Purchasing Office
191 South East Street
Frederick, Maryland 21701
301-644-5208 phone
301-644-5213 fax
kim.miskell@fcps.org

Frederick County Public Schools
Reach. Challenge. Prepare.

Kerrie Koopman CPPB, CPPO,
Purchasing Manager
Kim Miskell, CSBO, Assistant Purchasing Manager
Bill Meekins CPPB, CSBO, CPCP,
Purchasing Agent
Shane Ryberg, Purchasing Agent

ADDENDUM

April 3, 2020

ADDENDUM # 3
Bid 20C6, Waverley Elementary School - New Construction

DUE DATE & TIME:
Bids for the following packages: 2A Sitework; 3A Concrete; 4A Masonry; 5A Structural Steel; 6A General Carpentry; 7A Roofing; 8A Windows and Storefronts; 9A Drywall and Acoustics; 9B Ceramic Wall and Floor Tile; 9C Fluid Applied and Terrazzo Flooring; 9D Resilient Flooring and Athletic Surfacing; 9E Painting; 11A Food Service Equipment; 11B Athletic Equipment; 15A Mechanical (Plumbing, HVAC and Sprinkler); 16A Electrical (including Low Voltage) will be received and time stamped in the main lobby of Frederick County Public Schools (FCPS) at 191 South East Street, Frederick, MD 21701, prior to and time stamped no later than **11:00 a.m. local time, April 29, 2020**.
Additional information will be provided in a future addendum regarding the receipt of bid packages and how the bid opening will be handled.

1. Revised language to Supplemental Instructions to Bidders, #29 Employment of Child Sex Offenders and Person with Uncontrolled Access to Students, Page 47:

29. EMPLOYMENT OF CHILD SEX OFFENDERS AND PERSONS WITH UNCONTROLLED ACCESS TO STUDENTS

a. Be advised that individuals who are registered sex offenders are not eligible to work on any FCPS' project. The awarded supplier(s) must initially check the Maryland Department of Public Safety & Correctional Services' Maryland Sex Offender Registry and search for the name of any employee to be assigned to work on this project. This applies to subcontractors and material/equipment suppliers as well. For projects lasting more than a few months, the supplier will periodically re-check the names of workers against the registry to ensure ongoing compliance. In the event that a registered sex offender is discovered to be working on a FCPS project, whether through employment by the supplier, subcontractor or equipment or material supplier, FCPS will notify the site superintendent to immediately remove the individual from the premises and permanently terminate his work assignment. FCPS may terminate this contract at no additional costs, as a result if the supplier is unable to demonstrate they have exercised care and diligence in the past in checking the Maryland registry.

b. Contracted service providers who have regular, direct and unsupervised access to children cannot begin service without undergoing the same process as new employees per FCPS Regulation 300-33. If required, an awarded supplier(s) is responsible for payment of the full cost of the criminal background check. Additional information regarding this requirement will be found in Section II – FCPS Specific Terms and Conditions.

c. The awarded supplier(s), or subcontractor(s), may not knowingly assign an employee to work on FCPS school premises with direct, unsupervised, and uncontrolled access to children, if the employee has been convicted of a crime identified as a crime of violence.

d. The awarded supplier(s) will not assign employees who has been convicted of an offense under § 3-307 or § 3-308 of the Criminal Law Article or an offense under the laws of another state that would constitute a violation of § 3-307 or § 3-308 of the Criminal Law Article if committed in the state.

e. An awarded supplier will not assign employee who has been convicted of a crime of violence as defined in § 14-101 of the Criminal Law Article, or an offense under the laws of another state that would be a violation of § 14-101 of the Criminal Law Article if committed in this state.

f. With the passing of Maryland Law MD. Code, Educ. 6-113.2, employers of all contracted staff must obtain background information relating to child sexual abuse or sexual misconduct**.** This means that all contracted staff having direct contact with students must meet all of the FCPS and Maryland State Department of Education (MSDE) requirements before doing business with FCPS. For additional information, visit:
   - Maryland State Department of Education Website;
   - House Bill 486 Child Sexual Abuse and Sexual Misconduct Prevention;
   - MSDE Guidelines For MD. Code, Educ. 6113.2;
   - Employment History Review Form for Child Abuse and Sexual Misconduct

Effective immediately, we will not fingerprint staff provided to FCPS by contractors or staffing agencies. Based on recent procedural review and guidance received from the state of Maryland, it is confirmed that the fingerprint records from the state's Criminal Justice Information System (CJIS) are to be processed and kept by employers only. This means that the contractors providing staff to FCPS are responsible to perform the CJIS fingerprint check since they are the employers of staff being provided to FCPS under various agreements. The fingerprint check required by FCPS and all Maryland school districts is the Adam Walsh Act background transaction (commonly referred to as the Child Care background check).

2. This Addendum includes the following attachment(s):
   a. Oak Contracting, LLC & GWWO Addendum Number 3 (119 pages)
   b. Pre-Bid Meeting Minutes (2 pages)
   c. Pre-Bid Skype Attendance (1 page)

Thank you for your interest in bidding with Frederick County Public Schools and we apologize for any inconvenience this may have caused.

Sincerely,

Kim Miskell

Kim Miskell, CSBO,
Assistant Purchasing Manager

km/ab

pc: Brian Staiger, Senior Project Manager, Construction Management
Scott Moir, GWWO
Dave Toth, Oak

OAK CONTRACTING LLC
Builders

ADDENDUM NO. 3

April 3, 2020

TO: ALL PLANHOLDERS AND PROSPECTIVE BIDDERS

RE: **WAVERLEY ELEMENTARY SCHOOL REPLACEMENT**

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 16, 2020. Acknowledge receipt of this Addendum in the space provided on the Form of Proposal.

General:
See attached Prebid Meeting Minutes prepared by Oak Contracting dated April 2, 2020 (5 pages).

See attached Oak Contracting Pre-Bid RFI's, numbered PB-001 thru 004, PB-006, and PB-008, for response to questions related to the Bid Documents (10 pages).

Changes to the Specifications:

Section 00 2416 Contract Packages

General Scope of Work for All Contractors:

Delete Item 0.39 in its entirety and replace with the following:

0.39 Date of Substantial Completion for New Waverley Elementary School, Phase 2, is June 30, 2022. Substantial Completion for entire Waverley Campus, Phase 3, is April 7, 2023. Liquidated damages in the amounts stated in the Contract Document AIA A132/CMa 2009 may be assessed in the event a Contractor fails to achieve Substantial Completion as stipulated or in the event a Contractor fails to achieve any of the milestone dates indicated in the Construction Schedule.

Prebid Meeting Minutes
Waverley Elementary School

Owner	Frederick County Public Schools
Construction Manager	Oak Contracting, LLC
Architect	GWWO, Inc.
Civil Engineer	Adtek Engineering, Inc.
Structural Engineer	Carney Engineering Group, Inc.
MEP Engineer	Alban Engineering, Inc.

AGENDA ITEMS

Item No.	Item Description
1	List of attendees is per FCPS sign-in sheet included in Addendum #3.
2	Each bidder shall submit an original of the Bid Form of Proposal with all other required forms, and one copy of the Bid Form of Proposal with all other required forms, and it shall be sealed in an opaque envelope and marked:#20C6, Waverley Elementary School – New School Construction. All inner and outer envelopes and packaging, used by FedEx, UPS, etc., should be labeled with the Bid Name, Number, and Due Date/ Time
3	Bids shall be addressed to the Owner (The Board of Education of Frederick County) and will be received in the Main Lobby of Frederick County Public Schools (FCPS) at 191 South East Street, Frederick, Maryland 21701, no later than 11:00am Eastern Standard Time on April 29, 2020. All bids will be opened and read aloud in the Central Office Board Room subsequent to this deadline. Bids received after this time will be returned to the respective Contractor unopened.
4	Bidders submitting on more than one package must provide separate forms of proposal and submit each bid in a separate envelope.
5	Bidders must fill out bid form completely. FCPS has added forms. There can be no exclusions or exceptions in your offer.
6	All bidding Contractors must register with eMaryland Marketplace in order to be awarded the Contract. FCPS considers the registration on eMaryland Marketplace as their prequalification.
7	Minority Business Enterprise (MBE) Participation: Package by Package Goals are identified in the Invitation to Bid. MDOT Certification is only basis for MBE recognition. MDOT Certification must be current at the time of Proposal submission. MBE Waiver Forms are required to include documented efforts to obtain MBE participation.
8	5% Bid Bond for all Bidders. 100% Payment Bond and 100% Performance Bond are required from low responsible bidder. Bonding Company must meet rating requirements specified in the Supplemental Instructions to Bidders.
9	It is possible that 1st, 2nd, and 3rd place bidders may be requested to provide their MBE documentation. If there is a problem with the documentation provided by the apparent low bidder, the next bidder in line will be evaluated for compliance with MBE requirements.
10	Project is only being bid as Prevailing Wage.
11	Steel Procurement for Public Works is addressed in FCPS's Supplemental Instructions to Bidders.

12	In its role as construction management advisor to the FCPS, the Construction Manager is advising all contractors the following: • The project requires the payment of prevailing wages. • For the contractor's workers and for their subcontractor's workers, all contractors are responsible for making sure appropriate wage classifications are being applied for each worker, the correct wage amounts are being paid, and certified payroll are being submitted. • Contractors should contact the Maryland Department of Labor, Division of Labor and Industry ("DLI") if a wage classification is not listed or if there are questions regarding the appropriate wage classification to be applied. • If an incorrect wage classification is being used by a contractor or subcontractor, both the contractor and subcontractor will be held responsible for the unpaid wages and penalties by DLI. • FCPS will not issue a change order for any issues regarding prevailing wages. • It is not the Construction Manager's responsibility to track prevailing wage issues. • In order to appropriately advise FCPS, prior to project closeout and final payment, the Construction Manager will contact DLI to inquire as to the status of any prevailing wage issues involving a contractor or their subcontractors. • If DLI identifies any outstanding prevailing wage issues involving a contractor or their subcontractors, the Construction Manager will recommend to FCPS that final payment not be released to the contractor. • Even if DLI does not identify any prevailing wage issues and final payment is released, DLI may still investigate prevailing wage issues and
13	Drawings and Specifications are available for download through FCPS website (www.fcps.org). Select 'Current Solicitations,' and the Bid Number #20C6. Bidders will be required to create a login/ password and provide a valid email address for Addenda distribution via email. Questions regarding downloading the Bid Documents from the FCPS website should be directed to Kim Miskell via email at kim.miskell@fcps.org. All Addendums will be issued via this same web address.
14	Questions are to be submitted in writing to Oak Contracting, LLC, FCPS Senior PM, and FCPS Purchasing via email. Questions must be emailed to the following parties: • Kim Miskell, kim.miskell@fcps.org • Brian Staiger, brian.staiger@fcps.org • Dave Toth, dtoth@oakcontracting.com Questions must be submitted no later than April 15th, 2020 at 4:00pm. The last Addendum is anticipated to be issued on April 22nd, 2020.
15	Bidders must use products and manufacturers listed in the Contract Documents. Only under specific circumstances, which are listed in the Contract Documents, will requests for "equals" or "substitutions" be considered after the submission of the Proposal. Please carefully read Contract Package General Scope Item Number 0.24 for requirements and restrictions. All requests for "equals" or "substitutions" are to be formally submitted and approved prior to the Prebid Question deadline. All approved requests will be included in Addenda, while unapproved requests will not be included.
16	The Contractor's submittal and the Design Team's acceptance of Shop Drawings, Product Data, and/ or Samples for construction activities not complying with the Contract Documents do not constitute an acceptance or a valid request for substitution, nor do they constitute approval.
17	Project is taxable.
18	The 'Buy American Steel Act' is applicable.

19	The project will consist of 3 Phases, which are identified in the Preliminary Construction Schedule located in Specification Section 00 3113, and on the Form of Proposal, located in Specification Section 00 4200. Award will be based on the total bid, which is a total of the 3 Phases.
20	Date of Substantial Completion for Phase 2 is June 30, 2022. Date of Substantial Completion for Phase 3 is April 7, 2023.
21	Oak Contracting, LLC advises that night work, weekend work, and work on holidays may be required to meet schedule and must be anticipated. Schedule is being developed using 6-day work weeks. All costs must be included in each Contractor's base bid Proposal.
22	Potential liquidated damages are identified in the Standard Form of Agreement AIA A132/CMa-2009. All FCPS direct costs plus $1,000/day.
23	15A and 16A Contractors were advised that it is anticipated that the 'BAS Controls' Contractor will be Johnson Controls, Inc. The selected Controls Contractor will be assigned to the 15A Contractor for management, administration, and coordination into the overall project. 15A Contractor will be required to carry a line item on their Schedule of Values for their portion of this assigned work (management, administration, and coordination).
24	Tobacco products are strictly prohibited on the entire site per FCPS and State law.
25	Each Contractor is to check the Maryland, Virginia, West Virginia, and Pennsylvania Sex Offender Registry to eliminate the possibility of employing anyone registered on this list on this project. Failure to comply with this requirement may be cause for Contract termination. Oak may randomly check workers on site with RAPTOR technology and remove registered workers immediately.
26	Attendance at Prebid meeting is not mandatory to submit a Proposal.
27	Capital Equipment Informational Unit Prices shall be required from the Apparent Low Bidder within 48 hours of request for same.
28	Unit prices are applicable to all contract packages. Unit prices may be adjusted if it is determined that the listed unit price is not equitable to all parties. Contractors are encouraged to review the unit prices and submit any unit price clarifications prior to the Prebid Question deadline.
29	Bids are to remain valid for a minimum of 200 days from the date of submission.
30	Project must achieve USGBC LEED Silver Certification level as a minimum under LEED Version 4. All costs for participation in the certification process must be included in each Contractor's Proposal.
31	All warranties are a minimum of two years unless a longer duration is specified elsewhere in the Contract Documents. The minimum two-year warranty supersedes any reference to one-year warranty in the Contract Documents.
32	Closeout Documents scheduled value is a mandatory minimum of 2% of total contract value. Further information is provided in Contract Package General Scope Item Number 0.37. Closeout documents must be submitted and approved before any reduction of retainage will be considered.
33	Contractor schedule of values must be approved by CM, Owner, and Architect. SOV's are to be broken out to show material and labor costs for each activity in each section of the building. Oak encourages all Contractors to review scope items to make sure all activities are captured on the SOV. SOV's are due within 10 days of Contract Award.
34	Certificate of Insurance is required, see limits in AIA A132/CMa-2009 Contract. Note additional insured's: The Board of Education of Frederick County, Frederick County Council, State of Maryland, and Oak Contracting, LLC.
35	Deductible of FCPS Builder's Risk is $ 2,500.00.

36	Safety program is required of each Contractor on the project. Prime Contractors are responsible for obtaining and providing all subcontractor safety programs. Prime Contractors are responsible to enforce and manage their safety programs. See Contract Package General Scope Item Number 0.43.
37	The trade permits obtained by each Contractor must match the corresponding building permit issued on the project. FCPS and GWWO are responsible to obtain the Main Building Permit and Grading Permit only.
38	Work hours are 7:00am to 4:00pm Eastern Standard Time. All after hour work is to be scheduled and coordinated with Oak Contracting, LLC.
39	Allowable noise levels are per Comar 26.02.03.03.
40	This item is Intentionally Blank
41	Contractors are reminded that they are required to use the web-based software service, which is paid for by the Construction Manager. The web-based management system for this project will be 'ProjectSite.' Instructions are listed in each Contract Package.
42	MDE NPDES Discharge Permit will be transferred to the 2A Contractor during construction. Contractor is responsible to complete all requirements of the permit and transfer it back to the Owner after achieving Substantial Completion. Permit is to be completed online through MDE.
43	Certain CAD files may be available to Contractors who are awarded a Contract with a completed Waiver Form. These specific CAD files will not be provided for bidding.
44	Requirements for office trailers for Owner, Construction Manager, and Architect are by the Construction Manager.
45	The Owner/ Construction Manager will hire a third-party consultant to complete the coordination drawings for this project. Contractors are required to provide the required documentation for this coordination as per the schedule, so as not to delay the process. Contractors can be charged for third party consultant fees if coordination information is not provided and/ or if they do not participate in the process. Lack of coordination drawings will not be cause for delay in the work.
46	The address for this project is 201 Waverley Drive Frederick, MD 21702.
47	Oak advised all Contractors that building envelope commissioning is required per LEED Version 4. Contractors are to review specific specification sections with respect to required performance testing that they will be responsible for. Testing requirements of the building envelope commissioning not specifically identified as the Contractor's responsibility will be by the Owner.
48	Oak Contracting will be responsible for scheduling walk-thru's. Contractors who are interested need to submit a written request via email to dtoth@oakcontracting.com, Kimberly.miskell@fcps.org, brian.staiger@fcps.org, cc'd ktoth@oakcontracting.com, no later than Friday April 10, 2020 at 3:00pm. Oak will provide a schedule based on the number of requests received by the deadline. Contractors will be given a specific time window for their walk-thru's and there will be no deviation from the schedule once issued. FCPS will provide as-built drawings for the existing schools as a courtesy. FCPS, Oak Contracting, nor GWWO take responsibility for the accuracy of the as-built's information on the existing schools to be demolished. These as-built drawings for the existing schools will not be inclusive of the bid documents.

Q&A SECTION		
Company	Question	Answer
OAK	NA	Please bring attention to items you foresee will be a lead time issue with current situation (COVID19)
Bowen and Kron	Anticipated start date for demo?	End of July beginning of August of 2021
CanAm	Prebid questions to Kim as well?	Yes
Excavating	RFI's are due when?	April 15th at 4pm
Brawner	What is sqft of new building? What are the Staging requirements?	Sqft of building is listed on the bid docs. Approx. 130,000sqft CM will have designated staging area for contractors.
Bowen and Kron	Will it be permissible to crush brick and concrete on site?	No. Due to the other school location there will be issues with noise & dust and there is insufficient space for these operations. Also concern with schedule. Bldg demo needs to be complete for remainder of new building construction to proceed.
CanAm	Is FCPS considering electronic submission of bids?	FCPS is currently looking at all options. Once a decision is made instructions will be forwarded via addendum.
OAK	Hazmat survey	Hazmat survey is location in volume 2 of the specifications at the end of the demolition section 02 4100
ASI	Are we to quote hazmat quantities included in hazmat survey?	Yes.

OAK CONTRACTING LLC
Builders

Request for Information

Detailed with Comments and Links

PB-001

Waverley Elementary School Replacement (1901)

201 Waverley Drive
Frederick, Maryland 21702

PB-001 - CCTV

Subject
CCTV

Status
Closed

Discipline	Importance	Location

Created On	Due Date	Date Resolved
03/19/2020	03/26/2020	03/23/2020

Author	Resolved By
Kerrigan Toth Oak Contracting LLC	Jason Hearn GWWO, Inc.

QUESTION Kerrigan Toth on 3/19/2020 11:14 AM

See question below from Wycliffe Technologies:

Under 1.5 quality assurance in CCTV states,

3. Installers must be factory-trained and certified on the Interlogix system. Provide proof of the certification and provide at least five completed installations using the Interlogix equipment.
Provide building name and contact person information. Owner reserves the right to inspect the systems used as references. Companies not certified at time of bid will not be considered.

With interlogix no longer in business, have you given thought to any other options?

COMMENT Kerrigan Toth on 3/19/2020 11:15 AM (Edited by Kerrigan Toth on 3/19/2020 11:18 AM)

Response from Oak Contracting: CCTV equipment is provided by FCPS and installed under the 16A Contract Package. There should be no manufacturer specific qualification requirements listed in this specification section. Paragraphs 1.4C, 1.5 A. 1, and 2.1 A should be revised.

ADDED LINKS Jason Hearn on 3/25/2020 11:45 AM

File
81605 CCTV Adden.
Jason Hearn

ANSWER Jason Hearn on 3/23/2020 12:01 PM

These paragraphs will be revised as part of Addendum #3.

ASSIGNMENTS

Kerrigan Toth (Oak Contracting LLC)

Jason Hearn (GWWO, Inc.)

OAK CONTRACTING LLC
Builders

Request for Information

Detailed with Comments and Links

PB-002

Waverley Elementary School Replacement (1901)

201 Waverley Drive
Frederick, Maryland 21702

PB-002 - Substitution Request - Lockers

Subject

Substitution Request - Lockers

Status

Closed

Discipline

Importance

Location

Created On
03/20/2020

Due Date
03/27/2020

Date Resolved
03/25/2020

Author
Kerrigan Toth
Oak Contracting LLC

Resolved By
Jason Hearn
GWWO, Inc.

QUESTION Kerrigan Toth on 3/20/2020 11:08 AM

See attached substitution request from Scranton Products for your review.

File
Substitution Requ...
Kerrigan Toth

File
SP Artisan Woodgr...
Kerrigan Toth

File
LEED Points.pdf
Kerrigan Toth

File
Tufftec Benches S...
Kerrigan Toth

File
Tufftec Benches B...
Kerrigan Toth

File
Tufftec HDPE vs M...
Kerrigan Toth

File
Tufftec Specifica...
Kerrigan Toth

File
Tufftec Lockers B...
Kerrigan Toth

File
Warranty.pdf
Kerrigan Toth

File
Health Product De...
Kerrigan Toth

File
Engraving Brochur...
Kerrigan Toth

ANSWER Jason Hearn on 3/25/2020 11:43 AM

Confirmation from Brian Staiger on 3/25/20 that FCPS is not interested in HPDE lockers. This request is REJECTED.

ASSIGNMENTS

Jason Hearn (GWWO, Inc.)

SUBSTITUTION REQUEST
(During the Bidding/Negotiating Stage)

Project:	Waverley Elementary School Replacement/Addition (09-670369)	Substitution Request Number:	SubReq-09075
	Frederick, MD	From:	Courtney Damore, Scranton Products
To:	Dave Toth, Oak Contracting LLC	Date:	03/20/2020
	dtoth@oakcontracting.com, 410-828-1000	A/E Project Number:	
Re:	Metal Lockers	Contract For:	Frederick County Public School District

Specification Title: Metal Lockers
Description: Manufacturers
Section: 10 5113 Page: 1
Article/Paragraph: 2.1

Proposed Substitution: Tufftec Lockers
Manufacturer: Scranton Products Address: scrantonproducts.com Phone: 570-348-0997
Trade Name: Scranton Tufftec Lockers Model No.: N/A

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.

Submitted by: Courtney Damore
Signed by: Courtney Damore
Firm: Scranton Products
Address: 801 E. Corey Street
Scranton, Pennsylvania 18504
Telephone: (570) 348-0997 ext. 8032, courtney.damore@azekco.com

A/E' s REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Substitution Procedures.

☐ Substitution approved as noted - Make submittals in accordance with Specification Substitution Procedures.

☐ Substitution rejected - Use specified materials.

☐ Substitution Request received too late - Use specified materials.

Signed by: **Date:**

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ ____

SUBSTITUTION REQUEST
(During the Bidding/Negotiating Stage)

Project:	Waverley Elementary School Replacement/Addition (09-670369)	Substitution Request Number:	SubReq-09076
	Frederick, MD	From:	Courtney Damore, Scranton Products
To:	Dave Toth, Oak Contracting LLC	Date:	03/20/2020
	dtoth@oakcontracting.com, 410-828-1000	A/E Project Number:	
Re:	Metal Lockers	Contract For:	Frederick County Public School District

Specification Title: Metal Lockers
Description: B. Locker Benches
Section: 10 5113 Page: 2
Article/Paragraph: 2.1

Proposed Substitution: Tufftec Bench
Manufacturer: Scranton Products Address: scrantonproducts.com Phone: 570-348-0997
Trade Name: Scranton Tufftec Bench Model No.: N/A

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.

Submitted by: Courtney Damore
Signed by: Courtney Damore
Firm: Scranton Products
Address: 801 E. Corey Street
Scranton, Pennsylvania 18504
Telephone: (570) 348-0997 ext. 8032, courtney.damore@azekco.com

A/E' s REVIEW AND ACTION

- ☐ Substitution approved - Make submittals in accordance with Specification Substitution Procedures.
- ☐ Substitution approved as noted - Make submittals in accordance with Specification Substitution Procedures.
- ☐ Substitution rejected - Use specified materials.
- ☐ Substitution Request received too late - Use specified materials.

Signed by: **Date:**

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ ___

OAK CONTRACTING LLC
Builders

Request for Information
Detailed with Comments and Links

PB-003

Waverley Elementary School Replacement (1901)

201 Waverley Drive
Frederick, Maryland 21702

PB-003 - Playground Items

Subject
Playground Items

Status
Closed

Discipline	Importance	Location

Created On	Due Date	Date Resolved
03/23/2020	03/30/2020	03/30/2020

Author	Resolved By
Kerrigan Toth Oak Contracting LLC	Jason Hearn GWWO, Inc.

QUESTION Kerrigan Toth on 3/23/2020 08:08 AM

See question below from Younger Services:

1. The drawings don't indicate where and what type of playground equipment is being installed. Could you please clarify where and what type of equipment is desired?

2. Please provide a typical detail for the playground safety surfacing.

3. Please reference 116813- Playground Equipment, the specification states to provide Robinia Series, "Parkour" structures by Kompan but Kompan is not listed as an acceptable manufacturer under 2.1 paragraph of the specification. Please confirm Kompan is an acceptable manufacturer. Please also indicate on the drawings where this piece is to be installed.

ANSWER Jason Hearn on 3/30/2020 11:54 AM

Addendum #3 will include an augmented architectural site plan with equipment configurations for design intent only. The approved distributors/manufacturers listed in the specifications are to submit configurations derived from the Robina series by Kompan. Addendum #3 will also contain a typical detail for playground safety surfacing; the GameTime standard detail is attached to this response. The specification does not state to provide Robina series by Kompan. It states that structures and configurations should "resemble" these items as they are for design intent only.

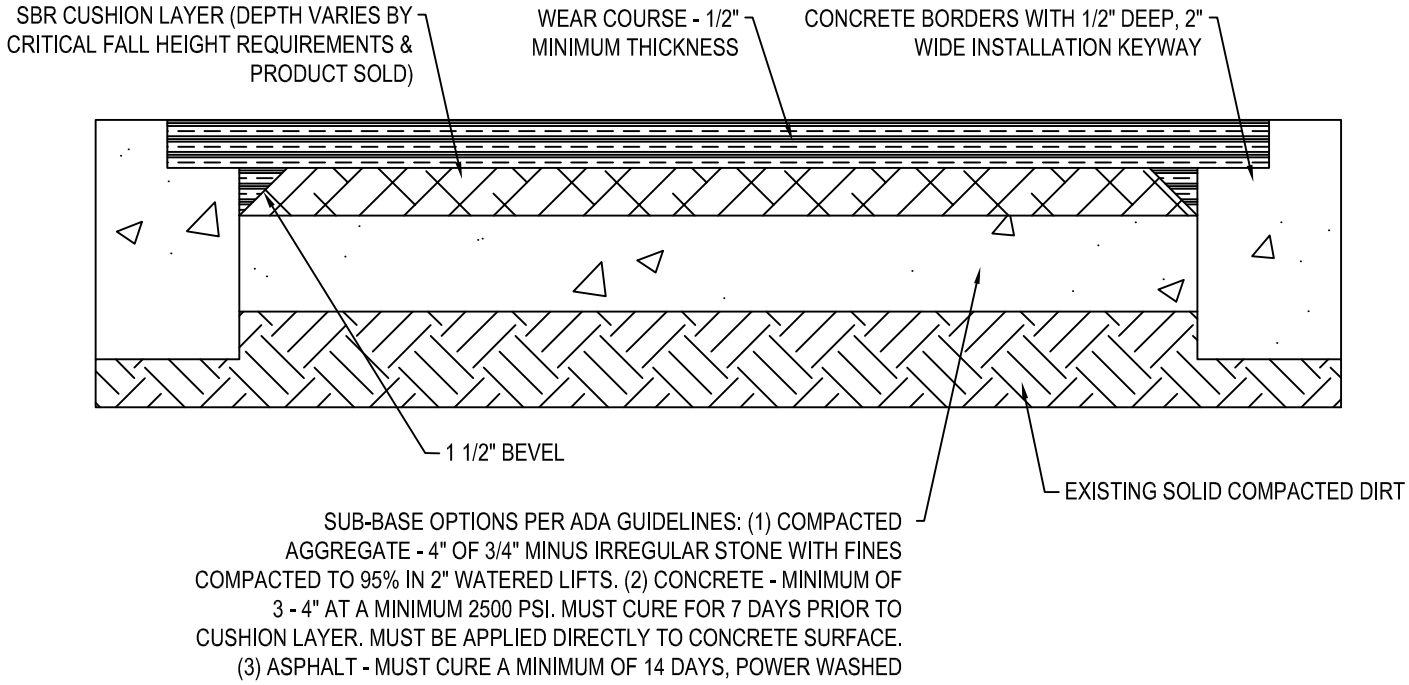
File
5248-003 - GT IMP...
Jason Hearn

ASSIGNMENTS

Jason Hearn (GWWO, Inc.)

GT IMPAX
150 PLAYCORE DR SE
FORT PAYNE, AL 35967
TOLL FREE: 1-800-235-2440
www.gametime.com/playground-surfacing

5248-003 - GT IMPAX - Pip Bordered By Concrete (Preferred New Construction).pdf



SECTION VIEW

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. ADDITIONAL INFORMATION (MAY NOT BE VISIBLE) AVAILABLE IN MODEL SPACE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 5248-003 - GT IMPAX - Pip Bordered By Concrete (Preferred New Construction)

GT IMPAX

PIP BORDERED BY CONCRETE (PREFERRED NEW CONSTRUCTION)

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CADdetails.com

Request for Information

Detailed with Comments and Links

PB-004

Waverley Elementary School Replacement (1901)

201 Waverley Drive
Frederick, Maryland 21702

PB-004 - Abatement Clarification

Subject
Abatement Clarification

Status
Closed

Discipline	Importance	Location

Created On	Due Date	Date Resolved
03/24/2020	03/31/2020	03/24/2020

Author
Kerrigan Toth
Oak Contracting LLC

Resolved By
Kerrigan Toth
Oak Contracting LLC

QUESTION
Kerrigan Toth on 3/24/2020 01:46 PM

See question below from Allec, LLC:

Will any of the non friable ACM be abated. In the specs it says that non-friable ACM will only be removed if it is disturbed by demolition.

File
Doc3.docx
Kerrigan Toth

ANSWER
Kerrigan Toth on 3/24/2020 01:47 PM

Per Oak Contracting: All hazmat is to be abated under the 2A Contract Package. Both schools are being demolished to make way for the new school.

ASSIGNMENTS

Kerrigan Toth (Oak Contracting LLC) Done On 3/30/2020

OAK CONTRACTING LLC
Builders

Request for Information

Detailed with Comments and Links

PB-006

Waverley Elementary School Replacement (1901)

201 Waverley Drive
Frederick, Maryland 21702

PB-006 - CMU Clarifications

Subject
CMU Clarifications

Status
Closed

Discipline	Importance	Location

Created On	Due Date	Date Resolved
03/30/2020	04/06/2020	03/30/2020

Author	Resolved By
Kerrigan Toth Oak Contracting LLC	Jason Hearn GWWO, Inc.

QUESTION Kerrigan Toth on 3/30/2020 12:47 PM

Please see questions below from Bragunier Masonry:

1. On page AC-1 wall types 1.11 thru 1.15 and 1.21 thru 1.25, 122x call for a 3-hour rating. Please confirm the CMU block does not need to be 3-hour rated.

2. Keep in mind the 4” CMU solid block will only meet 1.5-hour rating.

3. 6” CMU is only 2-hour, 6”CMU filled solid and solid 6” CMU will meet 3-hour rating

4. Please identify which brick will be used for generator/ dumpster enclosure.

ANSWER Jason Hearn on 3/30/2020 01:43 PM

This is a good question; thank you. The required ratings are noted on the life safety plans in the CS series. The maximum rating required on this project is 2-hours. Wall types 1.11, 1.12, 1.21 and 1.22 are not 3-hour rated assemblies as noted. These will be revised for Addendum #3. However, wall types 1.13-1.15 and 1.23-1.25 do have an inherent rating of 3-hours due to the added furring and gypsum board. The furring and gypsum board are for finishing purposes only and do not pertain to the fire rating, however per UL, these items do increase the fire rating as noted. Four-inch and 6" nominal CMU is used in areas requiring additional sound isolation and/or extra durability; these wall types are not used for fire resistance in this project. Per wall type S.01 on AC.1 and the elevations on AS.2, Face Brick #1 (042000-B1) is to be used on the outside face of the generator/dumpster enclosure.

ASSIGNMENTS

Jason Hearn (GWWO, Inc.)

Request for Information

Detailed with Comments and Links

PB-008

Waverley Elementary School Replacement (1901)

201 Waverley Drive
Frederick, Maryland 21702

PB-008 - Building Demolition

Subject
Building Demolition

Status
Closed

Discipline	Importance	Location

Created On	Due Date	Date Resolved
04/01/2020	04/08/2020	04/01/2020

Author	Resolved By
Kerrigan Toth Oak Contracting LLC	Kerrigan Toth Oak Contracting LLC

QUESTION Kerrigan Toth on 4/1/2020 04:17 PM (Edited by Kerrigan Toth on 4/1/2020 04:18 PM)

See questions below from Pleasants Construction:

1. Please provide the complete set of as-built drawings for both buildings scheduled for demolition?

2. Please provide the Hazardous Material Survey for both buildings.

ANSWER Kerrigan Toth on 4/1/2020 04:23 PM

1. Per Oak Contracting, existing as-built information will be provided by FCPS on the FCPS website with the Bid Documents.

2. Per Oak Contracting, hazmat information is provided in the Contract Documents towards the end of Specification Section # 02 4100.

ASSIGNMENTS

Kerrigan Toth (Oak Contracting LLC) Done On 4/1/2020

ADDENDUM #3

DATE:	April 3, 2020
BID NAME:	Waverley Elementary School – New Construction
BID NUMBER:	20C6
BID ISSUE DATE:	March 17, 2020
DUE DATE:	April 29, 2020
DUE TIME:	11:00 A.M.
TOTAL PAGES:	73 (plus 30 full size drawings)

The following revisions and responses to questions are made to the original bid documents. This addendum forms a part of the Contract Documents and modifies the Original Solicitation Documents accordingly and as noted below. Acknowledge receipt of this Addendum in the space provided on the "Addenda" form within the Form of Proposal.

PART 1 GENERAL (NOT USED)

PART 2 SPECIFICATIONS

2.1 VOLUME II

1. **DELETE** Specification Section 06 4100 – ARCHITECTURAL WOOD CASEWORK; ISSUED FOR BID, dated 03/16/2020; **ADD** Specification 06 4100 – ARCHITECTURAL WOOD CASEWORK; ADDENDUM #3, dated 04/03/2020.
    - **REVISED** paragraphs and items highlighted.
2. **REVISE** Specification Section 10 1400 – SIGNAGE; ISSUED FOR BID, dated 03/16/2020.
    - **REVISE** Part 2.2 (Signage Applications), Paragraph F, Item 1 to “Provide one plaque, 24 inches wide by 36 inches tall, in accordance with State of Maryland requirements.”
3. **DELETE** Specification Section 11 6813 – PLAYGROUND EQUIPMENT; ISSUED FOR BID, dated 03/16/2020; **ADD** Specification Section 11 6813 – PLAYGROUND EQUIPMENT; ADDENDUM #3, dated 04/03/2020.
    - **REVISED** paragraphs and items highlighted.
4. **DELETE** Specification Section 12 3200 – MANUFACTURED WOOD CASEWORK; ISSUED FOR BID, dated 03/16/2020; **ADD** Specification Section 12 3200 – MANUFACTURED WOOD CASEWORK; ADDENDUM #3, dated 04/03/2020.
    - **REVISED** paragraphs and items highlighted.
5. **DELETE** Specification Section 12 3600 – COUNTERTOPS; ISSUED FOR BID, dated 03/16/2020; **ADD** Specification Section 12 3600 – COUNTERTOPS; ADDENDUM #3, dated 04/03/2020.
    - **REVISED** paragraphs and items highlighted.

2.2 VOLUME III

1. **REVISE** Specification Section 28 1605 – INTEGRATED CCTV SURVEILANCE SYSTEM; ISSUED FOR BID, dated 03/16/2020.
    - **DELETE** Part 1.5 (Quality Assurance), Paragraph A.

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- **REVISE** Part 1.5 (Quality Assurance), Paragraph B to “A. Installer Qualifications: Licenses Security Contractor.
- **DELETE** “with a signed agreement from the manufacturer” from Part 1.5 (Quality Assurance), Paragraph B, Item 2.
- **REVISE** Part 1.5 (Quality Assurance), Paragraph B, Item 3 to “Installers must be experienced in similar security camera installations. Provide proof of the certification and provide at least five completed installations using the similar security camera equipment. Provide building name and contact person information. Owner reserves the right to inspect the systems used as references.

2. **REVISE** Specification Section 28 3111 – DIGITAL ADDRESSABLE FIRE ALARM SYSTEM; ISSUED FOR BID, dated 03/16/2020.
   - **REVISE** Part 2.1 (System Description), Paragraph B, Item 1 to “Silent Knight Farenhyt Series by Honeywell.”
   - **REVISE** Part 2.11 (Magnetic Door Holders), Paragraph A, Item 3 to “Rating: 24-V AC or DC, powered through fire alarm system.”
   - **DELETE** Part 2.11 (Magnetic Door Holders), Paragraph A, Item 4.

PART 3 DRAWINGS

3.1 CIVIL/LANDSCAPE

1. **REVISE** Drawing Sheet C-0A – COVER SHEET; Issued for Bid, dated 03/06/2020.
   - **ADD** “See Detail 10, Sheet C-3E” to “Poured Playground Surface” item in “PROPOSED LEGEND.”
2. **DELETE** Drawing Sheet C-1B – PHASE 1 DEMOLITION PLAN; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet C-1B – PHASE 1 DEMOLITION PLAN; ADDENDUM #3, (Revision dated 04/03/2020).
   - **REVISED** scope of demolition work to include on-site walking path adjacent to the existing Waverley facility.
3. **DELETE** Drawing Sheet C-1D – PHASE 3 DEMOLITION PLAN; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet C-1D – PHASE 3 DEMOLITION PLAN; ADDENDUM #3, (Revision dated 04/03/2020).
   - **REVISED** scope of demolition work to include steps and subsequent on-site path from Stonegate.
4. **REVISE** Drawing Sheet C-2B – PHASE 1 SEDIMENT CONTROL PLAN; Issued for Bid, dated 03/06/2020.
   - **ADD** 22’ dimension string to on-site access road width.
5. **REVISE** Drawing Sheet C-2C – PHASE 1 SEDIMENT CONTROL PLAN; Issued for Bid, dated 03/06/2020.
   - **ADD** 22’ dimension string to on-site access road width.
6. **DELETE** Drawing Sheet C-3A – OVERALL SITE PLAN; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet C-3A – OVERALL SITE PLAN; ADDENDUM #3, (Revision dated 04/03/2020).
   - **REVISED** extents of poured-in-place playground surfacing.

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7. **DELETE** Drawing Sheet C-3B – SITE PLAN; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet C-3B – SITE PLAN; ADDENDUM #3, (Revision dated 04/03/2020).
    - **REVISED** extents of poured-in-place playground surfacing.
8. **DELETE** Drawing Sheet C-3E – SITE DETAIL; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet C-3E – SITE DETAIL; ADDENDUM #3, (Revision dated 04/03/2020).
    - **ADDED** Detail 10 of typical poured-in-place playground surfacing.
9. **DELETE** Drawing Sheet C-4H – STORMDRAIN PROFILES; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet C-4H – STORMDRAIN PROFILES; ADDENDUM #3, (Revision dated 04/03/2020).
    - **REVISED** profiles to and from UGS-1.
    - **REVISED** Storm Trap notes.
10. **DELETE** Drawing Sheet C-4S – UGS DETAILS; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet C-4S – UGS DETAILS; ADDENDUM #3, (Revision dated 04/03/2020).
    - **REVISED** underground structure plan.

3.2 ARCHITECTURAL

1. **DELETE** Drawing Sheet AC.1 – CONSTRUCTION TYPES; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet AC.1 – CONSTRUCTION TYPES; ADDENDUM #3 (Revision dated 04/03/2020).
    - **REVISED** wall Type D.02 drawing label.
    - **REVISED** fire ratings of select CMU interior partitions.
2. **DELETE** Drawing Sheet AC.3 – TYPICAL DETAILS; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet AC.3 – TYPICAL DETAILS; ADDENDUM #3 (Revision dated 04/03/2020).
    - **REVISED** keynote number for roof drain.
    - **ADDED** “SIDEWALK AT THRESHOLD, TYP” detail.
    - **REVISED** sequencing of drawing numbers.
3. **DELETE** Drawing Sheet AS.1 – ARCHITECTURAL SITE PLAN; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet AS.1 – ARCHITECTURAL SITE PLAN; ADDENDUM #3 (Revision dated 04/03/2020).
    - **ADDED** playground equipment locations.
4. **DELETE** Drawing Sheet AS.3 – ARCHITECTURAL ENLARGED SITE PLAN; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet AS.1 – ARCHITECTURAL ENLARGED SITE PLAN; ADDENDUM #3 (Revision dated 04/03/2020).
    - **ADDED** playground equipment configurations and locations.
5. **DELETE** Drawing Sheet A1.5 – FIRST FLOOR PLAN – AREA E; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet A1.5 – FIRST FLOOR PLAN – AREA E; ADDENDUM #3 (Revision dated 04/03/2020).
    - **ADDED** column grid 49.5.
    - **ADDED** exterior window types.
6. **REVISE** Drawing Sheet A1.8 – SECOND FLOOR PLAN – AREA B; Issued for Bid, dated 03/06/2020.

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- **ADD** view reference to 2/A3.2 for windows in rooms B208, B209, B212 and B213 that are not visible in plan due to high sills.

7. **REVISE** Drawing Sheet A1.10 – SECOND FLOOR PLAN – AREA F; Issued for Bid, dated 03/06/2020.
   - **ADD** dimensional location of 2'-4" from exterior face of wall type "C.12" adjacent and parallel to column line "BC" to left jamb of window type "A" in STAIR F214.
   - **ADD** dimensional location of 19'-0" from exterior face of wall type "B.01" adjacent and parallel to column line "4" to left jamb of window type "C" in STAIR F208.
8. **DELETE** Drawing Sheet A4.2 – BUILDING SECTIONS; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet A4.2 – BUILDING SECTIONS; ADDENDUM #3 (Revision dated 04/03/2020).
   - **ADDED** Mechanical Penthouse C201 floor slab (was missing in view).
9. **REVISE** Drawing Sheet A4.4 – WALL SECTIONS; Issued for Bid, dated 03/06/2020.
   - **DELETE** references to detail 11/A6.13.
10. **REVISE** Drawing Sheet A4.6 – WALL SECTIONS; Issued for Bid, dated 03/06/2020.
    - **DELETE** references to detail 11/A6.13.
11. **REVISE** Drawing Sheet A4.7 – WALL SECTIONS; Issued for Bid, dated 03/06/2020.
    - **DELETE** references to detail 11/A6.13.
12. **REVISE** Drawing Sheet A6.13 – SECTION DETAILS; Issued for Bid, dated 03/06/2020.
    - **DELETE** detail 11/A6.13 (redundant).
13. **REVISE** Drawing Sheet A6.15 – SECTION DETAILS; Issued for Bid, dated 03/06/2020.
    - **DELETE** detail 8/A6.15 (redundant).
14. **DELETE** Drawing Sheet A8.1 – DOOR SCHEDULE; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet A8.1 – DOOR SCHEDULE; ADDENDUM #3 (Revision dated 04/03/2020).
    - **ADDED** head/jamb details references for select exterior doors.
15. **DELETE** Drawing Sheet A8.2 – OPENING TYPES & DETAILS; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet A8.2 – OPENING TYPES & DETAILS; ADDENDUM #3 (Revision dated 04/03/2020).
    - **ADDED** head/jamb details for exterior doors at metal panel wall types.
    - **REVISED** waterproofing/vapor barrier tie-in at T1 thresholds.
    - **REVISED** head/jamb details for exterior overhead door.
    - **REVISED** jamb labels for types B.01, B.12 and B.13.
    - **REVISED** jamb detail at fire curtain.
16. **DELETE** Drawing Sheet A8.3 – GLAZING SCHEDULE – EXTERIOR CURTAINWALL; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet A8.3 – GLAZING SCHEDULE – EXTERIOR CURTAINWALL; ADDENDUM #3 (Revision dated 04/03/2020).
    - **REVISED/ADDED** sill detail references for all types for clarity.
    - **ADDED** 3" cap locations.
17. **REVISE** Drawing Sheet A8.5 – GLAZING SCHEDULE - INTERIOR; Issued for Bid, dated 03/06/2020.

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- **REVISE** overall length of “S.Z” is to 10’-6 3/4”.

3.3 STRUCTURAL

1. **DELETE** Drawing Sheet S1.1 – FOUNDATION PLAN – AREA A; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S1.1 – FOUNDATION PLAN – AREA A; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** select foundation wall locations.
2. **DELETE** Drawing Sheet S1.2 – FOUNDATION PLAN – AREA B; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S1.2 – FOUNDATION PLAN – AREA B; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** select foundation sizes and column locations at main and bus entries.
   - **ADDED** Detail A, “COLUMN C3A BASE DETAIL”.
   - **DELETED** reference to roof ladder attachment detail; to be detail by architectural in Addendum #2.
3. **DELETE** Drawing Sheet S1.8 – FLOOR & LOW ROOF FRAMING PLAN – AREA B; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S1.8 – FLOOR & LOW ROOF FRAMING PLAN – AREA B; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** select member sizes and section references at bus entry.
4. **DELETE** Drawing Sheet S1.13 – ROOF FRAMING PLAN – AREA B; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S1.13 – ROOF FRAMING PLAN – AREA B; ADDENDUM #3 (Revision dated 04/03/2020).
   - **ADDED** column line notations for AF and AF.1 for clarity.
   - **DELETED** reference to roof ladder attachment detail; to be detail by architectural in Addendum #2.
5. **DELETE** Drawing Sheet S3.2 – TYPICAL MASONRY DETAILS; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S3.2 – TYPICAL MASONRY DETAILS; ADDENDUM #3 (Revision dated 04/03/2020).
   - **ADDED** loose lintel detail at 1” brick reveal.
6. **DELETE** Drawing Sheet S3.3 – FOUNDATION SECTIONS; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S3.3 – FOUNDATION SECTIONS; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** dimensions at exterior labeled from “FINISH GRADE” for clarity.
   - **REVISED** Detail 6.
7. **REVISE** Drawing Sheet S3.4 – FOUNDATION SECTIONS; Issued for Bid, dated 03/06/2020.
   - **ADD** “FINISH GRADE” to dimensions from exterior ground plane for clarity.
8. **DELETE** Drawing Sheet S4.2 – FLOOR FRAMING SECTIONS; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S4.2 – FLOOR FRAMING SECTIONS; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** detail 11.
9. **DELETE** Drawing Sheet S4.4 – FLOOR FRAMING SECTIONS; Issued for Bid, dated 03/06/2020. **ADD** Drawing Sheet S4.4 – FLOOR FRAMING SECTIONS; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** Details 6, 7 and 8.

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- **REVISED** pour stop/angle size at top of stair in Detail 5.

10. **REVISE** Drawing Sheet S5.1 – JOIST LOAD DIAGRAMS; Issued for Bid, dated 03/06/2020.
    - **REVISE** brick dead load for “16KSP2 Joist Load Diagram” to 345 PLF.

3.4 MECHANICAL/ELECTRICAL

1. **REVISE** Drawing Sheet M1.1 – FIRST FLOOR PLAN – AREA A; Issued for Bid, dated 03/06/2020.
    - **REVISED** exhaust air grille E5 in Restroom A115A from 325 CFM to 400 CFM.
    - **REVISED** exhaust air grille E5 in Restroom A115B from 325 CFM to 400 CFM.
2. **REVISE** Drawing Sheet M1.2 – FIRST FLOOR PLAN – AREA B; Issued for Bid, dated 03/06/2020.
    - **REVISED** VRF 6.22 area served to A105 – Break-Out.
    - **ADDED** manual volume damper after 18” x 14” transition in Corridor B100A in 14” x 18” return air duct serving Classroom B109/VRF 6.10.
3. **DELETE** Drawing Sheet M1.5 – FIRST FLOOR PLAN – AREA E; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet M1.5 – FIRST FLOOR PLAN – AREA E; ADDENDUM #3 (Revision dated 04/03/2020).
    - **ADDED** transfer air grille R2 24x24 face/10x10 neck in Break-Out E125 and 12x12 face/10x10 neck in Restroom E126 with 12x10 sound-lined transfer air duct (drawing note 16) and combination smoke damper from Breakout E125 to Restroom E126.
    - **REVISED** exhaust air grille E2/75 CFM to 150 CFM in Restroom E126.
    - **ADDED** manual volume damper in 10x10 outside air duct in Corridor C127A.
4. **REVISE** Drawing Sheet M1.6 – FIRST FLOOR PLAN – AREA F; Issued for Bid, dated 03/06/2020.
    - **ADDED** manual volume damper for VRF 3.15 supply connections to linear slot diffuser L2 in Corridor F100B.
    - **REVISE** exhaust air grille E5 in Restroom F105B from 300 CFM to 400 CFM.
    - **REVISED** exhaust air grille E5 in Restroom F105A from 300 CFM to 400 CFM.
5. **REVISE** Drawing Sheet M1.7 – SECOND FLOOR PLAN – AREA A; Issued for Bid, dated 03/06/2020.
    - **ADDED** manual volume damper to 14” x 8” return air duct serving Restroom A216B.
    - **ADDED** manual volume damper to 14” x 8” return air duct after 18” x 14” duct in Corridor A200B serving Classroom A207.
    - **ADDED** manual volume damper to 14” x 8” return air duct connecting to 18” x 14” duct in Corridor A200B serving Classroom A209.
    - **REVISED** exhaust air grille E5 in Restroom A216A from 375 CFM to 450 CFM.
    - **REVISED** exhaust air grille E5 in Restroom A216B from 375 CFM to 450 CFM.
6. **REVISE** Drawing Sheet M1.8 – SECOND FLOOR PLAN – AREA B; Issued for Bid, dated 03/06/2020.
    - **ADDED** 215 CFM to return air grille R7 in Corridor B200A.
    - **REVISED** thermostat “8.17” to “8.17, 8.16”.

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7. **DELETE** Drawing Sheet M1.9 – SECOND FLOOR PLAN – AREA F; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet M1.9 – SECOND FLOOR PLAN – AREA F; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** thermostat “8.14, 8.16” to “8.14”.
   - **REVISED** exhaust air grille E5 in Restroom F206A from 375 CFM to 450 CFM.
   - **REVISED** exhaust air grille E5 in Restroom F206B from 375 CFM to 450 CFM.
   - **ADDED** transfer air grille R2 with 12” x 12” sound-lined transfer air duct (drawing note 18) with CD to Restroom F206A and Storage F205.
8. **REVISE** Drawing Sheet M9.1 – AIR HANDLING UNIT SCHEDULE; Issued for Bid, dated 03/06/2020.
   - **REVISE** ELECTRIC CABINET UNIT HEATER CUH-10 “area served” to “Stair 113A”.
9. **REVISE** Drawing Sheet M9.3 – VRF SYSTEM SCHEDULE; Issued for Bid, dated 03/06/2020.
   - **REVISE** VRF 6.22 “area served” to “A105 – BREAK-OUT”.
10. **REVISE** Drawing Sheet M9.4 – MISCELLANEOUS MECH. EQUIP. SCHEDULE; Issued for Bid, dated 03/06/2020.
   - **REVISE** F-14 Interlock from “DOAS-2” to “DOAS-1”.
11. **DELETE** Drawing Sheet E1.2 – FIRST FLOOR PLAN – AREA B – POWER; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet E1.2 – FIRST FLOOR PLAN – AREA B – POWER; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** Classroom B104 layout as indicated.
12. **DELETE** Drawing Sheet E1.7 – SECOND FLOOR PLAN – AREA A – POWER; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet E1.7 – SECOND FLOOR PLAN – AREA A – POWER; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** classroom layouts as indicated.
13. **DELETE** Drawing Sheet E1.8 – SECOND FLOOR PLAN – AREA B – POWER; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet E1.8 – SECOND FLOOR PLAN – AREA B – POWER; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** classroom layouts as indicated.
14. **DELETE** Drawing Sheet E1.9 – SECOND FLOOR PLAN – AREA F – POWER; Issued for Bid, dated 03/06/2020; **ADD** Drawing Sheet E1.9 – SECOND FLOOR PLAN – AREA F – POWER; ADDENDUM #3 (Revision dated 04/03/2020).
   - **REVISED** classroom layouts as indicated.

