

Marion City Hall

ADDENDUM NO. 1

TO: All Bidders on the Above Referenced Product
FROM: Davis Purdy Architects, PLLC
DATE: October 16, 2025
SUBJECT: **ADDENDUM NO. 1**

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM IS REQUIRED ON BID FORM.

Clarifications and revisions to Contract Documents for the referenced project are as follows:

1. **ADD:** Add the **Pre-Bid Conference Meeting Minutes & Sign in Sheet**. Pre-Bid Conference Minutes are attached.
2. **CLARIFICATION:** Use Detail C3.1/02 Standard Duty Asphalt for Asphalt design. New "Highway Specification" for Asphalt paving is acceptable for use in this project.
3. **CLARIFICATION:** use of 6" of 610 fill in lieu of lime treated sub-base is acceptable for use in this project.
4. **ADD:** Add the **Geotechnical Report** dated Augst 14,2025 to the project documents. Geotechnical Report is attached.
5. **CLARIFICATION:** Interior Columns are shown as proposed locations only, final design of the PEMB column layout will be the responsibility of the Contractor with approval from the Architect
6. **CLARIFICATION:** Roof Installer to install Gutters & Downspouts
7. **ADD:** Brick Veneer to be painted

8. **ADD:** Provide expandable Foam filled Aluminum closure at intersection of interior wall and Storefront Mullion as shown in the drawing **Plan Detail @ Mullion**. Plan Detail @ Mullion is attached.
9. **CLARIFICATION:** Contractor to use dimensions on the Architectural drawings in lieu of structural where discrepancies are found for the raised platform in the courtroom. Contractor to use ¾" plywood for deck of platform in lieu of 5/8" shown in drawings.
10. **CLARIFICATION:** The Contractor may pour the foundation and slab in separate pours as long as the following conditions are met: The top 8 inches of the grade beams and footings may be part of a 2nd pour. At all grade beams, 1st pour, the reinforcement shear ties shown as #3 at 24"o/c should be formed such that they project as required out and above the 1st pour. The exposed 1st pour upper surface should be rough, unfinished and clean, no dirt or debris. In addition the diagonal top bars shown in Section A and G should extend out of the 1st pour as shown in (4) directions at the interior columns, (3) directions at the exterior columns excluding the corner columns which should project in (2) directions. Diagonal bars that terminate at the outside columns should have a 90 degree bend to the terminating end.
11. **REMOVE:** Specification section **00 43 22 Unit Prices Form** from the Project Documents
12. **ADD:** Specification section **00 60 01 -SUPPLEMENTAL CONDITIONS** dated 10/16/2025. Specification Section 00 60 01 is attached.
13. **REPLACE:** Specification section **07 41 00 – PREFORMED METAL STANDING SEAM ROOF** dated 9/5/2025 with the Specification section **07 41 00 – PREFORMED METAL STANDING SEAM ROOF** dated 10/16/2025. Specification Section 07 41 00 is attached.
14. **ADD:** Specification section **07 41 01 – HORIZONTAL RIBBED METAL PANEL** dated 10/16/2025. Specification Section 07 41 01 is attached.

15. **ADD:** Specification section **12 24 00 – ROLLER SHADES** dated 10/16/2025. Specification Section 12 24 00 is attached.
16. **REPLACE:** Specification section **13 34 10 – PRE-ENGINEERED METAL BUILDING SYSTEMS** dated 9/5/2025 with the Specification section **13 34 10 – PRE-ENGINEERED METAL BUILDING SYSTEMS** dated 10/16/2025. Specification Section 13 34 10 is attached.
17. **REPLACE:** Drawing Page **A2.1 – EXTERIOR ELEVATIONS** dated 9/5/2025 with the Drawing Page **A2.1 – EXTERIOR ELEVATIONS** dated 10/16/2025. Drawing page A2.1 is attached.
18. **REPLACE:** Drawing Page **A3.0 – BUILDING SECTIONS** dated 9/5/2025 with the Drawing Page **A3.0 – BUILDING SECTIONS** dated 10/16/2025. Drawing page A3.0 is attached.
19. **REPLACE:** Drawing Page **A4.2 – MILLWORK DETAILS** dated 9/5/2025 with the Drawing Page **A4.2 – MILLWORK DETAILS** dated 10/16/2025. Drawing page A4.2 is attached.
20. **REPLACE:** Drawing Page **C3.0 – SITE PLAN** dated 9/5/2025 with the Drawing Page **C3.0 – SITE PLAN** dated 10/15/2025. Drawing page C3.0 is attached.
21. **REPLACE:** Drawing Page **C3.1 – SITE DETAILS** dated 9/5/2025 with the Drawing Page **C3.1 – SITE DETAILS** dated 10/15/2025. Drawing page C3.1 is attached.
22. **REPLACE:** Drawing Page **C3.2 – SITE DETAILS** dated 9/5/2025 with the Drawing Page **C3.2 – SITE DETAILS** dated 10/15/2025. Drawing page C3.2 is attached.

Submitted By



Mark Davis, AIA

Davis Purdy Architects, PLLC

October 16,2025

**ACKNOWLEDGEMENT OF RECEIPT OF THIS ADDENDUM IS
REQUIRED AND SHALL BE INDICATED ON BID FORM**

Marion City Hall

Pre- Bid Conference Minutes

10/15/25

See Attached Sign in sheet for attendees

Meeting was called to order at 10:00AM

Mr. Davis reviewed the project and bidding procedures outlined in the project manual.

Mr. Davis read and addressed a list of questions previously received from Bidders:

- Soils report – will be included in an addendum
- Curb & Gutter Detail and locations – will be included in an addendum
- Concrete Flume Detail – will be addressed in an addendum
- Asphalt Paving Details – Use Detail C3.1/02 Standard Duty Asphalt
- 6” of 610 fill is allowed in lieu of lime treated sub-base.
- Sidewalk will require stone aggregate underneath
- Roof Panel assembly – will be addressed in an addendum
- Disregard “R” panel roof in PEMB Specification. All roofing will be standing seam
- Roof Warranty – Will be addressed in an addendum
- Wall Panel Thickness - Will be addressed in an addendum
- Roof Installer to Install Gutters & Downspouts
- Interior wall at Window detail – Will be addressed in an addendum
- Termite Treatment under slab – Will be addressed in an addendum
- Contradiction between structural and Architectural dimensions for Courtroom Stage. Use Architectural
- The concrete around the steel columns can be poured after floor slab is poured – details will be addressed in addendum
- 4” of porous fill and a 6mil underlayment will be required under the Concrete slab.

Questions from Contractors:

- Will the architect allow the use of Procore submittal software, Yes it will be acceptable
- Is electronic bidding accepted – no
- Need clarification regarding insurance requirements – Will be addressed in addendum
- Asphalt specs have changed, will the new “Highway spec” be allowed, Will be addressed in addendum
- The area of sod is not well defined in the civil drawings - Will be addressed in addendum
- The Roof assembly is causing PEMB Manufacturers to opt out of the project - Will be addressed in addendum
- Interior columns are not coordinated between structural and Arch, Will be addressed in addendum
- Stage platform is shown as 5/8” plywood, Will be addressed in addendum
- Roller shade specification is not included, Will be addressed in addendum
- Solid surface is hard to price without more detailed information, Will be addressed in addendum

Meeting was adjourned

Prepared by Mark Davis

**Marion City Hall – Pre- Bid Conference
10/15/25 - Sign in Sheet**

Name	Company	Email
1. Mark Purdy John Purdy Keenan Douglas	DP Architects	mark@davis-purdy-architects.com
2. Larry Gill	MAYOR	mayor@marionms.org
3. Kevin Kerley	Building Ins.	Joseph.norwood88@gmail.com
4. Joseph Norwood	Town of Marion	
5. CHRIS DEUPREE	BENCHMARK	CDEUPREE@BENCHMARKMS.COM
6. Colby Ethridge	D&E Construction	Colby@dandeeconstruction.com
7. Daniel Scarborough	Roberson Construction	Daniel@RobersonConst.com
8. Todd Ratchiff	Ratchiff Electric	todd@ratchiffelectric.com
9. TRACY McILWAIN	Mc Fire Sprink	tracy@mcsprink.com
10. EG Roberts	BIG Construction	EG@BIGConstructionms.com
11. John Skelton	" "	John@BIGConstructionms.com
12. Vaughn Bennett	The Service Co.	vaughn@tscservice.com
13. Jay Joxner	JJ Contractors	Jay.Joxner@jjcont.com
14. Ken Murphy	DHC	RANGER355@NETZERU.COM
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August 14, 2025

Mr. Mark Davis
Davis+Purdy Architects
2211 5th Street Suite 105
Meridian, MS 39301

RE: GEOTECHNICAL REPORT
Town of Marion City Hall– Marion, MS
EP Project No. 25-040

Dear Mr. Davis;

Engineering Plus appreciates the opportunity to serve as consultant for the above-referenced project. The attached report represents field and laboratory methods utilized in assembling data for the final assessment of subsurface soils and ground water encountered at the project site. All field and laboratory procedures have been accomplished in general accordance with applicable ASTM standard specifications.

We believe the information presented herein is sufficient for continued planning and development. We appreciate the opportunity to work with you and look forward to assisting you in a successful project. Please contact us should you have questions regarding the information provided or if we may be of additional service.

Sincerely yours,

ENGINEERING PLUS, INC.



Lucas Leeper P.E.
Project Engineer

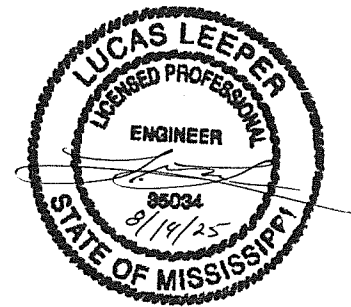
GEOTECHNICAL REPORT

Town of Marion City Hall Marion, MS

FOR

Davis+Purdy Architects
Meridian Mississippi

August 2025



Prepared by:

ENGINEERING PLUS, INC.

MERIDIAN, MISSISSIPPI

TABLE OF CONTENTS

PURPOSE AND WORK PERFORMED.....	1
DESCRIPTION OF SITE CONDITIONS	1
FIELD INVESTIGATION.....	1
LABORATORY TESTING	2
SUBSURFACE CONDITIONS.....	2
EARTHWORK AND SITE GRADING.....	3
FOUNDATION RECOMMENDATIONS	5

APPENDICES

A	SITE VICINITY MAP
B	BORING LOCATION PLAN
C	USCS CHART & BORING LOGS
D	SOIL TEST RESULTS
E	GENERAL REMARKS/REPORT LIMITATIONS

PURPOSE AND WORK PERFORMED

The purpose of this geotechnical investigation is to determine the general characteristics of surface and subsurface soils in the area of proposed construction. The work performed during this sub-surface investigation consisted of the following:

- Three (3) soil borings in the proposed construction areas to a maximum of 20 feet in depth or auger refusal;
- Natural moisture content tests on selected samples;
- Atterberg Limit determinations on selected samples;
- Grain size analyses on selected samples;
- Field observations related to site topography, and geology for the subject property and adjacent properties;
- Preparation of this report presenting our conclusions and boring logs with soil identification.

Included in our report are discussions of sub-surface characteristics, boring logs with soil identification, and discussion of existing site conditions, construction considerations, foundation recommendations, and estimated allowable bearing capacities.

DESCRIPTION OF SITE CONDITIONS

The project site investigated is located on the western side of Dale Drive, at its intersection with Confederate Drive in Marion, MS. Specifically, the target property is located southwest of the existing Town of Marion City Hall. At the time of the investigation, the target area of the site was a cleared lot with some topsoil still present across the site with residual grubbing debris. The site was occupied by a large hill present on the north side of the site draining south to the intersection. Proposed site improvements include the construction of a new Town of Marion City Hall with associated parking and drives.

FIELD INVESTIGATION

Three (3) borings were drilled by an Engineering Plus drill crew utilizing a Mobile B-25 truck-mounted continuous flight auger at the proposed area of construction to maximum depths of twenty (20) feet below ground surface or auger refusal. The approximate boring locations were staked by an Engineering Plus drill crew utilizing preliminary site information, and direction provided by Davis+Purdy Architects. **These locations were strategically placed to achieve site access, remain in appropriate construction areas, and to responsibly avoid inflicting damage to any underground or overhead utilities that were located during the site investigation.** Boring locations are plotted on the Boring Location Plan in Appendix B.

Representative samples were collected from auger cuttings or a 2-inch outside diameter split barrel sampler. Samples were collected continuously for the first 6 - 10 ½ feet and at 2½-foot to 5-foot intervals to boring termination. Additionally, Standard Penetration Resistance values (See ASTM D-1586) were determined and recorded on the boring logs for the various soils encountered. The Standard Penetration Resistance, or “N” value, is the number of blows required to drive an 18-inch standard split barrel sampler the final 12 inches utilizing a 140-pound hammer and a free fall height of 30 inches. An automatic hammer system was utilized during Standard Penetration Testing. As the samples were collected, they were field classified and immediately placed in airtight containers for future testing and classification.

Groundwater was encountered during our investigation. Additional comments regarding groundwater are in the section titled Subsurface Conditions.

LABORATORY TESTING

Laboratory analysis of selected samples included visual classification, moisture content determination, Atterberg limits and grain size analysis. A professional engineer prepared the final boring logs from field logs, collected samples and laboratory test results.

To aid in the general interpretation of the soil conditions at the project site, in-situ moisture contents (See ASTM D-4643) were determined within the various soil strata. This determination was made possible by placing extracted samples in sealed containers immediately upon removal from the sub-surface. Results of moisture content testing are depicted on the attached boring logs (See Appendix C).

Atterberg limit tests were conducted to determine the susceptibility of the cohesive soils encountered to shrink and swell with changes in moisture content. Liquid and plastic limit tests (See ASTM D-4318) were performed for selected representative samples taken from the various soil strata encountered. The liquid limit (LL) is the moisture content above which a soil behaves as a viscous fluid, whereas the plastic limit (PL) is the moisture content below which the soil behaves as a solid. The plasticity index (PI) is the numerical difference between the liquid and plastic limit and is indicative of the relative activity of a cohesive soil.

Soils exhibiting a low plasticity index are relatively inactive and are ordinarily suitable as a foundation material. Conversely, soils having a high plasticity index are susceptible to varying degrees of volume change (i.e. shrinkage and swelling) with fluctuations in moisture content.

Atterberg limit testing for representative samples taken from the project area indicate on-site soils to have plasticity indices ranging from 13 to 54. The majority of the soils encountered in the upper strata showed moderate to high potential for volume change. Results of Atterberg limit testing are depicted on the attached boring logs (See Appendix C).

Grain size analyses (See ASTM D-6913) were conducted on representative samples of the various soils encountered to determine the particle size distribution of materials comprising the strata. Results of these tests can be utilized in classifying the soils in accordance with the Unified Soil Classification System (See ASTM D-2487).

For your convenience, a listing of the symbols recognized by the Unified Soil Classification System and their meaning is provided with the boring logs (See Appendix C).

SUBSURFACE CONDITIONS

Details of subsurface conditions encountered by the soil borings are shown on the boring logs located in Appendix C. The boring logs represent our interpretation of the subsurface conditions based upon examination of the collected samples and laboratory testing of selected samples. Stratification lines on the boring logs represent approximate boundaries between soil types; however, the actual transition between soil types may be gradual. The general soil conditions and their pertinent characteristics are discussed below.

Boring No. 1 encountered a 1.5-foot stratum of silty sand underlain by a 5.5-foot stratum of sandy clay. The remaining depth of the boring encountered expansive or "fat" clay to boring termination at 20 feet below ground surface. Groundwater was not encountered during drilling activities.

Boring No. 2 discovered a 12-foot stratum of fat clay underlain by a 4-foot stratum of fully saturated silty sand. The remaining boring depth encountered fat clay. Groundwater was encountered during drilling activities at a depth of 12 feet with no delayed reading obtained.

Boring No. 3 exclusively encountered fat clays to boring termination 5 feet below ground surface. Groundwater was not encountered during drilling activities.

The borings are representative of subsurface conditions at the boring locations and for their vertical reach. Should materials not described in this report be encountered during construction, we respectfully request the opportunity to evaluate those materials and, if warranted, make changes and/or additions to any recommendations.

Groundwater was encountered at boring location 2 at a depth of 12 feet. It should be noted that groundwater levels may fluctuate seasonally and can be affected by changes in site development. Due to the anticipated depths of excavation at this site, we do not anticipate groundwater being a factor during typical foundation construction.

EARTHWORK AND SITE GRADING

We understand the site improvements include the construction of a new Town of Marion City Hall Building centrally located on the north side of the target property. The final site grading plan was not complete at the time of this investigation. However, based on existing site conditions, it appears site grading and earthwork will primarily involve cutting from the north and some fill placement south towards the intersection of Dale Drive and Confederate Drive. Both suitable and unsuitable soil types were discovered at the higher elevation on site, near the proposed building footprint, with exclusively unsuitable soils found in the proposed drive area. Though final foundation bearing elevations are unknown at this time, it is anticipated that these unsuitable soils will be encountered during typical foundation construction. Expansive or “fat” clays (CH) are considered to have high shrink swell potential and can experience significant volume changes with seasonal moisture fluctuations. The use of these materials at foundation bearing elevations could prove detrimental to the proposed structure if not properly remediated. Due to the varying types of clays at potential foundation depths, we recommend soil buffer construction below any building or pavement structures in the project area.

Soil Buffer Construction

It is our recommendation that a soil buffer be constructed below the proposed structure foundations to provide a barrier between existing materials and the structure. This barrier shall act to provide stability and maintain constant moisture beneath the foundation so that moisture-induced volume change is minimized. In addition to creating a barrier to potentially problematic soils, the buffer creates a homogeneous soil foundation between native soils and structure foundation members to limit the risk of differential settlement.

The recommended soil buffer should be constructed below any structural areas and should consist of a debris-free material, non-organic and classified as a lean clay, clayey sand or silty sand (CL, SC or SM) with a plasticity index (PI) within the range of 6 to 25 and a liquid limit less than 45. This soil buffer should extend a minimum of 3 feet below the proposed foundation bearing elevation within the building footprint and 5 feet horizontally beyond any structures. The buffer shall also extend a minimum of 1.5 feet below pavement elevation. If on site soils are encountered during grading activities that meet the above requirements, they can be reused as structural fill.

The buffer discussed above may include vertical fill placement in conjunction with minimized over-excavation as necessary. For instance, the soil buffer required within the building structure footprint may include approximately 2 feet of over-excavation with an additional 1 foot of fill material placement. Therefore, site design for layout and finish grade elevations can be designed in a manner to reduce additional costs in construction of the soil buffer.

During any demolition and prior to foundation construction, it is imperative that any debris, organics, and humus matter encountered in excavations should be removed from structural areas. After all demolition and necessary excavations are complete, the existing in-place soils should be scarified to a minimum depth of 12 inches and re-compacted. After all necessary excavations and scarification are complete the site should be inspected by the engineer or his representative to confirm compatibility with the findings and recommendations of this report. The inspection will also provide opportunity to confirm stability or locate any unstable areas. “Proof-rolling”, if applicable, may be necessary to confirm stability of the in-place soils. Proof-rolling is conducted by traversing the site with a loaded tandem-axle dump truck to identify ruts or signs of in-stability. Remediation of soft or unstable areas may consist of re-mixing, moisture conditioning (processing), over-excavation, and/or geotextile reinforcement such as MDOT Type 6 180NW or approved equivalent but should be determined on a case-by-case basis by the engineer.

In areas which will support structures, the soil subgrade and any necessary fill placement should be compacted to a minimum of 95% of maximum dry density per Standard Proctor (ASTM-D 698). Compaction should be achieved in maximum loose lifts of 12 inches at a moisture content comparable ($\pm 2.0\%$) to the optimum moisture content established in the laboratory and compaction verified with each lift. It is recommended minimum of one density test be performed approximately every 1,000 square feet per lift for building earthwork construction.

Temporary dewatering measures may be necessary to remove water from near-surface soils during construction. If needed, dewatering methods may be left at the discretion of the contractor but should be in-place prior to subgrade inspection by the engineer. Options for dewatering include a sump pump, well-pointing, or an underdrain system to remove any sub-surface water that may affect soil stability.

Existing soils in the near surface strata, once they are exposed, may be prone to instability during inclement weather and when subjected to repetitive construction traffic. These soils will also be influenced by the season of the year when earthwork is performed. The near surface soils will be dryer during the late summer and early fall months. We recommend that earthwork be performed during the dry summer or fall season, if the schedule permits. **Final grading, as well as grading during construction, should be such that surface water and storm water is expediently removed from the proximity of any structures.** Further, construction traffic across the site should be limited to prevent subgrade materials, which initially may demonstrate adequate stability, from becoming unstable. Actual on-site conditions may vary from soil characteristics shown in this report. Additionally, should significant revisions be made prior to the final design, we respectfully request the opportunity to re-evaluate these recommendations with the final design documents.

It should be noted that all areas on-site cannot be thoroughly evaluated for soil conditions through the use of three small borings. In order to verify that compaction and moisture requirements are satisfied during construction, it is imperative that competent laboratory personnel conduct field density tests on each lift at sufficient frequency throughout earthwork operations. **We strongly recommend a competent testing laboratory be retained to perform construction testing to verify the recommendations of this report are properly interpreted and executed.**

FOUNDATION RECOMMENDATIONS

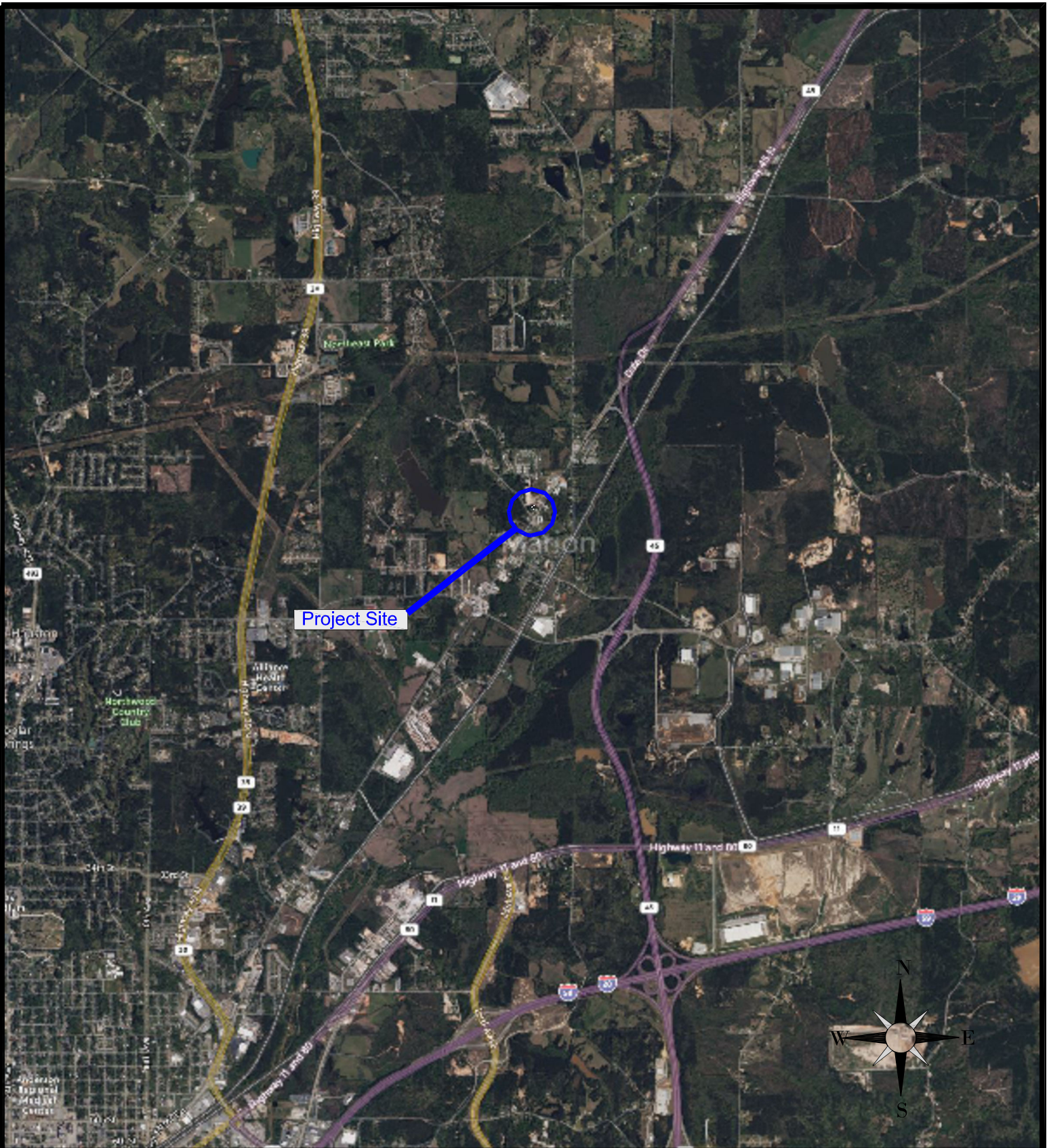
Based on the anticipated structural loads for a single-story structure, subsurface conditions, and anticipated import fill usage, the proposed building may be supported on a shallow foundation system. A suitable option would include a monolithically cast, reinforced concrete slab-on-grade with stiffened grade beams beneath load-bearing walls and isolated footings beneath concentrated column loads. Alternatively, conventional isolated spread footings with a separate slab-on-grade may also be feasible. Any required earthwork should be accomplished in strict accordance with the criteria stipulated above under **EARTHWORK AND SITE GRADING**.

The maximum allowable soil pressure beneath foundation members should not exceed 2,800 psf (pounds per square foot of contact area). Bearing capacities have been determined utilizing a factor of safety of 2.5. **Final footing size and required reinforcing steel and details should be determined by the structural consultant.**

We recommend that foundation excavations be left open for the shortest amount of time possible to minimize the chance of bearing soils being exposed to moisture. Any required earthwork should be accomplished in strict accordance with the criteria stipulated above under **EARTHWORK AND SITE GRADING**.

The bearing capacities recommended are applicable for structural fill provided the fill material meets the requirements described under **EARTHWORK AND SITE GRADING**.

APPENDIX A
SITE VICINITY MAP



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 3862 Jefferson Street Macon, Mississippi 39341 (662) 726-1074
 Email: engplus@engineeringplus.com

SITE VICINITY MAP TOWN OF MARION CITY HALL MARION, MS

DWG FILE:

MAP SOURCE: CIVIL3D

JOB NO: 25-040

DATE: 8-14-25

DRAWN BY: :LWL

CHECKED BY: RLA



APPENDIX B
BORING LOCATION PLAN



APPROXIMATE BORING LOCATION

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BORING LOCATION PLAN TOWN OF MARION CITY HALL MARION, MS

DWG FILE:

MAP SOURCE: CIVIL3D

JOB NO: 25-040

DATE: 8-14-25

DRAWN BY: :LWL

CHECKED BY: RLA



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APPENDIX C

USCS CHART & BORING LOGS

Major Divisions		Group Symbols	Typical Names	Laboratory Classification Criteria					
Coarse-grained soils (More than half of material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel sand mixtures, little or no fines	Determine percentages of gravel and sand from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:	$C_u = D_{60}/D_{10} > 4;$ $C_c = D_{30}^2 / (D_{10} \times D_{60})$ between 1 and 3			
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines			Not meeting all gradation requirements for GW		
		Gravels with fines (Appreciable amount of fines)	GM*	d		Silty gravels, gravel-sand-silt mixtures	Atterberg limits below "A" line with P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols	
				u					
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	SW	Well-graded sands, gravelly sands, little or no fines		Less than 5 percent More than 12 percent 5 to 12 percent	$C_u = D_{60}/D_{10} > 6,$ $C_c = D_{30}^2 / (D_{10} \times D_{60})$ between 1 and 3		
			SP	Poorly graded sands, gravelly sands, little or no fines				Not meeting all gradation requirements for SW	
		Sands with fines (Appreciable amount of fines)	SM*	d			Silty sands, sand-silt mixtures	Atterberg limits below "A" line with P.I. less than 4	Limits plotting in hatched zone with P.I. between 4 and 7 are borderline requiring use of dual symbols
				u					
			SC	Clayey sands, sand-clay mixtures			Atterberg limits Above "A" line with P.I. greater than 7		
Fine-grained soils (More than half of material is smaller than No. 200 sieve size)	Silts and Clays (Liquid limit less than 50)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Plasticity Chart 					
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays lean clays						
		OL	Organic silts and organic silty clays of low plasticity						
	Silts and clays (Liquid limit greater than 50)	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty, elastic silts						
		CH	Inorganic clays of high plasticity, fat clays						
		OH	Organic clays of medium to high plasticity, organic silts						
	Highly organic soils	Pt	Peat and other highly organic soils						

*Division of GM and SM groups into subdivisions of d and u are for roads and airfields only. Subdivision is based on Atterberg limits; suffix d used when L.L. is 28 or less and the P.I. is 6 or less; the suffix u used when L.L. is greater than 28.

