ADDENDUM NO. 02

May 20, 2026

Kalamazoo Public Schools EL SOL School
1428 Baker Drive
Kalamazoo, MI 49048

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated April 27, 2026, by TowerPinkster. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 2-4 through ADD 2-1 and TowerPinkster Addendum No. 02, dated May 18, 2026, consisting of 185 pages. See updated Geotechnical Report, attached.

A. SPECIFICATION SECTION 00 43 50 - SUBCONTRACTORS AND PRODUCTS LIST

1. **A revised subcontractors and products list attached.**

B. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

Paragraph 3.03 BID CATEGORIES

A. BID CATEGORY NO. 04 CONCRETE

Add Section	07 26 00	Vapor Retarders
Add Section	07 27 26	Fluid Applied Membrane Air Barrier

Add the following Clarifications:

15. Provide below grade foundation Rigid Insulation on vertical and horizontal locations. Refer to wall sections and details, 1, 2, and 3 on 3A321.
16. Bid Category No. 04 Concrete shall provide all joint sealant work for their scope of work.
17. Bid Category No. 04 Concrete shall provide 3" Topping Slab and Reinforcement. Refer to Detail 1, 2, and 3 on Sheet S146.

B. BID CATEGORY NO. 05 MASONRY

Delete Section 07 21 19 Foamed-In-Place Insulation from Bid Category No. 05 Masonry, Add to Bid Category No. 06 General Trades.

Add Section	07 25 00	Weather Barriers
Add Section	07 27 15	Non-bituminous Self-Adhering Sheet Air Barriers

Add the following Clarifications:

11. Bid Category No. 05 Masonry shall provide 3" Rigid Insulation on the face and back side of CMU walls. Refer to detail 1A on A321. Bid Category No. 06 General trades shall provide the 3" High Density Insulation on the top of CMU walls. Refer to detail 1A on A321 (Typical).
12. Refer to detail 14 on A326. 3" Rigid Insulation located on the exterior side of CMU walls shall be provide by Bid Category No. 05 Masonry (Typical).
13. Bid Category No. 05 shall provide all Flexible Membrane Flashing, Weeps, Cavity Drainage, Brick Vents, Masonry Ties, Rigid Insulation, and Air Barrier associated with its work for complete masonry assembly. Refer to Sheet A321 for reference.
14. Delete Clarification No. 02 added in Addendum 01.

C. BID CATEGORY NO. 06 GENERAL TRADES

Add Section 07 21 19 Foamed-In-Place Insulation to Bid Category No. 06 General Trades, Delete Section Bid Category No. 05 Masonry.

Add Section	12 24 13	Roller Window Shades

Delete Specification Section 01 72 00 Field Engineering. Add Specification Section 01 72 00 Field Engineering to Part 3.01 A, Provided by the Owner Through the Construction Manager.

Delete Specification Section 07 27 26 Fluid Applied Membrane Air Barrier (Added in Addendum 01), Add Section 07 27 26 Fluid Applied Membrane Air Barrier to Bid Category No. 04 Concrete.

Delete Specification Section 11 68 00 Playfield Equipment and Structures. Add Specification Section 11 68 00 Playfield Equipment and Structures to Bid Category 25 Playground Equipment.

Add the following Clarifications:

13. Bid Category No. 05 Masonry shall provide 3" Rigid Insulation on the face and back side of CMU walls. Refer to detail 1A on A321. Bid Category No. 06 General Trades shall provide the 3" High Density Insulation on the top of CMU walls. Refer to detail 1A on A321 (Typical).
14. Provide all pressure treated plywood, High Density Insulation, roof edge nailers, and wood blocking as required at top of wall conditions. Refer to A322, details 5, 5A, and 6 for reference.
15. Provide all pressure treated wood blocking as required. Refer to wall sections and details on Sheet A322, details 5, 6, 6A, and 6C for reference.
16. Provide all plastic laminate items such as shelf units, brackets, and assembly. Refer to I Series drawings for details and locations.
17. Provide all cubbies. Refer to I101E and I503 for details and information.
18. Bid Category No. 06 General Trades shall provide all Cast-In-Place Concrete for Exterior Signed Bases, Staff Parking Signs, Post and Panel Signs, Log Seating, Flag Pole, and Double-Swing Gates.
19. Refer to Specification Section 10 28 00 Toilet, Bath, and Laundry Accessories Part 1.1B for Owner Furnished Material Installed by Bid Category No. 06 General Trades.

D. BID CATEGORY NO. 07 STRUCTURAL & MISCELLANEOUS STEEL

Delete Section	06 10 00	Rough Carpentry
Delete Section	06 16 00	Sheathing

E. BID CATEGORY NO. 09 METAL STUDS, DRYWALL & ACOUSTICAL CEILINGS

Add Section	06 16 00	Sheathing

Add the following Clarifications:

4. In reference to 06 16 00 Sheathing, Bid Category No. 09 Metal Studs, Drywall, & Acoustical Ceilings shall provide Glass-Mat Gypsum Wall Sheathing.

F. BID CATEGORY NO. 11 ALUMINUM WINDOWS/STOREFRONT/CURTAIN WALL ASSEMBLIES & GLAZING

Add the following Clarifications:

10. Bid Category No. 11 ALUMINUM WINDOWS/STOREFRONT/CURTAIN WALL ASSEMBLIES & GLAZING shall provide all joint sealant work for their interior and exterior scope of work.

G. BID CATEGORY NO. 12 METAL WALL PANELS

Delete Section	07 27 15	Nonbituminous Self-Adhering Sheet Air Barriers

H. BID CATEGORY NO. 14 JOINT SEALANTS

Add the following Clarifications:

5. Bid Category No. 14 Joint Sealants shall provide all joint sealant work for Hollow Metal Frames, Casework, Millwork, Countertops, Solid Surfacing, Sills, Drywall, and All Interior and Exterior Masonry Work. Bid Category No. 04 Concrete shall provide all joint sealant work for their scope of work. Bid Category No. 11 ALUMINUM WINDOWS/STOREFRONT/CURTAIN WALL ASSEMBLIES & GLAZING shall provide all joint sealant work for their interior and exterior scope of work.

   All other Bid Category Contractors shall provide their own caulking/joint sealant work as required for a complete assembly for their respective scope of work.

I. BID CATEGORY NO. 23 ELECTRICAL

Add Section 28 48 16 Emergency Responder Coommunication Enhancement System.

J. BID CATEGORY NO. 25 PLAYGROUND EQUIPMENT

Add Section 11 68 00 Playfield Equipment and Structures

C. Refer to the attached Request For Information (RFI LOG) summary dated May 19, 2026.

TowerPinkster

Architecture · Engineering · Interiors

ADDENDUM NO. 2

DATE OF ISSUANCE:	**May 18, 2026**
PROJECT:	**El Sol School** **1428 Baker Drive** **Kalamazoo, MI 49048**
OWNER:	**Kalamazoo Public Schools**
ARCHITECT'S PROJECT NO.:	**23-622.00**
ORIGINAL BID ISSUE DATE:	**April 24, 2026**

SCOPE OF WORK

This Addendum includes changes to, or clarifications of, the original Bidding Documents and any previously issued addenda, and shall be included in the Bid. All of these Addendum items form a part of the Contract Documents. The Bidder shall acknowledge receipt of this Addendum in the appropriate space provided on the Bid Form. Failure to do so may result in disqualification of the Bid.

DOCUMENTS INCLUDED IN THIS ADDENDUM

This Addendum includes **7** pages of text and the following documents:

- Bidding Documents: **N/A**
- Contract Conditions: **N/A**
- Specification Sections:
  - **11 6823 EXTERIOR ATHLETIC EQUIPMENT**
  - **28 4813 – EMERGENCY RESPONDER COOMMUNICATION ENHANCEMENT SYSTEM**
  - **32 1216 ASPHALT PAVING**
  - **12 2413 ROLLER WINDOW SHADES**
  - **12 3216 MANUFACTURED PLASTIC LAMINATE FACED CASEWORK**
  - **23 5216 CONDENSING BOILERS**
  - **32 1216 ASPHALT PAVING**
- Drawings :

  GENERAL: G 101

  SITE: C 100, C 101, C 202, C 300, C 301, C 302, C 303, C 500

  LANDSCAPE: LP 100, LP 101

  STRUCTURAL: SG 001, S 101D, S 101F, S 201B, S 201C, S 201D, S 201F, S 311, S 411, S 412, S 413, S 414, S 416

©2026 Tower Pinkster Titus Associates, Inc.

ARCHITECTURAL: A 101A, A 101C, A101D, A 101F, A 202B, A 305, A 307, A 325, A 501, A 502, A 503, A 504, A 520B, A 520C, A 520E, A 521B

INTERIOR: IG 002, IG 003, I 101A, I 101B, I 101C, I 101E, I 101F, I 102B

PLUMBING/MECHANICAL: P 001B, P 101B, P 502, M 101F, M 201A, M 201B, M 201C, M 201D, M 201E, M 201F, M 501, M 502, M 603

ELECTRICAL: E 101B, E 201B, E 402, E 505

TECHNOLOGY: TG 001, T 302A, T 302B, T 407, T 447

CHANGES TO PREVIOUSLY ISSUED ADDENDA

None.

CHANGES TO SPECIFICATIONS

ADD-2 Item No. S-1 - Soccer Goal Size

Refer to Specification Section: 11 6823 EXTERIOR ATHLETIC EQUIPMENT

Specification for soccer goals including size and basis of design added to the specification section.

ADD-2 Item No. S-2 - Add ERCES

Refer to Specification Section: 28 4813 EMERGENCY RESPONDER COMMUNICATION ENHANCEMENT SYSTEM

Add ERCES to project.

ADD-2 Item No. S-3 - Asphalt Materials Clarification

Refer to Specification Section: 32 1216 ASPHALT PAVING

Asphalt materials include Asphalt Binder and Tack Coat, Herbicide treatment is not required.

ADD-2 Item No. S-4 - Casework Glazing Clarification

Refer to Specification Section: 12 3216 MANUFACTURED PLASTIC-LAMINATE-FACED CASEWORK

Glazing at science room casework is acceptable as an acrylic panel instead of glass panel.

ADD-2 Item No. S-5 - Add Roller Shade

Refer to Specification Section: 12 2413 ROLLER WINDOW SHADES

Add Roller Shade specification to the project.

ADD-2 Item No. S-6 - Add Patterson-Kelly LLC to List of Approved Manufacturers

Refer to Specification Section: 23 5216 CONDENSING BOILERS

©2026 Tower Pinkster Titus Associates, Inc.

Add Patterson-Kelley LLC to list of approved manufacturers for mechanical equipment.

CHANGES TO DRAWINGS

ADD-2 Item No. D-1 - Entrance Canopy Drainage

Refer to Sheet(s): C 100, C 101, C 300, C 500, LP 100, LP 101, P 001B, P 101B

Add piping connecting the main entrance canopy storm and storm overflow drains to the exterior storm system and planter overflow respectively as shown.

ADD-2 Item No. D-2 - Raised Landscape Planter Detail

Refer to Sheet(s): C 202

Detail 3.1 / C 202 updated to shown perforated pipe connecting directly to planter drain system and transitioning to solid pipe when exiting the planter.

ADD-2 Item No. D-3 - Soccer Goal Size

Refer to Sheet(s): C 301, C 302, C 303,

Soccer goal note "TBD" removed from sheets, goal size added to specification section 11 6823 Exterior Athletic Equipment.

ADD-2 Item No. D-3 - Add Plumbing Fixture Schedule

Refer to Sheet(s): P 502

Plumbing fixture schedule added to sheet P 502.

ADD-2 Item No. D-4 - Add 1 Hr. Rating to Fire Pump Room

Refer to sheet(s): G 101, A 101F, M 101F

Updated Fire Pump Room interior wall to a 1-hour fire barrier wall.

Add fire damper to exhaust ductwork entering fire pump room.

ADD-2 Item No. D-5 - Perimeter CUH Clarification

Refer to sheet(s): M 201A, M 201B, M 201C, M 201D, M 201E, M 201F

Clarification keyed note added to avoid lighting fixtures in vestibules where ceiling mounted cabinet unit heaters are used.

ADD-2 Item No. D-6 – AHU Return Fan Adjustment

Refer to sheet(s): M 501, M 502

Return fans on AHU's 2 and 6 had value adjustments after additions to external static pressure due to sound traps selected in addendum No. 1. Return fan on AHU-3 was reselected for the same reasons.

ADD-2 Item No. D-7 – Controls Diagram and Sequence Revision

©2026 Tower Pinkster Titus Associates, Inc.

Refer to sheet(s): M 603

Clarification - Modified Gymnasium AHU-1 controls sequence to control to align with a single zone unit sequence. Modified ventilation mode sequence for terminal units. Added low static pressure limit safety.

ADD-2 Item No. D-7 - Add ERCES

Refer to Sheet(s):TG 001, T 301B, T 302B, T 407, T 447

Add ERCES to project. Reserve plywood backerboard and provide dedicated 120V/20A circuit in Tech 118 for ERCES headend. Provide continuous 1" conduit pathway and roof penetration for donor antenna cable. Provide continuous 1" conduit pathway and cable to FACP for remote monitoring.

ADD-2 Item No. D-8- Drawing Clean-Up

Refer to sheet(s): IG 002, IG 003, I 101A, I 101B, I 101C, I 101E, I 101F, I 102B

General drawing clean up.

ADD-2 Item No. D-9- Finish Clarification

Refer to sheet(s): I 101B, I 101E

Addition and correction of finishes at corridor casework in office and cubbies at lower el. Classrooms.

ADD-2 Item No. D-10 – HSS Beam Bearing Plate

Refer to sheet(s): S 414, S 416

Clean up or add note to 1/S 414, 9/S 416, and 10/S 416. Add bearing plate size to 1/S 414.

ADD-2 Item No. D-11 – Bent Plate Hangers

Refer to sheet(s): S 201D, S 411, S 416

Show bent plate line work, dimensions, callout, and keyed note 11 on S 201D.

Change keyed note 11 to say "bent plate" instead of "angle."

Update bent plate thickness or change angle to bent plate in 6/S 411, 7/S 411, 7/S 416, and on S 201D.

Add or update bent plate dimensions to 7/S 411 and 7/S 416.

Update anchor size and anchor embedment in 6/S 411, 7/S 411, and 7/S 416.

Update CMU lintel size to match plan in 6/S 411 and 7/S 416.

Clean up or remove note in 7/S 411 and 7/S 416.

ADD-2 Item No. D-12 – Geotech Report

Refer to sheet(s): SG 001, Revised Geotech Report.

- Update date of issuance and add revision name to foundation notes on SG 001.
- Updated Geotech Report.

©2026 Tower Pinkster Titus Associates, Inc.

ADD-2 Item No. D-13 - Main Stair

Refer to sheet(s): S 201B, S 416

Update welds, add headed studs, update pourstop angle thickness, and change stiffener plate to stiffener angle on 6/S 416.

Remove channel size on S 201B to coordinate with detail 6/S 416.

ADD-2 Item No. D-14 – Stepped Footings

Refer to sheet(s): S 101F

Update stepped footings and footing elevations on S 101F.

ADD-2 Item No. D-15 – Guardrail and Associated Foundation

Refer to sheet(s): S 101F, S 311

Add dimension, update embedment depth, thicken concrete wall, update concrete wall reinforcement, and update footing size and reinforcement on 1/S 311.

Add dimensions to plan, add footing size callout to plan, and add note about end of concrete wall dimension to plan on S 101F.

ADD-2 Item No. D-16 – Miscellaneous Detail Updates

Refer to sheet(s): S 413, S 415, S 416

Add weld symbol on 1/S 413.

Add additional hangers at one end of beam on 1/S 413.

Update deck span direction on 9/S 415.

Add weld pattern to 1/S 412.

Increase anchor size and embedment and decrease anchor spacing on 1/S 416.

ADD-2 Item No. D-17- ELD Addition
Refer to Sheet(s): E 201B

Added missing ELDs.

ADD-2 Item No. D-18- EM connections

Refer to Sheet(s): E 402

Corrected electrical breakers, feeders, and voltage drop for panel EM.

ADD-2 Item No. D-19– ERCES Receptacle.
Refer to Sheet(s): E 101B, E 505

Added receptacle to ERCES in Tech 118. Panel schedule has been updated. Keynotes 11 and 12 were added.

©2026 Tower Pinkster Titus Associates, Inc.

ADD-2 Item No. D-20 – AHU Top Section Clarification

Refer to sheet(s): M 501, M 502

Corrected the order of the air handler sections on the top unit of the stacked air handlers. Also changed the names of the sections to be general and easier to understand.

ADD-2 Item No. D-21 – Grout Color Selection Updated

Refer to sheet(s): A 307

Updated grout color all to be Solomon Colors 70A Orange or equal.

ADD-2 Item No. D-22 – Door Schedule Frame Elevation Update

Refer to sheet(s): A 501, A 502, A 520B, A 520 E, A 521 B

Updated door schedule to call out the correct glazing.

Updated door schedule to call out the correct frame types for doors.

Updated door material and frame to match frame elevation for openings 135 & 138.

ADD-2 Item No. D-23 – Door Tag Clarification

Refer to sheet(s): A 101C, A 502

Added missing door in Unit C staircase.

Door schedule update to reflect the correct door tags.

ADD-2 Item No. D-24 – Added Glazing Types

Refer to sheet(s): A 503

Added glazing types to frame elevations 16, 17, 18, 19, 20, 21.

ADD-2 Item No. D-25 – Stair 1 Updates

Refer to sheet(s): A 202B, A 305, A 325

Updated ceiling height down to 10’-0”.

Updated mullion locations for frame elevation 30A, 30B, 30C, 31, 32 to align to new ceiling height.

Added spandrel panels on upper portion of curtain walls 31 and 32

ADD-2 Item No. D-26 – Updated Locker Keynotes

Refer to sheet(s): A 101A, A 101C, A 101D,

©2026 Tower Pinkster Titus Associates, Inc.

Updated keynote #15 and added keynote #16 to differentiate corridor lockers and dressing room lockers and their corresponding mounting base conditions.

ADD-2 Item No. D-26 – Updated Detail

Refer to sheet(s): A 325

Updated detail A 12A/A325 to clarify material callout.

Updated spot elevation at parapet wall to match structure updates.

END OF ADDENDUM.

©2026 Tower Pinkster Titus Associates, Inc.

DRIESENGA & ASSOCIATES, INC.
Engineering · Surveying · Testing

12330 James Street, Suite H80
Holland, Michigan 49424
Ph. (616) 396-0255 • Fax (616) 396-0100
www.driesenga.com

May 13, 2026 *via electronic mail*

Ms. Karen Jackson
KALAMAZOO PUBLIC SCHOOLS
600 West Vine Street
Kalamazoo, Michigan 49008

Re: Updated Geotechnical Report for Addendum No. 2 dated May 18, 2026
KPS – 1428 Baker Drive (New El Sol Elementary)
1428 Baker Drive, Kalamazoo, Michigan
Driesenga & Associates, Inc. Project No. 2550111.3A

Dear Ms. Jackson:

Driesenga & Associates, Inc. is pleased to submit the attached updated report of subsurface exploration performed for the above-referenced project. The report presents the exploration procedures, subsurface conditions encountered, and our recommendations for potential future development of the site with respect to proposed earthwork, foundation construction, and pavement design. As the project design is further refined, we would be happy to provide additional soil borings within new building footprints, pavement areas and stormwater handling features, as specifically needed required for future recommendations.

Proper execution of our recommendations will affect the design, construction and performance of the structure and related facilities, and the potential associated risks involved. Therefore, the issues and recommendations presented in this report should be discussed with the project team, including Driesenga & Associates, Inc. This will increase the likelihood that the issues are understood and our recommendations are applied in a manner consistent with the project budget, tolerance of risk, and expectations for performance and maintenance.

We appreciate the opportunity to be of service to you. If you have any questions concerning this report, or if we can be of further service as design and construction progresses, please contact our office.

Sincerely,
DRIESENGA & ASSOCIATES, INC.

Michael Stork
Senior Project Geologist

Musana Nabil
Senior Project Engineer

Randy Pail, P.E
Director of Geotechnical Engineering

ec: Ms. Kayla Mielke - TowerPinkster

UPDATED GEOTECHNICAL REPORT FOR ADDENDUM NO. 2
DATED MAY 18, 2026

SITE:

KPS – 1428 BAKER DRIVE (NEW EL SOL ELEMENTARY)
1428 BAKER DRIVE
KALAMAZOO, MICHIGAN

MAY 13, 2026
PROJECT NO. 2550111.3A

PREPARED FOR:

KALAMAZOO PUBLIC SCHOOLS
600 WEST VINE STREET
KALAMAZOO, MICHIGAN 49008

Prepared by:

DRIESENGA & ASSOCIATES, INC.
Engineering · Surveying · Testing

TABLE OF CONTENTS

1.0 INTRODUCTION 1
- 1.1 LOCATION 1
- 1.2 PURPOSE 1
- 1.3 SCOPE 1
- 1.4 DESIGN INFORMATION 2

2.0 SITE CONDITIONS 3
- 2.1 GENERAL 3
- 2.2 SURFACE CONDITIONS 3
- 2.3 DESCRIPTION OF SUBSURFACE SOILS 3
- 2.4 GROUNDWATER OBSERVATIONS 4
- 2.5 SEISMIC SITE CLASS 5
- 2.6 LIMITATIONS 5

3.0 RECOMMENDATIONS 6
- 3.1 SITE PREPARATION 6
- 3.2 FOUNDATIONS 8
- 3.3 FLOORS 12
- 3.4 PAVEMENTS 12
- 3.5 GROUNDWATER CONTROL 15
- 3.6 BASEMENT WALLS 16
- 3.7 TEMPORARY EXCAVATION STABILITY 17

4.0 GENERAL COMMENTS 19

APPENDICES

APPENDIX A	Figure 1 – Site Location
	Figure 2 – Boring Locations
APPENDIX B	Soil Boring Logs
APPENDIX C	Field and Laboratory Procedures

1.0 INTRODUCTION

1.1 LOCATION

This report presents the results of the geotechnical investigation completed for the future El Sol Elementary School development by the Kalamazoo Public Schools. The site is located at 1428 Baker Street in Kalamazoo, Michigan as shown on Figure 1 – Site Location (Appendix A). The property is situated on the east side of Baker Street in an area of primarily residential development.

1.2 PURPOSE

The purpose of this investigation was to determine the subsurface profile, the engineering characteristics of the subsurface soils, and to provide recommendations in regard to the proposed design and construction based on our interpretation of the test results. This report was prepared in general accordance with our proposal dated November 18, 2024, as authorized by Ms. Karen Jackson of Kalamazoo Public Schools on February 24, 2025.

1.3 SCOPE

The field exploration to estimate engineering characteristics of the site soils included performing a site reconnaissance, advancing the soil borings, performing standard penetration tests, and recovering split-spoon samples. Soil boring locations were determined in the field by measuring from existing site features. Existing ground surface elevations were not provided and obtaining them was beyond the scope of this investigation.

Twenty (20) soil borings, designated SB-1 to SB-20, were advanced at locations defined by TowerPinkster for general coverage of the entire subject property, as depicted at the approximate locations shown on Figure 2 - Boring Locations (Appendix A). The soil borings were advanced with solid-stem augers to a depth of thirty (30) feet below the ground surface. During drilling, soil

samples were collected from split-spoon sampling via standard penetration testing (ASTM method D 1586) at intervals of 2.5 feet to a depth of 10 feet, and intervals of 5 feet from a depth of 10 feet to the end of each boring. The soil boring logs are contained in Appendix B. The field and laboratory procedures are described in Appendix C.

1.4 DESIGN INFORMATION

Future construction of the subject property has not yet been defined. We would assume a combination of single- and multi-story buildings, light and heavy duty pavement areas using both concrete and asphalt, landscaping including playgrounds/athletic fields and stormwater handling systems in support of the future development.

Structural load information was not available as of the time of this report, but should be provided to Driesenga & Associates, Inc. for review in light of the recommendations contained herein as soon as available. Exterior footing depths of new structures are assumed to be a minimum of 3.5 feet below the final ground surface elevation, though may be deeper if below grade features (basements) are considered.

As a general expectation, we have assumed maximum tolerable settlements of 1 inch total and ½ inch differential for all new foundations. We are anticipating column loads from 40 kips to 150 kips and wall loads of 2,000 to 6,000 pounds per linear foot, depending on the type of construction selected. We anticipate minimal cuts and fills will be required to establish site grades. Any significant deviation from these assumptions should be brought to the attention of Driesenga & Associates, Inc. as soon as possible.

2.0 SITE CONDITIONS

2.1 GENERAL

The stratification of the soils, as shown on the soil boring logs in Appendix B, represents the soil conditions at the actual soil boring locations. Variations may occur away from or between the soil borings. Stratigraphic lines shown on the soil boring logs represent the approximate boundary between the soil types, but the transition may be gradual. They are not intended to show exact depths of change from one soil type to another. In addition, changes in soil type may occur between the sample intervals that are consequently not observed by the driller.

The soil boring logs in Appendix B include the drilling method, materials encountered, penetration resistances, and pertinent field observations made during the drilling operations along with the results of the laboratory testing.

2.2 SURFACE CONDITIONS

The subject property is a relatively flat, maintained grass field with clumps of mature trees spaced throughout. A small soil mound is located at the boring location SB-16 and rises approximately 6-feet above adjacent elevations. The property is surrounded by residential dwellings, maintained lawn, asphalt parking, and driveway areas associated with primarily residential uses.

2.3 DESCRIPTION OF SUBSURFACE SOILS

Soils encountered at the site generally consist of 8 to 24 inches of topsoil underlain by loose to medium dense, brown, clayey sand and clayey sand fill to depths ranging from 2 to 7 feet, with most extending to 3 to 5 feet below grade. Very loose to dense sand and gravel underlie the clayey sand and this granular soil extends to a depth of at least 30 feet. The very loose sand soils occurred at boring locations SB-3 (to 8-feet), SB-5 and 8 (to 12-feet), SB-9 (to 22-feet), SB-15 (to 25-feet)

and SB-18 (to 10-feet). The driller noted in some of these areas that the very loose sand almost seemed like there was a void within the layer.

At soil boring location SB-16, a mound of soil was hand augured to determine its classification. The mound appears to sit on top of the subgrade soils and consists of 3-feet of topsoil, underlain by 3-feet of brown to dark brown, clayey fine to coarse sand fill with trace organic material intermixed. Native soils began at around 6-feet below the top of the mound.

The estimated group symbol, according to the USCS, is shown in the USCS column just before the textural description of the various strata on the soil boring logs in Appendix B.

2.4 GROUNDWATER OBSERVATIONS

Groundwater was not encountered in any of the soil borings during or after completion of drilling operations. Hydrostatic groundwater levels and the elevations and volumes of groundwater should be expected to fluctuate throughout the year, based on variations in precipitation, evaporation, run-off, and other factors. The groundwater levels (or lack thereof) indicated by the soil borings and presented in this section represent conditions at the time the readings were taken. The actual groundwater levels at the time of construction may vary.

Groundwater measurements were attempted during drilling and again shortly after completion of the drilling operations. After drilling and collection of groundwater readings, the boreholes were backfilled with auger cuttings and the surface was repaired approximating previous conditions. Since the boreholes were backfilled shortly after drilling, long-term groundwater level information is not available from the soil borings. To obtain long-term groundwater levels, groundwater observation wells would be required.

2.5 SEISMIC SITE CLASS

The proposed building's seismic class was determined for use in the structural design of the proposed project. Soils information was obtained from the soil borings completed on-site, as well as information obtained from the "Soil Survey of Kalamazoo County" by the United States Department of Agriculture, the "Quaternary Geology of Michigan" completed by W.R. Farrand, the USGS Topographic Quadrangle and the Hydrogeologic Atlas of Michigan. It is assumed that the proposed structure falls under Building Class III according to the 2015 Michigan Building Code (MBC) Table 1604.5. Based on this information it is our determination that seismic site class D be used according to the ASCE 7 – Table 20.3-1 for structural calculations.

2.6 LIMITATIONS

Soil and groundwater conditions have been observed and interpreted at the soil boring locations only. This information has been used as the basis for our analyses and the recommendations that follow. Although we have allowed for minor variations in subsurface conditions in the development of our recommendations, conditions can vary away from and between soil boring locations. Should this become evident during construction, we should be contacted to review our recommendations. This geotechnical evaluation and report were prepared for geotechnical purposes only. We did not perform environmental related borings or analytical tests.

3.0 RECOMMENDATIONS

3.1 SITE PREPARATION

To increase the likelihood that the recommended allowable soil bearing capacities are achieved and tolerable settlements are not exceeded, the recommendations contained herein should be followed. Within the building footprint and any areas to receive fill, all existing building material, topsoil, old fill, organic-containing material, frozen soil and other unsuitable material should be removed. The clearing should extend a minimum of 5 feet beyond the limits of proposed building and pavement areas and areas to receive structural fill.

It is strongly recommended that the building pad and pavement subgrade areas be evaluated by Driesenga & Associates, Inc. after the area has been cleared and stripped. This evaluation may be performed by proofrolling with a loaded tandem axle dump truck or another method selected by the geotechnical engineer to identify any areas of soft subgrade soil. Where soft subgrade soils are encountered, remedial actions as recommended by the geotechnical engineer will be required.

We understand there were previous structures on the site. Any existing foundations, floor slabs, utilities, and other below-grade structures from previous construction should be completely removed from the footprint of the proposed building. In proposed pavement areas, existing utilities and other below-grade structures should be removed to at least 2.5 feet below the final subgrade level. Alternatively, utilities can be left in place below pavement areas if the void space of the utility is completely grouted. Depressions or excavations from the demolition and removal operations should be backfilled with granular structural fill meeting the requirements of MDOT Class II sand compacted in accordance with the recommendations below.

Existing fill was encountered in soil borings SB-3, 8, 10, 16, and 18 and extended about 4.5 to 12 feet below the existing ground surface. Without documentation of the placement of the fill, we

consider it to be "uncontrolled fill." If documentation of the existing fill is available, we would be pleased to review it to determine its suitability of slab, pavement, and/or structural fill support.

Deeper and/or looser uncontrolled fill may be encountered at the site, particularly adjacent to former structures, or in the vicinity of existing utilities. The existing fill ***may*** be suitable for support of slabs, pavements, and/or structural fill after additional evaluation and special preparation and only where it is not underlain by buried topsoil or other organic, deleterious or otherwise unsuitable soils and the owner accepts the risks in doing so. Some of the soil samples in the existing fill contained trace organic material and asphalt. Existing fill with excessive organics (over 4%), voids or debris should be removed and replaced with structural fill. Test pits should be performed to identify unsuitable fill. The test pits could be performed prior to construction. However, suitability of the existing fill will need to be determined on a case-by-case basis during construction. The remaining fill, after removing unsuitable fill, is anticipated to be suitable to support floor slabs, pavements and structural fill, provided an increased risk of unsatisfactory performance is acceptable. We believe the risk of unsatisfactory performance such as cracking and settlement associated with the construction of slabs-on-grade and pavements on or above the existing fill is relatively low after preparation.

Ultimately, if the risk of poor slab and/or pavement performance is not acceptable, complete removal of the existing fill and replacement with structural fill should be performed. Based on the soil borings, the existing fill could extend 12 feet or more below the existing ground surface. If performed, the removal of the existing fill should extend a minimum of 10 feet beyond the edges of the proposed building, or laterally on a two vertical to one horizontal slope from the bottom outside edge of the foundation, whichever is greater. This action should reduce the amount and depth of undercutting during foundation construction since the unsuitable fill and any unsuitable soils directly beneath fill would be removed. For this case, the test pit evaluation would not be necessary. However, a test pit evaluation could be performed to provide a better estimate of the nature, depth and extent of the existing fill.

Trees were located within the project area when this investigation was conducted. Large trees may have relatively widespread root structures and related organic veins. The earthwork activities within the building and pavement areas should include complete removal of the tree roots and organic veins.

In all general fill areas, the exposed granular soil surface should be scarified to a depth of 12 inches and compacted to a minimum of 95% of Modified Proctor maximum dry density (MDD) per ASTM D 1557 method, or 98% of MDD as determined by the Michigan Cone Method. Sand soils were encountered at or near the final subgrade level in some of the soil borings in the proposed building area. Within the proposed building area the native sand should be proof-compacted by at least six (6) passes of a 10-ton vibratory roller.

The contractor should remove standing water from the subgrade and prevent surface water from reaching the footing excavations and the prepared subgrade. In addition, construction traffic should use haul roads and should not haphazardly traffic the site. Subgrade soils that become disturbed should be removed and replaced with structural fill or crushed aggregate. Under wet weather conditions, the subgrade may be protected by placing crushed aggregate on the exposed subgrade.

It is recommended that any fill materials be placed in or near horizontal maximum 8-inch-thick loose lifts and compacted to a minimum of 95% of Modified Proctor MDD, or 98% of Michigan Cone MDD. If a vibratory roller is used for compaction, the loose lift thickness may be increased to 12 inches. Soils used for structural fill should consist of clean sand meeting SW or SP classification in accordance with USCS criteria.

3.2 FOUNDATIONS

Based on the soils encountered, we do not recommend supporting the future buildings on traditional, shallow spread footings without first evaluating their locations on the property and the

assumed loading of the new structures in comparison to the very loose sands encountered on the site. The very loose soils tended to be located near the center south and southwest portions of the lot (borings SB-3, 5, 8, and 9), though outliers existed at boring locations SB-15 and 18. Considering the depth of very loose soils, ground improvement methods appear to be the most economical way to limit excessive settlement below new foundations.

Rammed Aggregate Piers (RAP's)

RAP's are installed by introducing aggregate material through a vibrated tremmie-tube and as the tube retreats, the aggregate is compacted through ramming and vibration, creating a column of compacted stone. The result is a dense, high capacity stone column and improved native soils surrounding the stone column. The foundations are then placed on top of the stone piles and the improved floor slab subgrade soils. Vibration, noise and spoils tend to be high with this method, but costs for installation can make this method reasonable. Specific recommended soil bearing capacity and design installation specifications are provided by the specialty contractor performing this type of work, however, it should be expected that an allowable bearing capacity for conventional shallow foundations in the range of 3,000 psf to 5,000 psf can be developed using RAP's at foundation locations.

Vibro-Compaction

Vibro-compaction is a ground improvement technique that densifies sandy soils using a downhole vibratory probe. The probe is lowered vertically into the loose sands, typically with a standard crane. After reaching the bottom of the treatment zone, the granular soils are densified as the probe is raised. The vibratory energy allows the soil particles to move into a more dense configuration. The densification results in a depression at the ground surface into which granular backfill is added during the densification process. Native site soils classified as SW or imported fill meeting MDOT Class II specifications may be used to restore the ground elevation. The treated soils subsequently have increased relative density and friction angle, and therefore increased bearing capacity within allowable settlement levels. Any site soils with organic content greater than 4% should be

completely removed prior to the vibro-compaction process as future degradation of those soils would continue.

Vibro-compaction does create a potentially disturbing amount of vibration in an area around the probe. If significant vibration cannot be tolerated near the construction area due to potential disturbance to existing structures or machinery, this method should not be pursued.

After completion of the vibro-compaction of existing native sands, spread footings could be designed for an allowable bearing pressure of 4,000 psf.

Rapid Impact Compaction (RIC)

This method of soil improvement involves the densification using energy waves from a hydraulic hammer that repeatedly impacts the ground. The impacts rearrange soil particles to create a uniform and stable bearing below new foundations. This technique is intended to improve the soil density to depths of 10 to 15 feet below existing surface elevations. The soil improvement contractor should work with the structural engineer of record to devise the specifics of location, energy, phasing and rest periods to ensure the soil improvement is achieved where needed. It is recommended that additional soil borings are completed in the improved areas once complete to verify efficacy of the method at this site. Multiple phases of application may be required to achieve the desired density and uniformity. It should be expected that an allowable bearing capacity for conventional shallow foundations in the range of 3,000 psf to 5,000 psf can be developed.

Spread Foundations Post Ground Improvement

Once ground improvement techniques have been completed below new foundations, it is acceptable for the future facility to be supported on conventional spread footings. Footings bearing on newly improved native soils/RAP's may be designed for a maximum net allowable soil bearing pressure of 3,000 to 5,000 psf. The allowable bearing pressure may be increased by one-third for seismic or wind loads. The footings should not be placed on the existing fill material.

All perimeter footings and footings in unheated areas should bear at least 42 inches below finished grade for protection from frost action. To reduce the likelihood of frost heave, trench footings should be formed vertically and should not be allowed to widen near the top. If interior footings are to bear on compacted fill, the fill should be placed in accordance with the recommendations of Section 3.1. Interior foundations can be constructed on suitable natural soils or on structural fill overlying suitable natural subgrade just below the floor slab. However, the footings and proposed bearing soils should be protected from freezing during construction if work is conducted in the cold winter months. Due to the sands encountered at the site, construction of trench footings is probably not feasible. Therefore, we anticipate footing excavations will need to be sloped back and the foundations formed. The placement of footing concrete should be done as soon as footing excavations have been completed and approved to reduce the potential for disturbance or freezing of the footing subgrade.

Prior to concrete placement, the bearing surface should be free of loose soil and standing water. The contractor should avoid stockpiling excavated materials immediately adjacent to the excavation walls. It is recommended that stockpiled materials be kept back from the excavation a minimum distance equal to half the excavation depth to prevent surcharging the excavation walls.

Total and differential settlement of foundations properly designed and constructed based on our recommendations are not expected to exceed 1 inch and ½ inch, respectively.

Alternatively, deep foundations may be considered for foundation support of future buildings. However, given the abundance of gravel and occasional cobbles, helical piers may be found difficult to install at necessary depths for adequate bearing. Similarly, due to the areas of very loose soils and possible voids, auger cast pile installation may not be feasible/advisable due to the potential of pumped grout filling the cavities and spaces between granular particles and distorting the pile shape and potential of hole collapse during auguring through weak soils.

3.3 FLOORS

The soil below the floor slab should be prepared in accordance with the recommendations in Section 3.1. A noncohesive soils mat such as MDOT Class II sand should be provided directly below the floor slabs. The mat should be a minimum of 8 inches in thickness and compacted to a minimum of 95% of Modified Proctor MDD.

The floor slab should be suitably reinforced and proper joints should be provided at the junctions of the slab and foundation system so that a small amount of independent movement can occur without causing damage. A minimum of 6 inches of structural fill should be provided between the bottom of the slab and the top of the shallow spread footing below. Otherwise, other arrangements should be made to allow for potential relative settlements, such as grade beams, thickened slabs with appropriate reinforcing steel or other appropriate details. A modulus of subgrade reaction of 200 pci should be used in the design of slabs-on-grade.

3.4 PAVEMENTS

Specific traffic information was not available in developing these pavement recommendations. For design purposes, we have assumed that passenger vehicles and light trucks will traffic all light/medium duty pavement areas. Heavy duty pavement areas will include entrances, service drives and bus parking areas, and will be trafficked by semi-tractor trailers, buses, refuse trucks, and fire engines. The following Design Inputs were used in our evaluation:

- Estimated Native Subgrade CBR = 4 to 5 percent
- Design Subgrade Resilient Modulus (MR) = 5,000 to 5,800 psi
- Reliability = 85% flexible
- Standard Deviation = 0.49 flexible
- Initial Serviceability Index = 4.2
- Terminal Serviceability Index = 2.0

- New HMA Layer Coefficient = 0.42
- New Aggregate Base Layer Coefficient = 0.14

The following pavement sections are provided based on subgrade soil conditions, the design inputs, and the assumed ESAL design requirement indicated on the tables below. The ESAL design values noted below should be confirmed by the design engineers and, if different, D&A should be consulted to revise the provided pavement section accordingly.

Light to Medium Duty (70,000 ESAL's)					
Layer	Material	Thickness (inches)	Structural Layer Coefficient	Drainage Coefficient	Structural Number
Surface Course	MDOT 13A/4EML or Similar	1.5	0.42	1	0.63
Leveling Course	MDOT 13A/4EML or Similar	1.5	0.42	1	0.63
Aggregate Base	MDOT 21AA (Limestone)	6	0.14	0.75	0.63
Granular Base	Class II	10	0.08	0.75	0.60
			Total Structural Number (SN)		**2.49**

Heavy Duty (300,000 ESAL's)					
Layer	Material	Thickness (inches)	Structural Layer Coefficient	Drainage Coefficient	Structural Number
Surface Course	MDOT 13A/4EML or Similar	2	0.42	1	0.84
Leveling Course	MDOT 13A/4EML or Similar	2	0.42	1	0.84
Aggregate Base	MDOT 21AA (Limestone)	8	0.14	0.75	0.84
Granular Base	MDOT Class II	10	0.08	0.75	0.60
			Total Structural Number (SN)		**3.12**

Compaction of asphalt courses should range between 92% and 96% of the Theoretical Maximum Density (TMD).

The pavement subgrade should be prepared as described in Section 3.1. Above the subgrade, the sand subbase should be constructed in accordance with the tables above using Michigan Department of Transportation (MDOT) Class II Fine Aggregate fill (MDOT Division 3, Section 301 "2012 Standard Specifications for Construction", April 1, 2011) compacted to a minimum of 95% of the material's MDD as determined by Modified Proctor.

Due to the clayey soils encountered at the site, site grading and stormwater controls will be important to protect paved drives and parking areas. To further protect new paved areas, perimeter underdrains should be placed beneath pavement edges within the bottom portion of the pavement sand subbase. Four (4) inch-diameter sock-tube backfilled with at least 6 inches of peastone cover should be used. The drains should flow via gravity to a common low point and into the off-site storm sewer system.

The aggregate base for pavement areas should follow MDOT Dense-Graded Aggregate Base Course Materials – Division 3, Section 302 and Division 9, Section 902, using a 21AA (Grading Requirements per MDOT Table 902-1) Limestone Dense-Graded Aggregate material in accordance with the tables above. This gravel base may be placed in one (1) lift and should be compacted to a minimum of 95% of the material's MDD as determined by Modified Proctor.

Construction traffic should be minimized on the new pavement. If excessive construction traffic is anticipated on the pavement structure, the initial asphalt lift thickness could be increased and placement of the final lift could be delayed until the majority of the construction activities have been completed. This action will allow repair of localized failure, if any does occur, as well as reduce load damage on the pavement system.

A bond coat of emulsion should be used between the base course and wearing course when more than 48 hours have elapsed between placement of the courses, or the surface of the base course has

been contaminated by soil or dust. Performance grade asphalt cement should be used in the production of all bituminous mixtures. Reclaimed Asphalt Pavement (RAP) may be permitted in percentages in accordance with MDOT guidelines and specifications for use in the surface course mix design. We recommend following MDOT Tier 1 or Tier 2 criteria.

After the pavement is complete, we recommend instituting a regular maintenance program that includes sealing of cracks and patching of distressed areas. This should reduce the effect of water infiltration and associated frost action.

In areas where the durability of Portland cement concrete (PCC) is desired over bituminous pavement (i.e., loading areas, dumpster pads) a rigid pavement is recommended. Concrete pavement should be constructed on a base layer of at least 6 inches of Michigan Department of Transportation (MDOT) Class II sand subbase (Division 9, Section 902, Grading Requirements per Table 902-3). The concrete slab should consist of a minimum of 6 inches of 4,000 psi, air entrained concrete (MDOT Division 6, Section 601 – PCC Pavement and Division 9, Section 901 – Cement and Lime); however, actual design of the slab including reinforcement type and spacing should be performed by the Project Structural Engineer.

These recommendations assume typical conditions during the June through September construction season. Any substitution of materials or deviation from these stated assumptions should be reviewed to assess potential impact on the recommended design.

3.5 GROUNDWATER CONTROL

Groundwater was not encountered to a depth of 30 feet below existing ground surface elevation. As such, groundwater problems are not expected to be a significant issue with respect to building construction. Any water which enters the footing excavation can likely be controlled by a gravity drain system, sump pump, or other minor dewatering procedure. Concrete should not be poured in footing excavations containing water. Upon removal of any trapped water, the soils should be

reviewed by a geotechnical engineer and any soft areas replaced with structural fill per Section 3.1, as necessary.

Perimeter foundation drains should be installed along foundations where interior finished floor elevations are lower than perimeter grades, or where exterior grades slope toward the building. In addition, all roof drains should be diverted to downspouts which carry water away from foundations and supporting walls. Where granular engineered fill is placed within the native clay soils, adequate drainage of the granular material should be provided so as to avoid creating an area for water to collect.

3.6 BASEMENT WALLS

Pressures on basement walls will depend on the properties of the backfill and yielding of the wall. Assuming imported fill sand meeting the recommendations of Section 3.1 is used as backfill, a soil density of 115 pcf and a coefficient of active pressure (Ka) of 0.33 may be used for design in the active condition (i.e., the wall is allowed to move slightly such as a cantilevered retaining wall). An "at rest" coefficient of lateral pressure (Ko) of 0.5 should be used if the wall will be fixed or not allowed to move, as in the case of a basement wall. An equivalent fluid pressure of 35 pcf would be appropriate for non-submerged conditions in the active condition and 58 pcf in the "at rest" condition. For the undrained condition, an equivalent fluid earth and groundwater pressure of 95 pcf should be used for the active condition and 120 pcf for the at-rest condition. **In no case should cohesive soils be used as backfill against walls, as excessive creep could increase lateral pressures significantly above assumed design values over time.**

The coefficient of passive pressure (Kp) to resist sliding will depend on the type of soil on the "low side" (i.e., side of the wall opposite the "high side" or backfill). For the native sandy soils and assuming level backfill behind the wall, a Kp of 3.2 should be used.

Assuming a concrete wall foundation (rough concrete surface), an ultimate friction factor of 0.50 between the concrete and soil should be used to calculate sliding resistance for the native sands or imported sand fill as described in section 3.1. Design calculations should use a minimum factor of safety of 1.5 to resist sliding (including friction and passive earth pressure forces), and a minimum factor of safety of 1.5 should also be used to resist overturning of the wall.

The recommended earth pressures stated above do not account for surcharge loading on the wall system caused by, for example, stockpiled materials, sloping backfills, or excessive temporary loads. These conditions would increase design pressures and should be properly distributed in the earth pressure analyses. Earth pressures on non-yielding walls can be much higher if backfill is placed with heavy equipment operating immediately behind the wall. To reduce this potential, we recommend that only hand compaction equipment and methods be used for backfilling within 5 feet of the wall.

It is recommended that a perimeter drain be located around the exterior foundation to reduce the buildup of hydrostatic pressure against the walls. The drains must outlet to a positive drain by gravity or to a sump equipped with an automatic properly sized pump. Slotted PVC pipe wrapped in filter fabric and covered with MDOT 6AA or pea stone should be used. Final exterior grades should slope away from below-grade walls to divert surface water.

3.7 TEMPORARY EXCAVATION STABILITY

If excavations are anticipated for the proposed structure and/or utilities, shoring and bracing or flattening (laying back) of the slopes may be required to obtain a safe working environment. Excavations should be sloped or shored in accordance with local, state and federal regulations, including OSHA (CFR Part 1926) excavation trench safety standards. We recommend that all excavated soils be placed away from the edges of the excavation at a distance equaling or exceeding the depth of the excavation. In addition, surface runoff water should be diverted away from the crest of the excavated slopes to prevent erosion and sloughing.

Localized areas of soft or unsuitable soils not detected by our borings or in unexplored areas may be encountered once construction begins. Vertical cuts in these soils may be unstable and may present a significant hazard because they can fail without warning. Therefore, temporary construction slopes greater than 5 feet high should not be steeper than one horizontal to one vertical (1H: 1V) and excavated material should not be placed within 10 feet of the crest of any excavated slope.

Unbraced excavations may experience some minor localized instability (i.e., sloughing). To reduce potential sloughing, excavated slopes should be covered with plastic for protection from rainfall and moisture changes. It should be emphasized that continuous observations by personnel from our office are important during trenching or excavation operations at the site.

4.0 GENERAL COMMENTS

If significant changes are made in the plans and specifications, the location of the proposed structure, or the loading conditions outlined in Section 1.4 are exceeded, a consultation should be arranged to review such changes with respect to the prevailing soil conditions. It may then be necessary to submit supplementary recommendations. If deviations from the noted subsurface conditions are encountered during construction, they should also be brought to the attention of Driesenga & Associates, Inc.

Driesenga & Associates, Inc. should be afforded the opportunity to review the project design drawings and specifications to verify the factors affecting subgrade and foundation performance comply with our recommendations.

It is recommended that the services of Driesenga & Associates, Inc. be engaged to observe excavation for the footings and to test and evaluate the soils in the footing excavations prior to placement of foundations in order to determine that the soils have the required bearing capacities. Monitoring and testing should also be performed to verify that suitable materials are used for controlled fills and that they are properly placed and compacted.

This report and any future reports or addenda performed for this site should be supplied to potential bidders prior to them submitting their proposals. We also recommend the construction contract include provisions for dealing with differing conditions. Contingency funds should be reserved for potential problems during earthwork and foundation construction.

This report was for geotechnical purposes only. We did not sample for environmental purposes or perform any analytical testing. However, the contractor should be prepared to handle environmental conditions encountered at this site that may affect the excavation, removal, or disposal of soil; dewatering of excavations; and health and safety of workers. Any Environmental

Assessment reports prepared for this property should be made available for review by bidders and the successful contractor.

This report has been prepared solely for the use of the client for the project specifically described in this report. This report cannot be relied upon by other parties not involved in this project, unless written permission is granted by Driesenga & Associates, Inc. If this report or any of its contents are utilized by parties other than our original client and the project team members, Driesenga & Associates, Inc. can not be held responsible for the suitability of the field exploration, scope of services, or recommendations made for the new project. Driesenga & Associates, Inc. also is not responsible for the interpretation of our soil boring logs and the recommendations provided herein by other parties.

Driesenga & Associates, Inc. will evaluate this report for other parties and developments at this site, provided our original Client agrees to release this information in writing. However, before this report can be relied upon by other parties. Driesenga & Associates, Inc. must review the proposed development since the new project will likely require additional field exploration, laboratory tests, analysis, and modifications to our recommendations to adequately address the needs of the new project.

APPENDIX A

·FIGURE NUMBER 1 – SITE LOCATION·

·FIGURE NUMBER 2 – BORING LOCATIONS·

Scale: NTS

DRIESENGA & ASSOCIATES, INC.
Engineering · Surveying · Testing

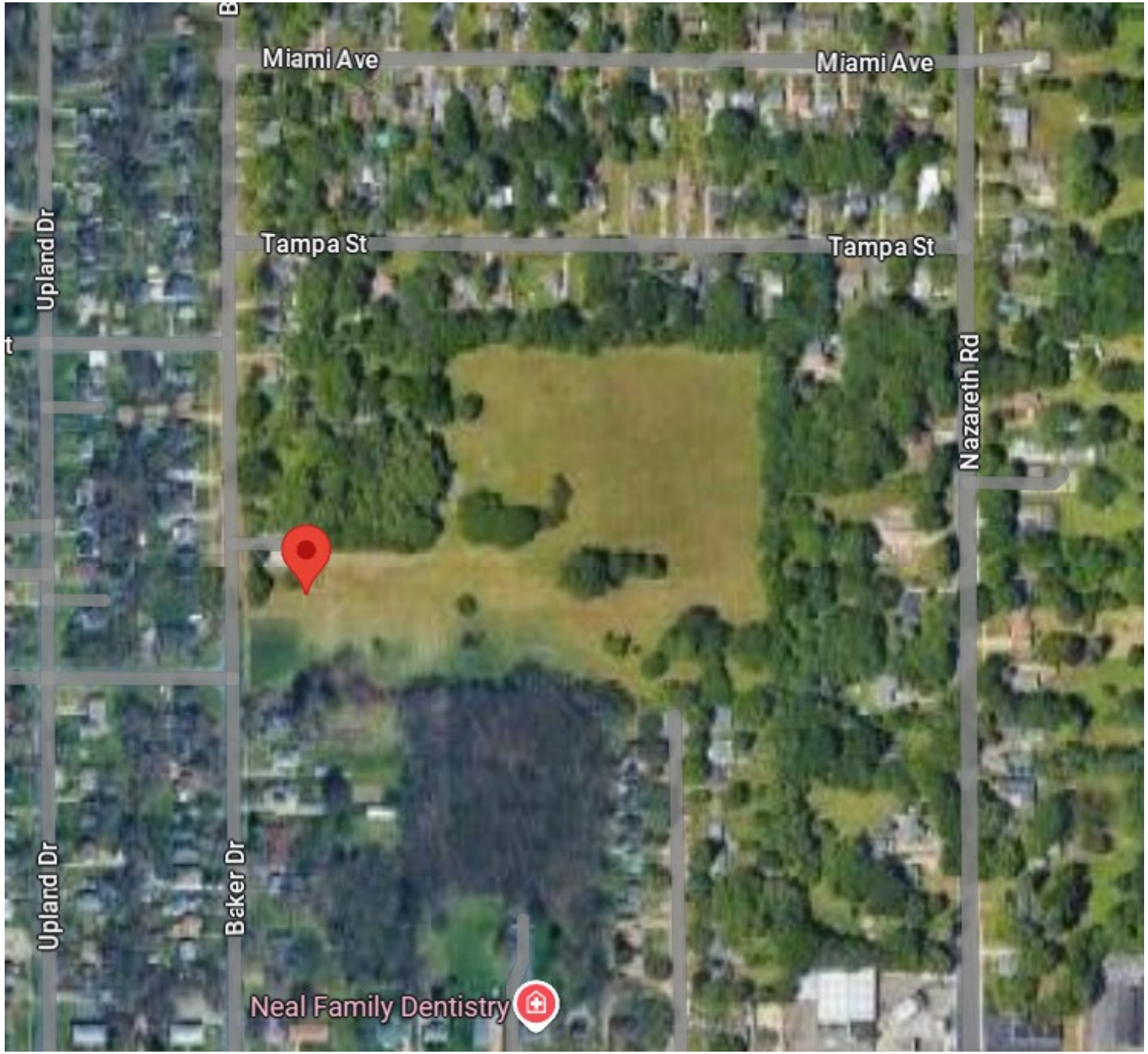
Figure Number: 1
Site Location

Project Name:
KPS – 1428 Baker Dr

Project Number:
2550111.3A

Project Location:
1428 Baker Drive
Kalamazoo, MI

Date: 2-14-25
Sheet: 1 of 1
Modified by: MWS



Scale: NTS

DRIESENGA & ASSOCIATES, INC.
Engineering · Surveying · Testing

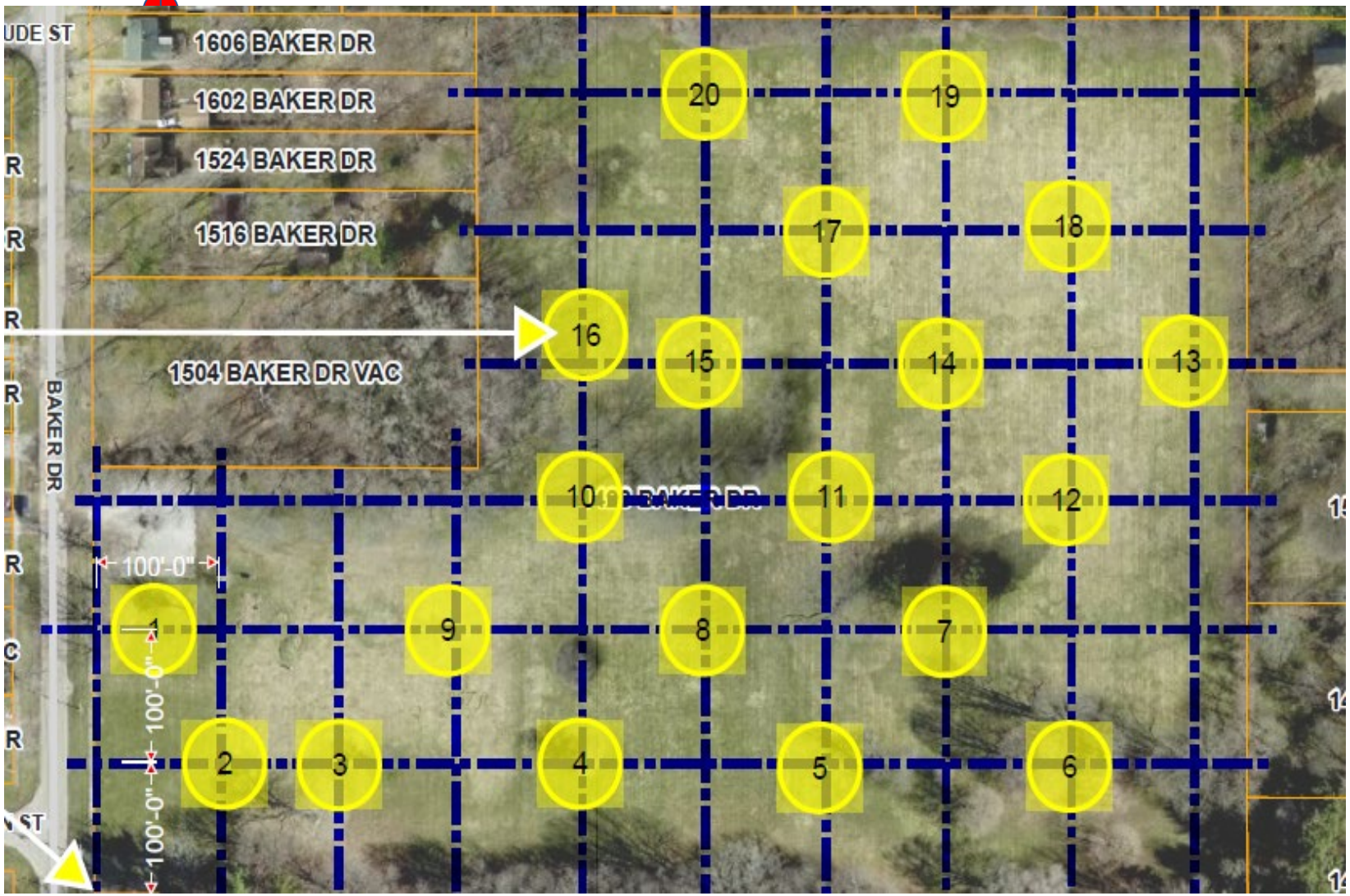
Figure Number: 2
Boring Locations

Project Name:
KPS – 1428 Baker Dr

Project Number:
2550111.3A

Project Location:
1428 Baker Drive
Kalamazoo, MI

Date: 2-14-25
Sheet: 1 of 1
Modified by: MWS



APPENDIX B

·SOIL BORING LOGS·

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-1

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 14, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 14, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 18 inches						
		SC		Clayey SAND, loose, brown to dark brown, fine to medium grained, trace gravel, moist.	1	2 3 4	7			
		SW		SAND, loose, brown, fine to coarse grained, trace silt, trace clay, moist.	2	3 3 5	8			
5				SAND, medium dense to dense, brown, fine to coarse grained, some gravel, moist.	3	4 6 6	12			
					4	6 7 8	15			
10										
					5	6 8 7	15			
15		SW								
					6	7 9 10	19			
20										
					7	11 15 18	33			
25										
					8	15 24 20	44			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-1 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-2

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 14, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 14, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 24 inches	1	4 5 6	11			
		SC		Clayey SAND, medium dense, brown, fine grained, moist.						
		SM		Silty SAND, loose, brown, fine grained, moist.	2	3 4 3	7			
5										
				SAND, medium dense to dense, brown, fine to coarse grained, some gravel, moist.	3	3 4 7	11			
					4	6 6 7	13			
10										
					5	9 8 9	17			
15										
		SW			6	10 12 17	29			
20										
					7	10 12 22	34			
25										
					8	17 27 23	50			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-2 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-3

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 14, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 14, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 10 inches						
		SC/Fill		Fill - Clayey SAND, very loose to loose, brown to dark brown, fine to coarse grained, trace gravel, trace asphalt, moist.	1	2 5 4	9			
					2	3 2 2	4			
5				SAND, very loose to dense, brown, fine to coarse grained, some gravel, moist.	3	1 1 2	3			
					4	7 7 6	13			
10										
					5	9 11 9	20			
15		SW								
					6	8 10 12	22			
20										
					7	9 13 15	28			
25										
					8	10 17 14	31			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-3 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-4

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 14, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 14, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 13 inches						
		SC		Clayey SAND, loose, brown, fine to medium grained, trace gravel, moist.	1	2 4 5	9			
		SC		Clayey SAND, very loose, brown, fine to coarse grained, some gravel, moist.	2	2 2 2	4			
5		SW		SAND, medium dense to dense, brown, fine to coarse grained, a little gravel, moist.	3	7 10 11	21			
					4	6 7 9	16			
10										
					5	6 7 9	16			
15										
					6	5 6 8	14			
20										
					7	14 12 13	25			
25										
					8	11 15 18	33			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-4 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-5

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 9 inches						
		SC		Clayey SAND, loose, brown, fine grained, trace gravel, moist.	1	2 2 3	5			
5		SP		SAND, very loose to loose, brown, fine grained, trace clay, moist.	2	3 3 4	7			
					3	3 2 2	4			
10					4	2 2 1	3			
		SW		SAND, medium dense to dense, brown, fine to coarse grained, some gravel, moist.	5	5 6 10	16			
15					6	12 9 6	15			
20					7	8 11 10	21			
25					8	8 11 20	31			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-5 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-6

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 14 inches						
		SC		Clayey SAND, very loose to loose, brown, fine to medium grained, trace gravel, moist.	1	2 5 4	9			
					2	3 2 2	4			
5		SP		SAND, very loose to loose, brown, medium grained, trace gravel, moist.	3	3 3 3	6			
					4	13 13 9	22			
10				SAND, medium dense to dense, brown, fine to coarse grained, some gravel, moist.						
					5	8 8 9	17			
15		SW								
					6	9 10 15	25			
20										
					7	19 19 10	29			
25										
					8	11 13 18	31			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-6 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-7

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 12 inches						
		SC		Clayey SAND, loose, brown, fine to coarse grained, trace gravel, moist.	1	3 3 4	7			
		SP		SAND, very loose to loose, brown, fine grained, moist.	2	3 5 4	9			
5					3	2 2 1	3			
		SW		SAND, medium dense to very dense, brown, fine to coarse grained, some gravel, trace cobble, moist.	4	4 7 7	14			
10					5	5 6 10	16			
15					6	14 15 29	44			
20					7	12 19 26	45			
25					8	18 31 24	55			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-7 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-8

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 15 inches						
		SC/Fill		Fill - Clayey SAND, loose, brown, fine to medium grained, trace gravel, moist.	1	2 2 4	6			
5		SW/Fill		Fill - SAND, loose, brown to dark brown, fine to medium grained, trace organic material, moist.	2	2 3 3	6			
		SW/Fill		Fill - SAND, very loose, brown to dark brown, fine to coarse grained, trace gravel, trace organic material, moist.	3	2 2 2	4			
10					4	2 1 2	3			
		SW		SAND, medium dense to dense, brown, fine to coarse grained, some gravel, trace cobble, moist.	5	4 5 9	14			
15										
20					6	18 20 13	33			
					7	11 12 14	26			
25										
					8	15 15 19	34			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-8 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-9

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 11, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 11, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 12 inches						
		SC		Clayey SAND, loose to medium dense, brown, fine to medium grained, trace gravel, moist.	1	5 6 5	11			
					2	3 3 3	6			
5		SP		SAND, very loose, brown, fine grained, moist.	3	2 1 1	2			
		SW		SAND, very loose to medium dense, brown, fine to coarse grained, some gravel, moist.	4	2 1 1	2			
10				Driller note: Possible voids from 10 to 22 feet						
					5	1 0 0	0			
15										
					6	1 1 1	2			
20										
					7	4 5 7	12			
25										
					8	9 11 16	27			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\`Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-9 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-10

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 11, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 11, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 8 inches						
		SC/Fill		Fill - Clayey SAND, medium dense, brown to dark brown, fine to medium grained, trace concrete, trace organic material, moist.	1	5 12 11	23			
		SC/Fill		Fill - Clayey SAND, loose, brown to dark brown, fine to coarse grained, trace gravel, moist.	2	4 3 3	6			
5					3	2 3 6	9			
		SW		SAND, loose to very dense, brown, fine to coarse grained, some gravel, moist.	4	6 8 9	17			
10					5	8 8 10	18			
15					6	4 3 2	5			
20					7	8 11 13	24			
25					8	18 26 30	56			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\'Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-10 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-11

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 10 inches						
		SC		Clayey SAND, loose, brown, fine grained, trace gravel, moist.	1	2 4 6	10			
5		SC		Clayey SAND, very loose to loose, brown, fine to medium grained, trace gravel, moist.	2	3 4 3	7			
					3	2 1 1	2			
10		SW		SAND, very loose to dense, brown, fine to coarse grained, some gravel, moist.	4	3 3 3	6			
					5	6 9 13	22			
15										
					6	10 13 15	28			
20										
					7	11 19 19	38			
25										
					8	13 15 16	31			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-11 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-12

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 13 inches						
		SC		Clayey SAND, loose, brown, fine to medium grained, trace gravel, moist.	1	3 3 4	7			
		SP		SAND, loose to medium dense, brown, fine grained, moist.	2	2 3 3	6			
5					3	3 2 3	5			
					4	3 10 10	20			
10		SW		SAND, medium dense to dense, brown, fine to coarse grained, some gravel, moist.						
					5	12 10 16	26			
15										
					6	33 24 20	44			
20										
					7	12 15 15	30			
25										
					8	14 16 18	34			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-12 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-13

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 14 inches						
		SC		Clayey SAND, loose, brown, fine to medium grained, trace gravel, moist.	1	2 2 3	5			
		SP		SAND, loose, brown, fine grained, a little clay, moist.	2	3 4 4	8			
5					3	3 6 10	16			
					4	7 12 10	22			
10										
					5	5 8 11	19			
15		SW		SAND, medium dense to very dense, brown, fine to coarse grained, some gravel, trace cobble, moist.						
					6	9 14 14	28			
20										
					7	9 16 25	41			
25										
					8	14 21 31	52			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\'Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-13 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-14

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 12, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 12, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 15 inches						
		SC		Clayey SAND, very loose, brown, fine grained, moist.	1	1 1 3	4			
		SP		SAND, loose, brown, fine grained, trace silt, moist.	2	3 3 3	6			
5					3	4 3 3	6			
		SW		SAND, medium dense to dense, brown, fine to coarse grained, some gravel, moist.	4	5 8 10	18			
10										
					5	7 7 10	17			
15										
					6	8 8 13	21			
20										
					7	9 10 19	29			
25										
					8	12 17 24	41			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\'Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-14 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-15

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 11, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 11, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 18 inches						
		SC		Clayey SAND, loose, brown, fine grained, trace gravel, moist.	1	2 2 4	6			
		SP		SAND, loose, brown, fine grained, trace silt, trace clay, moist.	2	3 2 3	5			
5					3	3 3 3	6			
		SW		SAND, very loose to medium dense, brown, fine to coarse grained, some gravel, moist.	4	2 1 2	3			
10				Drill note: Void or extremely loose soils detected from 11' to 26'						
					5	1 0 0	0			
15										
					6	1 0 0	0			
20										
					7	1 1 1	2			
25										
					8	5 8 12	20			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-15 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-16

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 13, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 13, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 36 inches Hand Auger	1					
		SC/Fill		Fill - Clayey SAND, dark brown, fine to coarse grained, trace topsoil, some gravel, moist. Hand Auger	2					
5		SC		Clayey SAND, very loose, brown, fine to medium grained, moist.	3	2 2 2	4			
		SP		SAND, loose, brown, fine grained, moist.	4	3 3 4	7			
10		SW		SAND, medium dense to very dense, brown, fine to coarse grained, some gravel, moist.	5	5 6 5	11			
15					6	5 6 11	17			
20					7	13 12 12	24			
25					8	20 61 50+	50+			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-16 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-17

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 12, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 12, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 23 inches	1	1 1 4	5			
		SC		Clayey SAND, loose, brown, fine to medium grained, trace gravel, moist.						
		SP		SAND, loose, brown, fine grained, trace silt, moist.	2	3 3 4	7			
5					3	3 3 3	6			
		SW		SAND, very loose to dense, brown, fine to coarse grained, some gravel, moist.	4	1 1 1	2			
10					5	5 5 6	11			
15					6	14 15 21	36			
20					7	12 18 26	44			
25					8	15 20 17	37			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\'Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-17 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-18

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 12, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 12, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 14 inches						
		SC/Fill		Fill - Clayey SAND, loose, brown, fine to medium grained, trace gravel, moist.	1	2 3 6	9			
		SP/Fill		Fill - SAND, very loose, brown to dark brown, fine grained, buried topsoil layers, moist.	2	2 2 2	4			
5					3	2 1 2	3			
		SW		SAND, very loose to medium dense, brown, fine to coarse grained, some gravel, moist.	4	2 1 1	2			
10					5	2 3 4	7			
15					6	4 3 4	7			
20					7	5 10 8	18			
25					8	9 14 15	29			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-18 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-19

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 12, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 12, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 13 inches						
		SC		Clayey SAND, loose, brown, fine to medium grained, trace gravel, moist.	1	2 4 5	9			
		SW		SAND, very loose to loose, brown, fine to medium grained, moist.	2	2 1 2	3			
5					3	5 7 8	15			
					4	8 8 10	18			
10										
					5	8 11 14	25			
15		SW								
					6	8 10 11	21			
20										
					7	7 11 21	32			
25										
					8	14 18 21	39			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\'Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-19 KPS 1428 Baker Drive.bor

DRIESENGA & ASSOCIATES, INC.

Engineering · Surveying · Testing

SB-20

Project Name: KPS - 1428 Baker Drive
1428 Baker Drive
Kalamazoo, Michigan

Project No. 2550111.3A

Client Name: Kalamazoo Public Schools

Date Started	: March 12, 2025	Drilling Company	: Great Lakes Drilling
Date Completed	: March 12, 2025	Field Sampling	: J. Cook
Hole Diameter	: 6-inches	Reviewed By	: M. Stork
Drilling Method	: Solid-Stem Auger	GW Encountered	: Dry
Sampling Method	: Split-Spoon Sampler	GW Completed	: Dry

Water Levels
▼ During Drilling
▽ After Completion

Standard-Hammer Used for SPT

Depth in Feet	Elev.	USCS	GRAPHIC	DESCRIPTION	Samples	Blow Count	N Value	Pocket Pen (tsf)	Water Level	Moisture Content %
0				TOPSOIL - 12 inches						
		SC		Clayey SAND, loose, brown, fine grained, moist.	1	1 2 4	6			
					2	2 3 3	6			
5					3	3 3 3	6			
					4	6 5 4	9			
10										
					5	4 4 5	9			
15		SW		SAND, loose to dense, brown, fine to coarse grained, some gravel, moist.						
					6	10 16 19	35			
20										
					7	11 16 16	32			
25										
					8	11 14 11	25			
30										

03-17-2025 C:\Users\Michael Stork\DAI Dropbox\'Kalamazoo\Projects\2025\2550111.3A\QLogs\SB-20 KPS 1428 Baker Drive.bor

APPENDIX C

·FIELD AND LABORATORY PROCEDURES·

FIELD PROCEDURES

The soil borings were performed using a truck-mounted drill rig equipped with a standard hammer. Split-barrel samples were obtained in the soil below the bottom of the augers in general accordance with the Standard Method for Penetration and Split-Barrel Sampling of Soils. Samples were collected at 2.5 feet intervals to 10 feet below grade, and every 5 feet thereafter. After recovery, the samples were removed from the split-spoon sampler, visually reviewed and classified, placed in glass jars and transported to our laboratory for additional review.

Soil samples stored for extended periods are susceptible to moisture loss and are no longer indicative of the conditions originally encountered in the soil borings. Therefore, soil samples are usually stored in our laboratory for a period of 60 days, unless instructed otherwise.

Soil boring logs were prepared based on field notes and visual classification of the samples in the laboratory. Indicated on each soil boring log is the description of each stratum observed, the approximate depth and/or elevation of each stratum change observed, Standard Penetration Test resistance values, and the observed groundwater levels. The soil boring logs are presented in Appendix B.

LABORATORY PROCEDURES

The laboratory testing program included supplementary visual classification of the samples in general accordance with the Unified Soil Classification System. The following two pages describe the soils classification procedure.

CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES

Per ASTM D 2487—00
(Based on Unified Soil Classification System)

Soil Description: Secondary Soil Type BASIC SOIL TYPE, Consistency/Relative Density, Color, Supplemental Soil Type, Moisture, Miscellaneous comments.

Ex. Silty SAND, loose, brown, fine to medium, trace gravel, moist.

Secondary Soil Type – adjective for the BASIC SOIL TYPE describing material making up greater than 12% but less than 50% of the primary soil type by weight. For sands this also includes a description of grain size (fine, medium or coarse).

BASIC SOIL TYPE – primary constituent of sample; material making up greater than 50% of the sample by weight. Material is classified by grain size and material properties.

Consistency/Relative Density – a measurement of in-situ consistency or density of cohesive or cohesionless soils, respectively, based upon Standard Penetration Testing blow counts (N) per ASTM D 1586.

Color – visual inspection of soil appearance.

Supplementary Soil Type – a description of any other material that may be mixed with the BASIC SOIL TYPE. Qualifying terms are based on the percentage of the supplementary soil type in the sample by weight.

Moisture – description of the in-situ moisture content of the sample (dry, moist or wet).

Miscellaneous Comments – anything observed in the sample or in the field that does not fit into the above categories but should be noted (odor, etc.).

CALIBRATED AUTO HAMMER CONSISTENCY/RELATIVE DENSITY				
COHESIONLESS SOILS		COHESIVE SOILS		
SPT N-VALUES	IN-SITU RELATIVE DENSITY	SPT N-VALUES	SHEAR STRENGTH (PSF)	IN-SITU CONSISTENCY
0-3	VERY LOOSE	0-1	BELOW 250	VERY SOFT
4-8	LOOSE	2-3	250 - 500	SOFT
9-23	MEDIUM DENSE	4-6	500 - 1,000	MEDIUM STIFF
24-38	DENSE	7-12	1,000 - 2,000	STIFF
>38	VERY DENSE	13-25	2,000 - 4,000	VERY STIFF
		>26	OVER 4,000	HARD

STANDARD HAMMER CONSISTENCY/RELATIVE DENSITY				
COHESIONLESS SOILS		COHESIVE SOILS		
SPT N-VALUES	IN-SITU RELATIVE DENSITY	SPT N-VALUES	SHEAR STRENGTH (PSF)	IN-SITU CONSISTENCY
0-4	VERY LOOSE	0-2	BELOW 250	VERY SOFT
5-10	LOOSE	3-4	250 - 500	SOFT
11-30	MEDIUM DENSE	5-8	500 - 1,000	MEDIUM STIFF
31-50	DENSE	9-16	1,000 - 2,000	STIFF
>50	VERY DENSE	17-32	2,000 - 4,000	VERY STIFF
		>32	OVER 4,000	HARD

SUPPLEMENTAL TEXTURE QUALIFYING TERMS	
DESCRIPTOR	PERCENTAGE BY WEIGHT
TRACE	1-10%
LITTLE	10-20%
SOME	20-35%
AND	35-50%

SOIL CLASSIFICATION CHART (Per ASTM D2487)

Criteria for Assigning Symbols and Group Names Using Laboratory Tests[A]				Soil Classification	
				Group Symbol	Group Name
COHESIONLESS SOILS More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 Sieve	Clean Gravels Less than 5% fines[C]	Cu ≥ 4 and 1 ≤ Cc ≤ 3[E]	GW	Well-graded gravel[F]
			Cu < 4 and/or 1 > Cc > 3[E]	GP	Poorly graded gravel[F]
		Gravels with Fines More than 12% fines[C]	Fines classify as ML or MH	GM	Silty gravel[F,G,H]
			Fines classify as CL or CH	GC	Clayey gravel[F,G,H]
	Sands More than 50% of coarse fraction retained on No. 4 Sieve	Clean Sands Less than 5% fines[D]	Cu ≥ 6 and 1 ≤ Cc ≤ 3[E]	SW	Well-graded sand[F]
			Cu < 6 and/or 1 > Cc > 3[E]	SP	Poorly graded sand[F]
		Sands with Fines More than 12% fines[D]	Fines classify as ML or MH	SM	Silty sand[G,H,I]
			Fines classify as CL or CH	SC	Clayey sand[G,H,I]
COHESIVE SOILS 50% or more passes the No. 200 Sieve	Silts and Clays Liquid limit less than 50	Inorganic	PI ≥ 7 and plots on or above 'A' line[J]	CL	Lean clay[K,L,M]
			PI < 4 or plots below 'A' line[J]	ML	Silt[K,L,M]
		Organic	Liquid limit - oven dried < 0.75	OL	Organic clay[K,L,M,N]
			Liquid limit - not dried < 0.75		Organic silt[K,L,M,O]
	Silts and Clays Liquid limit 50 or more	Inorganic	PI plots on or above 'A' line	CH	Fat clay[K,L,M]
			PI plots below 'A' line	MH	Elastic Silt[K,L,M]
		Organic	Liquid limit - oven dried < 0.75	OH	Organic Clay[K,L,M,P]
			Liquid limit - not dried < 0.75		Organic silt[K,L,M,O]
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor			PT	Peat

A Based on the material passing the 3-in. sieve

B If field sample contained cobbles or builders, or both, add "with cobbles or boulders or both" to group name

C Gravels with 5 to 12% fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay

D Sands with 5 to 12% fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay

E $Cu = D_{60}/D_{10}$ $Cc = (D_{30})^2/(D_{10}*D_{60})$

F If soil contains ≥ 15% sand, add "with sand" to group name.

G If fines classify as CL-ML, use dual symbol GC-GM or SC-SM

H If fines are organic, add "with organic fines" to group name.

I If soil contains ≥ 15% gravel, add "with gravel" to group name.

J If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.

K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant

L If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.

M If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name

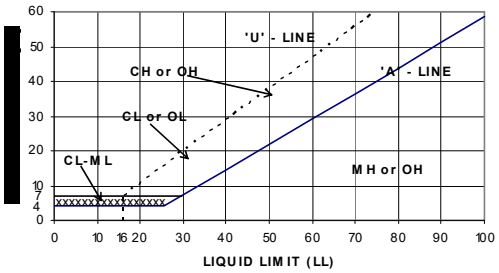
N PI ≥ 4 and plots on or above 'A' line.

O PI < 4 or plots below 'A' line.

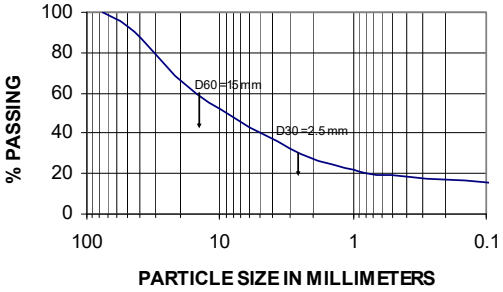
P PI plots on or above 'A' line.

Q PI plots below 'A' line.

For classification of fine-grained soils and fine-grained fraction of coarse-grained soils



SIEVE ANALYSIS



SECTION 07 4213.13 - FORMED METAL WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Concealed-fastener, lap-seam metal wall panels.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.

C. Samples for Initial Selection: For each type of metal panel indicated with factory-applied finishes.

1. Include Samples of trim and accessories involving color selection.

D. Samples for Verification: For each type of exposed finish, prepared on Samples of size indicated below:

1. Metal Panels: 12 inches long by actual panel width. Include fasteners, closures, and other metal panel accessories.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Warranties: Samples of special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

1. Build mockup of typical metal panel assembly, including corner, soffits, supports, attachments, and accessories.
2. Water-Spray Test: Conduct water-spray test of metal panel assembly mockup, testing for water penetration according to AAMA 501.2.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

B. Retain strippable protective covering on metal panels during installation.

1.8 COORDINATION

A. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 1592:

1. Wind Loads: As indicated on Drawings.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

B. 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 (Range): 120 deg F, ambient; 180 deg F, material surfaces.

2.2 CONCEALED-FASTENER, LAP-SEAM METAL WALL PANELS

A. General: Provide factory-formed metal panels designed to be field assembled by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners in side laps. Include accessories required for weathertight installation.

B. V-Groove-Profile, Concealed-Fastener Metal Wall Panels **WP-1**: Formed with vertical panel edges and a flat pan between panel edges.

1. Basis-of-Design Product: Subject to compliance with requirements, provide MAC Metal Architectural; MS 1.1, MS 1.2,, or a comparable product by one of the following:
2. Manufacturers: Subject to compliance with requirements, provide products by the following:
   a. ATAS International, Inc.

3. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
   a. Nominal Thickness: 0.034 inch.
   b. Exterior Finish: Two-coat fluoropolymer.
   c. Color: As selected by Architect from manufacturer's full range.

4. Panel Coverage: Provide a mixture of 11 3/8 inches and 15 5/8 inches.

C. Beveled Edge-Profile, Concealed-Fastener Metal Wall Panels **WP-3**: Formed with beveled panel edges and a flat pan between panel edges.

1. Basis-of-Design Product: Subject to compliance with requirements, provide MAC Metal Architectural; Norwood, or a comparable product by one of the following:
2. Manufacturers: Subject to compliance with requirements, provide products by the following:
   a. ATAS International, Inc.

3. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
   a. Nominal Thickness: 0.034 inch.
   b. Exterior Finish: Two-coat fluoropolymer.
   c. Color: As selected by Architect from manufacturer's full range.

4. Panel Coverage: Provide a mixture of 11 3/8 inches and 15 5/8 inches.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

D. Flush-Profile, Concealed-Fastener Metal Wall Panels **WP-4**: Formed with vertical panel edges and a flat pan between panel edges; with flush joint between panels.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Morin – A Kingspan Group Company; Matrix MX-0 – Medium Bronze, or a comparable product by one of the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. AEP Span; A BlueScope Steel Company.
   b. ATAS International, Inc.
   c. CENTRIA Architectural Systems.
   d. Fabral.
   e. Flexospan Steel Buildings, Inc.
   f. MAC Metal Architectural.

3. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
   a. Nominal Thickness: 0.034 inch.
   b. Exterior Finish: Two-coat fluoropolymer.
   c. Color: As selected by Architect from manufacturer's full range.

4. Panel Coverage: 12 inches.
5. Panel Height: As standard with manufacturer.

E. Flush-Profile, Concealed-Fastener Metal Wall Panels **WP-5**: Formed with vertical panel edges and a flat pan between panel edges; with flush joint between panels.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Morin – A Kingspan Group Company; Matrix MX-0 – Medium Bronze, or a comparable product by one of the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. AEP Span; A BlueScope Steel Company.
   b. ATAS International, Inc.
   c. CENTRIA Architectural Systems.
   d. Fabral.
   e. Flexospan Steel Buildings, Inc.
   f. MAC Metal Architectural.

3. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
   a. Nominal Thickness: 0.034 inch.
   b. Exterior Finish: Two-coat fluoropolymer.
   c. Color: As selected by Architect from manufacturer's full range.

4. '"Panel Coverage: 12 inches.
5. Panel Height: As standard with manufacturer.

F. Flush-Profile, Concealed-Fastener Metal Wall Panels **WP-6**: Formed with vertical panel edges and a flat pan between panel edges; with flush joint between panels.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1. Basis-of-Design Product: Subject to compliance with requirements, provide MAC Metal Architectural; Harrywood – Cedar, or a comparable product by one of the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. AEP Span; A BlueScope Steel Company.
   b. ATAS International, Inc.
   c. CENTRIA Architectural Systems.
   d. Fabral.
   e. Flexospan Steel Buildings, Inc.
   f. Morin - A Kingspan Group Company.

3. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
   a. Nominal Thickness: 0.034 inch.
   b. Exterior Finish: Two-coat fluoropolymer.
   c. Color: As selected by Architect from manufacturer's full range.

4. Panel Coverage: 12 inches.
5. Panel Height: As standard with manufacturer.

2.3 MISCELLANEOUS MATERIALS

A. Miscellaneous Metal Subframing and Furring: ASTM C 645, cold-formed, metallic-coated steel sheet, ASTM A 653/A 653M, G90 coating designation or ASTM A 792/A 792M, Class AZ50 aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.

B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and rakes, fabricated of same metal as metal panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, jambs, corners, endwalls, framed openings, rakes, fasciae, parapet caps, soffits, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

D. Panel Fasteners: Self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal panels by means of plastic caps or factory-applied coating. Provide EPDM or PVC sealing washers for exposed fasteners.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

E. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing; 1/2 inch wide and 1/8 inch thick.
2. Joint Sealant: ASTM C 920; as recommended in writing by metal panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C 1311.

2.4 FABRICATION

A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

C. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

2.5 FINISHES

A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Steel Panels and Accessories:

1. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
2. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.

PART 3 - EXECUTION

3.1 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

3.2 METAL PANEL INSTALLATION

A. General: Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Panels: Use stainless-steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

D. Lap-Seam Metal Panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.

1. Lap ribbed or fluted sheets one full rib. Apply panels and associated items true to line for neat and weathertight enclosure.
2. Provide metal-backed washers under heads of exposed fasteners bearing on weather side of metal panels.
3. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
4. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.
5. Flash and seal panels with weather closures at perimeter of all openings.

E. Watertight Installation:

1. Apply a continuous ribbon of sealant or tape to seal lapped joints of metal panels, using sealant or tape as recommend by manufacturer on side laps of nesting-type panels; and elsewhere as needed to make panels watertight.
2. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
3. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

F. Accessory Installation: 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 panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal wall panel manufacturer; or, if not indicated, provide types recommended by metal panel manufacturer.

G. 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 as indicated. Install work with laps, joints, and seams that are permanently watertight.

1. Install exposed flashing and trim that is without 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 achieve waterproof performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

3.3 CLEANING

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

END OF SECTION 07 4213.13

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

SECTION 08 3323 - OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Service doors.

B. Related Requirements:

1. Section 05 5000 "Metal Fabrications" for miscellaneous steel supports, door-opening framing, corner guards, and bollards.

1.2 ACTION SUBMITTALS

A. Product Data: For each type and size of overhead coiling door and accessory.

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

1. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
2. Include diagrams for power, signal, and control wiring.

C. Samples for Initial Selection: Manufacturer's finish charts showing full range of colors and textures available for units with factory-applied finishes.

1. Include similar Samples of accessories involving color selection.

D. Samples for Verification: For each type of exposed finish on the following components, in manufacturer's standard sizes:

1. Curtain slats.
2. Bottom bar with sensor edge.
3. Guides.
4. Brackets.
5. Hood.
6. Locking device(s).
7. Include similar Samples of accessories involving color selection.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Sample warranty.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

1.6 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of doors that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Cookson Company.
2. Cornell Iron Works, Inc.
3. Overhead Door Corporation.
4. Raynor.
5. Wayne-Dalton Corp.

B. Source Limitations: Obtain overhead coiling doors from single source from single manufacturer.

1. Obtain operators and controls from overhead coiling-door manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Fire-Rated Door Assemblies: Complying with NFPA 80; listed and labeled by qualified testing agency, for fire-protection ratings indicated, based on testing at as close to neutral pressure as possible according to NFPA 252 or UL 10B.

B. Fire-Rated Door Assemblies: Complying with NFPA 80; listed and labeled by qualified testing agency, for fire-protection ratings indicated, based on testing at as close to neutral pressure as possible according to NFPA 252.

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.
2. Temperature-Rise Limit: Where indicated, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F above ambient after 30 minutes of standard fire-test exposure.
3. Smoke Control: Where indicated, provide doors that are listed and labeled with the letter "S" on the fire-rating label by a qualified testing agency for smoke- and draft-control based on testing

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

according to UL 1784; with maximum air-leakage rate of 3.0 cfm/sq. ft. of door opening at 0.10 inch wg for both ambient and elevated temperature tests.

C. Accessibility Standard: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.

2.3 DOOR ASSEMBLY

A. Service Door: Overhead coiling door formed with curtain of interlocking metal slats.

1. Operation Cycles: Door components and operators capable of operating for not less than 50,000.
2. Door Curtain Material: Galvanized steel.
3. Door Curtain Slats: Flat profile slats of 1-7/8-inch center-to-center height.

    a. Perforated Slats: Approximately 3/32-inch pinholes.

4. Bottom Bar: Two angles, each not less than 1-1/2 by 1-1/2 by 1/8 inch thick; fabricated from hot-dip galvanized steel and finished to match door.
5. Curtain Jamb Guides: Galvanized steel with exposed finish matching curtain slats.
6. Hood: Galvanized steel.

    a. Mounting: Face of wall.

7. Locking Devices: Equip door with slide bolt for padlock.
8. Manual Door Operator: Chain-hoist operator.
9. Electric Door Operator:

    a. Usage Classification: Heavy duty, 25 or more cycles per hour and more than 90 cycles per day.
    b. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use; moving parts of operator enclosed or guarded if exposed and mounted at 8 feet or lower.
    c. Motor Exposure: Interior.
    d. Motor Electrical Characteristics: Match building electrical system.
        1) Horsepower: 1 hp.
        2) Voltage: 208-V ac, three phase, 60 Hz.
    e. Emergency Manual Operation: Chain type.
    f. Obstruction-Detection Device: Automatic photoelectric sensor.
    g. Control Station(s): Interior mounted.

10. Curtain Accessories: Equip door with automatic-closing device.
11. Door Finish:
    a. Baked-Enamel or Powder-Coated Finish: Color as selected by Architect from manufacturer's full range.
    b. Factory Prime Finish: Manufacturer's standard color.

2.4 FIRE-RATED DOOR ASSEMBLY

A. Fire-Rated Service Door: Overhead fire-rated coiling door formed with curtain of interlocking metal slats.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1. Operation Cycles: Door components and operators capable of operating for not less than 50,000.
2. Fire Rating: 1 hour.
3. Door Curtain Material: Stainless steel.
4. Door Curtain Slats: Flat profile slats of 2-5/8-inch center-to-center height.

5. Curtain Jamb Guides: Stainless steel with exposed finish matching curtain slats.
6. Hood: Stainless steel.

    a. Mounting: Face of wall.

7. Locking Devices: Equip door with slide bolt for padlock and chain lock keeper.
8. Electric Door Operator:

    a. Usage Classification: Light duty, up to 10 cycles per hour.
    b. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use; moving parts of operator enclosed
    c. Motor Exposure: Interior.
    d. Motor Electrical Characteristics: Match building electrical characteristics.
        1) Horsepower: 1 hp.
        2) Voltage: 480-V ac, three phase, 60 Hz.
    e. Emergency Manual Operation: Push-up type.
    f. Obstruction-Detection Device: Automatic photoelectric sensor.
        1) Sensor Edge Bulb Color: As selected by Architect from manufacturer's full range.
    g. Control Station(s): Interior mounted.

9. Curtain Accessories: Equip door with smoke seals, automatic-closing device,
10. Door Finish:

    a. Baked-Enamel or Powder-Coated Finish: Color as selected by Architect from manufacturer's full range.
    b. Factory Prime Finish: Manufacturer's standard color.
    c. Interior Curtain-Slat Facing: Finish as selected by Architect from manufacturer's full range.

2.5 MATERIALS, GENERAL

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.6 DOOR CURTAIN MATERIALS AND CONSTRUCTION

A. Door Curtains: Fabricate overhead coiling-door curtain of interlocking metal slats, designed to withstand wind loading indicated, in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:

1. Steel Door Curtain Slats: Zinc-coated (galvanized), cold-rolled structural-steel sheet; complying with ASTM A 653/A 653M, with G90 zinc coating; nominal sheet thickness (coated) of 0.028 inch; and as required.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

B. Curtain Jamb Guides: Manufacturer's standard angles or channels and angles of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain.

2.7 HOODS

A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.

2.8 LOCKING DEVICES

A. Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on both left and right jamb sides, operable from coil side.

B. Chain Lock Keeper: Suitable for padlock.

C. Safety Interlock Switch: Equip power-operated doors with safety interlock switch to disengage power supply when door is locked.

2.9 CURTAIN ACCESSORIES

2.10 COUNTERBALANCE MECHANISM

A. General: Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.

B. Brackets: Manufacturer's standard mounting brackets of either cast iron or cold-rolled steel plate.

2.11 ELECTRIC DOOR OPERATORS

A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycles requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.

1. Comply with NFPA 70.
2. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24-V ac or dc.

B. Usage Classification: Electric operator and components capable of operating for not less than number of cycles per hour indicated for each door.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

C. Motors: Reversible-type motor with controller (disconnect switch) for motor exposure indicated for each door assembly.

1. Electrical Characteristics: Minimum as indicated for each door assembly. If not indicated, large enough to start, accelerate, and operate door in either direction from any position, at a speed not less than 8 in./sec. and not more than 12 in./sec., without exceeding nameplate ratings or service factor.
2. Operating Controls, Controllers, Disconnect Switches, Wiring Devices, and Wiring: Manufacturer's standard unless otherwise indicated.
3. Coordinate wiring requirements and electrical characteristics of motors and other electrical devices with building electrical system and each location where installed.

D. Limit Switches: Equip each motorized door with adjustable switches interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.

E. Obstruction-Detection Devices: External entrapment protection consisting of indicated automatic safety sensor capable of protecting full width of door opening. For non-fire-rated doors, activation of device immediately stops and reverses downward door travel.

1. Photoelectric Sensor: Manufacturer's standard system designed to detect an obstruction in door opening without contact between door and obstruction.

F. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure push-button control labeled "Close."

1. Interior-Mounted Units: Full-guarded, surface-mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure.
2. Exterior-Mounted Units: Full-guarded, standard-duty, surface-mounted, weatherproof type, NEMA ICS 6, Type 4 enclosure, key operated.

G. Emergency Manual Operation: Equip each electrically powered door with capability for emergency manual operation. Design manual mechanism so required force for door operation does not exceed 25 lbf.

H. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

I. Motor Removal: Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency manual operation.

2.12 FINISH REQUIREMENTS

A. General: Comply with NAAMM/NOMMA 500 for recommendations for applying and designating finishes.

1. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

B. Steel and Galvanized-Steel Finishes:

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1. Factory Prime Finish: Manufacturer's standard primer, compatible with field-applied finish. Comply with coating manufacturer's written instructions for cleaning, pretreatment, application, and minimum dry film thickness.
2. Powder-Coat Finish: Manufacturer's standard baked-on finish consisting of prime coat and thermosetting topcoat. Comply with coating manufacturer's written instructions for cleaning, pretreatment, application, and minimum dry film thickness.

    a. Where powder-coat finish is indicated as selected from manufacturer’s full range, provide minimum of 50 color selections.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install overhead coiling doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.

B. Power-Operated Doors: Install according to UL 325.

3.2 STARTUP SERVICE

A. Startup Service: Engage a factory-authorized service representative to perform startup service.

1. Complete installation and startup checks according to manufacturer's written instructions.
2. Test and adjust controls and safety devices. Replace damaged and malfunctioning controls and equipment.
3. Test door closing when activated by detector or alarm-connected automatic-closing system. Reset door-closing mechanism after successful test.

B. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.

1. Lubricate bearings and sliding parts as recommended by manufacturer.

3.3 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain overhead coiling doors.

END OF SECTION 08 3323

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

This page intentionally left blank.

SECTION 11 6623 - GYMNASIUM EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following gymnasium equipment:

1. Basketball equipment.
2. Volleyball equipment.
3. Safety pads.

B. Related Sections include the following:

1. Division 03 Section "Cast-in-Place Concrete" for installation of floor insert sleeves and oversized recessed voids to be cast in concrete slabs and footings.
2. Division 26 Sections for electrical service for motor operators, controls, and other powered devices for motorized gymnasium equipment.

1.2 DEFINITIONS

A. FIBA: International Basketball Federation (Federation Internationale de Basketball Amateur).

B. FIVB: International Volleyball Federation (Federation Internationale de Volleyball).

C. NAGWS: The National Association for Girls and Women in Sport.

D. NCAA: The National Collegiate Athletic Association.

E. NFHS: The National Federation of State High School Associations.

F. USAV: USA Volleyball.

1.3 PERFORMANCE REQUIREMENTS

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For gymnasium equipment. Include plans, elevations, sections, details, and attachments to other work.

1. Method of field assembly for removable equipment, connections, installation details, mountings, floor inserts, attachments to other work, and operational clearances.
2. Transport and storage accessories for removable equipment.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

C. Structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation including loads, point reactions, and locations for attachment of gymnasium equipment to structure.

D. Coordination Drawings: Court layout plans, drawn to scale, and coordinating floor inserts, game lines, and markers applied to finished flooring.

E. Samples for Initial Selection: For each type of gymnasium equipment indicated.

F. Product Certificates: For each type of gymnasium equipment, signed by product manufacturer.

G. Qualification Data: For Installer.

H. Operation and Maintenance Data: For gymnasium equipment to include in emergency, operation, and maintenance manuals.

I. Warranty: Special warranty specified in this Section.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An employer of workers trained and approved by manufacturer.

B. Source Limitations: Obtain each type of gymnasium equipment through one source from a single manufacturer.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Do not install gymnasium equipment until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

B. Field Measurements: Verify position and elevation of floor inserts and layout for gymnasium equipment.

1.7 COORDINATION

A. Coordinate installation of floor inserts with structural floors and finish flooring installation and with court layout and game lines and markers on finish flooring.

B. Coordinate layout and installation of overhead-supported gymnasium equipment and suspension system components with other construction including light fixtures, HVAC equipment, fire-suppression-system components, and partition assemblies.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of gymnasium equipment that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Basketball backboard failures including glass breakage.
b. Faulty operation.

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Steel: Comply with the following:

1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
2. Steel Tubing: ASTM A 500 or ASTM A 513, cold formed.
3. Steel Sheet: ASTM A 1011/A 1011M.
4. Support Cable: Manufacturer's standard galvanized steel aircraft cable. Provide fittings complying with cable manufacturer's written instructions for size, number, and method of installation.
5. Support Chain and Fittings: Grade 80 hardened alloy steel chain rated for overhead lifting, ASTM A 391/A 391M, with commercial-quality, hot-dip galvanized zinc-plated steel connectors and hangars.
6. Castings and Hangers: Malleable iron, ASTM A 47/A 47M, grade required for structural loading.

B. Equipment Wall-Mounting Board: Wood, manufacturer's standard with transparent finish.

C. Anchors, Fasteners, Fittings and Hardware: Manufacturer's standard corrosion resistant, or noncorrodible units, concealed, tamperproof, vandal and theft resistant design.

D. Grout: ASTM C 1107 with minimum strength recommended in writing by gymnasium equipment manufacturer.

2.2 BASKETBALL EQUIPMENT

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. AALCO Manufacturing.
2. Arizona Courtlines, Inc.
3. ADP Lemco Inc.
4. Basketball Products International; a division of American Athletic, Inc.
5. Bison Inc.
6. Douglas Industries, Inc.
7. Draper Inc.
8. Institutional Products Inc.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

9. Jaypro Sports, LLC.
10. L. A. Steelcraft.
11. Performance Sports Systems.
12. Porter Athletic Equipment Company.
13. P. W. Athletic Mfg. Co.

B. General: Provide equipment complying with requirements in NFHS's "NFHS Basketball Rule Book." Protruding fasteners or exposed bolt heads on front face of backboards are not permitted.

C. Overhead-Supported Backboard (BB-1):

1. Folding Type: Provide manufacturer's standard assembly for side-folding backboard, with hardware and fittings to permit folding.

    a. Center-Mast Frame: Welded and bolted or clamped with side sway bracing.
    b. Operation: Electric.
    c. Finish: Manufacturer's standard powder-coat finish.

2. Goal Height Adjuster: Adjustable from 8 to 10 feet with gear-drive mechanism, locking in any position within adjustment range, with visible height scale attached to side of framing.
    a. Operation: Electric with integral gear-drive motor, with limit switches preset to goal heights, and detachable electric control device(s).

D. Backboard Safety Device: Designed to limit free fall if support cable, support chain, pulleys, fittings, winch, or related components fail; with mechanical automatic reset; 6000-lb load capacity; one per folding backboard.

E. Backboard Electric Operator: Provide operating machine of size and capacity recommended by manufacturer for equipment specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, and remote controls. Coordinate wiring requirements and electrical characteristics with building electrical system.

1. Motor Characteristics: Sufficient to start, accelerate, reverse, and operate connected loads at designated speeds within installed environment and with indicated operating sequence, and without exceeding nameplate rating or considering service factor. Comply with NEMA MG 1.
2. Motor Horsepower: 3/4 hp.
3. Voltage: 120 V, single-phase
4. Remote-Control Station(s): NEMA ICS 6, Type 1 enclosure for recessed or flush mounting, momentary-contact, three-position switch-operated control with up, down, and off functions.

    a. Group Key Switch Control Stations: One switch per each backboard.
    b. Key Switch: Provide two keys per station.
    c. Switches, Ganged: Single faceplate with multiple switch cut-outs as indicated.
    d. Control Station Enclosure: Provide prime-painted metal enclosure with integrally formed padlock hasps.

5. Limit Switches: Adjustable switches, interlocked with motor controls and set to automatically stop basketball equipment at fully retracted and fully lowered positions.

F. Basketball Backboard (BG-1):

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1. Shape and Size: Rectangular, 72 by 42 inches width by height.
2. Backboard Material: With predrilled holes or preset inserts for mounting goals, and as follows:
   a. Fiberglass: Not less than 1-1/2-inch- thick.

3. Target Area and Border Markings: Permanently etched in white color, marked in pattern and stripe width according to referenced rules.
4. Finish: Manufacturer's standard factory-applied, white background.

G. Goal Mounting Assembly: Compatible with goal, backboard, and support framing for goal attachment.

1. Fiberglass Backboard Goal Mounting Assembly: Direct mount, designed for mounting goal directly and independently to center mast of backboard support framing so no force, transmitted by ring, is directly applied to backboard and rigidity and stability of goal are maximized.

H. Basketball Goals: Complete with flanges, braces, attachment plate, and evenly spaced loops welded around underside of ring.

1. Single-Rim Basket Ring Competition Goal.
2. Finish: Powder-coat finish.

I. Basketball Nets: 12-loop-mesh net, between 15 and 18 inches long, sized to fit rim diameter.

1. Competition Cord: Antiwhip, made from white nylon cord not less than 120- or more than 144-gm thread.

J. Backboard Safety Pads: Designed for backboard thickness indicated and extending continuously along bottom and up sides of backboard and over goal mounting and backboard supports as required by referenced rules.

1. Color: As selected by Architect from manufacturer's full range.

2.3 VOLLEYBALL EQUIPMENT

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. AALCO Manufacturing.
2. ADP Lemco Inc.
3. American Athletic, Inc.
4. Arizona Courtlines, Inc.
5. Bison Inc.
6. Douglas Industries, Inc.
7. Draper Inc.
8. Jaypro Sports, LLC.
9. L. A. Steelcraft.
10. Performance Sports Systems.
11. Porter Athletic Equipment Company.
12. P. W. Athletic Mfg. Co.
13. Schelde North America.
14. Sports Imports.

