

ENGINEERING

July 12, 2013

#### Re: INDIAN RIVER SCHOOL DISTIRCT CLASSROOM ANNEX BUILDINGS

Georgetown, Millsboro, and Selbyville Delaware 2013055.00, .01, .02, .03

#### ADDENDUM ONE

The contract documents for the above referenced project, Project Manual, dated June 11, 2013 and Drawings, dated June 10, 2013, are amended as follows:

#### **CLARIFICATION**

- 1. Minutes and attendees list of Prebid meeting are attached to this addendum.
- 2. Deadline for bidder's questions is 5:00 PM, Tuesday, July 23, 2013.
- 3. All bids shall be prepared from complete Bid Documents, Drawings and Project Manual, dated June 11, 2013 for Project Manual and June 10, 2013 for drawings, procured through DiCarlo Precision Imaging on or after July 1, 2013, and modified by subsequently issued addenda.
- 4. Electronic files will be available to Contractor according to Division 01, Section 013300 "Submittal Procedures" and the release included in the Project Manual. Associated fee for requested files is the responsibility of the Contractor. For example, sheet A101 is one file and sheet M100 is one file.
- 5. Submittals shall be processed electronically. Finishes will be reviewed as physical submittals and shall also have electronic approval sheets. Refer to Division 01, Section 013300 "Submittal Procedures" for additional information.
- 6. Contractor shall conduct and keep record of background checks for all employees and subcontractor employees who are onsite, and shall make records available to Owner upon request.
- 7. Excess topsoil stripped and not necessary for the completion of the Work shall be removed by Contractor.
- 8. Technology, including wiring, devices, and smart boards, will be provided by Owner. Contractor shall provide backbox and conduit, terminated above finished ceiling, and 4000-series wiremold with electrical work installed and with spaces remaining for technology work by others. (Owner is investigating potential alternate to include technology as part of Work, which will be noted in future addendum, if required.)
- 9. Finishes at existing toilet room (detail 3A/A100) is as follows: Floor CT, Wall/Base CT, Ceiling GWB/PT.

### PROJECT MANUAL

- 1. Table of Contents
  - a. ADD item 073000-C PREVAILING WAGES FOR BUILDING CONSTRUCTION.
- 2. Section 004300a Bid Form
  - REPLACE form with attached.
- 3. Section 007300 Supplementary Conditions
  - a. ADD document "Prevailing Wages for Building Construction".
- 4. Section 012300 Alternates
  - a. REVISE 3.1.A.2 to read as follows: "2. Alternate: In lieu of base bid, provide one (1) pole barn at East Millsboro Elementary. Contractor shall include one (1) Superintendent at this project site. Substantial completion for this portion of the work shall be 100 calendar days from Notice to Proceed. Owner may also accept this alternate up to 100 calendar days following Notice to Proceed for base bid work."
  - b. ADD paragraph 3.1.B and 3.1.C as follows:
    - B. Alternate No. 2: Superintendent.



- 1. Base Bid: Provide minimum one (1) Superintendent over three (3) project sites.
- 2. Alternate: In lieu of base bid, provide three (3) Superintendents, one (1) at each project site.
- C. Alternate No. 3: Metal Roofing and Siding.
  - 1. Base Bid: Provide exposed fastener metal roofing and siding.
  - 2. Alternate: In lieu of base bid, provide standing seam metal roofing and concealed fastener metal siding.
- 5. Section 084113 Aluminum-Framed Entrances and Storefronts
  - a. ADD specification attached.
- 6. Section 087100 Door Hardware
  - a. ADD Hardware Set #004 as follows:

#### HARDWARE SET #004

Doors: LNE-1, LNE-2, NGE-1

3	Hvy Wgt Hinge	T4A3786 4 1/2 X 4 1/2 NRP	26D	MC
1	Privacy Lock	CL3320 PZD	626	CR
1	Closer	PR7500	689	NO
1	Kick Plate	K1050 - 8" 4BE	US32D	RO
1	Mop Plate	K1050 - 4" 4BE	US32D	RO

#### **DRAWINGS**

- 1. C-201 OVERALL PLAN (East Millsboro Elementary)
  - a. ADD Drawing issued via this addendum.
- 2. A100 ARCHITECTURAL SITE PLANS AND ACCESSIBLE TOILET ROOM RENOVATION AT NORTH GEORGETOWN AND LONG NECK
  - a. Detail 1: ADD replacement of drinking fountain and chase, per SKA-01.
  - b. Detail 3A:
    - i. REVISE note from "NEW DOOR AND FRAME" to "NEW DOOR AND FRAME, W/ (2) L4x3-1/2x5/16 LINTELS, 8" BRG.; PATCH FLOOR TILE WITH WHOLE UNITS AS REQ'D, AND PROVIDE NEW MARBLE THRESHOLD".
    - ii. REVISE note from "NEW CMU" to "NEW CMU, W/ CT FIN TO MATCH EXG TLT RM".
  - iii. ADD note at vestibule outside toilet room as follows: "REPAINT WALL TO MATCH EXISTING, CORNER TO CORNER."
  - c. Detail 4: ADD replacement of drinking fountain and chase, per SKA-02, and stair and ramp work per SKA-03.
  - d. ADD Plumbing Fixture Notes, as follows:

LAVATORY BASIS-OF-DESIGN: KOHLER MODEL # K-1721 VITREOUS CHINA LAVATORY W/ ADA OFFSET GRID STRAINER AND OVERFLOW, CONCEALED ARM CARRIER, CHROME PLATED P-TRAP W/ CLEANUP PLUG, AND PREPPED FOR SINGLE-HOLE FAUCET INSTALL. PROVIDE ANTI-SCALD INSUL. DEVICES ON ALL EXPO UNDER-COUNTER PIPING.



FAUCET BASIS-OF-DESIGN: SLOAN VALVE MODEL # EBF-615-BDT SENSOR-ACTIVATED LAVATORY FAUCET W/ BELOW-DECK-MOUNTED ASSE 1070 MIXING VALVE, LOW BATTERY L.E.D. INDICATOR, SOLENOID VALVE W/ FILTER, VANDAL-RESISTANT 0.5 GPM AERATOR, AND BATTERIES.

