOTINGS SHALL BE CENTERED DIRECTLY BELOW COLUMNS/WALLS WHICH THEY SUPPORT UNLESS OTHERWISE NOTED.

E. **EXCAVATION SUPPORT - DESIGN AND PLACEMENT**
1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING ALL EXCAVATION PROCEDURES INCLUDING SHORING, BRACING SHEET PILING, LAGGING, UNDERPINNING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES PER LOCAL BUILDING DEPARTMENT REQUIREMENTS. PROJECT SPECIFIC CALCULATIONS AND SHOP DRAWINGS SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER FOR REVIEW. INSTALLATION SHALL BE PERFORMED BY A SPECIALTY CONTRACTOR.
2. **WALLS:** PROVIDE ADEQUATE BRACING AND SHORING FOR BASEMENT, RETAINING AND PIT WALLS. BRACE BASEMENT AND PIT WALLS UNTIL SUPPORTING FLOORS ABOVE ARE IN PLACE AND HAVE ATTAINED DESIGN STRENGTH. DO NOT BACKFILL WALLS UNTIL AFTER FLOORS AT THE TOP AND BASE OF THE WALLS ARE IN PLACE. WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF A WALL, BACKFILL BOTH SIDES SIMULTANEOUSLY WITH THE GRADE DIFFERENCE NOT TO EXCEED 2'-0" AT ANY TIME.
3. **UNDERCUTTING**: IF EXCAVATION DEPTH AT FOOTING PROPOSED IS DEEPER THAN 2H:1V PROJECTED FROM EDGE OF ADJACENT EXISTING OR NEIGHBORING FOOTING, UNDERPINNING MAY BE REQUIRED. G.C. TO DETERMINE IF UNDERPINNING IS REQUIRED BEFORE CONSTRUCTION.
4. **SURCHARGE:** CANTILEVERED AND BASEMENT RETAINING WALLS ARE NOT DESIGNED FOR SURCHARGE LOADING ASSOCIATED WITH CONSTRUCTION TRAFFIC BEHIND THE WALL. PROVIDE ADEQUATE TEMPORARY BRACING TO RESIST LATERAL LOADS ASSOCIATED WITH MEANS AND METHODS OF CONSTRUCTION.

F. **EXCAVATION SUPPORT - INSTALLATION**
1. THE CONTRACTOR SHALL INSURE THAT EFFICIENT MEANS ARE PROVIDED TO PROPERLY TRANSFER EXTERNAL FORCES FROM THE SHEETING AND SHORING TO THE INTERNAL BRACING.
2. CONDITIONS OF NEARBY STRUCTURES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES SHALL BE DOCUMENTED PRIOR TO SHEETING AND/OR SHORING, AND SHALL BE MONITORED DURING THE CONSTRUCTION.
3. ALL ABUTTING ENDS OF BRACING SHALL BE IN FULL BEARING ACROSS THE ENTIRE SECTION OF THE MEMBER.
4. BRACING SHALL BE INSTALLED (POSTED AND TIED) SO AS TO PREVENT SPREADING OR DISTORTION OF THE BRACED FRAMES.
5. BRACING SHALL CLEAR COLUMNS, FLOOR FRAMING ELEMENTS, AND OTHER PERMANENT WORK.
6. PROPERLY SUPPORT HORIZONTAL WALES TO PREVENT UNACCEPTABLE MOVEMENT OR OVERTURNING DUE TO THRUSTS FROM THE BRACING.
7. FILLERS AND WEDGES SHALL BE PROVIDED AS REQUIRED, BETWEEN THE SHEETING AND THE WALES AT THE TIME OF INSTALLATION OF EACH LEVEL OF BRACING, AND THE BRACING SYSTEM TO BE PROPERLY STRESSED AT ALL TIMES.
8. BRACING SHALL NOT BE CAST INTO PERMANENT CONCRETE, EXCEPT AS SPECIFICALLY APPROVED BY THE EOR. IN WHICH CASE, THE PROPER KEYS, CUTOFFS, WATERSTOPS AND WATERPROOFING MUST BE PROVIDED.
9. SHOULD IT BECOME NECESSARY TO MOVE A BRACE, A NEW BRACE SHALL BE INSTALLED PROPERLY PRIOR TO REMOVAL OF THE ORIGINAL BRACE.

G. **EXCAVATION SUPPORT - COMPLETION**
1. ALL BRACING SHALL BE MAINTAINED UNTIL STRUCTURAL ELEMENTS ARE RE-BRACED BY OTHER BRACING OR UNTIL THE PERMANENT FLOOR CONSTRUCTION IS ABLE TO WITHSTAND THE LATERAL EARTH AND GROUND WATER PRESSURES.
2. SHEETING AND SHORING RETAINING EARTH ON WHICH THE SUPPORT AND/OR STABILITY OF EXISTING STRUCTURES IS DEPENDENT, MUST BE LEFT IN PLACE AT THE COMPLETION OF THE WORK, AND SHALL BE STEEL OR CONCRETE.

CONCRETE NOTES

A. **CODES / STANDARDS**
1. **STANDARDS:** CONCRETE WORK SHALL COMPLY WITH THE LATEST EDITIONS OF: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS"; ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND ACI 315 "ACI DETAIL MANUAL", AND CRSI "MANUAL OF STANDARD PRACTICE".
2. **STEEL:** ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 AND DETAILED ACCORDING TO THE ACI *MANUAL OF STANDARD PRACTICE* (ACE 315 LATEST EDITION)
   - EPOXY COATED BARS SHALL BE COATED CONFORMING TO ASTM A775.
   - ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A1064.
3. **GROUT:** NON-SHRINK GROUT (NON-METALLIC) CRD-C-621, FACTORY PRE-MIXED GROUT SHALL BE "MASTERFLOW 713" BY MASTER BUILDERS OR APPROVED EQUAL. INSTALLATION AND CURING SHALL CONFORM TO SUPPLIER'S REQUIREMENTS. ALL GROUT SHALL EXPERIENCE NO SHRINKAGE AND HAVE A MAXIMUM OF 4.0% EXPANSION WHEN TESTED UNDER ASTM C-827 WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI WHEN TESTED PER ASTM C-109. GROUT SHALL HAVE A MINIMUM INITIAL SET TIME OF 60 MINUTES WHEN TESTED PER ASTM C-191.
4. **CURING:** CURE CONCRETE IMMEDIATELY AFTER FINISHING PER ACI 301, ACI 305R, ACI 306R, AND ACI 308.

B. **SHOP DRAWINGS / SUBMITTALS**
1. **SHOP DRAWINGS** INCLUDING THE FOLLOWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO ANY FABRICATION.
   - REINFORCING DETAILS INCLUDING CONCRETE COVER, STEEL SIZES, BEND TYPES, LAPS AND DIMENSIONS
   - LOCATIONS OF ALL ANCHOR BOLTS, CONTROL JOINTS, CURBS, SLAB, DEPRESSIONS, SLEEVES, INSERTS, BOXES, OPENINGS, ETC.
   - LOCATIONS OF ALL CONSTRUCTION JOINTS; ENGINEER MAY REQUIRE ADDITIONAL REINFORCING AT CONSTRUCTION JOINTS.
2. **FORMWORK** CALCULATIONS PREPARED AND SEALED, IN WRITING, BY A REGISTERED PROFESSIONAL ENGINEER HIRED BY THE CONTRACTOR.
3. **DESIGN MIXES** FOR EACH TYPE AND STRENGTH OF CONCRETE SHALL BE SUBMITTED BY EITHER LABORATORY TRAIL BATCH OR FIELD METHODS SPECIFIED IN ACI 301. MIX DESIGNS SHALL BE PREPARED BY AN INDEPENDENT TESTING FACILITY AND SHALL NOT BE SAME AS USED FOR FIELD TESTING.
4. **MASS CONCRETE** DEFINED AS A PLACEMENT OF STRUCTURAL CONCRETE WITH A MINIMUM DIMENSION EQUAL TO OR GREATER THAN 4 FT. THERMAL CONTROL PLAN SHALL BE PREPARED AND EXECUTED PER SECTION 8 OF ACI 301 AND ACI 207. THE OWNER'S CONCRETE TESTING LABORATORY IS RESPONSIBLE FOR INSTALLING AND MONITORING OF THERMOCOUPLES.
5. NO CONCRETE WORK SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.