**Borderline classifications, used for possessing characteristics of two groups, are designated by combinations of group symbols. For example: GW-GC, well-graded gravel-sand mixture with clay binder.

Engineering Plus, Inc.

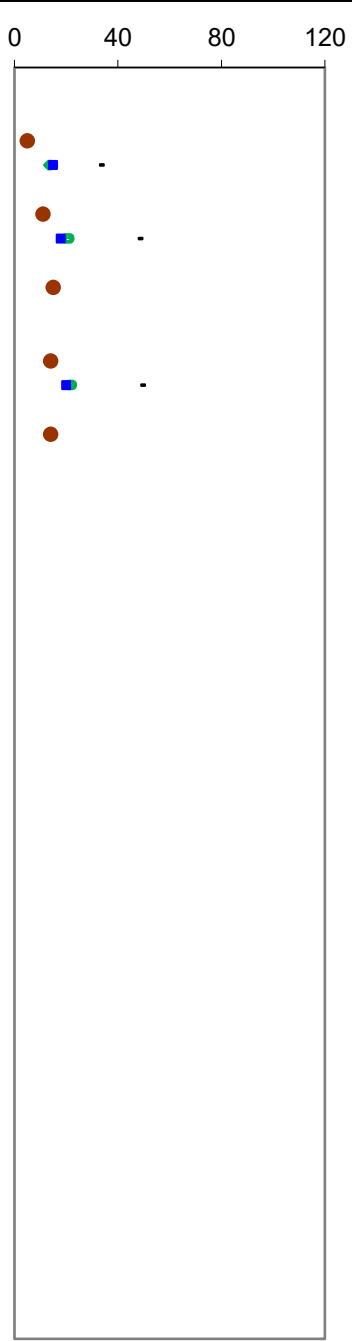
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SOIL BORING LOG

PROJECT: Town of Marion City Hall	PROJECT NO: 25-040
CLIENT: D&P Architects	BORING NO: B-1
LOGGER: Lucas Leeper	DATE: 7/30/2025
DRILLER: Preston Chang	SURFACE ELEVATION: ±390

Water Level	Depth (ft)	Sample	SPT	N - Value	DCP (blows/.75')	Classification	Rig: Mobile B-25				Moisture Content (%)	Liquid Limit	Plasticity Index	- 200 %	Hammer: Autohammer Plastic Limit / Moisture Liquid Limit / N - Value
							Drilling Method: 2 1/4 SSA w/ SPT								
							Boring Depth: 20 Feet								
							Visual Classification - Remarks								
	0						<i>approximately 10 inches of topsoil</i>								
		2				SM	light gray silty sand								
		3													
		2		5		CL	brown sandy clay <i>loose</i>				15	33	13	54	
		4													
		6													
		5		11		CL	brownish red sandy clay <i>stiff</i>				18	48	20	58	
		5													
		6													
		9		15		CL	brownish red sandy clay <i>stiff</i>								
	5	4													
		6													
		8		14		CL	red sandy clay <i>stiff</i>				20	49	21	52	
		4													
		7													
		7		14		CH	reddish gray fat clay								
	10					CH	brownish red fat clay								
	15					CH	brown fat clay								
	20						<i>boring terminated @ -20 feet</i>								
	25														



<input type="checkbox"/> Auger (ASTM D 1452) <input checked="" type="checkbox"/> Standard Penetration Test (ASTM D 1586)	<input checked="" type="checkbox"/> Shelby Tube (ASTM D 1587) <input checked="" type="checkbox"/> Initial Water Level <input checked="" type="checkbox"/> Delayed Water Level	Notes: Groundwater was not encountered during drilling activities.	<input checked="" type="checkbox"/> N - Value <input checked="" type="checkbox"/> Moisture <input checked="" type="checkbox"/> Liquid Limit <input checked="" type="checkbox"/> Plastic Index
---	---	--	--

Engineering Plus, Inc.

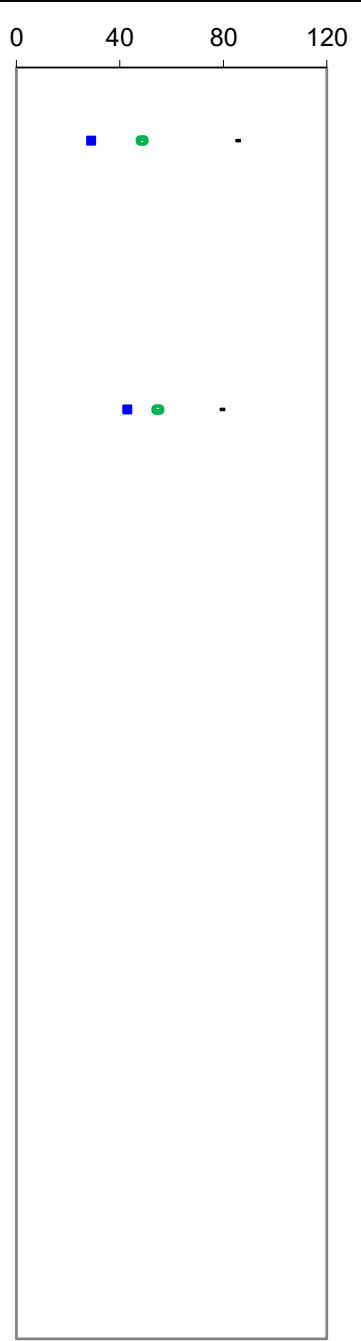
Planning - Surveying - Testing - Landscape Design

1724 B 23rd Avenue Meridian, Mississippi 39301 (601) 693-4234

SOIL BORING LOG

PROJECT: Town of Marion City Hall	PROJECT NO: 25-040
CLIENT: D&P Architects	BORING NO: B-2
LOGGER: Lucas Leeper	DATE: 7/30/2025
DRILLER: Preston Chang	SURFACE ELEVATION: ±393

Water Level	Depth (ft)	Sample	SPT	N - Value	DCP (blows/.75")	Classification	Rig: Mobile B-25				Moisture Content-(%)	Liquid Limit	Plasticity Index	- 200 %	Hammer: Autohammer								
							Drilling Method: 2 1/4 SSA w/ SPT								Backfill Method: Cuttings				Plastic Limit / Moisture				
							Boring Depth: 20 Feet				Liquid Limit / N - Value												
							Visual Classification - Remarks																
	0						approximately 6 inches of topsoil																
						CH	reddish gray fat clay							29	85	48	85						
	5																						
						CH	brownish red fat clay							43	79	54	84						
	10																						
						SM	yellowish brown silty sand fully saturated																
	15																						
						CH	dark gray fat clay																
	20						boring terminated @ -20 feet																
	25																						



Auger (ASTM D 1452) Shelby Tube (ASTM D 1587)
 Standard Penetration Test (ASTM D 1586) Initial Water Level
 Delayed Water Level

Notes: Groundwater was encountered at 12 feet during drilling activities. DR not obtained.

N - Value Moisture
 Liquid Limit Plastic Index

Engineering Plus, Inc.

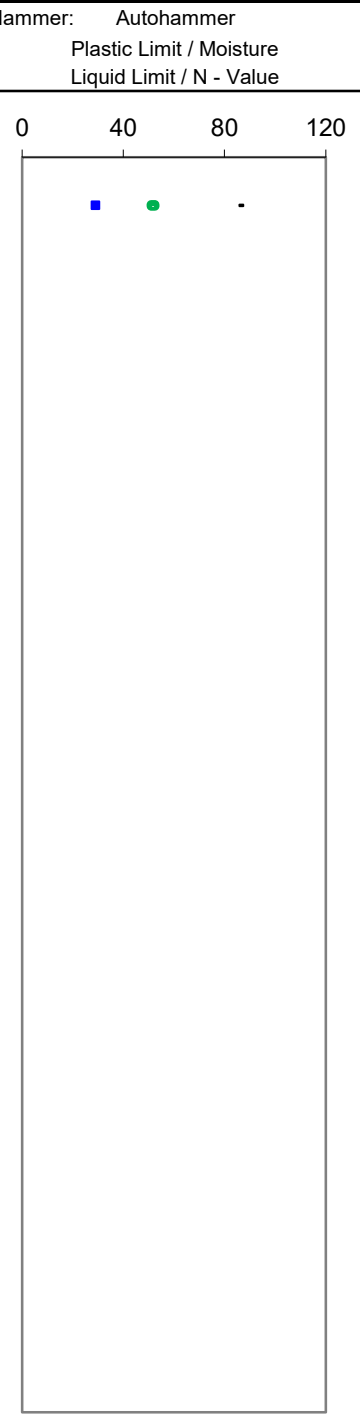
Planning - Surveying - Testing - Landscape Design

1724 B 23rd Avenue Meridian, Mississippi 39301 (601) 693-4234

SOIL BORING LOG

PROJECT: Town of Marion City Hall	PROJECT NO: 25-040
CLIENT: D&P Architects	BORING NO: B-3
LOGGER: Lucas Leeper	DATE: 7/30/2025
DRILLER: Preston Chang	SURFACE ELEVATION: ±386

Water Level	Depth (ft)	Sample	SPT	N - Value	DCP (blows/7.5")	Classification	Rig: Mobile B-25				Moisture Content (%)	Liquid Limit	Plasticity Index	- 200 %	Hammer: Autohammer			
							Drilling Method: 2 1/4 SSA w/ SPT	Backfill Method: Cuttings	Boring Depth: 5 Feet	Visual Classification - Remarks					Plastic Limit / Moisture	Liquid Limit / N - Value		
	0					CH	brownish red fat clay			29	86	51	96	0	40	80	120	
	5						<i>boring terminated @ -5 feet</i>											
	10																	
	15																	
	20																	
	25																	



<input type="checkbox"/> Auger (ASTM D 1452) <input checked="" type="checkbox"/> Standard Penetration Test (ASTM D 1586)	<input checked="" type="checkbox"/> Shelby Tube (ASTM D 1587) <input type="checkbox"/> Initial Water Level <input type="checkbox"/> Delayed Water Level	Notes: <i>Groundwater was not encountered during drilling activities.</i>	<input type="checkbox"/> N - Value <input type="checkbox"/> Liquid Limit <input checked="" type="checkbox"/> Moisture <input checked="" type="checkbox"/> Plastic Index
---	---	---	--

APPENDIX D
SOIL TEST RESULTS

Engineering Plus, Inc.

Planning - Surveying - Testing - Landscape Design

1724 B 23rd Avenue Meridian, Mississippi 39301 (601) 693-4234

Sieve Analysis

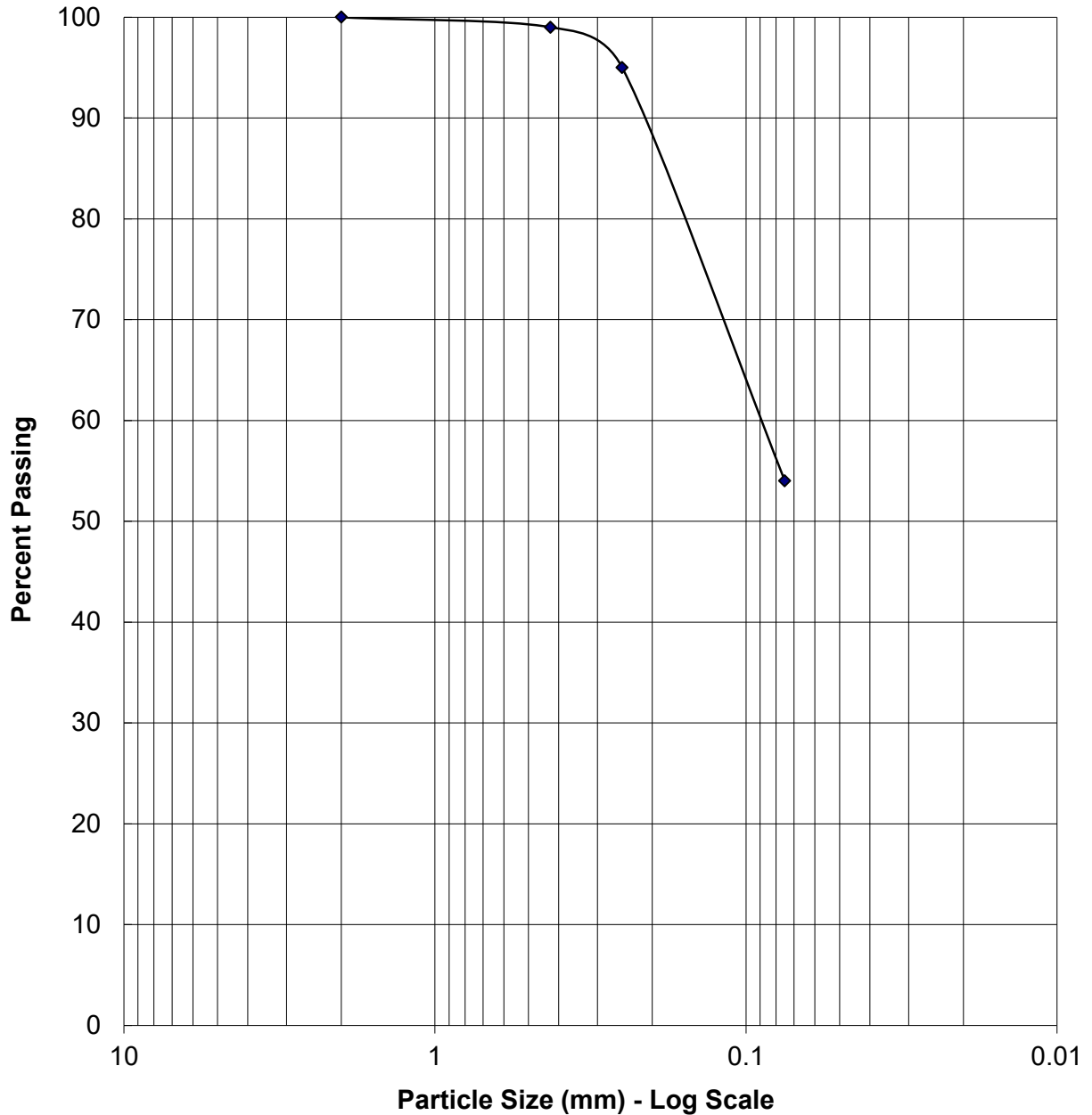
PROJECT: Town of Marion City Hall

PROJECT NO: 25-040

CLIENT: D&P Architects

DATE: 8/14/2025

Sieve Analysis



Description: brown sandy clay

Boring No:	B-1	Moisture Content	Atterberg Limits			Volume Change	Classification	
			LL	PL	PI		Unified	AASHTO
Depth:	1.5-3	15	33	20	13	29%	CL	
Sieve	Sieve Size (mm)	% Passing						
No. 10	2	100						
No. 40	0.425	99						
No. 60	0.25	95						
No. 200	0.075	54						

Engineering Plus, Inc.

Planning - Surveying - Testing - Landscape Design

1724 B 23rd Avenue Meridian, Mississippi 39301 (601) 693-4234

Sieve Analysis

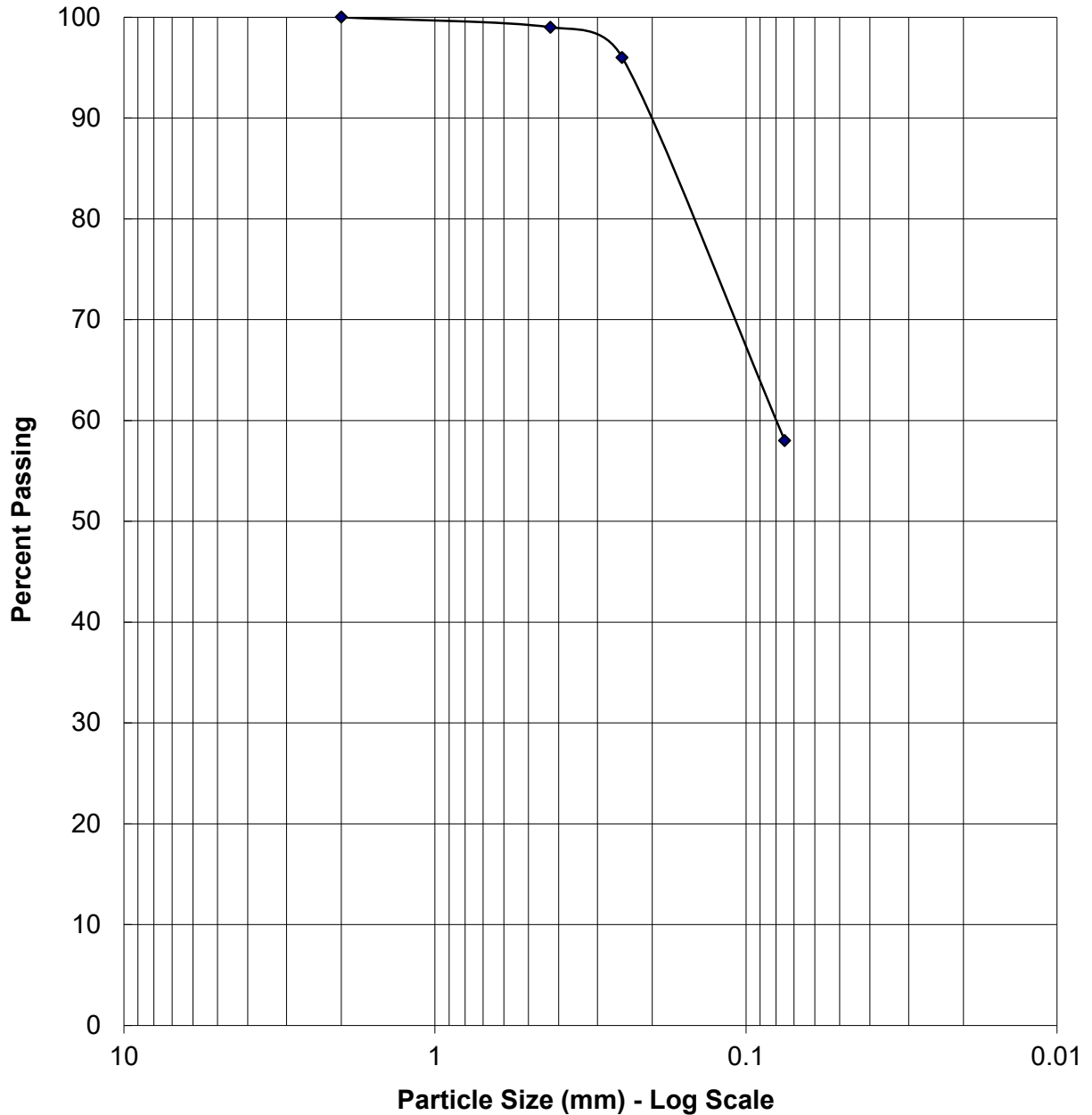
PROJECT: Town of Marion City Hall

PROJECT NO: 25-040

CLIENT: D&P Architects

DATE: 8/14/2025

Sieve Analysis



Description: brownish red sandy clay

Boring No:	B-1	Moisture Content	Atterberg Limits			Volume Change	Classification	
Depth:	3-4.5		LL	PL	PI		Unified	AASHTO
		18	48	28	20	35%	CL	
Sieve	Sieve Size (mm)	% Passing						
No. 10	2	100						
No. 40	0.425	99						
No. 60	0.25	96						
No. 200	0.075	58						

Engineering Plus, Inc.

Planning - Surveying - Testing - Landscape Design

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Sieve Analysis

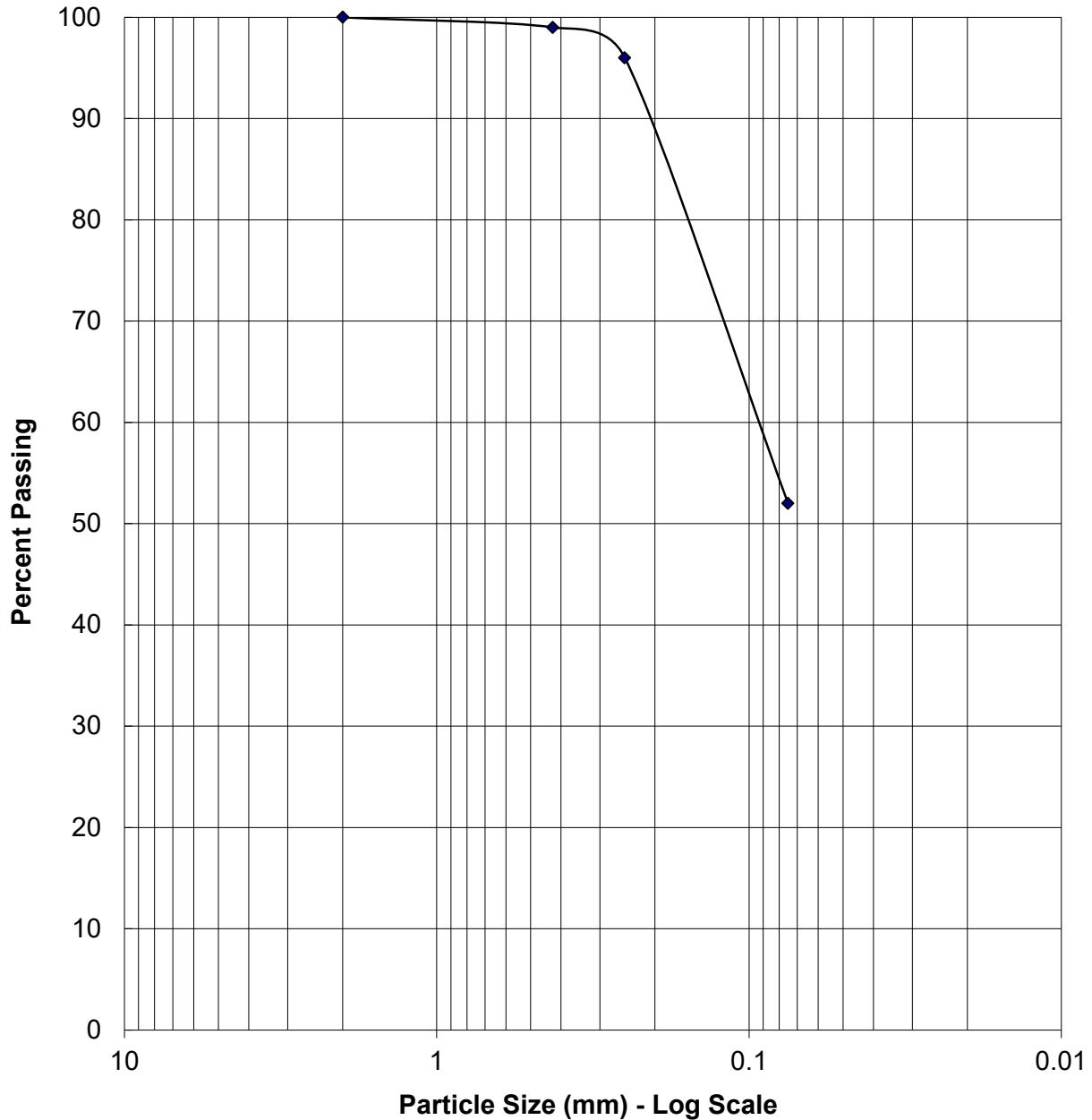
PROJECT: Town of Marion City Hall

PROJECT NO: 25-040

CLIENT: D&P Architects

DATE: 8/14/2025

Sieve Analysis



Description: red sandy clay

Boring No:	B-1	Moisture Content	Atterberg Limits			Volume Change	Classification	
Depth:	6-7.5		LL	PL	PI		Unified	AASHTO
		20	49	28	21	31%	CL	
Sieve	Sieve Size (mm)	% Passing						
No. 10	2	100						
No. 40	0.425	99						
No. 60	0.25	96						
No. 200	0.075	52						

Engineering Plus, Inc.

Planning - Surveying - Testing - Landscape Design

1724 B 23rd Avenue Meridian, Mississippi 39301 (601) 693-4234

Sieve Analysis

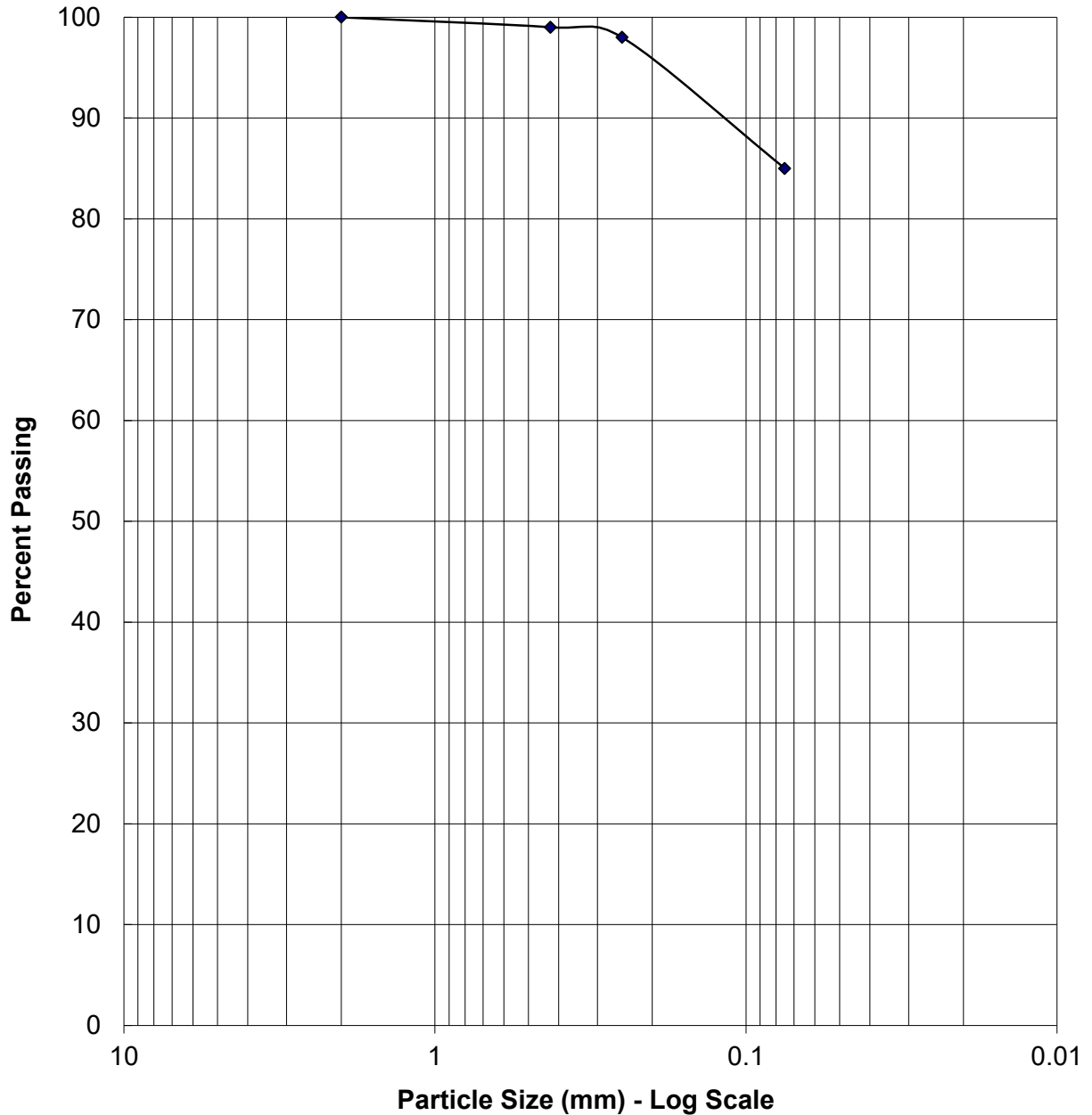
PROJECT: Town of Marion City Hall

PROJECT NO: 25-040

CLIENT: D&P Architects

DATE: 8/14/2025

Sieve Analysis



Description: reddish gray fat clay

Boring No:	B-2	Moisture Content	Atterberg Limits			Volume Change	Classification	
Depth:	6"-6.5'		LL	PL	PI		Unified	AASHTO
		29	85	37	48	59%	CH	
Sieve	Sieve Size (mm)	% Passing						
No. 10	2	100						
No. 40	0.425	99						
No. 60	0.25	98						
No. 200	0.075	85						

Engineering Plus, Inc.