INSULATE COLD WATER AND HOT WATER PIPING SYSTEMS W/ 1" THK HEAVY-DUTY FIBERGLASS W/ ALL-PURPOSE NONCOMBUSTIBLE VAPOR BARRIER JACKET. INSUL SHALL HAVE MAX THERMAL CONDUCTIVITY FACTOR (k) OF 0.27 BTU\*IN/HR\*FT2°F. ADHESIVE SYSTEMS THAT EMPLOY RELEASE PAPER ARE NOT ACCEPTABLE.

- 3. A101 FLOOR, CEILING, AND ROOF PLANS, AND TYPES AND SCHEDULES
  - a. Window type W1: ADD horizontal mullion 5'-0" from sill, and REVISE note from "CASEMENT, TYP" to "CASEMENT, TYP, 3'-0" W x 5'-0" H".
  - b. Door Schedule: ADD the openings LNE-1, LNE-2, and NGE-1 as follows:

MENTS	C	HDWE SET	FIRE RATING		FRAME					DOOR					
							UNDER					SIZE			
				FIN	TYPE	MATL	CUT	FIN	TYPE	MATL	THK	HT	W	MARK	
ACY															
KSET	L	4	-	PT	1	HM	0"	-	A	SCWD	1 3/4"	7' - 2"	3' - 0"	LNE-1	
ACY	P														
KSET	L	4	-	PT	1	HM	0"	-	A	SCWD	1 3/4"	7' - 2"	3' - 0"	LNE-2	
ACY	P														
KSET	L	4	-	PT	1	HM	0"	-	A	SCWD	1 3/4"	7' - 2"	3' - 0"	NGE-1	
KSE AC KSE AC	L P L P	4		PT PT	TYPE 1 1 1 1	HM HM	CUT 0" 0"	-	A A	SCWD SCWD	1 3/4" 1 3/4"	7' - 2" 7' - 2"	3' - 0" 3' - 0"	LNE-1 LNE-2	

c. ADD general drawing notes as follows:

#### METAL PANEL SIDING AND ROOFING:

- 1. <u>GENERAL:</u> ROOF SHALL INCLUDE CODE-REQUIRED UNDERLAYMENTS AND ICE-AND-WATER-SHIELD MEMBRANES, AS APPLICABLE. INSTALL PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- 2. <u>MATERIALS:</u> GALVALUME STEEL, GRADE 1 OR BETTER. 5/8" EXTERIOR GRADE PLYWOOD SHEATHING.
- 3. <u>BASE BID:</u> POLE BARN MANUFACTURER'S STANDARD PROFILE EXPOSED-FASTENER PANELS. 29ga, MINIMUM.
- 4. <u>ALTERNATE ROOFING:</u> POLE BARN MANUFACTURER'S STANDING SEAM ROOFING, 26ga MINIMUM, 16" WIDE PANELS W/ PLYWOOD SHEATHING.
- 5. <u>ALTERNATE SIDING:</u> POLE BARN MANUFACTURER'S CONCEALED FASTENER SIDING PANELS.
- 6. <u>FINISHES</u>: POLYESTER BAKED ENAMEL, OR FLUOROPOLYMER. ROOF COLOR TO MATCH EXISTING BUILDING ROOFING AT LONG NECK AND NORTH GEORGETOWN ELEMENTARY, AND AS SELECTED FROM MANUFACTURER'S FULL RANGE OF STANDARD COLORS FOR PHILLIP C. SHOWELL AND EAST MILLSBORO ELEMENTARY, ONE COLOR PER SITE (TOTAL 4). WALL PANEL COLOR AS SELECTED FROM MANUFACTURER'S FULL RANGE OF STANDARD COLORS, ONE COLOR PER SITE (TOTAL 4).



# **ATTACHMENTS**

Prebid meeting minutes, dated 7/12/13
Prebid meeting sign in sheet, dated 7/9/13
Bid Form, dated 7/12/13
Prevailing Wages for Building Construction, dated 6/19/13
Section 084113 Aluminum-Framed Entrances and Storefronts, dated 7/12/13
C-201 dated 6/12/13
Sketches SKA-01, SKA-02, SKA-03 dated 7/12/13

END OF ADDENDUM NO. ONE

201305500\_Addendum1.doc



# **Meeting Minutes – IRSD Pole Barns**

Project Number:	2013055.00, .01, .02, .03	Next Meeting Date:	N/A
Meeting Date / Time:	July 9, 2013 / 10:30 AM	Next Meeting Time:	N/A
Distribution Date:	July 12, 2013	Next Meeting Location:	N/A
Location:	North Georgetown Elementary	Minutes Prepared By:	Jon Lipka

# Attended By: See Attached Pre-Bid Meeting Attendance List

Documents Distributed / Reviewed at the Meeting:	
N/A	$\neg$
	П

Meeting Purpose: Bidding Information.

### I. NEW BUSINESS

Item #	Description	Status	Responsible Party	Due Date
1.	<ul> <li>Procurement and Contracting Requirements were discussed:</li> <li>Invitation to Bid is published in News Journal and on bids.delaware.gov, and is included in Project Manual.</li> <li>Instructions to Bidders are provided in the Project Manual.</li> <li>Bonding requirements are indicated in the Project Manual.</li> <li>Insurance requirements are indicated in the Project Manual.</li> <li>Bid Security is required for this project, as specified.</li> <li>Bid Form and Attachments are provided in Project Manual.</li> <li>Notice of Award is anticipated to be given on or around August 1, 2013.</li> </ul>			
2.	<ul> <li>Communication During Bidding Period:         <ul> <li>Documents are officially provided through DiCarlo, as noted in Invitation to Bid. Some documents are also available on bids.delaware.gov, including drawings, but this does not register one with the printer for notification of addenda.</li> <li>Bidder's Requests for Information shall be forwarded to the Architect, ilipka@beckermorgan.com, as noted in Invitation to Bid.</li> </ul> </li> <li>Bidder's Substitution Request shall be submitted for review according to Instructions to Bidders. Following contract award, substitutions for necessity will be considered, however substitutions for convenience are generally not considered, in fairness to all bidders.</li> </ul>			