B. General: Provide equipment complying with requirements in NFHS's "NFHS Volleyball Rule Book."

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

C. Floor Insert: Solid-brass floor plate; and steel pipe sleeve, concealed by floor plate, with capped bottom end, sized with ID to fit post standards, not less than length required to securely anchor pipe sleeve as indicated; with anchors designed for securing floor insert to floor substrate indicated; one per post standard.

D. Net: 32 feet long; 1 per pair of paired post standards:

1. Product: Sports Import; HM 50.
2. Width and Mesh: Competition volleyball net, 39 inches with 4-inch- square knotless mesh made of black nylon string.
3. Dowels: Not less than 1/2-inch- diameter fiberglass or 1-inch- diameter wood. Provide two dowels per net threaded through each side hem sleeve for straightening net side edges.
4. Net Antennas: 3/8-inch- diameter, high-tensile-strength, extruded fiberglass or plastic rods, 72 inches long, extending above top hem band of net, with alternating white and red bands according to competition rules. Provide two antennas per net. Provide clamps to secure antennas to top and bottom of net.
5. Boundary Tape Markers: 2-inch- wide white strip, secured to net top and bottom with hook-and-loop attachment. Provide two tape markers per net for marking court boundaries.

E. Net Tensioning System: Designed to adjust and hold tension of net. Fully enclosed, nonslip ratchet-type winch with cable length and fittings for connecting to net lines, positive-release mechanism, and removable handle. Mount net tensioner on post standard at side away from court. Provide end post with post top pulley. Provide opposing post with welded steel loops, hooks, pins, or other devices for net attachment and post top grooved line guide.

F. Bottom Net Lock Tightener: Manufacturer's standard.

G. Judges' Stands: Provide manufacturer's standard adjustable-height units designed to be attached to and supported by post standard.

H. Safety Pads: Comply with NCAA and NFHS requirements. Provide pads consisting of not less than 1-1/4-inch- thick, multiple-impact-resistant manufacturer's standard foam filler covered by puncture- and tear-resistant, manufacturer's standard fabric cover; with fire-test-response characteristics indicated. Provide pads with hook-and-loop closure or attachments for the following components:

1. Post Standards: Wraparound style, designed to totally enclose each standard to a height of not less than 66 inches; 1 per post.
2. Fabric Color: As selected by Architect from manufacturer's full range.
3. Product: Sports Import; DE60.

I. Post Standard Transporter: Manufacturer's standard.

J. Wall Storage Rack: Manufacturer's standard.

K. Storage Cart: Manufacturer's standard wheeled unit designed for transporting and storing volleyball equipment and passing through 36-inch- wide or wider door openings. Fabricate units of welded steel tubing with heavy-duty casters, including not less than two swivel casters. Fabricate wheels from materials that will not damage or mark floors; number of units as required to provide transport and storage for specified equipment.

1. Product: Sports Import; DU 21.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

2.4 SAFETY PADS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. AALCO Manufacturing.
2. ADP Lemco Inc.
3. American Athletic, Inc.
4. Draper Inc.
5. Institutional Products Inc.
6. Jaypro Sports, LLC.
7. Performance Sports Systems.
8. Porter Athletic Equipment Company.

B. Safety Pad Surface-Burning Characteristics: ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:

1. Flame-Spread Index: Maximum 75.
2. Smoke-Developed Index: 450 or less.

C. Pad Coverings: Provide safety pad fabric covering fabricated from puncture- and tear-resistant, not less than 14-oz./sq. yd PVC-coated polyester or nylon-reinforced PVC fabric treated with fungicide for mildew resistance; with surface-burning characteristics indicated.

D. Wall Safety Pads: Padded wall wainscot panels designed to be attached in a continuous row; each panel section consisting of fill laminated to backer board with visible surfaces fully covered by seamless fabric covering, free of sag and wrinkles and firmly attached to back of backer board.

1. Backer Board: Not less than 3/8-inch- thick plywood, mat formed, or composite panel.
2. Fill: Multiple-impact-resistant foam not less than 2-inch- thick bonded polyurethane, 6.0-lb/cu. ft. density.
3. Size: Each panel section, 24 inches wide by not less than 72 inches long.
4. Number of Panel Sections: As indicated modular panel sections.
5. Installation Method: Concealed mounting Z-clips.
6. Fabric Covering Color(s): As selected by Architect from manufacturer's full range for one color(s).

E. Corner Wall Safety Pads: Wall corner pad consisting of not less than 1-1/4-inch- thick, multiple-impact-resistant, closed-cell polyethylene-foam filler, covered on both sides and all edges by fabric covering with backer board and manufacturer's standard anchorage to wall.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Comply with manufacturer's written installation instructions and competition rules indicated for each type of gymnasium equipment. Complete equipment field assembly, where required.

B. Unless otherwise indicated, install gymnasium equipment after other finishing operations, including painting, have been completed.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

C. Permanently Placed Gymnasium Equipment and Components: Rigid, level, plumb, square, and true; anchored securely to supporting structure; positioned at locations and elevations indicated on Shop Drawings; in proper relation to adjacent construction; and aligned with court layout.

1. Floor Insert Location: Coordinate location with application of game lines and markers.
2. Floor Insert Elevation: Coordinate installed heights of floor insert with installation of finish flooring and type of floor plate.
3. Operating Gymnasium Equipment: Verify clearances for movable components of gymnasium equipment throughout entire range of operation and for access to operating components.

D. Floor Insert Setting: Position sleeve in oversized, recessed voids in concrete slabs and footings. Clean voids of debris. Fill void around sleeves with grout, mixed and placed to comply with grout manufacturer's written instructions. Protect portion of sleeve above subfloor and footing from splatter. Verify that sleeves are set plumb, aligned, and at correct height and spacing; hold in position during placement and finishing operations until grout is sufficiently cured. Set insert so top surface of completed unit is flush with finished flooring surface.

E. Safety Pads: Mount with bottom edge at 4 inches above finished floor.

F. Anchoring to In-Place Construction: Use anchors and fasteners where necessary for securing built-in and permanently placed gymnasium equipment to structural support and for properly transferring load to in-place construction.

G. Connections: Connect automatic operators to building electrical system.

H. Removable Gymnasium Equipment and Components: Assemble in place to verify that equipment and components are complete and in proper working order. Instruct Owner's designated personnel in properly handling, assembling, adjusting, disassembling, transporting, storing, and maintaining units. Disassemble removable gymnasium equipment after assembled configuration has been approved by Owner, and store units in location indicated on Drawings.

3.2 ADJUSTING

A. Adjust movable components of gymnasium equipment to operate safely, smoothly, easily, and quietly, free from binding, warp, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and moving parts.

3.3 CLEANING

A. After completing gymnasium equipment installation, inspect components. Remove spots, dirt, and debris and touch up damaged shop-applied finishes according to manufacturer's written instructions.

B. Replace gymnasium equipment and finishes that cannot be cleaned and repaired, in a manner approved by Architect, before time of Substantial Completion.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain gymnasium equipment. Refer to Division 01 Section "Demonstration and Training."

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

END OF SECTION 11 6623

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

This page intentionally left blank.

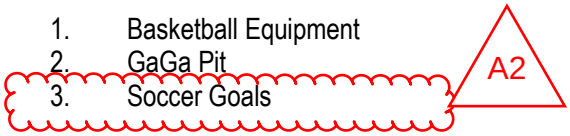
SECTION 11 6823 - EXTERIOR ATHLETIC EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following gymnasium equipment:

1. Basketball Equipment
2. GaGa Pit
3. Soccer Goals



B. Related Sections include the following:

1. Division 03 Section "Cast-in-Place Concrete" for oversized recessed voids to be cast in concrete slabs and footings.
2. Section 11 6800 “Play Field Equipment and Structures” for playground equipment.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For exterior athletic equipment. Include plans, elevations, sections, details, and attachments to other work.

C. Samples for Initial Selection: For each type of exterior athletic equipment indicated.

1. Manufacturer's color charts.
2. Include similar Samples of exterior athletic equipment and accessories involving color selection.

1.3 QUALITY ASSURANCE

A. Qualification Data: For qualified Installer and manufacturer.

B. Qualification Data: For qualified Installer and manufacturer.

C. Product Certificates: For each type of playground equipment, from manufacturer.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1.5 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of exterior athletic equipment that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 EXTERIOR ATHLETIC EQUIPMENT

1. BASKETBALL EQUIPMENT
   a. See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers and products. Retain one of three paragraphs and list of manufacturers below. See Division 01 Section "Product Requirements."
      a) Basis-of-Design Product: Subject to compliance with requirements, provide PR60 Heavy-Duty Steel Rectangle Gooseneck Playground System by Bison, Inc.
      b) Pole : 4 ½" OD, RS40 flow coated galvanized steel tubing with a 7 ga. Thickness.
      c) Backboard: Formed and welded steel with a 42"x60" rectangular playing surface.
      d) Skin: 12 ga. Mild steel.
      e) Rear Structure: 7 ga. And 10 ga. Steel
      f) Finish: white polyester powder coat with official size orange shooter's square.
      g) Rim: 5/8" dia. AISI 1018 cold drawn carbon steel rings welded together at min. of 6 places
      h) Back and Side Plates: 3/16" thick, continuously welded.
      i) Net Attachment: 3/16" x 1" steel with punched net attachment slots suitable for nylon nets.

2. GAGA PIT
   a. Basis-of-Design Product: Subject to compliance with requirements, provide 20' diameter octagon with 8' long x 30" tall wall sections with bracket system by Coach Cliff's. Provide Tier 1 black structural composite board, powder coated metal brackets and ADA doorway kit.

A2

3. SOCCER GOALS
   a. Basis-of-Design Product: Subject to compliance with requirements, provide (2) 6.5x18.5 Park Series Soccer Goals with 4mm Square Net Pattern by PEVO. Provide PEVO Omega Net Clips, Ground Anchors. Finish: Powder Coated White.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

PART 3 - EXECUTION

2.2 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Complete equipment field assembly, where required.

B. Permanently Placed exterior athletic equipment and Components: Rigid, level, plumb, square, and true; anchored securely to supporting structure; positioned at locations indicated on Shop Drawings; in proper relation to adjacent construction; and aligned with court layout.

C. Anchoring to In-Place Construction: Use anchors and fasteners where necessary for securing built-in and permanently placed exterior athletic equipment to structural support and for properly transferring load to in-place construction.

2.3 CLEANING

A. After completing exterior athletic equipment installation, inspect components. Remove spots, dirt, and debris and touch up damaged shop-applied finishes according to manufacturer's written instructions.

B. Replace exterior athletic equipment and finishes that cannot be cleaned and repaired, in a manner approved by Architect, before time of Substantial Completion.

2.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain playground equipment. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION 11 6823

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

SECTION 12 2413 - ROLLER WINDOW SHADES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Roller shades for manual operation and accessories.
2. Roller shades for motorized operation and accessories.
3. Shade fabric.

B. Related Requirements:

1. Section 06 1000 "Rough Carpentry" for wood blocking and grounds for mounting roller shades and accessories.
2. Section 07 9200 "Joint Sealants" for sealing the perimeters of installation accessories for light-blocking shades with a sealant.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.

B. Shop Drawings: Show fabrication and installation details for roller shades, including shade materials, their orientation to rollers, and their seam and batten locations.

1. Manually Operated Shades: include product data sheets for product specified materials, finishes, dimensions, profiles, mounting, accessories and trims.
2. Motor-Operated Shades: Include details of installation and diagrams for power, signal, and control wiring. Include low voltage coordination lighting controls.

C. Samples for Initial Selection: For each type and color of shade, trim and accessory material.

1. Include Samples of accessories involving color selection per manufacturer standards.

D. Product Schedule: For roller shades. Use same designations indicated on Drawings.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Certificates: For each type of shade material.

C. Product test reports.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1.4 CLOSEOUT SUBMITTALS

A. Operation and maintenance data.

1.5 QUALITY ASSURANCE

A. Product Listing Organization Qualifications: An organization recognized by OSHA as a Nationally Recognized Testing Laboratory (NRTL) and acceptable to authorities having jurisdiction.

B. Manufacturer Qualifications: Obtain roller shades system through one source from a single manufacturer with a minimum of ten years experience and minimum of five projects of similar scope and size in manufacturing products comparable to those specified in this section.

C. Installer for Roller Shade System - Qualifications: Installer trained and certified by the manufacturer with a minimum of ten years experience in installing products comparable to those specified in this section.

D. Fire-Test-Response Characteristics: Passes NFPA 701 small and large-scale vertical burn. Materials tested shall be identical to products proposed for use.

E. Shade cloth Anti-Microbial Characteristics: 'No Growth' per ASTM G 21 results for fungi ATCC9642, ATCC9644, ATCC9645.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver roller shades in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.

1.7 FIELD CONDITIONS

A. Environmental Limitations: Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain roller shades from single source from single manufacturer.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

2.2 MANUALLY OPERATED SHADES WITH SINGLE ROLLERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Draper Inc.
2. Hunter Douglas Contract.
3. MechoShade Systems, Inc.
4. Open Light Shades.

B. Roller Shade (RS-1):

1. Chain-and-Clutch Operating Mechanisms: With continuous-loop bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted and lubricated.
   a. Bead Chains: Stainless steel.
      1) Loop Length: Full length of roller shade or as required for accessibility by user.
      2) Limit Stops: Provide upper and lower ball stops.
      3) Chain-Retainer Type: Clip, jamb mount.

2. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shade indicated without deflection.
   a. Roller Drive-End Location: As directed by Architect.
   b. Direction of Shade Roll: Regular, from back (exterior face) of roller.

3. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location and conditions indicated.
4. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers into a multiband shade that is operated by one roller drive-end assembly.
   a. Shade Bottom (Hem) Bar: Steel or extruded aluminum.
      1) Type: Enclosed in sealed pocket of shadeband material.

5. Front Fascia: Aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners.
   a. Shape: L-shaped.
   b. Height: Manufacturer's standard height required to conceal roller and shadeband assembly when shade is fully open, but not less than 4 inches.
   c. Endcap Covers: To cover exposed endcaps.

2.3 MANUALLY OPERATED SHADES WITH DOUBLE ROLLERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Draper Inc.
2. Hunter Douglas Contract.
3. MechoShade Systems, Inc.
4. Open Light Shades.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

2.4 MOTOR-OPERATED, DOUBLE-ROLLER SHADES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Draper Inc.
2. Hunter Douglas Contract.
3. MechoShade Systems, Inc.
4. Open Light Shades.

B. Roller Shade (RS-2):

1. Motorized Operating System: Provide factory-assembled, shade-operator system of size and capacity and with features, characteristics, and accessories suitable for conditions indicated. Coordinate operator wiring requirements and electrical characteristics with building electrical system.
   a. Electrical Components: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
   b. Electric Motor: Manufacturer's standard tubular, enclosed in roller.
      1) Electrical Characteristics: 110-V ac.
      2) Maximum Total Shade Width: As required to operate roller shades indicated.
      3) Maximum Shade Drop: As required to operate roller shades indicated.
      4) Maximum Weight Capacity: As required to operate roller shades indicated.
   c. Remote Control: Provide the following for remote-control activation of shades:
      1) Provide low voltage wiring controls integrated with lighting control system.
   d. Individual Switch Control Station: Momentary-contact, low voltage control panel in room.
   e. Switch Positions: Three.

2. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shades indicated without deflection. Provide with permanently lubricated drive-end assemblies and idle-end assemblies designed to facilitate removal of shades for service.
   a. Roller Drive-End Location: As indicated on Drawings.
   b. Direction of Shade Roll: Regular, from back (exterior face) of roller.

3. Mounting Hardware: Brackets or endcaps, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location and conditions indicated.
4. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers that are operated by one roller drive-end assembly.
5. Front Fascia: Aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners.
6. Shapes and heights of fasciae and headbox vary among manufacturers.
7. Shape: L-shaped.
8. Height: Manufacturer's standard height required to conceal roller and shade assembly when shade is fully open.

2.5 SHADE MATERIALS

A. Shade Material Flame-Resistance Rating: Comply with NFPA 701. Testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

B. Light-Filtering Fabric: Woven fabric, stain and fade resistant.

1. Source: Roller shade manufacturer.
2. Type: Woven PVC-coated fiberglass and PVC-coated polyester.
3. Weave: Basketweave.
4. Roll Width:As indicated on drawings.
5. Openness Factor: 3 percent.
6. Color: As selected by Architect from manufacturer's full range.
7. Hem Shade Bottom (hem) Bar: Steel or Extruded Aluminum.
    a. Type: Enclosed in sealed pocket of shade band material

C. Light-Blocking Fabric (Blackout): Opaque fabric, stain and fade resistant.

1. Source: Roller shade manufacturer.
2. Type: Fiberglass with acrylic backing.
3. Roll Width: As indicated on drawings.
4. Color: As selected by Architect from manufacturer's full range.
5. Hem Shade Bottom (hem) Bar: Steel or Extruded Aluminum.
    a. Type: Enclosed in sealed pocket of shade band material

2.6 ROLLER SHADE FABRICATION

A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1

B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F:

1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade is installed less 1/4 inch per side or 1/2-inch total, plus or minus 1/8 inch. Length equal to head-to-sill or -floor dimension of opening in which shade is installed less 1/4 inch, plus or minus 1/8 inch.
2. Outside of Jamb Installation: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.

C. Shade Fabrication: Fabricate shade without battens or seams to extent possible, except as follows:

1. Vertical Shades: Where width-to-length ratio of shade is equal to or greater than 1:4, provide battens and seams at uniform spacings along shade length to ensure shade tracking and alignment through its full range of movement without distortion of the material.
2. Railroaded Materials: Railroad material where material roll width is less than the required width of shade and where indicated. Provide battens and seams as required by railroaded material to produce shade with full roll-width panel(s) plus, if required, one partial roll-width panel located at top of shade.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

PART 3 - EXECUTION

3.1 ROLLER SHADE INSTALLATION

A. Examination: Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, locations of connections to building electrical system, and other conditions affecting performance of the Work.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

B. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.

1. Opaque Shade: Located so shade is not closer than 2 inches to interior face of glass. Allow clearances for window operation hardware.

C. Electrical Connections: Connect motor-operated roller shades to building electrical system.

D. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

E. Clean roller shade surfaces, after installation, according to manufacturer's written instructions.

F. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

END OF SECTION 12 2413

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

SECTION 12 3216 - MANUFACTURED PLASTIC-LAMINATE-FACED CASEWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes plastic-laminate-faced cabinets of stock design.

B. Related Requirements:

1. Section 06 1000 "Rough Carpentry" for wood blocking for anchoring casework.
2. Section 06 4116 "Plastic-Laminate-Faced Architectural Cabinets" for custom-built cabinets and desks.
3. Section 09 2216 "Non-Structural Metal Framing" for reinforcements in metal-framed partitions for anchoring casework.
4. Section 09 6513 "Resilient Base and Accessories" for resilient base applied to plastic-laminate-faced casework.
5. Section 12 3623 "Plastic-Laminate-Clad Countertops."
6. Section 12 3661.16 "Solid Surfacing Countertops."

1.3 DEFINITIONS

A. Definitions in the AWI's, AWMAC's, and WI's "Architectural Woodwork Standards" apply to the work of this Section.

1.4 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that casework can be supported and installed as indicated.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show fabrication details, including types and locations of hardware. Show installation details, including field joints and filler panels. Indicate manufacturer's catalog numbers for casework.

C. Samples for Verification: 8-by-10-inch Samples for each type of finish.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

C. Sample Warranty: For special warranty.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer for installation of units required for this Project.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver casework only after painting, utility roughing-in, and similar operations that could damage, soil, or deteriorate casework have been completed in installation areas. If casework must be stored in other than installation areas, store only in areas where environmental conditions meet requirements specified in "Project Conditions" Article.

B. Keep finished surfaces covered with polyethylene film or other protective covering during handling and installation.

1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install casework until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period. Maintain temperature and relative humidity during the remainder of the construction period in range recommended for Project location by the AWI's, AWMAC's, and WI's "Architectural Woodwork Standards."

B. Established Dimensions: Where casework is indicated to fit to other construction, establish dimensions for areas where woodwork is to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

C. Locate concealed framing, blocking, and reinforcements that support casework by field measurements before being enclosed, and indicate measurements on Shop Drawings.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of casework that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
    a. Delamination of components or other failures of glue bond.
    b. Warping of components.
    c. Failure of operating hardware.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Case Systems.
2. Stevens Industries, Inc.
3. TMI Systems Design Corporation.

B. Source Limitations: Obtain plastic-laminate-faced cabinets from single manufacturer.

2.2 CASEWORK, GENERAL

A. Quality Standard: Unless otherwise indicated, comply with the AWI's, AWMAC's, and WI's "Architectural Woodwork Standards" for grades of casework indicated for construction, finishes, installation, and other requirements.

1. Grade: Premium.
2. Provide labels or certificates from AWI certification program indicating that casework complies with requirements of grades specified.

2.3 CASEWORK

A. Design: Flush overlay.

1. Flush overlay.

B. Grain Direction for Wood Grain Plastic Laminate:

1. Vertical on both doors and drawer fronts, with continuous vertical matching.
2. Vertical on end panels.
3. Vertical on knee-space panels.
4. Vertical on aprons.

C. Exposed Materials:

1. Plastic Laminate: Grade VGS.
   a. Colors and Patterns: Match Architect's sample. Refer to Material Selection Schedule on drawings.

2. Unless otherwise indicated, provide specified edgebanding on all exposed edges.

D. Semiexposed Materials:

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1. Thermoset Decorative Panels: Provide thermoset decorative panels for semiexposed surfaces unless otherwise indicated.
   a. Provide plastic laminate of same grade as exposed surfaces for interior faces of doors and drawer fronts and other locations where opposite side of component is exposed.

E. Concealed Materials:

1. Solid Wood: Any hardwood or softwood species, with no defects affecting strength or utility.
2. Plywood: Hardwood plywood.
3. Plastic Laminate: Grade BKL.
4. Particleboard.
5. MDF.

2.4 MATERIALS

A. Maximum Moisture Content for Lumber: 7 percent for hardwood and 12 percent for softwood.

B. Hardwood Plywood: HPVA HP-1, particleboard core except where veneer core is indicated..

C. Softwood Plywood: DOC PS 1.

D. Particleboard: ANSI A208.1, Grade M-2, minimum 47 lb/cu.ft. density

E. MDF: ANSI A208.2, Grade 130

F. Plastic Laminate: High-pressure decorative laminate complying with NEMA LD 3.

1. Manufacturers: Subject to compliance with requirements, provide products as indicated in the Material Selection Schedule.

G. Edgebanding for Plastic Laminate: Rigid PVC extrusions, 3 mm thick at doors and drawer fronts.

H. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10.

I. Edgebanding for Thermoset Decorative Panels: PVC or polyester edgebanding matching thermoset decorative panels.

J. Acrylic for Glazed Doors: Clear float acrylic complying with ASTM D 4802-10, Category B-2, Finish 1; not less than 4.0 mm thick.

2.5 COLORS AND FINISHES

A. Thermoset Decorative Panel Colors, Patterns, and Finishes: As selected by Architect from casework manufacturer's full range.

B. Plastic-Laminate Colors, Patterns, and Finishes: As indicated by manufacturer's designations and listed in the Material Selection Color.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

C. PVC Edgebanding Color: As indicated in Material Selection Schedule where applicable or as selected from casework manufacturer's full range where a selection is not provided.

2.6 FABRICATION

A. General: Shop-cut openings for hardware, appliances, plumbing fixtures, and similar items to greatest extent possible. Locate openings accurately using templates or rough in diagrams. Smooth edges of cutouts and, where located in countertops and similar exposures, seal edges with a water-resistant coating. Thickness indicated are for core material and do not include laminate in thickness.

1. Construction: Join members together with glue-and-dowel construction or Mod-Eez mechanical fasteners.

B. Plastic-Laminate-Faced Cabinet Construction: As required by referenced quality standard, but not less than the following:

1. Bottoms and Ends of Cabinets, and Tops of Tall Cabinets: 3/4-inch particleboard.
2. Bottoms and Tops of Wall Cabinets: 1-inch particleboard, plastic-laminate faced on exposed surfaces, thermoset decorative panels on semiexposed surfaces.
3. Shelves: 3/4-inch- thick particleboard. Comply with deflection standards of the National Particleboard Association.
4. Exposed Backs of Cabinets: 3/4-inch- thick particleboard.
5. Concealed Backs of Cabinets: 1/2-inch- thick particleboard dadoed into sides, bottoms, and tops.
6. Base Cabinet Subtops: 3/4-inch melamine-faced particleboard. Spreaders are not acceptable.
7. Structural Cabinet Support: Separate and continuous 4-inch high exterior grade plywood ladder-type platform design leveled and floor-mounted prior to cabinet body placement. Provide 2-1/2-inch recess at front of cabinet and 3/8-inch recess at exposed sides. No cabinet sides exposed to floor acceptable.
8. Interior Structure: For Cabinets 36 inches wide and wider, provide one of the following:
   a. Mechanically fastened and removable vertical divider to reduce horizontal shelf deflection.
   b. Fixed Intermediate Support: All shelves, tops, and bottoms, shall be 1-inch thick with fixed intermediate support.
9. Wall cabinets shall have minimum clear inside depth of 12 inches unless indicated otherwise.
10. Door and Drawer Front Rail: Minimum 3/4-by-6-inch by full horizontal width of cabinet body rails immediately behind joints between any combination of doors or drawers.
11. Drawer Fronts: 3/4-inch particleboard.
12. Drawer Sides and Backs: 1/2-inch particleboard or MDF, with glued dovetail or multiple-dowel joints.
13. Drawer Bottoms: One of the following:
   a. 1/2-inch thermoset decorative panels glued and dadoed into front, back, and sides of drawers.
   b. 1/2-inch thermoset decorative panels fastened to drawer box and supported by "L" shaped bottom corner-mount drawer slides. Fasten slides to drawer with 1-1/4-inch long screws through drawer bottoms and into sides.
14. Drawer Bottoms: 1/4-inch particleboard or MDF glued and dadoed into front, back, and sides of drawers.Use 1/2-inch material for drawers more than 24 inches wide.
15. Doors: 3/4 inch thick, with particleboard cores.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

C. Filler Strips: Provide as needed to close spaces between cabinets and walls, ceilings, and indicated equipment. Fabricate from same material and with same finish as cabinets.

2.7 CASEWORK HARDWARE AND ACCESSORIES

A. Hardware, General: Unless otherwise indicated, provide manufacturer's standard satin-finish, commercial-quality, heavy-duty hardware.

1. Use threaded metal or plastic inserts with machine screws for fastening to particleboard except where hardware is through-bolted from back side.

B. Butt Hinges: Stainless-steel or chrome-plated brass, semiconcealed, five-knuckle hinges complying with BHMA A156.9, Grade 1, with antifriction bearings and rounded tips. Provide two hinges for doors less than 48 inches high, and provide three hinges for doors more than 48 inches high.

C. Pulls: Solid stainless-steel or chrome-plated brass wire pulls, fastened from back with two screws. For sliding doors, provide recessed stainless-steel or chrome-plated flush pulls. Provide two pulls for drawers more than 24 inches wide.

D. Door Catches: Powder-coated, nylon-roller spring catch or dual, self-aligning, permanent magnet catch. Provide two catches on doors more than 48 inches high.

E. Drawer Slides: BHMA A156.9, Type B05091.

1. Standard Duty (Grades 1, 2, and 3): Side mounted; full-extension type; epoxy-coated steel with polymer rollers.
2. Heavy Duty (Grade 1HD-100 and Grade 1HD-200): Side mounted; full-extension type; zinc-plated, steel ball-bearing slides.
3. Box Drawer Slides: Grade 1HD-100, for drawers not more than 6 inches high and 24 inches wide.
4. File Drawer Slides: Grade 1HD-200, for drawers more than 6 inches high or 24 inches wide. Provide 150 lb (45 kg) load capacity.
5. Trash Bin Slides: As indicated on Drawings.
6. Paper Storage Drawers: 3-part progressive opening slide, Grade 1HD-100.

F. Drawer and Hinged Door Locks: Cylindrical (cam) type, five-pin tumbler, brass with chrome-plated finish, and complying with BHMA A156.11, Grade 1.

1. Provide a minimum of two keys per room and six master keys.
2. Provide locks where indicated.
3. Key all locks within a room alike and each room differently.

G. Sliding-Door Hardware Sets: Manufacturer's standard, to suit type and size of sliding-door units.

H. Adjustable Shelf Supports: Single-pin metal shelf rests complying with BHMA A156.9, Type B04013.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances, location of framing and reinforcements, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 CASEWORK INSTALLATION

A. Grade: Install cabinets to comply with same grade as item to be installed.

B. Install casework level, plumb, and true; shim as required, using concealed shims. Where casework abuts other finished work, apply filler strips and scribe for accurate fit, with fasteners concealed where practical.

C. Base Cabinets: Set cabinets straight, level, and plumb. Adjust subtops within 1/16 inch of a single plane. Align similar adjoining doors and drawers to a tolerance of 1/16 inch. Bolt adjacent cabinets together with joints flush, tight, and uniform.

D. Wall Cabinets: Hang cabinets straight, level, and plumb. Adjust fronts and bottoms within 1/16 inch of a single plane. Fasten to hanging strips, masonry, framing, wood blocking, or reinforcements in walls and partitions. Align similar adjoining doors to a tolerance of 1/16 inch.

E. Fasten cabinets to adjacent cabinets and to masonry, framing, wood blocking, or reinforcements in walls and partitions to comply with the AWI's, AWMAC's, and WI's "Architectural Woodwork Standards."

F. Install hardware uniformly and precisely. Set hinges snug and flat in mortises unless otherwise indicated. Adjust and align hardware so moving parts operate freely and contact points meet accurately. Allow for final adjustment after installation.

G. Adjust casework and hardware so doors and drawers operate smoothly without warp or bind. Lubricate operating hardware as recommended by manufacturer.

3.3 CLEANING

A. Repair or remove and replace defective work as directed on completion of installation.

B. Clean finished surfaces, touch up as required, and remove or refinish damaged or soiled areas to match original factory finish, as approved by Architect.

END OF SECTION 12 3216

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

SECTION 23 5216 - CONDENSING BOILERS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes packaged, factory-fabricated and -assembled, gas-fired, water-tube condensing boilers, trim, and accessories for generating hot water.

1.2 SUBMITTALS

A. Product Data: Include performance data, operating characteristics, furnished specialties, and accessories.

B. Shop Drawings: For boilers, boiler trim, and accessories. Include plans, elevations, sections, details, and attachments to other work.

1. Wiring Diagrams: Power, signal, and control wiring.

C. Source quality-control test reports.

D. Field quality-control test reports.

E. Operation and Maintenance Data: For boilers to include in emergency, operation, and maintenance manuals.

F. Warranty: Special warranty specified in this Section.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. ASME Compliance:

1. Fabricate and label boilers to comply with ASME Boiler and Pressure Vessel Code.
2. Install, maintain, operate, and test controls and safety devices to comply with CSD-1.

C. ASHRAE/IESNA 90.1 Compliance: Boilers shall have minimum efficiency according to "Gas and Oil Fired Boilers - Minimum Efficiency Requirements."

1.4 COORDINATION

A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 03.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1.5 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of boilers that fail in materials or workmanship within specified warranty period.

1. Warranty Period for Water-Jacketed Condensing Boilers:
   a. Heat Exchanger Damaged by Thermal Stress and Corrosion: five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:

1. Fulton Boiler Works, Inc.
2. AERCO International.
3. Laars Heating Systems; a division of Waterpik Technologies, Inc.
4. Lochinvar Corporation.
5. Patterson-Kelly.
6. Viessmann Manufacturing Co. (US) Inc.

2.2 HEATING WATER CONDENSING BOILERS

A. Description: Factory-fabricated, -assembled, and -tested, condensing boiler with heat exchanger sealed pressure tight, built on a steel base; including insulated jacket; flue-gas vent; combustion-air intake connections; water supply, return, and condensate drain connections; and controls.

B. Gas Train: Control devices and control sequence shall comply with requirements in ASME CSD-1.

C. Standard Features:

1. 93% AFUE Efficiency
2. Modulating Burner with 5:1 Turndown
3. ENERGY STAR® Qualified
4. ASME Stainless Steel Heat Exchanger
5. Direct Vent Sealed Combustion
6. PVC Venting up to 100 Feet
7. Digital Operating Control with LCD Display
8. Internal Cascading Sequencer
9. 30 psi Relief Valve
10. Automatic Reset High Limit
11. Password Security
12. Direct Spark Ignition
13. Low NOx Operation
14. Low Gas Pressure Operation
15. Zero Clearance to Combustibles
16. Easy Access Terminal Strip

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

17. Inlet & Outlet Temperature Sensors
18. Product Service Indicator
19. Outdoor Reset
20. Pump Relay w/ Freeze Protection
21. Low Water Flow Indication
22. Adjustable Leveling Legs
23. Sidewall Vent Terminals
24. On/Off Switch
25. 0-10 Vdc Input Control
26. Contacts on Any Failure

D. Accessories:

1. Adjustable High Limit w/Manual Reset
2. Alarm Bell on Any Failure
3. Concentric Vent Kit (3½)
4. Flow Switch
5. Low Water Cut-off w/ Manual Reset and Test
6. "SMART SYSTEM" Multiple Boiler Internal Cascading Sequencer

    a. Lead Lag Operation
    b. Sequence up to 8 Boilers
    c. Equal Run time of Boilers

7. System Temperature Sensor

2.3 TRIM

A. Aquastat Controllers: Operating, firing rate, and high limit.

B. Safety Relief Valve: ASME rated.

C. Pressure and Temperature Gage: Minimum 3-1/2-inch- diameter, combination water-pressure and -temperature gage. Gages shall have operating-pressure and -temperature ranges so normal operating range is about 50 percent of full range.

D. Boiler Air Vent: Automatic.

E. Drain Valve: Minimum NPS 3/4 hose-end gate valve.

F. Circulation Pump: Non-overloading, in-line pump with split-capacitor motor having thermal-overload protection and lubricated bearings; designed to operate at specified boiler pressures and temperatures.

2.4 TRIM

A. Safety Relief Valve:

1. Size and Capacity: As required for equipment according to ASME Boiler and Pressure Vessel Code.
2. Description: Fully enclosed steel spring with adjustable pressure range and positive shutoff; factory set and sealed.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

a. Drip-Pan Elbow: Cast iron and having threaded inlet and outlet with threads complying with ASME B1.20.1.

B. Pressure Gage: Minimum 3-1/2-inch diameter. Gage shall have normal operating pressure about 50 percent of full range.

C. Water Column: Minimum 12-inch glass gage with shutoff cocks.

D. Drain Valves: Minimum NPS 3/4 or nozzle size with hose-end connection.

E. Blowdown Valves: Factory-installed bottom and surface, slow-acting blowdown valves same size as boiler nozzle. Blowdown valves shall be combination of slow and quick acting as required by ANSI B31.1.

F. Stop Valves: Boiler inlets and outlets, except safety relief valves or preheater inlet and outlet, shall be equipped with stop valve in an accessible location as near as practical to boiler nozzle and same size or larger than nozzle. Valves larger than NPS 2 shall have rising stem.

G. Stop-Check Valves: Factory-installed, stop-check valve and stop valve at boiler outlet with free-blow drain valve factory installed between the two valves and visible when operating stop-check valve.

2.5 CONTROLS

A. Refer to Division 23 Section "Instrumentation and Control for HVAC."

B. Boiler operating controls shall include the following devices and features:

1. Control transformer.
2. Set-Point Adjust: Set points shall be adjustable.
3. Operating Pressure Control: Factory wired and mounted to cycle burner.
4. Low-Water Cutoff and Pump Control: Cycle feedwater pump(s) for makeup water control.
5. Sequence of Operation: Electric, factory-fabricated and field-installed panel to control burner firing rate to maintain space temperature in response to thermostat with heat anticipator located in heated space.
6. Sequence of Operation: Electric, factory-fabricated and field-installed panel to control burner firing rate to maintain a constant steam pressure. Maintain pressure set point plus or minus 10 percent.

a. Include automatic, alternating-firing sequence for multiple boilers to ensure maximum system efficiency throughout the load range and to provide equal runtime for boilers.

b. Include capability to remove boiler or boilers from system without effecting remaining boiler system operations

C. Burner Operating Controls: To maintain safe operating conditions, burner safety controls limit burner operation.

1. High Cutoff: Manual reset stops burner if operating conditions rise above maximum boiler design temperature.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

2. Low-Water Cutoff Switch: Electronic probe shall prevent burner operation on low water. Cutoff switch shall be automatic-reset type.
3. Blocked Inlet Safety Switch: Manual-reset pressure switch field mounted on boiler combustion-air inlet.
4. Audible Alarm: Factory mounted on control panel with silence switch; shall sound alarm for above conditions.

D. Building Automation System Interface: Factory install hardware and software to enable building automation system to monitor, control, and display boiler status and alarms.

1. Hardwired Points:

a. Monitoring: On/off status, common trouble alarm.
b. Control: On/off operation, hot water supply temperature set-point adjustment.

2. A communication interface with building automation system shall enable building automation system operator to remotely control and monitor the boiler from an operator workstation. Control features available, and monitoring points displayed, locally at boiler control panel shall be available through building automation system.

2.6 ELECTRICAL POWER

A. Controllers, Electrical Devices, and Wiring: Electrical devices and connections are specified in Division 26 Sections.

B. Single-Point Field Power Connection: Factory-installed and -wired switches, motor controllers, transformers, and other electrical devices necessary shall provide a single-point field power connection to boiler.

1. House in NEMA 250, Type 1 enclosure.
2. Wiring shall be numbered and color-coded to match wiring diagram.
3. Install factory wiring outside of an enclosure in a metal raceway.
4. Provide each motor with overcurrent protection.

2.7 VENTING KITS

A. Kit: Complete system, ASTM A 959, Type 29-4C stainless steel, pipe, vent terminal, thimble, indoor plate, vent adapter, condensate trap and dilution tank, and sealant.

B. Combustion-Air Intake: Complete system, stainless steel, pipe, vent terminal with screen, inlet air coupling, and sealant.

2.8 SOURCE QUALITY CONTROL

A. Burner and Hydrostatic Test: Factory adjust burner to eliminate excess oxygen, carbon dioxide, oxides of nitrogen emissions, and carbon monoxide in flue gas and to achieve combustion efficiency; perform hydrostatic test.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

B. Test and inspect factory-assembled boilers, before shipping, according to ASME Boiler and Pressure Vessel Code.

C. Allow Owner access to source quality-control testing of boilers. Notify Architect 14 days in advance of testing.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Before boiler installation, examine roughing-in for concrete equipment bases, anchor-bolt sizes and locations, and piping and electrical connections to verify actual locations, sizes, and other conditions affecting boiler performance, maintenance, and operations.

1. Final boiler locations indicated on Drawings are approximate. Determine exact locations before roughing-in for piping and electrical connections.

B. Examine mechanical spaces for suitable conditions where boilers will be installed.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 BOILER INSTALLATION

A. Install boilers level on concrete base. Concrete base is specified in Division 23 Section "Common Work Results for HVAC," and concrete materials and installation requirements are specified in Division 03.

B. Install gas-fired boilers according to International Fuel Gas Code and NFPA 54.

C. Assemble and install boiler trim.

D. Install electrical devices furnished with boiler but not specified to be factory mounted.

E. Install control wiring to field-mounted electrical devices.

3.3 CONNECTIONS

A. Piping installation requirements are specified in other Division 23 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to boiler to allow service and maintenance.

C. Install piping from equipment drain connection to nearest floor drain. Piping shall be at least full size of connection. Provide an isolation valve if required.

D. Connect piping to boilers, except safety relief valve connections, with flexible connectors of materials suitable for service. Flexible connectors and their installation are specified in Division 23 Section "Common Work Results for HVAC,"

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

E. Connect gas piping to boiler gas-train inlet with union. Piping shall be at least full size of gas train connection. Provide a reducer if required.

F. Connect hot-water piping to supply- and return-boiler tappings with shutoff valve and union or flange at each connection.

G. Connect steam and condensate piping to supply-, return-, and blowdown-boiler tappings with shutoff valve and union or flange at each connection.

H. Install piping from safety relief valves to nearest floor drain.

I. Install piping from safety valves to drip-pan elbow and to nearest floor drain.

J. Boiler Venting:

1. Install flue venting kit and combustion-air intake.

2. Connect full size to boiler connections. Comply with requirements in Division 23 Section "Breechings, Chimneys, and Stacks."

K. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."

L. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."

3.4 FIELD QUALITY CONTROL

A. Arrange with the Authority having jurisdiction for inspection and certification of boiler installation. Installer shall be responsible for any required fees.

B. Perform tests and inspections and prepare test reports.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

C. Tests and Inspections:

1. Perform installation and startup checks according to manufacturer's written instructions.
2. Leak Test: Hydrostatic test. Repair leaks and retest until no leaks exist.
3. Operational Test: Start units to confirm proper motor rotation and unit operation. Adjust air-fuel ratio and combustion.
4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

a. Check and adjust initial operating set points and high- and low-limit safety set points of fuel supply, water level and water temperature.
b. Set field-adjustable switches and circuit-breaker trip ranges as indicated.

D. Remove and replace malfunctioning units and retest as specified above.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

E. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project during other than normal occupancy hours for this purpose.

F. Performance Tests:

1. Engage a factory-authorized service representative to inspect component assemblies and equipment installations, including connections, and to conduct performance testing.
2. Boilers shall comply with performance requirements indicated, as determined by field performance tests. Adjust, modify, or replace equipment to comply.
3. Perform field performance tests to determine capacity and efficiency of boilers.

    a. Test for full capacity.
    b. Test for boiler efficiency at low fire 20, 40, 60, 80, 100, 80, 60, 40, and 20 percent of full capacity. Determine efficiency at each test point.

4. Repeat tests until results comply with requirements indicated.
5. Provide analysis equipment required to determine performance.
6. Provide temporary equipment and system modifications necessary to dissipate the heat produced during tests if building systems are not adequate.
7. Notify Architect in advance of test dates.
8. Document test results in a report and submit to Architect.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain boilers. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION 23 5216

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

SECTION 32 1216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Hot-mix asphalt paving.

B. Related Requirements:

1. Section 31 2000 "Earth Moving" for subgrade preparation, fill material, separation geotextiles, unbound-aggregate subbase and base courses, and aggregate pavement shoulders.
2. Section 32 1313 "Concrete Paving" for concrete pavement and for separate concrete curbs, gutters, and driveway aprons.
3. Section 32 1373 "Concrete Paving Joint Sealants" for joint sealants and fillers at pavement terminations.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review methods and procedures related to hot-mix asphalt paving including, but not limited to, the following:
   a. Review proposed sources of paving materials, including capabilities and location of plant that will manufacture hot-mix asphalt.
   b. Review requirements for protecting paving work, including restriction of traffic during installation period and for remainder of construction period.

1.3 ACTION SUBMITTALS

A. Product Data: Include technical data and tested physical and performance properties.

1. Joint sealant.

B. Hot-Mix Asphalt Designs:

1. Certification, by authorities having jurisdiction, of approval of each hot-mix asphalt design proposed for the Work.
2. For each hot-mix asphalt design proposed for the Work.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For paving-mix manufacturer.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

B. Material Certificates: Include statement that mixes containing recycled materials will perform equal to mixes produced from all new materials.

1. Aggregates.
2. Asphalt binder.
3. Tack coat.

C. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of state in which Project is located.

B. Testing Agency Qualifications: Qualified in accordance with ASTM D3666 for testing indicated.

C. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of Michigan DOT for asphalt paving work.

1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

1.6 FIELD CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:

1. Prime Coat: Minimum surface temperature of 60 deg F.
2. Tack Coat: Minimum surface temperature of 60 deg F.
3. Slurry Coat: Comply with weather limitations in ASTM D3910.

4. Asphalt Base Course : Minimum surface temperature of 40 deg F and rising at time of placement.
5. Asphalt Surface Course: Minimum surface temperature of 40 deg Fat time of placement.

PART 2 - PRODUCTS

2.1 AGGREGATES

A. General: Use materials and gradations that have performed satisfactorily in previous installations.

B. Coarse Aggregate: ASTM D692/D692M, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.

C. Fine Aggregate: ASTM D1073 or, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

1. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.

D. Mineral Filler: ASTM D242/D242M AASHTO M 17, rock or slag dust, hydraulic cement, or other inert material.

2.2 ASPHALT MATERIALS

A. Asphalt Binder: AASHTO M 320 binder designation PG 58-28 or PG 64-22.

B. Tack Coat: ASTM D977 emulsified asphalt, or ASTM D2397/D2397M cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.

C. Water: Potable.

2.3 MIXES

A. Hot-Mix Asphalt: Dense-graded, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction and complying with the following requirements:

1. Base Course: as shown on plans.
2. Binder Course: as shown on plans.
3. Surface Course: as shown on plans. as shown on plans..
4. Target air void 3.5%.

B. Emulsified-Asphalt Slurry: ASTM D3910, Type 2.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that subgrade is dry and in suitable condition to begin paving.

B. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protection: Provide protective materials, procedures, and worker training to prevent asphalt materials from spilling, coating, or building up on curbs, driveway aprons, manholes, and other surfaces adjacent to the Work.

B. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
2. Proof-roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.

3.3 SURFACE PREPARATION

A. Ensure that prepared subgrade has been proof-rolled and is ready to receive paving. Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces.

B. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd..

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.4 HOT-MIX ASPHALT PLACEMENT

A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.

1. Place hot-mix asphalt base course] in number of lifts and thicknesses indicated.
2. Place hot-mix asphalt surface course in single lift.
3. Spread mix at a minimum temperature of 250 deg F.
4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.

1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about 1 to 1-1/2 inches from strip to strip to ensure proper compaction of mix along longitudinal joints.
2. Complete a section of asphalt base course before placing asphalt surface course.

C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.5 JOINTS

A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.

1. Clean contact surfaces and apply tack coat to joints.
2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
3. Offset transverse joints, in successive courses, a minimum of 24 inches.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method in accordance with AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
6. Compact asphalt at joints to a density within 2 percent of specified course density.

3.6 COMPACTION

A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.

1. Complete compaction before mix temperature cools to 185 deg F.

B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.

C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:

1. Average Density, Marshall Test Method: 96 percent of reference laboratory density in accordance with ASTM D6927, but not less than 94 percent or greater than 100 percent.
2. Average Density, Rice Test Method: 92 percent of reference maximum theoretical density in accordance with ASTM D2041/D2041M, but not less than 90 percent or greater than 96 percent.

D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.

E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.

F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.

G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.7 INSTALLATION TOLERANCES

A. Pavement Thickness: Compact each course to produce thickness indicated within the following tolerances:

1. Base Course : Plus or minus 1/2 inch.
2. Surface Course: Plus 1/4 inch, no minus.

© 2026 Tower Pinkster Titus Associates - All Rights Reserved

B. Pavement Surface Smoothness: Compact each course to produce surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:

1. Base Course: 1/4 inch.
2. Surface Course: 1/8 inch.
3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.

3.8 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined in accordance with ASTM D3549/D3549M.

C. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.

D. Asphalt Traffic-Calming Devices: Finished height of traffic-calming devices above pavement will be measured for compliance with tolerances.

E. In-Place Density: Testing agency will take samples of uncompacted paving mixtures and compacted pavement in accordance with ASTM D979/D979M.

1. Reference maximum theoretical density will be determined by averaging results from four samples of hot-mix asphalt-paving mixture delivered daily to site, prepared in accordance with ASTM D2041/D2041M, and compacted in accordance with job-mix specifications.
2. In-place density of compacted pavement will be determined by testing core samples in accordance with ASTM D1188 or ASTM D2726/D2726M.
    a. One core sample will be taken for every 1000 sq. yd. or less of installed pavement, with no fewer than three cores taken.
    b. Field density of in-place compacted pavement may also be determined by nuclear method in accordance with ASTM D2950/D2950M and coordinated with ASTM D1188 or ASTM D2726/D2726M.

F. Replace and compact hot-mix asphalt where core tests were taken.

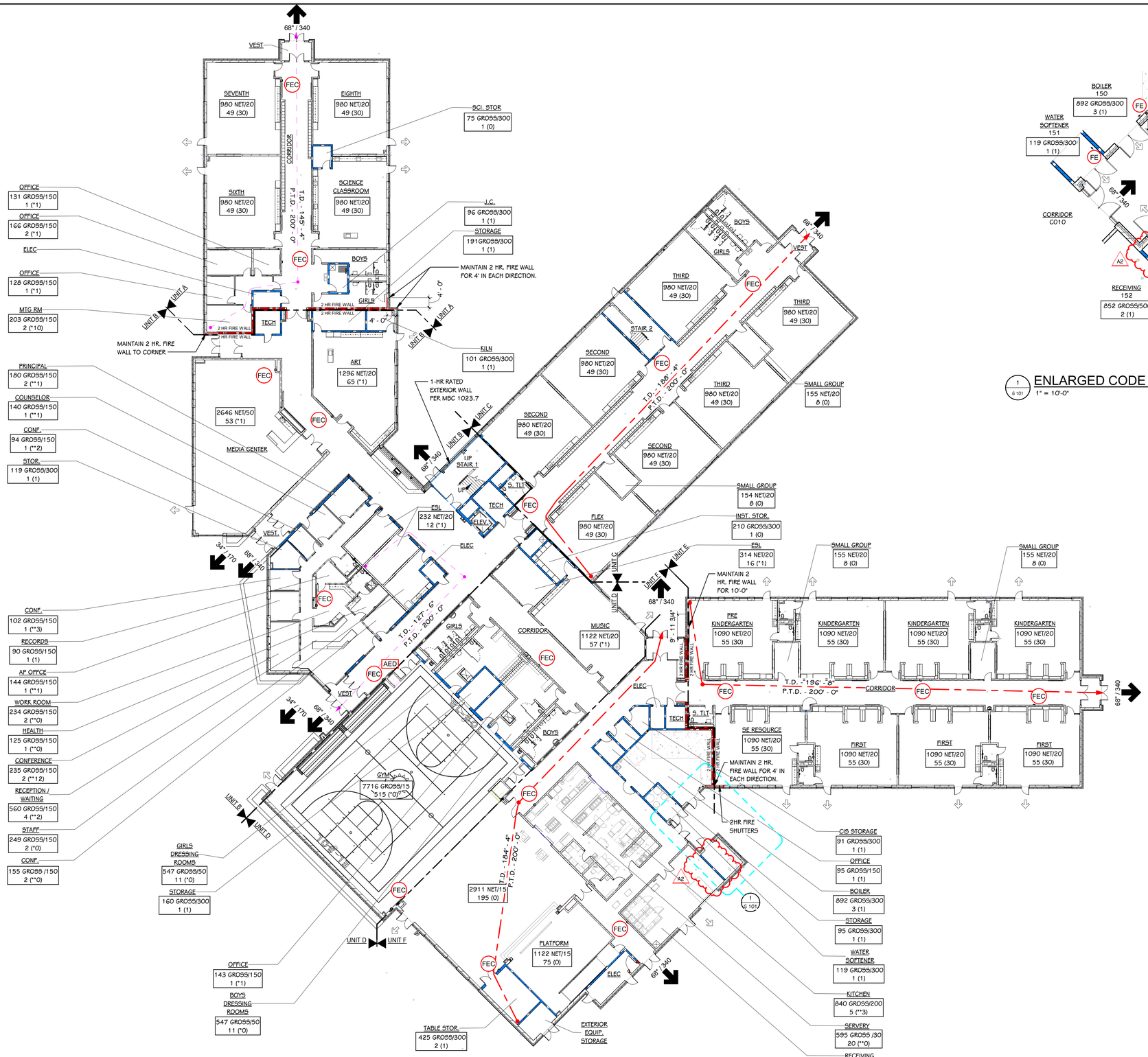
G. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.9 WASTE HANDLING

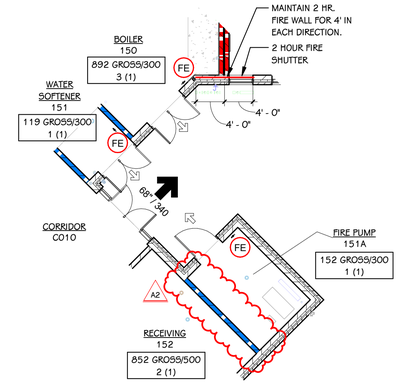
A. General: Handle asphalt-paving waste in accordance with approved waste management plan required in Section 01 7419 "Construction Waste Management and Disposal."

END OF SECTION 32 1216

© 2026 Tower Pinkster Titus Associates - All Rights Reserved



FIRST FLOOR CODE COMPLIANCE PLAN
1" = 20'-0"

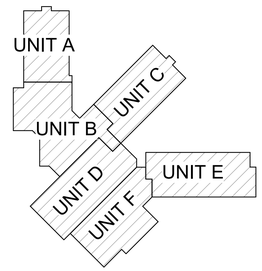


1 G 101 ENLARGED CODE COMPLIANCE PLAN - PUMP ROOM
1" = 10'-0"

ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026
ISSUED FOR	DATE

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR CODE COMPLIANCE PLAN

DATE
APRIL 24, 2026

SHEET NUMBER
G 101
23-622.000

ZONING REQUIREMENTS

ZONING
North Property Line: R-2 Single And Two Family Residential
East Property Line: R-2 Single And Two Family Residential
South Property Line: R-2 Single And Two Family Residential and Rm-2 Multiple Family / Mixed Use
West Property Line: R-2 Single And Two Family Residential

PROPOSED USE
Elementary and Middle School, Specalized Curriculum

PARKING
Baker Drive Parking Lot
Total Parking Provided: 111 Spaces
(105 Parking Lot + 2 Standard Accessible + 4 Van Accessible)
Accessible Spaces Required: 5
Accessible Spaces Provided: 6

Craft Avenue Parking Lot
Total Parking Provided: 60 Spaces
(57 Parking Lot + 2 Standard Accessible + 1 Van Accessible)
Accessible Spaces Required: 3
Accessible Spaces Provided: 3

Total Parking Provided: 171 Spaces
(162 Parking Lot + 9 Barrier Free)

All Accessible Parking Spaces Designed Per Most Recent Version Of Accessibility Standards Issued Under The Americans With Disabilities Act (ADA).

Typical Parking Space Dimension: 9' X 18.5'

IMPERVIOUS COVERAGE
Pre-Development Impervious Coverage: 2.2%
Post-Development Impervious Coverage: 52.1%

Net Acreage: 12.1 Acres

PARKING CALCULATIONS

USE	PARKING SPACES REQUIRED	QTY	PARKING SPACES REQUIRED
Elementary and Middle School, Specalized Curriculum	1 space per 1 employee	50 employees	50
Assembly / Theater	1 space per 4.25 students	500 students	118

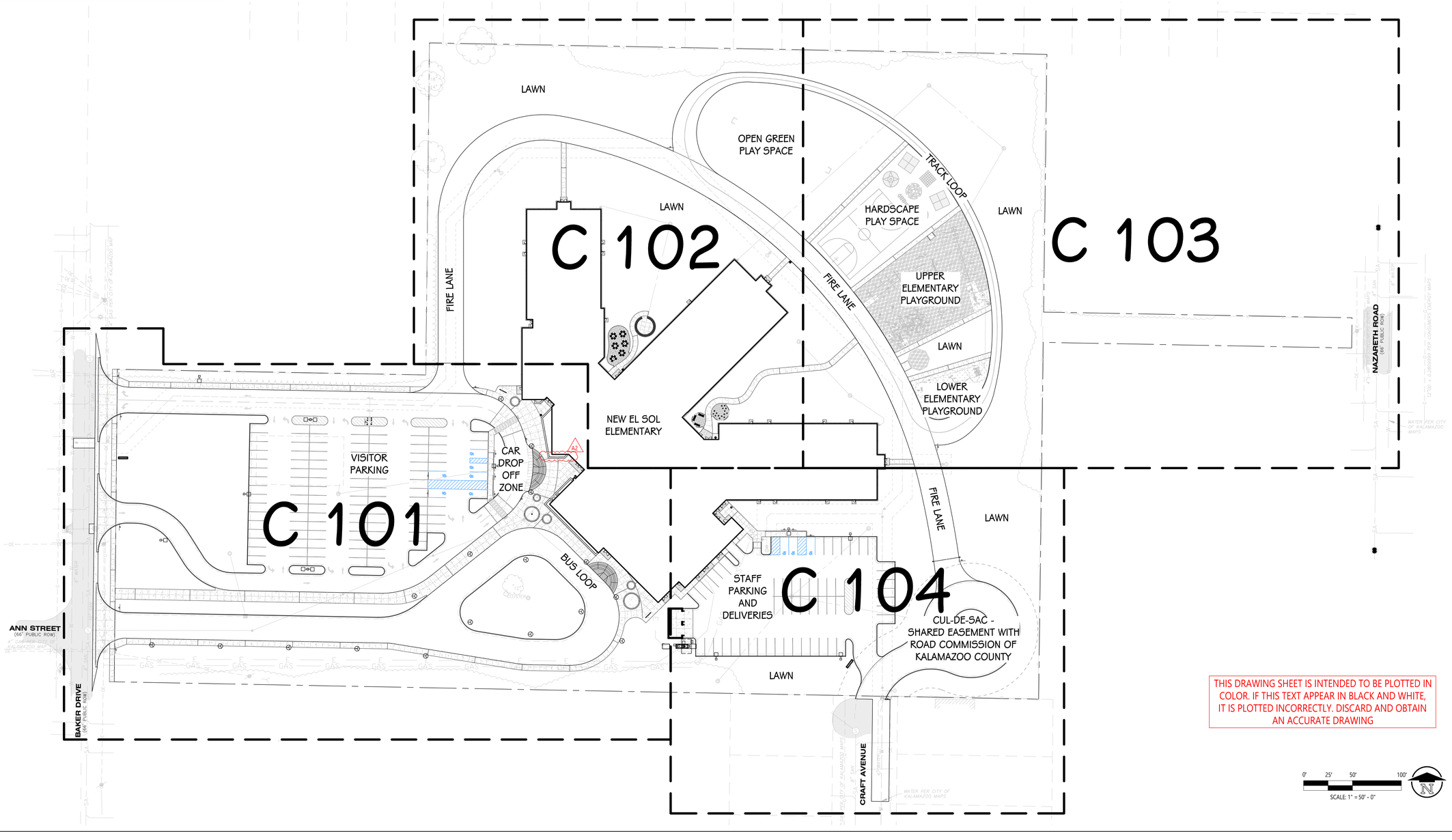
Total Parking Spaces Required: 168
Total Parking Spaces Provided: 171

NOTES - SITE - GENERAL

1. THE SURVEY FOR THIS PROJECT HAS BEEN REFORMATTED FOR USE IN AND FOR PREPARATION OF THESE DOCUMENTS. CONTRACTORS SHALL OBTAIN OFFICIAL SIGNED COPY AND BECOME FAMILIAR WITH IT, EXISTING CONDITIONS, AND SITE CONTEXT PRIOR TO CONSTRUCTION. SEE PROJECT MANUAL FOR SURVEY COMPANY CONTACT INFORMATION. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR RESOLUTION IMMEDIATELY. THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR INCONSISTENCIES ASSOCIATED WITH PREPARATION OR DOCUMENTATION OF THE SURVEY.
2. THE GEOTECHNICAL INVESTIGATION AND REPORT FOR THIS PROJECT HAS BEEN REFERENCED DURING PREPARATION OF THESE DOCUMENTS. CONTRACTORS SHALL OBTAIN OFFICIAL SIGNED COPY AND BECOME FAMILIAR WITH IT PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR RESOLUTION IMMEDIATELY. THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR INCONSISTENCIES WITH PREPARATION OR DOCUMENTATION OF THE REPORT.
3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING MEANS AND METHODS FOR CONSTRUCTION. THESE DRAWINGS MAY INDICATE A LIMITS OF PROPOSED IMPROVEMENTS, LIMITS OF SITE DEMOLITIONS, ETC., FOR DELINEATION OF EXPECTED EXTENTS OF DISTURBANCE. HOWEVER, FINAL IMPACT SHALL BE DETERMINED IN THE FIELD. SHOULD LIMITS OF DISTURBANCE EXCEED BOUNDARIES DEFINED IN DRAWINGS, THE CONTRACTOR SHALL CONTACT THE THE LANDSCAPE ARCHITECT IMMEDIATELY FOR RESOLUTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL WORK DISTURBED BY THE CONSTRUCTION OUTSIDE OF LIMIT LINES DEFINED ON DRAWINGS OR THOUGH HIS/HER MEANS AND METHODS TO CONDITION BETTER THAN OR EQUAL TO THE EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS, REQUIREMENTS, ORDINANCES, AND CODES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS FOR WORK INCLUDING BUT NOT LIMITED TO THOSE REQUIRED FOR WORK IN ROW AND ON ANY UTILITY CONNECTIONS OR ABANDONMENT PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL TRAFFIC CONTROL INCLUDING SIGNAGE, BARRIERS, FLAG PERSONNEL AND ANY ADDITIONAL REQUIREMENTS OF THE LOCAL ROAD COMMISSION OR MUNICIPALITY. CONTRACTOR SHALL FOLLOW MOST RECENT EDITION OF MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

NOTES - SITE - LAYOUT

1. LAYOUT AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. BRING DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
2. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE.
3. WHERE DIMENSIONS ARE CALLED AS "EQUAL" SPACE REFERENCE ITEMS EQUALLY, MEASURED TO THEIR CENTER LINES.
4. MEASUREMENTS ARE TO BACK OF CURB, EDGE OR PAVEMENT, FACE OF BUILDING, WALL OR THE FIXED SITE IMPROVEMENT UNLESS OTHERWISE NOTED. DIMENSIONS TO CENTER LINES ARE INDICATED.
5. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
6. INSTALL INTERSECTING ELEMENTS AT 90 DEGREE ANGLES TO EACH OTHER UNLESS OTHERWISE NOTED.
7. PROVIDE EXPANSION JOINTS WHERE CONCRETE FLATWORK MEETS VERTICAL STRUCTURES SUCH AS WELLS, CURBS, STEPS AND BUILDING ELEMENTS AND AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
8. ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR RESOLUTION IMMEDIATELY.
9. ALL TRAFFIC SIGNAGE MUST COMPLY WITH MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES STANDARD SHAPES AND SIZES.
10. ALL BARRIER FREE PARKING SIGNAGE SHALL BE PER MOST RECENT VERSION OF ACCESSIBILITY STANDARDS ISSUED UNDER THE AMERICANS WITH DISABILITIES ACT (ADA).



THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEAR IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENUM 02	05-18-2026
ADDENUM 01	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

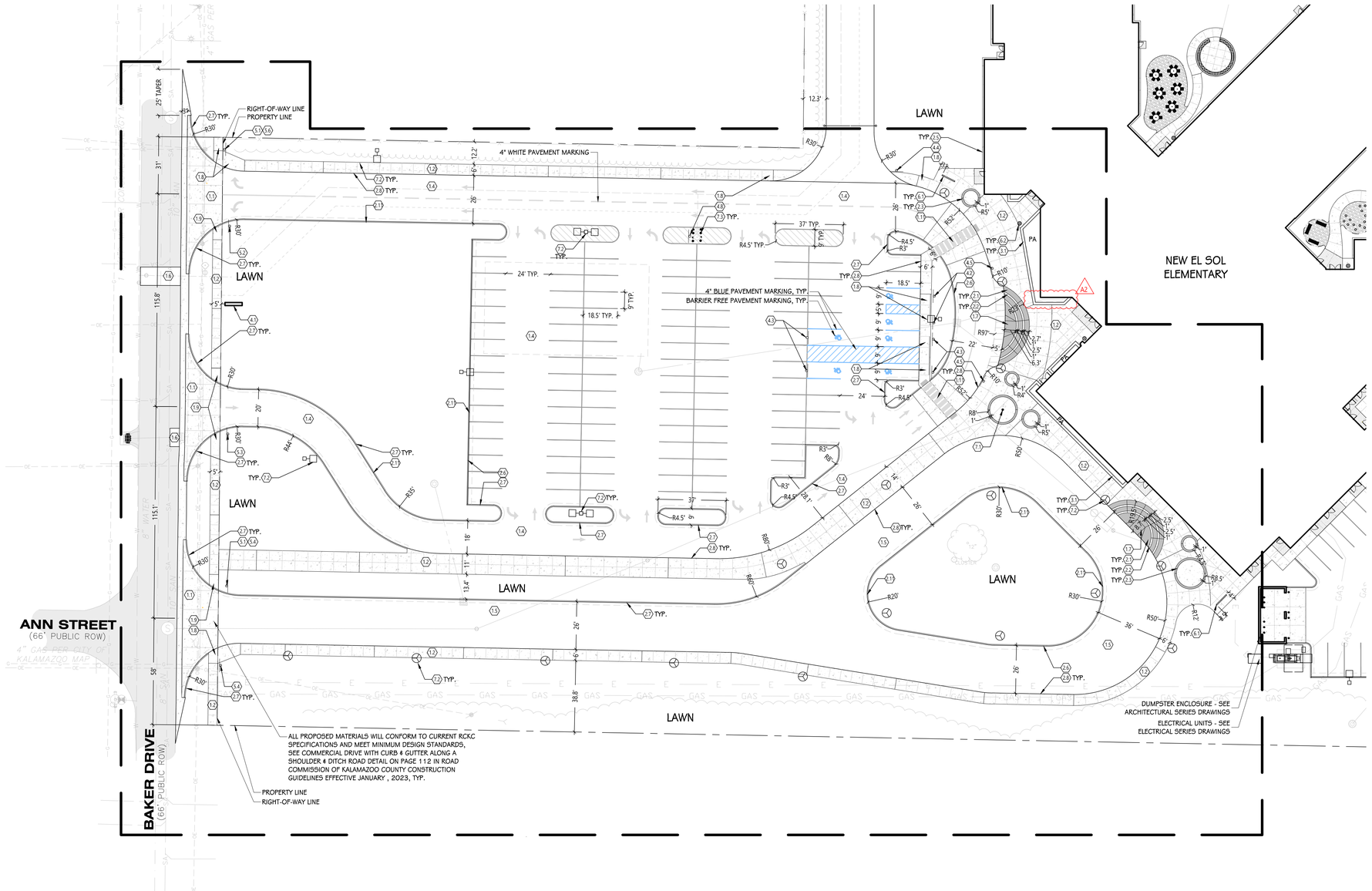
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
OVERALL SITE PLAN

DATE
APRIL 24, 2026

SHEET NUMBER
C 100
23-622.000



SCALE: 1" = 30' - 0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEAR IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NOTES - SITE - GENERAL

1. THE SURVEY FOR THIS PROJECT HAS BEEN REFORMATTED FOR USE IN AND FOR PREPARATION OF THESE DOCUMENTS. CONTRACTORS SHALL OBTAIN OFFICIAL SIGNED COPY AND BECOME FAMILIAR WITH IT, EXISTING CONDITIONS, AND SITE CONTEXT PRIOR TO CONSTRUCTION. SEE PROJECT MANUAL FOR SURVEY COMPANY CONTACT INFORMATION. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR RESOLUTION IMMEDIATELY. THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR INCONSISTENCIES ASSOCIATED WITH PREPARATION OR DOCUMENTATION OF THE SURVEY.
2. THE GEOTECHNICAL INVESTIGATION AND REPORT FOR THIS PROJECT HAS BEEN REFERENCED DURING PREPARATION OF THESE DOCUMENTS. CONTRACTORS SHALL OBTAIN OFFICIAL SIGNED COPY AND BECOME FAMILIAR WITH IT PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR RESOLUTION IMMEDIATELY. THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR INCONSISTENCIES WITH PREPARATION OR DOCUMENTATION OF THE REPORT.
3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING MEANS AND METHODS FOR CONSTRUCTION. THESE DRAWINGS MAY INDICATE A LIMITS OF PROPOSED IMPROVEMENTS, LIMITS OF SITE DEMOLITIONS, ETC., FOR DELINEATION OF EXPECTED EXTENTS OF DISTURBANCE. HOWEVER, FINAL IMPACT SHALL BE DETERMINED IN THE FIELD. SHOULD LIMITS OF DISTURBANCE EXCEED BOUNDARIES DEFINED IN DRAWINGS, THE CONTRACTOR SHALL CONTACT THE THE LANDSCAPE ARCHITECT IMMEDIATELY FOR RESOLUTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL WORK DISTURBED BY THE CONSTRUCTION OUTSIDE OF LIMIT LINES DEFINED ON DRAWINGS OR THOUGH HIS/HER MEANS AND METHODS TO CONDITION BETTER THAN OR EQUAL TO THE EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS, REQUIREMENTS, ORDINANCES, AND CODES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS FOR WORK INCLUDING BUT NOT LIMITED TO THOSE REQUIRED FOR WORK IN ROW AND ON ANY UTILITY CONNECTIONS OR ABANDONMENT PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL TRAFFIC CONTROL INCLUDING SIGNAGE, BARRIERS, FLAG PERSONNEL AND ANY ADDITIONAL REQUIREMENTS OF THE LOCAL ROAD COMMISSION OR MUNICIPALITY. CONTRACTOR SHALL FOLLOW MOST RECENT EDITION OF MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

NOTES - SITE - LAYOUT

1. LAYOUT AND VERIFY DIMENSIONS PRIOR TO CONSTRUCTION. BRING DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
2. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE.
3. WHERE DIMENSIONS ARE CALLED AS 'EQUAL' SPACE REFERENCE ITEMS EQUALLY, MEASURED TO THEIR CENTER LINES.
4. MEASUREMENTS ARE TO BACK OF CURB, EDGE OR PAVEMENT, FACE OF BUILDING, WALL OR THE FIXED SITE IMPROVEMENT UNLESS OTHERWISE NOTED. DIMENSIONS TO CENTER LINES ARE INDICATED.
5. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
6. INSTALL INTERSECTING ELEMENTS AT 90 DEGREE ANGLES TO EACH OTHER UNLESS OTHERWISE NOTED.
7. PROVIDE EXPANSION JOINTS WHERE CONCRETE FLATWORK MEETS VERTICAL STRUCTURES SUCH AS WELLS, CURBS, STEPS AND BUILDING ELEMENTS AND AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
8. ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER FOR RESOLUTION IMMEDIATELY.
9. ALL TRAFFIC SIGNAGE MUST COMPLY WITH MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES STANDARD SHAPES AND SIZES.
10. ALL BARRIER FREE PARKING SIGNAGE SHALL BE PER MOST RECENT VERSION OF ACCESSIBILITY STANDARDS ISSUED UNDER THE AMERICANS WITH DISABILITIES ACT (ADA).

LEGEND - SITE - LAYOUT + MATERIALS

- CONCRETE PAVING
- FROST-RESISTANT STOOP, 4'X4' TYPICAL - SEE STRUCTURAL DRAWINGS
- DECORATIVE PAVEMENT
- CRUSHED FINES
- PLAYGROUND SURFACING - ENGINEERED WOOD FIBER, SEE PLAYGROUND PLANS
- PLAYGROUND SURFACING - POUR-IN-PLACE RUBBER, SEE PLAYGROUND PLANS
- SWING GATE
- CONTROL JOINT
- EXPANSION JOINT
- PA PLANTING AREA

KEYNOTES - SITE - LAYOUT

4.0 PAVEMENTS AND RAMPS
- 1.1 CONCRETE PAVEMENT - DRIVE APPROACH
- 1.2 CONCRETE PAVEMENT - STANDARD DUTY
- 1.3 CONCRETE PAVEMENT - HEAVY DUTY
- 1.4 ASPHALT PAVEMENT - STANDARD DUTY
- 1.5 ASPHALT PAVEMENT - HEAVY DUTY
- 1.6 ASPHALT PAVEMENT - CUL-DE-SAC
- 1.7 MDOT CURB RAMP TYPE F - FLARED SIDES
- 1.8 MDOT CURB RAMP TYPE F - PARALLEL RAMP
- 1.9 MDOT CURB RAMP TYPE R - ROLLED SIDES
- 1.10 PLAYGROUND RAMP
- 1.11 SPEED TABLE

2.0 SPECIALTY PAVEMENTS AND CURBS
- 2.1 DECORATIVE CONCRETE PAVEMENT - STANDARD DUTY DECORATIVE BAND TYPE 1
- 2.2 (NON-COLORED CONCRETE)
- 2.3 DECORATIVE BAND TYPE 2 (COLORED CONCRETE)
- 2.4 CRUSHED FINES
- 2.5 12" WIDE CONCRETE MAINTENANCE STRIP
- 2.6 MDOT D1 CURB AND GUTTER - ROLLED CURB
- 2.7 MDOT F4 CURB AND GUTTER - STANDARD CURB
- 2.8 INTEGRAL CONCRETE CURB
- 2.9 MDOT E2 CURB - SIDE CURB
- 2.10 PLAYGROUND CONCRETE CURB
- 2.11 CONCRETE CURB SPILLWAY - REFER TO CIVIL SERIES DRAWINGS, C400
- 2.12 INTEGRAL CONCRETE PLAYGROUND CURB

3.0 WALLS
- 3.1 RAISED LANDSCAPE PLANTER

4.0 INTERNAL SITE SIGNAGE
- 4.1 ENTRANCE SIGN - REFER TO ARCHITECTURAL SERIES DRAWINGS
- 4.2 BARRIER FREE PARKING SIGN, MUTCD R7-8
- 4.3 VAN ACCESSIBLE BARRIER FREE PARKING SIGN, MUTCD R7-8, 12"x18" AND R7-8A, 6"x12"
- 4.4 NO STOPPING FIRE LANE SIGN, MUTCD E-5481, 12"x18"
- 4.5 STUDENT DROP OFF SIGN, MUTCD K-2967, 12"x18"
- 4.6 STAFF PARKING POST AND PANEL SIGN
- 4.7 WALKING TRACK SIGN - BY OWNER
- 4.8 HYDRANT LOCATION SIGN, REFER TO CIVIL FOR DETAIL, C 700

5.0 RIGHT-OF-WAY SIGNAGE
- 5.1 STOP SIGN, MUTCD R1-1, 30"x30"
- 5.2 EXIT ONLY SIGN, MUTCD K-8367, 12"x18"
- 5.3 ENTRANCE ONLY SIGN, MUTCD K-1755, 12"x18"
- 5.4 BUSES ONLY SIGN, MUTCD K-3967, 12"X18"
- 5.5 NO THRU TRAFFIC SIGN, NO OUTLET SIGN, MUTCD K2-1350, 12"x18"
- 5.6 DO NOT ENTER, WRONG WAY SIGN, MUTCD R5-1, 12"x18"

6.0 SITE FURNITURE
- 6.1 BIKE RACK
- 6.2 TRASH RECEPTACLE
- 6.3 TABLE
- 6.4 ADA TABLE
- 6.5 CUSTOM CURVED BENCH
- 6.6 BENCH
- 6.7 MANUFACTURED LOG SEAT

7.0 MISCELLANEOUS SITE FEATURES
- 7.1 FLAG POLE
- 7.2 LIGHT POLE - REFER TO LIGHTING AND ELECTRICAL SERIES DRAWINGS
- 7.3 BOLLARD
- 7.4 GATE TYPE 1 (26', DOUBLE SWING GATE)

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

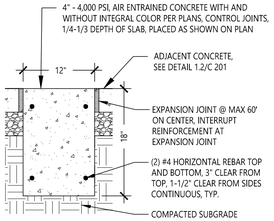
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

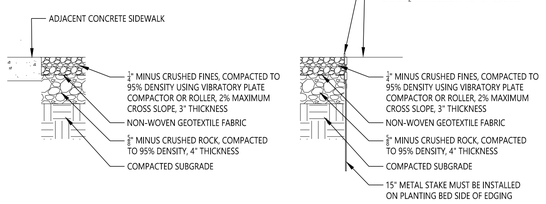
SHEET TITLE
SITE PLAN ENLARGEMENT

DATE
APRIL 24, 2026

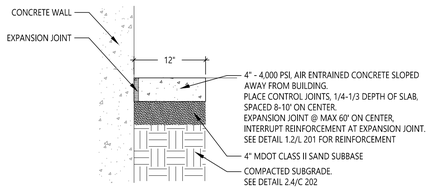
SHEET NUMBER
C 101
23-622.000



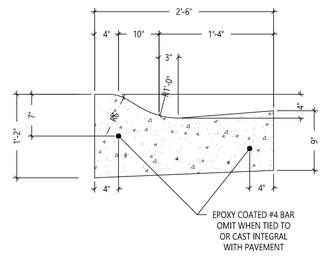
2.2/2.3 C 202 **DECORATIVE CONCRETE BAND**
NOT TO SCALE



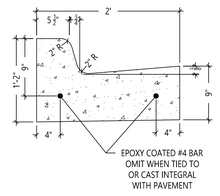
2.4 C 202 **CRUSHED FINES**
NOT TO SCALE



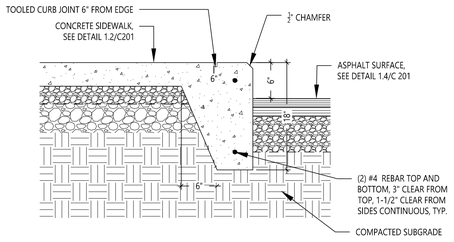
2.5 C 202 **12" WIDE CONCRETE MAINTENANCE STRIP**
NOT TO SCALE



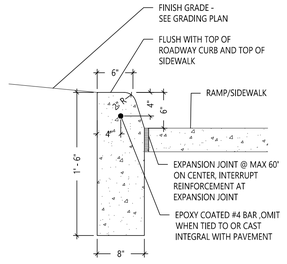
2.6 C 202 **MDOT D1 CURB AND GUTTER - ROLLED CURB**
NOT TO SCALE



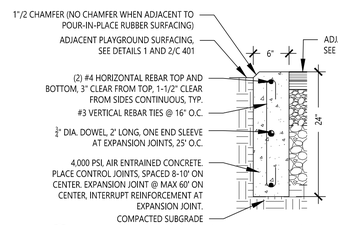
2.7 C 202 **MDOT F4 CURB AND GUTTER - STANDARD CURB**
NOT TO SCALE



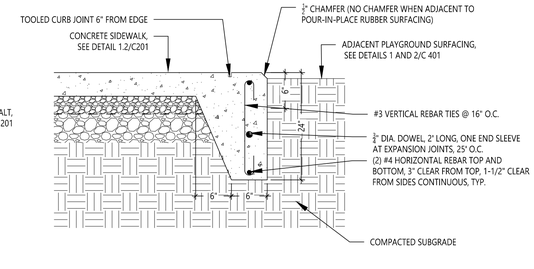
2.8 C 202 **INTEGRAL CONCRETE CURB**
NOT TO SCALE



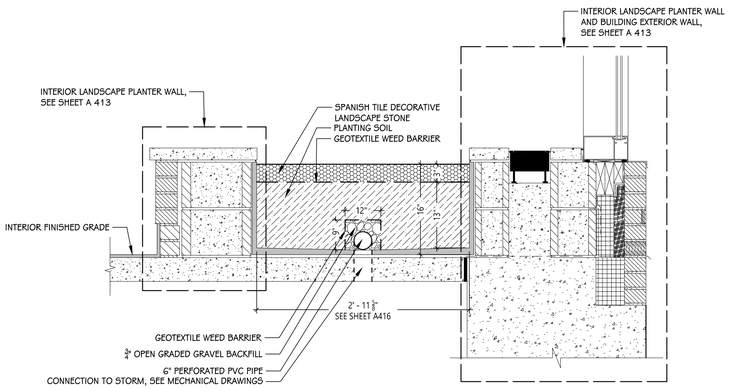
2.9 C 202 **MDOT E2 CURB - SIDE CURB**
NOT TO SCALE



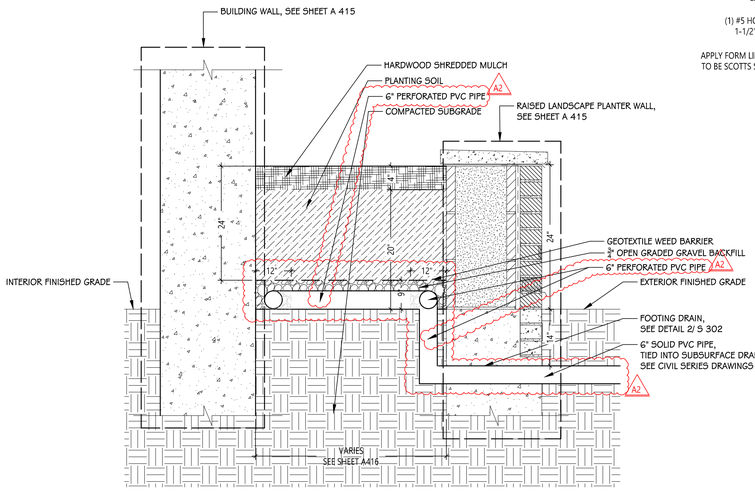
2.10 C 202 **PLAYGROUND CONCRETE CURB**
NOT TO SCALE



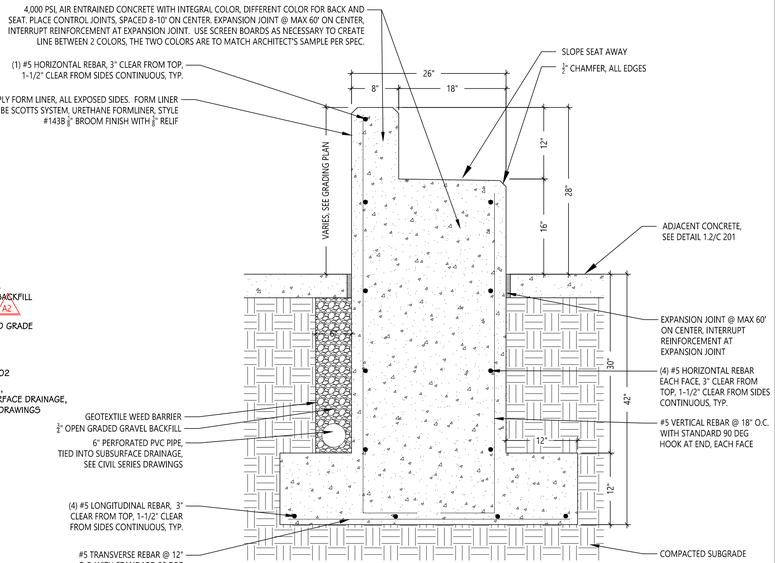
2.12 C 202 **INTEGRAL CONCRETE PLAYGROUND CURB**
NOT TO SCALE



3.0 C 202 **INTERIOR LANDSCAPE PLANTER**
NOT TO SCALE



3.1 C 202 **RAISED LANDSCAPE PLANTER**
NOT TO SCALE



6.5 C 202 **CUSTOM CURVED BENCH - SECTION A**
NOT TO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
SITE DETAILS - CURBS AND WALLS

DATE
APRIL 24, 2026

SHEET NUMBER
C 202
23-622.000

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEAR IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

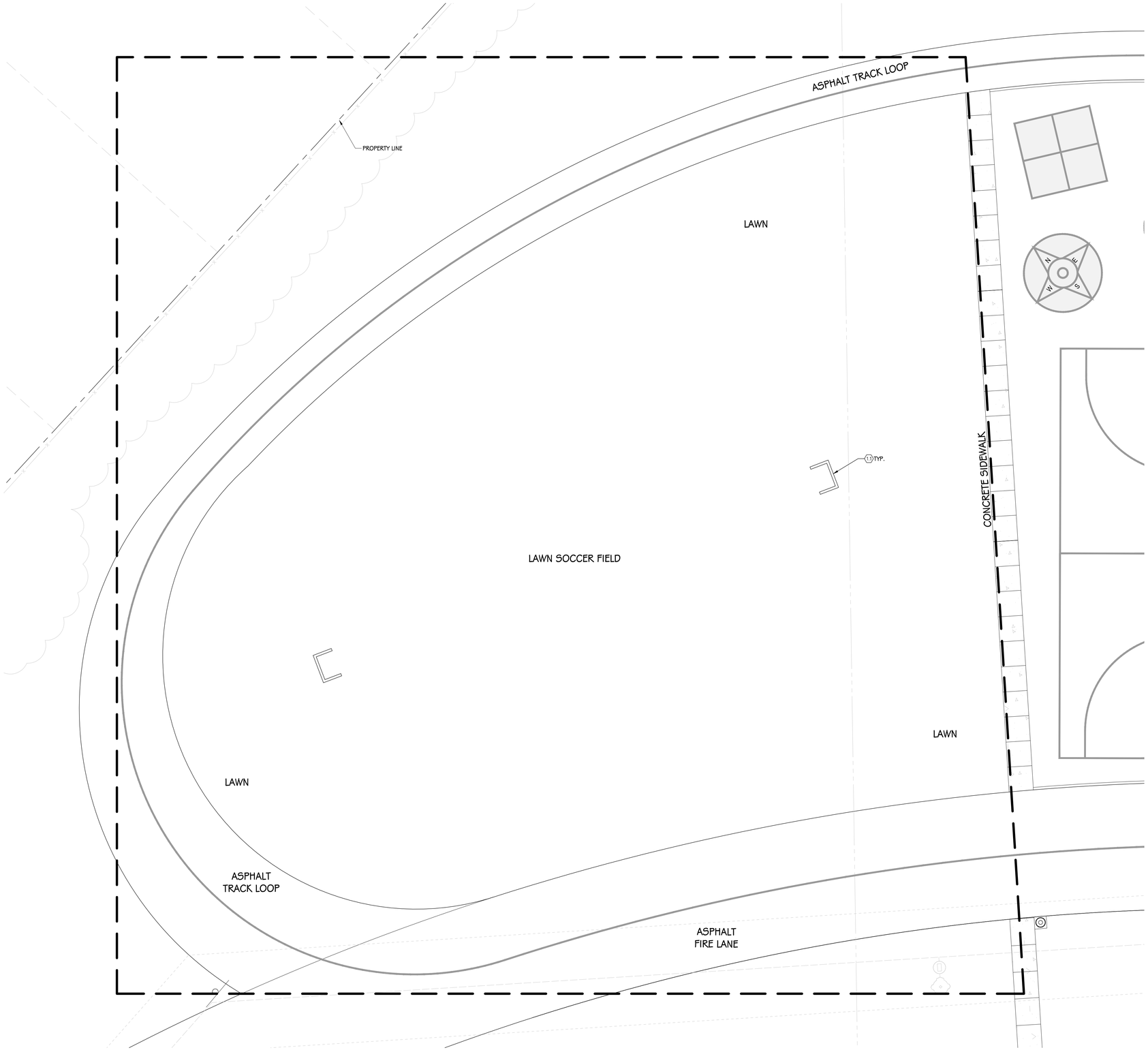
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
OVERALL PLAYGROUND LAYOUT PLAN

DATE
APRIL 24, 2026

SHEET NUMBER
C 300
23-622.000



NOTES - SITE - PLAYGROUND

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LAYOUT OF ALL PLAYGROUND EQUIPMENT INCLUDING ALL USE ZONE REQUIREMENTS. ALBERT THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR CONCERNS PRIOR TO INSTALLATION OF EQUIPMENT.
2. USE ZONES ARE SHOWN BASED ON BASIS-OF-DESIGN PLAY EQUIPMENT AS NOTED IN THE SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR ENLARGING USE ZONES IF REQUIRED BASED ON THEIR PLAY EQUIPMENT SPECIFICATIONS.
3. CONTRACTOR SHALL CONDUCT A COMPLETE AUDIT OF NEW PLAY EQUIPMENT AT THE END OF CONSTRUCTION AND CONFIRM THAT ALL APPLICABLE PLAYGROUND SAFETY CODES ARE MET. PROVIDE A COPY OF AUDIT TO THE CONSTRUCTION MANAGER.
4. NEW AND RELOCATED PLAYGROUND EQUIPMENT AND ASSOCIATED SURFACING SHALL BE COMPLIANT WITH ALL SAFETY STANDARDS INCLUDING ASTM AND CPSC. CONTRACTOR IS RESPONSIBLE TO VERIFY AND PROVIDE ANY/ALL REPLACEMENT COMPONENTS REQUIRED TO CERTIFY THE PLAYGROUND WITH RESPECT TO SAFETY STANDARDS.

LEGEND - SITE - PLAYGROUND

- CONCRETE PAVING
- PLAYGROUND SURFACING - ENGINEERED WOOD FIBER
- PLAYGROUND SURFACING - POUR-IN-PLACE RUBBER

KEYNOTES - SITE - PLAYGROUND

1.0 OPEN GREEN PLAY SPACE
- 1.1 SOCCER GOAL A2
- 1.2 GAGA PIT

2.0 HARDSCAPE PLAY SPACE
- 2.1 PAINTED GAME - SQUARE TYPE 1 (FOUR SQUARE)
- 2.2 PAINTED GAME - SQUARE TYPE 2 (1-36 NUMBER GRID)
- 2.3 PAINTED GAME - CIRCLE TYPE 1 (COMPASS)
- 2.4 PAINTED GAME - CIRCLE TYPE 2 (MAZE)
- 2.5 PAINTED GAME - CIRCLE TYPE 3 (NUMBER TARGET 20)
- 2.6 PAINTED GAME - HOPSCOTCH
- 2.7 BASKETBALL HOOP

0' 5' 10' 20'
SCALE: 1" = 10' - 0"

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

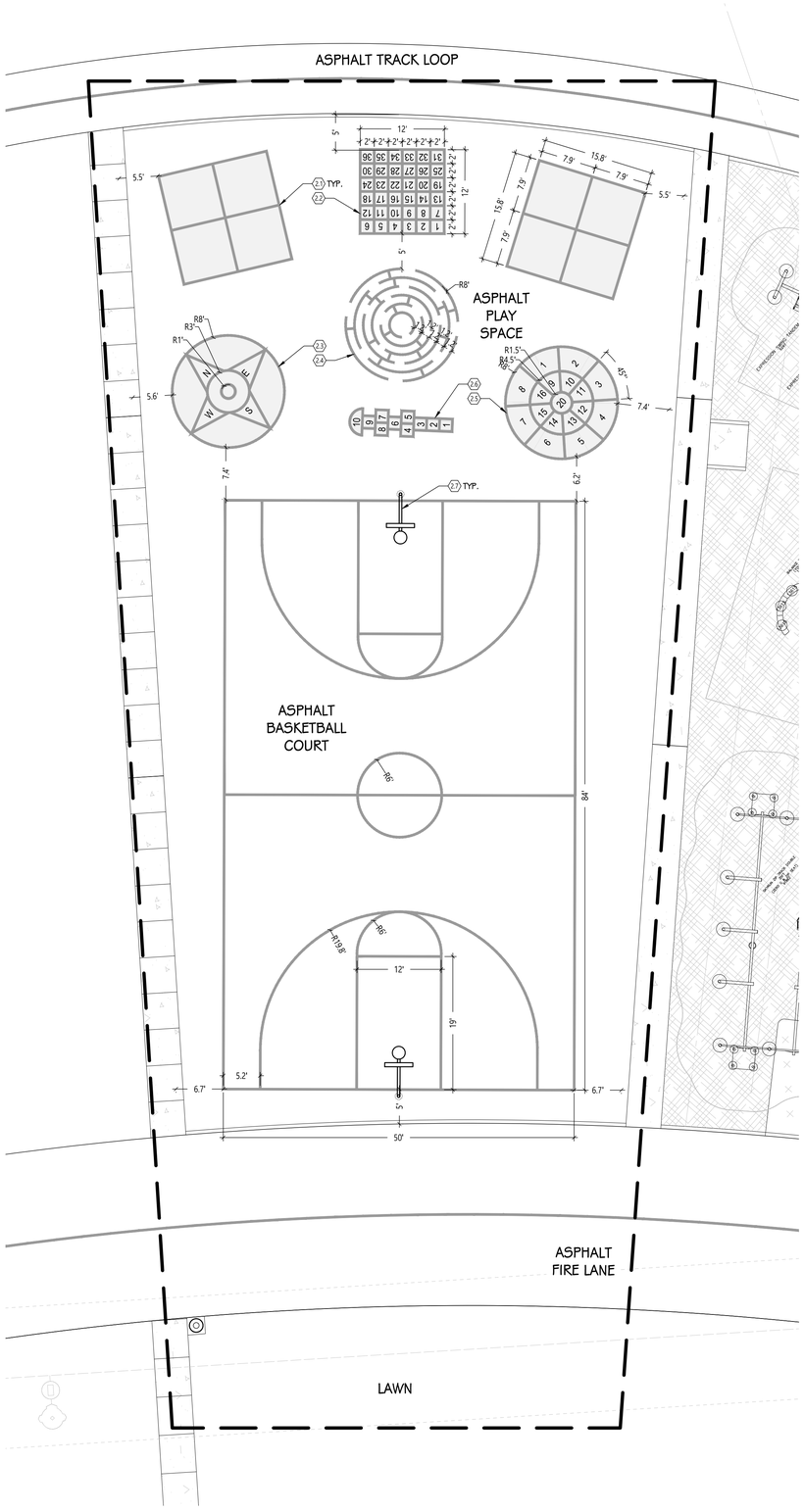
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
PLAYGROUND LAYOUT PLAN
ENLARGEMENT

DATE
APRIL 24, 2026

SHEET NUMBER
C 301
23-622.000



NOTES - SITE - PLAYGROUND

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LAYOUT OF ALL PLAYGROUND EQUIPMENT INCLUDING ALL USE ZONE REQUIREMENTS. ALBERT THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR CONCERNS PRIOR TO INSTALLATION OF EQUIPMENT.
2. USE ZONES ARE SHOWN BASED ON BASIS-OF-DESIGN PLAY EQUIPMENT AS NOTED IN THE SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR ENLARGING USE ZONES IF REQUIRED BASED ON THEIR PLAY EQUIPMENT SPECIFICATIONS.
3. CONTRACTOR SHALL CONDUCT A COMPLETE AUDIT OF NEW PLAY EQUIPMENT AT THE END OF CONSTRUCTION AND CONFIRM THAT ALL APPLICABLE PLAYGROUND SAFETY CODES ARE MET. PROVIDE A COPY OF AUDIT TO THE CONSTRUCTION MANAGER.
4. NEW AND RELOCATED PLAYGROUND EQUIPMENT AND ASSOCIATED SURFACING SHALL BE COMPLIANT WITH ALL SAFETY STANDARDS INCLUDING ASTM AND CPSC. CONTRACTOR IS RESPONSIBLE TO VERIFY AND PROVIDE ANY/ALL REPLACEMENT COMPONENTS REQUIRED TO CERTIFY THE PLAYGROUND WITH RESPECT TO SAFETY STANDARDS.

LEGEND - SITE - PLAYGROUND

- CONCRETE PAVING
- PLAYGROUND SURFACING - ENGINEERED WOOD FIBER
- PLAYGROUND SURFACING - POUR-IN-PLACE RUBBER

KEYNOTES - SITE - PLAYGROUND

1.0 OPEN GREEN PLAY SPACE
- 1.1 SOCCER GOAL (A2)
- 1.2 GAGA PIT

2.0 HARDSCAPE PLAY SPACE
- 2.1 PAINTED GAME - SQUARE TYPE 1 (FOUR SQUARE)
- 2.2 PAINTED GAME - SQUARE TYPE 2 (1-36 NUMBER GRID)
- 2.3 PAINTED GAME - CIRCLE TYPE 1 (COMPASS)
- 2.4 PAINTED GAME - CIRCLE TYPE 2 (MAZE)
- 2.5 PAINTED GAME - CIRCLE TYPE 3 (NUMBER TARGET 20)
- 2.6 PAINTED GAME - HOPSCOTCH
- 2.7 BASKETBALL HOOP

SCALE: 1" = 10' - 0"

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR | DATE

PROJECT TITLE
NEW EL SOL SCHOOL

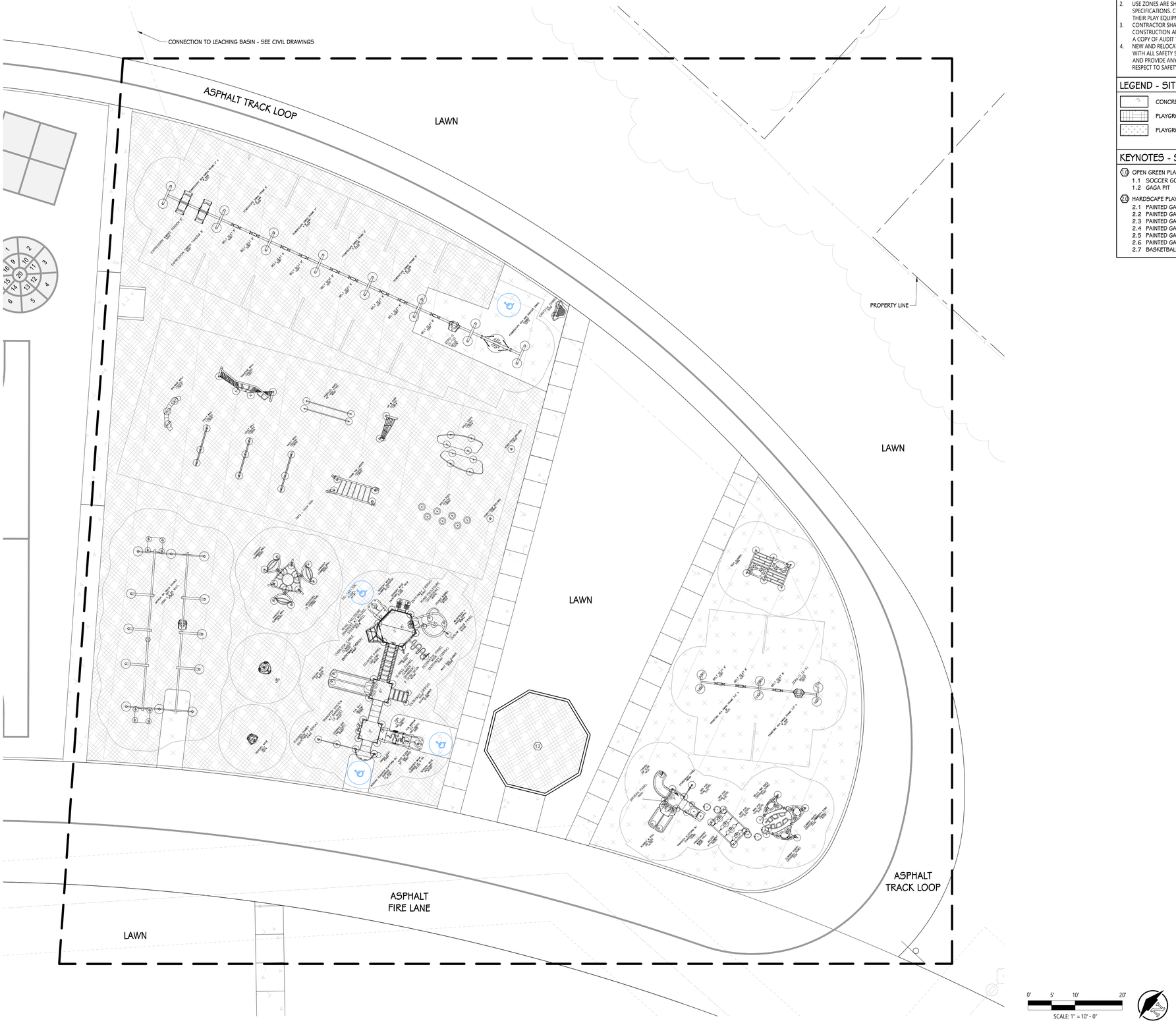
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
PLAYGROUND LAYOUT PLAN
ENLARGEMENT

DATE
APRIL 24, 2026

SHEET NUMBER
C 302
23-622.000



NOTES - SITE - PLAYGROUND

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LAYOUT OF ALL PLAYGROUND EQUIPMENT INCLUDING ALL USE ZONE REQUIREMENTS. ALBERT THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES OR CONCERNS PRIOR TO INSTALLATION OF EQUIPMENT.
2. USE ZONES ARE SHOWN BASED ON BASIS-OF-DESIGN PLAY EQUIPMENT AS NOTED IN THE SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR ENLARGING USE ZONES IF REQUIRED BASED ON THEIR PLAY EQUIPMENT SPECIFICATIONS.
3. CONTRACTOR SHALL CONDUCT A COMPLETE AUDIT OF NEW PLAY EQUIPMENT AT THE END OF CONSTRUCTION AND CONFIRM THAT ALL APPLICABLE PLAYGROUND SAFETY CODES ARE MET. PROVIDE A COPY OF AUDIT TO THE CONSTRUCTION MANAGER.
4. NEW AND RELOCATED PLAYGROUND EQUIPMENT AND ASSOCIATED SURFACING SHALL BE COMPLIANT WITH ALL SAFETY STANDARDS INCLUDING ASTM AND CPSC. CONTRACTOR IS RESPONSIBLE TO VERIFY AND PROVIDE ANY/ALL REPLACEMENT COMPONENTS REQUIRED TO CERTIFY THE PLAYGROUND WITH RESPECT TO SAFETY STANDARDS.