C. **CONCRETE MIX INFORMATION**
1. **FREEZE-THAW:** ALL CONCRETE EXPOSED TO FREEZING AND THAWING SHALL BE NORMAL WEIGHT (ASTM C33) READY MIX CONCRETE (ASTM C94).
2. **CONCRETE STRENGTH & MIX DESIGN:** ALL CAST-IN-PLACE CONCRETE SHALL CONFORM TO THE FOLLOWING: 1" MIN. SLUMP, A/C (AIR CONTENT) BASED ON 3/4" AGGREGATE, NORMAL WEIGHT UNLESS NOTED OTHERWISE.

LOCATION:	f'c @ 28 DAYS	A/C	MAX W/C
• RETAINING WALLS	5,000 PSI	6%	0.45
• FOUNDATION WALLS/PIERS	5,000 PSI	6%	0.45
• EXTERIOR SLAB ON GRADE*	5,000 PSI	6%	0.45
• GRADE BEAMS/PILE CAPS	4,000 PSI	2%	0.55
• MAT FOUNDATIONS	4,000 PSI	2%	0.55
• FOOTINGS	3,500 PSI	2%	0.55
• INTERIOR SLAB ON GRADE*	3,500 PSI	2%	0.55
• NW SLABS ON METAL DECK*	3,500 PSI	2%	0.55
• LW SLABS ON METAL DECK*	3,500 PSI	4 - 7%	0.55
• PARKING STRUCTURE*	5,000 PSI	6%	0.40

2% A/C INDICATES ENTRAPPED AIR IN NON-AIR ENTRAINED CONCRETE.

* AREAS SUBJECT TO VEHICULAR TRAFFIC SHALL CONTAIN A CORROSION INHIBITIVE ADMIXTURE, WR GRADE DCI-S OR EQUAL (3GAL/CY)

3. **CALCIUM CHLORIDE:** NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.

D. **REINFORCEMENT**
1. **REINFORCEMENT** SHALL NOT BE FIELD CUT, UNLESS OTHERWISE INDICATED. REINFORCEMENT SHALL BE COLD BENT. HEATING REINFORCEMENT IS PROHIBITED. RE-BENDING REINFORCING IS PROHIBITED.
2. **BAR SUPPORT:** PROVIDE BAR SUPPORTS AND SPACERS PER ACI 315 AND CRSI "*MANUAL OF STANDARD PRACTICE.*" ALL BAR SUPPORTS IN CONTACT WITH EXPOSED SUBSURFACE SHALL HAVE PLASTIC TIPPED FEET. CONTRACTOR MUST EXERCISE CARE TO PREVENT EXPOSURE OF TIE WIRED OR OTHER MATERIALS THAT MAY STAIN EXPOSED CONCRETE. ALL REINFORCEMENT SHALL MAINTAIN PROPER COVER AND SECURELY HELD IN PLACE DURING CONCRETE PLACEMENT.
3. **MINIMUM CONCRETE COVER** FOR REINFORCING STEEL SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

• ALL CONCRETE PERMANENTLY CAST AGAINST EARTH	3"
• ALL CONCRETE EXPOSED TO EARTH/WEATHER (≥ #6)	2"
• ALL CONCRETE EXPOSED TO EARTH/WEATHER (≤ #5)	1 1/2"
• SLAB ON GRADE (WELDED WIRE FABRIC)	2"
• BEAM STIRRUPS, COLUMN & PIER TIES, NOT EXPOSED	1 1/2"
• SLABS, WALLS & JOISTS, NOT EXPOSED (≤ #11)	3/4"
• CONCRETE ON METAL DECK, NOT EXPOSED	1"

4. **WELDED WIRE FABRIC** (WWF) SHALL BE PROVIDED IN FLAT SHEETS SUPPORTED ON CONTINUOUS SLAB BOLSTERS AND LAPPED 1.5 X MESH SPACES OR MINIMUM OF 6".
5. **DEVELOPMENT & LAP SPLICE TABLE:** ALL LAP SPLICES SHALL BE CLASS "B", UNLESS NOTED OTHERWISE.

	TENSION LAP SPLICE		COMPRESSION	
BAR	CLASS "A"	CLASS "B"	DOWEL EMBED.	LAP SPLICE
	1.0*Ld	1.3*Ld	22*db	30*db
#3	15	19	9	12
#4	19	27	11	15
#5	25	31	14	19
#6	29	38	17	23
#7	43	55	19	26
#8	48	63	22	30
#9	54	71	25	34
#10	61	80	28	38

TABULATED VALUES ARE BASED ON THE FOLLOWING ASSUMPTIONS
- NORMAL WEIGHT & 4,000 PSI CONCRETE STRENGTH
- A MINIMUM CLEAR COVER AS SHOWN IN GENERAL NOTES.
- A MINIMUM CLEAR SPACING OF 3" BETWEEN ANY BARS.

MULTIPLY THE TABULATED VALUES BY MODIFICATION FACTORS BELOW AS APPLICABLE FOR OTHER CONCRETE TYPES, STRENGTHS AND CONDITIONS. MODIFICATION FACTORS ARE CUMULATIVE.
- F'c= 3 ksi, x 1.16
- F'c= 5 ksi, x 0.90
- LIGHT WEIGHT CONCRETE, x1.3
- EPOXY-COATED BARS, x1.5
- CLEAR SPACING < 2*db & CLEAR OVER < db, x1.5

E. **POST-INSTALLED ANCHORS**
- **REBAR:** WHEN INSTALLING ANCHORS CONTRACTOR SHALL TAKE MEASURES TO AVOID DRILLING/CUTTING ANY EXISTING REINFORCEMENT AND DESTRUCTION OF CONCRETE. HOLES SHALL BE CLEANED PER SUPPLIER REQUIREMENTS PRIOR TO SETTING/PLACEMENT.
- **EXPANSION BOLTS** SHALL CONFORM TO HILTI KWIK BOLT TZ OR APPROVED EQUAL UNLESS NOTED OTHERWISE.
- **ADHESIVE ANCHORS** SHALL CONFORM TO HILIT HY-200 ADHESIVE ANCHORING SYSTEM OR APPROVED EQUAL WITH THREADED ROD A193 GRADE B7.