Planning - Surveying - Testing - Landscape Design

1724 B 23rd Avenue Meridian, Mississippi 39301 (601) 693-4234

Sieve Analysis

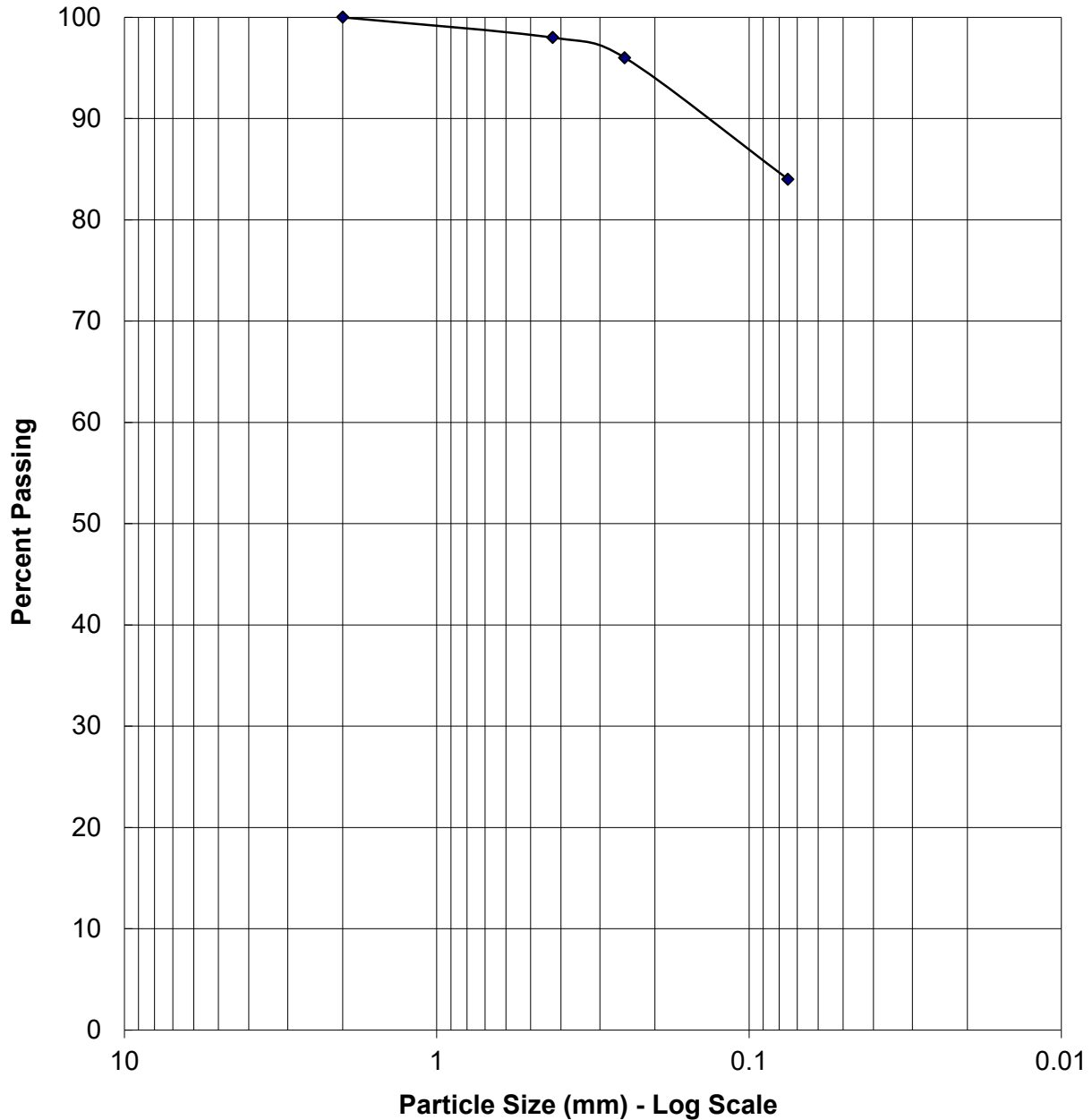
PROJECT: Town of Marion City Hall

PROJECT NO: 25-040

CLIENT: D&P Architects

DATE: 8/14/2025

Sieve Analysis



Description: brownish red fat clay

Boring No:	B-2	Moisture Content	Atterberg Limits			Volume Change	Classification	
Depth:	6.5-12		LL	PL	PI		Unified	AASHTO
		43	79	25	54	55%	CH	
Sieve	Sieve Size (mm)	% Passing						
No. 10	2	100						
No. 40	0.425	98						
No. 60	0.25	96						
No. 200	0.075	84						

Engineering Plus, Inc.

Planning - Surveying - Testing - Landscape Design

1724 B 23rd Avenue Meridian, Mississippi 39301 (601) 693-4234

Sieve Analysis

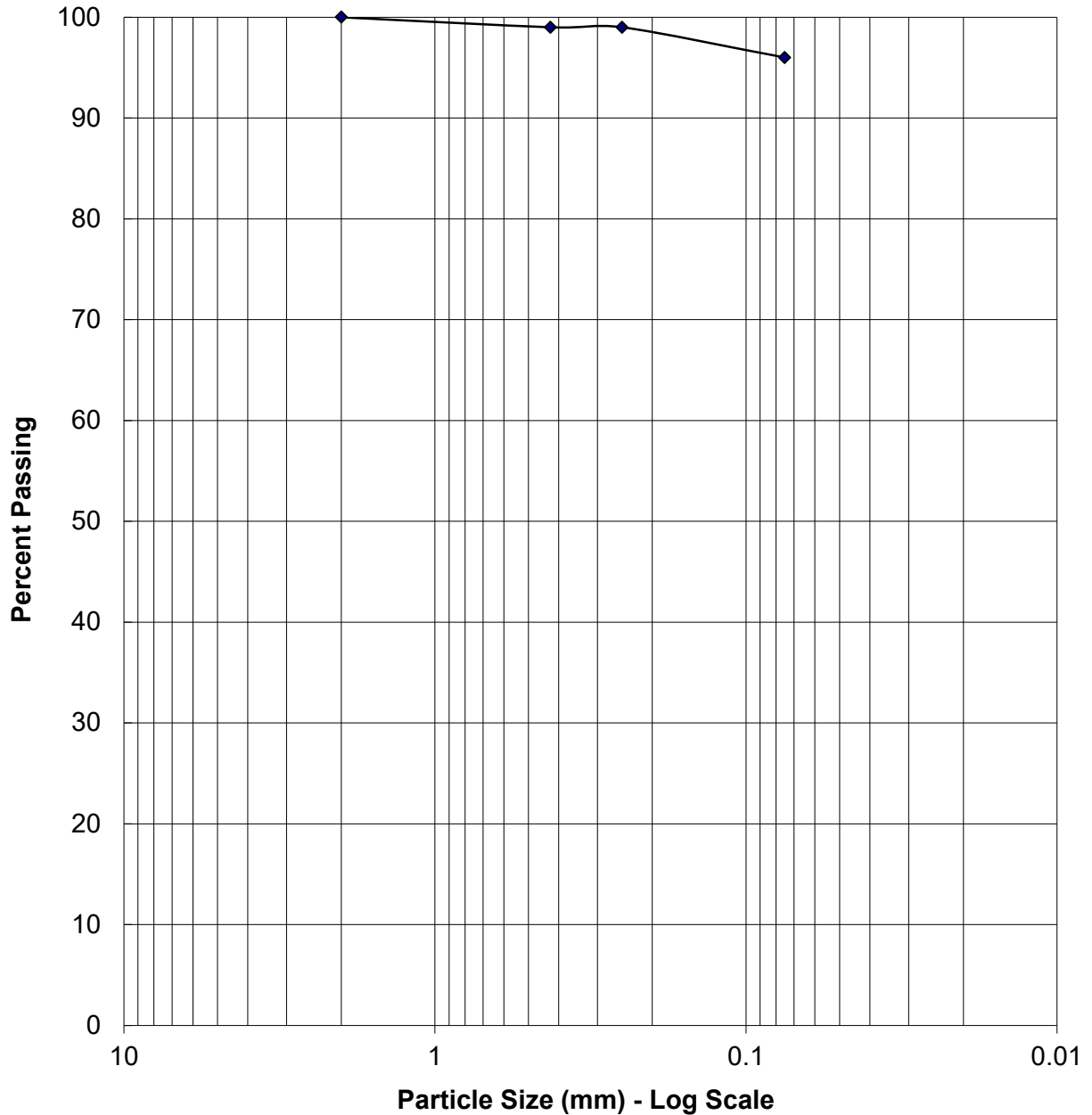
PROJECT: Town of Marion City Hall

PROJECT NO: 25-040

CLIENT: D&P Architects

DATE: 8/14/2025

Sieve Analysis



Description: brownish red fat clay

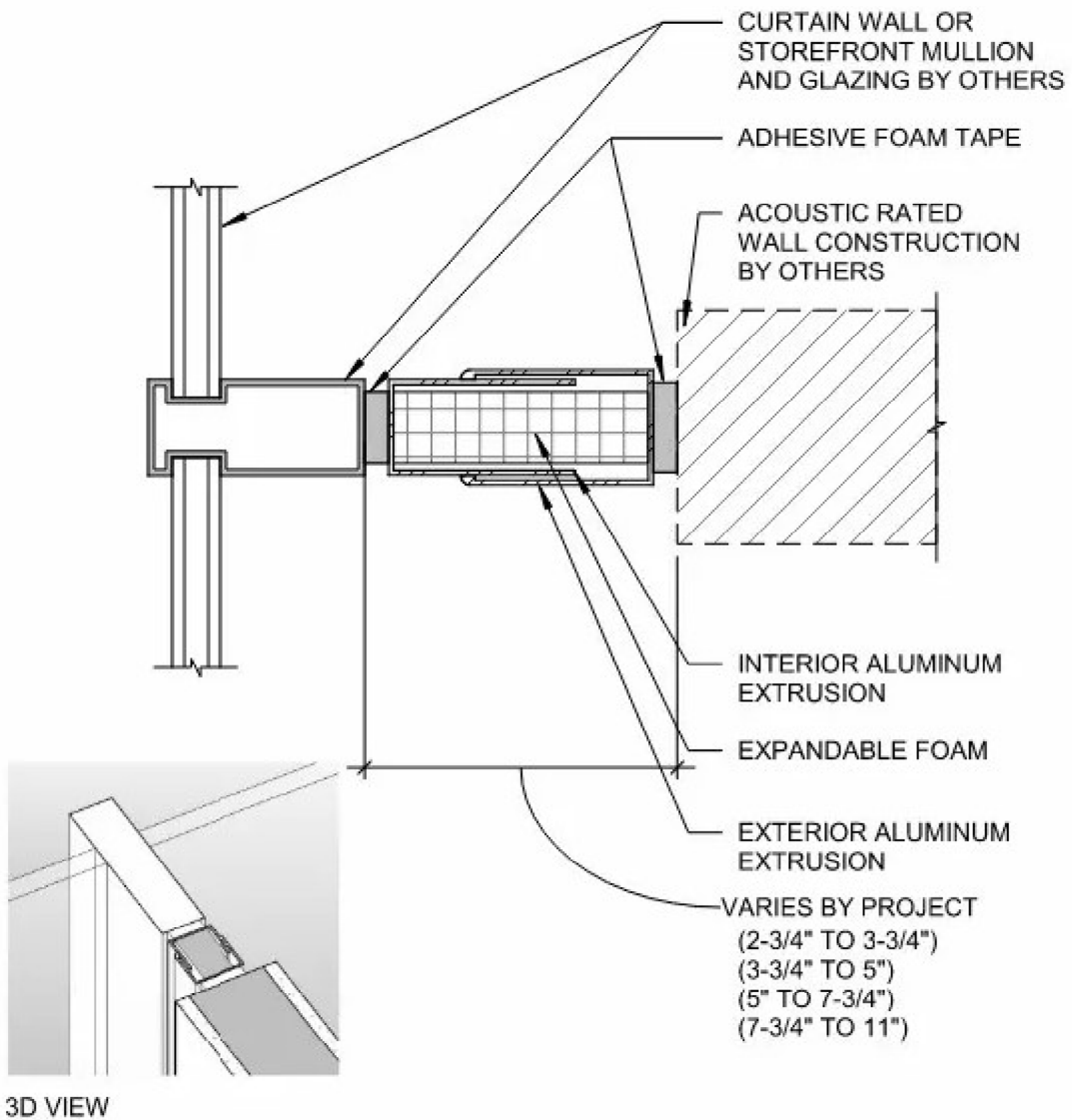
Boring No:	B-3	Moisture Content	Atterberg Limits			Volume Change	Classification	
Depth:	0-5		LL	PL	PI		Unified	AASHTO
		29	86	35	51	58%	CH	
Sieve	Sieve Size (mm)	% Passing						
No. 10	2	100						
No. 40	0.425	99						
No. 60	0.25	99						
No. 200	0.075	96						

APPENDIX E

GENERAL REMARKS/REPORT LIMITATIONS

GENERAL REMARKS/REPORT LIMITATIONS

- This report has been prepared for the exclusive use of the owner for specific application to the subject property.
- This publication is intended for the use of professional personnel competent to evaluate the significance and limitations of its contents and responsible for the applications of the information and recommendations presented.
- All recommendations contained in this report have been made in accordance with generally accepted soil and foundation engineering practices. No other warranties are implied or expressed.
- Assessment of site environmental conditions or the presence of contaminants in the soil, or in groundwater at the site is beyond the scope of this investigation, unless otherwise noted.
- The analysis and recommendations are based upon the data obtained from the soil borings. The nature and extent of variations between the soil test borings may not become evident until construction. If variations then appear evident, it may be necessary to re-evaluate the recommendations of this report.
- This report was prepared for design purposes only and is not intended to be utilized as an earthwork specification for construction. Contractors reviewing this report should acknowledge that discussions and recommendations contained herein are for design purposes.
- When the plans and specifications are more complete or if significant changes are made in the character of the proposed structure, a consultation should be arranged to review them with respect to prevailing soil conditions. At that time, it may be necessary to submit supplementary recommendations.
- The geotechnical engineer should be retained to review the final plans and specifications to verify that recommendations in this report are properly interpreted and incorporated in the design. If the geotechnical engineer is not accorded the privilege of making this review, then he can assume no responsibility for misinterpretation of recommendations.



PLAN DETAIL @ MULLION

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

SECTION 00 60 01 – SUPPLEMENTAL CONDITIONS

The following supplements modify the “General Conditions of the Contract for Construction,” AIA Document A232-2009. General conditions not modified herein shall remain in effect.

ARTICLE 1 GENERAL PROVISIONS

Add new 1.1.9 Miscellaneous Definitions

- 1.1.9.1 The term “produce” includes materials, systems and equipment.
- 1.1.9.2 The term “or equal” means “an equal approved by the Architect”.
- 1.1.9.3 The term “provide” means “furnish and install”.

Add the following clauses to subparagraph 1.2.1

1.2.1.1 In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the more expensive combination of quality and quantity of Work shall be provided in accordance with the Architect’s interpretation at no additional cost and/or time to the Owner.

1.6 Transmission of Data in Digital Form

Delete the phrase “they shall endeavor to” and insert the phrase “the Architect shall”.

ARTICLE 2 OWNER

2.2 Information and Services Required of the Owner

2.2.1 Add the following to the beginning of Article 2.2.1: “If the Project is not funded by public funds, then”

2.2.3 Delete Article 2.2.3 in its entirety.

2.2.7 Add new 2.2.7

The Owner has retained W.G. Yates & Sons Construction Company to provide construction management services for the Project. Contractor acknowledges (i) that the role of the Construction Manager is to function solely on behalf of and for the benefit of the Owner, (ii) that the Contractor waives all claims, whether in contract, tort or otherwise, it may have against the Construction Manager, (iii) that the Construction Manager shall be an additional insured on the policies of the Contractor and that all such policies shall contain a waiver of subrogation in favor of the Construction Manager and Owner (iv) that the Contractor shall defend, indemnify and hold harmless Owner, Construction Man-

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

ager and Architect from any and all claims, demands, and suits (including, but not limited to suits for bodily injury and property damage) in any way arising out of or related to Contractor's contract or alleged failure of Contractor to perform its responsibilities or obligations. Contractor must, without charge, work cooperatively with all Contractors to coordinate its work with the work of such contractors, including modifying its schedule and activities and that, to further such coordination, it must, when requested by the Construction Manager, submit to the Construction Manager, a current updated copy of its detailed schedule to demonstrate the status of such coordination and, if the Construction Manager deems it necessary, to modify its schedule as and in the manner required by the Construction Manager or as required to coordinate the work of the Contractor with that of other contractors on the Construction and to execute its work in the manner shown on the revised schedule. Any modifications required by the Construction Manager or to coordinate with the work of others shall not result in any claims against the Construction Manager, Architect or the Owner and all such claims are waived. While the Construction Manager may have the right to take such action, in no respect shall the Owner, Architect or Construction Manager be obligated to do so. Contractor shall report directly to the Owner, Architect and Construction Manager.

ARTICLE 5 SUBCONTRACTORS

5.2 Award of Subcontracts and Other Contracts for Portions of the Work.

5.2.1 Delete "Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract" in the first sentence and insert "Prior to the Contractor submitting its first Application for Payment and as a condition precedent to the Owner to make payments the Contractor"

ARTICLE 6 CONSTRUCTION BY OWNER OR BY OTHER CONTRACTORS

6.1 Owner's Right to Perform Construction with Own Forces or by other Contractors.

6.1.1, 6.1.2, 6.1.3 Delete in their entirety and insert 6.1.1 as follows:

The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces and to award separate Contracts in conjunction with other portions of the Project or other construction or operations on site. The Contractor shall coordinate its activities with those of the Owner and of other Contractors to facilitate the progress of all work being performed by all parties involved in the Project. The Contractor shall provide cooperation in all aspects of the work including storage of materials and the execution of the work.

The Contractor, and any subcontractors working for the Contractor shall coordinate the progress of the work with other Contractors and shall immediately notify the Construction Manager of lack of progress or delays by other Contractor's which are affecting the Contractor's Work. Failure of Contractor to coordinate the work with other Contrac-

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

tors and/or failure of the Contractor to give notice of lack of progress or delays by other Contractors shall be deemed to be acceptance by Contractor of the status of progress by other Contractors for the proper coordination and completion of Contractor's Work. If, through acts or neglect on the part of the Contractor, any other Contractor or Subcontractor shall suffer loss or damage or assert any claims of whatever nature against the Owner, The Contractor shall defend, indemnify and hold harmless the Construction Manager and the Owner from any such claims and/or damages.

6.2 Mutual Responsibility

6.2.3 Delete in its entirety ARTICLE 7 CHANGES IN THE WORK

7.1 General

7.1.1 Add "Written" in front of Change Order on the second line.

7.1.2 Add in last line between "Work" and "may" the words "not affecting time or money".

7.1.4 Add the following:

The allowance for overhead and profit combined, included in the total cost to the Owner, shall be based upon the following schedule:

- a. For the Contractor, for work performed by the Contractor's own forces, ten (10%) percent of the cost.
- b. For the Contractor, for work performed by the Subcontractor, five (5%) percent of the amount due the Subcontractor.
- c. For each Subcontractor for work performed by the Subcontractor's own forces, ten (10%) percent of the cost.
- d. For each Subcontractor for work performed by the Subcontractor's sub tier subcontractors, five (5%) percent of the amount due the lower tier subcontractors.

7.2 Change Orders

7.2.3 Add the following:

In order to facilitate consideration of change order requests, all such requests, except those so minor that their propriety can be seen by inspection, must be accompanied by a complete itemization of costs including labor, materials, and Subcontracts which shall be itemized also. In no case will a change involving over \$500.00 be approved without such itemization.

ARTICLE 8 TIME

8.3 Delays and Extensions of Time

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

8.3.1 Delete in its entirety and insert the following:

If the Contractor is delayed, hindered or impeded at any time in the progress of the Work for any reason or by any employee of either party or by a separate Contractor employed by the Owner, or by any employee of either or by a separate Contractor employed by the Owner, or by changes ordered in the scope of the Work, or by other causes beyond the Contractor's control, then the Contract Time may be extended by written Change Order for such reasonable time as is agreed to by the Owner. However, to the fullest extent permitted by law, and notwithstanding any other provisions in the Contract Documents, the Owner and its agents and employees, the Construction Manager, and the Architect shall not be liable for any damages for delay for direct or indirect costs, extended home office overhead, idle or inefficient labor or equipment, cost escalations, or monetary claims of any nature arising from or attributable to delay by any cause whatsoever, the Contractor's sole and exclusive remedy for delay by any cause whatsoever is an extension of Contract Time but no increase in the Contract Sum. Abnormal adverse weather shall not be grounds for time extensions. No delay, interference, hindrance or disruption, from whatever source or cause, in the progress of the Contractor's Work, shall be a basis for an extension of time unless the delay, interference, hindrance or disruption is (1) without the fault and not the responsibility of the Contractor, its subcontractors and suppliers and (2) directly affects the overall completion of the Work as reflected in the critical path of the Contractor's updated and accepted construction schedules. The Contractor expressly agrees that the Owner owns the float in the construction schedule and delay to construction activities which do not affect the overall completion of the Work does not entitle the Contractor to any extension in Contract Time.

8.3.3 Delete and replace with the following:

Time shall be the sole recovery for any type of delay to the Contractor, and it shall not be entitled to damages for delay for any reason under this provision or elsewhere in the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

9.3 Applications for Payment

9.3.3 Delete and replace with the following:

The Contractor warrants and guarantees that title to all work, materials and equipment covered by an application for payment, whether incorporated in the Project or not, will pass to the Owner upon receipt of such payment by the Contractor, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to as "liens" and that

no work, materials or equipment covered by an application for payment will have been acquired by the Contractor, or by any other per-

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

son performing the work at the site or furnishing materials and equipment for the Project, unless approved by the Owner in writing.

9.6 Progress Payments

9.6.1 Delete and replace with the following:

Applications for Payment shall be submitted on or before the 25th day of each month. An application not submitted on or before this date may not be processed until the following month. Payments to Contractor will be made for services performed under this Agreement on a monthly basis after (a) receipt of proper application for payment, (b) approval by Construction Manager and Owner of proper submitted application for payment. Subject to the conditions of the Contract, the Owner shall make payment to the Contractor for the amount approved by the Construction Manager and Owner within thirty (30) days after receipt of Certificate for Payment from the Construction Manager.

9.6.1.1 Add the following:

Retainage requirements for the purposes of this Article is defined as the withholding of five (5%) percent on the entire request for payment by the Contractor. On any contract as described herein, of which the total amount is Two Hundred Fifty Thousand Dollars (\$250,000.00) or greater, or on any contract with a subcontractor, regardless of amount, five percent (5%) shall be retained until the work is at least fifty percent (50%) complete, on schedule and satisfactory in the architect's, engineer's, and/or Construction Manager's opinion, at which time fifty percent (50%) of the retainage held to date shall be returned to the prime contractor for distribution to the appropriate subcontractors and suppliers.

Provided, however, that future retainage shall be withheld at the rate of two and one-half percent (2 1/2%).

9.6.1.2 Add the following:

The Contractor shall have no right to file a mechanic's or material man's lien or to maintain any claim against the Owner's real estate or improvements for or on account of any work done, labor performed, or materials furnished under this Agreement.

9.6.4 Add "satisfactory to the Owner" in the first sentence after the word "evidence" and before the word "from".

9.7 Failure of Payment

Delete in its entirety.

9.11 Add "Liquidated Damages"

9.11.1 Time being of the essence of this Contract and a matter of material consideration thereof, a reasonable estimate in advance is established to cover losses incurred by the Owner if the Project is not substantially complete on the date set forth in the Contract Documents. The Contractor and his Surety will be liable for and will pay the

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

Owner the sums hereinafter stipulated as fixed and agreed as liquidated damages for each calendar day for delay until the Work is substantially complete. The Contractor and his Surety acknowledge that the Owner's losses caused by the Contractor's delay are not readily ascertainable and that the amount estimated per day for liquidated damages is reasonable and not a penalty.

The amount per day for liquidated damages is \$500.00.

ARTICLE 11 INSURANCE AND BONDS

11.1 Contractor's Liability Insurance

11.1.1 In the first sentence delete the words "jurisdiction in which the Project is located" and insert in its place "State of Mississippi".

11.1.2 Delete the first sentence in 11.1.2 and substitute the following: The insurance required by subparagraph 11.1.1 will be written for not less than the following or will be greater if required by law.

- 1) Commercial General Liability
 - a. Each Occurrence \$1,000,00
 - b. Damage to Rented Premises \$50,000
 - c. Medical Expenses \$5,000
 - d. Personal & ADV Injury \$1,000,00
 - e. General Aggregate \$2,000,00
 - f. Products- Comp/OP AGG \$2,000,00
- 2) Automobile Liability
 - a. Combined Single Limit \$1,000,00(Each accident)
- 3) Excess Umbrella Liability
 - a. Each Occurrence \$1,000,00
 - b. Aggregate \$1,000,00
- 4) Workers Compensation and Employers' Liability
 - a. WC Statutory Limits
 - b. EL Each Accident \$500,000
 - c. EL Disease-EA Employee \$500,000
 - d. EL Disease- Policy Limit \$500,000
- 5) Builder's Risk Insurance By Owner

11.1.4 Delete in its entirety and insert the following:

The Owner, Architect, and Construction Manager and all other parties as required by contract shall be named as additional insured on auto liability, general liability (including completed operations) and excess liability on a primary and non-contributory basis. All policies include waiver of subrogation in favor of the additional insured's.

11.3 Property Insurance

11.3.1.3 Delete and replace with the following:

If the property insurance requires deductibles, the Contractor shall pay costs not covered because of such deductibles.

11.3.7 Delete and replace with the following:

The Contractor waives all rights against (1) the Owner and any of its agents and employees and (2) the Construction Manager, Architect,

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section 11.3 or other property insurance applicable to the Work, except such rights as the Contractor may have to the proceeds of such insurance held by the Owner as fiduciary. The Contractor shall require of the he subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

11.4 Performance and Payment Bond

11.4.1 Delete and replace with the following:

Bonding of Contractors is required. Upon notice that the Owner elects to proceed with the Contractor for the approved scope of work and contract value, the Contractor shall provide performance and payment bonds each in the amount of 100% of the Contract value by a surety acceptable to the Construction Manager and the Owner. The bonding company shall name the Construction Manager as a Dual Named Oblige on the bond.