LEGEND - SITE - PLAYGROUND

- CONCRETE PAVING
- PLAYGROUND SURFACING - ENGINEERED WOOD FIBER
- PLAYGROUND SURFACING - POUR-IN-PLACE RUBBER

KEYNOTES - SITE - PLAYGROUND

1.0 OPEN GREEN PLAY SPACE
- 1.1 SOCCER GOAL (A2)
- 1.2 GAGA PIT

2.0 HARDSCAPE PLAY SPACE
- 2.1 PAINTED GAME - SQUARE TYPE 1 (FOUR SQUARE)
- 2.2 PAINTED GAME - SQUARE TYPE 2 (1-36 NUMBER GRID)
- 2.3 PAINTED GAME - CIRCLE TYPE 1 (COMPASS)
- 2.4 PAINTED GAME - CIRCLE TYPE 2 (MAZE)
- 2.5 PAINTED GAME - CIRCLE TYPE 3 (NUMBER TARGET 20)
- 2.6 PAINTED GAME - HOPSCOTCH
- 2.7 BASKETBALL HOOP

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR | DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

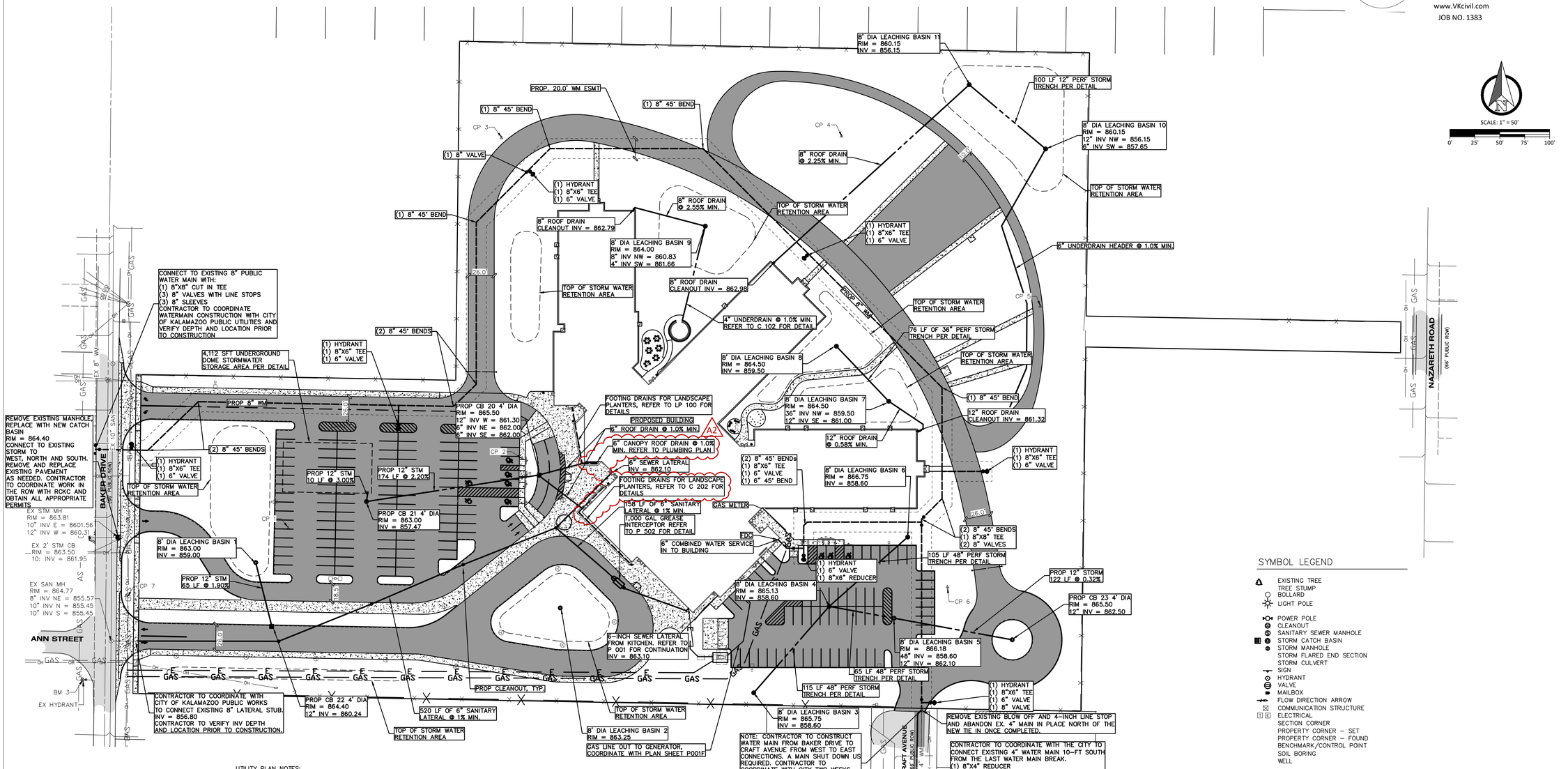
SHEET TITLE
PLAYGROUND LAYOUT PLAN
ENLARGEMENT

DATE
APRIL 24, 2026

SHEET NUMBER
C 303
23-622.000

Vriesman & Korhorn
VK CIVIL
Byron Center, MI
(616) 277-2185
Kalamazoo, MI
(269) 697-7120
www.VKcivil.com
JOB NO. 1383

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2025 ALL RIGHTS RESERVED



SYMBOL LEGEND

- EXISTING TREE
- TREE STUMP
- BOLLARD
- LIGHT POLE
- POWER POLE
- CLEANOUT
- SANITARY SEWER MANHOLE
- STORM CATCH BASIN
- STORM MANHOLE
- STORM FLARED END SECTION
- STORM CULVERT
- SIGN
- HYDRANT
- VALVE
- MAILBOX
- FLOW DIRECTION ARROW
- COMMUNICATION STRUCTURE
- ELECTRICAL
- SECTION CORNER
- PROPERTY CORNER – SET
- PROPERTY CORNER – FOUND
- BENCHMARK/CONTROL POINT
- SOIL BORING
- WELL

LINE AND HATCH LEGEND

- LANDSCAPING
- EXISTING OVERHEAD ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- EXISTING UNDERGROUND ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- EXISTING GAS
- PROPOSED GAS
- EXISTING COMMUNICATIONS
- PROPOSED COMMUNICATIONS
- EXISTING FENCE
- PROPOSED FENCE
- RIGHT OF WAY
- EASEMENT
- SETBACK
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATERMAIN
- PROPOSED WATERMAIN
- EXISTING HOT MIXED ASPHALT
- PROPOSED HEAVY DUTY HOT MIXED ASPHALT
- PROPOSED PARKING LOT HOT MIXED ASPHALT
- EXISTING CONCRETE
- PROPOSED CONCRETE
- EXISTING GRAVEL

Know what's below. Call before you dig.

NOTE:
ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE THE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

UTILITY PLAN NOTES:
1) CONTRACTOR SHALL CONTACT PRIVATE AND PUBLIC UTILITY COMPANIES IF ANY COORDINATION IS NEEDED BETWEEN PROPOSED WORK AND EXISTING UTILITIES.
2) UTILITIES SHOWN (IF ANY) ARE APPROXIMATE LOCATIONS DERIVED FROM MEASUREMENTS OR AVAILABLE RECORDS. THIS MAP IS NOT TO BE INTERPRETED AS SHOWING EXACT LOCATIONS OR SHOWING ALL UTILITIES IN THE AREA. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITY INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION, AND CONDITION.
3) ALL WATERMAIN TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF KALAMAZOO STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE INSTALLATION, 2021 AND EGLE STANDARDS.
4) ALL SANITARY SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH LOCAL CITY OF KALAMAZOO SANITARY SPECIFICATION, 2013 AND EGLE STANDARDS.
5) ALL 6" UNDERDRAIN TO BE CORRUGATED PLASTIC PIPE WITH SOCK, ADS N-12 OR APPROVED EQUAL.
6) ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED PLASTIC PIPE, ADS N-12 OR EQUAL, UNLESS OTHERWISE LABELED ON THE PLANS.
7) ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED.
8) ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
9) CATCH BASINS WITHIN CONCRETE HEAD CURB SHALL HAVE EJ 7045 CASTINGS.
10) CATCH BASINS WITHIN BIT VALLEY CURB SHALL HAVE EJ 7065 CASTINGS WITH M1 GRATE.
11) CATCH BASINS WITHIN PAVED AREAS SHALL HAVE EJ 1020M1 RADIAL FLATE GRATE CASTINGS.
12) STORM SEWER MANHOLES SHALL HAVE EJ 1020 CASTINGS WITH SOLID COVERS.
13) STORM SEWER YARD DRAINS SHALL HAVE EJ 6508 CASTINGS.
14) ROOF DRAINS SHALL BE PVC SCH-40. UNLESS NOTED OTHERWISE
15) CONTRACTOR IS TO UNCOVER AND VERIFY ALL TAP LOCATIONS AND INVERTS. LOCATION AND INVERT DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR RESOLUTION PRIOR TO CONTINUING WORK.
16) SANITARY AND STORM STRUCTURES SHALL BE PRECAST AND HAVE A MAXIMUM OF 2 ADJUSTING RINGS FOR FINISH GRADE ADJUSTMENT.
17) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
18) EXTERIOR HORN AND STROBE SHALL BE TIED IN TO BOTH THE FIRE ALARM AND WATER FLOW FOR THE FDC.
19) FDC TO HAVE KNOX 5" LOCKING STORZ FDC PLUGS MODEL 500, EXTERIOR RATED HORN AND STROBE DEVICE ABOVE THE FDC MOUNTED ON THE ADJACENT ENTRY FACING SOUTHEAST A MINIMUM OF 10' ABOVE GRADE IN HEIGHT AND IN CLEAR VIEW.
20) FDC SIGNAGE TO BE AN APPROVED SIGN ADJACENT TO THE FDC, HAVE THE LETTERS "FDC" AT LEAST 6" HIGH IN ARABIC OF HELVETICA STYLE FONT, INSTALLED AT LEAST 10' ABOVE GRADE AND BE REFLECTIVE WITH WHITE LETTERS ON A RED BACKGROUND.
21) KNOX KEY VAULT BOX 3200 SERIES OR LARGER. THE VAULT SHALL BE MOUNTED UNOBSTRUCTED AND VISIBLE APPROXIMATELY 60-INCHES ABOVE GROUND LEVEL.
22) BUILDING IDENTIFICATION SHALL BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET. ADDRESS AND STREET NAME LETTERS TO CONTRAST FROM BACKGROUND, BE AT LEAST 12" TALL.

GENERAL NOTES:
1) ALL WORK SHALL BE DONE TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.
2) ALL WORK WITHIN ROW SHALL BE DONE IN ACCORDANCE WITH LOCAL ROADWAY JURISDICTION REQUIREMENTS.
3) CONTRACTOR SHALL RESTORE ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE, AND OTHER INFRASTRUCTURE DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES TO MATCH EXISTING CONDITIONS.
4) ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY OWNER.
5) THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN ON SITE DEMOLITION PLAN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST.
6) CONTRACTOR SHALL CONTACT MISS DIG THREE WORKING DAYS BEFORE YOU DIG. CALL MISS DIG AT 1-800-482-7171 OR 811.
7) ALL WORK SHALL BE DONE TO THE MICHIGAN HANDICAPPED ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT.
8) CONTRACTOR SHALL ENSURE ALL ADA RAMPS AND ACCESS MEET CURRENT ADA STANDARDS. IF IT IS DISCOVERED THAT ANY ITEMS WILL NOT MEET ADA STANDARDS IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, DEMOLITION PERMITS, TAP FEES, ASSESSMENTS, UTILITY PERMITS, ROW PERMITS, BONDS, INSURANCE, OR OTHER FEES ASSOCIATED WITH CONSTRUCTION.
10) CONTRACTOR SHALL REVIEW THE GEOTECHNICAL AND ENVIRONMENTAL REPORTS FOR THE SITE AND INCORPORATE INTO THEIR CONSTRUCTION MEANS AND METHODS.
11) THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD SURVEY LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED.
12) THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.
13) THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY MARKERS AND BENCHMARKS.
14) THE CONTRACTOR IS RESPONSIBLE FOR ALL SIGNS, BARRICADES, AND SAFETY FENCES TO DETER PEOPLE FROM ENTERING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT AND MUNICIPALITY.
15) PRIOR TO CONSTRUCTION OR GRADING A PROTECTIVE BARRIER, FENCE, POST, AND SIGNS CLEARLY INDICATING LIMITS OF DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS.
16) NO PARKING OF CONTRACTOR OR SUBCONTRACTORS SHALL BE ALLOWED ON PUBLIC STREETS WITHOUT PRIOR APPROVAL.
17) NO BUILDING MATERIAL, EQUIPMENT, VEHICLES, OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE OF THE LIMITS OF DISTURBANCE.
18) CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH LOCAL MUNICIPAL ORDINANCES.

COLIN FINCH
ENGINEER
NO. 6201064514
STATE OF MICHIGAN
LICENSED PROFESSIONAL ENGINEER

ADDENDUM 02 MAY 18, 2026
ADDENDUM 01 MAY 8, 2026

PROJECT TITLE
NEW EL SOL SCHOOL

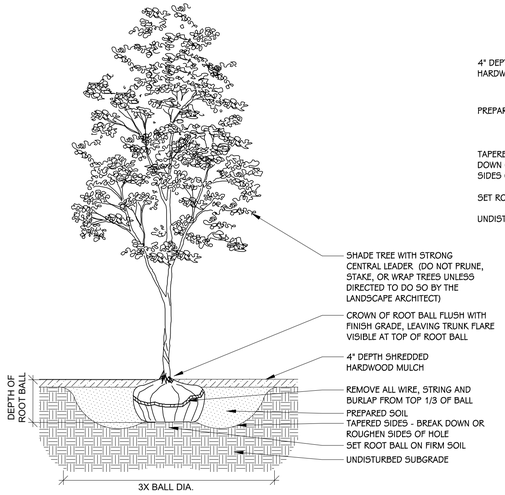
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

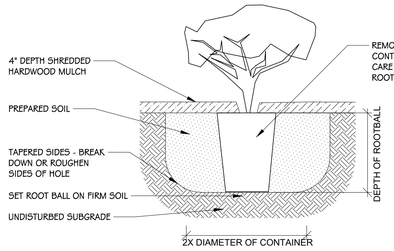
DATE
APRIL 24, 2026

SHEET TITLE
UTILITY PLAN

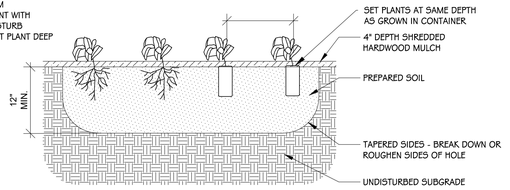
SHEET NUMBER
C 500
23-622.00



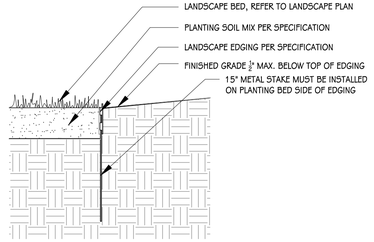
1 LP 100 TREE PLANTING DETAIL
NOT TO SCALE



2 LP 100 SHRUB PLANTING DETAIL
NOT TO SCALE



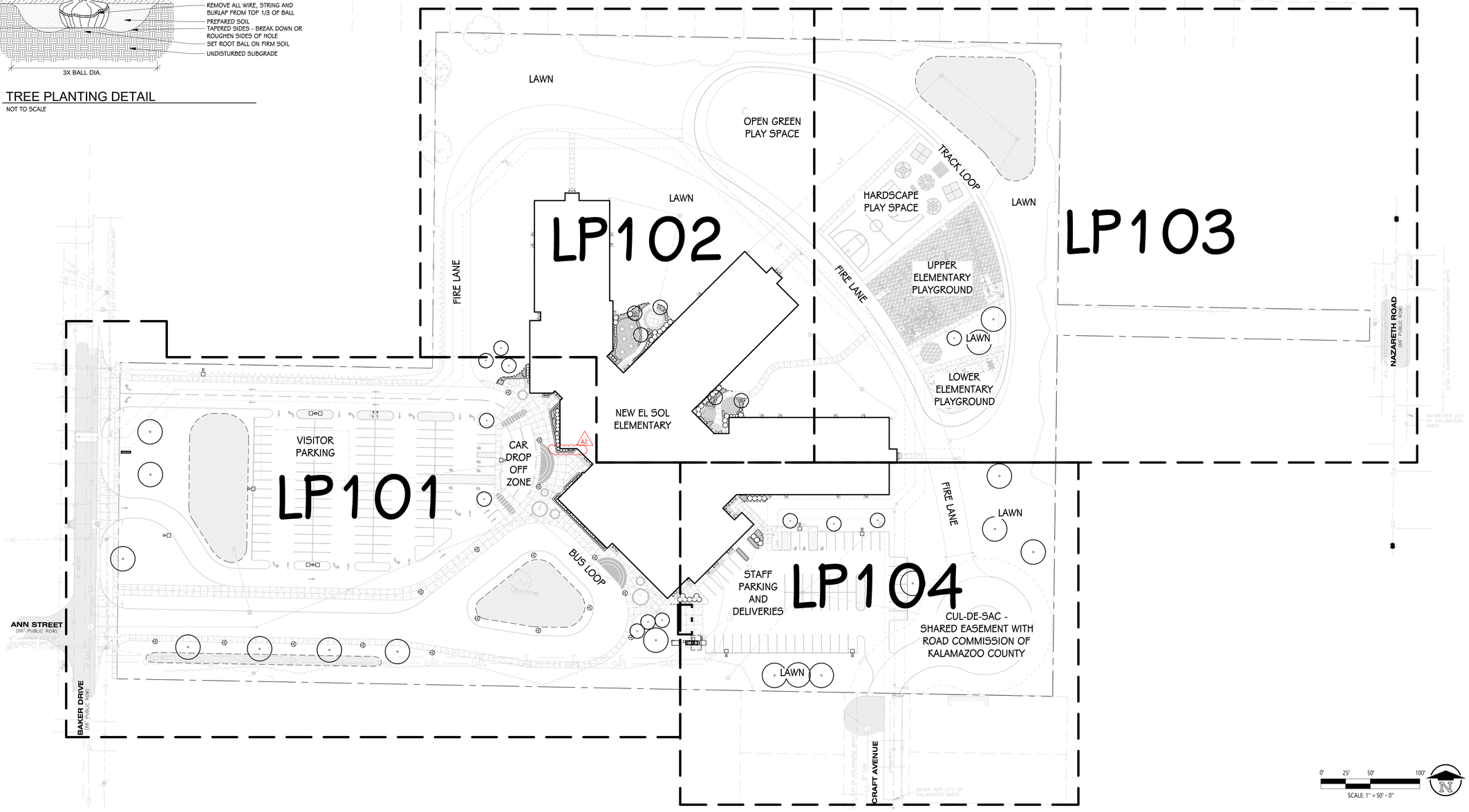
3 LP 100 PERENNIAL PLANTING DETAIL
NOT TO SCALE



3 LP 100 LANDSCAPE EDGING DETAIL
NOT TO SCALE

NOTES - SITE - PLANTING

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING OF ALL RELATED EXISTING CONDITIONS, PIPES AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION.
2. SEE SPECIFICATIONS AND DETAILS FOR PLANTING METHODS, REQUIREMENTS, SOIL TESTING, MATERIALS, EXECUTION AND PLANT PROTECTION, AND SEED MIXES.
3. PLANT NAMES MAY BE ABBREVIATED ON DRAWINGS. REFER TO PLANT LIST AND LEGENDS FOR SYMBOLS, ABBREVIATIONS, BOTANICAL AND COMMON NAMES, SIZES, ESTIMATED QUANTITIES AND OTHER REMARKS.
4. WHERE PROVIDED , AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN PLANT LIST ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKEOFFS FOR ALL PLANT MATERIAL AND SIZES SHOWN THE DRAWINGS. IN CASE OF DISCREPANCIES, BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
6. EDGING TO BE PLACED BETWEEN ALL LANDSCAPE BEDS AND LAWN AREAS.
7. HARDWOOD SHREDDED MULCH SHALL BE PLACED AT A 3" DEPTH AROUND ALL TREES IN IN ALL LANDSCAPE BEDS.
8. ALL UNPAVED AREAS OF THE SITE AND ADJACENT AREAS DISTURBED BY CONSTRUCTION SHALL RECIVE 6" TOPSOIL. SUPPLEMENT WITH IMPORTED TOPSOIL AS REQUIRED TO PROVIDE 6" DEPTH.



TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

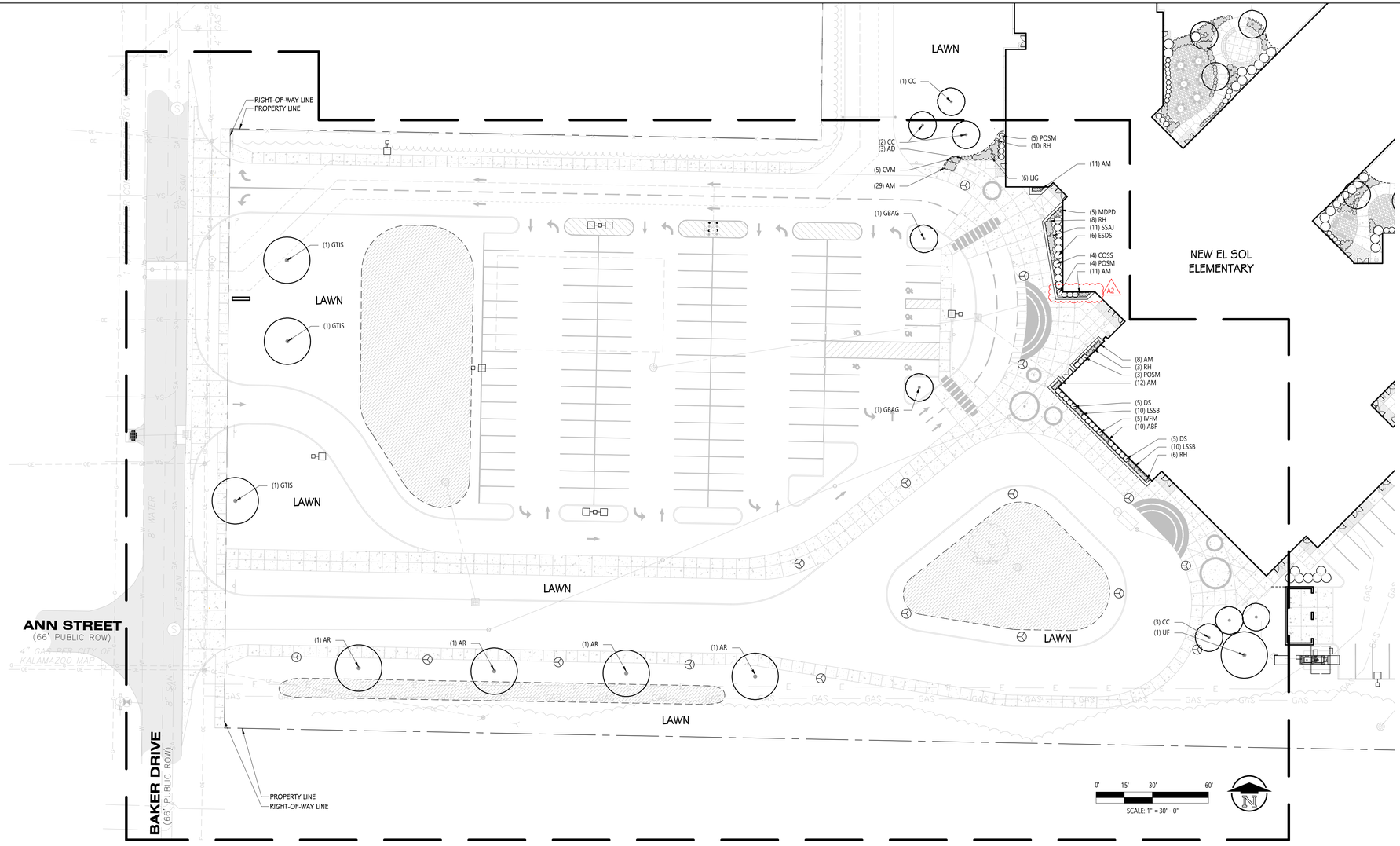
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
OVERALL PLANTING PLAN + DETAILS

DATE
APRIL 24, 2026

SHEET NUMBER
LP 100
23-622.000



NOTES - SITE - PLANTING

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING OF ALL RELATED EXISTING CONDITIONS, PIPES AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION.
2. SEE SPECIFICATIONS AND DETAILS FOR PLANTING METHODS, REQUIREMENTS, SOIL TESTING, MATERIALS, EXECUTION AND PLANT PROTECTION, AND SEED MIXES.
3. PLANT NAMES MAY BE ABBREVIATED ON DRAWINGS. REFER TO PLANT LIST AND LEGENDS FOR SYMBOLS, ABBREVIATIONS, BOTANICAL AND COMMON NAMES, SIZES, ESTIMATED QUANTITIES AND OTHER REMARKS.
4. WHERE PROVIDED , AREA TAKEOFFS AND PLANT QUANTITY ESTIMATES IN PLANT LIST ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE TO DO THEIR OWN QUANTITY TAKEOFFS FOR ALL PLANT MATERIAL AND SIZES SHOWN THE DRAWINGS. IN CASE OF DISCREPANCIES, BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
6. EDGING TO BE PLACED BETWEEN ALL LANDSCAPE BEDS AND LAWN AREAS.
7. HARDWOOD SHREDDED MULCH SHALL BE PLACED AT A 3" DEPTH AROUND ALL TREES IN IN ALL LANDSCAPE BEDS.
8. ALL UNPAVED AREAS OF THE SITE AND ADJACENT AREAS DISTURBED BY CONSTRUCTION SHALL RECIVE 6" TOPSOIL. SUPPLEMENT WITH IMPORTED TOPSOIL AS REQUIRED TO PROVIDE 6" DEPTH.

LEGEND - SITE - PLANTING

- DECIDUOUS TREE
- ORNAMENTAL TREE
- SHRUBS
- PERENNIALS
- STORMWATER SEED MIX
- ALUMINUM EDGING

LP 101 PLANTING SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	QTY.	CAL.	HT.	ROOT/CONT.	REMARKS
DECIDUOUS TREES							
AR	ACER RUBRUM	RED MAPLE	4	2"		B+B	SINGLE STRAIGHT TRUNK, SPECIMEN QUALITY
GBAG	GINKGO BILBOA 'AUTUMN GOLD'	AUTUMN GOLD GINKGO	2	2"		B+B	SINGLE STRAIGHT TRUNK, SPECIMEN QUALITY
GTIS	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SKYLINE'	SKYLINE THORNLESS HONEYLOCUST	3	2"		B+B	SINGLE STRAIGHT TRUNK, SPECIMEN QUALITY
UF	ULMUS X 'FRONTIER'	FRONTIER ELM	1	2"		B+B	SINGLE STRAIGHT TRUNK, SPECIMEN QUALITY
ORNAMENTAL TREES							
CC	CERCIS CANADENSIS	EASTERN REDBUD	6		10'-12'	B+B	MULTI-STEM, 4-5 STEMS MINIMUM
SHRUBS							
COSS	CEPHALANTHUS OCCIDENTALIS 'SUGAR SHACK 2.0'	SUGAR SHACK BUTTONBUSH 2.0	4			#3	4'-0" ON CENTER
DS	DIERVILLA X SPLENDENS	SPLENDENS BUSH-HONEYSUCKLE	10			#3	3'-0" ON CENTER
ESDS	EXOCHORDA HYBRID 'SNOW DAY SURPRISE'	SNOW DAY SURPRISE PEARL-BUSH	6			#3	4'-0" ON CENTER
IVFM	ITEA VIRGINICA 'FIZZY MIZZY'	FIZZY MIZZY SWEETSPIRE	5			#3	3'-0" ON CENTER
POSM	PHYSOCARPUS OPULIFOLIUS 'SMPOTW'	TINY WINE NINEBARK	12			#3	3'-0" ON CENTER
PERENNIALS							
ABF	AGASTACHE 'BLUE FORTUNE'	BLUE FORTUNE HYSSOP	10			#1	1'-6" ON CENTER
AM	ALLIUM 'MILLENIUM'	MILLENIUM ALLIUM	71			#1	1'-6" ON CENTER
AD	ASTER DUMOSUS 'WOOD'S PURPLE'	WOOD'S PURPLE BUSHY ASTER	3			#1	2'-0" ON CENTER
CVM	COREOPSIS VERTICILLATA 'MOONBEAM'	MOONBEAM THREADLEAF COREOPSIS	5			#1	2'-0" ON CENTER
LIG	LAVENDULA X INTERMEDIA 'GROSSO'	GROSSO LAVENDER	6			#1	2'-0" ON CENTER
LSSB	LOBELIA SPECIOSA 'STARSHIP BLUE'	STARSHIP BLUE CARDINAL FLOWER	20			#1	1'-6" ON CENTER
MDPD	MONARDA DIDYMA 'PETITE DELIGHT'	PETITE DELIGHT BEE BALM	5			#1	2'-0" ON CENTER
RH	RUDBECKIA HIRTA	BLACK EYED SUSAN	27			#1	2'-0" ON CENTER
SSAJ	SEDUM SPECTABILE 'AUTUMN JOY'	AUTUMN JOY SEDUM	11			#1	2'-0" ON CENTER

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR | DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
PLANTING PLAN ENLARGEMENT

DATE
APRIL 24, 2026

SHEET NUMBER
LP 101
23-622.000

GENERAL CONDITIONS

1. COORDINATE WITH ALL DRAWINGS FOR PERTINENT INFORMATION RELATED TO THE STRUCTURAL WORK. ANY CHANGES TO THE STRUCTURAL SYSTEMS SHALL BE RE-DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AT NO COST TO THE OWNER OR A/E AND SUBMITTED TO THE A/E FOR REVIEW. SUBMITTAL SHALL BE ACKNOWLEDGED IN WRITING BEFORE BEGINNING CONSTRUCTION.

2. EQUIPMENT FRAMING LOADS, OPENINGS, AND STRUCTURE, IN ANY WAY RELATED TO HVAC, PLUMBING, PROCESS, ELECTRICAL, ELEVATOR, OR ESCALATOR REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN APPROVAL OF THE PERTINENT TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN THESE REQUIREMENTS SHALL BE BORNE BY THE APPROPRIATE CONTRACTOR.

3. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURE AND SEQUENCES TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, SHORING, GUYS, OR TIE-DOWNS THAT MAY BE NECESSARY.

4. THE STRUCTURE HAS BEEN DESIGNED FOR THE UNIFORM LOADS INDICATED IN ADDITION TO THE CONCENTRATED LOADS REQUIRED BY THE BUILDING CODE. THE STRUCTURAL DESIGN IS BASED SOLELY ON THE BUILDING IN ITS COMPLETED STATE. CONTRACTORS AND THEIR SUB-CONTRACTORS SHALL TAKE NECESSARY PRECAUTIONS TO WITHSTAND ALL HORIZONTAL AND VERTICAL LOADINGS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION PRIOR TO COMPLETION OF THE BUILDING. SUCH CONSTRUCTION LOADINGS INCLUDE, BUT ARE NOT LIMITED TO, LOADS FROM CRANES, LIFTS, DOLLIES, AND HOISTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE EVALUATION OF THE IMPACT OF SUCH LOADS ON THE STRUCTURE AND PROVIDING TEMPORARY SHORING, BRACING, OR REINFORCEMENT AS REQUIRED.

5. SEE THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR AND SHALL CONFORM TO THOSE SHOWN ON THE ARCHITECTURAL DRAWINGS. REPORT ALL DISCREPANCIES TO THE A/E FOR RESOLUTION BEFORE PROCEEDING.

6. THE CONTRACTOR SHALL SUPPORT, BRACE, AND SECURE EXISTING STRUCTURES AS REQUIRED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF EXISTING STRUCTURES DURING CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION PRIOR TO FINAL DETAILING AND FABRICATION OF NEW STRUCTURAL ELEMENTS.

STRUCTURAL DESIGN CRITERIA

1. GOVERNING CODE — MICHIGAN BUILDING CODE (MBC), 2021 EDITION
2. BUILDING RISK CATEGORY — III
3. DESIGN SOIL BEARING PRESSURE — 3000 PSF (AFTER GROUND IMPROVEMENT)
4. MATERIAL STRENGTHS

   STRUCTURAL STEEL:

   ASTM A992 (F_y = 50 KSI) - ROLLED STEEL SHAPES UNLESS NOTED ON THE DRAWINGS.
   ASTM A36 (F_y = 36 KSI) - ROLLED STEEL PLATES, CHANNELS, ANGLES, BARS, AND RODS AS NOTED ON THE DRAWINGS.
   ASTM A500, GRADE C - HSS

   REINFORCING STEEL:

   ASTM A615, GRADE 60

   CONCRETE:

   f'_c = 4500 PSI FOR ALL CONCRETE UNLESS SPECIFICALLY NOTED OTHERWISE.

   MASONRY:

   f'_m = 2000 PSI FOR CONCRETE MASONRY

5. DEAD LOADS

   ROOF WITH JOIST FRAMING

ROOFING	2 PSF
INSULATION	3 PSF
METAL DECK	3 PSF
M/E/P ALLOWANCE	5 PSF
CEILING/MISC	5 PSF
FRAMING	5 PSF
TOTAL ROOF DEAD LOAD	23 PSF

   ROOF WITH BEAM FRAMING

ROOFING	2 PSF
INSULATION	3 PSF
METAL DECK	3 PSF
M/E/P ALLOWANCE	5 PSF
CEILING/MISC	5 PSF
TOTAL ROOF DEAD LOAD	18 PSF

   AN ADDITIONAL 5 PSF M/E/P ALLOWANCE IS INCLUDED AT MECHANICAL ROOM ROOFS FOR A TOTAL OF 23 PSF DEAD LOAD.
   FRAMING SELF WEIGHT OF BEAMS IS AUTOMATICALLY INCLUDED BY DESIGN SOFTWARE.

   FLOOR (TYPICAL)

FLOOR FINISH	4 PSF
3" CONCRETE TOPPING	38 PSF
10" PRECAST CONCRETE PLANK	68 PSF
M/E/P ALLOWANCE	5 PSF
CEILING/MISC	5 PSF
TOTAL FLOOR DEAD LOAD	120 PSF

   FLOOR (MAIN STAIR LANDINGS ONLY)

FLOOR FINISH	4 PSF
CONCRETE ∉ METAL DECK	44 PSF
M/E/P ALLOWANCE	5 PSF
CEILING/MISC	5 PSF
TOTAL FLOOR DEAD LOAD	58 PSF

   FRAMING SELF WEIGHT OF BEAMS AUTOMATICALLY INCLUDED BY DESIGN SOFTWARE.

6. LIVE LOADS

ROOF	20 PSF
STAIRS	100 PSF
CLASSROOM	40 PSF
MECHANICAL	150 PSF
ASSEMBLY	100 PSF
SECOND FLOOR CORRIDOR	80 PSF
GROUP TOILET ROOMS	80 PSF
STAFF/MEETING/OFFICE/GROUP SPACES	80 PSF
STORAGE/ELEVATOR ROOM	125 PSF

   LIVE LOADS HAVE NOT BEEN REDUCED.

STRUCTURAL DESIGN CRITERIA, CONT.

7. DESIGN SNOW LOAD AND SNOW DRIFTING PARAMETERS ARE AS FOLLOWS:

GROUND SNOW LOAD (P_g)	35 PSF
FLAT ROOF SNOW LOAD (P_f) - TYPICAL	27 PSF + DRIFT
FLAT ROOF SNOW LOAD (P_f) - CANOPIES	33 PSF + DRIFT
SNOW EXPOSURE FACTOR (C_e)	1.0
SNOW THERMAL FACTOR (C_t) - TYPICAL	1.0
SNOW THERMAL FACTOR (C_t) - CANOPIES	1.2
SNOW LOAD IMPORTANCE FACTOR	1.1

8. WIND LOAD DESIGN PARAMETERS ARE AS FOLLOWS:

BASIC WIND SPEED (V), (3 SECOND GUST)	114 MPH
WIND EXPOSURE CATEGORY	B
INTERNAL PRESSURE COEFFICIENT	±0.18

9. SEE TABLE FOR COMPONENTS AND CLADDING LOAD CRITERIA. ALL ARCHITECTURAL AND STRUCTURAL COMPONENTS SHALL CONFORM WITH THE MICHIGAN BUILDING CODE AND ASCE 7 FOR COMPONENTS AND CLADDING DESIGN.

ROOF PRESSURES (PSF)

AREA	ZONE 1	ZONE 1'	ZONE 2	ZONE 3
10	16.0, -39.1	16.0, -22.5	16.0, -51.6	16.0, -51.6
25	16.0, -35.7	16.0, -22.5	16.0, -47.2	16.0, -47.2
50	16.0, -33.1	16.0, -22.5	16.0, -43.9	16.0, -43.9
100	16.0, -30.6	16.0, -22.5	16.0, -40.6	16.0, -40.6
500	16.0, -24.6	16.0, -16.0	16.0, -32.9	16.0, -32.9

WALL PRESSURES (PSF)

AREA	INTERIOR ZONE	EDGE ZONE
10	22.5, -24.4	22.5, -30.0
25	21.2, -23.0	21.2, -27.3
50	20.2, -22.0	20.2, -25.3
100	19.2, -21.0	19.2, -23.4
500	16.9, -18.7	16.9, -18.7

PARAPET PRESSURES (PSF)

AREA	INTERIOR ZONE - WINDWARD	EDGE ZONE - WINDWARD	INTERIOR ZONE - LEEWARD	EDGE ZONE - LEEWARD
10	23.4, -53.7	23.4, -53.7	23.4, -25.3	23.4, -31.2
25	22.0, -49.1	22.0, -49.1	22.0, -23.9	22.0, -28.4
50	21.0, -45.6	21.0, -45.6	21.0, -22.9	21.0, -26.3
100	19.9, -42.2	19.9, -42.2	19.9, -21.9	19.9, -24.3
500	17.5, -34.2	17.5, -34.2	17.5, -19.5	17.5, -19.5

NOTES:

- END ZONE WIDTH IN FEET = 10% OF LEAST HORIZONTAL DIMENSION OR .4h WHICHEVER IS SMALLER BUT NOT LESS THAN EITHER, 4% OF LEAST HORIZONTAL DIMENSION OR 3'-0"
  h=MEAN ROOF HEIGHT, IN FEET, EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES < 10

10. SEISMIC LOAD DESIGN PARAMETERS ARE AS FOLLOWS:

SOIL SITE CLASS	D
MAPPED SPECTRAL RESPONSE ACCELERATION	
(S_s)	0.116
(S_1)	0.053
DESIGN SPECTRAL RESPONSE ACCELERATION	
(S_{ds})	0.123
(S_{d1})	0.085
SEISMIC DESIGN CATEGORY	B
SEISMIC IMPORTANCE FACTOR (I_e)	1.25
SEISMIC LATERAL FORCE RESISTING SYSTEM	INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
RESPONSE MODIFICATION FACTOR (R)	3.5
DEFLECTION AMPLIFICATION FACTOR (C_d)	2.25
SEISMIC DESIGN METHOD	EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC RESPONSE COEFFICIENT (C_s)	0.0442

FOUNDATIONS

A2

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE SUBSURFACE INVESTIGATION REPORT BY DRIESENGA & ASSOCIATES, INC. DATED MAY 18, 2026 (ADDENDUM NO. 2). THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SURVEY AND SUBSURFACE INVESTIGATION REPORT PRIOR TO BIDDING AND BEFORE BEGINNING CONSTRUCTION.

2. THE SUBSURFACE INVESTIGATION IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. FURTHERMORE, NO WARRANTY IS MADE BY THE OWNER WITH REGARD TO COMPLETENESS AND ACCURACY OF SUBSURFACE INVESTIGATION DATA, STATEMENTS, AND INTERPRETATIONS GIVEN IN REPORT.

3. NOTIFY THE A/E AS SOON AS POSSIBLE OF ANY UNUSUAL SOIL CONDITIONS OR SOIL CONDITIONS AT VARIANCE WITH TEST BORINGS, SUCH AS UNEXPECTED SPRING OR SEEPAGE WATER, MATERIAL DIFFERING FROM TEST BORINGS, OR SOIL OF QUESTIONABLE BEARING CAPACITY.

4. SET FOUNDATIONS AT THE ELEVATIONS SHOWN ON THE DRAWINGS ON FIRM SUBGRADE PREPARED PER THE EARTHWORK SPECIFICATIONS. VERIFY THAT EACH FOOTING PLACED IS BEARING ON MATERIAL WITH THE DESIGN BEARING CAPACITY PER THE SUBSURFACE INVESTIGATIVE REPORT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND FINAL CLEARANCE OF ANY REQUIRED NEEDLING, UNDERPINNING, SHORING, OR BRACING OF EXISTING STRUCTURES.

6. FOOTINGS SHALL NOT BE CUT, CORED, OR OTHERWISE REDUCED IN DIMENSION TO ACCOMMODATE CONDUIT, PIPING, OR OTHER PENETRATIONS WITHOUT THE PERMISSION OF THE A/E. SUBMIT PROPOSED FOOTING PENETRATIONS OR ALTERATIONS TO THE A/E IN A SKETCH DOCUMENTING THE EXACT DIMENSIONS AND LOCATIONS OF FOOTING PENETRATIONS OR ALTERATIONS FOR REVIEW PRIOR TO PROCEEDING.

7. RAPID-IMPACT COMPACTION GROUND IMPROVEMENT, WHERE SPECIFIED, SHALL BE DESIGNED BY THE SPECIALTY CONTRACTOR'S LICENSED PROFESSIONAL ENGINEER TO ACHIEVE 3,000 PSF ALLOWABLE BEARING PRESSURE, TO BE CONFIRMED THROUGH THE SPECIALTY CONTRACTOR'S DESIGN AND LOAD TEST REQUIREMENT. REFER TO FOUNDATION PLAN NOTES FOR LOCATION INFORMATION.

STEEL DECK

1. STEEL DECK FABRICATION AND ERECTION SHALL CONFORM TO THE STEEL DECK INSTITUTE SPECIFICATIONS.

2. DECK SHALL INCLUDE ANY MISCELLANEOUS CLOSURE PIECES, METAL SCREEDS, ROOF CURBS, DRAIN SUMP PANS, REINFORCING AROUND OPENINGS, ETC. REQUIRED TO MAKE A COMPLETE JOB. MISCELLANEOUS ITEMS SHALL BE GALVANIZED AND SHALL BE NO THINNER THAN 18 GAGE.

3. FLOOR DECK SHALL BE GALVANIZED (G-60), UNO.

4. ROOF DECK SHALL BE PRIME PAINTED, UNO.

5. NO LOAD SHALL BE HUNG FROM STEEL ROOF DECK.

MASONRY CONSTRUCTION

1. MASONRY WORK SHALL CONFORM TO THE ACI 530 AND 530.1.

2. CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT, HOLLOW LOAD BEARING UNITS CONFORMING TO ASTM C90, WITH MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2000 PSI. ALL LOAD BEARING BLOCK UNITS SHALL BE MANUFACTURED SO THE CORES AND WEBS LINE UP WHEN LAID IN RUNNING BOND.

3. MORTAR FOR LOAD BEARING WALLS, EXTERIOR WALLS, SHEAR WALLS, AND VERTICALLY REINFORCED MASONRY WALLS SHALL BE ASTM C270, TYPE S, WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.

4. WHERE VERTICAL BARS ARE TO BE GROUTED INTO CORES, THE FOLLOWING REQUIREMENTS APPLY:

   COARSE GROUT FOR REINFORCED MASONRY CONSTRUCTION SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

   PROVIDE DOWELS FROM FOOTING, SAME SIZE AND SPACING AS WALL BARS. LAP WITH WALL BAR.

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

   REINFORCING STEEL SHALL BE LAPPED IN ACCORDANCE WITH SCHEDULE WHERE SPLICED. PROVIDE REINFORCING ALIGNMENT DEVICES AT A MAXIMUM SPACING OF 192 BAR DIAMETERS.

5. HORIZONTAL REINFORCEMENT SHALL BE PLACED IN CONTINUOUS MASONRY COURSES CONSISTING OF BOND BEAM OR TROUGH BLOCK UNITS AND GROUTED IN PLACE. THE CONTRACTOR SHALL PLACE ANCHOR BOLTS OR EMBEDDED ITEMS IN COARSE GROUT, UNO ON DRAWINGS.

6. SPLICED WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT WITHIN THE 6".

7. DO NOT CONSTRUCT MASONRY WALLS ON SUPPORTED CONCRETE DECKS UNTIL CONCRETE HAS REACHED 28 DAY STRENGTH AND ALL SHORING HAS BEEN REMOVED.

8. ALL UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HEAD, BED (FACE SHELLS), WEBS AND COLLAR JOINTS, UNO.

9. PROVIDE LINTELS OVER ALL OPENINGS WIDER THAN 8" IN MASONRY WALLS. REFER TO THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATION, NUMBER, AND SIZES OF OPENINGS. NOT NECESSARILY ALL REQUIRED LINTELS ARE SHOWN ON THE STRUCTURAL FRAMING PLANS.

10. LINTELS ARE TO BE U-SHAPED. KNOCK-OUT WEB, V-SHAPED, OR OTHER VARIOUS OPTIONS ARE NOT ACCEPTABLE FOR CONSTRUCTION OF LINTELS.

11. PROVIDE CONTROL JOINTS IN ALL CMU WALLS AS SHOWN ON THE STRUCTURAL DRAWINGS OR AS DEFINED IN THE SPECIFICATIONS. IF NO CONTROL JOINTS ARE SHOWN ON THE STRUCTURAL DRAWINGS, PROVIDE CONTROL JOINTS AT A SPACING OF 25' OR 1.5 TIMES THE WALL HEIGHT, WHICHEVER IS LESS. LOCATE CONTROL JOINTS RELATIVE TO OPENINGS IN ACCORDANCE WITH THE TYPICAL CMU WALL REINFORCING DETAILS. WHERE CMU WALLS ARE LONGER THAN 25' BETWEEN CONTROL JOINTS, PROVIDE A SINGLE COURSE CONTINUOUS HORIZONTAL BOND BEAM WITH (2) #5 @ 4'-0" OC MAX OVER THE FULL HEIGHT OF THE WALL.

12. SHEAR WALLS DESIGNATED ON THE PLANS SHALL BE CONTINUOUS OVER THEIR LENGTH WITH NO CONTROL JOINTS. WHERE SHEAR WALLS ARE LONGER THAN 25', PROVIDE A SINGLE COURSE CONTINUOUS HORIZONTAL BOND BEAM WITH (2) #5 @ 4'-0" OC MAX OVER THE FULL HEIGHT OF THE WALL.

13. BOND BEAM REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS AND AROUND CORNERS AND AT WALL INTERSECTIONS. AT CORNERS AND WALL INTERSECTIONS, PROVIDE BENT BARS OF SAME SIZE AND QUANTITY AS BOND BEAM REINFORCING AND LAP SPLICE WITH BOND BEAM REINFORCING WITH LENGTHS AS REQUIRED BY MASONRY LAP SPLICE SCHEDULE.

14. IN CAVITY WALLS CONSISTING OF A STRUCTURAL CMU WYTHE AND A NON-STRUCTURAL MASONRY VENEER, CONTROL JOINT REQUIREMENTS SHOWN ON THE STRUCTURAL DRAWINGS ARE APPLICABLE TO THE CMU WYTHE AND SHALL NOT BE INTERPRETED TO APPLY TO THE VENEER. REFER TO THE ARCHITECTURAL DRAWINGS FOR JOINT REQUIREMENTS IN THE VENEER. JOINTS IN THE CMU WYTHE AND THE VENEER WILL NOT NECESSARILY ALIGN.

STRUCTURAL PRECAST CONCRETE

1. PRECAST CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE AND THE PRESTRESSED CONCRETE INSTITUTE CODES AND STANDARDS LISTED IN THE PROJECT MANUAL, EXCEPT AS MODIFIED THEREIN.

2. PRECAST HOLLOW CORE SLAB DESIGN CALCULATIONS ARE TO BE SUBMITTED FOR REVIEW.

3. SHOP DRAWING SUBMITTAL SHALL INCLUDE COORDINATION OF SIZE AND LOCATION OF ALL OPENINGS THROUGH HOLLOW CORE WITH MECHANICAL AND ELECTRICAL CONTRACTORS.

4. CONCRETE TOPPING SHALL HAVE (1) LAYER OF 6"x6"-W2.1xW2.1 WELDED WIRE FABRIC.

5. PROVIDE FIRE RATING RESISTANCE PER REQUIREMENTS OF ARCHITECTURAL DRAWINGS.

6. FOR DESIGN OF PRECAST HOLLOW CORE PLANK DO NOT CONSIDER THE CONCRETE TOPPING AS COMPOSITE WITH THE PLANK.

SUPPORTED CONCRETE SLABS ON METAL DECK

1. SEE CAST-IN-PLACE CONCRETE NOTES FOR ADDITIONAL INFORMATION.

2. SLAB CONSTRUCTION JOINTS, IF NECESSARY, SHALL BE LOCATED AT MID-SPAN OF THE METAL DECK, OR FOR CONSTRUCTION JOINTS PARALLEL TO DECK SPAN, AT OR NEAR MID-SPAN OF THE BEAMS. THE CONTRACTOR SHALL DETERMINE THE NEED FOR CONSTRUCTION JOINTS TO SUIT CONCRETE PLACEMENT SCHEDULES AND SHALL SUBMIT A DRAWING SHOWING THE PROPOSED LOCATIONS OF SLAB CONSTRUCTION JOINTS TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

3. WWF SLAB REINFORCEMENT SHALL BE CONTINUED THROUGH THE CONSTRUCTION JOINTS. A MINIMUM LAP CONSISTING OF AT LEAST TWO CROSS WIRES SHALL BE PROVIDED.

4. SURFACE OF CONSTRUCTION JOINTS SHALL BE ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 1/4", CLEANED, AND LAITANCE REMOVED. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, CONSTRUCTION JOINT SHALL BE WETTED AND STANDING WATER REMOVED.

5. DO NOT SAWCUT SLABS ON METAL DECK.

6. STEEL FRAMING AND DECKING IS INTENDED TO BE UNSHORED DURING PLACEMENT OF CONCRETE ON METAL DECK UNLESS NOTED OTHERWISE. POUR SLABS LEVEL AND TO THE ELEVATIONS INDICATED. CONTRACTOR WILL NOT BE PAID FOR ADDITIONAL CONCRETE REQUIRED DUE TO THE DEFLECTION OF THE SUPPORTING STEEL FRAMING. SLAB THICKNESS TOLERANCE SHALL BE +1 1/4" AND -1/4".

COLD-FORMED LIGHT GAGE STEEL FRAMING

1. DETAILING AND FABRICATION OF ALL COLD-FORMED STRUCTURAL MEMBERS SHALL CONFORM TO THE AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.

2. STRUCTURAL STUDS, JOISTS, BRIDGING AND ACCESSORIES SHALL HAVE MINIMUM YIELD STRENGTH OF 50,000 PSI FOR 16 GAGE AND THICKER MATERIALS AND 33,000 PSI FOR MATERIALS THINNER THAN 16 GAGE.

3. THE CONTRACTOR IS RESPONSIBLE FOR THE FINAL DESIGN AND PERFORMANCE OF ALL COLD-FORMED LIGHT GAGE STEEL FRAMING. ALL SIZES, GAGES AND DESIGN REQUIREMENTS SHOWN ON THESE DRAWINGS ARE TO BE CONSIDERED MINIMUM REQUIREMENTS AND NOT FINAL REQUIREMENTS. PRIOR TO FABRICATION OF FRAMING, THE CONTRACTOR SHALL SUBMIT FABRICATION AND ERECTION DRAWINGS TO THE A/E FOR APPROVAL. COMPLETE CALCULATIONS SHALL BE SUBMITTED WITH THE FABRICATION DRAWINGS FOR ALL METAL STUD FRAMING. THE CALCULATIONS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

4. HANDLING AND LIFTING OF PREFABRICATED PANELS SHALL BE DONE IN SUCH A MANNER AS TO NOT CAUSE DISTORTION IN ANY MANNER. TRACKS SHALL BE SECURELY ANCHORED TO THE SUPPORTING STRUCTURE. STUDS SHALL BE PLUMBED, ALIGNED AND SECURELY ATTACHED TO THE FLANGES OR WEBS OF BOTH UPPER AND LOWER TRACKS. JACK STUDS OR CRIPPLES SHALL BE INSTALLED BELOW WINDOW SILLS AND ABOVE WINDOW AND DOOR HEADS, AT FREE-STANDING RAILS AND ELSEWHERE TO FURNISH SUPPORT AND SHALL BE SECURELY ATTACHED TO SUPPORTING MEMBERS.

5. TEMPORARY BRACING SHALL BE PROVIDED UNTIL ERECTION IS COMPLETED. WALL STUD BRIDGING SHALL BE INSTALLED IN A MANNER AS TO PREVENT ROTATION AND ALSO IN A MANNER TO PROVIDE RESISTANCE TO BOTH MINOR AXIS BENDING AND ROTATION. BRIDGING ROWS SHALL BE EQUALLY SPACED AT 4'-0" OC MAXIMUM, UNLESS APPROVED OTHERWISE.

6. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL LIGHT GAGE FRAMING LOCATIONS AND REQUIREMENTS. COORDINATE LOCATIONS AND DESIGN FOR ALL WALL HUNG EQUIPMENT.

7. PROVIDE CONNECTIONS, BRACES, BRIDGING AND RUNNER TRACKS (MINIMUM 16 GAGE, BUT NOT LESS THAN GAGE OF SUPPORTED STUD) TO DEVELOP THE FULL CAPACITY OF THE MEMBERS. PROVIDE CLIPS, CONNECTIONS, STRAPPING FOR TEMPORARY LATERAL BRACING AND ALL ITEMS NECESSARY FOR COMPLETE INSTALLATION.

8. PROVIDE AND COORDINATE VERTICAL SLIP CONNECTIONS TO STRUCTURAL STEEL MEMBERS WHERE REQUIRED.

9. WINDOW AND DOOR HEADS SHALL BE FRAMED WITH JOIST SECTIONS SUFFICIENT TO CARRY THE WEIGHT OF THE WALL ABOVE AND TRANSFER WINDOW AND WALL LATERAL FORCES TO THE JAMBS. JAMB SECTIONS SHALL CONSIST OF HEAVIER GAGE STUDS, MULTIPLE STUDS OR BOTH AS REQUIRED TO PROVIDE LATERAL SUPPORT FOR WINDOW AND DOOR OPENINGS.

STEEL JOISTS AND JOIST GIRDERS

1. STEEL JOISTS SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL JOIST INSTITUTE (SJI) STANDARD SPECIFICATIONS, LOAD TABLES, AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS.

2. THE STEEL JOIST MANUFACTURER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.

3. VERIFY THE EXACT SIZE AND LOCATION OF ALL OPENINGS PRIOR TO FABRICATION OF JOISTS AND HEADERS.

4. ALL HANGERS TO SUPPORT MECHANICAL EQUIPMENT, ETC. SHALL BE SUPPORTED BY THE BOTTOM CHORD OF JOISTS AND SHALL BE LOCATED AT THE PANEL POINTS. ADD A FIELD APPLIED WEB MEMBER PER TYPICAL DETAIL IF HANGERS DO NOT OCCUR AT PANEL POINTS. ALL HANGERS SHALL BE LOCATED AT THE CENTERLINE OF THE BOTTOM CHORD MEMBER.

5. EXTEND BOTTOM CHORDS OF ALL JOISTS CENTERED ON COLUMNS TO A STABILIZER PLATE ON THE COLUMN AS SHOWN IN THE TYPICAL DETAILS. DO NOT CONNECT JOIST BOTTOM CHORD TO THE STABILIZER PLATE UNLESS NOTED OTHERWISE.

6. WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS, A BAR JOIST SHALL BE FIELD BOLTED TO COLUMNS TO PROVIDE LATERAL STABILITY.

7. JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET DESIGN AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATION FOR STEEL JOISTS AND JOIST GIRDERS. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.

8. ENDS OF JOIST BRIDGING LINES SHALL BE ANCHORED TO MASONRY WALLS OR STEEL BEAMS. ALL BRIDGING SHALL BE WELDED TO JOISTS IN SUCH A MANNER AS NOT TO IMPAIR THE STRUCTURAL INTEGRITY OF THE JOIST.

9. RIGID X-BRACING AS SHOWN ON THE PLANS SHALL BE BOLTED OR WELDED AT THE INTERSECTION OF THE TWO BRIDGING MEMBERS BETWEEN JOISTS.

10. WELD ALL STEEL JOISTS TO SUPPORTING STRUCTURAL STEEL MEMBERS AS SHOWN ON THE DRAWINGS AND ACCORDING TO SJI AND AWS D1.1 AS A MINIMUM.

11. ANY SPLICES REQUIRED IN JOIST OR JOIST GIRDER WEB OR CHORD MEMBERS SHALL BE DESIGNED BY THE JOIST MANUFACTURER AND SHALL BE IN ACCORDANCE WITH SJI STANDARD SPECIFICATIONS.

12. JOISTS AND JOIST GIRDERS SHALL BE ERECTED STRAIGHT. SWEEPS SHALL BE A MAXIMUM OF 1" MEASURED AT THE CENTER.

13. JOISTS AND JOIST GIRDERS SHALL BE DESIGNED FOR A MINIMUM NET UPLIFT LOAD EQUAL TO 20 PSF.

14. JOISTS HAVE BEEN SPECIFIED USING ONE OF THE FOLLOWING OPTIONS FROM THE SJI CODE OF STANDARD PRACTICE:

    OPTION 1: ENGINEER HAS SELECTED A JOIST DESIGNATION FROM THE STANDARD LOAD TABLES WHICH HAS BEEN DETERMINED TO BE ADEQUATE FOR ALL DESIGN LOADS. THIS IS THE DEFAULT OPTION.

    OPTION 2: ENGINEER HAS SELECTED A JOIST DESIGNATION FROM THE STANDARD LOAD TABLE AND ALSO PROVIDED THE LOAD AND LOCATION OF ANY ADDITIONAL LOADS ON THE FRAMING PLANS FOR WHICH THE JOIST MANUFACTURER SHALL DESIGN THE JOIST. ADDITIONAL LOADS UNDER THIS OPTION ARE SPECIFIED ON THE FRAMING PLANS WITH A "TC" OR "BC", INDICATING WHETHER THE ADDITIONAL LOAD IS APPLIED TO THE TOP CHORD OR THE BOTTOM CHORD.

    OPTION 3a: ENGINEER HAS SELECTED A JOIST DESIGNATION FROM THE STANDARD LOAD TABLE AND ALSO PROVIDED THE MAGNITUDE OF ANY ADDITIONAL LOADS ON THE FRAMING PLANS WHICH THE JOIST MANUFACTURER SHALL DESIGN THE JOIST TO SUPPORT AT ANY PANEL POINT. ADDITIONAL LOADS UNDER THIS OPTION ARE SPECIFIED ON THE FRAMING PLANS WITH A "ALTC" OR "ALBC", INDICATING WHETHER THE ADDITIONAL LOAD IS APPLIED TO THE TOP CHORD OR THE BOTTOM CHORD.

    OPTION 4: ENGINEER HAS SELECTED A KCS JOIST WHICH HAS BEEN DETERMINED TO BE ADEQUATE FOR ALL DESIGN LOADS.

    OPTION 5: ENGINEER HAS SPECIFIED A SPECIAL JOIST WITH A CORRESPONDING LOADING DIAGRAM. JOISTS SPECIFIED UNDER THIS OPTION HAVE AN "SP_" IN THE DESIGNATION.

15. WHERE JOIST EXTENDED ENDS ARE SPECIFIED ON THE PLANS OR DETAILS, THEY SHALL BE OF THE SAME SERIES NUMBER AS THE JOIST, UNLESS NOTED OTHERWISE. FOR EXAMPLE, AN 'R-TYPE' EXTENDED END ON A 28K7 SHALL BE A TYPE R7.

CAST-IN-PLACE CONCRETE

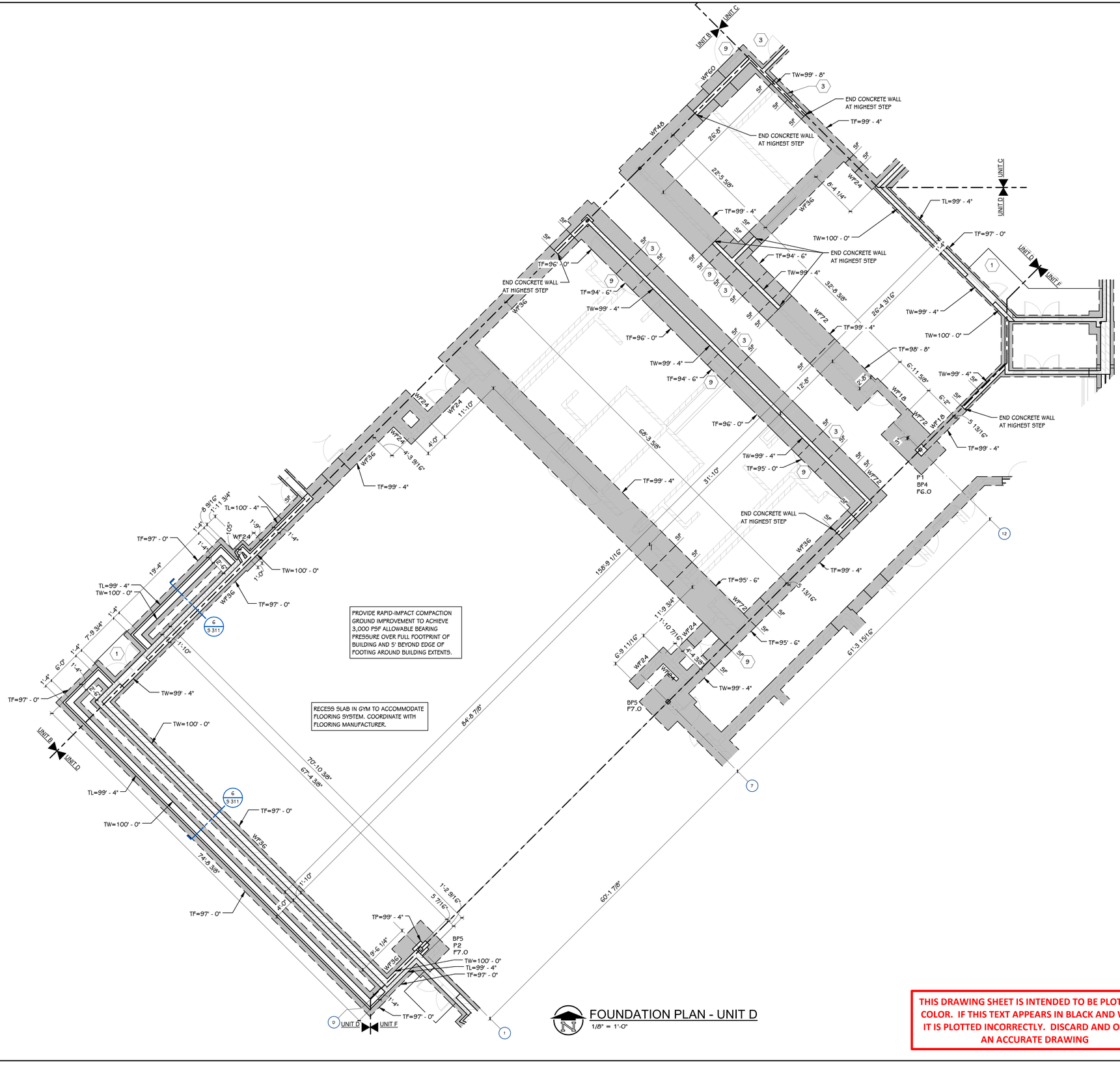
1. CAST-IN-PLACE CONCRETE WORK SHALL CONFORM TO THE PROJECT MANUAL AND AMERICAN CONCRETE INSTITUTE CODES AND STANDARDS, INCLUDING, BUT NOT LIMITED TO, ACI 301, ACI 315, AND ACI 318.

2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 DELIVERED IN FLAT SHEETS.

3. THE CONTRACTOR SHALL REVIEW ALL DRAWINGS FOR SIZE AND LOCATION OF ALL EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, OPENINGS, ETC. REQUIRED BY OTHER TRADES. RECONCILE THEIR EXACT SIZES AND LOCATIONS BEFORE PROCEEDING WITH THE WORK. ALL ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF CONCRETE. SECURE THE APPROVAL OF THE STRUCTURAL ENGINEER PRIOR TO PLACING OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT CORE DRILL THROUGH BEAMS, JOISTS, GIRDERS, OR WALLS. NO CONDUIT SHALL BE PLACED IN CONCRETE SLABS OR BEAMS UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

4. BACKFILL AGAINST WALLS SHALL NOT BE PLACED UNTIL THE FLOOR CONSTRUCTION AT THE FIRST FLOOR HAS BEEN COMPLETED TO BRACE THE WALL. AT THE CONTRACTOR'S OPTION, WALLS MAY BE BRACED AND BACKFILL INSTALLED. ANY SUCH BRACING SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL THE FIRST FLOOR IS COMPLETED AND CONTINUOUSLY CONNECTED TO THE WALL.

5. WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, THE LENGTH OF ANY HOOK, IF REQUIRED, IS NOT INCLU



THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NOTES - STRUCTURAL - FOUNDATION

1 FLOOR CONSTRUCTION, UNO: 4" SLAB ON GRADE WITH 6x6-W1.4xW1.4 WWF. REFER TO TYPICAL DETAILS ON FOR ADDITIONAL REQUIREMENTS

2 PROVIDE RAPID-IMPACT COMPACTION GROUND IMPROVEMENT TO ACHIEVE 3,000 PSF ALLOWABLE BEARING PRESSURE OVER FULL FOOTPRINT OF BUILDING AND BEYOND BUILDING EXTENTS AS REQUIRED BY SPECIALTY CONTRACTOR.

3 TOP OF SLAB-ON-GRADE ELEVATION = 100'-0", UNO

4 TOP OF PIER ELEVATION = 99'-4", UNO

5 TOP OF BRICK LEDGE ELEVATION = 99' - 4", UNO

6 TOP OF FOOTING ELEVATION = 97'-0" UNO. ALL EXTERIOR FOOTINGS TO EXTEND A MINIMUM OF 3'-6" BELOW FINISHED GRADE.

7 REFER TO GENERAL NOTES FOR DESIGN SOIL BEARING CAPACITY

8 PROVIDE FROST-FREE ENTRANCE APRON AT ALL EXTERIOR DOORS, REFER TO TYPICAL DETAIL

9 REFER TO TYPICAL DETAIL FOR PIPE CROSSINGS AT FOUNDATIONS, STEP FOOTINGS AS REQUIRED TO ALLOW PIPE TO PASS THROUGH FOUNDATION WALL. REFER TO MECHANICAL FOR SIZES AND LOCATIONS OF PIPING, COORDINATE FINAL SIZES AND ELEVATIONS WITH MECHANICAL SUPPLIER.

10 PROVIDE THICKENED SLAB UNDER ALL INTERIOR NON-LOADBEARING CMU WALLS AND STAIR STRINGERS PER TYPICAL DETAILS. THESE ITEMS ARE NOT SHOWN ON THE STRUCTURAL FOUNDATION PLANS. COORDINATE LOCATION WITH THE ARCHITECTURAL DRAWINGS.

11 VERIFY LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC. WITH ARCHITECTURAL DRAWINGS BEFORE PLACING FOUNDATIONS.

12 COORDINATE WITH ALL DRAWINGS FOR LOCATION OF OPENINGS, SLEEVES, AND UNDER FLOOR PIPES, CONDUITS, DRAINS, DEPRESSIONS, ETC.

13 SHORING, BRACING AND SHEETING MAY BE REQUIRED WHEN EXCAVATION ADJACENT TO THE EXISTING STRUCTURE. DESIGN AND INSTALLATION OF SUCH SHORING, BRACING AND SHEETING IS THE RESPONSIBILITY OF THE CONTRACTOR.

KEYED NOTES - STRUCTURAL - FOUNDATION

1 PROVIDE FROST-FREE APRON. REFER TO TYPICAL DETAIL.

2 PROVIDE OVERHEAD DOOR APRON. REFER TO TYPICAL DETAIL.

3 CONC FOUNDATION WALL: 8" WALLS TO HAVE #5 @ 12" OC EACH WAY, CENTERED, UNO. WALLS GREATER THAN 8" THICK TO HAVE #5 @ 12" EACH WAY, EACH FACE, UNO. PROVIDE DOWELS TO MATCH SIZE AND SPACING OF CMU WALL REINFORCING.

4 (2) #5 X 5'-0" LONG IN SLAB AT REENTRANT CORNER.

5 RECESS SLAB FOR FREEZER AND COOLER. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. COORDINATE DEPTH OF RECESS WITH FOOD SERVICE CONTRACTOR.

6 REFER TO TYPICAL INTERIOR WALL FOOTING DETAIL.

7 REFER TO TYPICAL EXTERIOR FOUNDATION WALLS DETAIL.

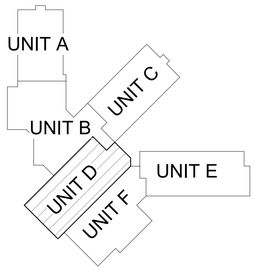
8 RECESS SLAB FOR LOADING DOCK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. COORDINATE DEPTH OF RECESS WITH LOADING DOCK SUPPLIER.

9 SLEEVE WALL FOR UNDERGROUND PIPE PENETRATION. COORDINATE SLEEVE SIZE AND LOCATION WITH PLUMBING CONTRACTOR.

LEGEND - STRUCTURAL - FOUNDATION

5F	STEPPED FOOTING. REFER TO TYPICAL DETAILS. CREATE EQUAL STEPS BETWEEN ADJACENT TOP OF FOOTING ELEVATIONS.
	TOP OF FOUNDATION ELEMENT; REFER TO FOUNDATION PLAN NOTES FOR ELEVATIONS NOT NOTED ON PLANS
TL/TW	TL - TOP OF BRICK LEDGE
	TW - TOP OF WALL
TP/TF	TP - TOP OF PIER
	TF - TOP OF FOOTING
Fx.x/WFx.x	SPREAD FOOTING OR WALL FOOTING DESIGNATION. REFER TO FOOTING SCHEDULES.
Px	CONCRETE PIER DESIGNATION. REFER TO TYPICAL PIER DETAILS.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 1	05/08/26
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

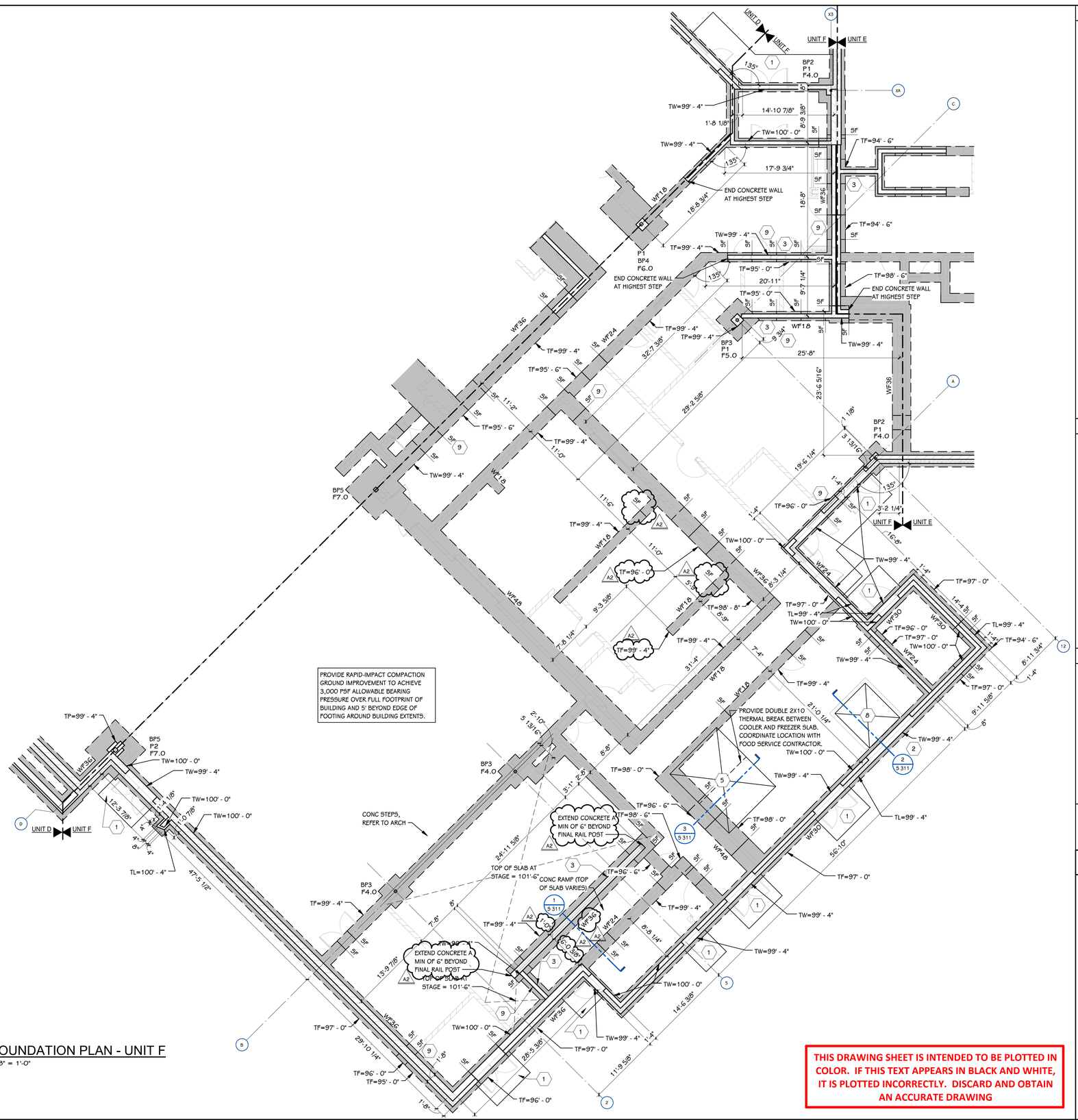
KALAMAZOO, MICHIGAN

SHEET TITLE
FOUNDATION PLAN - UNIT D

DATE
APRIL 24, 2026

SHEET NUMBER
S101D
23-622.00

DRAWN BY: ACR 5/18/2026 3:23:42 PM



FOUNDATION PLAN - UNIT F
1/8" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NOTES - STRUCTURAL - FOUNDATION

1 FLOOR CONSTRUCTION, UNO: 4" SLAB ON GRADE WITH 6x6-W1.4xW1.4 WWF. REFER TO TYPICAL DETAILS ON FOR ADDITIONAL REQUIREMENTS

2 PROVIDE RAPID-IMPACT COMPACTION GROUND IMPROVEMENT TO ACHIEVE 3,000 PSF ALLOWABLE BEARING PRESSURE OVER FULL FOOTPRINT OF BUILDING AND BEYOND BUILDING EXTENTS AS REQUIRED BY SPECIALTY CONTRACTOR.

3 TOP OF SLAB-ON-GRADE ELEVATION = 100'-0", UNO

4 TOP OF PIER ELEVATION = 99'-4", UNO

5 TOP OF BRICK LEDGE ELEVATION = 99' - 4", UNO

6 TOP OF FOOTING ELEVATION = 97'-0" UNO. ALL EXTERIOR FOOTINGS TO EXTEND A MINIMUM OF 3'-6" BELOW FINISHED GRADE.

7 REFER TO GENERAL NOTES FOR DESIGN SOIL BEARING CAPACITY

8 PROVIDE FROST-FREE ENTRANCE APRON AT ALL EXTERIOR DOORS, REFER TO TYPICAL DETAIL

9 REFER TO TYPICAL DETAIL FOR PIPE CROSSINGS AT FOUNDATIONS, STEP FOOTINGS AS REQUIRED TO ALLOW PIPE TO PASS THROUGH FOUNDATION WALL. REFER TO MECHANICAL FOR SIZES AND LOCATIONS OF PIPING, COORDINATE FINAL SIZES AND ELEVATIONS WITH MECHANICAL SUPPLIER.

10 PROVIDE THICKENED SLAB UNDER ALL INTERIOR NON-LOADBEARING CMU WALLS AND STAIR STRINGERS PER TYPICAL DETAILS. THESE ITEMS ARE NOT SHOWN ON THE STRUCTURAL FOUNDATION PLANS. COORDINATE LOCATION WITH THE ARCHITECTURAL DRAWINGS.

11 VERIFY LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC. WITH ARCHITECTURAL DRAWINGS BEFORE PLACING FOUNDATIONS.

12 COORDINATE WITH ALL DRAWINGS FOR LOCATION OF OPENINGS, SLEEVES, AND UNDER FLOOR PIPES, CONDUITS, DRAINS, DEPRESSIONS, ETC.

13 SHORING, BRACING AND SHEETING MAY BE REQUIRED WHEN EXCAVATION ADJACENT TO THE EXISTING STRUCTURE. DESIGN AND INSTALLATION OF SUCH SHORING, BRACING AND SHEETING IS THE RESPONSIBILITY OF THE CONTRACTOR.

KEYED NOTES - STRUCTURAL - FOUNDATION

1 PROVIDE FROST-FREE APRON. REFER TO TYPICAL DETAIL.

2 PROVIDE OVERHEAD DOOR APRON. REFER TO TYPICAL DETAIL.

3 CONC FOUNDATION WALL: 8" WALLS TO HAVE #5 @ 12" OC EACH WAY, CENTERED, UNO. WALLS GREATER THAN 8" THICK TO HAVE #5 @ 12" EACH WAY, EACH FACE, UNO. PROVIDE DOWELS TO MATCH SIZE AND SPACING OF CMU WALL REINFORCING.

4 (2) #5 X 5'-0" LONG IN SLAB AT REENTRANT CORNER.

5 RECESS SLAB FOR FREEZER AND COOLER. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. COORDINATE DEPTH OF RECESS WITH FOOD SERVICE CONTRACTOR.

6 REFER TO TYPICAL INTERIOR WALL FOOTING DETAIL.

7 REFER TO TYPICAL EXTERIOR FOUNDATION WALLS DETAIL.

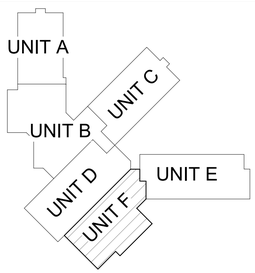
8 RECESS SLAB FOR LOADING DOCK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. COORDINATE DEPTH OF RECESS WITH LOADING DOCK SUPPLIER.

9 SLEEVE WALL FOR UNDERGROUND PIPE PENETRATION. COORDINATE SLEEVE SIZE AND LOCATION WITH PLUMBING CONTRACTOR.

LEGEND - STRUCTURAL - FOUNDATION

SF	STEPPED FOOTING. REFER TO TYPICAL DETAILS. CREATE EQUAL STEPS BETWEEN ADJACENT TOP OF FOOTING ELEVATIONS.
	TOP OF FOUNDATION ELEMENT; REFER TO FOUNDATION PLAN NOTES FOR ELEVATIONS NOT NOTED ON PLANS
TL/TW	TL - TOP OF BRICK LEDGE TW - TOP OF WALL
TP/TF	TP - TOP OF PIER TF - TOP OF FOOTING
Fx.x/WFx.x	SPREAD FOOTING OR WALL FOOTING DESIGNATION. REFER TO FOOTING SCHEDULES.
Px	CONCRETE PIER DESIGNATION. REFER TO TYPICAL PIER DETAILS.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

ISSUED FOR	DATE
ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

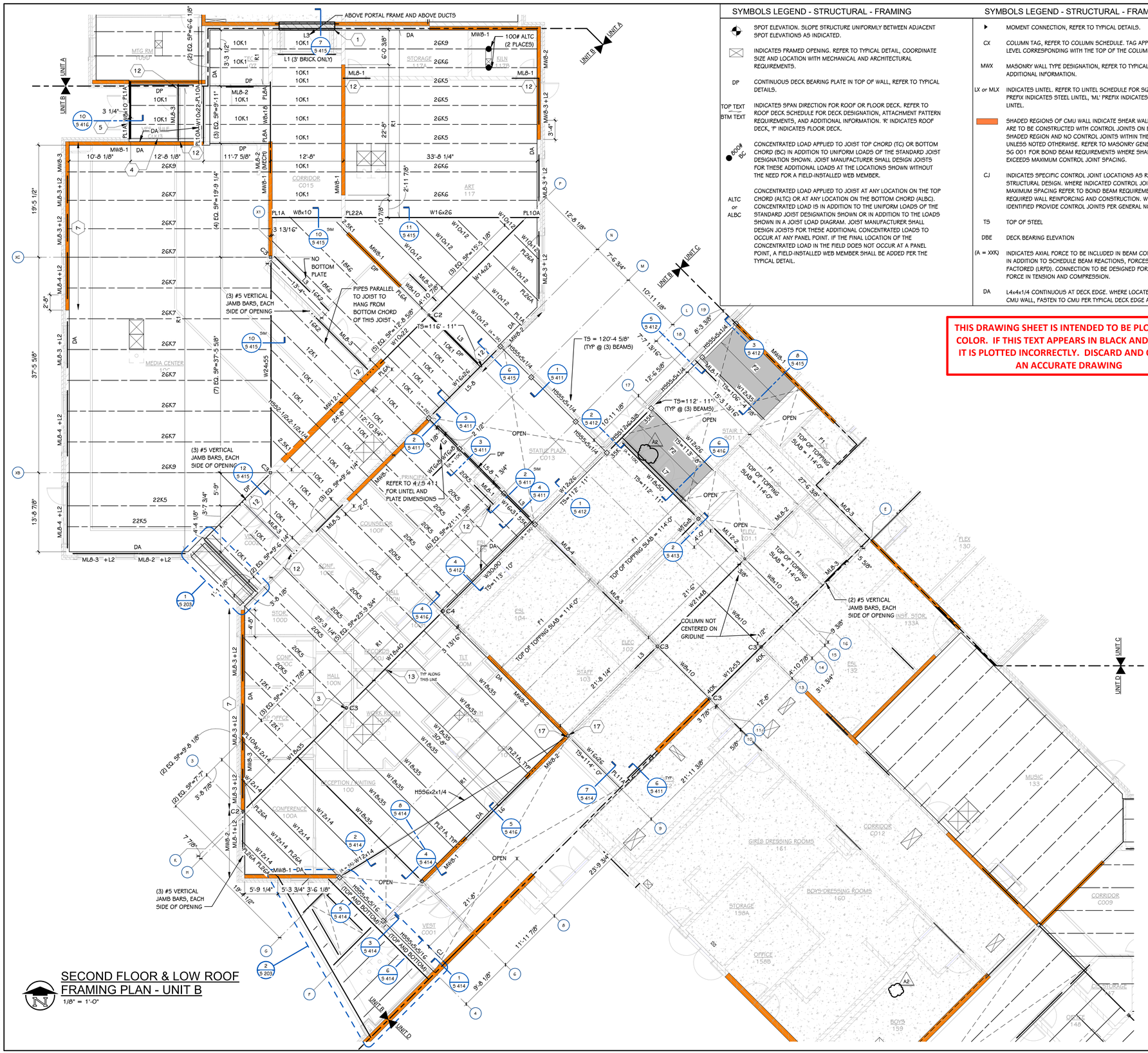
KALAMAZOO, MICHIGAN

SHEET TITLE
FOUNDATION PLAN - UNIT F

DATE
APRIL 24, 2026

SHEET NUMBER
S 101F
23-622.00

DRAWN BY: ACR 5/18/2026 3:23:48 PM


ABOVE PORTAL FRAME AND ABOVE DUCTS
UNIT A
UNIT B
UNIT C
UNIT D
UNIT E
UNIT F
MTG RM 100D
MEDIA CENTER 100C
CORRIDOR C015
ART 117
STORAGE 117A
KILN 117B
STATUS PLAZA C013
COUNSELOR 100F
NURSE 100E
HALL 100N
CORR 100C
STOR 100D
TLT ROOM 100M
WORK ROOM 100K
RECEPTION / WAITING 100
CONFERENCE 100A
VEST C001
STAIR 1 S01.1
ELEV. E01.1
ELEC 102
STAFF 103
ESL 104
FLEX 130
INST. STOR. 133A
ESL 132
MUSIC 133
CORRIDOR C012
GIRLS DRESSING ROOMS 161
BOYS DRESSING ROOMS 160
CORRIDOR C009
STORAGE 158A
OFFICE 158B
BOYS 159
CORRIDOR C008
STORAGE 148
T5 = 116' - 11"
T5 = 120'-4 5/8" (TYP @ (3) BEAMS)
T5=112' - 11" (TYP @ (3) BEAMS)
T5=112' - 11"
T5=113' - 10"
T5=113' - 6"
T5=114' - 0"
NO BOTTOM PLATE
PIPES PARALLEL TO JOIST TO HANG FROM BOTTOM CHORD OF THIS JOIST
(3) #5 VERTICAL JAMB BARS, EACH SIDE OF OPENING
REFER TO 4 / S 411 FOR LINTEL AND PLATE DIMENSIONS
TYP ALONG THIS LINE
COLUMN NOT CENTERED ON GRIDLINE
(2) #5 VERTICAL JAMB BARS, EACH SIDE OF OPENING
TOP OF TOPPING SLAB = 114'-0"
TOP AND BOTTOM
OPEN
100# ALTC (2 PLACES)
L1 (3" BRICK ONLY)
HSS5x5x1/4
HSS5x5x5/16
W8x10
W10x12
W12x14
W16x26
W18x35
W21x44
W12x53
W30x90
W12x26
W14x22
W12x65
W16x40
W12x45
W12x50
W18x50
W12x96
W12x136
W12x170
W16x67
W16x89
W16x100
W16x131
W18x119
W21x68
W24x55
W10x22
W8x18
W8x21
W10x33
W12x40
W12x72
W16x36
W18x40
W18x46
W21x48
W21x50
W21x55
W21x62
W21x73
W21x83
W21x93
W21x101
W21x111
W21x122
W21x132
W21x147
W24x76
W24x84
W24x94
W24x103
W24x117
W24x131
W24x146
W24x162
W24x176
W24x192
W24x207
W24x229
W24x250
W24x279
W24x306
W24x335
W24x370
W24x408
W24x450
W24x492
W24x535
W24x583
W24x629
W24x679
W24x731
W24x783
W24x837
W24x897
W24x962
W24x1041
W24x1120
W24x1192
W24x1266
W24x1346
W24x1441
W24x1538
W24x1653
W24x1760
W24x1882
W24x2009
W24x2146
W24x2294
W24x2442
W24x2604
W24x2762
W24x2944
W24x3131
W24x3329
W24x3539
W24x3762
W24x4008
W24x4286
W24x4586
W24x4909
W24x5249
W24x5624
W24x6014
W24x6439
W24x6899
W24x7394
W24x7924
W24x8499
W24x9119
W24x9784
W24x10504
W24x11279
W24x12119
W24x13029
W24x14009
W24x15069
W24x16219
W24x17469
W24x18829
W24x20309
W24x21929
W24x23699
W24x25639
W24x27769
W24x30109
W24x32679
W24x35499
W24x38589
W24x41969
W24x45659
W24x49679
W24x54049
W24x58799
W24x63949
W24x69519
W24x75529
W24x82009
W24x88979
W24x96459
W24x104469
W24x113029
W24x122159
W24x131879
W24x142209
W24x153169
W24x164779
W24x177059
W24x190029
W24x203709
W24x218119
W24x233279
W24x249209
W24x265929
W24x283459
W24x301819
W24x321029
W24x341109
W24x362079
W24x383959
W24x406759
W24x430499
W24x455199
W24x480879
W24x507559
W24x535259
W24x563999
W24x593799
W24x624679
W24x656659
W24x689759
W24x723999
W24x759399
W24x795979
W24x833759
W24x872759
W24x912999
W24x954499
W24x997279
W24x1041359
W24x1086759
W24x1133499
W24x1181599
W24x1231079
W24x1281959
W24x1334259
W24x1387999
W24x1443199
W24x1499879
W24x1558059
W24x1617759
W24x1678999
W24x1741799
W24x1806199
W24x1872219
W24x1939879
W24x2009199
W24x2080199
W24x2152899
W24x2227319
W24x2303479
W24x2381399
W24x2461099
W24x2542619
W24x2625979
W24x2711199
W24x2798299
W24x2887299
W24x2978219
W24x3071079
W24x3165899
W24x3262699
W24x3361499
W24x3462319
W24x3565179
W24x3670099
W24x3777099
W24x3886199
W24x3997419
W24x4110779
W24x4226299
W24x4344019
W24x4463959
W24x4586139
W24x4710579
W24x4837299
W24x4966319
W24x5097659
W24x5231339
W24x5367379
W24x5505799
W24x5646619
W24x5789859
W24x5935539
W24x6083679
W24x6234299
W24x6387419
W24x6543059
W24x6701239
W24x6861979
W24x7025299
W24x7191219
W24x7359759
W24x7530939
W24x7704779
W24x7881299
W24x8060519
W24x8242459
W24x8427139
W24x8614579
W24x8804799
W24x8997819
W24x9193659
W24x9392339
W24x9593879
W24x9798299
W24x10005619
W24x10215859
W24x10429039
W24x10645179
W24x10864299
W24x11086419
W24x11311559
W24x11539739
W24x11770979
W24x12005299
W24x12242719
W24x12483259
W24x12726939
W24x12973779
W24x13223799
W24x13477019
W24x13733459
W24x13993139
W24x14256079
W24x14522299
W24x14791819
W24x15064659
W24x15340839
W24x15620379
W24x15903299
W24x16189619
W24x16479359
W24x16772539
W24x17069179
W24x17369299
W24x17672919
W24x17980059
W24x18290739
W24x18604979
W24x18922799
W24x19244219
W24x19569259
W24x19897939
W24x20230279
W24x20566299
W24x20906019
W24x21249459
W24x21596639
W24x21947579
W24x22302299
W24x22660819
W24x23023159
W24x23389339
W24x23759379
W24x24133299
W24x24511119
W24x24892859
W24x25278539
W24x25668179
W24x26061799
W24x26459419
W24x26861059
W24x27266739
W24x27676479
W24x28090299
W24x28508219
W24x28930259
W24x29356439
W24x29786779
W24x30221299
W24x30660019
W24x31102959
W24x31550139
W24x32001579
W24x32457299
W24x32917319
W24x33381659
W24x33850339
W24x34323379
W24x34800799
W24x35282619
W24x35768859
W24x36259539
W24x36754679
W24x37254299
W24x37758419
W24x38267059
W24x38780239
W24x39297979
W24x39820299
W24x40347219
W24x40878759
W24x41414939
W24x41955779
W24x42501299
W24x43051519
W24x43606459
W24x44166139
W24x44730579
W24x45299799
W24x45873819
W24x46452659
W24x47036339
W24x47624879
W24x48218299
W24x48816619
W24x49419859
W24x50028039
W24x50641179
W24x51259299
W24x51882419
W24x52510559
W24x53143739
W24x53781979
W24x54425299
W24x55073719
W24x55727259
W24x56385939
W24x57049779
W24x57718799
W24x58392019
W24x59070459
W24x59754139
W24x60443079
W24x61137299
W24x61836819
W24x62541659
W24x63251839
W24x63967379
W24x64688299
W24x65414619
W24x66146359
W24x66883539
W24x67626179
W24x68374299
W24x69127919
W24x69887059
W24x70651739
W24x71421979
W24x72197799
W24x72979219
W24x73766259
W24x74558939
W24x75357279
W24x76161299
W24x76971019
W24x77786459
W24x78607639
W24x79434579
W24x80267299
W24x81105819
W24x81950159
W24x82800339
W24x83656379
W24x84518299
W24x85386119
W24x86259859
W24x87139539
W24x88025179
W24x88916799
W24x89814419
W24x90718059
W24x91627739
W24x92543479
W24x93465299
W24x94393219
W24x95327259
W24x96267439
W24x97213779
W24x98166299
W24x99125019
W24x100089959
W24x101061139
W24x102038579
W24x103022299
W24x104012319
W24x105008659
W24x106011339
W24x107020379
W24x108035799
W24x109057619
W24x110085859
W24x111120539
W24x112161679
W24x113209299
W24x114263419
W24x115324059
W24x116391239
W24x117464979
W24x118545299
W24x119632219
W24x120725759
W24x121825939
W24x122932779
W24x124046299
W24x125166519
W24x126293459
W24x127427139
W24x128567579
W24x129714799
W24x130868819
W24x132029659
W24x133197339
W24x134371879
W24x135553299
W24x136741619
W24x137936859
W24x139139039
W24x140348179
W24x141564299
W24x142787419
W24x144017559
W24x145254739
W24x146498979
W24x147750299
W24x149008719
W24x150274259
W24x151546939
W24x152826779
W24x154113799
W24x155408019
W24x156709459
W24x158018139
W24x159334079
W24x160657299
W24x161987819
W24x163325659
W24x164670839
W24x166023379
W24x167383299
W24x168750619
W24x170125359
W24x171507539
W24x172897179
W24x174294299
W24x175698919
W24x177111059
W24x178530739
W24x179957979
W24x181392799
W24x182835219
W24x184285259
W24x185742939
W24x187208279
W24x188681299
W24x190162019
W24x191650459
W24x193146639
W24x194650579
W24x196162299
W24x197681819
W24x199209159
W24x200744339
W24x202287379
W24x203838299
W24x205397119
W24x206963859
W24x208538539
W24x210121179
W24x211711799
W24x213310419
W24x214917059
W24x216531739
W24x218154479
W24x219785299
W24x221424219
W24x223071259
W24x224726439
W24x226389779
W24x228061299
W24x229741019
W24x231428959
W24x233125139
W24x234829579
W24x236542299
W24x238263319
W24x239992659
W24x241730339
W24x243476379
W24x245230799
W24x246993619
W24x248764859
W24x250544539
W24x252332679
W24x254129299
W24x255934419
W24x257748059
W24x259570239
W24x261400979
W24x263240299
W24x265088219
W24x266944759
W24x268809939
W24x270683779
W24x272566299
W24x274457519
W24x276357459
W24x278266139
W24x280183579
W24x282109799
W24x284044819
W24x285988659
W24x287941339
W24x289902879
W24x291873299
W24x293852619
W24x295840859
W24x297838039
W24x299844179
W24x301859299
W24x303883419
W24x305916559
W24x307958739
W24x310009979
W24x312070299
W24x314139719
W24x316218259
W24x318305939
W24x320402779
W24x322508799
W24x324624019
W24x326748459
W24x328882139
W24x331025079
W24x333177299
W24x335338819
W24x337509659
W24x339689839
W24x341879379
W24x344078299
W24x346286619
W24x348504359
W24x350731539
W24x352968179
W24x355214299
W24x357469919
W24x359735059
W24x362009739
W24x364293979
W24x366587799
W24x368891219
W24x371204259
W24x373526939
W24x375859279
W24x378201299
W24x380553019
W24x382914459
W24x385285639
W24x387666579
W24x390057299
W24x392457819
W24x394868159
W24x397288339
W24x399718379
W24x402158299
W24x404608119
W24x407067859
W24x409537539
W24x412017179
W24x414506799
W24x417006419
W24x419516059
W24x422035739
W24x424565479
W24x427105299
W24x429655219
W24x432215259
W24x434785439
W24x437365779
W24x439956299
W24x442557019
W24x445167959
W24x447789139
W24x450420579
W24x453062299
W24x455714319
W24x458376659
W24x461049339
W24x463732379
W24x466425799
W24x469129619
W24x471843859
W24x474568539
W24x477303679
W24x480049299
W24x482805419
W24x485572059
W24x488349239
W24x491136979
W24x493935299
W24x496744219
W24x499563759
W24x502393939
W24x505234779
W24x508086299
W24x510948519
W24x513821459
W24x516705139
W24x519599579
W24x522504799
W24x525420819
W24x528347659
W24x531285339
W24x534233879
W24x537193299
W24x540163619
W24x543144859
W24x546137039
W24x549140179
W24x552154299
W24x555179419
W24x558215559
W24x561262739
W24x564320979
W24x567390299
W24x570470719
W24x573562259
W24x576664939
W24x579778779
W24x582903799
W24x586040019
W24x589187459
W24x592346139
W24x595516079
W24x598697299
W24x601889819
W24x605093659
W24x608308839
W24x611535379
W24x614773299
W24x618022619
W24x621283359
W24x624555539
W24x627839179
W24x631134299
W24x634440919
W24x637759059
W24x641088739
W24x644429979
W24x647782799
W24x651147219
W24x654523259
W24x657910939
W24x661310279
W24x664721299
W24x668144019
W24x671578459
W24x675024639
W24x678482579
W24x681952299
W24x685433819
W24x688927159
W24x692432339
W24x695949379
W24x699478299
W24x703019119
W24x706571859
W24x710136539
W24x713713179
W24x717301799
W24x720902419
W24x724515059
W24x728139739
W24x731776479
W24x735425299
W24x739086219
W24x742759259
W24x746444439
W24x750141779
W24x753851299
W24x757573019
W24x761306959
W24x765053139
W24x768811579
W24x772582299
W24x776365319
W24x780160659
W24x783968339
W24x787788379
W24x791620799
W24x795465619
W24x799322859
W24x803192539
W24x807074679
W24x810969299
W24x814876419
W24x818796059
W24x822728239
W24x826672979
W24x830630299
W24x834600219
W24x838582759
W24x842577939
W24x846585779
W24x850606299
W24x854639519
W24x858685459
W24x862744139
W24x866815579
W24x870899799
W24x874996819
W24x879106659
W24x883229339
W24x887364879
W24x891513299
W24x895674619
W24x899848859
W24x904036039
W24x908236179
W24x912449299
W24x916675419
W24x920914559
W24x925166739
W24x929431979
W24x933710299
W24x938001719
W24x942306259
W24x946623939
W24x950954779
W24x955298799
W24x959656019
W24x964026459
W24x968410139
W24x972807079
W24x977217299
W24x981640819
W24x986077659
W24x990527839
W24x994991379
W24x999468299
W24x1003958619
W24x1008462359
W24x1012979539
W24x1017510179
W24x1022054299
W24x1026611919
W24x1031183059
W24x1035767739
W24x1040365979
W24x1044977799
W24x1049603219
W24x1054242259
W24x1058894939
W24x1063561279
W24x1068241299
W24x1072935019
W24x1077642459
W24x1082363639
W24x1087098579
W24x1091847299
W24x1096609819
W24x1101386159
W24x1106176339
W24x1110980379
W24x1115798299
W24x1120630119
W24x1125475859
W24x1130335539
W24x1135209179
W24x1140096799
W24x1144998419
W24x1149914059
W24x1154843739
W24x1159787479
W24x1164745299
W24x1169717219
W24x1174703259
W24x1179703439
W24x1184717779
W24x1189746299
W24x1194789019
W24x1199845959
W24x1204917139
W24x1210002579
W24x1215102299
W24x1220216319
W24x1225344659
W24x1230487339
W24x1235644379
W24x1240815799
W24x1246001619
W24x1251201859
W24x1256416539
W24x1261645679
W24x1266889299
W24x1272147419
W24x1277420059
W24x1282707239
W24x1288008979
W24x1293325299
W24x1298656219
W24x1304001759
W24x1309361939
W24x1314736779
W24x1320126299
W24x1325530519
W24x1330949459
W24x1336383139
W24x1341831579
W24x1347294799
W24x1352772819
W24x1358265659
W24x1363773339
W24x1369295879
W24x1374833299
W24x1380385619
W24x1385952859
W24x1391535039
W24x1397132179
W24x1402744299
W24x1408371419
W24x1414013559
W24x1419670739
W24x1425342979
W24x1431030299
W24x1436732719
W24x1442450259
W24x1448182939
W24x1453930779
W24x1459693799
W24x1465472019
W24x1471265459
W24x1477074139
W24x1482898079
W24x1488737299
W24x1494591819
W24x1500461659
W24x1506346839
W24x1512247379
W24x1518163299
W24x1524094619
W24x1530041359
W24x1536003539
W24x1541981179
W24x1547974299
W24x1553982919
W24x1560007059
W24x1566046739
W24x1572101979
W24x1578172799
W24x1584259219
W24x1590361259
W24x1596478939
W24x1602612279
W24x1608761299
W24x1614926019
W24x1621106459
W24x1627302639
W24x1633514579
W24x1639742299
W24x1645985819
W24x1652245159
W24x1658520339
W24x1664811379
W24x1671118299
W24x1677441119
W24x1683779859
W24x1690134539
W24x1696505179
W24x1702891799
W24x1709294419
W24x1715713059
W24x1722147739
W24x1728598479
W24x1735065299
W24x1741548219
W24x1748047259
W24x1754562439
W24x1761093779
W24x1767641299
W24x1774205019
W24x1780784959
W24x1787381139
W24x1793993579
W24x1800622299
W24x1807267319
W24x1813928659
W24x1820606339
W24x1827300379
W24x1834010799
W24x1840737619
W24x1847480859
W24x1854240539
W24x1861016679
W24x1867809299
W24x1874618419
W24x1881444059
W24x1888286239
W24x1895144979
W24x1902020299
W24x1908912219
W24x1915820759
W24x1922745939
W24x1929687779
W24x1936646299
W24x1943621519
W24x1950613459
W24x1957622139
W24x1964647579
W24x1971689799
W24x1978748819
W24x1985824659
W24x1992917339
W24x2000026879
W24x2007153299
W24x2014296619
W24x2021456859
W24x2028634039
W24x2035828179
W24x2043039299
W24x2050267419
W24x2057512559
W24x2064774739
W24x2072053979
W24x2079350299
W24x2086663719
W24x2093994259
W24x2101341939
W24x2108706779
W24x2116088799
W24x2123488019
W24x2130904459
W24x2138338139
W24x2145789079
W24x2153257299
W24x2160742819
W24x2168245659
W24x2175765839
W24x2183303379
W24x2190858299
W24x2198430619
W24x2206020359
W24x2213627539
W24x2221252179
W24x2228894299
W24x2236553919
W24x2244231059
W24x2251925739
W24x2259637979
W24x2267367799
W24x2275115219
W24x2282880259
W24x2290662939
W24x2298463279
W24x2306281299
W24x2314117019
W24x2321970459
W24x2329841639
W24x2337730579
W24x2345637299
W24x2353561819
W24x2361504159
W24x2369464339
W24x2377442379
W24x2385438299
W24x2393452119
W24x2401483859
W24x2409533539
W24x2417601179
W24x2425686799
W24x2433790419
W24x2441912059
W24x2450051739
W24x2458209479
W24x2466385299
W24x2474579219
W24x2482791259
W24x2491021439
W24x2499269779
W24x2507536299
W24x2515821019
W24x2524123959
W24x2532445139
W24x2540784579
W24x2549142299
W24x2557518319
W24x2565912659
W24x2574325339
W24x2582756379
W24x2591205799
W24x2599673619
W24x2608159859
W24x2616664539
W24x2625187679
W24x2633729299
W24x2642289419
W24x2650868059
W24x2659465239
W24x2668080979
W24x2676715299
W24x2685368219
W24x2694039759
W24x2702729939
W24x2711438779
W24x2720166299
W24x2728912519
W24x2737677459
W24x2746461139
W24x2755263579
W24x2764084799
W24x2772924819
W24x2781783659
W24x2790661339
W24x2799557879
W24x2808473299
W24x2817407619
W24x2826360859
W24x2835333039
W24x2844324179
W24x2853334299
W24x2862363419
W24x2871411559
W24x2880478739
W24x2889564979
W24x2898670299
W24x2907794719
W24x2916938259
W24x2926100939
W24x2935282779
W24x2944483799
W24x2953704019
W24x2962943459
W24x2972202139
W24x2981480079
W24x2990777299
W24x3000093819
W24x3009429659
W24x3018784839
W24x3028159379
W24x3037553299
W24x3046966619
W24x3056399359
W24x3065851539
W24x3075323179
W24x3084814299
W24x3094324919
W24x3103855059
W24x3113404739
W24x3122973979
W24x3132562799
W24x3142171219
W24x3151799259
W24x3161446939
W24x3171114279
W24x3180801299
W24x3190508019
W24x3200234459
W24x3209980639
W24x3219746579
W24x3229532299
W24x3239337819
W24x3249163159
W24x3259008339
W24x3268873379
W24x3278758299
W24x3288663119
W24x3298587859
W24x3308532539
W24x3318497179
W24x3328481799
W24x3338486419
W24x3348511059
W24x3358555739
W24x3368620479
W24x3378705299
W24x3388810219
W24x3398935259
W24x3409080439
W24x3419245779
W24x3429431299
W24x3439637019
W24x3449862959
W24x3460109139
W24x3470375579
W24x3480662299
W24x3490969319
W24x3501296659
W24x3511644339
W24x3522012379
W24x3532400799
W24x3542809619
W24x3553238859
W24x3563688539
W24x3574158679
W24x3584649299
W24x3595160419
W24x3605692059
W24x3616244239
W24x3626816979
W24x3637410299
W24x3648024219
W24x3658658759
W24x3669313939
W24x3679989779
W24x3690686299
W24x3701403519
W24x3712141459
W24x3722900139
W24x3733679579
W24x3744479799
W24x3755300819
W24x3766142659
W24x3777005339
W24x3787888879
W24x3798793299
W24x3809718619
W24x3820664859
W24x3831632039
W24x3842620179
W24x3853629299
W24x3864659419
W24x3875710559
W24x3886782739
W24x3897875979
W24x3908990299
W24x3920125719
W24x3931282259
W24x3942459939
W24x3953658779
W24x3964878799
W24x3976120019
W24x3987382459
W24x3998666139
W24x4009971079
W24x4021297299
W24x4032644819
W24x4044013659
W24x4055403839
W24x4066815379
W24x4078248299
W24x4089702619
W24x4101178359
W24x4112675539
W24x4124194179
W24x4135734299
W24x4147295919
W24x4158879059
W24x4170483739
W24x4182109979
W24x4193757799
W24x4205427219
W24x4217118259
W24x4228830939
W24x4240565279
W24x4252321299
W24x4264099019
W24x4275898459
W24x4287719639
W24x4299562579
W24x4311427299
W24x4323313819
W24x4335222159
W24x4347152339
W24x4359104379
W24x4371078299
W24x4383074119
W24x4395091859
W24x4407131539
W24x4419193179
W24x4431276799
W24x4443382419
W24x4455510059
W24x4467659739
W24x4479831479
W24x4492025299
W24x4504241219
W24x4516479259
W24x4528739439
W24x4541021779
W24x4553326299
W24x4565653019
W24x4578001959
W24x4590373139
W24x4602766579
W24x4615182299
W24x4627620319
W24x4640080659
W24x4652563339
W24x4665068379
W24x4677595799
W24x4690145619
W24x4702717859
W24x4715312539
W24x4727929679
W24x4740569299
W24x4753231419
W24x4765916059
W24x4778623239
W24x4791352979
W24x4804105299
W24x4816880219
W24x4829677759
W24x4842497939
W24x4855340779
W24x4868206299
W24x4881094519
W24x4894005459
W24x4906939139
W24x4919895579
W24x4932874799
W24x4945876819
W24x4958901659
W24x4971949339
W24x4985019879
W24x4998113299
W24x5011229619
W24x5024368859
W24x5037531039
W24x5050716179
W24x5063924299
W24x5077155419
W24x5090409559
W24x5103686739
W24x5116986979
W24x5130310299
W24x5143656719
W24x5157026259
W24x5170418939
W24x5183834779
W24x5197273799
W24x5210736019
W24x5224221459
W24x5237730139
W24x5251262079
W24x5264817299
W24x5278395819
W24x5291997659
W24x5305622839
W24x5319271379
W24x5332943299
W24x5346638619
W24x5360357359
W24x5374099539
W24x5387865179
W24x5401654299
W24x5415466919
W24x5429303059
W24x5443162739
W24x5457045979
W24x5470952799
W24x5484883219
W24x5498837259
W24x5512814939
W24x5526816279
W24x5540841299
W24x5554890019
W24x5568962459
W24x5583058639
W24x5597178579
W24x5611322299
W24x5625489819
W24x5639681159
W24x5653896339
W24x5668135379
W24x5682398299
W24x5696685119
W24x5710995859
W24x5725330539
W24x5739689179
W24x5754071799
W24x5768478419
W24x5782909059
W24x5797363739
W24x5811842479
W24x5826345299
W24x5840872219
W24x5855423259
W24x5869998439
W24x5884597779
W24x5899221299
W24x5913869019
W24x5928540959
W24x5943237139
W24x5957957579
W24x5972702299
W24x5987471319
W24x6002264659
W24x6017082339
W24x6031924379
W24x6046790799
W24x6061681619
W24x6076596859
W24x6091536539
W24x6106500679
W24x6121489299
W24x6136502419
W24x6151540059
W24x6166602239
W24x6181688979
W24x6196800299
W24x6211936219
W24x6227096759
W24x6242281939
W24x6257491779
W24x6272726299
W24x6287985519
W24x6303269459
W24x6318578139
W24x6333911579
W24x6349269799
W24x6364652819
W24x6380060659
W24x6395493339
W24x6410950879
W24x6426433299
W24x6441940619
W24x6457472859
W24x6473030039
W24x6488612179
W24x6504219299
W24x6519851419
W24x6535508559
W24x6551190739
W24x6566897979
W24x6582630299
W24x6598387719
W24x6614170259
W24x6629977939
W24x6645810779
W24x6661668799
W24x6677552019
W24x6693460459
W24x6709394139
W24x6725353079
W24x6741337299
W24x6757346819
W24x6773381659
W24x6789441839
W24x6805527379
W24x6821638299
W24x6837774619
W24x6853936359
W24x6870123539
W24x6886336179
W24x6902574299
W24x6918837919
W24x6935127059
W24x6951441739
W24x6967781979
W24x6984147799
W24x7000539219
W24x7016956259
W24x7033398939
W24x7049867279
W24x7066361299
W24x7082881019
W24x7099426459
W24x7115997639
W24x7132594579
W24x7149217299
W24x7165865819
W24x7182540159
W24x7199240339
W24x7215966379
W24x7232718299
W24x7249496119
W24x7266299859
W24x7283129539
W24x7299985179
W24x7316866799
W24x7333774419
W24x7350708059
W24x7367667739
W24x7384653479
W24x7401665299
W24x7418703219
W24x7435767259
W24x7452857439
W24x7469973779
W24x7487116299
W24x7504285019
W24x7521479959
W24x7538701139
W24x7555948579
W24x7573222299
W24x7590522319
W24x7607848659
W24x7625201339
W24x7642580379
W24x7659985799
W24x7677417619
W24x7694875859
W24x7712360539
W24x7729871679
W24x7747409299
W24x7764973419
W24x7782564059
W24x7800181239
W24x7817824979
W24x7835495299
W24x7853192219
W24x7870915759
W24x7888665939
W24x7906442779
W24x7924246299
W24x7942076519
W24x7959933459
W24x7977817139
W24x7995727579
W24x8013664799
W24x8031628819
W24x8049619659
W24x8067637339
W24x8085681879
W24x8103753299
W24x8121851619
W24x8139976859
W24x8158129039
W24x8176308179
W24x8194514299
W24x8212747419
W24x8231007559
W24x8249294739
W24x8267608979
W24x8285950299
W24x8304318719
W24x8322714259
W24x8341136939
W24x8359586779
W24x8378063799
W24x8396568019
W24x8415099459
W24x8433658139
W24x8452244079
W24x8470857299
W24x8489497819
W24x8508165659
W24x8526860839
W24x8545583379
W24x8564333299
W24x8583110619
W24x8601915359
W24x8620747539
W24x8639607179
W24x8658494299
W24x8677408919
W24x8696351059
W24x8715320739
W24x8734317979
W24x8753342799
W24x8772395219
W24x8791475259
W24x8810582939
W24x8829718279
W24x8848881299
W24x8868072019
W24x8887290459
W24x8906536639
W24x8925810579
W24x8945112299
W24x8964441819
W24x8983799159
W24x9003184339
W24x9022597379
W24x9042038299
W24x9061507119
W24x9081003859
W24x9100528539
W24x9120081179
W24x9139661799
W24x9159270419
W24x9178907059
W24x9198571739
W24x9218264479
W24x9237985299
W24x9257734219
W24x9277511259
W24x9297316439
W24x9317149779
W24x9337011299
W24x9356901019
W24x9376818959
W24x9396765139
W24x9416739579
W24x9436742299
W24x9456773319
W24x9476832659
W24x9496920339
W24x9517036379
W24x9537180799
W24x9557353619
W24x9577554859
W24x9597784539
W24x9618042679
W24x9638329299
W24x9658644419
W24x9678988059
W24x9699360239
W24x9719760979
W24x9740190299
W24x9760648219
W24x9781134759
W24x9801649939
W24x9822193779
W24x9842766299
W24x9863367519
W24x9883997459
W24x9904656139
W24x9925343579
W24x9946059799
W24x9966804819
W24x9987578659
W24x10008381339
W24x10029212879
W24x10050073299
W24x10070962619
W24x10091880859
W24x10112828039
W24x10133804179
W24x10154809299
W24x10175843419
W24x10196906559
W24x10217998739
W24x10239119979
W24x10260270299
W24x10281449719
W24x10302658259
W24x10323895939
W24x10345162779
W24x10366458799
W24x10387784019
W24x10409138459
W24x10430522139
W24x10451935079
W24x10473377299
W24x10494848819
W24x10516349659
W24x10537879839
W24x10559439379
W24x10581028299
W24x10602646619
W24x10624294359
W24x10645971539
W24x10667678179
W24x10689414299
W24x10711179919
W24x10732975059
W24x10754799739
W24x10776653979
W24x10798537799
W24x10820451219
W24x10842394259
W24x10864366939
W24x10886369279
W24x10908401299
W24x10930463019
W24x10952554459
W24x10974675639
W24x10996826579
W24x11019007299
W24x11041217819
W24x11063458159
W24x11085728339
W24x11108028379
W24x11130358299
W24x11152718119
W24x11175107859
W24x11197527539
W24x11219977179
W24x11242456799
W24x11264966419
W24x11287506059
W24x11310075739
W24x11332675479
W24x11355305299
W24x11377965219
W24x11400655259
W24x11423375439
W24x11446125779
W24x11468906299
W24x11491717019
W24x11514557959
W24x11537429139
W24x11560330579
W24x11583262299
W24x11606224319
W24x11629216659
W24x11652239339
W24x11675292379
W24x11698375799
W24x11721489619
W24x11744633859
W24x11767808539
W24x11791013679
W24x11814249299
W24x11837515419
W24x11860812059
W24x11884139239
W24x11907496979
W24x11930885299
W24x11954304219
W24x11977753759
W24x12001233939
W24x12024744779
W24x12048286299
W24x12071858519
W24x12095461459
W24x12119095139
W24x12142759579
W24x12166454799
W24x12190180819
W24x12213937659
W24x12237725339
W24x12261543879
W24x12285393299
W24x12309273619
W24x12333184859
W24x12357127039
W24x12381100179
W24x12405104299
W24x12429139419
W24x12453205559
W24x12477302739
W24x12501430979
W24x12525590299
W24x12549780719
W24x12574002259
W24x12598254939
W24x12622538779
W24x12646853799
W24x12671200019
W24x12695577459
W24x12719986139
W24x12744426079
W24x12768897299
W24x12793399819
W24x12817933659
W24x12842498839
W24x12867095379
W24x12891723299
W24x12916382619
W24x12941073359
W24x12965795539
W24x12990549179
W24x13015334299
W24x13040150919
W24x13064999059
W24x13089878739
W24x13114789979
W24x13139732799
W24x13164707219
W24x13189713259
W24x13214750939
W24x13239820279
W24x13264921299
W24x13290054019
W24x13315218459
W24x13340414639
W24x13365642579
W24x13390902299
W24x13416193819
W24x13441517159
W24x13466872339
W24x13492259379
W24x13517678299
W24x13543129119
W24x13568611859
W24x13594126539
W24x13619673179
W24x13645251799
W24x13670862419
W24x13696505059
W24x13722179739
W24x13747886479
W24x13773625299
W24x13799396219
W24x13825199259
W24x13851034439
W24x13876901779
W24x13902801299
W24x13928733019
W24x13954696959
W24x13980693139
W24x14006721579
W24x14032782299
W24x14058875319
W24x14085000659
W24x14111158339
W24x14137348379
W24x14163570799
W24x14189825619
W24x14216112859
W24x14242432539
W24x14268784679
W24x14295169299
W24x14321586419
W24x14348036059
W24x14374518239
W24x14401032979
W24x14427580299
W24x14454160219
W24x14480772759
W24x14507417939
W24x14534095779
W24x14560806299
W24x14587549519
W24x14614325459
W24x14641134139
W24x14667975579
W24x14694849799
W24x14721756819
W24x14748696659
W24x14775669339
W24x14802674879
W24x14829713299
W24x14856784619
W24x14883888859
W24x14911026039
W24x14938196179
W24x14965399299
W24x14992635419
W24x15019904559
W24x15047206739
W24x15074541979
W24x15101910299
W24x15129311719
W24x15156746259
W24x15184213939
W24x15211714779
W24x15239248799
W24x15266816019
W24x15294416459
W24x15322050139
W24x15349717079
W24x15377417299
W24x15405150819
W24x15432917659
W24x15460717839
W24x15488551379
W24x15516418299
W24x15544318619
W24x15572252359
W24x15600219539
W24x15628220179
W24x15656254299
W24x15684321919
W24x15712423059
W24x15740557739
W24x15768725979
W24x15796927799
W24x15825163219
W24x15853432259
W24x15881734939
W24x15910071279
W24x15938441299
W24x15966845019
W24x15995282459
W24x16023753639
W24x16052258579
W24x16080797299
W24x16109369819
W24x16137976159
W24x16166616339
W24x16195290379
W24x16223998299
W24x16252740119
W24x16281515859
W24x16310325539
W24x16339169179
W24x16368046799
W24x16396958419
W24x16425904059
W24x16454883739
W24x16483897479
W24x16512945299
W24x16542027219
W24x16571143259
W24x16600293439
W24x16629477779
W24x16658696299
W24x16687949019
W24x16717235959
W24x16746557139
W24x16775912579
W24x16805302299
W24x16834726319
W24x16864184659
W24x16893677339
W24x16923204379
W24x16952765799
W24x16982361619
W24x17011991859
W24x17041656539
W24x17071355679
W24x17101089299
W24x17130857419
W24x17160660059
W24x17190497239
W24x17220368979
W24x17250275299
W24x17280216219
W24x17310191759
W24x17340201939
W24x17370246779
W24x17400326299
W24x17430440519
W24x17460589459
W24x17490773139
W24x17520991579
W24x17551244799
W24x17581532819
W24x17611855659
W24x17642213339
W24x17672605879
W24x17703033299
W24x17733495619
W24x17763992859
W24x17794525039
W24x17825092179
W24x17855694299
W24x17886331419
W24x17917003559
W24x17947710739
W24x17978452979
W24x18009230299
W24x18040042719
W24x18070890259
W24x18101772939
W24x18132690779
W24x18163643799
W24x18194632019
W24x18225655459
W24x18256714139
W24x18287808079
W24x18318937299
W24x18350101819
W24x18381301659
W24x18412536839
W24x18443807379
W24x18475113299
W24x18506454619
W24x18537831359
W24x18569243539
W24x18600691179
W24x18632174299
W24x18663692919
W24x18695247059
W24x18726836739
W24x18758461979
W24x18790122799
W24x18821819219
W24x18853551259
W24x18885318939
W24x18917122279
W24x18948961299
W24x18980836019
W24x19012746459
W24x19044692639
W24x19076674579
W24x19108692299
W24x19140745819
W24x19172835159
W24x19204960339
W24x19237121379
W24x19269318299
W24x19301551119
W24x19333819859
W24x19366124539
W24x19398465179
W24x19430841799
W24x19463254419
W24x19495703059
W24x19528187739
W24x19560708479
W24x19593265299
W24x19625858219
W24x19658487259
W24x19691152439
W24x19723853779
W24x19756591299
W24x19789365019
W24x19822174959
W24x19855021139
W24x19887903579
W24x19920822299
W24x19953777319
W24x19986768659
W24x20019796339
W24x20052860379
W24x20085960799
W24x20119097619
W24x20152270859
W24x20185480539
W24x20218726679
W24x20252009299
W24x20285328419
W24x20318684059
W24x20352076239
W24x20385504979
W24x20418970299
W24x20452472219
W24x20486010759
W24x20519585939
W24x20553197779
W24x20586846299
W24x20620531519
W24x20654253459
W24x20688012139
W24x20721807579
W24x20755639799
W24x20789508819
W24x20823414659
W24x20857357339
W24x20891336879
W24x20925353299
W24x20959406619
W24x20993496859
W24x21027624039
W24x21061788179
W24x21095989299
W24x21130227419
W24x21164502559
W24x21198814739
W24x21233163979
W24x21267550299
W24x21301973719
W24x21336434259
W24x21370931939
W24x21405466779
W24x21440038799
W24x21474648019
W24x21509294459
W24x21543978139
W24x21578699079
W24x21613457299
W24x21648252819
W24x21683085659
W24x21717955839
W24x21752863379
W24x21787808299
W24x21822790619
W24x21857810359
W24x21892867539
W24x21927962179
W24x21963094299
W24x21998263919
W24x22033471059
W24x22068715739
W24x22103997979
W24x22139317799
W24x22174675219
W24x22210070259
W24x22245502939
W24x22280973279
W24x22316481299
W24x22352027019
W24x22387610459
W24x22423231639
W24x22458890579
W24x22494587299
W24x22530321819
W24x22566094159
W24x22601904339
W24x22637752379
W24x22673638299
W24x22709562119
W24x22745523859
W24x22781523539
W24x22817561179
W24x22853636799
W24x22889750419
W24x22925902059
W24x22962091739
W24x22998319479
W24x23034585299
W24x23070889219
W24x23107231259
W24x23143611439
W24x23180029779
W24x23216486299
W24x23252981019
W24x23289513959
W24x23