F. **PLACEMENT**
1. **OPENINGS AND PENETRATION LOCATION AND DIMENSIONS** SHALL BE VERIFIED AND COORDINATED BEFORE THE CONCRETE IS POURED. MINIMUM DISTANCE BETWEEN SLEEVES IS THE GREATER OF SLEEVE DIAMETER OR 6 INCHES. OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS REQUIRE APPROVAL FROM STRUCTURAL ENGINEER IN WRITING PRIOR TO FIELD CUTTING/CORING SINCE ADDITIONAL REINFORCEMENT MAY BE REQUIRED.
2. **CHAMFER:** EXPOSED EDGES SHALL BE CHAMFERED 1/2", UNLESS NOTED OTHERWISE.
3. **EMBEDDED ITEMS** SHALL BE COORDINATED WITH OTHER TRADE DOCUMENTATION BY THE CONTRACTOR. NO CONDUITS MAY BE EMBEDDED IN CONCRETE. SET AND BUILD ANCHOR DEVICES AND EMBEDDED ITEMS REQUIRED FOR OTHER WORK THAT IS ATTACHED TO OR SUPPORTED BY CAST-IN-PLACE CONCRETE. USE SETTING DIAGRAMS, TEMPLATES, AND INSTRUCTIONS PROVIDED BY OTHERS FOR LOCATION AND SETTING.
4. **FLOOR SLABS:**
   a. **COORDINATION:** CONTRACTOR SHALL COORDINATE DEPRESSIONS FOR FLOOR FINISHES, FLOOR DRAINS, CURBS, CONCRETE PADS, INSERTS, AND WELDED PLATES WITH ALL OTHER TRADE DOCUMENTATION.
   b. **28-DAY STRENGTH** SHALL BE ATTAINED BEFORE POURING ANY TOPPING SLAB, OR BEFORE ANY MASONRY OR CONCRETE WALL IS ERECTED ON TOP.
   c. **FLATNESS & LEVELNESS** OF CONCRETE FLOOR SHALL BE AS FOLLOWS U.N.O.
      - SLAB ON GRADE: F(F) 35, F(L) 25, MINIMUM LOCAL F(F)=24, F(L) 18
      - ELEVATED FLOOR: F(F) 30
   d. THE CONTRACTOR SHALL PROVIDE CORRECTIVE MEASURES TO MEET REQUIREMENTS FOR ASTM E1155 AND PROJECT SPECIFIC PARTITIONS.
5. **COLD JOINTS** SHALL BE ROUGHENED TO AN AMPLITUDE OF 1/4 INCH FOR THE ENTIRE INTERSECTING SURFACE ACCORDING TO ACI RECOMMENDATIONS AND APPLY A BONDING AGENT AS REQUIRED. DO NOT LOCATE CONSTRUCTION JOINTS (COLD JOINTS) BELOW TERRAZZO FLOOR FINISHES.
6. **WALL JOINTS:**
   - **EXPANSION:** WALLS EXCEEDING 90 FEET SHALL CONTAIN EXPANSION JOINTS AT 90 FEET ON CENTERS.
   - **CONTROL JOINTS:** SHALL BE LOCATED AT RECOMMENDED SPACING BELOW, AT ABRUPT CHANGES IN WALL HEIGHT OR THICKNESS, BUT NOT EXCEEDING 30' - 0" O.C.

WALL HEIGHT	RECOMMENDED SPACING
• 8 FT OR LESS	3X WALL HEIGHT
• BETWEEN 8 FT AND 12 FT	2X WALL HEIGHT
• 12 FT OR GREATER	1X WALL HEIGHT

   - **CONSTRUCTION JOINTS**: SHALL BE LOCATED AT:
     - 60' - 0" O.C. MAXIMUM FOR NON-EXPOSED WALLS
     - 30' - 0"' O.C. MAXIMUM FOR EXPOSED WALLS
     - NOT LESS THAN 4' - 0" AWAY FROM FACE OF SUPPORTIVE PIER, BUTTRESS OR WALL OPENINGS.
       - **CORNERS:** JOINTS SHALL BE LOCATED NO FURTHER THAN 15'-0" FROM CORNERS.
7. **HORIZONTAL JOINTS** ARE **NOT** PERMITTED IN BEAMS, WALLS, AND SLABS UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER PRIOR TO CONSTRUCTION.

G. **FORMWORK AND SHORING**
1. FORMWORK SHALL CONFORM TO THE LATEST EDITIONS OF ACI SPECIAL PUBLICATION NO. 4 "FORMWORK FOR CONCRETE" AND ACI 347 "STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK".
2. SUBMIT FORMWORK AND SHORING DESIGN AND DETAIL DRAWINGS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
3. LOADS GREATER THAN THE DESIGN LIVE LOADS SHALL NOT BE PLACED ON ANY PART OF THE STRUCTURE.
4. SHORING AND WALL BRACING SHALL REMAIN UNTIL AT MINIMUM 75% OF 28-DAY DESIGN STRENGTH IS REACHED.
5. UNTIL THE CONCRETE HAS ATTAINED FULL 28-DAY DESIGN STRENGTH AND VERIFIED BY AN APPROPRIATE ASTM STANDARD TEST METHOD,
   - DO NOT REMOVE FORMWORK OR SHORING OF HUNG STRUCTURE BELOW. RE-SHORE HUNG STRUCTURE AS NEEDED.
   - DO NOT REMOVE RE-SHORING.
   - DO NOT PLACE FULL DESIGN LOAD ON THE STRUCTURE.
   - DO NOT PLACE MASONRY WALLS, PARAPETS, ETC. ON ANY PART OF THE STRUCTURE.
6. AT LEAST 1 FLOOR SHALL BE FULLY FORMED AND SHORED WITH A MINIMUM OF 3 FLOORS BELOW RE-SHORED AT ANY GIVEN TIME. ADDITIONAL SHORING AND RE-SHORING SHALL BE PROVIDED AS INDICATED BY THE SHORING DESIGN REQUIREMENTS.
7. RE-SHORE POSTS SHALL BE PLACED AT THE INTERSECTION OF THE COLUMN AND MIDDLE STRIP LINES IN EACH DIRECTION, WITH INTERMEDIATE POSTS AS REQUIRED. VERTICALL ALIGN RE-SHORES TO PROVIDE CONTINUOUS SUPPORT FROM FLOOR TO FLOOR. RE-SHORES MUST BE SNUG TO SLABS, BUT NOT TIGHT ENOUGH TO ADD ADDITIONAL LOADS. RE-SHORING SHALL SUPPORT EACH PANEL INDEPENDENTLY AS IT IS STRIPPED BEFORE REMOVING FORMS FROM ADJACENT PANELS OR RE-STORES SHALL BE INSTALLED PRIOR TO REMOVAL OF SHORES AND FORMWORK.

H. **FIELD TESTING**
1. UNLESS OTHERWISE PER CONTRACT DOCUMENTS, CAST THREE (3) CONCRETE TEST CYLINDERS (4" DIA x 8" HIGH) FOR EACH 50 CUBIC YARDS OF CONCRETE PLACED FOR TESTING AT 7, 14 AND 28 DAYS AND ONE SET OF ONE CYLINDER FOR 56 DAY VERIFICATION. ADDITIONAL CYLINDERS MAY BE TAKEN AND TESTED FOR HIGH EARLY STRENGTH REQUIREMENTS SHOULD THE CONTRACTOR REQUIRE THEM (IE WALL STRENGTH OR SHORING REMOVAL).
2. AT THE TIME OF CASTING EACH SET OF TEST CYLINDERS, SAMPLE CONCRETE PER ASTM C172 AND MEASURE THE FOLLOWING AT THE POINT OF CONCRETE PLACEMENT:
   - AMBIENT TEMPERATURE
   - CONCRETE TEMPERATURE
   - UNIT WEIGHT PER ASTM C-138
   - SLUMP PER ASTM C-143
3. AIR CONTENT PER ASTM C-173 OR ATM C-231
4. EVALUATE SLAB FLOOR FLATNESS AND PER ASTM E1155.
5. POST-INSTALLED ANCHORS SHALL BE INSPECTED PER IBC SPECIAL INSPECTION REQUIREMENTS AND BE CONTINIOUSLY INSPECTED DURING PLACEMENT.

MASONRY NOTES

A. **CODES / STANDARDS**: ALL CONCRETE MASONRY CONSTRUCTION SHALL COMPLY WITH:
- THE "SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF LOAD-BEARING CONCRETE MASONRY" PUBLISHED BY THE NATIONAL CONCRETE MASONRY ASSOCIATION.
- BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES"- ACI 530/ASCE 5-05/TMS 402 AND ACI 530.1/ASCE 6-05/TMS 602.