PART 4 ATTACHMENTS

4.1 SPECIFICATIONS

Section 06 4100 – ARCHITECTURAL WOOD CASEWORK

Section 11 6813 – PLAYGROUND EQUIPMENT

Section 12 3200 – MANUFACTURED WOOD CASEWORK

Section 12 3600 – COUNTERTOPS

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4.2 FULL SIZE DRAWINGS

C-1B – PHASE 1 DEMOLITION PLAN

C-1D – PHASE 3 DEMOLITION PLAN

C-3A – OVERALL SITE PLAN

C-3B – SITE PLAN

C-3E – SITE DETAIL

C-4H – STORMDRAIN PROFILES

C-4S – UGS DETAILS

AC.1 – CONSTRUCTION TYPES

AC.3 – TYPICAL DETAILS

AS.1 – ARCHITECTURAL SITE PLAN

AS.3 – ARCHITECTURAL ENLARGED SITE PLAN

A1.5 – FIRST FLOOR PLAN – AREA E

A4.2 – BUILDING SECTIONS

A8.1 – DOOR SCHEDULE

A8.2 – OPENING TYPES & DETAILS

A8.3 – GLAZING SCHEDULE – EXTERIOR CURTAINWALL

S1.1 – FOUNDATION PLAN – AREA A

S1.2 – FOUNDATION PLAN – AREA B

S1.8 – FLOOR & LOW ROOF FRAMING PLAN – AREA B

S1.13 – ROOF FRAMING PLAN – AREA B

S3.2 – TYPICAL MASONRY DETAILS

S3.3 – FOUNDATION SECTIONS

S4.2 – FLOOR FRAMING SECTIONS

S4.4 – FLOOR FRAMING SECTIONS

M1.5 – FIRST FLOOR PLAN – AREA E

M1.9 – SECOND FLOOR PLAN – AREA F

E1.2 – FIRST FLOOR PLAN – AREA B – POWER

E1.7 – SECOND FLOOR PLAN – AREA A – POWER

E1.8 – SECOND FLOOR PLAN – AREA B – POWER

E1.9 – SECOND FLOOR PLAN – AREA F – POWER

All other specifications and terms remain as stated in the original documents. This addendum is hereby made a part of the Contract Documents, on which the contract is based and is intended to modify, explain, correct and/or add to the original Contract Documents.

END OF ADDENDUM

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SECTION 06 4100 - ARCHITECTURAL WOOD CASEWORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Specially fabricated cabinet units.

B. Cabinet hardware.

1.2 REFERENCE STANDARDS

3 A. AWI (QCP) - Architectural Woodwork Institute, Quality Certification Program; current edition: www.awiqcp.org.

B. BHMA A156.9 - American National Standard for Cabinet Hardware; Builders Hardware Manufacturers Association (ANSI/BHMA A156.9).

C. NEMA LD 3 - High-Pressure Decorative Laminates; National Electrical Manufacturers Association.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene a preinstallation meeting not less than one week before starting work of this section; require attendance by all affected installers.

1.4 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. **LEED Submittals: Comply with Section 01 3329 - Sustainable Design Requirements - LEED v4/v4.1.**
   1. **MR Credit 2: BPDO - Environmental Product Declarations**
      a. **For composite wood: Product-specific declaration or Industry-wide EPD or product-specific EPD. Include EPD Summary.**
   2. **MR Credit 3: BPDO - Sourcing of Raw Materials**
      a. **For recycled content composite wood: Documentation indicating percentages by weight pre-consumer and post-consumer recycled content. Include material cost value.**
      b. **For certified wood: Documentation indicating percentage new wood, percentage FSC and Chain-of-Custody (CoC) certificates indicating compliance with forest certification requirements. Include vendor invoice indicating FSC CoC.**
   3. **MR Credit 4: BPDO - Material Ingredients**
      a. **For composite wood and plastic finishes provide Material Ingredient Report.**
   4. **EQ Credit 2: Low-Emitting Materials**
      a. **For composite wood installed within the building interior: Documentation indicating compliance with California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM), Phase II for ultra-low-emitting formaldehyde (ULEF) resins or containing no added formaldehyde resins.**

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C. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, countertops (Section 12 3600) and accessories.
   1. Minimum Scale of Detail Drawings: 1-1/2 inch to 1 foot.
   2. Provide the information required by the AWI QCP, current edition.

D. Product Data: Provide data for hardware accessories.

E. Samples: Submit actual samples of architectural cabinet construction, minimum 12 inches square, illustrating proposed cabinet substrate and finish.

F. Samples: Submit actual sample items of proposed hinges and locksets, demonstrating hardware design, quality, and finish.

1.5 QUALITY ASSURANCE

A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.
   1. Company with at least one project in the past 5 years with value of woodwork within 20 percent of cost of woodwork for this Project.
   2. Accredited participant in the specified certification program prior to the commencement of fabrication and throughout the duration of the project.

B. Quality Certification: Provide AWI Quality Certification Program inspection report and quality certification of completed work.
   1. Provide labels or certificates indicating that the work complies with requirements of AWI Grade or Grades specified.
   2. Register with AWI QCP and provide project number(s) with shop drawings.
   3. Prior to delivery to the site provide shop drawings with certification labels.
   4. Provide labels on each product when required by certification program.
   5. Upon completion of installation provide certificate certifying that the installation and products meet the specified requirements.
   6. Arrange and pay for inspections required for certification.
   7. Replace, repair, or rework all work for which certification is refused.

C. Quality Expectations: Materials must be designed, constructed and installed to meet the intended use and expected abuse to be incurred within the educational environment. This specification outlines the minimum requirements for material quality, construction, finish and overall workmanship to be provided. The finished products shall be functional, have an extended life expectancy with minimal maintenance and be operationally safe.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect units from moisture damage.

1.7 FIELD CONDITIONS

A. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

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PART 2 PRODUCTS

2.1 CABINETS

A. Quality Grade: Unless otherwise indicated provide products of quality specified by AWI Standards for Custom Grade. 3

B. Plastic Laminate Faced Cabinets: Custom grade.

C. Cabinets :
1. Finish - Exposed Exterior Surfaces: Decorative laminate.
2. Finish - Exposed Interior Surfaces: Decorative laminate.
3. Finish - Semi-concealed Surfaces: Decorative laminate. 3
4. Finish - Concealed Surfaces: Decorative laminate.
5. Door and Drawer Front Edge Profiles: Radius edge with PVC plastic edge banding.
6. Grained Face Layout for Cabinet and Door Fronts: Flush panel.
   a. Custom Grade: Doors, drawer fronts and false fronts wood grain to run and match vertically within each cabinet unit.
7. Adjustable Shelf Loading: 50 lbs. per sq. ft..
8. Cabinet Style: Flush overlay.
9. Cabinet Doors and Drawer Fronts: Flush style.
10. Drawer Side Construction: Multiple-dovetailed.
11. Drawer Construction Technique: Dovetail joints.

2.2 WOOD-BASED COMPONENTS

A. Wood fabricated from old growth timber is not permitted.

B. **Sustainable Design Requirements:**
1. **Forest Certification: Provide wood products harvested from forests certified by an FSC-accredited certification body. All non-FSC wood in assemblies with FSC-certified wood shall meet the FSC Controlled Wood (CW) criteria.**
2. **Compliance with California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM), Phase II for ultra-low-emitting formaldehyde (ULEF) resins or containing no added formaldehyde resins.**
3. **Composite Wood:**
   a. **Product-specific declaration or Industry-wide EPD or product-specific EPD. Include EPD Summary.**
   b. **For recycled content composite wood: Documentation indicating percentages by weight pre-consumer and post-consumer recycled content. Include material cost value.**

2.3 LAMINATE MATERIALS

A. Manufacturers:
1. Formica Corporation: www.formica.com.
2. Panolam Industries International, Inc\Nevamar: www.nevamar.com.
3. Wilsonart International, Inc: www.wilsonart.com.

B. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications.

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2.4 ACCESSORIES

△3 A. Adhesive: Type recommended by AWI Standards, current edition, to suit application.
1. Adhesives Used for Assembly: Comply with VOC requirements for adhesives and sealants as specified in Section 01 6116.

B. Plastic Edge Banding: Extruded PVC, convex shaped; smooth finish; self locking serrated tongue; of width to match component thickness.
△3 1. Size: 1mm at cabinet faces and shelf edges, 3mm at door and drawer fronts.
2. Color: As selected by Architect from manufacturer's custom range.

C. Fasteners: Size and type to suit application.

D. Grommets: Standard plastic, painted metal, or rubber grommets for cut-outs, in color to match adjacent surface.

2.5 HARDWARE

A. Hardware: BHMA A156.9, types as recommended by fabricator for quality grade specified.

△3 B. Adjustable Shelf Supports: Standard side-mounted system using multiple holes for pin supports and coordinated self rests, polished chrome finish, for nominal 1 inch spacing adjustments.

C. Drawer and Door Pulls: "U" shaped wire pull, steel with satin finish, 4 inch centers.

D. Cabinet Locks: Keyed cylinder, six keys per lock, master keyed, steel with satin finish.
1. Individual rooms to be keyed alike.

E. Hinges: European style concealed self-closing type, steel with polished finish.

2.6 FABRICATION

A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.

B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.

C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.

D. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs.
△3 1. Cap exposed plastic laminate finish edges with extruded PVC plastic edge banding.

E. Provide cutouts for all penetrations. Verify locations of cutouts from on-site dimensions. Prime paint cut edges.

2.7 SHOP FINISHING

△3 A. Finish work in accordance with AWI Standards, current edition, for Grade specified.

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PART 3 EXECUTION

3.1 EXAMINATION

A. Verify adequacy of backing and support framing.

B. Verify location and sizes of utility rough-in associated with work of this section.

3.2 INSTALLATION

A. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.

B. Use fixture attachments in concealed locations for wall mounted components.

C. Use concealed joint fasteners to align and secure adjoining cabinet units.

D. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.

E. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.

3.3 ADJUSTING

A. Adjust moving or operating parts to function smoothly and correctly.

3.4 CLEANING

A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

END OF SECTION

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SECTION 11 6813 - PLAYGROUND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Concrete footings for playground equipment.

B. Playground equipment.

1.2 DEFINITIONS

A. Play Event: A piece of playground equipment that supports one or more play activities.

B. Use Zone: Area under and around a play event within which the ground surfacing must meet fall impact attenuation requirements of ASTM F1292 when tested at the fall height specified for the play event.

C. Fall Height: Vertical distance between the finished elevation of the designated play surface and the finished elevation of the protective surfacing beneath it, as defined in ASTM F1487.

D. Protective Surfacing: Resilient ground surfacing. The characteristics of the protective surfacing are based on the fall height of the playground equipment. Changes in either the surfacing or the fall height, particularly reducing the resilience of the protective surfacing or increasing the fall height, will reduce safety-related performance.

E. Subgrade: Surface of the ground on which the protective surfacing is installed; the subbase for the protective surfacing is installed over the subgrade.

1.3 REFERENCE STANDARDS

A. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

B. ASTM A135/A135M - Standard Specification for Electric-Resistance-Welded Steel Pipe.

C. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

D. ASTM A513/A513M - Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing.

E. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

F. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).

G. ASTM D3363 - Standard Test Method for Film Hardness by Pencil Test.

H. ASTM F1292 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment.

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I. ASTM F1487 - Standard Consumer Safety Performance Specification for Playground Equipment for Public Use.

J. AWPA U1 - Use Category System: User Specification for Treated Wood.

K. CPSC Pub. No. 325 - Public Playground Safety Handbook.

1.4 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meetings: Convene a meeting one week before starting earthwork for playground to discuss coordination between various installers.
   1. Require attendance by personnel responsible for grading and installers of playground equipment, protective surfacing, footings, and adjacent work.
   2. Include representatives of Contractor.
   3. Notify Architect at least 2 weeks prior to meeting.

1.5 SUBMITTALS

A. Product Data: For manufactured equipment, provide manufacturer's product data showing materials of construction, compliance with specified standards, installation procedures, safety limitations, and the number of users permitted.
   1. Certifications: Provide International Play Equipment Manufacturers Association (IPEMA) certification that product complies with ASTM F1487, excluding section 10 and 12.6.1.

B. Product Data: For fabricated items, provide the following:
   1. Galvanized Steel: Certification of galvanized coating thickness.

C. Shop Drawings: Detailed scale drawings showing play event layout, Use Zone perimeters, and fall height for each play event.
   1. Show locations and dimensions of footings and anchorage points.
   2. Clearly identify mounting elevations in relation to a fixed survey point on site and to subgrade elevation and depth of protective surfacing.
   3. Show locations of underground utilities, storm drainage system and irrigation system.
   4. Show locations of related construction such as walkways and roadways, fences, site furnishings, and plantings.

D. Samples: For each item that a color must be selected, provide color chart showing full range of colors and finishes.

E. Maintenance Data: Provide manufacturer's recommended maintenance instructions and list of replaceable parts for each equipment item, with address and phone number of source of supply.

F. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.6 QUALITY ASSURANCE

A. Maintain one copy of the latest edition of ASTM F1487 and CPSC Pub. No. 325 at project site.

B. Installer Qualifications: Company certified by manufacturer for training and experience installing play events and equipment.

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1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver, handle, and store equipment to project site in accordance with manufacturer's recommendations.

B. Store materials in a dry, covered area, elevated above grade.

1.8 WARRANTY

A. Provide minimum 10 year warranty for playground equipment.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Playground Equipment:
1. GameTime, Inc: www.gametime.com/#sle.
2. MaxPlayFit: www.maxplayfit.com/.
3. Playground Specialists, Inc.: www.playspec.com/.
4. Taylor Sports and Recreation: www.miracle-recreation.com/.

2.2 PLAYGROUND EQUIPMENT - GENERAL

A. Design Assumptions: Because the safety of the playground depends on strict conformance to the design criteria, this information is provided for Contractor's information.
3
1. Playground has been designed for children ages 2 through 5 and 5 through 12, respectively.
2. Separate areas for different age groups are indicated on drawings.
3. If deviations from specified dimensions, especially fall heights, is required, obtain approval prior to proceeding; follow approval request procedure as specified for substitutions.

B. Mount equipment on concrete footings, unless otherwise indicated.
1. Protective Surfacing Depth: Refer to Section 32 1816.13.
2. Provide supports as required to mount equipment at proper height above finish and sub-grades to allow installation of sufficient depth of protective surfacing; portion of support below top of surfacing must conform to specified requirements for equipment.
3. Paint portion of support that is intended to be installed below top surface of protective surfacing a different color, or mark in other permanent way, so that installers and maintainers of protective surfacing can easily determine whether sufficient depth has been installed.

C. Provide permanent label for each equipment item stating age group that equipment was designed for, manufacturer identification, and warning labels in accordance with ASTM F1487.

2.3 PLAYGROUND EQUIPMENT

A. Conform to ASTM F1487 and CPSC Pub. No. 325; provide equipment conforming to specific requirements for relevant age group(s).
1. Provide components having factory-drilled holes; do not use components with extra holes that will not be filled by hardware or covered by other components.

B. Slides: Slide bed, ship's ladder with handrails, and platform.

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1. Slide Bed: Rigid, molded ultraviolet stabilized polyethylene, with anti-static additives, segmented enclosed tube construction.
2. Treads and Handrails: Galvanized steel with stringers of galvanized steel.
3. Fall Height - Ages Two to Five: 30 inches, maximum.
4. Fall Height - Ages Five to Twelve: 48 inches, maximum.
5. Width: 14 inches.
6. Maximum Slope: 30 degrees.
7. Supports and Platform: Galvanized steel with powder coating.
8. Color: As selected from manufacturer's standard color palette.
9. Certification: Provide International Play Equipment Manufacturers Association (IPEMA) certification that indicates product complies with ASTM F1487, excluding sections 7.1.1, 10, and 12.6.1.

C. Freestanding Climbers:

3 1. Location: As indicated on drawings.

2. Certification: Provide International Play Equipment Manufacturers Association (IPEMA) certification that indicates product complies with ASTM F1487, excluding sections 7.1.1, 10, and 12.6.1.

2.4 CUSTOM PLAY STRUCTURES

A. Materials, Configuration, and Dimensions: To resemble Robinia Series, "Parkour" structures by Kompan.

3 1. There shall be a flow and continuous movement among all of the elements and apparatuses. This element of flow shall allow students to develop their cardiovascular respiratory endurance as well as their muscular strength and endurance as they move throughout the structure(s).

B. Fabricate in accordance with ASTM F1487, unless otherwise indicated; in particular, requirements for sharp points and edges, protrusions, entanglement hazards, crush and shear points, and head and neck entrapment.

C. Sliding Poles: Hot-dipped galvanized steel pipe, 1-5/8 inch diameter, maximum; continuous surface with no protruding welds or joints along the sliding area.

D. Flexible Climber: Flexible grid of ropes to provide access to an elevated platform; anchored at both ends; ground anchor below bottom of protective surfacing.

2.5 MATERIALS

A. Steel Pipe and Tube: Conforms to ASTM A135/A135M, ASTM A500/A500M, or ASTM A513/A513M; hot-dipped galvanized and free of excess weld and spatter.
1. Tensile Strength: 45,000 psi, minimum.
2. Yield Point: 33,000 psi, minimum.
3. Galvanizing: Hot-dip metal components in zinc after fabrication, in accordance with ASTM A123/A123M; remove tailings and sharp protrusions and burnish edges.

B. Extruded Aluminum: ASTM B221 or ASTM B221M, Alloy 6061, 6062, or 6063.
1. Tensile Strength: 39,000 psi, minimum.
2. Yield Point: 36,500 psi, minimum.

C. Rope Cable: Strands of steel cable with UV-stabilized polypropylene synthetic covering; ends capped to prevent fraying.

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D. Hardware: Provide without hazardous protrusions, corners, or finishes, and that require tools for removal after installation; countersunk fasteners are preferred.
   1. Use stainless steel for metal-to-metal connections; select type to minimize galvanic corrosion of materials connected by hardware.
   2. Use stainless steel for wood-to-wood and wood-to-metal connections.
   3. Use stainless steel with plastic components.
   4. Bearings: Self lubricating.
   5. Hooks, Including S-Hooks: Closed loop; maximum gap 0.04 inches, less than the thickness of a dime.
3 6. Rails, Loops, and Hand Bars: Same metal as item is mounted on or steel; with polyvinyl chloride coating.
   7. Anchors: In accordance with manufacturer's recommendations.

E. Boards and Timbers: Free of holes, cracks, and loose knots; do not use wood or wood coatings that contain pesticides; do not utilize used lumber.
   1. Preservative Treatment: Pressure type in accordance with AWPA U1 Use Category 4A Commodity B; do not use chromated copper arsenate (CCA), creosote, pentachlorophenol, tributyl tin oxide, or any other treatment prohibited by law; treat cuts after fabrication using brushed-on preservative.

F. Powder Coating for Steel: Electrostatically applied and oven cured polyester powder over electrostatic zinc coating.

3 G. Polyvinyl Chloride (PVC) Coating: Ultraviolet (UV) stabilized and mold-resistant; slip-resistant finish; prime parts to be coated with clear acrylic thermosetting solution, and preheat prior to dipping in liquid PVC.
   1. Thickness: 0.08 inch, minimum, plus/minus 0.02 inch.
   2. Hardness: 85 durometer, when tested in accordance with ASTM D3363.

H. Concrete: As specified in Section 03 3000.

PART 3 EXECUTION

3.1 VERIFICATION OF CONDITIONS

A. Verify location of underground utilities and facilities in playground area; damage to underground utilities and facilities will be repaired at Contractor's expense.

3.2 PREPARATION

A. Stake location of playground elements, including Use Zone perimeters, perimeter of protective surfacing, access and egress points, hard surfaces, walls, fences, and structures, and planting locations.

B. Stake layout of entire Use Zone perimeter before starting any work and before subbase under resilient surfacing is laid.
   1. Verify that Use Zone perimeters do not overlap hard surfaces, whether currently installed or not.
   2. Verify that Use Zones are free of obstructions that would extend into resilient portion of protective surfacing.
   3. If conflicts or obstructions exist, notify Architect.

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4. Do not proceed until revised drawings have been provided, showing corrected layout, and obstructions have been removed.

3.3 INSTALLATION

A. Coordinate work with preparation for and installation of protective surfacing specified in Section 32 1816.13; install resilient portion of protective surfacing after playground equipment installation.

B. Install concrete footings with top surface a minimum of 1/2 inch below required subgrade elevation.

C. Install in accordance with CPSC Pub. No. 325, ASTM F1487, manufacturer's instructions, and requirements of authorities having jurisdiction (AHJ).

D. Anchor equipment securely below bottom elevation of resilient surfacing layer.

E. Install without sharp points, edges or protrusions, entanglement hazards, pinch, crush, or shear points.

F. Do not modify play events on site without written approval of manufacturer.

G. Install required signage if not factory-installed.

3.4 FIELD QUALITY CONTROL

A. Obtain the services of the equipment manufacturer's field representative to review the finished installation for compliance with specified requirements and with design criteria to the extent known to the Contractor; submit report of field review.

B. Owner or Owner's representative will inspect playground equipment after installation to verify that playground meets specified design safety and accessibility requirements.

C. Repair or replace rejected work until compliance is achieved.

3.5 CLEANING

A. Restore adjacent existing areas that have been damaged from the construction.

B. Clean playground equipment of construction materials, dirt, stains, filings, and blemishes due to shipment or installation; clean in accordance with manufacturer's instructions, using cleaning agents as recommended by manufacturer.

C. Clean playground area of excess construction materials, debris, and waste.

D. Remove excess and waste material and dispose of off-site in accordance with requirements of authorities having jurisdiction.

3.6 PROTECTION

A. Protect installed products until Date of Substantial Completion.

B. Replace damaged products before Date of Substantial Completion.

END OF SECTION

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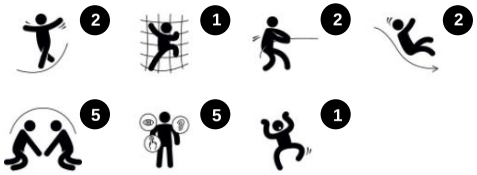
THE WIZARD's HIDEAWAY - ADA

NRO409

PRE-KINDERGARTEN PLAY STRUCTURE (1)

- FOR DESIGN INTENT ONLY -

Item no. NRO409-0621	
General Product Information	
Dimensions LxWxH	14’11’’x10’6’’x10’9’’
Age Group	2-5
Play Capacity	11 children
Color Options	



The magical Wizard's Hideaway with an elevated house and blue roof invites dramatic play as few other structures can do. The benches and table inside stimulate social interaction and make longer stays desirable. A table on the side of the house invites meeting and provides a nice seat for care givers. The stair up to elevated level and the double slide benefit motor skills such as cross coordination and spatial awareness. These are both fundamental for building up an understanding of the body in time and space, a competence important for managing obstacles and traffic safely. The stairway features a broad transfer platform and good handholds to support children of all abilities in accessing. All in all, hours of magic play together.

Data is subject to change without prior notice.

THE WIZARD's HIDEAWAY - ADA

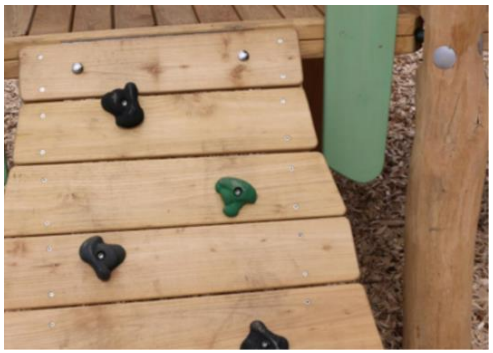
NRO409

The proposed structure should be powder-coated steel per the specifications.

Colored components should be powder-coated steel or UV-stabilized plastic per the specifications. Color selections by Architect from manufacturer's standard line.

The Robinia products are designed with a KOMPAN color concept with a number of different standard colors. The wood can also be supplied as untreated or with brown painted with a pigment that maintains the wood color.

Item no. NRO409-0621		
Installation Information		
Max. fall height		2'11''
Safety surfacing area		470 ft²
Numbers of Installers (persons)		2
Total installation time		26
Excavation volume		1.14 yd³
Concrete volume		0 yd³
Footing Depth (Standard)		2' 7"
Shipment Weight		2,834 lbs
Anchoring options	In-ground	✓
	Surface	✓
Warranty information		
Robinia wood		10 Years
Stainless steel hardware		Lifetime
Stainless steel activities		10 Years
Ropes		5 Years
Spare parts guaranteed		10 Years



The product/activities are preassembled from the factory to ensure all safety requirements are considered.

The hardware is made of stainless steel or ~~galvanized steel~~ to ensure durable connections with a high corrosion resistance.

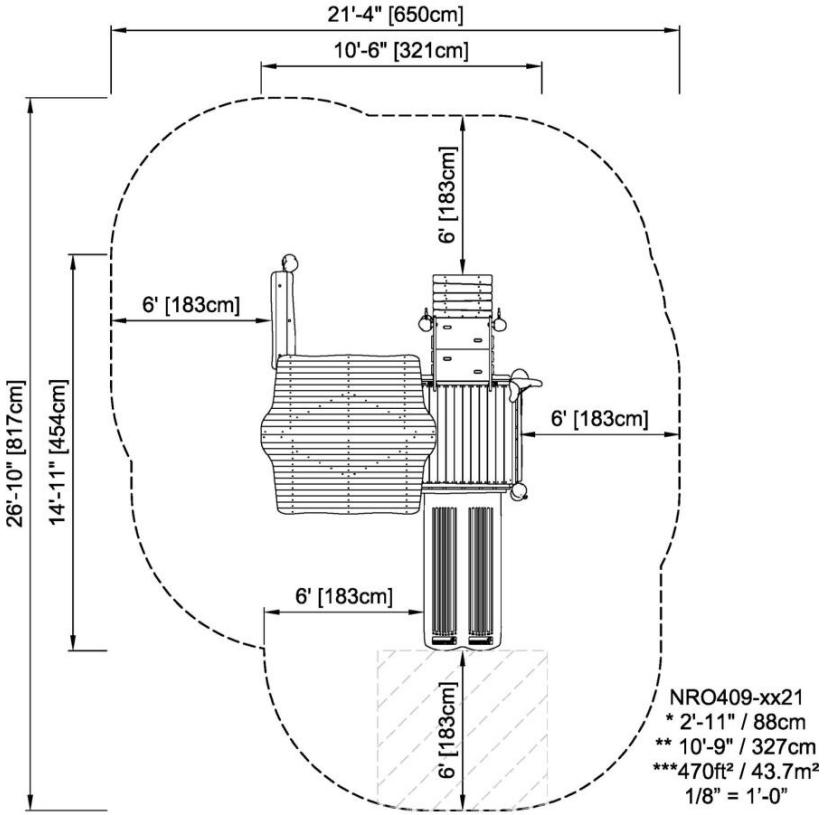
Elevated Activities **2**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**2**	**1**	**1**
Required	**2**	**1**	**1**

Data is subject to change without prior notice.

THE WIZARD's HIDEAWAY - ADA

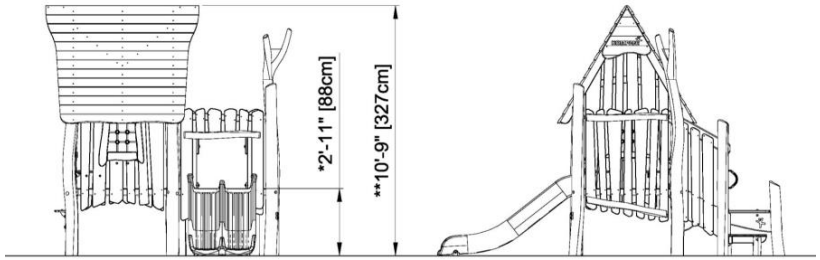
NRO409

*Max fall height | **Total height | ***Safety surfacing area



Click to see 1:100 ratio TOP VIEW

*Max fall height | **Total height



NRO409
1:100

Click to see 1:100 ratio SIDE VIEW

Data is subject to change without prior notice.

THE WIZARD's HIDEAWAY - ADA

NRO409

The house and porch

Social-Emotional: the house with the bench invite socializing and cooperation.
Cognitive: the house with bench invites dramatic play which trains language and communication skills.

Double slide

Physical: sliding trains the spatial awareness and sense of balance. Furthermore, the core muscles are trained when sitting upright going down.
Social-Emotional: invites socializing, supports parent-child and peer-to-peer play
Cognitive: young children train their understanding of space, speed and distances when sliding down fast.

Side table

Social-Emotional: place to meet and exchange. Gives opportunity for resting from play for a minute.

Accessible stairway

Physical: easier entrance for all ages and abilities. Trains coordination and leg-arm muscles.
Social-Emotional: the stairway has nice platforms and spaciousness for seating and meeting.

Data is subject to change without prior notice.

THE WIZARD's HIDEAWAY - ADA

NRO409

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

Overhead HANG
Overhead hang is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, e.g. on a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULE PLAY
Rule play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

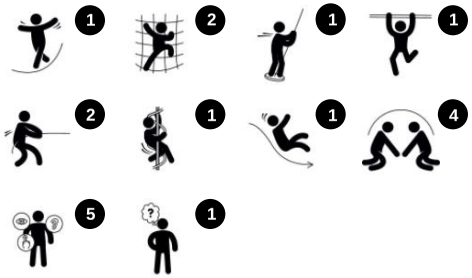
PLAY TOWER WITH SLIDE & DESK

NRO1020

PRE-KINDERGARTEN PLAY STRUCTURE (2)

- FOR DESIGN INTENT ONLY -

Item no. NRO1020-1021	
General Product Information	
Dimensions LxWxH	13'7" x 12'10"x13'8"
Age Group	2-5
Play Capacity	9 children
Color Options	



The Play Tower with Slide & Curly Climber is a dense, yet varied play motivator for children. The targeted selection of popular play activities stimulates children to play for a long time, again and again. The accessible stairway leads to the choice of a slide or a rotating glide event. Both are great fun, and they train the senses of balance and space, which are very important for navigating through spaces confidently and securely, and for judging distances. The Curly Climber additionally trains proprioception: the awareness of where your body parts need to be placed to manage tasks. The fast access via the accessible stairway provides a loop, running up and sliding or gliding down, repeating the action. This is great cardio training, but it also encourages turn-taking skills in children, building social-emotional awareness.

Data is subject to change without prior notice.

PLAY TOWER WITH SLIDE & DESK

NRO1020

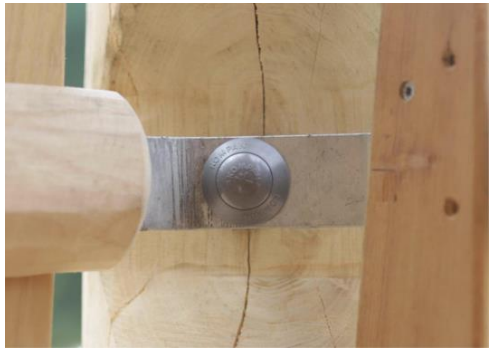
The proposed structure should be powder-coated steel per the specifications.

Colored components should be powder-coated steel or UV-stabilized plastic per the specifications. Color selections by Architect from manufacturer's standard line.

Products are preassembled from the factory to ensure all safety requirements are considered.

Item no. NRO1020-1021		
Installation Information		
Max. fall height		7'3"
Safety surfacing area		449 ft²
Numbers of Installers (persons)		2
Total installation time		25
Excavation volume		1.22 yd³
Concrete volume		0.22 yd³
Footing Depth (Standard)		3' 3"
Shipment Weight		2,314 lbs
Anchoring options	In-ground	✓
	Surface	✓
Warranty information		
Robinia wood		10 Years
Stainless steel hardware		Lifetime
Stainless steel activities		10 Years
Ropes		5 Years
Spare parts guaranteed		10 Years

The stainless-steel activities are made of high-quality stainless steel. The steel is cleaned by a total pickling process after manufacturing to ensure a smooth and clean gliding surfaces.



The hardware is made of stainless steel or ~~galvanized steel~~ to ensure durable connections with a high corrosion resistance.

The Robinia products are designed with a KOMPAN color concept with a number of different standard colors. The wood can also be supplied as untreated or with brown painted with a pigment that maintains the wood color.

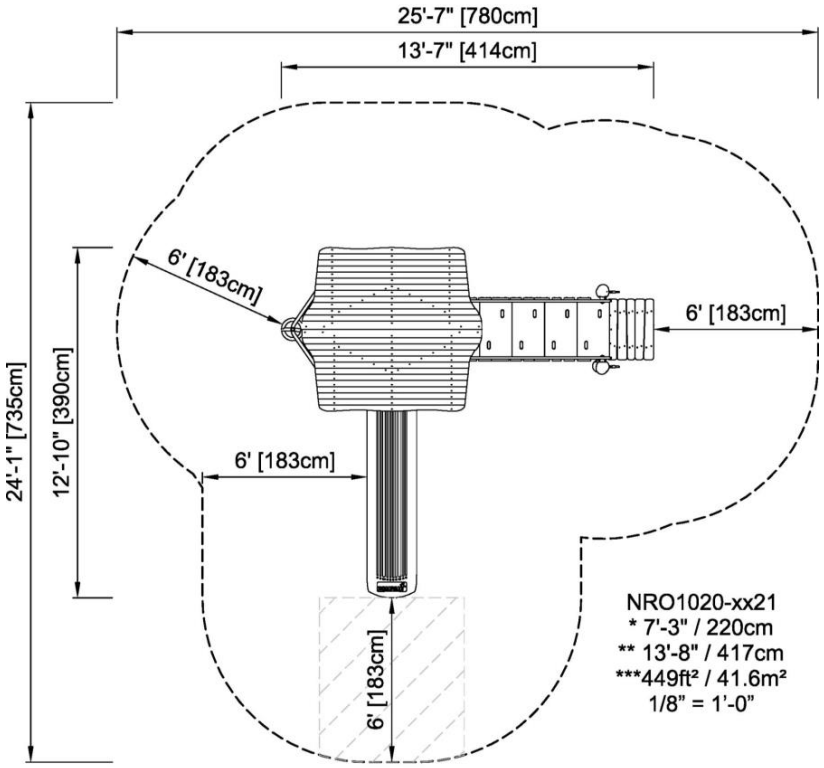
Elevated Activities **2**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**2**	**1**	**1**
Required	**1**	**1**	**1**

Data is subject to change without prior notice.

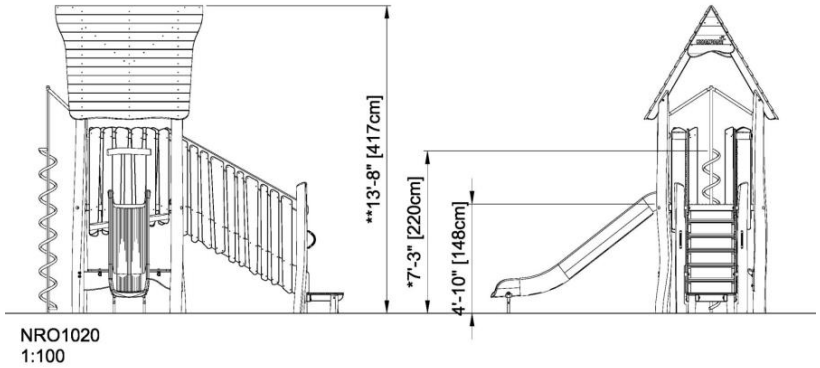
PLAY TOWER WITH SLIDE & DESK

NRO1020

Max fall height | Total height | Safety surfacing area



Max fall height | Total height



Click to see 1:100 ratio TOP VIEW

Click to see 1:100 ratio SIDE VIEW

Data is subject to change without prior notice.

PLAY TOWER WITH SLIDE & DESK

NRO1020

Curly climber

Physical: coordination and proprioception is supported when placing arms, legs and backside correctly for going down. Sense of balance when rotating. Arm muscles for holding tight. Bone density when jumping down.
Social-Emotional: empathy stimulated by turn-taking.
Cognitive: logical thinking when placing arms and legs right for rotating downwards.

Stairway

Physical: easier entrance for all ages and abilities. supports coordination and the leg and arm muscles.
Social-Emotional: the stairway has nice platforms and space for sitting and meeting.

Slide

Physical: sliding develops spatial awareness and sense of balance. Furthermore, the core muscles are trained when sitting upright going down.
Social-Emotional: empathy stimulated by turn-taking.
Cognitive: young children develop their understanding of space, speed and distances when sliding down fast.

Counter

Physical: invites climbing over and across, developing cross-coordination. This supports cross-modal perception, which is necessary for other skills such as being able to read.
Social-Emotional: sharing and cooperation from both sides create a social scenario that supports communication and cooperation.
Cognitive: the counter invites dramatic play scenarios such as playing shop. This stimulates language and communication.

Data is subject to change without prior notice.

PLAY TOWER WITH SLIDE & DESK

NRO1020

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

HANG IN ARMS
To hang in arms is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, on e.g. a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULES PLAY
Rules play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

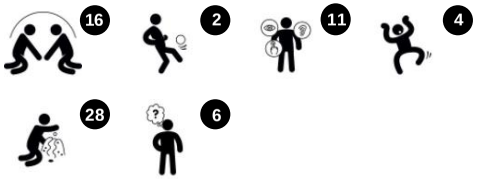
ROBINIA THEATER & MUSIC COTTAGE

NRO606

PRE-KINDERGARTEN PLAY STRUCTURE (3)

- FOR DESIGN INTENT ONLY -

Item no. NRO606-1021	
General Product Information	
Dimensions LxWxH	12'3" x 9'3" x 8'5"
Age Group	2-5
Play Capacity	15 children
Color Options	



The Robinia Theater & Music Cottage attracts toddlers, preschoolers and adults for hours of varied, creative play. With its richness in detail, the play unit invites dramatic and explorative play as well as solid social interaction and cooperation. The xylophone and drum panels support creative play and invite groups of players due to their angle out from the house.

The clock, bell, flaps, shelf and mirror are dense with cause-and-effect learning and creative play. These stimulate logical thinking and spur dramatic play, which is great for language development. The desk of the house invites breaks and in tests with children is used repeatedly for rough-and-tumble, climb over, through and around play activities. Apart from stimulating muscles this trains important motor skills such as cross-body coordination, which is fundamental for later reading skills.

Data is subject to change without prior notice.

ROBINIA THEATER & MUSIC COTTAGE

NRO606

The proposed structure should be powder-coated steel per the specifications.

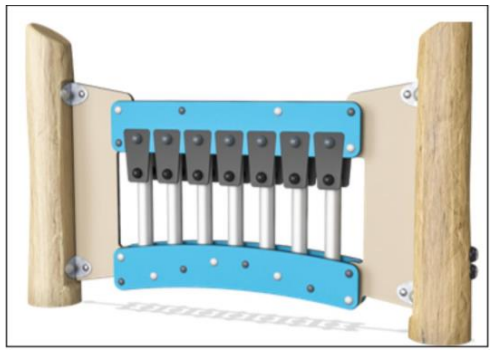
Colored components should be powder-coated steel or UV-stabilized plastic per the specifications. Color selections by Architect from manufacturer's standard line.

Play activities in very strong materials: HDPE-plate with HDPE-clock and hands in conveyer belt rubber, bell in pressed aluminium. Mirror in plexi-glass with a high impact resistant.

Item no. NRO606-1021		
Installation Information		
Max. fall height		-
Safety surfacing area		- ft²
Numbers of Installers (persons)		2
Total installation time		15
Excavation volume		0.72 yd³
Concrete volume		0 yd³
Footing Depth (Standard)		3' 3"
Shipment Weight		1,381 lbs
Anchoring options	In-ground	✓
	Surface	✓
Warranty information		
Robinia wood		10 Years
Stainless steel hardware		Lifetime
Stainless steel activities		10 Years
Ropes		5 Years
Spare parts guaranteed		10 Years

All rubber activities/components are made of conveyer belt rubber that makes it extremely weather resistant and long lasting.

The percussion panel consist of 2 Conga Drums with PP tubes and top in painted ABS. Babel drum in stainless steel 316L.



The Xylofone music panel consists of HDPE material in 0 .7" EcoCore™. EcoCore™ is a highly durable, ecofriendly material. The pipes are made of die-cast aluminium specifically alloyed for outdoor environments.

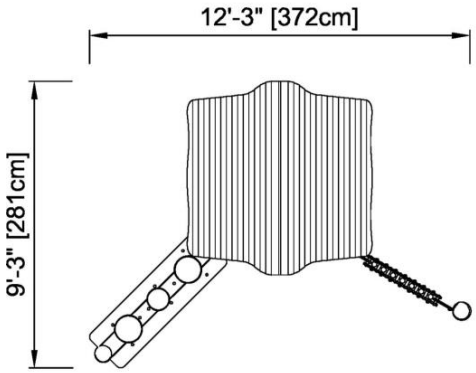
Elevated Activities **0**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**0**	**3**	**2**
Required	**0**	**2**	**2**

Data is subject to change without prior notice.

ROBINIA THEATER & MUSIC COTTAGE

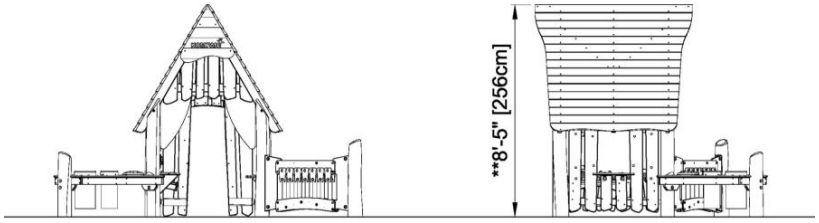
NRO606

*Max fall height | **Total height | ***Safety surfacing area



NRO606
** 8'-5" / 256cm
1/8" = 1'-0"

*Max fall height | **Total height



NRO606
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Click to see 1:100 ratio TOP VIEW

Click to see 1:100 ratio SIDE VIEW

Data is subject to change without prior notice.

ROBINIA THEATER & MUSIC COTTAGE

NRO606

Drums
Physical: fine and gross motor skills and hand-eye coordination
Social-Emotional: cooperation and co-creation, parallel and group play
Cognitive: cause and effect understanding when creating sounds
Creative: creating and leaving a mark with sound

Clock and bell panel
Physical: fine motor skills and hand-eye coordination
Cognitive: understanding cause-and-effect when ringing bell, understanding time and measures when playing with clock
Creative: leaving a mark in creating new positions on clock or with sound creating a rhythm when ringing or knocking the bell

Mirror
Cognitive: understanding of individuality and self expression. Stimulates dramatic play and thus language development.

Counter
Physical: invites climbing over and across, training cross-coordination. This again trains cross-modal perception, which is necessary for instance for being able to read.
Social-Emotional: sharing and cooperation from both sides create a social scenario that trains communication and cooperation.
Cognitive: the counter invites dramatic play scenarios such as playing shop. This stimulates language and communication hugely.

Percussion
Physical: fine motor skills and hand-eye coordination
Social-Emotional: cooperative play and co-creation when playing from both sides
Cognitive: understanding cause and effect when figuring out different sounding areas of surface
Creative: creating, combining and leaving a mark of different sounds

Desk flaps w. holes
Physical: fine motor skills and cause and effect understanding when lifting flaps
Cognitive: shifting things through holes to shelf trains logical thinking and the understanding of object permanence

Shelf
Cognitive: hiding or storing items as part of dramatic play or explorative play

Xylophone music panel
Physical: fine motor skills and hand-eye coordination
Social-Emotional: invite social interaction and co-creation for more children, on both sides
Cognitive: understanding of cause and effect when beating tubes and creating sound
Creative: leaving a sound and tonality mark, creating tunes

Data is subject to change without prior notice.

ROBINIA THEATER & MUSIC COTTAGE

NRO606

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

Overhead HANG
Overhead hang is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, e.g. on a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULE PLAY
Rule play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

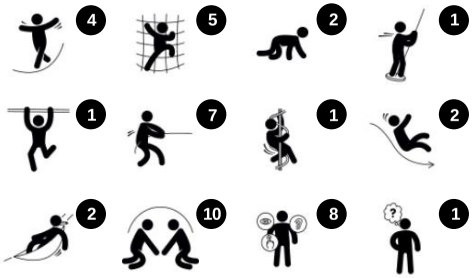
THE WIZARD's DOUBLE TOWER FORTRESS

NRO2010

KINDERGARTEN PLAY STRUCTURE

- FOR DESIGN INTENT ONLY -

Item no. NRO2010-1021	
General Product Information	
Dimensions LxWxH	36'1''x21'2''x17'6''
Age Group	5-12
Play Capacity	38 children
Color Options	



The voluminous Wizard's Double Tower Fortress is an irresistible play attraction for children. With its varied play corners and diverse physical play activities it attracts children again and again, for a long time. The stairway with hammock makes a nice haven for children of all abilities. The slides are thrilling rides down, training core stability as the child sits upright when sliding. The variation of inclined wood and net accesses assist the child in climbing up in more or less challenging ways, training cross-coordination and leg, arm and core muscles. An inclined climb gives a greater sense of security than a vertical one, thus inviting a range of children of varied abilities. The curly climber is a rotating and downward glide that stimulates balance as well as sense of space, both crucial in managing obstacles and traffic safely. The platforms on the ground and elevated areas invite meetings and exchanges.

Data is subject to change without prior notice.

THE WIZARD's DOUBLE TOWER FORTRESS

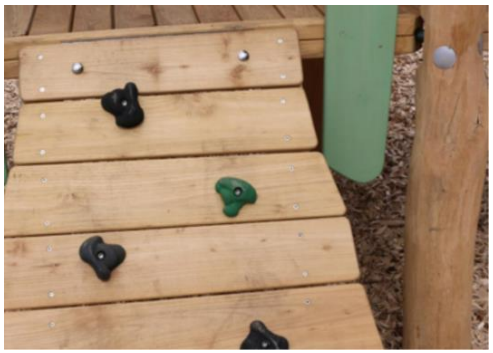
NRO2010

The proposed structure should be powder-coated steel per the specifications.

Colored components should be powder-coated steel or UV-stabilized plastic per the specifications. Color selections by Architect from manufacturer's standard line.

The Robinia products are designed with a KOMPAN color concept with a number of different standard colors. The wood can also be supplied as untreated or with brown painted with a pigment that maintains the wood color.

Item no. NRO2010-1021		
Installation Information		
Max. fall height		8'2''
Safety surfacing area		967.7 ft²
Numbers of Installers (persons)		2
Total installation time		59
Excavation volume		3.37 yd³
Concrete volume		0.47 yd³
Footing Depth (Standard)		3' 3"
Shipment Weight		5,663 lbs
Anchoring options	In-ground	✓
	Surface	✓
Warranty information		
Robinia wood		10 Years
Stainless steel hardware		Lifetime
Stainless steel activities		10 Years
Ropes		5 Years
Spare parts guaranteed		10 Years



The product/activities are preassembled from the factory to ensure all safety requirements are considered.

The hardware is made of stainless steel or ~~galvanized steel~~ to ensure durable connections with a high corrosion resistance.

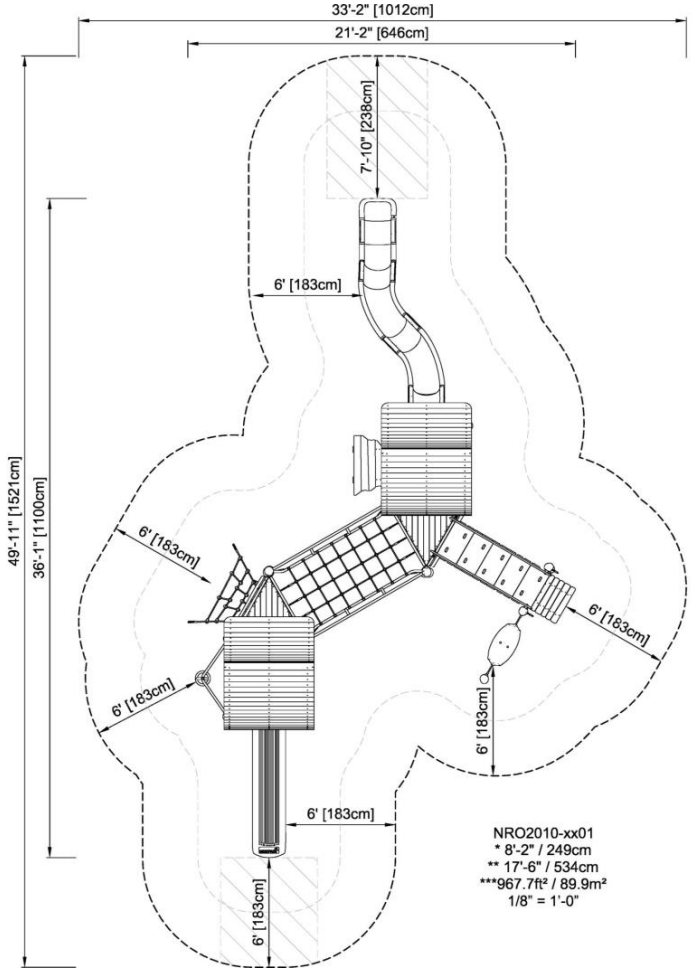
Elevated Activities **8**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**5**	**2**	**2**
Required	**4**	**3**	**3**

Data is subject to change without prior notice.

THE WIZARD's DOUBLE TOWER FORTRESS

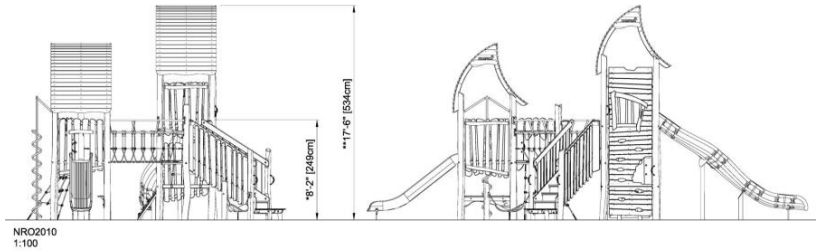
NRO2010

*Max fall height | **Total height | ***Safety surfacing area



Click to see 1:100 ratio TOP VIEW

*Max fall height | **Total height



Click to see 1:100 ratio SIDE VIEW

Data is subject to change without prior notice.

THE WIZARD's DOUBLE TOWER FORTRESS

NRO2010

Curly climber
Physical: coordination and proprioception is supported when placing arms, legs and backside correctly for going down. Sense of balance when rotating. Arm muscles for holding tight. Bone density when jumping down.
Social-Emotional: empathy stimulated by turn-taking.
Cognitive: logical thinking when placing arms and legs right for rotating downwards.

Net Bridge
Physical: children develop their balance, cross-coordination and spatial awareness in the open net.
Social-Emotional: interaction with children outside, socializing.

Curved slide
Physical: sliding on high slides tickles the stomach and develops spatial awareness and a sense of balance. Furthermore, the core muscles are trained when sitting upright going down.
Social-Emotional: empathy stimulated by turn-taking.
Cognitive: young children train their understanding of space, speed and distances when sliding down quickly.