ARTICLE 13 MISCELLANEOUS PROVISIONS

13.1 Governing Law

Delete the words "place where the Project is located", and insert "State of Mississippi".

13.6 Interest

Delete in its entirety and insert the following:
Payments due and unpaid under the Contract Documents shall bear interest as required by Mississippi law.

13.8 Claim Cost

Add the following:
The prevailing party in any dispute between the parties arising out of or related to this Agreement, or the breach thereof, shall be entitled to reasonable attorneys' fees and other expenses incurred in pursuing or defending any claim.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

14.1 Termination by the Contractor
Delete in its entirety.

14.4 Termination by the Owner for Convenience

14.4.3 Delete the word "not" in the last line of the clause.

ARTICLE 15 CLAIMS AND DISPUTES

15.1 Claims

15.1.5 Delete in its entirety and insert the following:
Abnormal adverse weather shall be grounds for time extensions when weather exceeds that of the anticipated weather days from NOAA, exceeding a tenth of an inch. No delay, interference, hindrance or disruption, from whatever source or cause, in the progress of the Contractor's Work, shall be a basis for an extension of time unless the delay, interference, hindrance or disruption is (1) without the fault and not the responsibility of the Contractor, its subcontractors and suppliers and (2) directly affects the overall completion of the Work as reflected in the critical path of the Contractor's updated and accepted construction schedules. The Contractor expressly agrees that the Owner owns the float in the construction schedule and delay to construction activities which do not affect the overall completion of the Work does not entitle the Contractor to any extension in Contract Time.

15.1.6 Delete and replace with the following:
The Contractor waives Claims against the Owner, Architect, and Construction Manager for consequential damages arising out of or relating to this Contract. This waiver includes damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work. Nothing contained in this Section 15.1.6 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

ARTICLE 16 MISCELLANEOUS PROVISIONS (Add)

Add 16.1 Payment as follows:

Upon mutual agreement between the Owner, Architect and the Construction Manager, payment in full may be made to any Contractor whose work is fully and satisfactorily completed during the early stages of the Project, provided that the Contractor has complied with all requirements for final payment in accordance with the Contract Documents.

SECTION 00 60 01
SUPPLEMENTAL CONDITIONS

Add 16.2 Agreement

Upon execution of this Agreement and the accompanying Exhibits, this Agreement shall be deemed to have been drafted and prepared by both the Owner and the Contractor. Neither party shall be deemed to be the drafter nor shall the preparer of the instrument and the terms of this Agreement and its incorporated conditions not be construed against one party or in favor of the other.

END OF SECTION 00 60 01

SECTION 07 41 00
PREFORMED METAL STANDING SEAM ROOF

SECTION 07 41 00 - PREFORMED METAL STANDING SEAM ROOF

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This section covers the pre-finished, pre-fabricated Architectural standing seam roof system. All metal trim, accessories, fasteners, insulation and sealants indicated on the drawings as part of this section.
- B. Drawings and general provisions of the Contract, including general and Supplementary Conditions and Division 01 Specifications, apply to this section.
- C. Related Work Specified Elsewhere
 - 1. Roof Deck structural steel, flat roof systems, perimeter edge systems. Roof hatches, firestopping not included in this section.

1.2 SUMMARY

- A. Section Includes
 - 1. Factory formed Standing Seam metal roof panels
- B. Related work specified elsewhere. (Note: select from the below or add appropriate sections)
 - 1. Section 05100 - Structural Steel
 - 2. Section 05200 or 05400 - Steel Joists
 - 3. Section 07600 - Flashing and Sheet Metal

1.3 DEFINITIONS

- A. Metal Roof Panel Assembly: Metal roof panels, attachment system components, miscellaneous metal framing, thermal, and accessories necessary for a complete weathertight roofing system.
- B. References:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM A 653: Steel Sheet, Zinc Coated by the Hot Dip Process
 - b. ASTM A 792: Steel Sheet, Aluminum-Zinc Alloy Coated by the Hot Dip Process
 - c. ASTM B 209: Aluminum and Aluminum Alloy Sheet and Plate
 - d. ASTM B370 Standard Specification for Copper Sheet and Strip for Building Construction
 - 2. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
 - a. SMACNA Architectural Sheet Metal Manual, 1993 edition
 - 3. American Iron and Steel Institute (AISI)
 - a. AISI Cold Formed Steel Design Manual
 - 4. Aluminum Association
 - a. Aluminum Design Manual
 - 5. Metal Construction Association

SECTION 07 41 00
PREFORMED METAL STANDING SEAM ROOF

- a. Preformed metal Wall Guidelines
- 6. Code References
 - a. ASCE, Minimum Loads for Buildings and Other Structures
 - b. BOCA National Building Codes
 - c. UBC Uniform Building Code
 - d. SBC Standard Building Code

1.4 QUALITY ASSURANCE

- A. Petersen Aluminum Corp, Acworth, GA, 800-272-4482 products establish a minimum of quality required.
- B. Manufacturer and erector shall demonstrate experience of a minimum of five (5) years in this type of project.
- C. Panels shall be factory-produced only. No portable, installer-owned or installer-rented machines will be permitted.

1.5 SUBSTITUTIONS

- A. The material, products and equipment specified in this section establish a standard for required function, dimension, appearance and quality to be met by any proposed substitution.

1.6 SYSTEM DESCRIPTION

- A. Material to comply with:
 - 1. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

1.7 ROOF SYSTEM PERFORMANCE TESTING

- A. General Performance: Metal roof panels shall comply with performance requirements without failure due to defective manufacture, fabrication, installation or other defects in construction.
- B. Roof System shall be designed to meet Standard Building Code Wind Load requirements.
- C. Panels to meet:
 - 1. Water Penetration: When tested per ASTM E-283/1680 and ASTM E-331/1646 there shall be no uncontrolled water penetration or air infiltration through the panel joints.
 - 2. Roof System shall be designed to meet a UL Class 90 wind uplift in accordance with UL standard 580 and panel system shall be ASTM 1592 Tested and approved
 - 3. UL 2218 - Impact Resistance rated.

%WARRANTIES%

SECTION 07 41 00
PREFORMED METAL STANDING SEAM ROOF

1.8 SUBMITTALS

- A. Furnish detailed drawings showing profile and gauge of exterior sheets, location and type of fasteners, location, gauges, shape and method of attachment of all trim locations and types of sealants, and any other details as may be required for a weather-tight installation.
- B. Provide finish samples of all colors specified.
- C. Shop drawings: Show fabrication and installation layouts of metal roof panels, metal wall panels or metal soffit panels, details of edge conditions, side-seam joints, panel profiles, corners, anchorages, trim, flashings, closures and accessories, and special details. Distinguish between factory and field-assembled work
- D. Coordination Drawings: Roof plans, drawn to scale, on which the following are shown and coordinated with each other, base don input from installer of the items involved:
 - 1. Roof panels and attachments
 - 2. Metal trusses, bracings and supports
 - 3. Roof-mounted items including snow guards and items mounted on roof curbs.
- E. LEED Submittals
 - 1. Product Test reports for Credit SS 7.2. For roof panels, indicating that the panels comply with Solar Reflective Index requirement
 - 2. Product data for Credit MR 4.1 and credit MR 4.2: Indicating the percentages by weight of postconsumer and preconsumer recycled content for products having recycled content.

1.9 DELIVERY, STORAGE AND HANDLING

- A. Ordering: Comply with manufacturer's ordering instruction and lead time requirements to avoid construction delays.
- B. Deliver components, sheets, metal roof panels and other manufactured items so as not to be damaged or deformed. Package metal roof panels for protection during transportation and handling.
- C. Unload, store and erect metal roof panels in a manner to prevent bending, warping, twisting and surface damage.
- D. Stack metal roof panels on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal roof panels to ensure dryness. Do not store metal roof panels in contact with other materials that might cause staining, denting or other surface damage.
- E. Protect strippable protective coating on any metal coated product from exposure to sunlight and high humidity, except to the extent necessary for material installation.

1.10 WARRANTY

- A. Roof System Weather-tightness Warranty – Only applicable per contract documents
 - 1. Furnish manufacturer's warranty for the metal building roof system. The warranty period of 20 years from the final inspection (if applicable) and acceptance from the manufacturer. See contract documents for more information.

SECTION 07 41 00
PREFORMED METAL STANDING SEAM ROOF

1.11 PROJECT CONDITIONS

- A. Weather Limitations: proceed with installation only when existing and forecasted weather conditions permit metal roof panel work to be performed.
- B. Field Measurements: Verify actual dimensions of construction contiguous with metal roof panels by field measurements before fabrication.

1.112 COORDINATION

- A. Coordinate sizes and locations of roof curbs, equipment supports and roof penetrations with actual equipment provided.
- B. Coordinate metal roof panels with rain drainage work, flashing, trim and construction of decks, parapet walls and other adjoining work to provide a leakproof, secure and noncorrosive installation.

PART 2 - PRODUCTS

2.1 PANEL DESIGN

- A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates and accessories required for a weathertight installation.
- B. Roof panels shall be standing seam Tite-Loc in 18" widths with 2" high seams that are mechanically seamed together @ 90 degrees.
- C. Panels to be produced with Factory supplied hot melt mastic in the seams.
- D. Panels to be produced Smooth - Factory Standard.
- E. Panels to be designed for attachment with concealed fastener clips, spaced as required by the manufacturer to provide for both positive and negative design loads, while allowing for the expansion and contraction of the entire roof system resulting from variations in temperature.
- F. Forming: Use continuous end rolling method. No end laps on panels. No portable rollforming machines will be permitted on this project, no installer-owned or installer-rented machines will be permitted. It is the intent of the Architect to provide Factory-Manufactured panel systems only for this project.

2.2 ACCEPTABLE MANUFACTURERS

- A. This project is detailed around the roofing product of Petersen Aluminum Corporation Petersen Aluminum Corp, Acworth, GA, 800-272-4482, Tite-Loc, or equal.

2.3 MATERIALS AND FINISHES

- A. Preformed roofing panels shall be fabricated of .032 Aluminum

SECTION 07 41 00
PREFORMED METAL STANDING SEAM ROOF

- B. Color will be selected by the architect from the full range of manufacturer's colors
- C. Finish shall be Kynar 500 or Hylar 5000 Fluorocarbon coating with a top side film thickness of 0.70 to 0.90 mil over a 0.25 to 0.3 mil prime coat to provide a total dry film thickness of 0.95 to 1.25 mil, to meet AAMA 621. Bottom side shall be coated with a primer with a dry film thickness of 0.25 mil. Finish shall conform to all tests for adhesions, flexibility and longevity as specified by Kynar 500 or Hylar 5000 finish supplier.
- D. If Strippable coating to be applied on the pre-finished panels to the top side to protect the finish during fabrication, shipping and handling, film shall be removed before installation.
- E. Trim: Trim shall be fabricated of the same material and finish to match the profile, and will be press broken in lengths of 10 to 12 feet. Trim shall be formed only by the manufacturer of their approved dealer. Trim to be erected in overlapped condition. Use lap strips only as indicated on drawings. Miter conditions shall be factory welded material to match the sheeting.
- F. Closures: use composition or metal profiled closures at the top of each elevation to close ends of the panels. Metal closures to be made in the same material and finish as face sheet.
- G. Fasteners: Fasteners shall be of type, material, size, corrosion resistance, holding power and other properties required to fasten miscellaneous framing members to substrates.
- H. Substrate shall be Plywood
- I. Roofing Underlayment
 - 1. On all surfaces to be covered with roofing material, furnish and install a 40 mil "Peel & Stick membrane", required as outlined by metal panel manufacturer. Membrane to be a minimum of 40 mil thickness, smooth, non-granular, high temperature. Basis of design: Carlisle WIP 300 HT High Temperature Protection Self Adhering Roofing Underlayment. Other acceptable manufacturers include:
 - a. W.R Grace "Ice & water Shield"
 - b. Interwrap Titanium PSU-30
 - c. Carlisle CCW WIP 300HT
 - d. Interwrap Titanium PSU
 - e. Tamko TW Tile and Metal Underlayment
 - 2. Underlayment shall be laid in horizontal layers with joints lapped toward the eaves a minimum of 6", and well secured along laps and at ends as necessary to properly hold the felt in place. All underlayment shall be preserved unbroken and whole.
 - 3. Peel and Stick Underlayment shall lap all hips and ridges at least 12" to form double thickness and shall be lapped 6" over the metal of any valley or built-in gutters and shall be installed as required by the Standing Seam Panel Manufacturer to attain the desired 20 Year Weathertightness Warranty.
- J. Sealants
 - 1. Provide two-part polysulfide class B non-sag type for vertical and horizontal joints or
 - 2. one part polysulfide not containing pitch or phenolic extenders or
 - 3. Exterior grade silicone sealant recommended by roofing manufacturer or
 - 4. One part non-sag, gun grade exterior type polyurethane recommended by the roofing manufacturer.

SECTION 07 41 00
PREFORMED METAL STANDING SEAM ROOF

2.4 FABRICATION

- A. Comply with dimensions, profile limitations, gauges and fabrication details shown and if not shown, provide manufacturer's standard product fabrication.
- B. Fabricate components of the system in factory, ready for field assembly.
- C. Fabricate components and assemble units to comply with fire performance requirements specified.
- D. Apply specified finishes in conformance with manufacturer's standard, and according to manufacturer's instructions.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine alignment of structural steel and related supports, primary and secondary roof framing, solid roof sheathing, prior to installation.
- B. For the record, prepare written report, endorsed by installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FASTENERS

- A. Secure units to supports
- B. Place fasteners as indicated in manufacturer's standards.

3.3 INSTALLATION

- A. Panels shall be installed plumb and true in a proper alignment and in relation to the structural framing. The erector must have at least five years successful experience with similar applications.
- B. Install metal panels, fasteners, trim and related sealants in accordance with approved shop drawings and as may be required for a weather-tight installation.
- C. Remove all strippable coating and provide a dry-wipe down cleaning of the panels as they are erected.

3.4 DAMAGED MATERIAL

- A. Upon determination of responsibility, repair or replace damaged metal panels and trim to the satisfaction of the Architect and Owner.

END OF SECTION

SECTION 07 41 01
HORIZONTAL RIBBED METAL PANEL

SECTION 07 41 01 – HORIZONTAL RIBBED METAL PANEL

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This section covers the pre-finished ribbed horizontal metal wall panel system. All metal trim, accessories, fasteners, insulation and sealants indicated on the drawings as part of this section.
- B. Drawings and general provisions of the Contract, including general and Supplementary Conditions and Division 01 Specifications, apply to this section.
- C. Related Work Specified Elsewhere
 - 1. Standing Seam Metal Panel Roof, PEMB R Panel Walls, Roof Deck structural steel, flat roof systems, perimeter edge systems. Roof hatches, firestopping not included in this section.

1.2 SUMMARY

- A. Section Includes
 - 1. Factory formed exposed fastener metal wall panels
- B. Related work specified elsewhere. (Note: select from the below or add appropriate sections)
 - 1. Section 13 34 10 – Pre Engineered Metal Building Systems
 - 2. Section 07 60 00 - Flashing and Sheet Metal

1.3 DEFINITIONS

- A. Metal Wall Panel Assembly: Metal panels, attachment system components, miscellaneous metal framing, thermal, and accessories necessary for a complete weathertight wall system.
- B. References:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM A 653: Steel Sheet, Zinc Coated by the Hot Dip Process
 - b. ASTM A 792: Steel Sheet, Aluminum-Zinc Alloy Coated by the Hot Dip Process
 - c. ASTM B 209: Aluminum and Aluminum Alloy Sheet and Plate
 - d. ASTM B370 Standard Specification for Copper Sheet and Strip for Building Construction
 - 2. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
 - a. SMACNA Architectural Sheet Metal Manual, 1993 edition
 - 3. American Iron and Steel Institute (AISI)
 - a. AISI Cold Formed Steel Design Manual
 - 4. Aluminum Association
 - a. Aluminum Design Manual
 - 5. Metal Construction Association
 - a. Preformed Metal Wall Guidelines

SECTION 07 41 01
HORIZONTAL RIBBED METAL PANEL

6. Code References
 - a. ASCE, Minimum Loads for Buildings and Other Structures
 - b. BOCA National Building Codes
 - c. UBC Uniform Building Code
 - d. SBC Standard Building Code

1.4 QUALITY ASSURANCE

- A. Petersen Aluminum Corp, Acworth, GA, 800-272-4482 products establish a minimum of quality required.
- B. Manufacturer and erector shall demonstrate experience of a minimum of five (5) years in this type of project.
- C. Panels shall be factory-produced only. No portable, installer-owned or installer-rented machines will be permitted.

1.5 SUBSTITUTIONS

- A. The material, products and equipment specified in this section establish a standard for required function, dimension, appearance and quality to be met by any proposed substitution.
- B. Manufacturers listed in this section are prequalified manufacturers. Substitution of manufacturer's products for those specified shall not be allowed at any time during construction.

1.6 SYSTEM DESCRIPTION

- A. Material to comply with:
 1. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

1.7 WALL SYSTEM PERFORMANCE TESTING

- A. General Performance: Metal wall panels shall comply with performance requirements without failure due to defective manufacture, fabrication, installation or other defects in construction.

1.8 WARRANTIES

- A. Finish warranty: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal wall panels that show evidence of deterioration of factory-applied finish within specified warranty period.
 1. Exposed Panels Finish - deterioration includes the following:
 - a. Color fading more than 5 hunter units when tested according to ASTM D 2244
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214
 - c. Cracking, checking, peeling or failure of a paint to adhere to a bare metal.
 2. Warranty Period: 20 Years from the date of substantial completion

SECTION 07 41 01
HORIZONTAL RIBBED METAL PANEL

- B. Applicator shall furnish written warranty for a two (2) year period from date of substantial completion of building covering repairs required to maintain wall panels and flashings in watertight condition.

1.9 SUBMITTALS

- A. Furnish detailed drawings showing profile and gauge of exterior sheets, location and type of fasteners, location, gauges, shape and method of attachment of all trim locations and types of sealants, and any other details as may be required for a weather-tight installation.
- B. Provide finish samples of all colors specified.
- C. Shop drawings: Show fabrication and installation layouts of metal roof panels, metal wall panels or metal soffit panels, details of edge conditions, side-seam joints, panel profiles, corners, anchorages, trim, flashings, closures and accessories, and special details. Distinguish between factory and field-assembled work
- D. Coordination Drawings: wall elevations, drawn to scale, on which the following are shown and coordinated with each other, based on input from installer of the items involved:
 - 1. Wall panels and attachments

1.10 DELIVERY, STORAGE AND HANDLING

- A. Ordering: Comply with manufacturer's ordering instruction and lead time requirements to avoid construction delays.
- B. Deliver components, sheets, metal wall panels and other manufactured items so as not to be damaged or deformed. Package metal wall panels for protection during transportation and handling.
- C. Unload, store and erect metal wall panels in a manner to prevent bending, warping, twisting and surface damage.
- D. Stack metal wall panels on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal roof/wall panels to ensure dryness. Do not store metal panels in contact with other materials that might cause staining, denting or other surface damage.
- E. Protect strippable protective coating on any metal coated product from exposure to sunlight and high humidity, except to the extent necessary for material installation.

1.11 PROJECT CONDITIONS

- A. Weather Limitations: proceed with installation only when existing and forecasted weather conditions permit metal roof panel work to be performed.
- B. Field Measurements: Verify actual dimensions of construction contiguous with metal roof panels by field measurements before fabrication.

1.12 COORDINATION

- A. Coordinate sizes and locations of roof curbs, equipment supports and roof penetrations with actual equipment provided.

SECTION 07 41 01
HORIZONTAL RIBBED METAL PANEL

- B. Coordinate metal roof panels with rain drainage work, flashing, trim and construction of decks, parapet walls and other adjoining work to provide a leakproof, secure and noncorrosive installation.

PART 2 - PRODUCTS

2.1 PANEL DESIGN

- A. General: Provide factory-formed, prefinished, lappable exposed fastener, structural ribbed metal wall panel system, that has been pretested and certified by manufacturer to comply with specified requirements under installed conditions.
- B. Roof panels shall be 7.2 Rib exposed fastener with 1 1/2" high ribs at 7.2" on centers. The width of the crests shall be 2"; the width of the valleys shall be 2". Coverage for this panel shall be 36" for both roofing and wall applications.
- C. Structural Requirements: Engineer panels for structural properties in accordance with latest edition of American Iron and Steel Institute's Cold Formed Steel Design Manual using effective width concept and Aluminum Associations Aluminum Design Manual.
- D. Forming: Use continuous end rolling method. No end laps on panels. No portable rollforming machines will be permitted on this project, no installer-owned or installer-rented machines will be permitted. It is the intent of the Architect to provide Factory-Manufactured panel systems only for this project.
- E. Panels shall be directly fastened to the substrate.
- F. The panel shall have an overlapping sidelap feature.

2.2 ACCEPTABLE MANUFACTURERS

- A. This project is detailed around the product of Petersen Aluminum Corporation Petersen Aluminum Corp, Acworth, GA, 800-272-4482, **7.2 Panel**.

2.3 MATERIALS AND FINISHES

- A. Preformed roofing panels shall be fabricated of .032 Aluminum
- B. Color to be selected by the architect from the manufacturer's full range of available colors.
- C. Texture: Panel shall be smooth.
- D. Finish shall be Kynar 500 or Hylar 5000 Fluorocarbon coating with a top side film thickness of 0.70 to 0.90 mil over a 0.25 to 0.3 mil prime coat to provide a total dry film thickness of 0.95 to 1.25 mil, to meet AAMA 621. Bottom side shall be coated with a primer with a dry film thickness of 0.25 mil. Finish shall conform to all tests for adhesions, flexibility and longevity as specified by Kynar 500 or Hylar 5000 finish supplier.
- E. If Strippable coating to be applied on the pre-finished panels to the top side to protect the finish during fabrication, shipping and handling, film shall be removed before installation.
- F. Trim: Trim shall be fabricated of the same material and finish to match the profile, and will be press broken in lengths of 10 to 12 feet. Trim shall be formed only by the manufacturer of their approved dealer. Trim to be erected in overlapped condition. Use lap strips only as indicated on drawings. Miter conditions shall be factory welded material

SECTION 07 41 01
HORIZONTAL RIBBED METAL PANEL

to match the sheeting. Trim to be fabricated in accordance with standard SMACNA procedure and details.

- G. Closures: shall be pre-molded polyethylene to match the profile of the exposed fastener panel and shall be in lengths as supplied by the panel manufacturer.
- H. Accessories/Fasteners: Fasteners shall be of type, material, size, corrosion resistance, holding power and other properties required to fasten miscellaneous framing members to substrates. Accessories and their fasteners shall be capable of resisting the specified design wind uplift forces and shall allow for thermal movement of the roof panel system. Exposed fasteners shall not restrict free movement of the roof panel system resulting from thermal forces, except at designed points of roof panel fixity
 - 1. Fasteners shall have combination steel and EPDM washers
 - 2. Screws for panel to girt/purlins shall be sufficient to penetrate the supporting member by 1". All fasteners shall be applied in accordance with the fastening schedule as provided by panel manufacturer.
 - 3. Screws for flashings and sidelaps shall be #14 HHA x 3/4" sheet metal stitch screws. All accessories, flashings and sidelaps shall be fastened 12" OC.
- I. Substrate shall be Plywood
- J. Caulking: Shall be a polyurethane where it is exposed and there is no thermal movement. All caulking and sealing shall be done in a neat manner with excess caulking or sealant removed from exposed surfaces.
- K. Caulking shall be non-skinning, non hardening gun grade butyl sealant or butyl sealant tape with a minimum thickness of 1/8" where it is concealed and where thermal movement must be accommodated. All caulking or sealing shall be done in a neat manner with excess caulking or sealant removed from exposed surfaces.
- L. Vapor Retarder: retarder with a permeance of 0.05 or less as determined by ASTM 98.

2.4 FABRICATION

- A. Comply with dimensions, profile limitations, gauges and fabrication details shown and if not shown, provide manufacturer's standard product fabrication.
- B. Fabricate components of the system in factory, ready for field assembly.
- C. Fabricate components and assemble units to comply with fire performance requirements specified.
- D. Apply specified finishes in conformance with manufacturer's standard, and according to manufacturer's instructions.
- E. Panels are lappable. It is recommended that individual aluminum roof panels not exceed 16' in length and steel roof panels not exceed 32' in length for thermal movement reasons.
- F. Panels shall be roll formed on a stationary industrial type rolling mill to gradually shape the sheet metal. Portable rollformers rented or owned by the installer, are not acceptable.

PART 3 - EXECUTION

3.1 INSPECTION

SECTION 07 41 01
HORIZONTAL RIBBED METAL PANEL

- A. Examine alignment of structural steel and related supports, primary and secondary roof framing, solid roof sheathing, prior to installation. Components should comply with shop drawings and be smooth, even, sound and free of depressions.
- B. For the record, prepare written report, endorsed by installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FASTENERS

- A. Secure units to supports
- B. Place fasteners as indicated in manufacturer's standards.

3.3 INSTALLATION

- A. Panels shall be installed plumb and true in a proper alignment and in relation to the structural framing. The erector must have at least five years successful experience with similar applications.
- B. Install metal panels, fasteners, trim and related sealants in accordance with approved shop drawings and as may be required for a weather-tight installation. Conform to standards set forth in SMACNA architectural sheet metal manuals and approved shop drawings for this project.
- C. Remove all strippable coating and provide a dry-wipe down cleaning of the panels as they are erected.
- D. Install panel system so it is watertight, without waves, warps, buckles or distortions, and allow for thermal movement considerations.
- E. Abrasive devices shall not be used to cut on or near roof or wall panel system.
- F. Apply sealant tape or caulking as necessary at flashing and panel joints to prevent water penetration.
- G. Remove any strippable film immediately upon exposure to direct sunlight.
- H. Vapor retarder: The joints, perimeter, and all openings shall be sealed per the manufacturer's instructions to provide a continuous vapor retarder.
- I. Underlayment (solid substrate):
 - 1. Provide one layer of 30# felt with horizontal overlaps and endlaps staggered between layers.
 - 2. Provide ice and water shield membrane at all valley and eave conditions as well as any area at less than a 3:12 slope.
 - 3. Lay parallel to ridge line with 2 1/2" horizontal laps and 6" vertical laps

3.4 DAMAGED MATERIAL

- A. Upon determination of responsibility, repair or replace damaged metal panels and trim to the satisfaction of the Architect and Owner.

END OF SECTION

SECTION 12 24 00
ROLLER SHADES

SECTION 12 36 61 - SIMULATED STONE COUNTERTOPS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Manually operated, roll-up fabric interior window shades including mounting and operating hardware.

1.2 RELATED SECTIONS

- A. Section 06100 [06 10 00] – Rough Carpentry: Blocking for support of window shade hardware.
- B. Section 07900 [07 90 00] - Joint Sealers: Sealants for perimeter of shade system.
- C. Section 09260 [09 21 23] - Gypsum Board Assemblies: Suspended gypsum board ceilings to contain recessed window shade pockets.
- D. Section 09510 [09 51 23] - Acoustical Tile Ceilings: Suspended acoustical panel ceilings to contain recessed window shade pockets.

1.3 REFERENCES

- A. NFPA 701-99 - Fire Tests for Flame-Resistant Textiles and Films.
- B. GREENGUARD Environmental Institute Gold.
- C. US Green Building Council.
- D. ANSI/WCMA A100.1-2022. For manual window shades with closed loop bead chains, all shades will meet all current standards mandated by the Consumer Product Safety Commission.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01330 [01 33 26] - Submittal Procedures:
- B. Product Data: Manufacturer's data sheets on each product specified, including:
 - 1. Preparation instructions and recommendations.
 - 2. Installation and maintenance instructions.

