

## DESIGN REVIEW/CERTIFICATE OF APPROPRIATENESS APPLICATION

PROPERTY INFORMATION		
Project/Property Address: <b>425 s. Hamilton Rd., Gahanna, OH 43230</b>		Project Name/Business Name: <b>Shepherd Church of the Nazarene</b>
Parcel #: <b>025-000406-00</b>	Zoning: (see <a href="#">Map</a> ) <b>RID</b>	Acreage: <b>35.7 Total acres (26.12 parcel)</b>

PLAN SPECIFICATIONS	
Application Type: (check all that apply)	<input checked="" type="checkbox"/> Site Plan <input type="checkbox"/> Landscaping <input checked="" type="checkbox"/> Building Design <input type="checkbox"/> Demolition <i>Olde Gahanna only</i> <input type="checkbox"/> Other
Project Description: <b>Installation of double wide, pre-manufactured modular classroom unit on the west side of the existing school building. Building is to be temporary (no more than 3 years) to facilitate the growing school population while the school decides on a permanent expansion project for the school.</b>	

APPLICANT INFORMATION	
Applicant Name (Primary Contact): <b>Jeff Hutcheson</b>	Applicant Address: <b>3351 McDowell Rd./PO Box 370, Grove City, OH 43210</b>
Applicant E-mail: <b>jhutcheson@mcknightgroup.com</b>	Applicant Phone: <b>614-875-1689</b>
Business Name (if applicable): <b>McKnight &amp; Hosterman Architects, Inc.</b>	

ADDITIONAL CONTACTS	
*Please list all applicable contacts for correspondence*	
Name(s)	Contact Information (phone/email)
<b>Mike Fluhart (principal of the school)</b>	<b>mfluhart@shepherdchristian.school</b> <b>614-471-0859 (ext. 223)</b>
Property Owner Name: (if different from Applicant) <b>Shepherd Church of the Nazarene</b>	Property Owner Contact Information (phone no./email): <b>Mike Fluhart (see info above)</b>

APPLICANT SIGNATURE BELOW CONFIRMS THE SUBMISSION REQUIREMENTS HAVE BEEN COMPLETED

I certify that the information on this application is complete and accurate to the best of my knowledge, and that the project as described, if approved, will be completed in accordance with the conditions and terms of that approval.

Applicant Signature: **Jeffrey T. Hutcheson** Digitally signed by Jeffrey T. Hutcheson  
DN: C=US, E=jhutcheson@mcknightgroup.com,  
O=McKnight & Hosterman Architects, Inc.,  
CN=Jeffrey T. Hutcheson  
Date: 2023.08.02 12:49:53-04'00' Date: **8/2/23**

**ADDITIONAL INFORMATION ON NEXT PAGE....**

INTERNAL  
USE

Zoning File No. **DR-0363-2023**

RECEIVED: **KAW**

DATE: **8-22-23**

PAID: **200.00**

DATE: **8-22-23**

Updated  
Apr 2022

## DESIGN REVIEW/CERTIFICATE OF APPROPRIATENESS - SUBMISSION REQUIREMENTS

### TO BE COMPLETED/SUBMITTED BY APPLICANT:

1. Review Gahanna Code [Section 1197](#) (visit [www.municode.com](http://www.municode.com))
2. Materials List (see page 3) – does not apply to demolition applicants
3. Authorization Consent Form Complete & Notarized (see page 4)
4. Application & all supporting documents submitted in digital format
5. Application & all supporting documents submitted in hardcopy format
6. Application fee paid (in accordance with the [Building & Zoning Fee Schedule](#))
7. Color rendering(s) of the project in plan/perspective/or elevation
8. **One (1) copy** 24"x36" or 11"x17" prints of the plans

#### **Building Construction, Exterior Remodeling, and Additions (Including Parking Lots and Landscaping)**

1. **SITE PLAN** that includes the following: (include: scale, north arrow, & address) if applicable
  - All property & street pavement lines
  - Property size
  - Proposed ingress/egress to the site, including onsite parking area(s), parking stalls, adjacent streets
  - Location of all existing and proposed buildings on the site
  - Location of all existing & proposed exterior lighting standards
  - Breakdown of parking spaces required & spaces provided (see Gahanna Code [Section 1163](#))
  - Provide lot coverage breakdown of building & paved surface areas
2. **LANDSCAPE PLAN** (including plant list)
  - Existing landscaping that will be retained & proposed landscaping shall be differentiated & shown on the plan. The type, size, number, & spacing of all plantings & other landscape features must be illustrated
  - Designation of required buffer screens (if any)
  - Interior landscaping breakdown for paved surface (see Gahanna Code [Section 1163](#))
3. **ELEVATIONS** from all sides
  - Fenestration, doorways, & all other projecting & receding elements of the building exterior
4. **LIGHTING STANDARD DRAWING** that includes the following: (exterior only)
  - All sizing specifications
  - Information on lighting intensity (no. of watts, iso foot candle diagram)
  - Materials, colors, & manufacturer's cut sheet
5. **OPTIONAL** REQUIREMENTS AT THE DISCRETION OF PLANNING COMMISSION:
  - Scale model
  - Section profiles
  - Perspective drawing

#### **Demolition or Removal of Existing Structures Requirements**

1. **ONE OR MORE OF THE FOLLOWING CONDITIONS MUST EXIST:**
  - That the building contains no features of special architecture or is not a historical building or culturally significant or is not consistent in design & style with other structures within the district
  - That there exists no viable economic use for the building in its current state or as it might be restored or that there is not a feasible and prudent alternative to demolition and that the approval of the demolition is necessary for the preservation and enjoyment of substantial property rights
  - That the applicant has a definite plan for redevelopment of the site which meets the standards of this Code and the proposed redevelopment will not materially affect adversely the health or safety of persons residing or working in the district where the demolition will occur and will not be materially detrimental to the public welfare or injurious to property or improvements in such neighborhood

MATERIAL LIST			
NOT REQUIRED FOR DEMOLITION			
ITEM	MATERIAL TYPE	COLOR NAME	COLOR NUMBER
Facade			
Facade			
Facade			
Awnings			
Lighting			
Roofing			
Trim			
Other (please specify)			
Other (please specify)			
Other (please specify)			

**PLEASE NOTE:**

- The Public Hearing will not occur until the City of Gahanna reviews the Application for Code Consistency. Applications that are not consistent with the code will not be scheduled for hearing.
- The application expires if no action is taken 6 months from the date of the last staff comment letter.

## AUTHORIZATION CONSENT FORM

(must sign in the presence of a notary)

If you are filling out more than one application for the same project & address, you may submit a copy of this form with additional applications.

**PROPERTY OWNER**

### IF THE PROPERTY OWNER IS THE APPLICANT, SKIP TO NEXT SECTION

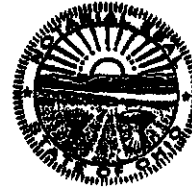
As the property owner/authorized owner's representative of the subject property listed on this application, hereby authorize the applicant/representative to act in all matters pertaining to the processing and approval of this application, including modifying the project. I agree to be bound by all terms and agreements made by the applicant/representative.

Michael T. Fluhart  
 (property owner name printed)  
[Signature]  
 (property owner signature)      8/19/23  
 (date)

Subscribed and sworn to before me on this 9 day of August, 2023.

State of Ohio County of Franklin

Notary Public Signature: Sydney J. McGrath



Stamp or Seal  
**Sydney J. McGrath**  
 Notary Public, State of Ohio  
 My Commission Expires 07-26-2027

**Applicant/Property Owner/Representative**

**AGREEMENT TO COMPLY AS APPROVED** As the applicant/representative/owner of the subject property listed on this application, I hereby agree that the project will be completed as approved with any conditions and terms of the approval, and any proposed changes to the approval shall be submitted for review and approval to City staff.

**AUTHORIZATION TO VISIT THE PROPERTY** I hereby authorize City representatives to visit, photograph and post notice (if applicable) on the subject property as described.

**APPLICATION SUBMISSION CERTIFICATION** I hereby certify that the information on this application is complete and accurate to the best of my knowledge.

JERREY T. HUTCHESON  
 (applicant/representative/property owner name printed)  
[Signature]  
 (applicant/representative/property owner signature)      8/17/23  
 (date)

Subscribed and sworn to before me on this 17th day of August, 2023.

State of Ohio County of Franklin

Notary Public Signature: Andrea J. Tipton



Stamp or Seal  
**ANDREA J. TIPTON**  
 Notary Public, State of Ohio  
 My Commission Expires 4-24-28







**GAHANNA, OHIO 43230**

## INDEX OF DRAWINGS

**SHEPHERD CON - MODULAR UNITS**

**SET NUMBER** \_\_\_\_\_ **SET DATE - 08 AUG 23** **COMM. NO. 223223**

**McKnight & Hosterman Architects, Inc.**  
3351 McDowell Road P.O. Box 370 Grove City, Ohio 43123 Phone (614) 875-1689 Philip J. Tipton NCARB Certificate No. 56603





# SHEPHERD CHURCH OF THE NAZARENE

425 S. HAMILTON ROAD

GAHANNA, OHIO 43230

Zoning: City of Gahanna

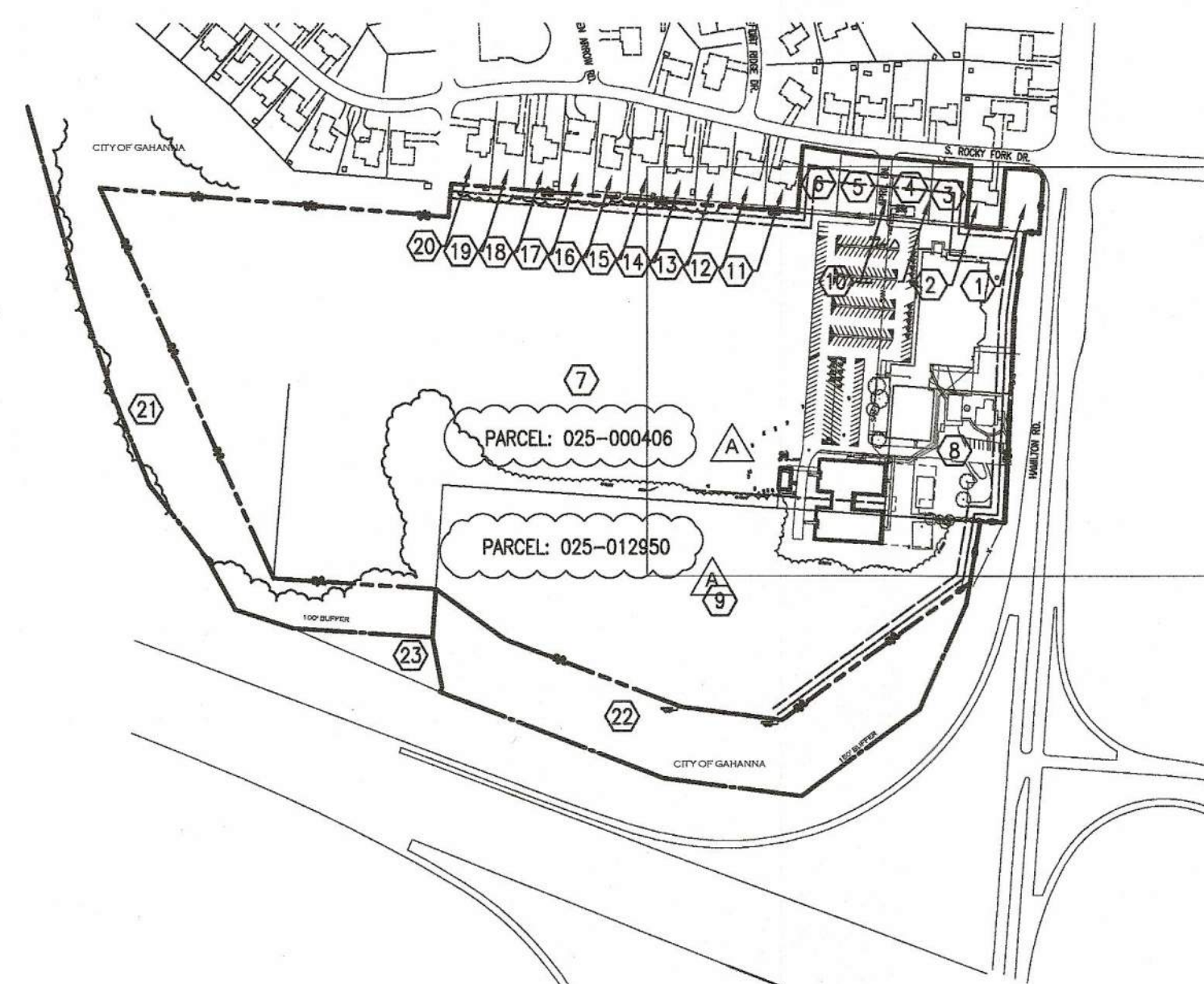
Franklin County, Ohio



## ADJACENT PROPERTY INFORMATION.

Shepherd Church of the Nazarene owned properties:				
Mark	ID	Owner	Property Address	Owner Address (if different from physical add.)
1	025-002211-00	SCN	S Rocky Fork Dr.	
2	025-000473-00	SCN	401 S Rocky Fork Dr.	425 S. Hamilton Rd., Gahanna, OH 43230
3	025-000472-00	SCN	393 S Rocky Fork Dr.	
4	025-000471-00	SCN	387 S Rocky Fork Dr.	
5	025-000470-00	SCN	373 S Rocky Fork Dr.	
6	025-000469-00	SCN	367 S Rocky Fork Dr.	
7	025-000406-00	SCN	1501 N Hamilton Rd.	425 S. Hamilton Rd., Columbus, OH 43230
8	025-002205-00	SCN	425 S Hamilton Rd.	
9	025-012950-00	SCN	N Hamilton Rd	
Neighboring properties				
Mark	ID	Owner	Property Address	Owner Address (if different from physical add.)
10	April Lane			
11	025-000468-00	Patricia A. Winterhalter	359 S Rocky Fork Dr.	14895 Cline Rd., Danville, OH 43014-9521
12	025-000467-00	Robert E. Miller III and Robyn M. Falzone	353 S Rocky Fork Dr.	
13	025-000466-00	Scott T. Hisey	345 S Rocky Fork Dr.	
14	025-000465-00	Richard P. Tr. Parker	339 S Rocky Fork Dr.	
15	025-000464-00	Josh E. Burford and Jason B. McKee	331 S Rocky Fork Dr.	
16	025-000463-00	Jeanne E. and Ronald H. Parker	325 S Rocky Fork Dr.	
17	025-000462-00	Helen Joan Donley	317 S Rocky Fork Dr.	
18	025-000461-00	Johnathan David and Kaitlyn E. Pattee	311 S Rocky Fork Dr.	
19	025-000460-00	Pamela J. Frye	303 S Rocky Fork Dr.	
20	025-000459-00	Glen E. Wilson	297 S Rocky Fork Dr.	11231 Pickerington Rd., Pickerington, OH 43147
21	025-012951-00	City of Gahanna	N Hamilton Rd. Rear	200 S. Hamilton Rd., Columbus, OH 43230
22	025-002538-00	City of Gahanna	N Hamilton Rd.	200 S. Hamilton Rd., Columbus, OH 43230
23	025-013582	City of Gahanna	Hamilton Rd. Rear	200 S. Hamilton Rd., Columbus, OH 43230

\*NOTE: All property information obtained from Franklin County Auditors website.



ADJACENT PROPERTIES INDEX  
SCALE: NOT TO SCALE

## EXISTING ZONING INFORMATION.

### ZONING INFORMATION

ZONING DISTRICT - RID (RESTRICTED INSTITUTIONAL DISTRICT)

SITE AREA = 35.70 AC (1,555,092.00 SQFT)

EXISTING BUILDING HEIGHT = 24'-6", PER SECT. 1143.05

MODULAR BUILDING HEIGHT = ±13'-4" ABOVE GRADE

DISTRICT BUILDING HEIGHT ALLOWABLE = 30'-0"

FLOOD ZONE - ZONE X

AS SHOWN ON FLOOD INSURANCE RATE MAP (PANEL 188 OF 387)

COMMUNITY PANEL # 39049C0188-G DATED: AUGUST 2, 1995

### PARKING

TOTAL EXISTING PARKING - 189 SPACES  
H.C. PARKING (INCL) - 17 SPACES



OVERALL SITE PLAN  
SCALE: 1" = 100'

## BENCH MARKS

BM #1 - IRON PIN (SET) LOCATED @ THE NORTH WEST CORNER OF THE PROPOSED ADDITION ELEV - 812.27

BM #2 - IRON PIN (SET) LOCATED @ THE SOUTH EAST CORNER OF THE FUTURE ADDITION ELEV - 812.27

DIRECTOR OF ENGINEERING, CITY OF GAHANNA, OHIO

DATE:

SENIOR UTILITIES ENGINEER, CITY OF GAHANNA

DATE:

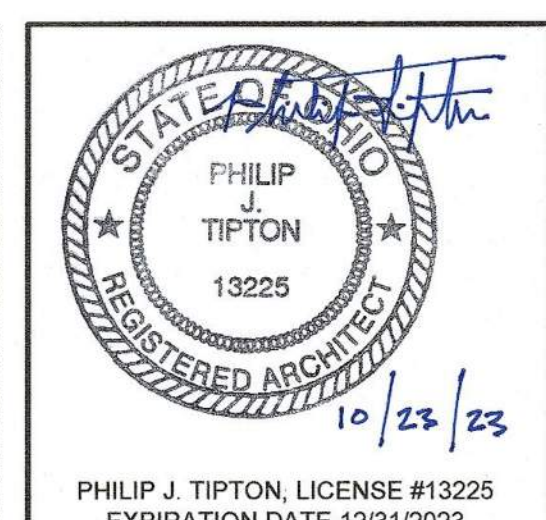
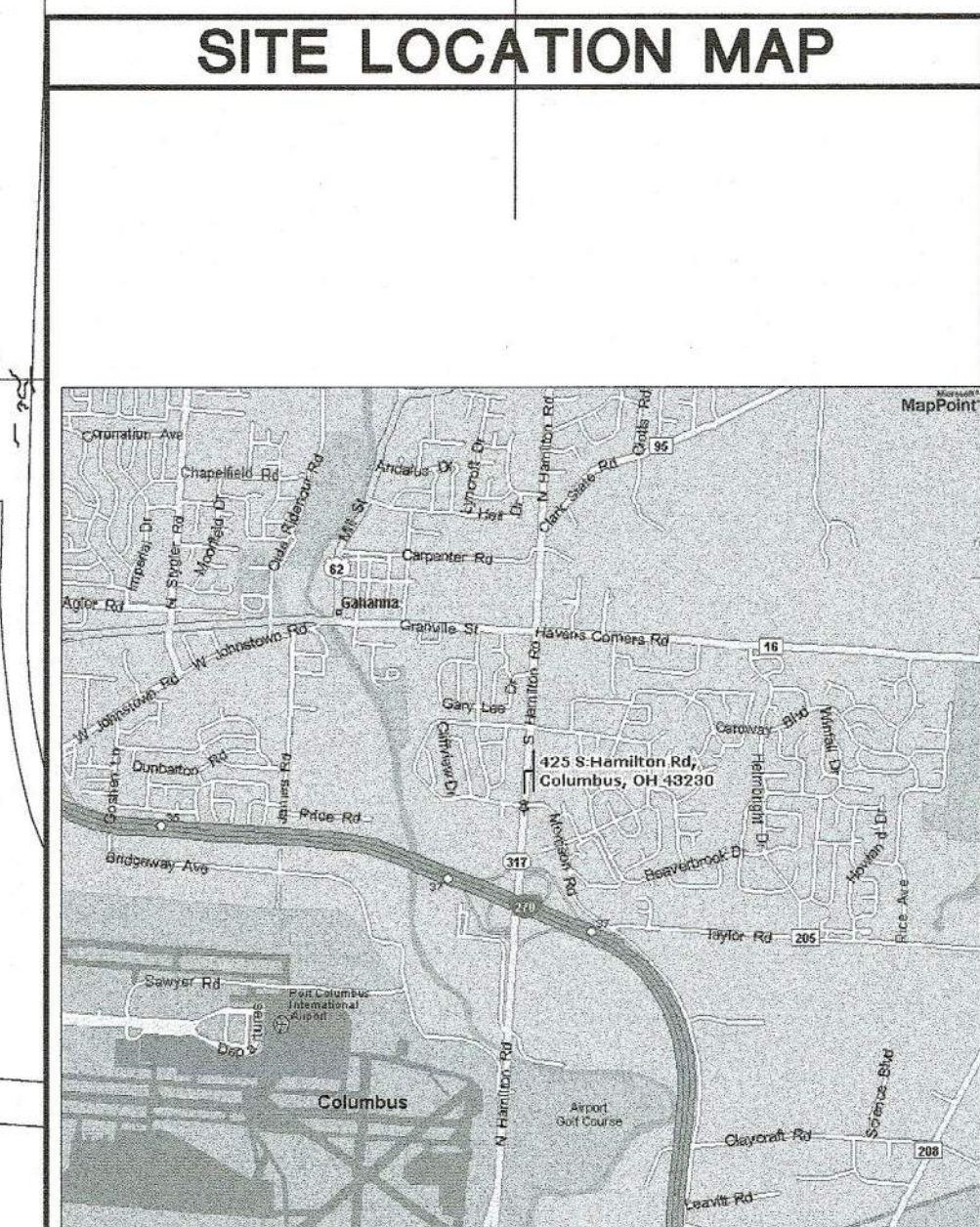
REVISIONS		
MARK	DATE	SHEETS
A	20 OCT-2023	COVER, C1.1, C1.2

INDEX OF DRAWINGS	
SHEET	SHEET DESCRIPTION
COVER	ZONING INFORMATION, NOTES, AND INDEX OF CIVIL DRAWINGS
C1.1	ARCHITECTURAL SITE IMPROVEMENT PLAN
C1.2	SEDIMENT CONTROL DETAILS
3	TOTAL SHEETS INCLUDING COVER SHEET

## STANDARD CONSTRUCTION DRAWING LIST

THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF.

ESTIMATE OF QUANTITIES			
ITEM	UNIT	QUANTITY	DESCRIPTION
207	EACH	3	DANDY BAG SEDIMENT FILTER
207	L.F.	250	SEDIMENT CONTROL FENCE
207	LUMP SUM	AS NEEDED	TEMPORARY SEEDING



McKnight & Hosterman Architects, Inc.

3351 McDowell Road P.O. Box 370 Grove City, Ohio 43123 Phone (614) 875-1089 Philip J. Tipton NCARB Certificate No. 58503

SET NUMBER \_\_\_\_\_ SET DATE - 08 AUG 23 COMM. NO. 223223

SHEPHERD CON - MODULAR UNITS







GRADING LEGEND		
NOTE: NOT ALL SYMBOLS LISTED BELOW ARE APPLICABLE TO THIS PROJECT		
EXISTING	PROPOSED	DESCRIPTION
		UTILITY POLE
		PAD MTD. TRANSFORMER
		LIGHT POLE
		GROUND LIGHT
		FIRE HYDRANT
		WATER METER
		GAS METER
		CLEAN OUT
		YARD DRAIN
		CATCH BASIN
		SANITARY MANHOLE
		DRAINAGE MANHOLE
		GUY WIRE
		PROPERTY LINE
		RIGHT-OF-WAY LINE
		NEW GRADE CONTOUR WITH ELEVATION
		EXISTING GRADE CONTOUR WITH ELEVATION (DASHED)
		FINISHED GRADE
		TOP OF CASTING
		TOP OF CURB
		BOTTOM OF CURB
		TOP OF PIER
		HIGH POINT
		MAJOR FLOOD ROUTING
		STORMWATER ROUTING

<b>DRAINAGE SCHEDULE</b>			
STRUCTURE	DESCRIPTION	TOP OF CASTING	INVERT ELEVATION
①	(E) CATCH BASIN	808.75	805.40
②	(E) END WALL		799.00
③	(E) HEAD WALL		796.80±
④	(E) CATCH BASIN	809.80	806.42
⑤	(E) CATCH BASIN	810.70	807.68

### GENERAL PLAN NOTES:

1. SEE SHEET C1.1 FOR SITE IMPROVEMENT INFORMATION.
2. ALL DAMAGE TO EXISTING ASPHALT DRIVES AND PARKING AREAS CAUSED BY CONSTRUCTION MUST BE REPAIRED.
3. AFTER MODULAR UNIT(S) IS/ARE SECURED IN ITS FINAL LOCATION, ALL SOILS EXCAVATED FROM FOOTING EXCAVATIONS ARE TO BE SPREAD OVER EXISTING FIELD TO THE WEST OF THE EXISTING CHURCH, OR REMOVED FROM THE SITE COMPLETELY.
4. EXISTING SITE INFORMATION INCLUDING TOPOGRAPHY WAS DETERMINED FROM CIVIL DRAWINGS SUBMITTED AND APPROVED FOR THE PREVIOUS SCHOOL SUBMISSION. IN 2008 AND COORDINATED WITH INFORMATION OBTAINED FROM THE FRANKLIN COUNTY GIS ONLINE WEBSITE AND SITE VERIFICATION AND DIMENSIONING.
5. NEW UTILITIES SUPPORTING THE MODULAR UNIT (ELECTRIC AND GAS) ARE TO BE PLACED IN THE UNDERGROUND IN A MANNER TO NOT CONFLICT WITH OR INTERFERE WITH EXISTING STORMWATER DRAINAGE SYSTEM.

## KEYED NOTES

1. PROPOSED LIMITS OF SILT FENCE (APPROX. 250'-0").
2. EXISTING STORMWATER STRUCTURE TO REMAIN. INSTALL SILT PROTECTION BAG DURING CONSTRUCTION TO PROTECT FROM SEDIMENT RUNOFF IF NEEDED.
3. MINIMAL AMOUNT OF TOPSOIL TO BE REMOVED DIRECTLY BENEATH MODULAR UNITS IN ORDER TO FLATTEN THE GROUND FOR PLACEMENT OF FOOTINGS.
4. LIMITS OF EXISTING ASPHALT DRIVE. UTILITY LINES ARE TO BE BORED UNDER DRIVE IF POSSIBLE TO PREVENT DIGGING UP DRIVE..
5. EXISTING SEDIMENT CONTROL STRUCTURE TO REMAIN AND PROTECTED AS REQUIRED.
6. PROPOSED LOCATION OF SOIL PILE FROM EXCAVATED FOOTINGS.
7. APPROXIMATE LOCATION OF PROPOSED SILT FENCING FOR EROSION CONTROL.
8. LIMITS OF EXISTING SCHOOL BUILDING.

### PROHIBITED CONSTRUCTION ACTIVITIES.

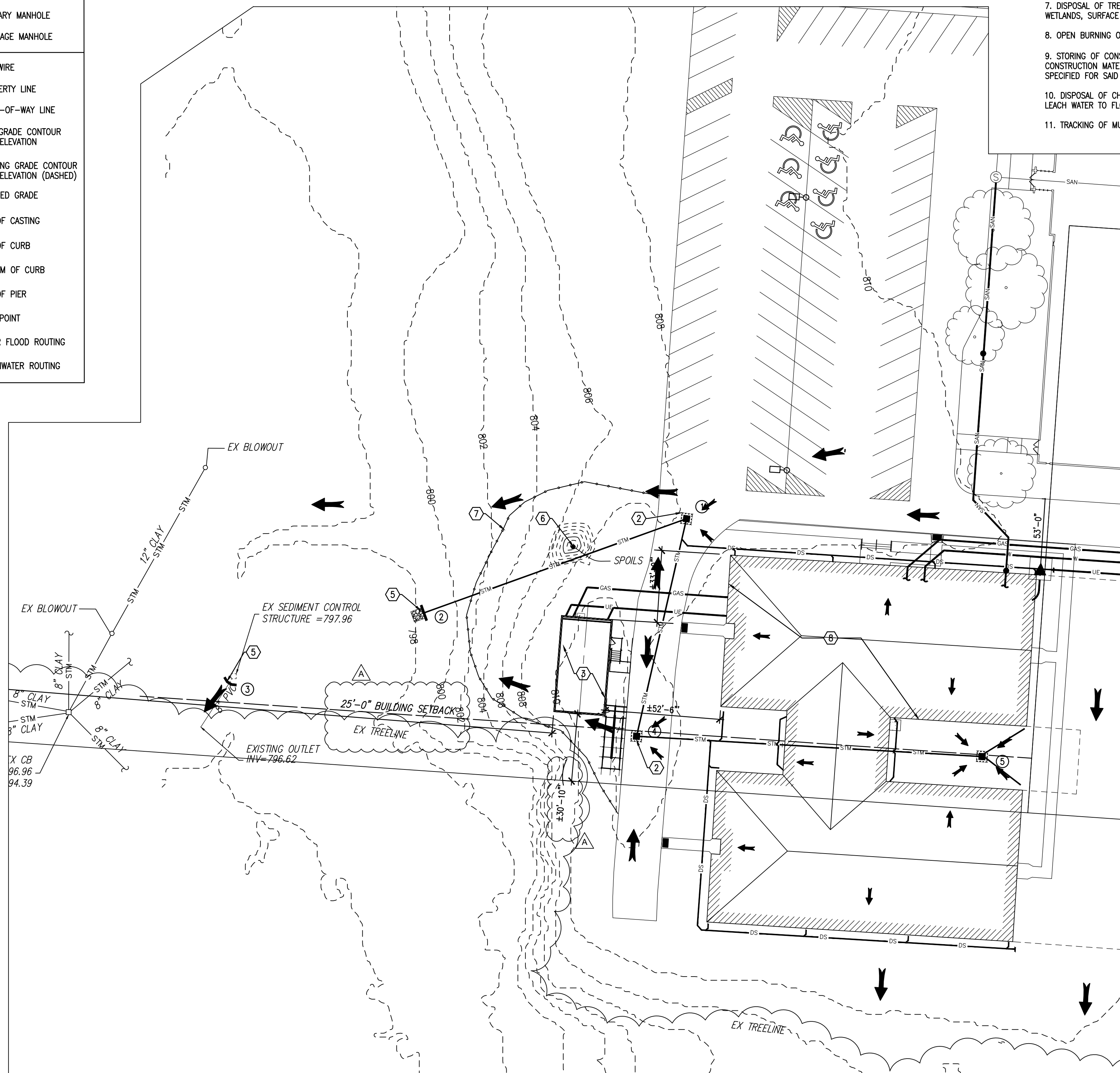
THE CONTRACTOR SHALL NOT USE CONSTRUCTION PROCEEDING, ACTIVITIES, OR OPERATIONS THAT MAY UNNECESSARILY IMPACT THE NATURAL ENVIRONMENT OR THE PUBLIC HEALTH AND SAFETY. PROHIBITED CONSTRUCTION PROCEEDINGS, ACTIVITIES, OR OPERATIONS INCLUDED BUT NOT LIMITED TO:

1. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER.
2. INDISCRIMINATE ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, WATERS, ANY WETLANDS, OR ANY AREA OUTSIDE OF THE PROPOSED WORK AREAS.
3. PUMPING OF SEDIMENT LADEN-WATER FROM TRENCHES OR OTHER EXCAVATIONS INTO ANY SURFACE WATERS, STREAM CORRIDORS, WETLANDS, OR STORM DRAINS.
4. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUEL, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENT, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
5. PERMANENT OR UNSPECIFIED ALTERATION OF FLOW LINE OF A STREAM.
6. DAMAGING VEGETATION OUTSIDE OF THE PROPOSED WORK LIMITS, INSIDE NO-BUILD ZONES, AND TREE PROTECTION AREAS.
7. DISPOSAL OF TREES, BRUSH AND OTHER DEBRIS IN ANY STREAM CORRIDORS, WETLANDS, SURFACE WATERS, OR ANY OTHER UNSPECIFIED LOCATION.
8. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.
9. STORING OF CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS IN PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED FOR SAID PURPOSE.
10. DISPOSAL OF CHIP WOOD IN SUCH A MANNER THAT WOULD ALLOW CHIP WOOD LEACH WATER TO FLOW TO ANY SURFACE WATER, STREAM CORRIDOR, OR WETLAND.
11. TRACKING OF MUD AND OTHER CONSTRUCTION DEBRIS ONTO ROADWAY.

**SEDIMENTATION NOTES:**

1. EROSION AND SEDIMENTATION CONTROL PRACTICES SHALL BE INSTALLED AS A FIRST STEP IN THE CONSTRUCTION SEQUENCE AND SHALL BE FUNCTIONAL THROUGHOUT EARTH DISTURBING ACTIVITIES OF THE DEVELOPMENT PHASE.

3. IF REQUIRED, A PRE-CONSTRUCTION MEETING AT THE PROPOSED SITE SHALL BE ARRANGED BETWEEN THE CONTRACTOR(S), ARCHITECT, AND FRANKLIN SOIL AND WATER CONSERVATION DISTRICT NO LESS THAN 7 DAYS PRIOR TO BEGINNING OF ACTIVITIES ASSOCIATED WITH THE DEVELOPMENT PHASE. AT THIS MEETING AN ABSOLUTE CONSTRUCTION SCHEDULE, SITE CONTACT AND EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE SUBMITTED TO THE FRANKLIN SOIL AND WATER CONSERVATION DISTRICT REPRESENTATIVE.
4. TEMPORARY / PERMANENT SEED SHALL BE APPLIED TO DENUED AREAS WITHIN 7 DAYS IF THEY ARE TO REMAIN DORMANT FOR MORE THAN 21 DAYS.
5. TEMPORARY / PERMANENT SEED SHALL BE APPLIED TO DENUED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
6. SHEET FLOW RUNOFF FROM DENUED AREAS SHALL BE DIVERTED TO AN APPROVED SETTLING STRUCTURE.
7. NO-BUILD ZONES AND TREE PRESERVATION AREAS SHALL BE CLEARLY IDENTIFIED BY HIGH-VISIBILITY ORANGE PERIMETER FENCING.
8. PERSONNEL FROM FRANKLIN SOIL AND WATER CONSERVATION DISTRICT SHALL MAKE ROUTINE INSPECTIONS TO ENSURE THE EROSION AND SEDIMENTATION PLAN COMPLIANCE.
9. ALTHOUGH NOT ANTICIPATED FOR THIS PROJECT, ADDITIONAL OR ALTERNATE EROSION AND SEDIMENTATION CONTROL PRACTICES, NOT INDICATED ON THIS PLAN, MAY BE REQUIRED DUE TO UNFORESEEN ENVIRONMENTAL AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY THE DEVELOPMENT. FRANKLIN SOIL AND WATER CONSERVATION DISTRICT SHALL CONTACT THE SITE CONTACT INDICATED AT THE PRE-CONSTRUCTION MEETING, TO ADDRESS THE AMENDMENTS TO THE EROSION AND SEDIMENTATION CONTROL PLAN.
10. RIGTH OF WAYS, CRITICAL AREAS, AND DENUED AREAS TO REMAIN DORMANT >45 DAYS AFTER FINAL GRADE SHALL BE SEEDED PRIOR TO BEING CONSIDERED FOR SUBSTANTIAL COMPLETION.