Accessible stairway
Physical: climbing the accessible stairway is for all and supports cross-coordination as well as arm and leg muscles. For young children, walking stairs and alternating feet is developed.
Social-Emotional: room for active breaks and adult helpers. An inclusive space.

Slide
Physical: sliding develops spatial awareness and sense of balance. Furthermore, the core muscles are trained when sitting upright going down.
Social-Emotional: empathy stimulated by turn-taking.
Cognitive: young children develop their understanding of space, speed and distances when sliding down fast.

Hammock
Physical: coordination and sense of balance when swaying.
Social-Emotional: pushing friends gently back and forth, turn-taking.
Cognitive: for toddlers cause and effect understanding.

Desk
Social-Emotional: great meeting place and space creator for storing or sitting.

Rock climber
Physical: supports cross-coordination and leg, arm and hand strength.
Social-Emotional: the inclination makes climbing feel secure, especially for younger children.

Data is subject to change without prior notice.

THE WIZARD's DOUBLE TOWER FORTRESS

NRO2010

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

Overhead HANG
Overhead hang is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, e.g. on a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULE PLAY
Rule play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

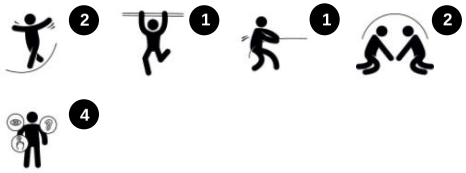
PARKOUR 1

NRO856

INTERMEDIATE PLAY STRUCTURE (1)

- FOR DESIGN INTENT ONLY -

Item no. NRO856-1003	
General Product Information	
Dimensions LxWxH	15’2” x 7’10” x 5’7”
Age Group	5-12
Play Capacity	4 children
Color Options	



The Balance Combination appeals to children, with the simple play message of balancing. The variation of balance is the great attraction: the steps on the one beam motivate jumping or balancing from one to the next. The solid beam on the next pole has an additional rope support, to cater for those who are less confident. When walking or jumping from pole to pole, children train their proprioception and sense of balance. Balance and proprioception are fundamental for confidently managing the body in its surroundings. This is important for instance when navigating street traffic safely. Balancing across the Balance Combination with friends also trains turn-taking and negotiation. These are important social-emotional skills that are basic for the ability to form friendship and relate to peers.

Data is subject to change without prior notice.

PARKOUR 1

NRO856

All Organic Robinia products by KOMPAN are made from responsibly managed and sustainable European forests. On request it can be supplied with 100% FSC™ certification.

The proposed structure should be powder-coated steel per the specifications.

Nets and ropes are made of UV-stabilized PA with inner steel cable reinforcement. The rope is induction treated in order to create a strong connection between steel and rope which leads to good wear resistance.

The steps of ¾'' EcoCore™. EcoCore™ is a highly durable, eco-friendly material, which is not only recyclable after use, but also consists of a core produced from 100% recycled material.

Item no. NRO856-1003		
Installation Information		
Max. fall height		5'7"
Safety surfacing area		352 ft²
Numbers of Installers (persons)		2
Total installation time		5
Excavation volume		0.28 yd³
Concrete volume		0 yd³
Footing Depth (Standard)		3' 3"
Shipment Weight		501 lbs
Anchoring options	In-ground	✓
	Surface	✓
Warranty information		
Robinia wood		10 Years
Stainless steel hardware		Lifetime
EcoCore™		Lifetime
Ropes		5 Years
Spare parts guaranteed		10 Years

The Robinia wood can be supplied as untreated raw wood or with a transparent colored treatment that maintains the golden wood color of the wood.

The proposed structure should be powder-coated steel per the specifications.

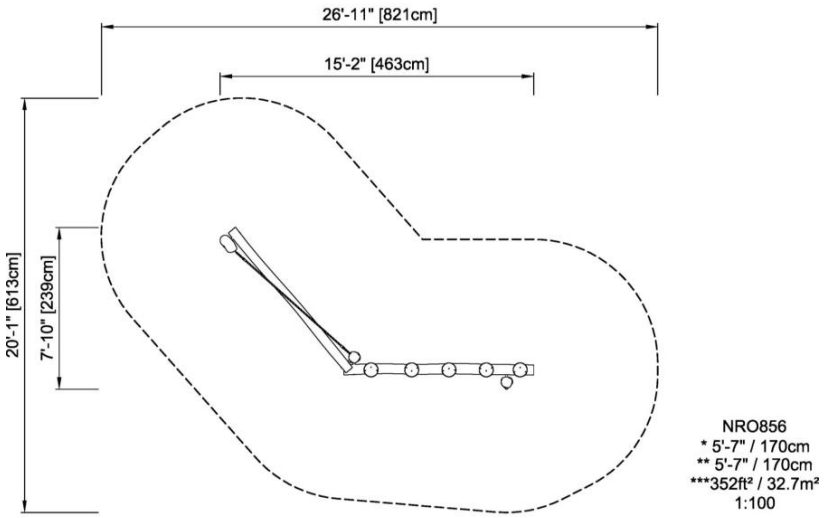
Elevated Activities **0**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**0**	**2**	**1**
Required	**0**	**1**	**1**

Data is subject to change without prior notice.

PARKOUR 1

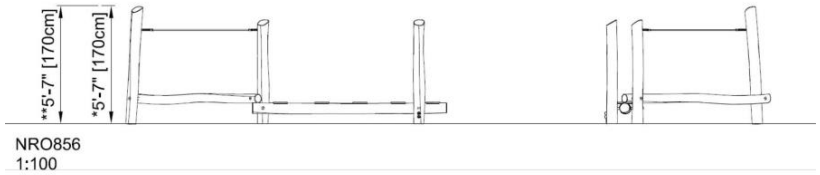
NRO856

Max fall height | Total height | Safety surfacing area



Click to see 1:100 ratio TOP VIEW

Max fall height | Total height

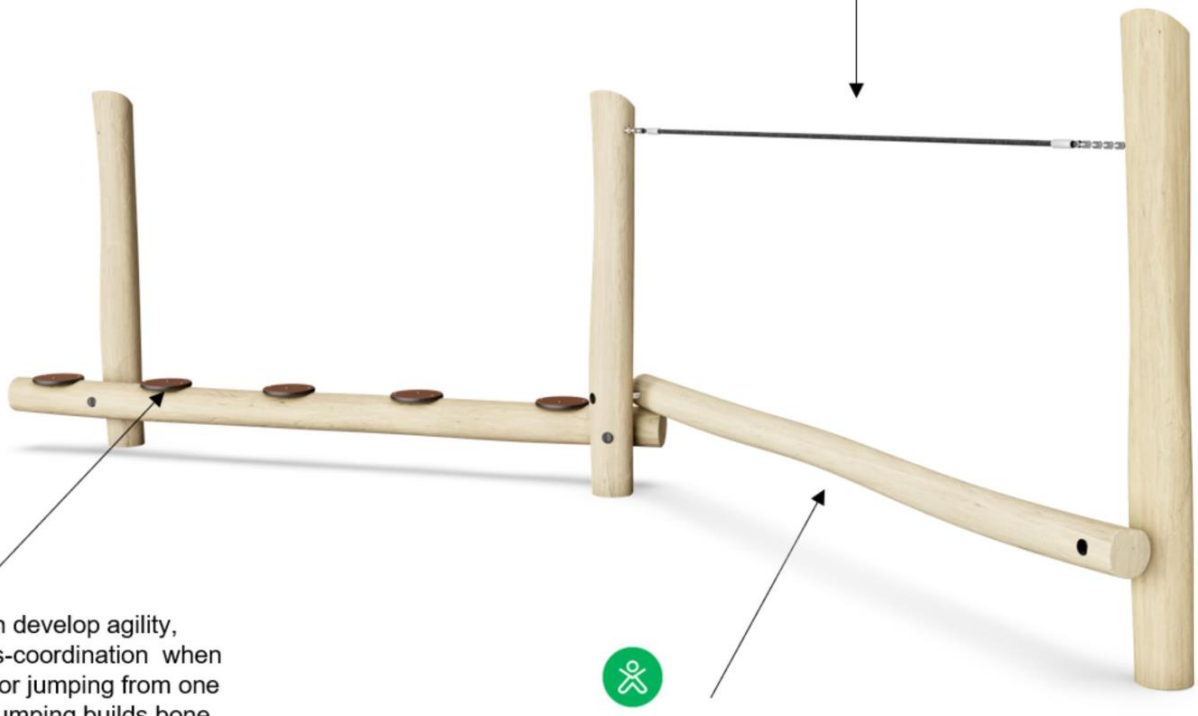


Click to see 1:100 ratio SIDE VIEW

Data is subject to change without prior notice.

PARKOUR 1

NRO856



Top rope
Physical: the top rope adds support when balancing on the beam. This develops dexterity, hand and arm muscles.

Stepping's
Physical: children develop agility, balance and cross-coordination when crawling, running or jumping from one step to another. Jumping builds bone density.
Social-Emotional: the pods invite a seated break for socializing.

Walking beam
Physical: balancing is a favorite activity for all ages, and the balance beam is the classic balancing equipment.

Data is subject to change without prior notice.

PARKOUR 1

NRO856

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

HANG IN ARMS
To hang in arms is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, on e.g. a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULES PLAY
Rules play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

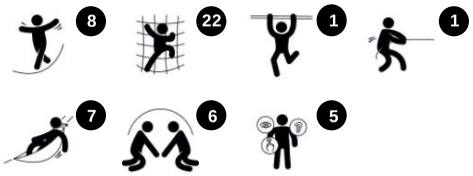
PARKOUR 2

NRO852

INTERMEDIATE PLAY STRUCTURE (2)

- FOR DESIGN INTENT ONLY -

Item no. NRO852-1001	
General Product Information	
Dimensions LxWxH	10’6” x 10’5” x 9’1”
Age Group	5-12
Play Capacity	14 children
Color Options	



The Parkour 2 is a playground challenge that school age children can't pass without trying. The varied, responsive climbing ropes and nets are too much of a temptation. The Parkour 2 stimulates basic motor skills. Children use their cross-coordination, their proprioception and their muscles when they climb horizontally and vertically across the ropes and nets. Balancing across the top beam with support rope adds to the thrill. The variation allows for different climbing styles and more children climbing together. This takes cooperation and communication, so children use and expand social-emotional skills such as turn-taking and negotiation. The Parkour 2 allows ample space for meeting, too. The higher destinations are good for the sense of space. This helps children judge distances, for example, in street traffic or in crowded places.

Data is subject to change without prior notice.

PARKOUR 2

NRO852

Full colored EPDM rubber seats with smooth surface. The seats is are molded on a hot dip galvanized steel inlaythat ensures durable fixation to the rope.

Nets and ropes are made of UV-stabilized PA with inner steel cable reinforcement. The rope is induction treated in order to create a strong connection between steel and rope which leads to good wear resistance.

Item no. NRO852-1001	
Installation Information	
Max. fall height	9'1"
Safety surfacing area	360.6 ft²
Numbers of Installers (persons)	2
Total installation time	8
Excavation volume	3.05 yd³
Concrete volume	0.28 yd³
Footing Depth (Standard)	3' 4"
Shipment Weight	753 lbs
Anchoring options	In-ground ✓
Warranty information	
Robinia wood	10 Years
Stainless steel hardware	Lifetime
EPDM seats	2 Years
Ropes	5 Years
Spare parts guaranteed	10 Years

All Organic Robinia products byKOMPAN are made of Robinia wood from sustainable EU forests. On request it can be supplied with 100% FSC™ certification.

The proposed structure should be powder-coated steel per the specifications.

The Robinia wood can be supplied as untreated raw wood or with a transparent colored treatment that maintains the golden wood color of the wood.

The proposed structure should be powder-coated steel per the specifications.

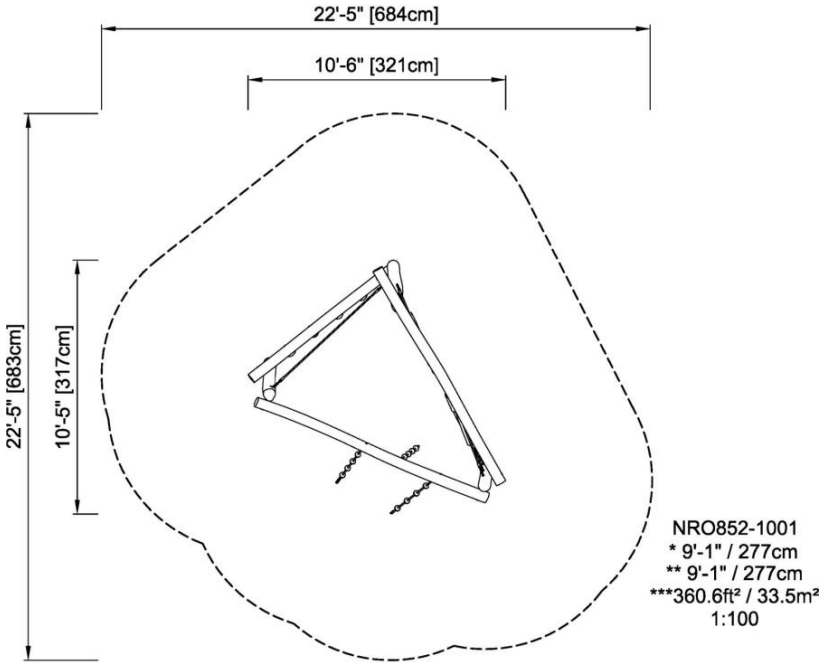
Elevated Activities **0**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**0**	**3**	**2**
Required	**0**	**2**	**2**

Data is subject to change without prior notice.

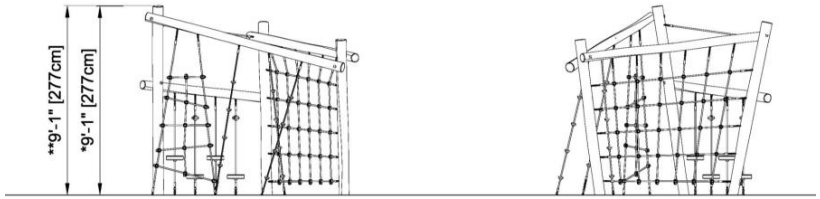
PARKOUR 2

NRO852

Max fall height | Total height | Safety surfacing area



Max fall height | Total height



Click to see 1:100 ratio TOP VIEW

Click to see 1:100 ratio SIDE VIEW

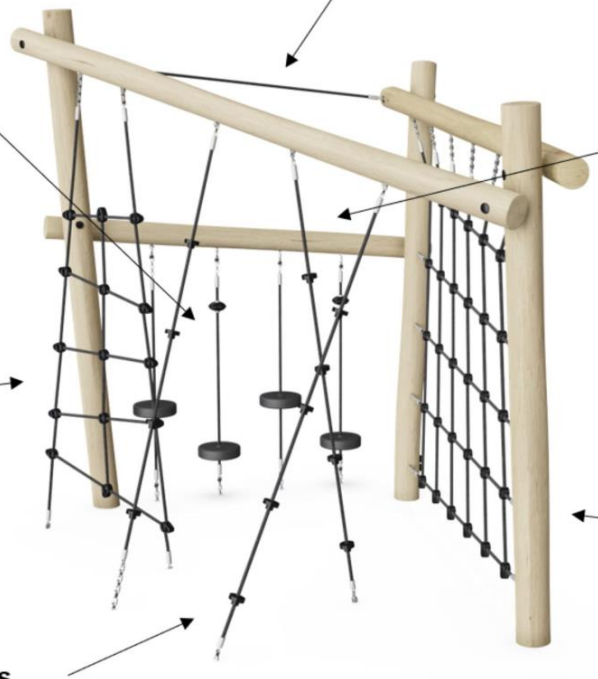
Data is subject to change without prior notice.

PARKOUR 2

NRO852

Rope handholds
Physical: provide stability in balancing. Makes possible hanging in arms, training upper body muscles.
Social-Emotional: adds a feeling of security.

Parkour ropes
Physical: the big rubbery discs are great supports for the feet when climbing or crossing the module. This supports cross-coordination, sense of balance and arm and leg muscles. This combination adds to the child's general body adeptness and awareness, adding security to its movements.
Social-Emotional: the seats make a nice destination and meeting point and take cooperation when crossing by others on the way through the module.



Balance beam
Physical: trains the sense of balance, fundamental for all other motor skills that makes it possible to navigate the world confidently and securely.
Social-Emotional: turn-taking skills and negotiation when crossing each other on the beam.

Climbing net
Physical: climbing on this net supports cross-coordination. Due to the inclined rungs, balance and proprioception are developed, too. These physical skills add to self awareness and helps when judging your body in time and space, a crucial skill.

Vertical climbing net
Physical: children develop cross-body coordination and muscle strength. The big meshes allow for climbing and crawling through, supporting proprioception and spatial awareness.
Social-Emotional: the big meshes allow for more children to sit together and talk.

Climbing ropes
Physical: the small knots add support for hands and feet when climbing onto the rope, crawling up or down. This supports spatial awareness, cross-coordination and all muscle strength.
Social-Emotional: passing others when climbing up or down develops turn-taking skills and consideration.

Data is subject to change without prior notice.

PARKOUR 2

NRO852

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

HANG IN ARMS
To hang in arms is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, on e.g. a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULES PLAY
Rules play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

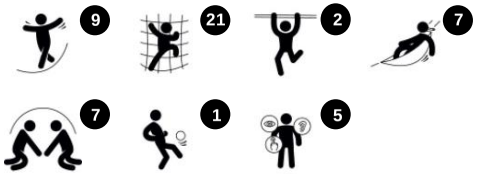
PARKOUR 4

NRO854

INTERMEDIATE PLAY STRUCTURE (3)

- FOR DESIGN INTENT ONLY -

Item no. NRO854-1001	
General Product Information	
Dimensions LxWxH	32'9''x15'3''x8'11''
Age Group	5-12
Play Capacity	12 children
Color Options	



The Parkour 4 is a hugely appealing play piece. Exactly what 5-12 year olds want: a trim trail that's fun. The variation in climbing, crawling and balancing activities will make children come back again and again. The many inclined, twisted and vertical nets and the different mesh directions make great play challenges. Climbing or crawling up, down and through the big meshes greatly stimulates coordination and proprioception. Both are skills necessary to navigate the world confidently and to achieve physical confidence. The lovely rubber seating points and the inclined beams are great for meeting and exchanging. Their bouncy or inclined character make them a constant balance and muscle trainer, even when seated.

When climbing through the Parkour 4 children train their cooperation and turn-taking skills. These skills are difficult to teach, but they are easily learned in play.

Data is subject to change without prior notice.

PARKOUR 4

NRO854

The proposed structure should be powder-coated steel per the specifications.

Nets and ropes are made of UV-stabilized PA with inner steel cable reinforcement. The rope is induction treated in order to create a strong connection between steel and rope which leads to good wear resistance.

Full colored EPDM rubber seats with smooth surface. The seats is are molded on a hot dip galvanized steel inlay that ensures durable fixation to the rope.

Item no. NRO854-1001		
Installation Information		
Max. fall height	8'11''	
Safety surfacing area	758.9 ft²	
Numbers of Installers (persons)	2	
Total installation time	11	
Excavation volume	4.75 yd³	
Concrete volume	0.51 yd³	
Footing Depth (Standard)	3' 6"	
Shipment Weight	1,164 lbs	
Anchoring options	In-ground	✓
	Surface	✓
Warranty information		
Stainless steel hardware	Lifetime	
Robinia wood	10 Years	
Rope	5 Years	
EPDM seats	2 Years	
Spare parts guaranteed	10 Years	

The hardware is made of stainless steel or ~~galvanized steel~~ to ensure durable connections with a high corrosion resistance.

The proposed structure should be powder-coated steel per the specifications.

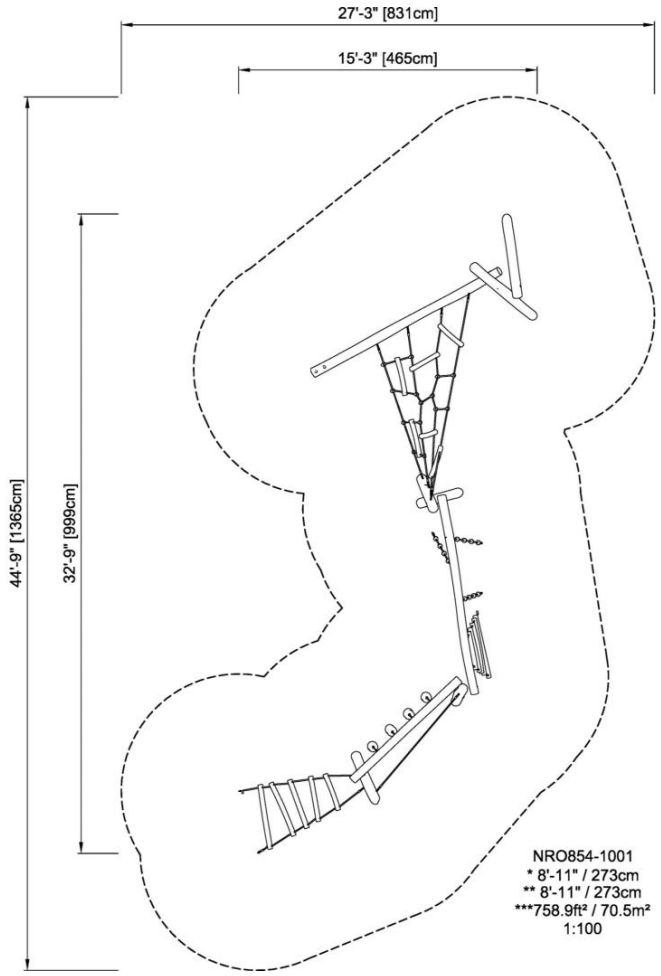
Elevated Activities **0**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**0**	**4**	**2**
Required	**0**	**2**	**2**

Data is subject to change without prior notice.

PARKOUR 4

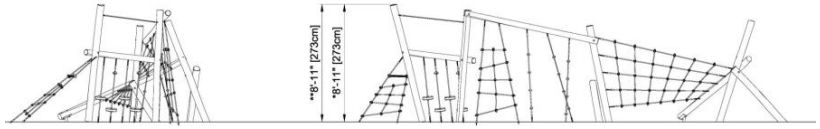
NRO854

*Max fall height | **Total height | ***Safety surfacing area



Click to see 1:100 ratio TOP VIEW

*Max fall height | **Total height



Click to see 1:100 ratio SIDE VIEW

Data is subject to change without prior notice.

PARKOUR 4

NRO854

Top rope

Physical: The top rope adds support when balancing on the beam. This trains the dexterity, hand and arm muscles.

Parkour climbing knots

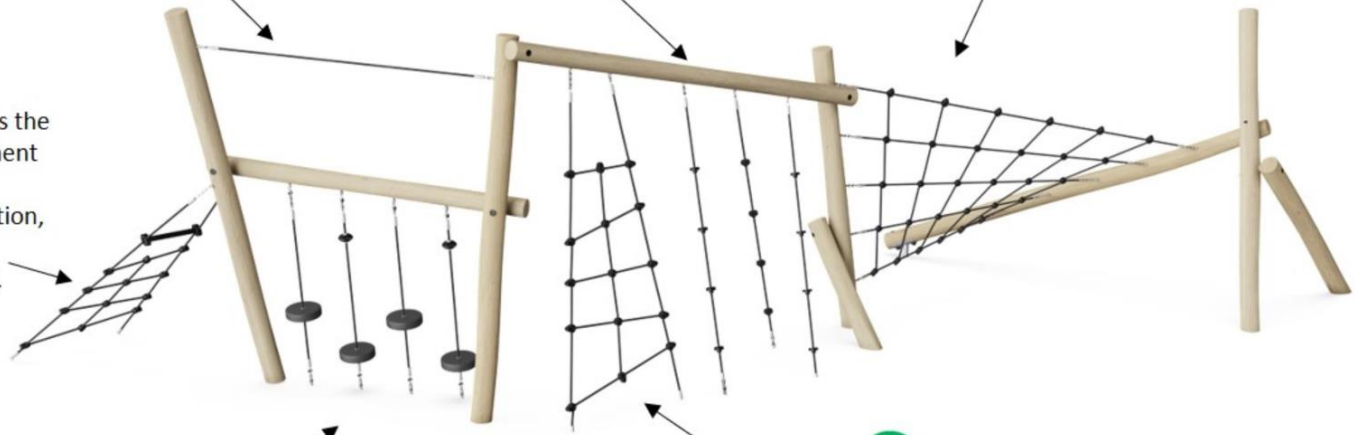
Physical: the small knots add support for hands and feet when clinging onto the rope, crawling up or down. This trains the spatial awareness, the cross-coordination and all muscle groups.
Social-Emotional: the ropes take cooperation when passing other children.

Twisted climbing net

Physical: the twisted, transparent climb trains cross-coordination as well as sense of balance and space. Core, leg and arm muscles are trained, too. These motor and muscle skills are crucial to e.g. prevent falling when doing vigorous physical activity.
Social-Emotional: the twisted shape creates varied seating possibilities and interaction from one side to the other. This trains empathy and cooperation.

Boarding net

The inclined net supports the upward climbing movement of the body.
Physical: cross-coordination, balance and physical strength, when climbing.



Parkour ropes

Physical: the big rubbery are great supports for the feet when climbing or crossing the module. This trains cross-coordination, sense of balance and arm and leg muscles. This combination adds to the child's general body adeptness and awareness, adding security to its movements, e.g. in traffic.
Social-Emotional: the seats make a nice destination and meeting point and take cooperation when crossing past others on the way through the module.

Climbing net

Physical: climbing on this net trains cross-coordination. Due to the inclined horizontal rungs, balance and proprioception are trained, too. These physical skills add to self awareness and helps when judging your body in time and space, a crucial skills for instance in managing traffic safely.

Data is subject to change without prior notice.

PARKOUR 4

NRO854

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

Overhead HANG
Overhead hang is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, e.g. on a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULE PLAY
Rule play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

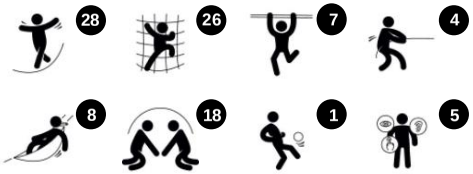
PARKOUR 5

NRO857

INTERMEDIATE PLAY STRUCTURE (4)

- FOR DESIGN INTENT ONLY -

Item no. NRO857-1003	
General Product Information	
Dimensions LxWxH	43’3” x 40’4” x 8’11”
Age Group	5-12
Play Capacity	33 children
Color Options	



WOW! The Parkour 5 hugely appeals to 6-12 year-olds: a fitness course that's fun. The variation in climbing, crawling, balancing and meeting activities will make children come back again and again. The many inclined, twisted and vertical nets and the different mesh sizes offer great play challenges. Climbing or crawling up, down and through the Parkour 5 stimulates agility, balance and coordination. These motor skills are necessary to managing the world securely and achieving physical confidence. The lovely swaying seat points and the horizontal beams are great for meeting and exchanging. The many ropes and their bouncy character make them a constant balance and muscle trainer, even when seated. When climbing through the Parkour 5, children train their cooperation, negotiation and turn-taking skills. These skills are hard to teach, but easily learned in play.

Data is subject to change without prior notice.

PARKOUR 5

NRO857

All Organic Robinia products by KOMPAN are made from responsibly managed sustainable EU forests. On request it can be supplied with 100% FSC™ certification.

The proposed structure should be powder-coated steel per the specifications.

Nets and ropes are made of UV-stabilized PA with inner steel cable reinforcement. The rope is induction treated in order to create a strong connection between steel and rope which leads to good wear resistance.

Full colored EPDM rubber seats with smooth surface. The seats is are molded on a hot dip galvanized steel inlay that ensures durable fixation to the rope.

Item no. NRO857-1003	
Installation Information	
Max. fall height	3'
Safety surfacing area	1,662 ft²
Numbers of Installers (persons)	2
Total installation time	29
Excavation volume	8.7 yd³
Concrete volume	1.33 yd³
Footing Depth (Standard)	3' 3"
Shipment Weight	3,346 lbs
Anchoring options	In-ground ✓
Warranty information	
Robinia wood	10 Years
Stainless steel hardware	Lifetime
EPDM seats	2 Years
Ropes	5 Years
Spare parts guaranteed	10 Years

Balance post of ¾'' EcoCore™. EcoCore™ is a highly durable, ecofriendly material, which is not only recyclable after use, but also consists of a core produced from 100% recycled material.

The Robinia wood can be supplied as untreated raw wood or treated with a clear colored transparent treatment that maintains the golden wood color of the wood.

The proposed structure should be powder-coated steel per the specifications.

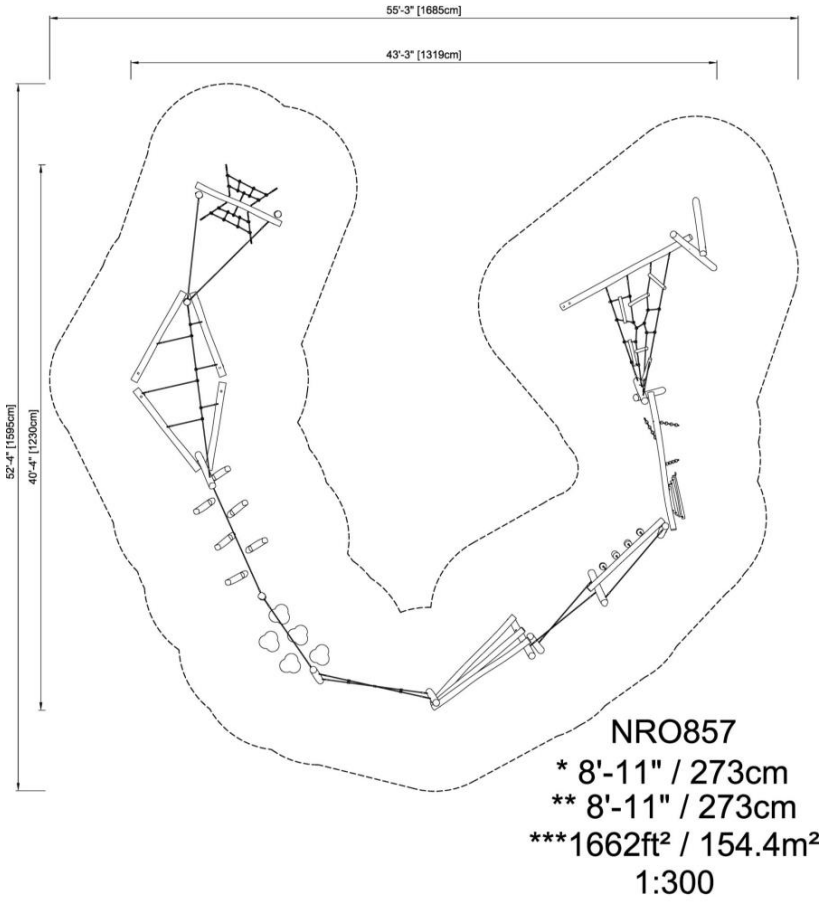
Elevated Activities **0**	Accessible Elevated Activities	Accessible Ground Level Activities	Accessible Ground Level Play Types
Present	**0**	**10**	**2**
Required	**0**	**5**	**2**

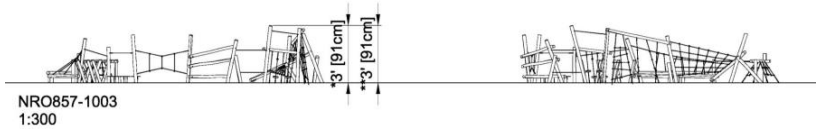
Data is subject to change without prior notice.

PARKOUR 5

NRO857

Max fall height | Total height | Safety surfacing area	Max fall height | Total height





Click to see 1:100 ratio TOP VIEW	Click to see 1:100 ratio SIDE VIEW

Data is subject to change without prior notice.

PARKOUR 5

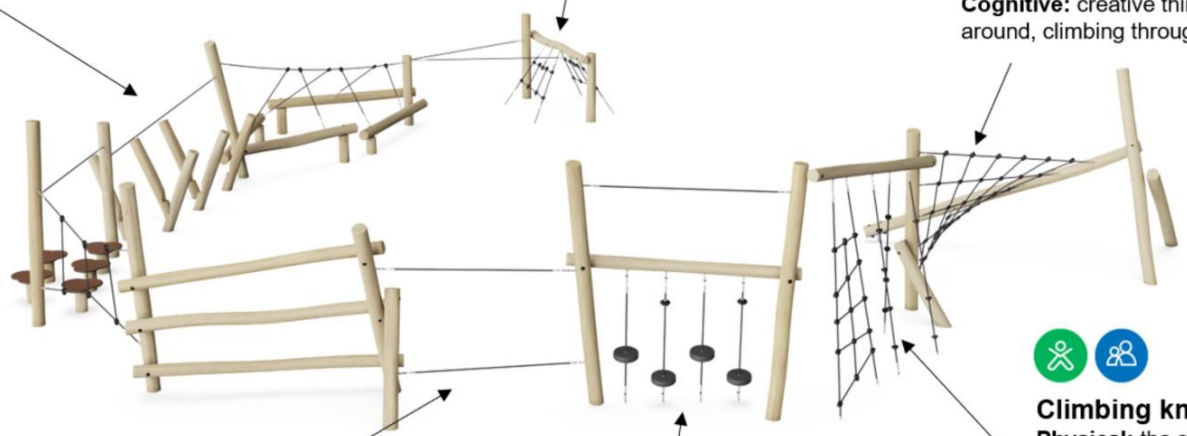
NRO857

KOMPAN Let's play

Stilts
Physical: balancing supports the vestibular system as well as cross-coordination.
Social-Emotional: cooperation and turn-taking.

Top beam
Physical: climbing over the top beam demands good spatial awareness and involves risk taking.
Social-Emotional: fine destination for a break with friends.

Twisted net
Physical: the big meshes allow for climbing and crawling through, supporting proprioception, spatial awareness, cross-coordination and muscle strength, pushing and pulling arms to get upwards.
Social-Emotional: the big meshes allow more children being seated together, sharing.
Cognitive: creative thinking, how to move around, climbing through, under and over.



Balance pods
Physical: sense of balance is trained and bone density built when jumping between and off the pods.
Social-Emotional: turn-taking and cooperation as well as room for a seated rest with friends.

Balance ropes
Physical: the balance training here is unmistakable. Holding onto the swaying upper rope when balancing on the swaying lower rope makes excellent training of the sense of balance as well as the trunk muscles. These abilities are fundamental for being able to sit still on a chair.
Social-Emotional: there is room for more than one, and cooperating with friends on walking over the swaying ropes is a true cooperation task that takes teamwork and tolerance.

Parkour ropes
Physical: the big rubbery discs are great supports for the feet when climbing or crossing the module. This supports cross-coordination, sense of balance and arm and leg muscles. This combination adds to the child's general body adeptness and awareness, adding security to its movements.
Social-Emotional: the seats make a nice destination and meeting point and take cooperation when crossing by others on the way through the module.

Climbing knots
Physical: the small knots add support for hands and feet when climbing onto the rope, crawling up or down. This supports spatial awareness, cross-coordination and all muscle groups.
Social-Emotional: the ropes take cooperation when passing other children.

Data is subject to change without prior notice.

PARKOUR 5

NRO857

PHYSICAL
Joy of movement:
motor skills, muscle, cardio and bone density

SOCIAL-EMOTIONAL
Joy of being together:
teamwork, tolerance and sense of belonging

COGNITIVE
Joy of learning:
curiosity, understanding of causal relationships and knowledge of the world

CREATIVE
Joy of creating:
co-creation and experimenting with materials

BALANCE
To balance is to stay upright when walking or standing on a surface that makes this challenging (e.g. a wobbly, inclined, or narrow surface).

BOUNCE
To bounce is the act of bouncing on a responsive, flexible, elastic or tensile surface.

CLIMB
To climb is the act of moving upwards, cross-coordinating arms and legs, on a vertical or inclined surface or net.

CONSTRUCT
To construct is the act of creating new patterns, shifting items or materials to new positions or constructing with materials that can be transformed or manipulated.

CRAWL
To crawl is the movement of moving forwards or backwards, cross-coordinating arms and legs, on a horizontal or slightly inclined surface.

DRAMATIC PLAY
Dramatic play is motivated through play items that stage a frame, place or environment for acting out make believe or role play scenarios.

GLIDE
To glide is the act of moving from one point to another without shifting the feet, in a horizontal or vertical movement, in a seated, lying or standing position, letting gravity do the work.

HANG IN ARMS
To hang in arms is the act of carrying the body with the hands or arms, possibly to traverse to another platform or play item.

JUMP
To jump is the act of jumping up or down on a hard surface.

PULL
To pull is the act of pulling an item towards you or you towards an item with one or both hands, or possibly using the entire body.

PUSH
To push is the act of pushing an item away from you with one or both hands, possibly with the entire body.

ROCK
To rock is the action of rocking back and forth, or sideways, on e.g. a piece of spring equipment.

ROTATE
To rotate involves a vertical or horizontal slower paced turn of the body, facilitated by a piece of equipment.

RULES PLAY
Rules play is motivated through play items that suggest games-with-rules, cooperation and team work, e.g. tic-tac-toe, timers or ball games.

SENSORY
To sense is the act of taking in information with the sensory system: seeing, feeling, hearing or sensing with the body.

SLIDE
To slide is the act of moving fast downwards seated on a slide.

SOCIALIZE
To socialize is the act of meeting, communicating or cooperating in an activity that stimulates and facilitates social interaction.

SPIN
To spin involves a fast, repeated horizontal or vertical turn of the body on a piece of equipment that facilitates the movement.

SWAY
To sway is the movement of swaying back and forth, or around, lying, seated or possibly standing, in a pendulant or circular movement, e.g. on a hammock or on a rope.

SWING
To swing is the movement of swinging back and forth, or in circular movement, seated, standing or lying, in an unhindered arc.

WONDER
To wonder is motivated through play items that make children need and use their logical, abstract or creative thinking skills, as well as their memory.

Data is subject to change without prior notice.

SECTION 12 3200 - MANUFACTURED WOOD CASEWORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Manufactured Standard casework, with cabinet hardware.

B. Special purpose units.

C. Mobile cabinets.

1.2 DEFINITIONS

A. Exposed: Portions of casework visible when drawers and cabinet doors are closed, including end panels, bottoms of cases more than 42 inches above finished floor, tops of cases less than 72 inches above finished floor and all members visible in open cases or behind glass doors.

B. Semi-Exposed: Portions of casework and surfaces behind solid doors, tops of cases more than 72 inches above finished floor and bottoms of cabinets more than 30 inches but less than 42 inches above finished floor.

C. Concealed: Sleepers, web frames, dust panels and other surfaces not generally visible after installation and cabinets less than 30 inches above finished floor.

1.3 REFERENCE STANDARDS

3 A. AWI (QCP) - Architectural Woodwork Institute, Quality Certification Program; current edition: www.awiqcp.org.

B. BHMA A156.9 - American National Standard for Cabinet Hardware.

C. NEMA LD 3 - High-Pressure Decorative Laminates.

1.4 ADMINISTRATIVE REQUIREMENTS

3 A. Preinstallation Meeting: Conduct a preinstallation meeting not less than one week prior to the start of the work of this section; require attendance by all affected installers.

B. Keying Conference: Conduct conference with FCPS Lock Shop prior to ordering keys. Incorporate conference decisions into keying submittal.

1.5 SUBMITTALS

A. Product Data: Component dimensions, configurations, construction details, joint details, attachments.

B. **LEED Submittals: Comply with Section 01 3329 - Sustainable Design Requirements - LEED v4/v4.1.**
   1. **MR Credit 2: BPDO - Environmental Product Declarations**
      a. **For composite wood: Product-specific declaration or Industry-wide EPD or product-specific EPD. Include EPD Summary.**
   2. **MR Credit 3: BPDO - Sourcing of Raw Materials**

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a. **For recycled content composite wood: Documentation indicating percentages by weight pre-consumer and post-consumer recycled content. Include material cost value.**
b. **For certified wood: Documentation indicating percentage new wood, percentage FSC and Chain-of-Custody (CoC) certificates indicating compliance with forest certification requirements. Include vendor invoice indicating FSC CoC.**

3. **MR Credit 4: BPDO - Material Ingredients**
   a. **For composite wood and plastic finishes provide Material Ingredient Report.**
4. **EQ Credit 2: Low-Emitting Materials**
   a. **For composite wood installed within the building interior: Documentation indicating compliance with California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM), Phase II for ultra-low-emitting formaldehyde (ULEF) resins or containing no added formaldehyde resins.**

C. Shop Drawings: Indicate casework types, sizes, and locations, using large scale plans, elevations, and cross sections. Include rough-in and anchors and reinforcements, placement dimensions and tolerances, clearances required, keying information, and countertops (Section 12 3600).

D. Samples for Finish Selection: Fully finished, for color selection. Minimum sample size: 6 inches by 6 inches.
   1. Plastic laminate samples, for color, texture, and finish selection.

E. Manufacturer's Installation Instructions.

F. Installer's Qualification Statement.

G. Maintenance Data: Manufacturer's recommendations for care and cleaning.

H. Finish touch-up kit for each type and color of materials provided.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

B. Quality Certification: Comply with AWI (QCP) woodwork association quality certification service/program in accordance with requirements for work specified in this section.
   1. Provide labels or certificates indicating that the work complies with requirements of AWI Grade or Grades specified.
   2. Register with AWI QCP and provide project number(s) with shop drawings.
   3. Provide designated labels on shop drawings as required by certification program.
   4. Provide designated labels on installed products as required by certification program.
   5. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.
   6. Arrange and pay for inspections required for certification.
   7. Replace, repair, or rework all work for which certification is refused.

C. Quality Expectations: Materials must be designed, constructed and installed to meet the intended use and expected abuse to be incurred within the educational environment. This specification outlines the minimum requirements for material quality, construction, finish and overall workmanship to be provided. The finished products shall be functional, have an extended life expectancy with minimal maintenance and be operationally safe.

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D. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect items provided by this section, including finished surfaces and hardware items during handling and installation. For metal surfaces, use polyethylene film or other protective material standard with the manufacturer.

B. Acceptance at Site:
1. Do not deliver or install casework until the conditions specified under Part 3, Examination Article of this section have been met. Products delivered to sites that are not enclosed and/or improperly conditioned will not be accepted if warping or damage due to unsatisfactory conditions occurs.

C. Storage:
1. Store casework in the area of installation. If necessary, prior to installation, temporarily store in another area, meeting the environmental requirements specified under Part 3, "Site Verification of Conditions" Article of this section.

1.8 MOCK-UP

△3 A. Provide full size base cabinet and upper cabinet complete with drawers, door, adjustable shelf and countertop. Coordinate with requirements of Section 12 3600.

B. Locate where directed.

C. Mock-up may remain as part of the Work.

1.9 WARRANTY

A. Correct defective Work within a five year period after Date of Substantial Completion, at no additional cost to Owner. Defects include, but are not limited to:
1. Ruptured, cracked, or stained finish coating.
2. Discoloration or lack of finish integrity.
3. Cracking or peeling of finish.
4. Delamination of components.
5. Failure of adhesives.
6. Failure of hardware.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Plastic Laminate Casework:
△3 1. Case Systems: www.casesystems.com/#sle.
2. TMI Systems Corporation: www.tmisystems.com/.
3. Institutional Casework Inc: www.iciscientific.com/.

B. Obtain casework from single source and manufacturer, unless otherwise indicated.

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2.2 CASEWORK, GENERAL

3 A. Quality Standard: AWI Standards, current edition, unless noted otherwise.

B. Plastic Laminate Faced Cabinets: Custom Grade.

2.3 FABRICATION

A. Assembly: Shop assemble casework items for delivery to site in units easily handled and to permit passage through building openings.

B. Construction: As required for selected grade.

C. Structural Performance: Safely support the following minimum loads:
1. Base Units: 500 pounds per linear foot across the cabinet ends.
2. Suspended Units: 300 pounds static load.
3. Drawers: 125 pounds, minimum.
4. Hanging Wall Cases: 300 pounds.
5. Shelves: 100 pounds, minimum.

D. Fittings and Fixture Locations: Cut and drill components for fittings and fixtures.

E. Hardware Application: Factory-machine casework members for hardware that is not surface applied.

F. Access Panels: Where indicated, for maintenance of utility service and mechanical and electrical components.

3 G. Fixed back panels on all cabinets.
1. Hardboard: 1/4" minimum thickness.
2. Inset: 3/4" routing at top, bottom and sides.

H. Fixed panels at backs of open spaces between base cabinets.
1. Provide cutouts for power and data receptacles where indicated on drawings.

I. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.

J. Scribes and Fillers: Panels of matching construction and finish, for locations where cabinets do not fit tight to adjacent construction.

3 K. Mobile Cabinets: Same construction as fixed base cabinets, with modifications.
1. Cabinet underside reinforced as is standard with the manufacturer to provide caster mounting points.
2. Four casters, each with a load rating of 165 pounds.

L. Apron Frames: Construction similar to other cabinets, with modifications.

M. Countertop Panel-Type Supports: Materials similar to adjacent casework, 1-1/2 inch in width, with front-to-back and toe space dimensions matching base cabinet. Designed to be secured in a concealed fashion to countertop material. Include two leveling devices per support panel.

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3 N. Subbase: Separate and continuous, ladder-type construction with front, back and intermediates; water-resistant, exterior-grade plywood with concealed fastening to cabinets.

2.4 PLASTIC-LAMINATE-CLAD CASEWORK

A. Plastic-Laminate-Clad Casework: Solid wood and wood panel construction; each unit self-contained and not dependent on adjacent units or building structure for rigidity; in sizes necessary to avoid field cutting except for scribes and filler panels.

3
1. Style: Flush overlay. Ease doors and drawer fronts slightly at edges.
2. Cabinet Nominal Dimensions: Unless otherwise indicated, provide cabinets of widths and heights indicated on drawings.
3. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline.
   a. Finish: Matte or suede, gloss rating of 5 to 20.
   b. Surface Color and Pattern: As selected by Architect from manufacturer's custom line.

3
   c. Exposed Exterior Surfaces: Decorative laminate.
   d. Exposed Interior Surfaces: Decorative Laminate.
   e. Semi-concealed Surfaces: Decorative laminate.
   f. Concealed Surfaces: Decorative laminate.
   g. Cap exposed plastic laminate finish edges with PVC plastic edge banding.

2.5 COUNTERTOPS

A. Countertops: As specified in Section 12 3600.

2.6 SPECIAL PURPOSE UNITS

A. Library Special Units.
1. Basis of Design Manufacturer: ICI Scientific (formerly CampbellRhea): www.iciscientific.com/.
2. Style: Flush overlay. Ease doors and drawer fronts slightly at edges.
3. Primary Construction: Plastic-laminate clad units.
   a. Finish, Surface Color and Pattern: As indicated on drawings.
4. Single-Sided Shelving Units: Manufacturer's standard starter and add-on units.
   a. Sizes and configurations indicated on drawings.
   b. Shelves: Adjustable, in 1 inch increments.

3 B. Education Special Units.
1. Basis of Design Manufacturer: VS America: https://vsamerica.com/.
2. Alternate manufacturers will be considered so long as the minimum requirements established by the Basis of Design are met:
   a. MityBilt Products: www.mitybilt.com/.
   b. Fleetwood: www.fleetwoodfurniture.com/.
3. Primary Construction: Plastic-laminate clad units.
   a. Finish, Surface Color and Pattern: As selected by Architect from manufacturer's custom line.
4. Products:
   a. Shift+ Transfer Mobile Shelving Unit #45318.

C. Musical Instrument Storage Special Units.
1. Basis of Design Manufacturer: Wenger: https://www.wengercorp.com/.
2. Style: Flush Inset, Type A. Ease doors and drawer fronts slightly at edges.
3. Primary Construction: Plastic-laminate clad units.

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a. Design: Modular units with through-bolted fastening for reconfigurable assembly.
b. Cabinet Hardware: Manufacturer's standard, types as required for drawers, doors, shelves, levelers and similar items.
c. Finish, Surface Color and Pattern: As selected by Architect from manufacturer's custom line.

4. Large and Small Instrument Storage Units: Manufacturer's standard; sizes and configurations indicated on drawings.

D. Mailroom Special Units.
1. Basis of Design Manufacturer: WB Manufacturing LLC: www.wibenchmfg.com/.
2. Style: Flush overlay. Ease doors and drawer fronts slightly at edges.
3. Primary Construction: Plastic-laminate clad units, with plastic laminate countertops.
a. Finish, Surface Color and Pattern: As indicated on drawings.
4. Mail Slot Units: Sizes and configurations indicated on drawings.
3 a. Provide one nameplate/label holder for each slot.

2.7 CABINET HARDWARE

A. Manufacturer's standard types, styles and finishes, and as indicated below.

B. Conform to BHMA A156.9 requirements.

C. Locks: Provide locks on casework drawers and doors where indicated. Lock with 5 pin cylinder and six keys per lock.
3
1. Hinged Doors: Cam type lock, satin chromium plated over nickel on base material.
2. Tall Hinged Doors: Three-point latching system.
3. Keying: Key locks alike within a space; key each room separately.
4. Master Key System: All locks operable by master key.

D. Shelves in Cabinets:
3 1. Adjustable Shelf Supports: Standard side-mounted system using multiple holes for pin supports and coordinated self rests, polished chrome finish, for nominal 1 inch spacing adjustments.

E. Swinging Doors: Hinges, pulls, and catches.
1. Hinges: Concealed, number as required by referenced standards for width, height, and weight of door.
a. Concealed Hinges: Installed in cabinet edge, and on door back, satin chromium plated over nickel on base material.
1) European-Style Hinges for Overlay Doors: 110 degree opening angle.
2. Pulls: Chrome wire pulls, 4 inches wide.
a. Pull design to conform to project's referenced accessibility requirements.
3. Catches: Magnetic.

F. Drawers: Pulls and slides.
1. Pulls: Chrome wire pulls, 4 inches wide.
a. Pull design to conform to project's referenced accessibility requirements.
2. Slides: Steel, full extension arms, ball bearings; self-closing; capacity as recommended by manufacturer for drawer height and width.

2.8 MATERIALS

A. Adhesives Used for Assembly: Comply with VOC requirements for adhesives and sealants as specified in Section 01 6116.

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B. Wood-Based Materials:
   1. Solid Wood: Air-dried to 4.5 percent moisture content, then tempered to 6 percent moisture content before use.
   2. **Sustainable Design Requirements:**
      a. **Forest Certification: Provide wood products made from forests certified by an FSC accredited certification body. All non-FSC wood in assemblies with FSC-certified wood shall meet the FSC Controlled Wood (CW) criteria.**
      b. **Compliance with California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM), Phase II for ultra-low-emitting formaldehyde (ULEF) resins or containing no added formaldehyde resins.**
      c. **Composite Wood:**
         1) **Product-specific declaration or Industry-wide EPD or product-specific EPD. Include EPD Summary.**
         2) **For recycled content composite wood: Documentation indicating percentages by weight pre-consumer and post-consumer recycled content. Include material cost value.**

C. Solid Wood: Clear, dry, sound, plain sawn, selected for compatible species, grain and color, no defects.

D. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications. complying with Grade requirements, and standard with the manufacturer.

2.9 ACCESSORIES

A. Plastic Edge Banding: Extruded PVC, convex shaped; smooth finish; self locking serrated tongue; of width to match component thickness.
   1. Size: 1mm at cabinet faces and shelf edges, 3mm at door and drawer fronts.
   2. Color: As selected by Architect from manufacturer's custom range.

B. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.

C. Concealed Joint Fasteners: Corrosion-resistant, standard with manufacturer.

D. Grommets: Standard plastic, painted metal, or rubber grommets for cut-outs, in color to match adjacent surface.

E. Mailbox Nameplate/Label Holder: Aluminum or plated steel.
   1. Size: 2-1/2 inches wide by 1/2 inches tall.
   2. Finsh: Mill finish.