SECTION 12 24 00
ROLLER SHADES

3. Styles, material descriptions, dimensions of individual components, profiles, features, finishes, and operating instructions.
 4. Storage and handling requirements and recommendations.
 5. Mounting details and installation methods.
- C. Shop Drawings: Plans, elevations, sections, product details, installation details, operational clearances, wiring diagrams, and relationship to adjacent work.
- D. LEED Submittals: Provide documentation of how the requirements of Credit will be met.
- E. Window Treatment Schedule: For all roller shades. Use same room designations as indicated on the Drawings, field verified window dimensions, quantities, type of shade, controls, fabric, and color, and include opening sizes and key to typical mounting details.
- F. Selection Samples: For each finish product specified, one complete set of shade cloth options and aluminum finish color samples representing manufacturer's full range of available colors and patterns.
- G. Verification Samples: For each finish product specified, one complete set of shade components, unassembled, demonstrating compliance with specified requirements. Shade fabric sample and aluminum finish sample as selected, representing actual product, color, and patterns. Mark face of material to indicate interior faces.
- H. Maintenance Data: Methods for maintaining roller shades, precautions regarding cleaning materials and methods, instructions for operating hardware and controls.
- I. Standard manufacturer's defect warranty: Standard manufacturer's warranty documents indicating compliance with requirements of Section 1.9 below.
- J. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Obtain roller shades through one source from a single manufacturer with a minimum of twenty years of experience in manufacturing products comparable to those specified in this section. If manufacturer does not meet minimum experience requirement, please submit life cycle test data showing minimum 2000 complete operational cycles for each year of warranty showing no failure and that shade remains fit for use as an operable shade).
- B. NFPA Flame-Test: Passes NFPA 701. Materials tested shall be identical to products proposed for use. Show complete manufacturer data (name, location,

SECTION 12 24 00
ROLLER SHADES

contact) and certification from manufacturer that the fabrics sourced for this project comply with the test data provided.

- C. Mock-Up: Provide a mock-up of one of each type roller shade assembly specified for evaluation of mounting, appearance and accessories.
 - 1. Locate mock-up in window(s) designated by Architect.
 - 2. Do not proceed with remaining work until mock-up is accepted by Architect.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver window shades until building is enclosed and construction within spaces where shades will be installed is substantially complete.
- B. Deliver products in manufacturer's original, unopened, undamaged containers with labels intact.
- C. Label containers and shades according to Window Shade Schedule.
- D. Store products in manufacturer's unopened packaging until ready for installation.

1.7 SEQUENCING

- A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
- B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.8 PROJECT CONDITIONS

- A. Install roller shades after finish work and ambient temperature, humidity, and ventilation conditions are maintained at levels recommended for project upon completion.

1.9 WARRANTY

- A. Hardware and Shade Fabric: twenty-five-year limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. Draper, Inc.
 - 2. Hunter Douglas Architectural

SECTION 12 24 00
ROLLER SHADES

3. SFW Contract
4. Mecho

- B. Requests for substitutions will be considered in accordance with provisions of Section 01600. Contractor to be responsible for ALL COSTS related to a substitution requested less than 10 days prior to bid date, including cost of review by Architect.

2.2 MANUALLY OPERATED WINDOW SHADES

- A. Heavy-Duty Manually Operated Window Shades with Independent Control: Manually operated, vertical roll-up, fabric window shade with components necessary for complete installation; Clutch-Operated.

1. Operation: Bead chain and clutch operating mechanism allowing shade to stop when chain is released. Designed never to need adjustment or lubrication. Provide limit stops to prevent shade from being raised or lowered too far.
 - a. Clutch mechanism: Molded components from proprietary POM thermoplastic, .118" (3mm) steel baseplate and .354 inch (9 mm) primary carbon steel post are joined via a high tonnage hydraulic swaging process; assembled with a rotational roller bearing, overrunning design, and positive mechanical engagement of drive mechanism to tube. White or Black color as selected by Architect. Center bead chain placement for right- or left-hand operation and accommodates side channel with no adjustment of chain location.
 - 1) Spring-assist bead chain clutch mechanism: Adjustment-free system includes spring-assist components to reduce lifting forces required to raise the shade. Manufacturer shall provide estimated torque for shade unit. Spring-assist is recommended on estimated non-spring-assist torque above 6 lb-in; required on shades with an estimated torque higher than 15 lb-in.
 - b. Bead chain loop: Polyester bead chain, White.
 - c. Bead Chain Hold Down: Spring-Loaded Tensioner complying with ANSI/WCMA A100.1-2022 safety standard.
 - d. Idler end: Height adjustable idler end allows fine leveling adjustments after installation-min +/- 1/8" without shimming brackets. Contains at least two entry points for the idler end. Safety engagement feature requires idler end pin to have a minimum engagement in bracket, ensuring that the idler end cannot fall out of the bracket due to lack of pin engagement.
2. Single Roller Configuration:
 - a. Mounting:
 - 1) Headbox, Pocket style (Typical and Courtroom Windows): Aluminum fabrication with removable closure, endcaps, and U-shaped pocket:
Finish: Selected from Manufacturers standard range.

SECTION 12 24 00
ROLLER SHADES

- b. Type D Shade pocket (Front Office Windows): Rectangular pocket and endcaps designed for recessed ceiling installation of window shades with ceiling tile lip.
 - 1) Material: Extruded aluminum alloy.
 - 2) Size: 5 inches (127 mm) wide by 5-3/8 inches (137 mm) high.
 - 3) Closure Panel:
 - (a) 1-1/2 (38 mm) closure dimension, recommended for bead chain operation.
 - 4) Pocket End Cap Kit: Metal endcaps with 7/8-inch (22 mm) lip for support of acoustical ceiling panel.
 - 5) Corners: Welded one-piece aluminum sections connecting to and matching pockets to allow continuous shade recess at ceiling corners.
- 3. Roller Tube: Fabricated from extruded aluminum, galvanized steel, or enameled steel. Diameter, wall thickness, and material selected by manufacturer to accommodate shade type and size. Minimum roller diameter 1.25 inches. Tube diameters less than 1.5" shall not be acceptable unless manufacturer provides deflection analysis showing deflection limited to $\leq \frac{\text{width(inches)}}{700}$ at 1.5X design load.
- 4. Fabric to tube attachments: Spline fabric/roller attachment system to allow shade fabric to be removed from roller without having to remove roller from brackets.
- 5. Shade slat:
 - a. Closed pocket elliptical slat: 1 inch (25 mm) aluminum elliptical slat inside of a 1-5/8 inch (41 mm) pocket with heat sealed ends.
- 6. Light Gap Reduction Channels.
 - a. Aluminum L Angle – 3/4 inch (19 mm) by 1 inch (25 mm).
- 7. Interior cable guide kit.
 - a. Interior cable hem bar finial.

2.3 FABRIC

A. Light-Filtering Fabrics

- 1. PVC Coated Fiberglass
 - a. Basketweave
 - 1) PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to UL GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 1 percent open, .020 inches thick, 13.3 oz/square yard.

SECTION 12 24 00
ROLLER SHADES

- B. Color and pattern: As selected by Architect from manufacturer's standard range.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Coordinate requirements for blocking and structural supports to ensure adequate means for installation of window shades.
- B. Coordinate requirements for blocking, construction of shade pockets, and structural supports to ensure adequate means for installation of window shades.
- C. Coordinate installation of recessed shade pockets with construction of suspended acoustical panel ceilings specified in Section 09510.
- D. Coordinate installation of recessed shade pockets with construction of suspended gypsum board ceilings specified in Section 09260.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install roller shades level, plumb, square, and true. Allow proper clearances for window operation hardware.
- C. Shade pockets:
 - 1. Install shade pockets prior to installation of suspended ceiling system. Attach to supporting structure with screws through top of pocket at 24 inches (610 mm) minimum centers.
 - 2. Install shade pockets in conjunction with installation of suspended ceiling system. Attach to supporting structure with screws through top of pocket at 24 inches (610 mm) minimum centers.
 - 3. Install corner pieces securely and in alignment with pockets.
 - 4. Install pocket ends securely and in alignment with pockets.
 - 5. After interior construction is essentially complete, install shade and operating mechanism in pocket.

SECTION 12 24 00
ROLLER SHADES

- D. Install the following items to conceal roller and operating mechanism. Do not use exposed fasteners.
 - 1. Fascias.
 - 2. Closure panels.
 - 3. Endcaps.

3.4 TESTING AND DEMONSTRATION

- A. Test window shades to verify that operating mechanism and other operating components are functional. Correct deficiencies.
 - 1. Chain and clutch.
- B. Demonstrate operation of shades to Owner's designated representatives.

3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair, or replace damaged products before Substantial Completion.

3.6 SCHEDULES

- A. Refer to Drawings for shade types and locations.

END OF SECTION

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

SECTION 133410 - PRE-ENGINEERED METAL BUILDING SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Structural-steel framing.
2. Metal wall panels (R PANEL)
3. Thermal insulation.

1.2 PREINSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.

1.3 REFERENCE STANDARDS

A. American Institute of Steel Construction (AISC):

1. AISC 360 - Specification for Structural Steel Buildings.
2. AISC 341 – Seismic Provisions for Structural Steel Buildings (when appropriate).
3. AISC Design Guide 3 – Serviceability for Steel Buildings

B. American Iron and Steel Institute (AISI):

1. AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members.

C. American Welding Society (AWS):

1. AWS D1.1 / D1.1M – Structural Welding Code – Steel.
2. AWS D1.3 / D1.3M – Structural Welding Code – Sheet Steel.

D. Association for Iron & Steel Technology (AISE):

1. AISE 13 – Specifications for Design and Construction of Mill Buildings.

E. ASTM International (ASTM):

1. ASTM A 325 – Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
2. ASTM A 653 / A 653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
3. ASTM A 792 / A 792M – Standard Specification for Steel Sheet, 55 % Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
4. ASTM B 117 – Standard Practice for Operating Salt Spray (Fog) Apparatus.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

5. ASTM C 518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
 6. ASTM C 1363 – Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus.
 7. ASTM D 522 – Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings.
 8. ASTM D 523 – Standard Test Method for Specular Gloss.
 9. ASTM D 968 – Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive.
 10. ASTM D 1308 – Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.
 11. ASTM D 2244 – Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates.
 12. ASTM D 2247 – Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
 13. ASTM D 2794 – Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
 14. ASTM D 3361 – Standard Practice for Unfiltered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.
 15. ASTM D 4214 – Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
 16. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
 17. ASTM E 96 / E 96M – Standard Test Methods for Water Vapor Transmission of Materials.
 18. ASTM E 1592 – Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.
 19. ASTM G 87 – Standard Practice for Conducting Moist SO₂ Tests.
- F. Metal Building Manufacturers Association (MBMA):
1. MBMA Metal Building Systems Manual.
 2. Seismic Design Guide for Metal Building Systems.
- G. North American Insulation Manufacturers Association (NAIMA):
1. NAIMA 202 – Standard For Flexible Fiber Glass Insulation to be Laminated for Use in Metal Buildings.
- H. The Society for Protective Coatings (SSPC):
1. SSPC-Paint 15 - Primer for Use Over Hand Cleaned Steel performs to SSPC-Paint 15 standards.
 2. SSPC-SP2 – Hand Tool Cleaning.
- I. Underwriters Laboratories (UL):
1. UL 580 – Standard for Tests for Uplift Resistance of Roof Assemblies.
 2. UL 723 – Standard for Test for Surface Burning Characteristics of Building Materials.
- 1.4 SUBMITTALS
- A. See Section 01 30 00 “Submittal Procedures”.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- B. Product Data: For each type of metal building system component.
 - C. Shop Drawings: Indicate components by others. Include full building plan, elevations, sections, details and attachments to other work.
 - D. Samples: For units with factory-applied finishes.
 - E. Welding certificates.
 - F. Letter of Design Certification: Signed and sealed by a qualified professional engineer. Include the following:
 - 1. Name and location of Project.
 - 2. Order number.
 - 3. Name of manufacturer.
 - 4. Name of Contractor.
 - 5. Building dimensions including width, length, height, and roof slope.
 - 6. Indicate compliance with AISC standards for hot-rolled steel and AISI standards for cold-rolled steel, including edition dates of each standard.
 - 7. Governing building code and year of edition.
 - 8. Design Loads: Include dead load, roof live load, collateral loads, roof snow load, deflection, wind loads/speeds and exposure, seismic design category or effective peak velocity-related acceleration/peak acceleration, and auxiliary loads (cranes).
 - 9. Load Combinations: Indicate that loads were applied acting simultaneously with concentrated loads, according to governing building code.
 - 10. Building-Use Category: Indicate category of building use and its effect on load importance factors.
 - G. Material test reports.
 - H. Source quality-control reports.
 - I. Field quality-control reports.
 - J. Sample warranties.
- 1.5 CLOSEOUT SUBMITTALS
- A. Maintenance data.
- 1.6 QUALITY ASSURANCE
- A. Manufacturer Qualifications: A qualified manufacturer.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

1. Accreditation: Manufacturer's facility accredited according to the International Accreditation Service's AC472, "Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems."
 2. Engineering Responsibility: Preparation of comprehensive engineering analysis and Shop Drawings by a professional engineer who is legally qualified to practice in jurisdiction where Project is located.
- B. Erector Qualifications: An experienced erector who specializes in erecting and installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.
- C. Welding Qualifications: Qualify procedures and personnel according to the following:
1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
 2. AWS D1.3, "Structural Welding Code - Sheet Steel."
- D. Material Testing:
1. In addition to material certifications of structural steel, metal building system manufacturer shall provide, upon request at time of order, evidence of compliance with specifications through testing.
 2. This quality assurance testing shall include testing of structural bolts, nuts, screw fasteners, mastics, and metal coatings (primers, metallic coated products, and painted coil products).

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
1. Store and handle materials in accordance with manufacturer's instructions.
 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 3. Do not store materials directly on ground.
 4. Store materials on flat, level surface, raised above ground, with adequate support to prevent sagging.
 5. Protect materials and finish during storage, handling, and installation to prevent damage.

1.8 WARRANTY

- A. Building System Warranty – Only applicable per contract documents.
1. Furnish manufacturer's standard warranty for the metal building system, excluding primer.
 2. The manufacturer shall warranty the metal building system against failure due to defective material or workmanship for a period of one (1) year from date of shipment.
 3. The liability under this warranty shall be limited to furnishing, but not dismantling or installing, necessary replacement material F.O.B. manufacturer's plant. In no consequential, or special damages.
 4. Building must be installed by a qualified erector to be covered under manufacturer's warranty.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- B. Wall Panel Finish Warranty – Only applicable per contract documents
1. Paint Systems
 - a. Furnish manufacturer's standard warranty for the metal panel paint system against chipping, peeling, blistering, fading in excess of 5 NBS Hunter units, and chalking in excess of 8 units as set forth in ASTM D4214.
 - b. The warranty shall be for a period of 35 years from the date of shipment for fluoropolymer (PVDF) paint systems.
 - c. The warranty shall be for a period of 25 years from the date of shipment for silicone-polyester (SP) paint systems.
 2. Zinc-Aluminum systems
 - a. Furnish manufacturer's standard warranty for the zinc-aluminum hot dipped alloy-coated panels against roof and rupture, structural failure, or perforation due to normal atmospheric conditions.
 - b. The warranty shall be for a period of 20 years from the date of shipment for zinc-aluminum systems.
 3. The liability under this warranty shall be limited to furnishing, but not dismantling or installing, necessary replacement material F.O.B. manufacturer's plant. In no event shall the manufacturer be liable for loss of profits, or other incidental, consequential, or special damages.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
1. American Buildings; <http://www.americanbuildings.com>
 2. CBC Steel Buildings; <http://www.cbcsteelbuildings.com>
 3. Kirby Building Systems; <http://www.kirbybuildingsystems.com>
 4. Nucor Building Systems; <http://www.nucorbuildingsystems.com>

2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Metal building systems shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to procedures in MBMA's "Metal Building Systems Manual", and as indicated in the Structural Drawings.
- B. Design Loads:
1. Roof Live Load: 20 PSF
 2. Roof Dead Load: See Structural Drawings
 3. Collateral Load: 8 PSF
 4. Roof Snow Load: 5 PSF
 5. Wind: 115 MPH (Vult)
 6. Wind Importance Factor, I_w : 1.0
 7. Exposure: C
 8. Seismic: S_s :0.161, S_1 :0.083
 - a. Site Class - D

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- b. Seismic Importance Factor I_e : 1.0
 - c. Seismic Design Category: B
9. Design Loads: See Structural Drawings for Additional Notes.
10. Deflection and Drift Limits: Design metal building system assemblies to withstand serviceability design loads without exceeding deflections and drift limits recommended in AISC Steel Design Guide No. 3 "Serviceability Design Considerations for Steel Buildings." See Structural Drawings.
11. Deflection and Drift Limits: See Structural Drawings for limitations.
- C. Seismic Performance: See Structural Drawings
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
- 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
- E. Fire-Resistance Ratings: Where assemblies are indicated to have a fire-resistance rating, provide metal panel assemblies identical to those of assemblies tested for fire resistance per ASTM E 119 or ASTM E 108 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- 1. Indicate design designations from UL's "Fire Resistance Directory," FM Global's "Approval Guide," or from the listings of another qualified testing agency.
- F. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.
- 1. Oversize Fire-Rated Door Assemblies: For units exceeding sizes of tested assemblies, provide certification by a qualified testing agency that doors comply with standard construction requirements for tested and labeled fire-rated door assemblies except for size.
- G. Structural Performance for Metal Roof and Wall Panels: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 1592:
- 1. Wind Loads: See component & cladding pressures specified in the Structural Drawings.
- H. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.
- 1. Uplift Rating: Class 90.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

2.3 MATERIALS

A. Primary Framing Steel:

1. Steel for hot rolled shapes must conform to the requirements of ASTM A36, A572 or A992, with minimum yield of 36 or 50 ksi, respectively.
2. Steel for built-up sections must conform to the requirements of ASTM A1011, A1018, A529, A572 or A36 as applicable, with minimum yield of 36, 50, or 55 ksi as indicated by the design requirements.
3. Round Tube must conform to the requirements of ASTM A-500 Grade B with minimum yield strength of 42 ksi.
4. Square and Rectangular Tube must conform to the requirements of ASTM A500 Grade B with a minimum yield strength of 46 ksi.
5. Steel for Cold-Formed sections must conform to the requirements of ASTM A1011 or A1039 Grade 55, or ASTM A653 Grade 55 with minimum yield strength of 55 ksi.
6. X-bracing will conform to ASTM A529 for rod bracing, ASTM A992 for angle bracing or ASTM A475 for cable bracing.

B. Secondary Framing Steel:

1. Steel used to form purlins, girts and eave struts must meet the requirements of ASTM A1011 or ASTM A1039 Grade 55 for primed material or ASTM A653 Grade 55 for galvanized material with a minimum yield of 55 ksi.
2. Design Thicknesses – Gauge to be determined by design to meet specified loading conditions.

C. Panels:

1. Roll-formed Galvalume®, pre-painted Galvalume® or Galvanized G90 Exterior-Side and G60 Interior-Side. In Canada, Galvanized panel will have a coating thickness of G90 on both sides.
2. Through-fastened panels must have:
 - a. 50 percent minimum aluminum-zinc alloy coating and conform to ASTM A792 or ASTM A653 with a minimum yield of 50 ksi.
3. Panel Finish:
 - a. SP Finish: Modified Siliconized Polyester paint system with a 25-year finish warranty.
 - b. PVDF Finish: 70% PVDF paint system with a 30-year finish warranty.

D. Panel Fasteners:

1. For wall panels: Coated carbon steel.
2. Color of exposed fastener heads to match the wall and roof panel finish.
3. Concealed Fasteners: Self-drilling type, of size required.

E. Flashing and Trim: Match material, finish, and color of adjacent components. Provide trim at rakes, including peak and corner assemblies, high and low eaves, corners, bases, framed openings and as required or specified to provide weathertightness and a finished appearance.

F. Sealant And Closures:

1. Sidelaps: Factory applied non-skinning Butyl mastic.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

2. Endlaps, Eave, Ridge Assembly, and Gable Flashings: Field applied 100% solids butyl-based elastomeric tape sealant, furnished in pre-cut lengths.
3. Outside Closures: Closed-cell, plastic or metal
4. Inside Closures: Closed-cell, plastic or metal

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

2.4 PRIMARY FRAMING

- A. Rigid Frames: Fabricated as welded built-up "I" sections or hot-rolled sections.
 - 1. Frame Design: Gable Symmetrical.
 - 2. Frame Design: Gable Unsymmetrical.
 - 3. Frame Design: Single Slope.
 - 4. Frame Design: Lean-To.
 - 5. Frame Type: Clear-Span.
 - 6. Frame Type: Multi-Span.
- B. Rigid Frame Columns:
 - 1. Straight/Uniform depth
 - 2. Tapered
- C. Rigid Frame Rafters:
 - 1. Straight/Uniform depth
 - 2. Tapered
- D. Endwall Frames / Roof Beams: Fabricated as mill-rolled sections or built-up "I" sections depending on design requirements. Fabricate endwall columns of cold-formed sections, mill-rolled sections, or built-up "I" sections depending on design requirements.
- E. Interior Columns: Columns supporting rafters of mainframes shall be of the following cross-section type(s):
 - 1. Pipe (Round HSS).
 - 2. Tube (Square HSS).
 - 3. "I"-Shaped (Built-Up or Mill-Rolled depending on design requirements).
- F. Finish: Red-Oxide or Gray Primer, or galvanized (pre coated galvanized cold-form, hot-dipped otherwise).
- G. Field Bolted Connections: All field bolted connections shall be designed and detailed utilizing ASTM F3125 Grades A325 or A490 as required by design.

2.5 SECONDARY FRAMING

- A. Purlins and Girts: Purlins and girts shall be cold-formed "Z" sections with stiffened flanges. Flange stiffeners shall be sized to comply with the requirements of the latest edition of AISI S100. They shall be pre-punched at the factory to provide for field bolting to the rigid frames. They shall be simple or continuous span as required by design. Connection bolts will install through the purlin/girt webs, not purlin/girt flanges.
- B. Purlins (Excluding Open Web Joists): Horizontal structural members which support roof coverings.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

1. Depth: To be determined by design (8", 9.5", 10" or 12")
 2. Maximum Length: To be determined by design.
 3. Finish: Red Oxide Primer.
- C. Girts: Horizontal structural members that support vertical panels.
1. Depth: To be determined by design (8", 9.5", 10", or 12")
 2. Maximum Length: To be determined by design.
 3. Finish: Red Oxide Primer.
- D. Eave Struts: Equal flange, cold-formed "C" sections or "Z" purlins.
1. Depth: To be determined by design (8", 9.5", 10" or 12")
 2. Maximum Length: To be determined by design.
 3. Finish: Red Oxide Primer.
- E. Base Framing: Base members to which the base of the wall covering may be attached to the perimeter of the slab. Secured to the concrete slab with mechanical anchors.
1. Formed base sill.
 2. Base channel.
 - a. With flashing.
 - b. Without flashing.
 3. Base angle.
 - a. With flashing.
 - b. Without flashing.
 4. Base girt.
 - a. With flashing.
 - b. Without flashing.
 5. Finish: Red Oxide Primer.
- F. Roof Joist system.
1. Open web, parallel chord, simple span load carrying members suitable for the direct support of roof systems utilizing material sizes and yield strengths as required.
 2. Open web members shall be fabricated of material that conforms to the material specifications designated by the Steel Joist Institute as acceptable for this product.
 3. Roof Joist Seat attachment
 - a. Fully Bolted (no welding required)
 - b. Welded
 - c. Alternate Bolt Option (some welding required)
 4. Roof Joist Bridging attachment
 - a. Fully Bolted (no welding required)
 - b. Welded
 5. Roof Joist Flange Brace attachment
 - a. Fully Bolted (no welding required)
 - b. Welded

2.6 ROOF PANELS

1. Refer to section 07 41 00 - PREFORMED METAL STANDING SEAM ROOF

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

2.7 WALL PANELS

- A. R-Panel Wall Panel: A through-fastened sidewall panel with 1 1/4 inch (32mm) ribs at 12 inches (305mm) on center. The area between the ribs is reinforced to minimize oil-canning.
 - 1. Gauge: 22
 - 2. Dimensions: 36 inches (915mm) wide by 1 1/4 inch (32mm) high
 - 3. Finish/Color: As specified in Article 2.10 PANEL FINISH
- B. Refer to Section

2.8 THERMAL INSULATION

- A. Faced Metal Building Insulation: ASTM C 991, Type II, glass-fiber-blanket insulation; 0.5-lb/cu. ft. density; 2-inch-wide, continuous, vapor-tight edge tabs; with a flame-spread index of 25 or less.
- B. Unfaced Metal Building Insulation: ASTM C 991, Type I, or NAIMA 202, glass-fiber-blanket insulation; 0.5-lb/cu. ft.; density; 2-inch-wide, continuous, vapor-tight edge tabs; with a flame-spread index of 25 or less.
- C. Retainer Strips: For securing insulation between supports, 0.025-inch (0.64-mm) nominal-thickness, formed, metallic-coated steel or PVC retainer clips colored to match insulation facing.
- D. Vapor-Retarder Facing: ASTM C 1136, with permeance not greater than 0.02 perm when tested according to ASTM E 96/E 96M, Desiccant Method.

2.9 ACCESSORIES

- A. Canopies: Overhanging or projecting roof structures off the sidewall or endwall with the extreme end usually unsupported. For aesthetic application or to cover entrance or walkway.
- B. Roof Line Trim:
 - 1. Basic Sculptured Trim Type: Low-Eave Gutter (on slope or horizontal) / Sculptured Rake Trim
- C. Purlin Extensions: Overhanging or projecting roof structure at the end of a building.
- D. Framed Openings: Used to frame out doors, windows, louvers, and any other openings. Refers to the framing members and flashing which surround an opening and includes jambs, header and or sill, trim, and fasteners.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- E. Walk Doors: Personnel entry doors.
 - 1. Size: As noted on the Contract Drawings.
 - 2. Accessories: As noted on the Contract Drawings

- A. Liner Panels: R-Panel Liner Panel: A through-fastened sidewall panel with 1 1/4 inch (32mm) ribs at 12 inches (305mm) on center. The area between the ribs is reinforced to minimize oil-canning.
 - 1. Gauge: 24
 - 2. Dimensions: 36 inches (915mm) wide by 1 1/4 inch (32mm) high
 - 3. Finish: As specified in 2.10 PANEL FINISHES

- B. Facades: Decorative structural and panel system projecting from the face of a wall panel.

- C. Parapet Walls: Wall panels below the roof line that extend above the roof line to a given elevation. Parapet walls include 14 gauge pre-galvanized parapet gutter (gutter liner and drainage members by others) when located on a sidewall (except at the high side of a Single-Slope or Lean-to building).

- D. Partitions: Interior or exterior walls that are inside the building footprint to section off parts of the interior space of a building.

- E. Valley Gutter: Gutter used to carry off water from attached buildings or multi-gabled buildings. Standard valley gutter is 14 gauge pre-galvanized 10 foot (3048mm) sections, field welded in place (gutter liner and drainage members by others).

- F. Roof Curbs: Welded units fabricated for Metal Roof application. Minimum 18 gauge Galvalume™ coated steel, with welds cleaned and treated with protective coating compatible with the Galvalume™ substrate. Minimum curb height shall be 8".
 - 1. Top of curb to be level with ground, with 1 1/2" top flange.
 - 2. Curb walls insulated with 1 1/2"-3lb.density fiberglass insulation.
 - 3. Welded integral cricket on upslope side of curb to divert water.
 - 4. Metal or plastic rib covers supplied loose for flexibility when installing curb.
 - 5. Standard sub-frame shall be minimum 16 gauge steel.
 - 6. All fasteners and sealants required for installation shall be furnished by Roof Curb manufacturer.