## PRESERVING EXISTING VEGETATION

- \* WHENEVER POSSIBLE, PRESERVE EXISTING TREES, SHRUBS, AND OTHER VEGETATION.
- \* TO PREVENT ROOT DAMAGE, DO NOT GRADE, PLACE SOIL PILES OR PARK VEHICLES NEAR TREES MARKED FOR PRESERVATION.

SILT FENCE & STRAW BALES

- \* PUT UP BEFORE ANY OTHER WORK IS DONE.
- \* INSTALL ON DOWNSLOPE SIDE(S) OF SITE WITH ENDS EXTENDED UP SLOPESIDES A SHORT DISTANCE.
- \* PLACE PARALLEL TO THE CONTOUR OF THE LAND TO ALLOW WATER TO FLOW BEHIND FENCE.
- \* EXTENT 6 INCHES DEEP.
- \* STRAW BALES SHALL BE USED ONLY IN MAJOR DITCH LINES WITH THE APPROVAL OF THE CITY ENGINEER. ALL OTHER LOCATIONS REQUIRE SILT FENCE.
- \* STAKE (2 STAKES PER BALE OR 1 STAKE EVERY 3 FEET FOR SILT FENCE).
- \* LEAVE NO GAPS BETWEEN BALES OR SECTIONS OF SILT FENCE.
- \* INSPECT & REPAIR ONCE A WEEK AND AFTER EVERY 1/2 INCH RAIN. REMOVE SEDIMENT IF DEPOSITS REACH HALF THE FENCE OR STRAW BALE HEIGHT.
- \* MAINTAIN UNTIL A LAWN IS ESTABLISHED.

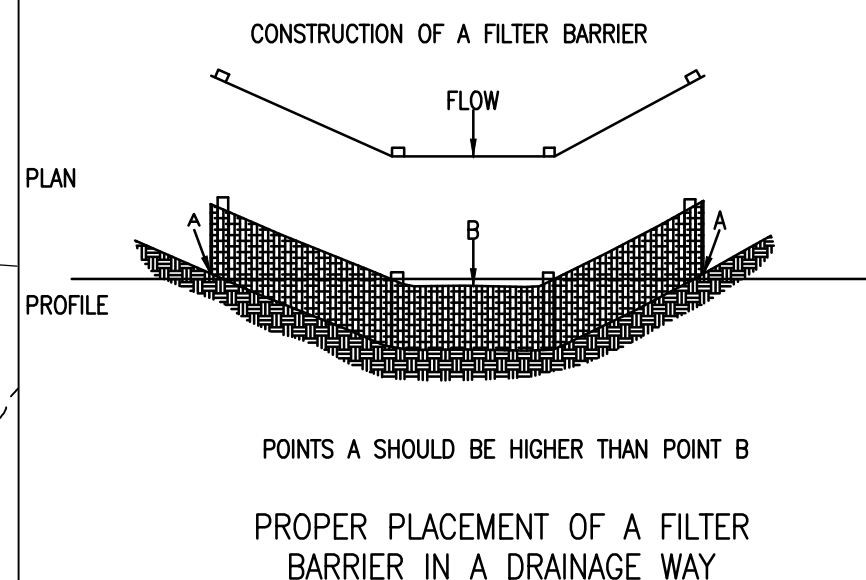
## SOIL PILES

- \* LOCATED AWAY FROM ANY DOWNSLOPE STREET, DRIVEWAY, STREAM, LAKE, WETLAND, DITCH OR DRAINAGEWAY.
- \* TEMPORARY SEED SUCH AS ANNUAL RYE IS RECOMMENDED FOR TOPSOIL PILES.
- \* SURROUND WITH STRAW BALES OR SILT FENCE.

## SEDIMENT CLEANUP

- \* BY THE END OF EACH WORK DAY, SWEEP OR SCRAPE UP SOIL TRACKED ONTO THE ROAD AND IN THE GUTTERS.
- \* BY THE END OF THE NEXT WORK DAY AFTER A STORM, CLEAN UP SOIL WASHED OFF-SITE, AND CHECK STRAW BALES AND SILT FENCE FOR DAMAGE OR SEDIMENT BUILDUP.

IF CONSTRUCTION IS COMPLETED AFTER AUGUST 31, SEEDING OR SODDING MAY BE DELAYED. APPLY MULCH AND TEMPORARY SEED (SUCH AS RYE OR WINTER WHEAT) FROM SEPTEMBER 1 TO MARCH 15. STRAW BALES OR SILT FENCES MUST BE MAINTAINED UNTIL FINAL SEEDING IS COMPLETED IN SPRING, MARCH 15 TO MAY 31.



## REVEGETATION

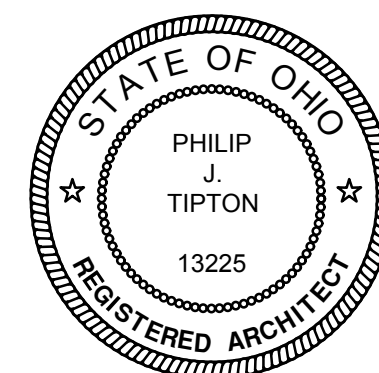
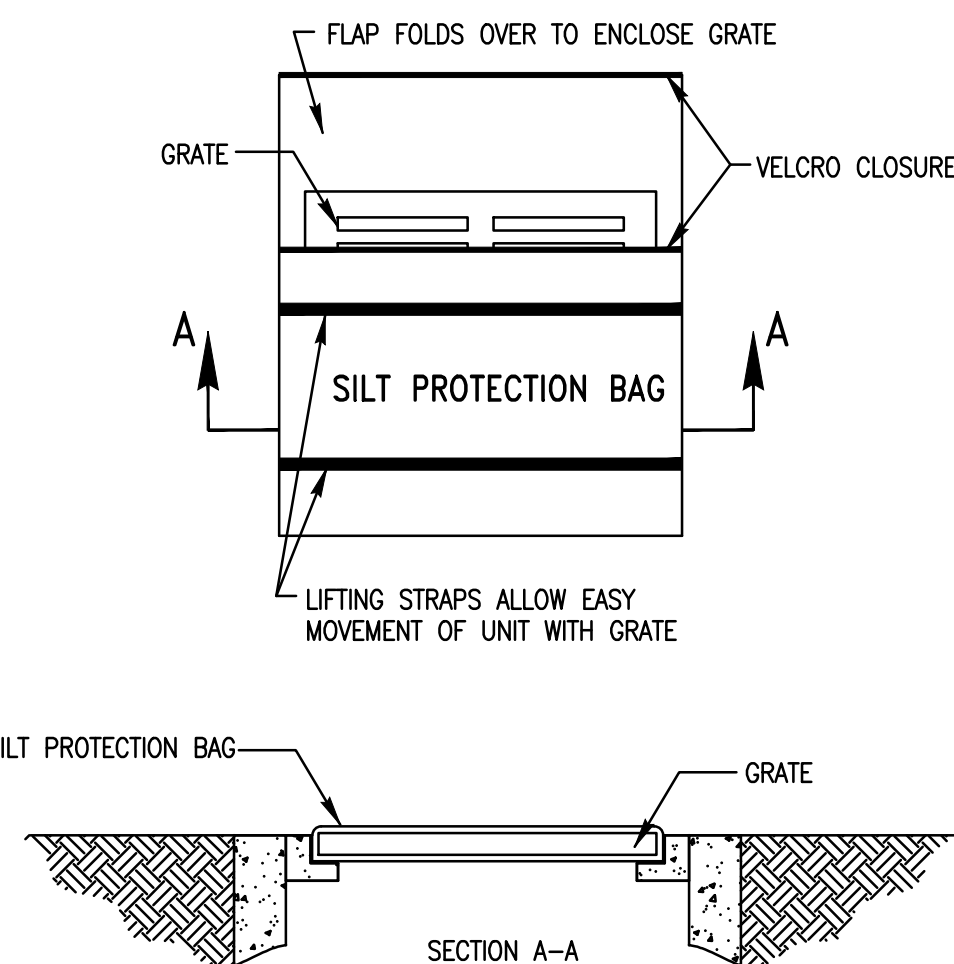
DISTURBED SOILS SHALL BE STABILIZED AS QUICK AS PRACTICABLE WITH TEMPORARY VEGETATION AND / OR MULCHING TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT. TEMPORARY MULCH IS TO BE APPLIED AT THE RATE OF 2-3 BALES OF STRAW PER 1000 SQ. FT.

SODDING (ALTERNATE)

- \* SPREAD 4 TO 6 INCHES OF TOPSOIL.
- \* FERTILIZE ACCORDING TO SOIL TEST (OR APPLY 10 LB. / 1000 SQ. FT. OF 20-10-10 OR 10-10-10 FERTILIZER).
- \* INSTALL SOD IN ACCORDANCE WITH SUPPLIERS' RECOMMENDATIONS.
- \* WATERING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SUPPLIERS' RECOMMENDATIONS AND/OR UNTIL LAWN IS WELL ESTABLISHED.

## SEEDING AND MULCHING

- \* RESPREAD 4 TO 6 INCHES OF EXISTING TOPSOIL.
- \* FERTILIZER ACCORDING TO SOIL TEST (OR APPLY 10 LB. / 1000 SQ. FT. OF 20-10-10 OR 10-10-10 FERTILIZER).
- \* SEED WITH AN APPROPRIATE MIX FOR THE SITE.
- \* RAKE LIGHTLY TO COVER SEED WITH 1/4" OF SOIL. ROLL.
- \* MULCH WITH STRAW (2-3 BALES PER 1000 SQ. FT.) FROM MARCH 15 TO AUGUST 31.
- \* ANCHOR MULCH BY PUNCHING 2 INCHES INTO THE SOIL WITH A DULL, WEIGHTED DISK OR BY USING NETTING OR OTHER MULCH ON STEEP SLOPES AND WINDY AREAS.
- \* WATER PLANTINGS SHALL BE IN ACCORDANCE WITH SUPPLIERS' RECOMMENDATIONS AND/OR UNTIL LAWN IS WELL ESTABLISHED.



PHILIP J. TIPTON, LICENSE #13225  
EXPIRATION DATE 12/31/2023

Architect is not responsible for any dimensions scaled from drawings. Dimensions noted take precedence.



Modular Building Addition for:  
**SHEPHERD CHURCH  
OF THE NAZARENE**  
425 S. HAMILTON ROAD  
GAHANNA, OH 43230

DRAWING	DATE
<input type="checkbox"/> REVIEW SET	11 JUL 23
<input checked="" type="checkbox"/> Permit/Bid Set	08 AUG 23

## REVISIONS

"A" 20 OCT 23

## STORMWATER AND SEDIMENT CONTROL DETAILS

**C1.2**  
OF . SHEETS

**223223**



GOVERNING CODE: 2017 OHIO BUILDING CODE

1. DEAD LOADS

A. TOTAL DEAD LOAD

= 25.0 PSF
1. ROOF LIVE LOADS:

A. MINIMUM ROOF LIVE LOAD

= 20 PSF
3. FLOOR LIVE LOADS:

A. FIRST FLOOR

= 50 PSF
4. ROOF SNOW DESIGN PARAMETERS

A. GROUND SNOW LOAD Pg

= 20.0 PSF

B. FLAT ROOF SNOW LOAD Pf

= 15.4 PSF

C. MINIMUM ROOF DESIGN SNOW LOAD

= 20.0PSF

D. SNOW EXPOSURE FACTOR Ce

= 1.0

E. SNOW LOAD IMPORTANCE FACTOR I

= 1.0

F. THERMAL FACTOR Ct

= 1.1

G. DRIFTING AND UNBALANCED SNOW PER ASCE 7-10

= C
5. WIND DESIGN PARAMETERS

A. ULTIMATE DESIGN WIND SPEED Vult

= 115 MPH

B. NOMINAL DESIGN WIND SPEED Vasd

= 89 MPH

C. RISK CATEGORY

= II

D. WIND EXPOSURE CATEGORY

= C

E. INTERNAL PRESSURE COEFFICIENT

= +/-0.18
6. SEISMIC DESIGN PARAMETERS

A. SEISMIC IMPORTANCE FACTOR = 1.0

B. SEISMIC OCCUPANCY CATEGORY = II

C. MAXIMUM CONSIDERED EARTHQUAKE GROUND MOTION AT 0.2 SECOND PERIOD, SS = 11.6%G

D. MAXIMUM CONSIDERED EARTHQUAKE GROUND MOTION AT 1.0 SECOND PERIOD, S1 = 6.1%G

E. SITE CLASS = B

F. SDS = 0.124G

G. SD1 = 0.098G

H. SEISMIC DESIGN CATEGORY = B

I. BUILDING SYSTEM:

BEARING WALL SYSTEMS

J. SEISMIC RESISTING:

LIGHT FRAMED WOOD WALLS WITH STRUCTURAL WOOD PANELS.

K. RESPONSE MODIFICATION FACTOR, R:

6.5

L. DESIGN BASE SHEAR:

0.018W

BUILDING DESIGN NOTES:

- A. THE PROPOSED BUILDING IS A RELOCATED MODULAR STRUCTURE NOT ORIGINALLY DESIGNED FOR THE PROVISIONS OF THE 2017 OHIO BUILDING CODE. DERWACHTER & ASSOCIATES, LLC HAS REVIEWED THE ORIGINAL DESIGN DATA AND FOUND THAT THE REQUIREMENTS MEET OR EXCEED THE REQUIREMENTS FOR LOADS SET FORTH BY CHAPTER 18 OF THE CURRENT OHIO CODE. THE INFORMATION BELOW IS THE BASIS OF THIS ASSESSMENT.

ORIGINAL DESIGN FIRM:

SPECIALIZED STRUCTURES INC.  
2400 SPRINGFIELD CHURCH ROAD  
WILLACOOCHIE, GA 31690

ORIGINAL THIRD PARTY APPROVAL AND INSPECTION AGENCY:

RADCO  
5801 BENJAMIN CENTER DRIVE  
TAMPA, FL 33634
- B.

	ORIGINAL DESIGN	REQUIRED DESIGN
FLOOR LIVE LOAD:	50.0 PSF	50.0 PSF
ROOF LIVE LOAD:	20.0 PSF	20.0 PSF
ROOF SNOW LOAD:		
Pg	30.0 PSF	20.0 PSF
Pf	23.1 PSF	22.0 PSF
Ce	1.0	1.0
Is	1.0	1.1
Ct	1.1	1.1
WIND LOAD:		
WIND SPEED	110 MPH (SERVICE)	93 MPH (SERVICE) 120 MPH (STRENGTH)
Iw	1.0	N/A
EXPOSURE	C	C
GCPi	0.18	0.18
BASE PRESSURE	28.1 PSF	17.5 PSF
SEISMIC LOAD:		
Ie	1.0	1.25
SITE CLASS	D	D
Ss	.537	.116
S1	.285	.061
Sds	.49	.124
Sd1	.34	.098
R	6.5	6.5
Cs	.08	.018

C. BASED UPON THE DRAWINGS PROVIDED DATED 11-13-15 BY SPECIALIZED STRUCTURES INC. AND SINGED AND SEALED BY JAMES E. BRADLEY WITH A PENNSYLVANIA SEAL NUMBER OF 0192214E, IT IS THE OPINION OF DERWACHTER & ASSOCIATES, LLC THAT THE BUILDING DESIGN EXCEEDS THE REQUIREMENTS OF THE CURRENT OHIO BUILDING CODE. THIS EVALUATIONS IS BASED ON A REVIEW OF THE STATED DRAWINGS ONLY. DERWACHTER & ASSOCIATES, LLC HAS NOT MADE ANY INSPECTIONS OF THE EXISTING BUILDING OR REVIEWED ANY MODIFICATIONS (IF ANY) TO THE ORIGINAL DESIGN.
- | SCHEDULE OF SPECIAL INSPECTIONS                                                                                                                    |       |                 |      |                                               |                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------|------|-----------------------------------------------|--------------------------------------|
| ITEM                                                                                                                                               | REQ'D | INSPECTION TYPE |      | REFERENCED STANDARD                           | OBC REFERENCE                        |
|                                                                                                                                                    |       | CONT.           | PER. |                                               |                                      |
| MASONRY CONSTRUCTION                                                                                                                               |       |                 |      |                                               |                                      |
| SPECIAL INSPECTION TESTING PER THE QUALITY ASSURANCE REQUIREMENTS OF TNS 402/ACI                                                                   | X     |                 | X    |                                               |                                      |
|                                                                                                                                                    |       |                 | X    |                                               |                                      |
|                                                                                                                                                    |       |                 | X    |                                               |                                      |
|                                                                                                                                                    |       |                 | X    |                                               |                                      |
| CONCRETE CONSTRUCTION                                                                                                                              |       |                 |      |                                               |                                      |
| INSPECT ANCHORS CAST IN CONCRETE                                                                                                                   |       |                 | X    | ACI 318: 17.8.2                               |                                      |
|                                                                                                                                                    |       |                 | X    | ACI 318: CHAPTER 19 AND 26.4.3, 26.4.4        | 1904.1,<br>1904.2,<br>1908.2, 1908.3 |
| VERIFY USE OF REQUIRED DESIGN MIX                                                                                                                  |       |                 | X    |                                               |                                      |
| PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF CONCRETE |       | X               |      | ASTM C 172, ASTM C 31, ACI 318: 26.4.5, 26.12 | 1908.10                              |
| VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES                                                                                  |       |                 | X    | ACI 318: 26.4.7 - 26.4.9                      | 1908.9                               |
| INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED                                                            |       |                 | X    | ACI 318: 26.10.1                              |                                      |
| SOILS                                                                                                                                              |       |                 |      |                                               |                                      |
| VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY                                                     |       |                 | X    |                                               |                                      |
| VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL                                                                   |       |                 | X    |                                               |                                      |
| PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS                                                                                     |       |                 | X    |                                               |                                      |
| VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.                                    |       | X               |      |                                               |                                      |
| PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.                                            |       |                 | X    |                                               |                                      |
- REINFORCING FOR CONCRETE:
1. REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60 OR ASTM A706, UNLESS NOTED OTHERWISE.

ALL WELDED REINFORCING BARS SHALL CONFORM TO ASTM A706.

2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 (SHEETS FORM, NOT ROLLED)

3. MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE:

A. UNFORMED SURFACE IN CONTACT WITH THE GROUND: 3 IN.

B. FORMED SURFACES EXPOSED TO EARTH OR WEATHER:

#6 BARS AND LARGER 2 IN.

#5 BARS AND SMALLER 1 1/2 IN.

C. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER:

BEAMS, GIRDERS, AND COLUMNS 1 1/2 IN.

SLABS, WALLS, AND JOISTS 3/4 IN.

#11 BARS AND SMALLER 1 1/2 IN.

#14 AND #18 BARS 1 1/2 IN.

4. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE, UNLESS NOTED OTHERWISE.

BAR SIZE	CLASS B SPLICE LAP LENGTH (INCHES)	COMPRESSION SPLICE LAP LENGTH (INCHES)	BAR SIZE	CLASS B SPLICE LAP LENGTH (INCHES)	COMPRESSION SPLICE LAP LENGTH (INCHES)
#3	22	12	#8	72	30
#4	29	15	#9	81	34
#5	36	19	#10	89	38
#6	43	23	#11	98	42
#7	63	27			

5. COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS, UNLESS NOTED OTHERWISE.

6. BASE PLATES, ANCHOR RODS, SUPPORT ANGLES, ETC., BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.
- REINFORCED MASONRY:
1. REINFORCED MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, fm, OF 1500 PSI. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90. AN SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2150 PSI. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. MINIMUM GROUT COMPRESSIVE STRENGTH SHALL EQUAL OR EXCEED fm, BUT NOT BE LESS THAN 2000 PSI.

2. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.

3. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE HOT DIPPED GALVANIZED, LADDER TYPE FORMED FROM 9 GAUGE COLD - DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS AND PIERS. U.N.O. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. JOINT REINFORCING SHALL BE STOPPED EACH SIDE OF VERTICAL CONTROL JOINTS.

4. ALL REINFORCED CELLS, ALL CELLS BELOW GRADE AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.

5. AT VERTICAL REINFORCING LOCATIONS, PROVIDE DOWEL FROM FOOTING TO MATCH SIZE AND SPACING OF VERTICAL WALL REINFORCING. DOWELS SHALL BE EMBEDDED INTO THE FOOTING MINIMUM 9" INCHES AND SHALL HAVE A 90 DEGREE STANDARD HOOK.

6. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN A CELL ADJACENT TO THE VERTICAL WALL REINFORCING.

7. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.

8. ALL REINFORCING LAP SPLICES SHALL BE IN ACCORDANCE WITH THE MASONRY REINFORCING LAP SPLICE LENGTH SCHEDULE. U.N.O. SPLICE VERTICAL SHALL BE WIRED TOGETHER. LAP SPLICES BETWEEN ADJACENT BARS SHALL BE STAGGERED A MINIMUM OF 24 BAR DIAMETERS.

9. VERTICAL BARS SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 96 DIAMETERS OF THE REINFORCING BAR WITH REBAR POSITIONERS. BARS SHALL BE ANCHORED IN PLACE PRIOR TO GROUTING.

10. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4 OF AN INCH FROM THE MASONRY AND NOT LESS THAN ONE BAR DIAMETER BETWEEN BARS.

11. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 3"x4".

12. GROUT SHALL BE PLACED IN LIFTS NOT TO EXCEED 5 FEET. THE TOTAL HEIGHT OF 8-INCH (NOMINAL) OR LARGER MASONRY TO BE GROUTED PRIOR TO THE ERECTION OF ADDITIONAL MASONRY SHALL NOT EXCEED 24 FEET.

13. GROUTING SHALL BE STOPPED 1 1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.

14. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION. CELLS AT ANCHOR LOCATIONS SHALL BE GROUTED TO MINIMUM 6" ABOVE AND 6" BELOW THE CENTERLINE OF THE ANCHOR.
- | MASONRY REINFORCING LAP SPLICE LENGTH (IN.) |                              |     |     |                        |     |     |
|---------------------------------------------|------------------------------|-----|-----|------------------------|-----|-----|
| BAR SIZE                                    | NUMBER OF REINFORCING LAYERS |     |     |                        |     |     |
|                                             | ONE LAYER                    |     |     | TWO LAYERS             |     |     |
|                                             | NOMINAL WALL THICKNESS       |     |     | NOMINAL WALL THICKNESS |     |     |
|                                             | 8"                           | 10" | 12" | 8"                     | 10" | 12" |
| #4                                          | 25                           | 25  | 25  | 31                     | 31  | 31  |
| #5                                          | 31                           | 31  | 31  | 48                     | 48  | 48  |
| #6                                          | 57                           | 52  | 52  | 98                     | 98  | 98  |
| #7                                          | 79                           | 61  | 61  | 177                    | 121 | 121 |
| #8                                          | 112                          | 86  | 74  | -                      | 149 | 149 |
- GENERAL NOTES:
1. ANY CHANGES MADE TO THE DESIGN IDENTIFIED ON THESE DRAWINGS AND/OR ASSOCIATED SPECIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO MAKING ANY MODIFICATIONS TO THE PROJECT. ANY LIABILITY AS A RESULT OF DESIGN MODIFICATIONS, AS WELL AS ANY COSTS ASSOCIATED WITH SUCH MODIFICATIONS, MADE WITHOUT THE WRITTEN APPROVAL OF ENGINEER OF RECORD SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR.

2. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE, AND TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS, DURING ERECTION. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY GUYS, BRACING OR TIEDOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN ON THE DRAWINGS. IF APPLIED, THEY SHALL BE REMOVED AS CONDITIONS PERMIT, AND SHALL REMAIN THE CONTRACTOR'S PROPERTY. THE ENGINEER HAS NO EXPERTISE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY THE CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, SHALL NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY THE ENGINEER OF ANY RESPONSIBILITY FOR SAFETY PROCEDURES.

3. IT IS SOLELY THE RESPONSIBILITY OF EACH CONTRACTOR TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE ENGINEER IS NOT ENGAGED IN, AND DOES NOT SUPERVISE CONSTRUCTION.

4. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE STRUCTURAL NOTES, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.
- USE OF THESE DOCUMENTS:
1. THESE DOCUMENTS SHALL NOT BE REPRODUCED IN ANY MANNER FOR THE PRODUCTION OF FABRICATION OR ERECTION SUBMITTALS. REPRODUCTION OF THESE DOCUMENTS IN THAT MANNER CONSTITUTES COPYRIGHT INFRINGEMENT. ANY DOCUMENTS SUBMITTED FOR REVIEW THAT CONTAIN ANY IMAGE, SKETCH, DETAIL, ETC. FROM THESE DOCUMENTS WILL BE REJECTED.

2. ELECTRONIC VERSIONS OF THESE DOCUMENTS ARE THE PROPERTY OF DERWACHTER & ASSOCIATES, LLC. ELECTRONIC OR CAD FILES WILL NOT BE MADE AVAILABLE FOR CONSTRUCTION PURPOSES.
- FOUNDATIONS - GENERAL:
1. THE FOUNDATION HAS BEEN DESIGNED BASED UPON AN ASSUMED BEARING CAPACITY.

2. BOTTOM OF FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 1.5 KSF UNDER SERVICE LIVE AND DEAD LOAD.

3. FOOTINGS MAY BE POURED INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.

4. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.

5. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 36" BELOW LOWEST ADJACENT GRADE.

6. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE AND CURED.

7. WHERE FOUNDATION WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, PLACE FILL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL.

8. FOUNDATION CONCRETE SHALL HAVE REACHED A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI BEFORE BEING LOADED. STRENGTHS SHALL BE VERIFIED BY TEST.
- The McKnight Group

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3351 McDowell Road  
P.O. Box 379  
Grove City, Ohio 43123

Phone: (614) 875-1689  
Fax: (614) 875-7086  
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DERWACHTER & ASSOCIATES, LLC

8275 Milford Dr.  
Zanesville, OH 43701

STATE OF OHIO

MATTHEW D DERWACHTER

E-68641

REGISTERED PROFESSIONAL ENGINEER

01-08-2023

Architect is not responsible for any dimensions scaled from drawings. Dimensions noted take precedence.

Modular Building Addition for:

SHEPHERD CHURCH

OF THE NAZARENE

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REVISIONS

STRUCTURAL NOTES

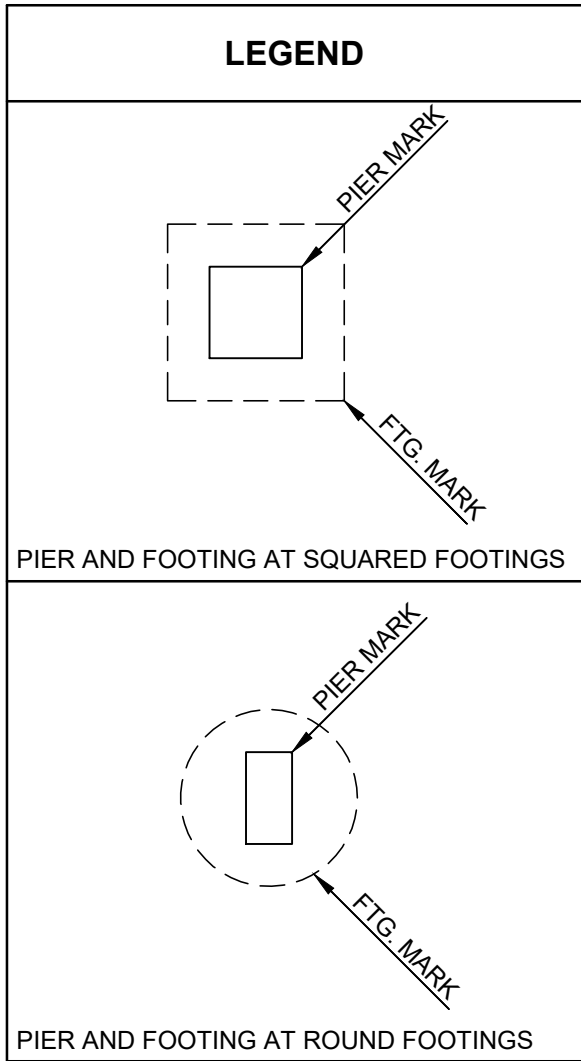
S0.1  
OF . SHEETS  
223223



Plot Date: 8/1/2023 1:28:03 PM shepherd church - struct.dwg Larry Perks

01 FOUNDATION PLAN

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



PIER SCHEDULE		
MARK	SIZE	REINFORCING *
P1	0'-8" x 1'-4" (CMU)	(2) #5 VERTICAL BARS w/ #4 TIES
P2	1'-4" x 1'-4" (CMU)	(4) #5 VERTICAL BARS w/ #4 TIES

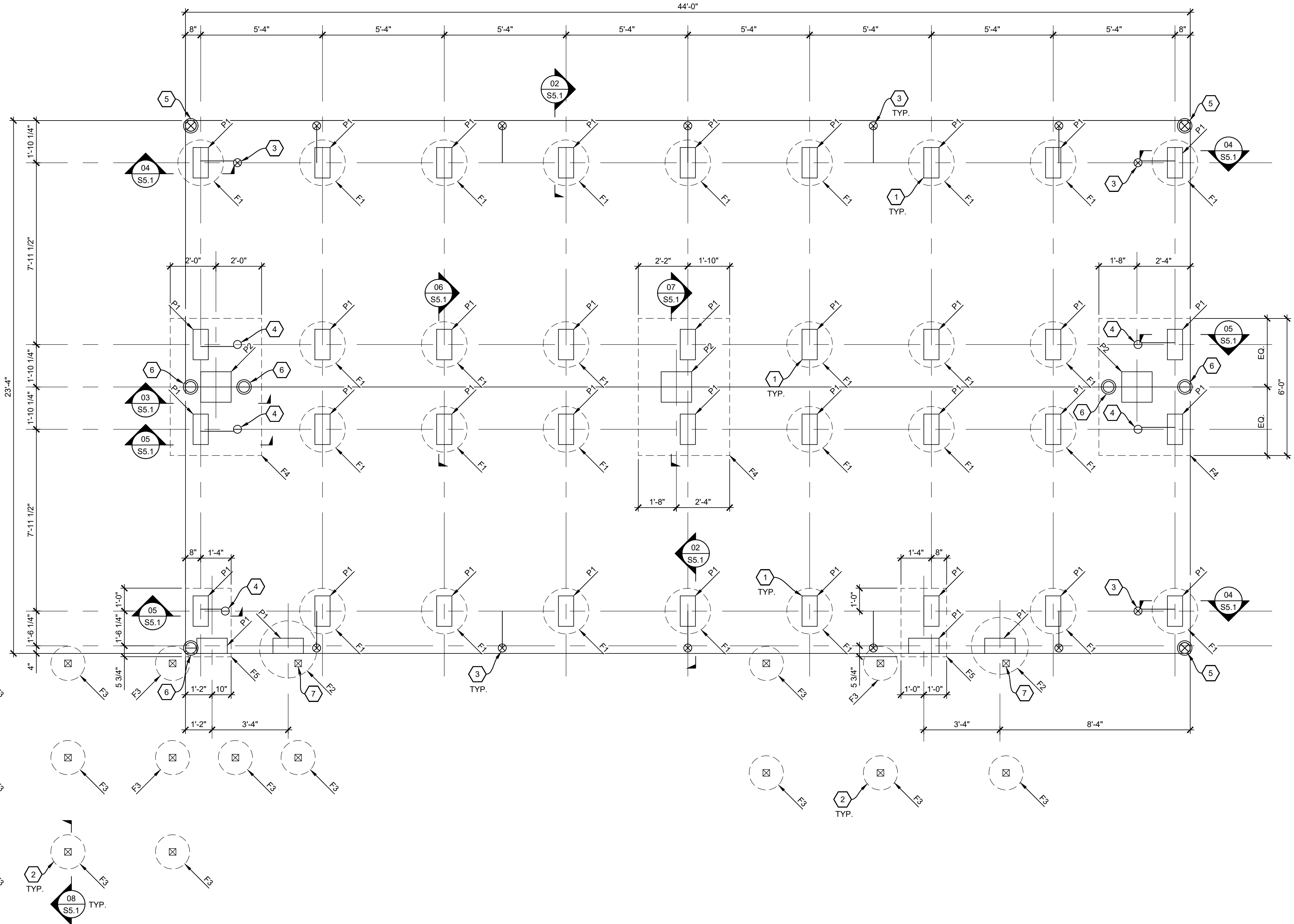
COLUMN FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F1	2'-0"Ø x 3'-0"	N/A
F2	2'-6"Ø x 3'-0"	N/A
F3	1'-4"Ø x 3'-0"	N/A
F4	4'-0" x 6'-0" x 3'-0"	#5 BARS AT 12"O.C., E.W. BOTTOM
F5	2'-0" x 3'-0" x 3'-0"	#5 BARS AT 12"O.C., E.W. BOTTOM

\* SEE DETAIL S5.1-06 FOR PLAN LAYOUT AND REINFORCING PLACEMENT.

KEYED NOTES cont.	
5	⊗ LOCATION OF VERTICAL UPLIFT. PROVIDE HELICAL ANCHOR & STRAPPING ANCHORAGE AT ANCHOR LOCATIONS INDICATED ON PLAN. HELICAL ANCHOR TO BE DOUBLE DISC, 3/4"Ø ROD x 36" WITH 6"Ø DISCS (MINUTE MAN #4636 DH DOUBLE DISC TENSION HEAD ANCHOR OR EQUAL). GALVANIZED STEEL STRAPPING AND FASTENING PER MODULAR BLDG. MFR.
6	⊙ LOCATION OF VERTICAL UPLIFT. PROVIDE EMBED AND STRAPPING ANCHORAGE AT ANCHOR LOCATIONS INDICATED ON PLAN. EMBED TO BE 1/2"x10" STEEL "J" ANCHOR (MINUTE MAN #210 JDH SWIVEL HEAD ANCHOR OR EQUAL) EMBEDDED IN TOP OF CONCRETE FOOTING. GALVANIZED STEEL STRAPPING AND FASTENING PER MODULAR BLDG. MFR.
7	WHERE RAMP / STAIR POST OCCURS AT MODULAR PIER FOOTING, ANCHOR POST TO TOP OF FOOTING WITH SIMPSON POST BASE AND 1/2"Ø WEDGE ANCHOR.