PART 3 EXECUTION

3.1 PREPARATION

A. Large Components: Ensure that large components can be moved into final position without damage to other construction.

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3.2 EXAMINATION

A. Site Verification of Environmental Conditions:
   1. Do not deliver casework until the following conditions have been met:
      a. Building has been enclosed (windows and doors sealed and weather-tight).
      b. An operational HVAC system that maintains temperature and humidity at occupancy levels has been put in place.
      c. Ceiling, overhead ductwork, piping, and lighting have been installed.
      d. Installation areas do not require further wet work construction.

B. For Base Cabinets Installation: Examine floor levelness and flatness of installation space. Do not proceed with installation if encountered floor conditions required more than 1/2 inch leveling adjustment. When installation conditions are acceptable, for each space, establish the high point of the floor. Set and make level and plumb first cabinet in relation to this high point.

C. For Wall Cabinets Installation: Examine wall surfaces in installation space. Do not proceed with installation if the following conditions are encountered:
   1. Maximum variation from plane of masonry wall exceeds 1/4 inch in 10 ft and 1/2 inch in 20 ft or more, and/or maximum variation from plumb exceeds 1/4 inchper story.
   2. Maximum Variation of finished gypsum board surface from true flatness: 1/8 inch in 10 feet in any direction.

D. Verify adequacy of support framing and anchors.

E. Verify that service connections are correctly located and of proper characteristics.

3.3 INSTALLATION

A. Perform installation in accordance with manufacturer's instructions.

B. Use anchoring devices to suit conditions and substrate materials encountered. Use concealed fasteners to the greatest degree possible. Use exposed fasteners only where allowed by approved shop drawings, or where concealed fasteners are impracticable.

C. Set casework items plumb and square, securely anchored to building structure.

D. Align cabinets to adjoining components, install filler and/or scribe panels where necessary to close gaps.

E. Fasten together cabinets in continuous runs, with joints flush, uniform and tight. Misalignment of adjacent units not to exceed 1/16 inch. In addition, do not exceed the following tolerances:
   1. Variation of Tops of Base Cabinets from Level: 1/16 inch in 10 feet.
   2. Variation of Bottoms of Wall Cabinets from Level: 1/8 inch in 10 feet.
   3. Variation of Faces of Cabinets from a True Plane: 1/8 inch in 10 feet.
   4. Variation of Adjacent Surfaces from a True Plane (Lippage): 1/32 inch.
   5. Variation in Alignment of Adjacent Door and Drawer Edges: 1/16 inch.

F. Secure wall and floor cabinets to concealed reinforcement at gypsum board assemblies.

G. Base Cabinets: Fasten cabinets to service space framing and/or wall substrates, with fasteners spaced not more than 16 inches on center. Bolt adjacent cabinets together with joints flush, tight, and uniform.

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1. Where base cabinets are installed away from walls or service space framing, anchor to floor at toe space at not more than 24 inches on center, and at sides of cabinets with not less than two fasteners per side.

3 H. Wall Cabinets: Fasten to 1" thick hanging strips. Fasten each cabinet through back, near top, at not less than 16 inches on center.

I. Install hardware uniformly and precisely.

J. Countertops: Install countertops intended and furnished for field installation in one true plane, with ends abutting at hairline joints, and no raised edges.

K. Replace units that are damaged, including those that have damaged finishes.

3.4 ADJUSTING

A. Adjust operating parts, including doors, drawers, hardware, and fixtures to function smoothly.

3.5 CLEANING

A. See Section 01 7419 - Construction Waste Management and Disposal, for additional requirements.

B. Clean casework and other installed surfaces thoroughly.

3.6 PROTECTION

A. Do not permit finished casework to be exposed to continued construction activity.

B. Protect casework and countertops from ongoing construction activities. Prevent workmen from standing on, or storing tools and materials on casework or countertops.

C. Repair damage, including to finishes, that occurs prior to Date of Substantial Completion, using methods prescribed by manufacturer; replace units that cannot be repaired to like-new condition.

END OF SECTION

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SECTION 12 3600 - COUNTERTOPS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Countertops for architectural cabinet work.

B. Countertops for manufactured casework.

C. Wall-hung counters and vanity tops.

D. Window sills.

1.2 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

3 B. AWI (QCP) - Architectural Woodwork Institute, Quality Certification Program; current edition: www.awiqcp.org.

C. ISFA 2-01 - Classification and Standards for Solid Surfacing Material.

D. NEMA LD 3 - High-Pressure Decorative Laminates.

E. PS 1 - Structural Plywood.

1.3 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Specimen warranty.

B. Shop Drawings: Complete details of materials and installation; combine with shop drawings of cabinets and casework specified in other sections.

C. **LEED Submittals: Comply with Section 01 3329 - Sustainable Design Requirements - LEED v4/v4.1.**
   1. **MR Credit 2: BPDO - Environmental Product Declarations**
      a. **For composite wood: Product-specific declaration or Industry-wide EPD or product-specific EPD. Include EPD Summary.**
   2. **MR Credit 3: BPDO - Sourcing of Raw Materials**
      a. **For recycled content composite wood: Documentation indicating percentages by weight pre-consumer and post-consumer recycled content. Include material cost value.**
      b. **For certified wood: Documentation indicating percentage new wood, percentage FSC and Chain-of-Custody (CoC) certificates indicating compliance with forest certification requirements. Include vendor invoice indicating FSC CoC.**
   3. **MR Credit 4: BPDO - Material Ingredients**
      a. **For composite wood and plastic finishes provide Material Ingredient Report.**

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4. **EQ Credit 2: Low-Emitting Materials**
   a. **For composite wood installed within the building interior: Documentation indicating compliance with California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM), Phase II for ultra-low-emitting formaldehyde (ULEF) resins or containing no added formaldehyde resins.**

D. Verification Samples: For each finish product specified, minimum size 6 inches square, representing actual product, color, and patterns.

E. Test Reports: Chemical resistance testing, showing compliance with specified requirements.

F. Maintenance Data: Manufacturer's instructions and recommendations for maintenance and repair of countertop surfaces.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.

3 B. Quality Certification: Provide AWI Quality Certification Program inspection report and quality certification of completed work.
1. Provide labels or certificates indicating that the work complies with requirements of AWI Grade or Grades specified.
2. Register with AWI QCP and provide project number(s) with shop drawings.
3. Prior to delivery to the site provide shop drawings with certification labels.
4. Provide labels on each product when required by certification program.
5. Upon completion of installation provide certificate certifying that the installation and products meet the specified requirements.
6. Arrange and pay for inspections required for certification.
7. Replace, repair, or rework all work for which certification is refused.

C. Quality Expectations: Materials must be designed, constructed and installed to meet the intended use and expected abuse to be incurred within the educational environment. This specification outlines the minimum requirements for material quality, construction, finish and overall workmanship to be provided. The finished products shall be functional, have an extended life expectancy with minimal maintenance and be operationally safe.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.6 FIELD CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

3 1.7 MOCK-UP

A. Provide mock-up of typical classroom countertops, including penetrations for plumbing fixtures and associated accessories.

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3 B. Locate where directed.

C. Mock-up may remain as part of the Work.

PART 2 PRODUCTS

2.1 COUNTERTOPS AND WINDOW SILLS

3 A. Quality Standard: Custom Grade, in accordance with AWI Standards, current edition, unless noted otherwise.

B. Plastic Laminate Countertops: High-pressure decorative laminate (HPDL) sheet bonded to substrate.
   1. Laminate Sheet: NEMA LD 3, Grade HGS, 0.048 inch nominal thickness.
      a. Manufacturers:
         1) Formica Corporation: www.formica.com/#sle.
         2) Panolam Industries International, Inc. Pionite: www.pionitelaminates.com.
         3) Wilsonart: www.wilsonart.com/#sle.
      b. Finish: Matte or suede, gloss rating of 5 to 20.
      c. Surface Color and Pattern: As selected by Architect from the manufacturer's custom line.
   2. Exposed Edge Treatment: Molded PVC edge with T-spline, sized to completely cover edge of panel.
      a. Color: As selected by Architect from the manufacturer's custom line.
   3. Back and End Splashes: Same material, same construction.

3

C. Solid Surfacing Countertops and Sills: Solid surfacing sheet or plastic resin casting over continuous substrate.
   1. Flat Sheet Thickness: 1/2 inch, minimum.
   2. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISFA 2-01 and NEMA LD 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
      a. Manufacturers:
         1) Avonite Surfaces: www.avonitesurfaces.com/#sle.
         2) Dupont: www.corian.com/#sle.
         3) Formica Corporation: www.formica.com/#sle.
         4) Wilsonart: www.wilsonart.com/#sle.
      b. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke developed index of 450, maximum; when tested in accordance with ASTM E84.
      c. Finish on Exposed Surfaces: Matte, gloss rating of 5 to 20.
      d. Color and Pattern: As selected by Architect from manufacturer's custom line.
   3. Other Components Thickness: 1/2 inch, minimum.
   4. Back and End Splashes: Same sheet material, square top; minimum 4 inches high.
   5. Provide brackets and braces as required and as indicated on drawings.
   6. Fabricate in accordance with manufacturer's standard requirements.

2.2 MATERIALS

A. Wood-Based Components:
   1. Wood fabricated from old growth timber is not permitted.
   2. **Sustainable Design Requirements:**

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a. **Forest Certification: Provide wood products made from forests certified by an FSC accredited certification body. All non-FSC wood in assemblies with FSC-certified wood shall meet the FSC Controlled Wood (CW) criteria.**
b. **Compliance with California Air Resources Board (CARB) Airborne Toxic Control Measure (ATCM), Phase II for ultra-low-emitting formaldehyde (ULEF) resins or containing no added formaldehyde resins.**
c. **Composite Wood:**
   1) **Product-specific declaration or Industry-wide EPD or product-specific EPD. Include EPD Summary.**
   2) **For recycled content composite wood: Documentation indicating percentages by weight pre-consumer and post-consumer recycled content. Include material cost value.**

B. Plywood for Supporting Substrate: PS 1 Exterior Grade, A-C veneer grade, minimum 5-ply; minimum 1/2 inch thick; join lengths using metal splines.

C. Adhesives: Chemical resistant waterproof adhesive as recommended by manufacturer of materials being joined.

3 1. Adhesives Used for Assembly: Comply with VOC requirements for adhesives and sealants as specified in Section 01 6116.

2.3 FABRICATION

A. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.
   1. Join lengths of tops using best method recommended by manufacturer.
   2. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
   3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.

B. Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated.
   1. Secure to countertop with concealed fasteners and with contact surfaces set in waterproof glue.
   2. Height: 4 inches, unless otherwise indicated.

C. Solid Surfacing: Fabricate tops and window sills up to 144 inches long in one piece; join pieces with adhesive sealant in accordance with manufacturer's recommendations and instructions.

3 D. Wall-Mounted Counters: Provide brackets and braces as required and as indicated on drawings.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.

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3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.

B. Attach plastic laminate countertops using screws with minimum penetration into substrate board of 5/8 inch.

3 C. Seal joints between countertops and back/end splashes, as well as between countertops, back/end splashes and any adjacent vertical surfaces.

3.4 TOLERANCES

A. Variation From Horizontal: 1/8 inch in 10 feet, maximum.

B. Offset From Wall, Countertops: 1/8 inch maximum; 1/16 inch minimum.

C. Field Joints: 1/8 inch wide, maximum.

3.5 CLEANING

A. Clean countertops surfaces thoroughly.

3.6 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION

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LEGEND

EXISTING UTILITY (TBA)
(TO BE ABANDONED)

EXISTING UTILITY (TBR)
(TO BE REMOVED)

FEATURE TO BE REMOVED

EXISTING BUILDING
TO BE REMOVED

EXISTING MODULAR TO BE REMOVED. FOUNDATION & UTILITIES TO BE REMOVED BY CONTRACTOR.**

EXISTING ASPHALT DRIVE W/CURB & GUTTER TO BE REMOVED

EXISTING CONCRETE SIDEWALK & ASPHALT PAVEMENT TO BE REMOVED

EXISTING MODULAR TO BE REMOVED BY OWNER. FOUNDATION & UTLITIES TO BE REMOVED BY CONTRACTOR.**

** ALL ELECTRICAL SERVICE ENTRANCE CABLE AND ALUMINUM HAND RAILS TO BE SALVAGED AND PROVIDED TO THE OWNER

** PROVIDED POSITIVE DRAINAGE WHEN COMPLETE

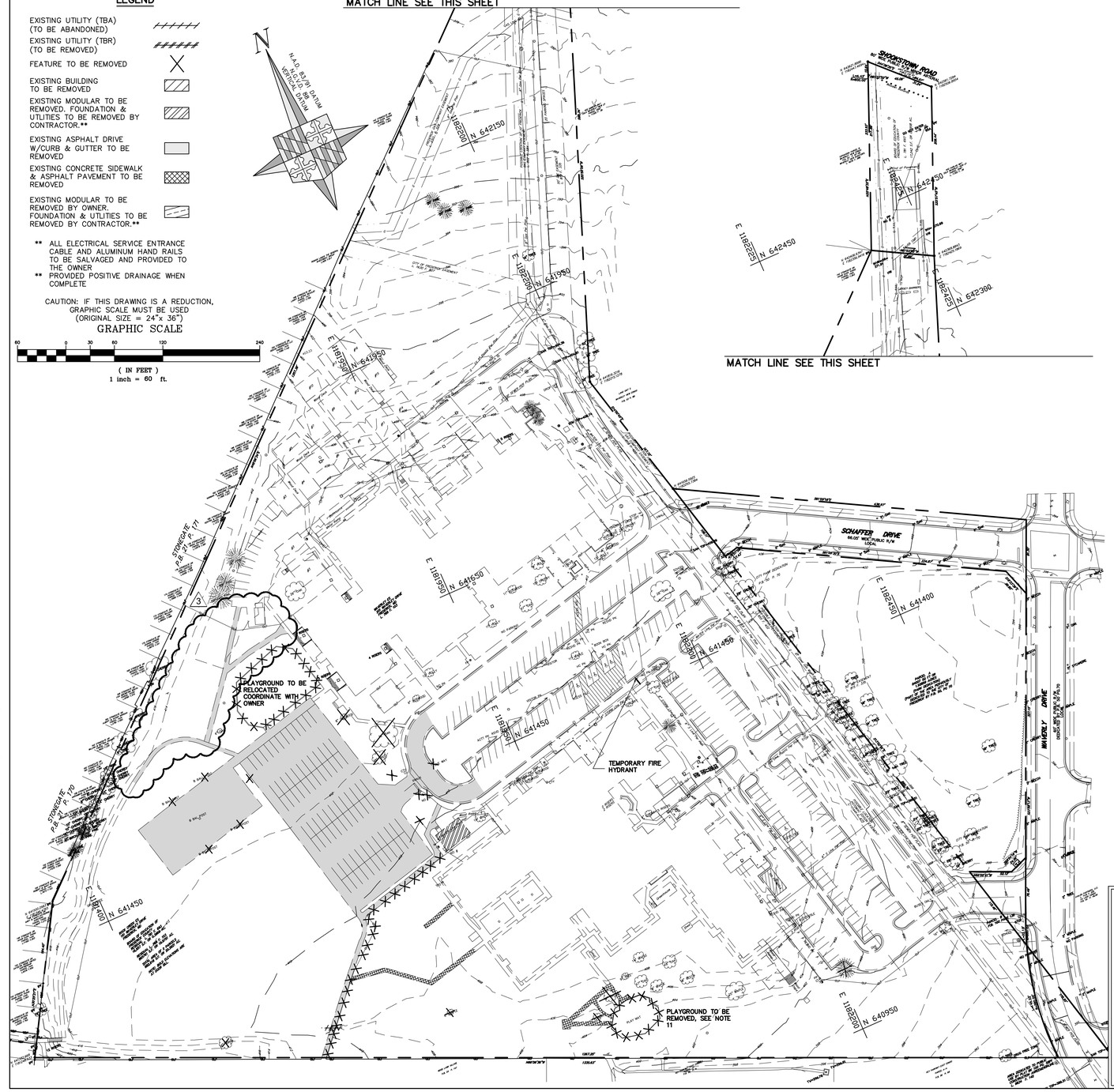
CAUTION: IF THIS DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED (ORIGINAL SIZE = 24"x 36")

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

MATCH LINE SEE THIS SHEET



MATCH LINE SEE THIS SHEET

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL PROVIDE REQUIRED SIGNAGE AND FLAGMEN ALONG ALL PUBLIC STREETS ADJACENT TO THE SITE, TO ASSURE THE SAFETY OF ALL VEHICULAR AND PEDESTRIAN TRAFFIC. ALL TRAFFIC CONTROLS MUST BE IN ACCORDANCE WITH THE MOST CURRENT MUTCD REQUIREMENTS AND WITH THE MOST CURRENT CITY OF FREDERICK DOT WORK ZONE TRAFFIC CONTROL STANDARDS AND DETAILS.
2. ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH THE MOST CURRENT APPLICABLE EPA AND OSHA REGULATIONS AND MUST COMPLY WITH THE MOST CURRENT FEDERAL, STATE AND/OR LOCAL REGULATIONS AND CODES APPLICABLE TO SAID WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH REPRESENTATIVE UTILITY COMPANIES AND IMPLEMENTING REQUIRED UTILITY-RELATED WORK ACCORDINGLY.
4. THE CONTRACTOR SHALL NOTIFY THE OWNER AND/OR OWNERS REPRESENTATIVE IMMEDIATELY UPON ENCOUNTERING ANY HAZARDOUS OR CONTAMINATED MATERIALS. THE CONTRACTOR SHALL DOCUMENT SAME TO THE OWNER TO OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
5. WHERE NEW WORK IS TO BE DONE, CARE SHALL BE TAKEN TO PROTECT ALL EXISTING ADJACENT SURFACES AND AREAS FROM DAMAGE. ANY AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL BACKFILL EXCAVATED AREAS WITH ACCEPTABLE MATERIAL, AS SPECIFIED IN THE CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL SHEET/SHORE AND BRACE ANY AND ALL STRUCTURES EXPOSED BY EXCAVATION/CONSTRUCTION.
8. IN THE EVENT THAT, DURING DEMOLITION OR CONSTRUCTION ACTIVITIES THE CONTRACTOR ENCOUNTERS ANY EXISTING UTILITIES/STRUCTURES NOT SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER FOR DIRECTION PRIOR TO PROCEEDING WITH ANY WORK.
9. ALL SAWCUTS ARE TO BE STRAIGHT AND EVEN, JAGGED EDGES WILL NOT BE ACCEPTED.
10. IT IS THE INTENT OF THIS DEMOLITION PHASE TO PROVIDE A SITE CLEAR OF ALL PHYSICAL OBSTRUCTIONS THAT WOULD OTHERWISE IMPEDE NEW CONSTRUCTION.
11. REMOVAL OF PLAY AREAS INCLUDES REMOVAL OF EQUIPMENT AND FOUNDATIONS WITHIN PLAY AREAS.
12. THIS PLAN IS INTENDED TO PROVIDE AN OVERALL PICTURE OF DEMOLITION THAT WILL BE PERFORMED THROUGHOUT CONSTRUCTION. SOME DEMOLITION IS PHASED AND PROGRESSES AS CONSTRUCTION CONTINUES. ALL DEMOLITION, AND MOST IMPORTANTLY UTILITY DEMOLITION, MUST BE PERFORMED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLANS AND THE SEQUENCE OF CONSTRUCTION SHOWN ON DWG. NO. C-2Q.
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16. REMOVE EXISTING FENCE AS NECESSARY.

CITY OF FREDERICK

APPROVED: FOR CONSTRUCTION

DATE: _____

CITY ENGINEER: _____

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800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

201 WAVERLEY DRIVE, FREDERICK, MD

TAX MAP: 406 PARCEL: 1539, PB:100 P. 58 ELECTION DISTRICT: 02

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JEB	Drawn
Scale	1"=60'	JRB	Checked
Date	03/16/2020	SPB	Approved

Drawing Title: PHASE 1 DEMOLITION PLAN

Drawing Number: C-1B

Sheet Of

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LEGEND

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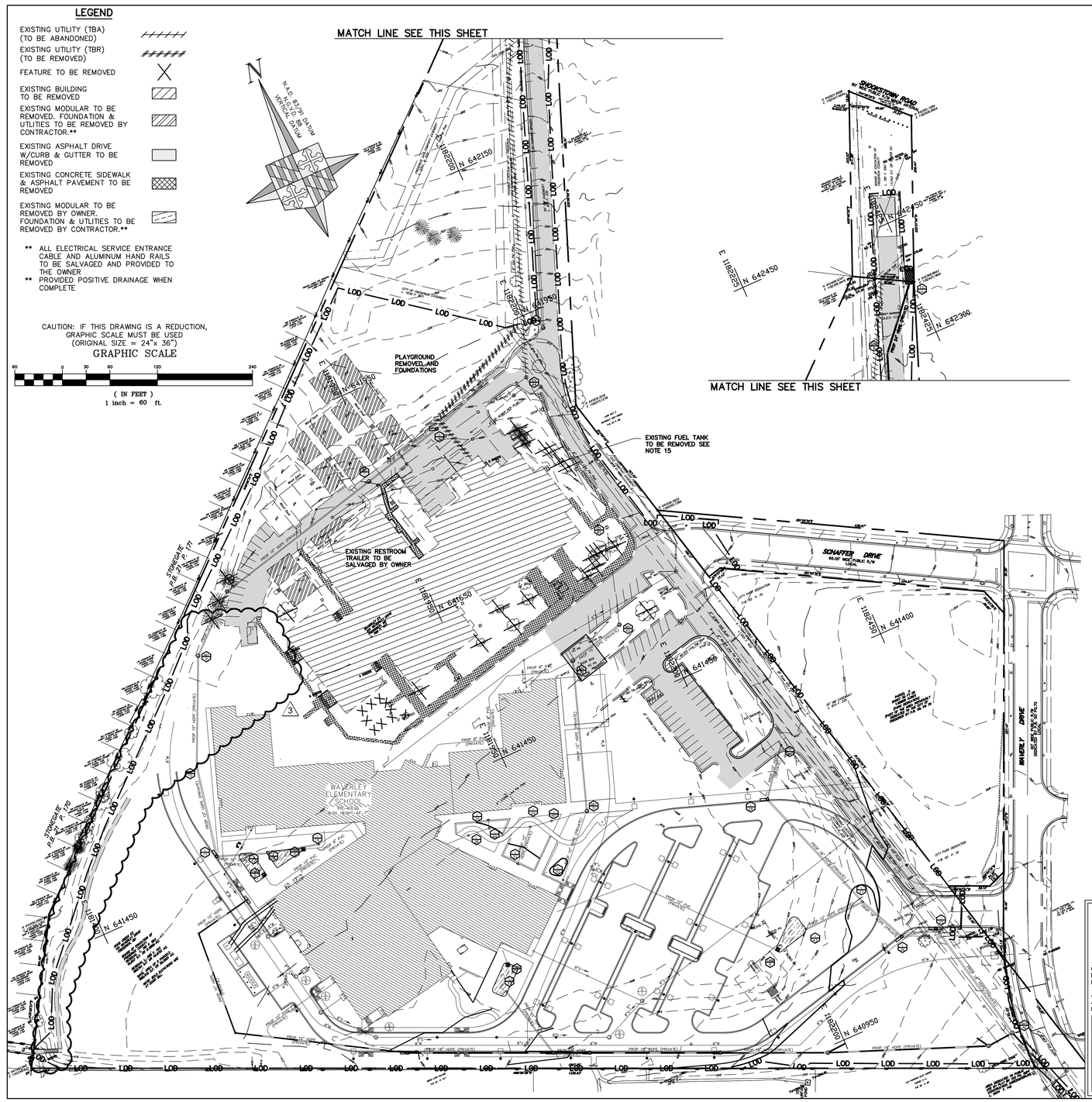

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Revisions:

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WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

201 WAVERLEY DRIVE, FREDERICK, MD

TAX MAP: 406 PARCEL: 1539, PB:100 P. 58 ELECTION DISTRICT: 02

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JEB	Drawn
Scale	1"=60'	JRB	Checked
Date	03/16/2020	SPB	Approved

Drawing Title: PHASE 3 DEMOLITION PLAN

Drawing Number: C-1D

Sheet: Of

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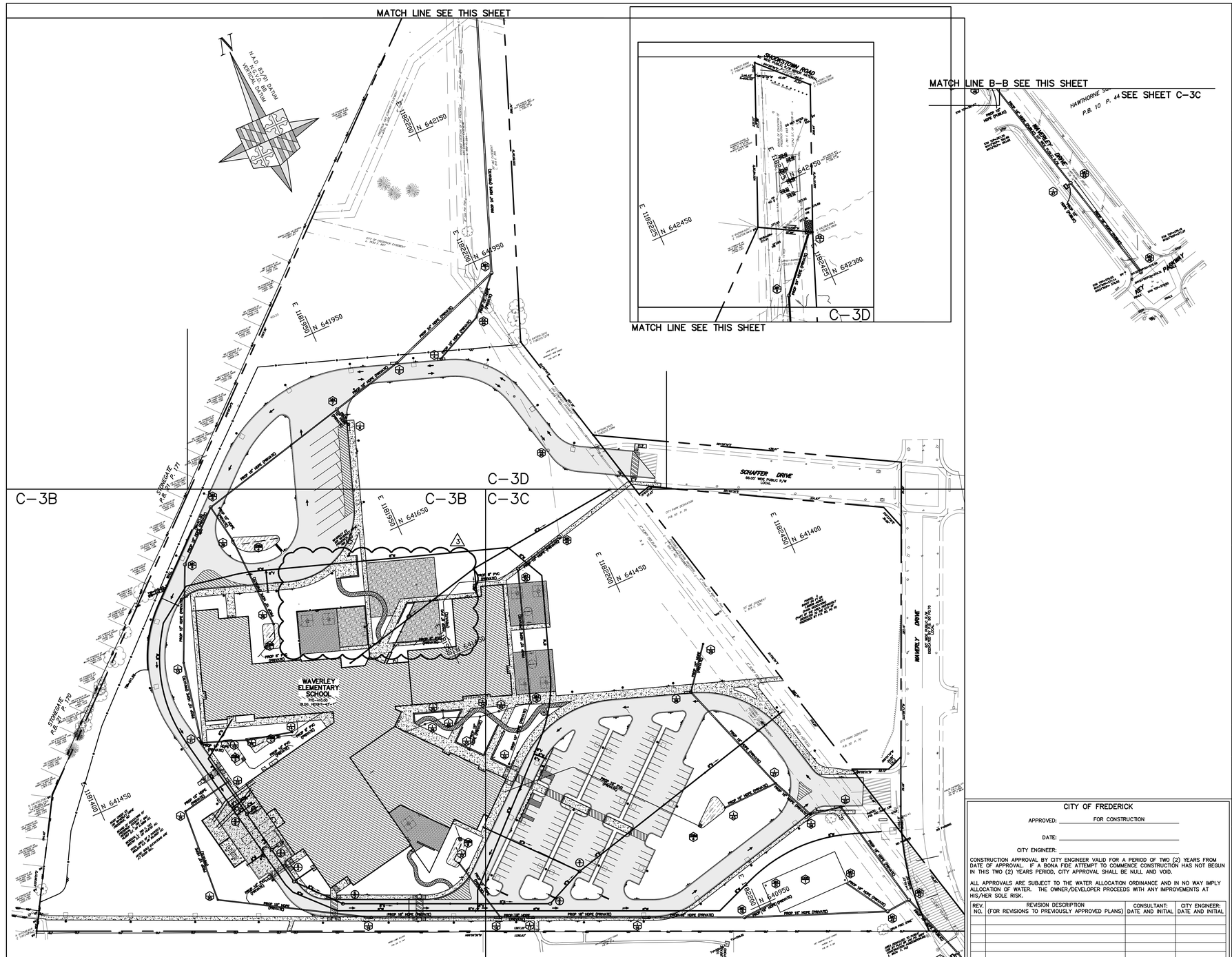
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STORM DRAIN
PROP 18" HDPE (PRIVATE)
PROP 12" HDPE (PRIVATE)
PROP 8" HDPE (PRIVATE)
PROP 6" PVC (PRIVATE)
PROP 4" PVC (PRIVATE)
PROP 1" WATER SERVICE
PROP 2" WATER SERVICE
PROP 4" WATER SERVICE
PROP 6" WATER SERVICE
PROP 8" WATER SERVICE
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PROP 12" WATER SERVICE
PROP 16" WATER SERVICE
PROP 18" WATER SERVICE
PROP 24" WATER SERVICE
PROP 30" WATER SERVICE
PROP 36" WATER SERVICE
PROP 42" WATER SERVICE
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PROP 72" WATER SERVICE
PROP

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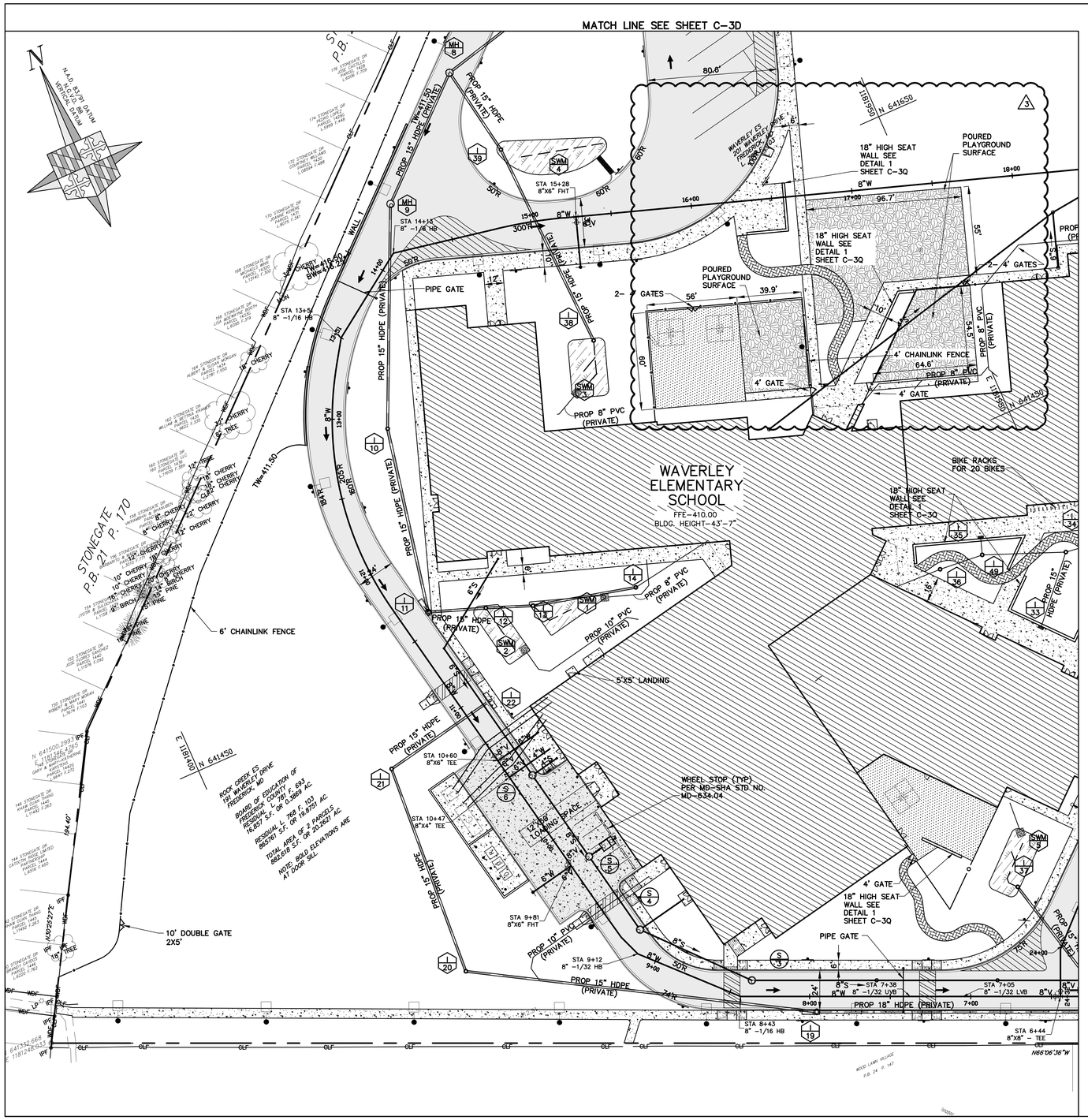

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GRAPHIC SCALE

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(IN FEET)
1 inch = 30 ft.

CITY OF FREDERICK

APPROVED: FOR CONSTRUCTION

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WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

201 WAVERLEY DRIVE, FREDERICK, MD

TAX MAP: 406 PARCEL: 1539, PB:100 P. 58 ELECTION DISTRICT: 02

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JEB	Drawn
Scale	1"=60'	JRB	Checked
Date	03/16/2020	SPB	Approved

Drawing Title: SITE PLAN

Drawing Number: C-3B

Sheet Of

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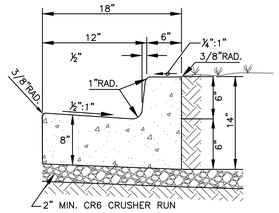
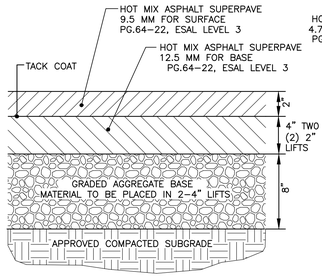
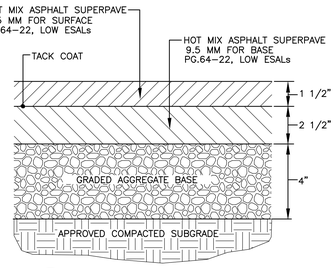


NOTES:
1. MSHA MIX No. 3 CONCRETE
2. LIQUID CURING COMPOUND ADDED
3. STEEL TROWEL AND BRUSH FINISH
4. CONCRETE SHALL BE SPRAYED WITH LIQUID CURING COMPOUND.
5. FORMS SHALL BE STEEL FORMS WITH THE EXCEPTION OFAPPROVED FLEXIBLE FORMS FOR RADIAL FORMATION
6. CITY OF FREDERICK DETAIL # S-4

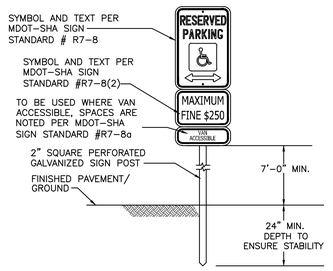
1 C-3E COMBINATION CURB & GUTTER
NOT TO SCALE



2 C-3E ON-SITE REGULAR DUTY ASPHALT
NOT TO SCALE

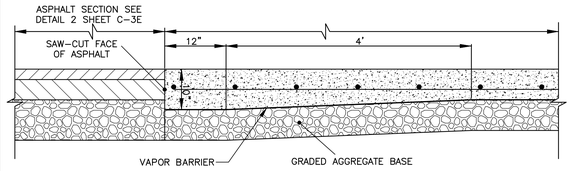


8 C-3E LIGHT DUTY ASPHALT
NOT TO SCALE

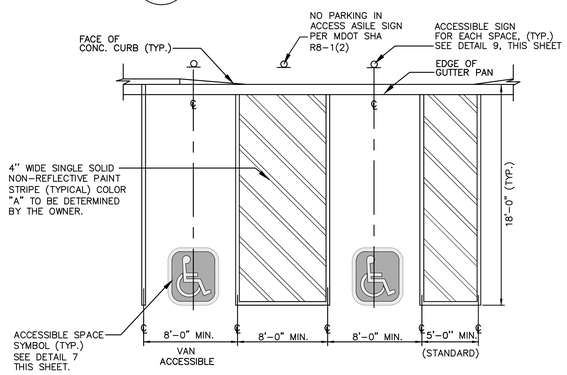


NOTES:
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT ADA REGULATIONS.
2. PLACE SIGN 12" BEHIND FACE OF CURB/TIMBER (TYP.)
3. SECURE SIGN TO POST USING TWO (2) GALVANIZED BOLTS, NUTS, AND WASHERS.
4. POST TO MEET ASTM A499.

9 C-3E ACCESSIBLE SIGN MOUNTING DETAIL
NOT TO SCALE

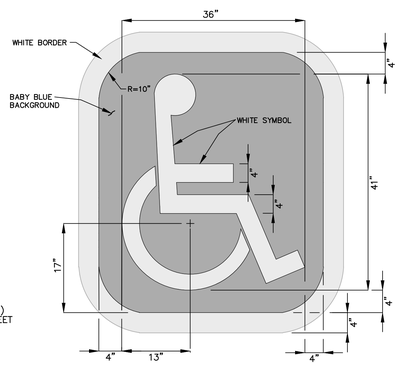


3 C-3E CONCRETE TO ASPHALT TRANSITION DETAIL
NOT TO SCALE



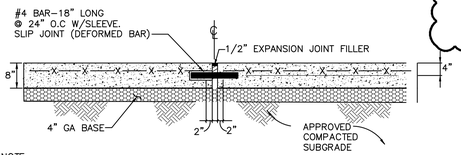
NOTES:
1. STRIPING SHOULD END AT FACE OF CURB, U.N.O.
2. STRIPING MATERIAL AND METHODS OF CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE LATEST MD-SHA MUTCD EDITION AND SHA STDS. & SPECS.
3. (*) INSTALL "VAN ACCESSIBLE" SIGN ON 8'-0" WIDE SPACE, AS NOTED ON PLAN.
4. YELLOW PAINT MAY BE USED ON CONCRETE OR OTHER SURFACES WHERE WHITE PAINT DOES NOT PROVIDE SUFFICIENT CONTRAST. OWNER'S WRITTEN APPROVAL MUST BE OBTAINED.
5. ALL DIMENSION, LAYOUT, BACKGROUND AND COLOR TO CONFORM TO MOST CURRENT ADA GUIDELINES.
6. THE MAXIMUM SLOPE IN ANY DIRECTION ACROSS THE HADICAP PARKING IS 2%.

6 C-3E ACCESSIBLE PARKING STRIPING
NOT TO SCALE



PLACE SYMBOL AT CENTERLINE OF STALL, REFER TO PARKING STRIPING DETAIL THIS SHEET FOR DIMENSIONS.

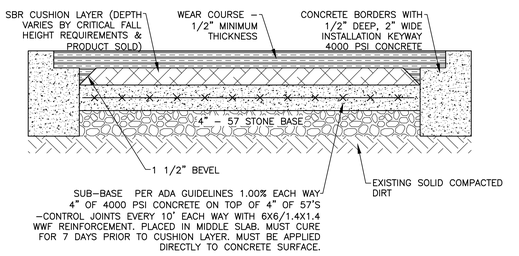
7 C-3E ACCESSIBLE SYMBOL LAYOUT
NOT TO SCALE



NOTE:
1. 8" CONC. SLAB REINFORCED W/ WWF 6X6-W6.5XW6.5 2½" DOWN FROM TOP ON A 4" POROUS FILL MATERIAL OVER APPROVED COMPACTED SUBGRADE.
2. PROVIDE CONTROL JOINTS AT 20' O.C. MAX WITH NO PANELS HAVING AN ASPECT RATIO MORE THAN 2:1. CONTROL JOINTS SHALL BE FORMED OR SAW-CUT, ⅜" WIDE X 2" DEEP.
3. PROVIDE EXPANSION JOINTS PER DETAIL 4, SHEET C-3B AT EVERY THIRD CONTROL JOINT.
4. CONCRETE SHALL BE SHA MIX NO. 3 PER SHA STANDARDS AND SPECIFICATIONS.

5 C-3E HEAVY-DUTY CONCRETE PAVEMENT SECTION
NOT TO SCALE

3



SECTION VIEW

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

10 C-3E POURED PLAYGROUND SURFACE
NOT TO SCALE

CITY OF FREDERICK

APPROVED: FOR CONSTRUCTION

DATE:

CITY ENGINEER:

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REV. NO.	REVISION DESCRIPTION (FOR REVISIONS TO PREVIOUSLY APPROVED PLANS)	CONSULTANT: DATE AND INITIAL	CITY ENGINEER: DATE AND INITIAL

ISSUE FOR BID

ADTEK
CIVIL, STRUCTURAL, SPECIALTY ENGINEERING
150 South East Street, Suite 201
Frederick, Maryland 21701
Phone: 301-662-4408
www.adtekengineers.com

Seal:

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

201 WAVERLEY DRIVE, FREDERICK, MD

TAX MAP: 406 PARCEL: 1539, PB:100 P. 58 ELECTION DISTRICT: 02

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JEB	Drawn
Scale	N.T.S.	JRB	Checked
Date	03/16/2020	SPB	Approved

Drawing Title: SITE DETAIL

Drawing Number: C-3E

Sheet: Of

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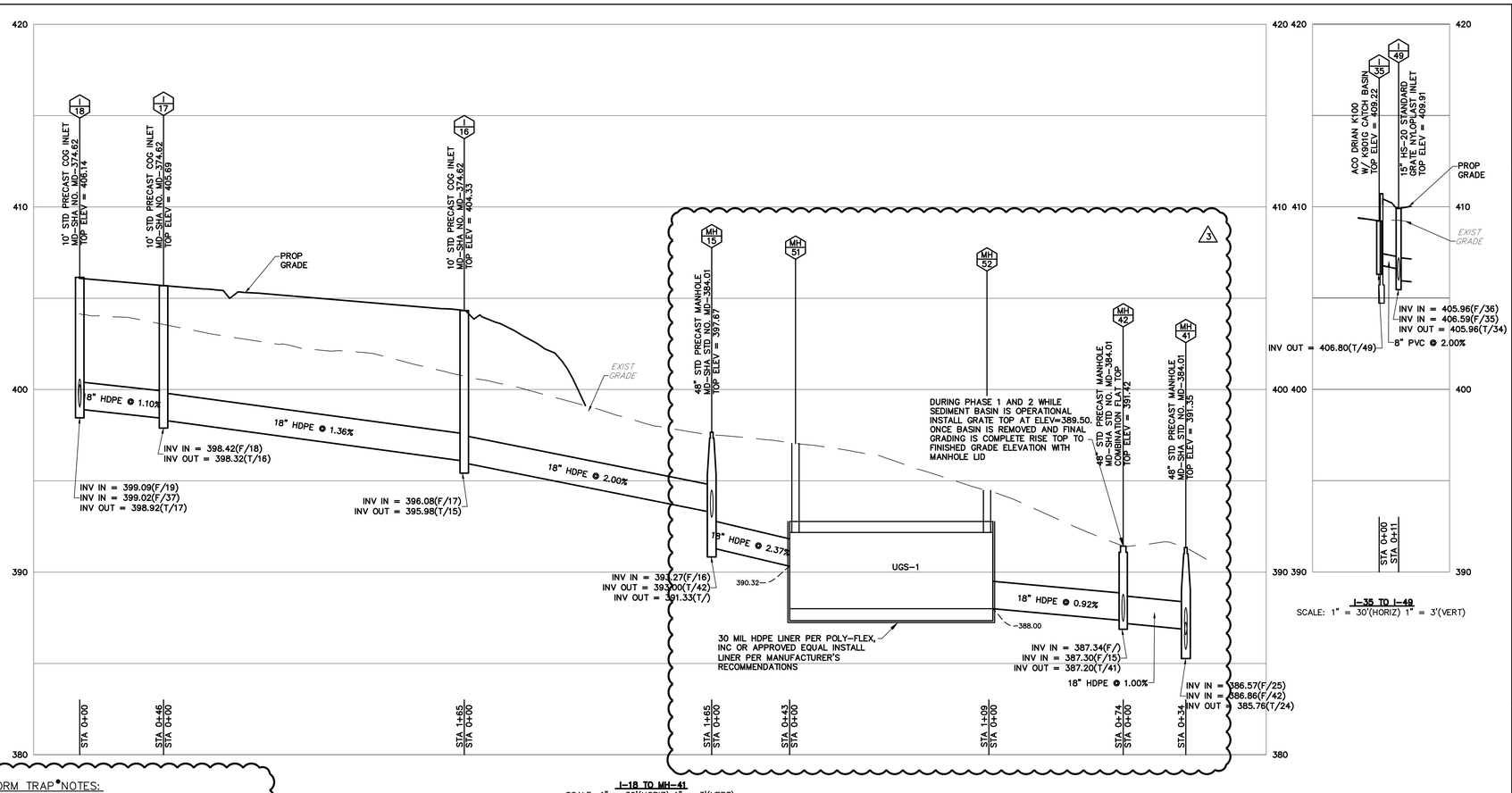


I-18 TO MH-41
SCALE: 1" = 30'(HORIZ) 1" = 3'(VERT)

I-35 TO I-49
SCALE: 1" = 30'(HORIZ) 1" = 3'(VERT)

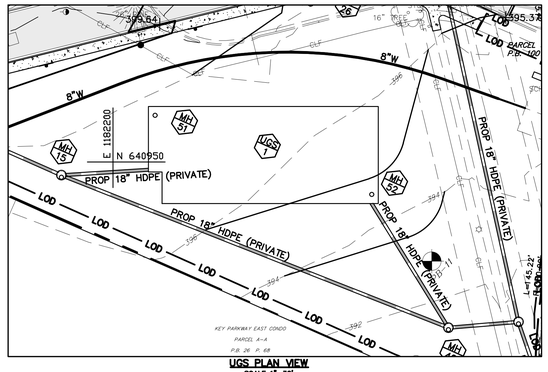
STORM TRAP® NOTES:

1. STORMTRAP® UNITS SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY TRIP TESTING AGENCY PRIOR TO STORMTRAP INSTALLATION.
3. FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW INVERT OF SYSTEM. IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP®
4. SYSTEM DESIGN MAY SHALL BE WATERTIGHT.
5. THE FILL PLACED AROUND THE STORMTRAP MODULES SHALL BE PLACED IN 8" MAX. LIFTS AND MUST DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL BE COMPACTED WITH A STATIC ROLLER NOT TO EXCEED 5 TONS AND COMPACTED TO 95% OF THE MAX. DRY DENSITY PER ASTM D698. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS.
6. DURING PLACEMENT OF MATERIAL OVERTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USED OVERTOP THAT EXCEEDS THE DESIGN LIMITATIONS OF THE SYSTEM. WHEN PLACEMENT OF MATERIAL OVERTOP, MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.
7. THE FINAL TOP BACKFILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED AT A MINIMUM OF 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20 LOADING CRITERIA TRAVEL OVERTOP THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY OVERTOP THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVER, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OF THE SYSTEM. IN SOME CASES, IN ORDER TO ACHIEVE REQUIRED COMPACTION, HAND COMPACTION MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOTTED DESIGN LOADING.
8. INSTALLATION SHALL BE PER STORMTRAP INSTALLATION SPECIFICATIONS.
9. STORMTRAP REPRESENTATIVE MUST BE ON-SITE TO SUPERVISE INSTALLATION

3

STORM TRAP® DESIGN LOADING CRITERIA

LIVE LOADING:	AASHTO HS-20 HIGHWAY LOADING
GROUND WATER TABLE:	
SOIL BEARING PRESSURE:	3000 PSF
BACKFILL SOIL DENSITY:	120 PCF MAX.
EQUIVALENT UNSATURATED LATERAL ACTIVE EARTH PRESSURE:	35 PSF / FT.
EQUIVALENT SATURATED LATERAL ACTIVE EARTH PRESSURE:	80 PSF/FT. (IF WATER TABLE PRESENT)
APPLICABLE CODES:	ASTM C857 ACI-318



UGS PLAN VIEW
SCALE 1"=30'

I:\Proj\17011110 - Waverley ES\Drawings 17011110\DWG\IP-C-4H STORMDRAIN PROFILES.dwg

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Seal:

Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	ADDENDUM #3

CITY OF FREDERICK

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WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

201 WAVERLEY DRIVE, FREDERICK, MD

TAX MAP: 406 PARCEL: 1539, PB:100 P. 58 ELECTION DISTRICT: 02

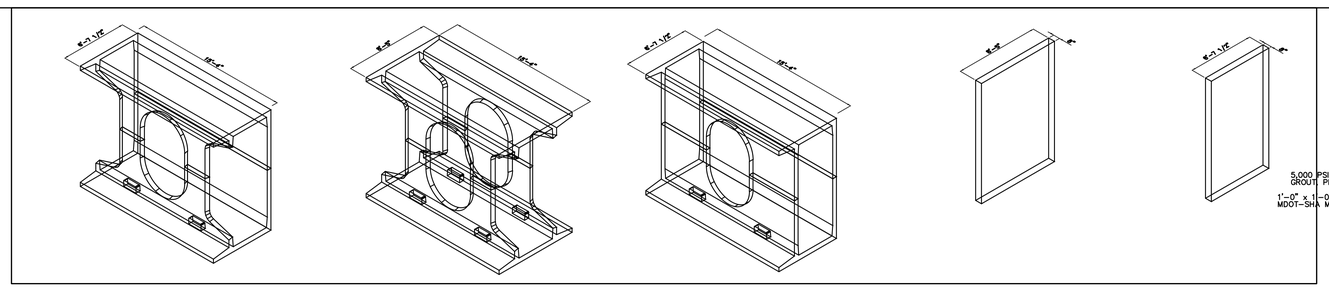
FREDERICK COUNTY PUBLIC SCHOOLS

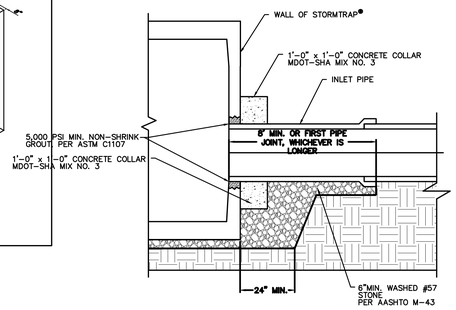
Job No.	#18045	JEB	Drawn
Scale	1"=60'	JRB	Checked
Date	03/16/2020	SPB	Approved

Drawing Title: STORMDRAIN PROFILES

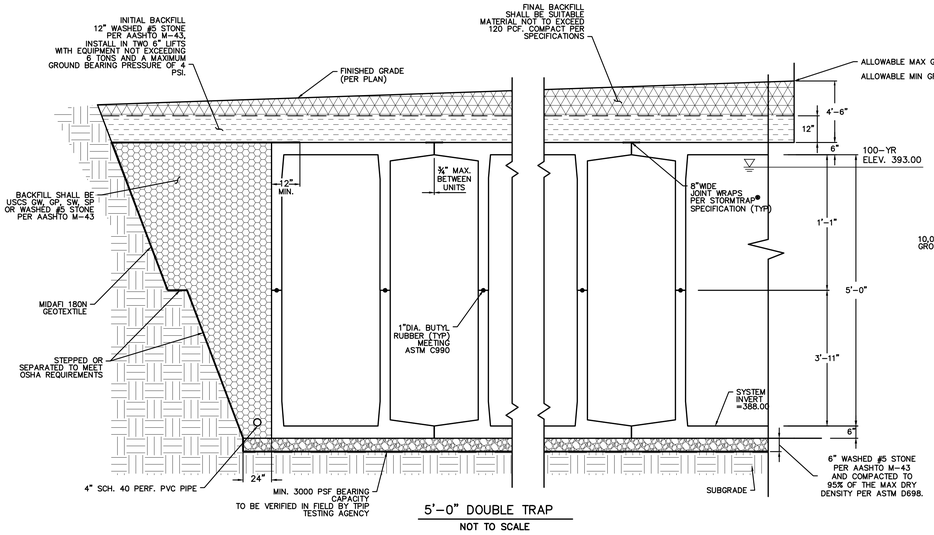
Drawing Number: C-4H

Sheet Of

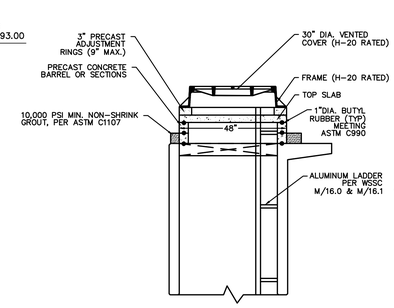




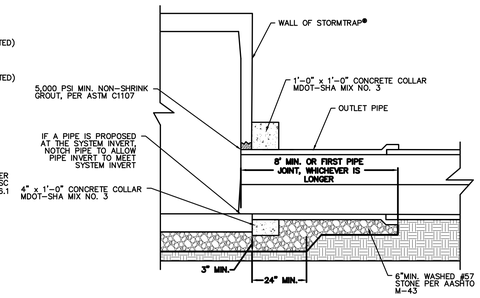
INLET PIPE CONNECTION DETAIL
NOT TO SCALE