B. **SHOP DRAWINGS / SUBMITTALS**
1. REFER TO SPECIFICATIONS FOR SUBMITTAL REQUIREMENTS.

C. **MATERIAL INFORMATION**
1. **f 'm PRISM STRENGTH:** MASONRY ASSEMBLY SHALL HAVE A NET AREA COMPRESSIVE STRENGTH (f 'm) OF **2,500 PSI** MINIMUM.
2. **BLOCK MATERIAL:** ALL CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT, GRADE N, COMPLYING WITH ASTM C90. NET AREA COMPRESSIVE STRENGTH OF INDIVIDUAL CONCRETE MASONRY UNIT SHALL BE **3,250 PSI** MINIMUM.
3. **MORTAR:** MORTAR FOR ALL CONCRETE MASONRY MUST BE **TYPE S** CEMENT-LIME MORTAR PER ASTM C270.
4. **GROUT:** GROUT FOR GROUT FILLED MASONRY SHALL BE A HIGH SLUMP MIX CONFORMING TO ASTM C476 AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS FROM FIELD OBTAINED TEST CYLINDERS.
5. **JOINT REINFORCEMENT:** CONCRETE MASONRY UNITS SHALL BE CONSTRUCTED WITH HORIZONTAL JOINTS REINFORCED WITH HOT-DIPPED GALVANIZED LADDER TYPE REINFORCEMENT (ASTM A153 CLASS B-2).
6. **REINFORCEMENT:** SEE CONCRETE NOTES FOR REINFORCING STEEL REQUIREMENTS, STANDARDS AND SPECIFICATIONS FOR ADDITIONAL NOTES. PROVIDE LAP SPLICES OF NO LESS THAN 40 BAR DIAMETERS OR 24 INCHES FOR ALL REINFORCEMENT.
7. **BRICK MASONRY:** ALL BRICK MASONRY UNITS SHALL BE GRADE SW PER ASTM C216 WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AND BONDED TOGETHER WITH TYPE S MORTAR.

D. **PLACEMENT**: LAY CONCRETE MASONRY UNITS AS FOLLOWS:
A. GROUT SOLID ALL MASONRY BELOW GRADE.
B. GROUT SOLID MINIMUM OF (2) COURSES BELOW ALL BEARING POINTS ON CMU WALL INCLUDING STAIR STRINGERS, LANDING BEAMS, AND ELEVATOR HOIST AND DIVIDER BEAMS.
C. WITH FULL BED OF MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS FOR HOLLOW MASONRY UNITS/CAVITIES.
D. BED WEBS IN MORTAR IN STARTING COURSE ON FOOTING AND IN ALL COURSES OF PIERS, COLUMNS AND PILASTERS, AND WHERE ADJACENT TO CELLS OR CAVITIES TO BE FILLED WITH GROUT.
E. FOR STARTING COURSE ON FOOTING WHERE CELLS ARE NOT GROUTED, SPREAD OUT FULL MORTAR BED INCLUDING AREAS UNDER CELLS.
F. MAINTAIN JOINT WIDTHS INDICATED, EXCEPT FOR MINOR VARIATIONS REQUIRED TO MAINTAIN BOND ALIGNMENT. IF NOT INDICATED, LAY WALLS WITH 3/8" JOINTS.
G. USE THE "HIGH LIFT" GROUTING METHOD WITH MAXIMUM LIFT HEIGHTS OF 48".
H. GROUT SHALL BE USED AS FILLING FOR VERTICAL CAVITIES, BOND BEAMS, LINTELS AND HOLLOW MASONRY UNITS DESIGNATED AS SOLID GROUTED IN THE DRAWINGS. MORTAR **SHALL NOT** BE USED TO FILL CELLS.
I. ALL CUTTING OF MASONRY SHALL BE DONE WITH MASONRY SAWS.
J. WALLS SHALL BE PROPERLY BRACED AGAINST LATERAL LOADS UNTIL THE PERMANENT LATERAL BRACES OR OTHER LATERAL SUPPORT SYSTEMS HAVE BEEN INSTALLED.
K. CONCRETE MASONRY SHALL BE PROTECTED FROM ABSORBING MOISTURE AND WATER WHILE AT THE PLANT, DURING SHIPMENT, AND AT THE SITE DURING CONSTRUCTION.
L. MASONRY FACADE SUSPENDED FROM OR SUPPORTED ON CONCRETE SLABS AND BEAMS SHALL NOT BE ERECTED UNTIL PERMANENT ALIGNMENT AND ANCHORAGE OF SHELF ANGLES AND SUSPENDED HARDWARE IS COMPLETED, ALL TEMPORARY AND PERMANENT BRACING (WHERE REQUIRED) IS INSTALLED AND ALL SHORES AND RE-SHORES ARE REMOVED. MASONRY SUPPORTED BY STEEL MEMBERS SHALL NOT BE ERECTED UNTIL PERMANENT ANCHORAGE AND BRACING SYSTEMS HAVE BEEN INSTALLED.

E. **WALL JOINTS**
1. PROVIDE VERT. CONTROL JOINTS IN BEARING & NON-LOAD BEARING CONCRETE MASONRY WALLS AT FOLLOWING:
   - SPACED 25' - 0" O.C. MAXIMUM THROUGHOUT LENGTH OF WALL
   - AT CHANGES IN WALL HEIGHT OR THICKNESS
   - AT PILASTERS, PIERS OR COLUMNS
   - ADJACENT TO CORNERS AND INTERSECTIONS (WITHIN 12' - 6")
   - AT OPENINGS WITH MASONRY LINTELS AT LEAST 2' - 0" AWAY EA. SIDE
   - AT EACH END OF STEEL LINTELS (ABOVE ONLY).
2. CONTROL JOINTS SHALL EXTEND THROUGH ENTIRE WALL THICKNESS FOR FULL WALL HEIGHT.
3. BOND BEAM REINFORCEMENT TO BE CONTINUOUS, WRAP BARS IN GREASE COATED WRAP OR PROIVDE JOINT STABILZER ANCHORS.
4. HORIZONTAL JOINT REINFORCEMENT SHALL BE INTERRUPTED.

F. **VERTICAL REINFORCEMENT**
1. PROVIDE VERTICAL REINFORCEMENT IN GROUTED CELLS AS FOLLOWS:
   - MINIMUM WALL REINFORCEMENT OF #4@48" O.C SHALL BE PROVIDED. SEE DETAILS AND SHEET NOTES FOR INCREASED REINFORCEMENT BASED ON SPAN/LOADING.
   - VERTICAL REINFORCING SHALL BE ANCHORED INTO SUPPORTING SLAB OR BEAMS BELOW WITH TENSION EMBEDMENT LENGTH.
2. ALL OTHER INTERIOR NON-LOAD BEARING WALLS SHALL BE DETAILED AND REINFORCED PER THE TYPICAL DETAILS SHEET.