KEYED NOTES	
1	CMU SUPPORT PIER ON CONCRETE FOOTING. SEE SCHEDULES.
2	FOOTING AT EXTERIOR DECK, STAIRS AND RAMP POSTS. COORDINATE LOCATION WITH ARCH. SEE SCHEDULE FOR FOOTING REINFORCING.
3	⊗ LOCATION OF GROUND ANCHOR FOR OVER TURNING & SLIDING. PROVIDE HELICAL ANCHOR & STRAPPING ANCHORAGE. HELICAL ANCHOR TO BE DOUBLE DISC, 3/4"Ø ROD x 36" WITH 6"Ø DISCS (MINUTE MAN #4636 DH DOUBLE DISC TENSION HEAD ANCHOR OR EQUAL). ANCHOR TO BE PLACED AND 1 1/4" GALVANIZED STEEL STRAPPING PLACED OVER BEAM ABOVE, OR FASTENED TO WELDED ANCHOR ON BEAM ABOVE, WINCH TIGHT AND LOCK. COORDINATE WITH MODULAR BLDG. DRAWINGS.
4	⊙ LOCATION OF GROUND ANCHOR FOR OVER TURNING & SLIDING. PROVIDE EMBED AND STRAPPING ANCHORAGE AT ANCHOR LOCATIONS INDICATED ON PLAN. EMBED TO BE 1/2"x10" STEEL "J" ANCHOR (MINUTE MAN #210 JDH SWIVEL HEAD ANCHOR OR EQUAL) EMBEDDED IN TOP OF CONCRETE FOOTING AND 1 1/4" GALVANIZED STEEL STRAPPING PLACED OVER BEAM ABOVE, OR FASTENED TO WELDED ANCHOR ON BEAM ABOVE, WINCH TIGHT AND LOCK. COORDINATE WITH MODULAR BLDG. DRAWINGS.

FOUNDATION PLAN NOTES	
A	SEE SHEET S0.1 FOR GENERAL NOTES.
B	ALL ELEVATIONS ARE RELATIVE TO A FINISH FIRST FLOOR ELEVATION OF 100'-0" (REFERENCE ONLY).
C	COORDINATE DOOR OPENINGS AND STOOP LOCATIONS WITH ARCH. DRAWINGS.
D	SEE DETAIL S5.1-01 FOR TYPICAL REINFORCING DETAILING.
E	LOCATION OF HOLD DOWN ANCHORS AT OVERTURNING, SLIDING, AND UPLIFT LOCATIONS TO BE COORDINATED WITH FINAL MODULAR MANUFACTURER'S DRAWINGS.



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8275 Milford Dr.  
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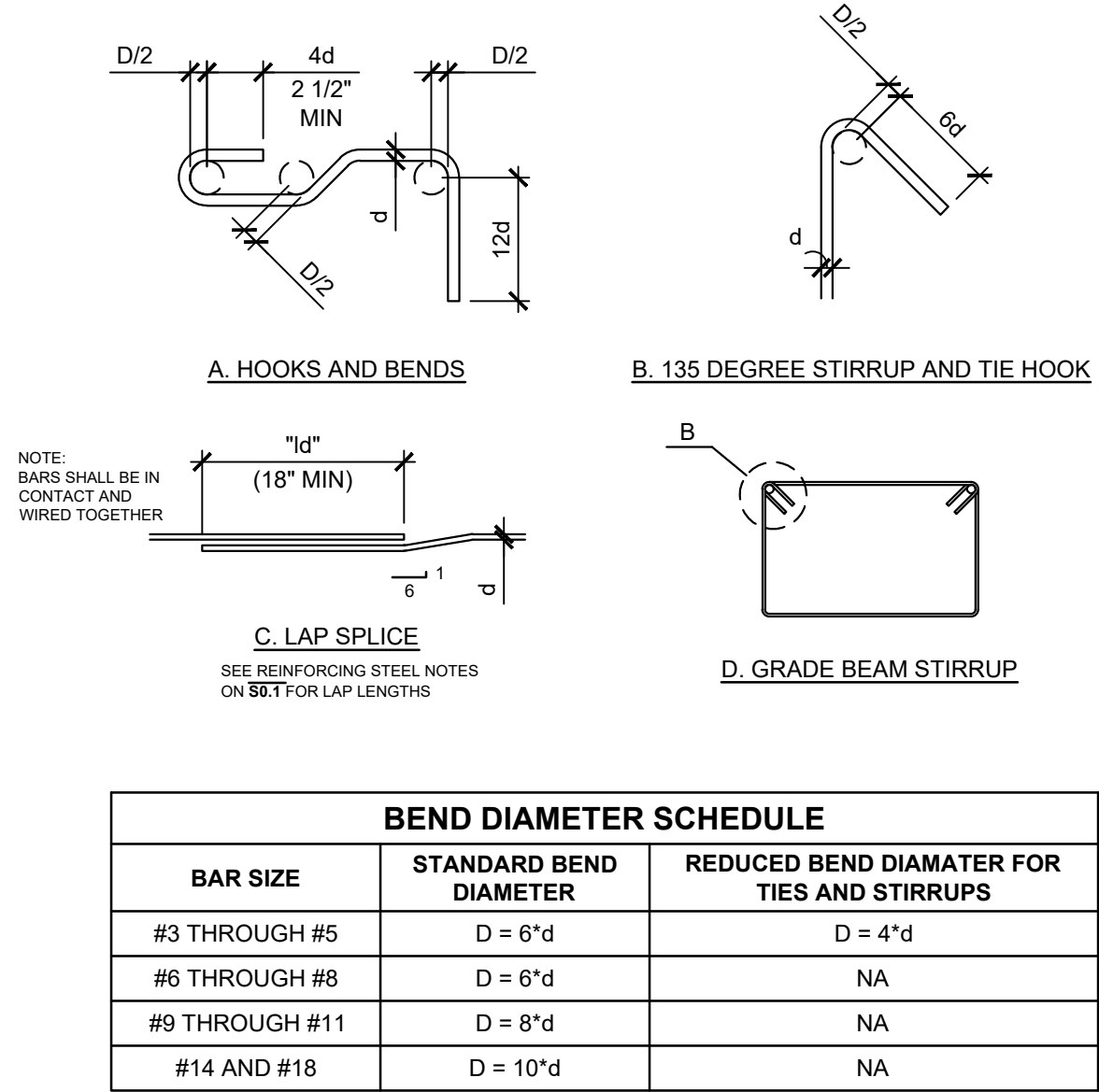
REVISIONS

**FOUNDATION PLAN**

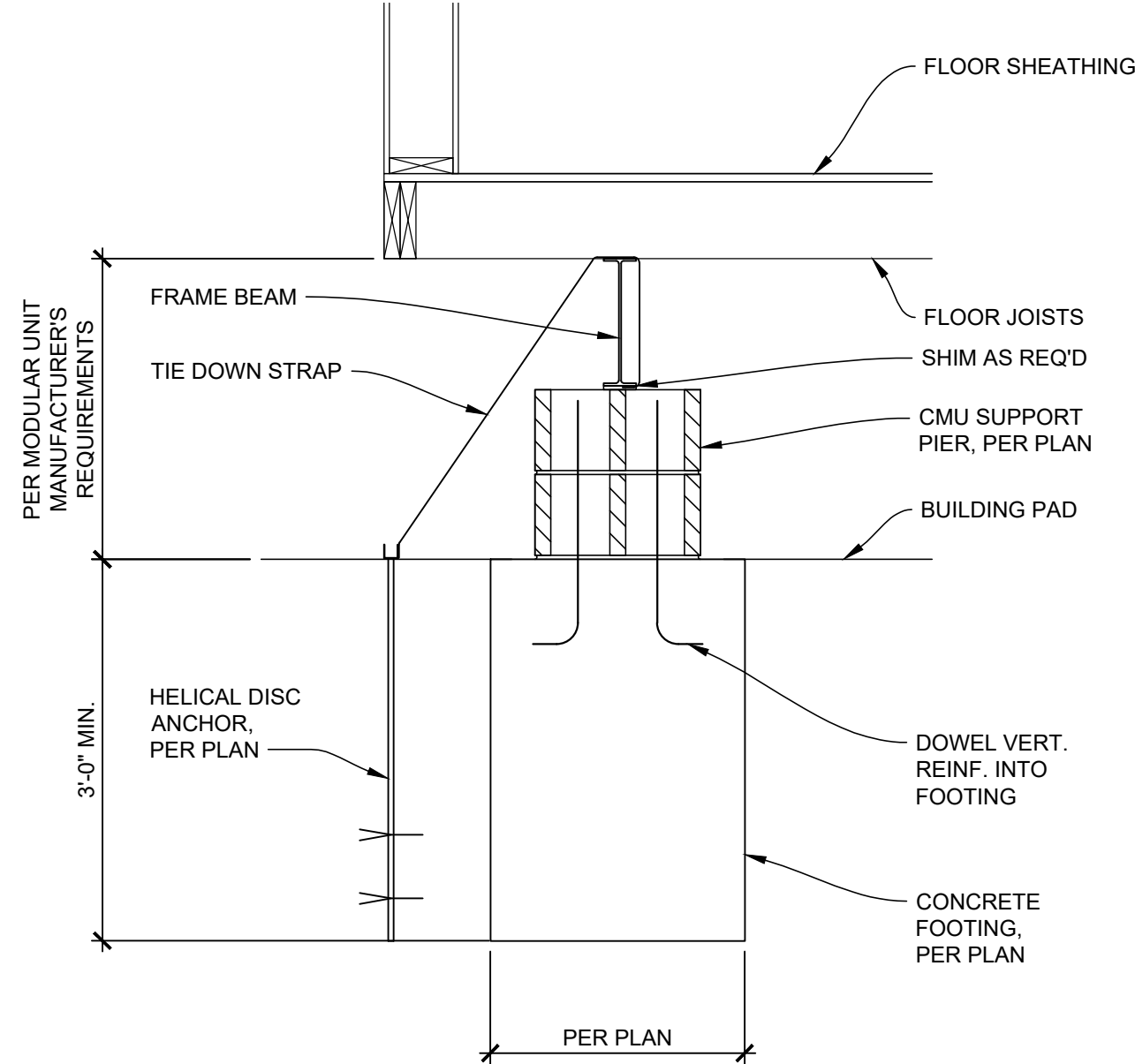
**S1.1**

OF . SHEETS

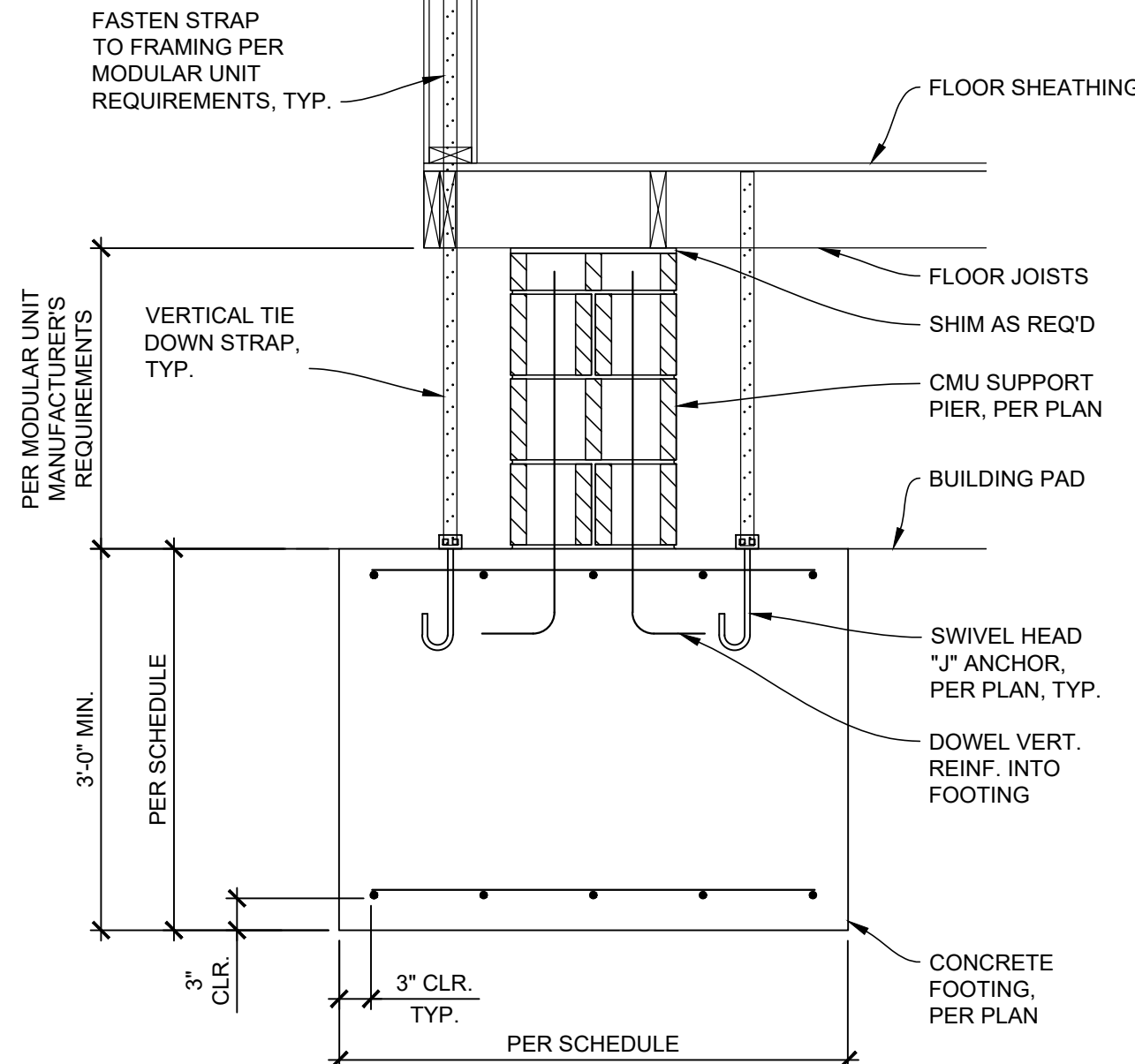
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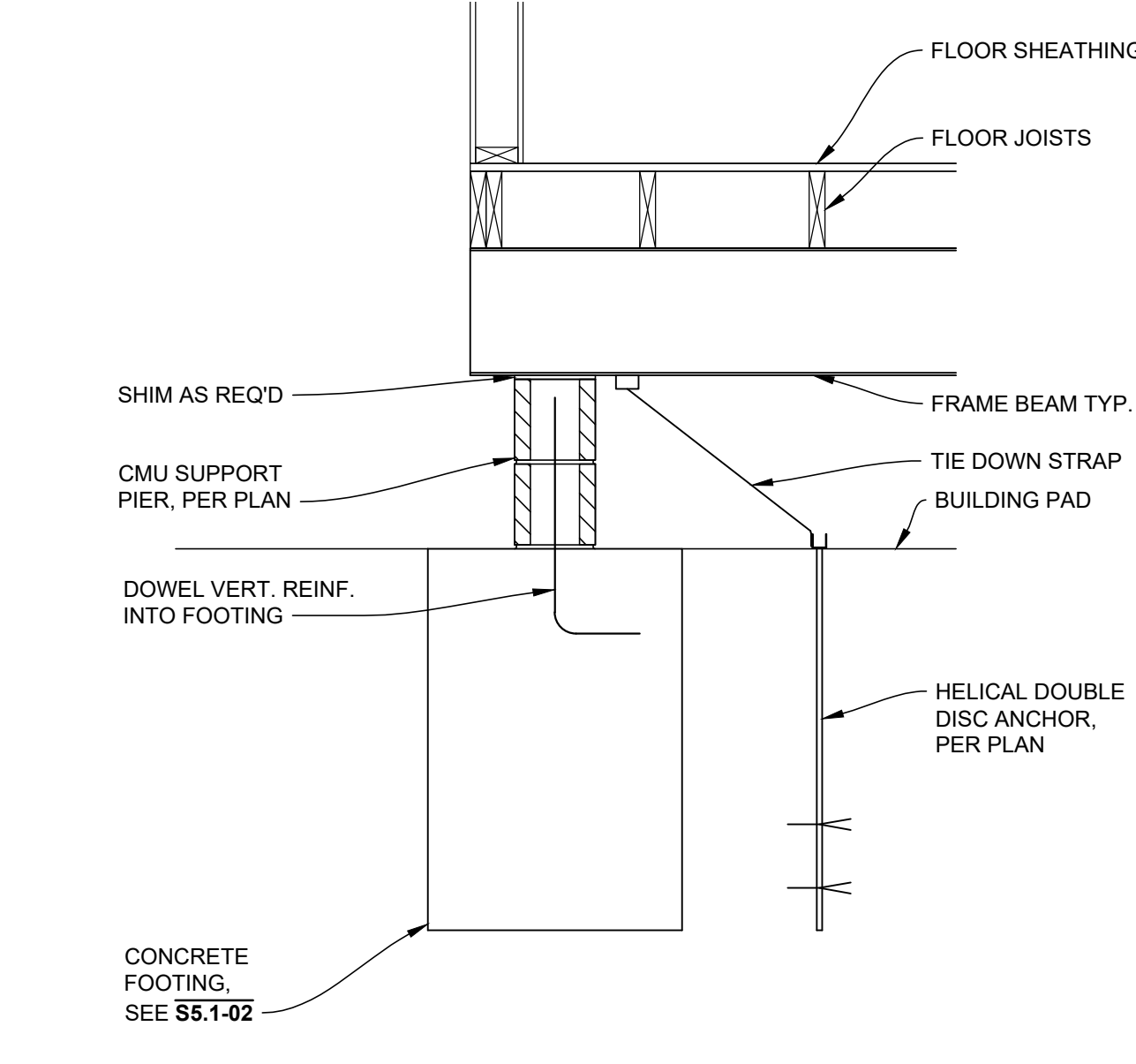
01 TYPICAL REINFORCEMENT DETAILS  
SCALE: N/A = 1'-0"



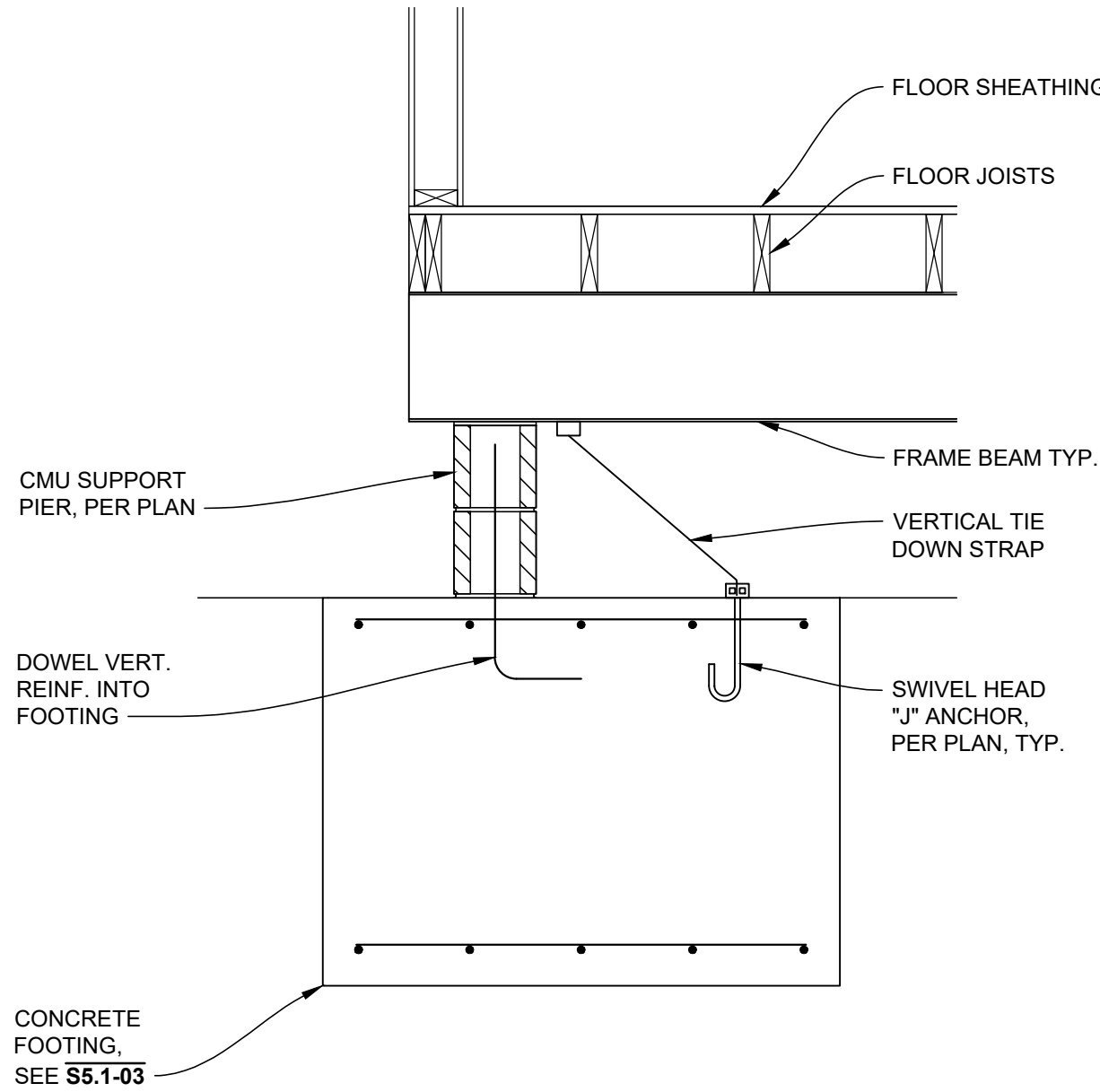
02 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



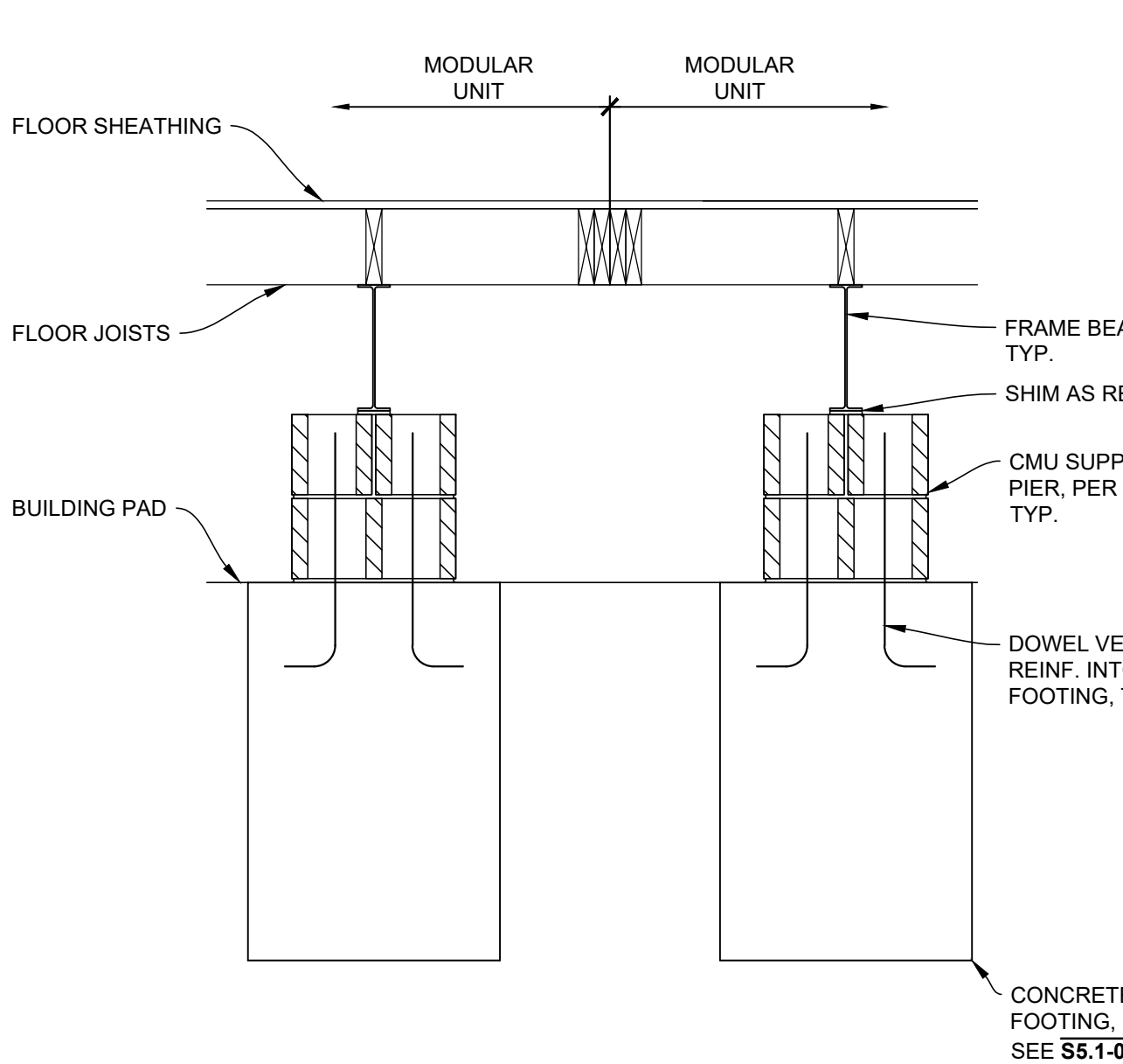
03 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



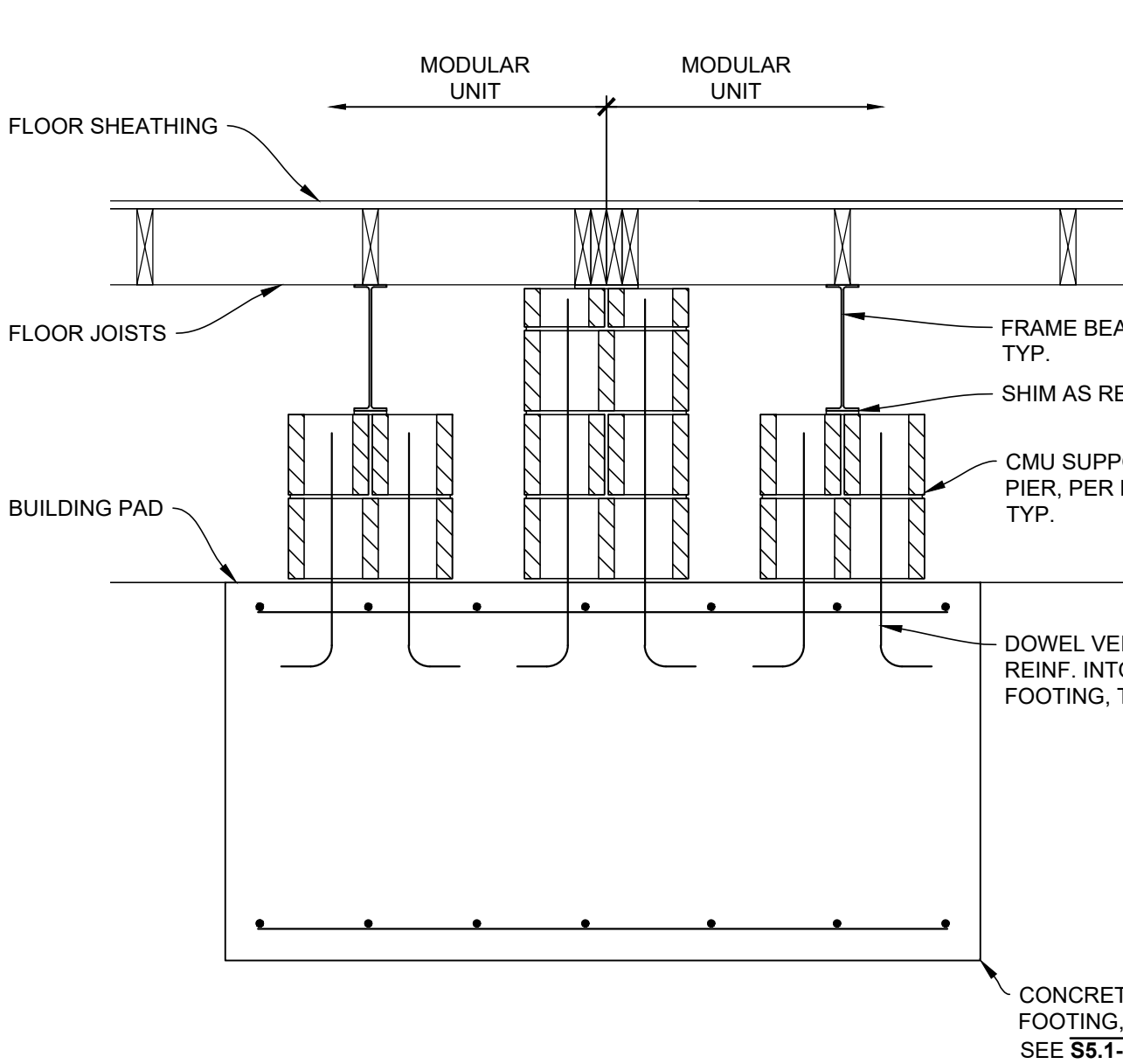
04 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



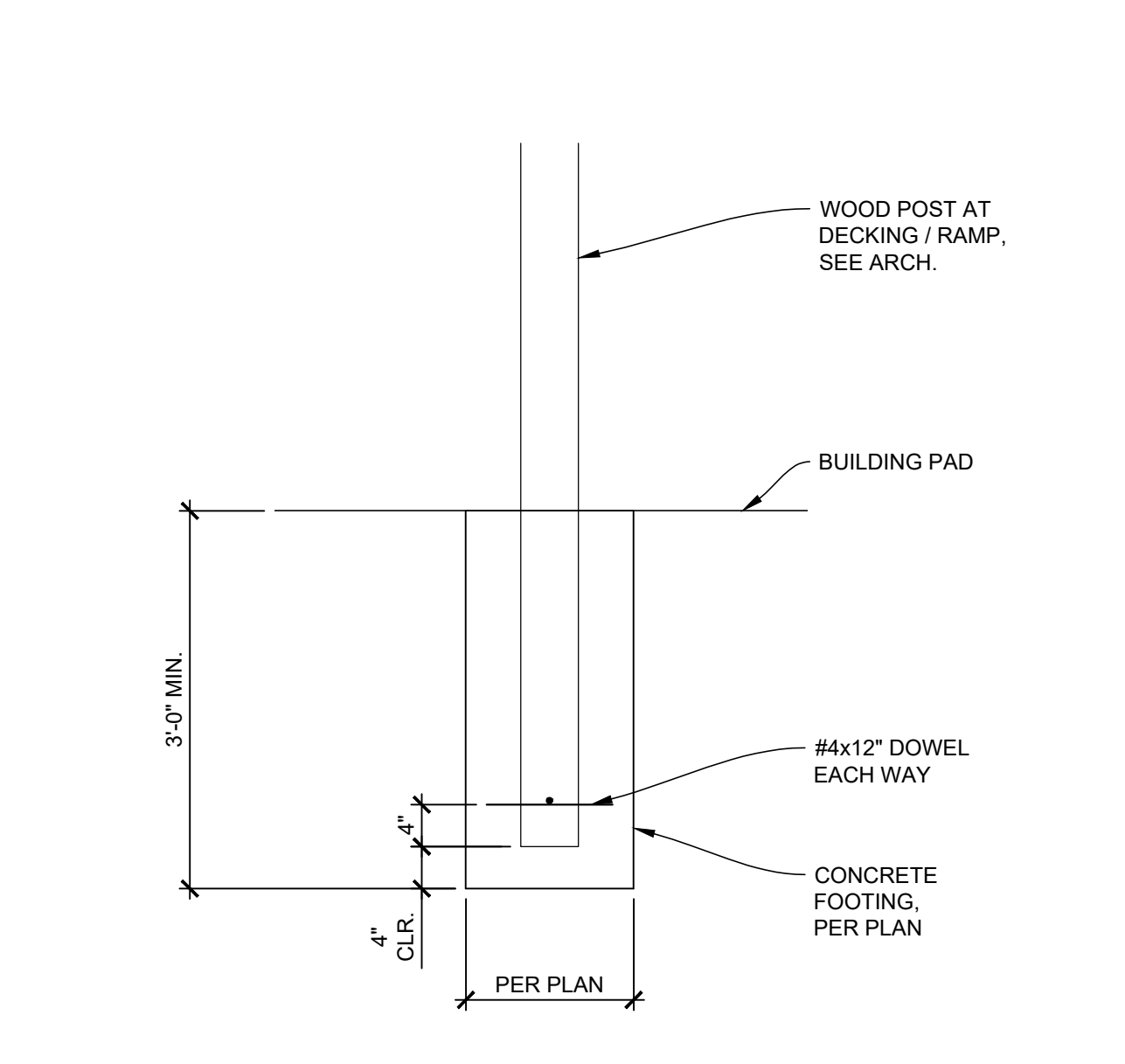
05 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



06 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



07 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



08 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



Modular Building Addition for:  
**SHEPHERD CHURCH OF THE NAZARENE**  
425 S. HAMILTON ROAD  
GAHANNA, OH 43230

DRAWING	DATE
<input type="checkbox"/> REVIEW SET	11 JUL 23
<input checked="" type="checkbox"/> Permit/Bid Set	1 AUG. 23