# **Meeting Minutes – IRSD Pole Barns**

	Addenda will be issued through DiCarlo, sent to bids.delaware.gov, and emailed to pre-bid meeting attendees who provide a valid email address on the sign-in sheet.	
3.	Contracting Requirements:  Agreement and General Conditions are AIA A101 and AIA A201, as provided for reference in Project Manual.  The Supplementary Conditions are provided in Project Manual.  Other Owner requirements discussed, included background checks, which shall be provided by Contractor.	
4.	<ul> <li>Construction Documents:</li> <li>Project is single-prime contract, including all scopes necessary for completion of the Work.</li> <li>Temporary Facilities were discussed. Owner's existing power service will be available for Contractor's use, provided that suitable protection and a meter (for reference) are provided.</li> <li>Use of Site was discussed. Schools will remain occupied during the course of the work. Contractor shall not block or impede Owner's operations without prior notice and agreement, as specified.</li> <li>Alternates were discussed. Refer to Addendum 1 for additional alternates.</li> </ul>	
5.	Separate Contracts:  • Planned concurrent work by Owner includes the following: Stormwater management maintenance, ongoing building maintenance, and field work related to future classroom additions.	
6.	Project Schedule and Contract Time was discussed. Bidding documents indicate 100 (calendar) days from notice to proceed to substantial completion. Alternate 1 will be clarified in Addendum 1, concerning impact to contract time.	
7.	Bidder Questions:  Subcontractor list will have Demolition and Doors and Windows removed.  Topsoil can be left onsite at a location to be designated by Owner. Clarified by Addendum No. One.  Contractor shall perform and keep record of background checks for onsite personnel, and shall make records available for Owner review, upon request.  One superintendent minimum shall be provided for	



# **Meeting Minutes – IRSD Pole Barns**

		Refer to addendum 1 for alternate to perintendents for each site.		
8.	Elementary attendees Elementary • Additional	walked through North Georgetown y and Phillip C. Showell Elementary. No requested site visit to Long Neck y or East Millsboro Elementary. site visits may be coordinated with epresentative: John Eckrich, 302-436-		
9.		ndum will be issued on or before Friday, will include pre-bid meeting minutes and		

End of Pre-Bid Meeting.

Attachments: Pre-Bid Meeting Attendance List

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# **Prebid Meeting Attendance**

**Date:** 7/10/2013 **Time:** 10:30am

Project: IRSD Pole Barns

2013055.00, .01, .02, .03

Location: Georgetown, Delaware

#### **Attendees**

an.com
an aam
an.com
12.de.us
n
@comcast.net
net
ting-turner.com
1@comcast.net
om
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# **BID FORM**

For Bids Due:		То:	-		
Name of Bidde	r:				
Delaware Busin	ness License No.:		_ Taxpayer	ID No.:	
(Other License	Nos.):				
Phone No.: (	)	Fa	x No.: (	)	
therewith, that had that his bid proposes and ag	he has visited the site and is based upon the materiagrees to provide all labor,	has familiarized himself with als, systems and equipment	the local condescribed in the supplies, tra	nditions under whi the Bidding Docur	this bid is made in accordance ch the Work is to be performed, ments without exception, hereby facilities required to execute the
\$(\$		)			
,		,			
ALTERNATES	<u>S</u>				
		project specification section DUCT" amount is indicated b			a complete description of the not apply.
ALTERNATE N 1. 2.	Alternate: In lieu of bas (1) superintendent at thi	East Millsboro Elementary. se bid, provide one (1) pole l s project site. Substantial con	mpletion for t	this portion of the	ary. Contractor shall include one work shall be 100 calendar days s following notice to proceed for
Add/Deduct:					
_	(\$	)			
ALTERNATE N 1. 2.		mum one (1) superintendent se bid, provide three (3) super			site.
Add/Deduct:					
_	(\$	)			
ALTERNATE N 3. 4.		Siding osed fastener metal roofing ar se bid, provide standing seam		g and concealed fa	stener metal siding.
Add/Deduct:					
	(\$	)			
Addendum 1 – Ju	ly 12, 2013				

# **BID FORM**

I/We acknowledge Addendums numbered and	the price(s) submitted include any cost/schedule impact they may have.
This bid shall remain valid and cannot be withdrawn for thir abide by the Bid Security forfeiture provisions. Bid Security	ty (30) days from the date of opening of bids, and the undersigned shall is attached to this Bid.
The Owner shall have the right to reject any or all bids, and to	waive any informality or irregularity in any bid received.
This bid is based upon work being accomplished by the Sub-C	Contractors named on the list attached to this bid.
Should I/We be awarded this contract, I/We pledge to ach calendar days of the Notice to Proceed	nieve substantial completion of all the work within one hundred (100)
laws; that no legal requirement has been or shall be violated in prosecution of the work required; that the bid is legal and for participated in any collusion, or otherwise taken action in restruction receipt of written notice of the acceptance of this Bid, the tin the required form and deliver the Contract Bonds, and Insurance of the contrac	he Bidder shall, within twenty (20) calendar days, execute the agreement
I am / We are an Individual / a Partnership / a Corporation	
By (Individual's / General Partner's / Corporate Name)	Trading as
(State of Corporation)	_
Business Address:	
Witness:	By: ( Authorized Signature )
(SEAL)	( Authorized Signature )
	( Title )

# **ATTACHMENTS**

Sub-Contractor List Non-Collusion Statement Bid Security (Others as Required by Project Manuals)

# **BID FORM**

# **SUBCONTRACTOR LIST**

In accordance with Title 29, Chapter 6962 (d)(10)b <u>Delaware Code</u>, the following sub-contractor listing must accompany the bid submittal. The name and address of the sub-contractor **must be listed for each category** where the bidder intends to use a sub-contractor to perform that category of work. In order to provide full disclosure and acceptance of the bid by the *Owner*, it is required that bidders list themselves as being the sub-contractor for all categories where he/she is qualified and intends to perform such work.

<b>Subcontractor Category</b>		Subcontractor	Subcontractor		Address (City & State)	
1.	Carpentry					
2.	Pole Barn					
3.	Ceilings					
4.	Flooring					
5.	Painting					
6.	Specialties					
7.	Mechanical					
8.	Fire Alarm					
9	Electrical					

# **BID FORM**

# **NON-COLLUSION STATEMENT**

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date to the Indian River School District

All the terms and conditions of Classroom Annex Buildings (IRD-36-13-66) have been thoroughly examined and are understood.