- G. Roof Vents: Accessories used on the roof to allow air to pass through.
 - 1. Gravity Ridge Vents: Can be used as single unit or continuous.
 - a. Size: 9 inch by 10 foot (229x3048mm) with Damper & Lockerpull.
 - b. Size: 12 inch by 10 foot (305x3048mm) with Damper & Lockerpull.

- H. Pipe Flashings: Pipe flashing shall be of a one piece construction and fabricated from an EPDM membrane and shall have an aluminum base that can be field conformed to any panel configuration. Pipe flashings shall be flexible for mounting on any roof slope.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

Service temperature ranges shall be from -30°F to +250°F. Three standard flashing sizes shall accommodate pipe sizes from 1/4" diameter up to 13" diameter.

1. Size: 1/4" to 4" (6 to 102mm) Pipe
2. Size: 4" to 7" (102 to 178mm) Pipe
3. Size: 7" to 13" (178 to 330mm) Pipe

Note: Please specify the desired panel finish for each type of panel. Delete all that do not apply.

2.10 PANEL FINISHES

I. Roof Panel:

1. Galvalume® (GM)
2. Standard Panel Paint System (Siliconized Polyester Resin, 25-year Finish Warranty):
 - a. Color: As selected by Architect from manufacturer's full range of colors.

J. Wall Panel:

1. Standard Panel Paint System (Siliconized Polyester Resin, 25-year Finish Warranty):
 - a. Color: As selected by Architect from manufacturer's full range of colors.

K. Liner Panel:

1. Standard Panel Paint System (Siliconized Polyester Resin, 25-year Finish Warranty):
 - a. 28 gauge:
 - 1) Color: As selected by Architect from manufacturer's full range of colors.
 - b. 26 & 24 gauge:
 - 2) Color: As selected by Architect from manufacturer's full range of colors.

2.11 FABRICATION

L. General:

1. Shop-fabricate all framing members for field bolted assembly. The surfaces of the bolted connections must be smooth and free from burrs or distortions.
2. Shop connections must conform to the manufacturer's standard design practices as defined in this section. Certification of welder qualifications will be furnished when required and specified in advance.
3. All framing members must carry an identifying mark.

M. Primary Framing:

1. Plates, Stiffeners and Related Members: Factory weld base plates splice plates, cap plates, and stiffeners into place on the structural members.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

2. Bolt Holes and Related Machining: Shop fabricate base plates, splices and flanges to include bolt connection holes. Shop fabricated webs to include bracing holes.
 3. Secondary structural connections (purlins and girts) to be ordinary bolted connections, which may include welded clips.
 4. Manufacturer is responsible for all shop welding inspection in accordance with the manufacturer's IAS Accreditation or CAN/CSA A660 Certification. Special inspection by the buyer or owner may be done in the manufacturer's facility and must be noted on the Contract Documents.
 5. Non-Destructive Testing (NDT) - NDT shall be performed and documented as required by the governing building code for this project.
- N. Open-Web Roof Joists:
1. Secondary framing for 'long-bay' building layouts shall consist of open-web bar joists designed under Steel Joist Institute (SJI) specifications by an SJI-Certified Joist Manufacturer for the prescribed loads.
- O. Zee Purlins:
1. Fabricate purlins from cold-formed "Z" sections with stiffened flanges. Size flange stiffeners to comply with the requirements of the latest edition of AISI. Connection bolts will install through the webs, not the flanges.
- P. Girts
1. Girts must be simple or continuous span as required by design. Connection bolts will install through the webs, not the flanges.
- Q. Bracing:
1. Diagonal Bracing:
 - a. Longitudinal bracing in the roof and/or walls need not be furnished where it can be shown that the diaphragm strength of the roof and/or wall covering is adequate to resist the applied wind or seismic forces. Diagonal bracing in the roof and sidewalls may be used to resist longitudinal loads (wind, crane, etc.) in the structure if diaphragm action cannot be used.
 - b. Diagonal bracing will be furnished to length and equipped with hillside washers and nuts at each end. It may consist of rods threaded each end or galvanized cable with suitable threaded end anchors. If load requirements so dictate, bracing may be of structural angle and/or pipe, bolted in place.
 2. Special Bracing: When diagonal bracing is not permitted in the sidewall, a rigid frame type portal or fixed base column may be used. Shear walls can also be used where adequate to resist the applied wind or seismic forces.
 3. Flange Braces: The inside compression flange of all primary framing must be braced laterally with angles connecting to the bottom chords of joists or to the webs of purlins/girts so that the flange compressive stress is within allowable limits for any combination of loading.
 4. Bridging: Laterally bridge the top and bottom chords of the open-web bar joists as required by design thereof and specified on the building erection drawings.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- R. Trapezoidal Standing Seam Panels - General:
1. One side of the panel is configured as female, having factory applied mastic inside the female seam. The female side will hook over the male side and when seamed creates a continuous lock, forming a weathertight seam.
 2. Panels are factory notched at both ends so that field installation can commence or terminate from either end of the building. Panels cannot start at both ends of the building and work towards each other.
 3. Maximum panel length is 50 feet (16,764mm) unless otherwise noted in the Contract Documents.
 4. Endlaps:
 - a. Endlaps must have a 16 gauge backup plate and have the (8) endlap joint fasteners installed in dimpled locations in the flat with (1) endlap joint fastener installed in each trapezoid shoulder for a total of (10) fasteners at each endlap.
 - b. Apply mastic between the panels and secured with #1/4-14 x 1 1/4 inch (32mm) self-drilling fasteners through the panels and backup plate to form a compression joint.
 - c. "Through-the-Roof" fasteners may only be used at endlaps and eaves.
- S. Vertical Rib Standing Seam Panels - General:
1. One side of the panel is configured as female, having factory applied mastic inside the female seam. The female side will hook over the male side and when seamed creates a continuous lock, forming a weathertight seam.
 2. Panels are factory swaged when endlaps are required. Panels cannot start at both ends of the building and work towards each other.
 3. Maximum panel length is 50 feet (16,764mm) unless otherwise noted in the Contract Documents.
 4. Endlaps:
 - a. Endlaps must have a 16 gauge backup plate and have the (5) endlap joint fasteners installed in dimpled locations in the flat at each endlap.
 - b. Apply mastic between the panels and secured with #1/4-14 x 1 1/4 inch (32mm) self-drilling fasteners through the panels and backup plate to form a compression joint.
 - c. "Through-the-Roof" fasteners may only be used at endlaps and eaves.

PART 3 - EXECUTION

3.1 ERECTION OF STRUCTURAL FRAMING

- A. Erect metal building system according to manufacturer's written instructions and drawings.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- B. Do not field cut, drill, or alter structural members without written approval from metal building system manufacturer's professional engineer.
- C. Set structural framing accurately in locations and to elevations indicated, according to AISC specifications referenced in this Section. Maintain structural stability of frame during erection.
- D. Base and Bearing Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
 - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
 - 2. Tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
 - 3. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.
- E. Align and adjust structural framing before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with framing. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
 - 1. Level and plumb individual members of structure.
 - 2. Make allowances for difference between temperature at time of erection and mean temperature when structure will be completed and in service.
- F. Primary Framing and End Walls: Erect framing level, plumb, rigid, secure, and true to line. Level baseplates to a true even plane with full bearing to supporting structures, set with double-nutted anchor bolts. Use grout to obtain uniform bearing and to maintain a level base-line elevation. Moist-cure grout for not less than seven days after placement.
 - 1. Make field connections using high-strength bolts installed according to RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt type and joint type specified.
 - a. Joint Type: Snug tightened or pretensioned as required by manufacturer.
- G. Secondary Framing: Erect framing level, plumb, rigid, secure, and true to line. Field bolt secondary framing to clips attached to primary framing.
 - 1. Provide rake or gable purlins with tight-fitting closure channels and fasciae.
 - 2. Locate and space wall girts to suit openings such as doors and windows.
 - 3. Provide supplemental framing at entire perimeter of openings, including doors, windows, ventilators, and other penetrations of roof and walls.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- H. Steel Joists: Install joists and accessories plumb, square, and true to line; securely fasten to supporting construction according to SJI's "Standard Specifications and Load Tables for Steel Joists and Joist Girders," joist manufacturer's written instructions, and requirements in this Section.
1. Before installation, splice joists delivered to Project site in more than one piece.
 2. Space, adjust, and align joists accurately in location before permanently fastening.
 3. Install temporary bracing and erection bridging, connections, and anchors to ensure that joists are stabilized during construction.
 4. Joist Installation: Bolt joists to supporting steel framework using carbon-steel bolts unless otherwise indicated.
 5. Joist Installation: Bolt joists to supporting steel framework using high-strength structural bolts unless otherwise indicated. Comply with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for high-strength structural bolt installation and tightening requirements.
 6. Joist Installation: Weld joist seats to supporting steel framework.
 7. Install and connect bridging concurrently with joist erection, before construction loads are applied. Anchor ends of bridging lines at top and bottom chords if terminating at walls or beams.
- I. Bracing: Install bracing in roof and sidewalls where indicated on erection drawings.
1. Tighten rod and cable bracing to avoid sag.
 2. Locate interior end-bay bracing only where indicated.
- J. Framing for Openings: Provide shapes of proper design and size to reinforce openings and to carry loads and vibrations imposed, including equipment furnished under mechanical and electrical work. Securely attach to structural framing.
- K. Erection Tolerances: Maintain erection tolerances of structural framing within AISC 303.

3.2 METAL PANEL INSTALLATION, GENERAL

- A. General: Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
1. Field cut metal panels as required for doors, windows, and other openings. Cut openings as small as possible, neatly to size required, and without damage to adjacent metal panel finishes.
 - a. Field cutting of metal panels by torch is not permitted unless approved in writing by manufacturer.
 2. Install metal panels perpendicular to structural supports unless otherwise indicated.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

3. Flash and seal metal panels with weather closures at perimeter of openings and similar elements. Fasten with self-tapping screws.
 4. Locate and space fastenings in uniform vertical and horizontal alignment.
 5. Locate metal panel splices over structural supports with end laps in alignment.
 6. Lap metal flashing over metal panels to allow moisture to run over and off the material.
- B. Lap-Seam Metal Panels: Install screw fasteners using power tools with controlled torque adjusted to compress EPDM washers tightly without damage to washers, screw threads, or metal panels. Install screws in predrilled holes.
1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Lap ribbed or fluted sheets one full rib corrugation. Apply metal panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.
- C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.
- D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal panel assemblies. Provide types of gaskets, fillers, and sealants indicated; or, if not indicated, provide types recommended by metal panel manufacturer.
1. Seal metal panel end laps with double beads of tape or sealant the full width of panel. Seal side joints where recommended by metal panel manufacturer.
 2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."
- 3.3 METAL ROOF PANEL INSTALLATION
- A. General: Provide metal roof panels of full length from eave to ridge unless otherwise indicated or restricted by shipping limitations.
1. Install ridge caps as metal roof panel work proceeds.
 2. Flash and seal metal roof panels with weather closures at eaves and rakes. Fasten with self-tapping screws.
- B. Standing-Seam Metal Roof Panels: Refer to Specification Section 07 41 13.16 "Standing-Seam Metal Roof Panels".
- C. Lap-Seam Metal Roof Panels: Fasten metal roof panels to supports with exposed fasteners at each lapped joint, at location and spacing recommended by manufacturer.
1. Provide metal-backed sealing washers under heads of exposed fasteners bearing on weather side of metal roof panels.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

2. Provide sealant tape at lapped joints of metal roof panels and between panels and protruding equipment, vents, and accessories.
3. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on end laps and on side laps of nesting-type metal panels, on side laps of ribbed or fluted metal panels, and elsewhere as needed to make metal panels weatherproof to driving rains.
4. At metal panel splices, nest panels with minimum 6-inch (152-mm) end lap, sealed with butyl-rubber sealant and fastened together by interlocking clamping plates.

- D. Metal Fascia Panels: Align bottom of metal panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws. Flash and seal metal panels with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

3.4 METAL WALL PANEL INSTALLATION

- A. General: Install metal wall panels in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to girts, extending full height of building, unless otherwise indicated. Anchor metal wall panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Unless otherwise indicated, begin metal panel installation at corners with center of rib lined up with line of framing.
2. Shim or otherwise plumb substrates receiving metal wall panels.
3. When two rows of metal panels are required, lap panels 4 inches (102 mm) minimum.
4. When building height requires two rows of metal panels at gable ends, align lap of gable panels over metal wall panels at eave height.
5. Rigidly fasten base end of metal wall panels and allow eave end free movement for thermal expansion and contraction. Predrill panels.
6. Flash and seal metal wall panels with weather closures at eaves and rakes, and at perimeter of all openings. Fasten with self-tapping screws.
7. Install screw fasteners in predrilled holes.
8. Install flashing and trim as metal wall panel work proceeds.
9. Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as indicated on Drawings; if not indicated, as necessary for waterproofing.
10. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws.
11. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.

- B. Metal Wall Panels: Install metal wall panels on exterior side of girts. Attach metal wall panels to supports with fasteners as recommended by manufacturer.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

3.5 METAL SOFFIT PANEL INSTALLATION

- A. Provide metal soffit panels the full width of soffits. Install panels perpendicular to support framing.
- B. Flash and seal metal soffit panels with weather closures where panels meet walls and at perimeter of all openings.

3.6 THERMAL INSULATION INSTALLATION

- A. General: Install insulation concurrently with metal panel installation, in thickness indicated to cover entire surface, according to manufacturer's written instructions.
 - 1. Set vapor-retarder-faced units with vapor retarder toward warm side of construction unless otherwise indicated. Do not obstruct ventilation spaces except for firestopping.
 - 2. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to the surrounding construction to ensure airtight installation.
 - 3. Install factory-laminated, vapor-retarder-faced blankets straight and true in one-piece lengths, with both sets of facing tabs sealed, to provide a complete vapor retarder.
 - 4. Install blankets straight and true in one-piece lengths. Install vapor retarder over insulation, with both sets of facing tabs sealed, to provide a complete vapor retarder.
- B. Blanket Roof Insulation: Comply with the following installation method:
 - 1. Over-Framing Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal roof panels fastened to secondary framing.
 - 2. Between-Purlin Installation: Extend insulation and vapor retarder between purlins. Carry vapor-retarder-facing tabs up and over purlin, overlapping adjoining facing of next insulation course and maintaining continuity of retarder. Hold in place with bands and crossbands below insulation.
 - 3. Over-Purlin-with-Spacer-Block Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Install layer of filler insulation over first layer to fill space formed by metal roof panel standoffs. Hold in place by panels fastened to standoffs.
 - a. Thermal Spacer Blocks: Where metal roof panels attach directly to purlins, install thermal spacer blocks.
 - 4. Two-Layers-between-Purlin-with-Spacer-Block Installation: Extend insulation and vapor retarder between purlins. Carry vapor-retarder-facing tabs up and over purlin, overlapping adjoining facing of next insulation course and maintaining continuity of retarder. Install layer of filler insulation over first layer to fill space between purlins formed by thermal spacer blocks. Hold in place with bands and crossbands below insulation.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

- a. Thermal Spacer Blocks: Where metal roof panels attach directly to purlins, install thermal spacer blocks.
5. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.
- C. Blanket Wall Insulation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal wall panels fastened to secondary framing.
 1. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.

3.7 DOOR AND FRAME INSTALLATION

- A. General: Install doors and frames plumb, rigid, properly aligned, and securely fastened in place according to manufacturers' written instructions. Coordinate installation with wall flashings and other components. Seal perimeter of each door frame with elastomeric sealant used for metal wall panels.
- B. Personnel Doors and Frames: Install doors and frames according to NAAMM-HMMA 840.
 1. At fire-rated openings, install frames according to, and doors with clearances specified in, NFPA 80.
- C. Field Glazing: Comply with installation requirements in Section 088000 "Glazing."
- D. Door Hardware:
 1. Install surface-mounted items after finishes have been completed at heights indicated in DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 2. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
 3. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
 4. Set thresholds for exterior doors in full bed of sealant complying with requirements for concealed mastics specified in Section 079200 "Joint Sealants."

3.8 WINDOW INSTALLATION

- A. General: Install windows plumb, rigid, properly aligned, without warp or rack of frames or sash, and securely fasten in place according to manufacturer's written instructions. Coordinate installation with wall flashings and other components. Seal perimeter of each window frame with elastomeric sealant used for metal wall panels.

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

1. Separate dissimilar materials from sources of corrosion or electrolytic action at points of contact with other materials by complying with requirements specified in AAMA/WDMA/CSA 101/I.S.2/A440.
- B. Set sill members in bed of sealant or with gaskets, for weathertight construction.
- C. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior.
- D. Mount screens directly to frames with tapped screw clips.

3.9 ACCESSORY INSTALLATION

- A. General: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
 1. Install components required for a complete metal roof panel assembly, including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
 2. Install components for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
 3. Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturer.
- B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
 1. Install exposed flashing and trim that is without excessive oil-canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.
 2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (600 mm) of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).
- C. Gutters: Join sections with riveted-and-soldered or lapped-and-sealed joints. Attach gutters to eave with gutter hangers spaced as required for gutter size, but not more

SECTION 13 34 10
PRE-ENGINEERED METAL BUILDING SYSTEMS

than 36 inches (914 mm) o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

- D. Downspouts: Join sections with 1-1/2-inch (38-mm) telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch (25 mm) away from walls; locate fasteners at top and bottom and at approximately 60 inches (1524 mm) o.c. in between.
 - 1. Provide elbows at base of downspouts to direct water away from building.
 - 2. Tie downspouts to underground drainage system indicated.
- E. Circular Roof Ventilators: Set ventilators complete with necessary hardware, anchors, dampers, weather guards, rain caps, and equipment supports. Mount ventilators on flat level base. Install preformed filler strips at base to seal ventilator to metal roof panels.
- F. Continuous Roof Ventilators: Set ventilators complete with necessary hardware, anchors, dampers, weather guards, rain caps, and equipment supports. Join sections with splice plates and end-cap skirt assemblies where required to achieve indicated length. Install preformed filler strips at base to seal ventilator to metal roof panels.
- G. Roof Curbs: Install curbs at locations indicated on Drawings. Install flashing around bases where they meet metal roof panels.
- H. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to panel as recommended by manufacturer.

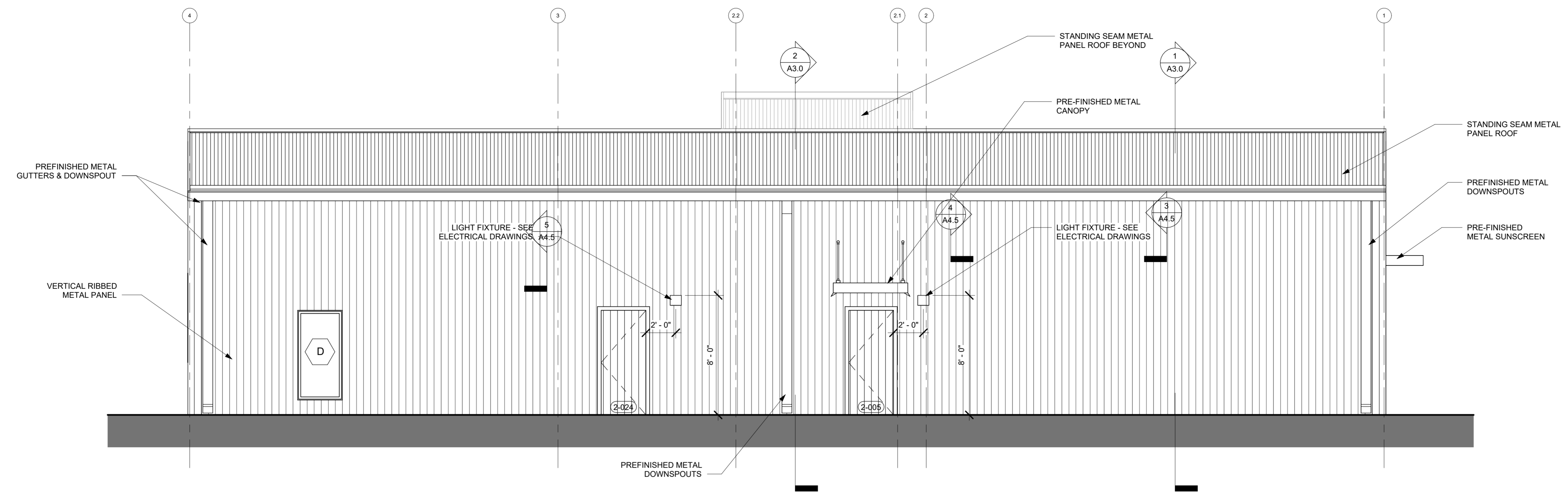
3.10 FIELD QUALITY CONTROL

- A. Special Inspections: See Structural Drawings and Specification Section 01 40 15 – “Special Inspections and Testing”.
- B. Product will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

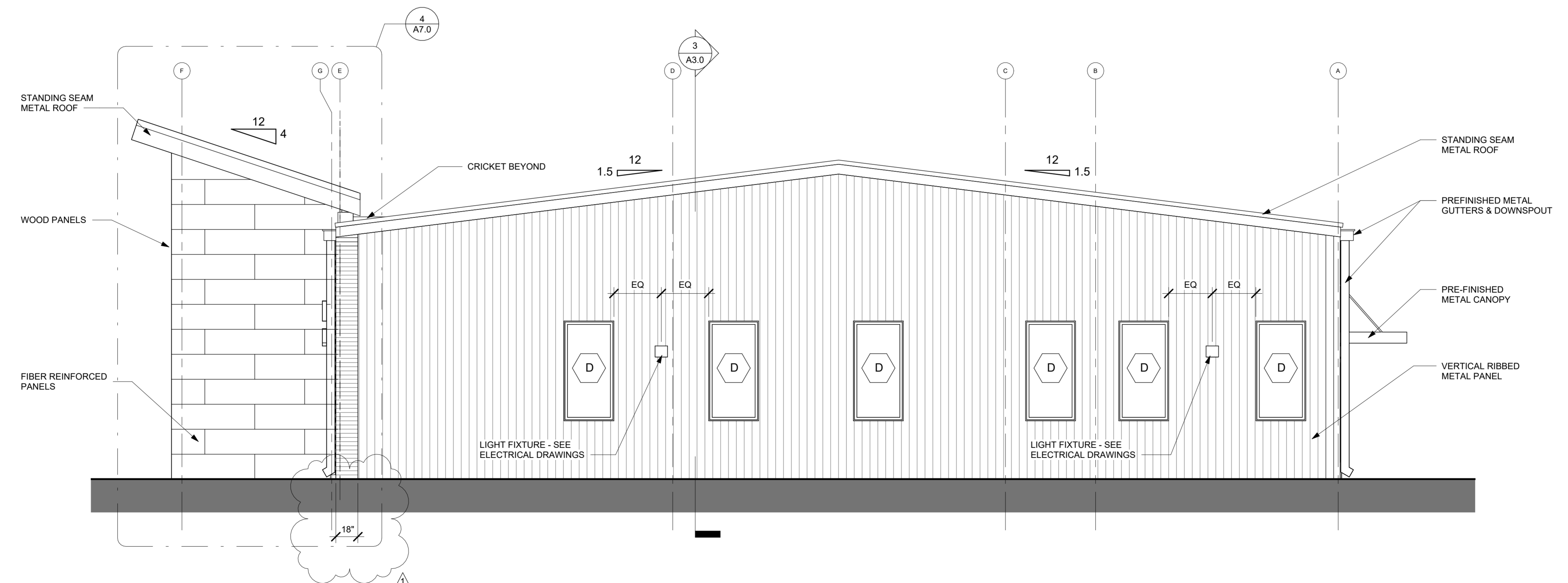
END OF SECTION 13 34 10

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

K
J
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A



1 NORTH ELEVATION
1/4" = 1'-0"



2 EAST ELEVATION
1/4" = 1'-0"

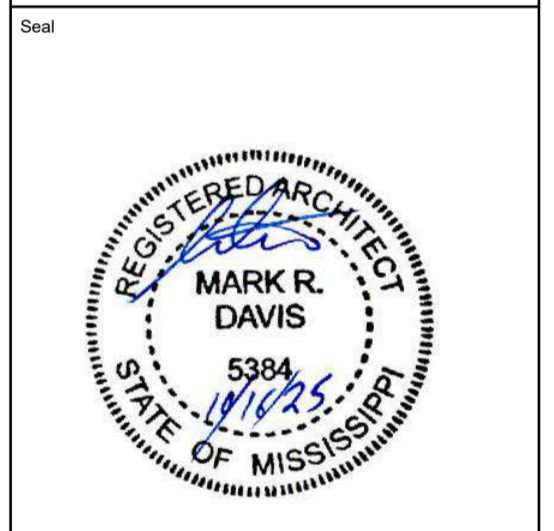
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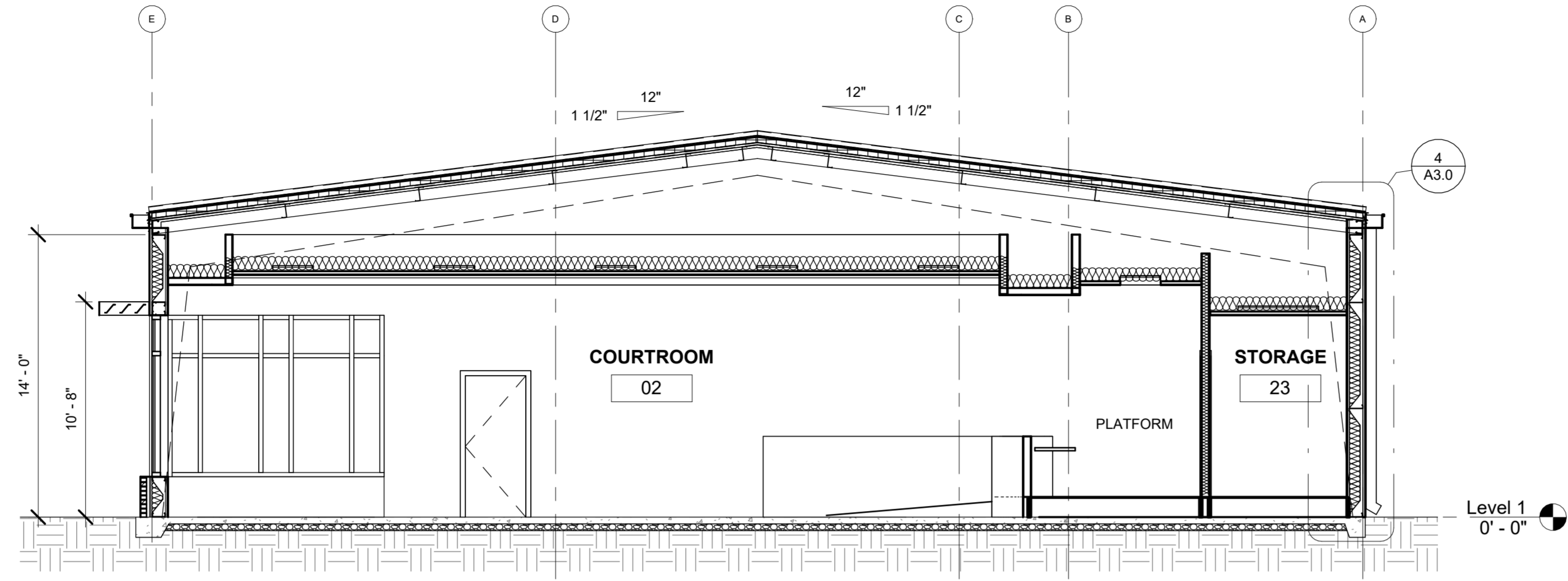
No.	Description	Date
2	ADDENDUM #1	10/16/25
1	CONSTRUCTION DOCS	9/5/25