REVISIONS

**FOUNDATION DETAILS**

**S5.1**

OF . SHEETS

**223223**

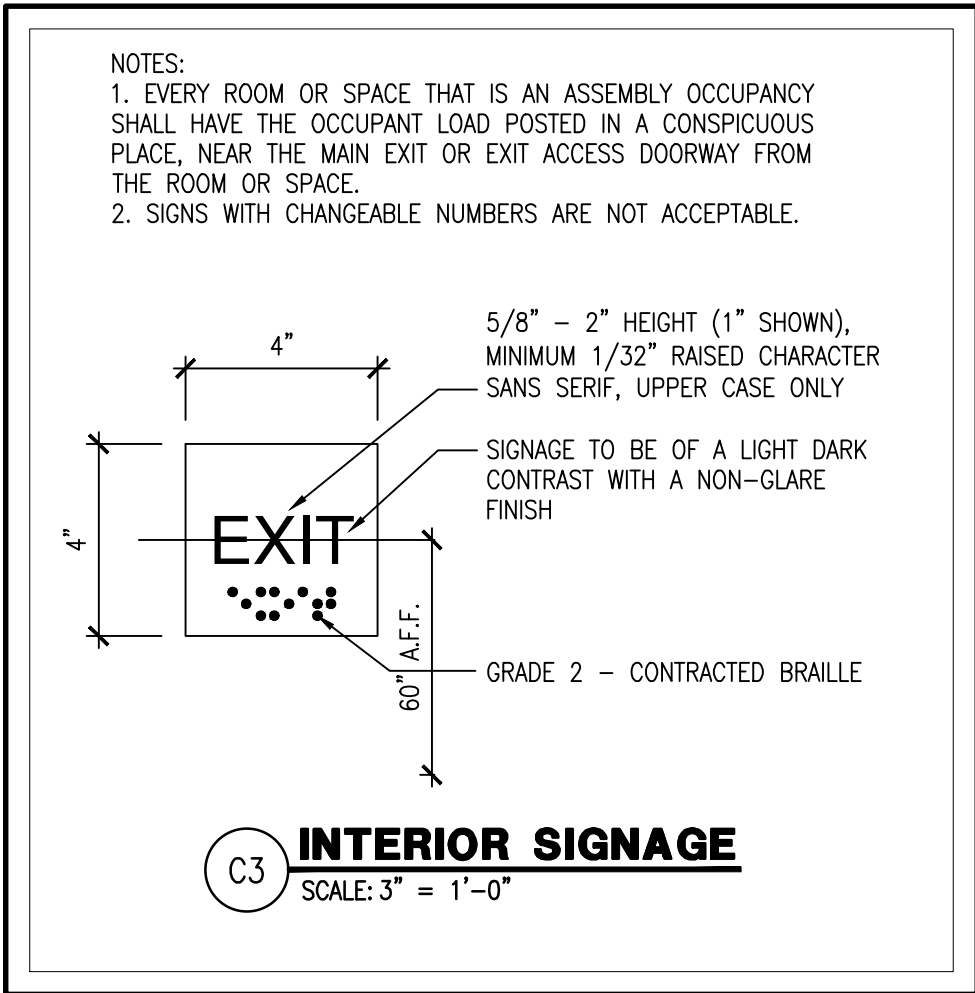


CODE ANALYSIS SUMMARY - 2017 OBC	
USE GROUP/CONSTRUCTION TYPE	
PREVIOUS USE GROUP(S): B (ADULT CLASSROOM)	EXISTING CONSTRUCTION TYPE: V-B
PROPOSED USE GROUP(S): E	
FIRE AREA TABULATIONS	
BUILDING FOOTPRINT = 1,026 SQ. FT. (937 SQ. FT. INTERIOR)	
ALLOWABLE AREA PER TABLE 506.2 FOR "E"/V-B -NON SPRINKLED = 9,500 SQ. FT.	
ACTUAL BUILDING AREA IS LESS THAN ALLOWABLE: 1,026 SQ. FT. < 9,500 SQ. FT.(PASSES)	
HEIGHT TABULATIONS	
ALLOWABLE HEIGHT PER TABLE 504.3 OBC = 40'-0"	
ALLOWABLE STORIES PER TABLE 504.4 OBC (E/V-B) = 1 STORY	
ACTUAL MAX. HEIGHT = ±30'-0" @ MODULAR UNIT RIDGE	
ACTUAL NO. OF STORIES = ONE (1) STORY ABOVE GRADE	
OCCUPANT LOAD	
CALCULATED OCCUPANT LOAD PER TABLE 1004.1.2 OBC = MAXIMUM 46 OCCUPANTS	
TOTAL EGRESS PROVIDED = 340 TOTAL EGRESS CAPACITY (2-36" DOORS)	
FIRE RESISTANCE RATINGS (SEE PLAN FOR DETAILS)	
FIRE RATED PARTITIONS ARE NOT REQUIRED FOR THIS BUILDING. EXTERIOR WALL NEAREST TO EXISTING SCHOOL BUILDING IS IN EXCESS OF 40'-0" (±52'-6") SO THIS TEMPORARY STRUCTURE DOES NOT REQUIRE FIRE RATED EXTERIOR WALLS. EXISTING SCHOOL BUILDING IS OF TYPE III-B, NS CONSTRUCTION.	
SPRINKLER REQUIREMENTS	
A FIRE SUPPRESSION SYSTEM IS NOT REQUIRED IN THIS BUILDING OR IN NEARBY SCHOOL BUILDING..	
APPLICABLE CODES	
2017 OHIO BUILDING CODE (OBC)	2017 OHIO CHAPTER 11 AND ICC/ANSI A117.1-2009 ACCESSIBILITY CODE
2017 OHIO MECHANICAL CODE (MMC)	2015 INTERNATIONAL FUEL GAS CODE
2017 OHIO PLUMBING CODE (MPC)	2017 OBC CHAPTER 27 (ELECTRIC) AND NEC 2017
2015 INTERNATIONAL ENERGY CONSERVATION CODE	2017 OHIO FIRE CODE (FC) W/ 2019 AMMENDMENTS
2015 OHIO ENRGY CODE (MENC)	
DESIGN LOADS	
1. ASSUMED SOIL BEARING PRESSURE = 1,500 PSF.	
2. SEE STRUCTURAL DRAWINGS FOR FOUNDATION DESIGN FOR SOIL CONDITIONS.	
3. SEE STRUCTURAL DRAWINGS FOR CONVENTIONAL FRAMING DESIGN LOADS.	

DESIGN LOADS.	
1. SOIL BEARING 1,500 PSF. SOIL BEARING VALUE TO BE CONFIRMED ON SITE BY THE GENERAL CONTRACTOR (SEE STRUCTURAL DRAWINGS FOR ADDITIONAL LOAD INFORMATION)	
2. ROOF LOADS:	
A. SNOW 20 PSF	
B. WIND 93 MPH (SERVICE) 120 MPH (STRENGTH)	
3. LIVE LOADS:	
A. EDUCATIONAL	
1. CLASSROOMS 40 PSF	
B. EXTERIOR STAIRWAYS & EXITWAYS 100 PSF	
1. LANDINGS	
a. 100 PSF LIVE	
b. 300 LB. CONCENTRATED LOAD	
2. EXITWAYS 100 PSF	
C. GUARDS/KNEEWALLS IMPACT LOAD 200 LB.	
4. WIND LOAD: BASIC WIND SPEED = 90 MPH-EXPOSURE "C", RISK CATEGORY II	
5. EARTHQUAKE DESIGN DATA: (SEE STRUCTURAL DRAWINGS SHEET S0.1)	
(SPECIAL NOTE: SEISMIC DESIGN DOES NOT GOVERN- GOVERNING FACTOR IS WIND).	

PLUMBING CALCULATION - 2017 OPC					
2017 OPC TABLE 403.1: MIN. NUMBER OF REQ. PLUMBING FIXTURES					
	WATER CLOSETS		LAVATORIES	DRINKING FOUNTAINS	OTHER
	MALE	FEMALE			
EDUCATION USE (E) (INCL. EXISTING) (387 EXISTING + 46 PROPOSED = 433 OCC.)	1 PER 50	1 PER 50	1 PER 50	1 PER 100	1 SERVICE SINK
433 OCCUPANT LOAD (E)	4.34	4.34	8.66 (4.34 EA)	4.33 (5)	
REQUIRED NUMBER OF FIXTURES:	*4.34(5)	4.34 (5)	8.66 9 (5 EA)	4.33 (5)	1
TOTAL REQUIRED FIXTURES:	8 TOILETS 76 URINALS	14	23 (MIN. 5 EA)	**6	1
TOTAL PROVIDE FIXTURES IN FACILITY:					

NOTE: ALL PLUMBING FIXTURES ARE EXISTING AND ARE LOCATED IN THE EXIST. SCHOOL BUILDING LESS THAN 150'-0" FROM MODULAR UNITS.  
\* NOTE: OPC 405.3.5 ALLOWS 50% OF REQUIRED TOILETS TO BE SUBSTITUTED BY URINALS.  
\*\* THREE (E) HI-LOW ELECTRIC WATER COOLERS EQUALS 6 DRINKING FOUNTAINS.



- MODULAR UNIT NOTES**
- FOLLOWING ARE NOTES ABOUT THE USED HACC, 24'x44', MANUFACTURED MODULAR UNIT (FOR ADDITIONAL INFORMATION, REFER TO SUPPLEMENTAL INFORMATION AT THE END OF THE SET):
- OUTRIGGER FRAME DESIGN
  - DETACHABLE HITCHES
  - NYLON IMPREGNATED BOTTOM BOARD
  - 2X8 FLOOR JOISTS @ 16" O.C., W/5/8" T&G PLYWOOD DECKING, COVERED W/ 1/8" VINYL COMPOSITION TILE
  - 2X6 WOOD EXTERIOR STUDS
  - 2X4 WOOD INTERIOR STUDS
  - 1/2" VINYL COVERED GYPSUM WALLBOARD
  - GROUND SNOW LOAD: 30 PSF
  - TRUSS TYPE: BOX
  - TRUSS SPACING: 24" O.C.
  - FR-DECK
  - 45 MIL BLACK EPDM
  - CEILING IS 1/2" PRE-FINISHED C-SPRAY WITH ROSETTES, SPLINES
  - CEILING HEIGHT: 8'-0"
  - MAINLINE RIDGEBEAM
  - TWO (2) 100A ELECTRIC PANELS
  - (16) SURFACE MOUNTED FLOURESCENT LIGHTS
  - (2) BLACK PORCH LIGHTS
  - (2) COMBO LIGHTED EXIT SIGNS/EMERGENCY LIGHTS WITH BATTERY BACKUP
  - (6) EMPTY 2X4 JUNCTION BOXES W/ 3/4" CONDUIT STUBS (ALL ALARM DEVICES AND WIRING BY OTHERS). WIRE TO BE 12-2 ROMEX.
  - (2) OCCUPANCY SENSORS
  - 1 - 3 1/2 TON WALL MOUNT HEATING UNIT W/ GAS HEAT
  - PROGRAMMABLE THERMOSTAT
  - FIBERGLASS SUPPLY AND RETURN DUCTS
  - 2X4 PLENUM WALL
  - HARDI-PANEL SIDING OVER HOUSE WRAP
  - HARDI PANEL MANSARD
  - (2) 36X80 STEEL DOOR W/10 VB 20 GA DOOR AND 18 GA FRAME. STANDARD CLOSER AND PANIC HARDWARE W/ LEVER HANDLE INCLUDED
  - R-30C FLOOR INSULATION
  - R-19 WALL INSULATION
  - R-38 ROOF INSULATION

- GENERAL PLAN NOTES**
- SEE THIS SHEET AND "S" SHEETS FOR BUILDING DESIGN LOADS. ALSO REFER TO SUPPLEMENTAL MANUFACTURERS SET FOR ADDITIONAL STRUCTURAL INFORMATION.
  - ALL EXTERIOR WOOD FRAMING IS TO BE PRESSURE TREATED LUMBER AND RATED FOR EXTERIOR USE OR GROUND CONTACT DEPENDING ON ITS LOCATION.
  - SCHOOL IS RESPONSIBLE TO PROVIDE ALL APPLICABLE SIGNAGE IN COMPLIANCE WITH ANSI A117.1 GUIDELINES.
  - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION PERTAINING TO A SPECIFIC ITEM OR MATERIAL.
  - REFER TO SUPPLEMENTAL MANUFACTURERS SET FOR ADDITIONAL MODULAR UNIT INFORMATION INCLUDING, BUT NOT LIMITED TO ELEVATIONS, BUILDING SECTION, MECHANICAL, ETC. FOR COORDINATION WITH THESE DRAWINGS.
- PLAN KEYED NOTES**
- NOTE: NOT ALL NOTES MAY APPLY TO THIS SHEET.
- 1 1/2" DIA. STL. PIPE HANDRAIL, MTD. W/ CNTR. @2'-10" A.F.F..
  - TOP OF GUARD RAIL TO BE 42" ABOVE FINISH FLOOR.
  - 4" CONCRETE SLAB-ON-GRADE POURED FOR APPROACHES TO STAIRS AND RAMP AS SHOWN.
  - 4X4 PRESSURE TREATED (PRT) WOOD POST, TYPICAL (SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS).
  - HC ENTRANCE RAMP CREATED WITH PRT WOOD AT A MAX. 1:12 SLOPE UP TO MODULAR UNIT ENTRY.
  - WOOD PLATFORM AT THE TOP OF STAIRS AND RAMP CONSTRUCTED USING 2X PRT FRAMING AND 2X6 PRT DECKING (SEE STRUCTURAL DRAWINGS AND SHEET A701).
  - INFORMATION FOR THIS SECTION OR ELEVATION IS LOCATED IN THE SUPPLEMENTAL DRAWINGS INCLUDED WITH THIS SUBMISSION.
  - LOCATION OF BRAILLE EXIT SIGNAGE (SEE DETAIL C3/A101).
  - C&T-IN-PLACE SLOPED CONCRETE APPROACH RAMP AT A MAX. 1:12 SLOPE UP TO WOOD RAMP. SEE DETAILS ON SHEET A701.
  - HVAC UNIT SUPPLIED WITH MODULAR. INDIVIDUAL TRADES TO MAKE CONNECTIONS TO THE UNIT FROM THE NEARBY EXISTING SCHOOL BUILDING FOR GAS LINE, ELECTRIC, AND FIRE ALARM. SEE MECHANICAL SHEETS AND SUPPLEMENTAL MODULAR UNIT DRAWINGS FOR MORE INFORMATION.
  - PROPOSED GAS LINE LOCATION FOR UNIT.
  - FIRE EXTINGUISHER, WALL BRACKET MOUNTED.
  - FIELD INSTALLED WOOD COLUMN (SEE SUPPLEMENTAL DRAWINGS FOR DETAILS).

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Expiration Date 12/31/2023

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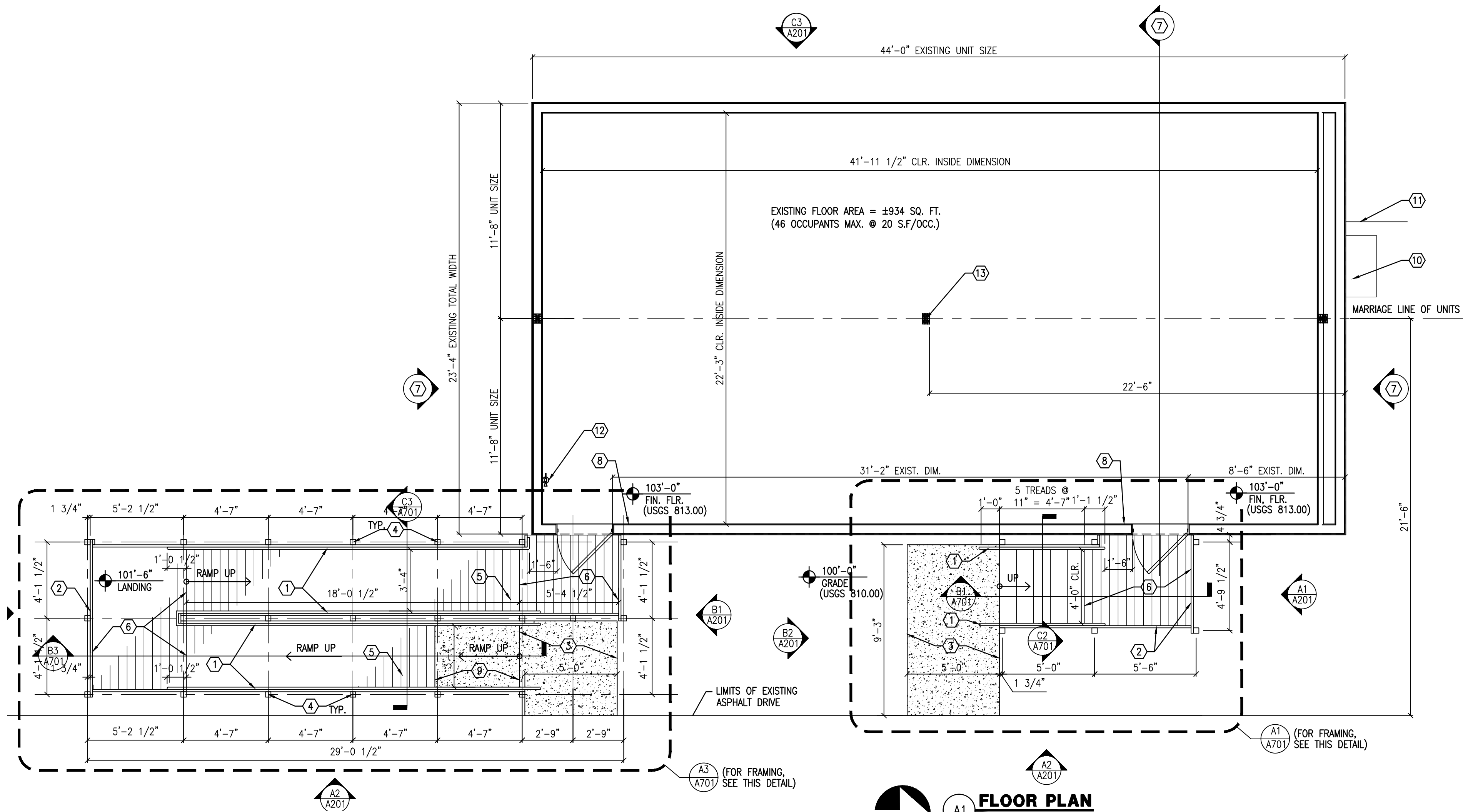
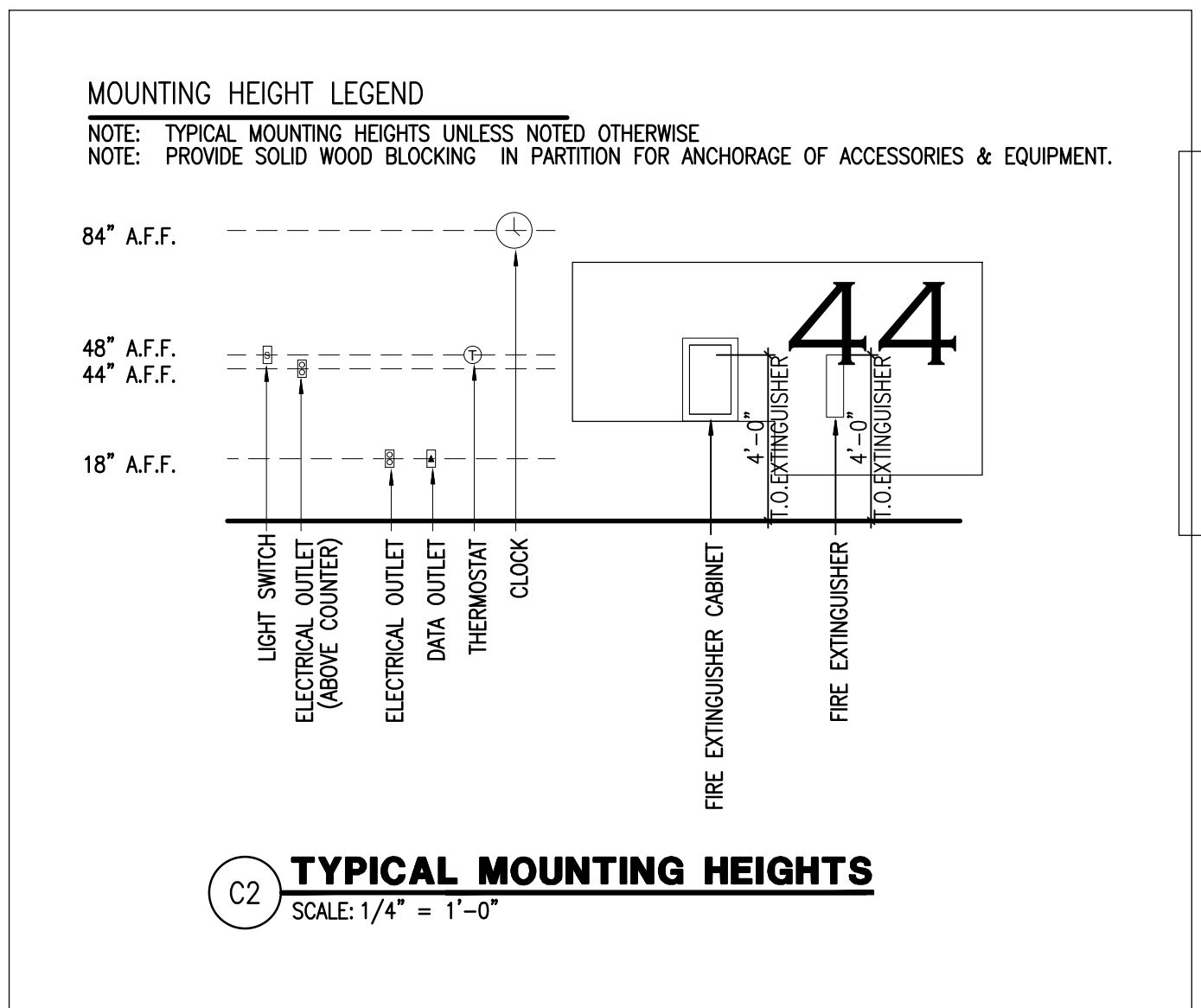
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REVISIONS

**FLOOR PLAN,  
SCHEDULES &  
NOTES**

**A101**  
OF . SHEETS

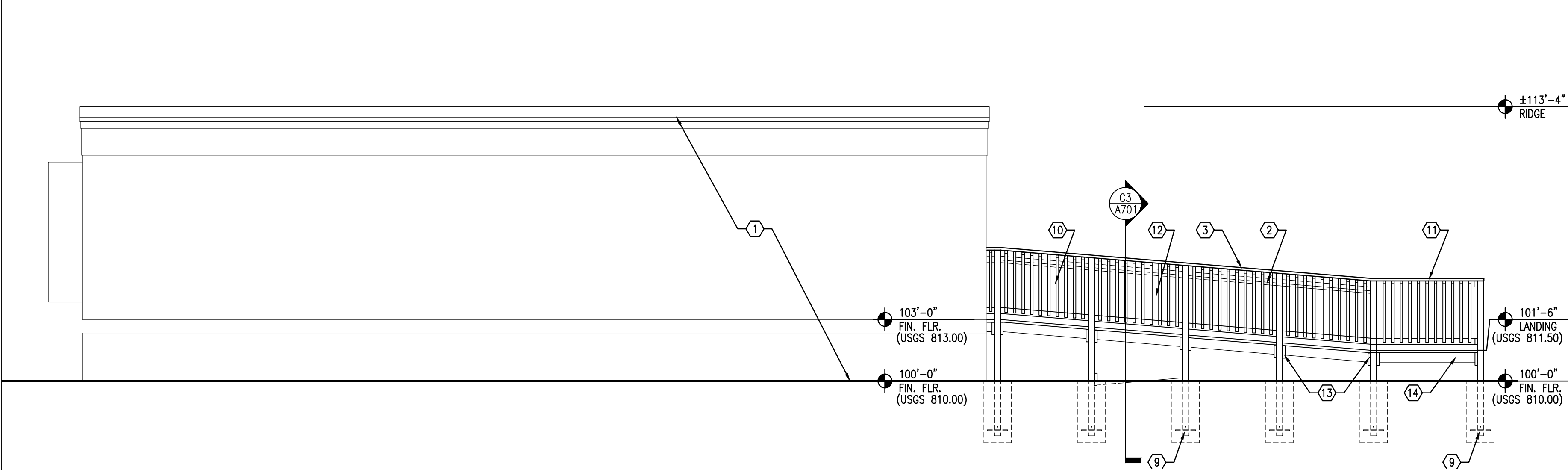
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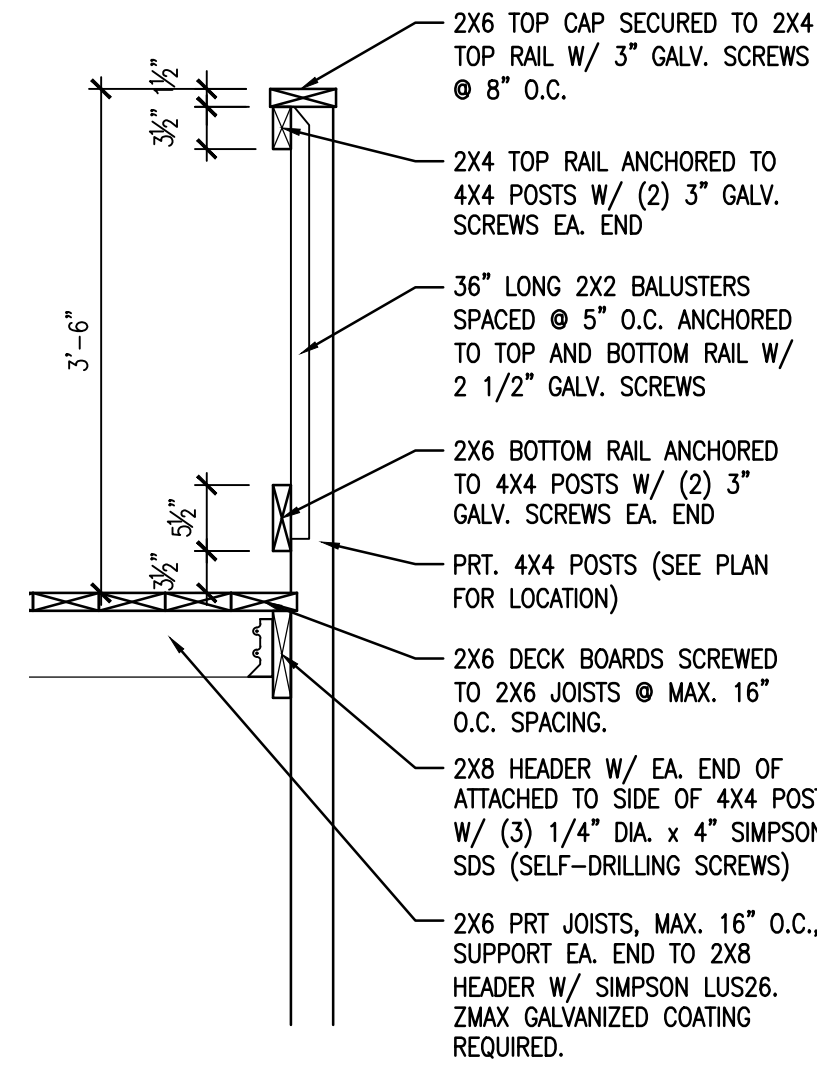
**FLOOR PLAN**  
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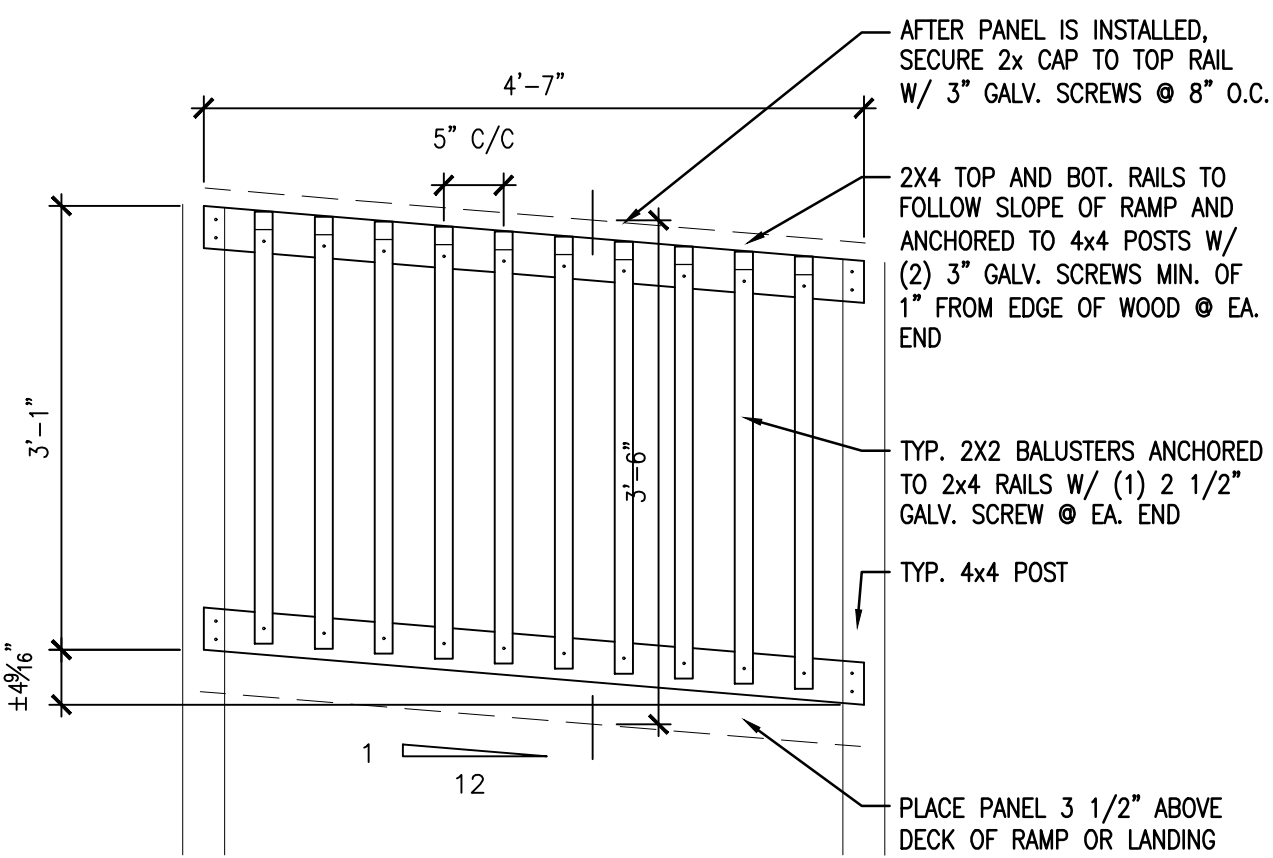
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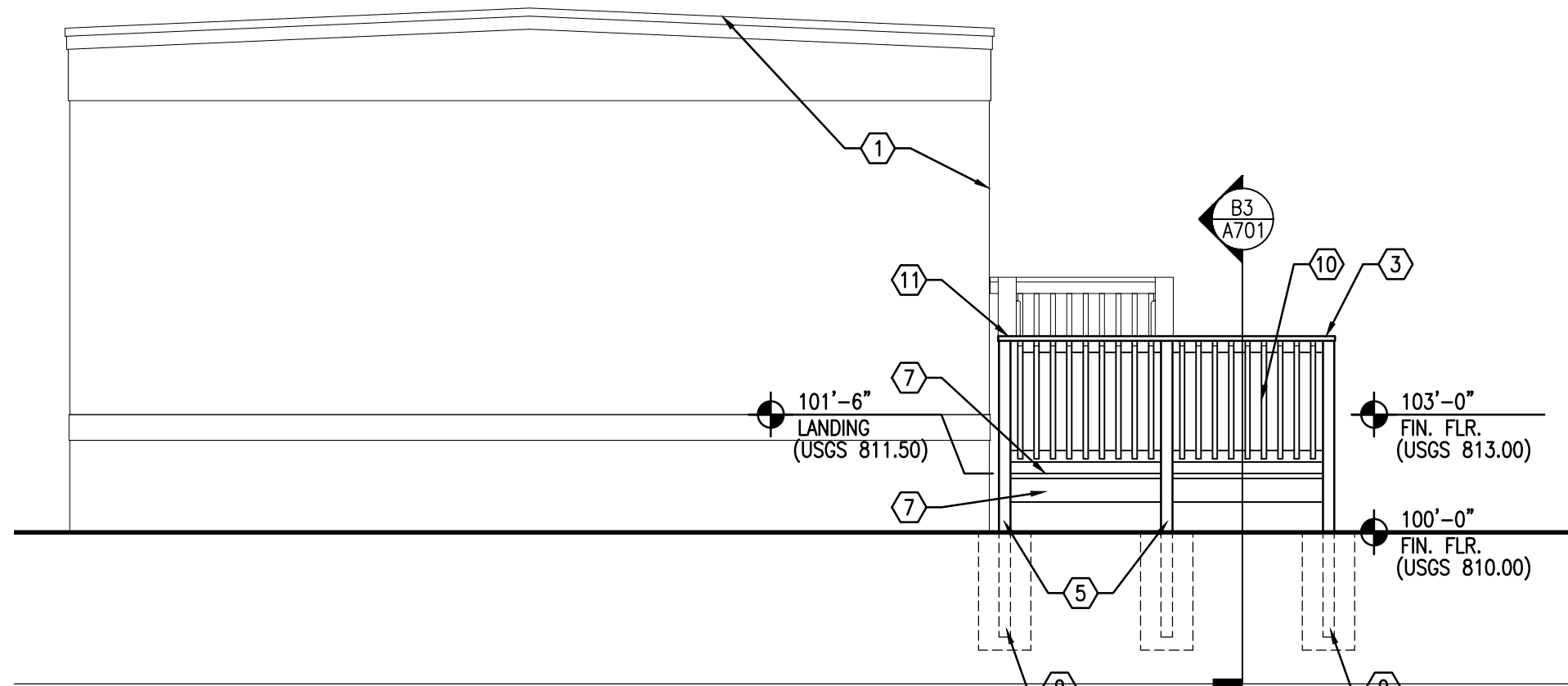
C3 **WEST ELEVATION**  
SCALE: 1/4" = 1'-0"