5'-0" DOUBLE TRAP
NOT TO SCALE



RISER / LADDER DETAIL
NOT TO SCALE



OUTLET PIPE CONNECTION DETAIL
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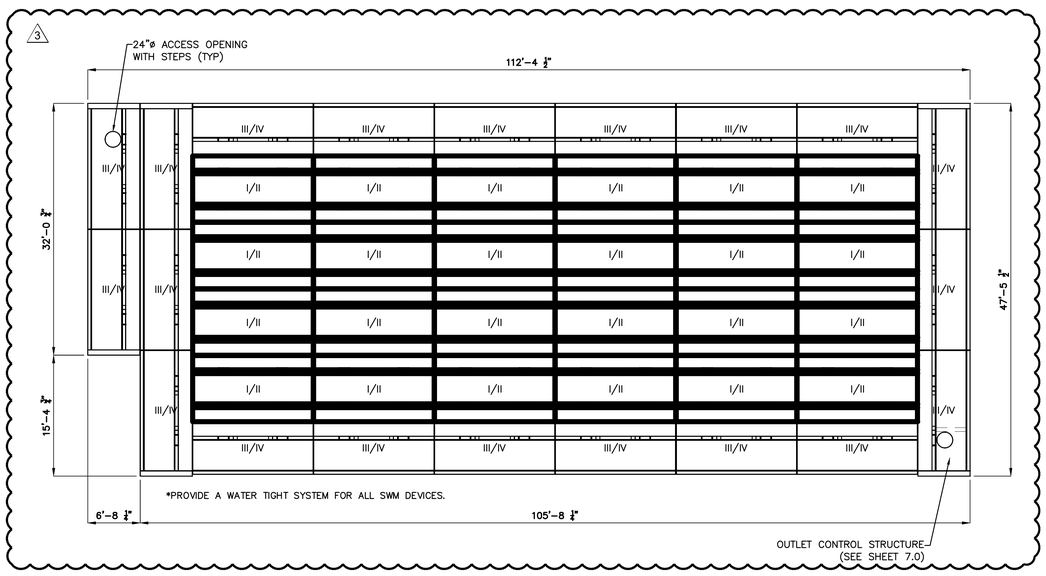

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800 WYMAN PARK DRIVE, SUITE 300
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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

201 WAVERLEY DRIVE, FREDERICK, MD

TAX MAP: 406 PARCEL: 1539, PB:100 P. 58 ELECTION DISTRICT: 02

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JEB	Drawn
Scale	1"=60'	JRB	Checked
Date	03/16/2020	SPB	Approved

Drawing Title: UGS DETAILS

Drawing Number: C-4S

Sheet Of

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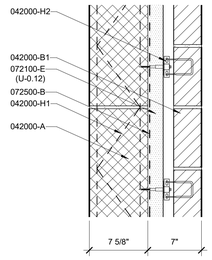
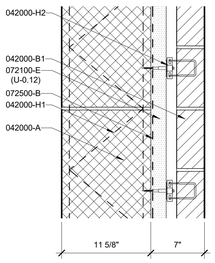
WALL TYPES (EXTERIOR)

TYPE B MASONRY MASS



TYPE B.01
1 1/2" = 1'-0"



TYPE B.04
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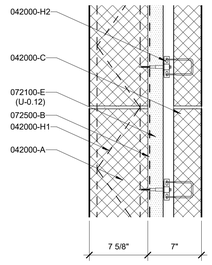

TYPE B.12
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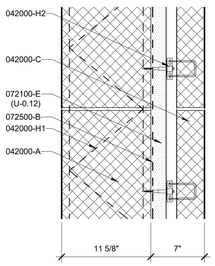
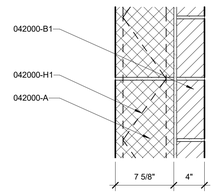
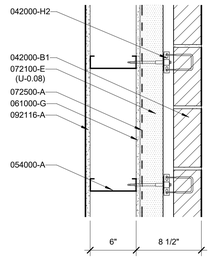


TYPE B.13
1 1/2" = 1'-0"



TYPE S.01
1 1/2" = 1'-0"

TYPE C METAL STUD CAVITY



TYPE C.02
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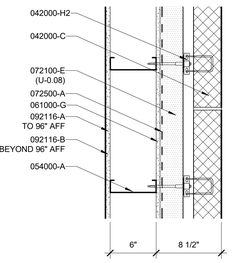
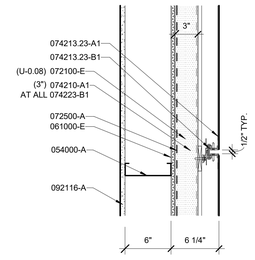


TYPE C.12
1 1/2" = 1'-0"

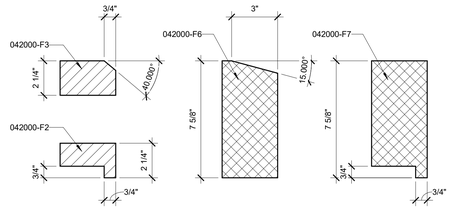
TYPE D METAL STUD RAINSCREEN



TYPE D.02
1 1/2" = 1'-0"

TYPE B.13
1 1/2" = 1'-0"

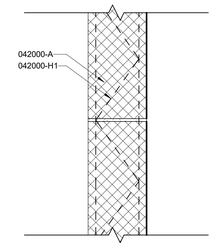
TYPE S.01
1 1/2" = 1'-0"



5 AC.1 MASONRY SPECIAL SHAPES
3" = 1'-0"

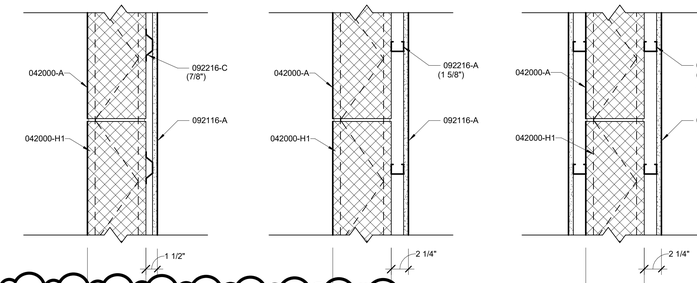
WALL TYPES (INTERIOR)

TYPE 1 SLABS-ON-GRADE



1.01 PLAN 3 5/8" — STC = 44
1.02 PLAN 5 5/8" — 2 HOUR FIRE RATED (UL U906), STC = 46
1.03 PLAN 7 5/8" — 2 HOUR FIRE RATED (UL U906), STC = 48
1.04 PLAN 9 5/8" — 2 HOUR FIRE RATED (UL U906), STC = 50
1.05 PLAN 11 5/8" — 2 HOUR FIRE RATED (UL U906), STC = 50

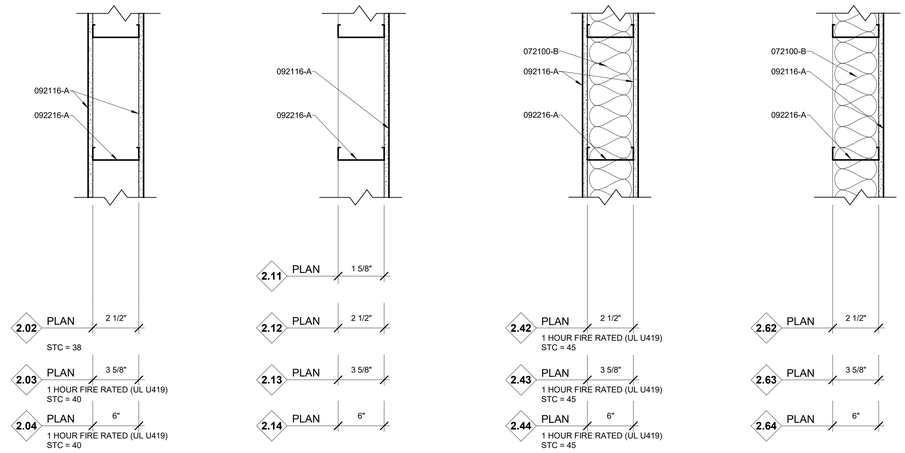
TYPE 3 ELEVATED SLABS



1.11 PLAN 3 5/8" — STC = 44
1.12 PLAN 5 5/8" — 2 HOUR FIRE RATED (UL U906), STC = 46
1.13 PLAN 7 5/8" — 3 HOUR FIRE RATED (UL U914), STC = 48
1.14 PLAN 9 5/8" — 3 HOUR FIRE RATED (UL U914), STC = 50
1.15 PLAN 11 5/8" — 3 HOUR FIRE RATED (UL U914), STC = 50

1.21 PLAN 3 5/8" — STC = 44
1.22 PLAN 5 5/8" — 2 HOUR FIRE RATED (UL U906), STC = 46
1.23 PLAN 7 5/8" — 3 HOUR FIRE RATED (UL U914), STC = 48
1.24 PLAN 9 5/8" — 3 HOUR FIRE RATED (UL U914), STC = 50
1.25 PLAN 11 5/8" — 3 HOUR FIRE RATED (UL U914), STC = 50

1.22X PLAN 5 5/8" — 2 HOUR FIRE RATED (UL U906), STC = 46

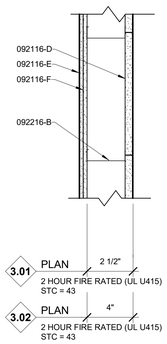


2.02 PLAN 2 1/2" — STC = 38
2.03 PLAN 3 5/8" — 1 HOUR FIRE RATED (UL U419), STC = 40
2.04 PLAN 6" — 1 HOUR FIRE RATED (UL U419), STC = 40

2.11 PLAN 1 5/8"
2.12 PLAN 2 1/2"
2.13 PLAN 3 5/8"
2.14 PLAN 6"

2.42 PLAN 2 1/2" — 1 HOUR FIRE RATED (UL U419), STC = 45
2.43 PLAN 3 5/8" — 1 HOUR FIRE RATED (UL U419), STC = 45
2.44 PLAN 6" — 1 HOUR FIRE RATED (UL U419), STC = 45

2.62 PLAN 2 1/2"
2.63 PLAN 3 5/8"
2.64 PLAN 6"



3.01 PLAN 2 1/2" — 2 HOUR FIRE RATED (UL U415), STC = 43
3.02 PLAN 4" — 2 HOUR FIRE RATED (UL U415), STC = 43

EXTEND ALL WALLS TO BOTTOM OF DECK ABOVE, UNO

GENERAL NOTES:

1. PROVIDE FIRE-RATED ASSEMBLIES WHERE FIRE RESISTANT CONSTRUCTION IS INDICATED IN CS SERIES DRAWINGS.
2. SOUND TRANSMISSION COEFFICIENT (STC) RATINGS NOTED IN THE METAL FRAMING DETAILS ABOVED ARE BASED ON 25 GAUGE STUDS SPACED 16" O.C.

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

042000-A	CONCRETE MASONRY UNIT, SIZE AS INDICATED
042000-B1	FACE BRICK 1, SIZE AS INDICATED
042000-C	DECORATIVE CMU (REFER TO A3 SERIES FOR COLOR, PATTERN AND BOND)
042000-F2	FACE BRICK 1, SPECIAL SHAPE 1
042000-F3	FACE BRICK 1, SPECIAL SHAPE 2
042000-F6	DECORATIVE CMU, SPECIAL SHAPE 1
042000-F7	DECORATIVE CMU, SPECIAL SHAPE 2
042000-H1	JOINT REINFORCEMENT
042000-H2	MASONRY TIE
054000-A	COLD-FORMED STEEL FRAMING, SIZE AS INDICATED
061000-E	EXTERIOR PLYWOOD SHEATHING, FIRE-RETARDANT TREATED; 1/2" UNO
061000-G	EXTERIOR GYPSUM SHEATHING, 1/2" UNO
072100-B	BATT INSULATION, 5 1/2" UNO (OR MAX THICKNESS FOR LOCATION)
072100-E	MINERAL WOOL INSULATION
072500-A	NON-COMBUSTIBLE AIR & WEATHER RESISTIVE BARRIER, SHEET-APPLIED
072500-B	NON-COMBUSTIBLE AIR & WEATHER RESISTIVE BARRIER, FLUID-APPLIED
074210-A1	Z GIRT, SIZE AS INDICATED
074213.23-A1	METAL COMPOSITE WALL PANEL, SIZE AS INDICATED
074213.23-B1	ATTACHMENT CLIP
092116-A	ABUSE RESISTANT WALLBOARD, 5/8" THICKNESS UNO
092116-B	GYPSUM BOARD, TYPE 'X', 5/8" THICKNESS UNO
092116-D	GYPSUM BOARD, SHAFTLINER PANELS, 1" THICKNESS
092116-E	ABUSE RESISTANT WALLBOARD, TYPE 'C', 1/2" THICKNESS
092116-F	GYPSUM BOARD, TYPE 'C', 1/2" THICKNESS
092216-A	NON-STRUCTURAL METAL STUD, SIZE AS INDICATED
092216-B	NON-STRUCTURAL METAL SHAFTWALL STUD, SIZE AS INDICATED
092216-C	HAT SHAPED METAL FURRING CHANNEL, SIZE AS INDICATED

12 6 0 12
SCALE OF INCHES
1 1/2" = 1'-0"

ISSUED FOR BID

Seal:

Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JTH/JND	Drawn
Scale	As indicated	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: CONSTRUCTION TYPES

Drawing Number: AC.1

Sheet Of

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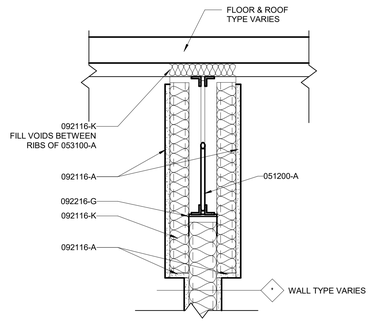
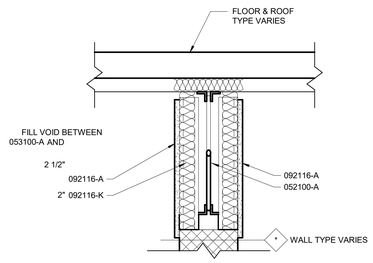
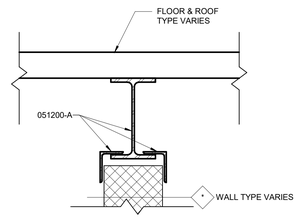


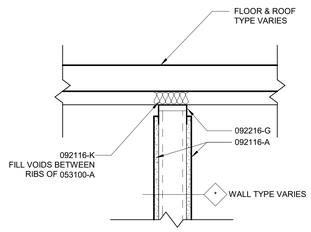
1 AC.3 T.O. WALL @ JOIST, NON-RATED STUD (TYP)
1 1/2" = 1'-0"



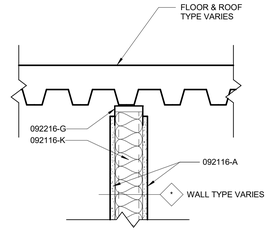
2 AC.3 T.O. WALL @ JOIST, NON-RATED CMU (TYP)
1 1/2" = 1'-0"



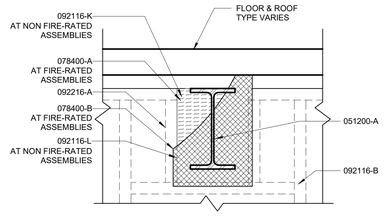
3 AC.3 T.O. WALL @ BEAM, NON-RATED CMU (TYP)
1 1/2" = 1'-0"



4 AC.3 T.O. WALL, NON-RATED STUD (A)
1 1/2" = 1'-0"

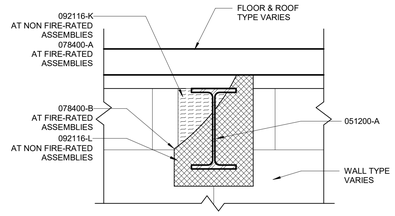


5 AC.3 T.O. WALL, NON-RATED STUD (B)
1 1/2" = 1'-0"



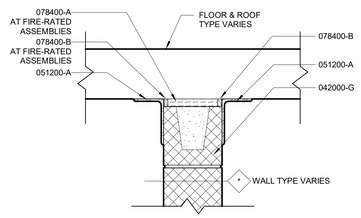
PROVIDE MATERIALS AND CONSTRUCTION ACCORDING TO UL # HW-D-0192
WHERE FIRE RESISTANT CONSTRUCTION IS INDICATED ON CS SERIES.

6 AC.3 BEAM PENETRATION, STUD WALL (TYP)
1 1/2" = 1'-0"



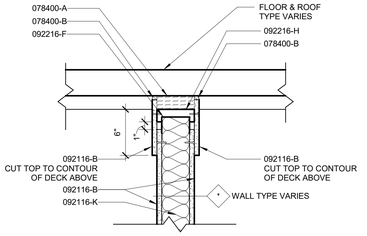
PROVIDE MATERIALS AND CONSTRUCTION ACCORDING TO UL # HW-D-0192
WHERE FIRE RESISTANT CONSTRUCTION IS INDICATED ON CS SERIES.

7 AC.3 BEAM PENETRATION, CMU WALL (TYP)
1 1/2" = 1'-0"



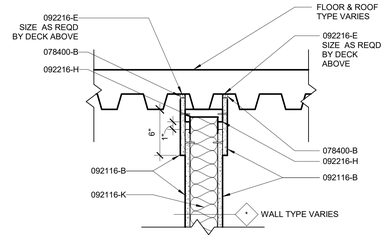
PROVIDE MATERIALS AND CONSTRUCTION ACCORDING TO UL # HW-D-0092
WHERE FIRE RESISTANT CONSTRUCTION IS INDICATED ON CS SERIES.

8 AC.3 T.O. WALL, RATED CMU (TYP)
1 1/2" = 1'-0"



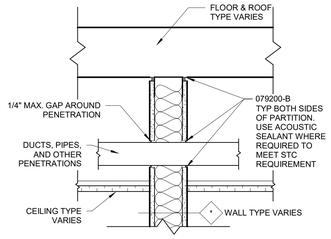
PROVIDE MATERIALS AND CONSTRUCTION ACCORDING TO UL # HW-D-0060
WHERE FIRE RESISTANT CONSTRUCTION IS INDICATED ON CS SERIES.

9 AC.3 T.O. WALL, RATED STUD (A)
1 1/2" = 1'-0"



PROVIDE MATERIALS AND CONSTRUCTION ACCORDING TO UL # HW-D-0060
WHERE FIRE RESISTANT CONSTRUCTION IS INDICATED ON CS SERIES.

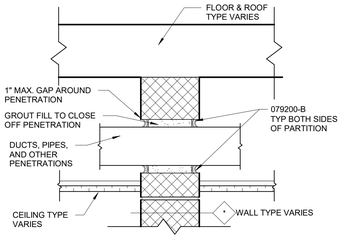
10 AC.3 T.O. WALL, RATED STUD (B)
1 1/2" = 1'-0"



NOTES:

1. DUCTS, PIPES, AND OTHER PENETRATIONS ARE NOT TO MAKE RIGID CONTACT WITH GWB OR STUDS. CENTER IN PARTITION OPENING.
2. PROVIDE HANGERS TO SUPPORT DUCTS AND PIPES. DO NOT CARRY WEIGHT ON PARTITION.
3. USE GWB FILLER PIECES TO CLOSE OFF LARGE OPENINGS AROUND DUCTS.
4. SEAL ALL PENETRATIONS WITH RESILIENT SEALANT TO CLOSE GAPS. USE FIRE SEALANT AT RATED PARTITIONS.

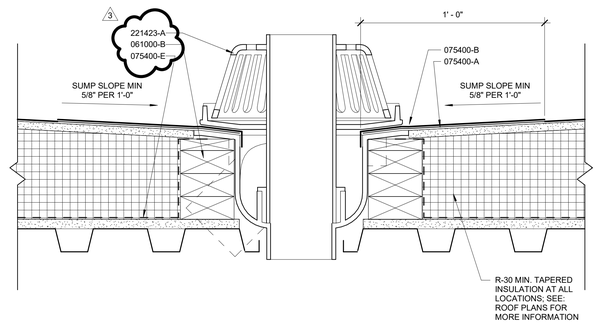
11 AC.3 STUD WALL PENETRATION (TYP)
1 1/2" = 1'-0"



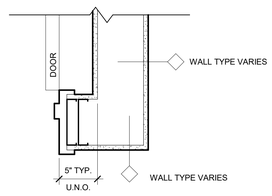
NOTES:

1. DUCTS, PIPES, AND OTHER PENETRATIONS ARE NOT TO MAKE RIGID CONTACT WITH CMU OR MASONRY. CENTER IN PARTITION OPENING.
2. PROVIDE HANGERS TO SUPPORT DUCTS AND PIPES. DO NOT CARRY WEIGHT ON PARTITION.
3. USE CMU OR BRICK FILLER PIECES TO CLOSE OFF LARGE OPENINGS AROUND DUCTS.
4. SEAL ALL PENETRATIONS WITH RESILIENT SEALANT TO CLOSE GAPS. USE FIRE SEALANT AT RATED PARTITIONS.

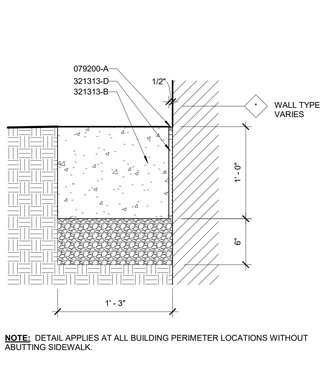
12 AC.3 CMU WALL PENETRATION (TYP)
1 1/2" = 1'-0"



15 AC.3 ROOF DRAIN TYP
3" = 1'-0"

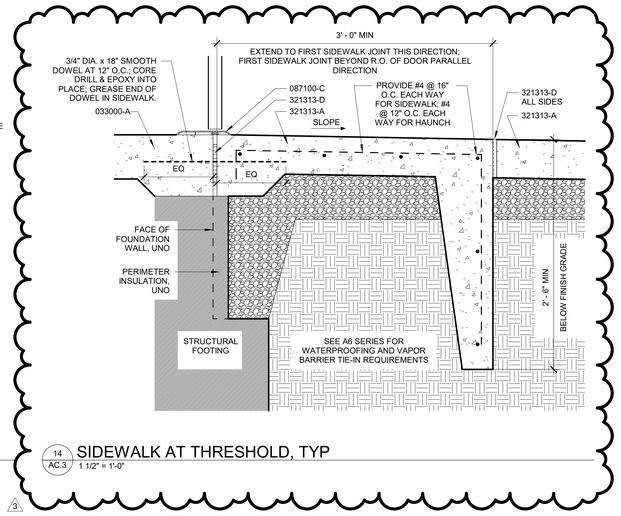


16 AC.3 DOOR JAMB LOCATION, TYP
1 1/2" = 1'-0"

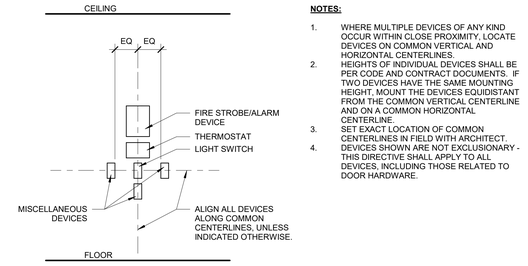


NOTE: DETAIL APPLIES AT ALL BUILDING PERIMETER LOCATIONS WITHOUT ABUTTING SIDEWALK.

13 MOW STRIP, TYP
1 1/2" = 1'-0"



14 AC.3 SIDEWALK AT THRESHOLD, TYP
1 1/2" = 1'-0"



NOTES:

1. WHERE MULTIPLE DEVICES OF ANY KIND OCCUR WITHIN CLOSE PROXIMITY, LOCATE DEVICES ON COMMON VERTICAL AND HORIZONTAL CENTERLINES.
2. HEIGHTS OF INDIVIDUAL DEVICES SHALL BE PER CODE AND CONTRACT DOCUMENTS. IF TWO DEVICES HAVE THE SAME MOUNTING HEIGHT, MOUNT THE DEVICES EQUIDISTANT FROM THE COMMON VERTICAL CENTERLINE AND ON A COMMON HORIZONTAL CENTERLINE.
3. SET EXACT LOCATION OF COMMON CENTERLINES IN FIELD WITH ARCHITECT. DEVICES SHOWN ARE NOT EXCLUSIONARY - THIS DIRECTIVE SHALL APPLY TO ALL DEVICES, INCLUDING THOSE RELATED TO DOOR HARDWARE.

UNIVERSAL INTERIOR ELEVATIONS AT DEVICES

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

033000-A	CONCRETE SLAB ON GRADE (REFER TO STRUCTURAL FOR MORE INFORMATION)
042000-G	BOND BEAM (REFER TO STRUCTURAL FOR MORE INFORMATION)
051200-A	STRUCTURAL STEEL (REFER TO STRUCTURAL FOR MORE INFORMATION)
052100-A	STEEL JOIST (REFER TO STRUCTURAL FOR MORE INFORMATION)
053100-A	STEEL DECK (REFER TO STRUCTURAL FOR MORE INFORMATION)
061000-B	BLOCKING
075400-A	THERMOPLASTIC (TPO) MEMBRANE
075400-B	FLEXIBLE FLASHING
075400-E	VAPOR RETARDER
078400-A	FIRESTOPPING
078400-B	FIRESTOPPING JOINT SEALANT
079200-A	JOINT SEALANT AND BACKER ROD
079200-B	JOINT SEALANT
087100-C	METAL THRESHOLD
092116-A	ABUSE RESISTANT WALLBOARD, 5/8" THICKNESS UNO
092116-B	GYPSUM BOARD, TYPE 'X', 5/8" THICKNESS UNO
092116-K	ACOUSTIC INSULATION, SIZE AS INDICATED
092116-L	WIRE MESH FOR CONTAINMENT OF SOUND ATTENUATION
092216-A	NON-STRUCTURAL METAL STUD, SIZE AS INDICATED
092216-E	Z-FURRING, SIZE AS INDICATED
092216-F	NON-STRUCTURAL METAL STUD TRACK
092216-G	DEFLECTION TRACK
092216-H	FIRE STOP TRACK
221423-A	ROOF DRAIN (REFER TO AC SERIES & PLUMBING FOR MORE INFORMATION)
321313-A	CONCRETE SIDEWALK (REFER TO CIVIL FOR MORE INFORMATION)
321313-B	CONCRETE MOW STRIP (REFER TO AC SERIES & CIVIL FOR MORE INFORMATION)
321313-D	ISOLATION JOINT (REFER TO CIVIL FOR MORE INFORMATION)

12 6 0 12
SCALE OF INCHES
1 1/2" = 1'-0"

6 3 0 6
SCALE OF INCHES
3" = 1'-0"

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JTH	Drawn
Scale	As indicated	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: TYPICAL DETAILS

Drawing Number: AC.3

Sheet: Of

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1 AS.1 ARCHITECTURAL SITE PLAN
1" = 40'-0"

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

CONSTRUCTION NOTES

NOTE #	DESCRIPTION
1.1	PROJECT WORK POINT (REFER TO A0.1 FOR CONTINUATION)
1.4	CENTER WALL ON COLUMN
5.1	PROJECT WORK POINT (REFER TO AS SERIES FOR MORE INFORMATION)
9.1	ALIGN ACP GRID TO FACE OF WALL

40 0 40 80
SCALE OF FEET
1" = 40'-0"

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JTH	Drawn
Scale	1" = 40'-0"	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: ARCHITECTURAL SITE PLAN

Drawing Number: AS.1

Sheet Of

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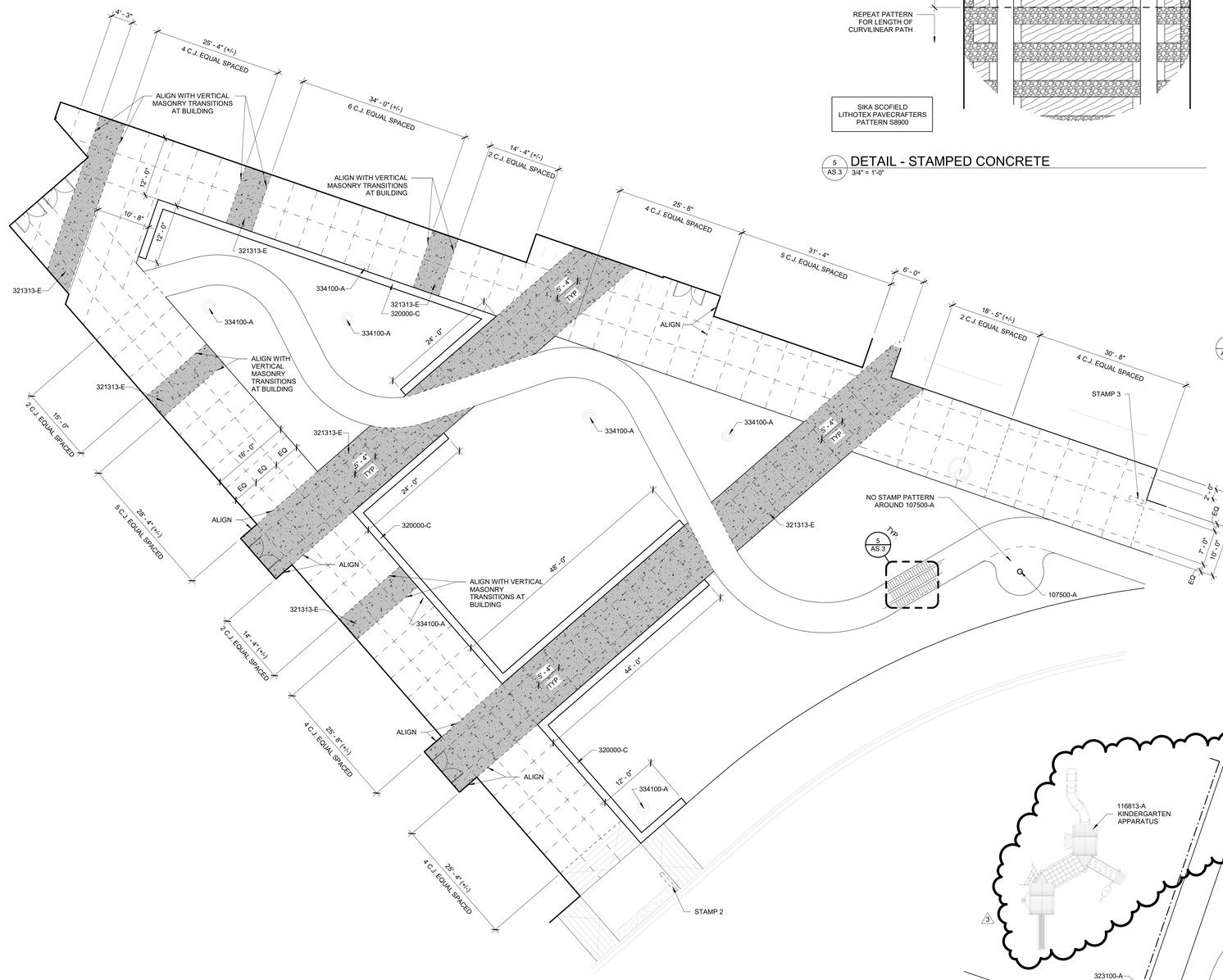
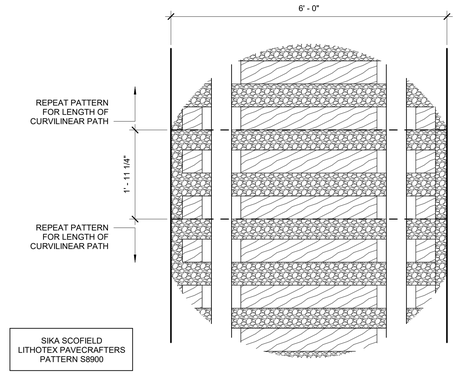
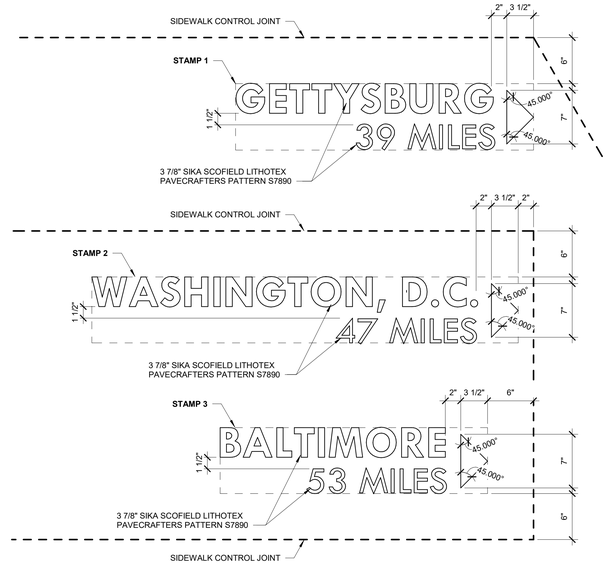


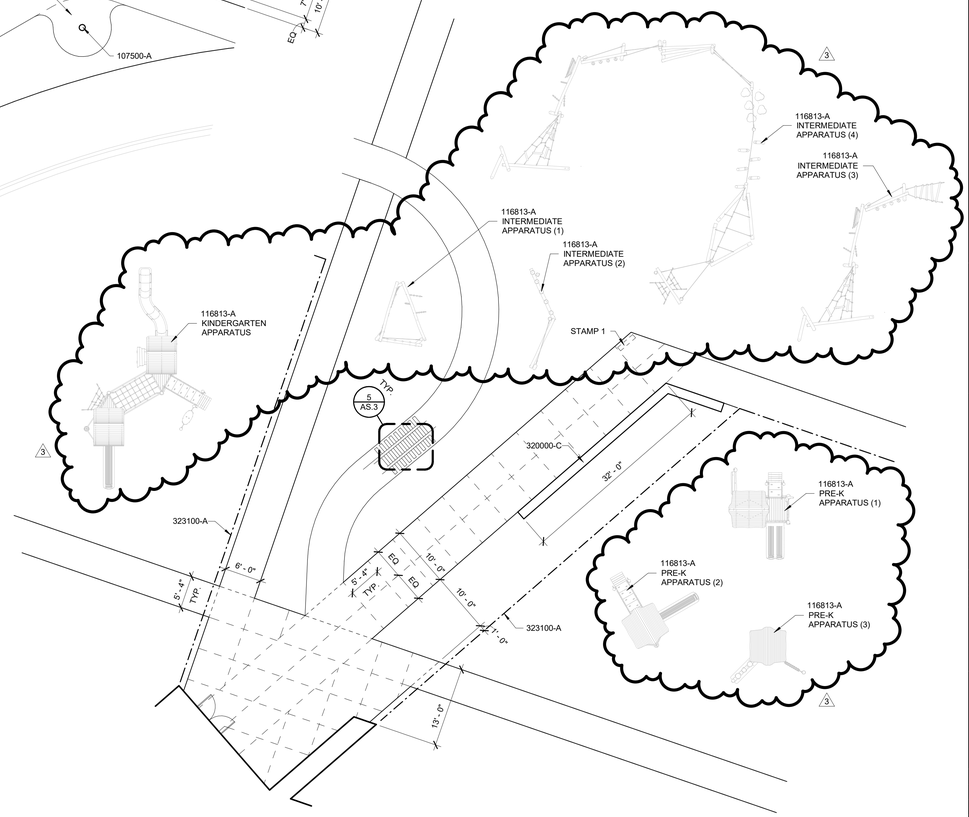
1 AS.3 ENLARGED SITE PLAN - MAIN ENTRY
1" = 10'-0"



5 AS.3 DETAIL - STAMPED CONCRETE
3/4" = 1'-0"



3 AS.3 DETAIL - STAMPED CONCRETE TEXT
1 1/2" = 1'-0"



2 AS.3 ENLARGED SITE PLAN - BUS ENTRY
1" = 10'-0"

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

107500-A	FLAGPOLE
116813-A	PLAYGROUND EQUIPMENT
320000-C	CONCRETE SEAT WALL (REFER TO CIVIL FOR MORE INFORMATION)
321313-E	DECORATIVE COLOR CONCRETE (REFER TO CIVIL FOR MORE INFORMATION)
323100-A	CHAIN LINK FENCE (REFER TO CIVIL FOR MORE INFORMATION)
334100-A	STORM DRAIN (REFER TO CIVIL FOR MORE INFORMATION)

1 0 1 2 3
SCALE OF FEET
3/4" = 1'-0"

12 6 0 12
SCALE OF INCHES
1 1/2" = 1'-0"

10 0 10 20
SCALE OF FEET
1" = 10'-0"

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JTH/JND	Drawn
Scale	As indicated	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: ARCHITECTURAL ENLARGED SITE PLAN

Drawing Number: AS.3

Sheet: Of

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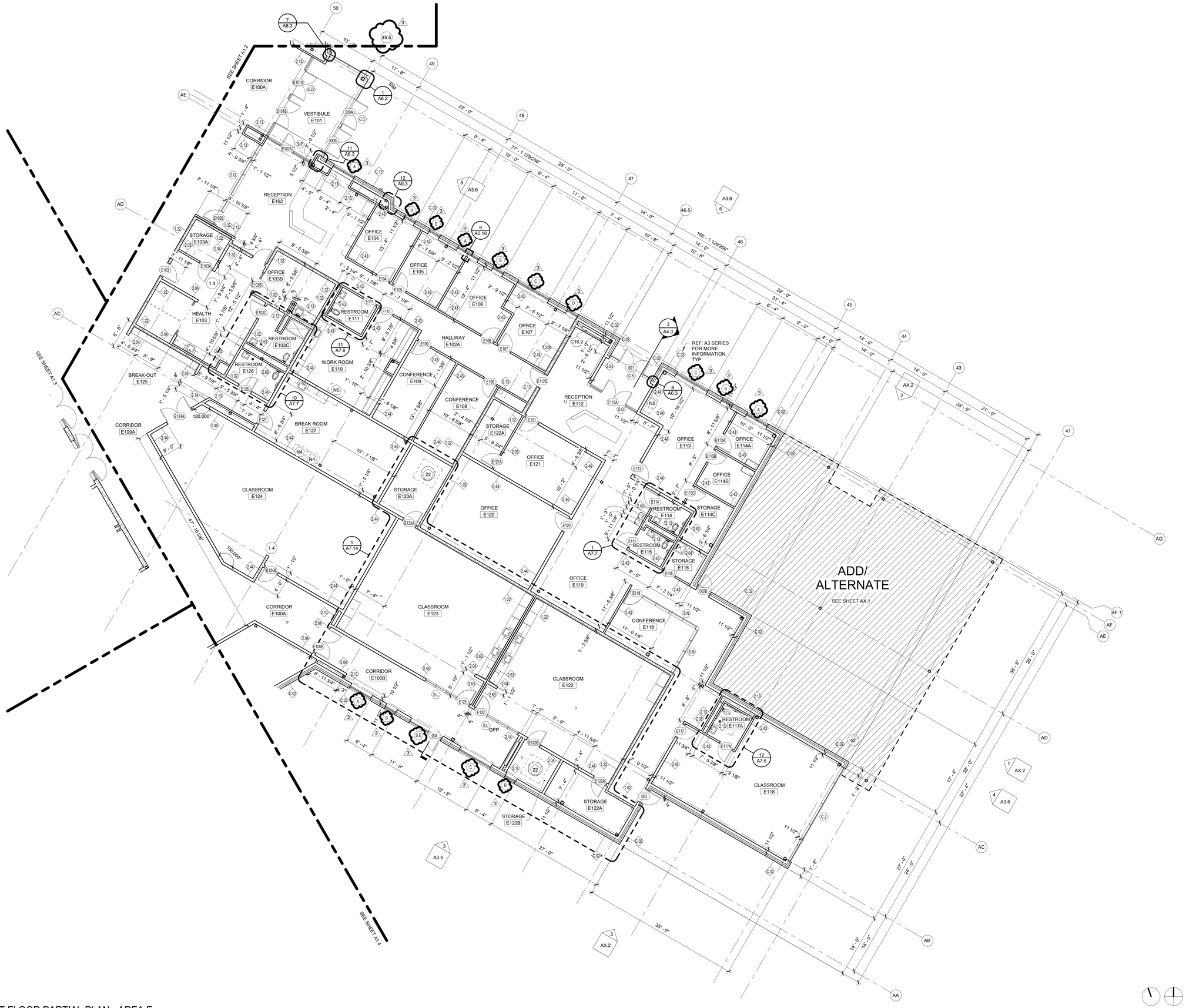
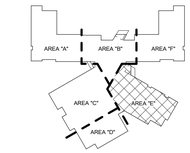


1 A1.5 FIRST FLOOR PARTIAL PLAN - AREA E
1/8" = 1'-0"

KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

GENERAL NOTES:

1. ALL WINDOW DIMENSIONS ARE TO THE EDGE OF THE FINISHED MASONRY OPENING.

CONSTRUCTION NOTES

NOTE #	DESCRIPTION
1.1	PROJECT WORK POINT (REFER TO A0.1 FOR CONTINUATION)
1.4	CENTER WALL ON COLUMN
5.1	PROJECT WORK POINT (REFER TO AS SERIES FOR MORE INFORMATION)
9.1	ALIGN ACP GRID TO FACE OF WALL

8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

ISSUED FOR BID

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Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21

FREDERICK COUNTY PUBLIC SCHOOLS

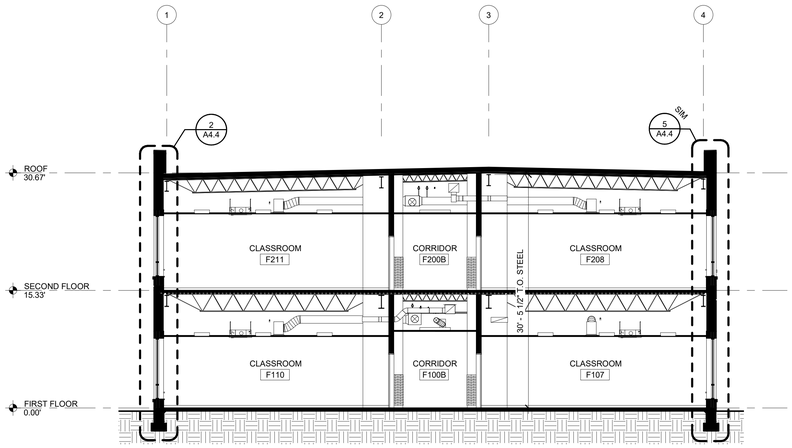
Job No.	#18045	JND	Drawn
Scale	As indicated	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: FIRST FLOOR PLAN - AREA E

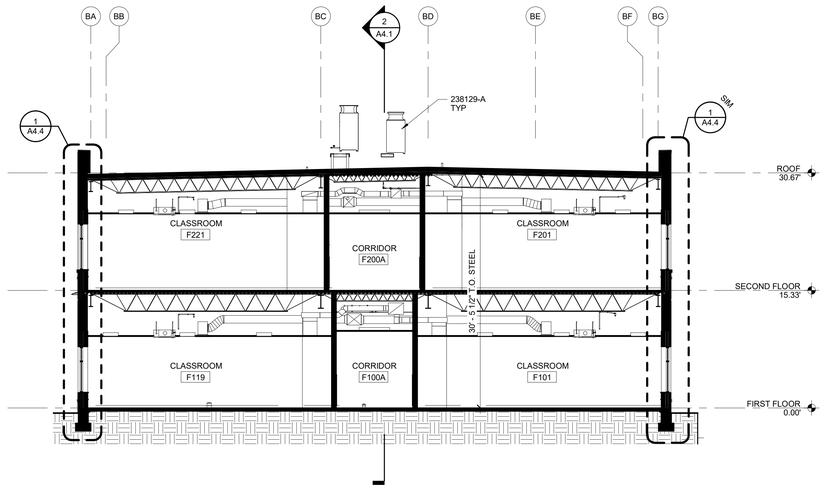
Drawing Number: A1.5

Sheet Of

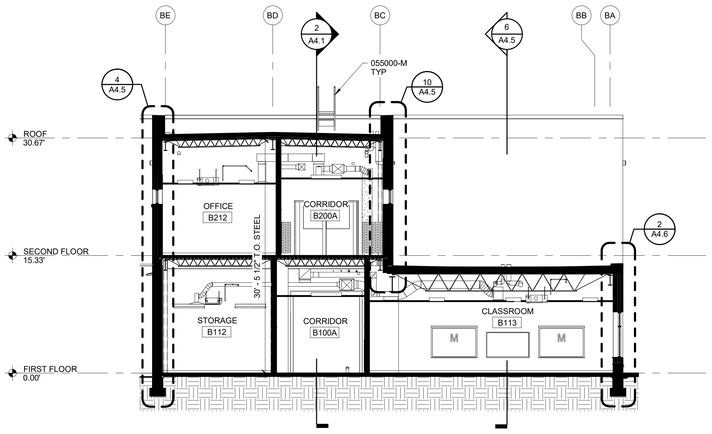
C:\Autodesk\Local Files\18045-WAVES-CD_2019-8_jhearn@gwwoinc.com.rvt
4/2/2020 10:52:55 AM



1 A4.2 BUILDING SECTION
1/8" = 1'-0"
FROM 1 / A1.1



2 A4.2 BUILDING SECTION
1/8" = 1'-0"
FROM 1 / A1.1



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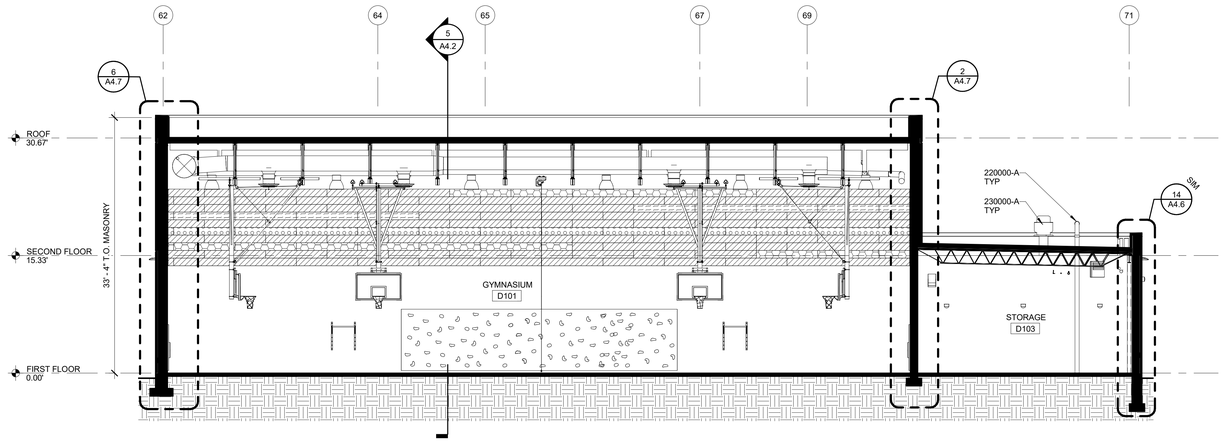
FROM 1 / A1.2



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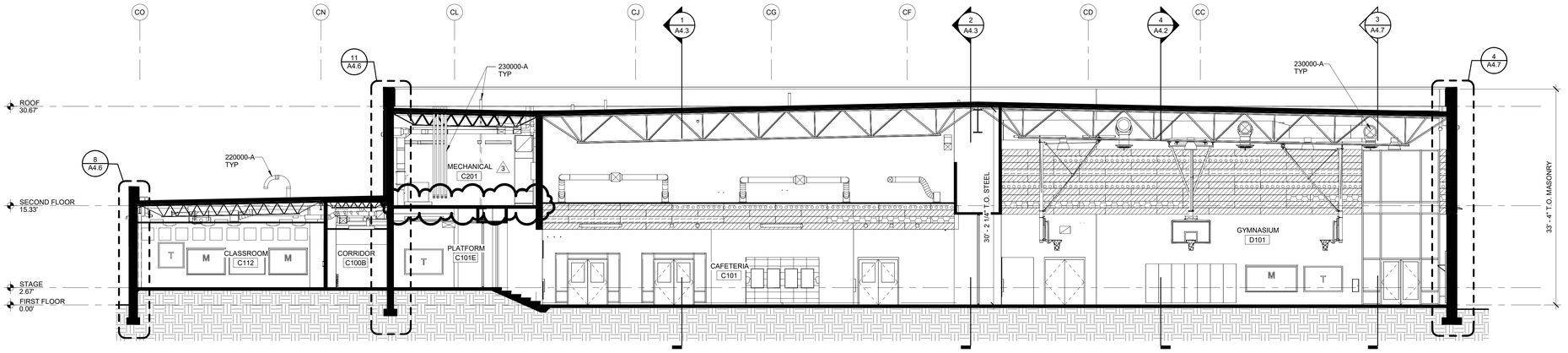
FROM 1 / A1.4



5 A4.2 BUILDING SECTION
1/8" = 1'-0"
FROM 1 / A1.3

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

055000-M	PREFABRICATED ALUMINUM LADDER
220000-A	PLUMBING (REFER TO PLUMBING FOR MORE INFORMATION)
230000-A	MECHANICAL (REFER TO MECHANICAL FOR MORE INFORMATION)
238129-A	CONDENSING UNIT (REFER TO MECHANICAL FOR MORE INFORMATION)

8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

ISSUED FOR BID

Seal:

Seal:

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-0009

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I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 19910, EXPIRATION DATE 11/04/2020

Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21
FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	EMG	Drawn
Scale	1/8" = 1'-0"	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: BUILDING SECTIONS
Drawing Number: A4.2
Sheet: Of