G. **HORIZONTAL REINFORCEMENT**
1. PROVIDE JOINT REINFORCEMENT AS FOLLOWS:
   - 8" CMU: LADDER REINFORCEMENT WITH 9 GAUGE SIDE RODS AND CROSS RODS.
   - 12" CMU: LADDER REINFORCEMENT WITH 3/16"Ø SIDE RODS AND 9 GAUGE CROSS RODS.
2. **LOCATIONS**: JOINT REINFORCEMENT SHALL BE PROVIDED AT FOLLOWING: COORDINATE WITH CONTROL JOINT LOCATIONS ON ARCHITECTURAL AND STRUCTURAL DRAWINGS.
   - TYPICAL 16" O.C. CONTINUOUS AT ALL CMU WALLS (U.N.O. AT SHEAR WALLS)
   - AT FLOOR OR ROOF: @ 8" O.C. FOR 3 COURSES
   - AT PARAPETS: @ 8" O.C.
   - AT CORNERS & T INTERSECTIONS: 2' - 8" LONG E.W. @ 8" O.C. REINFORCEMENT SHALL BE SHOP FABRICATED AND CONTINUOUS AROUND ALL CORNERS AND AT INTERSECTIONS.
   - AT HORIZONTAL JOINTS
3. **PLACEMENT**:
   - REINFORCEMENT SHALL BE COMPLETELY EMBEDDED IN MORTAR WITH A MINIMUM COVER OF 5/8" WHEN EXPOSED TO EARTH OR WEATHER AND 1/2" WHEN NOT EXPOSED TO EARTH OR WEATHER.
   - REINFORCEMENT TO BE FURNISHED IN 10 TO 20 FEET LENGTH FLAT SECTIONS.
   - THE DISTANCE BETWEEN WELDED CONTACTS OF CROSS RODS (DIAGONALS) WITH EACH LONGITUDINAL WIRE SHALL NOT EXCEED 6" AND 16" FOR SMOOTH AND DEFORMED LONGITUDINAL WIRES RESPECTIVELY.

H. **TIES**: ADJUSTABLE ANCHORS FOR ATTACHING MASONRY VENEER TO THE STRUCTURAL FRAME OR WALL SHALL CONFORM TO:
1. TWO-PIECE ASSEMBLIES ALLOWING VERTICAL AND HORIZONTAL DIFFERENTIAL MOVEMENT BETWEEN WALL AND FRAME WORK PARALLEL TO PLANE OF WALL, BUT RESISTING TENSION OR COMPRESSION FORCES PERPENDICULAR TO IT
2. IT MUST BE CAPABLE OF WITHSTANDING A 100 LB LOAD IN EITHER TENSION OR COMPRESSION WITHOUT DEFORMING, OR DEVELOPING PLAY IN EXCESS OF 0.05 OF AN INCH.
3. SPACE ADJUSTABLE TIES AT 16" ON CENTER VERTICALLY AND HORIZONTALLY.

I. PROVIDE FLEXIBLE MASONRY TIES ON ALL STEEL BEAMS AND COLUMNS THAT INTERFACE OR ABUT ANY MASONRY. USE 3/16"Ø TRIANGULAR TYPE TIES. SPACE AT 16" VERTICALLY AND HORIZONTALLY.

J. **LINTELS**
1. **MOVEMENT**: TO FACILITATE LINTEL MOVEMENT, THE BEARING OF AT LEAST ONE END OF EACH LINTEL SHOULD BE BUILT TO SLIDE. PLASTIC, BITUMINOUS SHEETS, NEOPRENE OR OTHER SUITABLE MATERIAL SHOULD BE USED FOR A SLIP PLATE.
2. **STEEL LINTELS:** DOUBLE LINTELS & SPACERS SHALL BE WELDED TO EACH OTHER AT 12" O.C. MAX.

J. **EXPANSION & ADHESIVE ANCHORS**
1. ANCHORING MATERIALS, INCLUDING NUTS & WASHERS, SHALL CONFORM TO THE SUPPLIER SPECIFICATIONS PERDRAWINGS. SUBSTITUTIONS MAY BE MADE PROVIDED THAT ALL MATERIAL PROPERTIES AND ALLOWABLE CAPACITIES ARE SHOWN TO BE EQUAL TO, OR IN EXCESS OF, THE SUPPLIER INDICATED ON DRAWINGS. SUBSTITUTIONS SHALL BE SUBMITTED TO STRUCTURAL ENGINEER FOR APPROVAL.
2. INSTALLATIONS PROCEDURES SHALL BE IN ACCORDANCE WITH SUPPLIER SPECIFICATIONS AND ALLOWABLE TOLERANCES. ALL EMBEDMENT DEPTHS SHALL BE "STANDARD" DEPTH PER SUPPLIER, U.N.O.
3. CONTRACTOR IS TO LOCATE EXISTING REBAR PRIOR TO ANCHOR INSTALLATION AND/OR FABRICATION OF ASSOCIATED PLATE. ANY CHANGE TO ANCHOR LAYOUT SHALL BE SUBMITTED TO STRUCTURAL ENGINEER FOR APPROVAL. CUTTING OF REBAR IS NOT PERMITTED.

DATE	ISSUED FOR	REV
2024-04-23	PERMIT AND BID SUBMISSION	1

Project Component

Key Plan

Consultants
Survey:
Civil:
Architecture: NORR
Structural:
Mechanical: NORR
Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