SYMBOLS LEGEND - STRUCTURAL - FRAMING

SPOT ELEVATION. SLOPE STRUCTURE UNIFORMLY BETWEEN ADJACENT SPOT ELEVATIONS AS INDICATED.

INDICATES FRAMED OPENING. REFER TO TYPICAL DETAIL, COORDINATE SIZE AND LOCATION WITH MECHANICAL AND ARCHITECTURAL REQUIREMENTS.

DP — CONTINUOUS DECK BEARING PLATE IN TOP OF WALL, REFER TO TYPICAL DETAILS.

TOP TEXT / BTM TEXT — INDICATES SPAN DIRECTION FOR ROOF OR FLOOR DECK. REFER TO ROOF DECK SCHEDULE FOR DECK DESIGNATION, ATTACHMENT PATTERN REQUIREMENTS, AND ADDITIONAL INFORMATION. 'R' INDICATES ROOF DECK, 'F' INDICATES FLOOR DECK.

ROOM BC — CONCENTRATED LOAD APPLIED TO JOIST TOP CHORD (TC) OR BOTTOM CHORD (BC) IN ADDITION TO UNIFORM LOADS OF THE STANDARD JOIST DESIGNATION SHOWN. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR THESE ADDITIONAL LOADS AT THE LOCATIONS SHOWN WITHOUT THE NEED FOR A FIELD-INSTALLED WEB MEMBER.

ALTC or ALBC — CONCENTRATED LOAD APPLIED TO JOIST AT ANY LOCATION ON THE TOP CHORD (ALTC) OR AT ANY LOCATION ON THE BOTTOM CHORD (ALBC). CONCENTRATED LOAD IS IN ADDITION TO THE UNIFORM LOADS OF THE STANDARD JOIST DESIGNATION SHOWN OR IN ADDITION TO THE LOADS SHOWN IN A JOIST LOAD DIAGRAM. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR THESE ADDITIONAL CONCENTRATED LOADS TO OCCUR AT ANY PANEL POINT. IF THE FINAL LOCATION OF THE CONCENTRATED LOAD IN THE FIELD DOES NOT OCCUR AT A PANEL POINT, A FIELD-INSTALLED WEB MEMBER SHALL BE ADDED PER THE TYPICAL DETAIL.

SYMBOLS LEGEND - STRUCTURAL - FRAMING

MOMENT CONNECTION, REFER TO TYPICAL DETAILS.

CX — COLUMN TAG, REFER TO COLUMN SCHEDULE. TAG APPEARS ON THE LEVEL CORRESPONDING WITH THE TOP OF THE COLUMN.

MWX — MASONRY WALL TYPE DESIGNATION, REFER TO TYPICAL DETAILS FOR ADDITIONAL INFORMATION.

LX or MLX — INDICATES LINTEL. REFER TO LINTEL SCHEDULE FOR SIZE OF LINTEL. 'L' PREFIX INDICATES STEEL LINTEL, 'ML' PREFIX INDICATES MASONRY LINTEL.

SHADED REGIONS OF CMU WALL INDICATE SHEAR WALLS. THESE WALLS ARE TO BE CONSTRUCTED WITH CONTROL JOINTS ON EACH SIDE OF THE SHADED REGION AND NO CONTROL JOINTS WITHIN THE BOUNDARY UNLESS NOTED OTHERWISE. REFER TO MASONRY GENERAL NOTES ON SG 001 FOR BOND BEAM REQUIREMENTS WHERE SHADED REGION EXCEEDS MAXIMUM CONTROL JOINT SPACING.

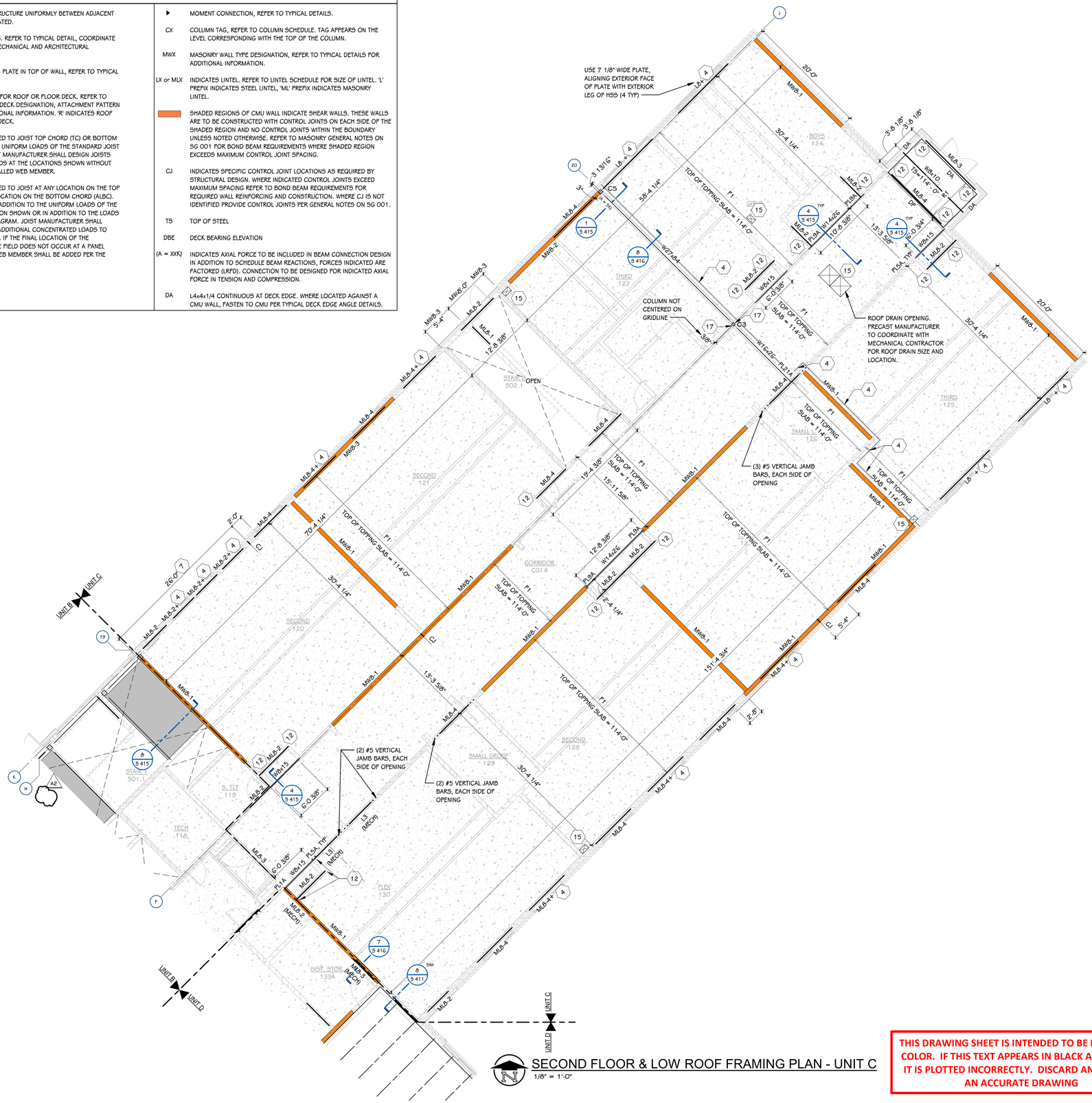
CJ — INDICATES SPECIFIC CONTROL JOINT LOCATIONS AS REQUIRED BY STRUCTURAL DESIGN. WHERE INDICATED CONTROL JOINTS EXCEED MAXIMUM SPACING REFER TO BOND BEAM REQUIREMENTS FOR REQUIRED WALL REINFORCING AND CONSTRUCTION. WHERE CJ IS NOT IDENTIFIED PROVIDE CONTROL JOINTS PER GENERAL NOTES ON SG 001.

TS — TOP OF STEEL

DBE — DECK BEARING ELEVATION

(A = XXK) — INDICATES AXIAL FORCE TO BE INCLUDED IN BEAM CONNECTION DESIGN IN ADDITION TO SCHEDULE BEAM REACTIONS, FORCES INDICATED ARE FACTORED (LRFD). CONNECTION TO BE DESIGNED FOR INDICATED AXIAL FORCE IN TENSION AND COMPRESSION.

DA — L4x4x1/4 CONTINUOUS AT DECK EDGE. WHERE LOCATED AGAINST A CMU WALL, FASTEN TO CMU PER TYPICAL DECK EDGE ANGLE DETAILS.



SECOND FLOOR & LOW ROOF FRAMING PLAN - UNIT C
1/8" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NOTES - STRUCTURAL - FRAMING

1 T5 ELEVATIONS AS FOLLOWS (UNO):
STEEL SUPPORTING HOLLOW CORE PRECAST - 112'-11"
UNIT B - 116'-11" TYPICAL WITH GIRDERS SUPPORTING JOISTS AT 116'-8 1/2"
UNITS D & F LOWER ROOF - 114'-3" TYPICAL WITH GIRDERS SUPPORTING JOISTS AT 114'-0 1/2"
ALL OTHER LOCATIONS - REFER TO PLAN

2 REINFORCED MASONRY DESIGNATED THUS: MWx-x. REFER TO TYPICAL DETAILS FOR MASONRY WALL CONSTRUCTION. 8" MASONRY WALLS SHALL BE MW8-1 UNO, AND 12" MASONRY WALLS SHALL BE MW12-1 UNO.

3 ALL MASONRY WALLS TO EXTEND TO UNDERSIDE OF ROOF DECK, UNO. REFER TO TYPICAL DETAILS

4 REFER TO ARCHITECTURAL DRAWINGS FOR INTERIOR WALL DIMENSIONS

5 ALL OPENINGS IN MASONRY WALLS WIDER THAN 8" REQUIRE LINTELS. FOR LINTELS NOT SHOWN ON PLANS REFER TO LINTEL SCHEDULE FOR SIZE, COORDINATE LOCATIONS AND OPENING WIDTHS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS

6 WHERE NO SLOPE ARROWS ARE SHOWN, ROOF IS LEVEL.

7 FRAMING WITHIN CMU WALLS ARE CENTERED WITHIN CMU WALLS UNO.

8 PROVIDE A CONTROL JOINT AT ALL COLUMN LOCATIONS WITHIN MASONRY WALLS UNLESS THE COLUMN IS WITHIN A SHADED REGION ON THIS PLAN.

KEYED NOTES - STRUCTURAL - FRAMING

1 REFER TO TYPICAL PORTAL FRAME DETAIL.

2 TOP OF BEAM TO FOLLOW SLOPE OF ROOF.

3 COORDINATE BEAM FLANGE WIDTH TO ALLOW BEAM BEARING ON ALL FOUR SIDES.

4 CONTINUOUS L4x4x1/4 (GALV.) FOR SUPPORT OF BRICK VENEER. REFER TO ARCHITECTURE DRAWINGS FOR TOP OF ANGLE HORIZONTAL LEG/BOTTOM OF BRICK ELEVATION. REFER TO TYPICAL BRICK SUPPORT BRACKET DETAIL.

5 1/4" BENT PLATE AT SLAB OR DECK EDGE. REFER TO TYPICAL DETAILS.

6 REFER TO TYPICAL RTU SUPPORT DETAILS.

7 PROVIDE A SINGLE COURSE CONTINUOUS HORIZONTAL BOND BEAM WITH (2) #5 @ 4'-0" OC MAX OVER THE FULL HEIGHT OF THE WALL. NO CONTROL JOINTS ALLOWED WITHIN THIS REGION.

8 IN ADDITION TO BOND BEAMS NOTED ELSEWHERE, INCLUDE A BOND BEAM WITH (2) #5 CONTINUOUS, AND ENSURE BARS ARE CONTINUOUS FULL LENGTH OF BOND BEAM, INCLUDING THROUGH CONTROL JOINTS. BOTTOM OF BOND BEAM ELEVATION SHOWN NEXT TO KEYED NOTE CALLOUT. GROUT CMU SOLID FROM DECK, BEAM, OR JOIST CONNECTION DOWN TO BOND BEAM ELEVATION NOTED.

9 JOIST BRIDGING TO ACCOMMODATE DUCTS. COORDINATE WITH MECHANICAL. TYP BETWEEN JOISTS.

10 ANGLE TO BE CONTINUOUS ALONG FULL LENGTH OF WALL. SEE TYPICAL ROOF EDGE ANGLE SPLICE DETAIL.

11 HOLD PRECAST BACK AND BEAR ON BENT PLATE INSTEAD OF CMU OVER DUCT. COORDINATE LOCATION AND SIZE WITH MECHANICAL CONTRACTOR.

12 TOOTH IN MASONRY AT WALL INTERSECTION.

13 FABRICATOR TO ACCOMMODATE BEAM DEEP COPE IN CONNECTION DESIGN.

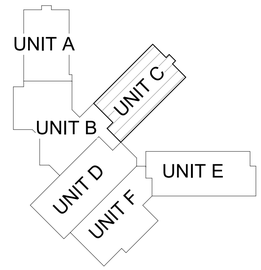
14 ELEVATOR HOIST BEAM BELOW (BY ELEVATOR SUPPLIER). PROVIDE BEARING PLATES AT EACH END OF HOIST BEAM. COORDINATE SIZE, LOCATION, AND ELEVATION OF BEARING PLATES WITH ELEVATOR SUPPLIER.

15 DUCT, PIPE, OR CONDUIT PENETRATION THROUGH FLOOR. PRECAST SUPPLIER TO COORDINATE SIZE AND LOCATION OF OPENING WITH MECHANICAL, PLUMBING, OR ELECTRICAL CONTRACTOR. NOT NECESSARILY ALL OPENINGS ARE SHOWN. PRECAST SUPPLIER TO PROVIDE HEADER FRAMING AT PENETRATIONS AS REQUIRED BY DESIGN.

16 1/2" DIA x 4" HEADED STUD WELDED TO SIDE OF COLUMN AND EMBEDDED INTO SOLID GROUTED CMU. LOCATE 4" BELOW TOP OF FIRST FULL COURSE OF BOND BEAM BELOW DECK BEARING.

17 1/2" DIA x 4" HEADED STUD WELDED TO SIDE OF COLUMN AND EMBEDDED INTO SOLID GROUTED CMU. LOCATE 4" BELOW TOP OF FIRST FULL COURSE OF BOND BEAM BELOW PRECAST BEARING.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

DRAWN BY: ACR 5/18/2026 3:23:57 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
SECOND FLOOR & LOW ROOF FRAMING PLAN - UNIT C

DATE
APRIL 24, 2026

SHEET NUMBER
S 201C
23-622.00

SYMBOLS LEGEND - STRUCTURAL - FRAMING

SPOT ELEVATION. SLOPE STRUCTURE UNIFORMLY BETWEEN ADJACENT SPOT ELEVATIONS AS INDICATED.

INDICATES FRAMED OPENING. REFER TO TYPICAL DETAIL, COORDINATE SIZE AND LOCATION WITH MECHANICAL AND ARCHITECTURAL REQUIREMENTS.

DP — CONTINUOUS DECK BEARING PLATE IN TOP OF WALL, REFER TO TYPICAL DETAILS.

TOP TEXT / BTM TEXT — INDICATES SPAN DIRECTION FOR ROOF OR FLOOR DECK. REFER TO ROOF DECK SCHEDULE FOR DECK DESIGNATION, ATTACHMENT PATTERN REQUIREMENTS, AND ADDITIONAL INFORMATION. 'R' INDICATES ROOF DECK, 'F' INDICATES FLOOR DECK.

ROOM BC — CONCENTRATED LOAD APPLIED TO JOIST TOP CHORD (TC) OR BOTTOM CHORD (BC) IN ADDITION TO UNIFORM LOADS OF THE STANDARD JOIST DESIGNATION SHOWN. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR THESE ADDITIONAL LOADS AT THE LOCATIONS SHOWN WITHOUT THE NEED FOR A FIELD-INSTALLED WEB MEMBER.

ALTC or ALBC — CONCENTRATED LOAD APPLIED TO JOIST AT ANY LOCATION ON THE TOP CHORD (ALTC) OR AT ANY LOCATION ON THE BOTTOM CHORD (ALBC). CONCENTRATED LOAD IS IN ADDITION TO THE UNIFORM LOADS OF THE STANDARD JOIST DESIGNATION SHOWN OR IN ADDITION TO THE LOADS SHOWN IN A JOIST LOAD DIAGRAM. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR THESE ADDITIONAL CONCENTRATED LOADS TO OCCUR AT ANY PANEL POINT. IF THE FINAL LOCATION OF THE CONCENTRATED LOAD IN THE FIELD DOES NOT OCCUR AT A PANEL POINT, A FIELD-INSTALLED WEB MEMBER SHALL BE ADDED PER THE TYPICAL DETAIL.

SYMBOLS LEGEND - STRUCTURAL - FRAMING

MOMENT CONNECTION, REFER TO TYPICAL DETAILS.

CX — COLUMN TAG, REFER TO COLUMN SCHEDULE. TAG APPEARS ON THE LEVEL CORRESPONDING WITH THE TOP OF THE COLUMN.

MWX — MASONRY WALL TYPE DESIGNATION, REFER TO TYPICAL DETAILS FOR ADDITIONAL INFORMATION.

LX or MLX — INDICATES LINTEL. REFER TO LINTEL SCHEDULE FOR SIZE OF LINTEL. 'L' PREFIX INDICATES STEEL LINTEL, 'ML' PREFIX INDICATES MASONRY LINTEL.

SHADED REGIONS OF CMU WALL INDICATE SHEAR WALLS. THESE WALLS ARE TO BE CONSTRUCTED WITH CONTROL JOINTS ON EACH SIDE OF THE SHADED REGION AND NO CONTROL JOINTS WITHIN THE BOUNDARY UNLESS NOTED OTHERWISE. REFER TO MASONRY GENERAL NOTES ON SG 001 FOR BOND BEAM REQUIREMENTS WHERE SHADED REGION EXCEEDS MAXIMUM CONTROL JOINT SPACING.

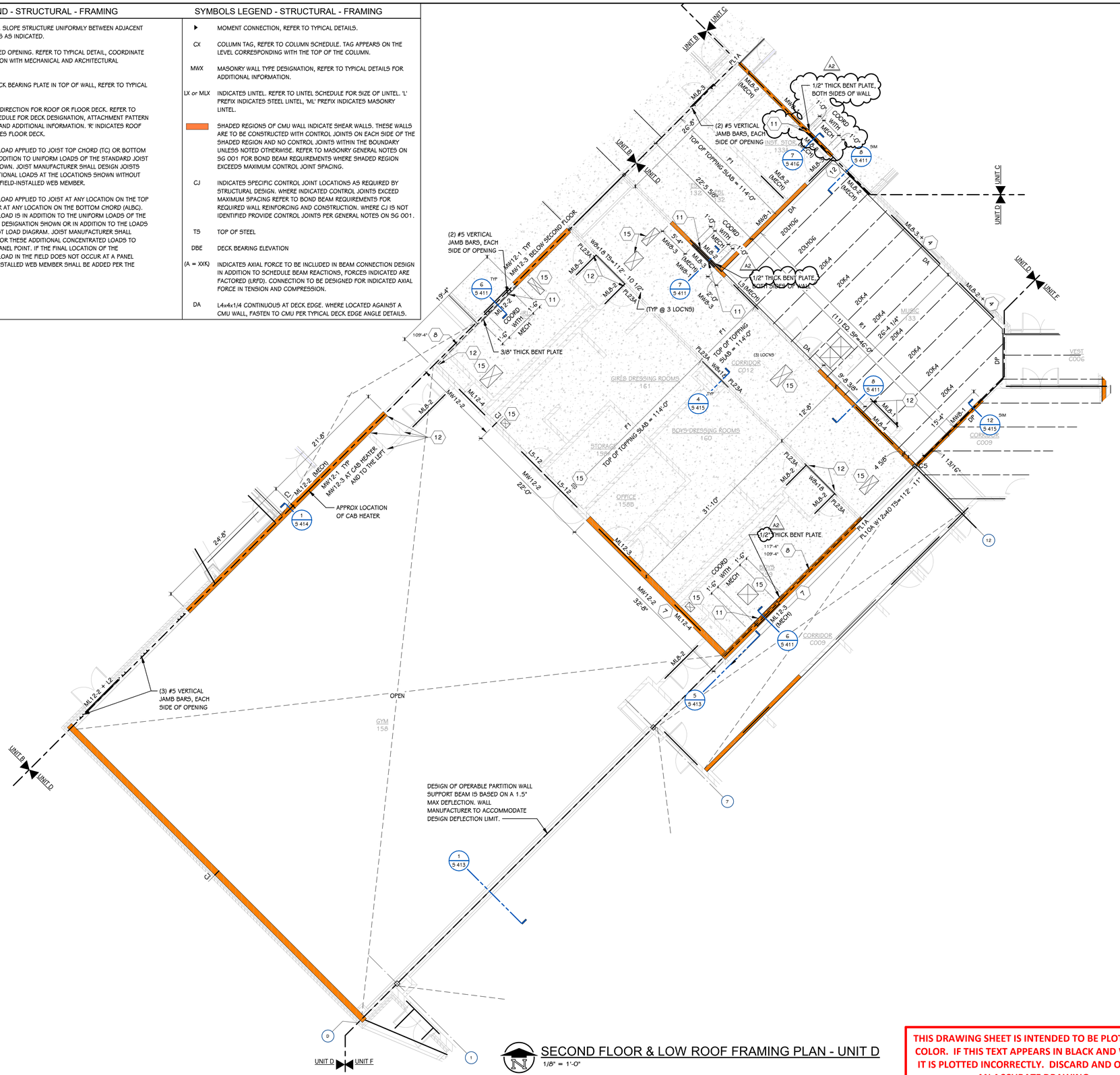
CJ — INDICATES SPECIFIC CONTROL JOINT LOCATIONS AS REQUIRED BY STRUCTURAL DESIGN. WHERE INDICATED CONTROL JOINTS EXCEED MAXIMUM SPACING REFER TO BOND BEAM REQUIREMENTS FOR REQUIRED WALL REINFORCING AND CONSTRUCTION. WHERE CJ IS NOT IDENTIFIED PROVIDE CONTROL JOINTS PER GENERAL NOTES ON SG 001.

TS — TOP OF STEEL

DBE — DECK BEARING ELEVATION

(A = XXK) — INDICATES AXIAL FORCE TO BE INCLUDED IN BEAM CONNECTION DESIGN IN ADDITION TO SCHEDULE BEAM REACTIONS, FORCES INDICATED ARE FACTORED (LRFD). CONNECTION TO BE DESIGNED FOR INDICATED AXIAL FORCE IN TENSION AND COMPRESSION.

DA — L4x4x1/4 CONTINUOUS AT DECK EDGE. WHERE LOCATED AGAINST A CMU WALL, FASTEN TO CMU PER TYPICAL DECK EDGE ANGLE DETAILS.



SECOND FLOOR & LOW ROOF FRAMING PLAN - UNIT D

1/8" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NOTES - STRUCTURAL - FRAMING

1 TS ELEVATIONS AS FOLLOWS (UNO):
STEEL SUPPORTING HOLLOW CORE PRECAST - 112'-11"
UNIT B - 116'-11" TYPICAL WITH GIRDERS SUPPORTING JOISTS AT 116'-8 1/2"
UNITS D & F LOWER ROOF - 114'-3" TYPICAL WITH GIRDERS SUPPORTING JOISTS AT 114'-0 1/2"
ALL OTHER LOCATIONS - REFER TO PLAN

2 REINFORCED MASONRY DESIGNATED THUS: MWx-x. REFER TO TYPICAL DETAILS FOR MASONRY WALL CONSTRUCTION. 8" MASONRY WALLS SHALL BE MW8-1 UNO, AND 12" MASONRY WALLS SHALL BE MW12-1 UNO.

3 ALL MASONRY WALLS TO EXTEND TO UNDERSIDE OF ROOF DECK, UNO. REFER TO TYPICAL DETAILS

4 REFER TO ARCHITECTURAL DRAWINGS FOR INTERIOR WALL DIMENSIONS

5 ALL OPENINGS IN MASONRY WALLS WIDER THAN 8" REQUIRE LINTELS. FOR LINTELS NOT SHOWN ON PLANS REFER TO LINTEL SCHEDULE FOR SIZE, COORDINATE LOCATIONS AND OPENING WIDTHS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS

6 WHERE NO SLOPE ARROWS ARE SHOWN, ROOF IS LEVEL.

7 FRAMING WITHIN CMU WALLS ARE CENTERED WITHIN CMU WALLS UNO.

8 PROVIDE A CONTROL JOINT AT ALL COLUMN LOCATIONS WITHIN MASONRY WALLS UNLESS THE COLUMN IS WITHIN A SHADED REGION ON THIS PLAN.

KEYED NOTES - STRUCTURAL - FRAMING

1 REFER TO TYPICAL PORTAL FRAME DETAIL.

2 TOP OF BEAM TO FOLLOW SLOPE OF ROOF.

3 COORDINATE BEAM FLANGE WIDTH TO ALLOW BEAM BEARING ON ALL FOUR SIDES.

4 CONTINUOUS L4x4x1/4 (GALV.) FOR SUPPORT OF BRICK VENEER. REFER TO ARCHITECTURE DRAWINGS FOR TOP OF ANGLE HORIZONTAL LEG/BOTTOM OF BRICK ELEVATION. REFER TO TYPICAL BRICK SUPPORT BRACKET DETAIL.

5 1/4" BENT PLATE AT SLAB OR DECK EDGE. REFER TO TYPICAL DETAILS.

6 REFER TO TYPICAL RTU SUPPORT DETAILS.

7 PROVIDE A SINGLE COURSE CONTINUOUS HORIZONTAL BOND BEAM WITH (2) #5 @ 4'-0" OC MAX OVER THE FULL HEIGHT OF THE WALL. NO CONTROL JOINTS ALLOWED WITHIN THIS REGION.

8 IN ADDITION TO BOND BEAMS NOTED ELSEWHERE, INCLUDE A BOND BEAM WITH (2) #5 CONTINUOUS, AND ENSURE BARS ARE CONTINUOUS FULL LENGTH OF BOND BEAM, INCLUDING THROUGH CONTROL JOINTS. BOTTOM OF BOND BEAM ELEVATION SHOWN NEXT TO KEYED NOTE CALLOUT. GROUT CMU SOLID FROM DECK, BEAM, OR JOIST CONNECTION DOWN TO BOND BEAM ELEVATION NOTED.

9 JOIST BRIDGING TO ACCOMMODATE DUCTS. COORDINATE WITH MECHANICAL. TYP BETWEEN JOISTS.

10 ANGLE TO BE CONTINUOUS ALONG FULL LENGTH OF WALL. SEE TYPICAL ROOF EDGE ANGLE SPLICE DETAIL.

11 HOLD PRECAST BACK AND BEAR ON BENT PLATE INSTEAD OF CMU OVER DUCT. COORDINATE LOCATION AND SIZE WITH MECHANICAL CONTRACTOR.

12 TOOTH IN MASONRY AT WALL INTERSECTION.

13 FABRICATOR TO ACCOMMODATE BEAM DEEP COPE IN CONNECTION DESIGN.

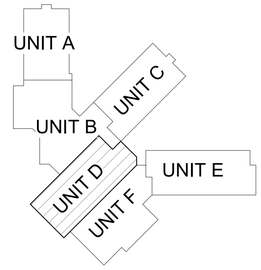
14 ELEVATOR HOIST BEAM BELOW (BY ELEVATOR SUPPLIER). PROVIDE BEARING PLATES AT EACH END OF HOIST BEAM. COORDINATE SIZE, LOCATION, AND ELEVATION OF BEARING PLATES WITH ELEVATOR SUPPLIER.

15 DUCT, PIPE, OR CONDUIT PENETRATION THROUGH FLOOR. PRECAST SUPPLIER TO COORDINATE SIZE AND LOCATION OF OPENING WITH MECHANICAL, PLUMBING, OR ELECTRICAL CONTRACTOR. NOT NECESSARILY ALL OPENINGS ARE SHOWN. PRECAST SUPPLIER TO PROVIDE HEADER FRAMING AT PENETRATIONS AS REQUIRED BY DESIGN.

16 1/2" DIA x 4" HEADED STUD WELDED TO SIDE OF COLUMN AND EMBEDDED INTO SOLID GROUTED CMU. LOCATE 4" BELOW TOP OF FIRST FULL COURSE OF BOND BEAM BELOW DECK BEARING.

17 1/2" DIA x 4" HEADED STUD WELDED TO SIDE OF COLUMN AND EMBEDDED INTO SOLID GROUTED CMU. LOCATE 4" BELOW TOP OF FIRST FULL COURSE OF BOND BEAM BELOW PRECAST BEARING.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
SECOND FLOOR & LOW ROOF FRAMING PLAN - UNIT D

DATE
APRIL 24, 2026

SHEET NUMBER
S 201D
23-622.00

DRAWN BY: ACR 5/18/2026 3:24:01 PM

SYMBOLS LEGEND - STRUCTURAL - FRAMING

SPOT ELEVATION. SLOPE STRUCTURE UNIFORMLY BETWEEN ADJACENT SPOT ELEVATIONS AS INDICATED.

INDICATES FRAMED OPENING. REFER TO TYPICAL DETAIL, COORDINATE SIZE AND LOCATION WITH MECHANICAL AND ARCHITECTURAL REQUIREMENTS.

DP — CONTINUOUS DECK BEARING PLATE IN TOP OF WALL, REFER TO TYPICAL DETAILS.

TOP TEXT / BTM TEXT — INDICATES SPAN DIRECTION FOR ROOF OR FLOOR DECK. REFER TO ROOF DECK SCHEDULE FOR DECK DESIGNATION, ATTACHMENT PATTERN REQUIREMENTS, AND ADDITIONAL INFORMATION. 'R' INDICATES ROOF DECK, 'F' INDICATES FLOOR DECK.

ROOM# / BC — CONCENTRATED LOAD APPLIED TO JOIST TOP CHORD (TC) OR BOTTOM CHORD (BC) IN ADDITION TO UNIFORM LOADS OF THE STANDARD JOIST DESIGNATION SHOWN. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR THESE ADDITIONAL LOADS AT THE LOCATIONS SHOWN WITHOUT THE NEED FOR A FIELD-INSTALLED WEB MEMBER.

ALTC or ALBC — CONCENTRATED LOAD APPLIED TO JOIST AT ANY LOCATION ON THE TOP CHORD (ALTC) OR AT ANY LOCATION ON THE BOTTOM CHORD (ALBC). CONCENTRATED LOAD IS IN ADDITION TO THE UNIFORM LOADS OF THE STANDARD JOIST DESIGNATION SHOWN OR IN ADDITION TO THE LOADS SHOWN IN A JOIST LOAD DIAGRAM. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR THESE ADDITIONAL CONCENTRATED LOADS TO OCCUR AT ANY PANEL POINT. IF THE FINAL LOCATION OF THE CONCENTRATED LOAD IN THE FIELD DOES NOT OCCUR AT A PANEL POINT, A FIELD-INSTALLED WEB MEMBER SHALL BE ADDED PER THE TYPICAL DETAIL.

SYMBOLS LEGEND - STRUCTURAL - FRAMING

MOMENT CONNECTION, REFER TO TYPICAL DETAILS.

CX — COLUMN TAG, REFER TO COLUMN SCHEDULE. TAG APPEARS ON THE LEVEL CORRESPONDING WITH THE TOP OF THE COLUMN.

MWX — MASONRY WALL TYPE DESIGNATION, REFER TO TYPICAL DETAILS FOR ADDITIONAL INFORMATION.

LX or MLX — INDICATES LINTEL. REFER TO LINTEL SCHEDULE FOR SIZE OF LINTEL. 'L' PREFIX INDICATES STEEL LINTEL, 'ML' PREFIX INDICATES MASONRY LINTEL.

SHADED REGIONS OF CMU WALL INDICATE SHEAR WALLS. THESE WALLS ARE TO BE CONSTRUCTED WITH CONTROL JOINTS ON EACH SIDE OF THE SHADED REGION AND NO CONTROL JOINTS WITHIN THE BOUNDARY UNLESS NOTED OTHERWISE. REFER TO MASONRY GENERAL NOTES ON SG 001 FOR BOND BEAM REQUIREMENTS WHERE SHADED REGION EXCEEDS MAXIMUM CONTROL JOINT SPACING.

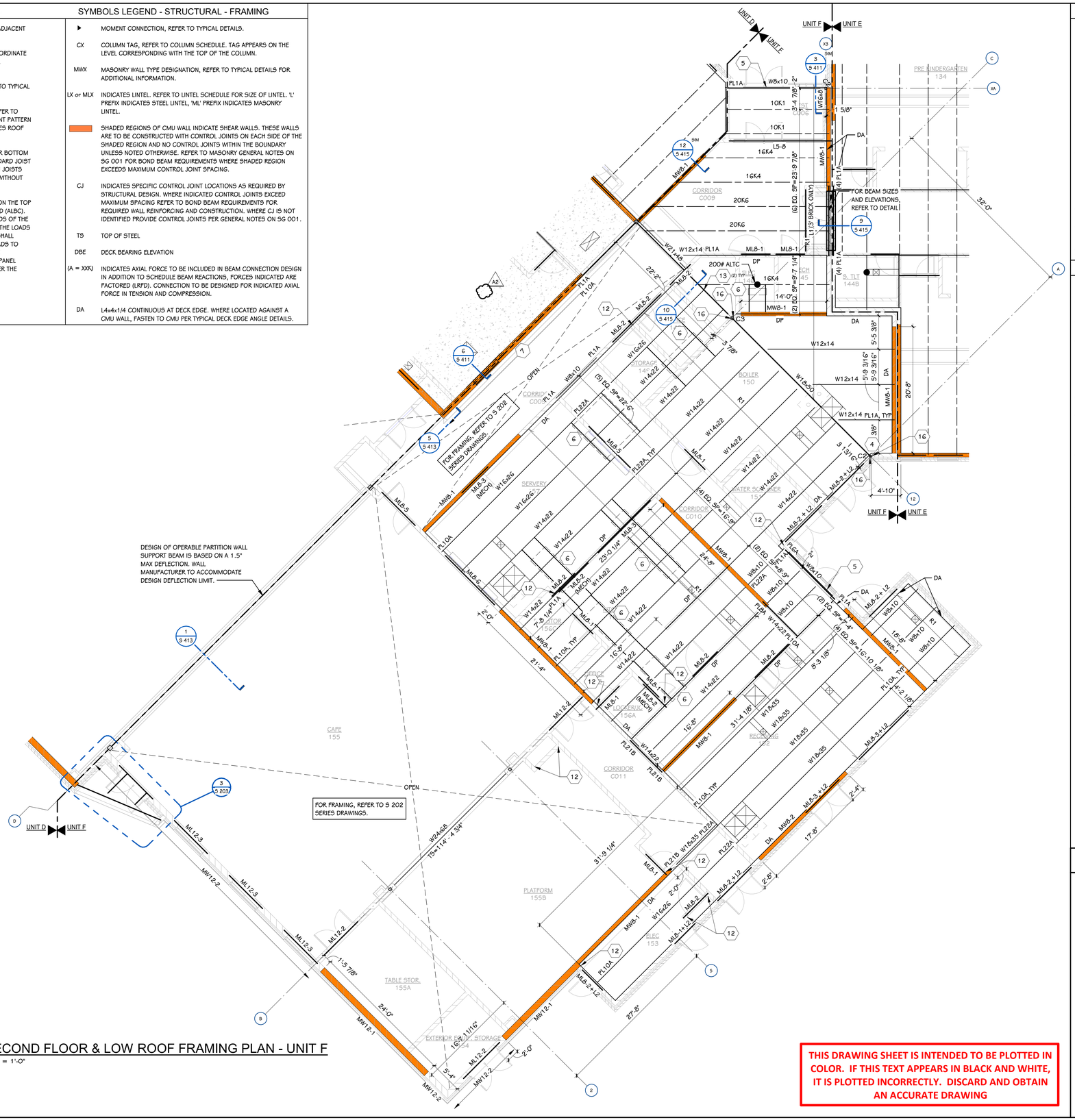
CJ — INDICATES SPECIFIC CONTROL JOINT LOCATIONS AS REQUIRED BY STRUCTURAL DESIGN. WHERE INDICATED CONTROL JOINTS EXCEED MAXIMUM SPACING REFER TO BOND BEAM REQUIREMENTS FOR REQUIRED WALL REINFORCING AND CONSTRUCTION. WHERE CJ IS NOT IDENTIFIED PROVIDE CONTROL JOINTS PER GENERAL NOTES ON SG 001.

TS — TOP OF STEEL

DBE — DECK BEARING ELEVATION

(A = XXK) — INDICATES AXIAL FORCE TO BE INCLUDED IN BEAM CONNECTION DESIGN IN ADDITION TO SCHEDULE BEAM REACTIONS, FORCES INDICATED ARE FACTORED (LRFD). CONNECTION TO BE DESIGNED FOR INDICATED AXIAL FORCE IN TENSION AND COMPRESSION.

DA — L4x4x1/4 CONTINUOUS AT DECK EDGE. WHERE LOCATED AGAINST A CMU WALL, FASTEN TO CMU PER TYPICAL DECK EDGE ANGLE DETAILS.



SECOND FLOOR & LOW ROOF FRAMING PLAN - UNIT F

1/8" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NOTES - STRUCTURAL - FRAMING

1 TS ELEVATIONS AS FOLLOWS (UNO):
STEEL SUPPORTING HOLLOW CORE PRECAST - 112'-11"
UNIT B - 116'-11" TYPICAL WITH GIRDERS SUPPORTING JOISTS AT 116'-8 1/2"
UNITS D & F LOWER ROOF - 114'-3" TYPICAL WITH GIRDERS SUPPORTING JOISTS AT 114'-0 1/2"
ALL OTHER LOCATIONS - REFER TO PLAN

2 REINFORCED MASONRY DESIGNATED THUS: MWx-x. REFER TO TYPICAL DETAILS FOR MASONRY WALL CONSTRUCTION. 8" MASONRY WALLS SHALL BE MW8-1 UNO, AND 12" MASONRY WALLS SHALL BE MW12-1 UNO.

3 ALL MASONRY WALLS TO EXTEND TO UNDERSIDE OF ROOF DECK, UNO. REFER TO TYPICAL DETAILS

4 REFER TO ARCHITECTURAL DRAWINGS FOR INTERIOR WALL DIMENSIONS

5 ALL OPENINGS IN MASONRY WALLS WIDER THAN 8" REQUIRE LINTELS. FOR LINTELS NOT SHOWN ON PLANS REFER TO LINTEL SCHEDULE FOR SIZE, COORDINATE LOCATIONS AND OPENING WIDTHS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS

6 WHERE NO SLOPE ARROWS ARE SHOWN, ROOF IS LEVEL.

7 FRAMING WITHIN CMU WALLS ARE CENTERED WITHIN CMU WALLS UNO.

8 PROVIDE A CONTROL JOINT AT ALL COLUMN LOCATIONS WITHIN MASONRY WALLS UNLESS THE COLUMN IS WITHIN A SHADED REGION ON THIS PLAN.

KEYED NOTES - STRUCTURAL - FRAMING

1 REFER TO TYPICAL PORTAL FRAME DETAIL.

2 TOP OF BEAM TO FOLLOW SLOPE OF ROOF.

3 COORDINATE BEAM FLANGE WIDTH TO ALLOW BEAM BEARING ON ALL FOUR SIDES.

4 CONTINUOUS L4x4x1/4 (GALV.) FOR SUPPORT OF BRICK VENEER. REFER TO ARCHITECTURE DRAWINGS FOR TOP OF ANGLE HORIZONTAL LEG/BOTTOM OF BRICK ELEVATION. REFER TO TYPICAL BRICK SUPPORT BRACKET DETAIL.

5 1/4" BENT PLATE AT SLAB OR DECK EDGE. REFER TO TYPICAL DETAILS.

6 REFER TO TYPICAL RTU SUPPORT DETAILS.

7 PROVIDE A SINGLE COURSE CONTINUOUS HORIZONTAL BOND BEAM WITH (2) #5 @ 4'-0" OC MAX OVER THE FULL HEIGHT OF THE WALL. NO CONTROL JOINTS ALLOWED WITHIN THIS REGION.

8 IN ADDITION TO BOND BEAMS NOTED ELSEWHERE, INCLUDE A BOND BEAM WITH (2) #5 CONTINUOUS, AND ENSURE BARS ARE CONTINUOUS FULL LENGTH OF BOND BEAM, INCLUDING THROUGH CONTROL JOINTS. BOTTOM OF BOND BEAM ELEVATION SHOWN NEXT TO KEYED NOTE CALLOUT. GROUT CMU SOLID FROM DECK, BEAM, OR JOIST CONNECTION DOWN TO BOND BEAM ELEVATION NOTED.

9 JOIST BRIDGING TO ACCOMMODATE DUCTS. COORDINATE WITH MECHANICAL. TYP BETWEEN JOISTS.

10 ANGLE TO BE CONTINUOUS ALONG FULL LENGTH OF WALL. SEE TYPICAL ROOF EDGE ANGLE SPLICE DETAIL.

11 HOLD PRECAST BACK AND BEAR ON BENT PLATE INSTEAD OF CMU OVER DUCT. COORDINATE LOCATION AND SIZE WITH MECHANICAL CONTRACTOR.

12 TOOTH IN MASONRY AT WALL INTERSECTION.

13 FABRICATOR TO ACCOMMODATE BEAM DEEP COPE IN CONNECTION DESIGN.

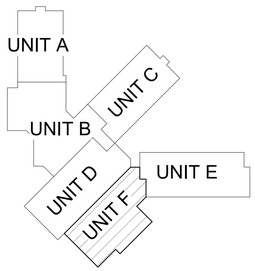
14 ELEVATOR HOIST BEAM BELOW (BY ELEVATOR SUPPLIER). PROVIDE BEARING PLATES AT EACH END OF HOIST BEAM. COORDINATE SIZE, LOCATION, AND ELEVATION OF BEARING PLATES WITH ELEVATOR SUPPLIER.

15 DUCT, PIPE, OR CONDUIT PENETRATION THROUGH FLOOR. PRECAST SUPPLIER TO COORDINATE SIZE AND LOCATION OF OPENING WITH MECHANICAL, PLUMBING, OR ELECTRICAL CONTRACTOR. NOT NECESSARILY ALL OPENINGS ARE SHOWN. PRECAST SUPPLIER TO PROVIDE HEADER FRAMING AT PENETRATIONS AS REQUIRED BY DESIGN.

16 1/2" DIA x 4" HEADED STUD WELDED TO SIDE OF COLUMN AND EMBEDDED INTO SOLID GROUTED CMU. LOCATE 4" BELOW TOP OF FIRST FULL COURSE OF BOND BEAM BELOW DECK BEARING.

17 1/2" DIA x 4" HEADED STUD WELDED TO SIDE OF COLUMN AND EMBEDDED INTO SOLID GROUTED CMU. LOCATE 4" BELOW TOP OF FIRST FULL COURSE OF BOND BEAM BELOW PRECAST BEARING.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

DRAWN BY: ACR 5/18/2026 3:24:04 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26

PROJECT TITLE
NEW EL SOL SCHOOL

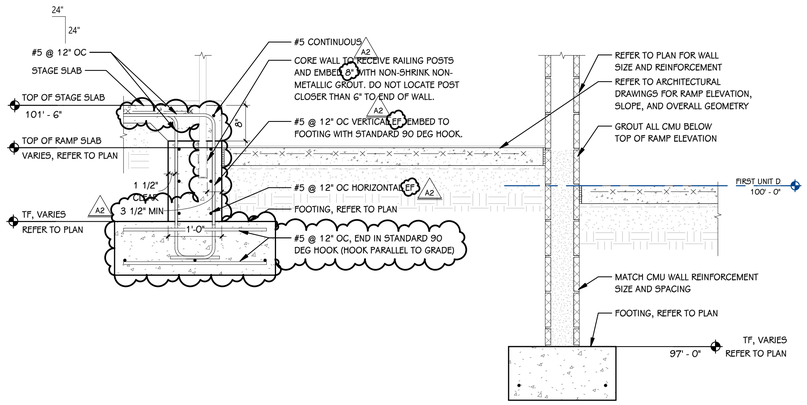
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

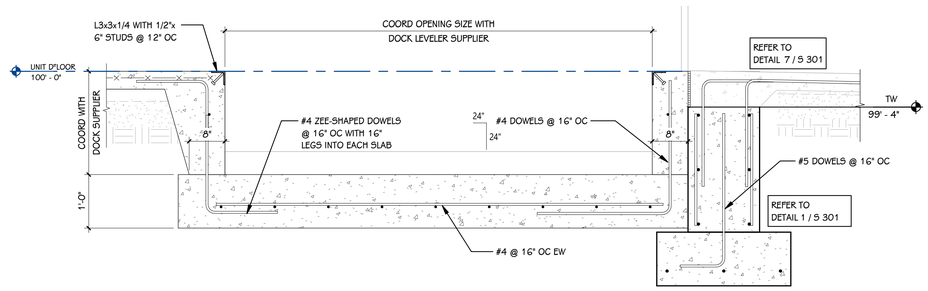
SHEET TITLE
SECOND FLOOR & LOW ROOF FRAMING PLAN - UNIT F

DATE
APRIL 24, 2026

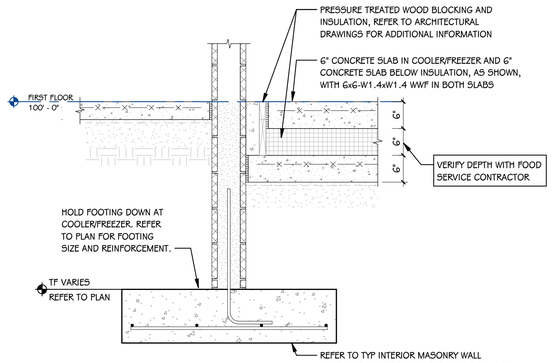
SHEET NUMBER
S 201F
23-622.00



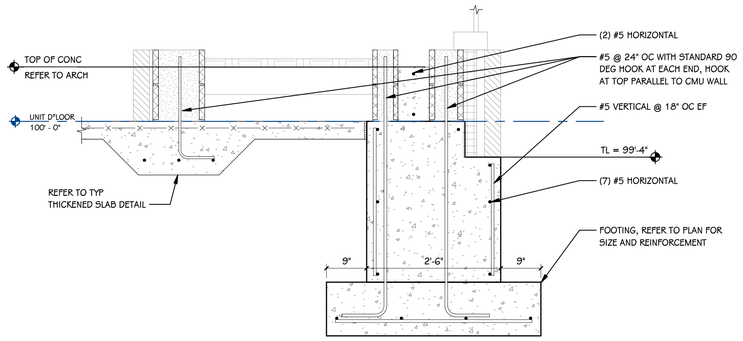
1 / S311 SECTION
3/4" = 1'-0"



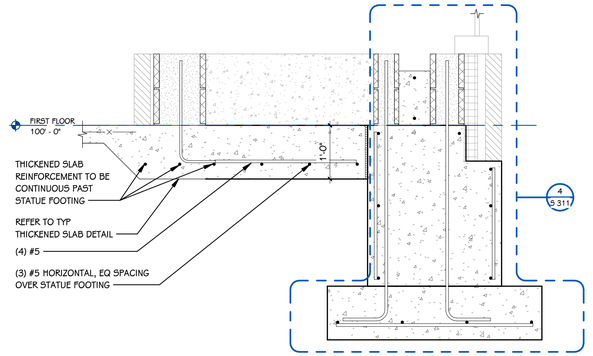
2 / S311 SECTION
3/4" = 1'-0"



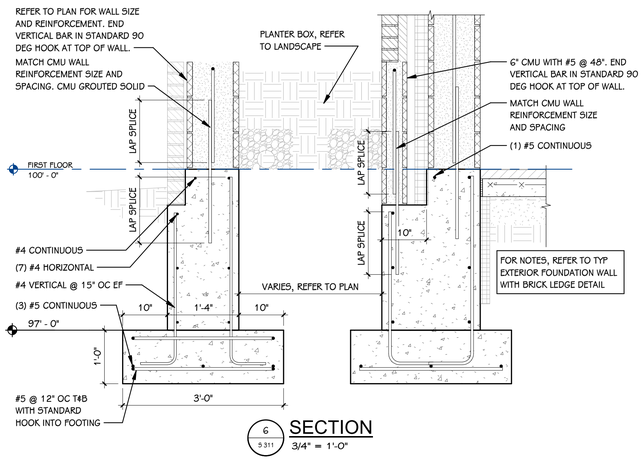
3 / S311 SECTION
3/4" = 1'-0"



4 / S311 SECTION
3/4" = 1'-0"



5 / S311 SECTION
3/4" = 1'-0"



6 / S311 SECTION
3/4" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

DRAWN BY: ACR 5/18/2026 3:24:09 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26

PROJECT TITLE
NEW EL SOL SCHOOL

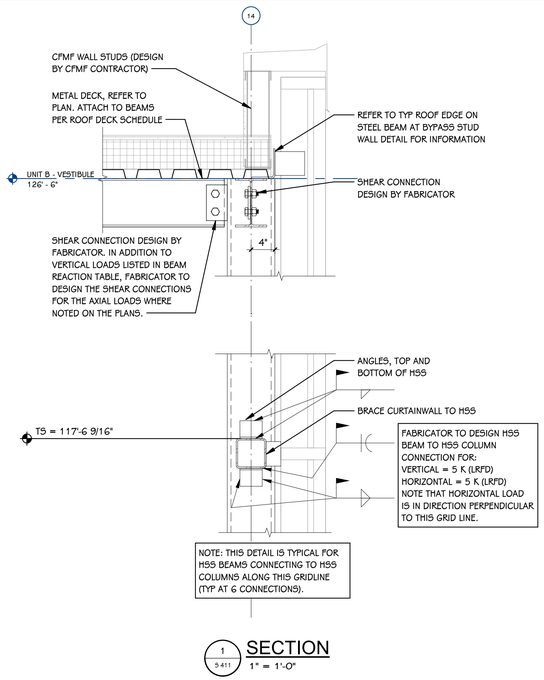
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

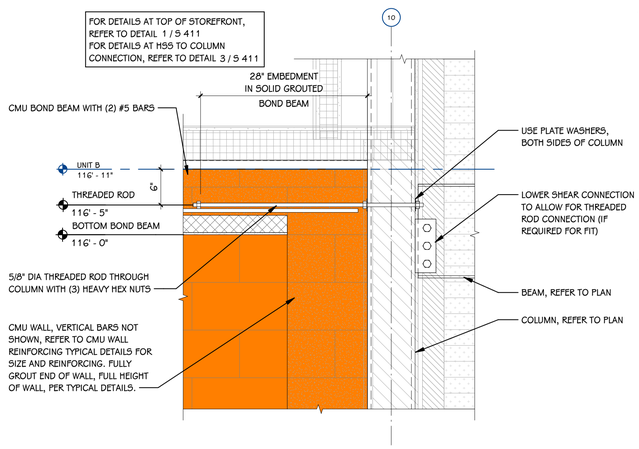
SHEET TITLE
FOUNDATION DETAILS

DATE
APRIL 24, 2026

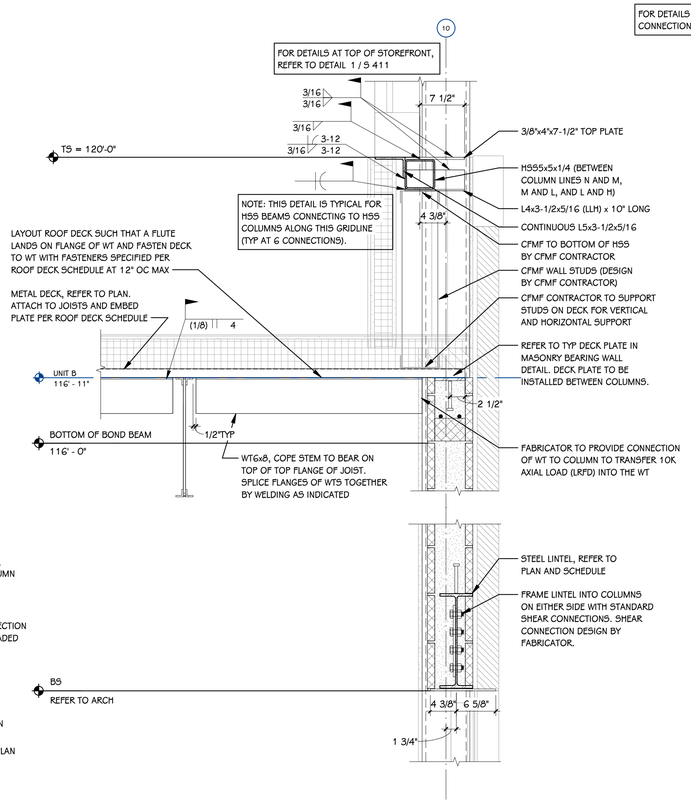
SHEET NUMBER
S 311
23-622.00



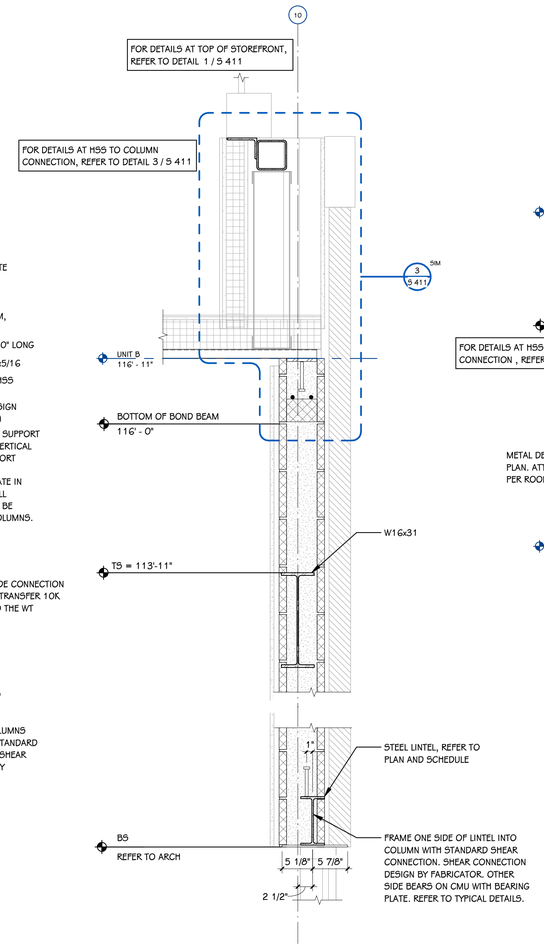
1 / S411 SECTION
1" = 1'-0"



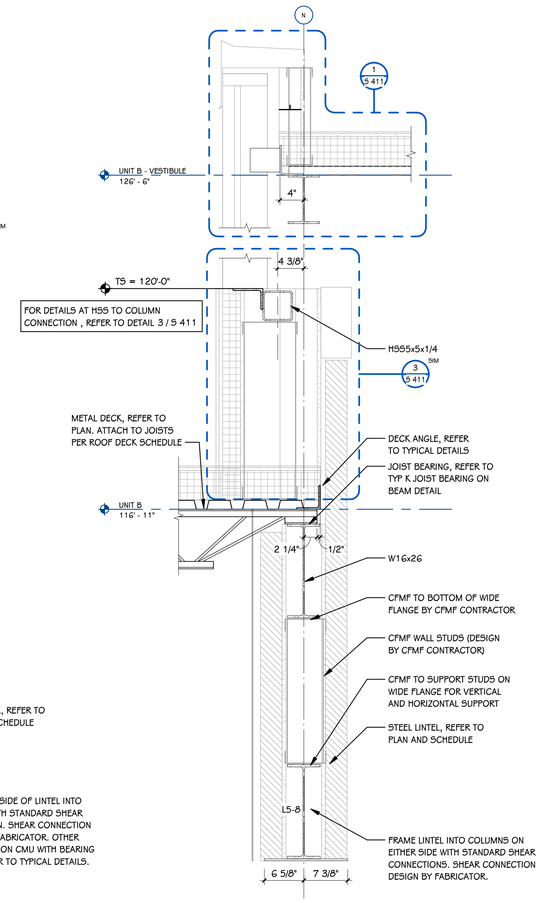
2 / S411 SECTION
1" = 1'-0"



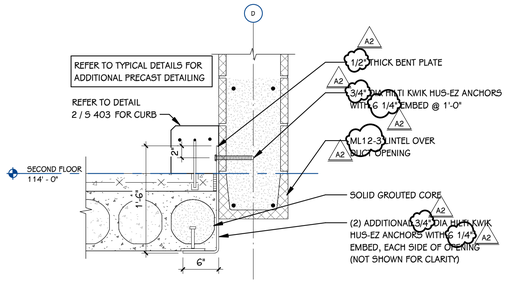
3 / S411 SECTION
1" = 1'-0"



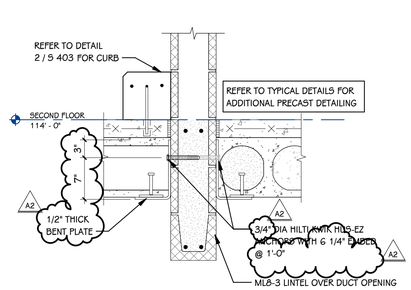
4 / S411 SECTION
1" = 1'-0"



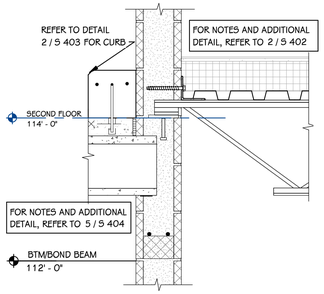
5 / S411 SECTION
1" = 1'-0"



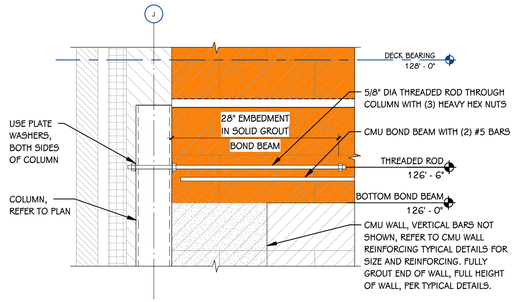
6 / S411 SECTION
1" = 1'-0"



7 / S411 SECTION
1" = 1'-0"



8 / S411 SECTION
1" = 1'-0"



9 / S411 SECTION
1" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

DRAWN BY: ACR 5/18/2026 3:24:11 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

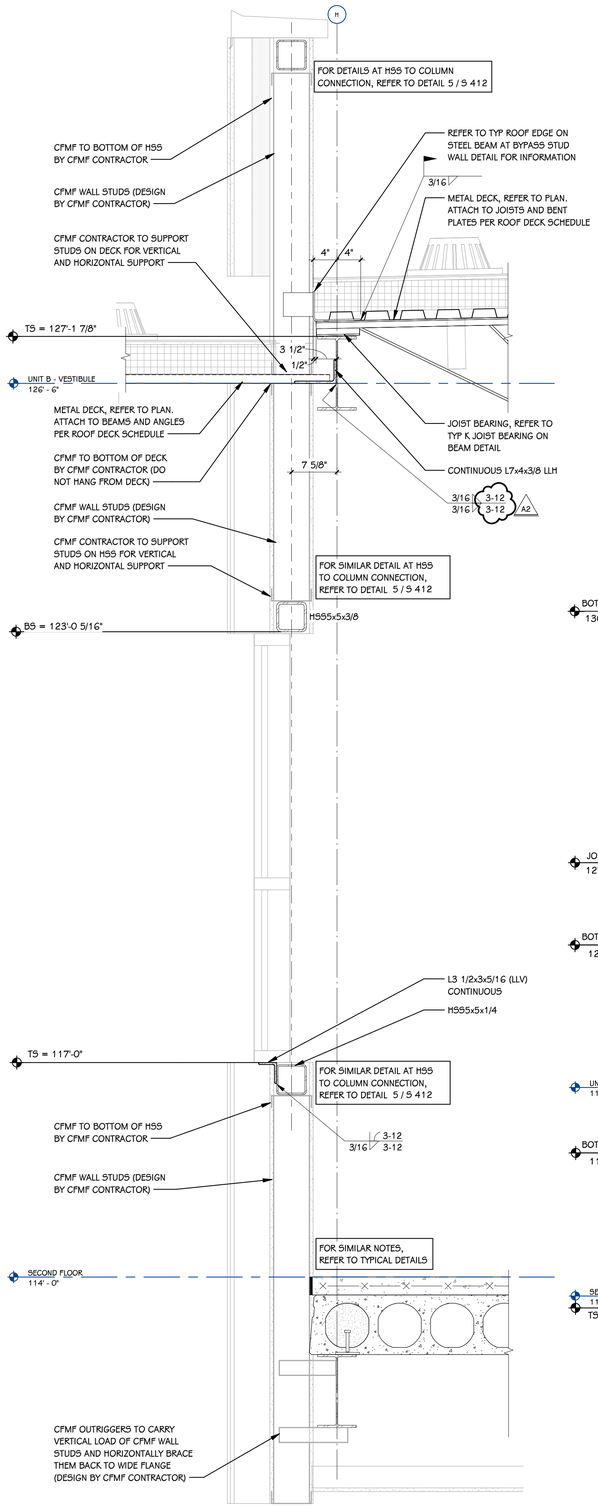
KALAMAZOO, MICHIGAN

SHEET TITLE
FRAMING DETAILS

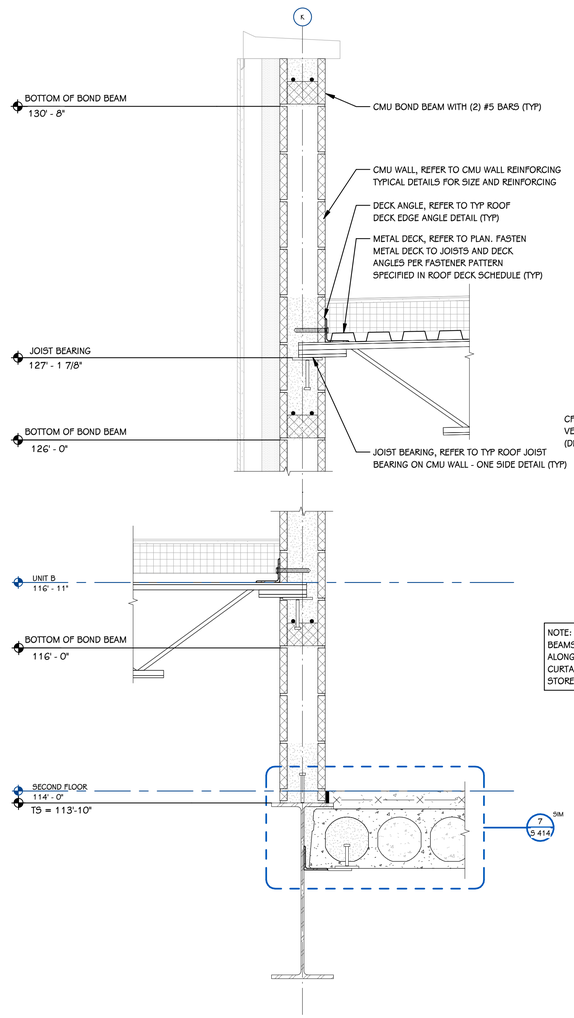
DATE
APRIL 24, 2026

SHEET NUMBER
S 411
23-622.00

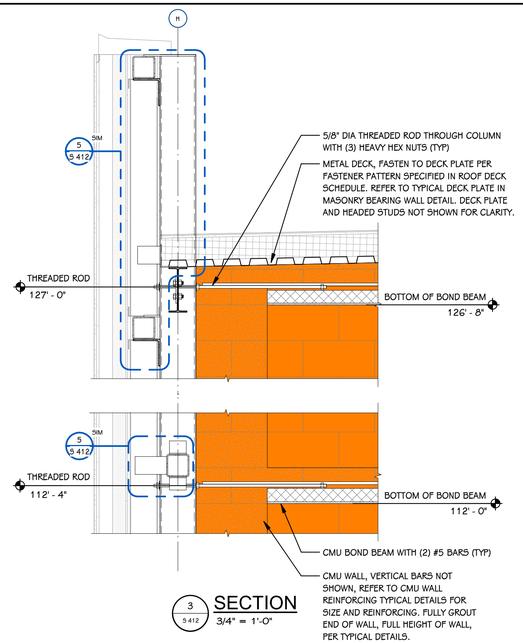
THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING



1 / S 412 SECTION
1" = 1'-0"

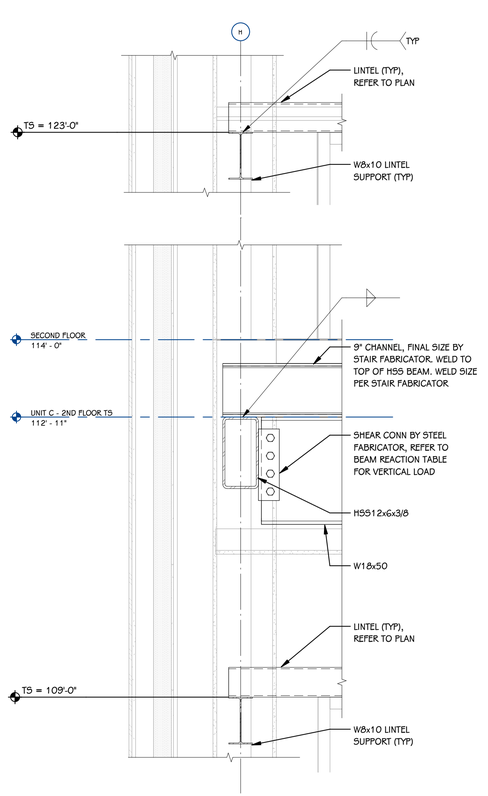


4 / S 412 SECTION
1" = 1'-0"



3 / S 412 SECTION
3/4" = 1'-0"

5 / S 412 SECTION
1" = 1'-0"



2 / S 412 SECTION
1" = 1'-0"

DRAWN BY: ACR 5/18/2026 3:24:16 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

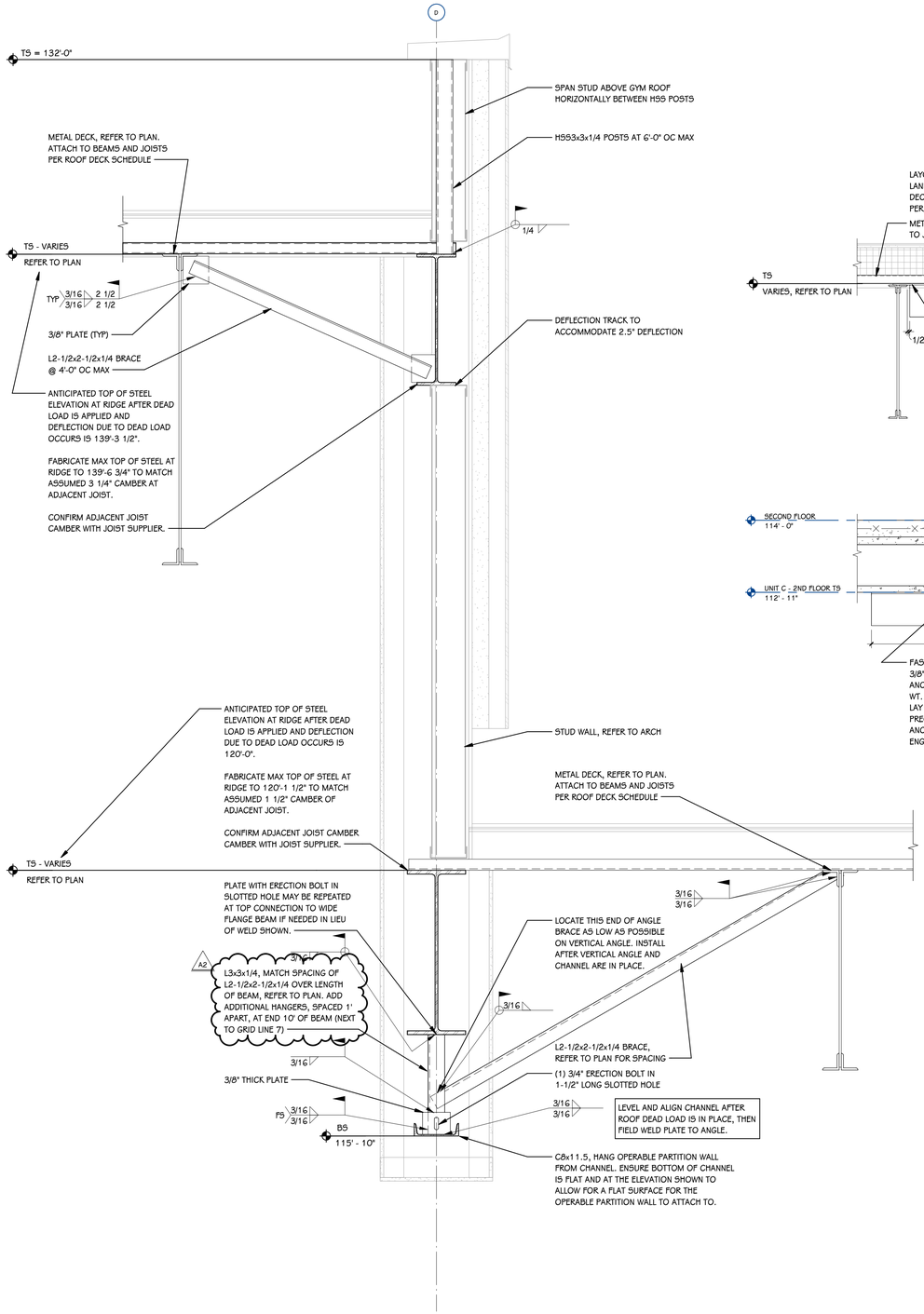
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

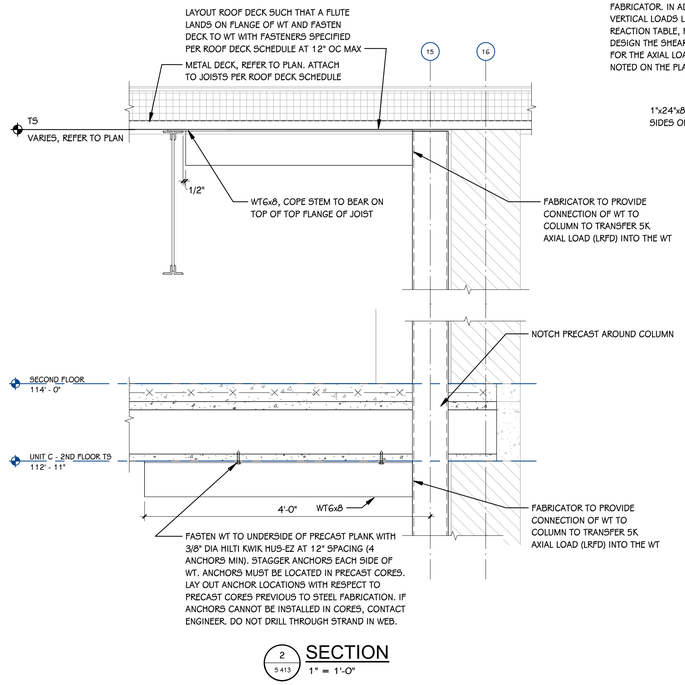
DATE
APRIL 24, 2026

SHEET TITLE
FRAMING DETAILS

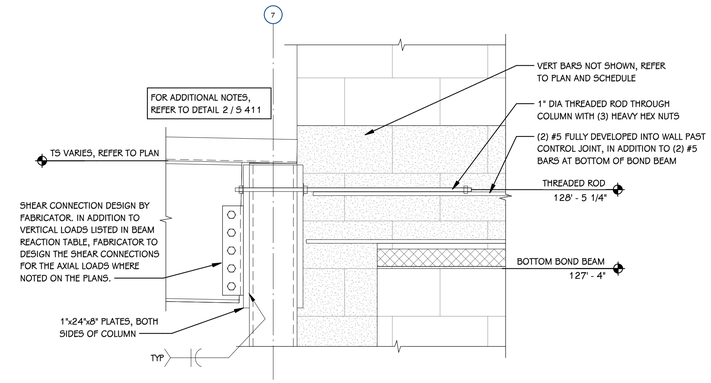
SHEET NUMBER
S 412
23-622.00



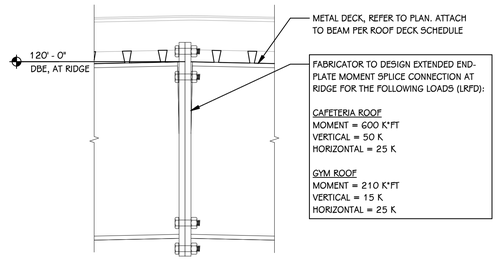
1 / S413 SECTION
1" = 1'-0"



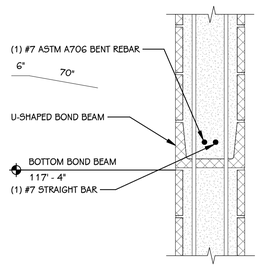
2 / S413 SECTION
1" = 1'-0"



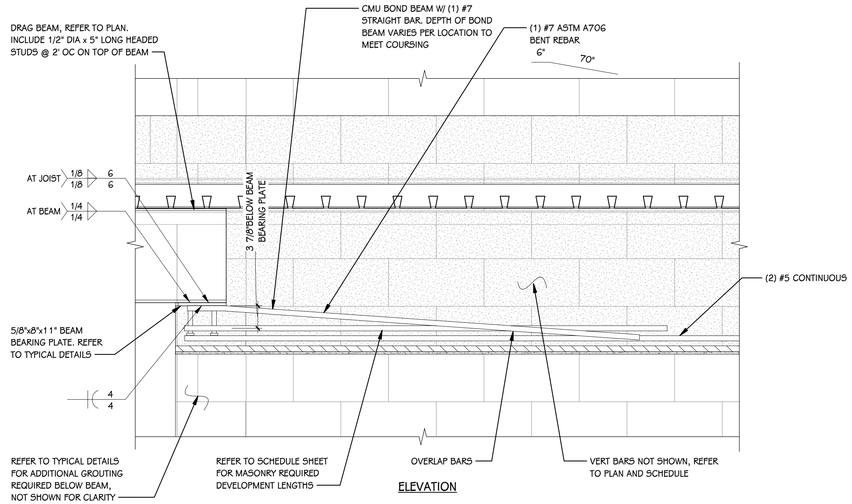
3 / S413 SECTION
1" = 1'-0"



4 / S413 SECTION
1" = 1'-0"



SECTION AT OVERLAP



ELEVATION

5 / S413 SECTION
1" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

DRAWN BY: ACR 5/18/2026 3:24:21 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

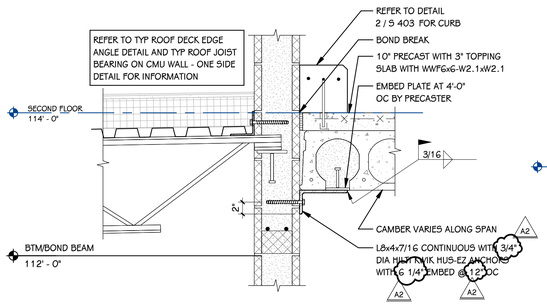
KALAMAZOO, MICHIGAN

DATE
APRIL 24, 2026

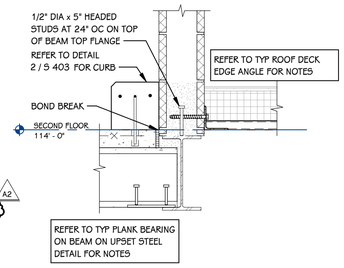
SHEET TITLE
FRAMING DETAILS

SHEET NUMBER
S 413
23-622.00

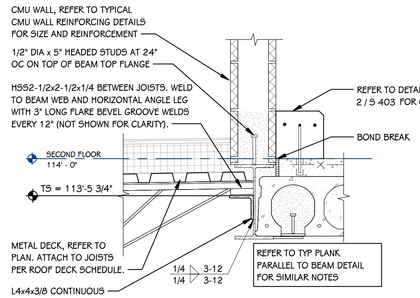
THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING



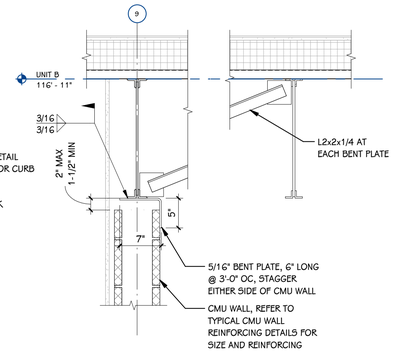
1 / S 416 SECTION
1" = 1'-0"



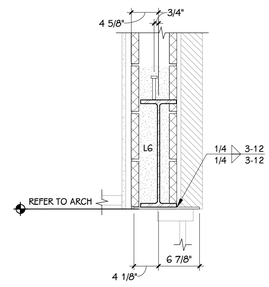
2 / S 416 SECTION
1" = 1'-0"



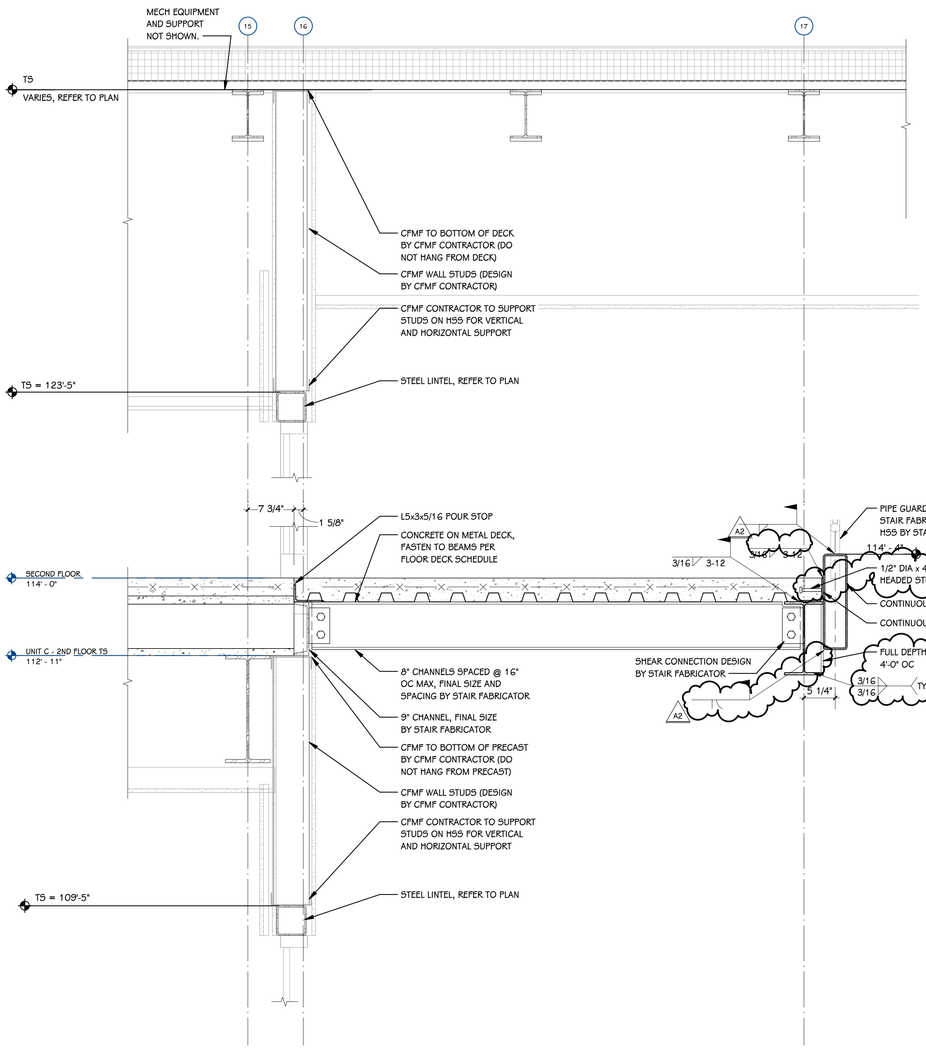
3 / S 416 SECTION
1" = 1'-0"



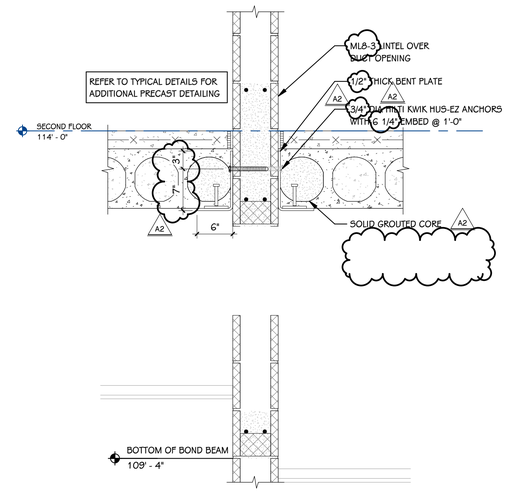
4 / S 416 SECTION
1" = 1'-0"



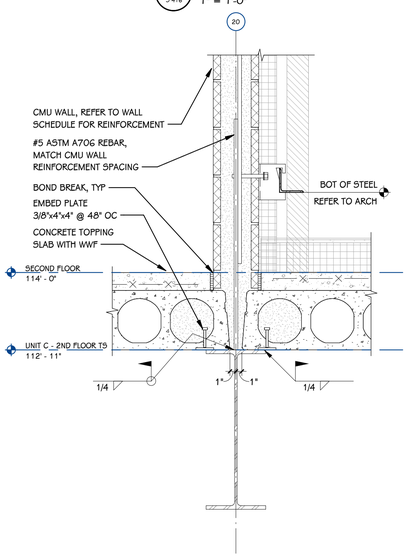
5 / S 416 SECTION
1" = 1'-0"



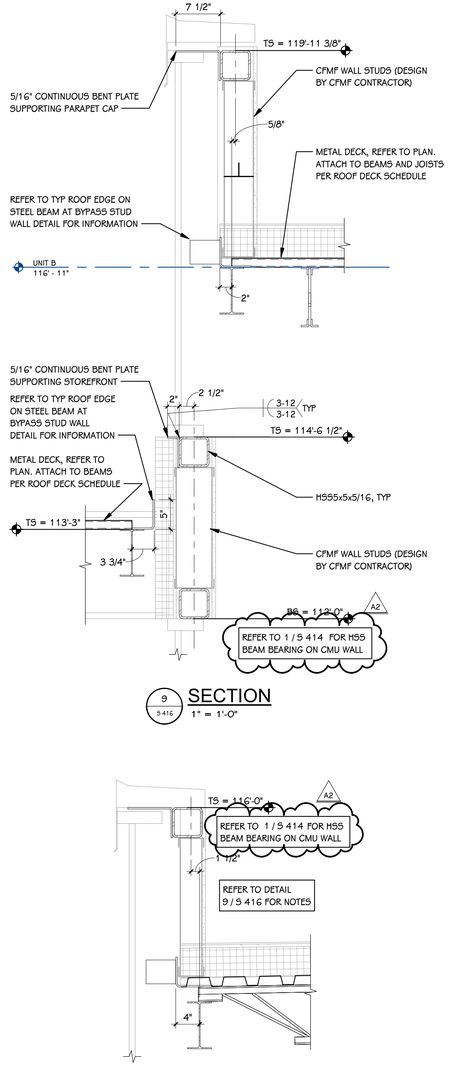
6 / S 416 SECTION
1" = 1'-0"



7 / S 416 SECTION
1" = 1'-0"



8 / S 416 SECTION
1" = 1'-0"



9 / S 416 SECTION
1" = 1'-0"

10 / S 416 SECTION
1" = 1'-0"

DRAWN BY: ACR 5/18/2026 3:24:22 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

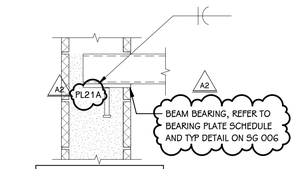
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

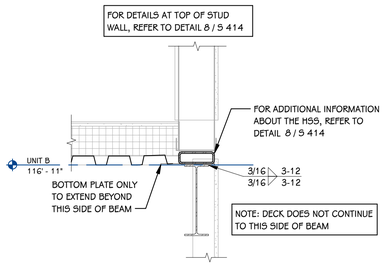
SHEET TITLE
FRAMING DETAILS

DATE
APRIL 24, 2026

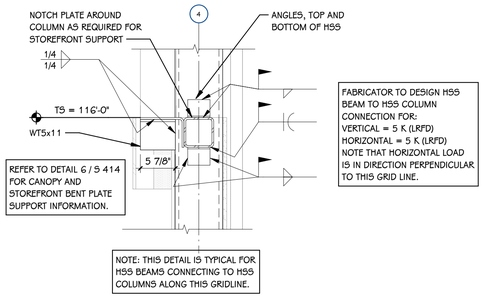
SHEET NUMBER
S 416
23-622.00



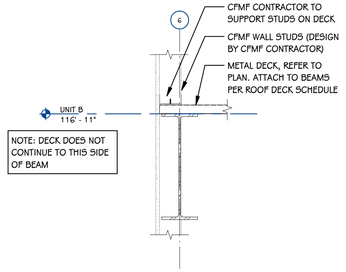
1 / S414 SECTION
1" = 1'-0"



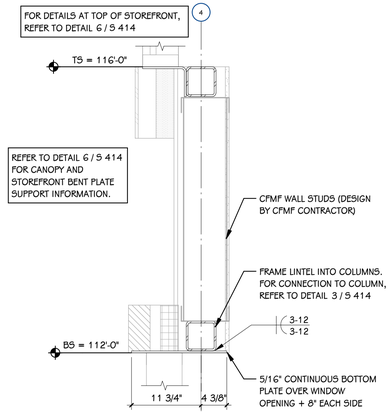
2 / S414 SECTION
1" = 1'-0"



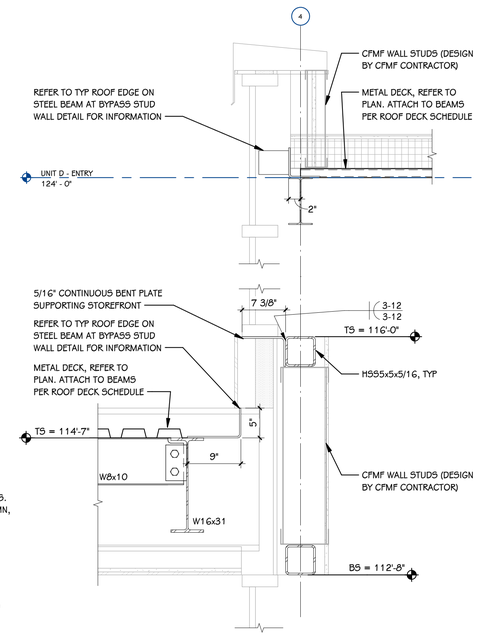
3 / S414 SECTION
1" = 1'-0"



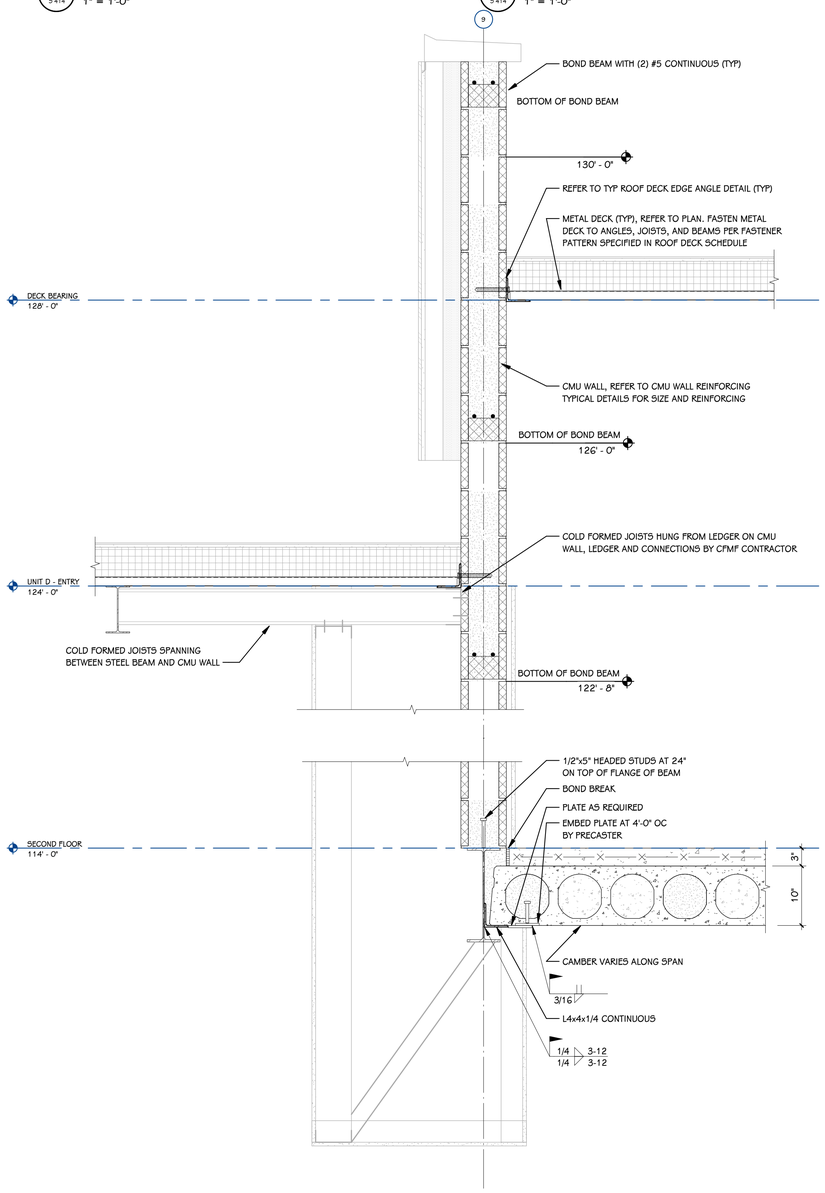
4 / S414 SECTION
1" = 1'-0"



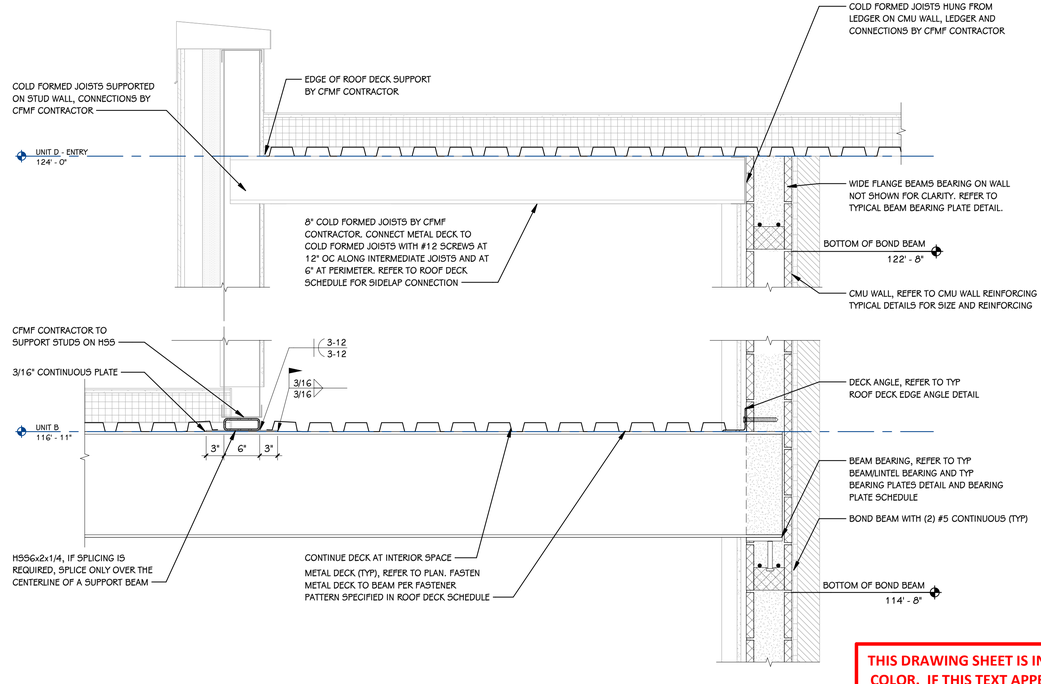
5 / S414 SECTION
1" = 1'-0"



6 / S414 SECTION
1" = 1'-0"



7 / S414 SECTION
1" = 1'-0"



8 / S414 SECTION
1" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

DRAWN BY: ACR 5/18/2026 3:24:24 PM

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 2	05/18/26
ADDENDUM 1	05/08/26

PROJECT TITLE
NEW EL SOL SCHOOL

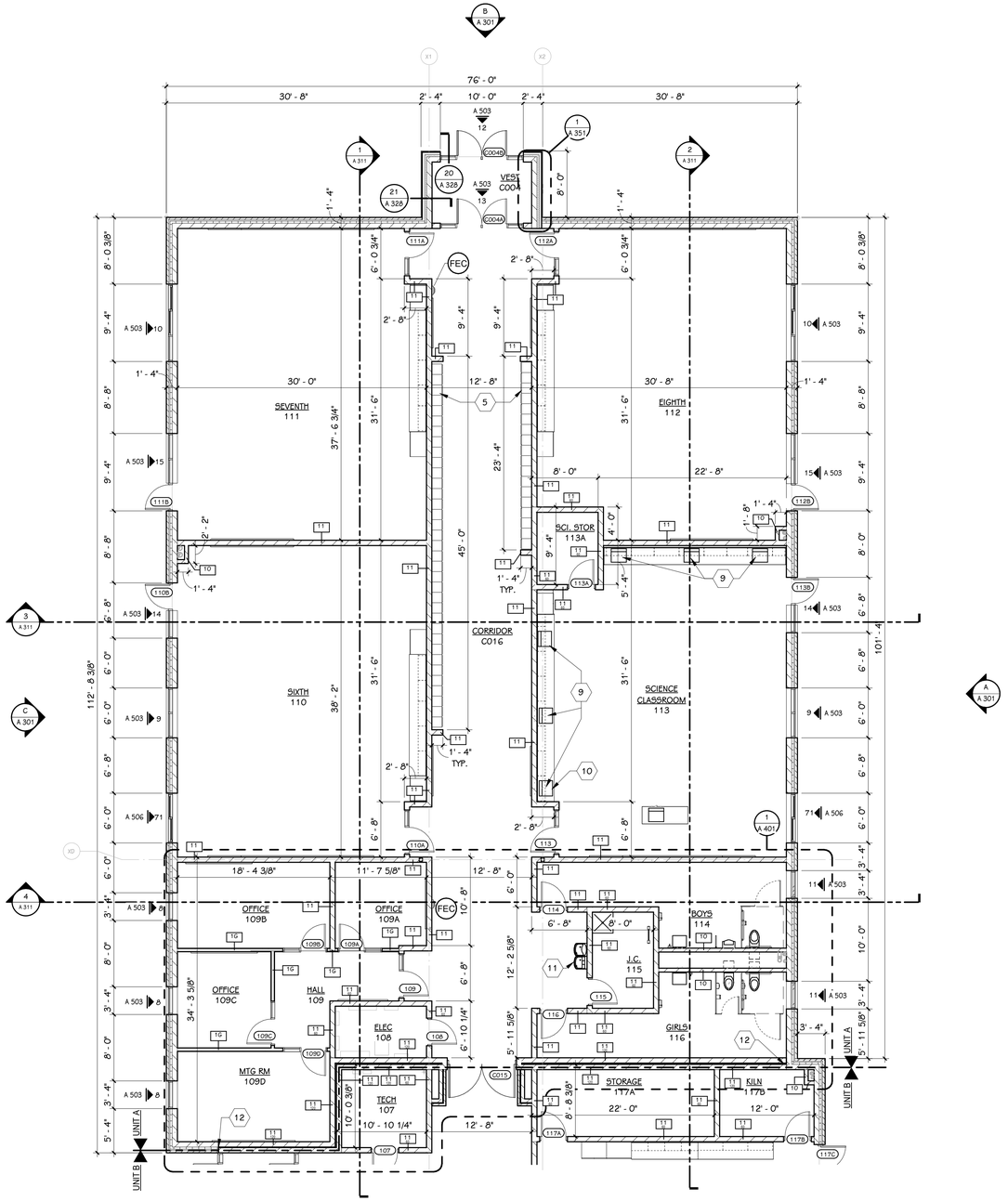
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

DATE
APRIL 24, 2026

SHEET TITLE
FRAMING DETAILS

SHEET NUMBER
S 414
23-622.00



FIRST FLOOR PLAN - UNIT A
1/8" = 1'-0"

KEYED NOTES - ARCHITECTURAL - CONSTRUCTION

1 EXTENT OF INSULATED DOUBLE FREEZER/COOLER SLAB. COORDINATE THEREMO BREAK WITH MANUF. RECOMENDATIONS

2 INTEGRAL MASONRY PLANTER.

3 4" THICK CONCRETE PAD - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS.