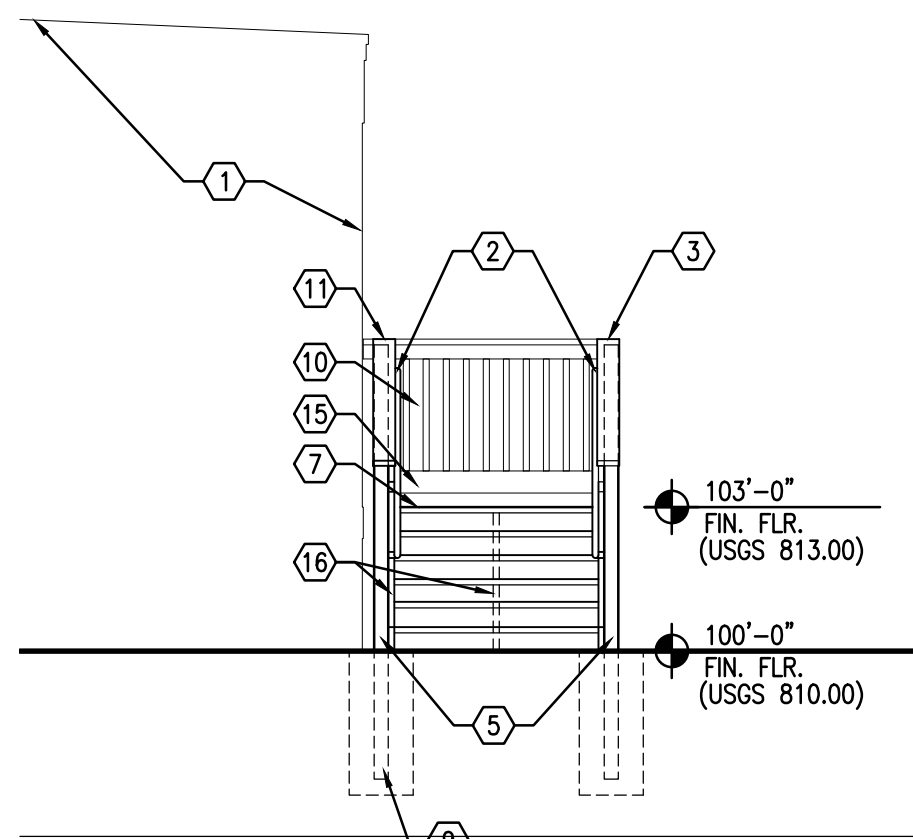
C2 **TYP. GUARD RAIL DETAIL**  
SCALE: 3/4" = 1'-0"



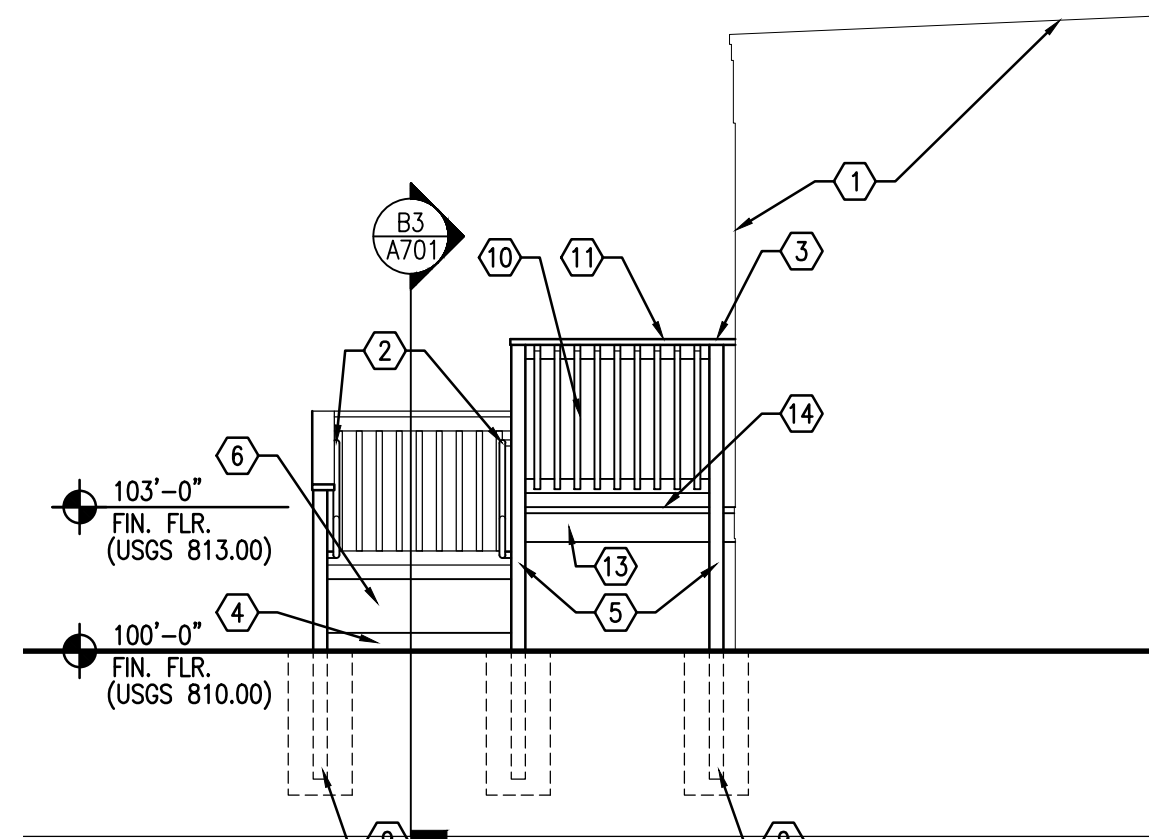
B5 **TYP. RAILING PANEL DETAIL**  
SCALE: 3/4" = 1'-0"



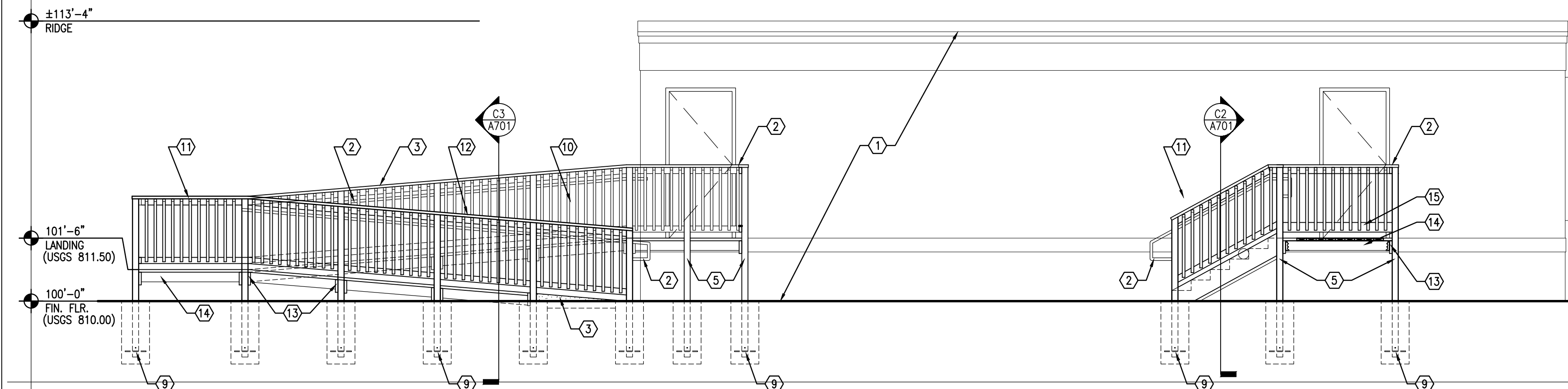
B4 **SOUTH ELEVATION**  
SCALE: 1/4" = 1'-0"



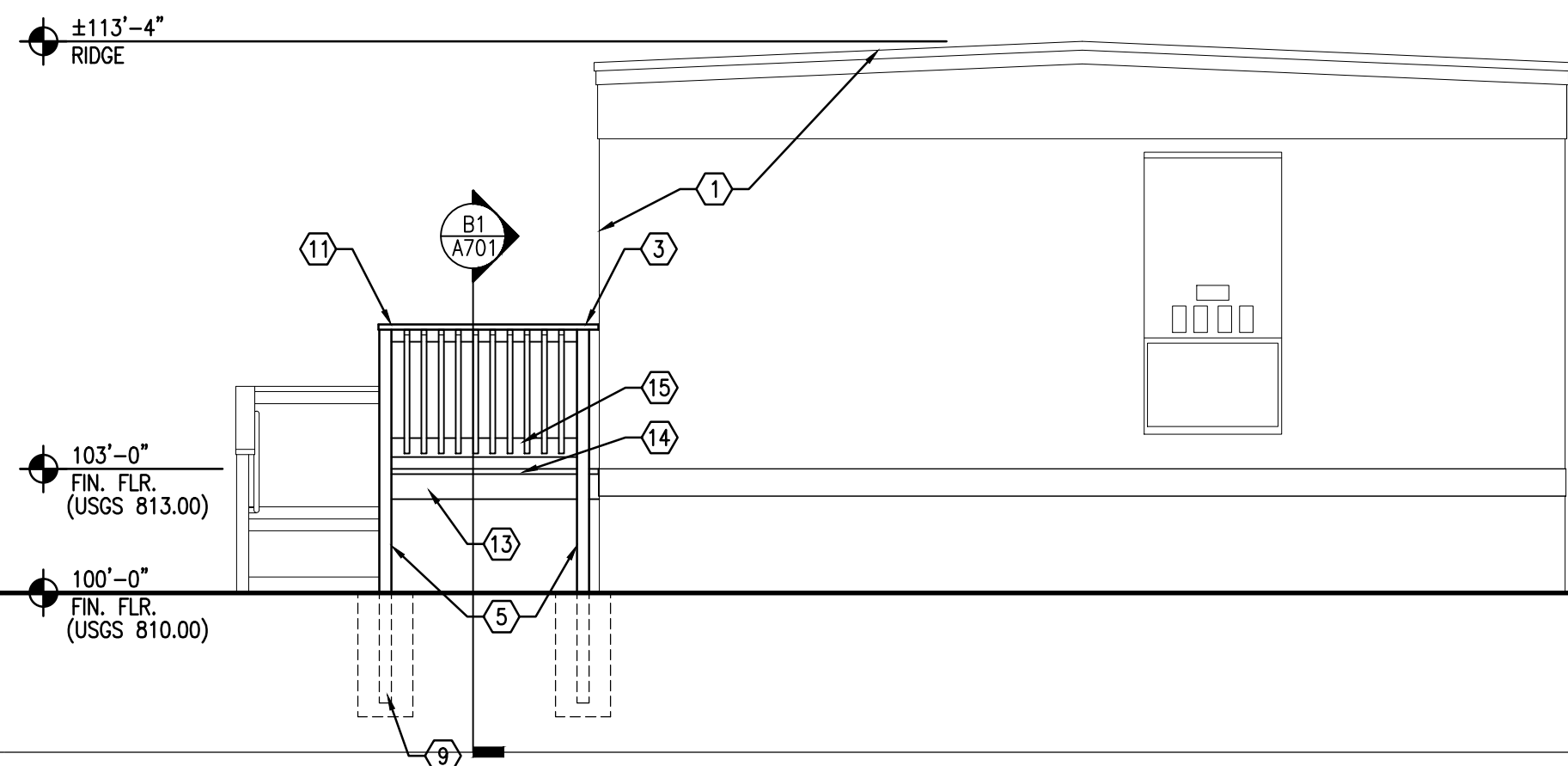
B2 **SOUTH STAIR ELEVATION**  
SCALE: 1/4" = 1'-0"



B1 **NORTH RAMP ELEVATION**  
SCALE: 1/4" = 1'-0"



A2 **EAST ELEVATION**  
SCALE: 1/4" = 1'-0"



A1 **NORTH ELEVATION**  
SCALE: 1/4" = 1'-0"

## GENERAL PLAN NOTES

- SEE THIS SHEET AND "S" SHEETS FOR BUILDING DESIGN LOADS. ALSO REFER TO SUPPLEMENTAL MANUFACTURERS SET FOR ADDITIONAL STRUCTURAL INFORMATION.
- SEE ROOM FINISH SCHEDULE & SPECIFICATIONS FOR INTERIOR FINISH SPECIFICATIONS.
- SCHOOL IS RESPONSIBLE TO PROVIDE ALL APPLICABLE SIGNAGE IN COMPLIANCE WITH ANSI A117.1 GUIDELINES.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION PERTAINING TO A SPECIFIC ITEM OR MATERIAL.
- REFER TO SUPPLEMENTAL MANUFACTURERS SET FOR ADDITIONAL MODULAR UNIT INFORMATION INCLUDING, BUT NOT LIMITED TO ELEVATIONS, BUILDING SECTION, MECHANICAL, ETC. FOR COORDINATION WITH THESE DRAWINGS.

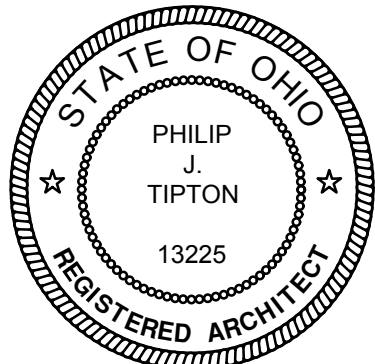
## ELEVATION KEYED NOTES

NOTE: NOT ALL NOTES MAY APPLY TO THIS SHEET.

- LIMITS OF TEMPORARY MODULAR CLASSROOM UNIT.
- 1 1/2" DIA. STL. PIPE HANDRAIL, MTD. W/ CNTR. @2'-10" A.F.F. EA. SIDE OF STAIR OR RAMP.
- TOP OF GUARD RAIL TO BE 42" ABOVE FINISH FLOOR.
- 4" CONCRETE SLAB-ON-GRADE POURED FOR APPROACHES TO STAIRS AND RAMP AS SHOWN.
- 4x4 PRESSURE TREATED (PRT) WOOD POST, TYPICAL (SEE STRUCTURAL DRAWINGS FOR ANCHORING DETAILS).
- HC ENTRANCE RAMP CREATED WITH PRT WOOD AND AT A MAX. 1:12 SLOPE UP TO MODULAR UNIT ENTRY.
- PRT WOOD PLATFORM AT THE TOP OF STAIRS AND RAMP CONSTRUCTED USING 2X PRT FRAMING AND DECKING (SEE STRUCTURAL DRAWINGS).
- INFORMATION FOR THIS SECTION OR ELEVATION IS LOCATED IN THE SUPPLEMENTAL DRAWINGS INCLUDED WITH THIS SUBMISSION.
- CONC. FOUNDATION PIERS, TYP. (SEE STRUCTURAL DRAWINGS).
- 2X2 BALUSTERS SPACED 5" O.C. (SEE DETAIL B5/A201 FOR RAILING PANEL CONSTRUCTION).
- 2X6 GUARD RAIL TOP CAP (TYP.)
- 2x4 GUARD RAIL TOP CAP ONLY AT MIDDLE COLUMN ROW @ LOWER RAIL HEIGHT (SEE SECTION C3/A701).
- 2x8 HEADER PLACED BOTH SIDES OF INTERMEDIATE 4x4 POSTS AND ONE SIDE AT PERIMETER POSTS, TYP.
- 2x6 DECK BROS. SCREWED TO 2x6 FLOOR JOISTS SPACED @ 1'-4" MAX. SPACING, TYP.
- 2x6 BOT. RAIL OF GUARD ONLY @ STAIR LANDING
- 2x12 STRINGER, TYP. OF (3).

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PHILIP J. TIPTON, LICENSE #13225  
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REVISIONS

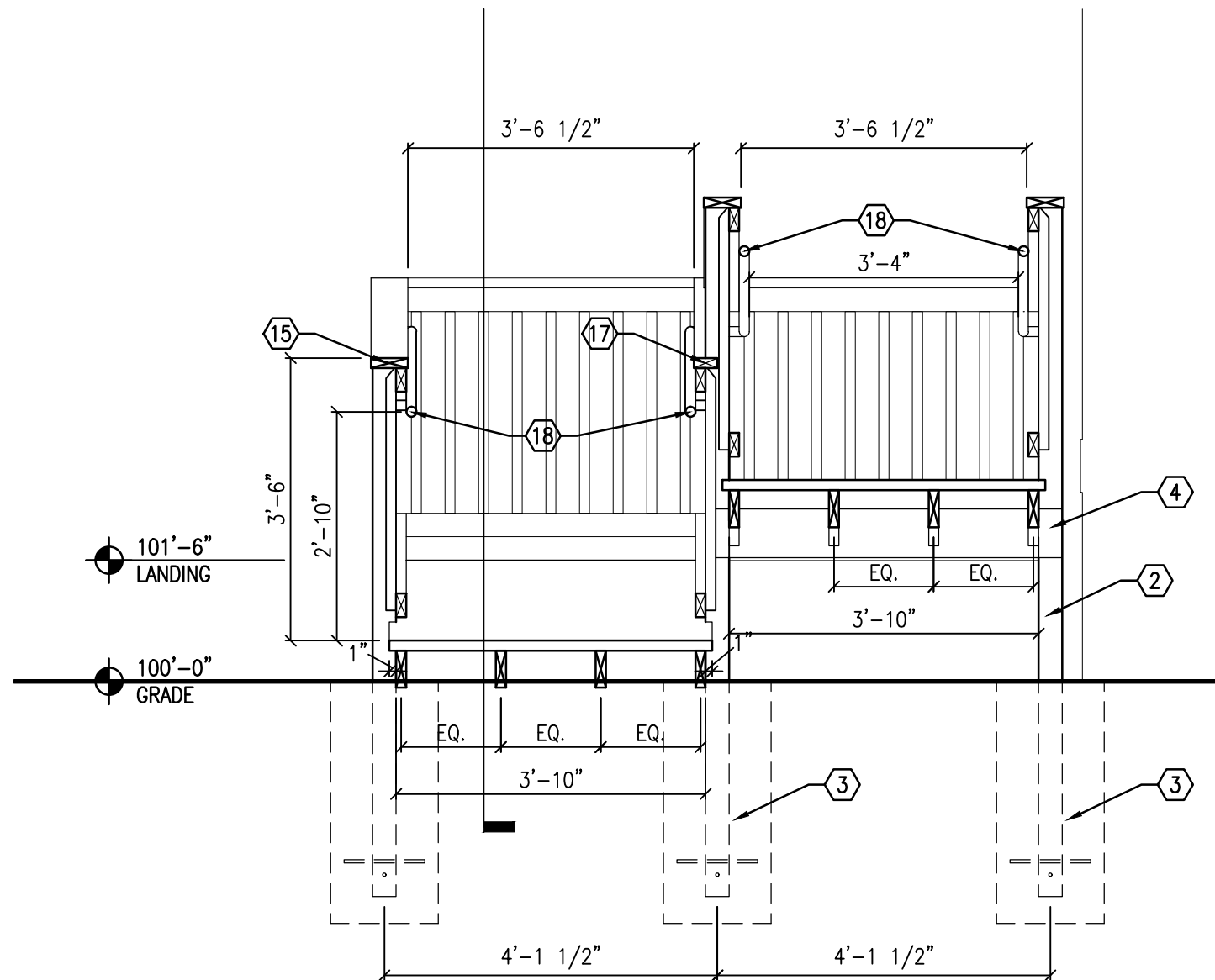
**MODULAR UNIT  
ELEVATIONS**

**A201**

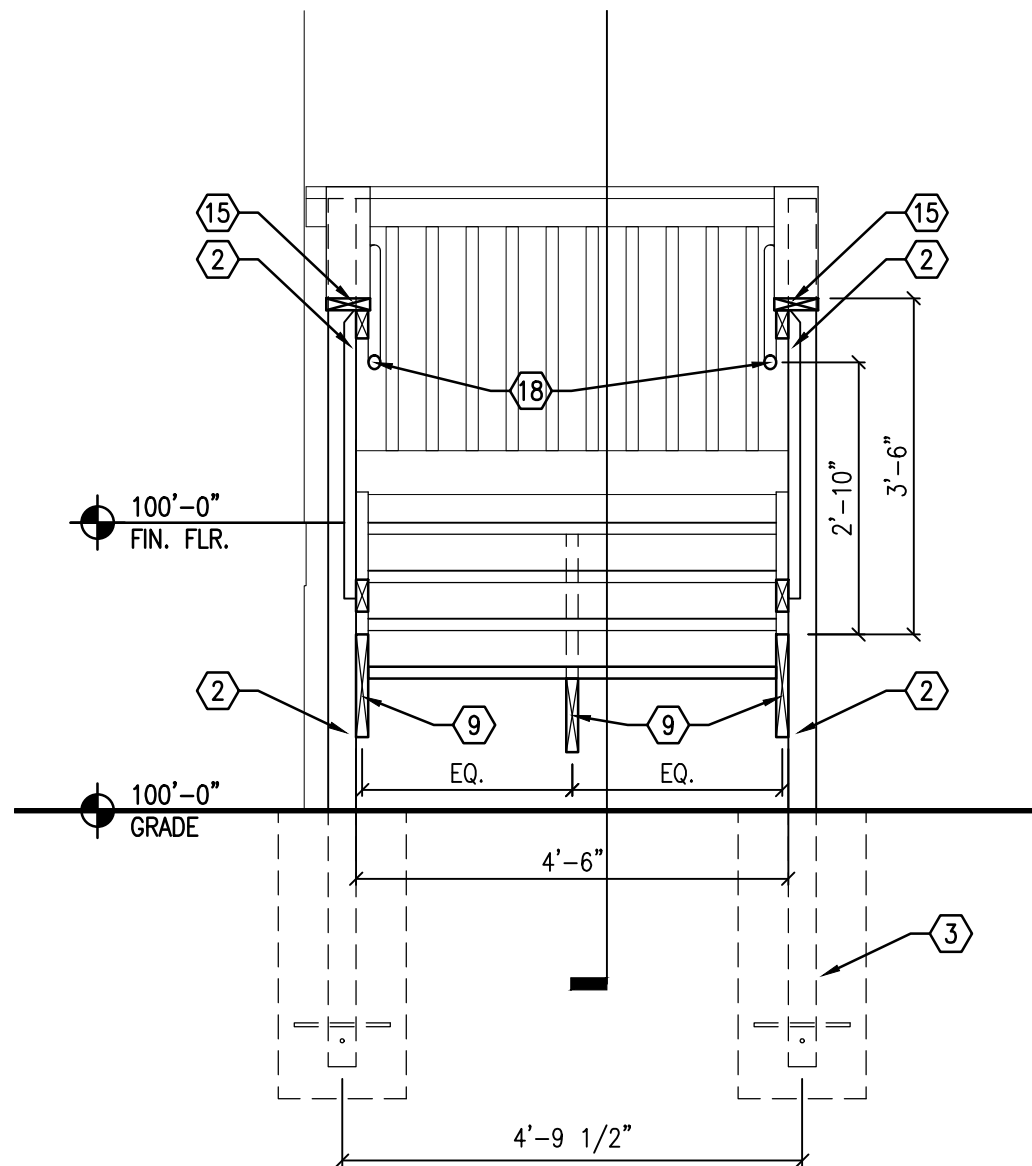
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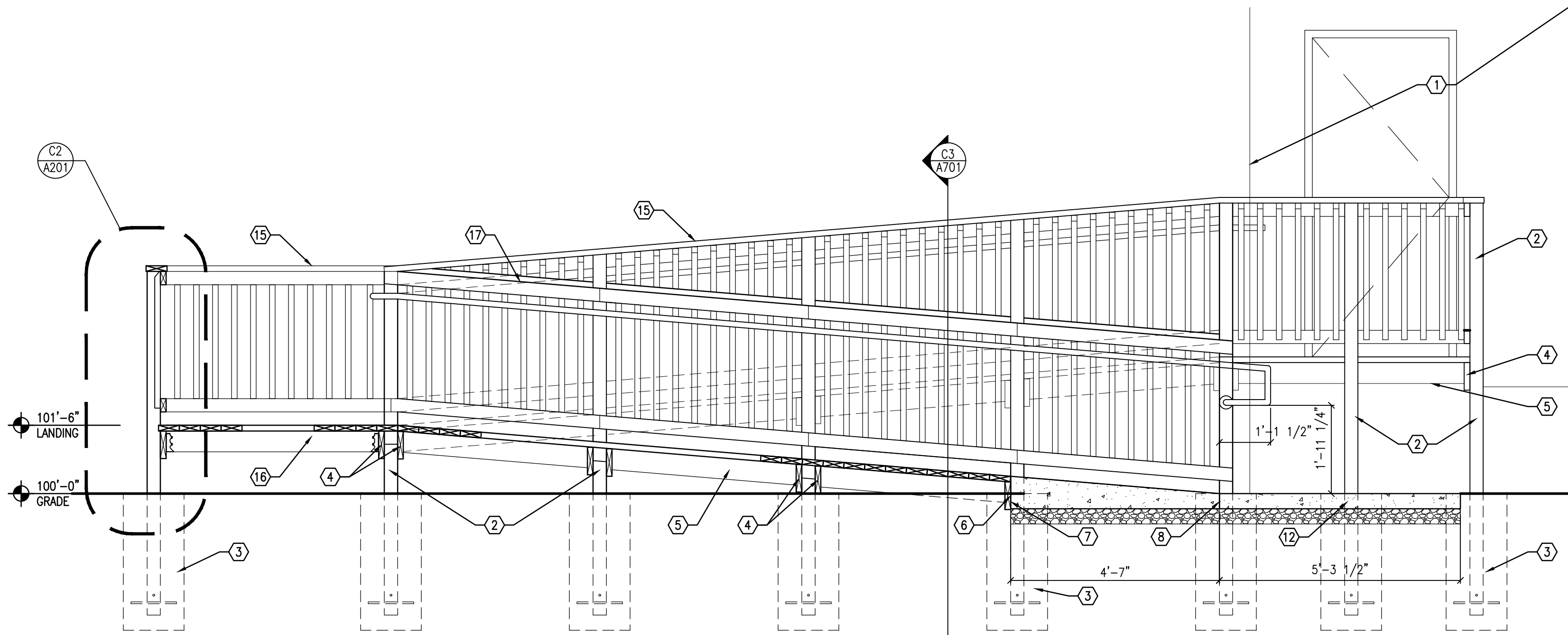




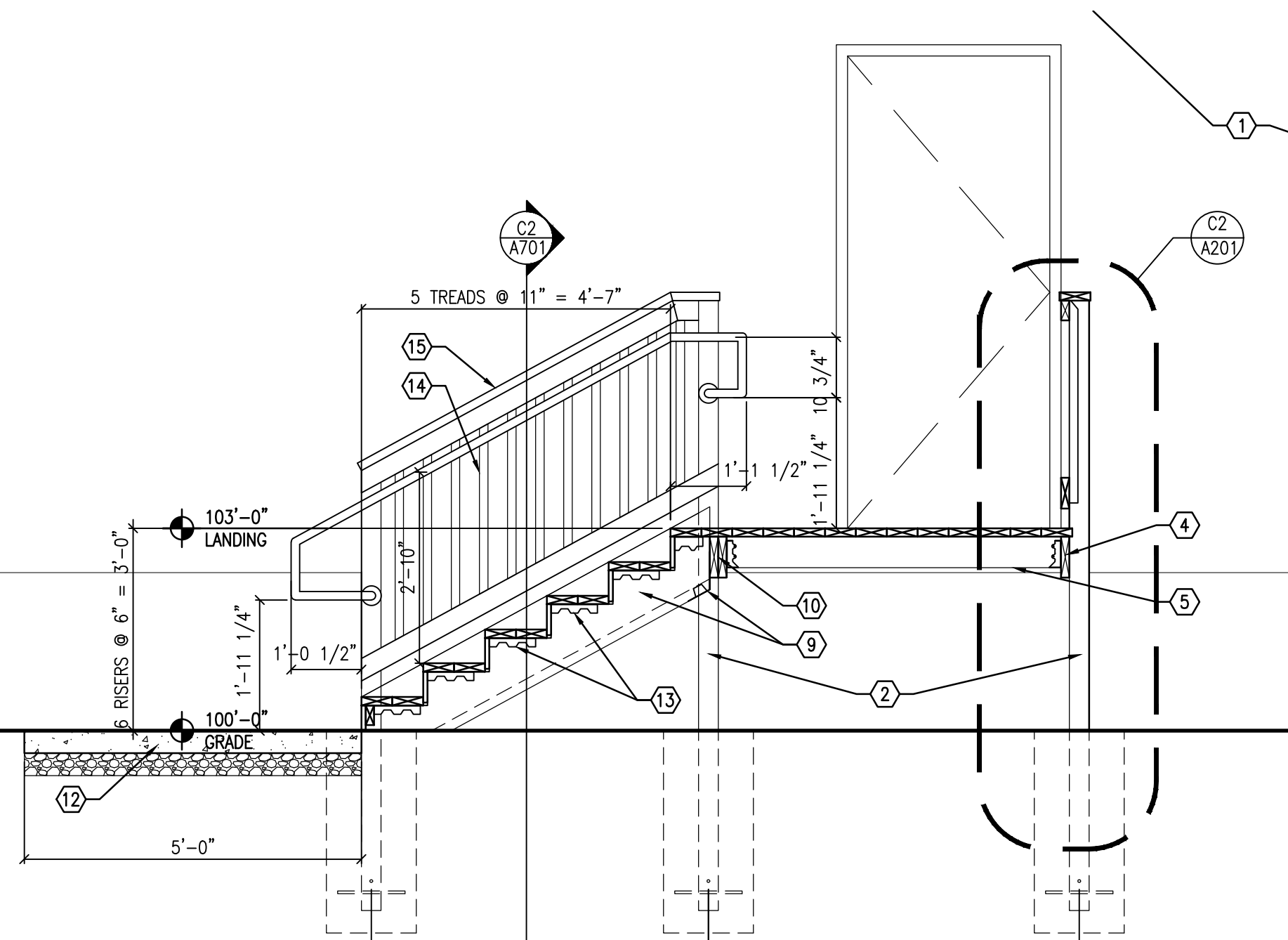
**C3 RAMP SECTION**  
SCALE: 1/2" = 1'-0"



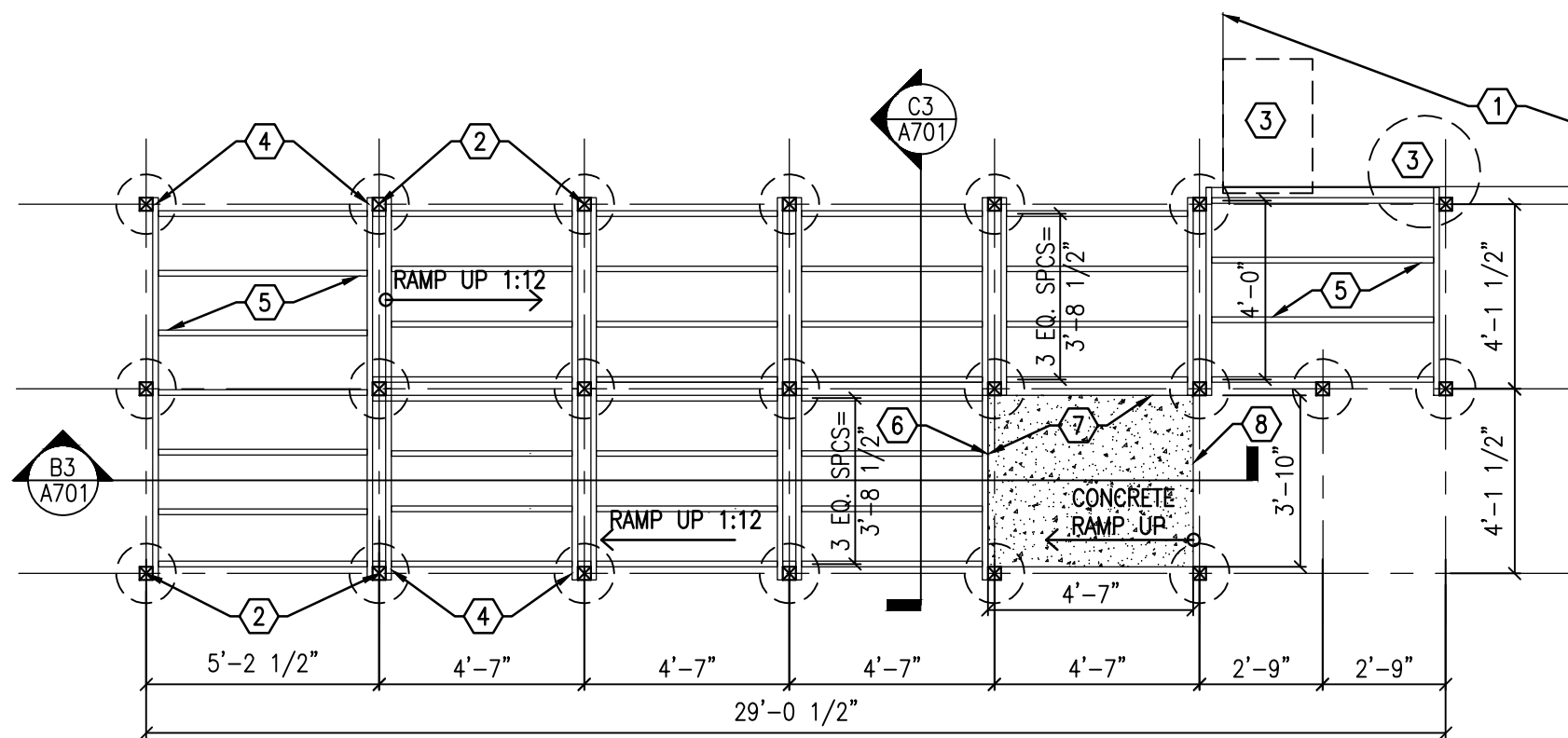
**C2 STAIR SECTION**  
SCALE: 1/2" = 1'-0"



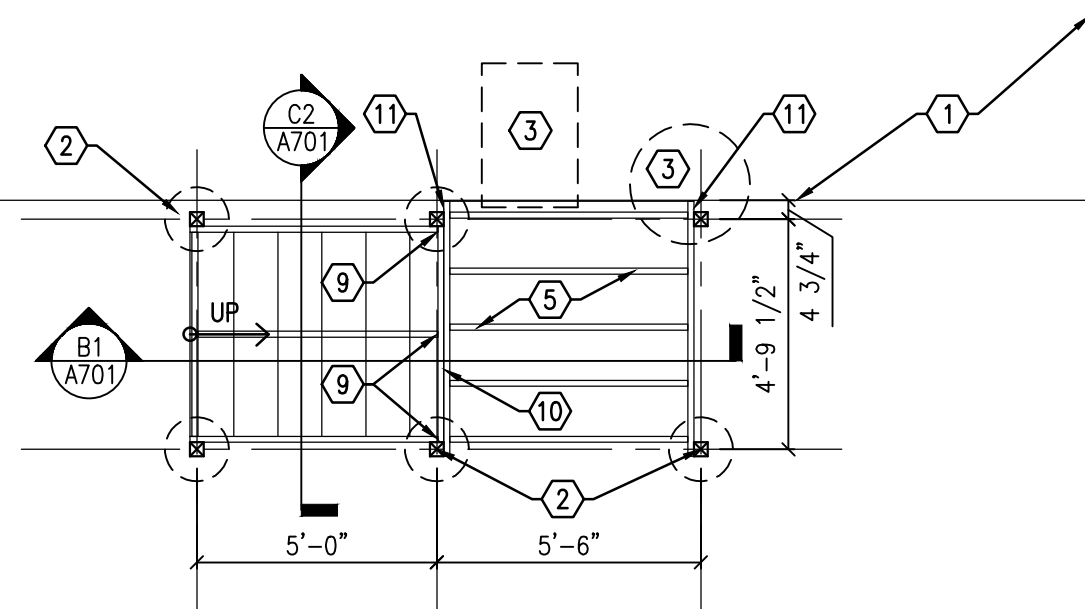
**B3 RAMP SECTION**  
SCALE: 1/2" = 1'-0"



**B1 STAIR SECTION**  
SCALE: 1/2" = 1'-0"



**A3 RAMP FRAMING PLAN**  
SCALE: 1/4" = 1'-0"



**A1 STAIR FRAMING PLAN**  
SCALE: 1/4" = 1'-0"

**KEYED NOTES**

NOTE: NOT ALL NOTES MAY APPLY TO THIS SHEET.