STATE OF MICHIGAN
STEVEN CHARLES DEVINE
ENGINEER
No. 55520
LICENSED PROFESSIONAL ENGINEER

NORR

NORR OFFICE ADDRESS
norr.com

Project Manager B. Colburn	Drawn Author
Project Leader J. Brock	Checked Checker

Client
St. Clair County Health Department

Project
Garage Building

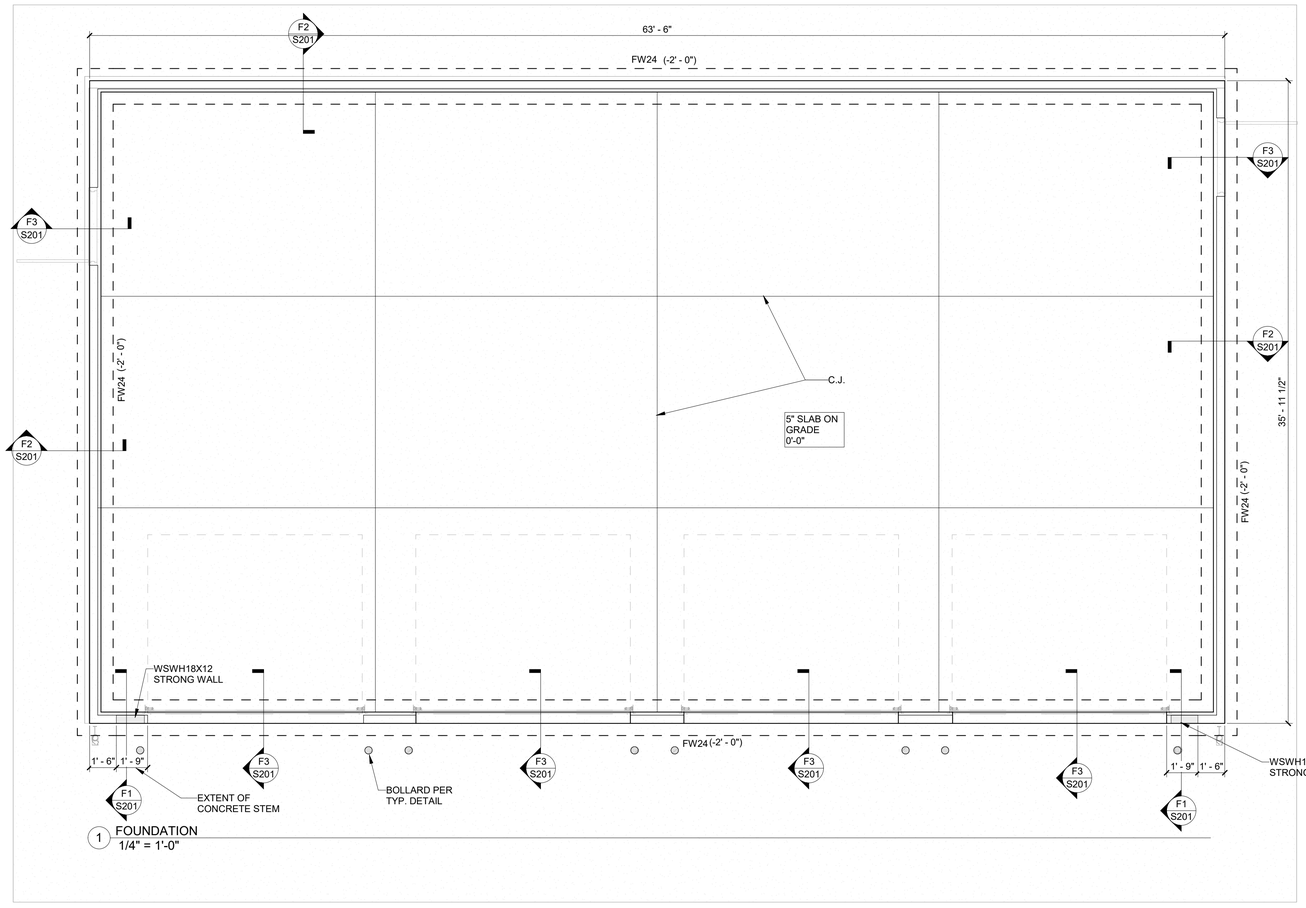
220 Fort Street
Port Huron, MI
48060

Drawing Title
GENERAL SHEET SPECS

Scale
3/4" = 1'-0"

Project No.
JCDT23-0185

Drawing No.
S002



FOUNDATION SHEET NOTES

1. **ELEVATION**: TOP OF SLAB SHALL BE +0'-0" AS REFERENCED FROM DATUM OF **XXX.0'**, FOLLOWING ELEVATIONS ARE RELATIVE TO TOP OF SLAB ELEVATION = 0'-0":
   a. T.O. SLAB +/-x'-x" INDICATES TOP OF SLAB
   b. (+/-x'-x") INDICATES TOP OF PIER, TYPICAL (**-1'-0"**) U.N.O.
   c. (+/-x'-x") INDICATES TOP OF FOOTING
      - ALL INTERIOR FOOTINGS ARE TYPICAL (**-1'-0"**) U.N.O.,
      - EXTERIOR FOOTINGS ARE PER PLAN MARKS.
2. **SLAB ON GRADE** SHALL BE **5"** THICK REINFORCED WITH WELDED WIRE FABRIC **WWF 6x6-W2.9xW2.9** POURED OVER VAPOR BARRIER AND CLEAN COMPACTED STONE FILL PER GEOTECHNICAL RECOMMENDATIONS.
3. **REFERENCE:** FOUNDATIONS HAVE BEEN DESIGNED WITH CONFORMANCE TO THE GEOTECHNICAL ENGINEERING REPORT INDICATED IN FOUNDATION CRITERIA TABLE.

FOUNDATION CRITERIA

GEOTECHNICAL ENGINEER	N/A
GEOTECH REPORT DATE	N/A
BEARING CAPACITY	1,500 PSF
FROST DEPTH	42"

4. **BEARING CAPACITY:** ALL BOTTOM OF FOOTING ELEVATION AND STRATUM SHALL BE INSPECTED AND APPROVED BY A REGISTERED GEOTECHNICAL ENGINEER HIRED BY THE CONTRACTOR IMMEDIATELY PRIOR TO PLACING CONCRETE.
5. **FROST DEPTH:** ALL EXTERIOR FOOTINGS SHALL BE PROTECTED FROM FROST BY EXTENDING BELOW THE FROST DEPTH INDICATED ON FOUNDATION CRITERIA TABLE.
6. COORDINATE ALL DIMENSIONS AND SECTIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS.
7. CJ INDICATES SLAB ON GRADE CONTROL JOINT SPACING NOT TO EXCEED 15 FT O.C.
8. G.C. NOTE THAT FOUNDATION SIZES AND NUMBERS ARE APPROXIMATE AND MUST BE COORDINATED AGAINST FINAL COLUMN REACTIONS PROVIDED BY THE PRE-ENGINEERED BUILDING SUPPLIER PRIOR TO PLACEMENT/BID.
9. PERIMETER FROST WALL FOUNDATIONS AND GRADE BEAMS SHALL HAVE REINFORCEMENT KEPT CONTINUOUS THROUGH INTERSECTIONS AND ALL OTHER FOUNDATION ELEMENTS.

FOUNDATION SYMBOLS & NOTATIONS:
1. "FX.X INDICATES *SPREAD FOOTING*, FWX.X INDICATES CONTINUOUS WALL FOOTING. SEE FOOTING SCHEDULE THIS SHEET FOR SIZE AND REINFORCEMENT AND DETAILS FOR ADDITIONAL INFORMATION.

CONTINUOUS FOOTING SCHEDULE

Type	WIDTH	THICKNESS	REINF. (MAJOR)	REINF. (MINOR)
FW24	2' - 0"	1' - 6"	3 #5	#4 @ 18" O.C.

WOOD WALL TYPE SCHEDULE

TYPE	1ST FL TO ROOF
W1	2x6 @16" O.C.

WOOD WALL NOTES:
1. ALL STUDS TO BE SPF NO. 1/NO. 2 OR BETTER U.N.O.
3. ALL EXTERIOR WALLS ARE BEARING WALL SW1 U.N.O. ON PLAN AND SHALL BE SHEATHED W/ 7/16" STRUCTURAL PANEL AT THE EXTERIOR .

WOOD HEADER SCHEDULE

TYPE	SIZE
H1	(3) 2x8

WOOD HEADER NOTES:
HEADERS SHALL BE BLOCKED OUT TO MATCH WALL THICKNESS. AS AN EXAMPLE (2) 2X MEMBERS IN A 2X6 WALL SHALL BE BLOCKED OUT TO 5 1/2" BY ADDITIONAL 2X MEMBER AND TWO LAYERS OF 1/2" PLYWOOD.