4 8"x8" INTEGRAL CONCRETE CURB AROUND PERIMETER WALLS AND FLOOR PENETRATIONS

5 DOUBLE TIER METAL LOCKERS, SURFACE MOUNTED. REFER TO SPECS FOR BASE INFORMATION.

6 WALL MOUNTED HANDRAIL.

7 CAST-IN-PLACE CONCRETE STEP AND LANDING. REFER TO STRUCTURAL.

8 ACCESS LADDER GUARDRAIL WITH GATE.

9 SOAP AND TOWEL DINSPENSERS AT SINK. REFER TO TOILET ACCESSORIES SCHEDULE ON A400s.

10 BARRIER-FREE SINK, REFER TO MECHANICAL

11 WATER COOLER, REFER TO MECHANICAL

12 FIRE-RATED, PREFORMED EXPANSION JOINT.

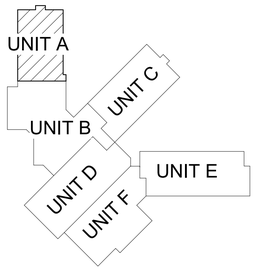
13 SAFETY PADS - 2'x7', MOUNT 4" AFF.

14 SAFETY PADS - 2'x7', MOUNT 4" AFF, CENTER ON BASKETBALL HOOP.

15 SAFETY PADS ON DOOR TO ALIGN TO ADJACENT SAFETY PADS.

16 DOUBLE TIER METAL LOCKERS, MOUNTED ON BENCH. REFER TO LOCKER DETAIL 2/A402.

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

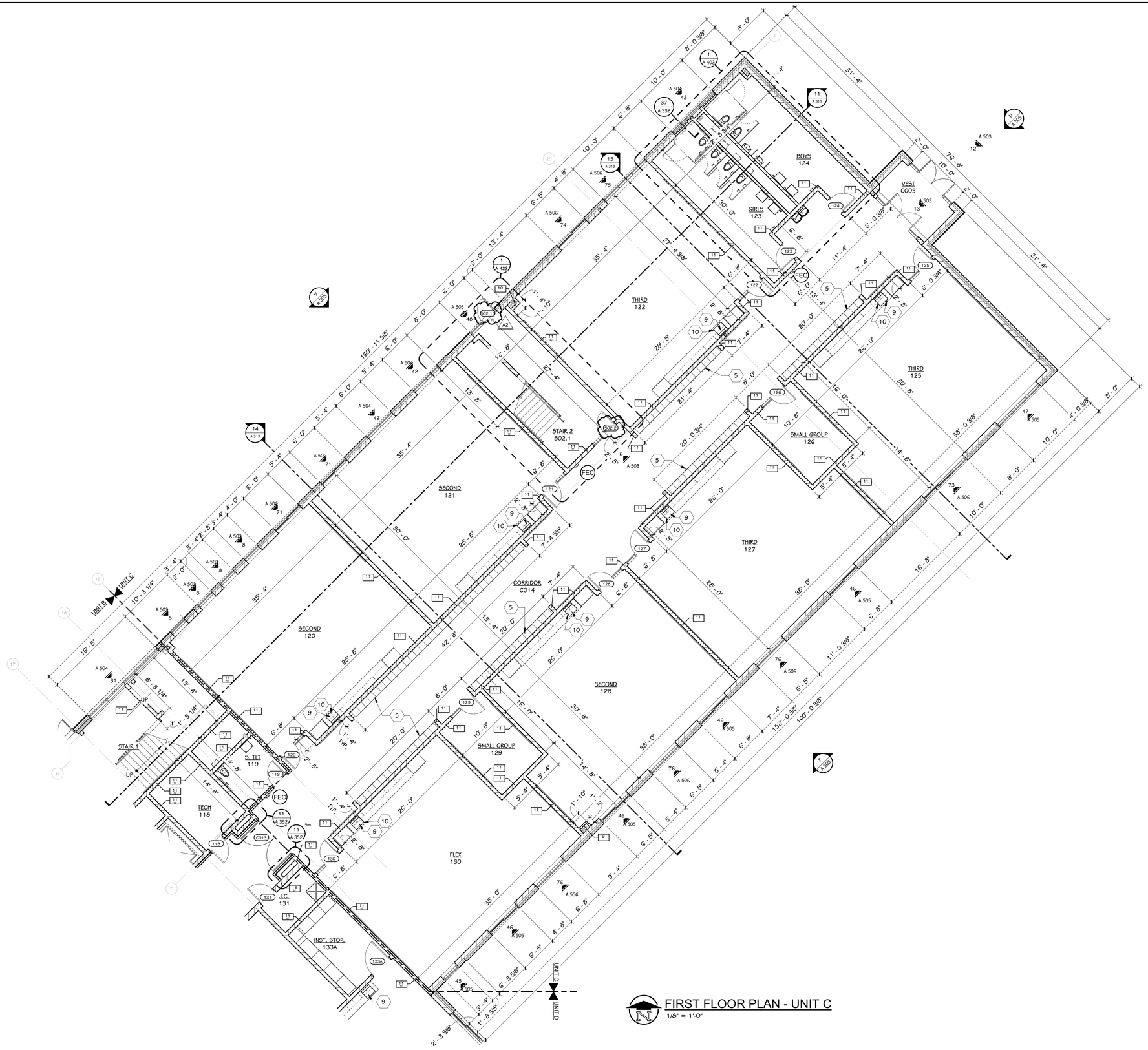
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR PLAN - UNIT A

DATE
APRIL 24, 2026

SHEET NUMBER
A 101A
23-622.000



FIRST FLOOR PLAN - UNIT C
1/8" = 1'-0"

KEYED NOTES - ARCHITECTURAL - CONSTRUCTION

1 EXTENT OF INSULATED DOUBLE FREEZER/COOLER SLAB. COORDINATE THEREMO BREAK WITH MANUF. RECOMENDATIONS

2 INTEGRAL MASONRY PLANTER.

3 4" THICK CONCRETE PAD - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS.

4 8"x8" INTEGRAL CONCRETE CURB AROUND PERIMETER WALLS AND FLOOR PENETRATIONS

5 DOUBLE TIER METAL LOCKERS, SURFACE MOUNTED. REFER TO SPECS FOR BASE INFORMATION.

6 WALL MOUNTED HANDRAIL.

7 CAST-IN-PLACE CONCRETE STEP AND LANDING. REFER TO STRUCTURAL.

8 ACCESS LADDER GUARDRAIL WITH GATE.

9 SOAP AND TOWEL DINSPENSERS AT SINK. REFER TO TOILET ACCESSORIES SCHEDULE ON A400s.

10 BARRIER-FREE SINK, REFER TO MECHANICAL

11 WATER COOLER, REFER TO MECHANICAL

12 FIRE-RATED, PREFORMED EXPANSION JOINT.

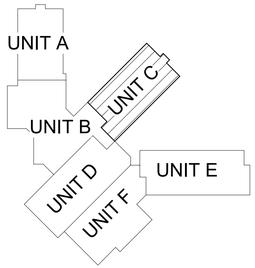
13 SAFETY PADS - 2'x7', MOUNT 4" AFF.

14 SAFETY PADS - 2'x7', MOUNT 4" AFF, CENTER ON BASKETBALL HOOP.

15 SAFETY PADS ON DOOR TO ALIGN TO ADJACENT SAFETY PADS.

16 DOUBLE TIER METAL LOCKERS, MOUNTED ON BENCH. REFER TO LOCKER DETAIL 2A/A402.

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

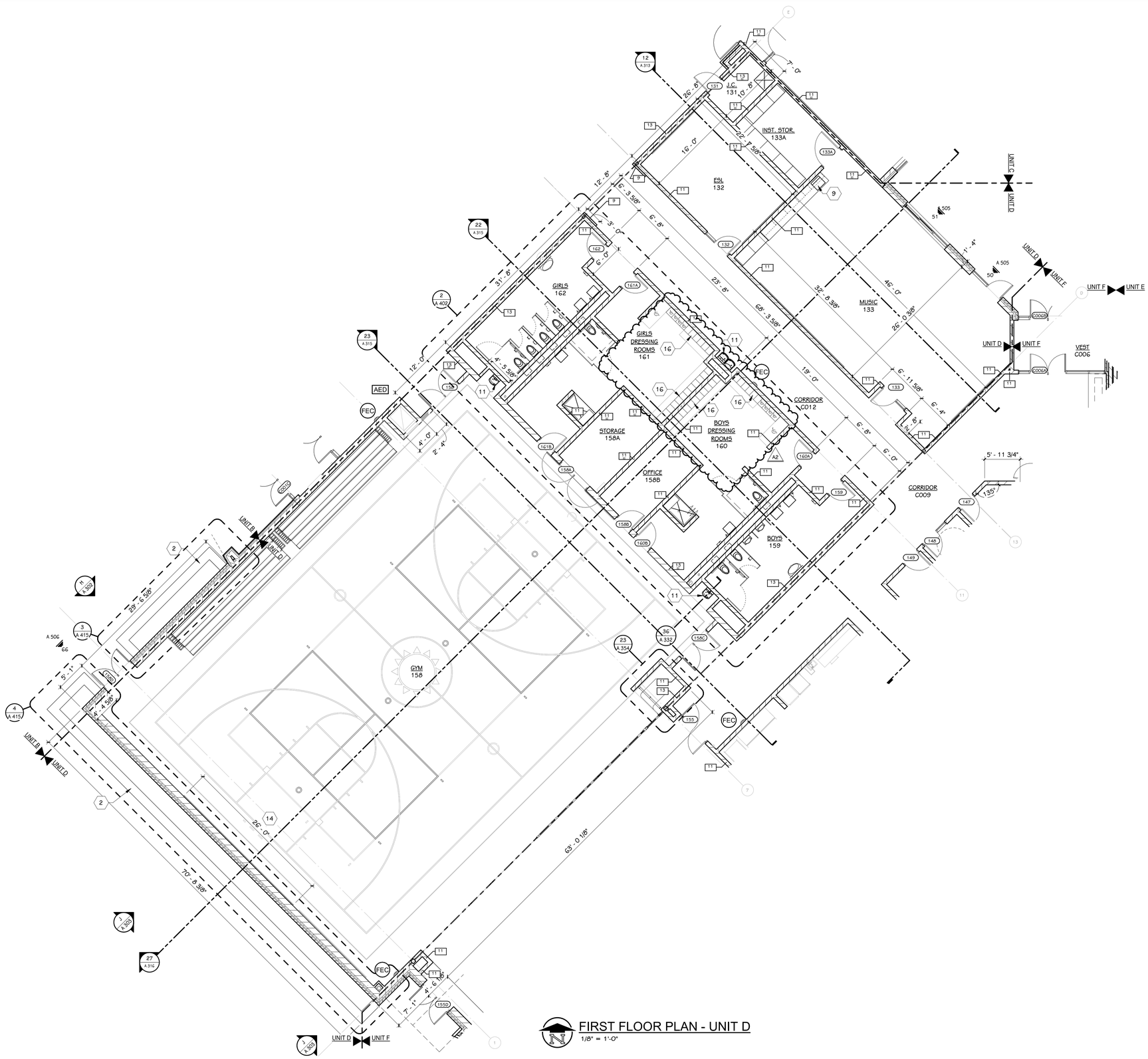
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR PLAN - UNIT C

DATE
APRIL 24, 2026

SHEET NUMBER
A 101C
23-622.000



FIRST FLOOR PLAN - UNIT D
1/8" = 1'-0"

KEYED NOTES - ARCHITECTURAL - CONSTRUCTION

1 EXTENT OF INSULATED DOUBLE FREEZER/COOLER SLAB. COORDINATE THEREMO BREAK WITH MANUF. RECOMENDATIONS

2 INTEGRAL MASONRY PLANTER.

3 4" THICK CONCRETE PAD - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS.

4 8"x8" INTEGRAL CONCRETE CURB AROUND PERIMETER WALLS AND FLOOR PENETRATIONS

5 DOUBLE TIER METAL LOCKERS, SURFACE MOUNTED. REFER TO SPECS FOR BASE INFORMATION.

6 WALL MOUNTED HANDRAIL.

7 CAST-IN-PLACE CONCRETE STEP AND LANDING. REFER TO STRUCTURAL.

8 ACCESS LADDER GUARDRAIL WITH GATE.

9 SOAP AND TOWEL DINSPENSERS AT SINK. REFER TO TOILET ACCESSORIES SCHEDULE ON A400s.

10 BARRIER-FREE SINK, REFER TO MECHANICAL

11 WATER COOLER, REFER TO MECHANICAL

12 FIRE-RATED, PREFORMED EXPANSION JOINT.

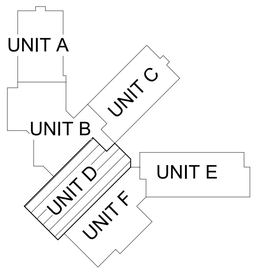
13 SAFETY PADS - 2'x7', MOUNT 4" AFF.

14 SAFETY PADS - 2'x7', MOUNT 4" AFF, CENTER ON BASKETBALL HOOP.

15 SAFETY PADS ON DOOR TO ALIGN TO ADJACENT SAFETY PADS.

16 DOUBLE TIER METAL LOCKERS, MOUNTED ON BENCH. REFER TO LOCKER DETAIL 2/A402

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

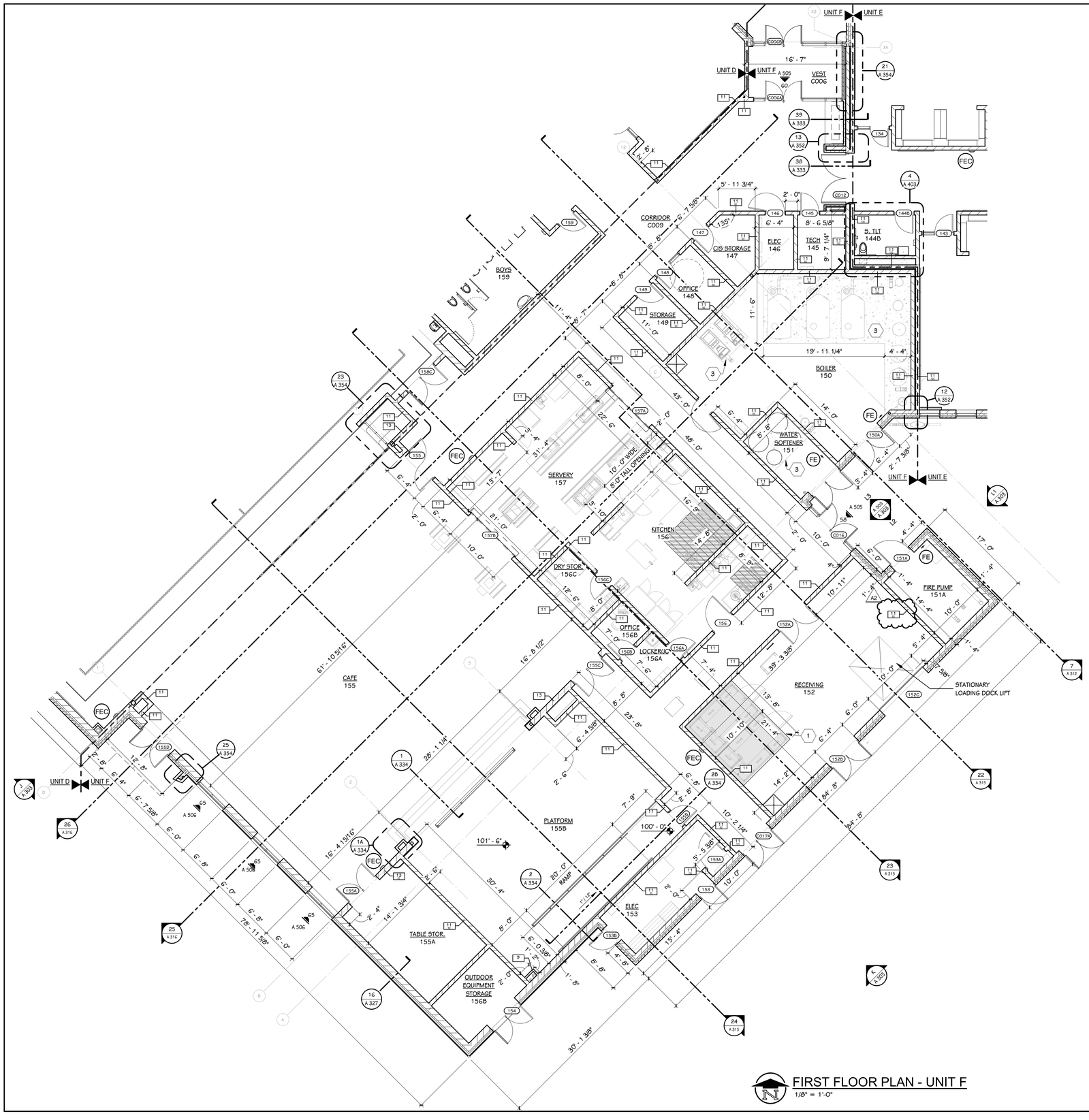
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR PLAN - UNIT D

DATE
APRIL 24, 2026

SHEET NUMBER
A 101D
23-622.000

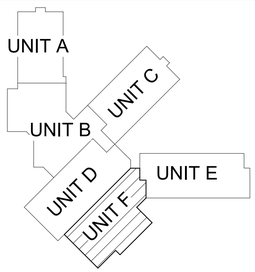


KEYED NOTES - ARCHITECTURAL - CONSTRUCTION

1. EXTENT OF INSULATED DOUBLE FREEZER/COOLER SLAB. COORDINATE THEREMO BREAK WITH MANUF. RECOMENDATIONS
2. INTEGRAL MASONRY PLANTER.
3. 4" THICK CONCRETE PAD - COORDINATE SIZE AND LOCATION WITH MECHANICAL DRAWINGS.
4. 8"x8" INTEGRAL CONCRETE CURB AROUND PERIMETER WALLS AND FLOOR PENETRATIONS
5. DOUBLE TIER METAL LOCKERS, SURFACE MOUNTED. REFER TO SPECS FOR BASE INFORMATION.
6. WALL MOUNTED HANDRAIL.
7. CAST-IN-PLACE CONCRETE STEP AND LANDING. REFER TO STRUCTURAL.
8. ACCESS LADDER GUARDRAIL WITH GATE.
9. SOAP AND TOWEL DINSPENSERS AT SINK. REFER TO TOILET ACCESSORIES SCHEDULE ON A400s.
10. BARRIER-FREE SINK, REFER TO MECHANICAL
11. WATER COOLER, REFER TO MECHANICAL
12. FIRE-RATED, PREFORMED EXPANSION JOINT.
13. SAFETY PADS - 2'x7', MOUNT 4" AFF.
14. SAFETY PADS - 2'x7', MOUNT 4" AFF, CENTER ON BASKETBALL HOOP.
15. SAFETY PADS ON DOOR TO ALIGN TO ADJACENT SAFETY PADS.
16. DOUBLE TIER METAL LOCKERS, MOUNTED ON BENCH. REFER TO LOCKER DETAIL 2/A/A402.

FIRST FLOOR PLAN - UNIT F
1/8" = 1'-0"

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

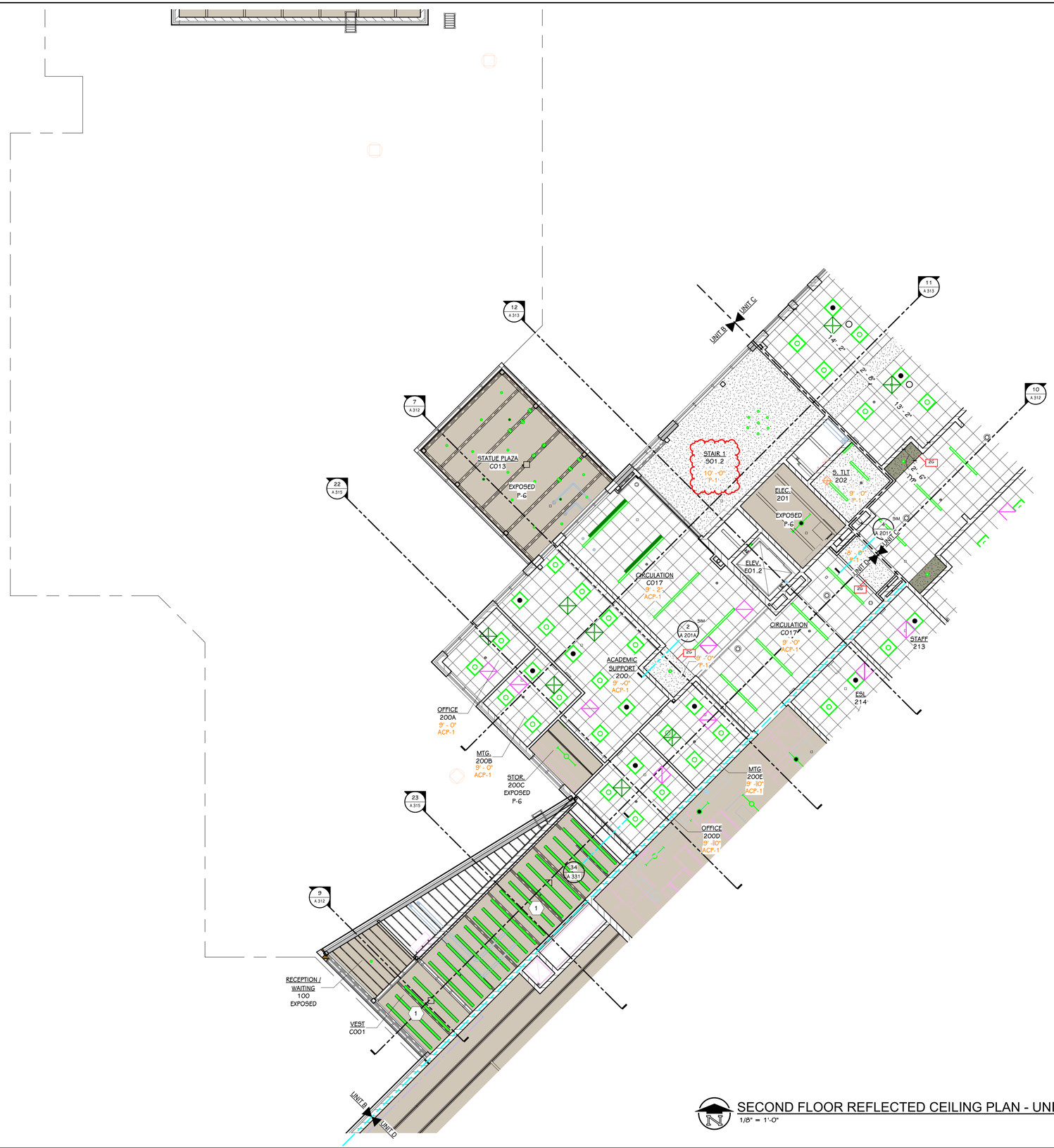
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR PLAN - UNIT F

DATE
APRIL 24, 2026

SHEET NUMBER
A 101F
23-622.000



SECOND FLOOR REFLECTED CEILING PLAN - UNIT B
1/8" = 1'-0"

KEY - REFLECTED CEILING

- PAINTED GYPSUM BOARD
  REFER TO REFLECTED CEILING PLAN FOR PAINT COLOR
  FIRE SUPPRESSION COVERS IN P-1, P-3, AND P-4 TO BE BRUSHED CHROME
  FIRE SUPPRESSION COVERS IN P-2 TO BE BLACK
- ACOUSTICAL TILE GRID (ACP-1)
  24" x 24" LAY IN
  FIRE SUPPRESSION COVERS TO BE WHITE
- ACOUSTICAL TILE GRID (ACP-2)
  24" x 24" LAY IN
  FIRE SUPPRESSION COVERS TO BE WHITE
- PAINTED EXPOSED CEILING
  UNLESS NOTED OTHERWISE, P-6
  FIRE SUPPRESSION COVERS IN P-6 TO BE BRUSHED CHROME
- LINEAR METAL CEILING (LMC-1)
  8" X 96" PLANKS
  FIRE SUPPRESSION COVERS TO BE BLACK
- ○ OR ○ LIGHTING - REFER TO ELECTRICAL LIGHTING PLAN
- MECHANICAL - REFER TO MECHANICAL SHEET METAL PLAN

GENERAL NOTES - REFLECTED CEILINGS

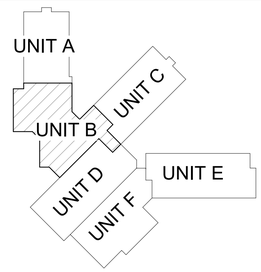
1. WHERE CEILING TILE IS LESS THAN 3" AT PERIMETER OF ROOM PROVIDE A CUT 2x4 TILE IN LIEU OF FULL 2x2 TILE AND SMALL PIECE OF TILE OR DOUBLE GRID - MATCH 2x2 FOR STYLE AND COLOR.
2. AT AREAS OF EXPOSED CEILING PAINT ALL STRUCTURE, DUCTWORK, PIPING, CONDUIT, HANGERS ETC., COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING SPECIFICATIONS. REFER TO THE REFLECTED CEILING PLANS FOR PAINT COLORS.

KEYED NOTES - ARCHITECTURAL - REFLECTED CEILING

1 LINEAR BAFFLES. REFER TO MATERIAL SELECTION SCHEDULE. OPEN TO STRUCTURE ABOVE.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

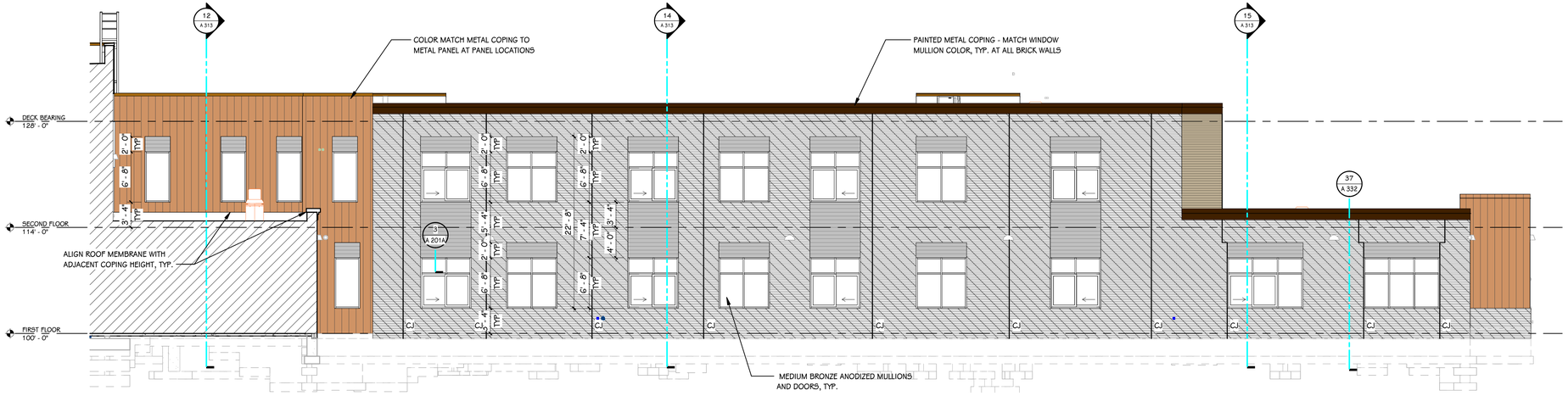
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

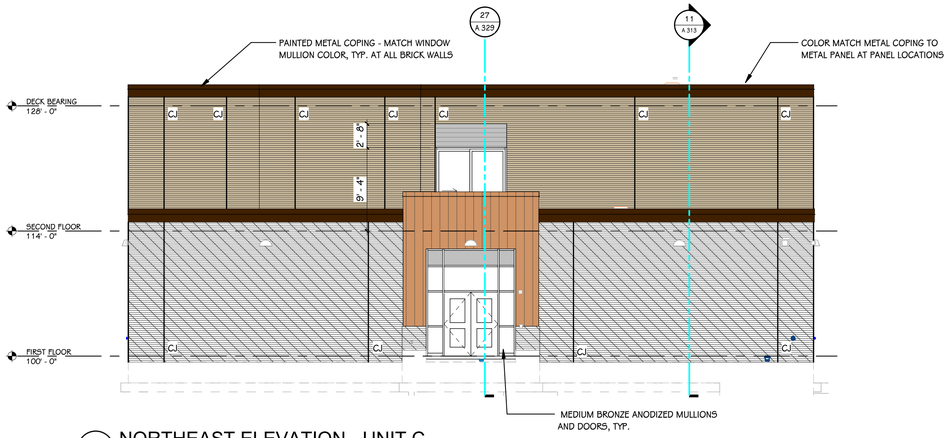
SHEET TITLE
SECOND FLOOR REFLECTED CEILING PLAN - UNIT B

DATE
APRIL 24, 2026

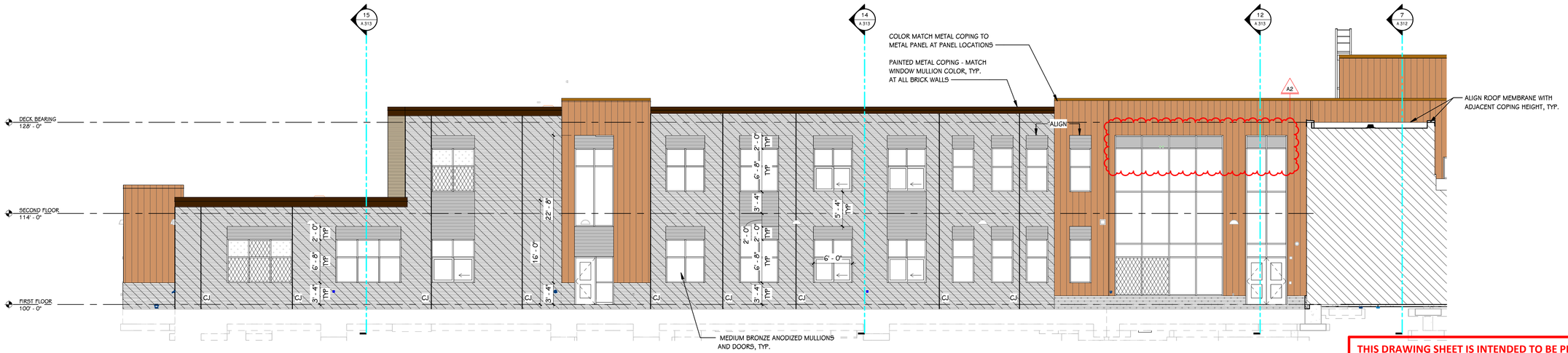
SHEET NUMBER
A 202B
23-622.000



T
A 309
SOUTHEAST ELEVATION - UNIT C
1/8" = 1'-0"



U
A 305
NORTHEAST ELEVATION - UNIT C
1/8" = 1'-0"



V
A 305
NORTHWEST ELEVATION - UNIT D
1/8" = 1'-0"

EXTERIOR ELEVATION KEY

BRICK 1, COLOR: BELDEN BRICK - MODULAR, 481-483 SMOOTH	
BRICK 2, PATTERN 1: REFER TO EXTERIOR BRICK PATTERNS	
BRICK 3, PATTERN 2: REFER TO EXTERIOR BRICK PATTERNS	
BRICK 4, PATTERN 3: REFER TO EXTERIOR BRICK PATTERNS	
METAL PANEL 1	COLOR: METALLIC COPPER PROFILE: MAC ARCHITECTURAL PANELS, MIX OF MS 1 AND MS 1.1
METAL PANEL 2	COLOR: BRONZE (MATCH WINDOW MULLION) PROFILE: GLASS INFILL INSULATED METAL PANEL SMOOTH FINISH
METAL PANEL 3	COLOR: CORK PROFILE: MAC ARCHITECTURAL PANELS, NORWOOD, HORIZONTAL ORIENTATION
METAL PANEL 4	COLOR: KINGSPAN BONE WHITE PROFILE: CENTRIA 2.75" THICK, VERSAWALL+, 36" WIDE PANELS

CJ = CONTROL JOINT, COLOR: TBD

EJ - BUILDING EXPANSION JOINT, COLOR: TBD

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

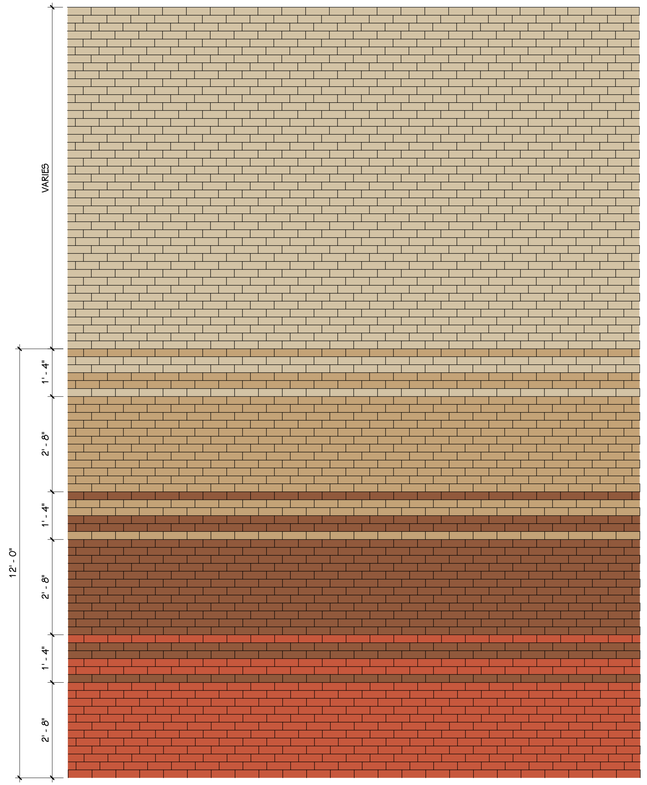
KALAMAZOO, MICHIGAN

SHEET TITLE
EXTERIOR ELEVATIONS

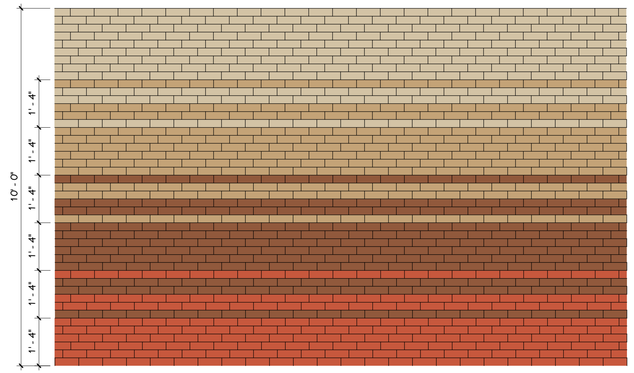
DATE
APRIL 24, 2026

SHEET NUMBER
A 305
23-622.000

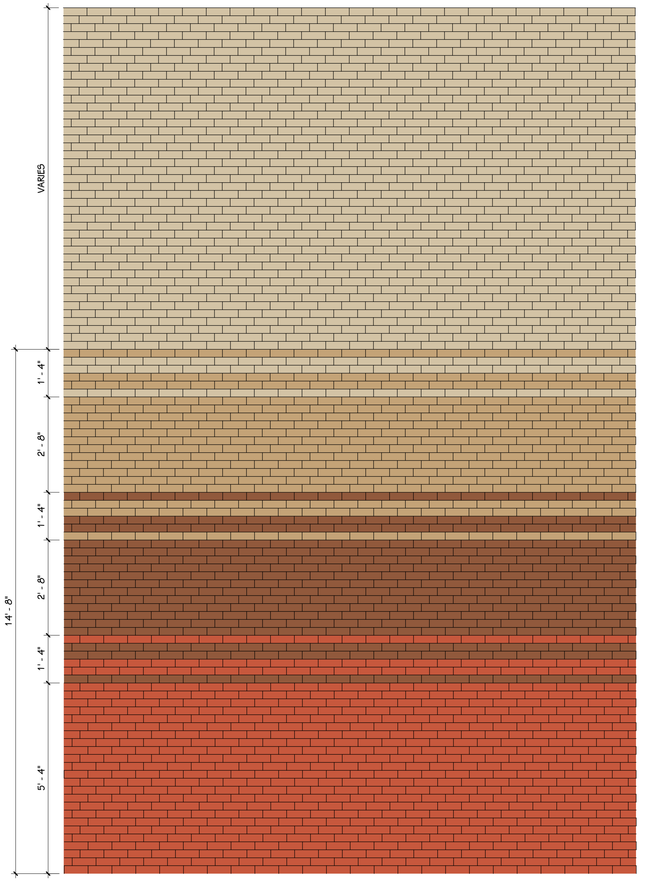
1 A 307 BRICK PATTERN 1 - STRIPED
1/2" = 1'-0"



2 A 307 BRICK PATTERN 2 - OMBRE 1
1/2" = 1'-0"



3 A 307 BRICK PATTERN 4 - OMBRE 3 CLASSROOM PORTAL
1/2" = 1'-0"



4 A 307 BRICK PATTERN 3 - OMBRE 2
1/2" = 1'-0"

BRICK PATTERN KEY

- BRICK 1, COLOR: BELDEN BRICK - MODULAR, 481-483 SMOOTH
- BRICK 2, COLOR: BELDEN BRICK - MODULAR, DESERT SUN VELOUR
- BRICK 3, COLOR: BELDEN BRICK - MODULAR, 461-463 VELOUR
- BRICK 4, COLOR: BELDEN BRICK - MODULAR, CAROLINA SUN SANDED VELOUR
- BRICK 1, COLOR: BELDEN BRICK - UTILITY, 481-483 SMOOTH
- BRICK 2, COLOR: BELDEN BRICK - UTILITY, DESERT SUN VELOUR

A2 GROUT COLOR: SOLOMON COLOR5 70A ORANGE

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM #2 05-18-2026

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

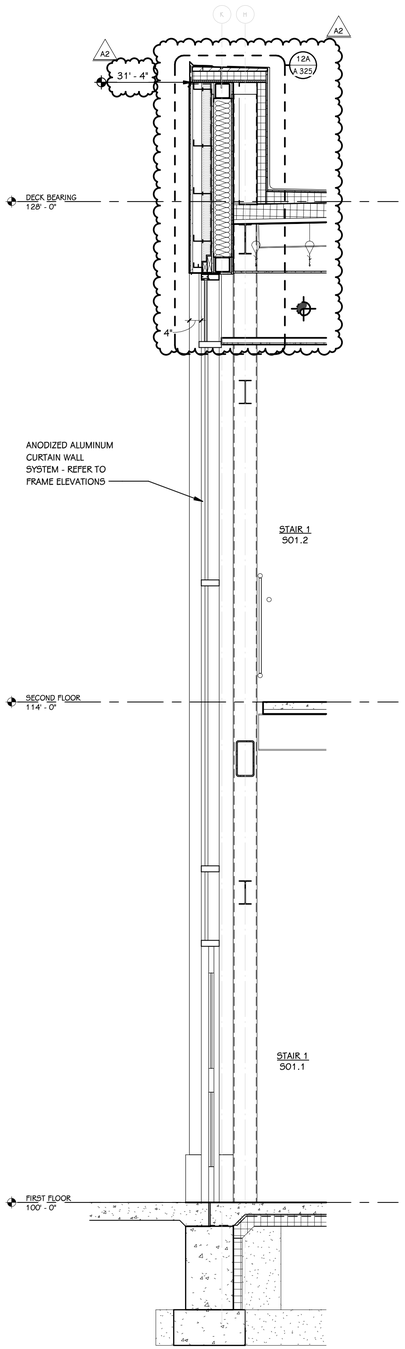
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

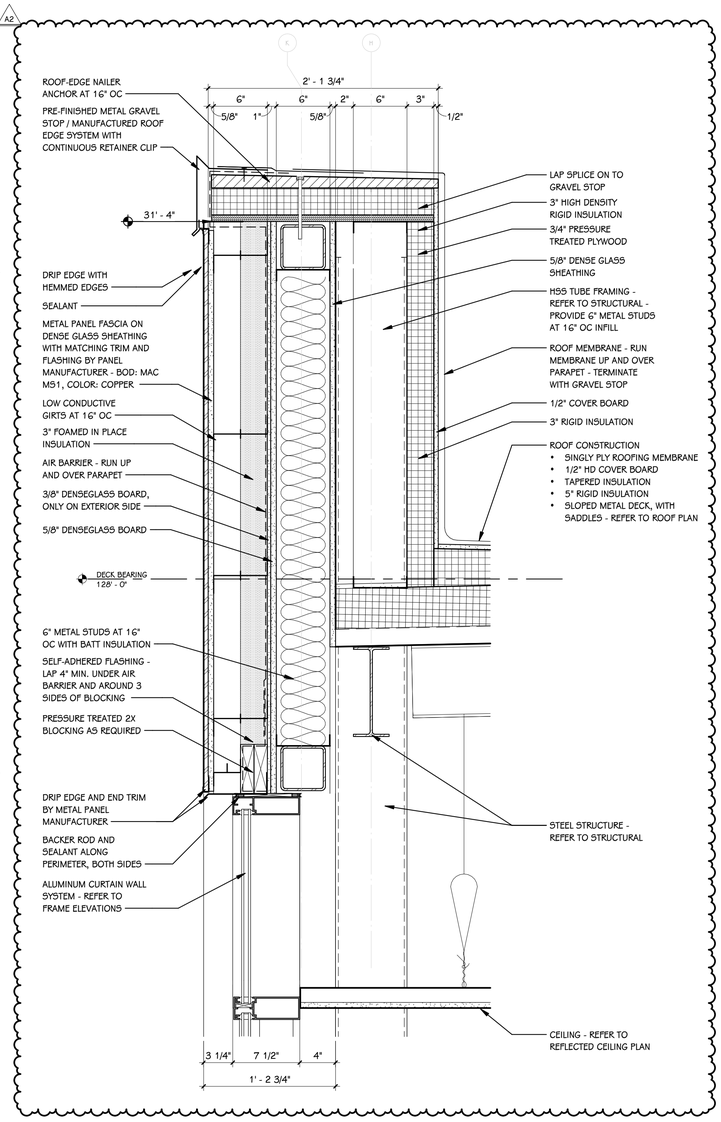
SHEET TITLE
EXTERIOR ELEVATION PATTERN DETAILS

DATE
APRIL 24, 2026

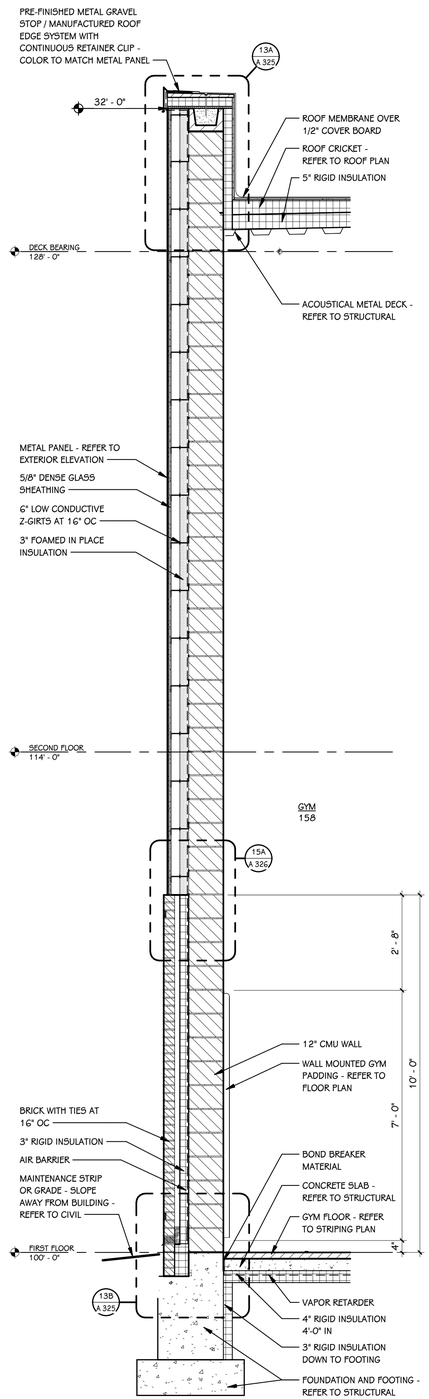
SHEET NUMBER
A 307
23-622.000



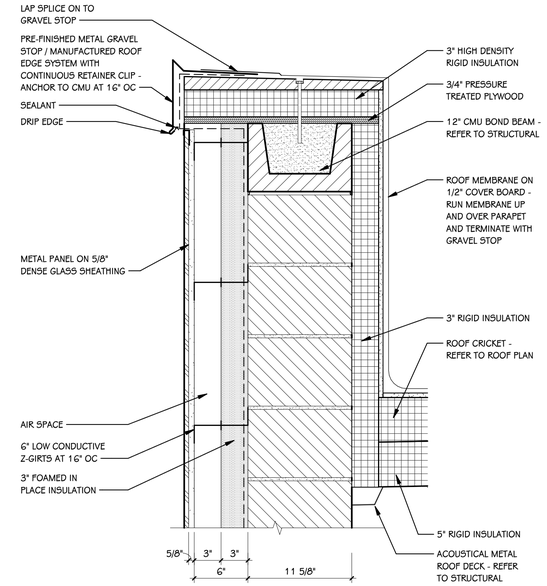
12 A 325 WALL SECTION
1/2" = 1'-0"



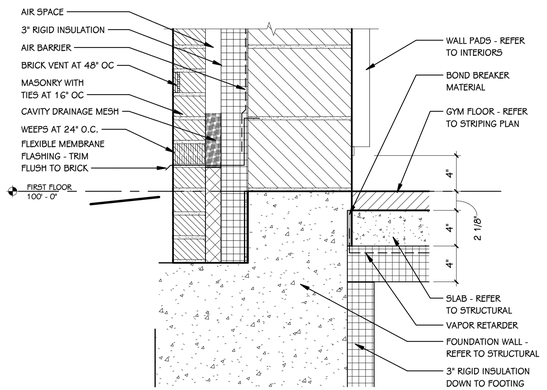
12A A 325 WALL DETAIL
1 1/2" = 1'-0"



13 A 325 WALL SECTION
1/2" = 1'-0"



13A A 325 WALL DETAIL
1 1/2" = 1'-0"



13B A 325 WALL DETAIL
1 1/2" = 1'-0"

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

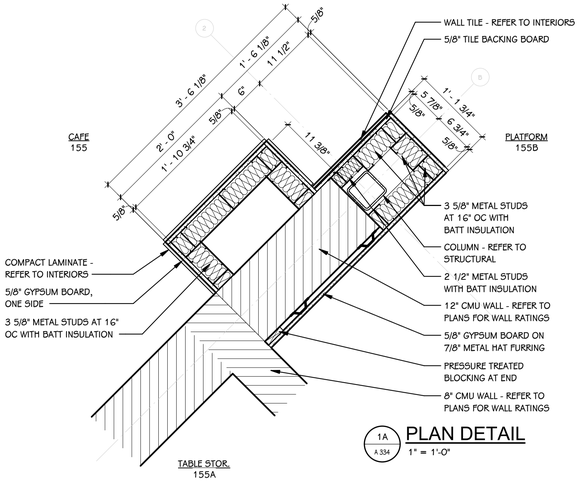
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

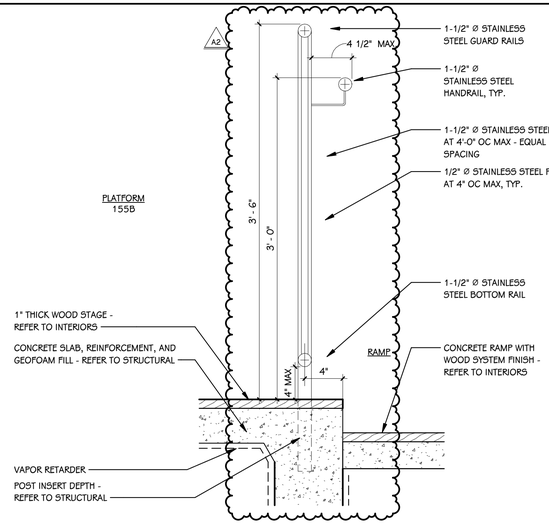
SHEET TITLE
WALL SECTIONS AND DETAILS

DATE
APRIL 24, 2026

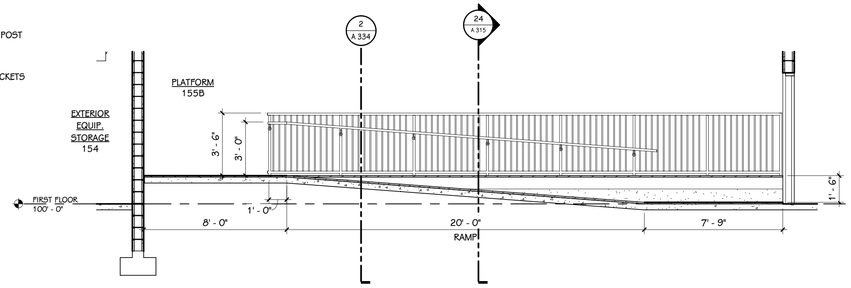
SHEET NUMBER
A 325
23-622.000



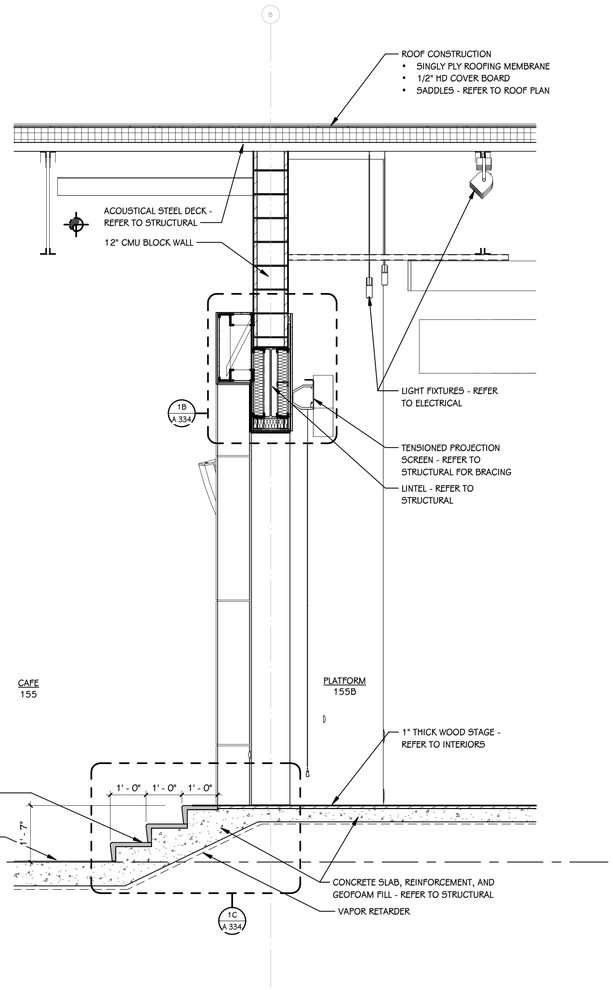
1A A 334 PLAN DETAIL
1" = 1'-0"



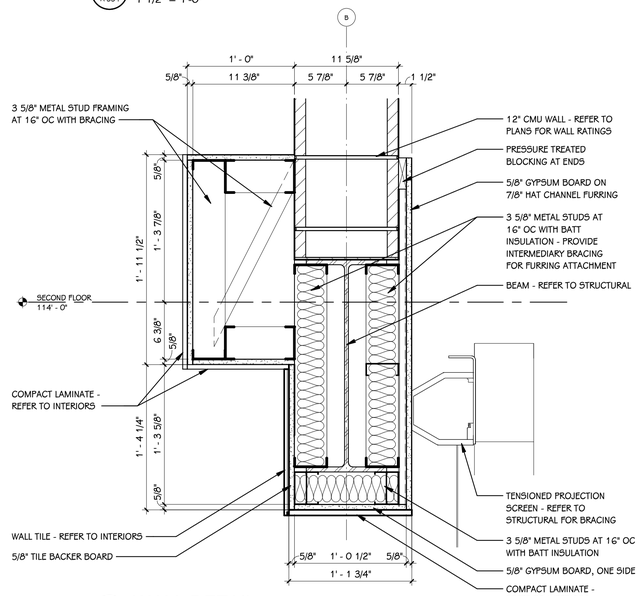
2A A 334 WALL DETAIL AT STAGE RAMP
1 1/2" = 1'-0"



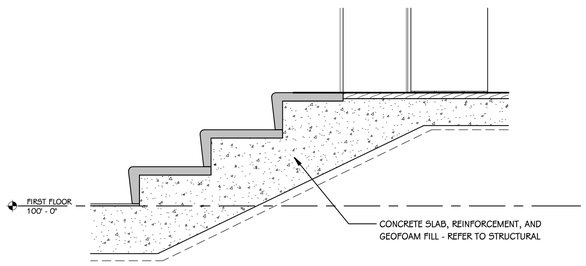
2B A 334 RAMP ELEVATION
1/4" = 1'-0"



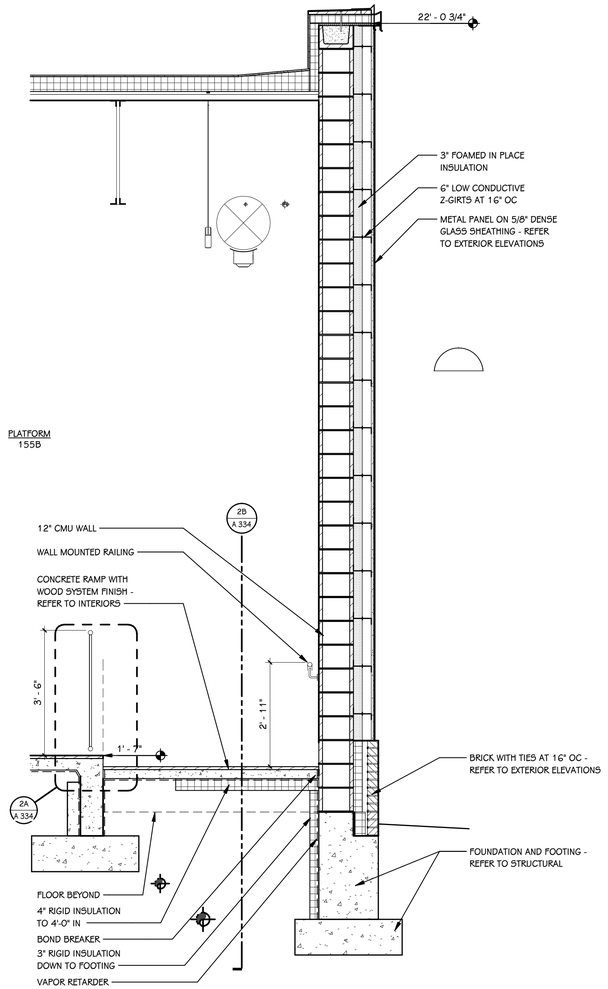
1 A 334 WALL SECTION @ STAGE
1/2" = 1'-0"



1B A 334 WALL DETAIL
1 1/2" = 1'-0"



1C A 334 WALL DETAIL
1" = 1'-0"



2 A 334 WALL SECTION @ STAGE RAMP
1/2" = 1'-0"

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
WALL SECTIONS AND DETAILS - STAGE

DATE
APRIL 24, 2026

SHEET NUMBER
A 334
23-622.000

FIRST FLOOR DOOR SCHEDULE

NUMBER		ROOM NAME	FIRE RATING		DOOR			SIZE		FRAME			DETAILS			GLASS	ACCESS CONTROLS					HDWR. SET	REMARKS
DOOR	ROOM		DOOR	FRAME	TYPE	MAT	FIN	WIDTH	HEIGHT	ELEV	MAT	FIN	HEAD	JAMB	SILL		A-PHONE	BARRIER-FREE	CARD READER	ELEC. LOCK HDWR.	MAG HOLD		
100	100	RECEPTION / WAITING	45 MIN	45 MIN	FG2	WD	PREFIN	3' - 0"	7' - 2"	36	HM	P-7	H9	J9	-	FPG-1	No	No	No	Yes	No	53.0	-
100A	100	RECEPTION / WAITING	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	33.0	-
100B	100B	AP OFFCE	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
100C	100C	CONF.	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	33.0	-
100D	100N	HALL	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H9	J9	-	-	No	No	No	No	No	47.0	-
100E	100E	CONF.			N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	33.0	-
100F.1	100F	COUNSELOR	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
100F.2	100F	COUNSELOR	45 MIN	45 MIN	G	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H7	J7	-	FPG-1	No	No	No	Yes	No	62.0	-
100G	100G	PRINCIPAL	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
100H	100H	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H1	J1	-	-	No	No	No	No	No	37.0	-
100J	100J	RECORDS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	38	HM	P-7	H1	J1	-	-	No	No	No	No	No	44.0	-
100L	100L	HEALTH	-	-	N	WD	PREFIN	3' - 0"	7' - 2"		HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	33.0	-
100M	100M	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"		HM	P-7	H1	J1	-	-	No	No	No	No	No	37.0	-
100N	100N	HALL	45 MIN	45 MIN	N	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H9	J9	-	FPG-1	No	No	No	Yes	No	61.0	-
101	101	CONF.	45 MIN	45 MIN	FG2	WD	PREFIN	3' - 0"	7' - 2"	3	HM	P-7	H9	J9	-	FPG-1	No	No	No	No	No	35.0	-
102	102	ELEC	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H9	J9	-	-	No	No	No	No	No	21.0	-
103	103	STAFF	45 MIN	45 MIN	N	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H9	J9	-	FPG-1	No	No	No	No	No	35.0	-
104	104	ESL	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	2B	HM	P-7	H9	J9	-	-	No	No	No	No	No	35.0	-
105	105	ESL	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	2B	HM	P-7	H9	J9	-	-	No	No	No	No	No	35.0	-
106A	106	MEDIA CENTER	-	-	FG2	WD	PREFIN	6' - 0"	7' - 2"	35	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	28.0	REMOVABLE MULLION
106B	106	MEDIA CENTER	-	-	FG2	AL	ANOD	3' - 0"	7' - 2"	1B	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	8.0	-
107	107	TECH	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	48.0	-
108	108	ELEC	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	21.0	-
109	109	HALL	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	33.0	-
109A	109A	OFFICE	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
109B	109B	OFFICE	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
109C	109C	OFFICE	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
109D	109D	MTG RM	-	-	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
110A	110	SIXTH	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
110B	110	SIXTH	-	-	G	AL	ANOD	3' - 0"	7' - 2"	14	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
111A	111	SEVENTH	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
111B	111	SEVENTH	-	-	G	AL	ANOD	3' - 0"	7' - 2"	15	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
112A	112	EIGHTH	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
112B	112	EIGHTH	-	-	G	AL	ANOD	3' - 0"	7' - 2"	15	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
113	113	SCIENCE CLASSROOM	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
113A	113	SCIENCE CLASSROOM	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	47.0	-
113B	113	SCIENCE CLASSROOM	-	-	G	AL	ANOD	3' - 0"	7' - 2"	14	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
114	114	BOYS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	
115	115	J.C.	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	47.0	-
116	116	GIRLS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
117	117	ART	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
117A	117A	STORAGE	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	47.0	-
117B	117B	KILN	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	47.0	-
117C	117	ART	-	-	G	AL	ANOD	3' - 0"	7' - 2"	2B	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
118	118	TECH	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H10	J10	-	-	No	No	No	No	No	48.0	-
119	119	S. TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	39.0	-
120	120	SECOND	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
121	121	SECOND	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
122	122	THIRD	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
123	123	GIRLS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
124	124	BOYS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
125	125	THIRD	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
126	126	SMALL GROUP	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	58.0	-
127	127	THIRD	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
128	128	SECOND	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
129	129	SMALL GROUP	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	58.0	-
130	130	FLEX	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
131	C013	STATUE PLAZA	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	48.0	-
132	132	ESL	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	55.0	-
133	133	MUSIC	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
133A	133A	INST. STOR.	45 MIN	45 MIN	F	WD	PREFIN	4' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	51.0	-
133B	133	MUSIC	-	-	FG2	AL	ANOD	3' - 0"	7' - 2"	50	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
134	134	PRE KINDERGARTEN	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
134A	134A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
134B	134	PRE KINDERGARTEN	-	-	G	AL	ANOD	3' - 0"	7' - 2"	55	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
135	135	SMALL GROUP	-	-	FG2	WD	PREFIN	3' - 0"	7' - 2"	57	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	18.0	-
136	136	KINDERGARTEN	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
136A	136A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
136B	136	KINDERGARTEN	-	-	G	AL	ANOD	3' - 0"	7' - 2"	55	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
137	137	KINDERGARTEN	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
137A	137A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
137B	137	KINDERGARTEN	-	-	G	AL	ANOD	3' - 0"	7' - 2"	56	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
138	138	SMALL GROUP	-	-	FG2	WD	PREFIN	3' - 0"	7' - 2"	57	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	18.0	-
139	139	KINDERGARTEN	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
139A	139A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
139B	139	KINDERGARTEN	-	-	G	AL	ANOD	3' - 0"	7' - 2"	56	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
140	140	FIRST	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
140A	140A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
140B	140	FIRST	-	-	G	AL	ANOD	3' - 0"	7' - 2"	56	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
141	141	FIRST	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
141A	141A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
141B	141	FIRST	-	-	G	AL	ANOD	3' - 0"	7' - 2"	56	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
142	142	FIRST	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
142A	142A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
142B	142	FIRST	-	-	G	AL	ANOD	3' - 0"	7' - 2"	55	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
143	143	SE RESOURCE	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	29.0	-
143A	143A	TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	38.0	-
143B	143	SE RESOURCE	-	-	G	AL	ANOD	3' - 0"	7' - 2"	55	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	No	No	No	12.0	-
144A	144A	ELEC.	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-		No	No	No	No	No	48.0	-
144B	144B	S. TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	39.0	-
145	145	TECH	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	49.0	-
146	146	ELEC	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	20.0	-
147	147	CIS STORAGE	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	47.0	-
148	148	OFFICE	45 MIN	45 MIN	N	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	32.0	-
149	149	STORAGE	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	47.0	-
150A	150	BOILER	-	-	F	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	Yes	Yes	No	6.0	REMOVABLE MULLION
150B	150	BOILER	45 MIN	45 MIN	F	HM	P-?	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	48.0	-
151	151	WATER SOFTENER	-	-	F	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	Yes	Yes	No	6.0	REMOVABLE MULLION
151A	151A	FIRE PUMP	-	-	F	AL	ANOD	4' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	No	No	No	7.0	-
152A	152	RECEIVING	-	-	F	HM	P-?	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	40.0	
152B	152	RECEIVING	-	-	F	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	Yes	Yes	No	2.0	
152C	152	RECEIVING	-	-	OHS	AL	PREFIN	10' - 0"	11' - 4"		STL	P-7	2/A333	12/A507	-	-	No	No	No	No	No	65.0	MOTORIZED OVERHEAD DOOR
153	153	ELEC	-	-	F	AL	ANOD	3' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	Yes	Yes	No	4.0	-

GENERAL NOTES - DOORS

1 REFER TO A 500's SHEETS FOR ADDITIONAL ACCESS CONTROL INFORMATION NOT NOTED ON THIS SHEET.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
DOOR SCHEDULES

DATE
APRIL 24, 2026

SHEET NUMBER
A 501
23-622.000

FIRST FLOOR DOOR SCHEDULE CONTINUED

NUMBER		ROOM NAME	FIRE RATING		DOOR			SIZE		FRAME			DETAILS			GLASS	ACCESS CONTROLS					HDWR. SET	REMARKS
DOOR	ROOM		DOOR	FRAME	TYPE	MAT	FIN	WIDTH	HEIGHT	ELEV	MAT	FIN	HEAD	JAMB	SILL		A-PHONE	BARRIER-FREE	CARD READER	ELEC. LOCK HDWR.	MAG HOLD		
153A	153A	ELEC	90 MIN	90 MIN	F	HM	P-?	4' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	52.0	-
153B	153	ELEC	-	-	F	AL	ANOD	3' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	No	No	No	12.0	-
154	154	EXTERIOR EQUIP. STORAGE	-	-	F	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	No	No	No	6.0	REMOVABLE MULLION
155	155	CAFE	-	-	F	WD	PREFIN	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	22.0	REMOVABLE MULLION
155A	155A	TABLE STOR.	45 MIN	45 MIN	F	WD	PREFIN	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	42.0	REMOVABLE MULLION
155B	2025S	RAMP	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	34.0	-
155C	155	CAFE	-	-	FG2	WD	PREFIN	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	IG-1	No	No	No	No	No	25.0	-
155D	155	CAFE	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	2B/A335	1C/A321	-	IG-1	No	No	Yes	Yes	No	3.0	REMOVABLE MULLION
156	156	KITCHEN	-	-	F	HM	P-?	4' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	50.0	-
156A	156A	LOCKER/JC	-	-	F	HM	P-?	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	43.0	-
156B	156A	LOCKER/JC	-	-	F	HM	P-?	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	31.0	-
156C	156C	DRY STOR.	-	-	F	HM	P-?	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	44.0	-
157A	157	SERVERY	-	-	OHC	STL	PREFIN	9' - 0"	8' - 0"		-	PREFIN	HG	JG	-	-	No	No	No	No	No	65.0	-
157B	157	SERVERY	-	-	OHC	STL	PREFIN	10' - 0"	8' - 0"	-	-	PREFIN	HG	JG	-	-	No	No	No	No	No	65.0	-
158	158	GYM	-	-	FG2	WD	PREFIN	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	26.0	REMOVABLE MULLION
158A	158A	STORAGE	45 MIN	45 MIN	F	WD	PREFIN	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	41.0	-
158B	158	GYM	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	31.0	-
158C	158	GYM	-	-	FG2	WD	PREFIN	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	LG-1	No	No	No	No	No	30.0	REMOVABLE MULLION
158D	158	GYM	-	-	G	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	IG-1	No	No	Yes	Yes	No	9.0	REMOVABLE MULLION
159	159	BOYS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
160A	160	BOYS DRESSING ROOMS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
160B	160	BOYS DRESSING ROOMS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	54.0	-
161A	161	GIRLS DRESSING ROOMS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
161B	161	GIRLS DRESSING ROOMS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	54.0	-
162	162	GIRLS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
C001A	C001	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	34	AL	ANOD	-	-	-	LG-1	No	No	No	Yes	No	13.0	REMOVABLE MULLION
C001B	C001	VEST	-	-	FG2	AL	ANOD	3' - 0"	7' - 2"	34	AL	ANOD	-	1C/A411	-	LG-1	No	No	Yes	Yes	No	17.0	-
C001C	C001	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	27	AL	ANOD	10A/A324	1A/A411	-	IG-1	No	No	No	Yes	No	1.0	REMOVABLE MULLION
C001D	C001	VEST	-	-	FG2	AL	ANOD	3' - 0"	7' - 2"	27	AL	ANOD	10A/A324	1B/A411	-	IG-1	No	No	Yes	Yes	No	11.0	-
C001E	100	RECEPTION / WAITING	45 MIN	45 MIN	FG2	AL	ANOD	3' - 0"	7' - 2"	33	AL	ANOD	-	1B/A411 & 1C/A411	-	FRP-1	No	No	Yes	Yes	No	15.0	-
C002A	C015	CORRIDOR	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	24	AL	ANOD	H8	J8	-	LG-1	No	No	No	No	No	16.0	REMOVABLE MULLION
C002B	C015	CORRIDOR	-	-	FG2	AL	ANOD	3' - 0"	7' - 2"	24	AL	ANOD	H8	J8	-	LG-1	No	No	Yes	Yes	No	14.0	-
C002C	C002	VEST.	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	23	AL	ANOD	8A/A323	5/A351	-	IG-1	No	No	No	No	No	10.0	REMOVABLE MULLION
C002D	C002	VEST.	-	-	FG2	AL	ANOD	3' - 0"	7' - 2"	13	AL	ANOD	8A/A323	5/A351	-	23	No	No	Yes	Yes	No	4.0	-
C003A	C015	CORRIDOR	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	17	AL	ANOD	H8	J8	-	IG-1	No	No	No	No	No	13.0	REMOVABLE MULLION
C003B	C003	VESTIBULE	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	16	AL	ANOD	8B/A323	4/A351 & 5/A351		IG-1	No	No	Yes	Yes	No	3.0	REMOVABLE MULLION
C004A	C016	CORRIDOR	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	13	AL	ANOD	H8	1/A351	-	LG-1	No	No	No	No	No	19.0	REMOVABLE MULLION
C004B	C004	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	12	AL	ANOD	20A/328	1/A351	-	IG-1	No	No	Yes	Yes	No	3.0	REMOVABLE MULLION
C005A	C005	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	13	AL	ANOD	H8	1/A351	-	LG-1	No	No	No	No	No	19.0	REMOVABLE MULLION
C005B	C005	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	12	AL	ANOD	20A/328	1/A351	-	IG-1	No	No	Yes	Yes	No	3.0	REMOVABLE MULLION
C006A	C006	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	60	AL	ANOD	H8	J8 & 21/A354	-	LG-1	No	No	No	No	No	19.0	REMOVABLE MULLION
C006B	C006	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	59	AL	ANOD	-	5/A351 & 21/A354	-	IG-1	No	No	Yes	Yes	No	3.0	REMOVABLE MULLION
C007A	C007	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	13	AL	ANOD	H8	1/A351	-	LG-1	No	No	No	No	No	19.0	REMOVABLE MULLION
C007B	C007	VEST	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	12	AL	ANOD	20A/328	1/A351	-	IG-1	No	No	Yes	Yes	No	3.0	REMOVABLE MULLION
C012	C008	CORRIDOR	90 MIN	90 MIN	F	WD	PREFIN	8' - 0"	7' - 10"	1	HM	P-7	3B/A333	13/A352	-	-	No	No	No	No	Yes	27.0	-
C013	C014	CORRIDOR	45 MIN	45 MIN	F	WD	PREFIN	8' - 0"	7' - 10"	1	HM	P-7	19/A327	11/A352	-	-	No	No	No	No	Yes	27.0	-
C015	C016	CORRIDOR	90 MIN	90 MIN	F	WD	PREFIN	8' - 0"	7' - 10"	1	HM	P-7	4/A201A	8/A352	-	-	No	No	No	No	Yes	27.0	-
C016	C010	CORRIDOR	-	-	FG2	AL	ANOD	6' - 0"	7' - 2"	58	AL	ANOD	1B/A321	1C/A321	-	-	No	No	Yes	Yes	No	5.0	REMOVABLE MULLION
C017A	C011	CORRIDOR	-	-	F	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	1B/A321	1C/A321	-	-	No	No	Yes	Yes	No	3.0	REMOVABLE MULLION
E01.1	E01.1	ELEV.						4' - 0"	7' - 0"							-			Yes	Yes			
501.1A	501.1	STAIR 1	60 MIN	60 MIN	FG2	AL	ANOD	6' - 0"	7' - 2"	32	AL	ANOD	-	19/A353	-	FRG-1	No	No	Yes	Yes	No	64.0	REMOVABLE MULLION
501.1B	C013	STATUE PLAZA	60 MIN	60 MIN	FG2	AL	ANOD	6' - 0"	7' - 2"	40	AL	ANOD	7/A421B	19/A353 & 17/A353	-	FRG-1	No	No	No	No	No	63.0	REMOVABLE MULLION
502.1A	502.1	STAIR 2	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	6	HM	P-7	H2	J2	-	-	No	No	No	No	No	24.0	-
502.1B	502.1	STAIR 2	-	-	FG2	AL	ANOD	3' - 0"	7' - 2"	48	AL	ANOD	1B	-	-	IG-1	No	No	No	No	No	8.0	-

SECOND FLOOR DOOR SCHEDULE

NUMBER		ROOM NAME	FIRE RATING		DOOR			SIZE		FRAME			DETAILS			Glass	ACCESS CONTROLS					HDWR. SET	REMARKS
DOOR	ROOM		DOOR	FRAME	TYPE	MAT	FIN	WIDTH	HEIGHT	ELEV	MAT	FIN	HEAD	JAMB	SILL		A-PHONE	BARRIER-FREE	CARD READER	ELEC. LOCK HDWR.	MAG HOLD		
201A			45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	48.0	-
200	200	ACADEMIC SUPPORT	45 MIN	45 MIN	FG2	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	FPG-1	No	No	No	No	No	36.0	-
200A	200A	OFFICE	-	-	FG2	WD	PREFIN	3' - 0"	7' - 2"	2B	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
200B	200B	MTG.	-	-	FG2	WD	PREFIN	3' - 0"	7' - 2"	2B	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
200C	200C	STOR.	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H1	J1	-		No	No	No	No	No	43.0	-
200D	200D	OFFICE	-	-	FG2	WD	PREFIN	3' - 0"	7' - 2"	2B	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
200E	200E	MTG	-	-	FG2	WD	PREFIN	3' - 0"	7' - 2"	2B	HM	P-7	H1	J1	-	LG-1	No	No	No	No	No	31.0	-
201	201	ELEC.	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-		No	No	No	No	No	21.0	-
202	202	S. TLT	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	39.0	-
203	203	FOURTH	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
204	204	FIFTH	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
205	205	GIRLS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
206	206	J.C.	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	46.0	-
207	207	BOYS	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	60.0	-
208	208	SMALL GROUP	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	58.0	-
209	209	FIFTH	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
210	210	FOURTH	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
211	211	SMALL GROUP	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	57.0	-
212	212	SPECIAL EDUCATION	-	-	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	56.0	-
213	213	STAFF	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	-	No	No	No	No	No	59.0	-
214	214	ESL	45 MIN	45 MIN	FG2	WD	PREFIN	3' - 0"	7' - 2"	2A	HM	P-7	H2	J2	-	FPG-1	No	No	No	No	No	59.0	-
215A	215	MECHANICAL	45 MIN	45 MIN	F	WD	PREFIN	6' - 0"	7' - 2"	1	HM	P-7	H2	J2	-	-	No	No	No	No	No	45.0	-
215B	215	MECHANICAL	-	-	F	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	3/A102D	14/A326	28/A329	-	No	No	No	No	No	5.0	-
216	216	MECHANICAL	-	-	F	AL	ANOD	6' - 0"	7' - 2"	1	AL	ANOD	20A/328	-	28/A329	-	No	No	No	No	No	5.0	-
C017	C018	CORRIDOR	45 MIN	45 MIN	F	WD	PREFIN	8' - 0"	7' - 10"	1	HM	P-7	19/A327	11/A352	-	-	No	No	No	No	No	23.0	-
E01.2	E01.2	ELEV.						4' - 0"	7' - 0"														
501.2	501.2	STAIR 1	60 MIN	60 MIN	FG2	AL	ANOD	6' - 0"	7' - 2"	37	AL	ANOD	6/A421B	19/A353 & 17/A353	-	FRF-1	No	No	No	No	No	63.0	-
502.2	502.2	STAIR 2	45 MIN	45 MIN	F	WD	PREFIN	3' - 0"	7' - 2"	6	HM	P-7	H2	J2	-	-	No	No	No	No	No	24.0	-

GENERAL NOTES - DOORS

1 REFER TO A 500's SHEETS FOR ADDITIONAL ACCESS CONTROL INFORMATION NOT NOTED ON THIS SHEET.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026

ISSUED FOR — DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

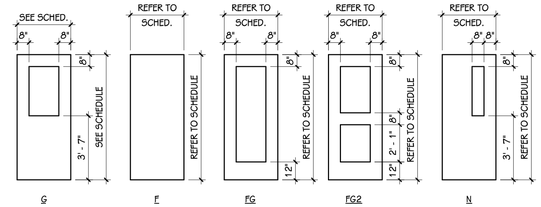
SHEET TITLE
DOOR SCHEDULES

DATE
APRIL 24, 2026

SHEET NUMBER
A 502
23-622.000

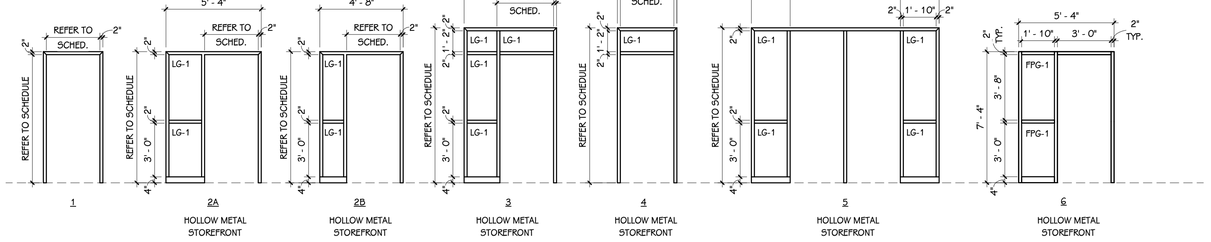
DOOR PANEL LEGEND

SCALE: NONE



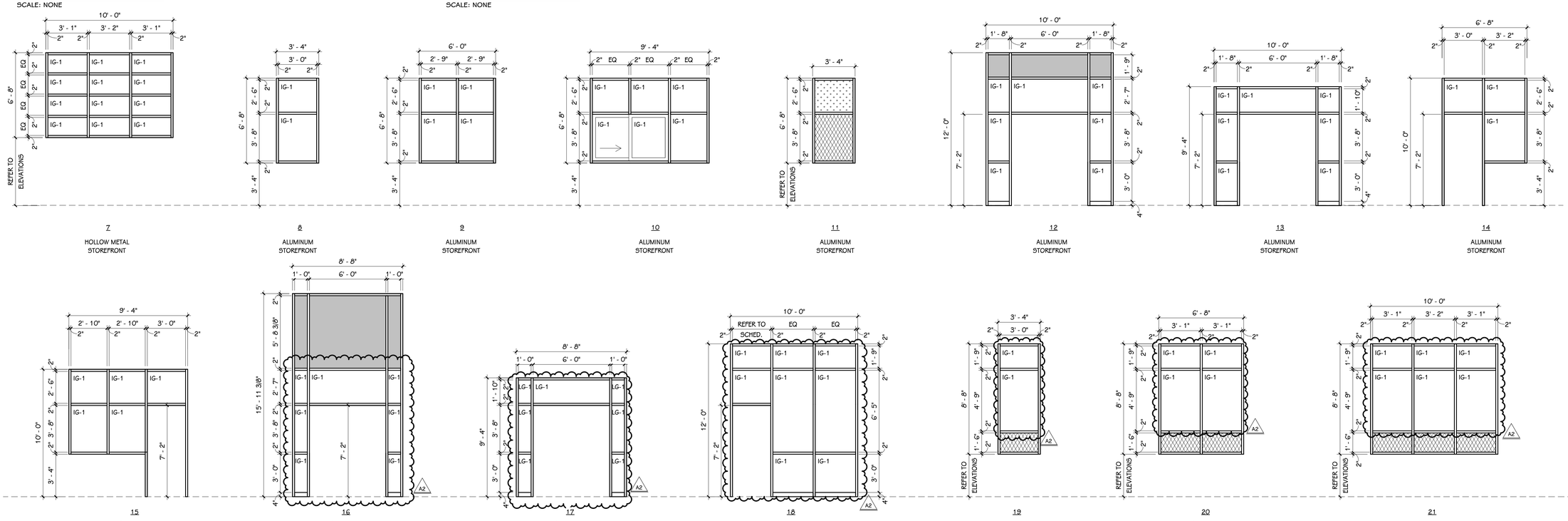
FRAME ELEVATIONS

SCALE: NONE



FRAME ELEVATION KEY

IG-1:	INSULATED GLAZING
LG-1:	SAFETY GLAZING
FPG-1:	FIRE PROTECTED GLAZING
FRG-1:	FIRE RESISTIVE GLAZING
IMP-1:	INSULATED METAL PANEL
	SPANDREL GLASS PANEL
	GLASS PANEL WITH FROSTED FILM
	INSULATED METAL PANEL
	KALWALL PANEL
	INDICATES SLIDING WINDOW



TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

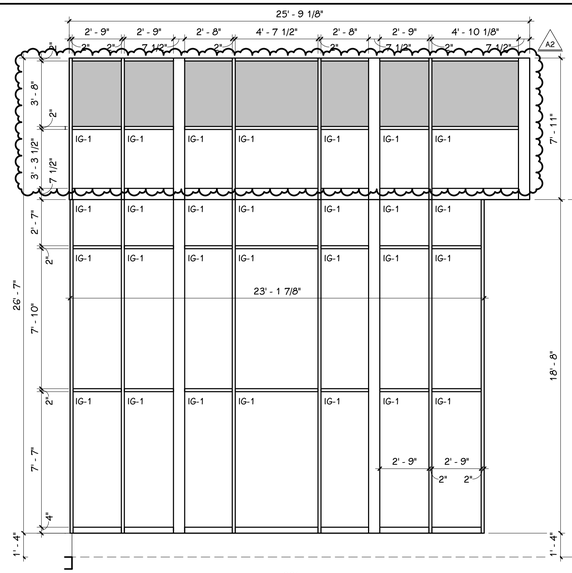
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
DOOR AND FRAME ELEVATIONS

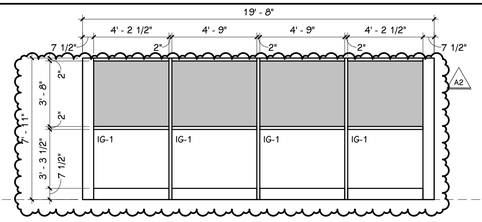
DATE
APRIL 24, 2026

SHEET NUMBER
A 503
23-622.000



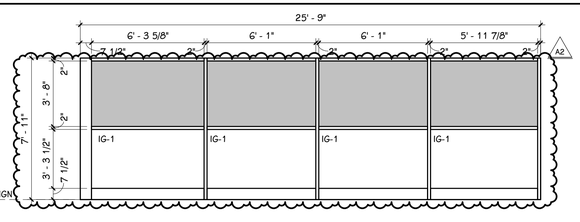
30A
ALUMINUM
CURTAIN WALL

ALIGN



30B
ALUMINUM
CURTAIN WALL

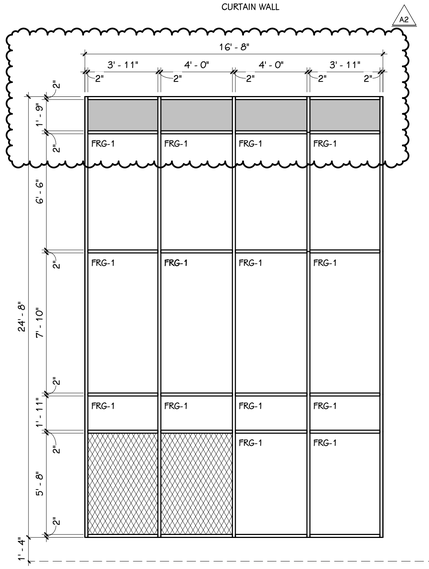
ALIGN



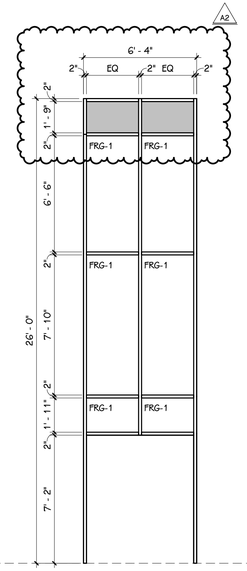
30C
ALUMINUM
CURTAIN WALL

FRAME ELEVATION KEY

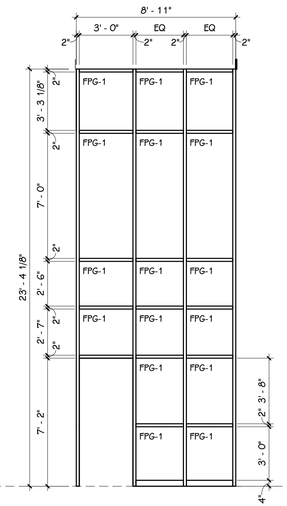
IG-1:	INSULATED GLAZING
LG-1:	SAFETY GLAZING
FPG-1:	FIRE PROTECTED GLAZING
FRG-1:	FIRE RESISTIVE GLAZING
IMP-1:	INSULATED METAL PANEL
	SPANDREL GLASS PANEL
	GLASS PANEL WITH FROSTED FILM
	INSULATED METAL PANEL
	KALWALL PANEL
	INDICATES SLIDING WINDOW



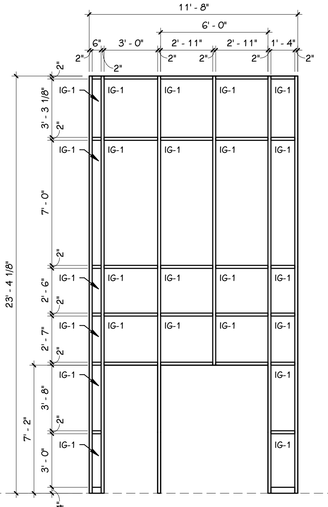
31
EXTERIOR FIRE-RESISTIVE GLASS AND
FRAME CURTAIN WALL SYSTEM



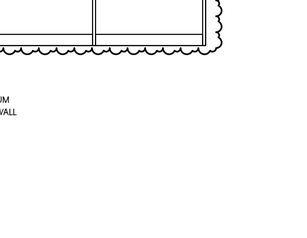
32
EXTERIOR FIRE-RESISTIVE GLASS AND
FRAME CURTAIN WALL SYSTEM



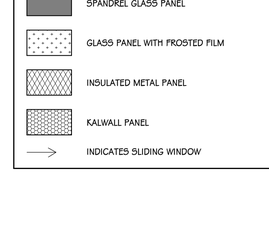
33
ALUMINUM
CURTAIN WALL



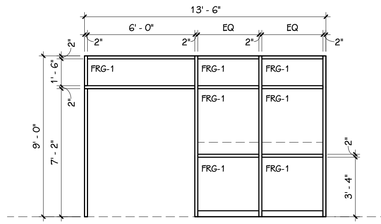
34
ALUMINUM
CURTAIN WALL



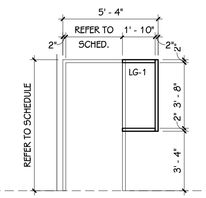
35
HOLLOW METAL
STOREFRONT



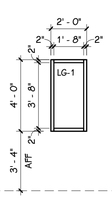
36
HOLLOW METAL
STOREFRONT



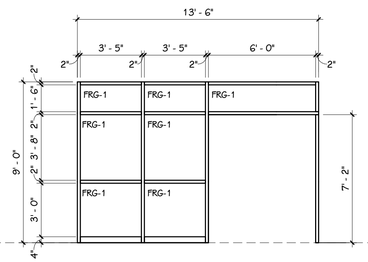
37
INTERIOR FIRE-RESISTIVE GLASS
AND FRAME SYSTEM



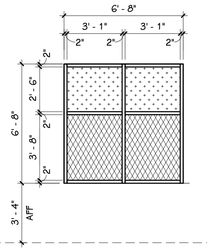
38
HOLLOW METAL
STOREFRONT



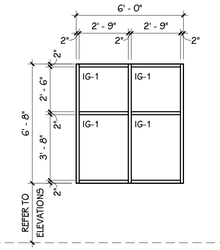
39
HOLLOW METAL
STOREFRONT



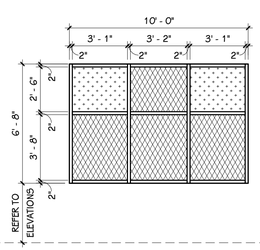
40
INTERIOR FIRE-RESISTIVE GLASS
AND FRAME SYSTEM



41
ALUMINUM
STOREFRONT



42
ALUMINUM
STOREFRONT



43
ALUMINUM
STOREFRONT

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

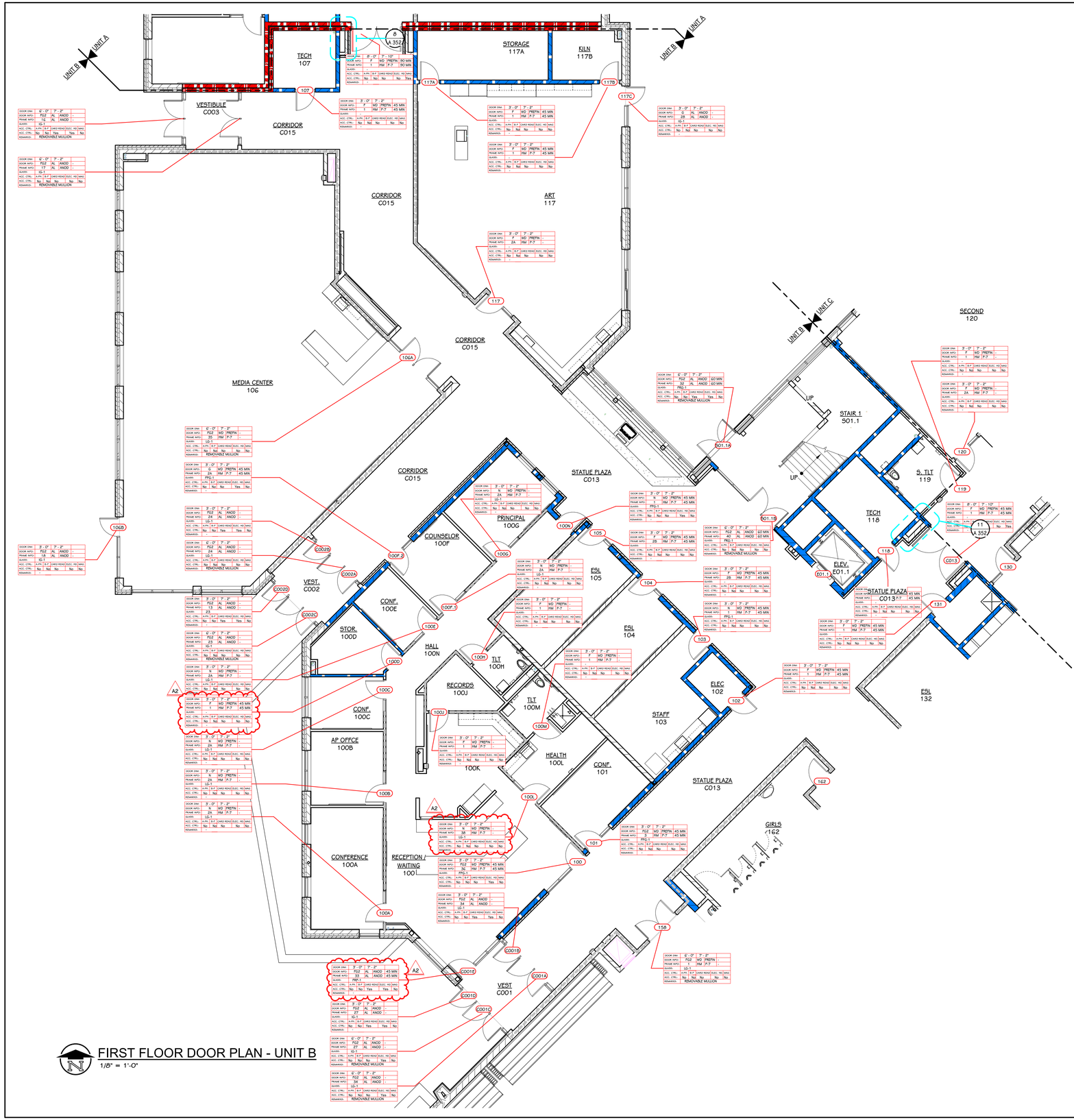
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FRAME ELEVATIONS