NAME OF BIDDER:		
AUTHORIZED REPRESENTATIVE (TYPED):		
AUTHORIZED REPRESENTATIVE (SIGNATURE):		
TITLE:		
ADDRESS OF BIDDER:		
PHONE NUMBER:		
Sworn to and Subscribed before me this	day of	20
My Commission expires	. NOTARY PUBLIC	

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

STATE OF DELAWARE
DEPARTMENT OF LABOR
DIVISION OF INDUSTRIAL AFFAIRS
OFFICE OF LABOR LAW ENFORCEMENT
PHONE: (302) 451-3423

Mailing Address: 225 CORPORATE BOULEVARD SUITE 104 NEWARK, DE 19702

Located at: 225 CORPORATE BOULEVARD SUITE 104 NEWARK, DE 19702

PREVAILING WAGES FOR BUILDING CONSTRUCTION EFFECTIVE MARCH 15, 2013

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
ASBESTOS WORKERS	21.87	26.94	39.20
BOILERMAKERS	65.47	33.22	48.83
BRICKLAYERS	46.83	46.83	46.83
CARPENTERS	50.06	50.06	39.82
CEMENT FINISHERS	27.61	29.11	21.20
ELECTRICAL LINE WORKERS	43.49	37.29	28.44
ELECTRICIANS	60.60	60.60	60.60
ELEVATOR CONSTRUCTORS	75.33	40.93	30.55
GLAZIERS	64.10	64.10	54.20
Insulators	51.48	51.48	51.48
IRON WORKERS	59.12	59.12	59.12
LABORERS	38.30	38.30	38.30
MILLWRIGHTS	62.18	62.18	48.75
PAINTERS	42.02	42.02	42.02
PILEDRIVERS	67.87	37.64	30.45
PLASTERERS	28.55	28.55	17.50
PLUMBERS/PIPEFITTERS/STEAMFITTERS	59.00	49.26	46.28
POWER EQUIPMENT OPERATORS	57.06	57.06	24.13
ROOFERS-COMPOSITION	21.77	17.96	19.34
ROOFERS-SHINGLE/SLATE/TILE	17.59	17.50	16.45
SHEET METAL WORKERS	62.74	. 62.74	62.74
SOFT FLOOR LAYERS	45.97	45.97	45.97
SPRINKLER FITTERS	51.75	51.75	51.75
TERRAZZO/MARBLE/TILE FNRS	51.41	51.41	45.45
TERRAZZO/MARBLE/TILE STRS	59.03	59.03	52,453
TRUCK DRIVERS	26.58	23.89	20.03

CERTIFIED:

BY:

ADMINISTRATOR, OFFICE OF LAW ENFORCEMENT

NOTE:

THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE (302) 451-3423.

NON-REGISTERED APPRENTICES MUST BE PAID THE MECHANIC'S RATE.

PROJECT: Indian River School District Pool Barns, Sussex County

#### SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

### 1.2 SUMMARY

- A. Section Includes:
  - 1. Storefront framing for punched openings.
- B. Related Requirements:
  - 1. Section 088000 "Glazing" for glazing installed in storefronts.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: For aluminum-framed entrances and storefronts. Include plans, elevations, sections, full-size details, and attachments to other work.
  - 1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
  - 2. Include full-size isometric details of each vertical-to-horizontal intersection of aluminum-framed entrances and storefronts, showing the following:
    - a. Joinery, including concealed welds.
    - b. Anchorage.
    - c. Expansion provisions.
    - d. Glazing.
    - e. Flashing and drainage.
  - 3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.
- C. Samples for Initial Selection: For units with factory-applied color finishes.
- D. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.
- E. Delegated-Design Submittal: For aluminum-framed entrances and storefronts indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Energy Performance Certificates: For aluminum-framed entrances and storefronts, accessories, and components, from manufacturer.
  - 1. Basis for Certification: NFRC-certified energy performance values for each aluminum-framed entrance and storefront.
- C. Product Test Reports: For aluminum-framed entrances and storefronts, for tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Source quality-control reports.
- E. Field quality-control reports.
- F. Sample Warranties: For special warranties.

#### 1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For aluminum-framed entrances and storefronts to include in maintenance manuals.

#### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- B. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.
  - 1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

#### 1.7 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances and storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures including, but not limited to, excessive deflection.
    - b. Noise or vibration created by wind and thermal and structural movements.
    - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
    - d. Water penetration through fixed glazing and framing areas.
    - e. Failure of operating components.
  - 2. Warranty Period: Two years from date of Substantial Completion.

#### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design aluminum-framed entrances and storefronts.
- B. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances and storefronts representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
  - 1. Aluminum-framed entrances and storefronts shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
  - 2. Failure also includes the following:
    - a. Thermal stresses transferring to building structure.
    - b. Glass breakage.
    - c. Noise or vibration created by wind and thermal and structural movements.
    - d. Loosening or weakening of fasteners, attachments, and other components.
    - e. Failure of operating units.

#### C. Structural Loads:

- 1. Wind Loads: As indicated.
- 2. Other Design Loads: As indicated.
- D. Deflection of Framing Members: At design wind pressure, as follows:
  - 1. Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane not exceeding 1/175 of the glass edge length for each individual glazing lite 1/175 of clear span for spans up to 13 feet 6 inches (4.1 m) and to 1/240 of clear span plus 1/4 inch (6.35 mm) for spans greater than 13 feet 6 inches (4.1 m) or an amount that restricts edge deflection of individual glazing lites to 3/4 inch (19.1 mm), whichever is less.
  - 2. Deflection Parallel to Glazing Plane: Limited to 1/360 of clear span or 1/8 inch (3.2 mm), whichever is smaller.
- E. Structural: Test according to ASTM E 330 as follows:
  - 1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
  - 2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
  - 3. Test Durations: As required by design wind velocity, but not less than 10 seconds.
- F. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:
  - 1. Fixed Framing and Glass Area:
    - a. Maximum air leakage of 0.06 cfm/sq. ft. (0.30 L/s per sq. m) at a static-air-pressure differential of 1.57 lbf/sq. ft. (75 Pa).
- G. Water Penetration under Static Pressure: Test according to ASTM E 331 as follows:

- 1. No evidence of water penetration through fixed glazing and framing areas when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 6.24 lbf/sq. ft. (300 Pa).
- H. Seismic Performance: Aluminum-framed entrances and storefronts shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
  - 1. Seismic Drift Causing Glass Fallout: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.6 at design displacement and 1.5 times the design displacement.
  - 2. Vertical Interstory Movement: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.7 at design displacement and 1.5 times the design displacement.
- I. Energy Performance: Certify and label energy performance according to NFRC as follows:
  - 1. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of not more than 0.40 Btu/sq. ft. x h x deg F as determined according to NFRC 100.
  - 2. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient of no greater than 0.40 as determined according to NFRC 200.
  - 3. Condensation Resistance: Fixed glazing and framing areas shall have an NFRC-certified condensation resistance rating of no less than 35 as determined according to NFRC 500.
- J. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:
  - 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
  - 2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested according to AAMA 501.5.
    - a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 deg F (82 deg C).
    - b. Low Exterior Ambient-Air Temperature: 0 deg F (minus 18 deg C).
    - c. Interior Ambient-Air Temperature: 75 deg F (24 deg C).

### 2.2 MANUFACTURERS

- A. <u>Basis-of-Design Product</u>: Subject to compliance with requirements, provide Kawneer Company, Inc.; Trifab VG451T with GLASSVent windows or comparable product by one of the following:
  - 1. EFCO Corporation.
  - 2. United States Aluminum.
  - 3. <u>YKK AP America Inc.</u>
- B. Source Limitations: Obtain all components of aluminum-framed entrance and storefront system, including framing and accessories, from single manufacturer.

## 2.3 FRAMING

- A. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
  - 1. Construction: Thermally broken.
  - 2. Glazing System: Retained mechanically with gaskets on four sides.

- 3. Glazing Plane: Center.
- 4. Finish: High-performance organic finish.
- 5. Fabrication Method: Field-fabricated stick system.
- B. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.
- C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

#### D. Materials:

- 1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
  - a. Sheet and Plate: ASTM B 209 (ASTM B 209M).
  - b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).
  - c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.
  - d. Structural Profiles: ASTM B 308/B 308M.
- Steel Reinforcement: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM, and prepare surfaces according to applicable SSPC standard.
  - a. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
  - b. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.
  - c. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

#### 2.4 GLAZING

- A. Glazing: Comply with Section 088000 "Glazing."
- B. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.
- C. Glazing Sealants: As recommended by manufacturer.

#### 2.5 ACCESSORIES

- A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
  - 1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
  - 2. Reinforce members as required to receive fastener threads.
  - 3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.
- B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch (25.4 mm) that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.
- C. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.

D. Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos, formulated for 30-mil (0.762-mm) thickness per coat.

#### 2.6 FABRICATION

- A. Form or extrude aluminum shapes before finishing.
- B. Fabricate components that, when assembled, have the following characteristics:
  - 1. Profiles that are sharp, straight, and free of defects or deformations.
  - 2. Accurately fitted joints with ends coped or mitered.
  - 3. Physical and thermal isolation of glazing from framing members.
  - 4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
  - 5. Provisions for field replacement of glazing from exterior.
  - 6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- C. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.
- D. Structural-Sealant-Glazed Framing Members: Include accommodations for using temporary support device to retain glazing in place while structural sealant cures.
- E. Storefront Framing: Fabricate components for assembly using shear-block system.
- F. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

#### 2.7 ALUMINUM FINISHES

- A. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2604 and containing not less than 70 percent PVDF or FEVE resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  - 1. Color and Gloss: As selected by Architect from manufacturer's full range.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

A. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.

### 3.3 INSTALLATION

#### A. General:

- 1. Comply with manufacturer's written instructions.
- 2. Do not install damaged components.
- 3. Fit joints to produce hairline joints free of burrs and distortion.
- 4. Rigidly secure nonmovement joints.
- 5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
- 6. Seal perimeter and other joints watertight unless otherwise indicated.

#### B. Metal Protection:

- 1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
- 2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- C. Set continuous sill members and flashing in full sealant bed as specified in Section 079200 "Joint Sealants" to produce weathertight installation.
- D. Install components plumb and true in alignment with established lines and grades.
- E. Install operable units level and plumb, securely anchored, and without distortion. Adjust weather-stripping contact and hardware movement to produce proper operation.
- F. Install glazing as specified in Section 088000 "Glazing."
- G. Install weatherseal sealant according to Section 079200 "Joint Sealants" and according to sealant manufacturer's written instructions to produce weatherproof joints. Install joint filler behind sealant as recommended by sealant manufacturer.