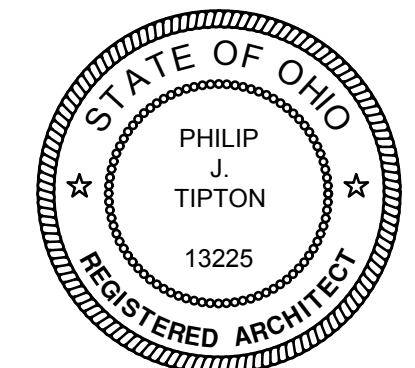
- LIMITS OF MODULAR UNIT
- TYP. 4X4 PRT. POST RATED FOR GROUND CONTACT EMBEDDED IN CONCRETE PIER. PLACE (2) 12" LONG #4 REBAR @ BOTTOM OF POST, 90° OPPOSED TO EACH OTHER FOR UPLIFT. WRAP BOTTOM OF POST THAT WILL BE ENCASED IN CONCRETE WITH PLASTIC TO PREVENT POST FROM ABSORBING WATER FROM CONCRETE (SEE STRUCTURAL SHEETS FOR MORE INFORMATION).
- TYP. CAST IN PLACE CONC. FOOTING (SEE STRUCTURAL SHEETS FOR MORE INFORMATION).
- TYP. 2X8 TREATED HEADER, PLACING (1) 2X8 EACH SIDE OF 4X4 WOOD POSTS, ONLY ONE SIDE AT PERIMETER POSTS. ATTACH EA. END OF HEADER TO SIDE OF POST W/ (3) 1/4" DIA. x 4" LONG SIMPSON SDS (SELF-DRILLING SCREWS).
- TYP. 2X6 TREATED WOOD JOISTS SPACED AT 16" O.C. MAX SPACING (SEE PLAN). SUPPORT EA. END OF JOISTS TO 2X8 HEADER W/ SIMPSON LUS26 (NOT LUS26). ZMAX GALVANIZED COATING REQUIRED. FRAMING OF WOOD PORTION OF RAMP TO START AT THIS LOCATION. 2X8 BRD. TO BE ANCHORED TO 4X4 POSTS WITH 2X6 DECK BRD. IN PLACE BEFORE FOOTING IS POURED AROUND POST.
- 2X WOOD FORMS FOR CONCRETE APPROACH RAMP PLACED AFTER WOOD FRAMING OF RAMP INSTALLED.
- CONCRETE APPROACH RAMP @ 1:12 SLOPE STARTING AT THIS POINT.
- 2X12 WOOD STAIR STRINGER ANCHORED TO DBL. 2X8 HEADER USING SIMPSON LSCZ ADJUSTABLE STAIR STRINGER CONNECTOR W/ Z-MAX FINISH. OUTER STRINGERS TO ALSO BE SECURED TO 4X4 POSTS W/ (3) 1/4" DIA. x 4" LONG SIMPSON SDS (SELF-DRILLING SCREWS).
- 2X8 HEADER ANCHORED TO 4X4 POSTS AND SHORTER 2X8 BLOCKING SCREWED TO IT CREATING DBL. HEADER @ TOP OF STAIRS.
- 2X8 HEADER TO EXTEND PAST 4X4 POST TO THE MODULAR UNIT @ THIS LOCATION TO ALLOW 2X6 BRACKET TO BE SECURED.
- 4" CONC. WALK/APPROACH OVER 4" GRAVEL BASE.
- SIMPSON STAIR ANGLE @ EA. END OF STAIR TREADS @ OUTER STRINGERS ONLY.
- 2X2 BALUSTERS SPACED @ 5" O.C., TYP. (SEE GUARD RAILING PANEL DETAIL BS/A201 FOR MORE INFORMATION).
- 2X6 TOP RAIL CAP SECURED TO 2X4 TOP RAIL W/ SCREWS @ 8" O.C., TYP.
- LANDING 2X6 JOISTS TO BE SUPPORTED ON EA. END USING SIMPSON LUS26 JOIST HANGERS @ EA. END, INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- 2X4 TOP RAIL CAP ONLY @ INTERMEDIATE LOWER GUARD RAIL, BETWEEN 4X4 POSTS, SECURED TO 2X4 TOP RAIL W/ SCREWS @ 8" O.C., TYP.
- 1 1/2" STEEL HANDRAIL PLACED @ 2'-10" TO CENTER OF RAILING ABOVE STAIR NOSING OR RAMP DECK. RAILING TO CONTINUE BEYOND UPPER AND LOWER LANDINGS AS REQUIRED TO MEET ANSI A117.1.

**GENERAL NOTES**

- SEE THIS SHEET AND "S" SHEETS FOR BUILDING DESIGN LOADS. AND OTHER DETAIL INFORMATION. ALSO REFER TO SUPPLEMENTAL MANUFACTURERS SET FOR ADDITIONAL INFORMATION CONCERNING MODULAR UNIT.
- ALL EXTERIOR WOOD FRAMING IS TO BE PRESSURE TREATED LUMBER AND RATED FOR EXTERIOR USE OR GROUND CONTACT DEPENDING ON ITS LOCATION.
- SCHOOL IS RESPONSIBLE TO PROVIDE ALL APPLICABLE SIGNAGE IN COMPLIANCE WITH ANSI A117.1 GUIDELINES.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION PERTAINING TO A SPECIFIC ITEM OR MATERIAL.
- REFER TO SUPPLEMENTAL MANUFACTURERS SET FOR ADDITIONAL MODULAR UNIT INFORMATION INCLUDING, BUT NOT LIMITED TO ELEVATIONS, BUILDING SECTION, MECHANICAL, ETC. FOR COORDINATION WITH THESE DRAWINGS.
- DECK BOARDS FOR STAIRS, LANDINGS, AND RAMP TO BE PRT 2X6 BOARDS SCREWED TO SUPPORTING FRAMING WITH CORROSION RESISTANT 3" DECK SCREWS, (2) @ EA. HEADER OR JOIST.