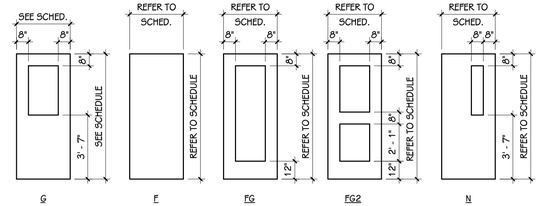
DATE
APRIL 24, 2026

SHEET NUMBER
A 504
23-622.000



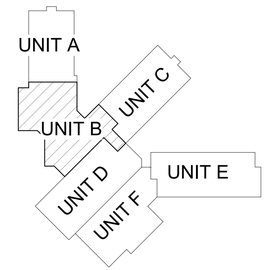
FIRST FLOOR DOOR PLAN - UNIT B

1/8" = 1'-0"



THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN

SCALE: NO SCALE

TowerPinkster

Architecture · Engineering · Interiors

TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05-18-2026

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

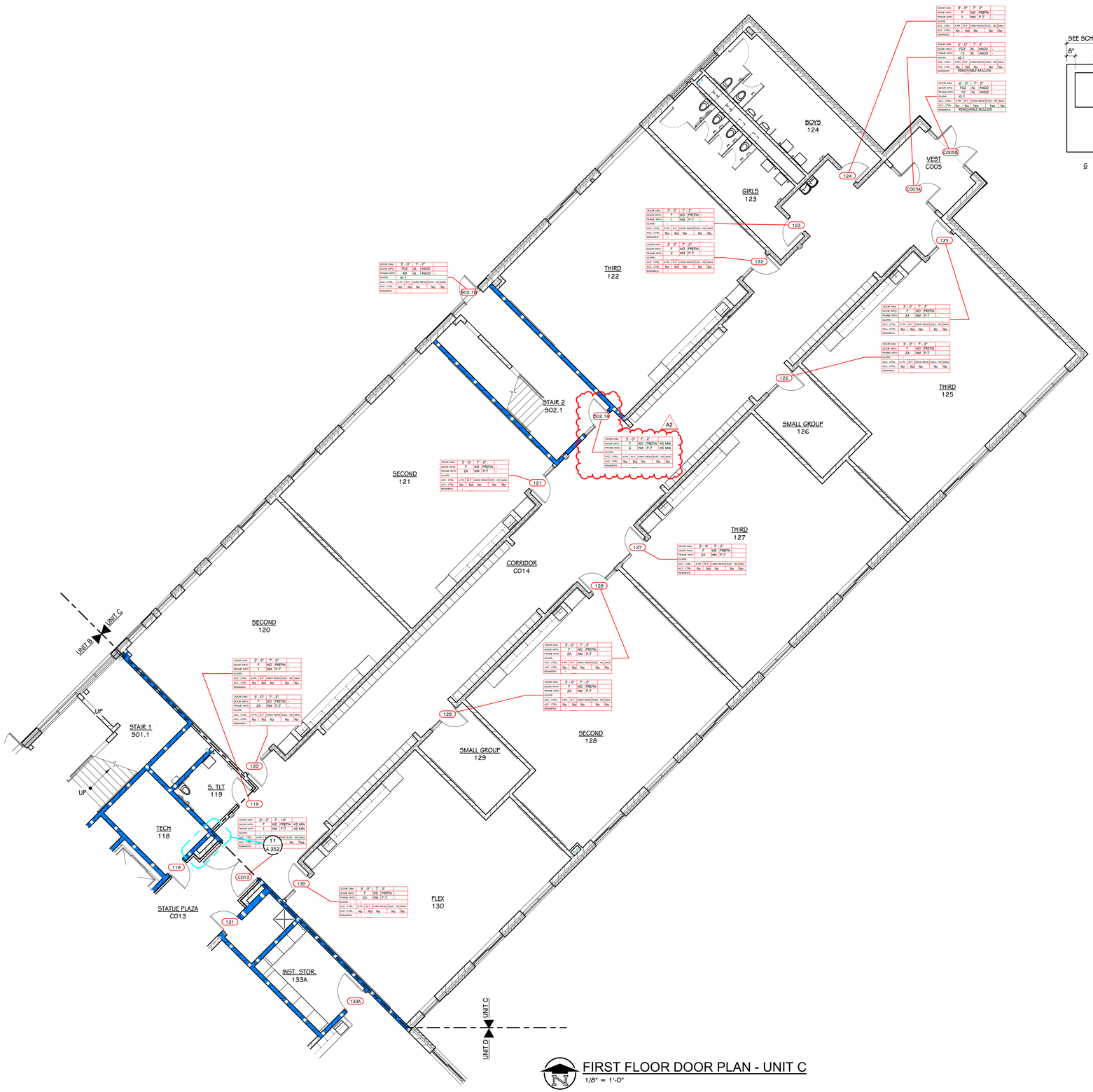
KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR DOOR PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
A 520B

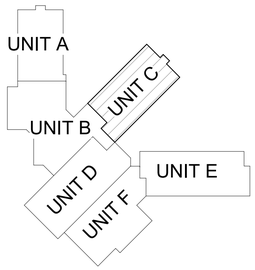
23-622.000



FIRST FLOOR DOOR PLAN - UNIT C
1/8" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

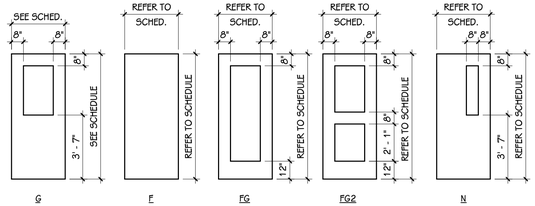
OWNER
KALAMAZOO PUBLIC SCHOOLS

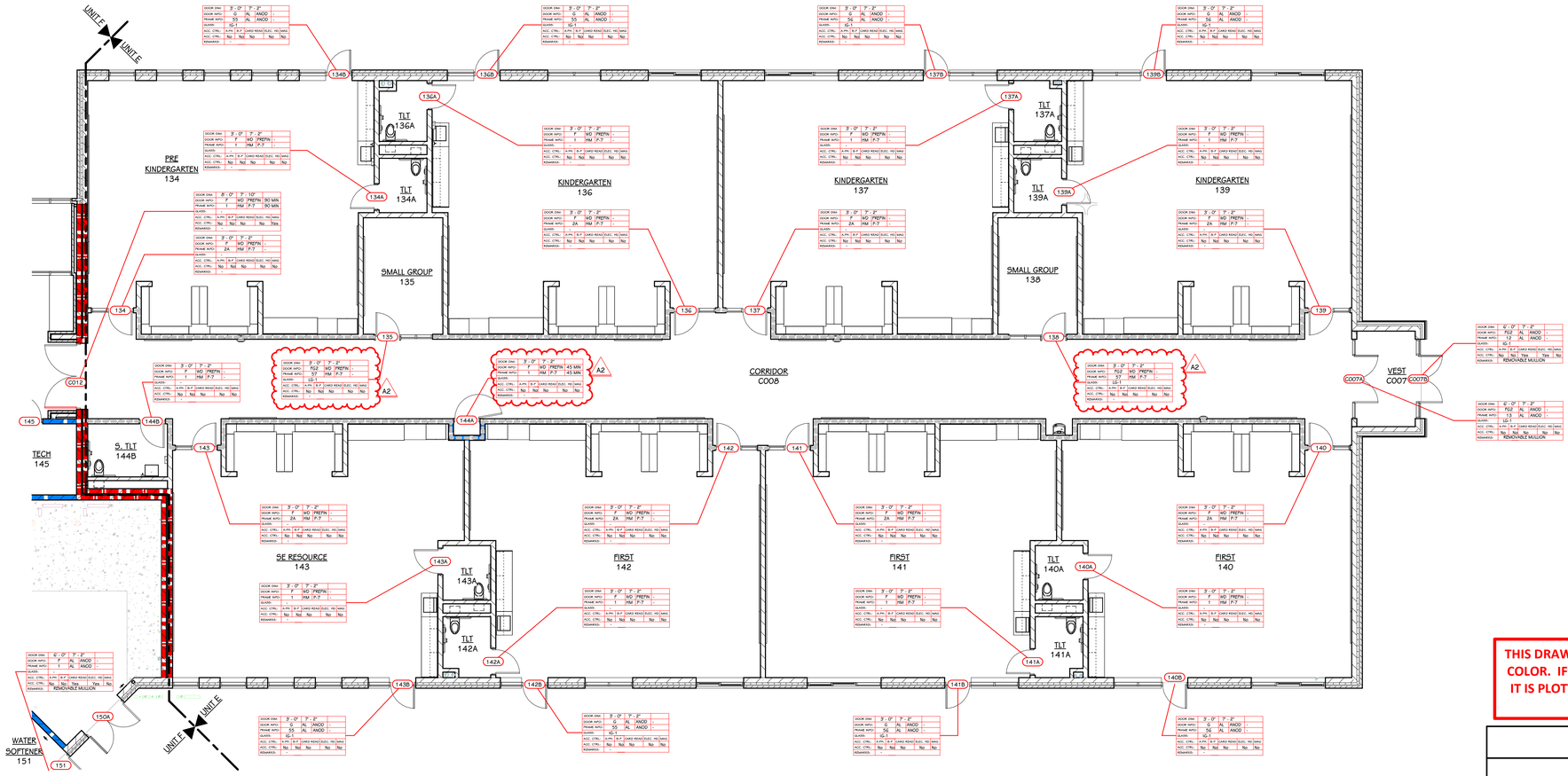
KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR DOOR PLAN - UNIT C

DATE
APRIL 24, 2026

SHEET NUMBER
A 520C
23-622.000

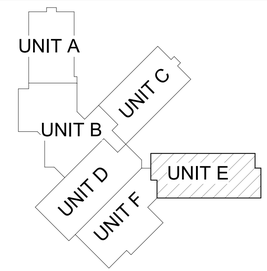




FIRST FLOOR DOOR PLAN - UNIT E
1/8" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05-18-2026

PROJECT TITLE
NEW EL SOL SCHOOL

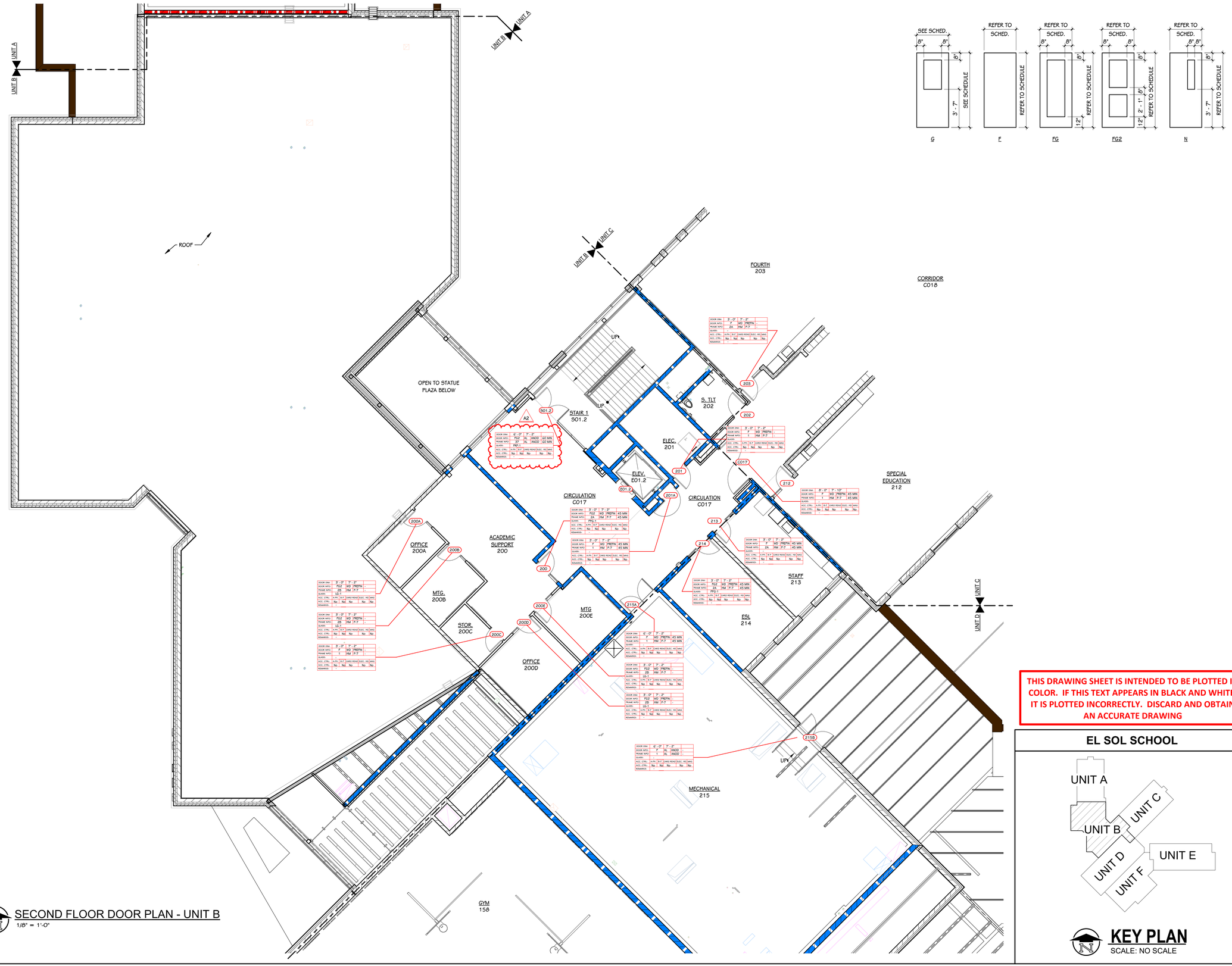
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR DOOR PLAN - UNIT E

DATE
APRIL 24, 2026

SHEET NUMBER
A 520E
23-622.000



SECOND FLOOR DOOR PLAN - UNIT B
1/8" = 1'-0"

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL

KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
SECOND FLOOR DOOR PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
A 521B
23-622.000

MATERIAL SELECTION SCHEDULE

ABBREV	ITEM	MANUFACTURER	PATTERN	COLOR	PRODUCT NO.	SIZE	SINGLE SOURCE	BASIS OF DESIGN	ADDITIONAL MANUFACTURERS	REMARKS
ACP-1	ACOUSTIC CEILING PANEL	ARMSTRONG	CORTEGA	WHITE	770	24" X 24" x 5/8" THICK	X			15/16" GRID | SQUARE LAY-IN | NRC: 0.55, CAC:35 - TYPICAL CEILING TILE
ACP-2	ACOUSTIC CEILING PANEL	ARMSTRONG	KITCHEN ZONE	WHITE	673	24" X 24" X 5/8" THICK	X			15/16" GRID, SQUARE EDGE | LRV: .89, MINERAL FIBER | SMOOTH TEXTURE | SCRUBBABLE PAINTED FINISH
AWP-1	ACOUSTIC WALL PANELS	CONWED	RESPOND-A PANEL	CARGNEGIE XOREL - METEOR -2003	6427-2003	2" THICKNESS | DIMENSIONS TO VARY	X (FABRIC)	X (PANEL)		0.95 NRC MINIMUM REQUIREMENT | EDGE: SQUARE | MOUNTING: Z-CLIP | SEE PATTERN ELEVATIONS FOR DIMENSIONS
AWP-2	ACOUSTIC WALL PANELS	CONWED	RESPOND-A PANEL	CARNEGIE XOREL - METEOR - 2044	6427-2044	2" THICKNESS | DIMENSIONS TO VARY	X (FABRIC)	X (PANEL)		0.95 NRC MINIMUM REQUIREMENT | EDGE: SQUARE | MOUNTING: Z-CLIP | SEE PATTERN ELEVATIONS FOR DIMENSIONS
AWP-3	ACOUSTIC WALL PANELS	CONWED	RESPOND-A PANEL	CARNEGIE XOREL - METEOR - 2020	6427-2020	2" THICKNESS | DIMENSIONS TO VARY	X (FABRIC)	X (PANEL)		0.95 NRC MINIMUM REQUIREMENT | EDGE: SQUARE | MOUNTING: Z-CLIP | SEE PATTERN ELEVATIONS FOR DIMENSIONS
AWP-4	ACOUSTIC WALL PANELS	CONWED	RESPOND-A PANEL	CARNEGIE XOREL - METEOR - 2019	6427-2019	2" THICKNESS | DIMENSIONS TO VARY	X (FABRIC)	X (PANEL)		0.95 NRC MINIMUM REQUIREMENT | EDGE: SQUARE | MOUNTING: Z-CLIP | SEE PATTERN ELEVATIONS FOR DIMENSIONS
AWP-5	ACOUSTIC WALL PANELS	CONWED	RESPOND-A PANEL	CARNEGIE XOREL - ION - 37	6151-37	2" THICKNESS | DIMENSIONS TO VARY	X (FABRIC)	X (PANEL)		0.95 NRC MINIMUM REQUIREMENT | EDGE: SQUARE | MOUNTING: Z-CLIP | SEE PATTERN ELEVATIONS FOR DIMENSIONS
BBC-1	BULLETIN BOARD CORK	FORBO	--	CINNAMON BARK	2207	--		X	CLARIDGE, WOLF GORDON	
BBC-2	BULLETIN BOARD CORK	FORBO	--	POTATO SKIN	2182	--		X	CLARIDGE, WOLF GORDON	
CCP-1	CERAMIC COMPOSITE PLANK	INHAUS SONO	CERAMIN ICON	WESTLAKE	63334	8" X 60" X 6.5 MM	X			
CG-1	CORNER GUARD	INPRO	TAPE-ON	CLAM SHELL	0154	1 1/2" LEG X 8' H	X			FIELD VERIFY HEIGHT
CL-1	COMPACT LAMINATE	WILSONART	FINE VELVET FINISH	PALISADES OAK	7987-38	1/2" THICKNESS				
CPTL-1	CARPET TILE	SHAW CONTRACT	CULTURA - HAND WOVEN	VIBRANT AGAVE	21375	18" X 36"	X			BACKING: ECO-WORX BACKING | INSTALLATION: STAGGER | REFER TO MANUFACTURER RECOMMENDED ADHESIVES
CT-1	CERAMIC TILE	MARAZZI	COTTO REVIVAL	VALENCIA	MRZCVG0DECOG	4" X 4"	X			FOR USE WITH TEC GROUT IN COLOR:LIGHT BUFF | RECOMMENDED GROUT JOINT: 1/8" | REFER TO ELEVATIONS FOR INSTALLATION LAYOUT
ECPTL-1	ENTRANCE CARPET TILE	MILLIKEN	OBEX CUT/FOOTPATH	RUSSET	FOC143-178	50 CM X 50 CM				BACKING: PVC-FREE WELLBAC COMFORT PLUS CUSHION | INSTALLATION: MONOLITHIC
LMC-1	LINEAR METAL CEILING	ARMSTRONG	METALWORKS - LINEAR	LA JOLLA OAK	7161-SQOK	6" W X 96" L X 5/8" THICKNESS	X			PERFORATION PATTERN: M2 MICROPERFORATED WITH PLAIN BORDER AND ACOUSTICAL FLEECE | SQUARE EDGE WITH EXTENDED FLANGE | D-20 MOUNTING METHOD | 0.70 NRC
P-1	PAINT	SHERWIN WILLIAMS	--	DRIFT OF MIST	SW 9166	--		X	BENJAMIN MOORE, PPG	--
P-2	PAINT	SHERWIN WILLIAMS	--	OAKMOSS	SW 6180	--		X	BENJAMIN MOORE, PPG	
P-3	PAINT	SHERWIN WILLIAMS	--	GREEN ONYX	SW 9128	--		X	BENJAMIN MOORE, PPG	
P-4	PAINT	SHERWIN WILLIAMS	--	SOFTENED GREEN	SW 6177	--		X	BENJAMIN MOORE, PPG	
P-5	PAINT	SHERWIN WILLIAMS	--	JASPER STONE	SW 9133	--		X	BENJAMIN MOORE, PPG	
P-6	PAINT	SHERWIN WILLIAMS	--	ACCESSIBLE BEIGE	SW 7036	--		X	BENJAMIN MOORE, PPG	
P-7	PAINT	SHERWIN WILLIAMS	--	STONE LION	SW 7507	--		X	BENJAMIN MOORE, PPG	
P-8	PAINT	SHERWIN WILLIAMS	--	CUSTOM COLOR TO MATCH MULLIONS	--	--		X	BENJAMIN MOORE, PPG	
P-9	PAINT	SHERWIN WILLIAMS	--	GINGERY	SW 6363	--		X	BENJAMIN MOORE, PPG	
P-10	PAINT	SHERWIN WILLIAMS	--	BAKELITE GOLD	SW 6368	--		X	BENJAMIN MOORE, PPG	
PC-1	POLISHED CONCRETE		CPAA CLASS D FINISH (DEEP GRIND)	NATURAL	--	--		X	REFER TO SPECIFICATION	REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION
PL-1	PLASTIC LAMINATE	NEVAMAR	TEXTURED	HARMONY MINT	AV4000T	--	X			PROVIDE MANUFACTURER RECOMMENDED MATCHING EDGEBAND
PL-2	PLASTIC LAMINATE	NEVAMAR	TEXTURED	WHITE PHANTASY	PH7001T	--	X			PROVIDE MANUFACTURER RECOMMENDED MATCHING EDGEBAND
PL-3	PLASTIC LAMINATE	WILSONART	FINE VELVET FINISH	CLASSIC LINEN	4943-38	--	X			FOR USE AT CUBBIES | PROVIDE MANUFACTURER RECOMMENDED MATCHING EDGEBAND
PL-4	PLASTIC LAMINATE	WILSONART	FINE VELVET FINISH	PALISADES OAK	7987-38	--	X			FOR USE AT MAIN OFFICE CASEWORK
PR-1	PHENOLIC RESIN	WILSONART	DURCON	BLACK	--	1" THICKNESS		X	TRESPA, FORMICA, PANOLAM	
PT-1	PORCELAIN TILE	PLATFORM SURFACES	MESH	CARBON	--	12" X 24"	X			FOR USE WITH TEC GROUT IN COLOR: URBAN BRONZE | RECOMMENDED GROUT JOINT: 1/16" | INSTALLATION: VERTICAL 1/3 RUNNING BOND
PT-2	PORCELAIN TILE	VIRGINIA TILE - CAESAR CERAMICS	STONEWAYS	SKY	--	12" X 24"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/16" | INSTALLATION: VERTICAL STACKED
PT-3	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - CROSS	AZURE MATTE	--	5" X 5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-4	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - STAR	AZURE MATTE	--	6.5" X 6.5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-5	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - CROSS	WARM SIENA MATTE	--	5" X 5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-6	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - STAR	WARM SIENA MATTE	--	6.5" X 6.5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-7	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - CROSS	TAUPE	--	5" X 5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-8	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - STAR	TAUPE	--	6.5" X 6.5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-9	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - CROSS	JADE MATTE		5" X 5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-11	PORCELAIN TILE	PLATFORM SURFACES	MASTERMIND - STAR	JADE MATTE	--	6.5" X 6.5"	X			FOR USE WITH TEC GROUT IN COLOR: DOVE GRAY | RECOMMENDED GROUT JOINT: 1/8" | SEE FINISH PLANS AND ELEVATIONS FOR PATTERNING AND TILE LAYOUT
PT-12	PORCELAIN TILE	PLATFORM SURFACES	MESH - MOSAICO	CARBON	--	2" X 2" X 8MM THICKNESS	X			FOR USE WITH TEC GROUT IN COLOR: URBAN BRONZE | RECOMMENDED GROUT JOINT: 1/16" | INSTALLATION: MONOLITHIC
PTB-1	PORCELAIN TILE BASE	PLATFORM SURFACES	MESH	CARBON	--	6" X 24" - CUT TILE	X			FOR USE WITH TEC GROUT IN COLOR: URBAN BRONZE | RECOMMENDED GROUT JOINT: 1/16" | CUT 12" X 24" TILE TO 6" HEIGHT, SCHLUTER TRIM ON CUT EDGE
RB-1	RUBBER BASE	TARKETT	DURACOVE	BURNT UMBER B	63	4" H		X	ROPPE, MILLIKEN, SHAW	STANDARD WALL BASE
RB-2	RUBBER BASE	TARKETT	VENTED COVE BASE	BLACK		4" H		X	ROPPE, MILLIKEN, SHAW	GYM WALL BASE
RS-1	RESILIENT SHEET	POLYFLOR	PALLETTONE			2 MM THICK X 2M WIDE ROLL	X		MANNINGTON, SHAW, PATCRAFT	PROVIDE MANUFACTURER'S COORDINATING WELD ROD AND ACCESSORIES FOR COMPLETE INSTALLATION OF FLOOR
RS-2	RESILIENT SHEET	OSCODA PLASTICS, INC.	PROTECT-ALL FLOORING	DARK GREY	--	5'-0" X 8'-0" SHEET X 1/4" THICKNESS	X			PROVIDE MANUFACTURER'S STANDARD COVE-BASE, TRIM, TRANSITION STRIPS, AND CORNERGUARDS
SC-1	SEALED CONCRETE	--	--	--	--			X	REFER TO SPECIFICATION	
SSM-1	SOLID SURFACE MATERIAL	LX HAUSYS	HI-MACS	AURORA GREIGE	M613	--	X			STANDARD EDGE: EASED, REFER TO DETAILS FOR SPECIALTY EDGE PROFILES OR BUILDUPS, MITER ALL CORNERS
SSM-2	SOLID SURFACE MATERIAL	LX HAUSYS	HI-MACS	ARMADILLO	GT909	--	X			STANDARD EDGE: EASED, REFER TO DETAILS FOR SPECIALTY EDGE PROFILES OR BUILDUPS
SSM-3	SOLID SURFACE MATERIAL	LX HAUSYS	HI-MACS	MERINO	GT914	--	X			WINDOW SILLS REFER TO ARCHITECTURAL DETAILS FOR MORE INFORMATION
TC-1	TRAFFIC COATING	SIKA	SIKALASTIC 390 NP	GRAY	--	--	X		REFER TO SPECIFICATION	
TZ-1	TERRAZZO	--	--	COLOR MATCH P-6				X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-2	TERRAZZO	--	--	COLOR MATCH P-7				X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-3	TERRAZZO	--	--					X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-4	TERRAZZO	--	--	COLOR MATCH P-10				X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-5	TERRAZZO	--	--					X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-6	TERRAZZO	--	--	COLOR MATCH P-2				X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-7	TERRAZZO	--	--	COLOR MATCH P-3				X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-8	TERRAZZO	--	--	COLOR MATCH P-4				X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
TZ-9	TERRAZZO	--	--	COLOR MATCH SW 6212 - QUIETUDE				X	REFER TO SPECIFICATION FOR MORE INFO	REFER TO PATTERN PLANS FOR LOCATION OF COLOR | DECORATIVE ZINC STRIPS TO DIVIDE COLOR | 6" TERRAZZO COVE BASE OF TZ-1
WAF-1	WOOD ATHLETIC FLOOR	ACTION FLOORING	CHANNELFLEX ULTRA NR	MAPLE FLOORING (GRADE 2 AND HIGHER)	--	2 1/2" - 2 5/8" THICKNESS X RANDOM LENGTH		X	AACER FLOORING, ACTION FLOORING SYSTEMS, CONNER SPORTS SURFACE SOLUTIONS, HORNER FLOORING COMPANY, ROBBINS SPORTS SURFACES, WD FLOORING	INSTALLATION: REFER TO SHEET AXXX FOR GYM STRIPING | GRADE 2 OR BETTER AT CENTRAL COURT, GRADE 3 OR BETTER AT EXTERIOR COURT
WDF-1	WOOD FLOORING	--	SOLID WOOD STRIP OR PLANK FLOORING	WHITE OAK - STAINED	--	2-1/4" FACE WIDTH X 3/4" THICK		X		RANDOM-LENGTH STRIPS COMPLYING WITH APPLICABLE GRADING RULES

A2

NOTES:

1 NO COMPARABLE PRODUCTS WILL BE REVIEWED FOR PRODUCTS DESIGNATED AS SINGLE SOURCE.

2 COMPARABLE PRODUCTS WILL BE REVIEWED FOR ITEMS LISTED AS BASIS OF DESIGN. COMPARABLE PRODUCTS ARE REQUIRED TO MEET ANY MINIMUM PERFORMANCE REQUIREMENTS LISTED IN REMARKS AND DESIGN ATTRIBUTES OF SPECIFIED PRODUCT.

3 REFER TO PRODUCT SPECIFICATION FOR TRIMS AND ACCESSORIES ASSOCIATED WITH SPECIFIED PRODUCTS ABOVE.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2 05-18-2026

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
MATERIAL SELECTION SCHEDULE

DATE
APRIL 24, 2026

SHEET NUMBER
IG 002
23-622.000

COMBINATION BOARD SCHEDULE

MARK	QTY	LEFT TACKBOARD		MARKERBOARD		RIGHT TACKBOARD		FRAME MATERIAL	ACCESSORIES
		SIZE	MATERIAL	SIZE	MATERIAL	SIZE	MATERIAL		
CB-1	25	5' - 0" x 4' - 0"	VINYL-WRAPPED	5' - 0" x 12' - 0"	SATIN-GLOSS PORCELAIN ENAMEL STEEL	5' - 0" x 4' - 0"	VINYL-WRAPPED	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
CB-2	3	5' - 0" x 4' - 0"	VINYL-WRAPPED	5' - 0" x 12' - 0"	SATIN-GLOSS PORCELAIN ENAMEL STEEL	5' - 0" x 4' - 0"	VINYL-WRAPPED	ANODIZED ALUMINUM FRAME	ALTERNATE No.1, FLAG, HOOKS
CB-3	1	5' - 0" x 4' - 0"	VINYL-WRAPPED	5' - 0" x 12' - 0"	SATIN-GLOSS PORCELAIN ENAMEL STEEL	5' - 0" x 4' - 0"	VINYL-WRAPPED	ANODIZED ALUMINUM FRAME	FLAG, HOOKS, STAFF LINES ON ONE HALF OF MARKERBOARD

A2

MARKERBOARD SCHEDULE

MARK	QTY	SIZE	BOARD MATERIAL	FRAME MATERIAL	REMARKS
MB-1	47	5' - 0" x 10' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-2	5	4' - 0" x 8' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-3	2	4' - 0" x 10' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-4	2	5' - 0" x 6' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-5	3	4' - 0" x 4' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-6	2	4' - 0" x 6' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-7	2	5' - 0" x 4' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-8	1	4' - 0" x 16' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
MB-9	1	5' - 0" x 10' - 0"	LOW-GLOSS PORCELAIN ENAMEL STEEL	ANODIZED ALUMINUM FRAME	ALTERNATE No.1, FLAG, HOOKS

TACKBOARD SCHEDULE

MARK	QTY	SIZE	BOARD MATERIAL	FRAME MATERIAL	ACCESSORIES
TB-1	4	4' - 0" x 4' - 0"	COLOR-IMPREGNATED CORK	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
TB-2	27	4' - 0" x 6' - 0"	COLOR-IMPREGNATED CORK	ANODIZED ALUMINUM FRAME	FLAG, HOOKS
TB-3	1	4' - 0" x 3' - 0"	COLOR-IMPREGNATED CORK	ANODIZED ALUMINUM FRAME	FLAG, HOOKS

1 REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.
2 VISUAL DISPLAY BOARD TAGS REPRESENT A SINGLE UNIT. COMBINATION BOARDS INCLUDE MORE THAN ONE MATERIAL TYPE IN THE OVERALL UNIT (I.E.. MARKERBOARDS WITH ATTACHED TACKBOARDS).
3 TYPICAL MOUNTING HEIGHT WILL BE 7' - 0" HEAD HEIGHT A.F.F., UNLESS NOTED OTHERWISE.
4 VISUAL DISPLAY BOARDS TO BE MOUNTED CENTERED ON WALL OR BETWEEN ARCHITECTURAL ELEMENTS, UNLESS NOTED OTHERWISE.
5 COORDINATE MOUNTING LOCATION AND REQUIREMENTS WITH ANY TECHNOLOGY EQUIPMENT (PROJECTOR, SMART BOARDS, ETC.).

WINDOW TREATMENT SCHEDULE

MARK	TYPE	OPERATION	MOUNTING	SHADECLOTH(S)	FINISHES	ACCESSORIES	REMARKS
RS-1	SINGLE	MANUAL	HEAD TO SILL AND JAMB TO JAMB	3% LIGHT FILTERING	TO BE SELECTED FROM MANUFACTURER'S FULL RANGE	FASCIA, BEAD CHAIN RETENTION-CLIP	EXTEND BEAD CAHIN AS REQUIRED FOR ACCESS BY USER
RS-2	DUAL	MOTORIZED	HEAD TO SILL AND JAMB TO JAMB	3% LIGHT FILTERING,BLACK OUT	TO BE SELECTED FROM MANUFACTURER'S FULL RANGE	FASCIA	CONNECT TO LOW VOLTAGE CONTROLS FOR PRESENTATION SCREEN, COORDINATE WITH ELECTRICAL AND TECHNOLOGY

1 REFER TO SPECIFICATION FOR MORE INFORMATION.
2 WINDOW TREATMENT TAGS SHOWN ON PLAN REPRESENTS A SINGLE SHADE.
3 REFER TO FLOOR PLANS, EXTERIOR ELEVATIONS AND FRAME TYPES FOR HEIGHT AND WIDTH OF OPENINGS.
4 WINDOW TREATMENTS ARE TO BE MOUNTED INSIDE OF THE WINDOW OPENING FROM HEAD TO SILL AND JAMB TO JAMB, UNLESS NOTED OTHERWISE.
5 VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION.
6 IF NO WINDOW TREATMENT IS SHOWN, EXPECTATION IS AN INTREGAL BLIND IN WINDOW ASSEMBLY.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2 05-18-2026
ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

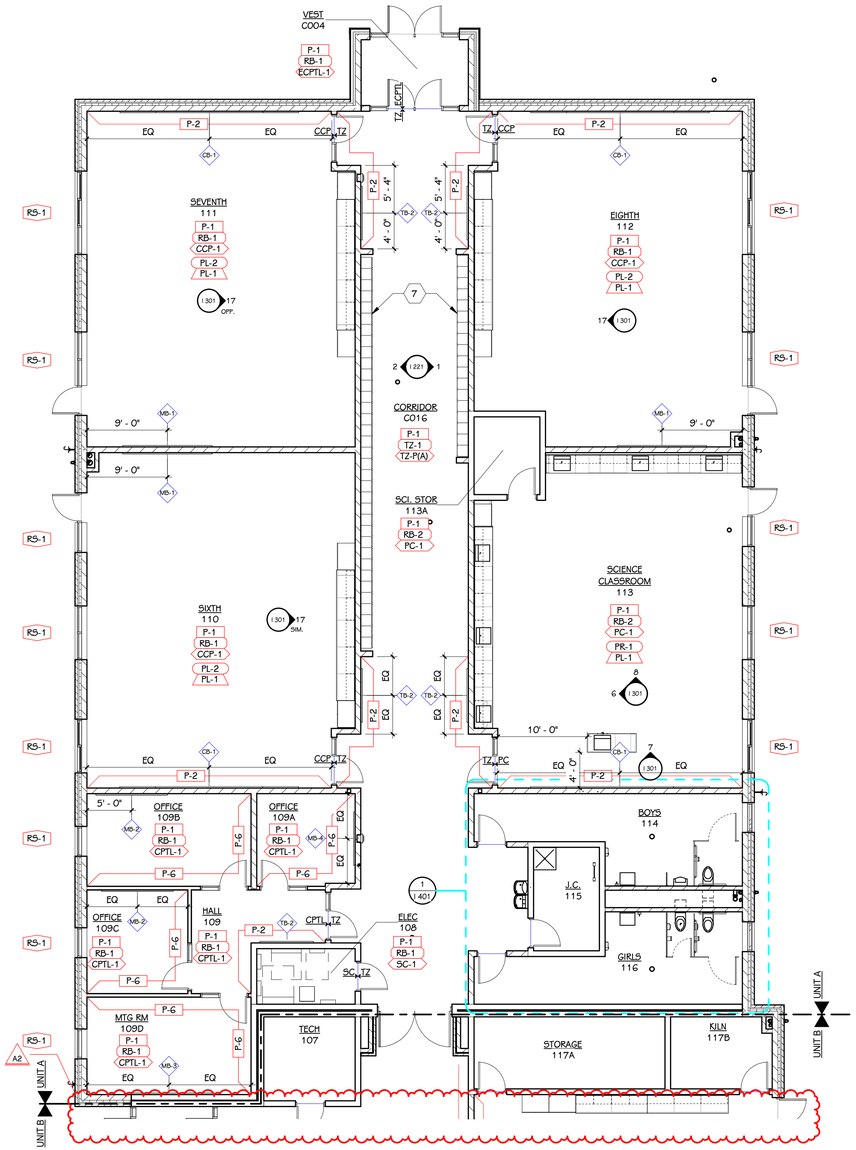
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
VISUAL DISPLAY BOARD SCHEDULE & WINDOW TREATMENT SCHEDULE

DATE
APRIL 24, 2026

SHEET NUMBER
IG 003
23-622.000



FIRST FLOOR FINISH PLAN - UNIT A

1/8" = 1'-0"

NOTES - FINISH PLANS

1 FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.

2 CASEWORK FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.

3 REFER TO ENLARGED FINISH PLANS AND PATTERN PLANS FOR ADDITIONAL FINISH DETAILS.

4 DASHED LINE INDICATES LINE OF CEILING ABOVE, REFER TO REFLECTED CEILING PLANS.

KEYED NOTES - INTERIOR - FINISH PLAN

1 BRICK TO MATCH EXTERIOR BRICK LINEAR PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.

2 BRICK TO MATCH EXTERIOR BRICK GRADIENT PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.

3 BUILT IN DISPLAY CASE W. GLASS FRONT, SHELVES AND TACKABLE BACK SURFACE, BASIS OF DESIGN TO BE ONNIT DSP-01 5969 BUILT-IN DISPLAY CASE. SEE SPECIFICATION FOR MORE INFORMATION.

4 STAIR TO BE TERRAZZO (TZ-1), SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.

5 POLISHED CONCRETE CAP - SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.

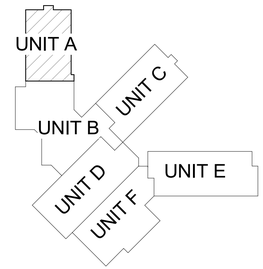
6 TACKBOARD TO BE MOUNTED ABOVE CIRCULATION DESK COUNTER.

7 METAL LOCKERS, REFER TO ARCHITECTURAL.

8 FLOATING PLASTIC LAMINATE SHELF TO BE MOUNTED ABOVE COUNTER - REFER TO INTERIOR ELEVATIONS FOR DETAILS

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN

SCALE: NO SCALE

TowerPinkster

Architecture · Engineering · Interiors

TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM #2 05-18-2026

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

DATE
APRIL 24, 2026

SHEET TITLE
FIRST FLOOR FINISH PLAN - UNIT A

SHEET NUMBER
A1101A

23-622.000

NOTES - FINISH PLANS

1 FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.

2 CASEWORK FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.

3 REFER TO ENLARGED FINISH PLANS AND PATTERN PLANS FOR ADDITIONAL FINISH DETAILS.

4 DASHED LINE INDICATES LINE OF CEILING ABOVE, REFER TO REFLECTED CEILING PLANS.

KEYED NOTES - INTERIOR - FINISH PLAN

1 BRICK TO MATCH EXTERIOR BRICK LINEAR PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.

2 BRICK TO MATCH EXTERIOR BRICK GRADIENT PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.

3 BUILT IN DISPLAY CASE W. GLASS FRONT, SHELVES AND TACKABLE BACK SURFACE, BASIS OF DESIGN TO BE ONNIT DSP-01 5969 BUILT-IN DISPLAY CASE. SEE SPECIFICATION FOR MORE INFORMATION.

4 STAIR TO BE TERRAZZO (TZ-1), SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.

5 POLISHED CONCRETE CAP - SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.

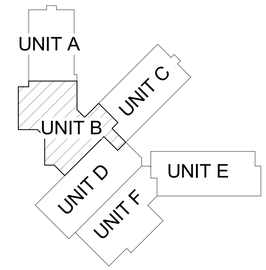
6 TACKBOARD TO BE MOUNTED ABOVE CIRCULATION DESK COUNTER.

7 METAL LOCKERS, REFER TO ARCHITECTURAL.

8 FLOATING PLASTIC LAMINATE SHELF TO BE MOUNTED ABOVE COUNTER - REFER TO INTERIOR ELEVATIONS FOR DETAILS

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

FIRST FLOOR FINISH PLAN - UNIT B
1/8" = 1'-0"

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR FINISH PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
A101B
23-622.000

FIRST FLOOR FINISH PLAN - UNIT C

1/8" = 1'-0"

NOTES - FINISH PLANS

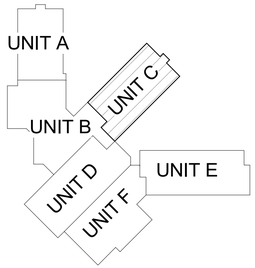
1. FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.
2. CASEWORK FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.
3. REFER TO ENLARGED FINISH PLANS AND PATTERN PLANS FOR ADDITIONAL FINISH DETAILS.
4. DASHED LINE INDICATES LINE OF CEILING ABOVE, REFER TO REFLECTED CEILING PLANS.

KEYED NOTES - INTERIOR - FINISH PLAN

1. BRICK TO MATCH EXTERIOR BRICK LINEAR PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.
2. BRICK TO MATCH EXTERIOR BRICK GRADIENT PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.
3. BUILT IN DISPLAY CASE W. GLASS FRONT, SHELVES AND TACKABLE BACK SURFACE, BASIS OF DESIGN TO BE ONNIT DSP-01 5969 BUILT-IN DISPLAY CASE. SEE SPECIFICATION FOR MORE INFORMATION.
4. STAIR TO BE TERRAZZO (TZ-1), SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.
5. POLISHED CONCRETE CAP - SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.
6. TACKBOARD TO BE MOUNTED ABOVE CIRCULATION DESK COUNTER.
7. METAL LOCKERS, REFER TO ARCHITECTURAL.
8. FLOATING PLASTIC LAMINATE SHELF TO BE MOUNTED ABOVE COUNTER - REFER TO INTERIOR ELEVATIONS FOR DETAILS

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM #2 05-18-2026

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

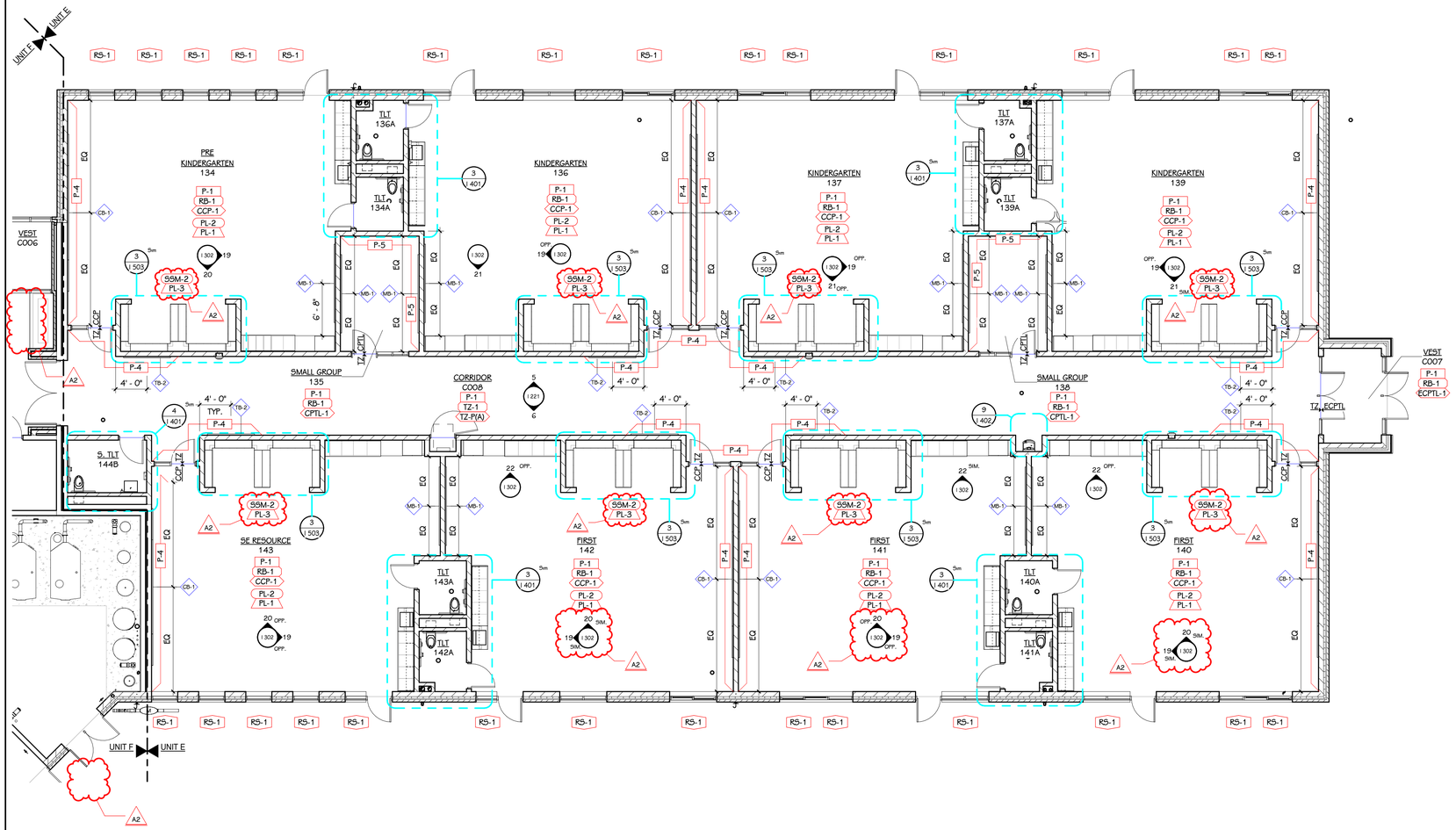
KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR FINISH PLAN - UNIT C

DATE
APRIL 24, 2026

SHEET NUMBER
A1101C

23-622.000



FIRST FLOOR FINISH PLAN - UNIT E
1/8" = 1'-0"

NOTES - FINISH PLANS

1 FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.

2 CASEWORK FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.

3 REFER TO ENLARGED FINISH PLANS AND PATTERN PLANS FOR ADDITIONAL FINISH DETAILS.

4 DASHED LINE INDICATES LINE OF CEILING ABOVE, REFER TO REFLECTED CEILING PLANS.

KEYED NOTES - INTERIOR - FINISH PLAN

1 BRICK TO MATCH EXTERIOR BRICK LINEAR PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.

2 BRICK TO MATCH EXTERIOR BRICK GRADIENT PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.

3 BUILT IN DISPLAY CASE W. GLASS FRONT, SHELVES AND TACKABLE BACK SURFACE, BASIS OF DESIGN TO BE ONNIT DSP-01 5969 BUILT-IN DISPLAY CASE. SEE SPECIFICATION FOR MORE INFORMATION.

4 STAIR TO BE TERRAZZO (TZ-1), SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.

5 POLISHED CONCRETE CAP - SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.

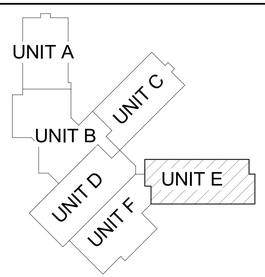
6 TACKBOARD TO BE MOUNTED ABOVE CIRCULATION DESK COUNTER.

7 METAL LOCKERS, REFER TO ARCHITECTURAL.

8 FLOATING PLASTIC LAMINATE SHELF TO BE MOUNTED ABOVE COUNTER - REFER TO INTERIOR ELEVATIONS FOR DETAILS

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

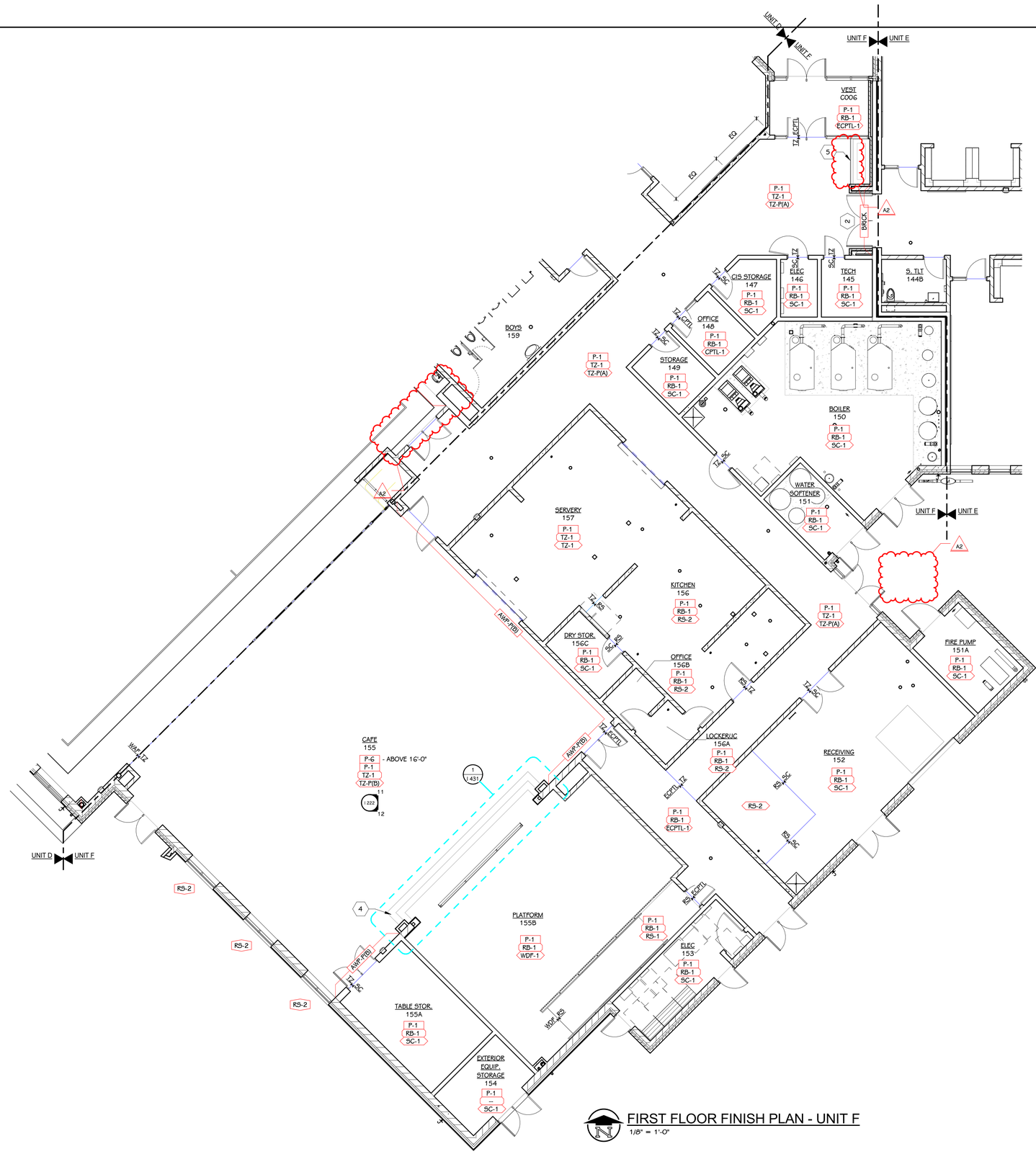
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR FINISH PLAN - UNIT E

DATE
APRIL 24, 2026

SHEET NUMBER
A101E
23-622.000



FIRST FLOOR FINISH PLAN - UNIT F

1/8" = 1'-0"

NOTES - FINISH PLANS

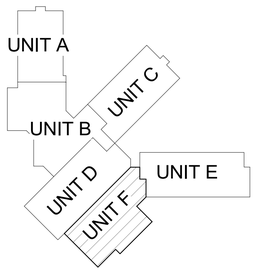
1. FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.
2. CASEWORK FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.
3. REFER TO ENLARGED FINISH PLANS AND PATTERN PLANS FOR ADDITIONAL FINISH DETAILS.
4. DASHED LINE INDICATES LINE OF CEILING ABOVE, REFER TO REFLECTED CEILING PLANS.

KEYED NOTES - INTERIOR - FINISH PLAN

1. BRICK TO MATCH EXTERIOR BRICK LINEAR PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.
2. BRICK TO MATCH EXTERIOR BRICK GRADIENT PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.
3. BUILT IN DISPLAY CASE W. GLASS FRONT, SHELVES AND TACKABLE BACK SURFACE, BASIS OF DESIGN TO BE ONNIT DSP-01 5969 BUILT-IN DISPLAY CASE. SEE SPECIFICATION FOR MORE INFORMATION.
4. STAIR TO BE TERRAZZO (TZ-1), SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.
5. POLISHED CONCRETE CAP - SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.
6. TACKBOARD TO BE MOUNTED ABOVE CIRCULATION DESK COUNTER.
7. METAL LOCKERS, REFER TO ARCHITECTURAL.
8. FLOATING PLASTIC LAMINATE SHELF TO BE MOUNTED ABOVE COUNTER - REFER TO INTERIOR ELEVATIONS FOR DETAILS

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN

SCALE: NO SCALE

TowerPinkster

Architecture · Engineering · Interiors

TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05-18-2026
ADDENDUM #1	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR FINISH PLAN - UNIT F

DATE
APRIL 24, 2026

SHEET NUMBER
A101F

23-622.000

SECOND FLOOR FINISH PLAN - UNIT B
1/8" = 1'-0"

NOTES - FINISH PLANS

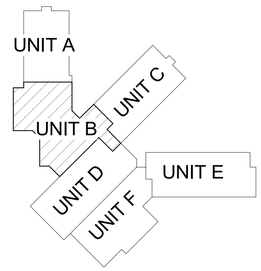
1. FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.
2. CASEWORK FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.
3. REFER TO ENLARGED FINISH PLANS AND PATTERN PLANS FOR ADDITIONAL FINISH DETAILS.
4. DASHED LINE INDICATES LINE OF CEILING ABOVE, REFER TO REFLECTED CEILING PLANS.

KEYED NOTES - INTERIOR - FINISH PLAN

1. BRICK TO MATCH EXTERIOR BRICK LINEAR PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.
2. BRICK TO MATCH EXTERIOR BRICK GRADIENT PATTERN, APPLY RUBBER BASE AND DO NOT PAINT.
3. BUILT IN DISPLAY CASE W. GLASS FRONT, SHELVES AND TACKABLE BACK SURFACE, BASIS OF DESIGN TO BE ONNIT DSP-01 5969 BUILT-IN DISPLAY CASE. SEE SPECIFICATION FOR MORE INFORMATION.
4. STAIR TO BE TERRAZZO (TZ-1), SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.
5. POLISHED CONCRETE CAP - SEE ARCHITECTURAL DETAILS FOR MORE INFORMATION.
6. TACKBOARD TO BE MOUNTED ABOVE CIRCULATION DESK COUNTER.
7. METAL LOCKERS, REFER TO ARCHITECTURAL.
8. FLOATING PLASTIC LAMINATE SHELF TO BE MOUNTED ABOVE COUNTER - REFER TO INTERIOR ELEVATIONS FOR DETAILS

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

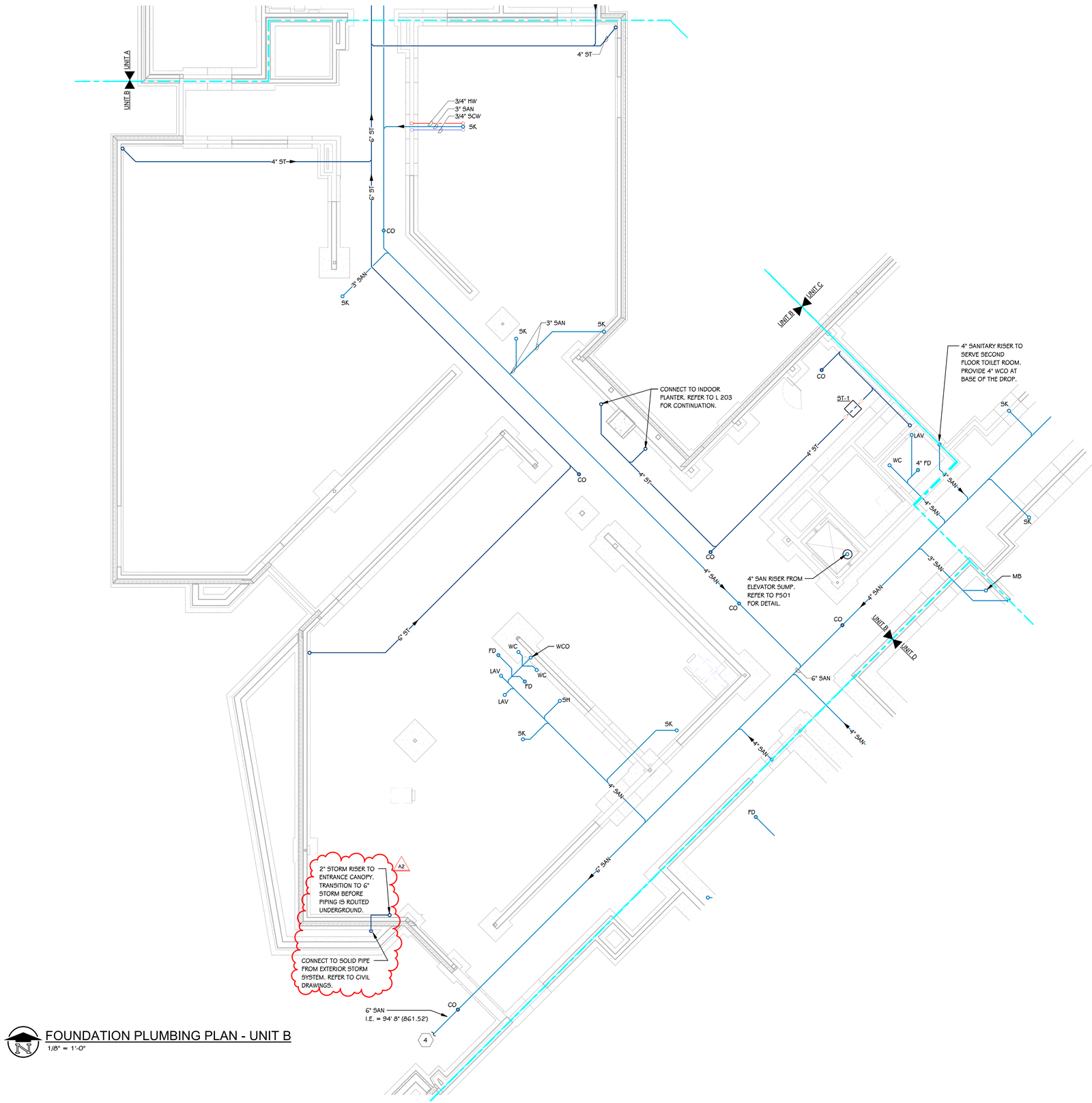
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
SECOND FLOOR FINISH PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
A102B
23-622.000



FOUNDATION PLUMBING PLAN - UNIT B
1/8" = 1'-0"

KEYED NOTES - PLUMBING - DOMESTIC

1 ART ROOM SHALL BE EQUIPPED WITH SOLIDS INTERCEPTORS BELOW ALL SINKS. REFER TO SPECIFICATIONS.

2 1 1/4" GAS PIPE RISER TO MAKE UP AIR UNIT.

3 3/4" DROP TO DRAIN WATER TEMPERING KIT. 3/4" DROP TO REVERSE OSMOSIS SYSTEM. 3/4" CW PIPE TO COMBI OVEN SHALL BE PIPED THROUGH RO SYSTEM. REFER TO KITCHEN EQUIPMENT SCHEDULES FOR DETAIL.

4 REFER TO SITE UTILITY PLAN ON CIVIL SHEETS FOR CONTINUATION.

5 PROVIDE SINK, FAUCET, HW & CW SUPPLY LINES, AND SHUTOFF VALVES. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

6 PROVIDE WATER CLOSET, CW SUPPLY LINE, AND SHUTOFF VALVE. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

7 PROVIDE URINAL, CW SUPPLY LINE, AND SHUTOFF VALVE. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

8 PROVIDE ELECTRIC WATER COOLER, CW SUPPLY LINE, AND SHUTOFF VALVE. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

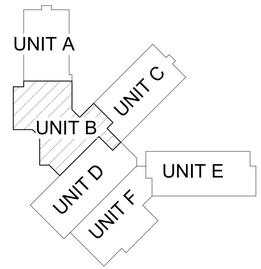
9 PROVIDE SHOWER, MIXING VALVE, TRIM, HW & CW SHUTOFF VALVES WITH ACCESS PANEL. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

10 PROVIDE WALL CLEANOUT AT THE BASE OF THE STACK.

11 ROUTE 3/4" CW WITH ACCESSIBLE SHUTOFF VALVE WITH ACCESS PANEL AS NEEDED. MOUNT 18" AFG.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2 05/18/2026

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

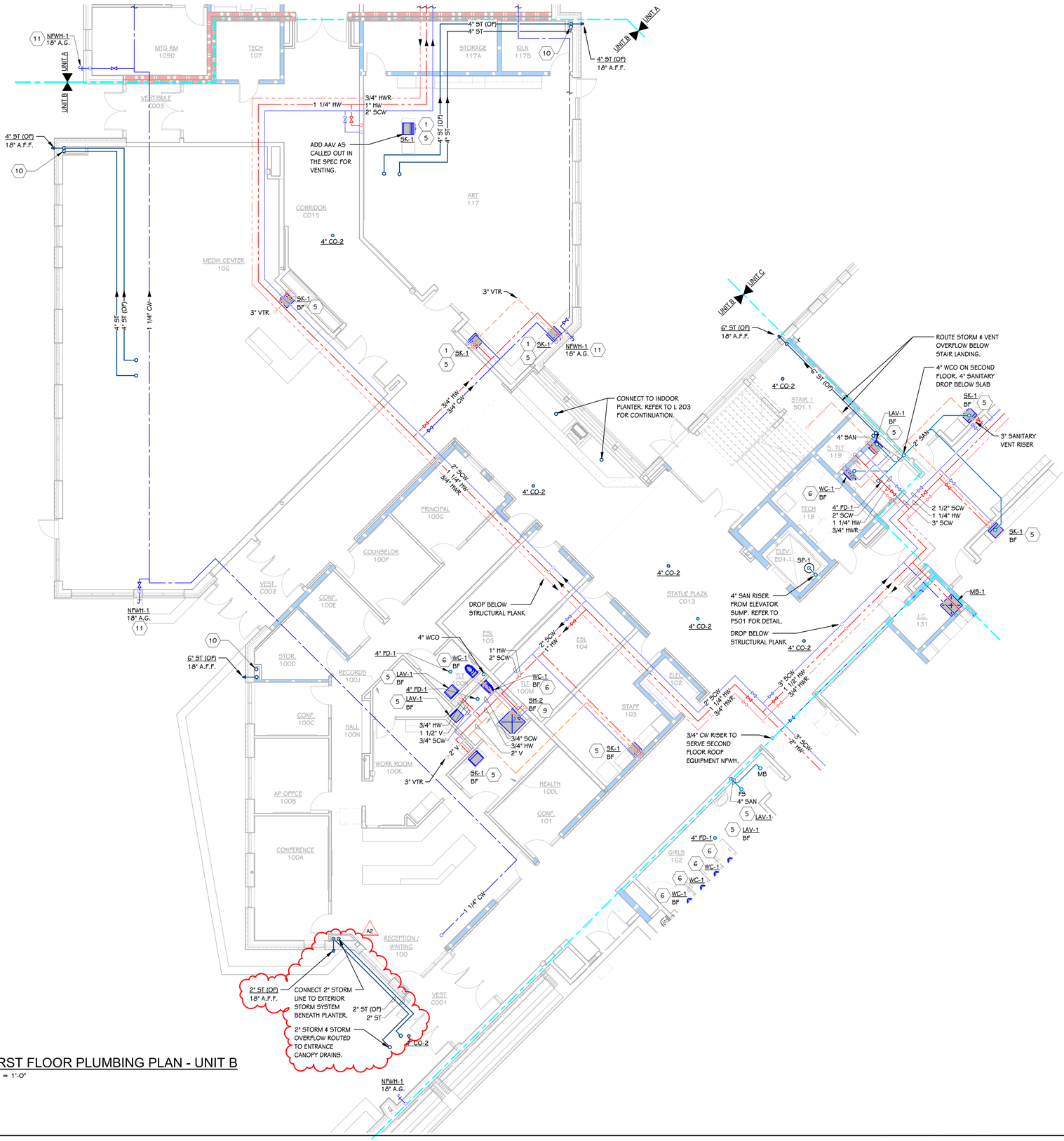
Kalamazoo, Michigan

SHEET TITLE
FOUNDATION PLUMBING PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
P 001B

23-622.000



FIRST FLOOR PLUMBING PLAN - UNIT B

1/8" = 1'-0"

KEYED NOTES - PLUMBING - DOMESTIC

1 ART ROOM SHALL BE EQUIPPED WITH SOLIDS INTERCEPTORS BELOW ALL SINKS. REFER TO SPECIFICATIONS.

2 1 1/4" GAS PIPE RISER TO MAKE UP AIR UNIT.

3 3/4" DROP TO DRAIN WATER TEMPERING KIT. 3/4" DROP TO REVERSE OSMOSIS SYSTEM. 3/4" CW PIPE TO COMBI OVEN SHALL BE PIPED THROUGH RO SYSTEM. REFER TO KITCHEN EQUIPMENT SCHEDULES FOR DETAIL.

4 REFER TO SITE UTILITY PLAN ON CIVIL SHEETS FOR CONTINUATION.

5 PROVIDE SINK, FAUCET, HW & CW SUPPLY LINES, AND SHUTOFF VALVES. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

6 PROVIDE WATER CLOSET, CW SUPPLY LINE, AND SHUTOFF VALVE. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

7 PROVIDE URINAL, CW SUPPLY LINE, AND SHUTOFF VALVE. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

8 PROVIDE ELECTRIC WATER COOLER, CW SUPPLY LINE, AND SHUTOFF VALVE. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

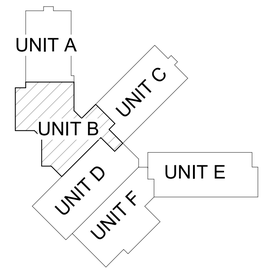
9 PROVIDE SHOWER, MIXING VALVE, TRIM, HW & CW SHUTOFF VALVES WITH ACCESS PANEL. REFER TO MINIMUM SIZE CONNECTION SCHEDULE FOR ROUGH-IN SIZE TO FIXTURE.

10 PROVIDE WALL CLEANOUT AT THE BASE OF THE STACK.

11 ROUTE 3/4" CW WITH ACCESSIBLE SHUTOFF VALVE WITH ACCESS PANEL AS NEEDED. MOUNT 18" AFG.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN

SCALE: NO SCALE

TowerPinkster

Architecture · Engineering · Interiors

TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05/18/2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

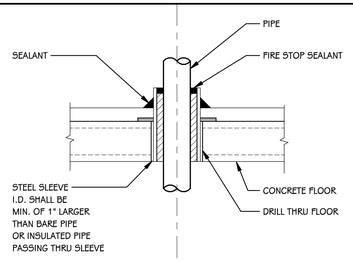
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR PLUMBING PLAN - UNIT B

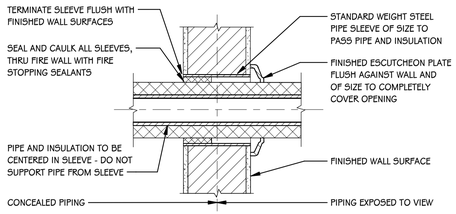
DATE
APRIL 24, 2026

SHEET NUMBER
P 101B

23-622.000



PIPING SLEEVE DETAIL - THRU FLOOR
SCALE: NONE



PIPING SLEEVE DETAIL - INTERIOR WALL
SCALE: NONE

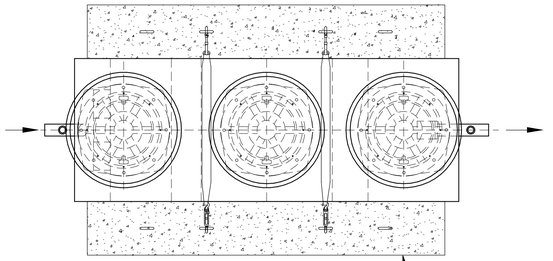
PLUMBING FIXTURE SCHEDULE

TAG	BASIS-OF-DESIGN	TYPE	FINISH	ADA	TS	ACCESSORY	REMARKS
WC-1	AMERICAN STANDARD - "MADERA"	FLOOR, BACK OUTLET	WHITE	REFER TO DWG	TS-1	FV-1	
UR-1	AMERICAN STANDARD - "WASHBROOK"	WALL MOUNTED, TOP SPUD	WHITE	REFER TO DWG	-	-	
LAV-1	AMERICAN STANDARD - "LUCERNE"	WALL MOUNTED	WHITE	REFER TO DWG	-	F-1	PROVIDE LAV SHIELD MODEL #2018
SK-1	ELKAY - LRAD1919553	SINGLE HOLE, MULTI-STATION	LUSTROUS SATIN	REFER TO DWG	-	F-2	
SH-1	AMERICAN STANDARD - "FLOWISE"	SHOWER KIT W/ SLIDE BAR	WHITE	REFER TO DWG	-	-	
MB-1	MUSTEE 63M	SHOWER KIT W/ SLIDE BAR	WHITE	REFER TO DWG	-	F-3	
EWC-1	ELKAY - LZWS-LRPBM28K	BI-LEVEL W/ BOTTLE FILLER	SILVER	YES	-	-	

PLUMBING FIXTURE SCHEDULE NOTES
1. REFER TO ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE EXACT LOCATIONS AND MOUNTING HEIGHTS.
2. FINAL COLORS AND FINISHES BY ARCHITECT.
3. ALL SINKS SHALL HAVE CLEANOUT PLUGS.
4. INSULATION, P-TRAPS, SUPPLIES, AND INSTALLATION TO CONFORM TO ADA REQUIREMENTS.
5. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, PIPING SUPPORTS, ETC. TO INSTALL EACH PLUMBING FIXTURE PER MANUFACTURER INSTALLATION INSTRUCTIONS AND TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING P-TRAPS, MINIMUM 18 GAUGE TUBULAR BRASS STRAINER ASSEMBLY, WALL ESCUTCHEONS, QUARTER TURN COMMERCIAL GRADE BALL ANGLE STOPS WITH SUPPLY TUBING AT EACH PLUMBING FIXTURE AS APPLICABLE. ALL PIECES TO BE CHROME PLATED OR STAINLESS STEEL.
6. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
7. PROVIDE CONCEALED ARM AND CHAIR CARRIERS FOR ALL WALL HUNG FIXTURES, BASIS OF DESIGN JAY R. SMITH SERIES 0710-Z (WALL BRACKETS ARE NOT ACCEPTABLE).
8. FIXTURES WITH TEMPERED WATER CONTROL VALVES SHALL MEET ASSE 1070.
9. INSTALL 1" THICK INSULATION ON ALL DOMESTIC HOT, COLD, AND HOT WATER RETURN BRANCH PIPING.

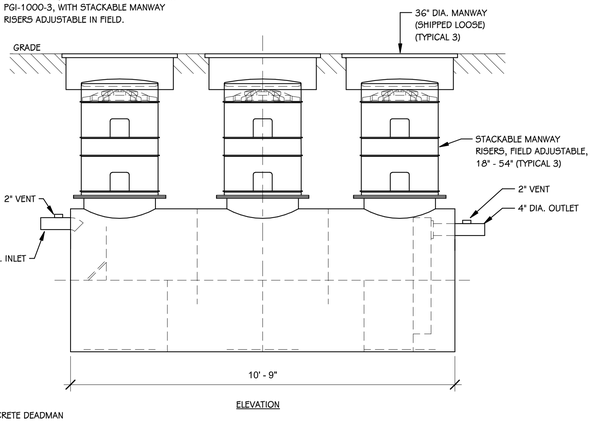
PLUMBING FIXTURE ACCESSORY SCHEDULE

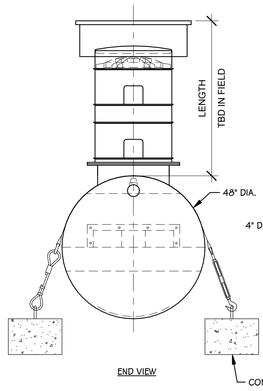
TAG	BASIS-OF-DESIGN	TYPE	FINISH	GPM	TMV	OPERATION	REMARKS
F-1	CHICAGO 802-VE2805-665ABCP	DECK MOUNTED, 2-HANDLE, PUSH HANDLE	CHROME	0.50	YES	MANUAL	
F-2	ELKAY "LK394A"	DECK MOUNTED, GOOSENECK, LAMINAR FLOW	CHROME	1.5	YES	MANUAL	
F-3	CHICAGO 897-RCF	WALL MOUNTED, ADJUSTABLE ARMS	CHROME	1.5	YES	AUTOMATIC	
FV-1	ZURN Z6000AV-HET	REAR SPUD,1.28 GAL	CHROME	1.28	-	AUTOMATIC	
TS-1	CENTOCO 500STSCC	ELONGATED, CLOSED BACK, OPEN FRONT	WHITE	-	-	MANUAL	



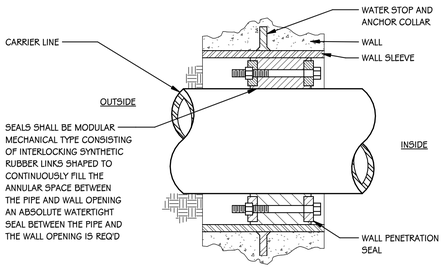
PLAN VIEW

GI-1
1,000 GALLON TRIPLE BASIN GREASE INTERCEPTOR, BASED ON "HIGHLAND TANK" PGI-1000-3, WITH STACKABLE MANWAY RISERS ADJUSTABLE IN FIELD.

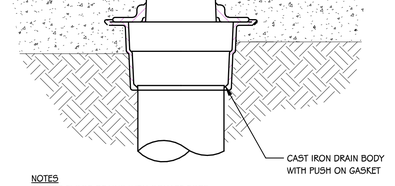




GREASE INTERCEPTOR DETAIL (GI-1) 1,000 GALLON
SCALE: NONE

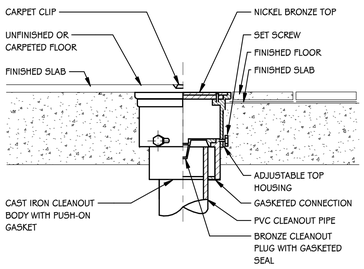


PIPING SLEEVE DETAIL - HORIZONTAL UNDERGROUND
SCALE: NONE

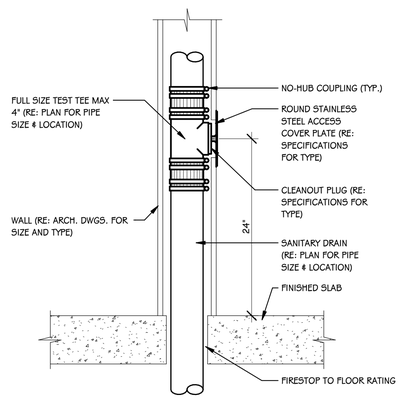


NOTES
1. FOR FLOOR DRAINS WITH SQUARE TOPS.
   A. WHERE TILE HAS A DIMENSION LARGER THAN 2", MOUNT THE FLOOR DRAIN FLUSH WITH THE FINISHED FLOOR. DO NOT SLOPE THE FLOOR TO THE DRAIN.
   B. ALIGN FLOOR DRAIN TOPS WITH TILE FLOORS.
2. WHERE EDGE OF FLOOR DRAIN IS WITHIN 24" OF WALL, ADJUST SLOPE TO SUIT INSTALLATION.

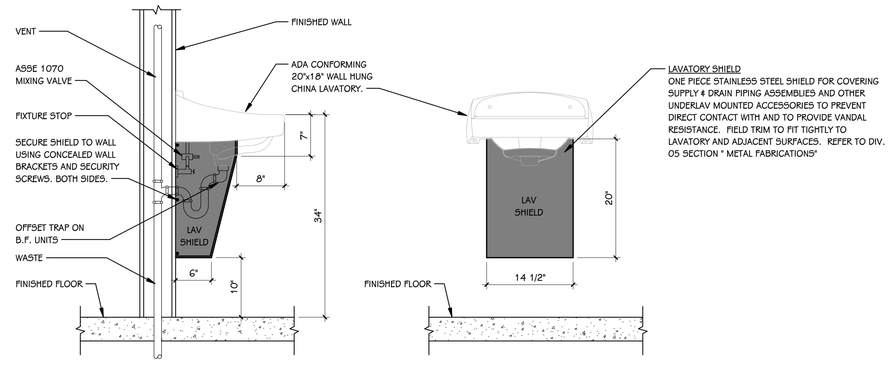
FINISH FLOOR DRAIN DETAIL
SCALE: NONE



FLOOR CLEANOUT DETAIL
SCALE: NONE



WALL CLEANOUT DETAIL
SCALE: NONE



SIDE VIEW **FRONT VIEW**

TYPICAL STAINLESS STEEL LAVATORY SHIELD DETAIL
SCALE: NONE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05/18/2026
ISSUED FOR	DATE

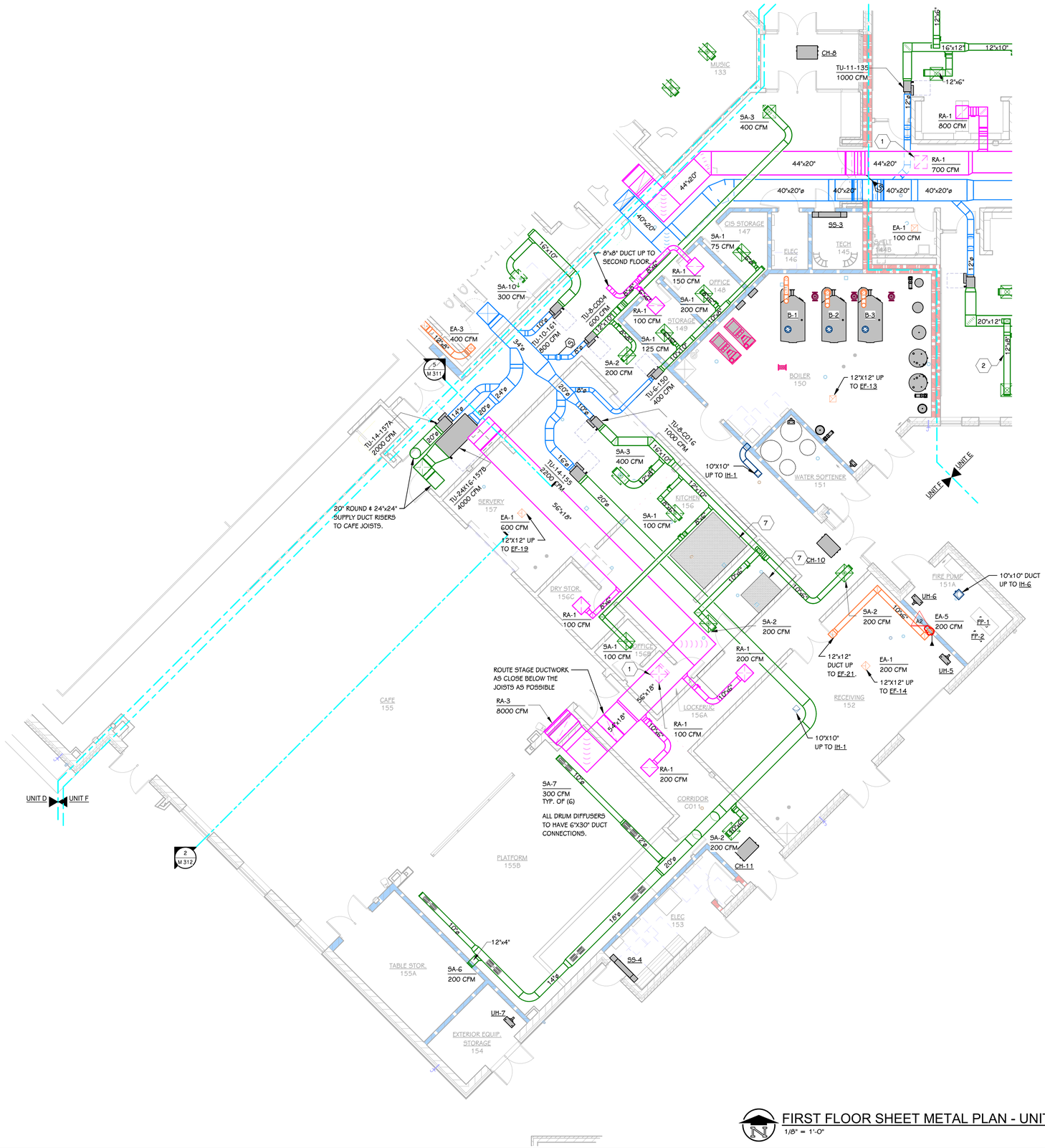
PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS
Kalamazoo, Michigan

SHEET TITLE
PLUMBING SCHEDULES AND DETAILS

DATE
APRIL 24, 2026

SHEET NUMBER
P 502
23-622.000



FIRST FLOOR SHEET METAL PLAN - UNIT F
1/8" = 1'-0"

KEYED NOTES - MECHANICAL - SHEET METAL

1 24"X24" RA DUCT WITH BALANCE DAMPER DOWN TO RA-1.

2 ROUTE DUCTWORK IN BETWEEN STRUCTURAL JOISTS.

3 EXPOSED DUCTWORK SHALL BE PRIMED FOR PAINT. REFER TO INTERIORS SHEETS.

4 ROUTE DUCTWORK AND INSULATION BELOW 12 FEET TO AVOID STRUCTURAL BOND BEAM.

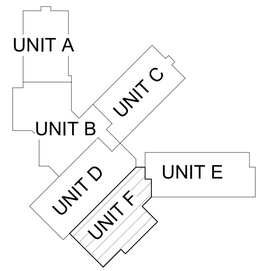
5 DUCTWORK TO BE ROUTED AS HIGH AS POSSIBLE BELOW STRUCTURAL JOISTS. REFER TO MECHANICAL SECTIONS.

6 DUCTWORK TO BE ROUTED THROUGH STRUCTURAL JOISTS. REFER TO MECHANICAL SECTIONS.

7 KITCHEN EQUIPMENT EXTENDS INTO PLENUM. ROUTE DUCTWORK TO AVOID SHADED REGION.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026

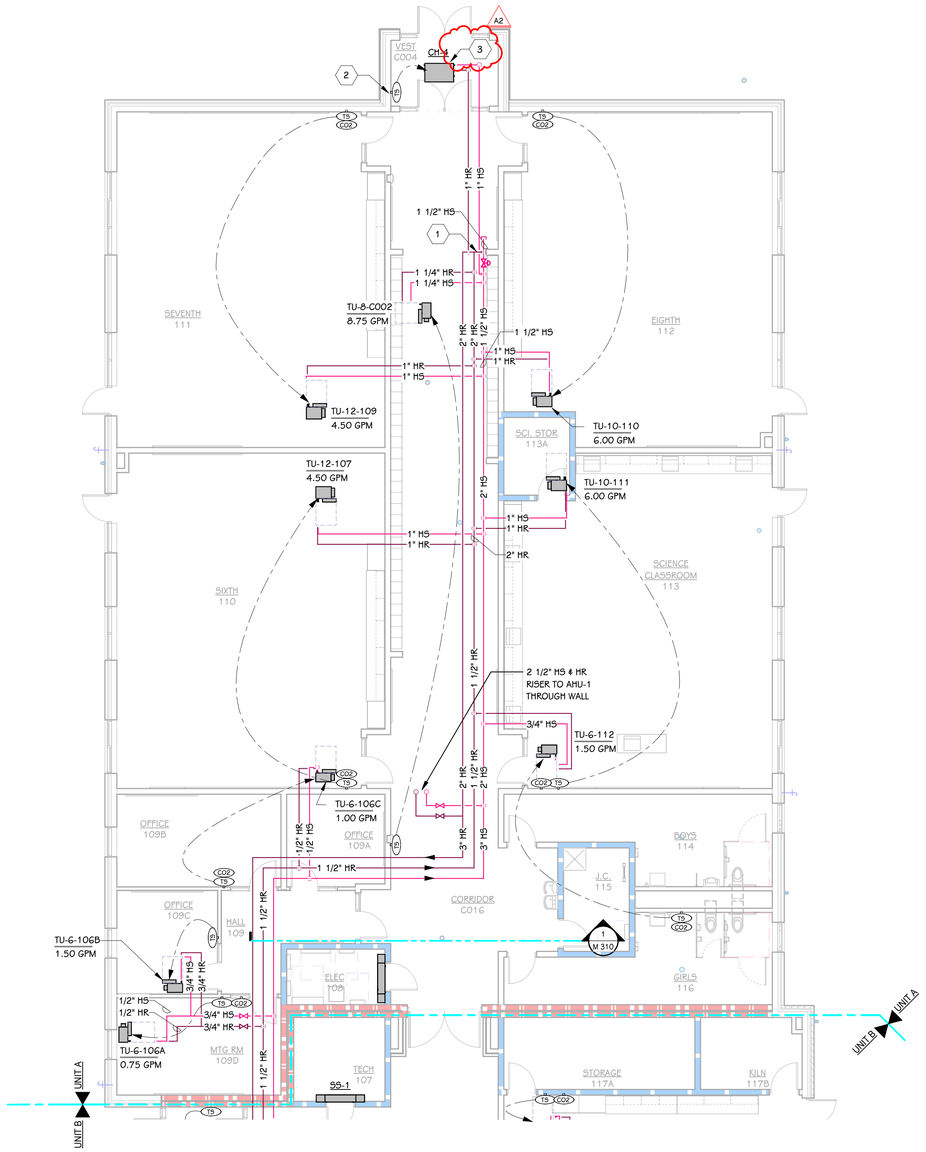
PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR SHEET METAL PLAN - UNIT F

DATE
APRIL 24, 2026

SHEET NUMBER
M 101F
23-622.000



FIRST FLOOR HVAC PIPING PLAN - UNIT A

1/8" = 1'-0"

KEYED NOTES - MECHANICAL - HVAC PIPING

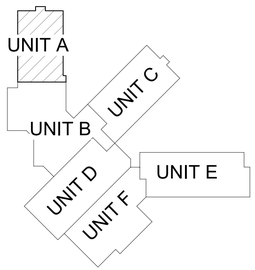
1 REFER TO MINIMUM FLOW & TEMP. PIC VALVE DETAIL.

2 PROVIDE RIGID INSULATION BEHIND SENSOR BACKPLATE TO PREVENT EXTERNAL INFLUENCE.

3 ADJUST MECHANICAL EQUIPMENT TO AVOID LIGHTING FIXTURES. A2

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN

SCALE: NO SCALE

TowerPinkster

Architecture · Engineering · Interiors

TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

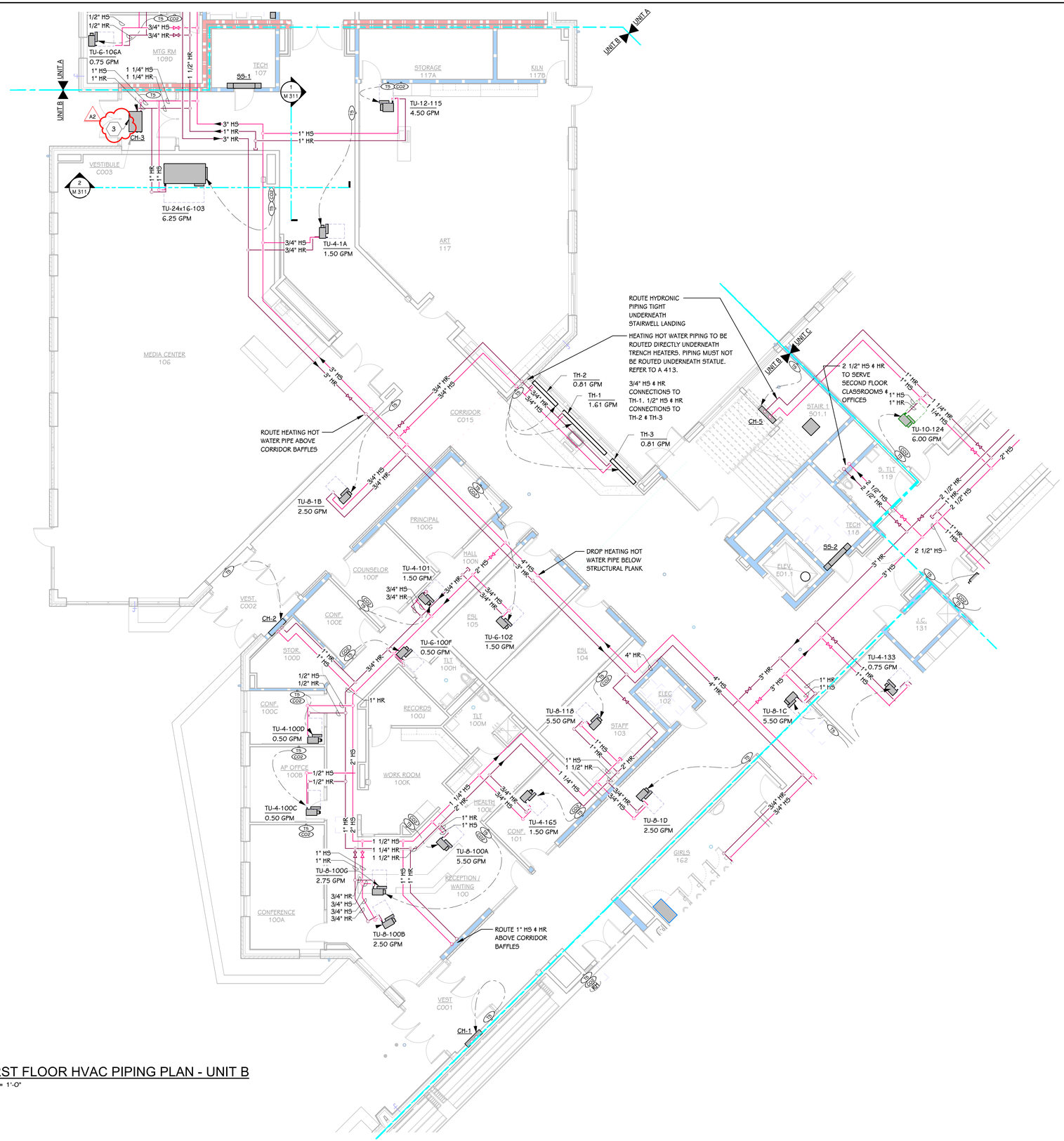
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR HVAC PIPING PLAN - UNIT A

DATE
APRIL 24, 2026

SHEET NUMBER
M 201A

23-622.000



FIRST FLOOR HVAC PIPING PLAN - UNIT B

1/8" = 1'-0"

KEYED NOTES - MECHANICAL - HVAC PIPING

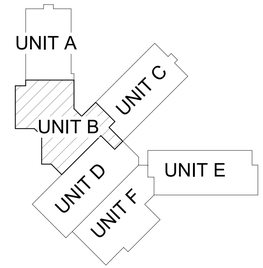
1 REFER TO MINIMUM FLOW & TEMP. PIC VALVE DETAIL.

2 PROVIDE RIGID INSULATION BEHIND SENSOR BACKPLATE TO PREVENT EXTERNAL INFLUENCE.

3 ADJUST MECHANICAL EQUIPMENT TO AVOID LIGHTING FIXTURES. A2

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN

SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

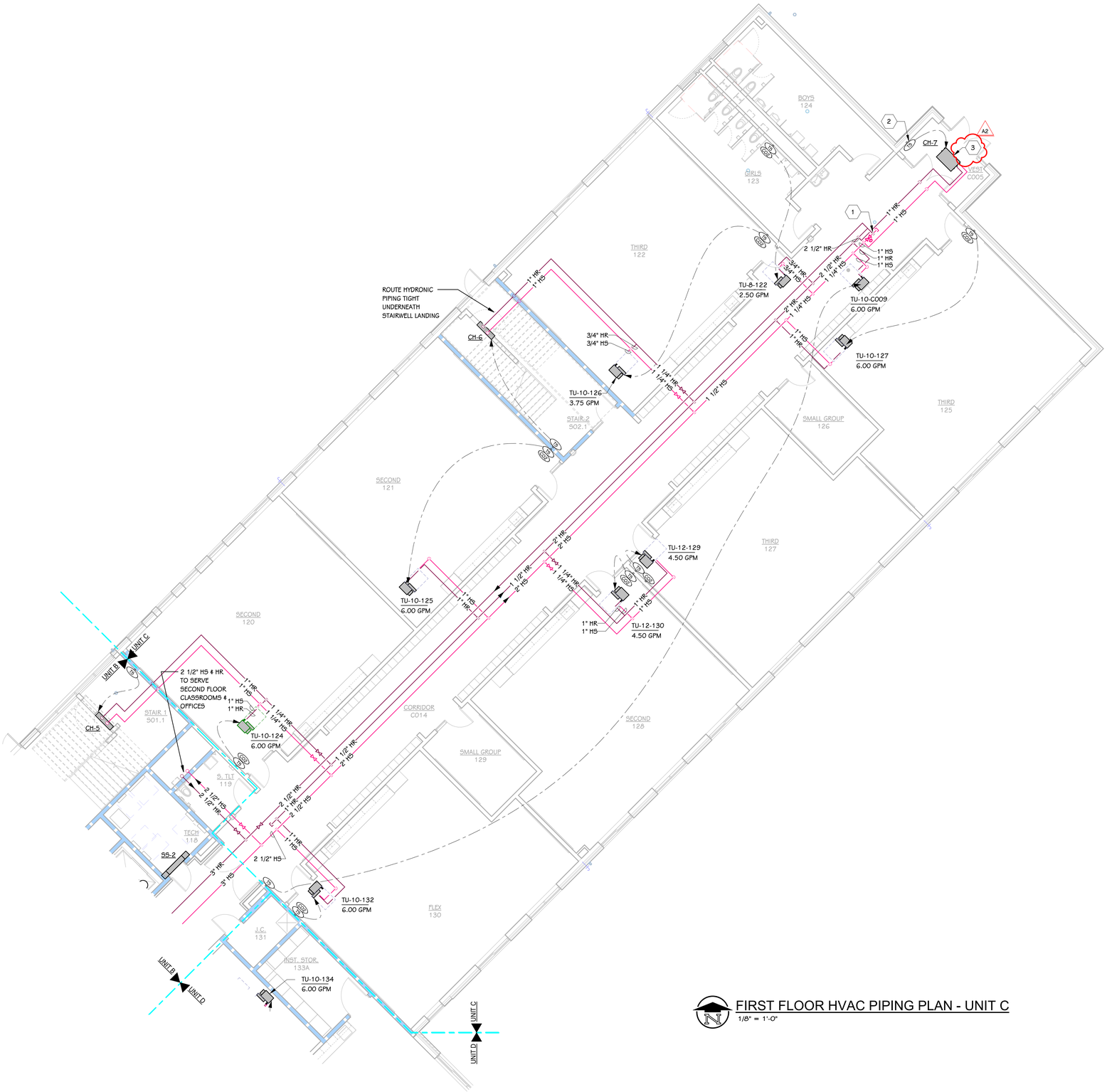
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR HVAC PIPING PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
M 201B

23-622.000



FIRST FLOOR HVAC PIPING PLAN - UNIT C
1/8" = 1'-0"

KEYED NOTES - MECHANICAL - HVAC PIPING

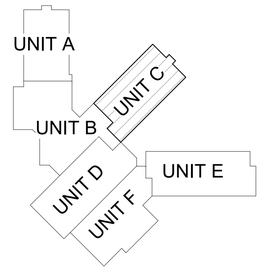
1 REFER TO MINIMUM FLOW & TEMP. PIC VALVE DETAIL.

2 PROVIDE RIGID INSULATION BEHIND SENSOR BACKPLATE TO PREVENT EXTERNAL INFLUENCE.

3 ADJUST MECHANICAL EQUIPMENT TO AVOID LIGHTING FIXTURES. A2

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026

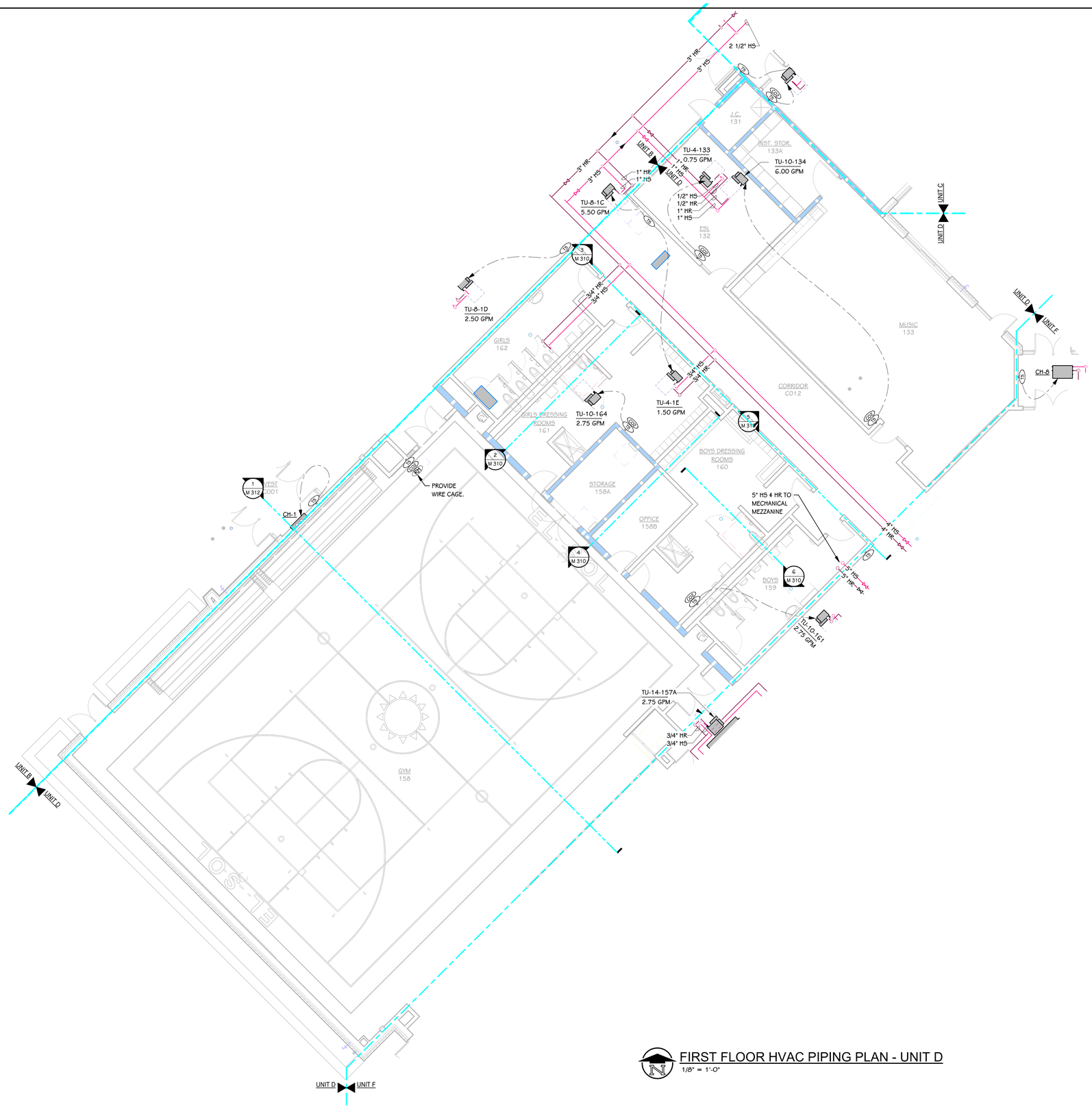
PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR HVAC PIPING PLAN - UNIT C

DATE
APRIL 24, 2026

SHEET NUMBER
M 201C
23-622.000



FIRST FLOOR HVAC PIPING PLAN - UNIT D

1/8" = 1'-0"

KEYED NOTES - MECHANICAL - HVAC PIPING

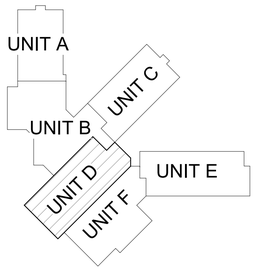
1 REFER TO MINIMUM FLOW & TEMP. PIC VALVE DETAIL.