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NORR OFFICE ADDRESS

norr.com

Project Manager	Drawn
B. Colburn	Author
Project Leader	Checked
J. Brock	Checker

Client
St. Clair County Health Department

Project
Garage Building

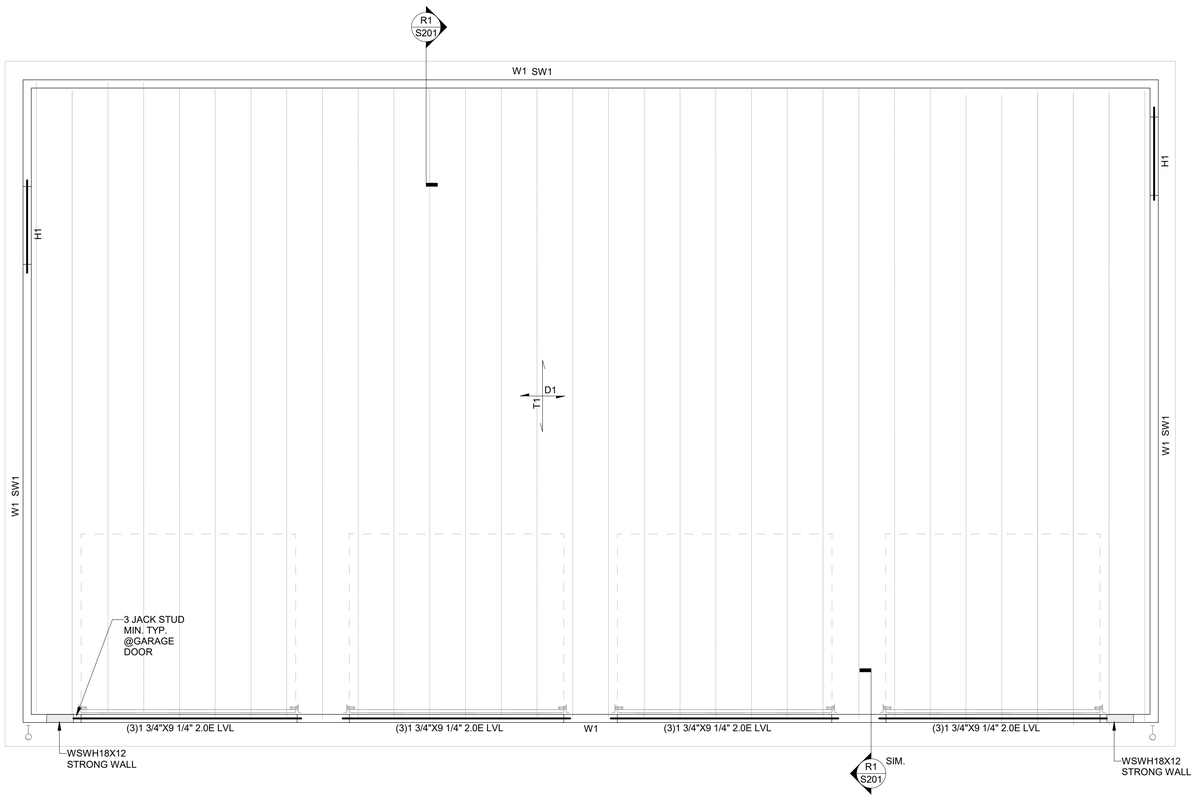
220 Fort Street
Port Huron, MI
48060

Drawing Title
FOUNDATION PLAN

Scale
As indicated

Project No.
JCDT23-0185

Drawing No.
S101



1 ROOF FRAMING PLAN
1/4" = 1'-0"

WOOD ROOF FRAMING NOTES

1. SEE ARCH DWGS. FOR ROOF SLOPES, ROOF ELEVATIONS, AND WALL TOP PLATE ELEVATION (TRUSS BEARING)
2. D1 INDICATES SPAN OF 5/8" T&G ROOF SHEATHING. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
3. T1 INDICATES SPAN DIRECTION OF WOOD ROOF TRUSSES WITH SLOPING TOP CHORD **@ 2-0" O.C. MAX**. SEE ARCH DRAWINGS FOR TRUSS PROFILE. TRUSS SUPPLIER SHALL DESIGN TRUSSES FOR L/360 LIVE LOAD DEFLECTION CRITERIA AND THE SCHEDULED LOADS INDICATED ON **S001**. TRUSS SUPPLIER SHALL SUBMIT WOOD TRUSS AND HANGER SHOP DRAWINGS AND CALCULATIONS FOR APPROVAL.
4. UNLESS NOTED GREATER ON PLAN, PROVIDE (2) JAMB STUDS AT ENDS OF ALL HEADERS, FLOOR BEAMS AND GIRDER TRUSSES IN 2X6 WALLS AND (3) JAMB STUDS IN 2X4 WALLS. JAMB STUDS MUST CONTINUE THROUGH EACH LEVEL DOWN TO THE FOUNDATION. JAMB STUDS SHALL MATCH SIZE, GRADE AND WOOD SPECIES OF WALL STUDS IN THE BEARING WALL THEY ARE A PART OF, U.N.O.
5. "H_" INDICATES WOOD HEADER IN BEARING WALL BELOW. SEE TABLE AND TYPICAL DETAIL.
6. "_JS" INDICATES THE NUMBER OF JAMB STUDS AT ENDS OF HEADERS, FLOOR BEAMS AND GIRDER TRUSSES WHERE THE MINIMUM IS EXCEEDED.
7. TRUSS SUPPLIER TO COORDINATE LOCATION AND SIZE OF MECHANICAL CHASES AND DUCTS WITH MEP DRAWINGS. CENTER OPENINGS FOR PERPENDICULAR TRUSS PASS-THROUGHS SHALL BE PROVIDED PER TYPICAL DETAILS AND COORDINATED BY CONTRACTOR.
8. INDICATES WOOD BEARING WALL BELOW, SEE BEARING WALL SCHEDULE FOR SIZE & STUD SPACING.
9. "SW_" INDICATES WOOD SHEAR WALL. SEE TYPICAL SHEAR WALL DETAILS AND SCHEDULE.
10. AT ALL INTERIOR LOAD BEARING WALLS AND ALL NON-LOAD BEARING WALLS OVER 8'-0" IN HEIGHT, PROVIDE ONE ROW OF WOOD BLOCKING AT MID-HEIGHT OF STUDS.
11. COORDINATE MECHANICAL UNITS ON ROOF WITH WEIGHTS REQUIRED. WEIGHTS SHALL BE ADDED TO THE ROOF TRUSSES.

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4

This drawing has been prepared solely for the use of St. Clair County Health Department and there are no representations of any kind made by NORR to any party with whom NORR has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer

Project Component

Key Plan

3

Consultants

Survey:
Civil:
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Electrical: NORR
Interiors: NORR
Landscape:

Seal(s)

STATE OF MICHIGAN
STEVEN CHARLES DEVINE
ENGINEER
No. 55520
LICENSED PROFESSIONAL ENGINEER

2

NORR

NORR OFFICE ADDRESS

norr.com

Project Manager	Drawn
B. Colburn	Author
Project Leader	Checked
J. Brock	Checker

Client

St. Clair County Health Department

Project

Garage Building

220 Fort Street
Port Huron, MI
48060

1

Drawing Title

ROOF FRAMING PLAN

Scale

As indicated

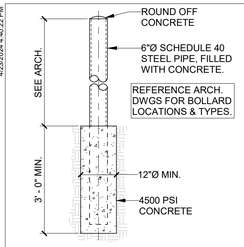
Project No.

JCDT23-0185

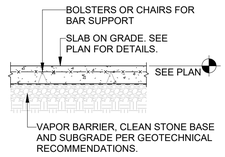
Drawing No.

S102

PRELIMINARY - NOT FOR CONSTRUCTION

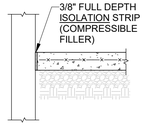


1 BOLLARD DETAIL
1/2" = 1'-0"

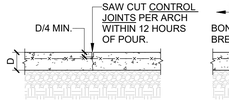


NOTE:
- AREAS OF POLISHED CONCRETE OR TERRAZO TILE FLOORS SHALL BE REINFORCED WITH #3 TOP BARS @18" O.C. EA. WAY.

2 SLAB ON GRADE CONSTRUCTION
1/2" = 1'-0"

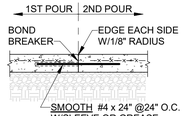


ISOLATION JOINT AT WALL



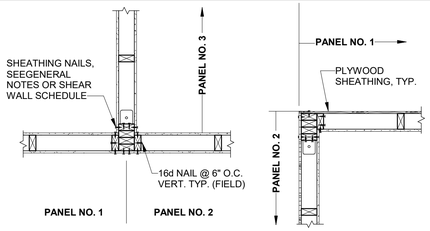
CONTROL JOINTS SHALL CREATE PANELS WITH AN AREA NO GREATER THAN **225 S.F.** AND AN ASPECT RATIO < 1.5:1

CONTROL / CONTRACTION JOINT

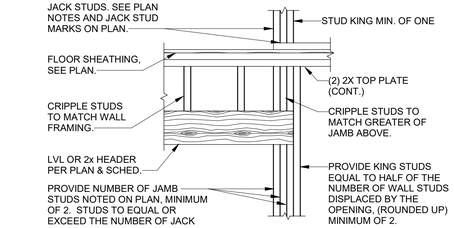


CONSTRUCTION JOINT

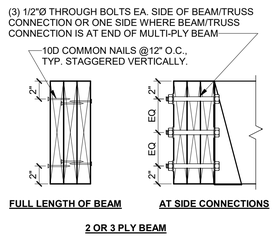
3 TYPICAL SLAB ON GRADE JOINTS
1/2" = 1'-0"