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REVISIONS

**STAIR AND RAMP  
DETAILS AND  
NOTES**

**A701**  
OF . SHEETS

**223223**



<div>DIVISION 01 – GENERAL REQUIREMENTS</div> <div><div><div><div>1. PROJECT SPECIFICATIONS HAVE BEEN INCORPORATED INTO THE DRAWINGS.</div><div>2. THE DRAWINGS HAVE BEEN ARRANGED TO SHOW THE EXTENT OF WORK INVOLVED AND ARE NOT INTENDED TO DEFINE ANY COMPLETE SUB-CONTRACT. EACH CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR, SUPERVISION, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY TO PROVIDE ANY WORK REQUIRED TO COMPLETE THE PORTION OF SAID SCOPE IN A WORKMANLIKE MANNER. NO ALLOWANCE WILL BE MADE TO A CONTRACTOR/SUPPLIER DUE TO A LACK OF SUCH DETAILED OR KNOWLEDGE. THE SUBMISSION OF A PROPOSAL WILL BE CONSIDERED AS CONCLUSIVE EVIDENCE THAT THE BIDDER HAS MADE SUCH EXAMINATION.</div><div>3. BEFORE SUBMITTING A PROPOSAL, EACH CONTRACTOR/SUPPLIER SHALL CAREFULLY EXAMINE THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS, VISIT THE SITE, FULLY INFORM HIMSELF PRIOR TO BIDDING AS TO EXISTING CONDITIONS AND LIMITATIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND SHALL INCLUDE IN HIS PROPOSAL A SUM TO COVER THE COST OF ITEMS AND EQUIPMENT NECESSARY TO PERFORM THE WORK AS SET FORTH IN THE CONTRACT DOCUMENTS. NO ALLOWANCE WILL BE MADE TO A CONTRACTOR/SUPPLIER DUE TO A LACK OF SUCH DETAILED OR KNOWLEDGE. THE SUBMISSION OF A PROPOSAL WILL BE CONSIDERED AS CONCLUSIVE EVIDENCE THAT THE BIDDER HAS MADE SUCH EXAMINATION.</div><div>4. CONTRACTORS/SUPPLIERS SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY AMBIGUITY, INCONSISTENCY OR ERROR, WHICH THEY MAY DISCOVER UPON EXAMINATION OF THE BIDDING DOCUMENTS OR OF SITE AND LOCAL CONDITIONS.</div><div>5. THE GENERAL CONTRACTOR SHALL PROVIDE OVERALL SUPERVISION AND COORDINATION AMONG CONTRACTORS AND PROVIDE GENERAL CONDITIONS AS REQUIRED.</div><div>6. THE GENERAL CONTRACTOR SHALL OBTAIN AND INITIALLY PAY FOR ALL REQUIRED BUILDING AND MAINLINE UTILITY SERVICE FEES, PERMITS AND ASSESSMENTS. AFTER ALL FEES, PERMITS AND ASSESSMENTS ARE PAID, THE CONTRACTOR WILL PRESENT THE PAID RECEIPTS TO THE OWNER FOR FULL REIMBURSEMENT. WHEN FEES EXCEED \$50,000.00 THE OWNER IS REQUIRED TO ADVANCE THE FEE AMOUNT TO THE CONTRACTOR BEFORE PAYMENT IS MADE TO THE RESPECTIVE BUILDING AUTHORITIES. EXAMPLES OF VARIOUS FEES AND ASSESSMENTS ARE, BUT ARE NOT LIMITED TO, THE FOLLOWING:<div><div>A. SIDEWALK PERMIT</div><div>B. CURB CUT PERMIT</div><div>C. WATER TAP</div><div>D. WATER FRONT FOOTAGE CHARGE</div><div>E. WATER METER</div><div>F. WATER METER</div><div>G. STORM SEWER</div><div>H. STORM SEWER INSPECTION (STANDBY)</div><div>I. SANITARY SEWER TIE</div><div>J. SANITARY SEWER SYSTEM CAPACITY CHARGE</div><div>K. SANITARY SEWER INSPECTION (STANDBY)</div><div>L. EXCESS FACILITIES COSTS FOR GAS, ELECTRIC AND TELEPHONE</div><div>M. ADD TO CONSTRUCTION (ELECTRICAL)</div></div></div><div>7. PERMITS AND INSPECTIONS FEES FOR PLUMBING, HEATING, VENTILATING, AIR CONDITIONING, ELECTRICAL, FIRE ALARM SYSTEMS, FIRE SUPPRESSION SYSTEMS, ETC. TO BE APPLIED AND PAID FOR BY THEIR RESPECTIVE SUB-CONTRACTORS.</div><div>8. ALL WORK PROPOSALS SHALL INCLUDE INSTALLATION ACCORDING TO GOVERNING CODES AND TRADE STANDARDS.</div><div>9. COPIES OF PERMITS, APPROVED SHOP DRAWINGS, AND A COMPLETE SET OF CONTRACT DRAWINGS MARKED UP TO DATE WITH ALL REVISIONS SHALL BE KEPT ON SITE.</div><div>10. EACH CONTRACTOR IS RESPONSIBLE FOR KEEPING A SET OF RECORD DRAWINGS COVERING THE SCOPE OF HIS WORK. THESE RECORD DRAWINGS ARE TO BE KEPT CURRENT AS JOB PROGRESSES AND MUST BE TURNED OVER TO THE GENERAL CONTRACTOR AT THE COMPLETION OF THE PROJECT BEFORE FINAL RETAINAGE WILL BE PAID.</div><div>11. EACH CONTRACTOR SHALL BE FAMILIAR WITH THE ENTIRE SCOPE OF THE PROJECT AND SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THAT OF OTHER CONTRACTORS</div><div>12. EACH CONTRACTOR REQUIRING INSPECTIONS SHALL ARRANGE AND SECURE ALL NECESSARY INSPECTIONS.</div><div>13. ALL WORK SHALL COMPLY WITH THE LATEST EDITIONS OF THE 2017 OHIO BUILDING CODE, THE NFPA CODE, THE NATIONAL BUILDING AND ELECTRICAL CODE, O.S.H.A., AND ALL OTHER NATIONAL, STATE AND LOCAL CODES AND ORDINANCES HAVING JURISDICTION OVER THIS PROJECT.</div><div>14. FURNISH ALL MATERIAL AND EQUIPMENT AS SPECIFIED, EXCEPT WHERE APPROVAL FOR SUBSTITUTION HAS BEEN GRANTED BY THE ARCHITECT AND/OR OWNER.</div><div>15. ALL CONTRACTORS SHALL PROVIDE ANY TEMPORARY SIGNAGE AND BARRICADES AS NECESSARY TO PROTECT THE BUILDING INHABITANTS AND PUBLIC FROM THE WORK AND STAGING AREAS.</div><div>16. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS THAT MAY BE AFFECTED BY THE WORK. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO DIMENSIONS AS REQUIRED TO PERFORM THE WORK.</div><div>17. EACH CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN ALL TEMPORARY BRACING REQUIRED FOR AVOIDING COLLAPSE DURING CONSTRUCTION FOR THEIR PARTICULAR PHASE OF WORK.</div><div>18. ALL WORK SHALL BE DONE BY SKILLED CRAFTSMEN AND SHALL BE OF HIGHEST QUALITY IN ACCORDANCE WITH THE BEST PRACTICES OF EACH RESPECTIVE TRADE.</div><div>19. CONTRACTORS SHALL FOLLOW MATERIAL MANUFACTURER'S RECOMMENDATIONS FOR STORAGE AND INSTALLATION OF THEIR PRODUCTS. ANY DEVIATION FROM MANUFACTURER'S DIRECTIONS SHALL BE MADE AT THE CONTRACTOR'S RISK.</div><div>20. ALL PATCH WORK SHALL BE CONSISTENT WITH ADJOINING SURFACES.</div><div>21. ALL ROUGH OPENINGS AND EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S SPECIFICATIONS PRIOR TO CONSTRUCTION OR INSTALLATION AND COORDINATED WITH APPROPRIATE TRADES AND CONTRACTORS.</div><div>22. THE CARPENTRY CONTRACTOR SHALL FURNISH AND INSTALL ALL MISCELLANEOUS SUPPORT FORMS, BLOCKING, HANGERS, FITTINGS, ETC. NOT NECESSARILY SHOWN BUT REQUIRED TO FULLY COMPLETE THE WORK.</div><div>23. OWNER REQUIRES ANY CONTRACTOR OR SUPPLIER PERFORMING ANY WORK OR SUPPLYING ANY MATERIALS TO GUARANTEE THE SAME TO BE FREE FROM ANY AND ALL DEFECTS IN WORKMANSHIP AND MATERIALS FOR ONE (1) YEAR FROM THE DATE OF PROJECT COMPLETION THEREOF AND REQUIRE SUCH PERSON TO BE RESPONSIBLE FOR THE REPLACEMENT OR REPAIR WITHOUT ADDITIONAL CHARGE TO THE OWNER.</div><div>24. ALL CONTRACTORS WORKING ON THIS PROJECT MUST MEET OR EXCEED ALL OSHA STANDARDS AND REQUIREMENTS. EACH CONTRACTOR MUST MEET THESE MINIMUM REQUIREMENTS THROUGHOUT THE DURATION OF THE PROJECT, BUT IS NOT LIMITED TO, A COMPLETE, ONGOING SAFETY PROGRAM, HAZARDOUS COMMUNICATIONS PROGRAM AND EVIDENCE OF REQUIRED EMPLOYEE TASK TRAINING.</div><div>25. IF ANY CONTRACTOR ENCOUNTERS HAZARDOUS MATERIALS OR CONDITIONS WHICH MAY BE DANGEROUS, HE IS TO IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY THE GENERAL CONTRACTOR WHO WILL, IN TURN, NOTIFY THE OWNER OF THE FINDING. THE OWNER IS RESPONSIBLE FOR REMOVAL OR NEUTRALIZATION OF ANY EXISTING HAZARDOUS MATERIALS OR CONDITIONS.</div><div>26. PAYMENTS TO CONTRACTOR, GUARANTEE OF WORK, DATE OF COMPLETION AND ALL OTHER CONTRACTUAL MATTERS SHALL BE AS AGREED TO BETWEEN OWNER AND CONTRACTOR.</div><div>27. ALL RISK INSURANCE SHALL BE PROVIDED BY OWNER WITH A COPY TO THE GENERAL CONTRACTOR FOR POSTING AT THE JOB SITE.</div><div>28. THE GENERAL CONTRACTOR SHALL PURCHASE AND MAINTAIN, DURING THE TERM OF THE CONTRACT, INSURANCE FOR NOT LESS THAN THE LIMITS OF LIABILITY AGREED TO BY THE OWNER OR REQUIRED BY LAW FOR:<div><div>A. WORKMAN'S COMPENSATION</div><div>B. COMPREHENSIVE LIABILITY</div><div>C. CONTRACTUAL LIABILITY</div><div>D. COMPREHENSIVE AUTOMOTIVE LIABILITY</div><div>E. EXCESS LIABILITY UMBRELLA</div></div></div><div>CERTIFICATES OF INSURANCE LISTED ABOVE SHALL BE FILED WITH THE OWNER PRIOR TO COMMENCEMENT OF THE WORK.</div><div>29. APPROVED SUBSTITUTIONS REQUIRE SUBMITTALS OF PRODUCT LITERATURE FOR FORMAL APPROVAL OF THE ARCHITECT AND/OR ENGINEER. WHEN SUBSTITUTIONS FOR FINISH MATERIALS ARE REQUESTED THE SUPPLIER MUST SUPPLY A MINIMUM OF THREE SAMPLES OF EACH MATERIAL. IF THE ARCHITECT / ENGINEER APPROVES THE SUBSTITUTION A LETTER OF ACCEPTANCE WILL BE ISSUED BY THE ARCHITECT. NO SUBSTITUTION OF MATERIALS IS PERMITTED UNLESS THE ARCHITECT ISSUES A LETTER OF ACCEPTANCE.</div></div><div>DIVISION 03 – CONCRETE (NOTES IN THIS SECTION ARE TO BE COORDINATED WITH THE STRUCTURAL DRAWINGS, IF THERE IS A CONFLICT, THE STRUCTURAL DRAWINGS TAKE PRECEDENCE.</div><div>03 30 00 – CAST-IN-PLACE CONCRETE</div><div><div><div><div><div><div>PART1 GENERAL</div><div>I. SUMMARY</div></div><div><div>1. BASIC SPECIFICATION: PERFORM WORK OF THIS SECTION ACCORDING TO ACI 301-10, "SPECIFICATIONS FOR STRUCTURAL CONCRETE," EXCEPT AS SPECIFICALLY MODIFIED HEREIN.</div><div>2. SECTION INCLUDES: ALL CAST-IN-PLACE CONCRETE SHOWN ON THE DRAWINGS AND REQUIRED BY THESE SPECIFICATIONS. ALLOW FOR THE INSTALLATION OF CAST-IN-PLACE ITEMS FURNISHED UNDER OTHER SECTIONS. INSTALL ANCHOR BOLTS FOR STEEL POST BASES. PROVIDE AND INSTALL GROUT UNDER STEEL COLUMN BASE PLATES.</div><div>3. PROVIDE CONCRETE PADS, PIERS, CURBS, AND BASES REQUIRED FOR EQUIPMENT OF ALL TRADES. COORDINATE DIMENSIONS AND DETAILS WITH REQUIREMENTS OF EQUIPMENT BEING SUPPLIED, PRIOR TO PLACING CONCRETE.</div><div>4. COORDINATE THE WORK OF OTHER TRADES WHO WILL PROVIDE AND INSTALL ITEMS (SLEEVES, PIPING, CONDUIT, INSERTS, ETC.) TO BE CAST IN THE CONCRETE. PLACE NO CONCRETE UNTIL ALL SUCH ITEMS ARE IN PLACE.</div><div>5. INSPECTION AND TESTING SERVICES REQUIRED BY THIS SECTION ARE TO BE PERFORMED BY AN AGENCY RETAINED BY THE CONTRACTOR. THIS INCLUDES NOT ONLY THE SERVICES REQUIRED TO ESTABLISH MIX DESIGNS, BUT ALSO INCLUDES ALL FIELD SAMPLING AND TESTING REQUIRED BY THE FIELD QUALITY CONTROL ARTICLE OF THIS SECTION (1.6.2 THROUGH 1.6.4).</div><div>6. RELATED SECTIONS: CAREFULLY EXAMINE ALL OTHER SECTIONS AND ALL DRAWINGS FOR RELATED WORK, WHICH INCLUDES BUT IS NOT LIMITED TO:<div><div>A. UNIT MASONRY: SECTION 04 20 00</div><div>B. STRUCTURAL STEEL: SECTION 05 12 00</div></div></div></div><div><div><div>H. QUALITY ASSURANCE</div><div>1. REFERENCE STANDARDS:<div><div>A. ACI 318-19, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.</div><div>B. ACI 347R-14, GUIDE TO FORMWORK FOR CONCRETE.</div><div>C. ACI 302.1R-15, GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION.</div><div>D. ACI 308R-20 HOT WEATHER CONCRETING, (INCL. SPECIFICATION ACI 305.1).</div><div>E. ACI 308R-16 COLD WEATHER CONCRETING, (INCL. SPECIFICATION ACI 308.1).</div><div>F. CRS "PLACING REINFORCING BARS," 10TH EDITION, 2019.</div><div>G. WMA-500 "MANUAL OF STANDARD PRACTICES" DEC 2016, 9TH EDITION.</div></div></div></div><div><div><div>III. SUBMITTALS</div><div>1. ALL REQUIRED FIELD TESTING AND SAMPLING IS TO BE PERFORMED BY PERSONNEL EMPLOYED BY THE PROPOSED</div></div></div></div></div></div></div><div><div><div><div><div><div>SPECIAL INSPECTION AGENCY.</div><div>2. SUBMIT A MIX DESIGN FOR EACH CLASS OF CONCRETE REQUIRED. SUBMITTALS TO COMPLY WITH APPROPRIATE METHODS LISTED IN ACI 301. INDICATE WHETHER MIXES HAVE BEEN DESIGNED FOR PUMPING.</div><div>3. SUBMIT PDF COPIES OF SHOP DRAWINGS FOR ALL REINFORCING. INDICATE STRENGTH, SIZE, AND DETAILS OF ALL BAR REINFORCING, AND STYLE AND SPECIFICATION OF ALL WELDED WIRE FABRIC. ONLY PRINTS WITH THE APPROVAL STAMP PRINTED IN A WORKMANLIKE MANNER. NO ALLOWANCE WILL BE PERMITTED ON THE SITE.</div><div>4. SUBMIT, ON REQUEST ONLY, PRODUCT LITERATURE FOR ADMIXTURES AND CURING COMPOUNDS PROPOSED FOR USE.</div><div>5. SUBMIT REPORTS OF ALL REQUIRED TESTING AND INSPECTION.</div><div>6. SUBMIT FOR APPROVAL PROPOSED SPACING AND LOCATION OF CONSTRUCTION AND/OR CONTROL JOINTS IN CONCRETE SLABS ON GRADE.</div></div><div><div><div>IV. FIELD REFERENCE MANUALS</div><div>1. PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, MIN-15, AND ONE COPY OF CRS'S "PLACING REINFORCING BARS," IN THE FIELD OFFICE AT ALL TIMES.</div></div></div></div><div><div><div>PART2 PRODUCTS</div><div>I. MATERIALS</div><div>1. CEMENTITIOUS MATERIALS:<div><div>A. PORTLAND CEMENT: ASTM C150, TYPE I, II, OR III.</div><div>B. FLY ASH: ASTM C618, CLASS C OR F.</div><div>C. SLAG CEMENT: ASTM C989, GRADE 100 OR 120.</div><div>D. BLENDED HYDRAULIC CEMENTS: ASTM C595.</div></div></div><div>2. WATER: POTABLE, CONFORMING TO C94.</div><div>3. AGGREGATES: ASTM C33, USE SIZE NO. 57 COARSE AGGREGATE, UNLESS OTHERWISE INDICATED. PROVIDE AGGREGATES FROM A SINGLE SOURCE.</div><div>4. CHEMICAL OR OTHER ADMIXTURES (WHERE REQUIRED OR PERMITTED): CERTIFIED BY MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES THAT DO NOT CONTRIBUTE WATER-SOLUBLE CHLORIDE IONS EXCEEDING THOSE PERMITTED IN HARDENED CONCRETE. DO NOT USE CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.<div><div>A. WATER-REDUCING AND RETARDING: ASTM C494, TYPE A.</div><div>B. RETARDING ADMIXTURE: ASTM C494, TYPE C.</div><div>C. WATER-REDUCING AND RETARDING ADMIXTURES: ASTM C494, TYPE D.</div><div>D. HIGH-RANGE, WATER-REDUCING ADMIXTURE: ASTM C494, TYPE F.</div><div>E. HIGH-RANGE, WATER-REDUCING AND RETARDING ADMIXTURE: ASTM C494, TYPE G.</div><div>F. PLASTICIZING AND RETARDING ADMIXTURE: ASTM C1017, TYPE II.</div><div>G. AIR-ENTRAINING ADMIXTURE: ASTM C260.</div><div>H. SYNTHETIC FIBER REINFORCEMENT: ASTM C1116 AND ASTM C1018.</div></div></div><div>5. REINFORCING STEEL:<div><div>A. DEFORMED BARS: ASTM A615 OR A706. MINIMUM YIELD STRENGTH TO BE 60 KSI. BARS TO BE WELDED ARE TO BE ASTM A706.</div><div>B. EPOXY COATING: ASTM A775 OR ASTM A934.</div><div>C. WELDED WIRE FABRIC: ASTM A1064. PROVIDE IN SHEET FORM (NOT ROLLS).</div></div></div><div>6. PREFORMED EXPANSION JOINT OR ISOLATION JOINT FILLER: ASTM D1751 OR ASTM D1752.</div><div>7. CURING COMPOUND: FOLLOW REQUIREMENTS OF ACI 308R AND COMPLY WITH ASTM C309, TYPE 1, CLASS B (CLEAR). APPLY AT THE MANUFACTURER'S WRITTEN RECOMMENDED APPLICATION RATE. MUST BE COMPATIBLE WITH ADHESIVE SPECIFIED FOR FLOOR FINISHES OR BE REMOVED BY THE CONTRACTOR PRIOR TO APPLYING FLOOR FINISH.</div><div>8. GROUT FOR MASONRY CORE FILL: ASTM C476, COARSE TYPE OR FINE TYPE, PLACED PER ACI 530.1.</div><div>9. MIN. SHRINK GROUT UNDER BEARING ELEMENTS: ASTM C1107. GRADE A, B, OR C. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 7,000 PSI. MINIMUM COMPRESSIVE STRENGTH AT 48 HOURS = 2,000 PSI. ACCEPTABLE PRODUCTS INCLUDE, BUT ARE NOT LIMITED TO:<div><div>A. SIKAGROUT 212 BY Sika.</div></div></div><div>10. CURING AND SEALING COMPOUND: ASTM C1315, TYPE 1, CLASS A, A CLEAR MEMBRANE-FORMING COMPOUND WHICH WILL NOT YELLOW MUST BE USED FOR INTENDED APPLICATION, EITHER INTERIOR OR EXTERIOR AND APPLIED PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.</div><div>11. KEVED FLOOR SLAB JOINTS: MILL GALVANIZED STEEL, 20 GAUGE MINIMUM, WITH MINIMUM KEY DIMENSIONS OF 3/4 INCH DEEP BY 1-1/2 INCHES AT ITS WIDEST POINT. ACCEPTABLE PRODUCTS INCLUDE, BUT ARE NOT LIMITED TO: K. TONGUE &amp; GROOVE JOINT 95 BY HEDCKMANN BUILDING PRODUCTS, INC.</div><div>12. JOINT SEALANT: USE 1-COMPONENT POLYURETHANE, CONFORMING TO ASTM C820, TYPE S, GRADE NS, CLASS 2S. USE WITH BACKER ROD AS REQUIRED.</div><div>13. UNDERSLAB VAPOR BARRIER:<div><div>A. 10 MIL POLYETHYLENE SHEETS. OVERLAP AND TAPE JOINTS.</div><div>B. RETARDING SHEET VAPOR RETARDER: ASTM E1745, CLASS A, NOT LESS THAN 10 MILS (0.25 MM) THICK. INCLUDE MANUFACTURER'S RECOMMENDED ADHESIVE OR PRESSURE-SENSITIVE TAPE.</div></div></div><div>14. DOWEL STEELS: GALVANIZED STEEL, 24 GAUGE MINIMUM.</div></div><div><div><div>II. MIXES</div><div>1. THE FOLLOWING CLASSES OF CONCRETE ARE REQUIRED (F' = AT 28 DAYS):<div><div>A. CLASS I – FOOTINGS: MINIMUM F' = 3000 PSI.</div><div>B. CLASS II – INTERIOR SLABS ON GRADE, CONCRETE FILL OVER COMPOSITE STEEL DECK, AND ALL INTERIOR CONCRETE NOT OTHERWISE IDENTIFIED: MINIMUM F' = 4000 PSI. WATER-REDUCER REQUIRED. MINIMUM CEMENT CONTENT 517 LBS. PER CUBIC YARD.</div><div>C. CLASS III – EXTERIOR SLABS ON GRADE AND PIERS, CAST INTERIOR WITH SUCH WALLS, AND ALL EXTERIOR CONCRETE, NOT OTHERWISE IDENTIFIED: MINIMUM F' = 4000 PSI. AIR-ENTRAINING ADMIXTURE AND WATER-REDUCER REQUIRED. MINIMUM CEMENT CONTENT 564 LBS. PER CUBIC YARD. MAXIMUM WATER-CEMENTitious MATERIALS RATIO 0.45. AIR CONTENT 6% (+1%, -1.5%).</div><div>D. CLASS IV – LOW DENSITY LEAN CONCRETE FILL AS REQUIRED UNDER FOOTINGS. MINIMUM F' = 4000 PSI.</div></div></div><div>2. PREPARE DESIGN MIXTURES FOR EACH TYPE AND STRENGTH OF CONCRETE, PROPORTIONED ON THE BASIS OF LABORATORY TRIAL MIXTURE OR FIELD TEST DATA, OR BOTH, IN ACCORDANCE WITH ACI 301. USE A QUALIFIED TESTING AGENCY FOR PREPARING AND REPORTING PROPORTION MIXTURES, BASED ON LABORATORY TRIAL ADMIXTURES.</div><div>3. CEMENTITIOUS MATERIALS: LIMIT PERCENTAGE, BY WEIGHT, OF CEMENTITIOUS MATERIALS OTHER THAN PORTLAND CEMENT IN CONCRETE AS FOLLOWS:<div><div>A. FLY ASH AND OTHER POZZOLANS: 25 PERCENT BY MASS.</div><div>B. SLAG CEMENT: 50 PERCENT BY MASS.</div><div>C. TOTAL FLY ASH OR OTHER POZZOLANS, SLAG CEMENT: 50 PERCENT BY MASS, WITH FLY ASH OR POZZOLANS NOT EXCEEDING 25 PERCENT BY MASS.</div><div>D. TOTAL OF FLY ASH OR OTHER POZZOLANS: 35 PERCENT BY MASS WITH FLY ASH OR POZZOLANS NOT EXCEEDING 25 PERCENT BY MASS.</div></div></div><div>4. ALL CONCRETE IS TO BE READY-MIXED PER ASTM C94. ALL ADMIXTURES ARE TO BE ADDED AT THE BATCH PLANT, EXCEPT THAT SUPERPLASTICIZER, WHERE USED, IS TO BE ADDED AT THE SITE. SUPERPLASTICIZER RETEMPER CAN BE ADDED AT THE BATCH PLANT.</div><div>5. SLUMP:<div><div>A. DESIGN CONCRETE MIXES FOR A MAXIMUM SLUMP OF 4 INCHES, UNLESS A SUPERPLASTICIZER IS TO BE USED.</div><div>B. IF A SUPERPLASTICIZER IS TO BE USED, DESIGN MIXES FOR A SLUMP OF 2 INCHES – 3 INCHES BEFORE ITS ADJUTOR. MAXIMUM SLUMP PERMITTED AFTER ITS ADJUTOR IS 8 INCHES.</div></div></div></div><div><div><div>PART3 EXECUTION</div><div>I. ERECTION</div><div>1. THIS STRUCTURE IS DESIGNED TO BE FULLY SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY ANCHORING TO THE FOUNDATIONS IS COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE INSTALLATION PROCEDURES AND SEQUENCE, AND TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS, DURING INSTALLATION. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY GUYS, BRACING, OR TIE-DOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN ON THE DRAWINGS; IF APPLIED, THEY SHALL BE REMOVED AS CONDITIONS PERMIT, AND SHALL REMAIN THE CONTRACTOR'S PROPERTY.</div></div><div><div><div>II. SURFACE CONDITIONS</div><div>1. VERIFY THAT EXCAVATIONS ARE FREE OF WATER AND ICE, ARE OF THE REQUIRED DIMENSIONS, AND HAVE BEEN APPROVED BY THE TESTING AGENCY RESPONSIBLE FOR SOILS INSPECTION, PRIOR TO PLACING CONCRETE.</div><div>2. DETERMINE FIELD CONDITIONS BY ACTUAL MEASUREMENT.</div></div><div><div><div>III. FORMWORK AND REINFORCING</div><div>1. FOOTINGS MAY BE CAST AGAINST EARTH CUTS WHEN SOIL CONDITIONS PERMIT.</div><div>2. REMOVAL OF FORMS AND SHORING:<div><div>A. REMOVE NO FORMS WITHIN FIRST 24 HOURS AFTER PLACEMENT.</div></div></div></div><div><div><div>IV. EMBEDDED ITEMS</div><div>1. PLACE AND SECURE ANCHORAGE DEVICES AND OTHER EMBEDDED ITEMS REQUIRED FOR ADJOINING WORK THAT IS ATTACHED TO OR SUPPORTED BY CAST-IN-PLACE CONCRETE.<div><div>A. USE SETTING DRAWINGS, TEMPLATES, DIAGRAMS, INSTRUCTIONS, AND DIRECTIONS FURNISHED WITH ITEMS TO BE EMBEDDED.</div><div>B. INSTALL ANCHOR RODS, ACCURATELY LOCATED, TO ELEVATIONS REQUIRED AND COMPLYING WITH TOLERANCES IN SECTION 7.5 OF ANSI/ASCE 303.</div></div></div><div>2. INSTALL EMBEDDED CONDUIT, PIPES AND SLEEVES SUBJECT TO THE FOLLOWING LIMITATIONS<div><div>A. DO NOT EMBED ALUMINUM WITHOUT PRIOR APPROVAL OF COATING MATERIAL.</div><div>B. DO NOT DISPLACE REINFORCING STEEL.</div><div>C. IN SLABS AND WALLS, LIMIT OUTSIDE DIMENSION OF CONDUITS AND PIPES TO 1/3 MEMBER THICKNESS.</div><div>D. MAINTAIN A CENTER-TO-CENTER SPACING OF AT LEAST THREE DIAMETERS OF CONDUIT OR PIPE.</div></div></div></div><div><div><div>V. DELIVERY AND PLACEMENT</div><div>1. PREPARATION BEFORE PLACEMENT:<div><div>A. VERIFY THAT INSTALLATION OF FORMWORK, REINFORCEMENT, EMBEDDED ITEMS, AND VAPOR RETARDER IS COMPLETE AND THAT REQUIRED INSPECTIONS ARE COMPLETED.</div><div>B. IMMEDIATELY PRIOR TO CONCRETE PLACEMENT, INSPECT VAPOR RETARDER FOR DAMAGE AND DEFICIENT INSTALLATION, AND REPAIR DEFECTIVE AREAS.</div><div>C. REMOVE ALL DEBRIS FROM FORMS AND DECK. CLEAN STEEL DECK OF GREASE, OIL, AND OTHER SUBSTANCES WHICH WOULD REDUCE BOND TO CONCRETE.</div><div>D. DO NOT USE ADDITIVES OR SALTS TO REMOVE ICE.</div><div>E. IN COLD WEATHER, MAINTAIN TEMPERATURE OF FORMS AND REINFORCING SUCH THAT CONCRETE TEMPERATURE CAN BE KEPT WITHIN THE SPECIFIED RANGE.</div></div></div><div>2. NOTIFY ARCHITECT AND SPECIAL INSPECTION AND TESTING AGENCY 24 HOURS PRIOR TO PLACING CONCRETE.</div><div>3. DO NOT ADD WATER TO CONCRETE DURING DELIVERY, AT PROJECT SITE, OR DURING PLACEMENT UNLESS APPROVED</div></div></div></div><div><div><div>BY ARCHITECT IN WRITING, BUT NOT TO EXCEED THE AMOUNT INDICATED ON THE CONCRETE DELIVERY TICKET. DO NOT ADD WATER TO CONCRETE AFTER ADDING HIGH-RANGE WATER-REDUCING ADMIXTURES TO THE MIXTURE.</div><div>4. DELIVERY:<div><div>A. CONFORM TO ASTM C94.</div><div>B. ASTM C94 REQUIRES DISCHARGE WITHIN 1-1/2 HOURS OR 300 REVOLUTIONS, WHICHEVER OCCURS FIRST, AFTER THE INTRODUCTION OF WATER TO CEMENT AND AGGREGATES, OR THE INTRODUCTION OF CEMENT TO THE AGGREGATES. THE ARCHITECT MAY REQUIRE AN EARLIER DISCHARGE DURING HOT WEATHER FIELD CONDITIONS.</div><div>C. PLACE CONCRETE AT THE MAXIMUM SLUMP FOR WHICH THE MIX WAS DESIGNED WITH A TOLERANCE OF UP TO 1 INCH ABOVE THE MAXIMUM FOR ONE BATCH IN ANY FIVE CONSECUTIVE BATCHES TESTED.</div></div></div><div>5. PLACEMENT:<div><div>A. PLACE CONCRETE IN ACCORDANCE WITH ACI 308R.</div><div>B. IN PLACE CONCRETE FOR FLOOR SLABS IN ACCORDANCE WITH ACI 302.1R.</div><div>C. IN HOT OR COLD WEATHER, PLACE CONCRETE IN ACCORDANCE WITH ACI 305R OR ACI 306R RESPECTIVELY.</div><div>D. UNLESS REQUIRED OTHERWISE PER ACI GUIDELINES, PLACE WITHIN 6 FEET OF FINAL POSITION. SPREADING WITH VIBRATORS WITHIN FORMS IS PROHIBITED.</div><div>E. IN WALLS AND PIERS, DEPOSIT CONCRETE IN UNIFORM HORIZONTAL LAYERS WITH A MAXIMUM DEPTH OF 5 FEET PER HOUR.</div><div>F. MAXIMUM FREE FALL WITHOUT CHUTES OR ELEPHANT TRUNKS TO BE 5 FEET.</div><div>G. IF A SECTION CANNOT BE PLACED CONTINUOUSLY, PROVIDE FOR CONSTRUCTION JOINTSAS PROVIDED WITHIN THIS SPECIFICATION.</div><div>H. CONSOLIDATE CONCRETE DURING PLACEMENT OPERATIONS, SO CONCRETE IS THOROUGHLY WORKED AROUND REINFORCEMENT AND OTHER EMBEDDED ITEMS AND INTO CORNERS.</div><div>I. MAINTAIN REINFORCEMENT IN POSITION ON CHAIRS DURING CONCRETE PLACEMENT.</div></div></div><div><div><div>VI. JOINTING</div><div>1. INTERIOR SLABS ON GRADE:<div><div>A. LOCATE CONTROL AND CONSTRUCTION JOINTS AS SHOWN ON THE DRAWINGS. IN THE ABSENCE OF INFORMATION ON DRAWINGS, LOCATE AT OPENINGS, WALLS, COLUMNS, GRID LINES, INSIDE CORNERS AND AT 15 FEET ON CENTER GENERALLY. SCHEDULE SLAB PLACEMENTS AND SAMULTING OPERATIONS SUCH THAT SHAWING IS COMPLETED PRIOR TO ONSET OF SHRINKAGE CRACKING. COMPLETE SAW CUTTING WITHIN 12 HOURS AFTER PLACEMENT.</div><div>B. SAW CUT JOINTS SHALL BE AT LEAST 1/8 INCH WIDE AND 1/4 DEPTH OF SLAB THICKNESS.</div><div>C. PROVIDE ISOLATION JOINTS AT COLUMNS AND PIERS (1/2 INCH THICK) AND AT WALLS (1/4 INCH THICK) UNLESS OTHER DETAIL IS SPECIFICALLY SHOWN WITHOUT THEM. WHERE ISOLATION JOINT WILL BE EXPOSED TO VIEW, SET TOP OF FILLER BELOW TOP OF SLAB A DISTANCE EQUAL TO THE FILLER THICKNESS, TO RECEIVE SEALANT, WHERE NOT EXPOSED TO VIEW, SET TOP OF FILLER FLUSH WITH TOP OF SLAB.</div></div></div><div>2. STRUCTURAL FRAMING MEMBERS:<div><div>A. PLACE JOINTS PERPENDICULAR TO MAIN REINFORCEMENT.</div></div></div><div>3. EXTERIOR SLABS ON GRADE: LOCATE JOINTS AS SHOWN ON THE DRAWINGS. IN THE ABSENCE OF INFORMATION ON THE DRAWINGS, PROVIDE THE FOLLOWING:<div><div>A. FULL DEPTH WITH 1/2 INCH JOINT FILLER, WHERE SLABS ABUT VERTICAL SURFACES, AT INTERSECTIONS OF SIDEWALKS, AT ABRUPT CHANGES IN WIDTH, AND AT A SPACING NOT EXCEEDING 30 FEET.</div><div>B. CONTROL JOINTS: TOOLED, 7/8 INCH DEEP, 4'-0" TO 6'-0" ON CENTER BETWEEN EXPANSION JOINTS.</div></div></div></div><div><div><div>VII. FINISHES</div><div>1. COMPLY WITH ACI 302.1R RECOMMENDATIONS FOR SCREEDING, RESTRAINGHING, AND FINISHING OPERATIONS FOR CONCRETE SURFACES. DO NOT WET CONCRETE SURFACES.</div><div>2. REPAIR SURFACE DEFECTS, INCLUDING THE HOLES, IMMEDIATELY AFTER REMOVING FORMWORK.</div><div>3. SCHEDULE OF FINISHES ON FLATWORK IS AS FOLLOWS:<div><div>A. TROWELED FINISH: TYPICAL INTERIOR FLOOR AREAS TO RECEIVE ADHESIVE-APPLIED FINISH, OR CARPET, OR TO REMAIN EXPOSED.</div><div>B. FLOATED FINISH: INTERIOR FLOOR AREAS TO RECEIVE FINISH IN CEMENTitious SETTING BED.</div><div>C. OTHER SURFACES TO BE LEFT EXPOSED: TROWELED FINISH, MINIMIZING BURNISH MARKS AND OTHER APPEARANCE DEFECTS.</div><div>D. BROOM FINISH: EXTERIOR SLABS, STEPS, RAMPS, ETC.</div><div>E. POLISH INDICATED ON THE DRAWINGS (IF REQUIRED): NON-SUP OR APPLICATION OF HARDENER PER THE MANUFACTURER'S INSTRUCTIONS.</div></div></div><div>3. IN AREAS WITH FLOOR DRAINS, MAINTAIN FLOOR ELEVATION AT WALLS; PITCH SURFACES UNFORMLY TO DRAINS AT 1/50 MINIMUM.</div></div><div><div><div>VIII. FINISHING TOLERANCES</div><div>1. IN GENERAL, CONFORM TO ACI 117 FOR CONCRETE MEMBERS.</div><div>2. ALL EXTERIOR SLABS SHALL BE FINISHED TO A 1/2" IN 10'-0" TOLERANCE.</div></div><div><div><div>IX. CURING AND PROTECTION</div><div>1. TEMPERATURE:<div><div>A. WHEN AIR TEMPERATURE DURING PLACEMENT IS LESS THAN 40 DEGREES, OR WILL BE WITHIN 24 HOURS, TEMPERATURE OF CONCRETE AS PLACED IS TO BE BETWEEN 50 AND 90 DEGREES F (10 AND 30 DEGREES C) FOR CURING PERIODS LESS THAN 12 INCHES THICK. MAINTAIN CONCRETE TEMPERATURE WITHIN THESE LIMITS FOR THE FULL CURING PERIOD OF SEVEN DAYS.</div></div></div><div>2. CURING:<div><div>A. COMPLY WITH THE REQUIREMENTS OF ACI 308R.</div><div>B. ALL EXTERIOR SLAB AREAS MAY BE EITHER MOST-CURED OR RECEIVE AN APPLICATION OF CURING COMPOUND. CURING COMPOUNDS AND OTHER SURFACE COATINGS ARE USUALLY CONSIDERED UNACCEPTABLE BY FLOORING AND ADHESIVE MANUFACTURERS. IF SUCH MATERIALS MUST BE USED, OBTAIN THE APPROVAL OF THE FLOORING AND ADHESIVE MANUFACTURER PRIOR TO USE OR REMOVE THE SURFACE COATING AFTER CURING TO FLOORING MANUFACTURER'S SATISFACTION.</div><div>C. WHICHEVER CURING METHOD IS USED, IT IS TO COMMENCE IMMEDIATELY AFTER DISAPPEARANCE OF WATER SHEEN, AND CONTINUE FOR AT LEAST SEVEN DAYS. DO NOT AVOID CURING TO BE DELAYED OVERNIGHT.</div><div>D. PREVENT EXCESSIVE MOISTURE LOSS FROM FORMER SURFACES. IF FORMS ARE REMOVED BEFORE SEVEN DAYS HAVE ELAPSED, CURE THE FORMED SURFACES BY MOST-CURING OR APPLICATION OF CURING COMPOUND FOR THE REMAINDER OF THE CURING PERIOD.</div><div>E. ALL EXTERIOR SLABS ARE TO RECEIVE AN APPLICATION OF CURING/SEALING COMPOUND TO HARDENED CONCRETE PRIOR TO COMPLETION OF CONSTRUCTION.</div></div></div></div><div><div><div>X. GROUTING</div><div>1. GROUT BELOW COLUMN BASE PLATES IS TO BE INSTALLED ONLY AFTER THE STEEL IS PLUMBED. THE USE OF LEVELING PLATES AT COLUMN BASES IS PROHIBITED.</div><div>2. CLASS IV – LOW DENSITY LEAN CONCRETE FILL AS REQUIRED UNDER FOOTINGS.</div></div><div><div><div>XI. FIELD QUALITY CONTROL</div><div>1. TEST REPORTS SHALL INCLUDE REPORTING REQUIREMENTS OF ASTM C31, ASTM C39, AND ACI 301. MAINTAIN RECORDS OF ALL TESTS, INDICATING EXACT LOCATION OF THE STRUCTURE REPRESENTED BY EACH TEST.</div><div>2. OBTAIN CONCRETE FOR REQUIRED TESTS AT POINT OF PLACEMENT.</div><div>3. FOR EACH CONCRETE CLASS, PREPARE AS COMPOSITE SAMPLE AND CURED TEST CYLINDERS AND PERFORM A STRENGTH TEST FOR EACH 100 YARDS, OR FRACTION THEREOF, PLACED IN ANY ONE DAY. COMPOSITE SAMPLES OF FRESH CONCRETE SHALL BE OBTAINED IN ACCORDANCE WITH ASTM C172.</div><div>4. FOR EACH REQUIRED CONCRETE SAMPLE, THE FOLLOWING PROPERTIES SHALL BE DETERMINED<div><div>A. SLUMP: ASTM C143.</div><div>B. SLUMP FLOW: ASTM C1611.</div><div>C. AIR CONTENT: ASTM C231.</div><div>D. TEMPERATURE: ASTM C1064. DETERMINE CONCRETE TEMPERATURE FOR EACH STRENGTH TEST WHEN AIR TEMPERATURE IS LESS THAN 40 DEGREES F OR WILL BE WITHIN 24 HOURS.</div><div>E. UNIT WEIGHT: ASTM C567.</div><div>F. COMPRESSION TEST SPECIMEN: ASTM C31. CAST AND FIELD CURE AT LEAST TWO SETS OF THREE CYLINDER SPECIMENS FOR EACH REQUIRED SAMPLE AND STRENGTH TEST. ALSO CAST AND LABORATORY CURE THE SAME.</div><div>G. COMPRESSIVE STRENGTH TEST: ASTM C39. TEST ONE SET OF TWO SPECIMENS AT SEVEN DAYS AND ONE SET OF TWO SPECIMENS AT 28 DAYS. A COMPRESSIVE STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM TWO SETS OF TWO SPECIMENS OBTAINED FROM THE SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED.</div></div></div><div>5. DO NOT PLACE CONCRETE WHEN SLUMP, AIR CONTENT OR TEMPERATURE VARY FROM ALLOWABLE.</div><div>6. WHEN STRENGTH OF FIELD-CURED CYLINDERS IS LESS THAN 85 PERCENT OF COMPANION LABORATORY-CURED CYLINDERS, CONTRACTOR SHALL EVALUATE OPERATIONS AND PROVIDE CORRECTIVE PROCEDURES FOR PROTECTING AND CURING IN-PLACE CONCRETE.</div><div>7. STRENGTH OF EACH CONCRETE MIXTURE WILL BE SATISFACTORY IF EVERY AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TESTS EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE STRENGTH AND NO COMPRESSIVE-STRENGTH TEST VALUE FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI WHEN THE SPECIFIED COMPRESSIVE STRENGTH IS 5,000 PSI OR LESS.</div><div>8. ADDITIONAL TESTS:<div><div>A. TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS DURING WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAPMENT, COMPRESSIVE STRENGTHS, OR OTHER REQUIREMENTS HAVE BEEN MET, AS DIRECTED BY ARCHITECT OR ENGINEER.</div><div>B. TESTING AND INSPECTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLYING WITH ASTM C42/C42M OR BY OTHER METHODS AS DIRECTED BY ARCHITECT OR ENGINEER.</div><div>C. NON-DESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NON-DESTRUCTIVE DEVICE MAY BE PERMITTED BY ARCHITECT OR ENGINEER BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF CONCRETE.</div><div>D. ACCEPTANCE CRITERIA FOR CONCRETE STRENGTH SHALL BE IN ACCORDANCE WITH ACI 301 SECTION 1.6.6.</div></div></div><div>9. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR INSTALLED WORK WITH SPECIFIED REQUIREMENTS.</div><div>10. CORRECT DEFICIENCIES IN THE WORK THAT TEST REPORTS AND INSPECTIONS INDICATE DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.</div></div></div></div><div><div><div>DIVISION 04 – MASONRY (NOTES IN THIS SECTION ARE TO BE COORDINATED WITH THE STRUCTURAL DRAWINGS, IF THERE IS A CONFLICT, THE STRUCTURAL DRAWINGS TAKE PRECEDENCE).</div><div>04 20 00 – UNIT MASONRY</div><div><div><div>1. STANDARD CONCRETE BLOCK UNITS SHALL COMPLY WITH ASTM C-90 FOR HOLLOW LOAD BEARING UNITS, ASTM C-145 FOR SOLID LOAD BEARING UNITS AND ASTM C-55 FOR CONCRETE BLOCK.</div><div>2. CMU BEARING UNITS TO BE "DRY-STACKED" AT LOCATIONS INDICATED ON THE DRAWINGS.</div><div>3. MINIMUM BEARING OF MASONRY ON MASONRY SHALL BE 7 1/2", U.N.C. IN THE DRAWINGS.</div><div>4. MASONRY CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF SLEEVES THROUGH FOUNDATION WALLS. SLEEVES AND THEIR LOCATIONS ARE TO BE PROVIDED BY THE VARIOUS CONTRACTORS' NEED FOR SLEEVES.</div><div>5. SUBMIT PDF'S OF SHOP DRAWINGS OF REINFORCING MATERIALS FOR APPROVAL, PRIOR TO FABRICATION.</div></div><div><div><div>*THE PRE-MANUFACTURED UNIT IS UNDERSTOOD TO BE COMPLETE WITH CODE COMPLAINT DOORS AND HARDWARE ALREADY INSTALLED.</div></div></div></div></div><div><div><div>DIVISION 05 – MISCELLANEOUS STEEL (NOTES IN THIS SECTION ARE TO BE COORDINATED WITH THE STRUCTURAL DRAWINGS. IF THERE IS A CONFLICT, THE STRUCTURAL DRAWINGS TAKE PRECEDENCE).</div><div>05 12 00 – STRUCTURAL STEEL FRAMING</div><div><div><div>PART1 GENERAL</div><div>6. CLEANING:<div><div>A. REMOVE OIL, DIRT, LOOSE MILL SCALE, OR OTHER MATERIAL WHICH WOULD IMPAIR WELDING, PERFORMANCE OF SLIP CRITICAL CONNECTIONS, OR ADHERENCE OF CONCRETE OR SPRAYED FIREPROOFING.</div><div>B. FOR STEEL THAT IS TO BE PAINTED, CLEANING TECHNIQUES ARE TO BE AS REQUIRED BY THE APPROPRIATE SSPC PAINT SPECIFICATION LISTED BELOW.</div></div></div><div>10. SHOP PAINTING:<div><div>A. SHOP-PAINT STEEL EXPOSED TO VIEW IN THE FINISHED STRUCTURE, EXCEPT THAT TO BE GALVANIZED, WITH PRIMER AS FOLLOWS:<div><div>1. PREPARE SURFACE BY COMMERCIAL BLAST CLEANING PER "SSPC-SP 6 (WAB)/NACE WAB-3" AND APPLY ONE COAT OF PRIMER.</div><div>2. MINIMUM DRY FILM THICKNESS SHALL BE 2.0 MILS.</div><div>3. DO NOT PAINT SURFACES TO BE ENCASED IN CONCRETE OR TO RECEIVE SPRAYED FIREPROOFING, OR CONTACT SURFACES IN SLIP-CRITICAL CONNECTIONS, OR SURFACES TO BE FIELD-WELDED, OR TOP SURFACES OF CORNER RAILS.</div></div></div><div>B. STEEL NOT EXPOSED TO VIEW IN THE FINISHED STRUCTURE NEED NOT BE PAINTED, EXCEPT COLUMNS AND PORTIONS OF BEAMS OTHER THAN UNTELS EMBEDDED IN OR BUILT WITHIN EXTERIOR WALLS, WHICH SHALL BE PAINTED WITH TWO COATS OF PRIMER PER THE REQUIREMENTS IN #1 ABOVE, FOR A TOTAL DRY FILM THICKNESS OF 4.0 MILS.</div><div>C. PAINT ALL UNTELS IN EXTERIOR WALLS WITH ONE COAT OF PRIMER PER THE REQUIREMENTS IN #1 ABOVE.</div></div></div><div>11. GALVANIZING:<div><div>A. PREPARE SURFACES ACCORDING TO SSPC-SP 16.</div><div>B. GALVANIZING IS TO CONFORM TO ASTM A123, GRADE 100, OR ASTM A153, CLASS C. FOLLOW ALL RECOMMENDATIONS OF THE AMERICAN HOT DIP GALVANIZERS ASSOCIATION.</div><div>C. EXCEPT FOR BOLTS, NUTS, WASHERS, AND ANCHORS, PERFORM ALL GALVANIZING AFTER FABRICATION.</div><div>D. PRIOR TO GALVANIZING, CLEAN STEEL OF FOREIGN SUBSTANCES PER ASTM A36.</div><div>E. DO NOT TREAT GALVANIZED FINISH WITH A STAIN-INHIBITING CHROMATE TREATMENT.</div><div>F. AFTER FINAL ERECTION, TOUCH UP ALL ABRASIONS WITH A COLD GALVANIZING COMPOUND, Z.R.C. COLD GALVANIZING COMPOUND BY ZRC PRODUCTS COMPANY, OR EQUAL.</div><div>G. GALVANIZE ALL SHELF ANGLES, UNTELS IN EXTERIOR WALL, AND ALL STEEL EXPOSED TO THE ELEMENTS AND ALL ITEMS INDICATED ON THE DRAWINGS AS GALVANIZED.</div></div></div></div><div><div><div>PART3 EXECUTION</div><div>I. SURFACE CONDITIONS</div><div>1. PRIOR TO BEGINNING WORK OF THIS SECTION, VERIFY THAT THE INSTALLED WORK OF OTHER TRADES IS COMPLETE AND CORRECT TO THE EXTENT NECESSARY FOR THE PROPER EXECUTION OF THE WORK OF THIS SECTION. THIS INCLUDES LOCATIONS OF ANCHOR BOLTS, AND LINES AND GRADES OF BEARING AREAS.</div><div>2. IN THE EVENT OF DISCREPANCIES, IMMEDIATELY NOTIFY THE ARCHITECT. DO NOT PROCEED WITH WORK AFFECTED BY THE DISCREPANCIES UNTIL THEY HAVE BEEN RESOLVED.</div><div>3. SAFETY: IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.</div><div>4. CLEAN BEARING SURFACES AND OTHER SURFACES IN PERMANENT CONTACT, PRIOR TO ASSEMBLY.</div><div>5. SPLICES ARE PERMITTED ONLY WHERE INDICATED.</div><div>6. TOLERANCES: PER ASS CODE OF STANDARD PRACTICE.</div><div>7. TOUCH-UP PAINTING: AFTER ERECTION, TOUCH-UP FIELD CONNECTIONS AND ABRASIONS IN THE SHOP COAT WITH SAME PAINT USED FOR SHOP COAT. DO NOT PAINT WELDS UNTIL THEY HAVE BEEN CLEANED IN ACCORDANCE WITH AWS D11.1.</div></div><div><div><div>05 5000 – METAL FABRICATIONS</div><div>PART 1 GENERAL</div><div>1. INCLUDES SHOP FABRICATED STEEL ITEMS.</div><div>2. SUBMIT SHOP DRAWINGS THAT INDICATE PROFILES, SIZES, CONNECTION ATTACHMENTS, REINFORCING, ANCHORAGE, SIZE AND TYPE OF FASTENERS; INCLUDE ERECTION DRAWINGS, ELEVATIONS, AND DETAILS WHERE APPLICABLE.</div></div><div><div><div>PART 2 PRODUCTS</div><div>1. MATERIALS – STEEL<div><div>A. STEEL SECTIONS: ASTM A 36/A 36M.</div><div>B. STEEL TURNING: ASTM A501/A501M HOT-FORMED STRUCTURAL TURNING.</div><div>C. PLATES: ASTM A 285.</div><div>D. PIPES: ASTM A 575/A 575M, GRADE B SCHEDULE 40, BLACK FINISH.</div><div>E. BOLTS, NUTS, AND WASHERS: ASTM A 325 (ASTMA A 325M), TYPE 1, GALVANIZED TO ASTM A 153/A 153M (155M WHEN CONNECTING GALVANIZED COMPONENTS).</div><div>F. WELDING MATERIALS: AWS D11.1/D11.1M, TYPE REQUIRED FOR MATERIALS BEING WELDED.</div><div>G. SHOP AND TOUCH-UP PRIMER: SSPC-PAINT 15, COMPLYING WITH VOC LIMITATIONS OF AUTHORITIES HAVING JURISDICTION.</div></div></div><div>2. FABRICATION<div><div>A. FIT AND SHOP ASSEMBLE ITEMS IN LARGEST PRACTICAL SECTIONS, FOR DELIVERY TO SITE.</div><div>B. FABRICATE ITEMS WITH JOINTS THROFTLY FITTED AND SECURED.</div><div>C. GRIND EXPOSED JOINTS FLUSH AND SMOOTH WITH ADJACENT FINISH SURFACE. MAKE EXPOSED JOINTS BUTT TIGHT, FLUSH, AND HARMLESS. EXPOSE EXPOSED EDGES TO SMALL UNIFORM RADII.</div><div>D. SUPPLY COMPONENTS REQUIRED FOR ANCHORAGE OF FABRICATIONS. FABRICATE ANCHORS AND RELATED COMPONENTS OF SAME MATERIAL AND FINISH AS FABRICATION, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.</div></div></div><div>3. FABRICATED ITEMS<div><div>A. LEDGE ANGLES, SHELF ANGLES, CHANNELS, AND PLATES NOT ATTACHED TO STRUCTURAL FRAMING: PRIME PAINT FINISH.</div><div>B. RAILING ASSEMBLIES: PIPE HANGS, WALL RAILS, AND ALL ATTACHMENTS TO RESIST LATERAL FORCE OF 75 LBS AT ANY POINT WITHOUT DAMAGE OR PERMANENT SET. TEST IN ACCORDANCE WITH ASTM E 935, PROVIDING FITTINGS TO JOIN LENGTHS, SEAL OPEN ENDS, AND CONCEAL EXPOSED MOUNTING BOLTS AND NUTS. BRACKETS.</div></div></div><div>4. FINISHES – STEEL<div><div>A. PRIME PAINT STEEL ITEMS.</div><div>B. PREPARE SURFACES TO BE PRIMED IN ACCORDANCE WITH SSPC-SP2.</div><div>C. CLEAN SURFACES OF RUST, SCALE, GREASE, AND FOREIGN MATTER PRIOR TO FINISHING.</div><div>D. PRIME PAINTING: ONE COAT.</div></div></div></div><div><div><div>DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES (NOTES IN THIS SECTION ARE TO BE COORDINATED WITH THE STRUCTURAL DRAWINGS. IF THERE IS A CONFLICT, THE STRUCTURAL DRAWINGS TAKE PRECEDENCE).</div><div>06 10 00 STRUCTURAL LUMBER, SHEATHING, AND ROUGH CARPENTRY</div><div><div><div>1. ROUGH OPENINGS OF ALL DOORS, WINDOWS, ETC. SHALL BE VERIFIED BY CONTRACTOR PRIOR TO INSTALLATION.</div><div>2. CARPENTRY CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR REGARDING LOCATION AND EXTENT OF ALL WOOD BLOCKING PRIOR TO FINISH MATERIAL INSTALLATION.</div><div>3. ALL STRUCTURAL GRADE LUMBER SHALL HAVE A MINIMUM ALLOWABLE STRESS IN COMPRESSION OF 1,400 PSI OR GREATER AND A MODULUS OF ELASTICITY OF 1,500,000 PSI.</div><div>4. WHERE REQUIRED, STRUCTURAL LUMBER SHALL BE TREATED PER GOVERNMENTAL CODES AND REGULATIONS HAVING JURISDICTION OVER THE PROJECT. PROVIDE WRITTEN CERTIFICATION FOR FIRE RETARDANT CLASSIFICATION FROM AN ACCREDITED INDEPENDENT LABORATORY.</div><div>5. ROUGH CARPENTER TO FURNISH AND INSTALL JOIST HANGERS FOR ALL WOOD TRUSSES, JOISTS AND RAFTERS FRAMING INTO SIZES OF OTHER MEMBERS. CONTRACTOR TO FURNISH HANGERS SIZED IN ACCORDANCE WITH SIMPSON DESIGN GUIDELINES FOR THE SPECIFIED LOADING AS SHOWN ON DRAWINGS.</div><div>6. ROUGH CARPENTER TO FURNISH AND INSTALL SIMPSON JS SEISMIC/HURRICANE ANCHORS AT BEARING POINTS OF ALL ROOF MEMBERS (INCLUDING CONVENTIONAL FRAMING AND WOOD TRUSSES) TO PREVENT UPLIFT.</div><div>7. ALL EXTERIOR LUMBER TO BE PRESSURE TREATED AND RATED FOR GROUND CONTACT WHERE APPLICABLE.</div><div>8. ALL FASTENERS USED SHALL BE GALVANIZED AND SHALL BE COMPATIBLE FOR USE WITH PRESSURE TREATED LUMBER.</div></div><div><div><div>DIVISION 07 – THERMAL &amp; MOISTURE PROTECTION</div><div>07 21 00 – INSULATION&lt;/</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div>
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GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE TO SECURE AND PAY FOR ALL PERMITS, ADHERE TO ALL STATE, LOCAL AND NATIONAL ELECTRIC CODES, AND SCHEDULE INSPECTION TIMES AS TO NOT DELAY JOB PROGRESS.
2. COORDINATE ALL WORK WITH OTHER TRADES TO ELIMINATE CONFLICTS ON THE JOB.
3. PERFORM ALL WORK IN A NEAT AND PROFESSIONAL MANNER, AND SUPPLY ALL NEW EQUIPMENT AND ACCESSORIES.
4. SUBMIT SHOP DRAWINGS AND OPERATION MANUALS OF ALL EQUIPMENT AND ACCESSORIES FOR OWNER APPROVAL, PRIOR TO STARTING WORK.
5. REFER TO SUPPLEMENTAL DRAWINGS FOR PREFABRICATED MODULAR CLASSROOM DETAILS INCLUDING POWER, LIGHTING & UTILITY CONNECTIONS.