# 3.4 ERECTION TOLERANCES

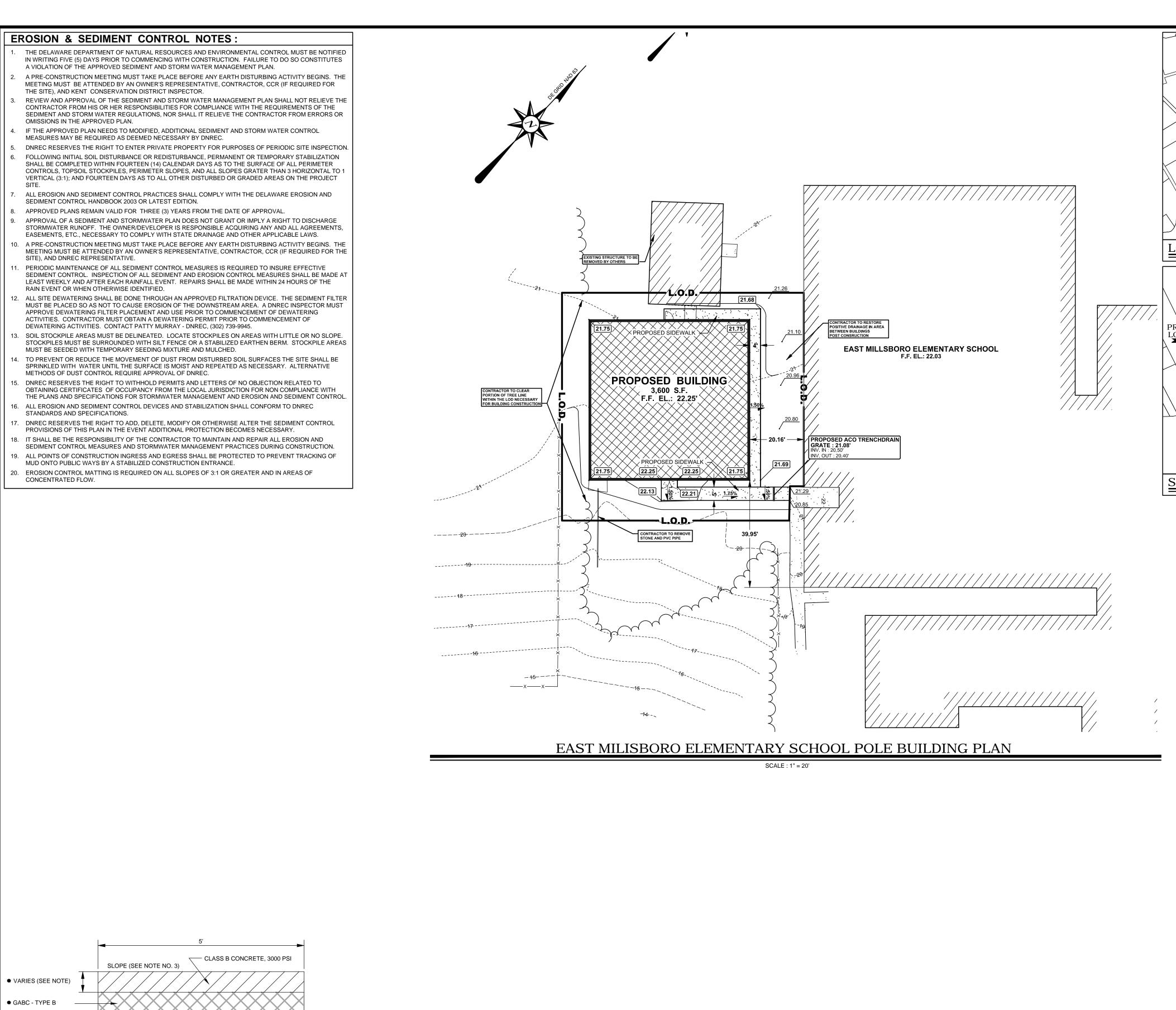
- A. Erection Tolerances: Install aluminum-framed entrances and storefronts to comply with the following maximum tolerances:
  - 1. Plumb: 1/8 inch in 10 feet (3.2 mm in 3 m); 1/4 inch in 40 feet (6.35 mm in 12.2 m).
  - 2. Level: 1/8 inch in 20 feet (3.2 mm in 6 m); 1/4 inch in 40 feet (6.35 mm in 12.2 m).
  - 3. Alignment:
    - a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2 inch (12.7 mm) wide, limit offset from true alignment to 1/16 inch (1.6 mm).
    - b. Where surfaces are separated by reveal or protruding element from 1/2 to 1 inch (12.7 to 25.4 mm) wide, limit offset from true alignment to 1/8 inch (3.2 mm).

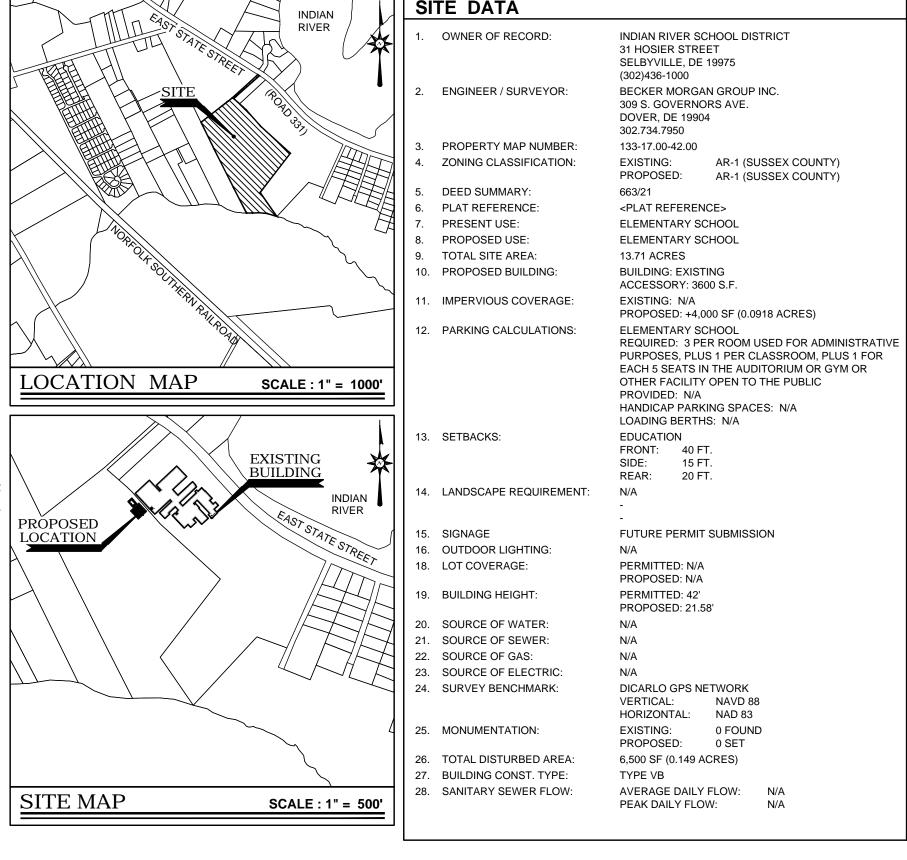
- c. Where surfaces are separated by reveal or protruding element of 1 inch (25.4 mm) wide or more, limit offset from true alignment to 1/4 inch (6 mm).
- 4. Location: Limit variation from plane to 1/8 inch in 12 feet (3.2 mm in 3.6 m); 1/2 inch (12.7 mm) over total length.

# 3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Owner reserves the right to engage a qualified testing agency to perform tests and inspections.
- B. Field Quality-Control Testing: Perform the following test on window designated by Architect.
  - 1. Water-Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.
    - a. Perform a minimum of one test in area as directed by Architect.
    - b. If initial test fails, additional tests may be requested by Architect or Owner.
- C. Aluminum-framed entrances and storefronts will be considered defective if they do not pass tests and inspections.
- D. Prepare test and inspection reports.