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Meridian, MS 39342

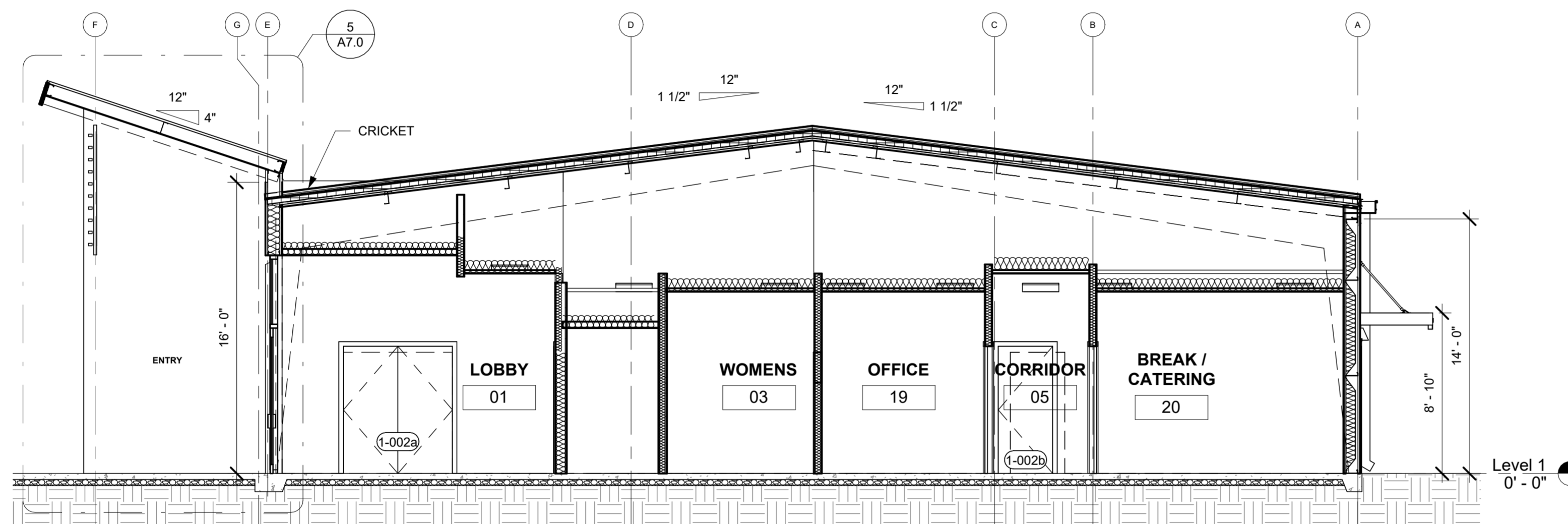
Sheet Title
EXTERIOR ELEVATIONS

Project No.	Date
25_009	9/5/25

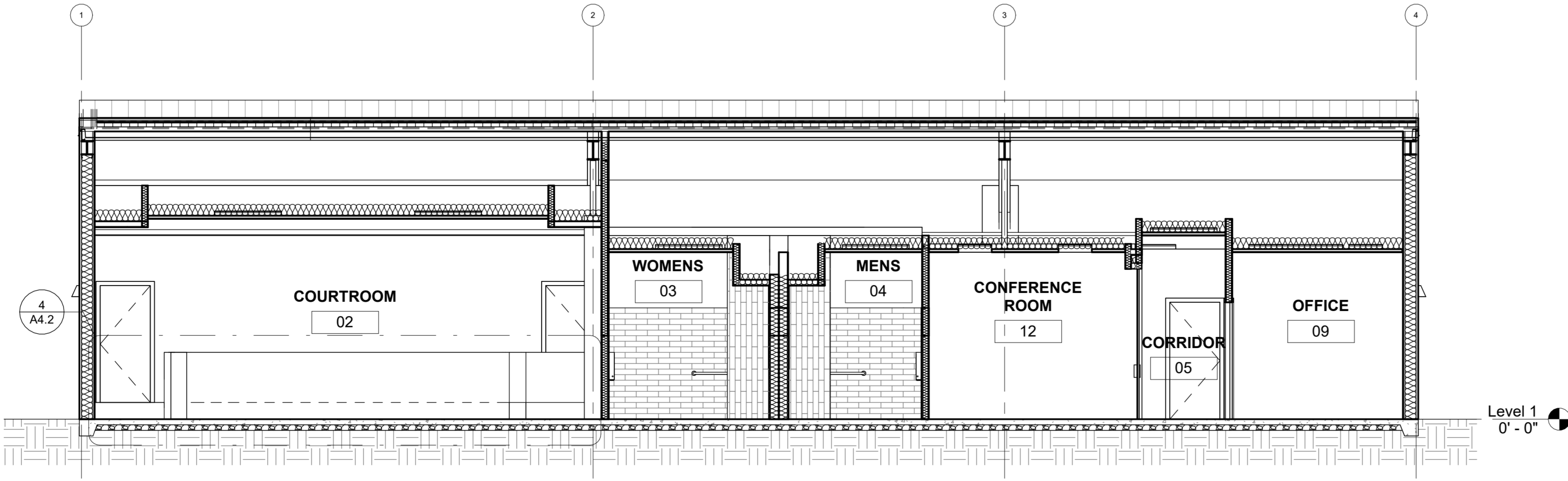
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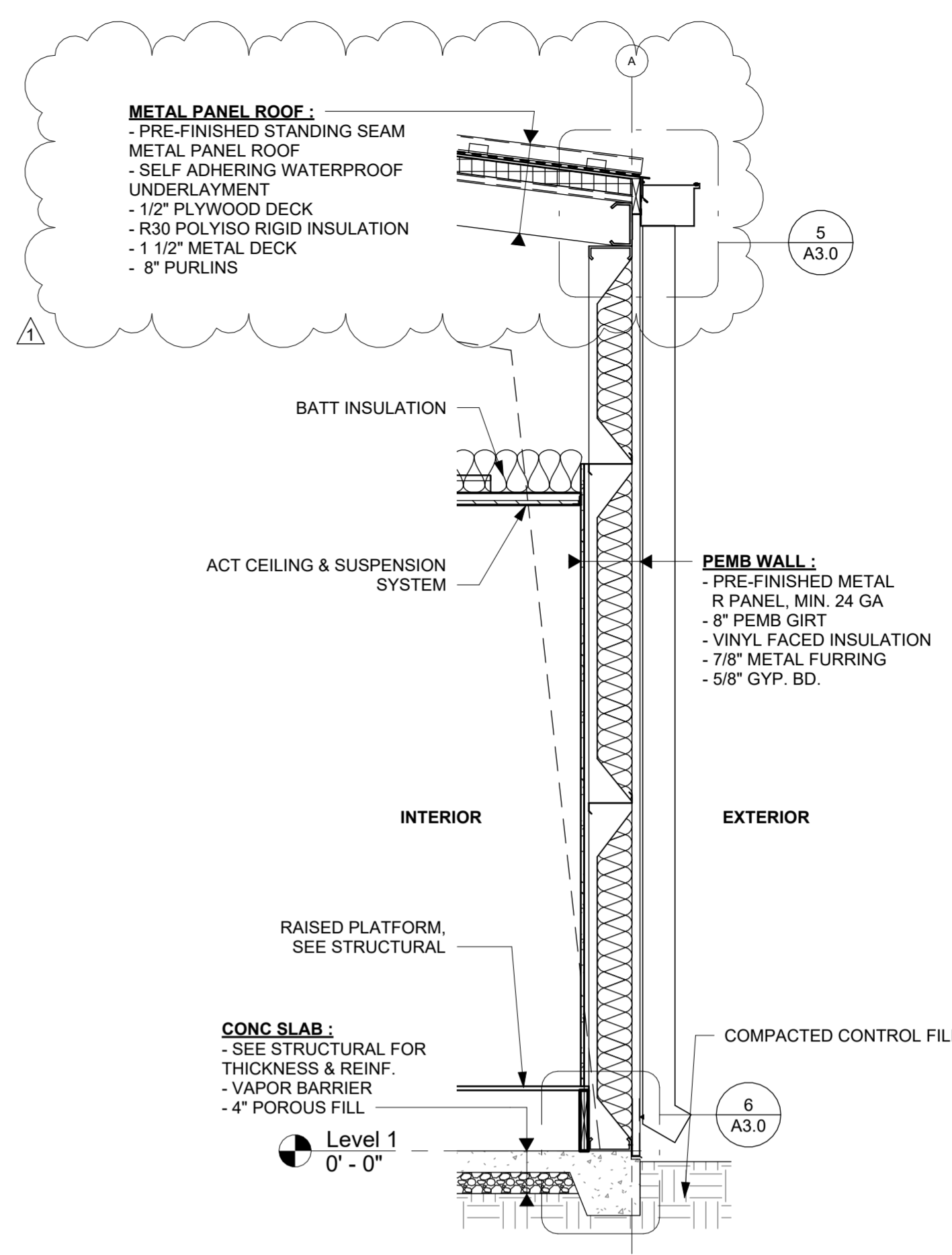
1 CROSS SECTION @ COURT ROOM
3/16" = 1'-0"



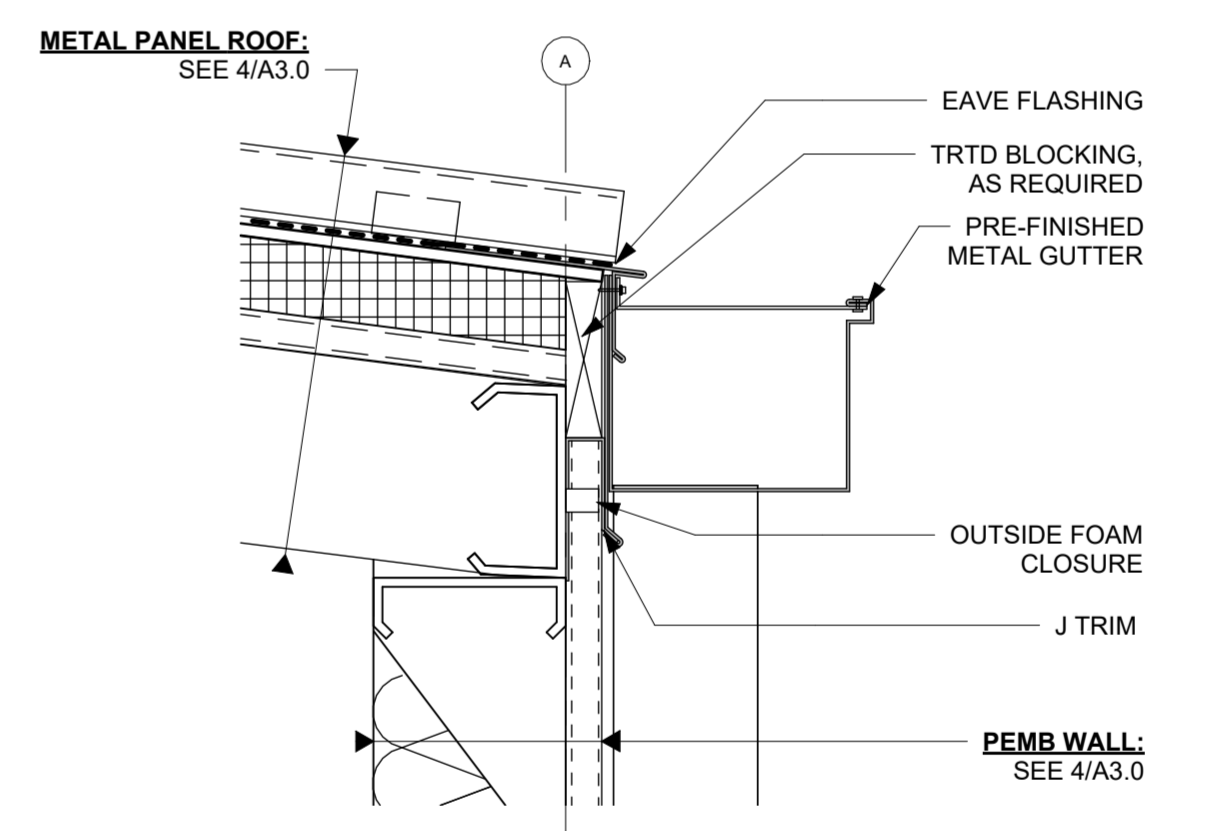
2 CROSS SECTION @ MEETING ROOM
3/16" = 1'-0"



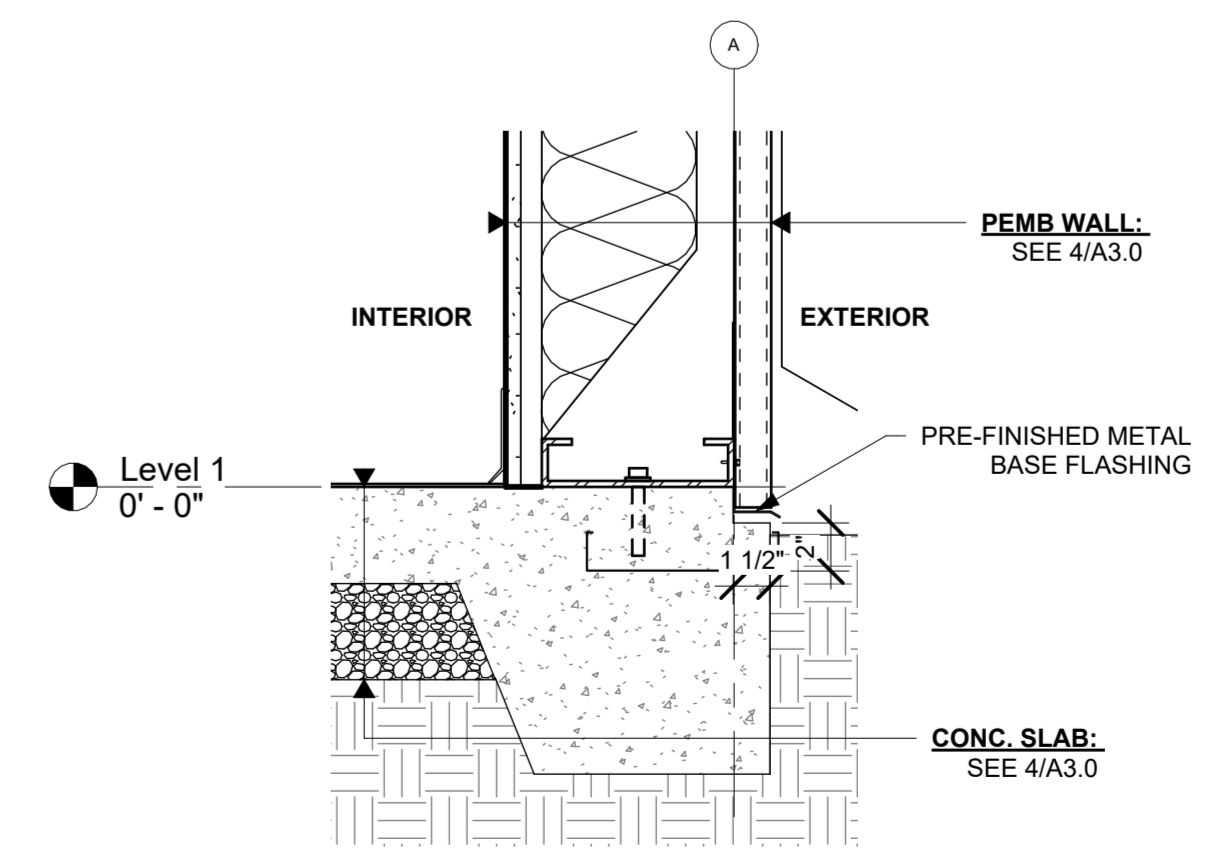
3 LONGITUDINAL SECTION @ LOBBY
3/16" = 1'-0"



4 TYPICAL WALL SECTION
1/2" = 1'-0"



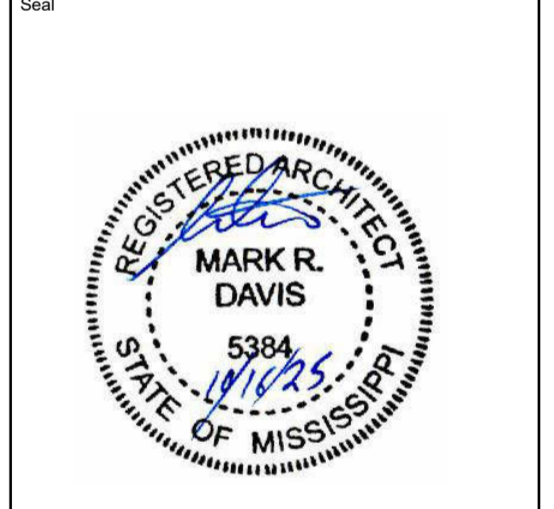
5 SECTION DETAIL @ TYPICAL PEMB WALL EAVE
1 1/2" = 1'-0"



6 SECTION DETAIL @ TYPICAL PEMB WALL BASE
1 1/2" = 1'-0"

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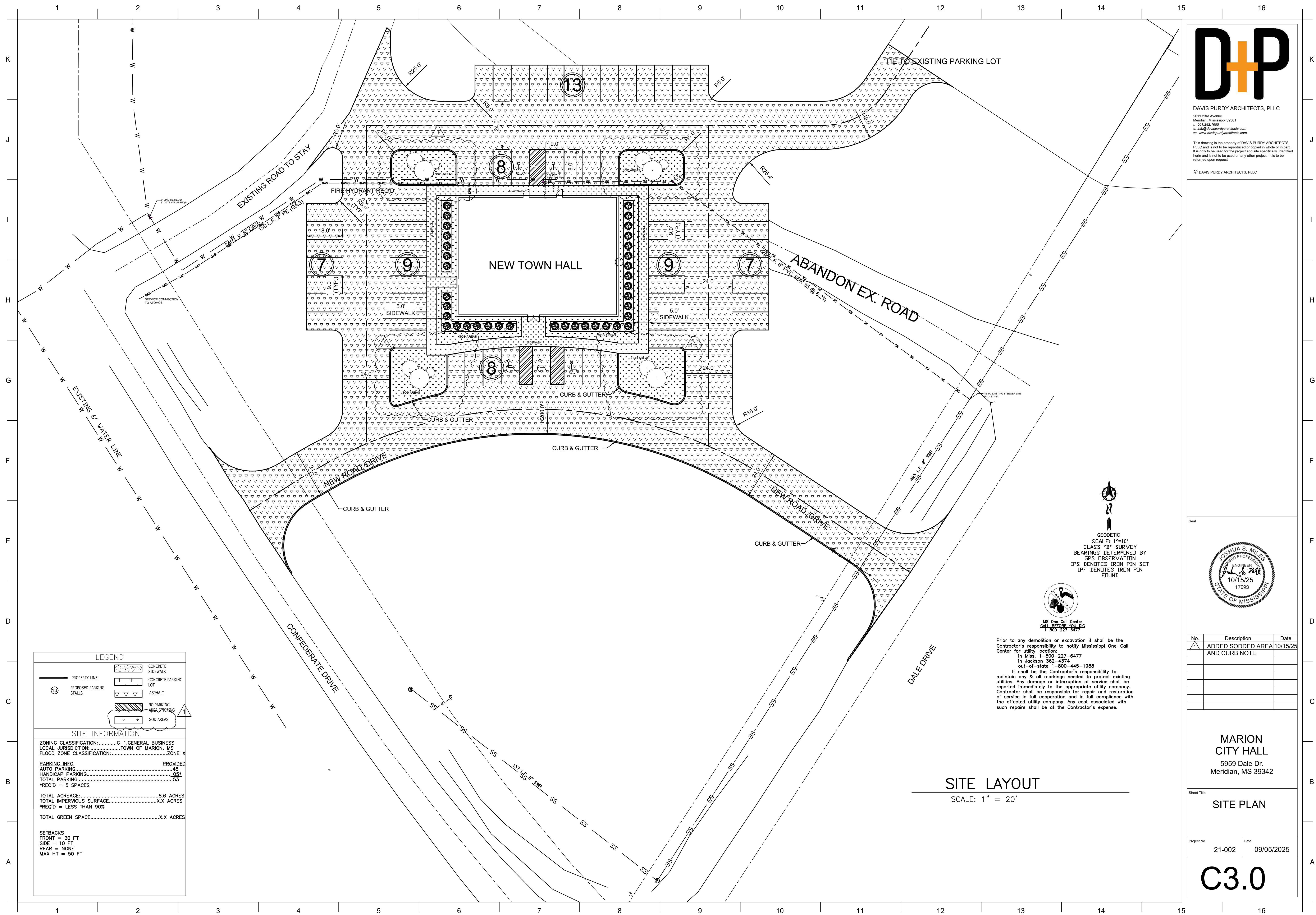


No.	Description	Date
2	ADDENDUM #1	10/16/25
1	CONSTRUCTION DOCS	9/5/25

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A3.0



DAVIS PURDY ARCHITECTS, PLLC
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GEODETIC
 SCALE: 1"=10'
 CLASS "B" SURVEY
 BEARINGS DETERMINED BY
 GPS OBSERVATION
 IPS DENOTES IRON PIN SET
 IPF DENOTES IRON PIN
 FOUND



Prior to any demolition or excavation it shall be the Contractor's responsibility to notify Mississippi One-Call Center for utility location:
 in Miss. 1-800-227-8477
 in Jackson 362-4374
 out-of-state 1-800-445-1988
 It shall be the Contractor's responsibility to maintain any & all markings needed to protect existing utilities. Any damage or interruption of service shall be reported immediately to the appropriate utility company. Contractor shall be responsible for repair and restoration of services in full cooperation and in full compliance with the affected utility company. Any cost associated with such repairs shall be at the Contractor's expense.

No.	Description	Date
1	ADDED SODDED AREA AND CURB NOTE	10/15/25

MARION
 CITY HALL
 5959 Dale Dr.
 Meridian, MS 39342

SITE PLAN

Project No. 21-002 Date 09/05/2025

C3.0

LEGEND

- PROPERTY LINE
- PROPOSED PARKING STALLS
- CONCRETE SIDEWALK
- CONCRETE PARKING LOT
- ASPHALT
- NO PARKING AREA/STRIPPING
- SOD AREAS

SITE INFORMATION

ZONING CLASSIFICATION: C-1, GENERAL BUSINESS
 LOCAL JURISDICTION: TOWN OF MARION, MS
 FLOOD ZONE CLASSIFICATION: ZONE X

PARKING INFO PROVIDED

AUTO PARKING: 48
 HANDICAP PARKING: 5
 TOTAL PARKING: 53
 *REQ'D = 5 SPACES

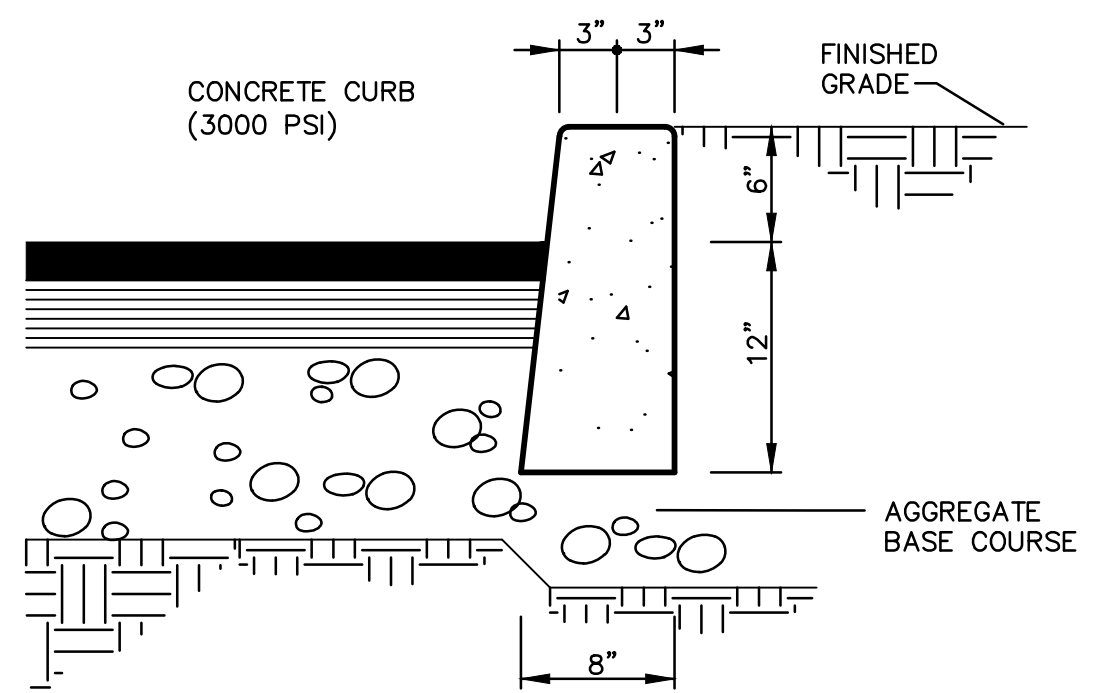
TOTAL ACREAGE: 8.6 ACRES
 TOTAL IMPERVIOUS SURFACE: .X.X ACRES
 *REQ'D = LESS THAN 90%

TOTAL GREEN SPACE: .X.X ACRES

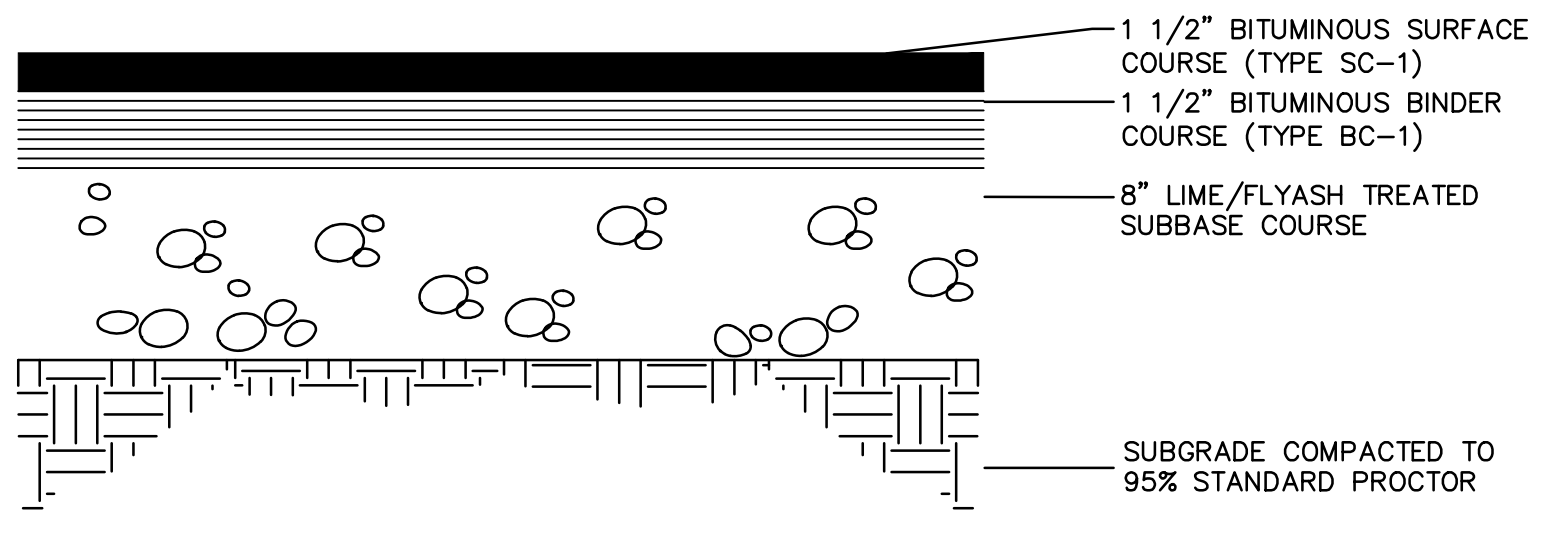
SETBACKS

FRONT = 30 FT
 SIDE = 10 FT
 REAR = NONE
 MAX HT = 50 FT

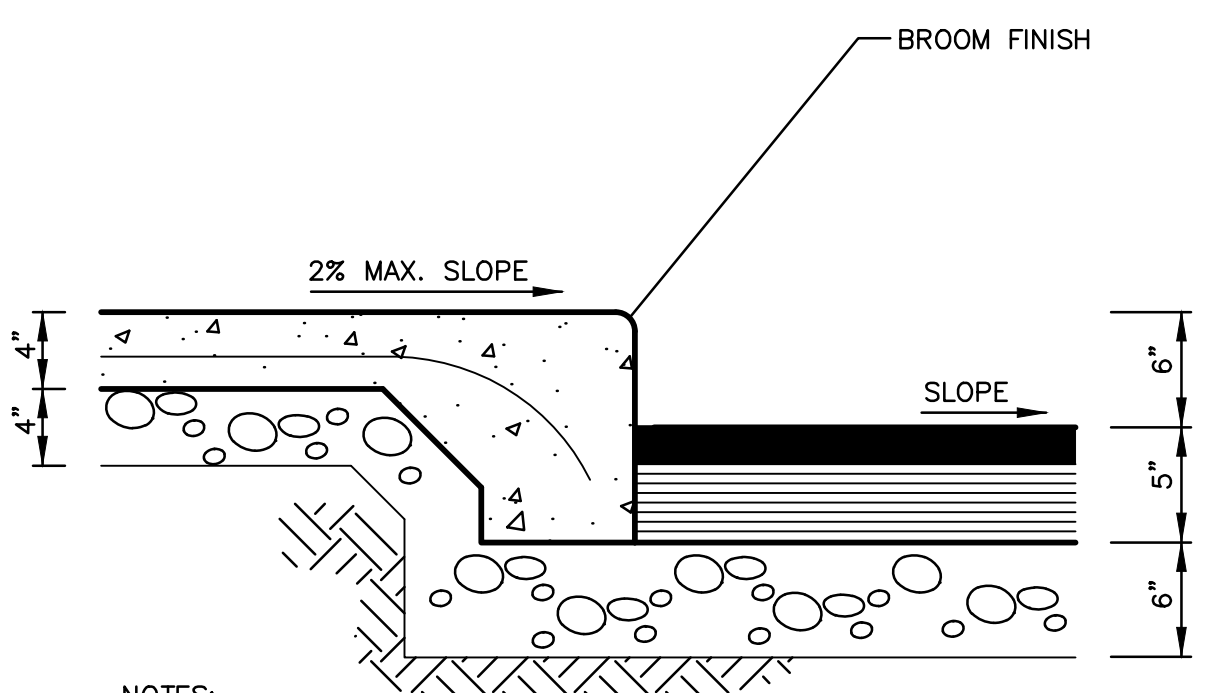
SITE LAYOUT
 SCALE: 1" = 20'