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DOOR SCHEDULE - FIRST FLOOR

OPENING NO.	LOCATION FROM	LOCATION TO	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME SIDELIGHT WIDTH	FRAME TRANSOM HEIGHT	FRAME MATERIAL	FRAME FINISH	DETAIL REF. HEAD	DETAIL REF. JAMB	FIRE RATING	HARDWARE SET	GLAZING TYPE	ACCESS CONTROL	SMOKE CONTROL	COMMENTS
000A		E101	FGFG	6' - 0"	7' - 0"	AL	-				-	-	*	*		X1.2	GL-3		■	SEE NOTE 1
000B		E101	FGFG	6' - 0"	7' - 0"	AL	-	-					*	*		X1.1	GL-3	■		SEE NOTE 3
001	E112		FGFG	6' - 0"	7' - 0"	AL	-				-	-				X1	GL-3	■		SEE NOTE 1
002B	E112A		F	3' - 0"	7' - 0"	INSUL. HM	PTD	F1B			HM	PTD	HC.02	JC.02		X1.5	-	■		
003	E112A		F	3' - 0"	7' - 0"	INSUL. HM	PTD	F1B			HM	PTD	HC.02	JC.02		X1.5	-	■		
004	E100B		FG	3' - 0"	7' - 0"	AL	-				-	-				X1.7	GL-3	■		SEE NOTE 1
005	D101		FGFG	6' - 0"	7' - 0"	AL	-				-	-	*	*		X1	GL-3	■		SEE NOTE 1
006		D101	FGFG	6' - 0"	7' - 0"	AL	-				-	-	*	*		X1	GL-3	■		SEE NOTE 1
007	D103		FF	6' - 0"	7' - 0"	INSUL. HM	PTD	F1			HM	PTD	HC.02	JC.02		X3	-	■		
008	D100A		NN	6' - 0"	7' - 0"	INSUL. HM	PTD	F1			HM	PTD	HC.02	JC.02		X1.3	GL-3	■		
009	C102		F	4' - 0"	7' - 0"	INSUL. HM	PTD	F1B			HM	PTD	HC.02	JC.02		X4	-	■		
010	C106		FF	6' - 0"	7' - 0"	INSUL. HM	PTD	F2		2' - 2 1/2"	HM	PTD	HC.02	JC.02		X3		■		LOUVER TRANSOM
011		C100C	NN	6' - 0"	7' - 0"	INSUL. HM	PTD	F1			HM	PTD	HC.02	JC.02		X1.3	GL-3	■		
012	C107		FF	6' - 0"	7' - 0"	INSUL. HM	PTD	F2		2' - 2 1/2"	HM	PTD	HC.02	JC.02		X3		■		LOUVER TRANSOM
013	C108		F	4' - 0"	7' - 0"	INSUL. HM	PTD	F2	1' - 2"	2' - 3"	HM	PTD	HC.02	JC.02		X1.4		■		LOUVER TRANSOM
014	C109		F	3' - 0"	7' - 0"	INSUL. HM	PTD	F2	1' - 2"	1' - 4"	HM	PTD	HC.02	JC.02		X4		■		LOUVER TRANSOM
015	C109		OH	10' - 0"	8' - 8"	INSUL. MTL							HC.02	JC.02						
016		C100A	FG	3' - 0"	7' - 0"	AL	-				-	-				X1.7	GL-3	■		SEE NOTE 1
017	A100B		FGFG	6' - 0"	7' - 0"	AL	-				-	-	*	*	3	X1	GL-3	■		SEE NOTE 1
018		A107	NN	6' - 0"	7' - 0"	INSUL. HM	PTD	F1			HM	PTD	HB.01	JB.01		X1.3	GL-3	■		
019	A112		NN	6' - 0"	7' - 0"	INSUL. HM	PTD	F1		2' - 0"	HM	PTD	HB.12	JB.12		X1.3	GL-3	■		
020	A112		N	3' - 0"	7' - 0"	INSUL. HM	PTD	F3	1' - 2"	2' - 0"	HM	PTD	HB.12	JB.12		X1.6	GL-3			
021		B110	FGFG	6' - 0"	7' - 0"	AL	-	-			-	-	*	*		X1.8	GL-3	■		SEE NOTE 3
022	B112		F	4' - 0"	7' - 0"	INSUL. HM	PTD	F1B			HM	PTD	HC.12	JC.12		X4	-	■		
023	F108		N	3' - 0"	7' - 0"	INSUL. HM	PTD	F3	1' - 2"	2' - 0"	HM	PTD	HB.12	JB.12		X1.6	GL-3			
024	F108		NN	6' - 0"	7' - 0"	INSUL. HM	PTD	F1		2' - 0"	HM	PTD	HB.12	JB.12		X1.3	GL-3	■		
025	F113		NN	6' - 0"	7' - 0"	INSUL. HM	PTD	F1			HM	PTD	HB.01	JB.01		X1.3	GL-3	■		
026		F100B	FGFG	6' - 0"	7' - 0"	AL	-				-	-				X1	GL-3	■		SEE NOTE 1
A100	A100A	B100A		9' - 4"	10' - 0"	FABRIC	-				-	-			120 MIN		-		■	
A101	A101	A100A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A101A	A101A	A101	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12				SEE NOTE 2
A102	A100A	A102	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A102A	A102	A102A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12	-			SEE NOTE 2
A103	A105	A103	F	3' - 0"	7' - 0"			F1A								7				
A103A	A103A	A103	F	3' - 6"	7' - 0"	HM	PTD	F1A			HM	PTD	H2.02	J2.02		N10.7	-			SEE NOTE 1
A104	A104	A105	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N4	-		■	SEE NOTE 2
A106	A100B	A106	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A108	A108	A100B	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A109	A100B	A109	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A110	A110	A100B	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A111	A100B	A111	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A112	A112	A100B	NN	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H1.03	J1.03		N7	GL-12		■	
A113	A100B	A113	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A114	A114	A100B	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A116	A116	A100A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N11	-		■	
A117	A117	A100A		3' - 0"	7' - 0"													■		ELEVATOR DOOR
A118	A118	A100A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A118A	A118A	A118	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12	-			SEE NOTE 2
A119	A100A	A119	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A119A	A119	A119A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12	-			SEE NOTE 2
B100A	E100A	B100A	GG	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H2.03	J2.03		N17	GL-11	■	■	
B101	E100A	B101	GG	6' - 0"	7' - 0"	WD	-				-	-	*	*		N6.3	GL-11		■	SEE NOTE 1
B101A	B101	B101A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11			
B101B	B101	B101B	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD				N14	GL-11			
B101C	B109	B101	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD				N1.2	GL-11			
B101D	B101	B101D	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11			
B102	C100A	B102	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N10.2	-		■	
B103	B103	B100A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N10.2	-		■	
B104	B100A	B104	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
B104A	B104	B104A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12	-			SEE NOTE 2
B105	B105	B100A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
B106	B106	B100A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11		■	
B107	B100A	B107	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11		■	
B108	B108	B100A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11		■	
B109	B109	B100A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
B110	B100A	B110	FGFG	6' - 0"	7' - 0"	AL	-	-			-	-	*	*		N8	GL-3	■		SEE NOTE 1
B111	B100A	B111	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11		■	
B112	B100A	B112	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N10.2	-		■	
B113	B113	B100A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
B113A	B113A	B113	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.43	J2.43		N12	-			SEE NOTE 2
C100A	C100A	B100A	GG	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H2.03	J2.03		N17	GL-11	■	■	
C100B	C100B	B101	G	3' - 0"	7' - 0"	WD	-				-	-	*	*		N6.4	GL-11		■	SEE NOTE 1
C100C	C100B	C100C	NN	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H1.02	J1.02		N6	-		■	
C101	C101	E100A	GG	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H1.03	J1.03		N7.1	-		■	
C101A	C101	E100A	GG	6' - 0"	7' - 0"	WD							*	*	90 MIN	N7.1	GL-12		■	
C101B	C101	E100A	GG	6' - 0"	7' - 0"	WD							*	*	90 MIN	N7.1	GL-12		■	
C101D	C101C	C101D	F	3' - 0"	7' - 0"	WD	-	F1C			HM	PTD	H1.05	J1.05		N10.1	-			
C101F	C101	C101F	FF	6' - 0"	7' - 0"	HM	PTD	F1			HM	PTD	H1.05	J1.05		N10.5	-			SEE NOTE 1
C102A	C102	C101	GG	6' - 0"	7' - 0"	WD	-						*	*		N6.2	GL-11			SEE NOTE 1
C102B	C102	C101	GG	6' - 0"	7' - 0"	WD	-				-	-	*	*		N6.2	GL-11			SEE NOTE 1
C102C	C102	C101	GG	6' - 0"	7' - 0"	WD	-				-	-				N6.2	GL-11			SEE NOTE 1
C102D	C102	C101	GG	6' - 0"	7' - 0"	WD	-				-	-				N6.2	GL-11			SEE NOTE 1
C102E	D100A	C102	N	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N1	-			
C102F	C101	C102	OH	4' - 0"	4' - 6"	MTL														SEE NOTE 5
C103	C102	C103	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N9	-			SEE NOTE 2
C103A	C103A	C103	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N4	-			SEE NOTE 2
C104	C102	C104	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N14	-			
C105	C102	C105	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
C106	C100C	C106	F	3' - 0"	7' - 0"	HM	PTD	F1B			HM	PTD	H1.03	J1.03		N10.4	-		■	SEE NOTE 1
C106A	C106	C106A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11			
C107	C100C	C107	F	3' - 0"	7' - 0"	HM	PTD	F1B			HM	PTD	H1.02	J1.02		N10.6	-		■	SEE NOTE 1
C108	C108	C100C	F	4' - 0"	7' - 0"	HM	PTD	F1B			HM	PTD	H1.02	J1.02		N16			■	
C109	C110	C109	F	3' - 0"	7' - 0"	HM	PTD	F1B			HM	PTD	H1.02	J1.02		N10.1			■	
C110	C100C	C110	N	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N1.1	GL-11		■	
C110A	C110A	C110	F	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N4	-			SEE NOTE 2
C110B	C110	C110B	F	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N4	-			SEE NOTE 2
C113	C113	C100B	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H1.02	J1.02		N11	-		■	
C121	C100A	C121	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N20	-	■	■	
D100A	C101	D100A	NN	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H2.43	J2.43		N6	-			
D101A	D101	D101A	FF	6' - 0"	7' - 0"	HM	PTD	F1			HM	PTD	H1.05	J1.05		N2.1	-			SEE NOTE 1
D101B	D101	E100A	NN	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H1.05	J1.05		N6.5	-		■	
D101C	D101	E100A	NN	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H1.05	J1.05		N6.6	-		■	
D102A	D102A	D102A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N3	-			SEE NOTE 2
D102B	D102B	D102B	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N3	-			SEE NOTE 2
D103	D101	D103	FF	6' - 0"	7' - 0"	HM	PTD	F1			HM	PTD	H1.05	J1.05		N2	-			SEE NOTE 1
D104	D101	D104	N	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.05	J1.05		N1.1	GL-11			
D104A	D104	D104A	F	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N4	-			SEE NOTE 2
D105	D100A	D105	F	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N11.1	-			
E100B	E100B	E100A	GG	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H2.03	J2.03		N7	GL-11		■	
E101A	E101	E100A	FGFG	6' - 0"	7' - 0"	AL	-				-	-	*	*		N8.1	GL-3		■	SEE NOTE 1
E101B	E101	E100A	FGFG	6' - 0"	7' - 0"	AL	-				-	-	*	*		N8	GL-3	■	■	SEE NOTE 1
E102A	E102	E101	FG	3' - 0"	7' - 0"	WD	-				-	-	*	*		N21	GL-11	■		SEE NOTE 1
E102B	E102	E100A	G	3' - 0"	7' - 0"	WD	-				-	-	*	*		N21.1	GL-11	■	■	SEE NOTE 1
E102C	E103	E102	F	3' - 0"	7' - 0"			F1A								N1.3				
E103	E100A	E103	N	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.22	J1.22		N1.6	GL-11		■	
E103A	E103A	E103	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N14.1	-			
E103B	E103	E103B	N	3' - 0"	7' - 0"	WD	-	F2	1' - 2"		HM	PTD	H1.02	J1.02		N1.1	GL-13			
E103C	E103	E103C	F	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N4	-			SEE NOTE 2
E104	E104	E102A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E105	E102A	E105	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E106	E106	E102A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E107	E102A	E107	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E108	E108	E102A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E109	E109	E102A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E110	E110	E102A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1	GL-11			
E111	E102A	E111	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N4	-			SEE NOTE 2
E112A	E112	E112	FGFG	6' - 0"	7' - 0"											N8.3				
E112B	E112	E102A	N	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.22x	J1.22x		N1.7	GL-11	■	■	
E113	E112	E113	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11		■	
E113A	E114A	E113	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E113B	E113	E114B	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N1.1	GL-11			
E113C	E113	E114C	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N14	-			
E114	E114	E112A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N4	-		■	SEE NOTE 2
E115	E112A	E115	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N4	-		■	SEE NOTE 2
E116	E112A	E116	F	3' - 0"	7' - 0"			F1A								N11.1				
E117	E112A	E118	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
E117A	E118	E117A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12	-			SEE NOTE 2
E118	E118	E112A	G	3' - 0"	7' - 0"	WD	-				-	-	*	*		N1.1	GL-11		■	SEE NOTE 1
E120	E119	E120	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
E121	E121	E112	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1.1	GL-11		■	
E121A	E122A	E121	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N14	-			
E122	E100B	E122	G	3' - 0"	7' - 0"	WD	-				-	-	*	*		N1	GL-11		■	SEE NOTE 1
E122A	E122	E122	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N14	-			
E122B	E122B	E122	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N14.1	-			
E123	E123	E100B	G	3' - 0"	7' - 0"	WD	-				-	-	*	*		N1	GL-11		■	SEE NOTE 1
E123A	E123	E123A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N14	-			
E124A	E124	E100A	NN	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H2.03	J2.03		N6.7	GL-11		■	
E124B	E124	E100A	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N6.4	GL-11		■	
E126	E100A	E126	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N4	-			SEE NOTE 2
E127	E100A	E127	N	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	

DOOR SCHEDULE - FIRST FLOOR

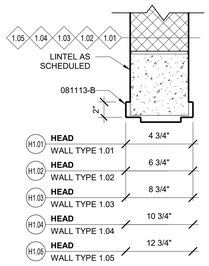
OPENING NO.	LOCATION FROM	LOCATION TO	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME SIDELIGHT WIDTH	FRAME TRANSOM HEIGHT	FRAME MATERIAL	FRAME FINISH	DETAIL REF. HEAD	DETAIL REF. JAMB	FIRE RATING	HARDWARE SET	GLAZING TYPE	ACCESS CONTROL	SMOKE CONTROL	COMMENTS
F100	B100A	F100A		9' - 4"	10' - 0"	FABRIC	-				-	-			120 MIN		-		■	
F101	F101	F100A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
F101A	F101A	F101	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12	-			SEE NOTE 2
F102	F100A	F102	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
F102A	F102	F102A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N12	-			SEE NOTE 2
F103	F103	F100A		3' - 0"	7' - 0"													■		ELEVATOR DOOR
F104	F100A	F104	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N11	-		■	
F106	F100B	F106	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
F107	F107	F100B	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
F108	F100B	F108	NN	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H1.03	J1.03		N7	GL-12		■	
F109	F109	F100B	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.43	J2.43		N1	GL-11		■	
F110	F100B	F110	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.43	J2.43		N1	GL-11		■	
F111	F111	F100B	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
F112	F100B	F112	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
F114	F114	F100B	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
F116	F116	F115	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N4	-		■	SEE NOTE 2
F117	F115	F117	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N10.2	-		■	
F117A	F117A	F117	F	3' - 6"	7' - 0"	HM	PTD	F1A			HM	PTD	H2.02	J2.02		N10.7	-			SEE NOTE 1
F118	F118	F100A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.43	J2.43		N1	GL-11		■	
F118A	F118A	F118	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.43	J2.43		N12	-			SEE NOTE 2
F119	F100A	F119	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.43	J2.43		N1	GL-11		■	
F119A	F119	F119A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.43	J2.43		N12	-			SEE NOTE 2

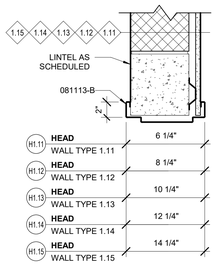
DOOR SCHEDULE - STAGE LEVEL

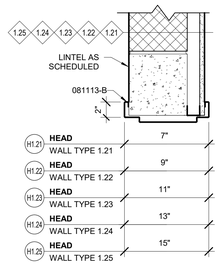
OPENING NO.	LOCATION FROM	LOCATION TO	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME SIDELIGHT WIDTH	FRAME TRANSOM HEIGHT	FRAME MATERIAL	FRAME FINISH	DETAIL REF. HEAD	DETAIL REF. JAMB	FIRE RATING	HARDWARE SET	GLAZING TYPE	ACCESS CONTROL	SMOKE CONTROL	COMMENTS
C101C	C100B	C101C	F	3' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.05	J1.05		N1.5	-		■	
C101E	C101E	C100B	FF	6' - 0"	7' - 0"	WD	-	F1			HM	PTD	H1.05	J1.05		N1.4	-		■	
C111	C100B	C111	G	4' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N6.1	GL-11		■	
C111A	C111	C111A	F	4' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N10.3	-			
C112	C100B	C112	G	4' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N6.1	GL-11		■	
C112A	C112	C111A	F	4' - 0"	7' - 0"	WD	-	F1B			HM	PTD	H1.02	J1.02		N10.3	-			

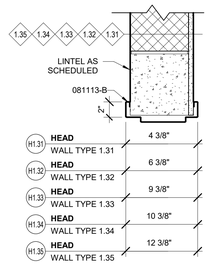
DOOR SCHEDULE - SECOND FLOOR

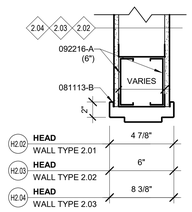
OPENING NO.	LOCATION FROM	LOCATION TO	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME SIDELIGHT WIDTH	FRAME TRANSOM HEIGHT	FRAME MATERIAL	FRAME FINISH	DETAIL REF. HEAD	DETAIL REF. JAMB	FIRE RATING	HARDWARE SET	GLAZING TYPE	ACCESS CONTROL	SMOKE CONTROL	COMMENTS
027		E201	F	3' - 0"	7' - 0"	INSUL. HM	PTD	F1A			HM	PTD	HD.02	JD.02	3	X6	-			SEE NOTE 3
028A	C201		F	3' - 0"	7' - 0"	INSUL. HM	PTD	F1B			HM	PTD	HB.13	JB.13		X6	-			
028B	C201A		F	3' - 0"	7' - 0"	INSUL. HM	PTD	F1B			HM	PTD	HB.13	JB.13		X6	-			SEE NOTE 3
029	B200A		F	3' - 0"	6' - 8"	INSUL. HM	PTD	F3	1' - 2"	1' - 8"	HM	PTD	HC.02	JC.02		X6	GL-3			
A200	A200A	B200A	GG	8' - 0"	7' - 0"			F5								N17.1			■	
A201	A201	A200A	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A202	A200A	A202	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A203	A200A	A203	G	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N1	GL-11		■	
A204	A204	A200A	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.03	J2.03		N10.2	-		■	
A204A	A204A	A204	F	3' - 0"	7' - 0"	WD	-	F1A			HM	PTD	H2.02	J2.02		N20.1	-	■		
A204B	A204	A204B	F	3' - 0"	7' - 0"	WD	-	F1A			HM	P

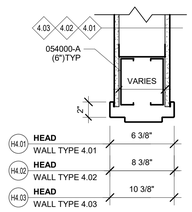




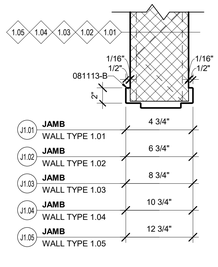


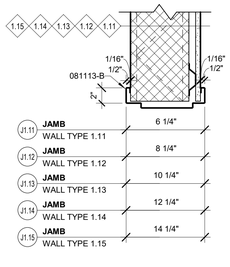


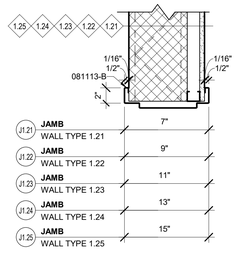


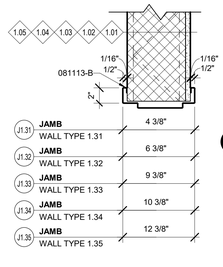


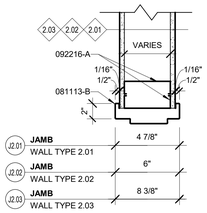
1 A8.2 HEAD DETAILS - INTERIOR (TYP)
1 1/2" = 1'-0"

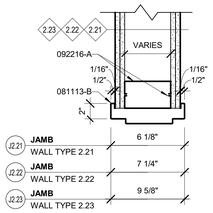


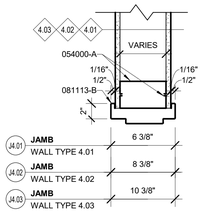




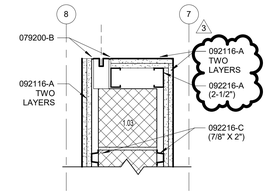




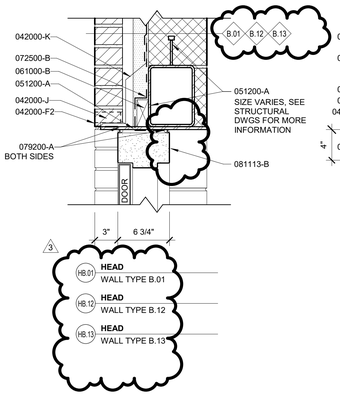


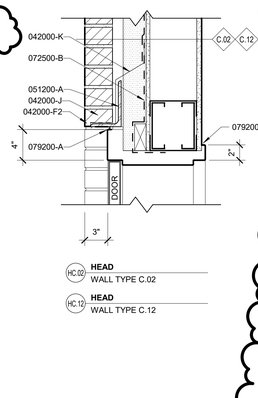


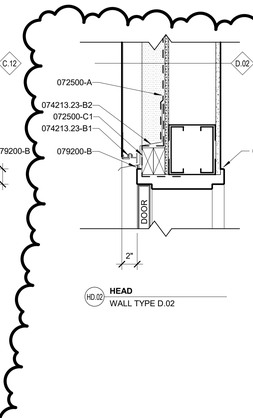
4 A8.2 JAMB DETAILS - INTERIOR (TYP)
1 1/2" = 1'-0"



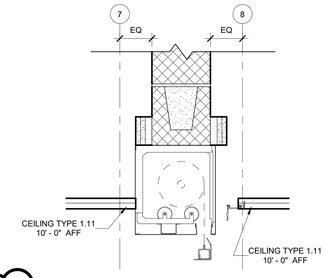
2 A8.2 JAMB DETAIL - FIRE CURTAIN
1 1/2" = 1'-0"

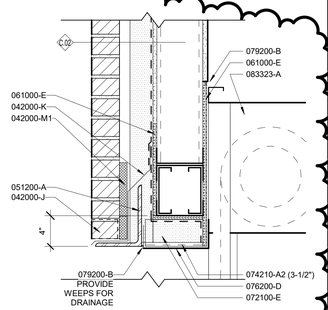




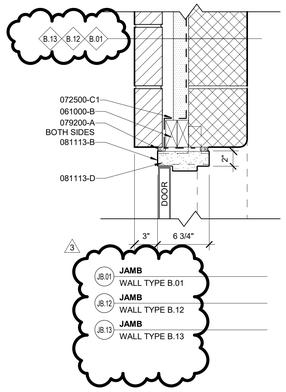


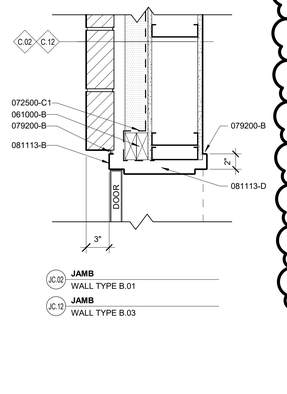
3 A8.2 HEAD DETAIL - FIRE CURTAIN
1 1/2" = 1'-0"

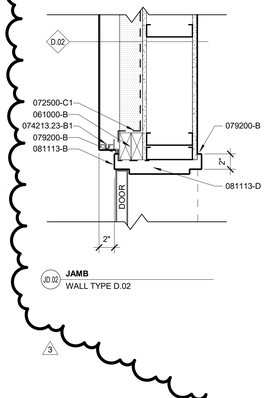




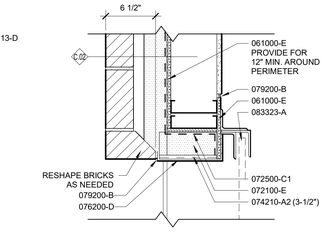
5 A8.2 HEAD DETAILS - EXTERIOR (TYP)
1 1/2" = 1'-0"





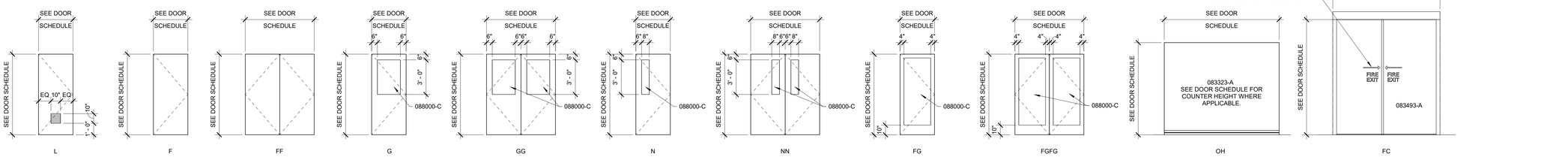


6 A8.2 HEAD DETAIL - OH DOOR
1 1/2" = 1'-0"

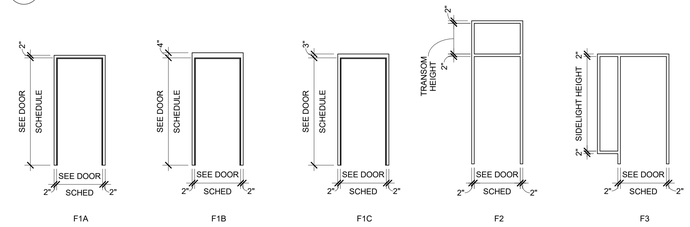


7 A8.2 JAMB DETAILS - EXTERIOR (TYP)
1 1/2" = 1'-0"

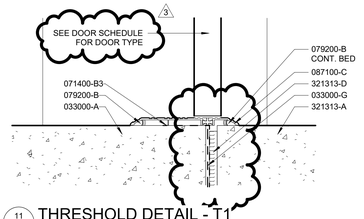
8 A8.2 JAMB DETAIL - OH DOOR
1 1/2" = 1'-0"



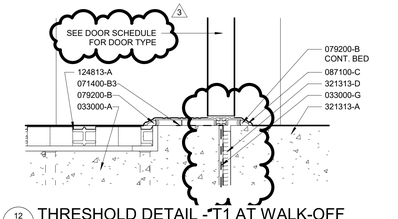
9 A8.2 DOOR TYPES
1/4" = 1'-0"



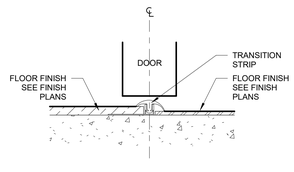
FRAME TYPES
1/4" = 1'-0"



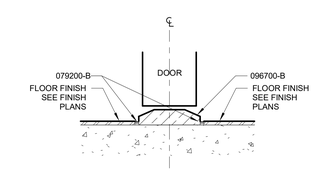
11 A8.2 THRESHOLD DETAIL - T1
3" = 1'-0"



12 A8.2 THRESHOLD DETAIL - T1 AT WALK-OFF
3" = 1'-0"



13 A8.2 THRESHOLD DETAIL - T2
6" = 1'-0"

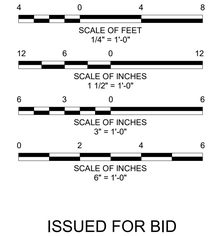


14 A8.2 THRESHOLD DETAIL - T3
6" = 1'-0"

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

033000-A	CONCRETE SLAB ON GRADE (REFER TO STRUCTURAL FOR MORE INFORMATION)
033000-G	UNDER SLAB VAPOR BARRIER
042000-F2	FACE BRICK 1, SPECIAL SHAPE 1
042000-J	WEEP VENT
042000-K	FLEXIBLE METAL FLASHING
042000-M1	CAVITY MORTAR CONTROL
051200-A	STRUCTURAL STEEL (REFER TO STRUCTURAL FOR MORE INFORMATION)
054000-A	COLD-FORMED STEEL FRAMING, SIZE AS INDICATED
061000-B	BLOCKING
061000-E	EXTERIOR PLYWOOD SHEATHING, FIRE-RETARDANT TREATED; 1/2" UNO
071400-B3	JOINT COVER SHEET
072100-E	MINERAL WOOL INSULATION
072500-A	NON-COMBUSTIBLE AIR & WEATHER RESISTIVE BARRIER, SHEET-APPLIED
072500-B	NON-COMBUSTIBLE AIR & WEATHER RESISTIVE BARRIER, FLUID-APPLIED
072500-C1	TRANSITION MEMBRANE
074210-A2	Z CLIP, SIZE AS INDICATED
074213.23-B1	ATTACHMENT CLIP
074213.23-B2	FLASHING
076200-D	METAL FLASHING
079200-A	JOINT SEALANT AND BACKER ROD
079200-B	JOINT SEALANT
081113-B	HOLLOW METAL DOOR FRAME
081113-D	JAMB ANCHOR
083323-A	OVERHEAD COILING DOOR
083493-A	COILING FABRIC FIRE CURTAIN (REFER TO CS SERIES FOR RATING INFORMATION)
087100-C	METAL THRESHOLD
088000-C	DOOR GLAZING, REFER TO DOOR SCHEDULE FOR GL TYPE
092116-A	ABUSE RESISTANT WALLBOARD, 5/8" THICKNESS UNO
092216-A	NON-STRUCTURAL METAL STUD, SIZE AS INDICATED
092216-C	HAT SHAPED METAL FURRING CHANNEL, SIZE AS INDICATED
096700-B	STONE THRESHOLD
124813-A	RECESSED ENTRANCE FLOOR MAT AND FRAME
321313-A	CONCRETE SIDEWALK (REFER TO CIVIL FOR MORE INFORMATION)
321313-D	ISOLATION JOINT (REFER TO CIVIL FOR MORE INFORMATION)



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Seal:

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JND	Drawn
Scale	As indicated	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: OPENING TYPES & DETAILS

Drawing Number: A8.2

Sheet: Of

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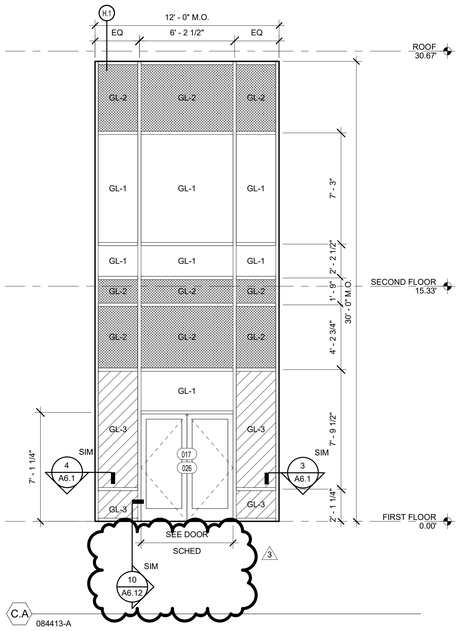
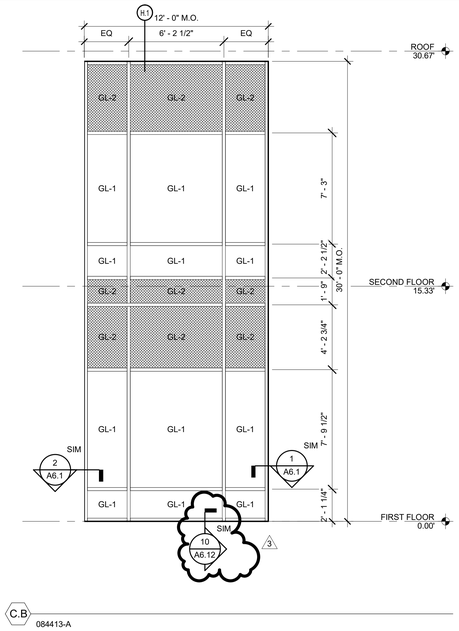


C.A
084413-A



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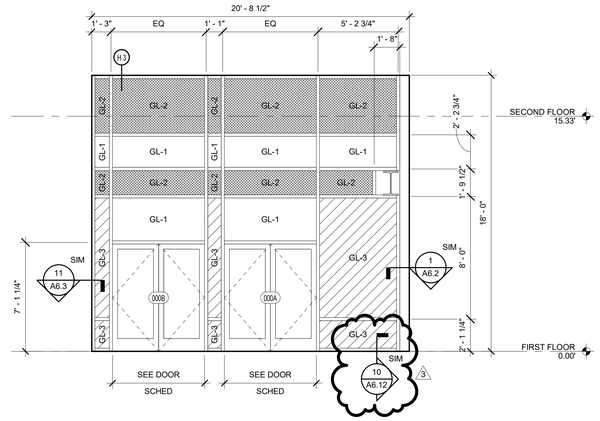

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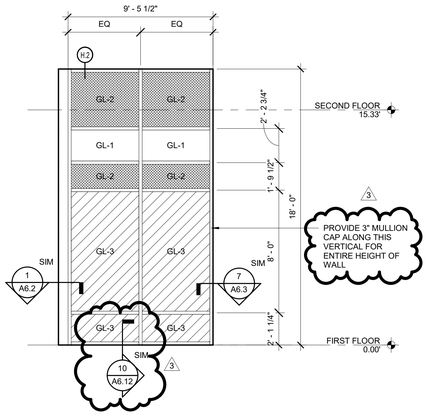
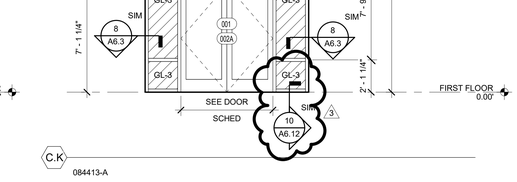
084413-A



C.D
084313-A

C.E
084413-A



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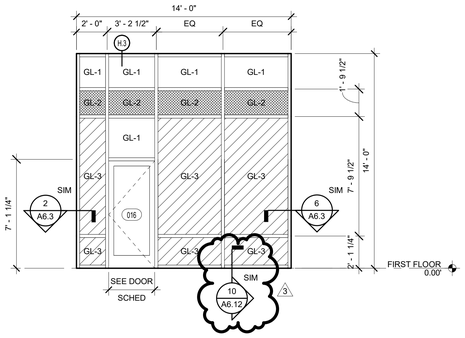
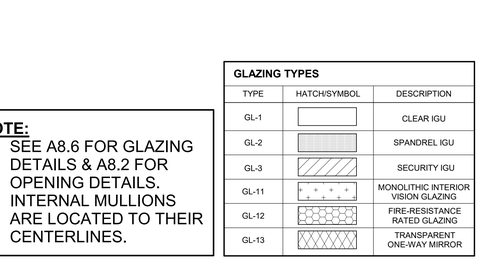
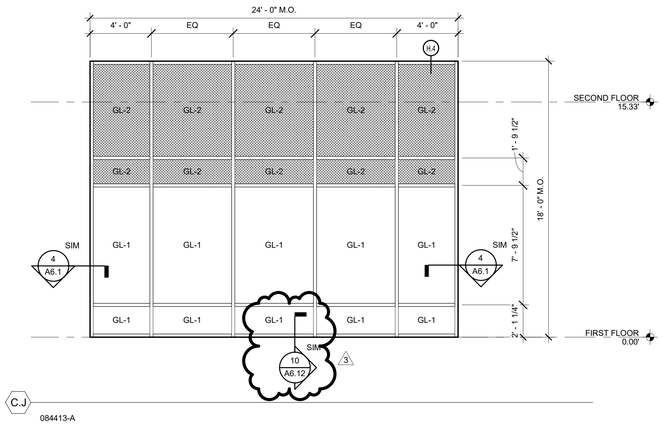
084413-A



C.G
084413-A



C.H
084413-A



C.J
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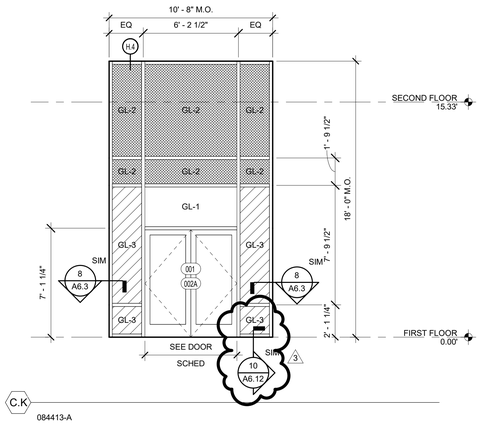

C.K
084413-A

NOTE:

1. SEE A8.6 FOR GLAZING DETAILS & A8.2 FOR OPENING DETAILS.
2. INTERNAL MULLIONS ARE LOCATED TO THEIR CENTERLINES.

GLAZING TYPES

TYPE	HATCH/SYMBOL	DESCRIPTION
GL-1		CLEAR IGU
GL-2		SPANDREL IGU
GL-3		SECURITY IGU
GL-11		MONOLITHIC INTERIOR VISION GLAZING
GL-12		FIRE-RESISTANCE RATED GLAZING
GL-13		TRANSPARENT ONE-WAY MIRROR

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

084313-A GLAZED ALUMINUM-FRAMED STOREFRONT
084413-A GLAZED ALUMINUM CURTAIN WALL

4 0 4 8
SCALE OF FEET
1/4" = 1'-0"

ISSUED FOR BID

Seal:

Seal:

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

MARYLAND PSC NO. 10.058.21
FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	JND	Drawn
Scale	1/4" = 1'-0"	JTH	Checked
Date	03/16/2020	PLH	Approved

Drawing Title: GLAZING SCHEDULE - EXTERIOR CURTAINWALL

Drawing Number: A8.3

Sheet: Of

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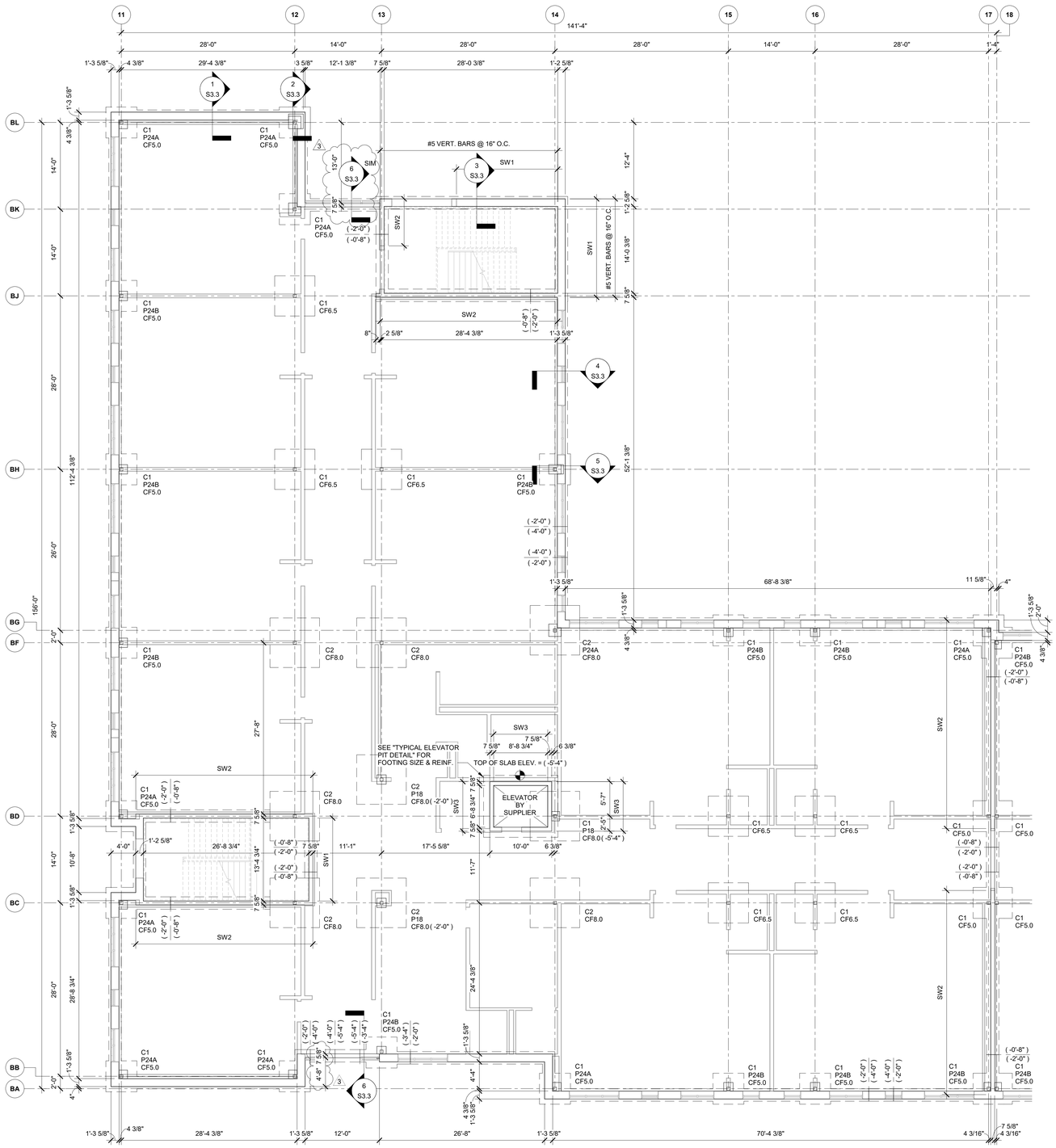
FOUNDATION PLAN - AREA A

1/8" = 1'-0"



FOUNDATION PLAN NOTES:

1. TOP OF FIRST FLOOR SLAB ELEVATION IS 410.00' (0'-0"), U.N.O.
2. ALL ELEVATIONS NOTED THUS (-X'-X") DESIGNATE TOP OF FOOTING OR PIER ELEVATIONS AND ARE WITH RESPECT TO THE FIRST FLOOR TOP OF SLAB ELEVATION (0'-0").
3. TOP OF INTERIOR FOOTING ELEVATION IS (-0'-8") BELOW FIRST FLOOR TOP OF SLAB ELEVATION, U.N.O.
4. TOP OF EXTERIOR FOOTING ELEVATION IS (-2'-0") BELOW FIRST FLOOR TOP OF SLAB ELEVATION, U.N.O.
5. TOP OF PIER ELEVATION IS (-0'-8") BELOW TOP OF GRADE ELEVATION, U.N.O.
6. ALL COLUMNS THAT EXTEND 1'-0" OR MORE BELOW TOP OF SLAB OR GRADE SHALL BE COATED WITH BITUMINOUS PAINT.
7. ALL WALL FOOTINGS SHALL BE WF2.0, U.N.O. ALL INTERIOR NON-LOAD BEARING MASONRY WALLS MAY BEAR ON THICKENED SLAB, U.N.O. SEE "TYPICAL THICKENED SLAB AT NON-LOAD BEARING INTERIOR MASONRY WALL DETAIL" FOR SIZE AND REINFORCING.
8. ALL COLUMNS SHALL CENTER ON FOOTINGS AND PIERS, U.N.O. ALL WALLS SHALL CENTER ON WALL FOUNDATIONS, U.N.O.
9. ALL INTERIOR FLOOR SLABS SHALL BE 4" THK. NON-AIR ENTRAINED CONCRETE W/ 6X6 W2.1XW2.1 W.W.R. ON 6" THK. COMPACTED AASHTO NO. 57 CRUSHED STONE, U.N.O. PROVIDE SAWCUT CONTROL JOINTS AS INDICATED IN THE CAST-IN-PLACE CONCRETE CONSTRUCTION SECTION OF THE GENERAL SPECIFICATIONS. SUBMIT A CONTROL JOINT LOCATION PLAN TO THE ENGINEER FOR REVIEW & APPROVAL.
10. ALL EXTERIOR CONCRETE SLABS SHALL BE 5" THK. AIR ENTRAINED CONCRETE W/ 6X6 W2.9XW2.9 W.W.R. ON 6" THK. COMPACTED AASHTO NO. 57 CRUSHED STONE, U.N.O. ALL EXTERIOR SLABS SHALL BE TURNED DOWN AROUND PERIMETER AND EXTEND TO (-2'-6") BELOW FINISHED GRADE. SEE TYPICAL SLAB TURNDOWN DETAIL FOR MORE INFO.
11. CONTRACTOR SHALL VERIFY WALL LOCATIONS WITH ARCHITECTURAL PLANS PRIOR TO FOUNDATION LAYOUT. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND ENGINEER.
12. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN.
13. SEE ARCHITECTURAL DRAWINGS FOR ALL NECESSARY EMBEDDED ITEMS, RAMPS, STAIRS, LANDINGS, AND FINISH DETAILS.
14. CONTRACTOR SHALL COORDINATE WITH PLUMBING DRAWINGS FOR ANY CONFLICTS BETWEEN FOUNDATIONS AND NEW OR EXISTING PIPING. STEP FOOTINGS DOWN AS REQUIRED SO THAT PIPES DO NOT PENETRATE FOOTINGS AND SO THAT BOTTOM OF FOOTINGS ARE ABOVE PIPING A MINIMUM DISTANCE EQUAL TO THE PIPE DIAMETER.

COLUMN SCHEDULE			
MARK	TYPE	BASE PLATE (N X B X THK.)	ANCHOR BOLTS
C1	HSS6X6X5/16	12" X 12" X 3/4"	(4) 3/4" Ø F1554 ANCHOR BOLTS
C2	HSS6X6X1/2	12" X 12" X 3/4"	(4) 3/4" Ø F1554 ANCHOR BOLTS
C3	HSS8X8X1/2	14" X 14" X 3/4"	(4) 3/4" Ø F1554 ANCHOR BOLTS
3 C3A	HSS8X8X1/2 A	16" X 16" X 1"	(8) 1 1/8" Ø F1554 GR. 55 ANCHOR BOLTS
C4	HSS10X10X1/2	16" X 16" X 3/4"	(4) 3/4" Ø F1554 ANCHOR BOLTS

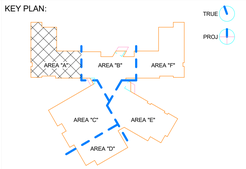
NOTES:
1. WHERE COLUMNS ARE WITHIN MASONRY WALLS, PROVIDE 3/4" Ø X 0'-4" LONG SHEAR STUDS @ 16" O.C.

PIER SCHEDULE		
MARK	SIZE	REINFORCING
P18	18" X 18" X HEIGHT VARIES	(8) #6 VERT. BARS W/ #3 TIES @ 12" O.C.
P20	20" X 20" X HEIGHT VARIES	(12) #6 VERT. BARS W/ #3 TIES @ 12" O.C.
P24A	24" X 24" X HEIGHT VARIES	(12) #7 VERT. BARS W/ #3 TIES @ 12" O.C.
P24B	24" X 18" X HEIGHT VARIES	(8) #7 VERT. BARS W/ #3 TIES @ 12" O.C.

COLUMN FOOTING SCHEDULE								
	DIMENSIONS			REINFORCING				
				LONGITUDINAL		TRANSVERSE		
MARK	WIDTH	LENGTH	DEPTH	QUANTITY	SIZE	QUANTITY	SIZE	REMARKS
CF4.0	4' - 0"	4' - 0"	1' - 0"	5	5	5	5	BOT. REINF.
CF5.0	5' - 0"	5' - 0"	1' - 0"	6	5	6	5	BOT. REINF.
CF5.5	5' - 6"	5' - 6"	1' - 4"	6	6	6	6	BOT. REINF.
CF6.5	6' - 6"	6' - 6"	1' - 6"	7	6	7	6	BOT. REINF.
3 CF6.5A	6' - 6"	6' - 6"	1' - 6"	7	6	7	5	TOP & BOT. REINF.
CF8.0	8' - 0"	8' - 0"	1' - 8"	9	6	9	6	BOT. REINF.
CF10.0	10' - 0"	10' - 0"	2' - 0"	12	6	12	6	BOT. REINF.

WALL FOOTING SCHEDULE							
	DIMENSIONS		REINFORCING				
			LONGITUDINAL		TRANSVERSE		
MARK	WIDTH	DEPTH	QUANTITY	SIZE	SIZE	SPACING	NOTES
WF2.0	2'-0"	1'-0"	3	5	3	4'-0"	BOT. REINF.
WF3.0	3'-0"	1'-0"	4	5	4	4'-0"	BOT. REINF.

KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

ISSUED FOR PERMIT

CARNEY ENGINEERING GROUP

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GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-0309

Seal:

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LICENSE NUMBER 51796, EXPIRATION DATE 11/21/2021

Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	C018.0159.00		Drawn
Scale	1/8" = 1'-0"	SAP	Checked
Date	03/16/2020	BLP	Approved
Drawing Title			Drawing Number
FOUNDATION PLAN - AREA A			S1.1
Sheet			Of

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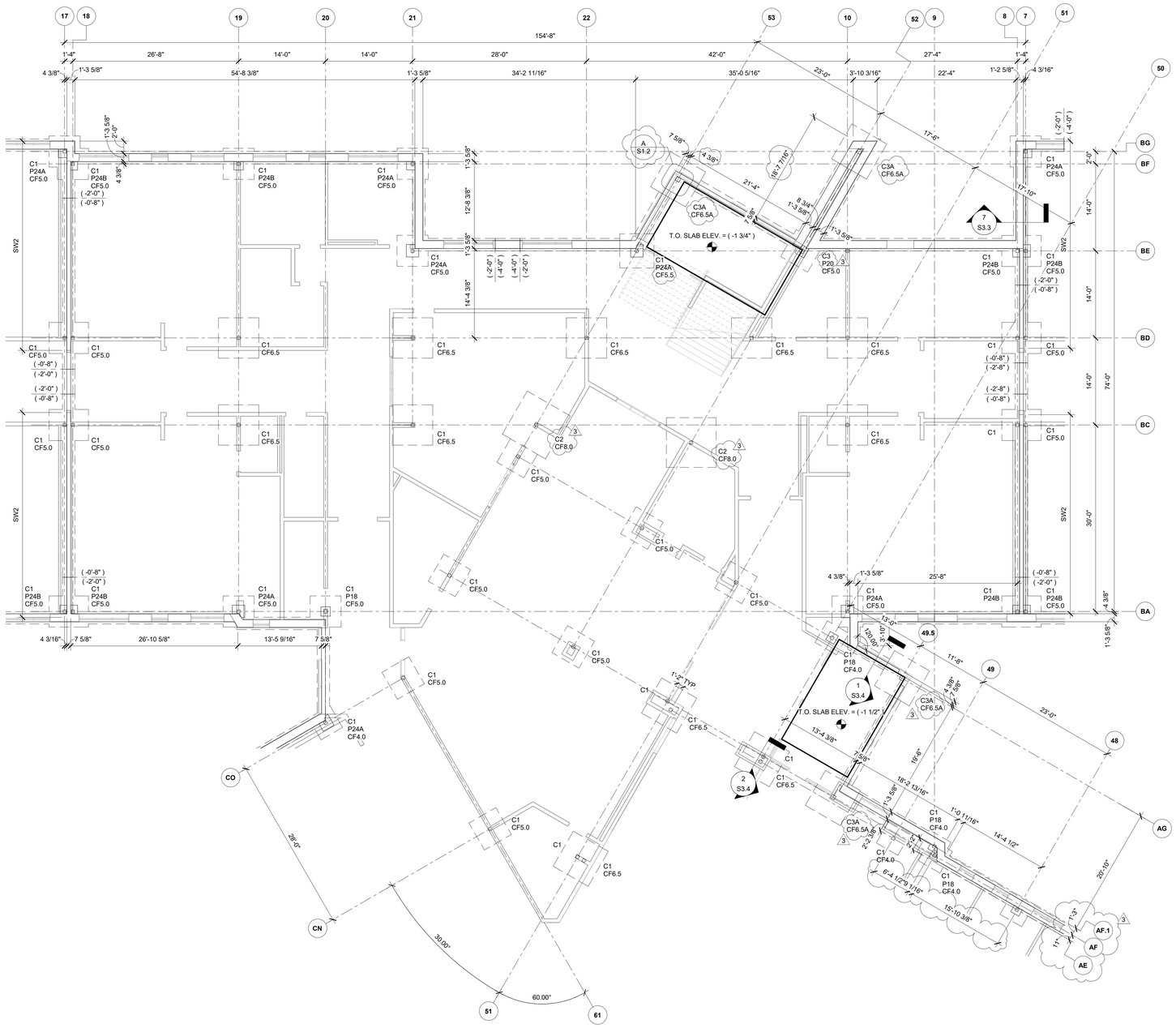
FOUNDATION PLAN - AREA B

1/8" = 1'-0"



FOUNDATION PLAN NOTES:

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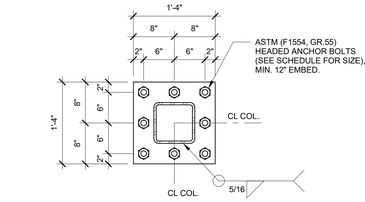
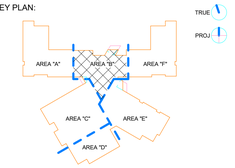


NOTES:
1. SEE COLUMN & BASE PLATE SCHEDULE FOR MORE INFO.
2. MASONRY WALLS NOT SHOWN FOR CLARITY.