END OF SECTION 084113







ARCHITECTURE ENGINEERING

Dover, DE
309 S. Governors Ave.

Dover, DE 19904 Ph. 302.734.7950 Fax 302.734.7965

Salisbury, MD
312 West Main St. Suite 300

Salisbury, MD 21801 Ph. 410.546.9100 Fax 410.546.5824

Wilmington, NC
3205 Randall Parkway, Suite 211
Wilmington, North Carolina 2840

Wilmington, North Carolina 28403 Ph. 910.341.7600 Fax 910.341.7506

Fax 910.341.7506 www.beckermorgan.com

EAST MILSBORO ELEMENTARY SCHOOL

INDIAN RIVER SCHOOL DIST.

SCHOOL DIST.

RT. 17

SELBYVILLE

SUSSEX COUNTY, DE

SHEET TITLE

OVERALL PLAN

SCALE: 1" = 20'

2 6/12/13 REVISED PER AAB COMMENTS
1 6/10/13 ISSUED FOR BID

MARK DATE DESCRIPTION

LAYER STATE: C-201 F. MILL SPORGES

1 6/10/13 ISSUED FOR BID

MARK DATE DESCRIPTION

LAYER STATE: C-201\_E\_MILLSBOROES

PROJECT NO.: 2013055.01

DATE: 04/15/13

SCALE: 1" = 20'

DRAWN BY: J.N.S. PROJ. MGR.: G.E.J

C-201

**LEGEND** ITEM **EXISTING** PROPOSED **EXISTING** PROPOSED CONCRETE CURB & GUTTER SANITARY GRAVITY SEWER LINE, EX. 10"S SIZE & FLOW DIRECTION CONCRETE SIDEWALK, SLAB / PAVING SANITARY SEWER FORCE MAIN, SIZE IMPERVIOUS SURFACED ROAD, DRIVE & FLOW DIRECTION SANITARY SEWER MANHOLE (S.M.H.) INDIVIDUAL TREE OR BUSH SANITARY SEWER CLEANOUT WIRE FENCE EX. 10" W VATER MAIN & SIZE CHAINLINK FENCE \_\_\_\_\_\_ **▼** F.H. STOCKADE FENCE **⊠** F.H. FIRE HYDRANT WATER VALVE (W.V.) OR METER (W.M.) STRUCTURE (CONCRETE, WOOD, TORM DRAIN MANHOLE (S.D.M.H.) DRAINAGE DITCH OR SWALE STORM DRAIN LINE (CMP OR RCP) \_\_\_\_\_ CONTOUR CATCH BASIN ELEVATION SPOT SHOT ITILITY POLE W/ OVERHEAD SERVICE —*—*ø— — (TELEPHONE OR ELECTRIC OR BOTH) BENCH MARK N/A ———U.E.—— | ——U.E.—— INDERGROUND ELECTRIC PROPERTY OR RIGHT-OF-WAY LINE INDERGROUND TELEPHONE CENTERLINE

LIGHT POLE

CONSTRUCTION NOTE

 $\Rightarrow$ 

INDERGROUND GAS MAIN

AVEMENT TO BE REMOVED

——EX. 2" G——

——2" G———

PROOF ROLLED AND COMPACTED SUBGRADE TO 95% OF ASTM DI557

• - STANDARD SIDEWALK SHALL BE 4" THICK. FOR DEPRESSED AND TRANSITION AREA, THE SIDEWALK SHALL BE 6" THICK

● STANDARD SIDEWALK OF 4" THICKNESS SHALL BE PLACED OVER 4" GABC - TYPE B.

SIDEWALK FOR DEPRESSED AND TRANSITION AREAS OF 6" THICKNESS SHALL BE PLACED

OVER 6" GABC - TYPE B.

NOTES

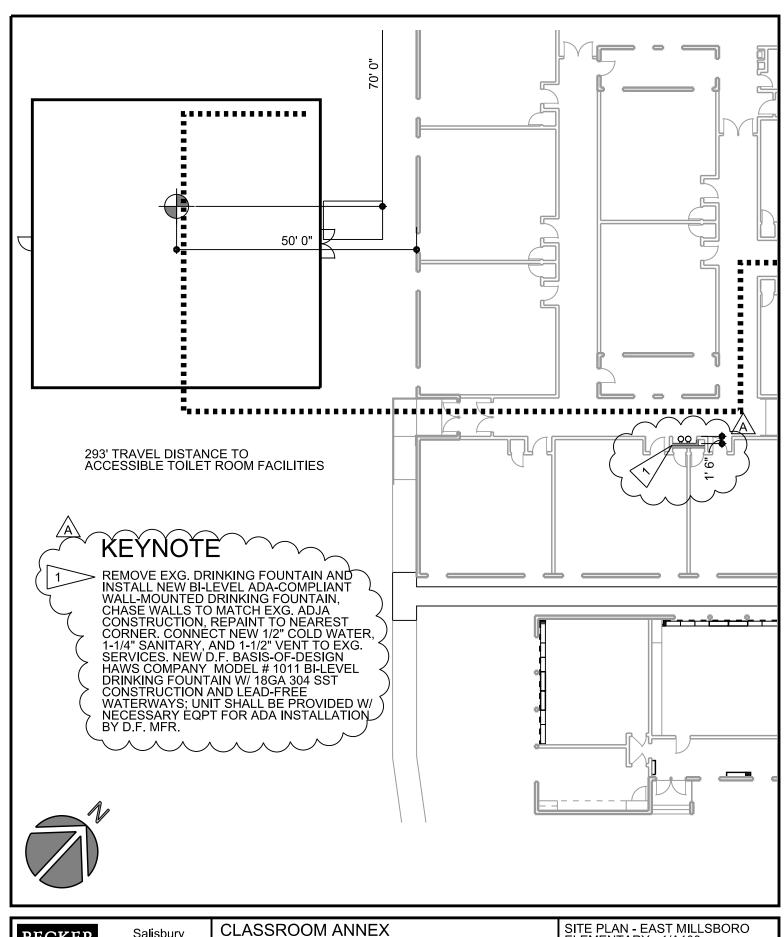
MARK IN 5' SQUARES, USE PREMOLDED EXPANSION JOINTS AT INTERVALS

NOT GREATER THEN 15'.

2. CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PER DELDOT SPECIFICATIONS.

3. SIDEWALK TO BE CONSTRUCTED AT GRADE. SLOPE OF SIDEWALK SHALL BE 2% IN ORDER TO ASSURE POSITIVE DRAINAGE

SIDEWALK DETAIL





# Salisbury

312 West Main St. Suite 300 BUILDINGS Salisbury, MD 21801 P: 410.546.9100 F: 410.546.5824

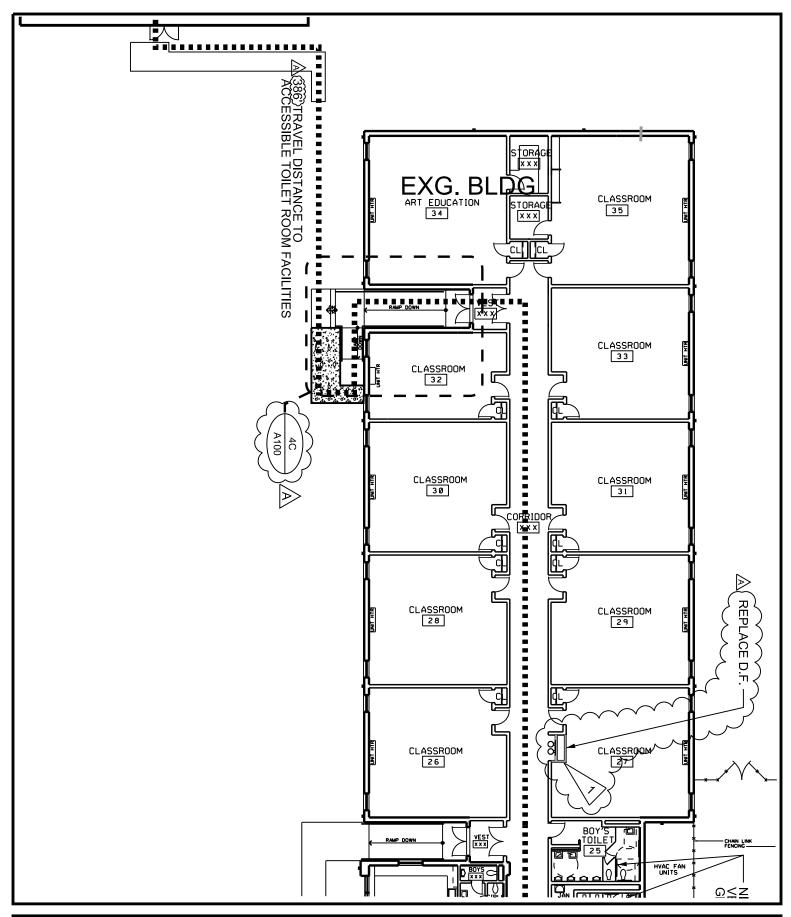
SUSSEX COUNTY, DELAWARE

SITE PLAN - EAST MILLSBORO ELEMENTARY - 1/A100

2013055.00 PROJECT: DATE: 07/12/13 SCALE: 1 " = 20'0" DRAWN BY: JML

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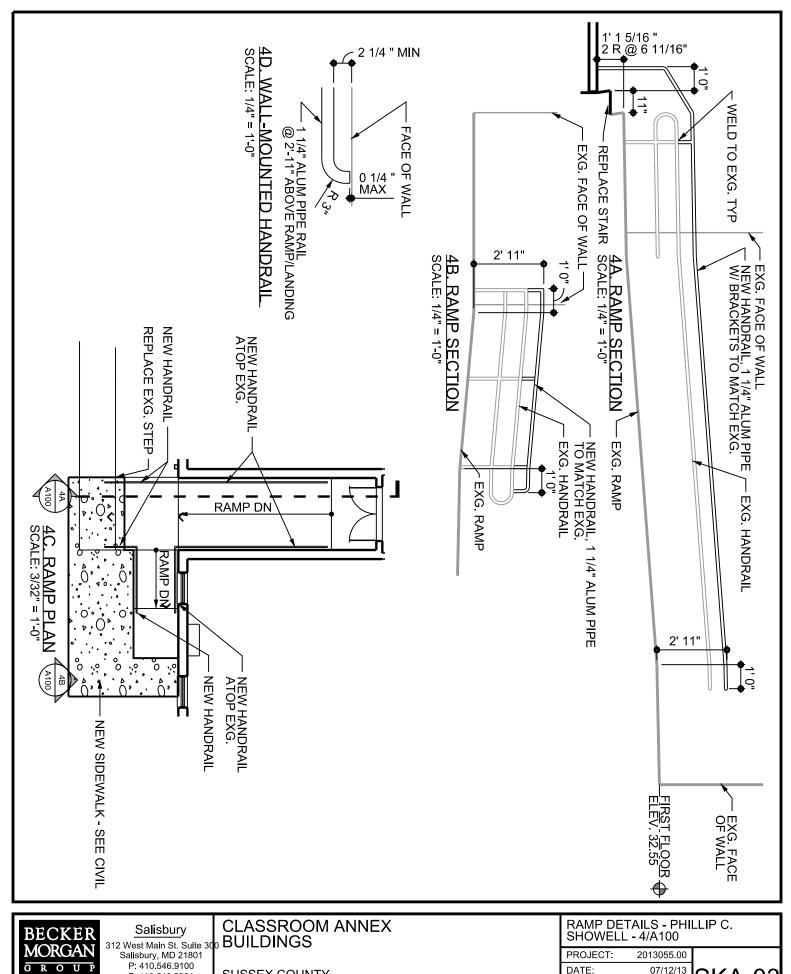
**CLASSROOM ANNEX** 312 West Main St. Suite 300 BUILDINGS

SUSSEX COUNTY, DELAWARE

SITE PLAN - PHILLIP C. SHOWELL 4/A100

PROJECT: 2013055.00 DATE: 07/12/13 SCALE: 1 " = 20'0" DRAWN BY: JML

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SUSSEX COUNTY, DELAWARE

RAMP DETAILS - PHILLIP C. SHOWELL - 4/A100

PROJECT: 2013055.00 DATE: 07/12/13 SCALE: 1/4 " = 1'0" DRAWN BY: JML

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