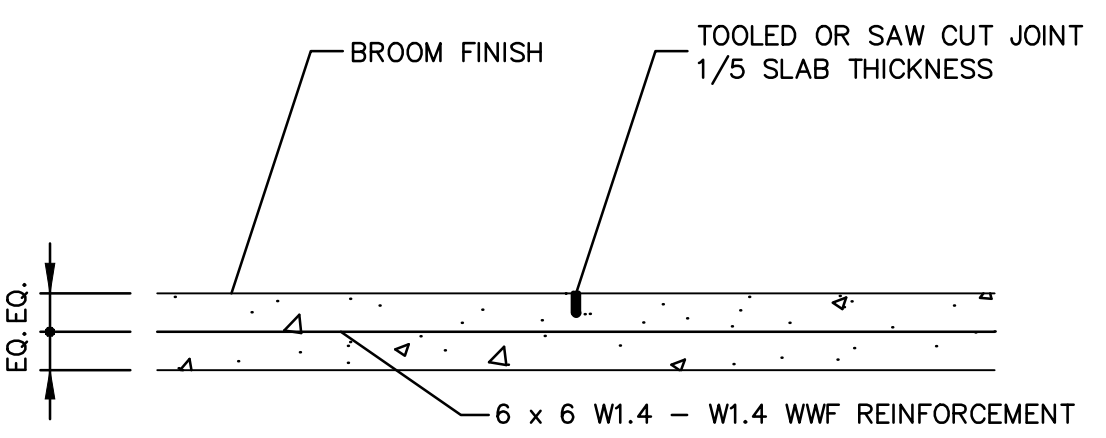
04 VERTICAL CONCRETE CURB
C3.1 NTS



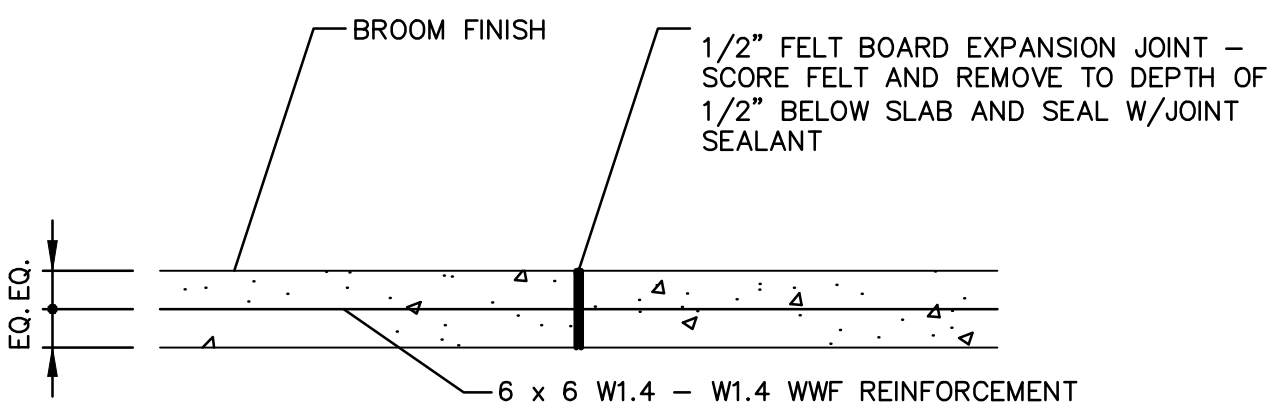
02 STANDARD DUTY PAVEMENT SECTION
C3.1 NTS
 NOTE: PAVEMENT STRUCTURE NUMBER (SN) PROVIDED = 2.37 BASED ON MDOT STATE AID PAVEMENT COMPONENT COEFFICIENTS.
 BASED ON AVAILABILITY OF MATERIALS, EQUIVALENT STRUCTURE NUMBER MAY BE PROVIDED USING ALTERNATE SUBBASE MATERIAL IN LIEU OF CHEMICALLY TREATED COURSE.



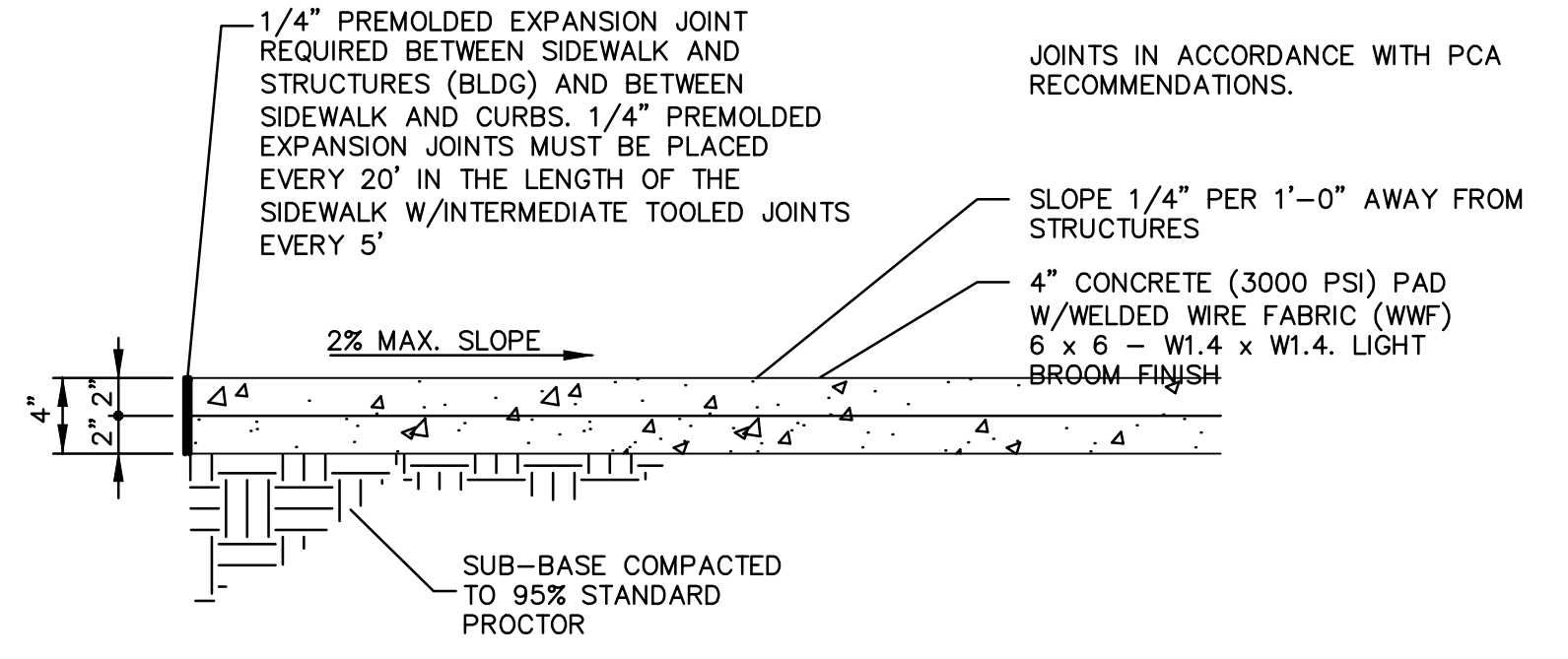
07 SIDEWALK TURNDOWN DETAIL
C3.1 NTS



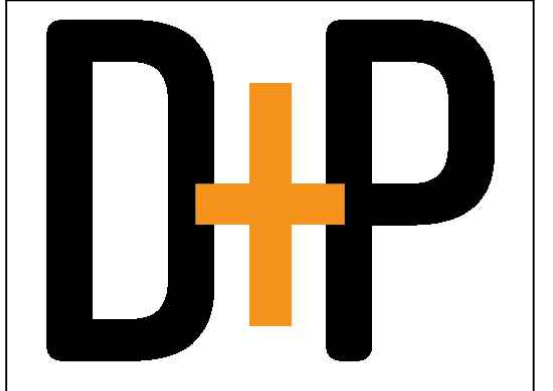
05 SIDEWALK CRACK CONTROL JOINT DETAIL
C3.1 NTS



08 SIDEWALK EXPANSION JOINT DETAIL
C3.1 NTS



06 SIDEWALK CONCRETE SECTION
C3.1 NTS



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No.	Description	Date
Δ	DELETED DETAILS 1 & 3	10/15/25

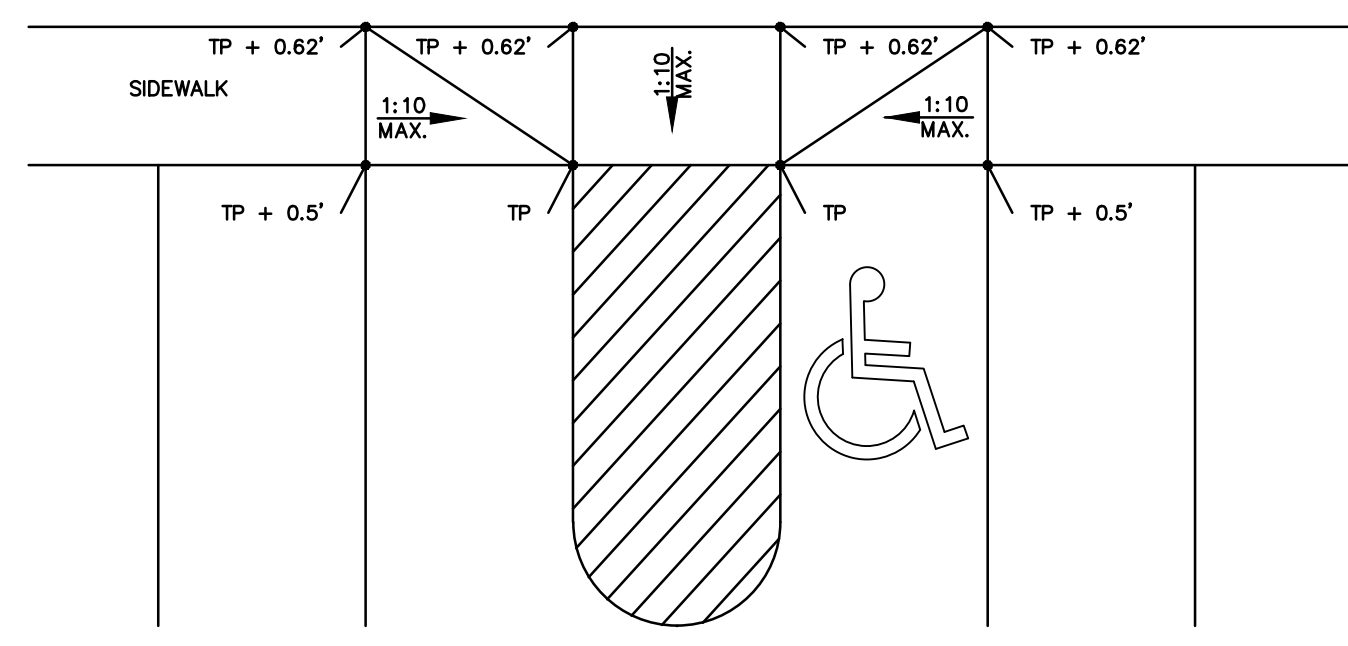
MARION CITY HALL
 5959 Dale Dr.
 Meridian, MS 39342

Sheet Title
SITE DETAILS

Project No.	Date
21-002	09/05/2025

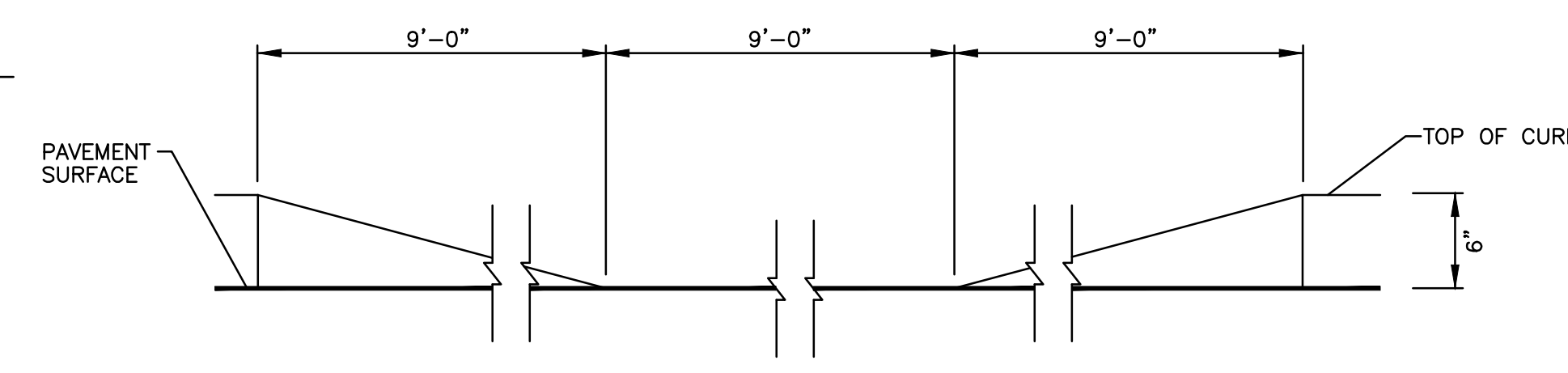
C3.1

CIVIL SITE DESIGN BY:
ESI ENGINEERING - SURVEYING INC.
 4313 POPLAR SPRINGS DRIVE
 MERIDIAN, MISSISSIPPI 39305
 TELE: 601-483-0862
 FAX: 601-483-5231
 ESI PROJECT NO : 25-038

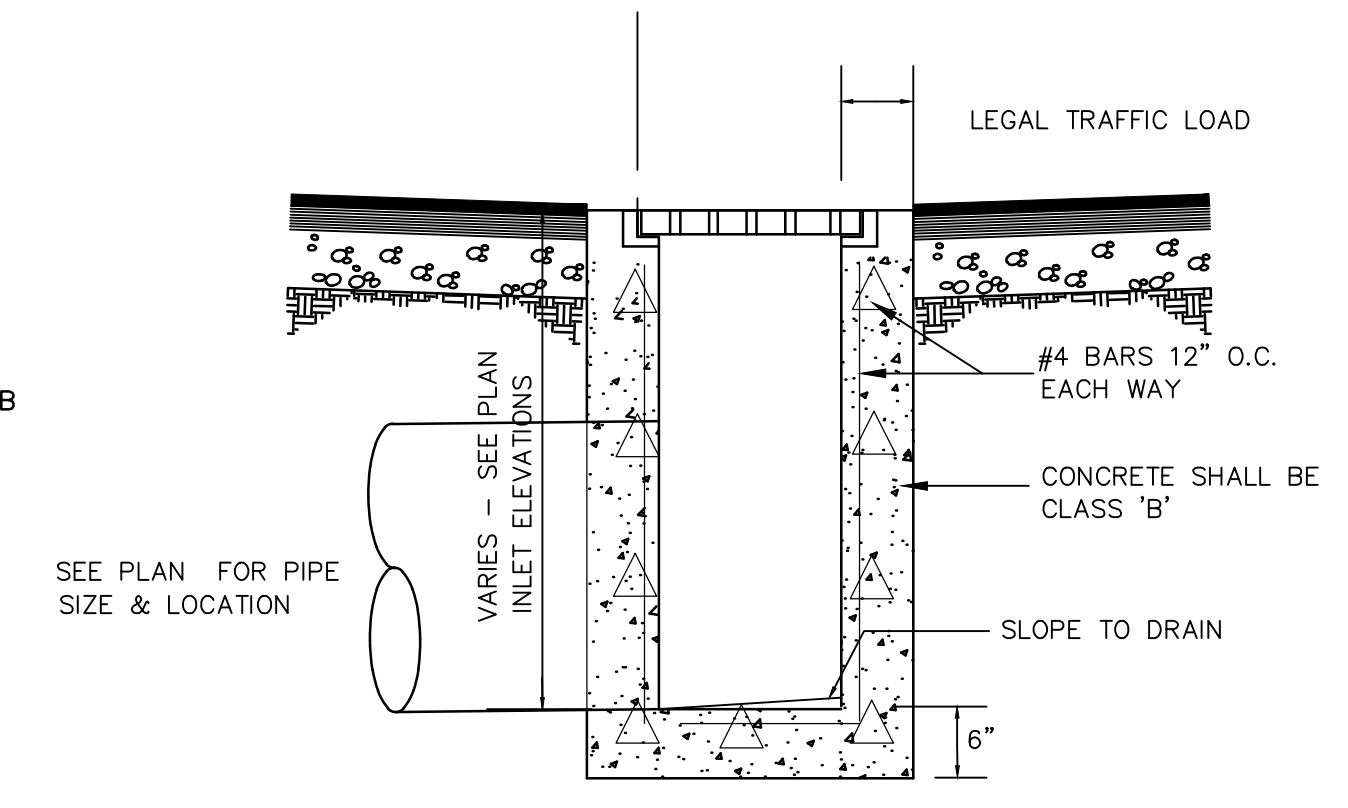


01
C3.2 HANDICAP RAMP
NTS

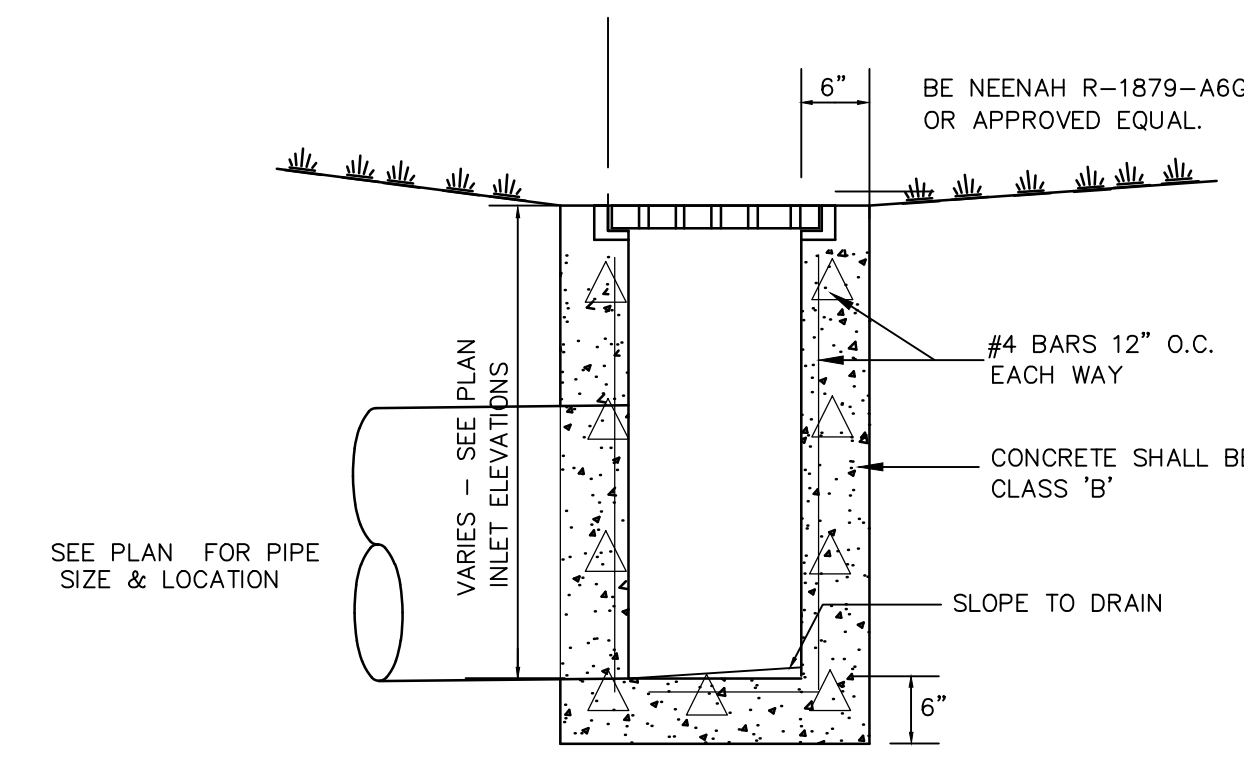
TP= TOP OF PAVEMENT GRADE AS SHOWN ON SITE GRADING PLAN



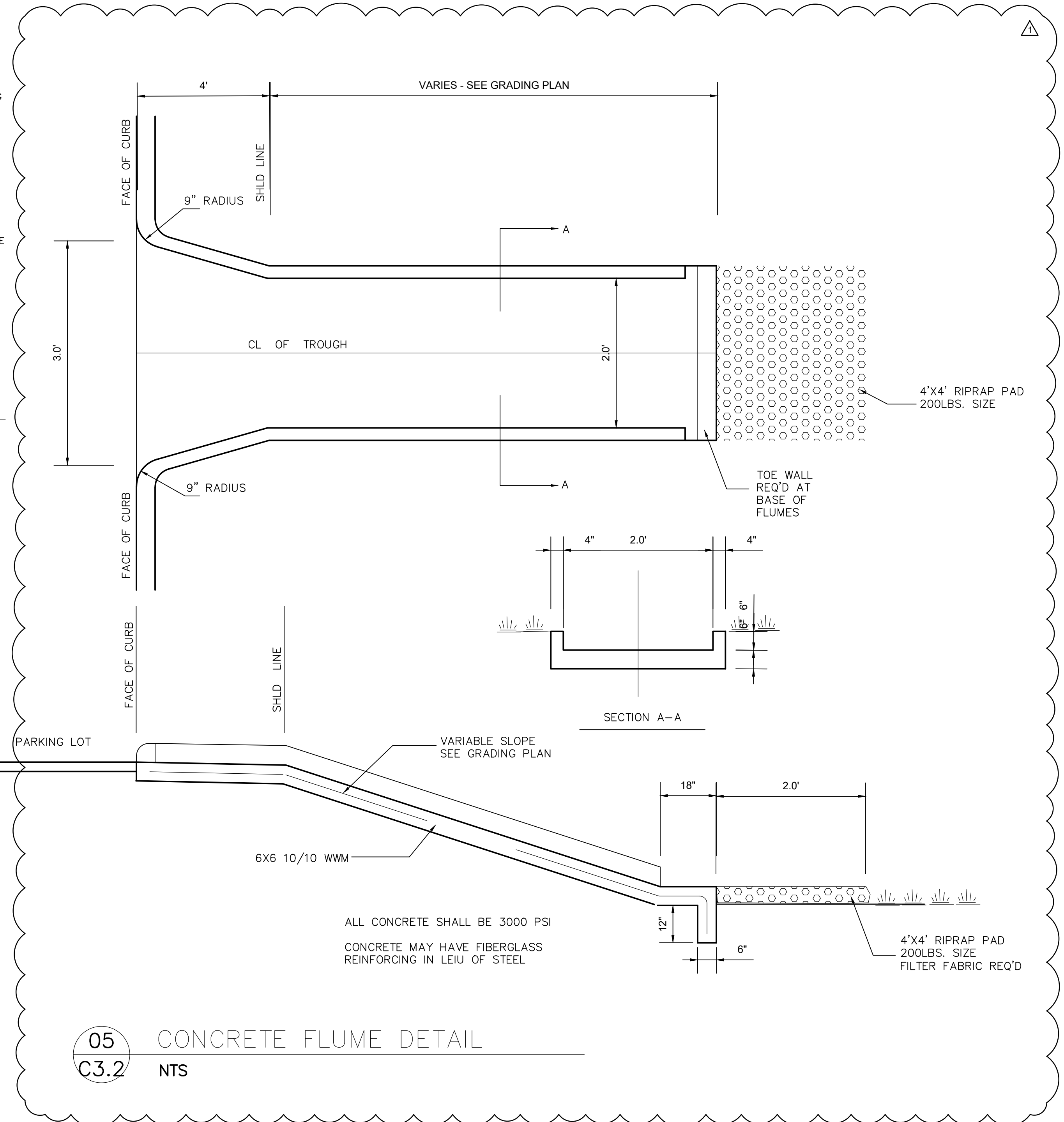
02
C3.2 DEPRESSED CURB DETAIL
NTS



03
C3.2 STREET CATCH BASIN
NTS



04
C3.2 LANDSCAPE CATCH BASIN
NTS

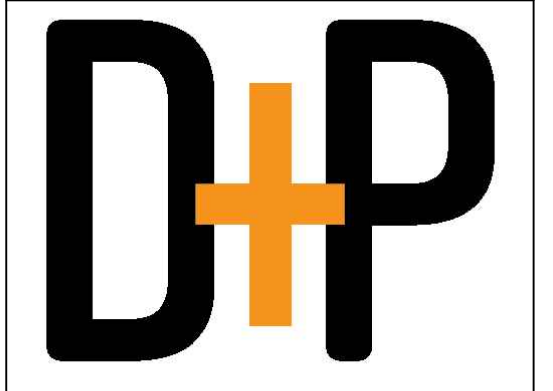


05
C3.2 CONCRETE FLUME DETAIL
NTS

ALL CONCRETE SHALL BE 3000 PSI
CONCRETE MAY HAVE FIBERGLASS
REINFORCING IN LIEU OF STEEL

DETAILS
SCALE: NTS

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No.	Description	Date
△	ADDED FLUME DETAIL	

MARION CITY HALL
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Sheet Title

SITE DETAILS

Project No.	Date
21-002	09/05/2025

C3.2