ELECTRICAL:

6. ALL LINE VOLTAGE WIRING IS TO BE IN CONDUIT OR MC CABLE. MINIMUM SIZE CONDUIT TO BE 1/2" FOR INDIVIDUAL LIGHT FIXTURE CONNECTIONS, AND 3/4" FOR ALL OTHER LOCATIONS. FLEXIBLE CONDUIT TO BE MC CABLE (NO BX). MINIMUM POWER WIRE SIZE: #12 AWG. INSULATION TO BE THHN/THWN.
7. ALL ELECTRICAL PANELS ARE TO BE BASED ON SQUARE "D" OR EQUAL BY G.E., EATON OR SIEMENS WITH BOLT-ON TYPE CIRCUIT BREAKERS,
8. ALL PENETRATIONS OF WALL, ROOF AND CEILINGS TO BE SEALED AS REQUIRED WITH UL APPROVED FIRE SEALANT PER MANUFACTURER'S DETAIL TO MAINTAIN FIRE RATING AS REQUIRED. CONTRACTOR TO HAVE UL APPROVED DETAIL ON SITE.
9. CONDUITS AND/OR CABLES INSTALLED UNDER ROOF DECKING SHALL HAVE A MINIMUM OF 1 1/2" SPACE BETWEEN CONDUITS AND/OR CABLES AND ROOF DECKING PER NEC ARTICLE 300.4 (E).
10. PANELBOARDS, METER SOCKET ENCLOSURES ETC... THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS PER NEC 110.16.
11. ALL WIRING IS TO BE COLOR-CODED AS FOLLOWS:  

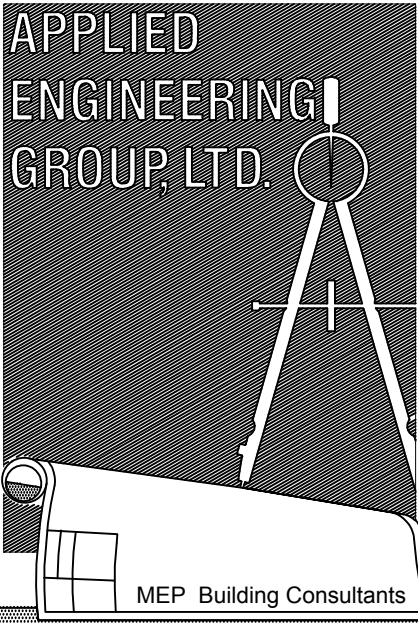
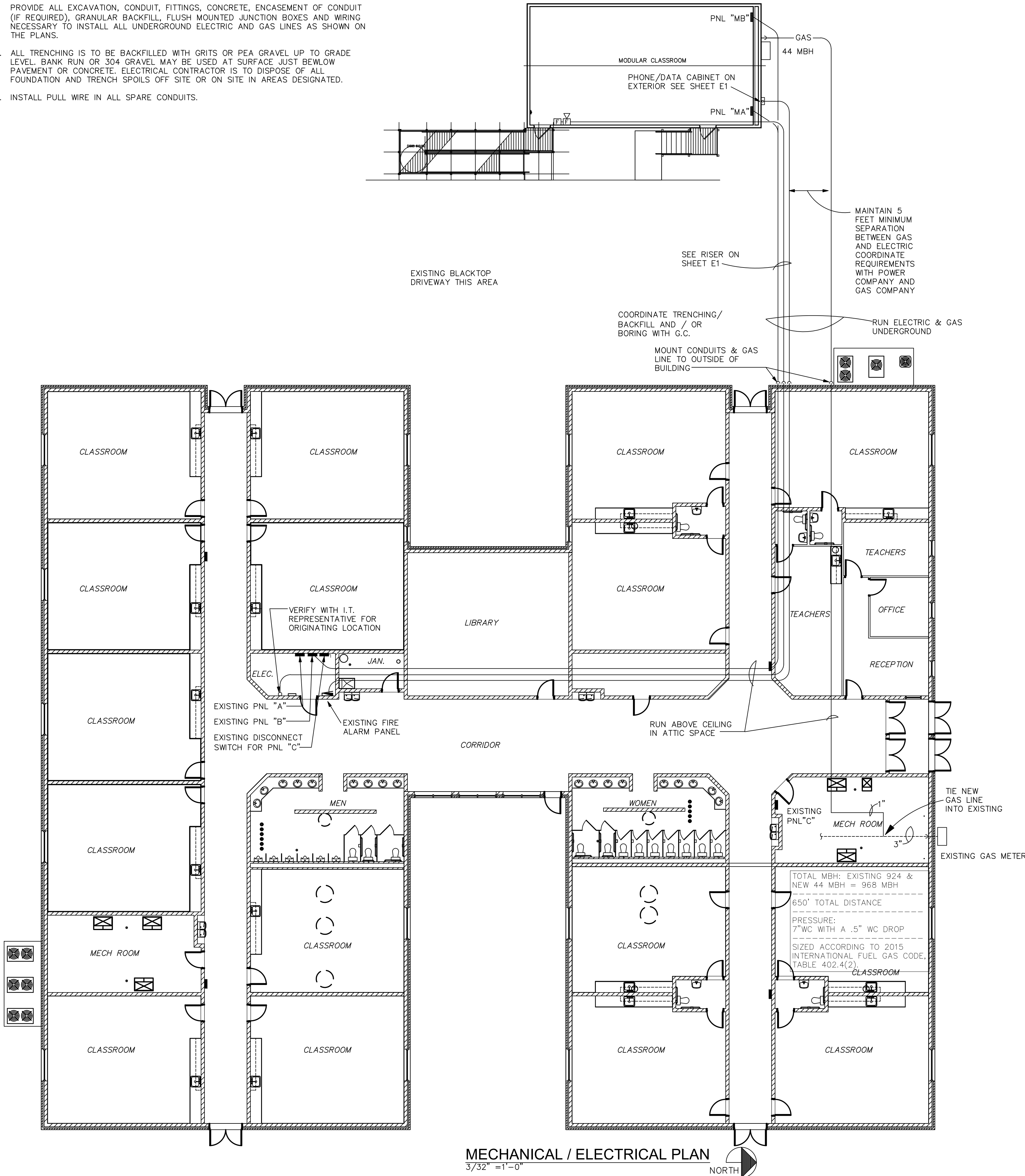
120/208 VOLT SYSTEM:  
NEUTRAL - WHITE  
PHASE A OR L1 - BLACK  
PHASE B OR L2 - RED  
PHASE C OR L3 - BLUE  
GROUND - GREEN
12. PROVIDE FLEXIBLE CONDUIT FOR ALL VIBRATING EQUIPMENT, NOT TO EXCEED 3 FT. IN LENGTH.
13. MINIMIZE EXPOSED CONDUIT BY CONCEALING IN WALLS AS MUCH AS POSSIBLE.
14. BALANCE ALL PANELS WITHIN 10% OF EACH PHASE LEG.
15. PROVIDE LABELS AND TAGS FOR ALL PANELS AND SWITCHGEAR EQUIPMENT. PROVIDE TYPED DIRECTORY OF ALL CIRCUITS LABELED BY ROOM NUMBER OR NAME.
16. CIRCUIT ALL EMERGENCY LIGHT FIXTURES, EXIT SIGNS AND NIGHTLIGHTS, (NL) TO LOCAL CIRCUIT AHEAD OF ANY SWITCHING.
17. REFER TO MECHANICAL PLAN FOR LOCATION OF MECHANICAL EQUIPMENT. FIELD VERIFY EXACT LOCATIONS.
18. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES AND ORDINANCES. THE CONTRACTOR SHALL INQUIRE INTO AND COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. AFTER CONTRACT IS ISSUED, NO ADDITIONAL COST DUE TO CODE ISSUES SHALL BE REIMBURSED BY THE OWNER TO THE CONTRACTOR.
19. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT/ALL MOUNTING HEIGHTS, LOCATIONS AND COLOR (FINISH) OF ALL DEVICES AND EQUIPMENT WITH THE ARCHITECT AND/OR OWNERS REPRESENTATIVE PRIOR TO ROUGH-IN.
20. EC IS TO KEEP A CURRENT COPY OF THE AS-BUILT CONDITIONS DURING THE PROJECT. AT THE END OF THE PROJECT, THE EC SHALL TURN OVER TO THE OWNER 3 COPIES OF THE FINAL AS-BUILT DRAWINGS. EC SHALL ALSO FURNISH O & M FOR SYSTEMS AND EQUIPMENT TO DESIGNATED REPRESENTATIVE.
21. LIGHTING SYSTEMS SHALL BE TESTED TO ENSURE PROPER CALIBRATION, ADJUSTMENT, PROGRAMING, AND OPERATION.

MECHANICAL - GAS PIPING:

22. ABOVE GROUND: GAS LINES SHALL BE BLACK STEEL, SCHEDULE 40, ASTM A-53/53M. FITTINGS SHALL BE AS FOLLOWS:
23. 14" W.C. OR LESS: FITTINGS SHALL BE STEEL OR MALLEABLE IRON THREADED FITTINGS FOR 2 1/2" AND SMALLER, AND WELDED JOINTS FOR 3" AND LARGER.
24. ABOVE 14" W.C.: FITTINGS SHALL BE STEEL WITH WELDED JOINTS.
25. WHERE APPROVED BY OWNER IN WRITING, FITTINGS 4" AND SMALLER SHALL BE STEEL PRESS-CONNECT FITTINGS, ANSI LC-4, WITH HNBR SEALS. REFER TO MANUFACTURER FOR PRESSURE RATINGS.
26. ABOVE/BELOW GROUND: WHERE NOTED ON PLANS OR APPROVED BY OWNER IN WRITING, GAS PIPING SHALL BE CSST GAS PIPING, ANSI LC1/CSA 6.26, WITH ARC-RESISTANT JACKET. WHERE USED UNDERGROUND PIPING SHALL BE RATED FOR DIRECT BURY OR INSTALLED IN A PIPE SLEEVE EXTENDING ABOVE GROUND ON BOTH ENDS. NO FITTINGS ARE ALLOWED UNDERGROUND.
27. OUTSIDE BELOW GROUND: GAS LINES SHALL BE POLYETHYLENE GAS PIPING, ASTM D2513, WITH FACTORY ASSEMBLED ANODELESS RISERS. JOINTS SHALL BE OF HEAT FUSION TYPE PER ASTM D2513. A TRACER WIRE SHALL BE PROVIDED AND INSTALLED AS REQUIRED BY CODE.
28. BELOW GROUND: OTHER SUITABLE CODE APPROVED PIPING WITH ADEQUATE PROTECTION IS ACCEPTABLE WITH WRITTEN APPROVAL FROM OWNER.
29. PROVIDE A GAS COCK, DIRT LEG, AND UNION CONNECTION TO EACH PIECE OF EQUIPMENT. PROVIDE GAS METER AND/OR REGULATOR AS REQUIRED. REGULATOR TO BE VENTED TO THE EXTERIOR UNLESS NOTED OTHERWISE.
30. PITCH PIPING AT A UNIFORM GRADE OF 1/4" IN 15 FEET UPWARD IN DIRECTION OF FLOW. SUPPORT PIPING EVERY 5 FEET. SUPPORT AS DETAILED ON DRAWINGS, OR BY STANDARD INDUSTRY PRACTICE, WHICHEVER IS MORE STRINGENT.
31. GAS PIPING EXPOSED ON ROOF AND GAS PIPING EXPOSED OUTSIDE MUST BE PAINTED WITH RUST-INHIBITING PAINT. COORDINATE COLOR(S) WITH G.C.
32. INSTALLATION, TESTING AND PURGING OF GAS PIPING SHALL BE DONE PER THE REQUIREMENTS OF THE LOCAL GAS COMPANY, LOCAL CODES, AND APPLICABLE FUEL GAS CODE.
33. CONTACT AND COORDINATE GAS SERVICE AND METER REQUIREMENTS WITH THE LOCAL GAS COMPANY AND THE BUILDING'S MANAGER PRIOR TO BID.

SITE GENERAL NOTES

1. PROVIDE ALL EXCAVATION, CONDUIT, FITTINGS, CONCRETE, ENCASEMENT OF CONDUIT (IF REQUIRED), GRANULAR BACKFILL, FLUSH MOUNTED JUNCTION BOXES AND WIRING NECESSARY TO INSTALL ALL UNDERGROUND ELECTRIC AND GAS LINES AS SHOWN ON THE PLANS.
2. ALL TRENCHING IS TO BE BACKFILLED WITH GRITS OR PEA GRAVEL UP TO GRADE LEVEL. BANK RUN OR 304 GRAVEL MAY BE USED AT SURFACE JUST BEWLOW PAVEMENT OR CONCRETE. ELECTRICAL CONTRACTOR IS TO DISPOSE OF ALL FOUNDATION AND TRENCH SPOILS OFF SITE OR ON SITE IN AREAS DESIGNATED.
3. INSTALL PULL WIRE IN ALL SPARE CONDUITS.



7402 East Broad Street  
Blacklick, Ohio 43004  
Phone: 614.322.7050  
Fax: 614.322.7049  
www.aegitd.com

SHEPHERD CHRISTIAN SCHOOL  
425 South Hamilton Road  
Gahanna, OH 43230

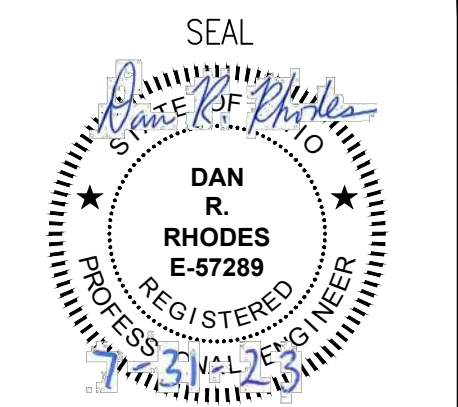
REVISIONS

NO.	DESCRIPTION	DATE

DATE: 7-31-23

SCALE: AS NOTED

JOB #: 23238



SHEET TITLE

MECHANICAL  
ELECTRICAL  
PLAN

SHEET NO.

ME1



PANEL WIRING SCHEDULE (3-PHASE)														
PANELBOARD "A"				VOLTAGE 120/208				PHASE 3 WIRE 4				AIC RATING EXISTING		
PANEL TYPE G.E. A SERIES				MAINS 200A MCB				BUS RATING 200A						
NEMA TYPE ENCLOSURE 1				MOUNTING SURFACE				OPTIONS ---				NOTE		
CKT. NO.	LOAD DESCRIPTION	BRKR. SIZE ▲	NOTE	N.E.C. KVA #A	N.E.C. KVA #B	N.E.C. KVA #C	PHASE	N.E.C. KVA #A	N.E.C. KVA #B	N.E.C. KVA #C	NOTE	BRKR. SIZE ▲	LOAD DESCRIPTION	CKT. NO.
1	EXISTING CU	60/3	/	4.320			A	4.320				60/3	EXISTING CU	2
3	---			4.320			B		4.320				---	4
5	---				4.320		C			4.320				6
7	EX FURNACE 5 B		1.127			A	1.127			4.320	/		EX FURNACE 5 A	8
9	EX WATER COOLER			0.360			B		0.360				EX WATER COOLER	10
11	EX SPACE						C			0.300			EX REMOTE ANN.	12
13	EX RECEPTS		0.900				A	0.720					EX FIRE ALARM	14
15	EX RECEPTS			0.900			B		0.900				EX RECEPTS	16
17	EX SNOWMELT				0.360		C			0.900			EX RECEPTS	18
19	EX RECEPTS		0.900				A	0.900					EX LIGHTS	20
21	EX LIGHTS			0.900			B		0.900				EX RECEPTS	22
23	EX RECEPTS				0.900		C			0.900			EX LIGHTS	24
25	EX CORRIDOR LIGHTS (E)		0.900				A	0.900					EX LIGHTS	26
27	EX LIGHTING			0.900			B		0.900				EX LIGHTS	28
29	EX R.R. LIGHTING				0.900		C			0.900			EX RECEPTS	30
31	SPACE		---				A	---					SPARE	32
33	SPACE			---			B		---				SPARE	34
35	EX NIGHT LTS (E)				0.900		C			1.872	30/2		EX SNOWMELT	36
37	SPACE		---				A	1.872					---	38
39	EX SNOWMELT	30/2		1.872			B		1.872			30/2	EX SNOWMELT	40
41	---	/			1.872		C			1.872			---	42
NOTES														
1. ALL CIRCUIT BREAKERS TO BE 20-AMP, 1-POLE UNLESS OTHERWISE NOTED.														
2. ALL PHASES TO BE BALANCED TO WITHIN 10% USING ACTUAL LOAD TOTALS.														
PANEL LOAD SUMMARY													BREAKER NOTES:	
N.E.C. CONNECTED TOTALS													LO - HANDLE LOCK-OFF DEVIDE	
#A 17.986 KVA													HACR - HEATING, A/C & REFRIGERATION	
#B 18.504 KVA													TC - RUN CIRCUIT THROUGH TIME CLOCK	
#C 20.316 KVA														
TOTAL 56.806 KVA														

PANEL WIRING SCHEDULE (3-PHASE)														
PANELBOARD "B"				VOLTAGE 120/208				PHASE 3 WIRE 4				AIC RATING EXISTING		
PANEL TYPE G.E. A SERIES				MAINS 200A MCB				BUS RATING 200A						
NEMA TYPE ENCLOSURE 1				MOUNTING SURFACE				OPTIONS ----				NOTE		
CKT. NO.	LOAD DESCRIPTION	BRKR. SIZE ▲	NOTE	N.E.C. KVA #A	N.E.C. KVA #B	N.E.C. KVA #C	PHASE	N.E.C. KVA #A	N.E.C. KVA #B	N.E.C. KVA #C	NOTE	BRKR. SIZE ▲	LOAD DESCRIPTION	CKT. NO.
1	EXISTING CU	60/3		4.320			A	2.250				30/2	EX WATER HEATER	2
3	----			4.320			B		2.250				----	4
5	----				4.320		C			1.127			EX FURNACE 4B	6
7	EX WATER COOLER			0.360			A	0.360					EX HOT WATER CIRC PUMP	8
9	EX POINT USE WIR HTR	30/2		2.250			B		1.127				EX FURNACE 4 A	10
11	----					2.250	C			0.900			EX RECEPTS	12
13	EX RECEPTS			0.900			A	0.900					EX RECEPTS	14
15	EX RECEPTS				0.900		B		0.900				EX RECEPTS	16
17	EX RECEPTS					0.900	C			0.900			EX RECEPTS	18
19	EX RECEPTS			0.900			A	0.900					EX RECEPTS	20
21	EX RECEPTS				0.900		B		0.900				EX RECEPTS	22
23	EX RECEPTS					0.900	C			0.900			EX LIGHTING	24
25	EX RECEPTS			0.900			A	0.900					EX LIGHTING	26
27	EX LIGHTING				0.900		B		0.900				EX LIGHTING	28
29	EX LIGHTING					0.900	C			0.900			EX LIBRARY LTS	30
31	EX CORRIDOR LTS (E)			0.900			A	0.900					EX LIGHTING TIME CLOCK	32
33	EX CORRIDOR LTS (E)				0.900		B		0.900				EX LIGHTING	34
35	EX LIGHTING					0.900	C			0.900			EX LIGHTING	36
37	EX LIGHTING			0.900			A	0.900					EX NIGHT LTS (E)	38
39	PANEL MA	70/2		2.500			B		5.250			70/2	PANEL MB	40
41	----					1.900	C			6.250			----	42
NOTES														
1. ALL CIRCUIT BREAKERS TO BE 20-AMP, 1-POLE UNLESS OTHERWISE NOTED.														
2. ALL PHASES TO BE BALANCED TO WITHIN 10% USING ACTUAL LOAD TOTALS.														
3. EC TO MOVE EXISTING RECEPT CKT 39 TO SPARE CKT 19 AND MOVE EXISTING NIGHTLIGHT CKT 40 TO SPARE CKT 38. PROVIDE NEW BREAKERS FOR PANELS MA & MB.														
PANEL LOAD SUMMARY								BREAKER NOTES:						
N.E.C. CONNECTED TOTALS								LO - HANDLE LOCK-OFF DEVIDE						
#A 16.290 KVA								HACR - HEATING, A/C & REFRIGERATION						
#B 24.897 KVA								TC - RUN CIRCUIT THROUGH TIME CLOCK						
#C 23.947 KVA														
TOTAL 65.134 KVA														

DESCRIPTION	CONN. KVA	DEMAND FACTOR	DEMAND KVA
PEAK DEMMAND IN LAST 12 MONTHS (AUGUST 2022)	57.1	1.25	71.4
PANEL MA	4.4	1.0	4.4
PANEL MB	11.5	1.0 PLUS 25% OF LARGEST MOTOR	13.1
TOTALS	73.0		88.9
DEMAND KVA * 1000 VOLTAGE*SQ. ROOT OF PHASE = MINIMUM SERVICE AMPERAGE			
88.9 * 1000 = 246.9 AMPS MIN. SERVICE, REUSE EXISTING 600 208 * $\sqrt{3}$ = AMP SERVICE			

### CODED NOTES

- PANELS MA AND MB ARE PROVIDED WITH THE MODULAR CLASSROOM. THESE PANELS ARE RATED AT 100 AMPS MLO EACH.
- RUN NEW FEEDERS FROM EXISTING PANEL 'B' TO NEW PANELS MA & MB AS SHOWN.
- RUN 4 #12 FOR NEW HORN/STROBE AND 2 #18 FOR PULL STATION IN MODULAR CLASSROOM. BOTH SETS OF WIRING TO BE IN 1" CONDUIT FROM EXISTING FACP TO MODULAR CLASSROOM. SEE F.A. RISER DIAGRAM AT LEFT. ADD ZONE TO PANEL IF PANEL IS EXPANDABLE, OTHERWISE SHARE ZONE FOR NEW PULL STATION WITH EXISTING.
- EC TO GROUND PANELS MA & MB TO (2) DRIVEN GROUND RODS SPACED 6 FEET APART AND CARY SEPARATE NEUTRAL AND ROUND THROUGH BACK TO MAIN SERVICE. GROUND AND NEUTRAL TO ONLY BE BONDED AT MAIN SERVICE.
- EC TO RUN (2) 1" CONDUITS FOR PHONE / DATA LINES BY OTHERS. ROUTE FROM EXISTING ELECTRIC ROOM (VERIFY IF THIS IS WHERE EXISTING PHONE BOARD IS LOCATED) TO NEMA 3R 18" X 18" CABINET ON EXTERIOR OF MODULAR CLASSROOM. COORDINATE WITH I.T. REPRESENTATIVE.

PANEL WIRING SCHEDULE (3-PHASE)														
PANELBOARD "C"				VOLTAGE 120/208				PHASE 3 WIRE 4				AIC RATING EXISTING		
PANEL TYPE SQ D NQ OR EQUAL				MAINS 200A MLO				BUS RATING 200A						
NEMA TYPE ENCLOSURE 1				MOUNTING SURFACE				OPTIONS ---				NOTE		
CKT. NO.	LOAD DESCRIPTION	BRKR. SIZE ▲	NOTE	N.E.C. KVA #A	N.E.C. KVA #B	N.E.C. KVA #C	PHASE	N.E.C. KVA #A	N.E.C. KVA #B	N.E.C. KVA #C	NOTE	BRKR. SIZE ▲	LOAD DESCRIPTION	CKT. NO.
1	EXISTING CU	20/3		1.440			A	2.880				40/3	EXISTING CU	2
3	---				1.440		B		2.880				---	4
5	---				1.440		C			2.880			---	6
7	EXISTING CU	60/3		4.320			A	---					SPARE	8
9	---				4.320		B		1.127				EX FURNACE	10
11	---					4.320	C		1.127	1.127			EX FURNACE	12
13	EX FURNACE			1.127			A	1.127					EX FURNACE	14
15	EX FURNACE				1.127		B		---				SPACE	16
17	EXISTING LOAD					0.900	C			0.900			EXISTING LOAD	18
19	EXISTING LOAD			0.900			A	0.900					EXISTING LOAD	20
21	EXISTING LOAD				0.900		B		0.900				EXISTING LOAD	22
23	EXISTING LOAD				0.900		C			0.900			EXISTING LOAD	24
25	EXISTING LOAD			0.900			A	0.900					EXISTING LOAD	26
27	EXISTING LOAD				0.900		B		0.900				EXISTING LOAD	28
29	EXISTING LOAD					0.900	C			0.900			EXISTING LOAD	30
31	EXISTING LOAD			0.900			A	0.900					EXISTING LOAD	32
33	SPACE				---		B		0.900				EXISTING LOAD	34
35	EXISTING LOAD					0.900	C			0.900			EXISTING LOAD	36
37	EXISTING LOAD			0.900			A	0.900					EXISTING LOAD	38
39	EXISTING LOAD				0.900		B		0.900				EXISTING LOAD	40
41	EXISTING LOAD					0.900	C			0.900			EXISTING LOAD	42
NOTES				PANEL LOAD SUMMARY								BREAKER NOTES:		
1. ALL CIRCUIT BREAKERS TO BE 20-AMP, 1-POLE UNLESS OTHERWISE NOTED.				N.E.C. CONNECTED TOTALS								LO - HANDLE LOCK-OFF DEVIDE		
2. ALL PHASES TO BE BALANCED TO WITHIN 10% USING ACTUAL LOAD TOTALS.												HAGR - HEATING, A/C & REFRIGERATION		
												TC - RUN CIRCUIT THROUGH TIME CLOCK		
				</										





October 23, 2023

City of Gahanna  
Department of Planning  
Attn: Kelly Wicker; Planning and Zoning Coordinator  
200 S. Hamilton Rd.  
Gahanna, Ohio 43230  
Ph.: (614) 277-3075

Re.: Design review / C of A comments

Dear Ms. Wicker,

The plans affected by this response letter are known as:

**Shepherd Church of the Nazarene**  
**Modular Building addition**  
**425 S. Hamilton Rd.**  
**Gahanna, Ohio 43230**

We are responding to the letter received that was sent from your office dated September 13, 2023 regarding the comments on the Design review / C of A application for the installation of the modular classroom unit, and are responding to them item by item below.

New plans are being submitted for review in response to the correction letter.

Item 1. **Planning (614) 342-4025.**

1. Please label the distance from the modular structure to the property lines for the parcel it is located on, not the adjacent parcel to the south. Please also label the setback from this property line.

RESPONSE: Located on the Civil Drawings Cover Sheet and the C1.1 sheet is the requested setback information for the parcel as well as dimensions from the modular unit to the property lines of the parcel it is located on (025-000406). The distance from the modular unit to the west property line of that parcel is approximately 1029'-7". The distance to the south property line of that parcel is approximately 30'-10". The required setbacks for this property are 40'-0" for the rear (west) property line and 25'-0" for the side (south) property line (abutting a non-residential property). It





should be noted that the existing adjacent school building is traversing the property line for that parcel.

2. Per application requirements, please provide color elevations and/or renderings.

RESPONSE: Included with this resubmission is a supplemental 3D rendering of the modular unit based upon the pictures we received from the owner of the unit they are purchasing.

Item 3. **Engineering Project Administrator (614) 342-4056.**

3. This preliminary review does not constitute a comprehensive engineering design review. A formal site civil review will be conducted upon the approval of the final development plan (*Informational Comment*).

RESPONSE: Response to these comments have been covered in the letter for the Final Development Plan submitted to the Department of Planning.

Item 4. **Engineering Project Administrator (614) 342-4056.**

4. Do not disrupt existing storm water runoff drainage patterns. Two catch basins are located near the proposed improvement location.

RESPONSE: Response to these comments have been covered in the letter for the Final Development Plan submitted to the Department of Planning.

Item 5. **Parks (614) 342-4261**

5. No comments per Julie Predieri

RESPONSE: It is acknowledged that there are no current comments from the Parks department at this time.

Item 6. **Building (614) 342-4010**

6. No Comments were received. Building Permits will be required for the project please contact the Chief Building Official, Ken Fultz at 614-342-4013 with any questions you may have.



RESPONSE: We have received a Non-conformance letter/adjudication order from Kenneth W. Fultz, P.E. dated September 13, 2023 and responding to those comments in a separate response letter.

We appreciate your time and effort towards permitting this project.

Sincerely,

Jeffrey T. Hutcheson  
Project Architect  
The McKnight Group



November 17, 2023

McKnight and Hosterman Architects  
3351 McDowell Rd PO Box 370  
Columbus, OH 43210

RE: Project 425 S Hamilton Rd Design Review/C of A

Dear McKnight and Hosterman Architects:

The following comments were generated from the review of the submitted plans and documents for the referenced project.

**Engineering Project Administrator (614) 342-4056**

1. No comments. See FDP for comments.

**Transportation & Mobility Engineer (614) 342-4050**

2. No comments. See FDP for comments.

**Parks (614) 342-4261**

3. No Comments per Julie Predieri

**Building (614) 342-4010**

4. No Comments were received. Building Permits will be required for the project please contact the Chief Building Official, Ken Fultz at 614-342-4013 with any questions you may have.

**Fire District (welshp@mifflin-oh.gov)**

5. The fire division has no objection or additional comments

**Planning (614) 342-4025**

6. Informational Comment: All Planning comments have been addressed.

If you have general comments or questions, please contact me at [kelly.wicker@gahanna.gov](mailto:kelly.wicker@gahanna.gov) or (614) 342-4025. If your questions are specific to a certain department's comments, please reach out to that department using the contact information provided with their comments above.

Sincerely,

Kelly Wicker  
Planning and Zoning Coordinator



## STAFF REPORT

### Request Summary

The applicant is requesting approval of a Final Development Plan and Design Review for a modular classroom unit for Shepherd Church of the Nazarene at 425 South Hamilton Road. The property is located on the western side of Hamilton Road and is zoned RID – Restricted Institutional District. This zoning district designates the site as part of Design Review District 3 (DRD-3).

The applicant states that the modular classroom is necessary for the growing school population while the school works on a more permanent expansion project. The intent is for the modular classroom to be temporary and removed after three years or less.

The modular unit is 44 feet wide and 23 feet 4 inches deep and is 1,027 SF. It will be located to the rear of the school building off of an existing drive and will not be viewable from Rocky Fork Drive, Hamilton Road, or I-270 due to heavy vegetation.

The unit is pre-manufactured, and the façade consists of Hardie Panel siding and vinyl skirt panels, while the ramp and steps are constructed of pressure treated wood to be sealed with a UV protectant. Since its pre-manufactured, design options are very limited and much of the criteria for DRD-3 is not applicable. The Zoning Code does not have any landscaping requirements for these applications and therefore no landscaping is proposed.

### Design Review

General review criteria for Design Review applications include the following:

- Are stylistically compatible with other new, renovated, and existing structures in the applicable Design Review District in order to maintain design continuity and provide protection of existing design environment.
- Contribute to the improvement and upgrading of the architectural and design character of the Design Review District.
- Contribute to the continuing economic and community vitality of the Design Review District
- Maintain, protect and enhance the physical surroundings of the Design Review District.

### Final Development Plan

Planning Commission shall approve an FDP application if the following four conditions are met:

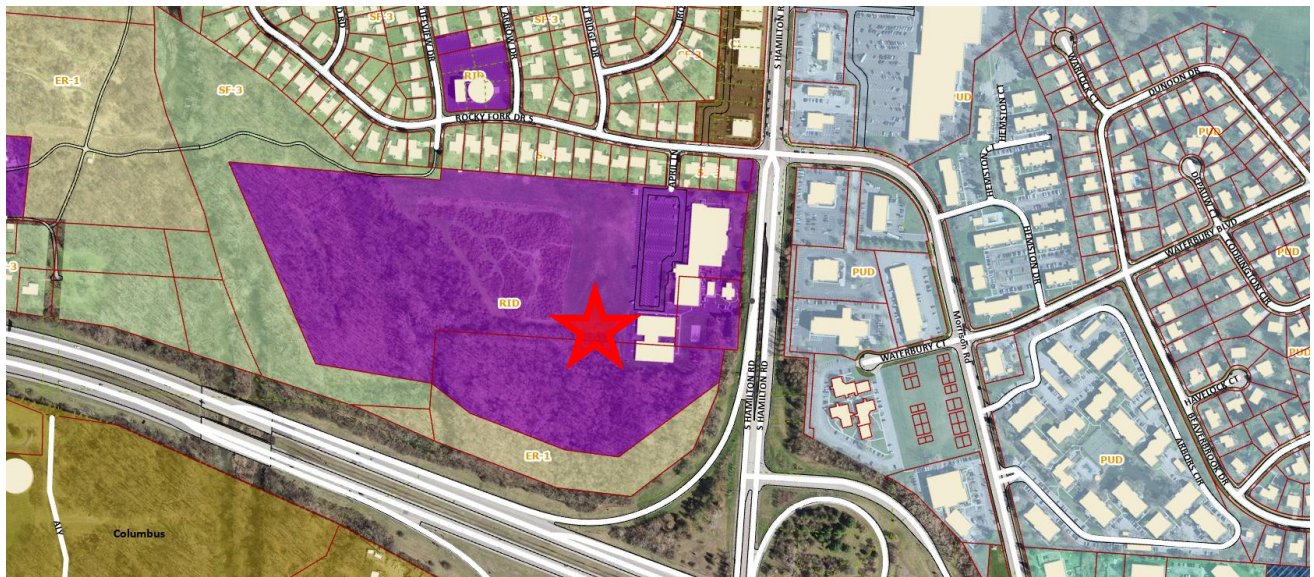
- The proposed development meets the applicable development standards of this Zoning Ordinance.
- The proposed development is in accord with appropriate plans for the area.
- The proposed development would not have undesirable effects on the surrounding area.
- The proposed development would be in keeping with the existing land use character and physical development potential of the area.



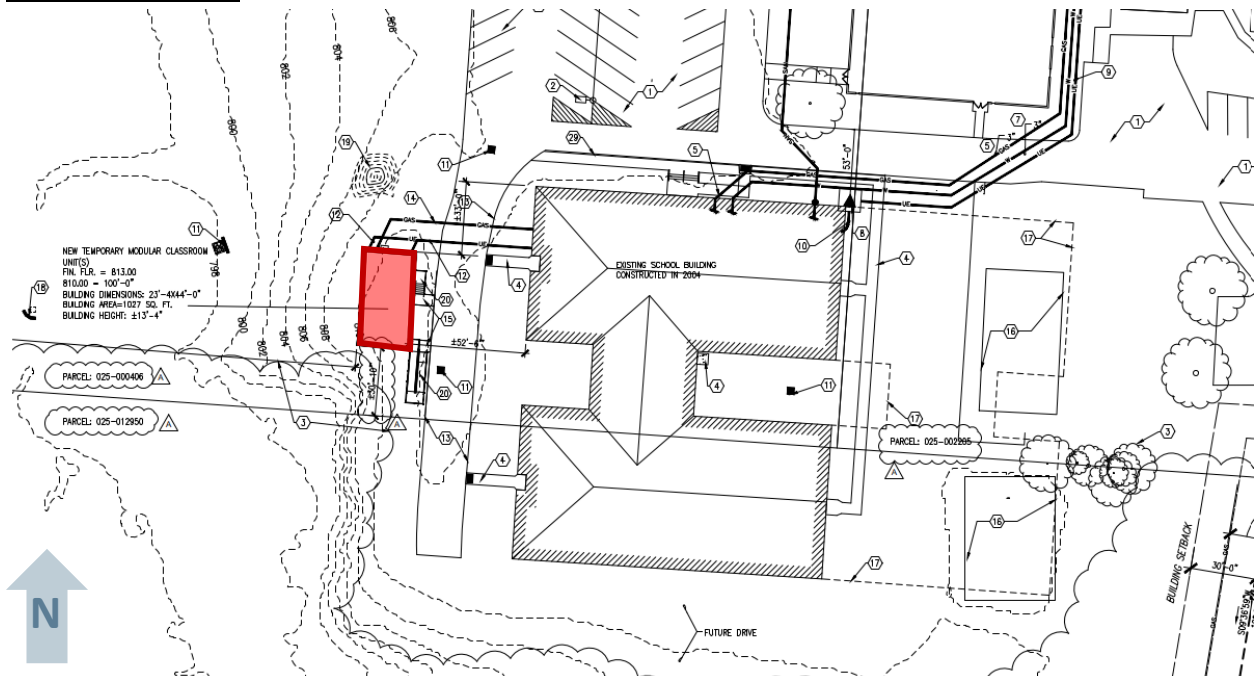
### Staff Comments

Staff recommends approval of the Final Development Plan and Design Review applications as submitted. As the applicant stated, the modular classroom is necessary to account for the number of students and will be temporary. The proposed unit is not viewable from any right-of-way and does not require any variances. The site still exceeds parking requirements after the proposed changes. Planning Commission may add conditions for additional screening/landscaping or a time restriction if desired.

### Location/Zoning Map



### Submitted Site Plan



Respectfully Submitted By:

Maddie Capka

Planner