A S1.2 COLUMN C3A BASE DETAIL 3
1" = 1'-0"

KEY PLAN:



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LICENSE NUMBER 51796, EXPIRATION DATE 11/21/2021

Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	C018.0159.00		Drawn
Scale	As indicated	SAP	Checked
Date	03/16/2020	BLP	Approved
Drawing Title			Drawing Number
FOUNDATION PLAN - AREA B			S1.2
Sheet			Of

BIM 360://18.0159 Waverly ES/STR_C018.0159.00_Waverley ES_R19.rvt
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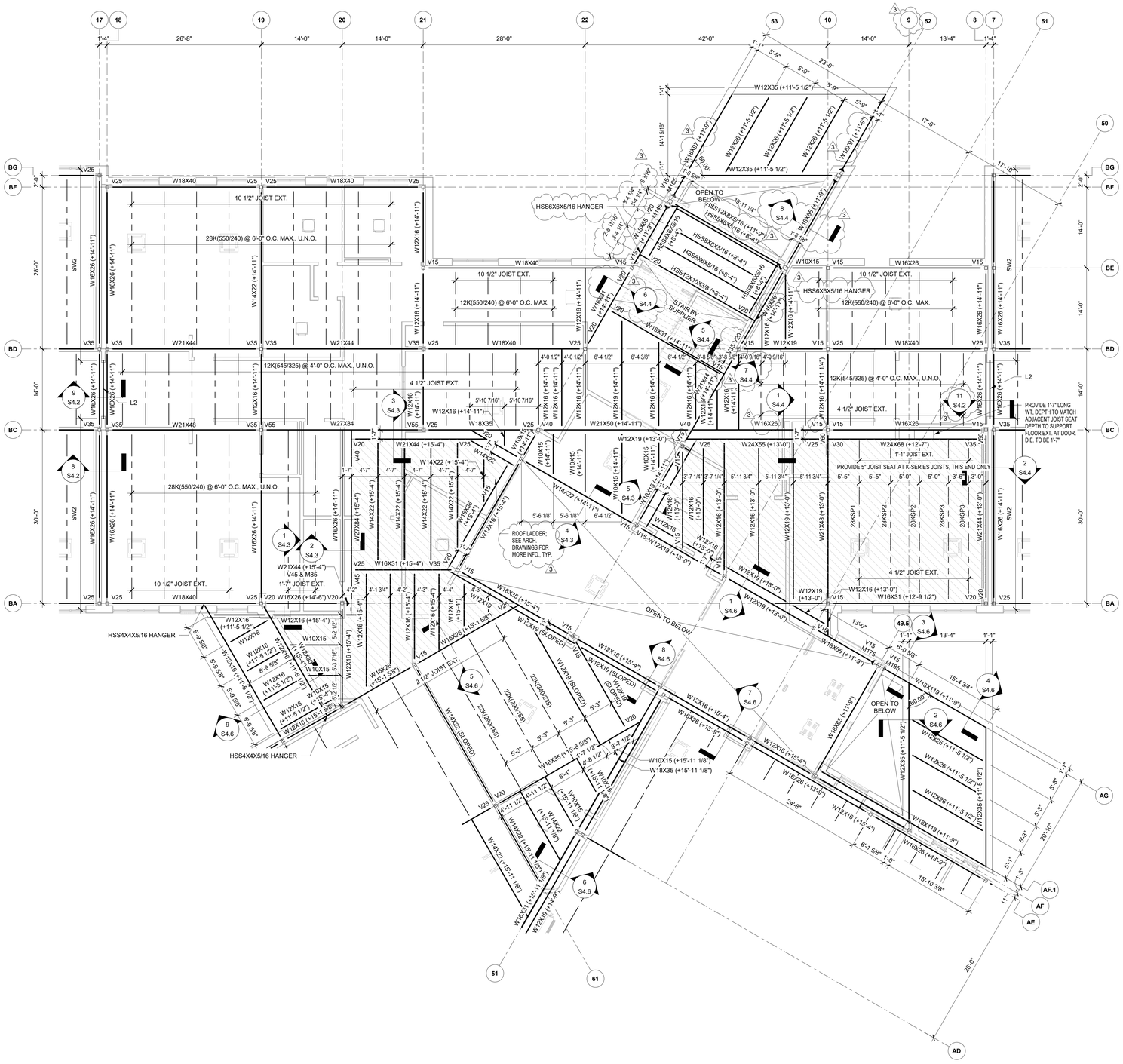
FLOOR & LOW ROOF FRAMING PLAN - AREA B

1/8" = 1'-0"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14'-0"
28'-0"
42'-0"
14'-0"
13'-4"
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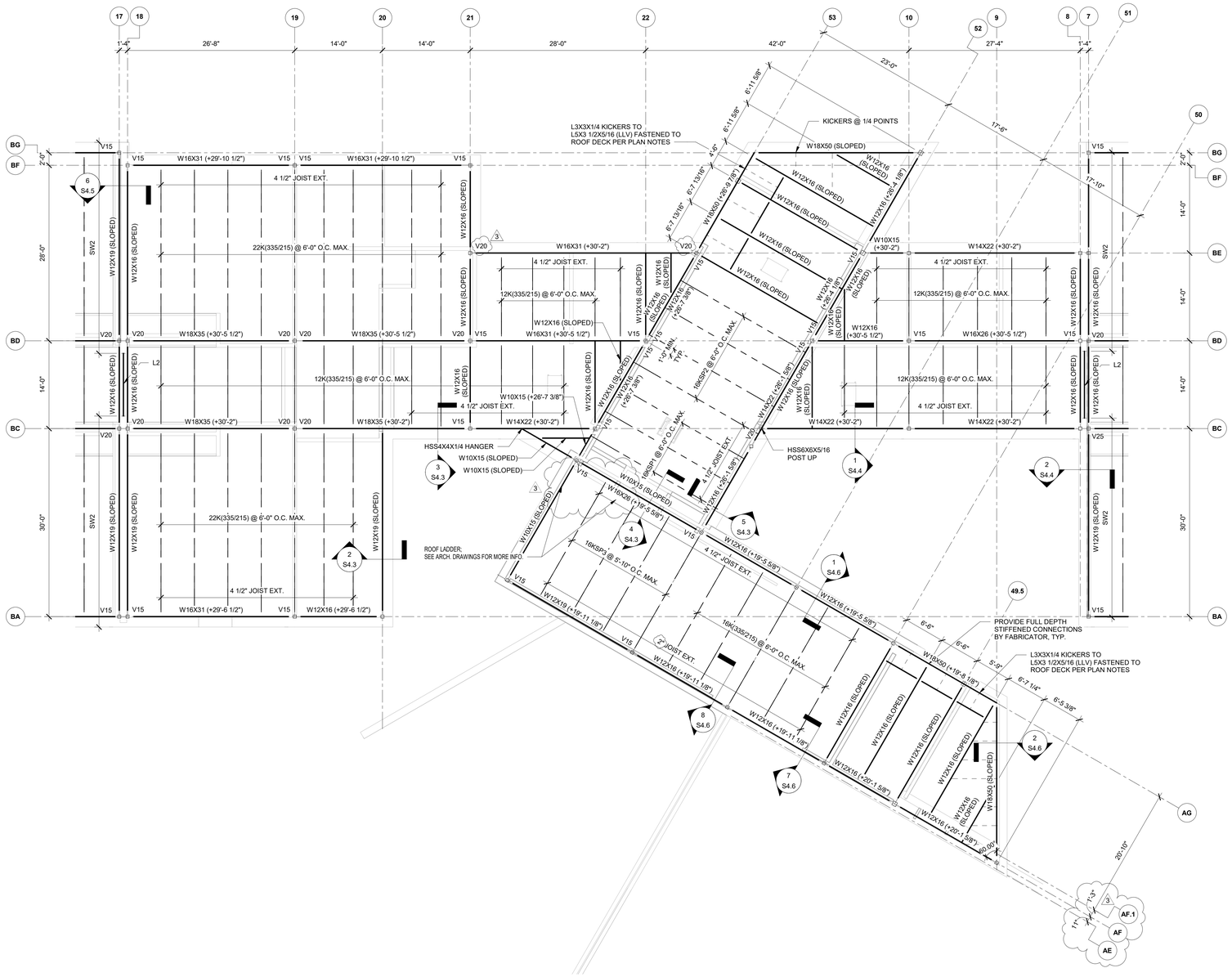
5'-9"
5'-9"
5'-9"
5'-9"
1'-6"
17'-10"
W12X35 (+11'-5 1/2")
W12X35 (+11'-5 1/2")
W12X26 (+11'-5 1/2")
W12X26 (+11'-5 1/2")
W12X26 (+11'-5 1/2")
W18X97 (+11'-9")
W18X97 (+11'-9")
W18X97 (+11'-9

ROOF FRAMING PLAN - AREA B

1/8" = 1'-0"



ROOF FRAMING PLAN NOTES:

1. TOP OF FIRST FLOOR SLAB ELEVATION IS 410.00' (0'-0"), U.N.O.
2. ALL ELEVATIONS NOTED THUS (+X'-X") REFERENCED TO TOP OF FIRST FLOOR SLAB ELEVATION.
3. PROVIDE 1/4" THK. EDGE ANGLE OR BENT PLATE AT ALL ROOF EDGES, TYP., U.N.O.
4. ALL ANGLE TO MASONRY WALL CONNECTIONS ARE 5/8" Ø EXPANSION BOLTS @ 24" O.C., MIN. 4" EMBED., U.N.O.
5. COORDINATE WITH MECHANICAL, ELECTRICAL & PLUMBING DRAWING FOR ALL ROOF PENETRATION SIZES & LOCATIONS. PENETRATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE APPROXIMATE AND ALL PENETRATIONS MAY NOT BE SHOWN. PROVIDE FRAMING FOR ALL PENETRATIONS AS SHOWN IN THE TYPICAL ROOF PENETRATION FRAMING DETAIL.
6. SEE ARCHITECTURAL AND HVAC DRAWINGS FOR EXACT LOCATIONS OF ROOF TOP UNITS, ROOF DRAINS, AND ROOF VENTS.
7. SEE PLANS AND SCHEDULE FOR ALL MASONRY LINTEL DETAILS; COORDINATE LINTEL LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
8. PROVIDE GAP AT TOP OF NON-LOAD BEARING WALLS TO ALLOW FOR DEFLECTIONS OF STRUCTURE, U.N.O. FILL GAP WITH COMPRESSIBLE MATERIAL, OR FIRESAFING INSULATION IF WALL IS FIRE-RATED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
9. SEE ARCHITECTURAL DRAWINGS FOR TOP OF NON-LOAD BEARING WALL HEIGHTS.
10. JOIST AND BEAM BEARING ELEVATIONS VARY. SLOPE WALLS AND BEAMS ACCORDINGLY, WHERE REQUIRED, FOR BEARING ELEVATIONS.
11. JOIST SEAT DEPTH FOR K-SERIES JOISTS SHALL BE 2 1/2", U.N.O.
12. JOIST BRIDGING SHALL BE DESIGNED AND PROVIDED BY JOIST MANUFACTURER IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE'S (SJI) REQUIREMENTS
13. EXPOSED STRUCTURAL STEEL FRAMING
    - A. FOR EXPOSED STRUCTURAL STEEL TUBES, PREPARE AND CLEAN ALL SURFACES TO ALLOW FOR SMOOTH APPLICATION OF PAINT FINISHES.
    - B. ALL SHOP WELDS SHALL BE GROUND SMOOTH.
    - C. IT IS ACCEPTABLE TO INSERT FILL MATERIALS BETWEEN WELD POINTS IN ORDER TO PROVIDE A CLEAN AND CONTINUOUS CONNECTION.
14. DETAILS AS SHOWN INDICATE TYPICAL CONNECTIONS AND CONDITIONS.
15. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN.

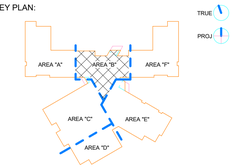
MASONRY LINTEL PLAN NOTES:

1. CONTRACTOR SHALL REFER TO ARCH. AND MECH. DRAWINGS FOR ALL PENETRATIONS THROUGH MASONRY WALLS. PROVIDE LINTELS FOR ALL OPENINGS GREATER THAN 12". NOTIFY ARCHITECT AND ENGINEER IF LINTEL IS NOT SHOWN ON LINTEL PLAN OR SCHEDULE.
2. VERIFY ALL WALL THICKNESS W/ ARCH. DRAWINGS PRIOR TO FABRICATION.
3. ALL LINTELS TO EXTEND 8" MIN. ON MIN. 16" THK. SOLID OR GROUTED SUPPORTING MASONRY, U.N.O.
4. ALL LINTELS WITH CLEAR OPENINGS 6'-0" OR GREATER SHALL HAVE (2) 1/2" Ø X 6" LONG HEADED STUDS AT EA. END, WELDED TO BOTTOM OF LINTEL AND EMBEDDED IN SOLID GROUT OR PROVIDE BEARING PLATE. CONTACT ENGINEER FOR EXACT BEARING PLATE SIZE.
5. ALL EXTERIOR WALL LINTELS SHALL BE GALVANIZED.
6. ALL STEEL LINTELS FOR EXTERIOR WALLS SUPPORTING BRICK SHALL BE TEMPORARILY SHORED WHERE A HEIGHT OF MASONRY GREATER THAN HALF THE SPAN OF A LINTEL WILL BE PLACED ABOVE THE LINTEL PRIOR TO MASONRY GAINING DESIGN STRENGTH. SHORING SHALL REMAIN IN PLACE UNTIL MASONRY HAS GAINED DESIGN STRENGTH AND ALL REQUIRED PERMANENT BRACING IS INSTALLED.
7. CONTRACTOR SHALL CREATE A LINTEL ERECTION PLAN AND SUBMIT FOR APPROVAL ALONG WITH DETAILED LINTEL SHOP DRAWINGS.

MASONRY REINF. PLAN NOTES:

1. ALL EXTERIOR AND LOAD BEARING MASONRY WALLS SHALL BE REINFORCED W/ #5 VERT. BARS @ 32" O.C., U.N.O.
2. ALL VERT. BARS ARE TO BE CENTERED IN MASONRY WALL, U.N.O.
3. BARS SPECIFIED ARE CONTINUOUS AND DO NOT INCLUDE DISCONTINUOUS VERT. BARS AT STEEL LINTEL BEARING.
4. AT ALL MASONRY WALLS (LOAD BEARING AND NON-LOAD BEARING) PROVIDE CONTINUOUS BOND BEAMS & REINFORCING AT THE TOP OF ALL WALLS AND AT EVERY FLOOR LEVEL. REFER TO BOND BEAM REINFORCING SCHEDULE FOR REINFORCING SIZE & QUANTITY. WHERE FLOOR-TO-FLOOR HEIGHTS EXCEED 11'-0", PROVIDE INTERMEDIATE BOND BEAMS AT 10'-0" MAXIMUM SPACING.
5. REFER TO MASONRY SHEAR WALL REINFORCING SCHEDULE FOR REINFORCING IN MASONRY SHEAR WALLS. NO CONTROL JOINTS SHALL BE LOCATED IN A SHEAR WALL. PROVIDE A JOINT AT EITHER END OF A SHEAR WALL WHERE REQUIRED TO MEET MAXIMUM SPACING LIMITS INDICATED.
6. SEE TYPICAL DETAILS FOR REINF. NOT SPECIFIED IN PLAN.
7. HORIZONTAL JOINT REINFORCEMENT SHALL CONSIST OF TRUSS TYPE ASTM A82 COLD DRAWN NO. 9 GAUGE GALVANIZED WIRE STEEL, LOCATED 16" O.C. CROSS RODS TO BE WELDED TO SIDE RODS AT 16" O.C. TO FORM A TRUSS. LAP SPLICES 6" MINIMUM. PROVIDE HORIZONTAL REINFORCING IN TWO COURSES ABOVE AND BELOW OPENINGS AND AT THE TOP OF WALLS OR PARTITIONS.
8. PROVIDE CONTROL JOINTS IN MASONRY WALLS AS INDICATED IN THE CONCRETE MASONRY CONSTRUCTION SECTION OF THE GENERAL NOTES, U.N.O.
9. PROVIDE MASONRY TIES BETWEEN WYTHIES WHEN MULTIWHYTE WALL IS NOT A FIREWALL, TYP.

KEY PLAN:



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Revisions:

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3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	C018.0159.00		Drawn
Scale	1/8" = 1'-0"	SAP	Checked
Date	03/16/2020	BLP	Approved

Drawing Title: ROOF FRAMING PLAN - AREA B

Drawing Number: S1.13

Sheet: Of

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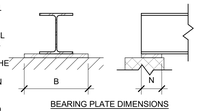
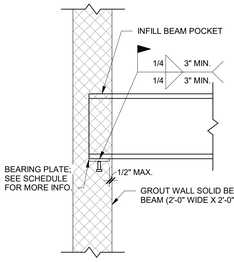
BEARING PLATE SCHEDULE

MARK	BEARING PLATE SIZE (N x B x THK.)	REMARKS
BP1	4" x 8" x 5/8"	SINGLE JOIST BEARING PLATE W/ (2) 1/2" Ø x 5" LONG HEADED STUDS
BP2	7" x 8" x 5/8"	W8 TO W16 BEAMS, SINGLE & DOUBLE JOIST BEARING PLATE W/ (2) 1/2" Ø x 5" LONG HEADED STUDS
BP3	7" x 12" x 1"	W18 TO W21 BEAM BEARING PLATE W/ (3) 1/2" Ø X 5" LONG HEADED STUDS
BP4	10" x 10" x 1"	W24 BEAM BEARING PLATE W/ (2) 1/2" Ø X 5" LONG HEADED STUDS
BP5	10" x 12" x 1"	W30 BEAM BEARING PLATE W/ (2) 1/2" Ø X 5" LONG HEADED STUDS
BP6	7" x 14" x 5/8"	DLH JOIST BEARING PLATE W/ (2) 1/2" Ø X 5" LONG HEADED STUDS

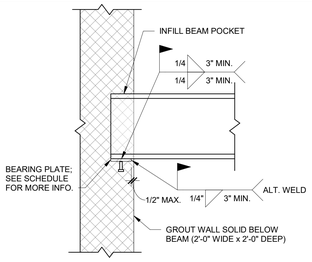
NOTES:
1. ALL SINGLE K-SERIES JOISTS SHALL BEAR ON BP1 AND ALL SINGLE LH SERIES JOISTS SHALL BEAR ON BP3, ALL SINGLE DLH-SERIES JOISTS SHALL BEAR ON BP6, U.N.O.
2. ALL DOUBLE-BEARING K-SERIES/LH-SERIES JOISTS & STEEL BEAMS SHALL BEAR ON BP2, ALL LH-SERIES AND K-SERIES JOISTS BEARING AT THE SAME LOCATION SHALL BEAR ON BP3, ALL DLH-SERIES AND K-SERIES JOISTS BEARING AT THE SAME LOCATION SHALL BEAR ON BP3, U.N.O.
3. WHERE TYPICAL BEARING PLATES DON'T APPLY, SEE PLAN FOR SPECIFIC BEARING PLATE LOCATIONS.
4. BEARING PLATE ORIENTATION DEPENDS ON CMU WALL ORIENTATION AND SHALL BE ADJUSTED ACCORDINGLY SO THE PLATE DOES NOT OVERHANG THE CMU WALLS.



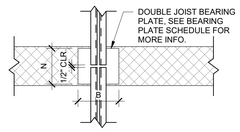
BEARING PLATE DIMENSIONS



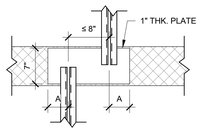
TYPICAL BEARING PLATE DETAIL



TYPICAL BEAM PARALLEL TO WALL BEARING PLATE DETAIL DETAIL

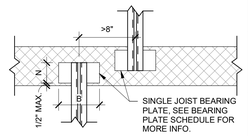


JOIST ALIGN DETAIL
NOT TO SCALE



JOIST OFFSET DETAIL 1
NOT TO SCALE

NOTES:
1. AT K-SERIES JOISTS, DIMENSION A IS 4"; AT LH-SERIES JOISTS, DIMENSION A IS 5".



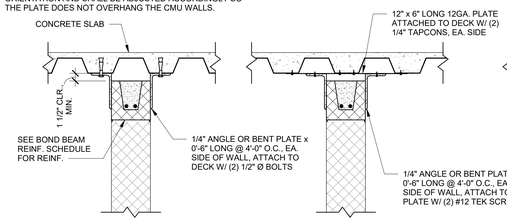
JOIST OFFSET DETAIL 2
NOT TO SCALE

TYPICAL JOIST BEARING PLATE DETAILS

BOND BEAM REINFORCING SCHEDULE

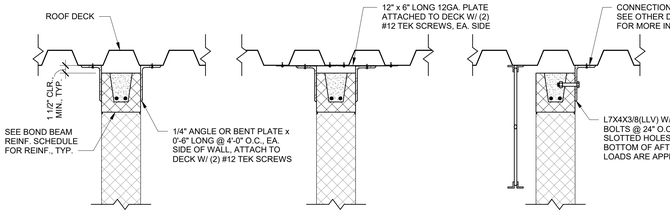
WALL TYPE	DETAIL
6" CMU	(1) CONT. #5 BAR
8" CMU	(1) CONT. #5 BAR
10" CMU	(2) CONT. #5 BARS
12" CMU	(2) CONT. #5 BARS

NOTE:
PROVIDE CORNER BARS AT ALL BOND BEAMS TO ENSURE CONTINUITY AT CORNERS. LAP CORNER BARS WITH A CLASS "B" TENSION LAP SPLICE.



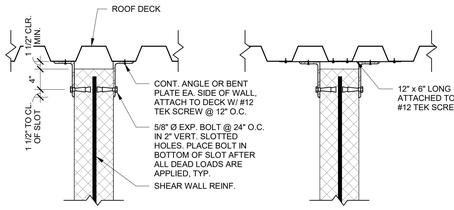
NOTES:
1. WHERE DECK SPANS PERPENDICULAR TO WALL, LENGTH OF ANGLE OR BENT PLATE SHALL BE AS REQUIRED SO THAT CONNECTION IS MADE TO (2) ADJACENT DECK FLUTES.

TYPICAL TOP OF NON-LOAD BEARING INTERIOR MASONRY WALL DETAILS - AT FLOOR LEVEL



NOTES:
1. WHERE DECK SPANS PERPENDICULAR TO WALL, LENGTH OF ANGLE OR BENT PLATE SHALL BE AS REQUIRED SO THAT CONNECTION IS MADE TO (2) ADJACENT DECK FLUTES.

TYPICAL TOP OF NON-LOAD BEARING INTERIOR MASONRY WALL DETAILS - AT ROOF LEVEL

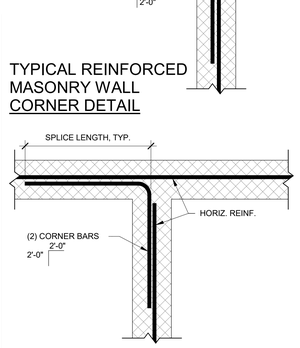


NOTES:
1. WHERE DECK SPANS PERPENDICULAR TO WALL, LENGTH OF ANGLE OR BENT PLATE SHALL BE AS REQUIRED SO THAT CONNECTION IS MADE TO (2) ADJACENT DECK FLUTES.

TYPICAL TOP OF MASONRY SHEAR WALL DETAILS

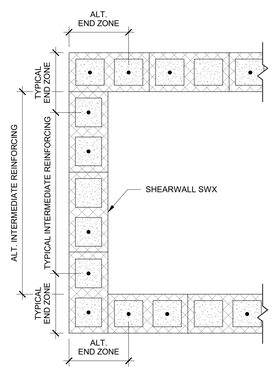
MASONRY LINTEL SCHEDULE (NTS)

WALL TYPE	CLEAR OPENING	MARK	DETAIL
INTERIOR 8" CMU	1'-0" TO 7'-0"	L1	8F8-1B
INTERIOR 8" CMU	1'-0" TO 10'-0"	L2	8F16-1B
INTERIOR 12" CMU	1'-0" TO 14'-0"	L3	12F8-2B
INTERIOR 12" CMU	SEE PLAN	L4	W16X26 W/ 1/2" Ø x 0'-4" LONG HEADED STUDS @ 24" O.C., MASONRY TIES, 3/16, 2-12, 3/16, 2-12, TYP., 1/2" MAX. TYP., 5/16" THK. PLATE
EXTERIOR 8" CMU CAVITY 4" VENEER	SEE PLAN	L5	HSS8X4X1/2 W/ 1/2" Ø X 0'-4" LONG HEADED STUDS @ 24" O.C., (3/16), 2-12, (3/16), 2-12, TYP., 1/2" MAX. TYP., 3/8" THK. PLATE
EXTERIOR 8" CMU CAVITY 4" VENEER	SEE PLAN	L6	HSS16X4X1/4 W/ 1/2" Ø X 0'-4" LONG HEADED STUDS @ 24" O.C., (3/16), 2-12, (3/16), 2-12, TYP., 1/2" MAX. TYP., 3/8" THK. PLATE
EXTERIOR 12" CMU CAVITY 4" VENEER	SEE PLAN	L7	HSS8X6X5/16 W/ 1/2" Ø X 0'-4" LONG HEADED STUDS @ 24" O.C., (3/16), 2-12, (3/16), 2-12, TYP., 1/2" MAX. TYP., 5/16" THK. PLATE
EXTERIOR 12" CMU CAVITY 4" VENEER	SEE PLAN	L8	HSS16X8X5/16 W/ 1/2" Ø X 0'-4" LONG HEADED STUDS @ 24" O.C., (3/16), 2-12, (3/16), 2-12, TYP., 1/2" MAX. TYP., 3/8" THK. PLATE

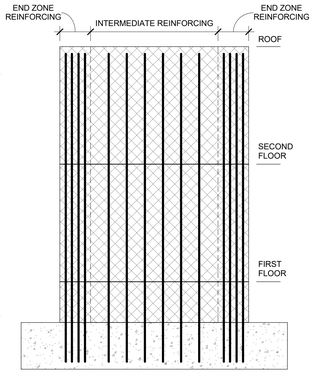


TYPICAL REINFORCED MASONRY WALL CORNER DETAIL

TYPICAL REINFORCED MASONRY WALL INTERSECTION DETAILS



TYPICAL SHEAR WALL END ZONE DIAGRAM

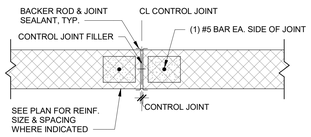


TYPICAL MASONRY SHEAR WALL ELEVATION DETAIL

MASONRY SHEAR WALL REINFORCING SCHEDULE

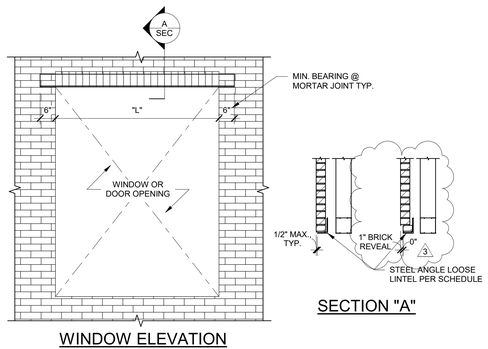
				FOUNDATIONS TO 2ND FLOOR/ROOF VERTICAL REINFORCING		2ND FLOOR TO ROOF VERTICAL REINFORCING		ROOF TO HIGH ROOF VERTICAL REINFORCING	
MARK	AREA	NOMINAL THICKNESS	END ZONE LENGTH	END ZONE REINFORCING	INTERMEDIATE REINFORCING	END ZONE REINFORCING	INTERMEDIATE REINFORCING	END ZONE REINFORCING	INTERMEDIATE REINFORCING
SW1	AREAS A & F	0'-8"	1'-4"	(2) #6 BARS	SEE PLAN	(2) #6 BARS	SEE PLAN	N/A	N/A
SW2	AREAS A, B & F	0'-8"	2'-0"	(3) #6 BARS	SEE PLAN	(2) #6 BARS	SEE PLAN	N/A	N/A
SW3	AREAS A & F	0'-8"	2'-8"	(4) #8 BARS	SEE PLAN	(2) #8 BARS	SEE PLAN	(2) #8 BARS	SEE PLAN
SW4	AREA C & D	1'-0"	1'-4"	(2) #6 BARS	SEE PLAN	(2) #6 BARS	SEE PLAN	N/A	N/A

NOTES:
1. ALL SHEAR WALLS ARE GROUTED SOLID.
2. MASONRY SHEAR WALL SW3 ASSUMED ALT. END ZONE. SEE "TYPICAL SHEAR WALL END ZONE DIAGRAM".
3. NO CONTROL JOINTS SHALL BE LOCATED IN A SHEAR WALL.



NOTES:
1. PROVIDE CONTROL JOINTS AS INDICATED IN PLAN AND IN THE CONCRETE MASONRY CONSTRUCTION SECTION OF THE GENERAL SPECIFICATIONS.
2. AT BOND BEAMS, HORIZ. REINF. SHALL BE CONT. THROUGH CONTROL JOINT.

TYPICAL MASONRY CONTROL JOINT DETAIL



WINDOW ELEVATION

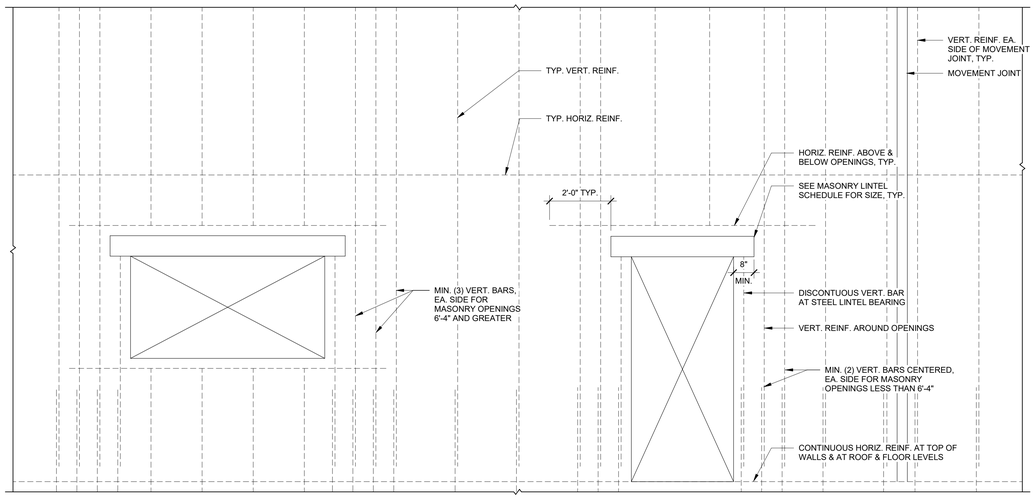
SECTION "A"

A. STEEL LINTEL SCHEDULE FOR MASONRY OPENING IS AS FOLLOWS, U.N.O.:

MAXIMUM SPAN L	STEEL ANGLE SIZE (LLV)
5'-0"	L6 X 4 X 5/16 X 6'-0"
8'-0"	L6 X 4 X 3/8 X 9'-0"
9'-0"	L6 X 4 X 3/8 X 10'-0"
12'-0"	L7 X 4 X 1/2 X 13'-0"

B. PROVIDE ROLLED STEEL ANGLE LINTELS @ ALL ARCHES.

BRICK LOOSE STEEL LINTEL SCHEDULE



NOTES:
1. SEE FOUNDATION PLAN NOTES FOR TYPICAL WALL REINF. SIZE, SPACING AND ANY ADDITIONAL REINF. REQUIREMENTS.
2. VERT. REINF. SHALL BE CENTERED IN CMU WALLS, U.N.O.
3. WALL REINF. SHALL BE FULL HEIGHT OF WALL; SEE "MASONRY REINFORCING SPLICE LENGTH SCHEDULE" FOR MINIMUM SPLICE LENGTHS.
4. REINFORCE EA. SIDE OF ALL MASONRY OPENINGS EQUAL TO OR GREATER THAN 16".
5. PROVIDE MIN. (1) VERT. BAR AT CORNERS, EA. SIDE OF OPENINGS AS INDICATED ABOVE, EA. SIDE OF CONTROL JOINTS, AND AT ENDS OF WALLS.
6. PROVIDE HORIZ. REINF. (JOINT REINF. OR (2) #4 BARS) AT THE BOTTOM AND TOP OF WALL OPENINGS. PROVIDE HORIZ. REINF. CONTINUOUSLY AT ROOF AND UPPER FLOOR LEVELS AND WITHIN 16" OF TOP OF WALL.
7. WHEN STEEL LINTELS ARE REQUIRED, REINF. AT LINTEL BEARING WILL BE DISCONTINUOUS. PROVIDE MIN. NUMBER OF CONTINUOUS BARS AS INDICATED ABOVE, EXCLUDING DISCONTINUOUS BAR AT LINTEL BEARING.

TYPICAL MINIMUM REINFORCEMENT REQUIREMENTS FOR INTERMEDIATE REINFORCED MASONRY SHEAR WALLS

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

ISSUED FOR PERMIT

CARNEY ENGINEERING GROUP

Seal:

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

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LICENSE NUMBER 51796, EXPIRATION DATE 11/21/2021

Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

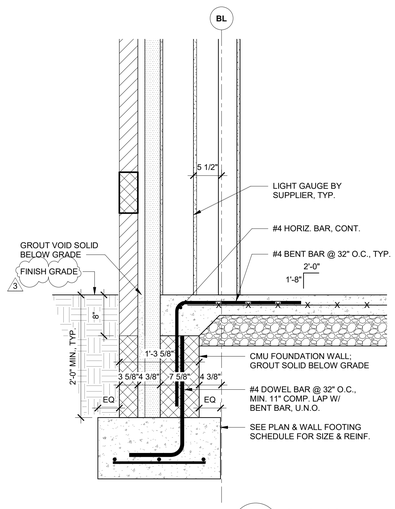
WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	C018.0159.00		Drawn
Scale	As indicated	SAP	Checked
Date	03/16/2020	BLP	Approved
Drawing Title	TYPICAL MASONRY DETAILS	Drawing Number	S3.2
Sheet			Of

BIM 360://18.0159 Waverly ES/STR_C018.0159.00_Waverley ES_R19.rvt

3/31/2020 2:41:11 PM



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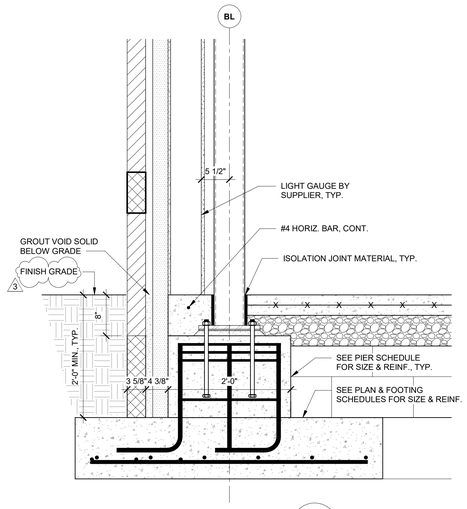

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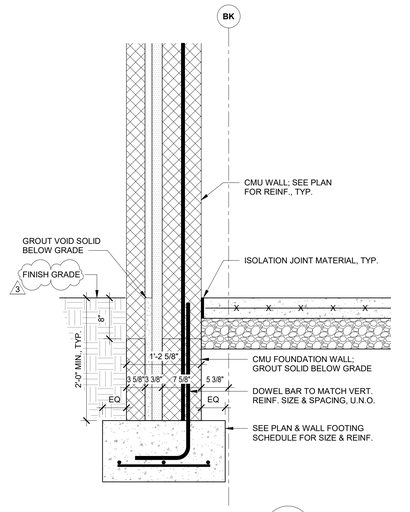

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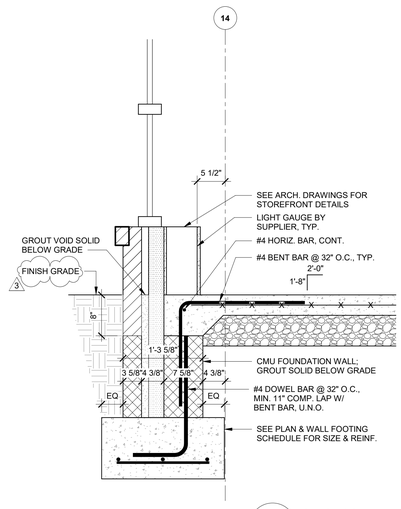

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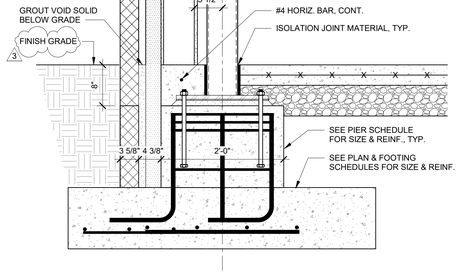

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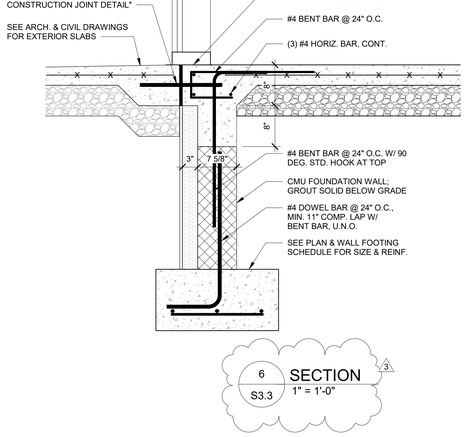

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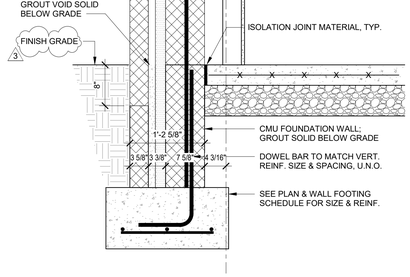

7 S3.3 SECTION
1" = 1'-0"

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

ISSUED FOR PERMIT

Seal:

CARNEY ENGINEERING GROUP

Seal:

GWWO INC.
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LICENSE NUMBER 51796, EXPIRATION DATE 11/21/2021

Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	C018.0159.00		Drawn
Scale	1" = 1'-0"	SAP	Checked
Date	03/16/2020	BLP	Approved

Drawing Title: FOUNDATION SECTIONS

Drawing Number: S3.3

Sheet: Of

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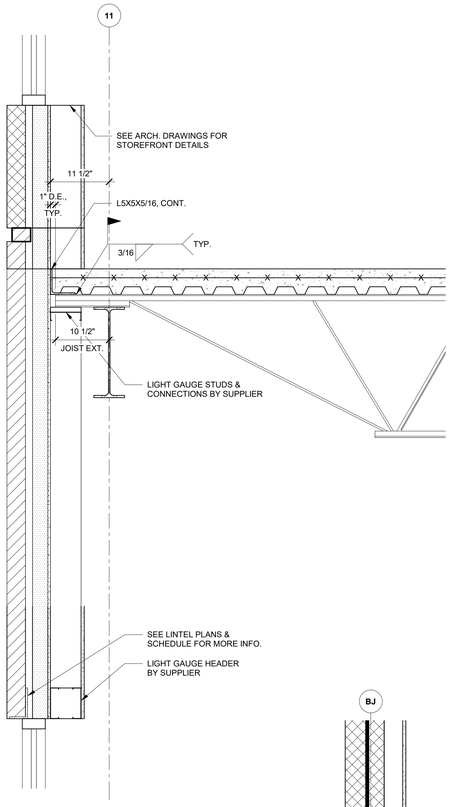

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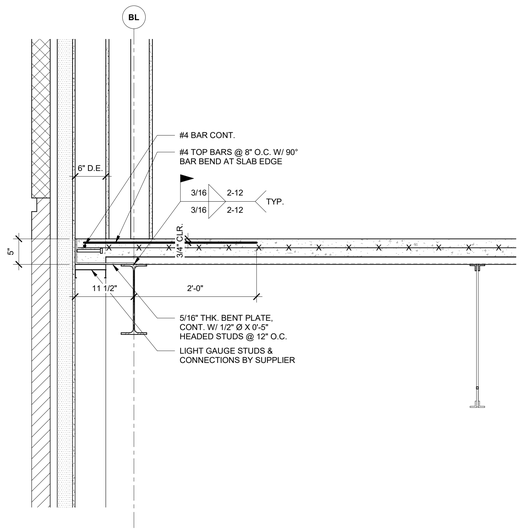

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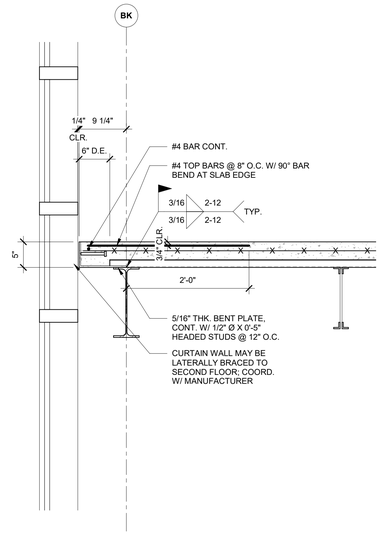

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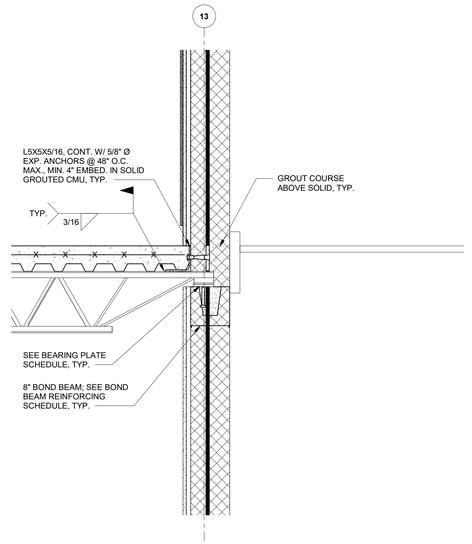

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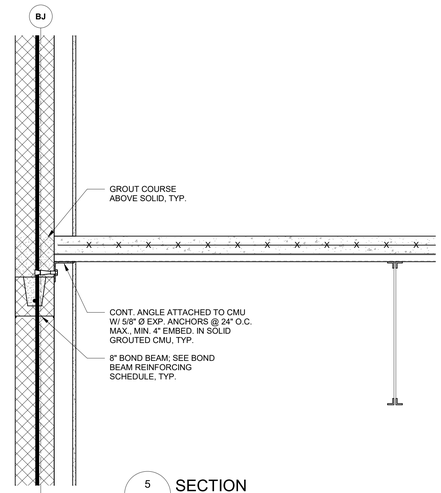

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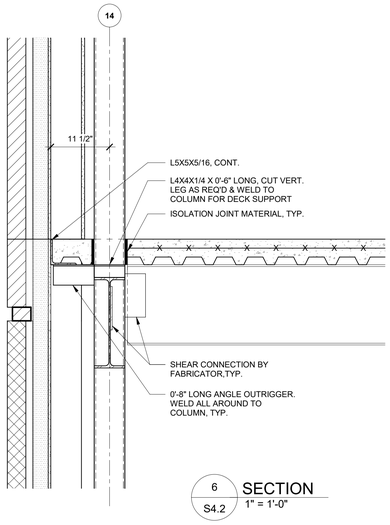

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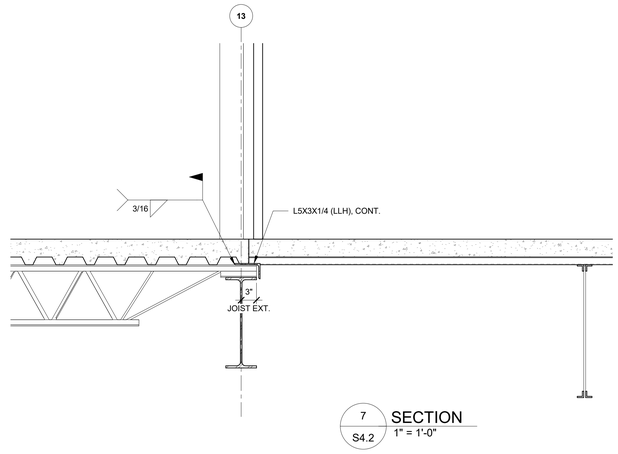

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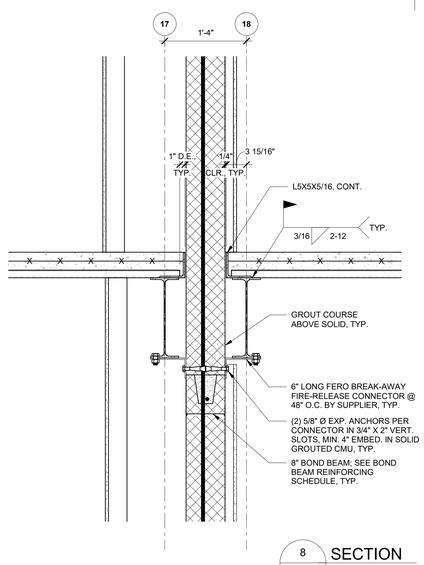

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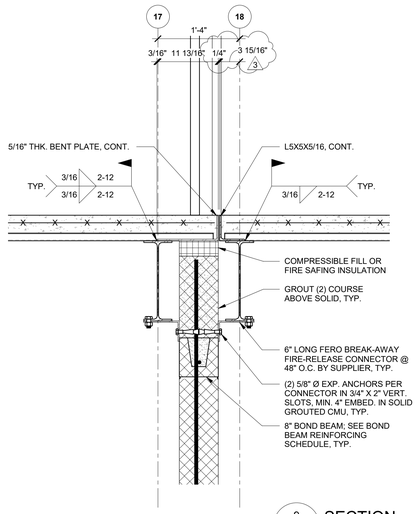

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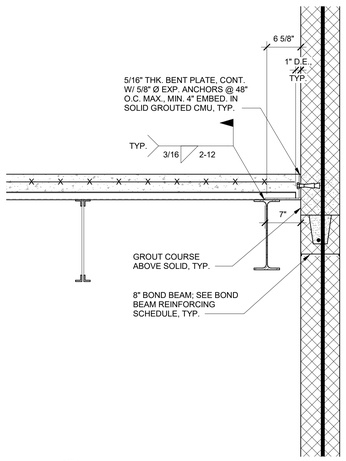

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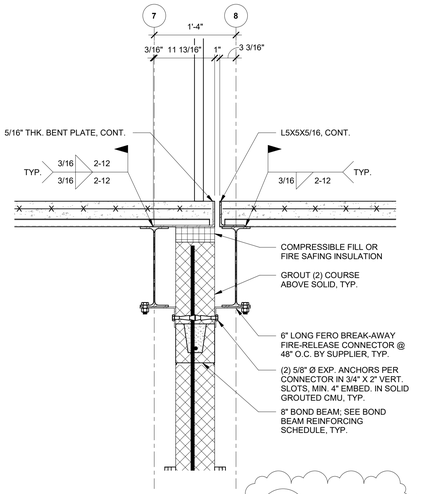

11 SECTION S4.2 1" = 1'-0" 3

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

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CARNEY ENGINEERING GROUP

GWWO INC.
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BALTIMORE, MARYLAND 21221, 410-332-1009

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	C018.0159.00		Drawn
Scale	1" = 1'-0"	SAP	Checked
Date	03/16/2020	BLP	Approved

Drawing Title: FLOOR FRAMING SECTIONS

Drawing Number: S4.2

Sheet: Of

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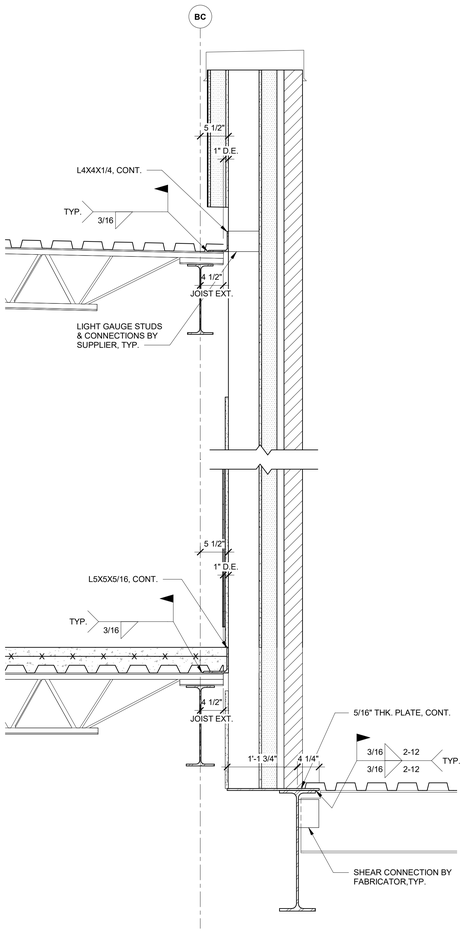

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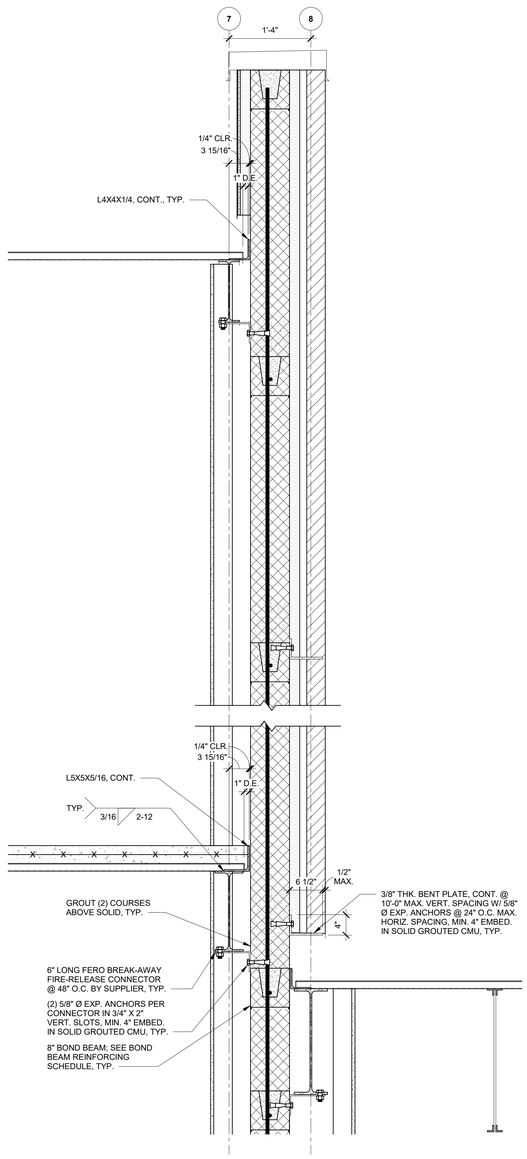

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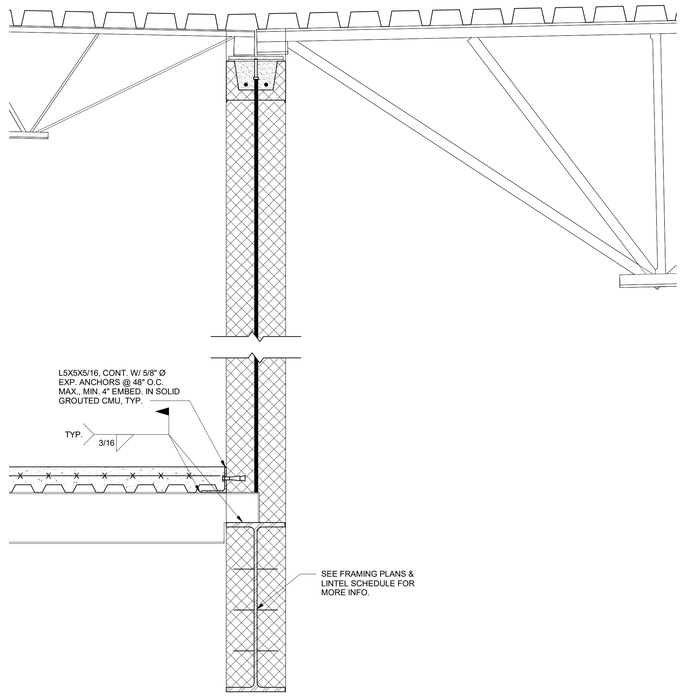