2 PROVIDE RIGID INSULATION BEHIND SENSOR BACKPLATE TO PREVENT EXTERNAL INFLUENCE.

3 ADJUST MECHANICAL EQUIPMENT TO AVOID LIGHTING FIXTURES. (A2)

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN

SCALE: NO SCALE

TowerPinkster

Architecture · Engineering · Interiors

TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

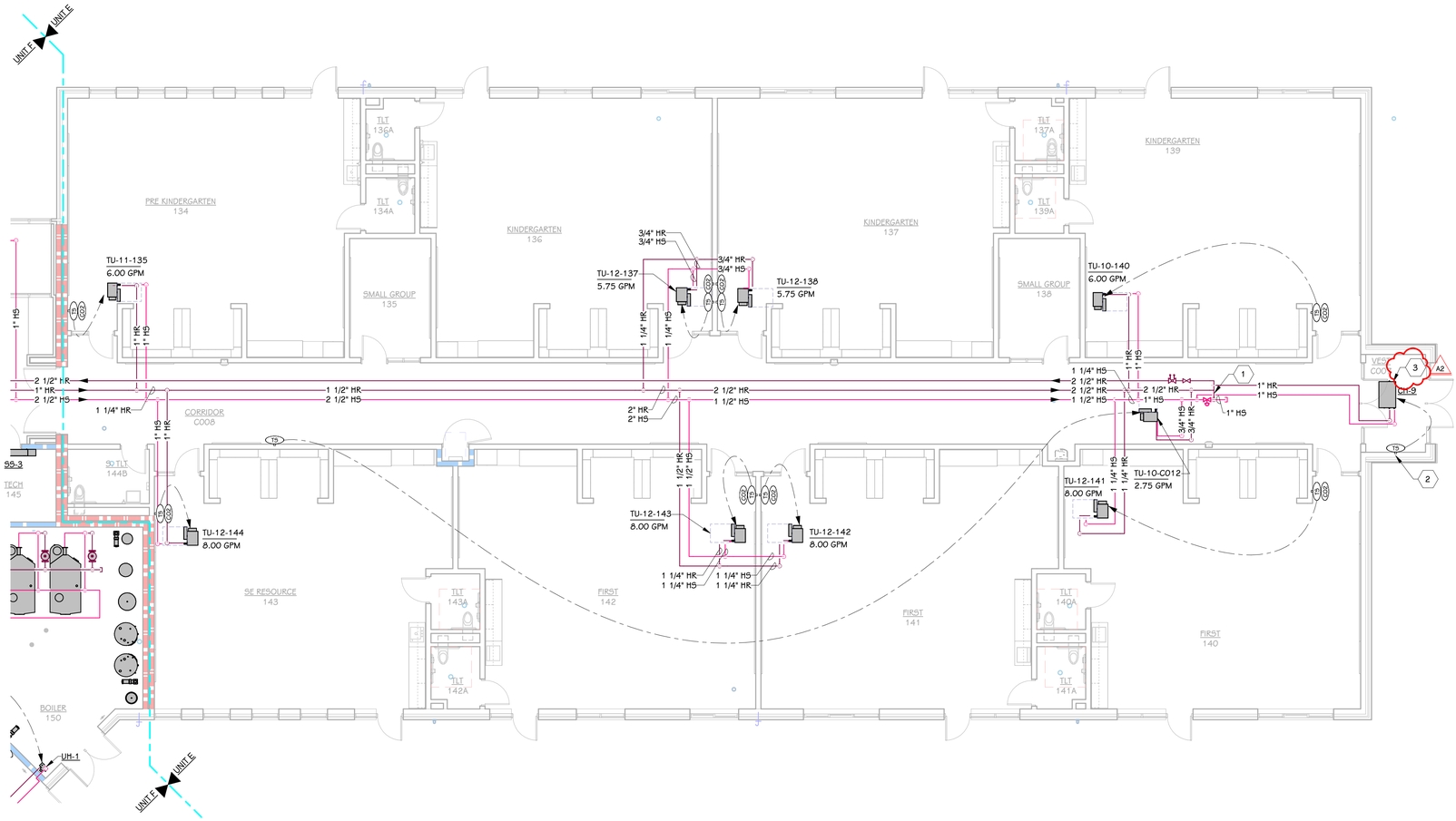
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR HVAC PIPING PLAN - UNIT D

DATE
APRIL 24, 2026

SHEET NUMBER
M 201D

23-622.000



FIRST FLOOR HVAC PIPING PLAN - UNIT E

1/8" = 1'-0"

KEYED NOTES - MECHANICAL - HVAC PIPING

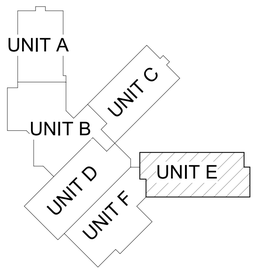
1 REFER TO MINIMUM FLOW & TEMP. PIC VALVE DETAIL.

2 PROVIDE RIGID INSULATION BEHIND SENSOR BACKPLATE TO PREVENT EXTERNAL INFLUENCE.

3 ADJUST MECHANICAL EQUIPMENT TO AVOID LIGHTING FIXTURES.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026
ISSUED FOR	DATE

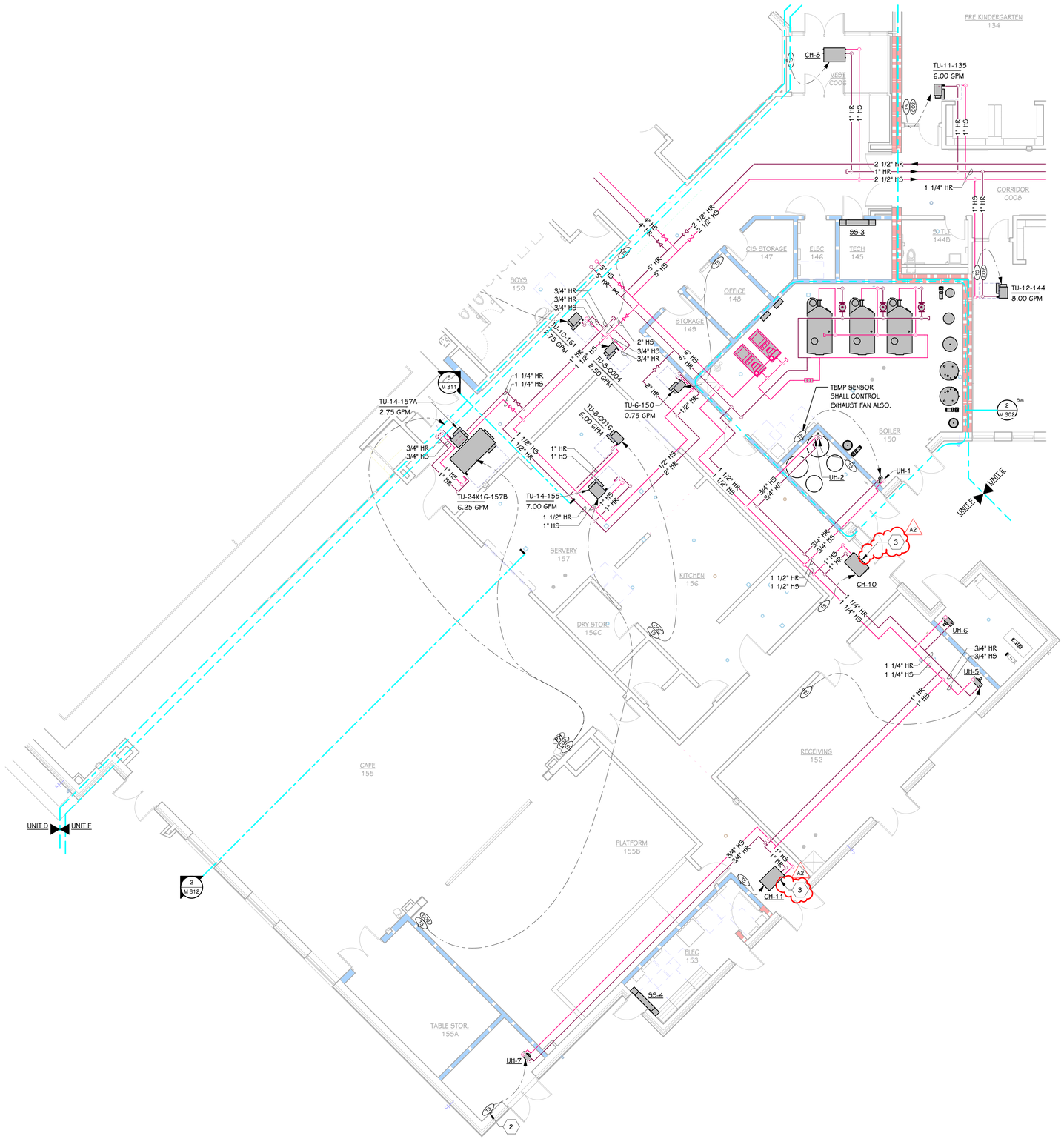
PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR HVAC PIPING PLAN - UNIT E

DATE
APRIL 24, 2026

SHEET NUMBER
M 201E
23-622.000



FIRST FLOOR HVAC PIPING PLAN - UNIT F
1/8" = 1'-0"

KEYED NOTES - MECHANICAL - HVAC PIPING

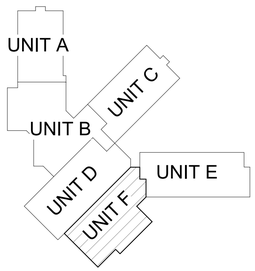
1 REFER TO MINIMUM FLOW & TEMP. PIC VALVE DETAIL.

2 PROVIDE RIGID INSULATION BEHIND SENSOR BACKPLATE TO PREVENT EXTERNAL INFLUENCE.

A2 3 ADJUST MECHANICAL EQUIPMENT TO AVOID LIGHTING FIXTURES.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

EL SOL SCHOOL



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026

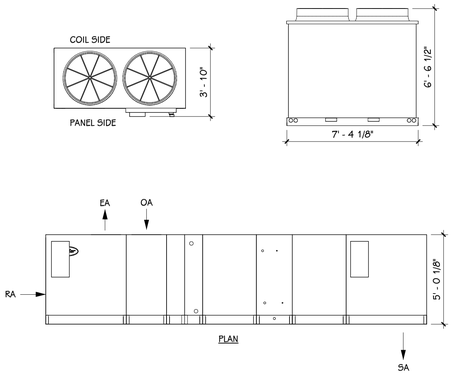
PROJECT TITLE
NEW EL SOL SCHOOL

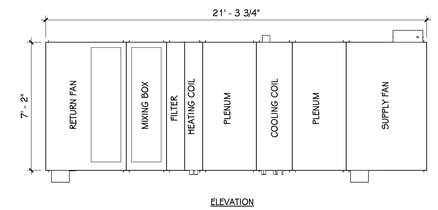
OWNER
KALAMAZOO PUBLIC SCHOOLS
Kalamazoo, Michigan

SHEET TITLE
FIRST FLOOR HVAC PIPING PLAN - UNIT F

DATE
APRIL 24, 2026

SHEET NUMBER
M 201F
23-622.000





AHU-1 (MIDDLE SCHOOL)

1/4" = 1'-0"

AREA SERVED: MIDDLE SCHOOL CLASSROOMS, MIDDLE SCHOOL OFFICES, ART ROOM, MEDIA CENTER
TYPE: INDOOR MODULAR, MULTIZONE ZONE VARIABLE VOLUME, 11,800 CFM, BASED ON CARRIER
OUTSIDE AIR: 1,600 - 3,400 CFM
WEIGHT: 4680 LBS
UNIT MOUNTING: 4" HOUSEKEEPING PAD

DISCHARGE / INLET SOUND POWER LEVELS (db)								
	63 HZ	125 HZ	250 HZ	500 HZ	1 kHZ	2 kHZ	4 kHZ	8 kHZ
SUPPLY	79	88	93	90	94	90	89	87
RETURN	73	86	89	84	81	82	94	83
RADIATED	70	82	86	81	78	77	88	80

FILTERS: 2" PLEATED 90% EFFICIENCY MERV-13, CLOGGED FILTER SWITCH AND MAGNEHELIC GAUGE.

DX COOLING COIL (28ME):
CAPACITY: 396.90 TMBH, 328.11 SMBH
ENTERING AIR TEMP (DB/WB): 80.70 / 65.40°F
LEAVING AIR TEMP (DB/WB): 55.27 / 54.24°F
6 ROWS, 11 FPI MAX, 24.41 FT² FA, 483.4 FPM FV.

ACCU-1
TYPE: 30 TON NOMINAL DIGITAL SCROLL CONDENSING UNIT BASED ON "CARRIER" - MODEL 38RC
SERVES: AHU-1
OPERATING WEIGHT: 1310 LBS
REFRIGERANT: R-32
CAPACITY: 383.64 MBH @ 45°F SUCTION, 95°F DB
ELECTRICAL: 460V/3PH/60HZ, 65.5 MCA, 90 MOCP, 65kA SCCR
EER: 11.27 @ AHRI CONDITIONS
FEATURES: NON-FUSED DISCONNECT, BACnet IP/ MSTP

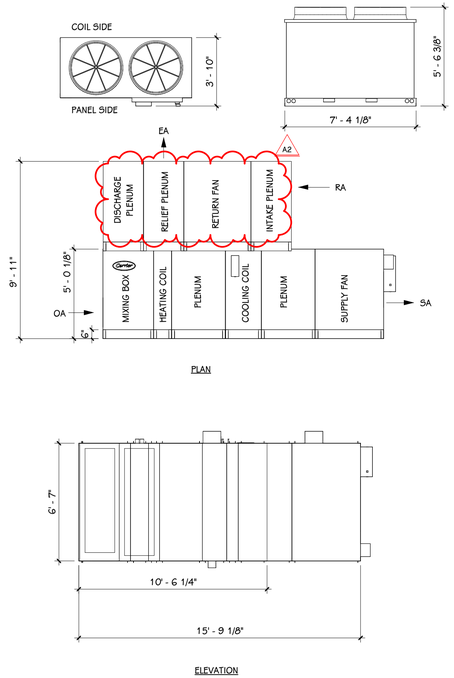
HEATING COIL:
CAPACITY: 1,009.27 TMBH
ENTERING / LEAVING FLUID TEMP: 130 / 96.46°F
ENTERING / LEAVING AIR TEMP (DB): -10 / 57.54°F
FLOW RATE / FLUID PRESSURE DROP: 61.0 GPM / 3.3'
2 ROWS, 24.41 FT² FA, 483.4 FPM FV

SUPPLY FAN: 11,800 CFM, (2) FAN, 12.92 HP TOTAL , 11.2 BHP TOTAL, 1.50" ESP, 2524 RPM.

RETURN FAN: 11,800 CFM, (2) FAN, 4.62 HP TOTAL, 3.5 BHP TOTAL, 0.82" ESP, 1954 RPM.

ELECTRICAL: 460V/3PH/60HZ, 32.8 FLA, 41.0 MCA, 50 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

OPTIONS: PROVIDE WITH MINIMUM 3 YEAR MANUFACTURER'S WARRANTY, DUCT DETECTORS BY DIV. 26, CONVENIENCE RECEPTACLE, & BI-POLAR IONIZION.



AHU-2 (CENTRAL)

1/4" = 1'-0"

AREA SERVED: FIRST & SECOND FLOOR MAIN OFFICES, MUSIC, FLEX, & CENTRAL CORRIDOR
TYPE: INDOOR MODULAR, MULTIZONE ZONE VARIABLE VOLUME, 9,800 CFM, BASED ON CARRIER
OUTSIDE AIR: 1,000 - 1,800 CFM
WEIGHT: 4,975 LBS
UNIT MOUNTING: 4" HOUSEKEEPING PAD

DISCHARGE / INLET SOUND POWER LEVELS (db)								
	63 HZ	125 HZ	250 HZ	500 HZ	1 kHZ	2 kHZ	4 kHZ	8 kHZ
SUPPLY	82	87	90	89	87	88	84	80
RETURN	83	80	93	88	84	80	80	86
RADIATED	75	80	83	79	74	73	77	72

FILTERS: 2" PLEATED 90% EFFICIENCY MERV-13, CLOGGED FILTER SWITCH AND MAGNEHELIC GAUGE.

DX COOLING COIL (28ME):
CAPACITY: 275.78 TMBH, 245.64 SMBH
ENTERING AIR TEMP (DB/WB): 78.50 / 64.10°F
LEAVING AIR TEMP (DB/WB): 55.58 / 54.66°F
6 ROWS, 11 FPI MAX, 21.44 FT² FA, 457.1 FPM FV.

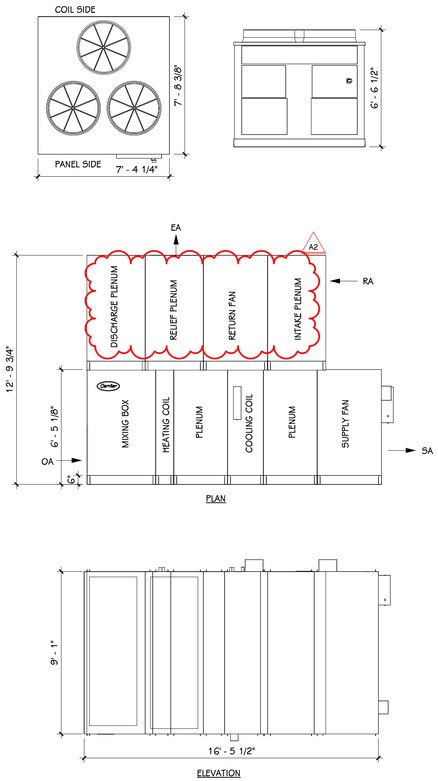
ACCU-2
TYPE: 25 TON NOMINAL DIGITAL SCROLL CONDENSING UNIT BASED ON "CARRIER" - MODEL 38RC
SERVES: AHU-2
OPERATING WEIGHT: 1149 LBS
REFRIGERANT: R-32
CAPACITY: 257.9 MBH @ 45°F SUCTION, 95°F DB
ELECTRICAL: 460V/3PH/60HZ, 44.3 MCA, 60 MOCP, 65kA SCCR
EER: 11.79 @ AHRI CONDITIONS
FEATURES: NON-FUSED DISCONNECT, BACnet IP/ MSTP

HEATING COIL:
CAPACITY: 945 TMBH
ENTERING / LEAVING FLUID TEMP: 130 / 100°F
ENTERING / LEAVING AIR TEMP (DB): -10 / 64.93°F
FLOW RATE / FLUID PRESSURE DROP: 62.6 GPM / 13.6'
2 ROWS, 21.44 FT² FA, 457.1 FPM FV

SUPPLY FAN: 9,800 CFM, (2) FAN, 11.15 HP TOTAL, 9.8 BHP TOTAL, 2.00" ESP, 2,352 RPM.
460V/3PH/60HZ, 14.4 FLA, 18.0 MCA, 25 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

RETURN FAN: 9,800 CFM, (2) FAN, 8.16 HP TOTAL, 6.7 BHP TOTAL, 2.51" ESP, 2176 RPM.
460V/3PH/60HZ, 14.6 FLA, 16.4 MCA, 20 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR. A2

OPTIONS: PROVIDE WITH MINIMUM 3 YEAR MANUFACTURER'S WARRANTY, DUCT DETECTORS BY DIV. 26, CONVENIENCE RECEPTACLE, & BI-POLAR IONIZION.



AHU-3 (2ND-5TH)

1/4" = 1'-0"

AREA SERVED: SECOND GRADE AND FIFTH GRADE CLASSROOM BLOCK, SECOND FLOOR STUDENT COMMONS
TYPE: INDOOR MODULAR, MULTIZONE ZONE VARIABLE VOLUME, 19,500 CFM, BASED ON CARRIER
OUTSIDE AIR: 2,400 - 4,200 CFM
WEIGHT: 8,750 LBS
UNIT MOUNTING: 4" HOUSEKEEPING PAD

DISCHARGE / INLET SOUND POWER LEVELS (db)								
	63 HZ	125 HZ	250 HZ	500 HZ	1 kHZ	2 kHZ	4 kHZ	8 kHZ
SUPPLY	81	86	94	91	95	92	88	84
RETURN	78	83	77	72	71	71	68	60
RADIATED	72	79	87	81	78	78	81	76

A2

FILTERS: 2" PLEATED 90% EFFICIENCY MERV-13, CLOGGED FILTER SWITCH AND MAGNEHELIC GAUGE.

DX COOLING COIL (28ME):
CAPACITY: 634.61 TMBH, 523.41 SMBH
ENTERING AIR TEMP (DB/WB): 79.20 / 64.60°F
LEAVING AIR TEMP (DB/WB): 54.65 / 53.65°F
6 ROWS, 11 FPI MAX, 40.00 FT² FA, 487.5 FPM FV.

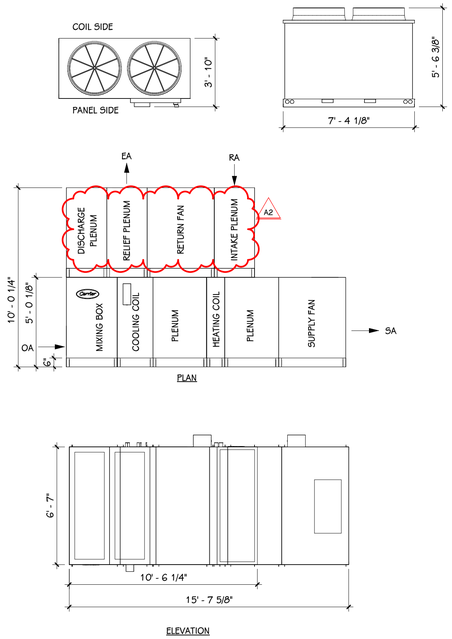
ACCU-3
TYPE: 40 TON NOMINAL DIGITAL SCROLL CONDENSING UNIT BASED ON "CARRIER" - MODEL 38RC
SERVES: AHU-3
OPERATING WEIGHT: 2053 LBS
REFRIGERANT: R-32
CAPACITY: 497.8 MBH @ 45°F SUCTION, 95°F DB
ELECTRICAL: 460V/3PH/60HZ, 76.5 MCA, 90 MOCP, 65kA SCCR
EER: 12.20 @ AHRI CONDITIONS
FEATURES: NON-FUSED DISCONNECT, BACnet IP/ MSTP

HEATING COIL:
CAPACITY: 1,780.4 TMBH
ENTERING / LEAVING FLUID TEMP: 130 / 100.31°F
ENTERING / LEAVING AIR TEMP (DB): -10 / 61.79°F
FLOW RATE / FLUID PRESSURE DROP: 119.9 GPM / 7.9'
2 ROWS, 40.00 FT² FA, 487.5 FPM FV

SUPPLY FAN: 19,500 CFM, (4) FAN, 23.4 HP TOTAL, 20.5 BHP TOTAL, 2.10" ESP, 2,421 RPM.
460V/3PH/60HZ, 37.0 FLA, 46.3 MCA, 70 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR. A2

RETURN FAN: 15,000 CFM, (6) FAN, 5.85 HP TOTAL, 4.8 BHP TOTAL, 1.46" ESP, 1,276 RPM.
460V/3PH/60HZ, 30.6 FLA, 31.9 MCA, 35 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

OPTIONS: PROVIDE WITH MINIMUM 3 YEAR MANUFACTURER'S WARRANTY, DUCT DETECTORS BY DIV. 26, CONVENIENCE RECEPTACLE, & BI-POLAR IONIZION.



AHU-4 (GYMNASIUM)

1/4" = 1'-0"

AREA SERVED: GYMNASIUM & GYMNASIUM STORAGE
TYPE: INDOOR MODULAR, SINGLE-ZONE VARIABLE VOLUME, 9,000 CFM, BASED ON CARRIER
OUTSIDE AIR: 400 - 2900 CFM
WEIGHT: 4,924 LBS
UNIT MOUNTING: 4" HOUSEKEEPING PAD

DISCHARGE / INLET SOUND POWER LEVELS (db)								
	63 HZ	125 HZ	250 HZ	500 HZ	1 kHZ	2 kHZ	4 kHZ	8 kHZ
SUPPLY	81	87	86	82	84	83	81	77
RETURN	74	83	81	78	74	75	82	64
RADIATED	74	80	79	73	71	70	74	67

FILTERS: 2" PLEATED 90% EFFICIENCY MERV-13, CLOGGED FILTER SWITCH AND MAGNEHELIC GAUGE.

DX COOLING COIL (28ME):
CAPACITY: 283.16 TMBH, 247.91 SMBH
ENTERING AIR TEMP (DB/WB): 81.30 / 65.80°F
LEAVING AIR TEMP (DB/WB): 56.11 / 55.53°F
6 ROWS, 13 FPI MAX, 21.44 FT² FA, 419.8 FPM FV.

ACCU-4
TYPE: 25 TON NOMINAL DIGITAL SCROLL CONDENSING UNIT BASED ON "CARRIER" - MODEL 38RC
SERVES: AHU-4
OPERATING WEIGHT: 1174 LBS
REFRIGERANT: R-32
CAPACITY: 257.9 MBH @ 45°F SUCTION, 95°F DB
ELECTRICAL: 460V/3PH/60HZ, 44.3 MCA, 60 MOCP, 65kA SCCR
EER: 11.79 @ AHRI CONDITIONS
FEATURES: NON-FUSED DISCONNECT, BACnet IP/ MSTP

HEATING COIL:
CAPACITY: 820.45 TMBH
ENTERING / LEAVING FLUID TEMP: 130 / 100°F
ENTERING / LEAVING AIR TEMP (DB): -10 / 61.98°F
FLOW RATE / FLUID PRESSURE DROP: 55.3 GPM / 2.6'
2 ROWS, 21.44 FT² FA, 419.8 FPM FV

SUPPLY FAN: 9,000 CFM, (2) FAN, 7.07 HP TOTAL, 6.2 BHP TOTAL, 0.60" ESP, 2,016 RPM.
460V/3PH/60HZ, 10.2 FLA, 11.5 MCA, 15 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

RETURN FAN: 9,000 CFM, (2) FAN, 2.72 HP TOTAL, 2.3 BHP TOTAL, 0.80" ESP, 1,560 RPM.
460V/3PH/60HZ, 10.2 FLA, 11.5 MCA, 15 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

OPTIONS: PROVIDE WITH MINIMUM 3 YEAR MANUFACTURER'S WARRANTY, DUCT DETECTORS BY DIV. 26, CONVENIENCE RECEPTACLE, & BI-POLAR IONIZION.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026

PROJECT TITLE
NEW EL SOL SCHOOL

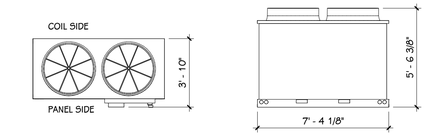
OWNER
KALAMAZOO PUBLIC SCHOOLS

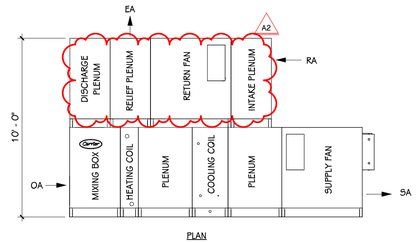
Kalamazoo, Michigan

SHEET TITLE
MECHANICAL SCHEDULES

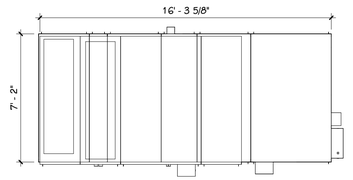
DATE
APRIL 24, 2026

SHEET NUMBER
M 501
23-622.000





PLAN



ELEVATION

ELEVATION

AHU-5 (PRE-FIRST)

1/4" = 1'-0"

AREA SERVED: MIDDLE SCHOOL CLASSROOMS, MIDDLE SCHOOL OFFICES, ART ROOM, MEDIA CENTER
TYPE: INDOOR MODULAR, MULTIZONE ZONE VARIABLE VOLUME, 10,600 CFM, BASED ON CARRIER
OUTSIDE AIR: 1,400 - 2,800 CFM
WEIGHT: 5,265 LBS
UNIT MOUNTING: 4" HOUSEKEEPING PAD

DISCHARGE / INLET SOUND POWER LEVELS (db)								
	63 HZ	125 HZ	250 HZ	500 HZ	1 kHZ	2 kHZ	4 kHZ	8 kHZ
SUPPLY	77	82	92	89	92	89	86	84
RETURN	70	83	84	78	77	77	88	76
RADIATED	68	75	84	79	75	75	80	77

FILTERS: 2" PLEATED 90% EFFICIENCY MERV-13, CLOGGED FILTER SWITCH AND MAGNEHELIC GAUGE.

DX COOLING COIL (28ME):
CAPACITY: 348.23 TMBH, 294.32 SMBH
ENTERING AIR TEMP (DB/WB): 81.20 / 65.70°F
LEAVING AIR TEMP (DB/WB): 55.81 / 54.90°F
6 ROWS, 11 FPI MAX, 24.41 FT² FA, 434.2 FPM FV.

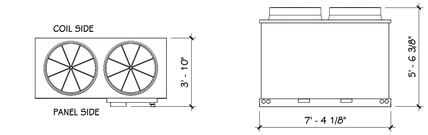
ACCU-5
TYPE: 30 TON NOMINAL DIGITAL SCROLL CONDENSING UNIT BASED ON "CARRIER" - MODEL 38RC
SERVES: AHU-5
OPERATING WEIGHT: 1310 LBS
REFRIGERANT: R-32
CAPACITY: 383.64 MBH @ 45°F SUCTION, 95°F DB
ELECTRICAL: 460V/3PH/60HZ, 65.5 MCA, 90 MOCP, 65kA SCCR
EER: 11.27 @ AHRI CONDITIONS
FEATURES: NON-FUSED DISCONNECT, BACnet IP/ MSTP

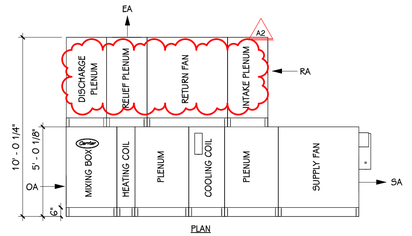
HEATING COIL:
CAPACITY: 986 TMBH
ENTERING / LEAVING FLUID TEMP: 130 / 100°F
ENTERING / LEAVING AIR TEMP (DB): -10 / 76.18°F
FLOW RATE / FLUID PRESSURE DROP: 106.6 GPM / 13.6'
4 ROWS, 30.35 FT² FA, 477.8 FPM FV

SUPPLY FAN: 11,000 CFM, (2) FAN, 12.64 HP TOTAL, 11.0 BHP TOTAL, 2.10" ESP, 2,494 RPM.
460V/3PH/60HZ, 20.6 FLA, 25.8 MCA, 40 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

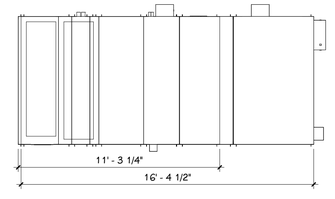
RETURN FAN: 11,000 CFM, (2) FAN, 5.85 HP TOTAL, 4.9 BHP TOTAL, 1.71" ESP, 2,009 RPM.
460V/3PH/60HZ, 16.4 FLA, 18.5 MCA, 25 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

OPTIONS: PROVIDE WITH MINIMUM 3 YEAR MANUFACTURER'S WARRANTY, DUCT DETECTORS BY DIV. 26, CONVENIENCE RECEPTACLE, ¢ BI-POLAR IONIZION.





PLAN



ELEVATION

AHU-6 (CAFETERIA)

1/4" = 1'-0"

AREA SERVED: MIDDLE SCHOOL CLASSROOMS, MIDDLE SCHOOL OFFICES, ART ROOM, MEDIA CENTER
TYPE: INDOOR MODULAR, MULTIZONE ZONE VARIABLE VOLUME, 10,900 CFM, BASED ON CARRIER
OUTSIDE AIR: 900 - 2,500 CFM
WEIGHT: 5,582 LBS
UNIT MOUNTING: 4" HOUSEKEEPING PAD

DISCHARGE / INLET SOUND POWER LEVELS (db)								
	63 HZ	125 HZ	250 HZ	500 HZ	1 kHZ	2 kHZ	4 kHZ	8 kHZ
SUPPLY	80	89	90	86	92	88	83	79
RETURN	80	85	77	76	75	74	77	66
RADIATED	73	83	83	75	75	74	74	68

FILTERS: 2" PLEATED 90% EFFICIENCY MERV-13, CLOGGED FILTER SWITCH AND MAGNEHELIC GAUGE.

DX COOLING COIL (28ME):
CAPACITY: 343.81 TMBH, 291.53 SMBH
ENTERING AIR TEMP (DB/WB): 79.5 / 64.7°F
LEAVING AIR TEMP (DB/WB): 55.04 / 54.14°F
6 ROWS, 11 FPI MAX, 24.41 FT² FA, 446.5 FPM FV.

ACCU-6
TYPE: 25 TON NOMINAL DIGITAL SCROLL CONDENSING UNIT BASED ON "CARRIER" - MODEL 38RC
SERVES: AHU-6
OPERATING WEIGHT: 1278 LBS
REFRIGERANT: R-32
CAPACITY: 330.7 MBH @ 45°F SUCTION, 95°F DB
ELECTRICAL: 460V/3PH/60HZ, 126.4 MCA, 175 MOCP, 5kA SCCR
EER: 11.75 @ AHRI CONDITIONS
FEATURES: NON-FUSED DISCONNECT, BACnet IP/ MSTP

HEATING COIL:
CAPACITY: 992.18 TMBH
ENTERING / LEAVING FLUID TEMP: 130 / 100°F
ENTERING / LEAVING AIR TEMP (DB): -10 / 61.87°F
FLOW RATE / FLUID PRESSURE DROP: 66.8 GPM / 3.9'
2 ROWS, 24.41 FT² FA, 446.5 FPM FV

SUPPLY FAN: 10,900 CFM, (3) FAN, 10.88 HP TOTAL, 9.3 BHP TOTAL, 1.40" ESP, 2058 RPM.
460V/3PH/60HZ, 28.8 FLA, 36.0 MCA, 50 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

RETURN FAN: 10,900 CFM, (3) FAN, 7.21 HP TOTAL, 6.2 BHP TOTAL, 2.66" ESP, 1,767 RPM. A2
460V/3PH/60HZ, 15.3 FLA, 16.6 MCA, 20 MOCP, SINGLE POINT POWER CONNECTION, EC MOTOR.

OPTIONS: PROVIDE WITH MINIMUM 3 YEAR MANUFACTURER'S WARRANTY, DUCT DETECTORS BY DIV. 26, CONVENIENCE RECEPTACLE, ¢ BI-POLAR IONIZION.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM #2	05/18/2026
ADDENDUM #1	05/08/2026

PROJECT TITLE
NEW EL SOL SCHOOL

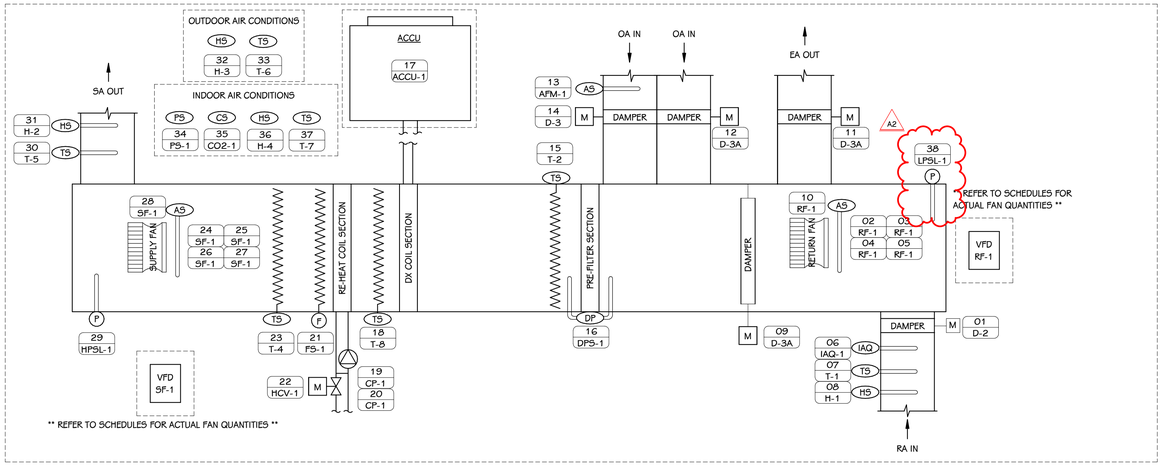
OWNER
KALAMAZOO PUBLIC SCHOOLS

Kalamazoo, Michigan

SHEET TITLE
MECHANICAL SCHEDULES

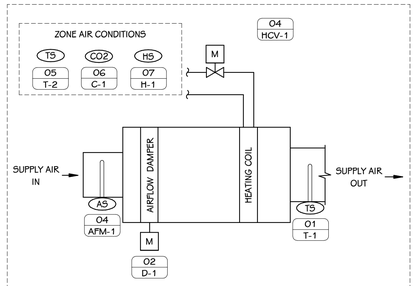
DATE
APRIL 24, 2026

SHEET NUMBER
M 502
23-622.000



AHU GYMNASIUM CONTROLS DIAGRAM

SCALE: NONE



VAV (RHC) CONTROLS DIAGRAM

SCALE: NONE

CONTROL POINTS

NUMBER	TAG	DESCRIPTION	ALARM	TREND	REMARKS
AHU GYMNASIUM CONTROLS DIAGRAM					
01	D-2	MIXED AIR DAMPER OUTPUT		■	
02	RF-1	FAN AIR FLOW		■	
03	RF-1	FAN SPEED CONTROL		■	
04	RF-1	FAN ENABLE/DISABLE		■	
05	RF-1	FAN STATUS	■	■	
06	IAQ-1	INDOOR AIR QUALITY		■	DISPLAY PM 2.5 & TVOC
07	T-1	RETURN AIR TEMPERATURE		■	DISPLAY ENTHALPY BASED ON T&H READINGS
08	H-1	RETURN AIR HUMIDITY		■	DISPLAY ENTHALPY BASED ON T&H READINGS
10	RF-1	RETURN AIR FLOW		■	
11	D-3A	RELIEF AIR DAMPER OUTPUT		■	
12	D-3A	ECONOMIZER OUTDOOR AIR DAMPER OUTPUT		■	
13	AFM-1	OUTDOOR AIR FLOW		■	
14	D-3	MINIMUM OUTDOOR AIR DAMPER OUTPUT		■	
15	T-2	MIXED AIR TEMPERATURE	■	■	
16	DPS-1	PRE-FILTER STATUS	■	■	
17	ACCU-1	COOLING SYSTEM CONTROL	■	■	BACNET (ENABLE, SETPOINT, % CAPACITY, RUN HOURS & STARTS PER CIRCUIT, ALARMS)
18	T-8	DX COIL DISCHARGE TEMPERATURE	■	■	
19	CP-1	HEATING COIL PUMP STATUS	■	■	
20	CP-1	ENABLE/DISABLE	■	■	
21	F5-1	FREEZE STAT ALARM STATUS	■	■	HARD WIRED SAFETY - MANUAL RESET
22	HCV-1	PRE-HEATING CONTROL VALVE OUTPUT		■	
23	T-4	RE-HEATING COIL DISCHARGE TEMPERATURE	■	■	
24	SF-1	FAN AIR FLOW		■	
25	SF-1	FAN SPEED CONTROL		■	
26	SF-1	FAN ENABLE/DISABLE		■	
27	SF-1	FAN RUN STATUS	■	■	
28	SF-1	SUPPLY AIR FLOW		■	
29	HPSL-1	HIGH PRESSURE STATIC LIMIT	■	■	HARD WIRED SAFETY - MANUAL REST
30	T-5	DISCHARGE AIR TEMPERATURE		■	DISPLAY ENTHALPY BASED ON T&H READINGS
31	H-2	DISCHARGE AIR HUMIDITY		■	DISPLAY ENTHALPY BASED ON T&H READINGS
32	H-3	OUTDOOR AIR HUMIDITY		■	GLOBAL
33	T-6	OUTDOOR AIR TEMPERATURE		■	GLOBAL
34	P5-1	ROOM PRESSURE SENSOR	■	■	
35	CO2-1	ROOM CARBON DIOXIDE	■	■	
36	H-4	INDOOR AIR HUMIDITY SENSOR		■	
A2 37	T-7	INDOOR AIR TEMPERATURE		■	
38	LPSL-1	LOW PRESSURE STATIC LIMIT	■	■	HARD WIRED SAFETY - MANUAL REST
EXHAUST FAN/ELEVATOR CONTROL POINTS					
03	D-2	EXHAUST AIR DAMPER POSITION		■	OPEN/CLOSE
04	D-2	EXHAUST AIR DAMPER OUTPUT		■	OPEN/CLOSE
05	EF-1	FAN SPEED CONTROL		■	
06	EF-1	FAN ENABLE/DISABLE		■	
07	EF-1	FAN STATUS		■	
08	T-1	EXHAUST AIR DAMPER POSITION		■	OPEN/CLOSE
AIR TERMINAL CONTROL POINTS					
01	T-1	DISCHARGE AIR TEMPERATURE		■	
02	D-1	AIR DAMPER POSITION		■	
04	AFM-1	SUPPLY AIR FLOW		■	
04	HCV-1	DISCHARGE AIR TEMPERATURE		■	
05	T-2	ZONE AIR TEMPERATURE		■	
06	C-1	ZONE CARBON DIOXIDE LEVEL		■	
07	H-1	ZONE HUMIDITY		■	

SEQUENCE OF OPERATIONS CONTINUED

16. UNOCCUPIED TEMPERATURE CONTROL – SYSTEM CONTROLLER SHALL INITIATE THE FOLLOWING BASED ON A FALL OR RISE IN SPACE TEMPERATURE:
    A. HEATING - SYSTEM CONTROLLER SHALL CYCLE SYSTEM ON (UNOCCUPIED HEATING MODE) WHEN A CALL FOR HEAT IS INITIATED BY ANY SPACE TEMPERATURE SENSOR. DURING UNOCCUPIED MODE AND HEATING WATER SYSTEM IS OR CAN BE ENABLED. SYSTEM SHALL RESPOND BASED ON THE FOLLOWING:
        a. ENABLE FANS AND SYSTEM SHALL FUNCTION AS DESCRIBED IN OCCUPIED TEMPERATURE CONTROL OPERATION TO PROVIDE HEATING TO ZONE WITH THE EXCEPTION TO THE FOLLOWING:
            • MIXED AIR DAMPERS SHALL REMAIN CLOSED WITH RETURN DAMPER 100% OPENED AND OUTDOOR AND RELIEF 100% CLOSED.
            • COOLING SHALL BE DISABLED.
        b. SYSTEM DISABLED UPON SATISFYING THE CALL FOR HEAT AND HEATING CV SHALL REMAIN UNDER CONTROL OF COIL DISCHARGE AIR TEMPERATURE CONTROL.
        c. COOLING – NO UNOCCUPIED COOLING.
17. UNOCCUPIED HUMIDITY CONTROL - SYSTEM CONTROLLER SHALL CYCLE UNIT ON WHEN A CALL FOR HIGH HUMIDITY IS INITIATED BY THE SPACE HUMIDISTAT DURING UNOCCUPIED MODE.
    A. ENABLE FANS AND SYSTEM SHALL FUNCTION AS DESCRIBED IN DE-HUMIDIFICATION CONTROL OPERATIONS TO PROVIDE DE-HUMIDIFICATION TO THE ZONE WITH THE EXCEPTION TO THE FOLLOWING:
        a. MIXED AIR DAMPERS SHALL REMAIN CLOSED WITH RETURN DAMPER 100% OPENED AND OUTDOOR AND RELIEF 100% CLOSED.
        b. DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE 45°F (ADJ.).
    B. SYSTEM DISABLED UPON SATISFYING THE CALL FOR HIGH HUMIDITY.
18. INITIAL STARTUP CONTROL - SYSTEM CONTROLLER SHALL ENABLE UNIT PRIOR TO SCHEDULED OCCUPANCY UTILIZING OPTIMUM START LOGIC TO ADJUST STARTUP TIME FOR UNIT BASED ON OUTDOOR AIR TEMPERATURE, BUILDING TEMPERATURE AND HISTORIC ELAPSE TIME TO REACH SETPOINT.
    A. UNIT SHALL ENERGIZE AND PROVIDE HEATING AND COOLING BASED ON THE SPACE TEMPERATURE SENSORS TO BRING SPACE TO OCCUPIED SETPOINT. THE OUTDOOR AND RELIEF AIR DAMPERS SHALL BE CLOSED UNLESS ECONOMIZER IS ENABLED. ONCE OCCUPIED SETPOINT HAS BEEN REACHED, THE UNIT SHALL SWITCH TO OCCUPIED MODE.
19. PRE AND POST OCCUPANCY PURGE – WHEN ENABLED BY THE OPERATOR THE UNIT CONTROLLER WILL BEGIN THE OCCUPIED OPERATION 2 HOURS (ADJ.) PRIOR TO THE SCHEDULED OCCUPANCY AND EXTEND OPERATION 2 HOURS (ADJ.) BEYOND SCHEDULED OCCUPANCY.
    A. OUTDOOR AND RELIEF AIR DAMPERS SHALL BE AT THEIR MAXIMUM OPEN POSITION WHILE MAINTAINING THE MIXED AIR TEMPERATURE LIMIT.
    B. INTEGRATE PRE-PURGE FEATURE WITH THE OPTIMUM START LOGIC TO ALLOW BOTH OPERATIONS TO FUNCTION CONCURRENTLY (OUTDOOR AND RELIEF AIR DAMPERS OPEN) THUS NOT RUNNING SEQUENCES END-TO-END.
20. BI-POLAR IONIZATION (BPI) – ENABLE BPI WHENEVER THE SUPPLY FANS ARE PROVEN ON. DISABLE BPI WHENEVER THE SUPPLY FANS ARE OFF.
    A. WHEN ENABLED AND STATUS IS SENSED BY THE CURRENT SENSOR, A RUN TIMER WILL BE ACTIVE.
21. SAFETY SHUTDOWNS:
    A. PROVIDE A LOW-TEMPERATURE PROTECTION THERMOSTAT(S) ON THE LEAVING SIDE OF HEATING HOT WATER COIL WHICH WILL DE-ENERGIZE UNIT, CLOSE MIXED AIR DAMPERS (CLOSING OUTDOOR AND RELIEF AIR DAMPERS), CLOSE CHILLED WATER COIL CONTROL VALVE AND THE HEATING HOT WATER COIL CONTROL VALVE SHALL BE FULLY OPENED AND COIL PUMP ENERGIZED. PROVIDE MANUAL RESET.
    B. PROVIDE A HIGH STATIC PRESSURE SENSOR IN THE SUPPLY DISCHARGE PLENUM TO DE-ENERGIZE THE UNIT UPON SENSING A HIGH STATIC PRESSURE OF +4.0" W.C.. PROVIDE MANUAL RESET.
    C. PROVIDE A LOW-PRESSURE STATIC LIMIT IN THE RETURN PLENUM TO DE-ENERGIZE THE UNIT UPON SENSING A HIGH NEGATIVE STATIC PRESSURE OF -4.0" W.C.. PROVIDE MANUAL RESET.
    D. DUCT MOUNTED IONIZATION SMOKE DETECTOR(S) PROVIDED BY DIVISION 28 SHALL DE-ENERGIZE THE UNIT WHENEVER PRODUCTS OF COMBUSTION ARE SENSED.
22. THE FOLLOWING SHALL BE SUPPLIED AND INSTALLED BY TEMPERATURE CONTROL INSTALLER:
    A. SENSORS (TEMPERATURE, RELATIVE HUMIDITY, CO2, PRESSURE, AIRFLOW MEASURING DEVICES, IAQ SENSORS)
23. THE FOLLOWING SHALL BE SUPPLIED BY TEMPERATURE CONTROL INSTALLER AND INSTALLED BY OTHERS:
    A. CONTROL VALVES
    B. DAMPERS
    C. BI-POLAR IONIZATION

SEQUENCE OF OPERATIONS CONTINUED

5. OCCUPIED CO2 CONTROL – CONTROLLER SHALL MODULATE AIRFLOW DAMPER TO MAINTAIN AN ADJUSTABLE SPACE CO2 SETPOINT MEASURED BY A SPACE CO2 SENSOR.
    A. CO2 – UPON A RISE OR FALL IN SPACE CO2 CONCENTRATES ABOVE OR BELOW SPACE CO2 SETPOINT, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. MODULATE AIRFLOW DAMPER BETWEEN THE MINIMUM AND MAXIMUM AIRFLOW CFM SETPOINTS TO MAINTAIN SPACE CO2 SETPOINT.
        b. WHEN SPACE CO2 READING INCREASES ABOVE MINIMUM SETPOINT, MODULATE AIRFLOW DAMPER OPEN BEYOND NORMAL CONTROLLED POSITION.
        c. WHEN SPACE CO2 READING REACHES MAXIMUM SETPOINT (MIN + BAND), THE AIRFLOW DAMPER SHALL BE AT ITS MAXIMUM AIRFLOW CFM SETPOINT.
        d. WHEN SPACE CO2 READING DECREASES, THE AIRFLOW DAMPER SHALL START TO MODULATE CLOSED TO ITS NORMALLY CONTROLLED OPERATION.
    B. REHEAT CV MODULATES TO MAINTAIN SPACE TEMPERATURE SETPOINT AS NEEDED.
    C. MONITOR QUANTITY OF ROOMS IN CO2 OVERRIDE. REFER TO ZONE HVAC SEQUENCING FOR ACTIONS BY ZONE HVAC SYSTEM DUE TO HIGH CO2 LEVELS REQUESTS.
6. OCCUPIED DE-HUMIDIFICATION CONTROL – CONTROLLER SHALL MODULATE AIRFLOW DAMPER AND REHEAT CV TO MAINTAIN AN ADJUSTABLE SPACE HUMIDITY SETPOINT MEASURED BY A SPACE HUMIDISTAT.
    A. DE-HUMIDIFICATION – UPON A RISE IN SPACE HUMIDITY ABOVE SPACE HUMIDITY SETPOINT, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. MODULATE AIRFLOW DAMPER TO MAXIMUM AND MODULATE REHEAT CV TO MAINTAIN SPACE TEMPERATURE SETPOINT.
            • WHEN SPACE HUMIDITY READING DECREASES, THE AIRFLOW DAMPER SHALL START TO MODULATE CLOSED TO ITS NORMALLY CONTROLLED OPERATION.
        b. MONITOR QUANTITY OF ROOMS IN HUMIDITY OVERRIDE. REFER TO ZONE HVAC SEQUENCING FOR ACTIONS BY ZONE HVAC SYSTEM DUE TO HIGH HUMIDITY LEVEL REQUESTS.
7. UNOCCUPIED TEMPERATURE CONTROL – CONTROLLER SHALL INITIATE THE FOLLOWING BASED ON A FALL OR RISE IN SPACE TEMPERATURE:
    A. COOLING – NO UNOCCUPIED COOLING.
    B. HEATING - UPON A FALL IN SPACE TEMPERATURE BELOW SPACE TEMPERATURE SETPOINT, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. REQUEST THE ASSOCIATED ZONE HVAC SYSTEM TO BE ENABLED. (UNOCCUPIED HEATING MODE) WHEN A CALL FOR HEAT IS INITIATED BY SPACE TEMPERATURE SENSOR DURING UNOCCUPIED MODE AND HEATING SYSTEM IS OR CAN BE ENABLED.
        b. ONCE ZONE HVAC SYSTEM IS ENABLED, MODULATE AIRFLOW DAMPER TO MAXIMUM HEATING AIRFLOW CFM SETPOINT
            • REHEAT CV 100% OPENED (IGNORE DAT LIMIT).
        c. ZONE HVAC SYSTEM ENABLE POINT SHALL BE BASED ON QUANTITY OF REQUESTS FOR HEATING.
        d. WHEN SPACE TEMPERATURE READING INCREASES ABOVE UNOCCUPIED SPACE TEMPERATURE SETPOINT, RELEASE AIRFLOW DAMPER AND REHEAT CV OVERRIDE AND ZONE HVAC SYSTEM REQUEST.
    C. THE FOLLOWING SHALL BE DISABLED DURING UNOCCUPIED TEMPERATURE CONTROL:
        a. DEMAND CONTROL VENTILATION (CO2).
        b. SPACE OCCUPANCY SENSOR.
        c. DE-HUMIDIFICATION.
8. INITIAL STARTUP CONTROL – PRIOR TO ZONE HVAC SYSTEM STARTING, ALL ASSOCIATED TERMINAL UNIT CONTROLLERS SHALL DRIVE AIRFLOW DAMPERS OPEN.
9. TIMED OVERRIDE CONTROL – PROVIDE LIMITED TIME OVERRIDE OF UNOCCUPIED MODE.
10. PRE & POST PURGE – OPEN DAMPER TO 100%

SEQUENCE OF OPERATIONS

AIR HANDLING UNIT AHU-4 TEMPERATURE CONTROLS

1. PROVIDE DIRECT DIGITAL CONTROLS FOR AIR HANDLING SYSTEM OPERATION. UNIT IS AN INDOOR SINGLE ZONE VARIABLE VOLUME UNIT WITH A COMBINATION OF BIPOLAR IONIZATION, SUPPLY FAN, VARIABLE FREQUENCY CONTROLLER (VFC), HEATING HOT WATER REHEAT COIL WITH CONTROL VALVE (CV) AND ACTUATOR, DIRECT EXPANSION COIL WITH AIR COOLED CONDENSING UNIT, CONTROL VALVE (CV) AND ACTUATOR WITH CIRCULATING PUMP, MERV 13 FILTERS, OUTDOOR – RELIEF -RETURN AIR DAMPERS AND ACTUATORS, AND AIR TEMPERATURE/PRESSURE/AIRFLOW/HUMIDITY SENSORS.
2. AIR HANDLING UNIT ADJUSTABLE SCHEDULE BASED ON THE FOLLOWING:
    A. TIME OF DAY (TOD) SCHEDULE.
        a. TO BE DETERMINED BY OWNER (CONSULT WITH OWNER).
    B. ENABLED AND DISABLED BASED ON MANUAL OVERRIDE FROM DDC.
3. AIR HANDLING UNIT ADJUSTABLE SETPOINTS:
    A. OCCUPIED 75°F COOLING / 70°F HEATING
    B. STANDBY 77°F COOLING / 68°F HEATING (BASED ON LIGHTING OCCUPANCY SENSOR(S))
    C. UNOCCUPIED NO COOLING / 55°F HEATING
    D. CO2 800 PPM MINIMUM / 1,000 PPM MAXIMUM
4. START/STOP, CONTROLLED DEVICES SHALL RESPOND AS FOLLOWS:
    A. WHEN INDEXED TO STOP:
        a. DISABLE SUPPLY FAN.
        b. DISABLE DX COOLING.
        c. HEATING CV SHALL MODULATE TO MAINTAIN COIL DISCHARGE TEMPERATURE SENSOR AT 80°F (ADJ.), WHEN OUTDOOR AIR TEMPERATURE IS BELOW 45°F (ADJ.).
        d. OUTDOOR AND RELIEF AIR DAMPERS 100% CLOSED.
        e. RETURN AIR DAMPER 100% OPENED.
        f. BPI IS DISABLED.
    B. WHEN INDEXED TO START:
        a. ENABLE SUPPLY FAN.
        b. OPERATION OF SYSTEM TO RESUME AFTER START-UP DELAY.
5. SUPPLY FAN CONTROL (SPACE TEMPERATURE) - SYSTEM CONTROLLER SHALL MODULATE SUPPLY FAN MOTOR VARIABLE FREQUENCY DRIVE, HEATING AND COOLING SOURCES AND MIXED AIR DAMPERS TO MAINTAIN AN ADJUSTABLE SPACE TEMPERATURE SETPOINT MEASURED BY A SPACE TEMPERATURE THERMOSTAT.
    A. HEATING – UPON A FALL IN SPACE TEMPERATURE BELOW SPACE TEMPERATURE SETPOINT, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. MODULATE HEATING SOURCE (AS FIRST STAGE HEATING) TO MAINTAIN SPACE TEMPERATURE SETPOINT.
            • INCLUDE A MAXIMUM HEATING DISCHARGE TEMPERATURE OF 95°F (ADJ.).
            • SUPPLY FAN AT 30% SPEED SETPOINT.
        b. MODULATE SUPPLY FAN SPEED (AS SECOND STAGE HEATING) TO MAINTAIN ACTIVE CFM/SPEED SETPOINT MEASURED BY A DUCT/FAN INLET AIR FLOW MEASURING STATION TO MAINTAIN SPACE TEMPERATURE SETPOINT.
            • MINIMUM (30% SPEED) AND MAXIMUM (100% SPEED) SETPOINTS (ADJ.).
        c. UPON A CALL FOR ADDITIONAL HEAT WITH SUPPLY FAN ARE DELIVERING MAXIMUM CFM (AS THIRD STAGE OF HEATING) OVERRIDE MAXIMUM HEATING DISCHARGE TEMPERATURE.
            • ALLOW HEATING CV TO MODULATE TO MAINTAIN SPACE TEMPERATE SETPOINT.
    B. COOLING – UPON A RISE IN SPACE TEMPERATURE ABOVE SPACE TEMPERATURE SETPOINT, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. MODULATE SUPPLY FAN SPEED (AS FIRST STAGE COOLING) TO MAINTAIN ACTIVE CFM/SPEED SETPOINT MEASURED BY DUCT/FAN INLET AIR FLOW MEASURING STATION TO MAINTAIN SPACE TEMPERATURE SETPOINT.
            • MINIMUM (50% SPEED) AND MAXIMUM (100% SPEED) CFM SETPOINTS (ADJ.).
            • ECONOMIZER SHALL BE UTILIZED (AS FIRST STAGE COOLING) IF APPLICABLE AND NOT ALLOWING DISCHARGE AIR TEMPERATURE TO DROP BELOW 55°F, THEN SUPPLY FAN.
        b. MODULATE COOLING SOURCE (AS SECOND STAGE COOLING) TO MAINTAIN SPACE TEMPERATURE SETPOINT.
            • SUPPLY FAN SHALL BE AT MAXIMUM CFM SETPOINT.
        c. IF ECONOMIZER IS ENABLED, DAMPERS SHALL BE 100% OPEN TO OUTDOORS.
6. RETURN/RELIEF FAN CONTROL (SPACE PRESSURE) - SYSTEM CONTROLLER SHALL MODULATE RELIEF DAMPER TO MAINTAIN SPACE PRESSURE SETPOINT MEASURED BY A SPACE PRESSURE CONTROLLER LOCATED IN SPACE SERVED.
    A. THE SPACE STATIC PRESSURE SETPOINT (ADJ.) SHALL BE A SETPOINT THAT CONTROLS TO A SLIGHTLY POSITIVE PRESSURE (+0.02" WG).
7. FAN VARIABLE FREQUENCY CONTROLLER SHALL BE MONITORED BASED ON THE FOLLOWING:
    A. VIA BACNET/MODBUS CONNECTION (POWER USAGE / SPEED % AND HZ / HOURS / FAULT / ALARM).
8. DEWPOINT CONTROL - UNIT CONTROLLER SHALL LIMIT THE UNIT DISCHARGE DEW POINT TO 60°F (ADJ.). MODULATE COOLING CONTROL VALVE TO MAINTAIN AN ADJUSTABLE DISCHARGE AIR DEWPOINT SETPOINT MEASURED BY DUCT TEMPERATURE AND HUMIDITY SENSORS LOCATED DOWNSTREAM OF UNIT.
9. COIL PUMP CONTROL BASED ON THE FOLLOWING:
    A. HEATING HOT WATER COIL PUMP SHALL RUN WHEN THE SYSTEM IS IN HEATING MODE (WHEN CV IS GREATER THAN 10% OPEN).
    B. PUMP SHALL RUN CONTINUOUSLY WHENEVER THE OUTDOOR AIR TEMPERATURE IS LESS THAN 36°F.
10. ECONOMIZER CONTROL (ENTHALPY) - SYSTEM CONTROLLER SHALL MODULATE MIXED AIR DAMPERS TO MEET UNIT DISCHARGE AIR TEMPERATURE SETPOINT WHEN OUTDOOR AIR ENTHALPY IS BELOW THE RETURN AIR ENTHALPY.
    A. WHEN BTU CALCULATION FOR OUTDOOR AIR CONDITIONS EXCEEDS 27 BTUH/LB (ADJ.), ECONOMIZER SHALL BE DISABLED.
11. MINIMUM OUTDOOR AIR CONTROL (MEASURED AIRFLOW) - SYSTEM CONTROLLER SHALL MODULATE OUTDOOR AIR DAMPER TO MAINTAIN MINIMUM CFM SETPOINT MEASURED BY AN OUTDOOR AIR FLOW MEASURING STATION.
    A. CLOSE THE RETURN AIR DAMPER AND OPENING OF RELIEF AIR DAMPERS IN EQUAL PROPORTION TO THE OUTSIDE AIR DAMPER.
    B. REFER TO UNIT SCHEDULE FOR THE MINIMUM OUTDOOR AIRFLOW CFM SETPOINT.
12. CO2 CONTROL - SYSTEM CONTROLLER SHALL OVERRIDE MIXED AIR DAMPER CONTROLS IN NON-ECONOMIZING MODE USING SPACE CO2 SENSORS TO INCREASE OUTDOOR MINIMUM CFM TO A MAXIMUM CFM. INCLUDE CORRESPONDING CLOSING RETURN AIR DAMPER AND OPENING OF RELIEF AIR DAMPERS.
    A. UPON SPACE CO2 SENSOR EXCEEDING SETPOINT (800 PPM ADJ.), START TO MODULATE MIXED AIR DAMPERS (OUTDOOR AIR DAMPER OPENING) IN GRADUAL INCREMENTS UNTIL CO2 SENSOR SETPOINT IS SATISFIED.
        a. MODULATE MIXED AIR DAMPERS DOWN TO ITS ABSOLUTE MINIMUM POSITION UPON SATISFYING SENSOR SETPOINT.
        b. REFER TO VAV TERMINAL SEQUENCE FOR ADDITIONAL OPERATIONS AT THE ZONE LEVEL.
    B. ALARM HIGH CO2 AT 1,200 PPM (ADJ.)
    C. REFER TO UNIT SCHEDULE FOR THE OUTDOOR AIRFLOW CFM RANGE; HIGH AND LOW SETPOINTS.
13. DE-HUMIDIFICATION CONTROL - SYSTEM CONTROLLER SHALL ENABLE DE-HUMIDIFICATION MODE TO MAINTAIN THE SPACE HUMIDITY SETPOINT OF 60%RH (ADJ.) MEASURED BY A WALL-MOUNTED HUMIDISTAT.
    A. DE-HUMIDIFICATION CONTROL SHALL OVERRIDE DISCHARGE AIR TEMPERATURE FUNCTION AND RESET DOWN TO 45°F (ADJ.).
    B. FAN SPEED SHALL MODULATE TO 50% OF DESIGN AIRFLOW RATE.
    C. DISCHARGE AIR TEMPERATURE SHALL BE RESET BACK UP TO ITS NORMAL (NON-DEHUMIDIFICATION) SETPOINT UPON SATISFACTION OF THE ZONE HUMIDITY SENSOR.
14. MIXED AIR TEMPERATURE CONTROL - SYSTEM CONTROLLER SHALL MODULATE MIXED AIR DAMPERS WHEN MIXED AIR TEMPERATURE SENSOR FALLS BELOW 45°F (ADJ.), THE OUTDOOR – RELIEF - RETURN DAMPERS SHALL MODULATE TO MAINTAIN A MIXED AIR TEMPERATURE OF 45°F (ADJ.).
    A. PROVIDE OVERRIDE OF MINIMUM OUTDOOR AIR VOLUME SETPOINT IN THE HEATING MODE TO MAINTAIN A 45°F (ADJ.) MIXED AIR TEMPERATURE.
15. FILTER MONITORING - SYSTEM CONTROLLER SHALL MONITOR AND ALARM FILTER DIFFERENTIAL PRESSURE FOR THE FOLLOWING:
    A. FILTERS
        a. MONITORING OF INCHES OF W.C.
        b. ALARM SETPOINT, COORDINATE WITH FILTER MFR. DIRTY FILTER VALUE, SUGGEST 1.00" W.C. (ADJ.)

SEQUENCE OF OPERATIONS CONTINUED

VARIABLE AIR VOLUME (VAV) BOX WITH REHEAT COIL CONTROLS:

1. PROVIDE DIRECT DIGITAL CONTROLS (DDC) FOR EACH TERMINAL AIR UNIT OPERATION. UNITS ARE A COMBINATION OF VARIABLE/CONSTANT VOLUME UNITS, PRESSURE INDEPENDENT CONTROLLER, AIRFLOW DAMPER AND ACTUATOR, REHEAT COIL, CONTROL VALVE (CV) AND ACTUATOR, SPACE TEMPERATURE/HUMIDITY/CO2 SENSORS,
    A. SPACE SENSORS SHALL HAVE LIMITED SETPOINT ADJUSTMENT AND AN OVERRIDE BUTTON FUNCTIONALITY.
2. TERMINAL AIR UNIT ADJUSTABLE SCHEDULE BASED ON THE FOLLOWING:
    A. SCHEDULED WITH ASSOCIATED ZONE HVAC SYSTEM.
3. TERMINAL AIR UNIT ADJUSTABLE SETPOINTS BASED ON THE FOLLOWING;
    A. OCCUPIED 75°F COOLING / 70°F HEATING
    B. STANDBY 77°F COOLING / 68°F HEATING (BASED ON LIGHTING OCCUPANCY SENSOR(S))
    C. UNOCCUPIED NO COOLING / 55°F HEATING
    D. CO2 800 PPM MINIMUM / 1,000 PPM MAXIMUM
4. OCCUPIED TEMPERATURE CONTROL – CONTROLLER SHALL MODULATE AIRFLOW DAMPER AND REHEAT COIL CV TO MAINTAIN AN ADJUSTABLE SPACE TEMPERATURE SETPOINT MEASURED BY A SPACE TEMPERATURE THERMOSTAT.
    A. COOLING – UPON A RISE IN SPACE TEMPERATURE ABOVE SPACE TEMPERATURE SETPOINT, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. MODULATE AIRFLOW DAMPER BETWEEN THE MINIMUM AND MAXIMUM COOLING AIRFLOW CFM SETPOINTS TO MAINTAIN SPACE TEMPERATURE SETPOINT.
    B. HEATING – UPON A FALL IN SPACE TEMPERATURE BELOW SPACE TEMPERATURE SETPOINT, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. MODULATE AIRFLOW DAMPER (FIRST STAGE HEATING) TO MINIMUM HEATING AIRFLOW CFM SETPOINT AND MODULATE REHEAT CV TO MAINTAIN SPACE TEMPERATURE SETPOINT.
        b. MODULATE AIRFLOW DAMPER (SECOND STAGE HEATING) BETWEEN THE MINIMUM AND MAXIMUM HEATING AIRFLOW CFM SETPOINTS TO MAINTAIN SPACE TEMPERATURE SETPOINT.
        c. LIMIT DISCHARGE AIR TEMPERATURE TO BE NO GREATER THAN 95°F (ADJ.)
    C. VENTILATION:
        a. UPON SPACE TEMPERATURE SETPOINT BEING SATISFIED, THE REHEAT COIL CV SHALL MODULATE TO MAINTAIN NEUTRAL DISCHARGE AIR TEMPERATURE:
            • NEUTRAL COOLING: 3°F BELOW SPACE TEMPERATURE SETPOINT.
            • NEUTRAL HEATING: 3°F ABOVE SPACE TEMPERATURE SETPOINT.
        b. THE AIRFLOW DAMPER SHALL MODULATE TO MAINTAIN MINIMUM AIRFLOW SETPOINT.
    D. STANDBY: UPON SPACE OCCUPANCY SENSOR INDICATING UNOCCUPIED AND AFTER TIME DELAY, CONTROLLER SHALL RESPOND BASED ON THE FOLLOWING:
        a. SPACE TEMPERATURE IS SETBACK TO STANDBY SETPOINTS.
            • RESET AIRFLOW SETPOINTS TO 50% OF DESIGN MINIMUM.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM #2 05/18/2026

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

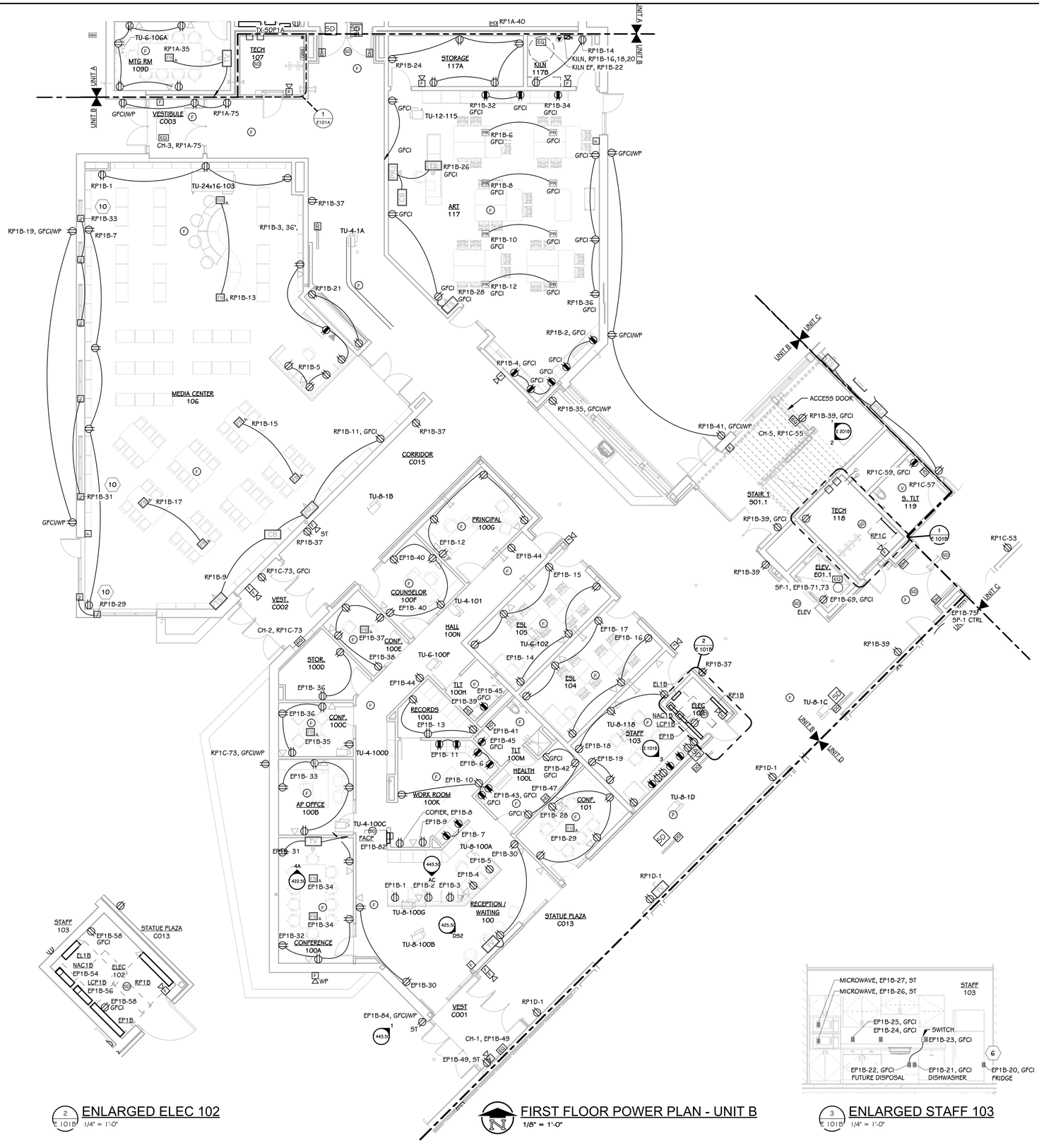
OWNER
KALAMAZOO PUBLIC SCHOOLS

Kalamazoo, Michigan

DATE
APRIL 24, 2026

SHEET TITLE
MECHANICAL CONTROLS

SHEET NUMBER
M 603
23-622.000



1 E101B **ENLARGED TECH 118**
1/4" = 1'-0"

2 E101B **ENLARGED ELEC 102**
1/4" = 1'-0"

FIRST FLOOR POWER PLAN - UNIT B
1/8" = 1'-0"

3 E101B **ENLARGED STAFF 103**
1/4" = 1'-0"

KEYED NOTES - ELECTRICAL - POWER

1 PRE-ACTION SYSTEM SMOKE DETECTOR. COORDINATE INSTALLATION REQUIREMENTS WITH FIRE PROTECTION CONTRACTOR.

2 PROVIDE FIRE ALARM CONNECTION TO PREACTION SYSTEM CONTROLLER, VALVE DETECTION, FLOW SWITCHES, AND TAMPER SWITCHES. COORDINATE ALL INSTALLATION REQUIREMENTS WITH FIRE PROTECTION CONTRACTOR. PROVIDE ALL REQUIRED CONNECTIONS FOR A FULLY FUNCTIONAL SYSTEM.

3 ALL DISCONNECTS SHALL HAVE AUX CONTACTS. COORDINATE FUSE SIZE FOR ELEVATOR POWER CIRCUIT WITH SHOP DRAWINGS. CONNECT TO FIRE ALARM SYSTEM. REFER TO TECHNOLOGY DRAWINGS FOR TELEPHONE SYSTEM INFORMATION. COORDINATE ALL ADDITIONAL INSTALLATION REQUIREMENTS IN FIELD WITH ELEVATOR CONTRACTOR.

4 FEED INDOOR MINISPLIT UNIT FROM ACCU UNIT MOUNTED ON THE ROOF ABOVE, REFER TO DETAIL. PROVIDE DISCONNECT SWITCH FOR CONDENSATE PUMP, CONNECT TO CIRCUIT INDICATED OR NEAREST AVAILABLE UNSWITCHED 120V CIRCUIT.

5 FEED RECEPTACLE FROM LOAD SIDE OF ADJACENT GFCI RECEPTACLE.

6 PROVIDE GFCI BREAKER IN NEW PANELBOARD FOR CIRCUIT INDICATED.

7 INTERWIRE UNIT DISCONNECT, LIGHTING, SWITCHING, AND GENERAL RECEPTACLE CIRCUITS. PROVIDE ALL WORK NECESSARY FOR A COMPLETE INSTALLATION. MOUNT LIGHT SWITCHES AT MAX 48" AFF.

8 COORDINATE ALL TECHNOLOGY ROUGH-IN LOCATIONS, MOUNTING HEIGHTS, AND ADDITIONAL REQUIREMENTS WITH TECHNOLOGY DRAWINGS AND INSTALLER IN FIELD PRIOR TO INSTALLATION.

9 INTERWIRE OVERHEAD DOOR POWER, CONTROLS, AND PHOTO EYES. REFER TO DETAIL.

10 PROVIDE LINE VOLTAGE AND LOW VOLTAGE CONNECTION TO ELECTRIC ROLLER SHADES. COORDINATE BACKBOX LOCATION WITH MANUFACTURE SHOP DRAWINGS AND IN FIELD WITH INSTALLER. MOUNT SHADE CONTROLLERS IN SAME BACKBOX AS ROOM LIGHTING SWITCHES. PROVIDE ALL REQUIRED EQUIPMENT FOR A COMPLETE INSTALLATION.

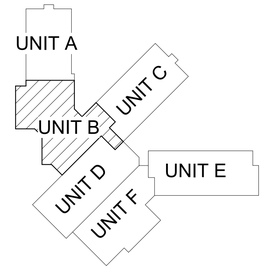
11 PROVIDE A CONTINOUS 1" CONDUIT PATHWAY FROM THE ERCES HEADEND TO THE FACP. PROVIDE CALING WITHIN CONDUIT TO CONNECT A CONTACT CLOSURE AT THE FACP FOR MONITORING THE ERCES HEADEND.

12 ROUTE A CONTINOUS 2" CONDUIT TO A ROOF PENETRATION.

A02

ISSUED FOR	DATE
ADDENDUM 02	05-18-2026

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

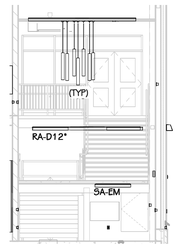
SHEET TITLE
FIRST FLOOR POWER PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
E101B
23-622.000

FIRST FLOOR LIGHTING PLAN - UNIT B
1/8" = 1'-0"

1 E 201B — STAIR 1 WEST ELEVATION
1/8" = 1'-0"

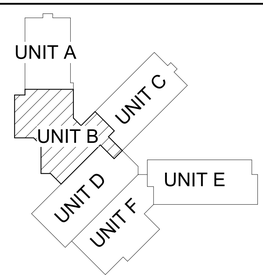


2 E 201B — STAIR 1 SOUTH ELEVATION
1/8" = 1'-0"

KEYED NOTES - ELECTRICAL - LIGHTING

1 COORDINATE ALL LIGHTING WITH DUCT WORK, REFER TO REFLECTED CEILING PLAN AND MECHANICAL PLANS. PROVIDE UNISTRUT AS REQUIRED TO MOUNT FIXTURE BETWEEN OR UNDER PIPING AND DUCTWORK. ADJUST SPACING AND MOUNTING HEIGHT AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR LIGHTING PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
E 201B
23-622.000

ELECTRICAL TRANSFORMER SCHEDULE

TRANSFORMER NAME	FED FROM	SIZE	PRIMARY VOLTAGE (V)	BREAKER / POLES	TRANSFORMER G.E.C.	PRIMARY FEEDER # OF SET(S)	PRIMARY FEEDER WIRE	PRIMARY FEEDER GROUND	PRIMARY FEEDER EMT	SECONDARY FEEDER LOAD NAME	SECONDARY FEEDER SECONDARY OCP	SECONDARY FEEDER # OF SETS	SECONDARY FEEDER WIRE	SECONDARY FEEDER GROUND	SECONDARY FEEDER EMT
TX-SDP2B	MDP	75 kVA	480 V	125 A / 3	1 #2	1 SET	3 #1/0	#6 GND.	2"	SDP2B	400 A	1 SET	4 #600 KCMIL	#1/0 G.E.C.	4"
TX-SDP	MDP	300 kVA	480 V	450 A / 3	1 #3/0	2 SETS	3 #4/0	#2 GND.	2 1/2"	SDP	600 A	2 SETS	4 #350 KCMIL	#2 G.E.C.	3"
TX-EP1F	EM1F	112.5 kVA	480 V	200 A / 3	1 #1/0	1 SET	3 #3/0	#6 GND.	2"	EP1F	400 A	1 SET	4 #600 KCMIL	#1/0 G.E.C.	4"
TX-SDP1A	DP1A	150 kVA	480 V	225 A / 3	1 #2/0	1 SET	3 #350 KCMIL	#4 GND.	3"	SDP1A	400 A	1 SET	4 #600 KCMIL	#1/0 G.E.C.	4"

ELECTRICAL PANEL FEEDER SCHEDULE

DESCRIPTION	FED FROM	CURRENT (FLA)	DEMAND (FLA)	BREAKER / POLES	FEEDER # OF SETS	FEEDER WIRE	FEEDER GROUND	FEEDER EMT	ACCUM VOLT DROP %
480 V									
ATS-EL	MDP	20 A	20 A	100 A / 3	1 SET	4 #1	#8 GND.	2"	0.5%
ATS-EL	GENERATOR	20 A	20 A	100 A / 3	1 SET	4 #1	#8 GND.	2"	0.5%
ATS-EM	MDP	267 A	245 A	350 A / 3	1 SET	4 #500 KCMIL	#3 GND.	3 1/2"	0.6%
ATS-EM	GENERATOR	267 A	245 A	350 A / 3	1 SET	4 #500 KCMIL	#3 GND.	3 1/2"	0.6%
ATS-FP	TX-MDP	120 A	120 A	TAP SECONDARY OF TX-MDP	1 SET	4 #1/0	#6 GND.	2"	1.1%
ATS-FP	GENERATOR	120 A	120 A	150 A / 3	1 SET	4 #1/0	#6 GND.	2"	1.1%
DP1A	MDP	223 A	177 A	400 A / 3	1 SET	4 #600 KCMIL	#3 GND.	4"	1.8%
DP2D	MDP	589 A	609 A	800 A / 3	2 SETS	4 #600 KCMIL	#1/0 GND.	4"	1.2%
EL	ATS-EL	20 A	20 A	100 A / 3	1 SET	4 #1	#8 GND.	2"	0.5%
EL1B	EL	3 A	3 A	30 A / 3	1 SET	4 #10	#10 GND.	3/4"	0.9%
EL1F	EL	15 A	15 A	30 A / 3	1 SET	4 #10	#10 GND.	3/4"	1.3%
EM	ATS-EM	267 A	245 A	350 A / 3	1 SET	4 #500 KCMIL	#3 GND.	3 1/2"	0.6%
EM1F	EM	252 A	231 A	250 A / 3	1 SET	4 #250 KCMIL	#4 GND.	3"	1.4%
EM2B	EM1F	39 A	38 A	100 A / 3	1 SET	4 #1	#8 GND.	2"	1.9%
MDP	TX-MDP	1404 A	1269 A	2000 A / 3	5 SETS	4 #600 KCMIL	#3/0 G.E.C.	4"	0.4%
208 V									
EP1A	EP1F	29 A	29 A	60 A / 3	1 SET	4 #4	#10 GND.	1 1/4"	3.0%
EP1B	EP1F	83 A	66 A	125 A / 3	1 SET	4 #1/0	#6 GND.	2"	1.8%
EP1F	TX-EP1F	257 A	204 A	400 A / 3	1 SET	4 #600 KCMIL	#1/0 G.E.C.	4"	0.3%
EP2B	EP1F	36 A	36 A	100 A / 3	1 SET	4 #1	#8 GND.	2"	1.4%
RP1	SDP	60 A	60 A	100 A / 3	1 SET	3 #1	#8 GND.	1 1/2"	0.6%
RP1A	SDP1A	97 A	74 A	150 A / 3	1 SET	4 #1/0	#6 GND.	2"	0.6%
RP1B	SDP1A	103 A	73 A	150 A / 3	1 SET	4 #1/0	#6 GND.	2"	1.9%
RP1C	SDP1A	89 A	63 A	150 A / 3	1 SET	4 #1/0	#6 GND.	2"	1.7%
RP1D	SDP	138 A	129 A	225 A / 3	1 SET	4 #4/0	#4 GND.	2 1/2"	2.0%
RP1E	SDP	96 A	65 A	150 A / 3	1 SET	4 #1/0	#6 GND.	2"	1.7%
RP1K	SDP	217 A	171 A	400 A / 3	1 SET	4 #600 KCMIL	#3 GND.	4"	1.1%
RP1KA	RP1K	9 A	7 A	60 A / 3	1 SET	4 #4	#10 GND.	1 1/4"	1.2%
RP2B	SDP2B	132 A	92 A	225 A / 3	1 SET	4 #4/0	#4 GND.	2 1/2"	0.4%
RP2D	SDP2B	40 A	40 A	100 A / 3	1 SET	4 #4/0	#4 GND.	2 1/2"	0.4%
SDP	TX-SDP	533 A	414 A	600 A / 3	2 SETS	4 #350 KCMIL	#3/0 G.E.C.	3"	0.5%
SDP1A	TX-SDP1A	288 A	182 A	400 A / 3	1 SET	4 #600 KCMIL	#1/0 G.E.C.	4"	0.3%
SDP2B	TX-SDP2B	172 A	130 A	400 A / 3	1 SET	4 #600 KCMIL	#1/0 G.E.C.	4"	0.2%
208 V									
RPGEN	SDP	36 A	36 A	100 A / 2	1 SET	3 #1	#8 GND.	1 1/2"	1.1%

NOTES:

GENERAL: ELECTRICAL PANEL FEEDER SCHEDULE GENERAL NOTES:

1 CONDUIT SIZES BASED ON EMT AND COPPER CONDUCTORS (UNLESS OTHERWISE INDICATED WITH AN "AL" FOR ALUMINUM). UPSIZE AS REQUIRED WHERE PVC OR GALVANIZED IS USED OR REQUIRED PER SPECIFICATIONS.

2 G.E.C. = GROUNDING ELECTRODE CONDUCTOR FOR SEPARATELY DERIVED SYSTEM (PER SET, USE EQUIVALENT CMIL AND GEC FROM 250.66)

3 GND. = EQUIPMENT GROUNDING CONDUCTOR (E.G.C.)

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
ELECTRICAL CONNECTION SCHEDULES

DATE
APRIL 24, 2026

SHEET NUMBER
E 402
23-622.000

PANELBOARD " EP1F" LOAD SCHEDULE

PANEL: EP1F | **MOUNTING:** SURFACE | **VOLTAGE:** 208/120V, 3PH, 4W
LOCATION: BOILER 150 / Level 1 | **AMPS:** 200 A MB | **FED FROM:** TX-EP1F
ADDED ACCESSORIES: DOUBLE TUB, SPD | **FEED-THRU LUGS...** No | **A.I.C. VALUE:** 13493 A
FULLY RATED | (PROVIDE 25% HIGHER A.I.C. RATING)

	CIRCUIT DESCRIPTION	TRIP (A)	POLES	A		B		C		POLES	TRIP (A)	CIRCUIT DESCRIPTION	
1	EP1A	60	3	2640	1200					1	30	KITCHEN - 101 - WALK-IN COOLER	2
3	--	--	--			4190	600			1	20	KITCHEN - 101A - COOLER COIL	4
5	--	--	--					3540	1201	3	20	KITCHEN - 101D - FREEZER COMPRESSOR	6
7	EP1B	125	3	9114	1201					--	--	--	8
9	--	--	--			9400	1201			--	--	--	10
11	--	--	--					11540	1200	1	20	KITCHEN - 101 - WALK-IN FREEZER	12
13	HVAC - B-1	15	3	780	1560					2	25	KITCHEN - 101C - FREEZER COIL	14
15	--	--	--			780	1560			--	--	--	16
17	--	--	--					780	600	1	20	KITCHEN - 101E - FREEZER HEAT TRACE	18
19	HVAC - B-2	15	3	780	1768					3	20	KITCHEN - 101D - FREEZER COMPRESSOR	20
21	--	--	--			780	1768			--	--	--	22
23	--	--	--					780	1768	--	--	--	24
25	HVAC - B-3	15	3	780	0					1	20	SPARE	26
27	--	--	--			780	0			1	20	SPARE	28
29	--	--	--					780	0	1	20	SPARE	30
31	HVAC - P-13	15	2	1150	0					1	20	SPARE	32
33	--	--	--			1150	0			1	20	SPARE	34
35	HVAC - WH-1	20	1					500	0	1	20	SPARE	36
37	HVAC - WH-2	20	1	500	0					1	20	SPARE	38
39	HVAC - P-3	20	1			1254	0			1	20	SPARE	40
41	SPARE	20	1					0	500	1	20	POWER - PREACTION CONTROLLER (PAC)	42
43	SPARE	20	1	0	250					1	20	HVAC - UH-6	44
45	SPARE	20	1			0	180			1	20	RECEPTACLE - FIRE PUMP ROOM	46
47	SPARE	20	1					0	250	1	20	HVAC - EF-21	48
49	HVAC - WS-1	20	1	500	500					1	20	POWER - NAC1F	50
51	HVAC - UH-1, UH-2	20	1			500	540			1	20	RECEPTACLE - ELEC 146	52
53	RECEPTACLE - WATER SOFTENER 151	20	1					540	360	1	20	RECEPTACLE - TECH 145	54
55	RECEPTACLE - BOILER 150	20	1	540	360					1	20	RECEPTACLE - TECH 145	56
57	RECEPTACLE - BOILER 150	20	1			720	500			1	20	RECEPTACLE - TECH 145, RACK	58
59	POWER - TEMP CONTROL PANEL	20	1					500	1000	2	20	RECEPTACLE - TECH 145, RACK	60
61	SPARE	20	1	0	1000					--	--	--	62
63	SPARE	20	1			0	1000			1	20	POWER - TECH 145, SECURITY PANELS	64
65	SPARE	20	1					0	250	1	20	HVAC - CP-1	66
67	SPARE	20	1	0	1000					2	40	HVAC - ACCU-3	68
69	EP2B	100	3			4733	1000			--	--	--	70
71	--	--	--					4173	0	1	20	SPARE	72
73	--	--	--	4023	0					1	20	SPARE	74
75	SPARE	20	1			0	0			1	20	SPARE	76
77	SPARE	20	1					0	0	1	20	SPARE	78
79	SURGE PROTECTIVE DEVICE (SPD)	30	3	0	0					1	20	SPARE	80
81	--	--	--			0	0			1	20	SPARE	82
83	--	--	--					0	0	1	20	SPARE	84

TOTAL LOAD: 29647 VA | 32637 VA | 30263 VA
ADDITIONAL FEED THRU LUGS LOAD (IF APPLICABLE): 0 VA | 0 VA | 0 VA
TOTAL AMPS: 247 A | 273 A | 253 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC -	28921 VA	100.00%	28921 VA		
POWER -	10700 VA	100.00%	10700 VA	**TOTAL CONNECTED LOAD:**	92548 VA
RECEPTACLE -	36440 VA	63.72%	23220 VA	**TOTAL ESTIMATED DEMAND:**	73859 VA
Spare	500 VA	100.00%	500 VA	**TOTAL CONNECTED LOAD (A):**	257 A
TECHNOLOGY -	360 VA	100.00%	360 VA	**TOTAL ESTIMATED DEMAND...**	205 A
KITCHEN -	15627 VA	65.00%	10158 VA		

NOTES:

PROVIDE SPD BREAKER PER ONELINE SCHEDULE. RECEPTACLE DEMAND FACTOR = FIRST 10kVA X 100% + 50% OF REMAINDER
AIC RATING IS CALCULATED VALUE, PROVIDE IC RATING AT LEAST 25% HIGHER AS PER SPECIFICATIONS.

PANELBOARD " SDP2B" LOAD SCHEDULE

PANEL: SDP2B | **MOUNTING:** SURFACE | **VOLTAGE:** 208/120V, 3PH, 4W
LOCATION: ELEC. 201 / SECOND FLOOR | **AMPS:** 400 A MB | **FED FROM:** TX-SDP2B
ADDED ACCESSORIES: SPD | **FEED-THRU LUGS...** | **A.I.C. VALUE:** 14001 A
(PROVIDE 25% HIGHER A.I.C. RATING)

	CIRCUIT DESCRIPTION	TRIP (A)	POLES	A (VA)		B (VA)		C (VA)		POLES	TRIP (A)	CIRCUIT DESCRIPTION	
1	RP2D	100	3	4735	12790					3	225	RP2B	2
3	--	--	--			5295	16860			--	--	--	4
5	--	--	--					4430	17827	--	--	--	6
7	SPARE	100	3	0	--					1	--	SPACE	8
9	--	--	--			0	--			1	--	SPACE	10
11	--	--	--					0	--	1	--	SPACE	12
13	SPARE	60	3	0	--					1	--	SPACE	14
15	--	--	--			0	--			1	--	SPACE	16
17	--	--	--					0	--	1	--	SPACE	18
19	SPACE	--	1	--	--					1	--	SPACE	20
21	SPACE	--	1			--	--			1	--	SPACE	22
23	SPACE	--	1					--	--	1	--	SPACE	24
25	SPACE	--	1	--	--					1	--	SPACE	26
27	SPACE	--	1			--	--			1	--	SPACE	28
29	SPACE	--	1					--	--	1	--	SPACE	30
31	SPACE	--	1	--	--					1	--	SPACE	32
33	SPACE	--	1			--	--			1	--	SPACE	34
35	SPACE	--	1					--	--	1	--	SPACE	36
37	SURGE PROTECTIVE DEVICE	30	3	0	--					1	--	SPACE	38
39	--	--	--			0	--			1	--	SPACE	40
41	--	--	--					0	--	1	--	SPACE	42

TOTAL LOAD: 17525 VA | 22155 VA | 22257 VA
ADDITIONAL FEED THRU LUGS LOAD (IF APPLICABLE): 0 VA | 0 VA | 0 VA
TOTAL AMPS: 146 A | 191 A | 191 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC -	20117 VA	100.00%	20117 VA		
POWER -	1800 VA	100.00%	1800 VA	**TOTAL CONNECTED LOAD:**	61937 VA
RECEPTACLE -	40020 VA	62.49%	25010 VA	**TOTAL ESTIMATED DEMAND:**	46927 VA
				TOTAL CONNECTED LOAD (A):	172 A
				TOTAL ESTIMATED DEMAND...	130 A

NOTES:

PROVIDE SPD BREAKER PER ONELINE SCHEDULE. RECEPTACLE DEMAND FACTOR = FIRST 10kVA X 100% + 50% OF REMAINDER
AIC RATING IS CALCULATED VALUE, PROVIDE IC RATING AT LEAST 25% HIGHER AS PER SPECIFICATIONS.

PANELBOARD " EP1B" LOAD SCHEDULE

PANEL: EP1B | **MOUNTING:** SURFACE | **VOLTAGE:** 208/120V, 3PH, 4W
LOCATION: ELEC 102 / Level 1 | **AMPS:** 225 A MLO | **FED FROM:** EP1F
ADDED ACCESSORIES: DOUBLE TUB, SPD | **FEED-THRU LUGS...** No | **A.I.C. VALUE:** 3955 A
(PROVIDE 25% HIGHER A.I.C. RATING)

	CIRCUIT DESCRIPTION	TRIP (A)	POLES	A		B		C		POLES	TRIP (A)	CIRCUIT DESCRIPTION	
1	RECEPTACLE - RECEPTION / WAITING 100	20	1	180	180					1	20	RECEPTACLE - RECEPTION / WAITING 100	2
3	RECEPTACLE - RECEPTION / WAITING 100	20	1			180	180			1	20	RECEPTACLE - RECEPTION / WAITING 100	4
5	RECEPTACLE - RECEPTION / WAITING 100	20	1					180	360	1	20	RECEPTACLE - WORK ROOM 100K	6
7	RECEPTACLE - WORK ROOM 100K	20	1	360	180					1	20	RECEPTACLE - WORK ROOM 100K	8
9	RECEPTACLE - WORK ROOM 100K	20	1			180	360			1	20	RECEPTACLE - WORK ROOM 100K	10
11	RECEPTACLE - WORK ROOM 100K	20	1					360	720	1	20	RECEPTACLE - PRINCIPAL 100G	12
13	RECEPTACLE - RECORDS 100J	20	1	540	540					1	20	RECEPTACLE - ESL 105	14
15	RECEPTACLE - ESL 105	20	1			540	540			1	20	RECEPTACLE - ESL 104	16
17	RECEPTACLE - ESL 104	20	1					540	540	1	20	RECEPTACLE - STAFF 103	18
19	RECEPTACLE - STAFF 103	20	1	360	180					1	20	RECEPTACLE - STAFF 103	20
21	RECEPTACLE - STAFF 103	20	1			180	180			1	20	RECEPTACLE - STAFF 103	22
23	RECEPTACLE - STAFF 103	20	1					180	180	1	20	RECEPTACLE - STAFF 103	24
25	RECEPTACLE - STAFF 103	20	1	180	180					1	20	RECEPTACLE - STAFF 103	26
27	RECEPTACLE - STAFF 103	20	1			180	720			1	20	RECEPTACLE - CONF. 101	28
29	RECEPTACLE - CONF. 101	20	1					600	1080	1	20	RECEPTACLE - RECEPTION / WAITING 100	30
31	CONFERENCE 100A	20	1	720	540					1	20	RECEPTACLE - CONFERENCE 100A	32
33	RECEPTACLE - AP OFFCE 100B	20	1			720	1200			1	20	RECEPTACLE - CONFERENCE 100A	34
35	RECEPTACLE - CONF. 100C	20	1					600	1080	1	20	RECEPTACLE - Room 100C, 100D	36
37	RECEPTACLE - CONF. 100E	20	1	600	720					1	20	RECEPTACLE - CONF. 100E	38
39	POWER - TLT 100H	20	1			900	720			1	20	RECEPTACLE - COUNSELOR 100F	40
41	POWER - TLT 100M	20	1					900	540	1	20	RECEPTACLE - HEALTH 100L	42
43	RECEPTACLE - HEALTH 100L	20	1	360	360					1	20	RECEPTACLE - HALL 100N	44
45	RECEPTACLE - Room 100M, 100H	20	1			360	0			1	20	SPARE	46
47	POWER - HEALTH 100L	20	1					900	0	1	20	SPARE	48
49	RECEPTACLE - VEST C001, CH-1	20	1	624	0					1	20	SPARE	50
51	SPARE	20	1			0	0			1	20	SPARE	52
53	SPARE	20	1					0	500	1	20	POWER - NAC1B	54
55	SPARE	20	1	0	500					1	20	POWER - LCP1B	56
57	SPARE	20	1			0	360			1	20	RECEPTACLE - ELEC 102	58
59	SPARE	20	1					0	720	1	20	RECEPTACLE - TECH 118	60
61	SPARE	20	1	0	360					1	20	RECEPTACLE - TECH 118	62
63	SPARE	20	1			0	360			1	20	RECEPTACLE - TECH 118, RACK 1	64
65	SPARE	20	1					0	180	2	20	RECEPTACLE - TECH 118, RACK 1	66
67	SPARE	20	1	0	180					--	--	--	68
69	RECEPTACLE - ELEV. E01.1	20	1			180	360			1	20	RECEPTACLE - TECH 118, RACK 2	70
71	HVAC - SP-1	15	2					840	180	2	20	RECEPTACLE - TECH 118, RACK 2	72
73	--	--	--	840	180					--	--	--	74
75	HVAC - SP-1 CONTROLER	20	1			500	0			1	20	SPARE	76
77	RECEPTACLE - TECH 118	20	1					180	0	1	20	SPARE	78
79	SURGE PROTECTIVE DEVICE (SPD)	30	3	0	250					1	20	HVAC - CP-1	80
81	--	--	--			0	500			1	20	POWER - FIRE ALARM CONTORL PANEL	82
83	--	--	--					0	180	1	20	RECEPTACLE - EXTERIOR MAIN ENTRY	84

TOTAL LOAD: 9114 VA | 9400 VA | 11540 VA
ADDITIONAL FEED THRU LUGS LOAD (IF APPLICABLE): 0 VA | 0 VA | 0 VA
TOTAL AMPS: 76 A | 79 A | 97 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC -	2874 VA	100.00%	2874 VA		
POWER -	4200 VA	100.00%	4200 VA	**TOTAL CONNECTED LOAD:**	30054 VA
RECEPTACLE -	22620 VA	72.10%	16310 VA	**TOTAL ESTIMATED DEMAND:**	23744 VA
TECHNOLOGY -	360 VA	100.00%	360 VA	**TOTAL CONNECTED LOAD (A):**	83 A
				TOTAL ESTIMATED DEMAND...	66 A

NOTES:

PROVIDE SPD BREAKER PER ONELINE SCHEDULE. RECEPTACLE DEMAND FACTOR = FIRST 10kVA X 100% + 50% OF REMAINDER
AIC RATING IS CALCULATED VALUE, PROVIDE IC RATING AT LEAST 25% HIGHER AS PER SPECIFICATIONS.

PANELBOARD " EM" LOAD SCHEDULE

PANEL: EM | **MOUNTING:** SURFACE | **VOLTAGE:** 480/277V, 3PH, 4W
LOCATION: ELEC 153 / Level 1 | **AMPS:** 350 A MB | **FED FROM:** ATS-EM
ADDED ACCESSORIES: SPD | **FEED-THRU LUGS...** No | **A.I.C. VALUE:** 27307 A
(PROVIDE 25% HIGHER A.I.C. RATING)

	CIRCUIT DESCRIPTION	TRIP (A)	POLES	A (VA)		B (VA)		C (VA)		POLES	TRIP (A)	CIRCUIT DESCRIPTION	
1	LIGHTING - STAFF LOT	20	1	864	500					1	20	POWER - LCP1	2
3	LIGHTING - MAIN LOT	20	1			1512	505			1	20	LIGHTING - SW BUILDING LIGHTS	4
5	LIGHTING - BUS LOOP AND ENTRY	20	1					1376	598	1	20	LIGHTING - EAST BUILDING LIGHTS	6
7	LIGHTING - UNIT F KITCHEN AND BOILER ROOM	20	1	1150	1000					1	20	POWER - DIGITAL SIGN	8
9	LIGHTING - UNIT F SOUTH LIGHTS	20	1			1192	100			1	20	POWER - FLAG POLE	10
11	LIGHTING - CAFE AND STORAGE LIGHTS	20	1					1447	0	1	20	SPARE	12
13	SPARE	20	1	0	0					1	20	SPARE	14
15	SPARE	20	1			0	0			1	20	SPARE	16
17	SPARE	20	1					0	0	1	20	SPARE	18
19	SPARE	20	1	0	0					1	20	SPARE	20
21	SPARE	20	1			0	0			1	20	SPARE	22
23	SPARE	20	1					0	0	1	20	SPARE	24
25	SPARE	20	1	0	0					1	20	SPARE	26
27	SPARE	20	1			0	0			1	20	SPARE	28
29	SPARE	20	1					0	0	1	20	SPARE	30
31	SPARE	20	1	0	582					3	15	HVAC - JP-1	32
33	SPARE	20	1			0	582			--	--	--	34
35	SPARE	20	1					0	582	--	--	--	36
37	SURGE PROTECTIVE DEVICE (SPD)	30	3	0	71209					3	250	EM1F	38
39	--	--	--			0	73086			--	--	--	40
41	--	--	--					0	65302	--	--	--	42

TOTAL LOAD: 75305 VA | 76977 VA | 69304 VA
ADDITIONAL FEED THRU LUGS LOAD (IF APPLICABLE): 0 VA | 0 VA | 0 VA
TOTAL AMPS: 275 A | 281 A | 250 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC -	82212 VA	100.00%	82212 VA		
LIGHTING -	51104 VA	100.00%	51104 VA	**TOTAL CONNECTED LOAD:**	221585 VA
Other	96 VA	100.00%	96 VA	**TOTAL ESTIMATED DEMAND:**	202896 VA
POWER -	35247 VA	100.00%	35247 VA	**TOTAL CONNECTED LOAD (A):**	267 A
RECEPTACLE -	36440 VA	63.72%	23220 VA	**TOTAL ESTIMATED DEMAND...**	244 A
Spare	500 VA	100.00%	500 VA		
TECHNOLOGY -	360 VA	100.00%	360 VA		
KITCHEN -	15627 VA	65.00%	10158 VA		
EM LIGHTING -	0 VA	0.00%	0 VA		

NOTES:

PROVIDE SPD BREAKER PER ONELINE SCHEDULE. RECEPTACLE DEMAND FACTOR = FIRST 10kVA X 100% + 50% OF REMAINDER
AIC RATING IS CALCULATED VALUE, PROVIDE IC RATING AT LEAST 25% HIGHER AS PER SPECIFICATIONS.