4 PLAN DETAILS AT CORNERS AND INTERSECTIONS
3/4" = 1'-0"

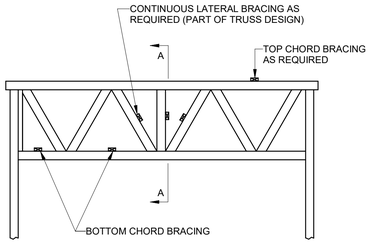


5 WOOD WALL OPENING DETAIL
3/4" = 1'-0"

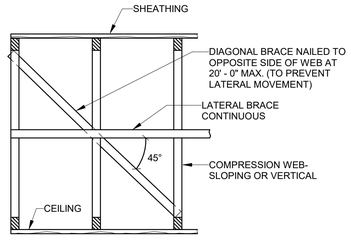


2 OR 3 PLY BEAM

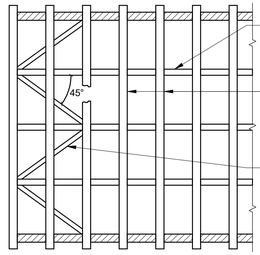
6 MULTI-PLY 2X OR LVL DETAIL
1 1/2" = 1'-0"



TYPICAL TRUSS ELEVATION



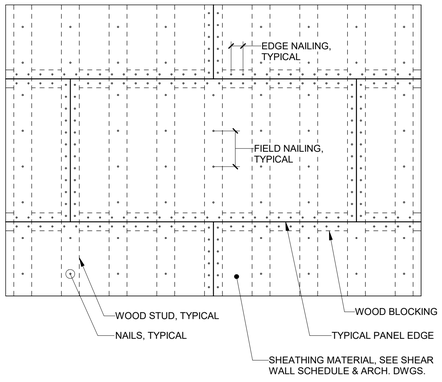
SECTION A-A



TOP/ BOTTOM CHORD BRACING PLAN VIEW

WOOD TRUSS NOTES:
1. WOOD TRUSSES SHALL BE DESIGNED FOR THE WOOD FABRICATOR BY A PROFESSIONAL ENGINEER. SEALED CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED FOR REVIEW.
2. WOOD TRUSSES SHALL BE BRACED AND ERECTED IN ACCORDANCE WITH THE "TRUSS PLATE INSTITUTE" BRACING WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS, BWT-76.
3. BRACING IN THE PLANE OF WEB MEMBERS
   A. TRUSS FABRICATOR SHALL PROVIDE AND LOCATE CONTINUOUS LATERAL BRACING FOR EACH TRUSS WEB MEMBER AS REQUIRED.
   B. LATERAL BRACING SHALL BE RESTRAINED BY DIAGONAL BRACING (MIN. 2" THICK NOMINAL LUMBER). THIS BRACING IS TO BE CONTINUOUS.
   C. A MINIMUM OF TWO ROWS OF DIAGONAL BRACING IS REQUIRED. ONE AT EACH VERTICAL WEB MEMBER CLOSEST TO BEARING LOCATIONS.
4. BOTTOM CHORDS SHALL BE BRACED BY CONTINUOUS LATERAL BRACING SPACED AT 8 TO 10 FEET NAILED TO TOP OF THE BOTTOM CHORD. DIAGONALS PLACED AT 45° TO THE LATERAL BRACES SHALL BE LOCATED AT EACHEND, IF BUILDING EXCEEDS 60 FEET IN LENGTH, DIAGONAL BRACING SHOULD BEREPEATED AT 20 FEET INTERVALS.
5. TOP CHORD BRACING
   A. IF PLYWOOD DECKING IS APPLIED DIRECTLY TO TOP CHORD, PROPERLY LAPPED AND NAILED TO DEVELOP DIAPHRAGM ACTION, BRACING IS NOT REQUIRED.
   B. IF PURLINS ARE USED, DIAGONAL TOP CHORD BRACING IS REQUIRED AT EACH END. IF BUILDING LENGTH EXCEEDS 60' - 0", DIAGONAL BRACING SHOULD BE REPEATED AT 20' - 0" INTERVALS.

7 TRUSS STRONG BACK DETAIL
3/4" = 1'-0"



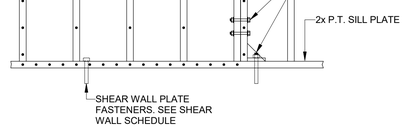
8 TYPICAL SHEAR WALL ELEVATION
1/2" = 1'-0"

SHEAR WALL SCHEDULE

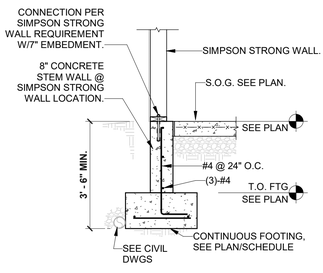
LEVEL \ MARK	SW1 (DEMISING WALL)
1ST - ROOF SHEATHING AND ATTACHMENT	7/16" BLOCKED STRUCTURAL I SHEATHING (ONE SIDE) WITH 8D COMMON NAILS (1 3/8" MIN. PENETRATION) AT 6" O.C. FOR EDGE CONDITIONS AND 12" O.C. FOR FIELD CONDITIONS
HOLD DOWN / **@ 1ST FLOOR**	N/A

NOTES:
1. SEE PLANS FOR SHEAR WALL LOCATIONS.
2. **BOTTOM PLATE ATTACHMENT**: ATTACH SHEAR WALL BOTTOM PLATE WITH **5/8" J BOLT (7" EMBED) AT 4'-0" MAX. O.C.** SEE TYPICAL WOOD STUD SHEAR WALL ELEVATION FOR ATTACHMENT OF BOTTOM PLATE TO CMU STEM WALL. USE 1/4" TEK SCREW INBETWEEN @ 16" O.C.

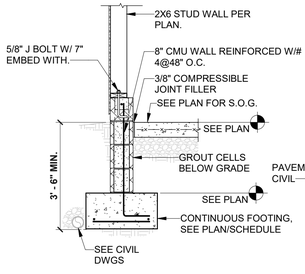
9 SHEAR WALL SCHEDULE
3/4" = 1'-0"



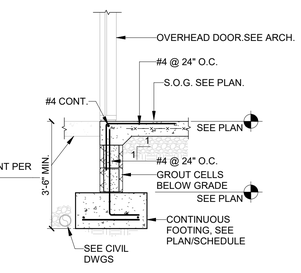
10 SILL ATTACHMENT DETAIL
3/4" = 1'-0"



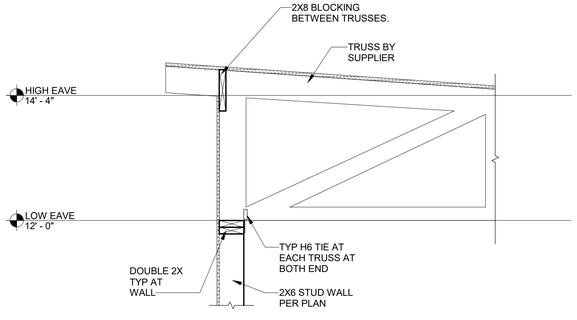
F1 STEM FOOTING AT STUD WALL
1/2" = 1'-0"



F2 STEM FOOTING AT CMU WALL
1/2" = 1'-0"



F3 CMU STEM FOOTING AT DOOR
1/2" = 1'-0"



R1 SECTION AT ROOF TRUSS
3/4" = 1'-0"

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TYPICAL DETAILS AND SECTIONS

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