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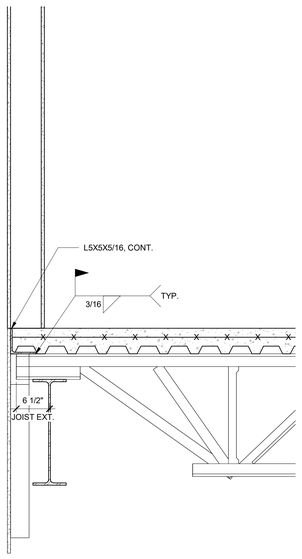

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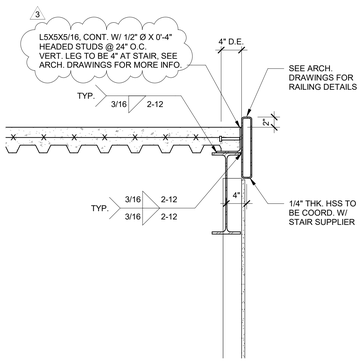

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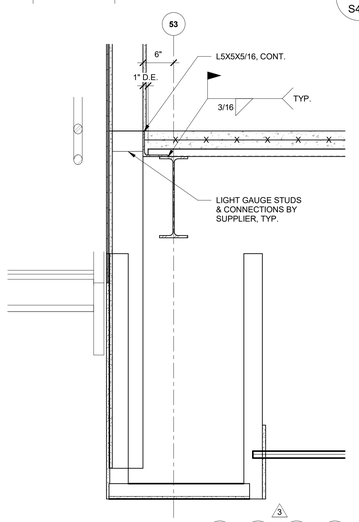

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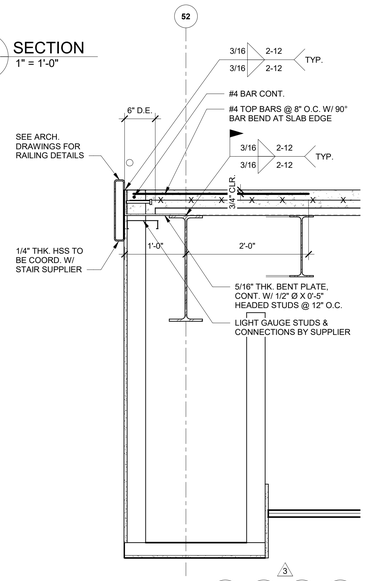

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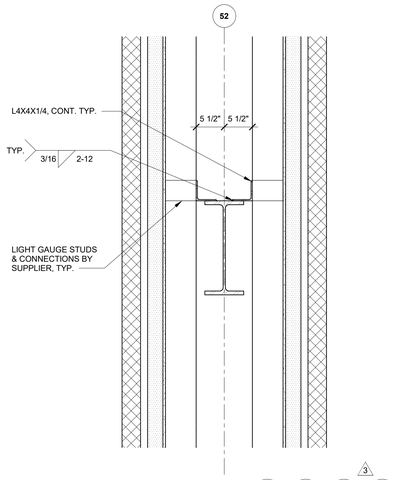

8 S4.4 SECTION 1" = 1'-0"

KEY PLAN:

KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

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Seal:

CARNEY ENGINEERING GROUP

Seal:

GWWO INC.
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LICENSE NUMBER 51796, EXPIRATION DATE 11/21/2021

Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	C018.0159.00		Drawn
Scale	1" = 1'-0"	SAP	Checked
Date	03/16/2020	BLP	Approved

Drawing Title: FLOOR FRAMING SECTIONS

Drawing Number: S4.4

Sheet: Of

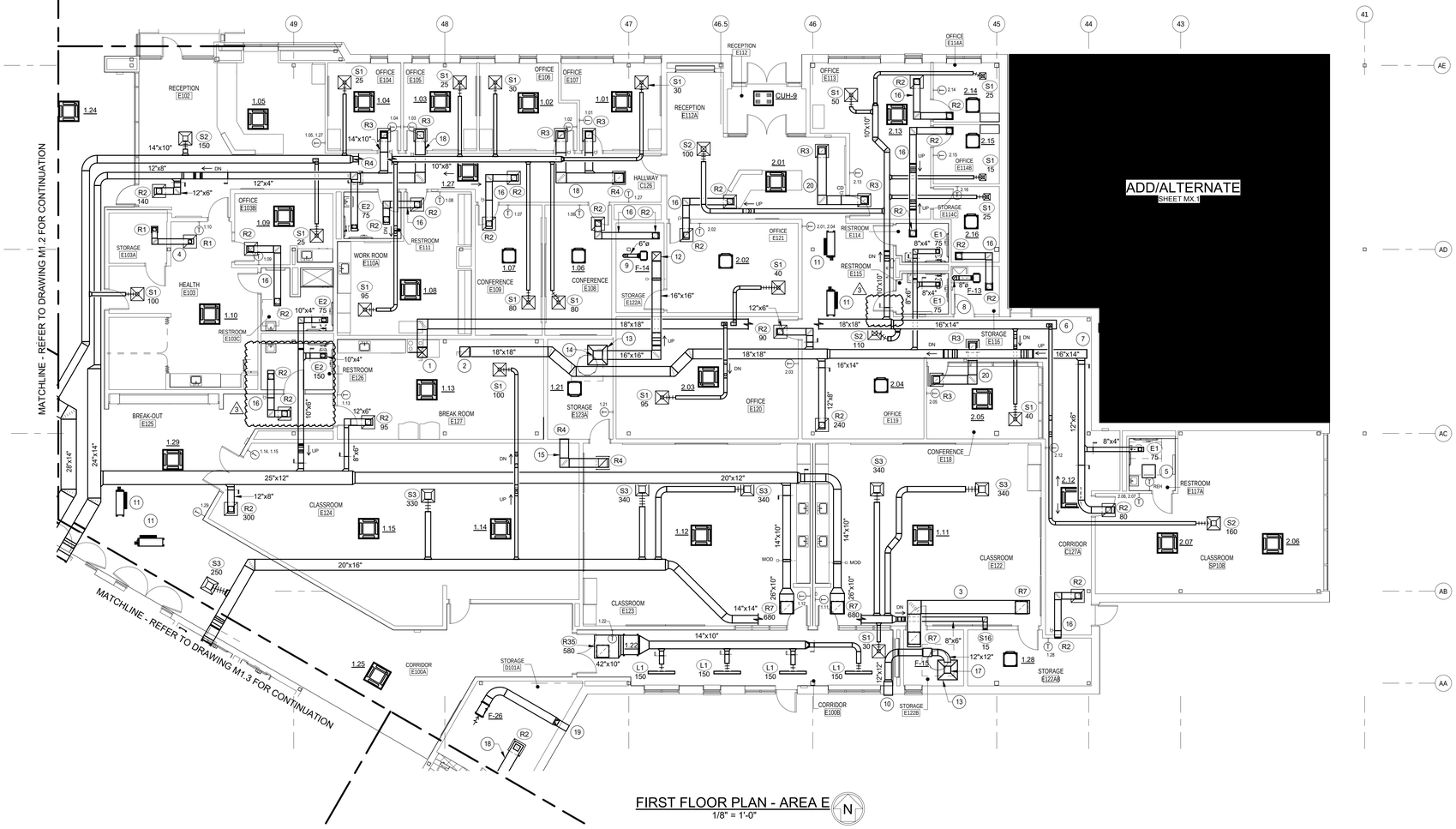
BIM 360://18.0159 Waverly ES/STR_C018.0159.00_Waverley ES_R19.rvt

3/31/2020 2:41:34 PM

DRAWING NOTES:

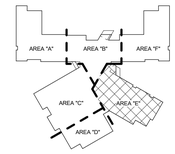
1. 18"x18" S/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.4 FOR CONTINUATION.
2. 18"x18" R/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.4 FOR CONTINUATION.
3. 24"x10" SOUNDLINED TRANSFER AIR DUCT.
4. 10"x10" SOUNDLINED TRANSFER AIR DUCT.
5. RADIANT ELECTRIC HEAT PANEL
   UNDER BASE BID

   24"x24" PANEL
   375 WATTS
   120/1ø/60Hz
   MODEL CP3751 BERKO
6. 16"x14" S/A DUCT CAP FOR FUTURE CONNECTION.
7. 16"x14" R/A DUCT CAP FOR FUTURE CONNECTION.
8. 8"ø E/A DUCT UP TO ROOF THROUGH CURB.
9. 6"ø E/A DUCT UP TO ROOF THROUGH CURB.
10. 16"x8" BRICK VENT W/ 16"x8" PLENUM BOX AND MOD BASED ON GREENHECK MODEL BVE157.
11. BRANCH SELECTOR BOX.
12. 16"x16" E/A DUCT UP TO F-25 ON ROOF. REFER TO DWG M1.10 FOR CONTINAUITON.
13. KILN HOOD.
14. 16"x16" DUCT DN TO FULL SIZE CONNECTION OF HOOD.
15. 16"x16" SOUNDLINED TRANSFER AIR DUCT.
16. 12"x10" SOUNDLINED TRANSFER AIR DUCT.
17. 12"x12" DUCT DN TO FULL SIZE CONNECTION OF HOOD.
18. 18"x12" SOUNDLINED TRANSFER AIR DUCT.
19. 12"x8" BRICK VENT W/ 12"x8" PLENUM BOX AND MOD BASED ON GREENHECK MODEL BVE128.
20. 16"x10" SOUNDLINED TRANSFER AIR DUCT.



FIRST FLOOR PLAN - AREA E
1/8" = 1'-0"

KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

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

8 0 8 16

ISSUED FOR BID

ALBAN ENGINEERING, INC.
303 INTERNATIONAL CIRCLE, SUITE 450
HUNT VALLEY, MD 21030
410.842.6411
WWW.ALBANENGINEERING.COM
P.N. 18075

Seal:

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	PJF	Drawn
Scale	1/8" = 1'-0"	JWA	Checked
Date	03/16/2020	JWA	Approved

Drawing Title: FIRST FLOOR PLAN - AREA E

Drawing Number: M1.5

Sheet: Of

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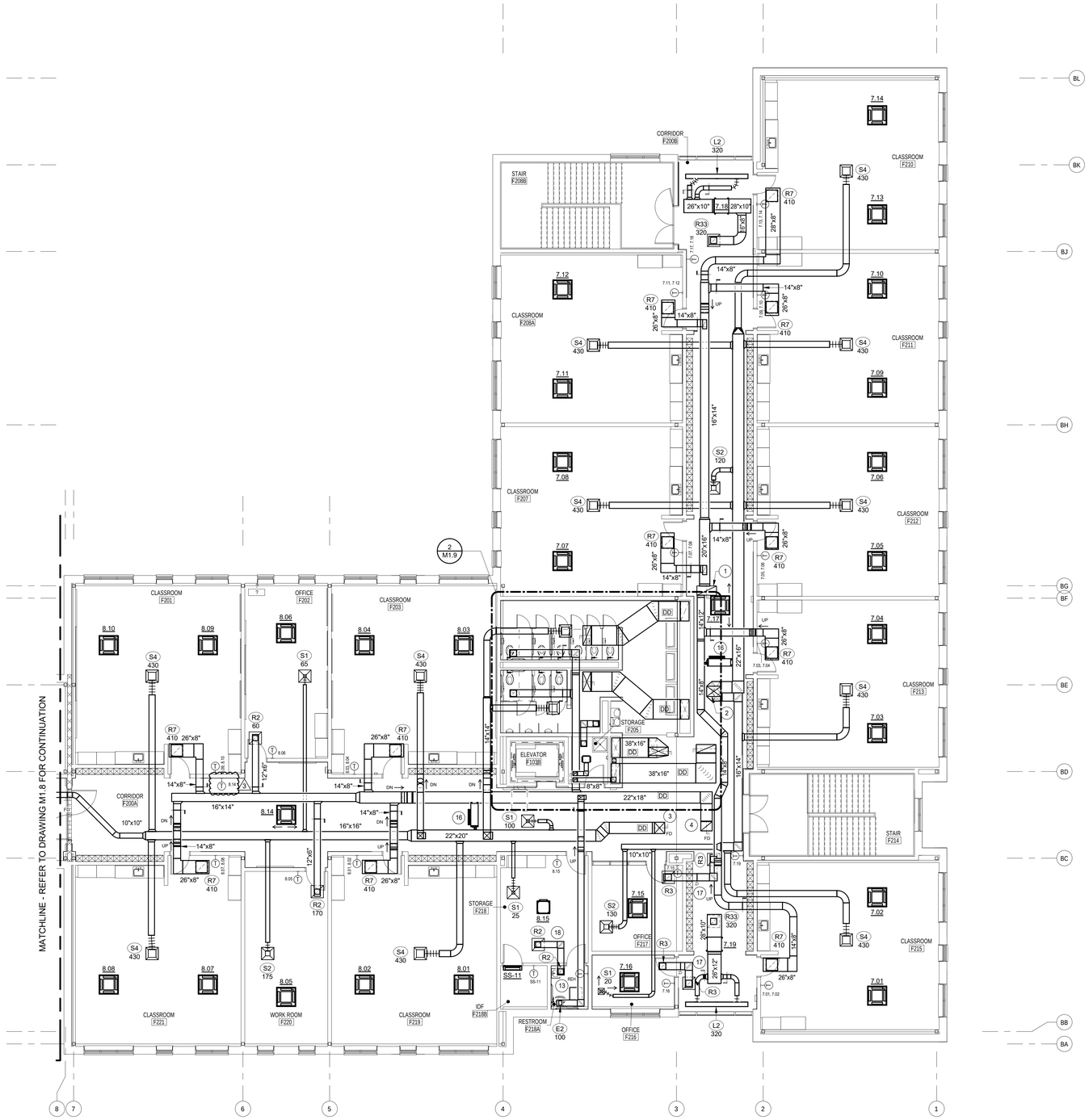
3/31/2020 9:00:08 AM

DRAWING NOTES:

1. 38"x18" R/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
2. 22"x16" AND 16"x16" S/A DUCT, TRANSITION TO 28"x20" IN VERTICAL W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
3. 22"x20" S/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
4. 22"x18" R/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
5. 38"x16" R/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
6. 38"x16 S/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
7. 38"x16" S/A DUCT UP. TRANSITION TO 16"x38" IN VERTICAL W/FD. REFER TO DWG M3.5 FOR CONTINUATION.
8. 38"x16" R/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
9. 38"x16" R/A DUCT DN TO FIRST FLOOR. REFER TO DWG M1.6 FOR CONTINUATION.
10. 38"x16" S/A DUCT DN TO FIRST FLOOR. REFER TO DWG M1.6 FOR CONTINUATION.
11. 38"x16" R/A DUCT DN TO FIRST FLOOR. REFER TO DWG M1.6 FOR CONTINUATION.
12. 38"x16" S/A DUCT DN TO FIRST FLOOR. REFER TO DWG M1.6 FOR CONTINUATION.
13. RADIANT ELECTRIC HEAT PANEL

    24"x24" PANEL
    375 WATTS
    120/1ø/60Hz
    MODEL CP3751 BERKO
14. 8"x6" E/A DUCT DN TO FIRST FLOOR. REFER TO DWG M1.6 FOR CONTINUATION.
15. 8"x8" E/A DUCT UP W/FD TO PENTHOUSE. REFER TO DWG M3.5 FOR CONTINUATION.
16. BRANCH SELECTOR BOX.
17. 14"x8" SOUNDLINED TRANSFER AIR DUCT.
18. 12"x12" SOUNDLINED TRANSFER AIR DUCT.



SECOND FLOOR PLAN - AREA F
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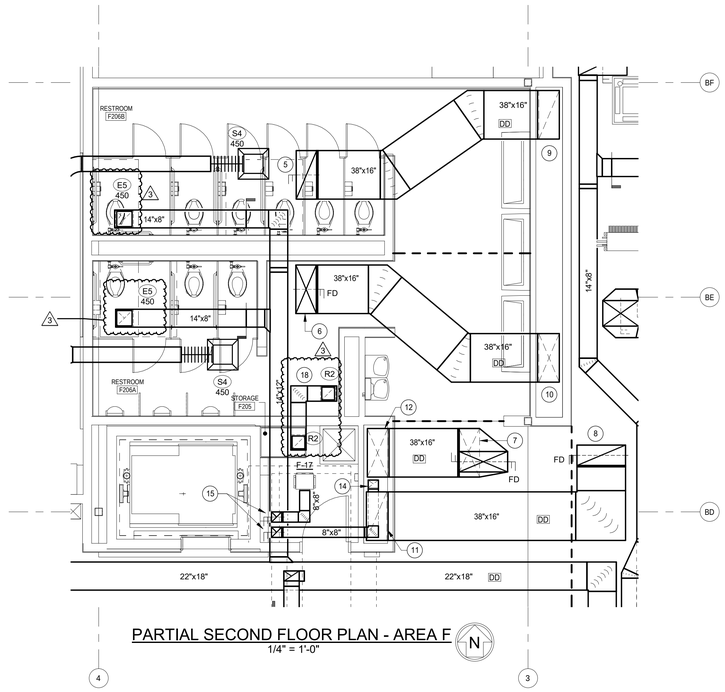
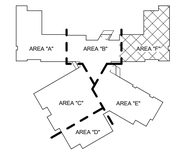


PARTIAL SECOND FLOOR PLAN - AREA F
1/4" = 1'-0"

KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

SCALE: 1/4" = 1'-0"
4 0 4 8

SCALE: 1/8" = 1'-0"
8 0 8 16

ISSUED FOR BID

ALBAN ENGINEERING, INC.
303 INTERNATIONAL CIRCLE, SUITE 450
HUNT VALLEY, MD 21030
410.842.6411
WWW.ALBANENGINEERING.COM
P.N. 18075

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

Seal:

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	PJF	Drawn
Scale	As indicated	JWA	Checked
Date	03/16/2020	JWA	Approved

Drawing Title: SECOND FLOOR PLAN - AREA F

Drawing Number: M1.9

Sheet: Of

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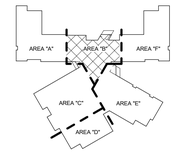
GENERAL NOTES:

1. ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE. EXCEPT WHERE LOCATED IN PRIVATE OFFICES, KITCHEN, STORAGE, MECHANICAL/ELECTRICAL ROOMS AND RECEPTION AREAS.
2. REFER TO MECHANICAL EQUIPMENT SCHEDULES ON DWG **E7.6** FOR ADDITIONAL INFORMATION.
3. REFER TO TELECOMMUNICATION DRAWINGS FOR COORDINATION BETWEEN POWER AND DATA BOXES.

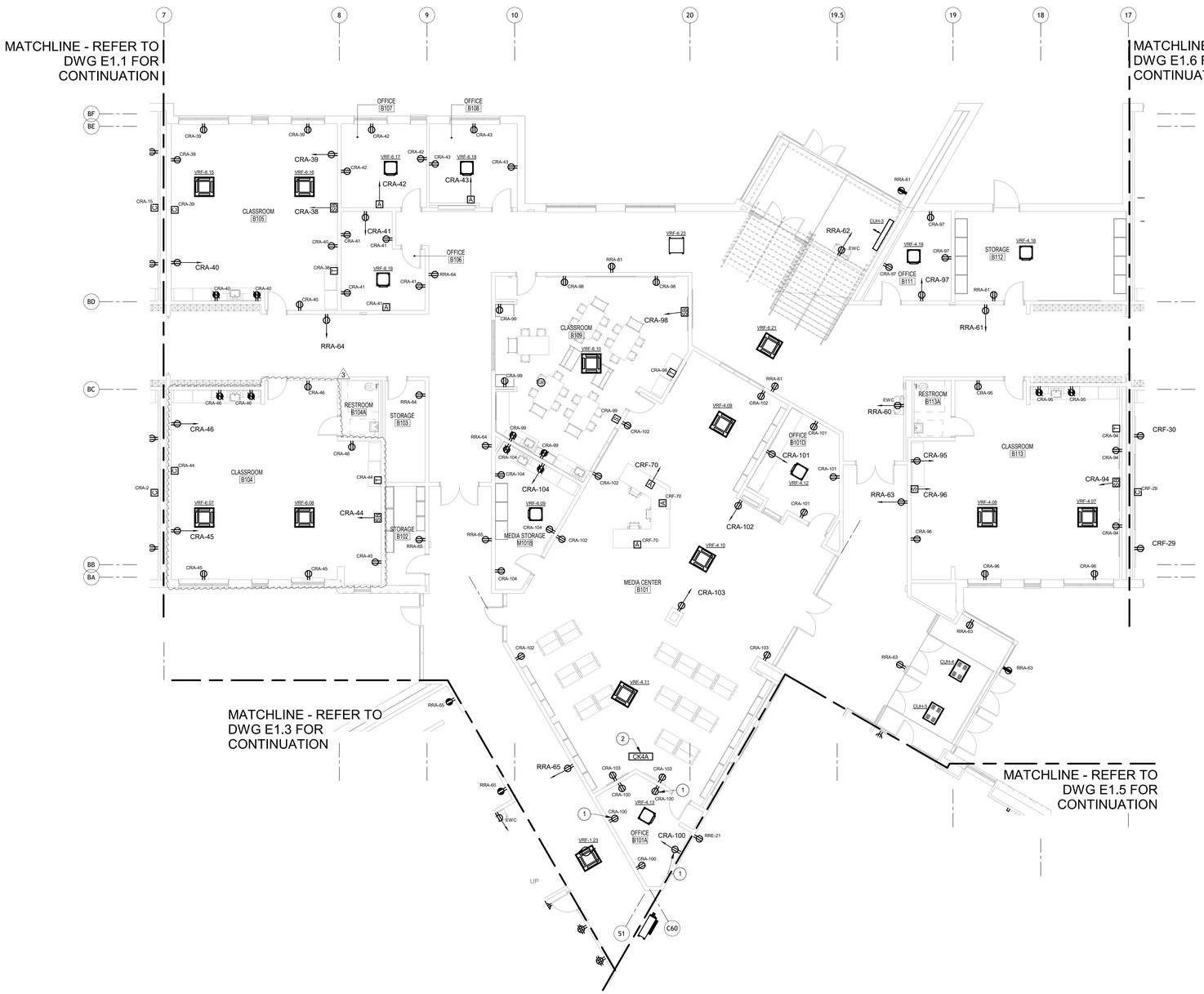
DRAWING NOTES:

1. CONTROLLED RECEPTACLE CONTROLLED VIA CK4A ROOM CONTROLLER FOR AUTOMATIC SHUTOFF BASED ON BUILDING BAS SYSTEM.
2. MOUNT CK4A ROOM CONTROLLER ABOVE ACCESSIBLE CEILING.

KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST



FIRST FLOOR PARTIAL PLAN - AREA B - POWER
1/8" = 1'-0"

8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

ISSUED FOR PERMIT

ALBAN ENGINEERING, INC.
303 INTERNATIONAL CIRCLE, SUITE 450
HUNT VALLEY, MD 21030
410.842.6411
WWW.ALBANENGINEERING.COM
P.N. 18053

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	Alban	Drawn
Scale	1/8" = 1'-0"	Alban	Checked
Date	03/16/2020	GWD	Approved

Drawing Title: FIRST FLOOR PLAN - AREA B - POWER

Drawing Number: E1.2

Sheet: Of

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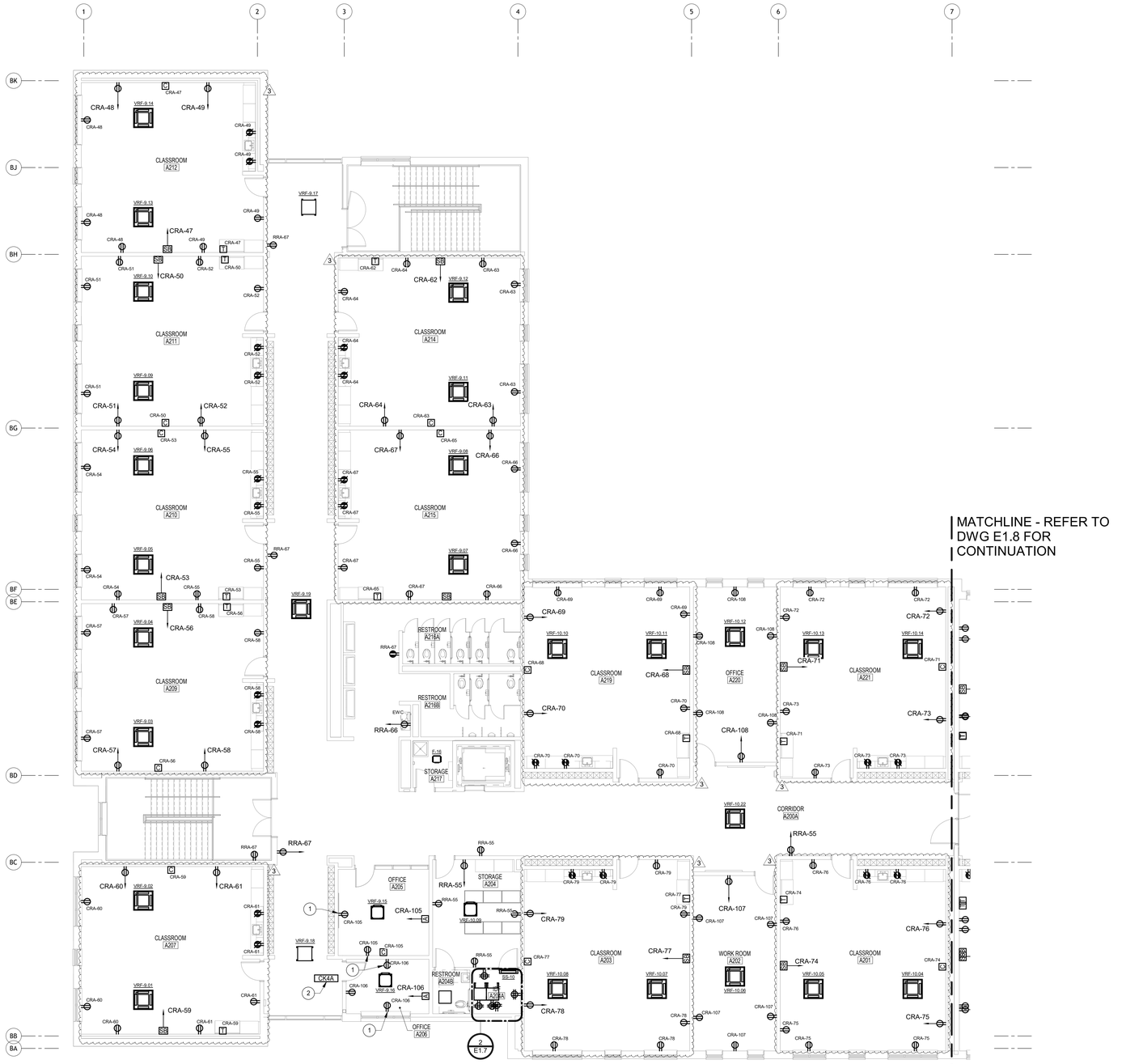
GENERAL NOTES:

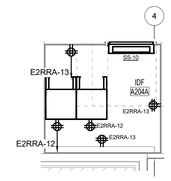
1. ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE. EXCEPT WHERE LOCATED IN PRIVATE OFFICES, KITCHEN, STORAGE, MECHANICAL/ELECTRICAL ROOMS AND RECEPTION AREAS.
2. REFER TO MECHANICAL EQUIPMENT SCHEDULES ON DWG **E7.6** FOR ADDITIONAL INFORMATION.
3. REFER TO TELECOMMUNICATION DRAWINGS FOR COORDINATION BETWEEN POWER AND DATA BOXES.

DRAWING NOTES:

1. CONTROLLED RECEPTACLE CONTROLLED VIA CK4A ROOM CONTROLLER FOR AUTOMATIC SHUTOFF BASED ON BUILDING BAS SYSTEM.
2. MOUNT CK4A ROOM CONTROLLER ABOVE ACCESSIBLE CEILING.

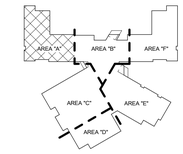


SECOND FLOOR PARTIAL PLAN - AREA A - POWER
1/8" = 1'-0"



PART PLAN - IDF A204A
1/4" = 1'-0"

KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

SCALE OF FEET
1/4" = 1'-0"

SCALE OF FEET
1/8" = 1'-0"

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303 INTERNATIONAL CIRCLE, SUITE 450
HUNT VALLEY, MD 21030
410.842.6411
WWW.ALBANENGINEERING.COM
P.N. 18053

GWWO INC.
800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-3309

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	Alban	Drawn
Scale	As indicated	Alban	Checked
Date	03/16/2020	GWD	Approved

Drawing Title: SECOND FLOOR PLAN - AREA A - POWER

Drawing Number: E1.7

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GENERAL NOTES:

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3. REFER TO TELECOMMUNICATION DRAWINGS FOR COORDINATION BETWEEN POWER AND DATA BOXES.

DRAWING NOTES:

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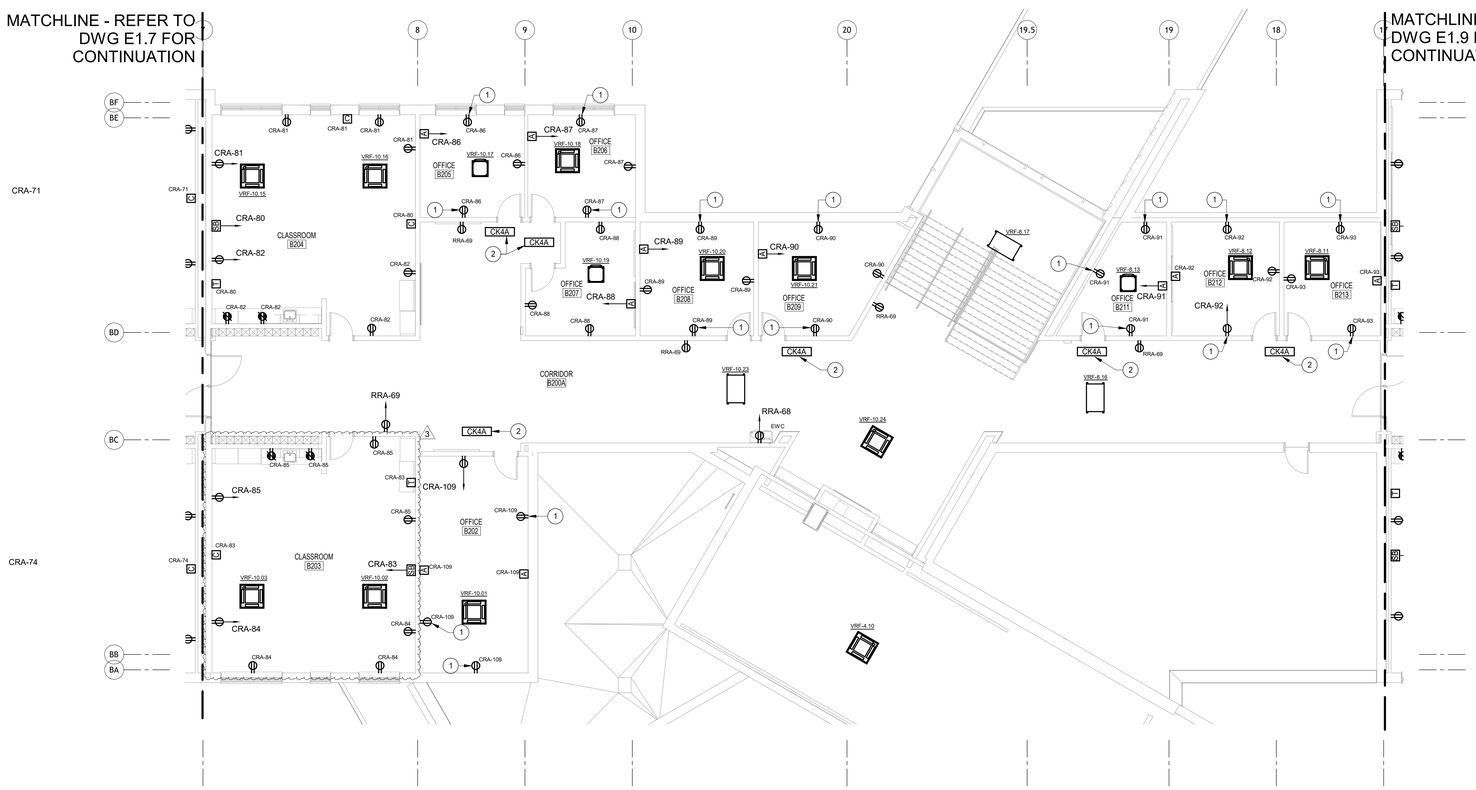
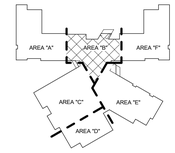
2. MOUNT CK4A ROOM CONTROLLER ABOVE ACCESSIBLE CEILING.



SECOND FLOOR PARTIAL PLAN - AREA B - POWER

1/8" = 1'-0"

KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST

8 0 8 16

SCALE OF FEET
1/8" = 1'-0"

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303 INTERNATIONAL CIRCLE, SUITE 450
HUNT VALLEY, MD 21030
410.842.6411
WWW.ALBANENGINEERING.COM
P.N. 18053

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BALTIMORE, MARYLAND 21211, 410-332-0309

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	Alban	Drawn
Scale	1/8" = 1'-0"	Alban	Checked
Date	03/16/2020	GWD	Approved

Drawing Title: SECOND FLOOR - AREA B - POWER

Drawing Number: E1.8

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GENERAL NOTES:

1. ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE. EXCEPT WHERE LOCATED IN PRIVATE OFFICES, KITCHEN, STORAGE, MECHANICAL/ELECTRICAL ROOMS AND RECEPTION AREAS.
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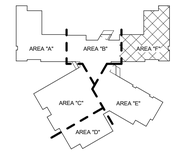
3. REFER TO TELECOMMUNICATION DRAWINGS FOR COORDINATION BETWEEN POWER AND DATA BOXES.

DRAWING NOTES:

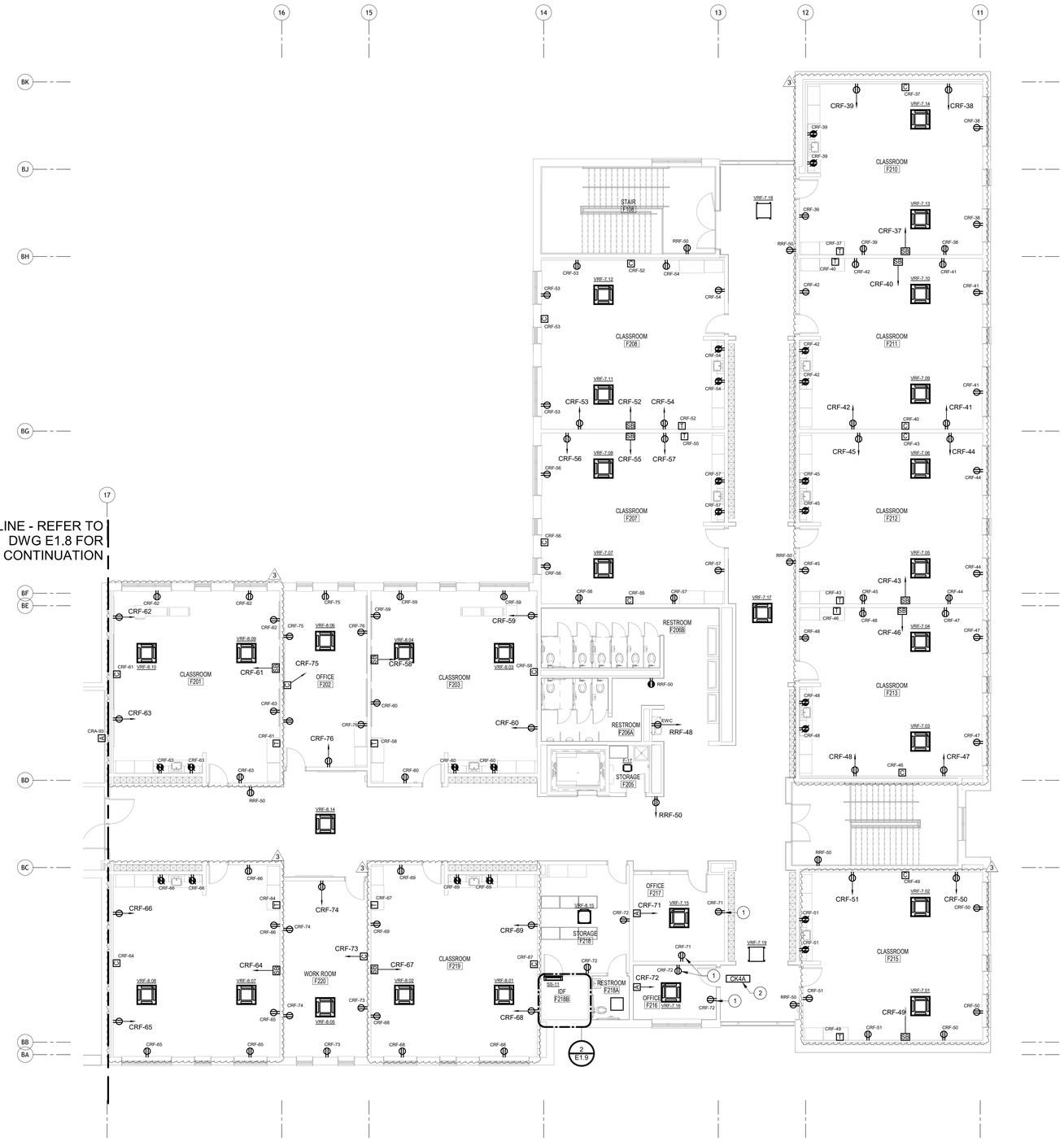
(1) CONTROLLED RECEPTACLE CONTROLLED VIA CK4A ROOM CONTROLLER FOR AUTOMATIC SHUTOFF BASED ON BUILDING BAS SYSTEM.

(2) MOUNT CK4A ROOM CONTROLLER ABOVE ACCESSIBLE CEILING.

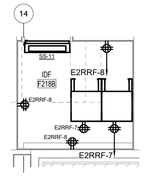
KEY PLAN:



KEYNOTES LISTED ON THIS SHEET ARE FOR CONVENIENCE ONLY. REFER TO SHEET CS.2 FOR COMPLETE LIST



SECOND FLOOR PARTIAL PLAN - AREA F - POWER
1/8" = 1'-0"



PART PLAN - IDF F218B
1/4" = 1'-0"

4 0 4 8
SCALE OF FEET
1/4" = 1'-0"

8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

ISSUED FOR PERMIT

ALBAN ENGINEERING, INC.
303 INTERNATIONAL CIRCLE, SUITE 450
HUNT VALLEY, MD 21030
410.842.6411
WWW.ALBANENGINEERING.COM
P.N. 18053

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800 WYMAN PARK DRIVE, SUITE 300
BALTIMORE, MARYLAND 21211, 410-332-1009

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Revisions:

No.	Date	Description
3	04/03/2020	Addendum #3

WAVERLEY ELEMENTARY SCHOOL REPLACEMENT

FREDERICK COUNTY PUBLIC SCHOOLS

Job No.	#18045	Alban	Drawn
Scale	As indicated	Alban	Checked
Date	03/16/2020	GWD	Approved

Drawing Title: SECOND FLOOR - AREA F - POWER

Drawing Number: E1.9

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04.02.2020 Pre-Bid Meeting Notes Bid 20C6, Waverley Elementary School - New School Construction

Bids will be solicited for the construction of the new Waverley Elementary School. The educational specifications for this school were used to develop a new elementary school prototype design for FCPS. The new two-story building will have a state rated student capacity of 1019 students and is anticipated to open in September 2022.

Bids for the following packages: 2A Sitework; 3A Concrete; 4A Masonry; 5A Structural Steel; 6A General Carpentry; 7A Roofing; 8A Windows and Storefronts; 9A Drywall and Acoustics; 9B Ceramic Wall and Floor Tile; 9C Fluid Applied and Terrazzo Flooring; 9D Resilient Flooring and Athletic Surfacing; 9E Painting; 11A Food Service Equipment; 11B Athletic Equipment; 15A Mechanical (Plumbing, HVAC and Sprinkler); 16A Electrical (including Low Voltage) will be received and time stamped in the main lobby of Frederick County Public Schools (FCPS) at 191 South East Street, Frederick, MD 21701, prior to and time stamped no later than **11:00 a.m. local time, April 29, 2020**.

Contract Manager:	Kim Miskell, CSBO, Assistant Purchasing Manager, kim.miskell@fcps.org
FCPS Project Manager:	Brian Staiger, Senior Project Manager brian.staiger@fcps.org
Construction Manager:	Dave Toth, Oak Contracting, LLC dtoth@oakcontracting.com
Architect:	Scott Moir, GWWO smoir@gwwoinc.com

For information pertinent to the bidding process, the attention of all contractors, subcontractors and material supply bidders are directed to the:

- Invitation to Bid (Page 15-16)
- Instruction to Bidders (AIA Document A701) (Pages 28-35)
- Supplemental Instructions to Bidders (Supplement to AIA A701) (Pages 36-49)
- Proposal Form and Signature Page, Prevailing Wage (Pages 131-136)
- General Conditions and Supplementary Conditions of the Contract for Construction (AIA Document A232/CMa) (Pages 175-246)

Certified Minority Business Enterprises are encouraged to respond to this solicitation notice. The contractor or supplier who provides materials, supplies, equipment and/or services for this construction project shall attempt to achieve the specific MBE goal for each contract package listed below. All prime contractors, including certified MBE firms, when submitting bids or proposals as general or prime contractors, are required to attempt to achieve this goal from certified MBE firms.

Bids are being requested for the following contract packages:

2A Site Work	10%
3A Concrete	2%
4A Masonry	2%
5A Structural Steel	2%
6A General Carpentry	5%
7A Roofing	10%
8A Windows and Storefronts	5%
9A Drywall and Acoustics	10%
9B Ceramic Wall and Floor Tile	2%
9C Fluid Applied and Terrazzo Flooring	2%
9D Resilient Flooring and Athletic Surfacing	5%
9E Painting	7%
11A Food Service Equipment	0%
11B Athletic Equipment	0%
15A Mechanical (Plumbing, HVAC and Sprinkler)	10%
16A Electrical (including Low Voltage)	10%

MBE Reminders:

- Please remember that prior to and up to 10 days before the bid opening, contractors must solicit minority business enterprise through written notice.

- If you are advertising in the paper or sending written solicitations via fax, please make sure you are keeping a detailed log of your efforts. Should you not receive any responses to your advertisement/written notices you need to make personal contact with those companies you solicited and keep detailed records of who you spoke to, their address, telephone number and dates that you contacted them.

This project will be bid with Prevailing Wage Rates.

In the event of inclement weather on the date when the bids are scheduled to be opened and the FCPS administrative offices are closed, bids will be opened on the next business day at the same time as previously scheduled. Often when schools are closed the administrative offices are open – when in doubt please call the purchasing department.

Please make sure that your bid submission includes the following:

- All applicable areas of the bid form of proposal are filled in carefully, completely and signed.

- Acknowledge the receipt of each and every Addendum on the Bid Form of Proposals.
- Submit one (1) original and one (1) copy of Bid Form of Proposals.
- Base bid and alternate bid prices must be submitted as a numeric value and must be written in words.
- Bid bond or cashier's check for 5% of the total bid amount is included.
- Properly completed Statutory Affidavit and Non-Collusion Certification Form.
- Certificate of Compliance Form completed and signed.
- Vendor Conflict of Interest Disclosure Form completed and signed.
- MBE Attachments A & B.

Should any bidder find discrepancies in, or omissions from, the drawings and other contract documents need to request clarification in writing. All necessary interpretations will be issued to all bidders in the form of addenda.

Directed to: Kim Miskell, CSBO, Assistant Purchasing Manager at: kim.miskell@fcps.org with a copy to Brian Staiger, Senior Project Manager at: brian.staiger@fcps.org and Dave Toth, Oak Contracting, LLC dtoth@oakcontracting.com

No written requests received within seven (7) calendar days prior to the bid due date will be considered and no addenda will be issued later than four (4) calendar days prior to the bid opening date. (Questions Due: 4:00 p.m. , local time, April 15, 2020)

Laws and Regulations:
The vendor will comply with all Federal, State, and local laws, ordinances and regulations pertaining to work under their charge. If the vendor performs any work which it knows or should know to be contrary to such laws, ordinance, and regulations and without such notices to FCPS they shall bear all costs arising therefrom.

American Steel Act:
The vendor will comply with the provisions of Sections 17-301 through 17-306 of the State Finance and Procurement Article of the Annotated Code of Maryland, as amended entitled "Steel Procurement for Public Works." The vendor's affidavit of compliance with these provisions may be required before payment can be made.

All vendors and subcontractors must abide by the Board of Education of Frederick County policies and FCPS regulations while working on school property.

Be advised that individuals who are registered sex offenders are not eligible to work on any FCPS' project. The awarded supplier(s) must initially check the Maryland Department of Public Safety & Correctional Services' Maryland Sex Offender Registry and search for the name of any employee to be assigned to work on this project. This applies to subcontractors and material/equipment suppliers as well. For projects lasting more than a few months, the supplier will periodically re-check the names of workers against the registry to ensure ongoing compliance. In the event that a registered sex offender is discovered to be working on a FCPS project, whether through employment by the supplier, subcontractor or equipment or material supplier, FCPS will notify the site superintendent to immediately remove the individual from the premises and permanently terminate his work assignment. FCPS may terminate this contract at no additional costs, as a result if the supplier is unable to demonstrate they have exercised care and diligence in the past in checking the Maryland registry.

An awarded supplier will not assign employee who has been convicted of a crime of violence as defined in § 14-101 of the Criminal Law Article, or an offense under the laws of another state that would be a violation of § 14-101 of the Criminal Law Article if committed in this state.

With the passing of Maryland Law MD. Code, Educ. 6-113.2, employers of all contracted staff must obtain background information relating to child sexual abuse or sexual misconduct. This means that all contracted staff having direct contact with students must meet all of the FCPS and Maryland State Department of Education (MSDE) requirements before doing business with FCPS. For additional information, visit:

- Maryland State Department of Education Website;
- House Bill 486 Child Sexual Abuse and Sexual Misconduct Prevention;
- MSDE Guidelines For MD. Code, Educ. 6113.2;
- Employment History Review Form for Child Abuse and Sexual Misconduct

The use of tobacco and alcohol beverages in any form is prohibited on FCPS property at all times, all year.

No person shall carry or possess any rifle, gun, knife, or deadly weapon of any kind on FCPS property.

Award of the contract is contingent upon the award of full funding for this project.

Tentative Board Award: May 27, 2020

Liquidated Damages will be assessed at $1,000.00 per day for each calendar day required to achieve substantial completion beyond the substantial completion dated authorized by the contract.

Anticipated construction will commence on or around June 15, 2020

Substantial Completion shall be achieved by April 7, 2023

Bid 20C6, Waverley Elementary School - New Construction
Pre-Bid Attendance Sheet
April 2, 2020 at 1:30 p.m. via Skype Business Video Conference

Company	Name	Email	Phone
11400 Inc	Katie Martin	kmartin@11400inc.com	717-392-7429
Adtek Engineers	James Barto	jbarto@adtekengineers.com	301-622-4408
Altimate Electric Inc.	Mike Monday	mmonday@altimateelectric.com	301-607-8003
Asbestos Specialists Inc.	Dave Purdum	davidp@asiabatement.com	410-796-5379
Bowen and Kron Enterprises, Inc.	Devin Miller	devin@bowen-kron.com	410-686-3500
Brandenburg Electric Inc	Dave Mackley	dmackleybei@yahoo.com	301-662-0144
Brawner Builders, Inc.	Bob Estoque	bobestoque@brawnerbuilders.com	410-666-2500
C. J. Miller LLC	Jay Plummer	jplummer@cjmillerllc.com	410-239-8006
Callas Contractors, Inc.	Andrew Campbell	acampbell@callascontractors.com	301-671-3156
Callas Contractors, Inc.	Tina Rhodes	trhodes@callascontractors.com	301-739-8400
Can-Am Contractors, Inc.	Nelson Hinojosa	nelson@canamcontractors.com	301-937-1746
Chesapeake Glazing	Joanna Brentlinger	jbrentlinger@chesglazing.com	410-526-4409
Cummins Sales and Service	Karishma Konka	karishma.c.konka@cummins.com	410-762-1421
David H. Martin Excavating, Inc.	Dave Houck	dhouck@dhmexc.com	717-729-1385
Denver-Elek	Dan Shanahan	dshanahan@denver-elk.com	410-574-8400
Fidelity Power Systems	Lisa Nichols	lnichols@fidelity-ps.com	410-891-1535
Foundation for Fair Contracting - Mid Atlantic Region	Katelyn Wolford	kwolford@ffc-mar.org	202-756-4671
Fout Crane and rigging	Neil Keilen	salesfoutcrane@msn.com	301-662-1989
Fresh Air Concepts	Jason Harding	jason.h@4fac.com	410-789-7800
Gazebo Gardens	Brian Harris	brianandthings@gmail.com	240-418-4067
George Moehrle Masonry, Inc.	Rick Olcese	Estimating@moehrlemasonry.com	301-662-7584
Grounded Electrical Construction	Zach Rothfus	zrothfus@groundedelec.com	410-582-8061
Grounded Electrical Construction	Karen Lopez Saravia	klopezsaravia@groundedelec.com	301-326-3764
Heidler Roofing Services	Rodney G Everett	reverett@heidlerroofing.com	301-766-4030
Heidler Roofing Services	Andy Anglin	aanglin@heidlerroofing.com	301-766-4030
High Performance Cabling , Inc.	tim nelling	tnelling@hpcabling.com	301-739-8989
Independence Excavating	Alex Mahon	mabids@indexc.com	216-339-6312
Kaempf & Harris Sheet Metal	Keith Abrecht	keith.abrecht@kaempfandharris.com	301-663-6670
Keller Brothers, Inc.	SarahMouradian	smouradian@kellerbrothers.com	301-607-9300
Kinsley Construction	Evan Appleby	eappleby@kinsleyconstruction.com	240-313-4900
Locust Lane Farms, Inc.	Steve Orange	steve@locustlane.com	301-574-9401
M&B Contract Specialties, Inc.	Mike Reynolds	bids@mbcontract.comcastbiz.net	410-879-7771
Oyler Electric Inc	Ken Oyler III	oylerk3@pa.net	717-749-3187
Pleasants Construction, Inc.	Tom Veirs	tveirs@pleasantsconstruction.com	301-662-8211
Towson Mechanical, Inc.	Mike Kline	mkline@towsonmechanical.com	410-668-1210
Warner Mechanical	David Dolbow	ddolbow@warner-mechanical.com	301-662-5387 ext. 231
William F Klingensmith Inc	Bill Klingensmith	billk@wfklingensmith.com	301-699-6070
Wormald Commercial	David Musolino	david.musolino@wormald.com	301-802-9661
Wycliffe	David Lok	dlok@wycliffeinc.com	240-629-8662
Yes Mechanical Contractors (MBE cert.)	Sung Bang	sung.bang@yeshvac.com	410-245-1446
Yes Mechanical Contractors (MBE cert.)	Jae Um	jae.um@yeshvac.com	410-245-1446
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