AD2

TowerPinkster
Architecture - Engineering - Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
ELECTRICAL PANEL LOAD SHEETS

DATE
APRIL 24, 2026

SHEET NUMBER
E 505
23-622.000

TECHNOLOGY PROVISION MATRIX

DEVICE TYPE	OWNER PROVIDED / INSTALLED	CONTRACTOR PROVIDED / INSTALLED	AV CONTRACTOR PROVIDED / INSTALLED	SECURITY CONTRACTOR PROVIDED / INSTALLED	COMMENTS
ACCESS CONTROL: CABLING TO DOORS AND KEYPADS				X	
ACCESS CONTROL: ELECTRIFIED DOOR HARDWARE		X			PROVIDED BY DOOR HARDWARE MANUFACTURER.
ACCESS CONTROL: ENCLOSURES, READERS, SENSORS, POWER SUPPLIES, CABLING, ETC.				X	
AV: EQUIPMENT, MOUNTING HARDWARE, FACEPLATES, & CABLING			X		
AV: SOUND-MASKING SYSTEM (DEVICES & CABLING)			X		
CABLING: BACKBONE DATA CABLING, TERMINATIONS, & PATCH PANELS (INCLUDES SECURITY CAMERAS, EXCLUDES ACCESS CONTROL TO DOORS)		X			
CABLING: CABLE TRAY (INSIDE TELECOM ROOMS)		X			
CABLING: CABLE TRAY (OUTSIDE TELECOM ROOMS)		X			
CABLING: HORIZONTAL DATA CABLING, TERMINATIONS, & PATCH PANELS		X			
CLOCKS & CABLING		X			
GROUNDING BUSBARS IN TELECOM ROOMS		X			
NETWORK: EQUIPMENT (SWITCHES & WIRELESS ACCESS POINTS)	X				
NETWORK: RACKS		X			
PAGING: CABLING & DEVICES		X			
PATHWAY & ROUGH INS FOR ACCESS CONTROL DEVICES (DOORS, CARD READERS "CR", KEYPADS "KP")		X			REFER TO T 300 SECURITY SHEETS.
PATHWAY FOR COMMUNICATIONS (CONDUIT, SLEEVES, ROUGH-IN BOXES, ETC.)		X			PROVIDED BY THE EC, MANAGED UNDER SKILLMAN.
PLYWOOD BACKERBOARD (INSIDE TELECOM ROOMS)		X			
SECURITY: CAMERAS - HARDWARE & PROGRAMMING (EXCLUDES CABLING)				X	
SECURITY: EXTERIOR CAMERA PENETRATIONS		X			
SECURITY: INTERCOMS & CABLING		X			
SECURITY: ON-PREM STORAGE & CAMERA LICENSES	X				TECHNOLOGY CONTRACTOR SHALL COORDINATE WITH OWNER TO ACTIVATE CAMERA LICENSES.
UPS DEVICES		X			

STRUCTURED CABLING

		MOUNTING HEIGHTS
	DATA/VOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB	16"
WP	WALL PHONE OUTLET - 4 SQ BOX, 5G COVER	44"
WM	DATA/VOICE OUTLET - 4 SQ BOX, 5G COVER, SURFACE #WM500	16"
	DATA/VOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB 4" ABOVE BACKSPLASH	
	SECURITY CONTROL5 PATHWAY - 4 SQ BOX, 5G COVER WITH BRUSH PLATE, 1" CONDUIT STUB	16"
WAP	WIRELESS ACCESS POINT (REFER TO DETAILS)	
GDB	GROUNDING BUS BAR WITH DEDICATED GROUND, (REFER TO DETAILS)	
	CABLE TRAY, (12"x4" UNLESS NOTED OTHERWISE)	
	CLOCK (REFER TO DETAILS)	90" TO CENTER
CLK	CALL BUTTON - 4 SQ BOX, 5G COVER	40" UNLESS NOTED
MCP	MASTER CLOCK PANEL	
PAG	PAGING SYSTEM HEAD END	
EC4	NETWORK COMMUNICATION RACK - FLOOR STANDING 3' CLEAR ON BOTH SIDES	
	4'X8'X3/4" FIRE-RATED PLYWOOD, A/C FINISH, MOUNT VERTICALLY	12"
	CONDUIT SLEEVE IN ACCESSIBLE CEILING (2" CONDUIT UNLESS NOTED OTHERWISE, ONLY SHOWN ON PLANS INDICATING SPECIFIC CONDITIONS, REFER TO GENERAL NOTES FOR SLEEVES THAT ARE REQUIRED INTO ALL SPACES)	

NOTES:

DEVICES REQUIRING DATA DROPS MAY INCLUDE SYMBOLS NOT LOCATED UNDER THE "STRUCTURED CABLING" SECTION.

QTY. OF DATA DROPS TO EACH DEVICE IS DENOTED BY "#" NEAR THE DEVICE SYMBOL ON THE ASSOCIATED FLOOR PLANS.

SECURITY SYMBOLS

	SECURITY CAMERA - WALL
	SECURITY CAMERA - CEILING
SCP	SECURITY CABLING PATHWAY, 4 SQ, 5G BRUSH PLATE, 1" CONDUIT STUB
ACP#	ACCESS CONTROL PANEL (REFER TO DETAILS)
RB#	RELEASE BUTTON - "#" DENOTES QTY.
IM	INTERCOM MASTER STATION
LD	LOCKDOWN BUTTON
DA	DURESS ALARM PUSH BUTTON - UNDER DESK
CR	CARD READER - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB
CR M	CARD READER, MULLION MOUNT, 3/4" CONDUIT STUB
LD	LOCKDOWN STROBE (REFER TO DETAILS)
KP	KEY PAD - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB
IC#	INTERCOM - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB (IC2 GETS 2G COVER)
SO	SOUNDER - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB
ST	STROBE - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB
ST2	STROBE (GYM) - 4 SQ BOX @ 90° AFF, 2-G COVER, 3/4" CONDUIT STUB
VP	VAPE SENSOR
#x	ACCESS CONTROL DETAIL INDICATOR: REFER TO ACCESS CONTROL DETAILS AND SCHEDULE

REFER TO SECURITY DRAWINGS, DETAILS AND PLANS FOR LOCATIONS AND ROUGH-IN INFORMATION

AUDIO/VISUAL

TV n	TV WALL RECESSED "F5R" BACKBOX, (REFER TO DETAILS)	
PRJ n	PROJECTOR, (REFER TO DETAILS)	
AVA	A/V BUTTON PANEL, 4 SQ BOX, 1-G OPENING, 1"C	44"
AVB	A/V TOUCH PANEL, 4 SQ BOX, 2-G OPENING, 1"C	44"
TS n	TECHNOLOGY OR TEACHER'S STATION BOXES, USE F5R MUDRING MUD-2G-** FOR 2-GANG OPENINGS(REFER TO DETAILS)	
AV1	A/V INPUT, 4 SQ BOX, 1-G OPENING, 1"C	16"
XLR	MICROPHONE JACK, 4 SQ BOX, 1-G OPENING, 1"C	16"
CB	CEILING BOX, (REFER TO DETAILS)	
BT	BLUETOOTH DEVICE - DEEP 4 SQ BOX, 2-G OPENING, PROTECTIVE COVER	16"
ANT	ANTENNA, 1"C TO 4-SQUARE BOX, MOUNT TO BOTTOM OF TRUSS	
SCR	PROJECTOR SCREEN, (REFER TO DETAILS)	
SW	LOUDSPEAKER CEILING - MOUNTED	
HSW	LOUDSPEAKER WALL - MOUNTED	
MON	MONITOR OUTPUT, 4 SQ BOX, 1-G OPENING, 1"C	16"
VV	PAGING SPEAKER CEILING - MOUNTED	
HPV	PAGING SPEAKER WALL - MOUNTED	
LUM	LU INTERACTIVE (REFER TO DETAILS)	

ERCES SYMBOLS

BDA	BI-DIRECTIONAL AMPLIFIER
DON	DONOR ANTENNA
REA	REPEATER ANTENNA
BBU	BATTERY BACKUP UNIT
ANC	ANNUNCIATOR PANEL
2W	2-WAY SPLITTER
5D	5DB DIRECTIONAL COUPLER
6D	6DB DIRECTIONAL COUPLER
10D	10DB DIRECTIONAL COUPLER
15D	15DB DIRECTIONAL COUPLER

A02

GENERAL NOTES - TECHNOLOGY - VIDEO SYSTEMS

1 INSTALLED VIDEO SYSTEMS SHALL NOT HAVE NOISE, FLICKER, UNEVEN BRIGHTNESS, OR ANY OTHER VISUAL ANOMALIES OR DEFICIENCIES.

2 EDID SHALL BE MANAGED AND MAINTAINED TO ENSURE PROPER DISPLAY IDENTIFICATION BY SOURCES.

3 HDCP SHALL BE MAINTAINED FROM ALL SOURCES TO ALL SINKS.

4 COORDINATE ALL NETWORK NEEDS WITH OWNER INCLUDING IP ADDRESSING, PROTOCOLS REQUIRED FOR EQUIPMENT OPERATION, AND BANDWIDTH IMPLICATIONS.

*AV SHALL BE INSTALLED BY OTHERS AS PART OF A SEPARATE PROJECT - SECURITY & AV #23622.050

GENERAL NOTES - TECHNOLOGY

1 TECHNOLOGY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR NEW WORK OR WHERE DEVICES ARE REMOVED AND NOT REPLACED.

2 TECHNOLOGY CONTRACTOR SHALL COORDINATE WITH G SERIES SHEETS DEVICE COORDINATION DETAIL. DEVICES ARE TO ALIGN VERTICALLY AND HORIZONTALLY AND FOLLOW THE RULES OF THIS DETAIL CONSISTENTLY. A PRE-INSTALL DEVICE COORDINATION MEETING FOR DEVICE FINISHES AND LAYOUT MAY BE REQUIRED IN THE SPECIFICATION FOR THIS PROJECT.

3 REFER TO TECHNOLOGY, ELECTRICAL AND ARCHITECTURAL DETAILS AND ELEVATIONS FOR SYMBOL INFORMATION AND ELEVATION DETAIL.

4 DEVICES AND EQUIPMENT SHOWN DASHED OR WITH AN "X" ARE TO BE REMOVED. FIXTURES, DEVICES AND EQUIPMENT SHOWN LIGHTLY OR WITH AN "E" ARE EXISTING TO REMAIN UNDISTURBED.

5 DEVICES SHOWN WITH AN "R" ARE EXISTING TO BE REPLACED WITH NEW DEVICE AND COVER PLATE.

6 TEMPORARILY SUPPORT EXISTING CEILING DEVICES TO REMAIN IN EXISTING CEILINGS TO BE REPLACED. REINSTALL DEVICES INTO NEW CEILING.

7 CONTRACTOR SHALL BE RESPONSIBLE FOR PROJECT PHASING. TEMPORARY WIRING TO KEEP SYSTEMS RUNNING SHALL BE PROVIDED AS REQUIRED WHILE BUILDING IS OCCUPIED BETWEEN PHASES OF CONSTRUCTION.

GENERAL NOTES - TECHNOLOGY - ACCESS CONTROLS

1 ALL INSTALLATION AND PROGRAMMING SHALL BE COMPLETED BY OR OVERSEEN BY A MANUFACTURER CERTIFIED INSTALLER.

2 PRIOR TO CONNECTING ANY DEVICE TO THE NETWORK, DEFAULT USERNAMES AND PASSWORDS SHALL BE CHANGED TO OWNER'S STANDARDS.

3 CABLES SHALL BE NEATLY MANAGED AND LABELED WITHIN ACCESS CONTROL PANELS. ZIP TIES ARE NOT ACCEPTABLE METHODS OF CABLE MANAGEMENT.

4 EACH ACCESS CONTROL CABLE SHALL BE LABELED WITH THEIR FUNCTION AT THE ACCESS CONTROL PANEL. REFER TO ACCESS CONTROL LABELING DETAILS FOR REQUIREMENTS.

5 UNLESS NOTED OTHERWISE, POWER SUPPLIES SHALL BE HARD WIRED AND NOT CORD AND PLUG. COORDINATE WITH ELECTRICAL CONTRACTOR TO CONNECT TO AN EMERGENCY OR GENERATOR-FED CIRCUIT.

6 COORDINATE WITH OWNER TO PROGRAM DOORS AND DEVICES ACCORDING TO OWNER'S NAMING CONVENTIONS.

7 REFER TO ACCESS CONTROL SCHEDULE FOR PROGRAMMING REQUIREMENTS OF EACH DOOR.

8 ANY SPARE CONDUCTORS/CABLES SHALL BE SPOOLED ABOVE ACCESSIBLE CEILING NEAR DOOR AND LABELED WITH THE DOOR NUMBER AND PANEL NUMBER, AS WELL AS "SPARE".

*ACCESS CONTROL SHALL BE INSTALLED BY OTHERS AS PART OF A SEPARATE PROJECT - SECURITY & AV #23622.050

GENERAL NOTES - TECHNOLOGY - ERCES

1 THIS SYSTEM SHALL BE TESTED, DESIGNED, AND INSTALLED IN ACCORDANCE WITH IFC 510, NFPA 1221 SECTION 9.6, AND AHJ REQUIREMENTS. IF CONFLICTS EXIST BETWEEN THESE, THEN THE MORE STRICT REQUIREMENT APPLIES UNLESS THE AHJ GIVES WRITTEN PERMISSION.

2 CONTRACTOR SHALL COORDINATE WITH THE AHJ, RADIO LICENSE HOLDER, AND OWNER AS REQUIRED.

3 THE LEAD INSTALLER IS REQUIRED TO BE CERTIFIED BY THE MANUFACTURER OF THE PRODUCTS THAT ARE INSTALLED.

4 ANY TESTS DONE OF THE SITE MUST INCLUDE ALL CONTROL CHANNELS FOR TRUNKED SYSTEMS AND ALL DOWNLINK CHANNELS FOR NON-TRUNKED SYSTEMS. TESTING SHALL FOLLOW THE GRID-BASED METHOD AS OUTLINED IN CURRENT CODES. TESTS MUST INCLUDE MEASUREMENTS FOR RSSI, SINR, AND BER%.

5 THE INSTALLED SYSTEM SHALL MAINTAIN A DAQ RATING OF AT LEAST 3.0, AND PROVIDE A MINIMUM SIGNAL STRENGTH OF -95DBM ACROSS 90% OF THE BUILDING AND 99% OF CRITICAL AREAS. CRITICAL AREAS INCLUDE FIRE COMMAND CENTERS, FIRE PUMP ROOMS, EXIT STAIRS, EXIT PASSAGEWAYS, ELEVATOR LOBBIES, STANDPIPE CABINETS, SPRINKLER SECTIONAL VALVE LOCATIONS, AND OTHER AREAS IDENTIFIED BY THE AHJ.

6 SYSTEM SHALL BE INSTALLED TO PROVIDE COVERAGE ONLY TO AREAS AS NEEDED. CONTRACTOR SHALL NOT BLANKET THE BUILDING WITH COVERAGE IN AREAS WHERE IT IS NOT NEEDED.

7 THE SYSTEM SHALL PROVIDE MONITORING OF THE FOLLOWING, AND REPORT STATUS TO THE FIRE ALARM CONTROL PANEL (FACP) OR A DEDICATED ANNUNCIATOR PANEL: DONOR ANTENNA, FAILURE, ACTIVE RF-EMITTING DEVICE FAILURE, LOW BATTERY CAPACITY WHEN 70% OF BATTERY IS DEPLETED, ACTIVE SYSTEM COMPONENT FAILURE, LOSS OF AC POWER, FAILURE OF BATTERY CHARGER, AND STATUS OF THE LINK BETWEEN THE ERCES SYSTEM AND THE FACP.

8 BACKBONE CABLING, OR THE PATHWAY IN WHICH IT RUNS, MUST HAVE THE SAME FIRE-RATING AS THE BUILDING.

9 A MINIMUM OF AT LEAST 20DB OF ISOLATION MUST BE PROVIDED BETWEEN THE DONOR ANTENNA AND THE INTERNAL ANTENNAS.

10 THE BATTERY BACKUP UNIT (BBU) MUST PROVIDE A MINIMUM OF 24 HOURS OF RUN-TIME.

11 POST-COMMISSIONING TEST RESULTS MUST BE APPROVED BY THE AHJ, AND TURNED OVER TO TOWERPINKSTER AND THE OWNER AS PART OF PROJECT CLOSEOUT.

GENERAL NOTES - TECHNOLOGY - STRUCTURED CABLING

1 BICSI TECHNICIAN (TECH) CERTIFICATION IS REQUIRED FOR THE LEAD INSTALLER THAT WILL BE ONSITE AT ALL TIMES.

2 EACH INSTALLER IS REQUIRED TO BE CERTIFIED BY THE MANUFACTURER OF THE PRODUCTS THAT ARE INSTALLED (I.E. PANDUIT, BELDEN, HUBBELL, COMMSCOPE, ETC.).

3 VALID BICSI TECH AND MANUFACTURER INSTALLER CERTIFICATES SHALL BE INCLUDED IN SUBMITTAL PACKAGE.

4 ALL CERTIFICATION TEST RESULTS OF THE STRUCTURED CABLING SYSTEM SHALL BE SUBMITTED TO TOWERPINKSTER AS PART OF THE CLOSEOUT PACKAGE.

5 STRUCTURED CABLING INTEGRATOR SHALL PROVIDE A MANUFACTURER'S 25 YEAR WARRANTY AT PROJECT COMPLETION.

6 ALL CABLES SHALL HAVE A MINIMUM OF 5FT SERVICE LOOP AT OUTLET LOCATION OR AS NOTED ON DRAWINGS.

7 ALL DATA CABLES SHALL HAVE A MINIMUM OF 5FT SERVICE LOOP IN THE TELECOMMUNICATIONS ROOM.

8 DATA CABLES SHALL NOT BE BUNDLED IN GROUPS OF MORE THAN 24 WITHIN A TELECOMMUNICATIONS ROOM.

9 THE STRUCTURED CABLING INTEGRATOR SHALL PROVIDE, WITHIN EACH TELECOMMUNICATIONS ROOM, THE MINIMUM NUMBER OF PATCH PANELS REQUIRED TO SUPPORT ALL INSTALLED DATA CABLES, WITH ADDITIONAL CAPACITY TO ACCOMMODATE AT LEAST 20 FUTURE DATA CABLE TERMINATIONS.

10 ALL DATA FACEPLATES SHALL MATCH THE COLOR, STYLE AND MATERIAL (I.E. STAINLESS STEEL, PLASTIC, ETC.) OF THE ELECTRICAL DEVICE FACEPLATE WITHIN EACH SPACE.

11 ALL HORIZONTAL CABLES (CATEGORY CABLE, COAX, FIBER, ETC.) SHALL BE CERTIFIED BY USING A MINIMUM OF A LEVEL IIIE CERTIFICATION TESTER THAT IS WITHIN MANUFACTURER'S CALIBRATION PERIOD.

12 ALL BACKBONE FIBER STRANDS SHALL BE CERTIFIED BY USING A MINIMUM OF A LEVEL IIIE CERTIFICATION TESTER THAT IS WITHIN MANUFACTURER'S CALIBRATION PERIOD.

GENERAL NOTES - TECHNOLOGY - SECURITY CAMERAS

1 INSTALLATION SHALL BE COMPLETED BY OR OVERSEEN BY A MANUFACTURER CERTIFIED PROFESSIONAL.

2 INSTALL CAMERAS USING ALL APPROPRIATE HANGERS, FASTENERS, ETC. CAMERAS INSTALLED IN GRID/LAY IN CEILING SHALL HAVE SAFETY WIRE TYING THE CAMERA TO STRUCTURE ABOVE. EXTERIOR CAMERAS SHALL HAVE WEATHERTIGHT SEALANT AND SURGE SUPPRESSION INSTALLED. REFER TO CAMERA ROUGH IN DETAILS.

3 PRIOR TO CONNECTION TO OWNER'S NETWORK, DEFAULT USERNAME AND PASSWORD SHALL BE CHANGED. COORDINATE WITH OWNER FOR DEVICE SPECIFIC USERNAMES AND PASSWORDS.

4 CAMERA SHALL BE CONFIGURED BASED ON OWNER'S NETWORK CONFIGURATION AND NAMING STANDARDS. COMPLETE AN IP ADDRESS REQUEST WITH THE OWNER, COORDINATE NAMING CONFIGURATION BASED ON CAMERA COORDINATION SPREADSHEET.

5 INSTALL CAMERAS WITH INITIAL VIEW DEFINED BY THE CAMERA COORDINATION SPREADSHEET OR COVERAGE ANGLES PROVIDED BY ARCHITECT. VARIFOCAL AIMING WHERE REQUIRED TO OBTAIN INTENDED VIEW SHALL BE COMPLETED.

6 FOLLOWING SETTING THE INITIAL VIEW, COORDINATE AIMING MODIFICATIONS WITH ARCHITECT AND OWNER AND OBTAIN SIGN OFF PER CAMERA THROUGH THE CAMERA AIMING COORDINATION SPREADSHEET.

7 CONFIGURE CAMERA TO RECORD TO NVR BASED ON OWNER'S RECORDING CONFIGURATION STANDARDS. RESOLUTION, FRAMES PER SECOND, CONTINUOUS/MOTION ACTIVATED RECORDING, ANALYTICS, AND ANY OTHER FEATURES SHALL BE COORDINATED.

8 LABEL CAMERA HOUSING IN A LOCATION VISIBLE FROM THE GROUND. REFER TO CAMERA LABELING DETAIL FOR REQUIREMENTS.

9 CAMERA SYMBOLS AND COVERAGE ANGLES SHALL BE SET IN VMS MAPS ONCE OWNER AND ARCHITECT HAVE SIGNED OFF ON VIEWS.

*SECURITY CAMERAS SHALL BE INSTALLED BY OTHERS AS PART OF A SEPARATE PROJECT - SECURITY & AV #23622.050

GENERAL NOTES - TECHNOLOGY - AUDIO SYSTEMS

1 AUDIO SYSTEM SHALL BE FREE OF NOISE, RATTLE, HUM, BUZZ, OR ANY OTHER AUDIO DISTORTIONS.

2 SECURE CABLES UTILIZING VELCRO STRAPS. WIRE "ZIP TIES" SHALL NOT BE USED.

3 ROUTE ALL CABLES IN A MANNER THAT WILL ENSURE SIGNAL INTEGRITY AND WILL NOT INTRODUCE CROSSTALK.

4 PROVIDE A SERVICE LOOP FOR RACKS AND EQUIPMENT SUITABLE TO EASILY PLUG AND UNPLUG EQUIPMENT FOR TROUBLESHOOTING OR REPLACEMENT.

5 NEATLY DRESS ALL CABLING INSTALLED INSIDE AND OUTSIDE OF RACKS IN A SUITABLE HARNESS TO KEEP CABLES CLEAN, NEAT, AND TIDY.

6 COMMISSION AUDIO SYSTEM USING AUDIO MEASUREMENT MICROPHONE AND SOFTWARE (SMAART OR EASERA).)

7 ADJUST EQ AND CROSSOVER SETTINGS IN AMPLIFIER AND/OR DSP TO PROVIDE FLAT FREQUENCY RESPONSE, FULL RANGE AUDIO WITH PROTECTIVE LIMITING.

8 USE SPEECH, HIGH QUALITY REFERENCE AUDIO, AND SINE WAVE SWEEPS TO TEST THE SYSTEM - CORRECT ANY ABNORMALITIES.

9 VERIFY PROPER FUNCTION OF ALL INSTALLED EQUIPMENT (NEW AND EXISTING).

10 TURN OVER EXISTING UNUSED EQUIPMENT TO OWNER - NEATLY ORGANIZED.

11 COORDINATE WITH OWNER FOR LABELING OF EQUIPMENT AND AUDIO CONSOLE CHANNELS AND BUSSES AS WELL AS CONSOLE CONFIGURATION.

12 REMOTE MOUNT ALL ANTENNAS AS REQUIRED FOR MAXIMUM PERFORMANCE.

13 CONFIGURE DELAYS ON ANY SPEAKERS THAT ARE STAGGERED IN A LISTENING PLANE TO TIME-ALIGN AUDIO.

14 CONNECT COMPONENTS TO POWER SEQUENCER IN SUCH A WAY AS TO MITIGATE POPPING AND SYSTEM DAMAGE DURING SYSTEM POWER UP AND POWER DOWN.

*AV SHALL BE INSTALLED BY OTHERS AS PART OF A SEPARATE PROJECT - SECURITY & AV #23622.050

GENERAL NOTES - TECHNOLOGY - PAGING AND CLOCKS

1 FOR CLOCKS REQUIRING A MANUFACTURER-SPECIFIC IN-WALL ROUGH-IN BOX, THE CLOCK CONTRACTOR SHALL PROVIDE THE ROUGH-IN BOX TO ELECTRICIAN FOR WALL INSTALLATION. THE CLOCK CONTRACTOR AND ELECTRICIAN SHALL COORDINATE AHEAD OF SCHEDULED WALL INSTALLATIONS. COORDINATE WITH CONSTRUCTION MANAGER.

2 PAGING AND CLOCK CONTROLLERS SHALL BE PROPERLY CONFIGURED FOR TIME SYNCHRONIZATION WITH OWNER'S NETWORK TIME PROTOCOL (NTP) SOURCE. COORDINATE NTP ADDRESS WITH OWNER.

3 PAGING SPEAKER CABLING SHALL BE SIZED APPROPRIATELY FOR CABLE LENGTH AND POWER LOAD OF A GIVEN CIRCUIT.

4 FOR WIRELESS CLOCK SYSTEMS THAT REQUIRE FCC LICENSURE, THE CLOCK INTEGRATOR SHALL COORDINATE ANY REQUIRED LICENSE APPLICATION FORMS THAT ARE REQUIRED TO BE COMPLETED BY THE OWNER.

5 THE CLOCK INTEGRATOR SHALL BE RESPONSIBLE FOR REVIEW OF THE PROJECT ARCHITECTURAL ELEVATIONS AND ADHERE TO CLOCK PLACEMENT/ALIGNMENT GUIDELINES. ANY PLACEMENT CLARIFICATION REQUESTS SHALL BE MADE BY RFI.

6 FOR INTEGRATION OF NEW PAGING HEADEND HARDWARE TO PRE-EXISTING PAGING CIRCUITS, THE PAGING INTEGRATOR SHALL PERFORM A PRE-INSTALLATION SPEAKER TEST OF ALL EXISTING SPEAKERS. ANY FAULTY EXISTING SPEAKERS SHALL BE NOTED AND COMMUNICATED TO THE CM/ARCHITECT PRIOR TO THE INSTALLATION OF NEW EQUIPMENT.

7 THE PAGING SYSTEM INTEGRATOR SHALL PROVIDE INTERCONNECTION CABLING TO THE PRIMARY FIRE ALARM PANEL TO ALLOW THE FIRE ALARM SYSTEM TO OVERRIDE PAGING. CONNECTION AT THE FIRE PANEL SHALL BE BY THE FIRE ALARM INTEGRATOR. COORDINATE WITH OTHER TRADES.

8 THE PAGING SYSTEM RISER DETAIL IS INTENDED TO BE DIAGRAMMATICAL FOR THE PURPOSE OF UNDERSTANDING THE BASIC SYSTEM ARCHITECTURE. THE PAGING INTEGRATOR SHALL PROVIDE ALL COMPONENTS, CABLES AND ADAPTERS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM, REGARDLESS IF SHOWN ON THE DIAGRAM.

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026

ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

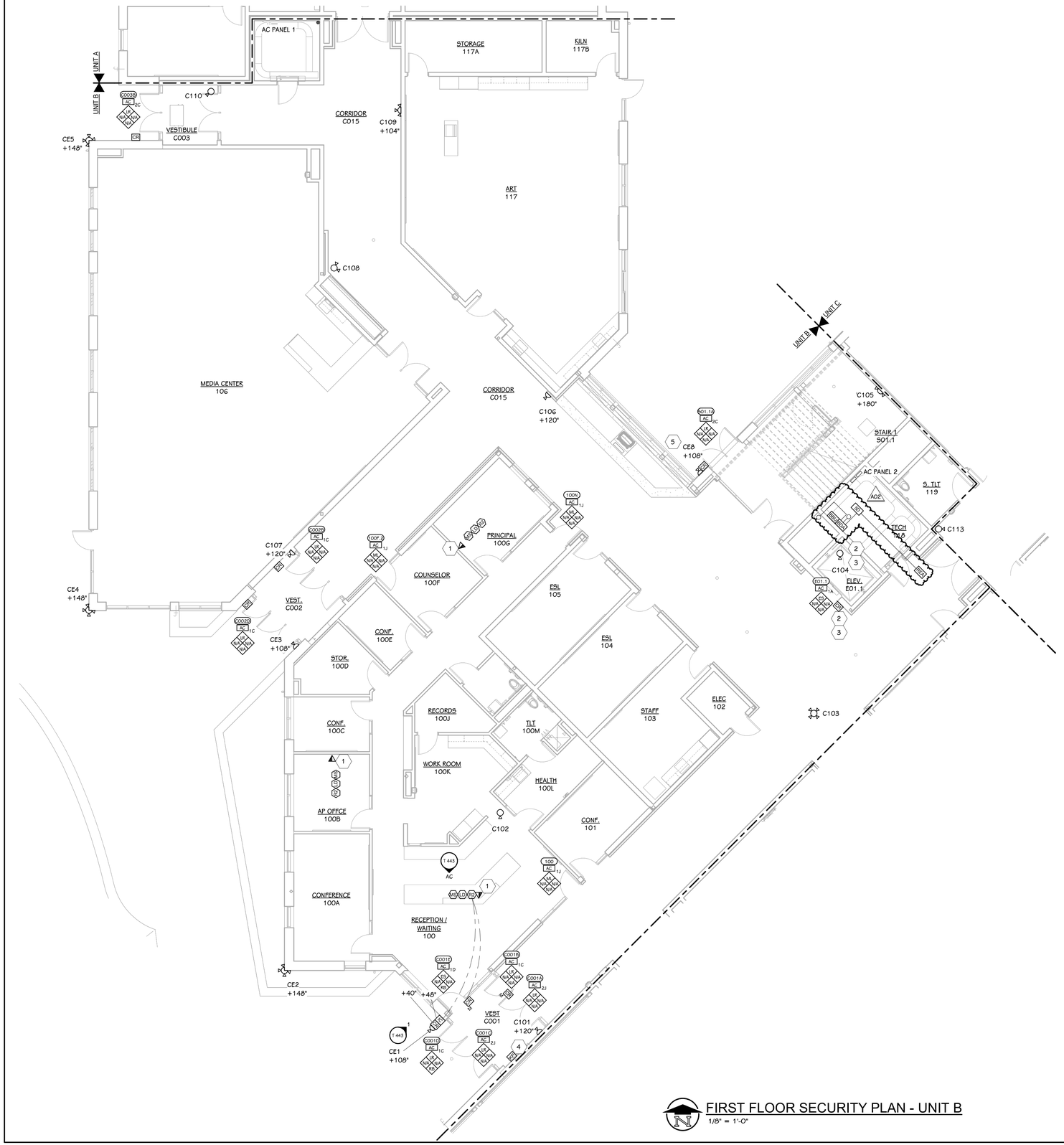
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

DATE
APRIL 24, 2026

SHEET TITLE
TECHNOLOGY SYMBOLS AND GENERAL NOTES

SHEET NUMBER
TG 001
23-622.000



FIRST FLOOR SECURITY PLAN - UNIT B
1/8" = 1'-0"

KEYED NOTES - SECURITY - CONSTRUCTION

1 EC SHALL PROVIDE A DOUBLE-GANG ROUGH-IN BOX AT THIS LOCATION. THIS BOX SHALL BE USED AS A PATHWAY FOR SECURITY AND ACCESS CONTROL CABLING. CABLING SHALL BE PROVIDED BY THE SECURITY CONTRACTOR.

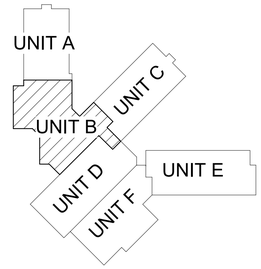
2 ELEVATOR CARD READERS SHALL BE PROVIDED BY THE SECURITY CONTRACTOR. INSTALLATION OF ELEVATOR CAMERA AND CARD READERS SHALL BE PERFORMED BY THE ELEVATOR CONTRACTOR. SECURITY CONTRACTOR SHALL COORDINATE WITH ELEVATOR CONTRACTOR AND CM.

3 ELEVATOR CAMERA AND CARD READER SHALL HAVE A DEDICATED TRAVEL CABLE. 6 SHIELDED PAIRS AND 1 COAXIAL CABLE AT MINIMUM. CABLING CONTRACTOR SHALL RUN AND INSTALL TRAVEL CABLE BETWEEN ITS ORIGIN AND ELEVATOR.

4 PROVIDE ACCESS CONTROL CABLING TO KEYPAD. KEYPAD SHALL BE PROVIDED AND INSTALLED BY OTHERS.

5 CARD READER AND CAMERA SHALL BE VERTICALLY ALIGNED.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ISSUED FOR	DATE
ADDENDUM 02	05-18-2026
ADDENDUM 01	05-08-2026

PROJECT TITLE
NEW EL SOL SCHOOL

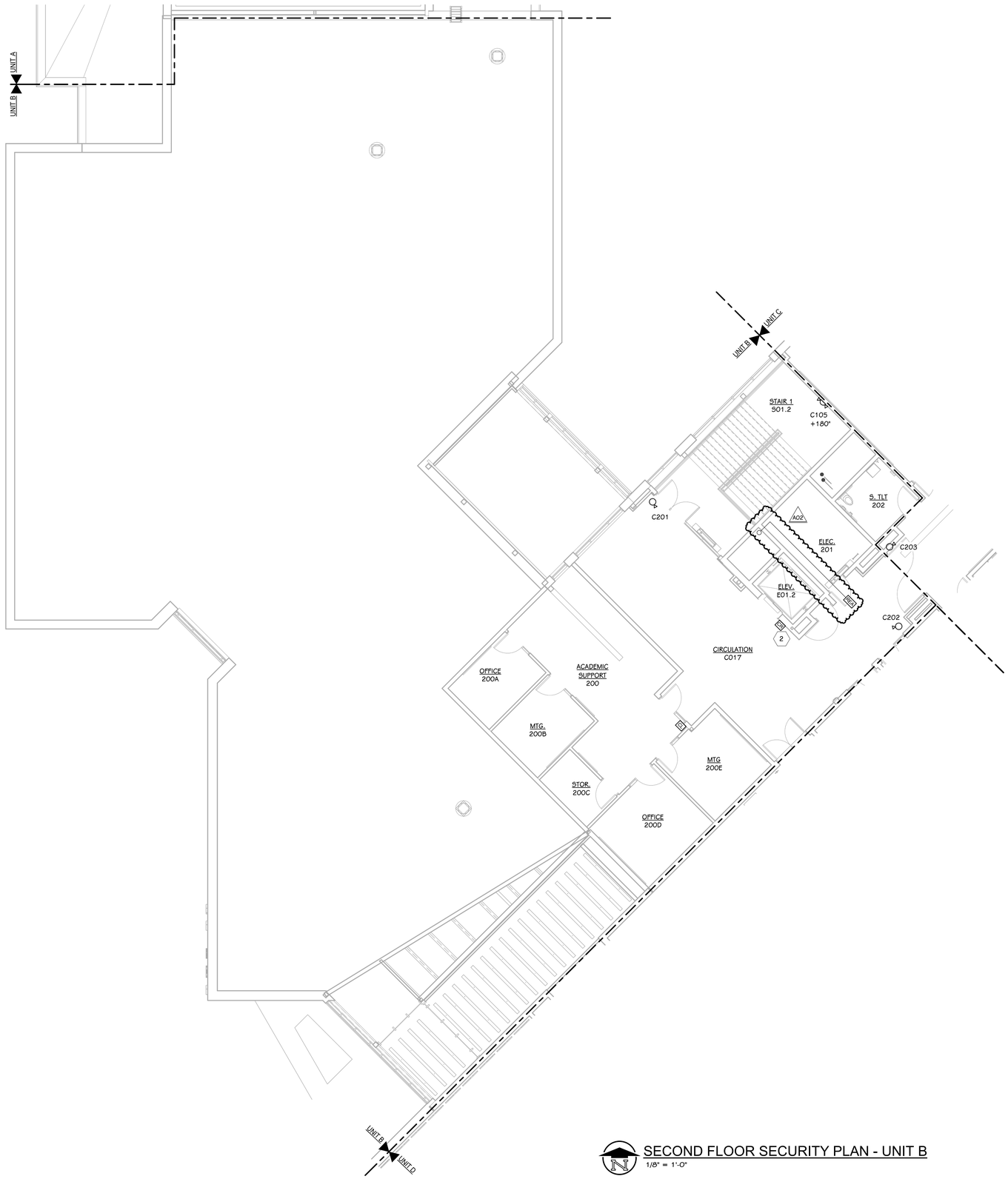
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
FIRST FLOOR SECURITY PLAN - UNIT B

DATE
APRIL 24, 2026

SHEET NUMBER
T 301B
23-622.000



SECOND FLOOR SECURITY PLAN - UNIT B
1/8" = 1'-0"

KEYED NOTES - SECURITY - CONSTRUCTION

1 EC SHALL PROVIDE A DOUBLE-GANG ROUGH-IN BOX AT THIS LOCATION. THIS BOX SHALL BE USED AS A PATHWAY FOR SECURITY AND ACCESS CONTROL CABLING. CABLING SHALL BE PROVIDED BY THE SECURITY CONTRACTOR.

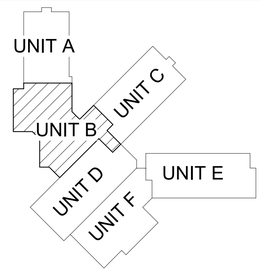
2 ELEVATOR CARD READERS SHALL BE PROVIDED BY THE SECURITY CONTRACTOR. INSTALLATION OF ELEVATOR CAMERA AND CARD READERS SHALL BE PERFORMED BY THE ELEVATOR CONTRACTOR. SECURITY CONTRACTOR SHALL COORDINATE WITH ELEVATOR CONTRACTOR AND CM.

3 ELEVATOR CAMERA AND CARD READER SHALL HAVE A DEDICATED TRAVEL CABLE. 6 SHIELDED PAIRS AND 1 COAXIAL CABLE AT MINIMUM. CABLING CONTRACTOR SHALL RUN AND INSTALL TRAVEL CABLE BETWEEN ITS ORIGIN AND ELEVATOR.

4 PROVIDE ACCESS CONTROL CABLING TO KEYPAD. KEYPAD SHALL BE PROVIDED AND INSTALLED BY OTHERS.

5 CARD READER AND CAMERA SHALL BE VERTICALLY ALIGNED.

EL SOL ELEMENTARY



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 02 05-18-2026

ISSUED FOR DATE

PROJECT TITLE
NEW EL SOL SCHOOL

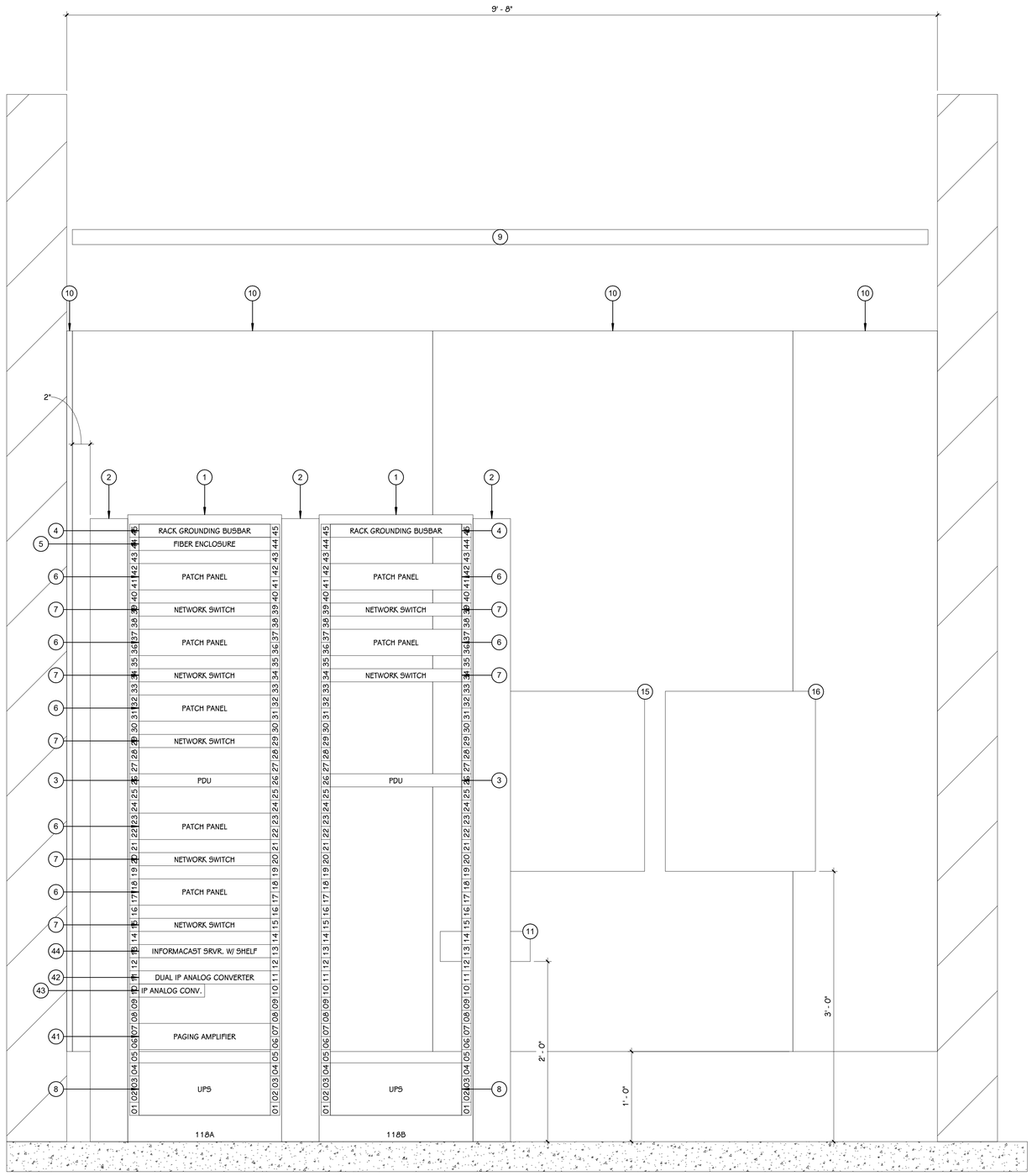
OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
SECOND FLOOR SECURITY PLAN - UNIT B

DATE
APRIL 24, 2026

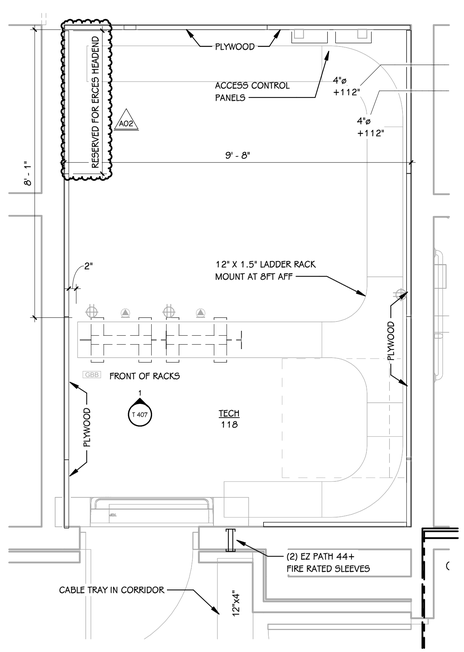
SHEET NUMBER
T 302B
23-622.000



I / T 407 TELECOMMUNICATION ROOM 118 RACK ELEVATION
1 1/2" = 1'-0"

TR118 EQUIPMENT SCHEDULE

KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
1	NETWORK CABINET - 45U	PANDUIT	R2P	
2	WIRE MANAGER	PANDUIT	WMPV45E	44U BLACK
3	PDU	TRIPPLITE	1220	
4	RACK GROUNDING BUSBAR	CHATSWORTH	10610-019	
5	FIBER ENCLOSURE	PANDUIT	FCE1U	
6	PATCH PANEL	PANDUIT	CP48BLY	THE STRUCTURED CABLING INTEGRATOR SHALL PROVIDE, WITHIN EACH TELECOMMUNICATIONS ROOM, THE MINIMUM NUMBER OF PATCH PANELS REQUIRED TO SUPPORT ALL INSTALLED DATA CABLES, WITH ADDITIONAL CAPACITY TO ACCOMMODATE AT LEAST 20 FUTURE DATA CABLE TERMINATIONS.
7	NETWORK SWITCH			
8	UPS			OWNER PROVIDED
9	12"W LADDER RACK	HOFFMAN	L5512BLK	
10	PLYWOOD	N/A	N/A	3/4" FIRE RATED PLYWOOD
11	GROUNDING BUSBAR	PANDUIT	GB4BOG12TPI-1	
15	ACCESS CONTROL PANEL			SEE ACCESS CONTROL RISER
16	ACCESS CONTROL PANEL - POWER			SEE ACCESS CONTROL RISER
41	PAGING AMPLIFIER	ATLAS	HPA 1204	
42	DUAL IP ANALOG CONVERTER	ATLAS	IP-ZCM2RMK	
43	IP ANALOG CONV.	ATLAS	IP-ZCM1RMK	
44	INFORMACAST SRVR. W/ SHELF	ATLAS	IPTA-IF5	



TR2 / T 407 TELECOMMUNICATION ROOM 118
1/2" = 1'-0"

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM
© 2026 ALL RIGHTS RESERVED

ADDENDUM 02	05-18-2026
ISSUED FOR	DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
TR118 (IDF) PLAN AND ELEVATION

DATE
APRIL 24, 2026

SHEET NUMBER
T 407
23-622.000

ERCES RISER

SCALE: NONE

ERCES EQUIPMENT SCHEDULE

KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
1	DONOR ANTENNA			
2	BIDIRECTIONAL AMPLIFIER			
3	BATTERY BACKUP UNIT			
5	5DB DIRECTIONAL COUPLER			
9	REPEATER ANTENNA			
10	FACP	BY OTHERS	BY OTHERS	
B	1/2" COAXIAL CABLE			
C	7/8" COAXIAL CABLE			
D	CONTROL CABLE	BELDEN	9451P	CONNECTORS AS REQUIRED FOR APPLICATION.

TowerPinkster

Architecture · Engineering · Interiors

TOWERPINKSTER.COM

© 2026 ALL RIGHTS RESERVED

ADDENDUM 02 — 05-18-2026

ISSUED FOR — DATE

PROJECT TITLE
NEW EL SOL SCHOOL

OWNER
KALAMAZOO PUBLIC SCHOOLS

KALAMAZOO, MICHIGAN

SHEET TITLE
ERCES RISER

DATE
APRIL 24, 2026

SHEET NUMBER
T 447

23-622.000

CS, shouldn't our Sub & prod List and RFI Log be inserted right behind our Addendum and before TP's Addendum items?

BLAKE CHECK THE FORMATTING ON THE RFI LOG AND FIX PLEASE.

SECTION 00 43 50 - SUBCONTRACTORS AND PRODUCTS LIST

PART 1 - GENERAL

1.01 DESCRIPTION

A. The two (2) low responsive Bidders in each Bid Category shall furnish electronically, the following Subcontractors and Products List to the Construction Manager within **two (2) working days (48 hrs.)** of bid opening, unless submitted with Bid. . The blanks appropriate to the Bid Category(ies) on which they bid shall be completed.

1. The Owner and Architect shall have the right to select any material or equipment named in the Specifications for any particular item where the Bidder either fails to list same or lists more than one name for the item in question.
2. It is intended that this list will show the manufacturer and supplier of major items of work that will be subcontracted and to whom.

1.02 INSTRUCTIONS FOR SUBCONTRACTORS AND PRODUCTS LISTS

A. Each Bidder shall submit a copy of his list of subcontractors and manufacturers of products and equipment proposed for work indicated as required above.

B. The list shall be submitted on forms provided and shall be completely executed. "As Specified" or "With Equipment" type of terminology will not be accepted.

C. Under "Subcontractor", insert the name of the firm which the Bidder proposes to have perform the respective work. If work will be done by the Prime Bidder and no subcontract will be awarded, state "By Own Forces".

D. Submission does not constitute acceptance for use of listed manufacturers' products. Materials and subcontractors are subject to the provisions of the General Conditions and "Standard of Product Acceptability" and must be formally reviewed and adjudged acceptable by the Architect/Engineer.

E. Engineer, Architect and Owner reserve the right to reject submissions of materials, work, or subcontractors that do not, in their opinion, meet the requirements of Drawings, Specifications or job conditions.

F. Materials and subcontractors used for work on the Project shall be in accordance with accepted material list.

1. The list is intended to assure use of materials and vendors acceptably equivalent to those specified and is not a substitution sheet or complete listing of required materials or services.

2. Substitutions for listed items will not be allowed, except when termed acceptable, in writing by the Architect/Engineer, provided that substitution will result in a cost savings to the Owner , determined by the Owner to be a better product, or is made necessary due to unavailability of listed item. Unavailability shall be confirmed in writing by manufacturer named on accepted list.

1.03 CIVIL AND ARCHITECTURAL WORK SUBCONTRACTORS AND PRODUCTS LIST

BID CATEGORY NO. 01 SITEWORK

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	Description	Cost $$$	Subcontractor	Manufacturer
01 21 00	Allowances			
01 53 20	Tree and Plant Protection			
01 55 00	Access Roads and Parking Areas			
01 56 20	Dust Control			
01 56 80	Erosion Control			
31 10 00	Site Clearing			
31 20 00	Earth Moving			
31 23 23	Rapid Impact Compaction			
33 41 00	Storm Utility Drainage Piping			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 02 ASPHALT PAVING

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
32 12 16	Asphalt Paving			
32 17 23	Pavement Markings			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 03 LANDSCAPING

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
32 91 13	Soil Preparation			
32 92 00	Turf And Grasses			
32 93 00	Plants			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 04 CONCRETE

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
03 30 00	Cast-In-Place Concrete			
03 35 43	Polished Concrete			
03 60 00	Post Installed Anchors			
07 17 00	Bentonite Waterproofing			
07 19 00	Water Repellents			
07 26 00	*Vapor Retarders*			
07 27 26	*Fluid Applied Membrane Air Barrier*			
32 13 13	Concrete Paving			
32 13 16	Decorative Concrete Paving			
32 13 73	Concrete Paving Joint Sealants			
32 17 26	Tactile Warning Surfacing			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 05 MASONRY

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
03 60 00	Post Installed Anchors			
04 01 10	Masonry Cleaning			
04 20 00	Unit Masonry			
04 72 00	Cast Stone Masonry			
07 14 16	Cold Fluid-Applied Waterproofing			
07 21 00	Thermal Insulation			
~~07 21 19~~	~~Foamed-In-Place Insulation~~			
07 26 00	Vapor Retarders			
07 25 00	*Weather Barriers*			
07 27 15	*Non-bituminous Self-Adhering Sheet Air Barriers*			
07 84 46	Fire-Resistive Joint Systems			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 06 GENERAL TRADES

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
01 51 80	Temporary Fire Protection			
01 52 10	Construction Aids and Temporary Enclosures			
01 52 60	Rubbish Container			
01 53 10	Fences (Temporary Security)			
01 53 30	Barricades			
~~01 72 00~~	~~Field Engineering~~			
03 60 00	Post Installed Anchors			
06 10 00	Rough Carpentry			
06 40 23	*Interior Architectural Woodwork*			
06 41 16	*Plastic-Laminate-Faced Architectural Cabinets*			
06 16 00	Sheathing			
07 21 19	*Foamed-In-Place Insulation*			
07 26 00	Vapor Retarders			

Section	Description	Cost $$$	Subcontractor	Manufacturer
~~07 27 26~~	~~Fluid Applied Membrane Air Barriers~~			
07 84 13	Penetration Firestopping			
07 95 13.13	Interior Expansion Joint Cover Assemblies			
07 95 13.16	Exterior Expansion Joint Cover Assemblies			
08 06 71	*Door Hardware Schedule*			
08 11 13	Hollow Metal Doors And Frames			
~~08 12 43~~	~~Fire-Resistance-Rated Frames~~			
08 14 16	Flush Wood Doors			
08 31 13	Access Doors And Frames			
08 33 23	Overhead Coiling Doors			
08 36 13	Sectional Doors			
08 71 00	*Door Hardware*			
09 64 00	Wood Flooring			
09 64 66	Wood Athletic Flooring			
09 84 33	Sound-Absorbing Wall Units			
10 11 00	Visual Display Units			
10 12 00	Display Cases			
10 14 19	Dimensional Letter Signage			

Section	Description	Cost $$$	Subcontractor	Manufacturer
10 14 26	Post And Panel Pylon Signage			
10 14 53	Traffic Signage			
10 14 63	Electronic Message Signage			
10 21 13.19	Plastic Toilet Compartments			
10 22 39	Folding Panel Partitions			
10 26 00	Wall And Door Protection			
10 28 00	Toilet, Bath, And Laundry Accessories			
10 43 13	Defibrillator Cabinets			
10 44 00	Interior Signs			
10 44 13	Fire Extinguisher Cabinets			
10 44 16	Fire Extinguishers			
10 75 16	Flagpoles			
11 13 19	Stationary Loading Dock Equipment			
11 61 43	Stage Curtains			
11 66 23	Gymnasium Equipment			
~~11 68 00~~	~~Play Field Equipment And Structures~~			
11 68 23	Exterior Athletic Equipment			
12 24 13	*Roller Window Shades*			
12 66 00	Telescoping Stands			
32 31 19	Decorative Metal Fences And Gates			

Section	Description	Cost $$$	Subcontractor	Manufacturer
32 33 00	Site Furnishings			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 07 STRUCTURAL & MISCELLANEOUS STEEL

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
01 53 30	Barricades			
03 60 00	Post Installed Anchors			
05 12 00	Structural Steel Framing			
05 21 00	Steel Joist Framing			
05 31 00	Steel Decking			
05 50 00	Metal Fabrications			
05 51 13	Metal Pan Stairs			
05 52 13	Pipe And Tube Railings			
~~06 10 00~~	~~Rough Carpentry~~			
~~06 16 00~~	~~Sheathing~~			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 08 PRE-CAST CONCRETE

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
03 41 00	Precast Structural Concrete			
03 60 00	Post Installed Anchors			
07 84 46	Fire-Resistive Joint Systems			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 09 METAL STUDS, DRYWALL & ACOUSTICAL CEILINGS

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
05 40 00	Cold-Formed Metal Framing			
06 16 00	Sheathing			
07 05 43.02	Cladding Support System Greengirt			
07 21 00	Thermal Insulation			
07 25 00	Weather Barriers			
07 26 00	Vapor Retarders			
09 21 16.23	Gypsum Board Shaft Wall Assemblies			
09 22 16	Non-Structural Metal Framing			
09 29 00	Gypsum Board			
09 51 13	Acoustical Panel Ceilings			
09 54 23	Linear Metal Ceilings			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 10 ROOFING

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
07 53 23	Ethylene-Propylene-Diene-Monomer (Epdm) Roofing			
07 62 00	Sheet Metal Flashing And Trim			
07 71 00	Roof Specialties			
07 71 29	Manufactured Roof Expansion Joints			
07 72 00	Roof Accessories			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 11 ALUMINUM
WINDOWS/STOREFRONT/CURTAIN WALL ASSEMBLIES & GLAZING

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
08 11 16	Aluminum Doors And Frames			
08 12 43	*Fire-Resistance-Rated-Frames*			
08 41 13	Aluminum-Framed Entrances And Storefronts			
08 44 13	Glazed Aluminum Curtain Walls			
08 45 23	*Fiberglass-Sandwich-Panel Assemblies*			
08 51 13	Aluminum Windows			
08 71 00	*Door Hardware*			
08 80 00	Glazing			
08 87 00	*Architectural Window Film*			
08 88 13	Fire-Rated Glazing			
08 90 00	Louvers And Vents			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 12 METAL WALL PANELS

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
~~07 27 15~~	~~Nonbituminous Self-Adhering Sheet Air Barriers~~			
07 42 13.13	Formed Metal Wall Panels			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 13 PAINTING

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
07 18 00	Traffic Coatings			
09 91 13	Exterior Painting			
09 91 23	Interior Painting			
09 96 00	High-Performance Coatings			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 14 JOINT SEALANTS

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
07 92 00	Joint Sealants			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 15 FLOORING

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
09 30 00	Tiling Sf0			
09 65 00	Resilient Flooring			
09 65 13	Resilient Base And Accessories			
09 68 13	Tile Carpeting			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 16 TERRAZZO

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
09 66 23	Resinous Matrix Terrazzo Flooring			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 17 CASEWORK

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
12 32 16	Manufactured Plastic-Laminate-Faced Casework			
12 36 23.13	Plastic-Laminate-Clad Countertops			
12 36 53	Laboratory Countertops			
12 36 61.16	Solid Surfacing Countertops			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 18 LOCKERS

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	01 21 00			
10 51 13	Metal Lockers			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 19 ELEVATOR

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
07 84 13	Penetration Firestopping			
14 21 23	Machine-Room-Less Electric Traction Passenger Elevators			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 20 FIRE SUPPRESSION

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
07 84 13	Penetration Firestopping			
21 05 00	Common Work Results For Fire Suppression			
21 05 13	*Common Motor Requirements for Fire Suppression Equipment*			
21 10 00	Water Based Fire Suppression Systems			
21 31 13	*Electric Drive Centrifugal Fire Pumps*			
21 39 00	*Pressure Maintenance Pumps*			
21 39 00	*Controllers for Fire-Pump Drivers*			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 21 FOOD SERVICE EQUIPMENT

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
07 84 13	Penetration Firestopping			
11 40 00	Food Service Equipment			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

1.04 MECHANICAL WORK SUBCONTRACTORS AND PRODUCTS LIST

BID CATEGORY NO. 22 MECHANICAL

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If dual listing of manufacturers or subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice.

MECHANICAL WORK

Section	Description	Cost $$$	Subcontractor	Manufacturer
01 21 00	Allowances			
01 51 30	Temporary Heating, Ventilation and Cooling			
01 51 50	Temporary Water			
07 84 13	Penetration Firestopping			
22 05 00	Common Work Results For Plumbing			
22 05 13	Common Motor Requirements For Plumbing Equipment			
22 05 19	Meters And Gages For Plumbing Piping			
22 05 23	General Duty Valves For Plumbing Piping			
22 05 29	Hangers And Supports For Plumbing Piping And Equipment			
22 05 53	Identification For Plumbing Piping And Equipment			
22 07 00	Plumbing Insulation			

Section	Description	Cost $$$	Subcontractor	Manufacturer
22 08 00	Commissioning Of Plumbing			
22 11 13	Facility Water Distribution Pipin			
22 11 16	Domestic Water Piping			
22 11 19	Domestic Water Piping Specialties			
22 11 23	Domestic Water Pumps			
22 13 13	Facility Sanitary Sewers			
22 13 16	Sanitary Waste And Vent Piping			
22 13 19	Sanitary Waste Piping Specialties			
22 14 13	Facility Storm Drainage Piping			
22 14 23	Storm Drainage Piping Specialties			
22 31 00	Domestic Water Softeners			
22 34 00	Fuel-Fired Domestic Water Heaters			
22 40 00	Plumbing Fixtures			
23 05 00	Common Work Results For HVAC			
23 05 13	Common Motor Requirements For HVAC Equipment			
23 05 19	Meters And Gages For HVAC Piping			
23 05 23	General-Duty Valves For HVAC Piping			

Section	Description	Cost $$$	Subcontractor	Manufacturer
23 05 29	Hangers And Supports For HVAC Piping And Equipment			
23 05 53	Identification For HVAC Piping And Equipment			
23 05 93	Testing, Adjusting, And Balancing For HVAC (best updated)			
23 07 00	HVAC Insulation			
23 08 00	Commissioning Of HVAC			
23 09 00	Instrumentation And Control For HVAC			
23 11 23	Facility Natural Gas Piping (best)			
23 21 13	Hydronic Piping			
23 21 23	Hydronic Pumps			
23 23 00	Refrigerant Piping (best)			
23 25 00	HVAC Water Treatment			
23 31 13	Metal Ducts			
23 33 00	Air Duct Accessories			
23 34 23	HVAC Power Ventilators			
23 36 00	Air Terminal Units			
23 37 13	Diffusers, Registers, And Grilles			
23 37 23	HVAC Gravity Ventilators			
23 40 00	Antimicrobial Systems For HVAC			

Section	Description	Cost $$$	Subcontractor	Manufacturer
23 51 00	Breechings, Chimneys, And Stacks			
23 52 16	Condensing Boilers			
23 62 00	Packaged Compressor And Condenser Units			
23 73 13	Modular Indoor Central Station Air Handling Units			
23 81 26	Split-System Air-Conditioners			
23 82 39	Unit Heaters			

Plumbing Fixtures: Manufacturer:

a)_____ _____

b)_____ _____

c)_____ _____

d)_____ _____

e)_____ _____

f)_____ _____

g)_____ _____

h)_____ _____

i) _____ _____

j)_____ _____

k)_____ _____

l)_____ _____

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

1.05 ELECTRICAL WORK SUBCONTRACTORS AND PRODUCTS LIST

BID CATEGORY NO. 23 ELECTRICAL

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If dual listing of manufacturers or subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice.

ELECTRICAL WORK

Section	Description	Cost $$$	Subcontractor	Manufacturer
01 21 00	Allowances			
01 51 10	Temporary Electricity, Lighting and Warning Systems			
07 84 13	Penetration Firestopping			
26 05 00	Common Work Results For Electrical			
26 05 19	Low-Voltage Electrical Power Conductors And Cables			
26 05 26	Grounding And Bonding For Electrical Systems			
26 05 29	Hangers And Supports For Electrical Systems			
26 05 33	Raceways And Boxes For Electrical Systems			

Section	Description	Cost $$$	Subcontractor	Manufacturer
26 05 43	Underground Ducts And Raceways For Electrical Systems			
26 05 44	Sleeves And Sleeve Seals For Electrical Raceways And Cabling			
26 05 53	Identification For Electrical Systems			
26 05 73	Coordination Studies			
26 05 74	Overcurrent Protective Device Arc-Flash Study			
26 08 00	Commissioning Of Electrical Systems			
26 09 13	Electrical Energy Metering			
26 09 23	Lighting Control Devices			
26 09 43	Lighting Control System			
26 22 00	Low Voltage Transformers			
26 24 13	Switchboards			
26 24 16	Panelboards			
26 27 26	Wiring Devices			
26 28 13	Fuses			
26 28 16	Enclosed Switches And Circuit Breakers			
26 29 13	Enclosed Controllers			
26 29 23	Variable Frequency Motor Controllers (gs)			
26 32 13	Engine Generators (gsnatgas)			

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
26 36 00	Transfer Switches			
26 43 13	Surge Protection For Low-Voltage Electrical Power Circuits			
26 51 00	Interior Lighting			
26 55 61	Theatrical Lighting			
26 56 00	Exterior Lighting			
28 31 00	Fire Detection And Alarm			
28 48 16	*Emergency Responder Coommunication Enhancement System.*			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

1.05 ELECTRICAL WORK SUBCONTRACTORS AND PRODUCTS LIST

BID CATEGORY NO. 24 TECHNOLOGY

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If dual listing of manufacturers or subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice.

ELECTRICAL WORK

Section	Description	Cost $$$	Subcontractor	Manufacturer
01 21 00	Allowances			
07 84 13	Penetration Firestopping			
27 05 00	Common Work Results For Communications			
27 05 26	Grounding And Bonding For Communications Systems			
27 05 28	Pathways For Communications Systems			
27 05 36	Ladder Rack For Telecommunication Rooms			
27 05 53	Identification For Communications Systems			
27 11 16	Telecommunication Room Equipment And Racks			

Section	Description	Cost $$$	Subcontractor	Manufacturer
27 13 23	Communications Optical Fiber Backbone Cabling			
27 15 13	Communications Copper Horizontal Cabling			
27 17 00	Testing, ID And Admin Of Balanced Twisted Pair Infrastructure			
27 18 00	Testing, ID And Admin Of Fiber Infrastructure			
27 26 26	IP Address Request Form			
27 51 23.20	Commercial Intercommunications And Program Systems			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

BID CATEGORY NO. 25 PLAYGROUND EQUIPMENT

NAME OF BIDDER_____

The undersigned hereby submits the following Subcontractors and Products List which becomes a part of the undersigned Contract proposal. Subcontractor purchased material, equipment, and labor shall be under the direct management and control of the Prime Contractor. If a dual listing of manufacturers and subcontractors is herein made, it is understood the Architect/Engineer (not the Contractor) will select the manufacturer or subcontractor of his choice. State the XBE Designation.

CIVIL AND ARCHITECTURAL WORK

Section	**Description**	**Cost $$$**	**Subcontractor**	**Manufacturer**
01 21 00	Allowances			
11 68 00	Playfield Equipment and Structures			
32 18 16.13	Playground Protective Surfacing			

Name of Bidder:	Date:
Address:	
City/State/Zip:	
Telephone:	
By:	

END OF SECTION 00 43 50

KPS New EL SOL School Project - Pre-Bid RFI Log

Date - 5/19/2026

RFI #	Company Submitting RFI	Date Received	RFI Description	To be Answered By:	RFI Response - PLEASE DATE YOUR RESPONSE	Response Type: Draft or Final	Addendum Item
1	AOA Access	5/5/2026	Please advise what openings are required to be fire resistance-rated frames (081243)	TowerPinkster	**Updated frame elevations will be provided in upcoming Addendum No. 1 LD May 8, 2026**	FINAL	ISSUED
2	AOA Access	5/5/2026	I noticed that fire resistance-rated frames (081243) are in the general trades package. These are normally provided by the glass and glazing package as they come as a full assembly and are installed by the supplier.	Skillman	**Section 08 12 43 will be removed from Bid Category No. 6 General Trades and will be added to Bid Category No. 11 Aluminmum Windows/Storefront etc. in Addendum No. 1. MJK 05.11.26.**	FINAL	ISSUED
3	Midwest Glass	5/5/2026	Can a hardware spec please be provided. Hardware is not listed in any bid category can you please clarify who is responsible for door hardware.	TowerPinkster	**Hardware specs and sets will be provided in upcoming Addendum No. 1 LD May 8, 2026**	FINAL	ISSUED
4	Midwest Glass	5/5/2026	Are all joint sealants to be done by BC-14 including perimeters of storefront frames?	Skillman	**This scope will be clarified in forthcoming Addendum No. 2. MJK 05.11.26.**	FINAL	
5	Midwest Glass	5/5/2026	Spec 08 12 43 is in BC-06, these are aluminum storefront type frames should these be moved to BC-11?	Skillman	**Section 08 12 43 will be removed from Bid Category No. 6 General Trades and will be added to Bid Category No. 11 Aluminmum Windows/ Storefront etc. in Addendum No. 1. MJK 05.11.26.**	FINAL	ISSUED
6	Midwest Glass	5/5/2026	Spec 08 11 16 is unclear as to what type of doors these are and what the proper application would be. Can this please be clarified.	TowerPinkster	**Door types are as shown on door panel type legend and door schedule. LD May 8, 2026**	FINAL	NO
7	Midwest Glass	5/5/2026	Can spec 08 45 23 Fiberglass Sandwich panels please be added.	TowerPinkster	**See Addendum No. 1 for added Fiberglass Sandwich panel spec. LD May 8, 2026**	FINAL	ISSUED
8	Midwest Glass	5/5/2026	Can design requirements for the insulated metal panels please be included in 08 41 13	TowerPinkster	**See updated spec 08 4113 in Addendum No. 1 detailing the insulated metal panels to be glazed in. LD. May 8, 2026**	FINAL	ISSUED
9	Midwest Glass	5/5/2026	08 44 13 lists frame dimensions of 2"x7.5" would a 2.5"x7.5" framing system be acceptable?	TowerPinkster	**2 1/2" x 7 1/2" curtain wall frames are acceptable in lieu of the 2"x7.5 specified. Other frame size as noted on drawings are still required. LD May 8, 2026**	FINAL	NO
10	Midwest Glass	5/5/2026	Can the frosted glass panels please be included in 08 80 00.	TowerPinkster	**Used window film instead of frosted glass per spec section 08 8700 Architectural Window Film - Addendum No. 1 LD May 8, 2026**	FINAL	ISSUED
11	Davenport Masonry	5/5/2026	Shop drawing requirements -Please clarify the required level of detail expected to satisfy this requirement Unit Masonry 042000 1.3 B A. Will the mason be required to submit shop drawings for CMU or brick elevations showing coursing and bond for any walls?	TowerPinkster	**FULL detailed shop drawings with elevations of every wall are required as outlined in the spec. LD May 8, 2026**	FINAL	NO
12	Davenport Masonry	5/5/2026	Please confirm that the mason contractor is NOT responsible for the following: Delegated Design, BIM requirements, dumpsters for masonry waste, caulking/sealants for mason control, expansion joints, & frames, wood blocking, top of wall fire safing, smoke rating, or acoustical ratings. Also, fire-rated expansion joints, expansion joists with insulation on A329, preformed joint seal on A352, typical top of masonry walls 12 gage angles and plates on S401, L4x4x1/4" 1'-o" long angles on S404.	Skillman		DRAFT	
13	Davenport Masonry	5/5/2026	Who is responsible for rigid insulation at top of wall and backside side of parapet typical locations 13A/A325 , 1A/A321? Who is responsible for below grade perimeter rigid insulation down to foundation on concrete typical 14/A326?	Skillman	**Bid Category No. 05 Masonry shall provide 3" Rigid Insulation on the face and back side of CMU walls. Refer to detail 1A on A321. Bid Category No. 06 General trades shall provide the 3" High Density Insulation on the top of CMU walls. Refer to detail 1A on A321 (Typical). Refer to detail 14 on A326. 3" Rigid Insulation located on the exterior side of CMU walls shall be provide by Bid Category No. 05 Masonry (Typical). - MJK, 5/19/26**	FINAL	YES
14	Davenport Masonry	5/5/2026	Is Bid Category 7 furnishing Fero Brackets, Associated Lintels, bolts and shims typical 9/S401 to Bid Category 5 to install?	Skillman	**Bid Category No. 5 Masonry shall provide all Fero Brackets, associated Fero Bracket anchors, shims, for a complete "Low Conductive Fero Anchor" assembly. MJK 05.11.26.**	FINAL	YES
15	Davenport Masonry	5/5/2026	Bid Category 5 has specification section 072119 Foamed In Place Insulation referenced. Please provide location(s) where the mason would be responsible for this?	Skillman	**Refer to Addendum No. 02 - MJK, 5/19/26**	FINAL	YES
16	Davenport Masonry	5/5/2026	Details on architectural drawings, for example 30/A330 call for Air Barrier in the masonry cavity. I don't see any specifications for Air Barrier in the specifications. What specification is to be referenced/use for the Air Barrier? Who is responsible to furnish and install the Air Barrier?	TowerPinkster	**Air-barrier spec will be issued as part of Addendum No. 1 LD May 8, 2026**	FINAL	ISSUED

KPS New EL SOL School Project - Pre-Bid RFI Log

Date - 5/19/2026

RFI #	Company Submitting RFI	Date Received	RFI Description	To be Answered By:	RFI Response - PLEASE DATE YOUR RESPONSE	Response Type: Draft or Final	Addendum Item
17	AOA Access	5/5/2026	Is this a prevailing wage project?	Skillman	**No - BML, 5/5/2026**	FINAL	NO
18	Midwest Glass	5/5/2026	Is there a construction schedule?	Skillman	**Included with Addendum 01 - BML, 5/5/2026**	FINAL	ISSUED
19	Chiattello	5/6/2026	Clarification on roof color, see attached responses from all 3 manufactures response to the color grey. (Blake sent Kayla attachments)	TowerPinkster	**All EPDM roofing to be Grey. LD May 8, 2026**	FINAL	NO
20	Chiattello	5/6/2026	Clarification on roof assembly, specifications ask for substrate board vapor barrier, no thickness. All details ask for 5" rigid insulation with 1/2 cover bored.	TowerPinkster	**Substrate board and vapor barrier are not needed. For roof assembly requirements see addendum no. 1 for updated spec and drawing details. LD May 8, 2026**	FINAL	ISSUED
21	Hunter Prell	5/6/2026	Can you provide the specifications for the pre-action system being installed in the gym?	TowerPinkster	**Refer to section 21 1000 in Addendum No. 1 DV May 8, 2026**	FINAL	ISSUED
22	Hunter Prell	5/6/2026	Who is responsible for bringing the underground water supply into the building for the fire suppression system?	Skillman	**Refer to Addendum No. 01. Bid Category No. 01 Sitework shall provide 6" combined water service into the building. - MJK, 5/19/26**	FINAL	YES
23	NEIS	5/6/2026	Please confirm if millwork items are to be by bid category No 17. Such items include Compact laminate paneling, reception desk & media circulation desk. Additionally, please provide any specification sections that govern millwork items. 064023, 064116 and 066116 are mentioned in some documents but not included in the project manual.	Skillman	**Bid Category No. 06 General Trades shall provide the millwork for the recption desk and media cirulation desk. Division 6 spec sections wered added in Addendum 01 and assigned to Bid Catoegory No. 06 General Trades. BML, 5/15/2026**	FINAL	YES
24	NEIS	5/6/2026	Please confirm classroom cubbies detailed on I 503 are by the casework bid category.	Skillman	**Bid Category No. 6 General Trades is responsible for cubbies detailed on Sheet I503. BML, 5/15/2026**	FINAL	YES
25	Davenport Masonry	5/7/2026	Who is responsible for furnishing and installing preformed expansion joint typical shown in detail 4/A201A?	Skillman	**Refer to section 07 84 46 Fire-Resistive Joint Systems. Bid Category No. 05 Masonry is responsible. - MJK, 5/19/26**	FINAL	YES
26	Davenport Masonry	5/7/2026	Please clarify whether more than one mortar color will be required for the brick patterns shown on drawing A307. Can standard non-colored gray mortar be used for all brick patterns, or are specific mortar colors intended to correspond with the various brick types/patterns shown? If multiple mortar colors are required, please identify the required color locations and provide corresponding specifications/sample requirements.	TowerPinkster	**All mortar to be Solomon Colors 70A Orange or equal. LD May 7, 2026**	FINAL	ISSUED
27	Division 5 Metal Works	5/8/2026	Specs for steel fabricator & steel erector call out AISC requirement, and shows it will not be waived for this project. Division 5 is not currently AISC certified fabricator, and as such will not be able to bid this project. We also have this same requirement showing up on the specs for the Woodward school project, and won't be able to bid that one either, unless spec is waived.	TowerPinkster	**This requirement will not be waived from this project. LD May 8, 2026**	FINAL	NO
28	RLE Concrete	5/8/2026	What bid category will be responsible for light pole bases?	Skillman	**Bid Category No. 23 Electrical will provide concrete Light Pole Bases. MJK 05.11.26.**	FINAL	YES
29	RLE Concrete	5/8/2026	What bid category will be responsible for interior and exterior housekeeping pads?	Skillman	**Bid Category No. 04 Concrete will be responsible to provide ALL interior and exterior concrete housekeeping pads as shown on the drawings. Any concrete housekeeping pads not shown on the drawings will be the responsibility of the Contractor requiring the housekeeping pad. MJK 05.11.26.**	FINAL	YES
30	RLE Concrete	5/8/2026	The specs for the exterior concrete are calling out white cement which is quite a bit more money than gray cement? Could we use gray cement in the exterior concrete and decorative concrete?	TowerPinkster	**Concrete paving to be: " Portland Cement: ASTM C150/C150M, gray portland cement Type I." Updated spec to be provided in upcoming addendum. - 05/05/2026 LF**	FINAL	YES
31	Hall Builders	5/11/2026	Who is responsible for the compact Laminate panels?	Skillman	**Refer to Addendum No. 1, Section 01 12 23 Multiple Contract Summary Section for clarifications regarding Millwork and Plasticl Laminate. MJK 05.11.26.**	FINAL	YES
32	Hall Builders	5/11/2026	Who is responsible for the roller shades?	TSC/TP	**BC06 - General Trades is repsonsible for roller shades. *Need spec section from TP.* - 5/11/26, BML**	FINAL	YES

KPS New EL SOL School Project - Pre-Bid RFI Log

Date - 5/19/2026

RFI #	Company Submitting RFI	Date Received	RFI Description	To be Answered By:	RFI Response - PLEASE DATE YOUR RESPONSE	Response Type: Draft or Final	Addendum Item
33	NEIS	5/11/2026	See typical cubby detail 3D I 503; the typical detail shows a 1/2'' SSM material bottom shelf with front nosing that extrudes 1/2'' beyond the cubby side panel. Would the design team accept reducing the bottom panel depth of the cubbies by 1/2'' to allow the solid surface's front nosing to sit flush with the side panels of the manufactured cubbies? This would allow for individual solid surface tops to be installed at each cubby, creating a uniform look, while eliminating the need for manufactured cubbies to be installed on top of a continuous SSM bottom shelf. We encountered a similar detail on another TowerPinkster project and were able to proceed in the manner detailed above.	TowerPinkster	**Proposed solution is acceptable. Provide shop drawings with updated detailing and solid surface fabrication when required. - 05/13/2026 BA**	FINAL	NO
34	NEIS	5/11/2026	See detail 4 sheet I 301 (room 100N): What are the countertop and casework material selections in this elevation?	TowerPinkster	**Provide PL-2 (Nevamar - White Phantasy) for countertop and PL-1 (Nevamar - Harmony Mint) for casework. Refer to material selection schedule for further finish information. - 05/13/2026 BA**	FINAL	YES
35	NEIS	5/11/2026	Reference Spec 123216 - Manufactured PLAM Casework - example Science Classroom 113. Please confirm clear acrylic is an acceptable material for glazed doors on casework.	TowerPinkster	**Clear acrylic is acceptable to glazing on science classroom doors. Updated Spec will be issued in next addedum - 05/13/2026 BA**	FINAL	YES
36	NEIS	5/11/2026	Reference 3D I 503; should the cubbie base be SSM-2 or SSM-1? The detail lists SSM-2 but the finish plan references SSM-1, which is correct?	TowerPinkster	**Refer to detail 3D/I 503 and provide SSM-2. - 05/13/2026 BA**	FINAL	YES
37	Earley & Associates	5/11/2026	The spec lists site concrete as WHITE CEMENT; is this to be grey?	TowerPinkster	**Concrete paving to be: " Portland Cement: ASTM C150/C150M, gray portland cement Type I." Updated specwas provided in Addendum 01, Note that this was already answered via RFI #30 -5/12/2026 LF**	FINAL	YES
39	Earley & Associates	5/11/2026	For scope, who is to provide bollard and bollard covers?	Skillman	**Bollards are specified in Section 32-3300 Site Furnishings. Bollards shall be supplied by Bid Category No. 7 Structural & Misc. Steel, inlcluding the HDPE sleeves, and shall be installed by Bid Category No. 4 Concrete. MJK 05.11.26.**	FINAL	YES
40	Hall Builders	5/11/2026	I see a set of soccer goals on the plan but in the spec there is not a manufacture on what it is supposed to be. We will need to have this to price this out. I am assuming this would be part of the general trades package.	TSC/TP	**Soccer Goals to be 6.5x18.5. See Specification Section 11 6823 in upcoming Addendum 02. -LF 05/18/2026**	FINAL	YES
41	Bareman & Associates	5/11/2026	Sec. 116623-Gymnasium Equipment mentions a "Mat Storage Systems" but we cannot locate this system on the plans. Please verify where the mat storage system is located.	TowerPinkster	**No mat storage required. LD May 14, 2026**	FINAL	YES
42	Bareman & Associates	5/11/2026	Sec. 083323, 2.3, A.1 calls for 200,000 cycles. This is extremely high for this doors application. Is the standard 50,000 cycles acceptable?	TowerPinkster	**50,000 cylces is aceptable. Beth G. May 14, 2026**	FINAL	YES
43	Bareman & Associates	5/11/2026	Sec. 083323, 2.3. A.8 & A.9 call for both "manual" and "electric" operation. Which operation is required?	TowerPinkster	**Electric operation is required with manual override LD May 14, 2026**	FINAL	NO
44	Bareman & Associates	5/11/2026	Sec. 083323, A, 11 lists multiple finish options. Please clarify which finish is required.	TowerPinkster	**Refer to spec section 083323, 2.3 A.11 - "to be selected from manufacturer's full range." Color selection not to be provided until samples are provided for verification. - 05/13/2026 BA**	FINAL	NO
45	Bareman & Associates	5/11/2026	Sec. 083323, 2.4, A,3 lists "air infiltration" requirements. Is the fire door also supposed to be insulated?	TowerPinkster	**Sec. 083323, 2.4, A.4 - Clarified air infilteration is only required for exterior doors. Overhead coiling doors are located only in the Cafeteria and adjacent servery areas. Beth G May 15, 2026**	FINAL	NO
46	Bareman & Associates	5/11/2026	Sec. 083323, 2.4, A.4 calls for a "stainless steel" curtain but note 12 lists other painted options. Please clarify which finish is required.	TowerPinkster	**The hood assembly and base door material will be stainless steel. Door curtain is powder coated per specification requirements. Beth G May 15,2026**	FINAL	NO
47	Lakeshore Glass	5/12/2026	Frame 40 on door schedule is labeled as AL and the window elevation shows this frame as HM, Please clarify which is correct	TowerPinkster	**Frame 40 was updated to an Interior Fire-Resitive Glass and frame system. Refer to RFI No. 1 and Addendum No. 1 for clarification. KC May 15, 2026**	FINAL	NO
48	Lakeshore Glass	5/12/2026	Frame 33 does not appear to have a fire rating according to the door schedule, but the window elevation has this frame glazed with FPG-1. Pleas clarify if this is fire rated or not	TowerPinkster	**Door Schedule updated to call out for fire rated door and FPG-1 glazing in upcoming Addendum No. 2 KC May 15, 2026.**	FINAL	ISSUED
49	Stafford Smith	5/13/2026	Breath Guards - Per Vollrath: After looking into this, my estimating team noticed that we are only alternate spec'd on one breath guard, with several other breath guards on the project. We will be no-bidding this project as we can't custom make a single breath guard to match the rest by another manufacturer, unless the consultant would approve us to quote all the breath guards.	TowerPinkster	**Stafford Smith to provide a quote for a single manufacturer to make all of the sneeze guards so they all match. LD May 14, 2026**	FINAL	NO

KPS New EL SOL School Project - Pre-Bid RFI Log

Date - 5/19/2026

RFI #	Company Submitting RFI	Date Received	RFI Description	To be Answered By:	RFI Response - PLEASE DATE YOUR RESPONSE	Response Type: Draft or Final	Addendum Item
50	AOL	5/13/2026	Translucent panels in frames 66 & 67. There does not seem to be a specification for these panels so I have included a couple of suggestions that you could forward to the architect. Attached is our product brochure, see page 10 for 1" and 2 3/4" options.	TowerPinkster	**See 084523 - Fiberglass-Sandwich-Panel Assemblies issued as part of Addendum No. 1 for more information. LD May 14, 2026**	FINAL	NO
51	Versatile Roofing	5/13/2026	There is a discrepancy in the Spec and the drawings with the metal panel types. For example MP1 on the prints calls for MAC Metal MS1.1 and MS1.2 mixed; the specs call WP1 Basis of Design a Morin Flush Panel. The renderings show a flush panel so I am wondering which panel is it. This is true for all the panel types in spec vs plans.	TowerPinkster	**Sec 074213.13 - Metal panel types in specifications updated to align with key on exterior elevations on sheets. Metal panel 2 is an infill panel and will not be covered by this spec section. Metal panel types 5 and 6 are called out on details located on A353 for the main entry canopy. Beth G May 15, 2026**	FINAL	YES
52	Versatile Roofing	5/13/2026	I can't find MP4 (WP4) in the spec. The print shows this as a Centria IMP. Unfortunately there are only a few companies in Michigan that can bid Centria panels or colors. Is there a list of acceptable manufactures for this wall panel?	TowerPinkster	**Sec 074213.13 - Was updated to align with key on exterior elevation sheets. Acceptable manufacturers are listed under sec 2.2. Beth G May 15, 2026**	FINAL	YES
53	Versatile Roofing	5/13/2026	The prints also show MP2(WP2) which looks to be a Mapes infill panel for Glass. Is this part of the metal panel scope or would this be part of the glazing package? WP2 in the spec is listed as Mac Metal Harrywood as well, so it doesn't match what is on the drawings.	TowerPinkster	**Sec 084113, 2.3.G - Section pertaining to Metal Panel 2 (insulated metal panel). Sec 074213.13 Does not include WP-2 and has been updated as indicated by previous . Beth G May 15, 2026**	FINAL	YES
54	Versatile Roofing	5/13/2026	The spec for the metal panels also call for .034 in thickness. Are the architects wanting 22ga steel, 24ga steel, .032 Alum, or .040 Alum?	TowerPinkster	**24 ga. steel and either aluminum thickness are acceptable. Beth G May 15, 2026**	FINAL	NO
55	Versatile Roofing	5/13/2026	Looking at some of the wall details (12A/A325), it is showing, Vapor barrier, Z girt, Spray Foam, Densglass and then metal panels. What bid cat is responsible for everything behind the metal panels? (suggestion: Use the spray foam as a vapor barrier, and install a Self Adhered Vapor barrier on the Densglass behind the panels)	TowerPinkster	**Detail 12A/A325 and section 12/A325 are updated to align with structural and clarify wall assembly. Bid category is assigned by Skillman. Use Georgia-Pacific StoGuard VaporSeal to coat Densglass. See Addendum No. 2. Beth G May 15, 2026**	FINAL	YES
56	SA Mormon	5/13/2026	The door schedule on sheet A501 is missing the frame type for opening 144A. It appears to be frame type 1 based on the floor plan. Will you please confirm?	TowerPinkster	**Correct Frame type updated in Addendum No.2 KC May 15, 2026**	FINAL	ISSUED
57	SA Mormon	5/13/2026	The door schedule on sheet A502 is missing quite a bit of information for openings E01.1 & E01. 2. Please let us know what is needed for these openings.	TowerPinkster	**E01.1 & E01.2 are Elevator doors, refer to Elevator specs and section. KC May 15, 2026**	FINAL	NO
58	SA Mormon	5/13/2026	Sheet A101C shows an exterior door at Stair S02.1, but it isn't labeled. It is also missing from the door schedule. Please let us know what is needed for this opening.	TowerPinkster	**Updated door tag for doors at Stair S02.1 in Addendum No 2. KC May 15, 2026**	FINAL	ISSUED
59	SA Mormon	5/13/2026	The following openings on the door schedule are missing the glass type: 200A, 200B, 200D, 200E & S01.2. Please let us know what type of glass is needed.	TowerPinkster	**Glass type updated in Addendum No.2 KC May 15, 2026**	FINAL	ISSUED
60	SA Mormon	5/13/2026	Sheet A504 shows frame type 37, but I don't see it assigned to any openings on the door schedule. Is this frame type used anywhere?	TowerPinkster	**Door schedule update to call out for Frame type 37 in Addendum No.2 KC May 15, 2026**	FINAL	ISSUED
61	SA Mormon	5/13/2026	The door schedule calls out frame type 57 at openings 135 & 138 (both aluminum openings according to the door schedule). However, sheet A505 calls out hollow metal storefront at frame type 57. Please let us know what is needed for these two openings.	TowerPinkster	**Door schedule updated to call out for wood door and hollow metal frame for both openings in Addendum No.2 KC May 15, 2026**	FINAL	ISSUED
62	SA Mormon	5/13/2026	The door schedule shows frame type 2A at opening 100L, but sheet A402 shows frame type 38. Please let us know what frame type is needed.	TowerPinkster	**Door schedule update to call out for Frame type 38 in Addendum No.2 KC May 15, 2026**	FINAL	ISSUED
63	SA Mormon	5/13/2026	The following frame elevations on sheet A503 are missing the type of glass needed: 16, 17, 18, 19, 20 & 21. Please let us know what type of glass is needed.	TowerPinkster	**Glass type updated in frame elevations in Addendum No.2 KC May 15, 2026**	FINAL	ISSUED
64	SA Mormon	5/13/2026	There is a Fire Resistance Rated Frame specification (Section 081243) included in the project specifications. These openings need to comply with ASTM E119 and are very expensive. Please confirm which door openings / borrowed lites need to be Fire Resistance Rated and comply with ASTM E119.	TowerPinkster	**Refer to RFI No. 1 and Addendum No. 1 for clarification. KC May 14, 2026**	FINAL	NO
65	Pearson	5/14/2026	Section 061600- Sheathing. This specification section is assigned to the general trades contractor and it includes Dens Glass Sheathing as well as plywood. Typically the dense glass is assigned to the steel stud contractor. Will the General Trades BP6 be required to install all dense glass?	Skillman	**No, in reference to 06 16 00 Sheathing, Bid Category No. 09 Metal Studs, Drywall, & Acoustical Ceilings shall provide Glass-Mat Gypsum Wall Sheathing. - MJK, 5/19/26**	FINAL	
66	Pearson	5/14/2026	07 27 26 Fluid Applied Air Barrier. Please confirm the location and substrates that the General Trades BP6 will be responsible for the installation of The 07 27 26 Fluid Applied Air Barrier.	Skillman	**Delete Specification Section 07 27 26 Fluid Applied Membrane Air Barrier (Added in Addendum 01) Add Section 07 27 26 Fluid Applied Membrane Air Barrier to Bid Category No. 04 Concrete. - MJK, 5/19/26**	FINAL	

KPS New EL SOL School Project - Pre-Bid RFI Log

Date - 5/19/2026

RFI #	Company Submitting RFI	Date Received	RFI Description	To be Answered By:	RFI Response - PLEASE DATE YOUR RESPONSE	Response Type: Draft or Final	Addendum Item
67	Pearson	5/14/2026	06 41 16- PLAM Cabinets. This was assigned to the general trades as clarified in addendum to supply the Circulation desk in room 100 complete. There is an identical desk in the media center to this circ desk. Please verify if booth desk will become the responsibility of the General Trades?	Skillman	**Bid Category No. 06 General Trades shall provide the millwork for the recption desk and media cirulation desk. BML, 5/15/2026**	FINAL	
68	Pearson	5/14/2026	Temp Fence. The temp fence requirement is assigned to both Skillman and General Trades. Please confirm who will be responsible for this.	Skillman	**The Skillman Corporation will provide temporary fencing. Bid Category No. 06 General Trades is responsible for any field adjustments/movement as required throughout the timeline fo the project. BML, 5/15/2026.**	FINAL	
69	Pearson	5/14/2026	Playground Equipment, please identify the items to be included for BP6 General Trades in comparison to bid pack 25 Playground Equipment	Skillman	**Delete Specification Section 11 68 00 Playfield Equipment and Structures. Add Specification Section 11 68 00 Playfield Equipment and Structures to Bid Category 25 Playground Equipment. - BML, 5/19/26**	FINAL	
70	Pearson	5/14/2026	What size are the soccer goals to be?	TowerPinkster	**Soccer Goals to be 6.5x18.5. See Specification Section 11 6823 in upcoming Addendum 02. -LF 05/18/2026**	FINAL	YES
71	Pearson	5/14/2026	Will window blinds and treatment be required to be furnished for this project and by what bid package?	TSC/TP	CB / BA	DRAFT	
72	Pearson	5/14/2026	Will sign permits be required from the city and if so, who will be responsible for procuring them?	Skillman	**Contact RCKC to determine if needed - MJK, 5/19/26**	FINAL	
73	Jergens	5/14/2026	In the plumbing fixture spec section it says to refer to drawing P502 for plumbing fixture schedule. I am not seeing a fixture schedule on drawing P502, is this something that will be issued?	TowerPinkster	**This is addressed in upcoming Addendum No. 2 DV May 14, 2026**	FINAL	YES
74	Miller Davis	5/14/2026	Does each bid category have to provide caulking and sealants for their own scopes of work?	Skillman	**Refer to Addendum 02 - MJK, 5/19/26**	FINAL	
75	Miller Davis	5/14/2026	Can some additional information be provided as to what the General trades package is expected to provide for the field engineering. The write up in Addendum 1 is a little confusing	Skillman	**Delete Specification Section 01 72 00 Field Engineering. Add Specification Section 01 72 00 Field Engineering to Part 3.01 A, Provided by the Owner Through the Construction Manager. - MJK, 5/19/26**	FINAL	
76	Miller Davis	5/14/2026	Who is providing the electrical connections for loading dock equipment and bleachers.	Skillman	**Bid Category No. 23 Electrical shall provide the electrical service and connections to the loading dock and bleachers. - BML, 5/19/26**	FINAL	
77	Miller Davis	5/14/2026	In site furnishings, what items is General Trades providing?	Skillman	**Per Spec Section 32 33 00, Bid Category No.06 General Trades is responsible for the following furnishings: Benches, Tables, ADA Table, Bicycle Racks, Trash Receptacles, Manufactured Log Seats, and Bollards. BML, 5/15/2025**	FINAL	
78	Miller Davis	5/14/2026	At the marquee sign, swing gate, staff parking, seat log, misc. site signage, flag poles, which bid category has what? Or is General Trades responsible for the entire assembly?	Skillman	**Bid Category No. 06 is repsonsible for 8" x 8" Alumiunum Colums, 2 Sided Digiital Marquee Sign, Aluminum Box with Aluminum Lettering. Bid Category No. 04 Concrete will provide the Concrete Footing and Foundation. Bid Category No. 05 Masonry will provide all CMU Brick, Cast-Stone Cap. Refer to technical specifications and plans for additional infromation. - MJK, 5/19/26**	FINAL	
79	Miller Davis	5/14/2026	Who will be providing the angles around the loading dock pit?	Skillman	**Refer to detail 2 on S311. Bid Category No. 07 Structural & Miscellanseous Steel shall rpovide in accordance with Spefication Section 05 50 00 Metal Fabrications. - MJK, 5/19/26**	FINAL	
80	Miller Davis	5/14/2026	Where is the wood base for the lockers. I do not see it on the plans.	TowerPinkster	**Locker base types clarified in Addendum No. 2. KC May 15, 2026**	FINAL	ISSUED
81	Miller Davis	5/14/2026	How is General Trades to quantify blocking for every trade and Owner items prior to receiving lay out drawings.	Skillman	**Provide blocking for items as shown on the drawings - MJK, 5/19/26**	FINAL	
82	Miller Davis	5/14/2026	Who is responsible for the transition strips at the where the different flooring types are in different bid categories.	Skillman	**Bid Category No. 15 Flooring is responsible for all transitions strips. - BML, 5/15/2026**	FINAL	
83	Miller Davis	5/14/2026	Who is providing the structural support for the operable partition? Gen Trades or Structural Steel?	Skillman	**Refer to Specification Section 05 50 00 Metal Fabrications. Assigned to Bid Category No. 07 Structural & Miscellaneous Steel is resonsible for providing the structural support for the operable partition. BML, 5/15/2025**	FINAL	
84	Reith Riley	5/15/2026	HMA Specs call for Cutback Prime Coat, Emulsified Asphalt Prime Coat, Fog Seal, and Herbicide treatments. Which of these, if any, are required on this project?	TowerPinkster	**Asphalt materials include Asphalt Binder and Tack Coat, herbicide treatment is not required. See Specification Section 32 1216 in upcoming Addendum 02. -LF 05/18/2026**	FINAL	YES
85	Reith Riley	5/15/2026	How many progress meetings/which years of the project will the HMA contractor be required to attend progress meetings?	Skillman	**Refer to the Guideline Construction Schedule issued in Addendum 01. Typically, Contractors are required to participate/attend Progress Meetings, 1 Month prior to activity on-site until Closeout is achieved. - MJK, 5/19/26**	FINAL	

KPS New EL SOL School Project - Pre-Bid RFI Log

Date - 5/19/2026

RFI #	Company Submitting RFI	Date Received	RFI Description	To be Answered By:	RFI Response - PLEASE DATE YOUR RESPONSE	Response Type: Draft or Final	Addendum Item
86	Reith Riley	5/15/2026	Should I anticipate any of the additional mobilizations mentioned in addendum 1 to be in 2026/2027 or are you anticipating them to be in 2028 based on the guideline schedule?	Skillman	**Refer to the Guideline Construction Schedule issued in Addendum 01. - MJK, 5/19/26**	FINAL	
87	Hunter Prell	5/18/2026	Detail 11 on sheet A324 shows pressure treated wood blocking on the entry canopy and calls out metal soffit, but then calls out “MAC HARRYWOOD Color:WOOD”. Please confirm that they are not going to wood on the under side of this overhang? And if they can use fire retardant treated wood blocking instead of treated so protection will not be required beneath this canopy?	TowerPinkster	**Fire retardant treated wood blocking is acceptable and can be used as necessary in the canopy. The "wood" soffit in detail 11 is referencing to the MAC Wood Collection of finishes. For this project, selection of the MAC "wood" finish for the metal panels will be selected during shop drawings and submittals. Beth G. May 20, 2026**	FINAL	
88	Structural Steel Services	5/18/2026	Bid Category 07 (Structural & Misc. Steel) lists spec sections 061000 (Rough Carpentry) and 061600 (Sheathing). These same spec sections are also referenced in Bid Category 06 (General Trades). These two spec sections should be supplied/installed by bid category 06 and not by bid category 07. Is this correct?	Skillman	**Specification Sections 06 10 00 Rough Carpentry and 06 16 00 Sheathing to be removed from Bid Category No. 07 Structural & Miscellaneous Steel in Addendum 02. - BML, 5/19/26**	FINAL	
89	Structural Steel Services	5/18/2026	In addendum 1 Bid Cat. 07 clarification 1 states: “Bid Category No.7 Masonry contractor to provide brick veneer hangers, brackets and veneer angles as show in details 4 and 7 on Sheet S303, and detail 12 on S301.” However, I do not have a drawing S303 and S301/12 is a “Typ. Thickened Slab” detail Was the correct detail referenced in the note supposed to be S401/9?	Skillman	**Bid Cateogry No. 05 Masonry shall provide all Shelf and Veneer Support angles per section 04 2000 Unit Masonry. The reference to the detail 4 and 7 on S303 are not applicable - MJK, 5/19/26**	FINAL	
90	Pearson	5/18/2026	Frame type 57 sheet A505 state hollow metal, schedule on sheet A501 at door 135 calls for this to be Aluminum.	TowerPinkster	**Refer to RFI No. 61 and Addendum No. 2 for clarification. KC May 19, 2026**	FINAL	NO
91	Pearson	5/18/2026	32 33 00 Site Furnishings please confirm the 6" bollards referenced in this spec section are for the covers only. This spec section includes steel schedule 40 bollards and HDPE covers. Site plans show steel schedule 80 bollards. Please verify which is correct and which bid package will be responsible.	TSC/TP	**Specification Section 32 3300 references both bollards and covers. Bollards are to be Schedule 40 per specification, updated detail reflecting this will be provided with Addendum 03. -LF 05/19/2026 Bid package responsibility to be answered by TSC.** **Bollards are specified in Section 32-3300 Site Furnishings. Bollards shall be supplied by Bid Category No. 7 Structural & Misc. Steel, inlcluding the HDPE sleeves, and shall be installed by Bid Category No. 4 Concrete. MJK 5/19/26**	FINAL	YES
92	Pearson	5/18/2026	32 33 00 Please confirm what bid package will be responsible to supply concrete for the site furnishings.	Skillman	**Bid Category No. 06 General Trades will provide any Cast-In-Place Concrete work for any Site Furnishings required such. - MJK, 5/19/26**	FINAL	
93	Pearson	5/18/2026	10 75 16 Flag poles; please confirm what bid category will supply concrete for flagpoles	Skillman	**Bid Category No. 06 General Trades will provide concrete for Flagpoles - BML, 5/19/26**	FINAL	
94	Pearson	5/18/2026	Sheet I101B lists a cg-2 corner guard which is not included in the finish schedule	TowerPinkster	C/B	DRAFT	
95	Pearson	5/18/2026	A200 series drawings, keynote 1, calls out linear baffles and refers to the material selection schedule. I don’t see these listed on the schedule. What are they and what bid category is responsible?	TSC/TP		DRAFT	
96	FCC	5/18/2026	Who's scope is the swing gate on C203 in?	Skillman	**Bid Category No. 06 General Trade is responsible for the Swing Gate referenced on Sheet C203 - BML, 5/19/26**	FINAL	
97	FCC	5/18/2026	Who is welding the precast to the embed plates	Skillman	**Bid Category No. 08 Pre-Cast Concrete. Refer to Section 03 41 00 Pre-Cast Structural Concrete, Part 3.1C. - MJK 5/19/26**	FINAL	
98	FCC	5/18/2026	Who is installing the bent plates and angles under the precast (also how does the angle get installed before the precast is set ? the precast plank will have camber ?)	Skillman		DRAFT	
99	FCC	5/18/2026	Who installs 1-S416, 7-S416 , 7-S414? Ideally the precast contractor would supply and install a complete package of any angles/bent plates/embed plates and perform any welding associated with precast.	Skillman		DRAFT	
100	FCC	5/18/2026	I see the roof ladder are all called out to be painted, I’m assuming that we will supply a prime painted ladder and the painter will field apply their coatings in the field, or I guess we could deliver to there shop and have this done? But the painting would not be in metals cat.	Skillman	**Bid Category No. 13 Painting will provide final coat of paint on ladders. - MJK 5/19/26**	FINAL	
101	Pearson	5/19/2026	On sheet C 102. Note 4.1 is applied to the log area. This is also the same note for the main entry display sign. What sign is intended at the log entry area on C102?	TowerPinkster	**The callout on C 201 pointing to the area surrounding the log seats should read "2.4". Updated Sheet C 201 reflecting this will be provided with Addendum 03. -LF 05/19/2026**	FINAL	YES
102	Pearson	5/19/2026	Can you confirm the number of vending machines that are to be owner supplied and contractor installed as outlined in the toilet and bath accessories specification?	Skillman	**Refer to Specification Section 10 28 00 Toilet, Bath, and Laundry Accessories Part 1.1B for Owner Furnished Material Installed by Bid Category No. 06 General Trades. - MJK, 5/19/26**	FINAL	

KPS New EL SOL School Project - Pre-Bid RFI Log

Date - 5/19/2026

RFI #	Company Submitting RFI	Date Received	RFI Description	To be Answered By:	RFI Response - PLEASE DATE YOUR RESPONSE	Response Type: Draft or Final	Addendum Item
103	Versatile Roofing	5/19/2026	There is an expansion joint spec 07 7129 listed but I do not see any expansion joints in the plans. Typically there would be an expansion joint at every wing of the roof. Do we need to ignore the spec since none are shown on the plans?	TSC/TP		DRAFT	
104	Versatile Roofing	5/19/2026	The specified membrane is Gray EPDM, the only manufacturer offering that is Carlise, how is that competitive for the school when only one manufacturer makes it?	TowerPinkster		DRAFT	
105	Pearson	5/19/2026	What bid category is to supply and install the wall louvers shown on sheet A505? Please provide a specification.	Skillman	**Bid Category No. 11 Aluminum Windows/Storefront/Curtain Wall/Assembies & Glazing. Refer to Specification Section 08 90 00 Louvers and Vents. - MJK 5/19/26**	FINAL	
106	Pearson	5/19/2026	What bid category is to supply and install the frosted film noted on A505?	Skillman	**Bid Category No. 11 Aluminum Windows/Storefront/Curtain Wall/Assembies & Glazing. - MJK 5/19/26**	FINAL	
107	E&L	5/19/2026	1,000 LF of plastic construction fence in the specs for your site temp fence requirements, I don't think orange plastic fence will hold up for the time duration of this project so I wanted to confirm if we can use 6x10 chain link fence panels instead of the specified plastic fence material. We can incorporate the two 20' gates as well right in the chain link fence panels	Skillman	**Contractors can utilize plastic fencing or panel systems as needed. - BML, 5/19.26**	FINAL	